AKAI PROFESSIONAL

FORCE

User Guide

English

Manual Version v3.0.5

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Introduction

Thank you for purchasing the Force. At Akai Professional, we know how serious music is to you. That's why we design our equipment with only one thing in mind—to make your performance the best it can be.

Support

For the latest information about this product (documentation, technical specifications, system requirements, compatibility information, etc.) and product registration, visit **akaipro.com**.

For additional product support, visit **akaipro.com/support**.

About This User Guide

This manual should help you get familiar with using the Force. For consistency, the terminology throughout is based on the Force parameter names. We also used specific formatting to indicate particular topics of significance:

Important/Note/Tip: Important or helpful information on a given topic.

Names of buttons, controls, parameters, settings, and other options are written in **bold** characters throughout the manual.

Examples: Press the **Play** button.

Turn **Knob 4**.

Tap the **Mute** icon.

The **Velocity** ranges from **0** to **127**.

Set the **Sample Play** selector to **One Shot**.

Tap **BPM**, and then use the numeric keypad to enter a **120** as the tempo.

Some parts of this manual refer to other relevant chapters or sections, which are cited in ***bold, italic blue*** characters. Click the text to skip immediately to that section.

Examples: Read the ***Important Notes*** section before proceeding.

For more information about launching clips, see ***Tutorial*** > ***Launching Clips***.

To learn more about using send effects, see ***General Features*** > ***Effects*** > ***Send/Return Effects***.

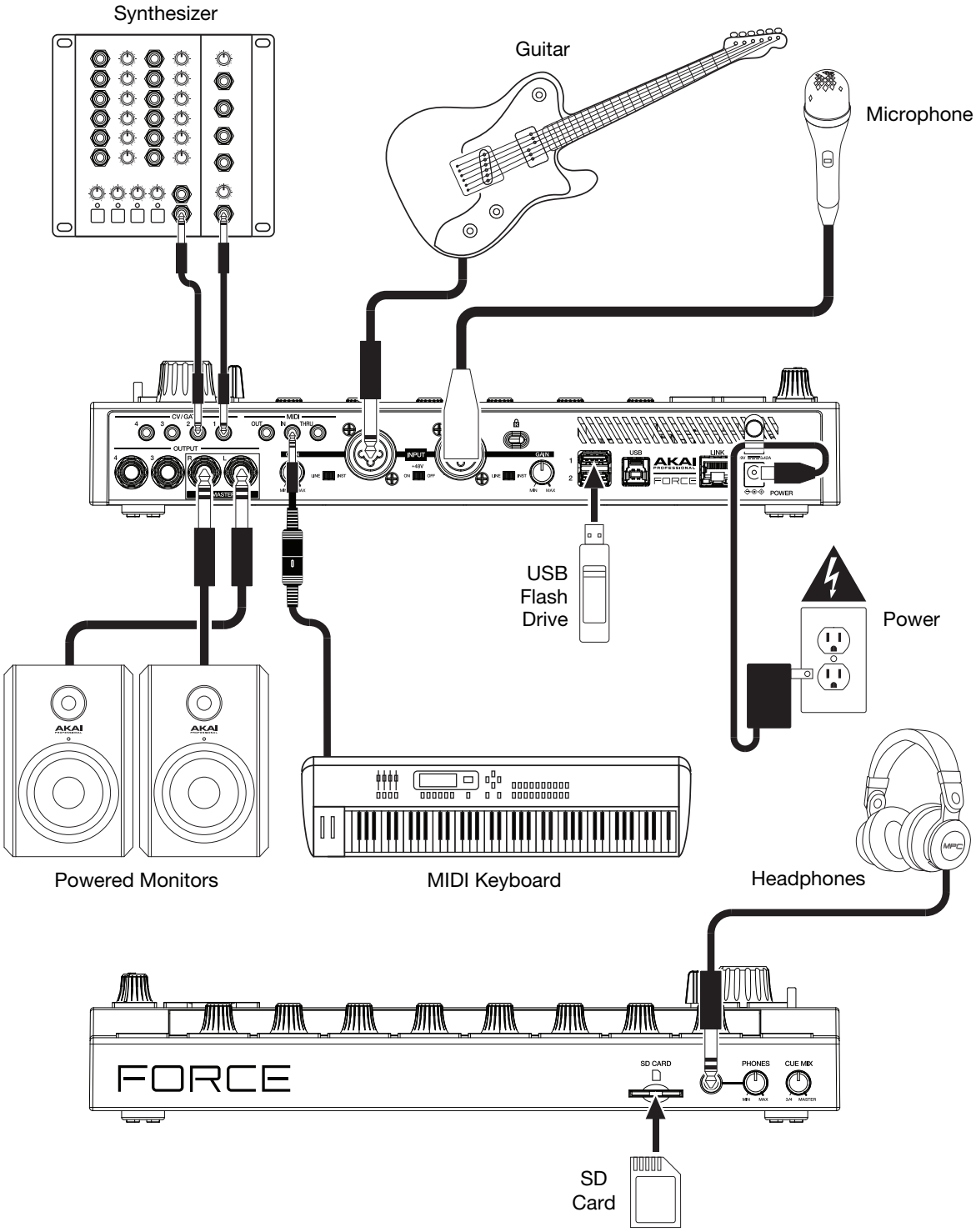
Important Notes

Read the included safety & warranty manual before using Force.

Before getting started and connecting devices to Force or turning the hardware on/off, make sure all devices are switched off.

Setup

Here is just an example of how to use Force in your setup. Items not listed under ***Introduction*** > ***Box Contents*** of your included Quickstart Guide are sold separately.



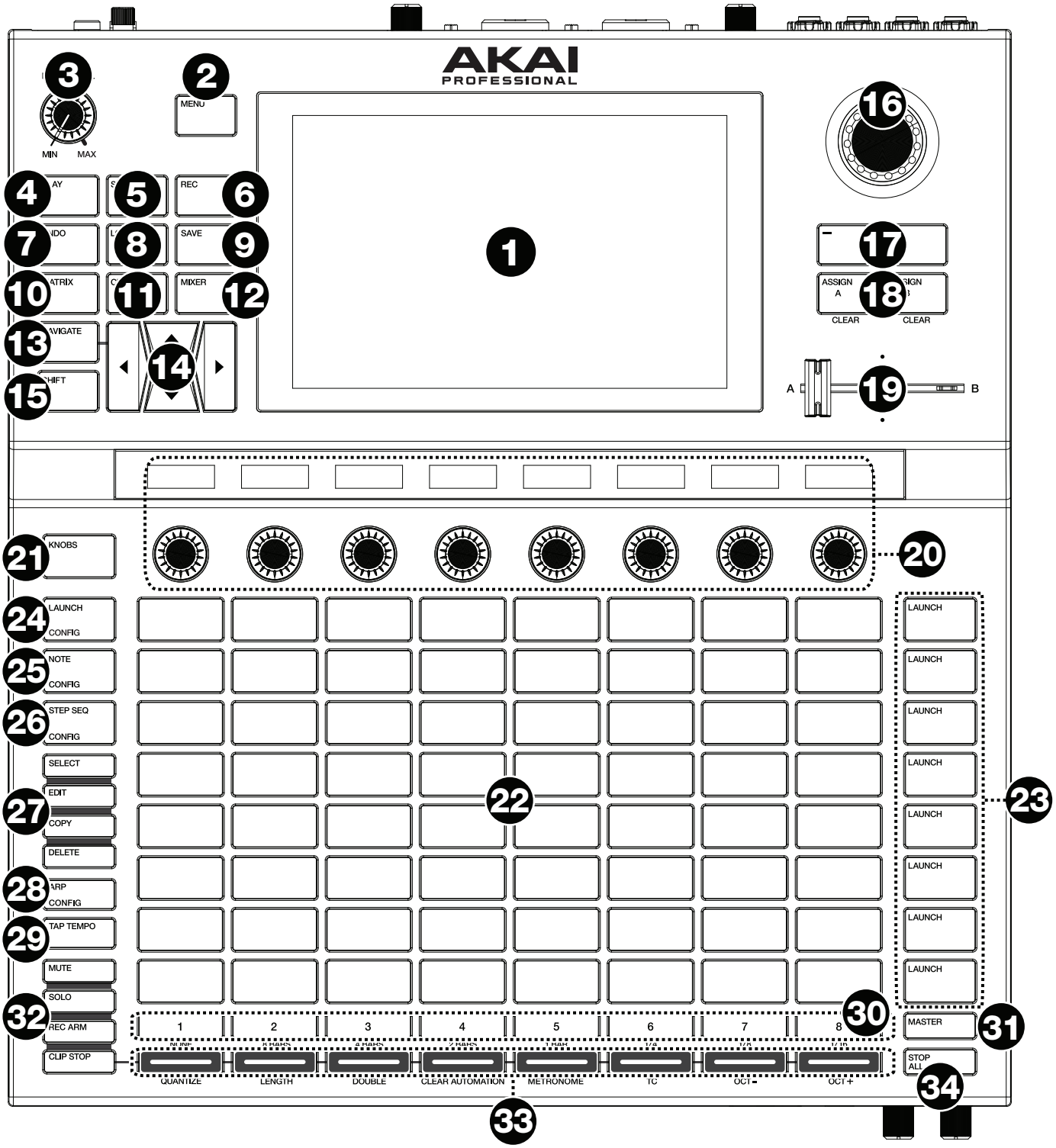
Remember to remove the protective film from the Force touchscreen!

Note: We highly recommend checking **akaipro.com** for any available updates to the Force firmware and/or drivers.

Features

This chapter explains the features and functions of your Force.

Top Panel



1. **Display:** This full-color multi-touch display shows information relevant to Force's current operation. Touch the display (and use the hardware controls) to control the Force interface. See ***Display*** to learn how to use some basic functions.
2. **Menu:** Press this button to open the menu. You can tap an option on the menu screen to enter that mode, view, etc.
3. **Master Volume**: Turn this knob to adjust the volume level of the **Master L/R outputs**.
4. **Play:** Press this button to start transport playback.

   Press **Shift** and this button to start transport playback from the current playhead position.
5. **Stop:** Press this button to stop transport playback. Double-press this button to immediately stop all sound.

   Press **Shift** and this button to stop transport playback and return the playhead to the beginning.
6. **Record:** Press this button to start or stop clip recording.

   Press and hold this button to view the Start Recording window.

   Press **Shift** and this button to start or stop arrangement recording.
7. **Undo:** Press this button to undo your last action.

   Press **Shift** and this button to redo the last action you undid.
8. **Load:** Press this button to open the Browser, where you can load projects, clips, and more.
9. **Save:** Press this button to open the Save window, where you can save your project, tracks, clips and more. See ***Operation*** > ***General Features*** > ***Save Window*** for more information.
10. **Matrix:** Press this button to open Matrix Mode, an overview of your project with an 8x8 view of your clips.
11. **Clip:** Press this button to open Clip View, which gives you finer detail of a single clip.

    Press **Shift** and this button to open Track Edit Mode, where you can edit parameters of your drum kit, plugin, MIDI or CV tracks.
12. **Mixer:** Press this button to open Mixer Mode, where you can control each track's volume, pan and send controls, as well as add plugin insert effects.

    When using a drum track, press **Shift** and this button to open Pad Mixer View, where you can control each pad's volume, pan and send controls, as well as add plugin insert effects.

Tip: While in any of the pad modes, you can press and hold the button for another mode to momentarily switch to that mode. You will return to the previous mode when you release the button.

13. **Navigate:** Press this button to open the Navigate mode, which gives you an overview of the entire project. Tap a section to jump the Matrix view directly to that section, or use the **cursors** to move the Matrix view.

    Press **Shift** and this button to open the XYFX mode.
14. **Cursors**: Press these buttons to move the Matrix view and the pads by one row or column at a time.

    Press **Shift** and press these buttons to move by eight rows or columns at a time.
15. **Shift:** Press and hold this button to access secondary functions on some buttons and display modes.
16. **Data Dial**: Turn this dial to scroll through the available menu options or adjust the parameter values of the selected field in the display. Pressing the dial also functions as an **Enter** button.

    Press **Shift** and turn this dial to adjust parameters in finer detail.
17. **–/+**: Press these buttons to increase or decrease the value of the selected field in the display.
18. **Assign A/Assign B:** Press one of these buttons and a **Track Assign button** to assign the corresponding track to the crossfader A or B grouping.

    Press **Shift** and press one of these buttons to clear all crossfader A or B assignments.
19. **Crossfader:** Use this crossfader to mix between clips assigned to the A or B grouping.
20. **Assignable Knobs:** Use these knobs controls track panning, track send levels, or other user-assignable parameters. Use the **Knobs** button to change the active knob bank or mode (described below). The display strip above each knob indicates the parameter it is controlling and its current value or setting.
21. **Knobs Button:** Press this button to cycle between up to two banks of knobs for the currently active mode. The display strip above the knobs will indicate the currently active parameters.

    Press and hold this button to quickly select one of several preset knob control modes.

    Press and hold the **Edit** button and then press this button to open Macros Mode, where you can edit macro control assignments.
22. **Clip Launch Pads:** Use the velocity-sensitive pads in this 8x8 to launch clips, play notes, and more, depending on the active mode.

    Use the **Edit Buttons** in conjunction with the clip launch pads to select, edit, copy or delete pads.

23. **Scene Launch Buttons:** Press one of these buttons to launch the corresponding scene, represented by the row of clips to its left.

    Press the **Edit button** and one of these buttons to quickly insert a new row, capture the currently playing clip(s) as a new scene or clear a row.

24. **Launch/Config:** Press this button to set the **Clip Launch Pads** to Launch mode. In Launch mode, each pad represents a single clip slot. The eight columns represent eight tracks while the eight rows represent eight scenes. You can launch the entire scene by pressing the **Scene Launch** buttons to the right of the row of clips.

    Press **Shift** and press this button to configure the Launch mode settings.

25. **Note/Config:** Press this button to set the **Clip Launch Pads** to Note mode. In Note mode, you can use the pads to play a configurable scale of MIDI notes.

    When in Note mode and using a Keygroup, Plugin, MIDI or CV track, press and hold this button to select different play modes, such as scales, chords, progressions and more. When in Note mode and using a Drum track, press and hold this button to select a time division for note repeat.

    Press **Shift** and press this button to configure the Note mode settings, such as scale and root note. You can also press and hold this button to quickly select a mode.

26. **Step Seq/Config:** Press this button repeatedly to cycle through the different pad views for using the Step Sequencer.

    When in Step Sequencer mode, press and hold this button to quickly select a step sequencer view, select a Step Sequence page, or change the step size.

    Press **Shift** and press this button to configure the Step Sequencer's settings.

27. **Edit Buttons:** Press and hold one of these buttons to edit a clip or track according to the following:

    - **Select:** Press and hold this button to view the currently select clip. While holding, tap another **Clip Launch Pad** to select another clip. This button can also be used to select a drum pad in a drum kit or select a note in the Step Sequencer without sounding the note.
    - **Edit:** Press and hold this button then tap a **Clip Launch Pad** or **Track Selector** button to edit a clip or track, respectively.

      Hold this button and press any **Scene Launch** button to open the Edit Row window, where you can quickly add or clear rows in the Matrix.
    - **Copy:** Press and hold this button to copy a clip or track. While holding, tap the **Clip Launch Pad** or **Track Selector** button of the clip or track you would like to copy, then tap a new pad or button to copy it.
    - **Delete:** Press and hold this button then tap a **Clip Launch Pad** or **Track Selector** button to delete it.

28. **Arp/Config:** Press this button to enable or disable the internal Arpeggiator, whose rate is based on the current Tempo and Time Division settings.

    Press **Shift** and this button to configure the Arpeggiator's settings.

29. **Tap Tempo:** Tap this button at the desired rate to enter a new tempo.

    Press **Shift** and this button to open the Tempo window, where you can enter a new tempo.

30. **Track Selectors:** Press one of these buttons to select a track, represented by the column of clips just above it. The right-most button (labeled **Master**) selects the Master track.

    Press and hold **Shift** and then press one of these buttons to select a Global Quantization setting: **None**, **8 Bars**, **4 Bars**, **2 Bars**, **1 Bar**, **1/4**, **1/8**, or **1/16**.

31. **Master:** Press this button to view the Master and Return channels.

32. **Assign Mode Buttons:** Press one of these buttons to set the function of the **Track Assign** buttons when pressed:

    - **Mute:** Press this button to mute the track.
    - **Solo:** Press this button to solo the track.
    - **Rec Arm:** Press this button to record-arm the track.
    - **Clip Stop:** Press this button to stop the clip that is playing in the track.

    Tip: Hold **Shift** and press **Mute** or **Solo** to open the Mixer Config window, where you can set the solo button and crossfader behaviors.

33. **Track Assign:** Press one of these buttons to apply an assignment to a track, represented by the column of clips just above it. Use the **Assign Mode buttons** to set the assign function.

    Press and hold **Shift** and then press one of these buttons to access secondary functions, printed below the buttons.

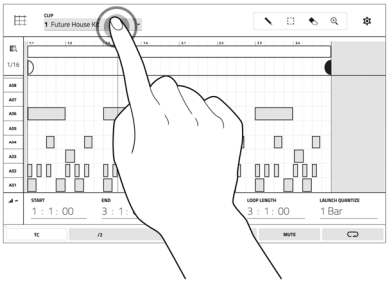
34. **Stop All Clips:** Press this button to stop all clips when they reach the end.

Display

Here is some general information about how to use the Force **display**:

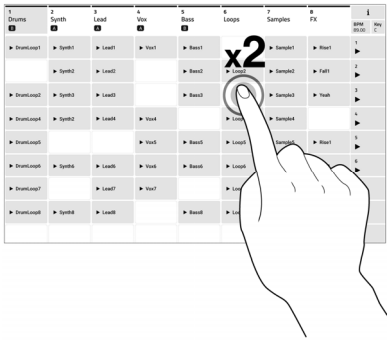
Tap a button or option to select it. Use the **data dial** or **–/+** buttons to change its setting or value.

In Matrix View, tap a filled clip slot to launch the clip.

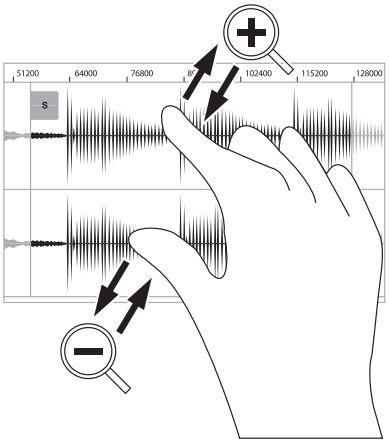


Double-tap a control to access advanced editing options. In some cases, this will show a numeric keypad that you can use to enter a value (an alternative to the **data dial** or **–/+** buttons). Tap the upper-left part of the display to return to the previous view.

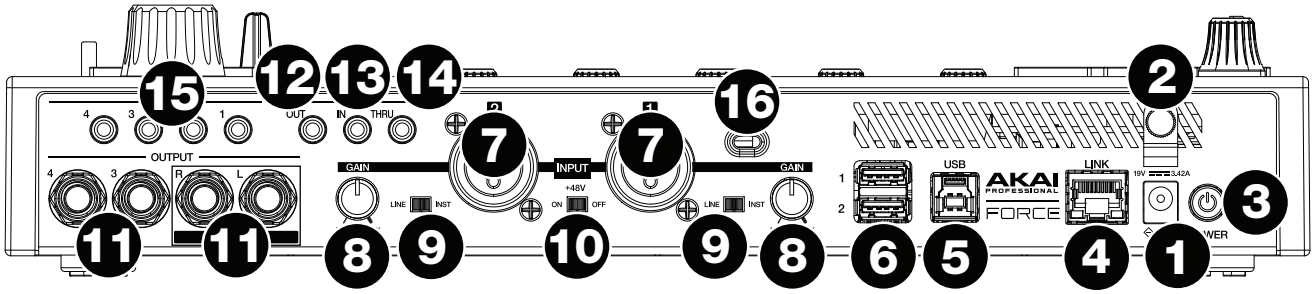
In Matrix View, double-tap an empty clip slot in your track to create a new clip.



Spread two fingers to zoom in (into a section of a waveform, for example). Pinch two fingers to zoom out.



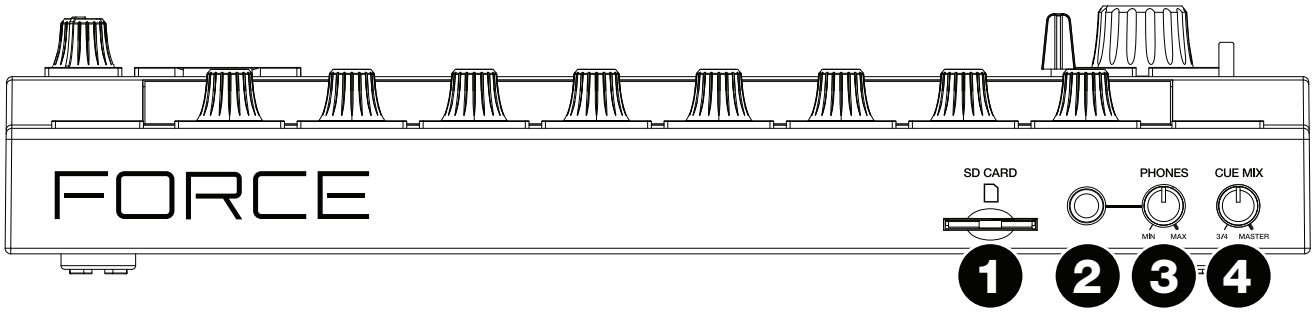
Rear Panel



1. **Power Input**: Connect the included power adapter (19 V, 3.42 A, center-positive) to this jack then into an electrical outlet.
2. **Power Adapter Restraint**: Secure the power adapter cable to this restraint to prevent it from accidentally unplugging.
3. **Power Switch**: Press this button to turn Force's power on or off.
4. **Link:** Connect a standard Ethernet cable to this port to use Ableton Link and other compatible devices with Force. See ***Operation*** > ***General Features*** > ***Menu*** > ***Preferences*** > ***MIDI / Sync*** for more information.
5. **USB-B Port**: Use the included USB cable to connect this high-retention-force USB port to an available USB port on your computer.
6. **USB-A Ports**: Connect USB flash drives to these USB ports to access their files directly using Force.
7. **Input 1/2** (XLR or 1/4" / 6.35 mm): Use standard XLR or 1/4" (6.35 mm) TRS cables to connect these inputs to audio sources (microphone, mixer, synthesizer, etc.). When using a 1/4" cable, the Mic preamp is removed from the circuit, and the **Line/Inst** switch can be used to set the impedance.

   Turn the **Gain** knobs to set the input level of each one.
8. **Gain:** Use these knobs to adjust the gain of the incoming signal from **Input 1/2** on the rear panel. Be careful when setting this knob at higher levels, which can cause the signal to distort.
9. **Line/Inst:** Use these switches to set **Input 1/2** to accept either a Line-level or Instrument-level sound source when using a 1/4" (6.35 mm) connection.
10. **Phantom Power** (**+48V**): This switch activates and deactivates phantom power for **Inputs 1/2** when using an XLR connection. When activated, +48V of phantom power will be supplied to both inputs. Note that most dynamic microphones do **not** require phantom power, while most condenser microphones **do**. Refer to your microphone's documentation to check if it needs phantom power.
11. **Outputs** (1/4" / 6.35 mm): Use standard 1/4" (6.35 mm) TRS cables to connect these outputs to your monitors, mixer, etc. The **Master L/R** outputs are the same as **Outputs 1,2**.
12. **MIDI Out**: Connect compatible 1/8" (3.5 mm) MIDI devices to this output, or use the included 1/8"-to-MIDI adapter to connect a standard 5-pin MIDI cable from this output to the MIDI input of an external MIDI device (synthesizer, drum machine, etc.).
13. **MIDI In**: Connect compatible 1/8" (3.5 mm) MIDI devices to this input, or use the included 1/8"-to-MIDI adapter to connect a standard 5-pin MIDI cable from this input to the MIDI output of an external MIDI device (synthesizer, drum machine, etc.).
14. **MIDI Thru:** Connect compatible 1/8" (3.5 mm) MIDI devices to this thru-port, or use the included 1/8"-to-MIDI adapter to connect a standard 5-pin MIDI cable from this input to the MIDI output of an external MIDI device (synthesizer, drum machine, etc.). Incoming MIDI from the **MIDI In** port will be passed along to this output.
15. **CV/Gate Out**: Use standard 1/8" (3.5 mm) TS cables to connect these outputs to optional modular devices. Force will send control voltage (CV) and/or Gate data over this connection.
16. **Kensington® Lock Slot**: You can use this slot to secure your Force to a table or other surface.

Front Panel



1. **SD Card Slot**: Insert a standard SD/SDHC card into this slot to access its files directly using Force.
2. **Phones** (1/4” / 6.35 mm): Connect standard 1/4” (6.35 mm) stereo headphones to this output.
3. **Phones Volume:** Turn this knob to adjust the volume of the **phones output**.
4. **Cue Mix**: Turn this knob to adjust the balance between the **Master** and **3/4** signals in your headphones. **Master** is the signal sent from the **Master outputs**. **3/4** is the signal sent from the **Outputs 3/4**.

Tutorial

This chapter describes how to get started doing basic tasks using your Force. We'll use one of Force's included Demo projects to illustrate some of the most important concepts and features. To get the most out of this chapter, we recommend reproducing each of the described steps.

Starting Up

Make sure you have connected your Force hardware to a power source using the included power adapter and powered it on.

When you first power on your Force, you can select a demo project to help get you started, select **Empty Project** at the bottom of the screen to load a blank template, or select **User Template** to load a saved custom template.

For this tutorial, tap the **Deep House - Colors** Demo project to load it.

Launching Clips

After loading the demo, Force will automatically open **Matrix Mode**. This display mode gives you an overview of your project and mirrors the 8x8 layout of the **clip launch pads**. Use the **cursor** buttons to move the current view of the matrix by one row or column at a time.

Each column in Matrix Mode represents a *track*. Tracks can be used to hold audio samples, drum kits, instrument plugins and more. On the display, you will see tracks labeled **Kick Loop**, **Top Loop**, **Fill** and more.

Each track is made up of *clips*, which are short sequences of audio or MIDI. Only one clip in a track can play at a time. Let's try playing with a few clips to see how they work.

Matrix Mode can also be configured to show the Arrangement row, which is used to trigger linear arrangements recorded in Force's Arrange Mode. To show or hide the Arrangement row in the matrix, press and hold **Shift** and press the **Launch/Config** button to open the Launch Configuration window, and then check or uncheck **Show arrangement in clip matrix**. See ***Operation > Modes > Arrange Mode*** for more information about Arrange Mode.

Press the **Launch** button to make sure the **clip launch pads** are in **Launch Mode**. In this pad mode, each pad represents a single clip in a track. The lighted pads represent the clips shown on the display, and the dim pads are empty clips.

Tap the first clip in **Track 8 – Drum Kit** to begin playing it. The **clip launch pad** will slowly blink green to indicate it is active, and the clip on the display will show the position of the playhead in the clip.

Now, while in Launch mode, press the **clip launch pad** below the pad that is currently playing. The second clip will start playing after the next bar.

See ***Operation*** > ***General Features*** > ***Pad Modes*** > ***Launch Mode*** to learn more.

Clips will continue to play until another clip in the same track is launched, until playback is stopped or until the clip is stopped while playback continues.

To stop playback, press the **Stop** button.

To stop the clip, first press the **Clip Stop** button to assign the **Track Assign** buttons to stop mode. Then, press the **Track Assign** button for the track with the clip playing. You can also press the **Stop All Clips** button to stop clips in all tracks.

In addition to launching clips in a track, you can launch multiple clips across tracks in the same row. Each row of clips is called a *scene*, and these can be used to arrange different parts of a song.

Press the top-most **Scene Launch** button to launch the first row of clips, and then continue launching other scenes in order.

While one scene is playing, try launching clips from other rows to experiment with different variations.

You can also assign Tracks to Force's crossfader. This allows you to seamlessly transition between clips from multiple tracks.

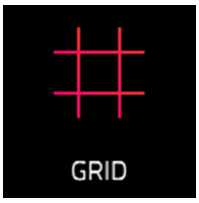
1. Press and hold the **Assign A** button and press the **Track Assign** button for **Track 1 – Kick Loop**. The track name at the top of the display will now show an **A** icon.
2. Next, press and hold the **Assign B** button and press the **Track Assign** button for **Track 4 – Hat Fill**. The track name at the top of the display will show a **B** icon.
3. Launch the third scene and then use the crossfader to blend from one clip to the other by moving it from the A side to the B side and back.

To clear crossfader assignments, hold **Shift** and press the **Assign A** or **Assign B** button.

To edit the slope profile of the crossfader, open the **Mixer Config** window by tapping **Settings** when viewing the Mixer, or by holding **Shift** and pressing **Mute** or **Solo**. Select **Linear**, **Exponential** or **Logarithmic**.

Editing Clips & Tracks

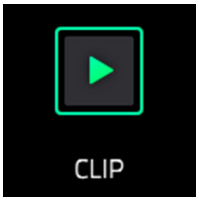
Now that you are familiar with the basics of launching clips, let's explore some of the modes and menus that let you edit clips and tracks for even more customization of your project.



In **Grid Mode**, you can view and edit note events and their parameters, such as length, velocity and transposition, for MIDI tracks and audio samples and their parameters, such as length, volume and tuning, in Audio tracks.

For MIDI clips such as those in drum, keygroup or plugin tracks, use the toolbar at the top of the display to add, erase, or select notes and move around the grid, and use the Edit menu to further edit the MIDI note events.

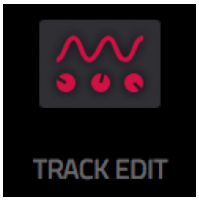
For Audio clips, use the toolbar at the top of the display to select, move, erase, cut and mute parts of the waveform below. This page also contains Force's powerful Warp tool, which can be used to adjust the tempo of any sample to match your project's tempo without changing the pitch.



In **Clip Mode**, you can view and edit the parameters of the clip container itself, such as its length, launch mode and quantization. When using an audio clip, this view will show the waveform of the sample. When using a MIDI clip, such as a drum kit clip or a plugin clip, this view will show either all available pads in a vertical view with their corresponding data or a vertical “piano roll” keyboard.

Additionally, MIDI clips can be edited using **List Edit Mode**. This mode gives you many of the same features as Grid Mode, but in a list workflow. You can use this view to filter your MIDI events by a particular type, for instance, Aftertouch messages or Track Automation.

In **Arrange Mode**, you can record your clip performance to a linear timeline and use Force's powerful Arrange Edit commands to shape your song. See ***Addenda*** > ***Updates in Force 3.0.5*** > ***New Features*** > ***Arrange Mode*** to learn more.



Force's **Track Edit Mode** is used to edit the parameters of the track itself. This mode is not available for audio tracks.

For drum tracks, you can edit the parameters of the four layers as well as all synthesis parameters and insert effect settings.

For keygroup tracks, you can set the keygroup note ranges and edit the parameters of each keygroup and set their note ranges. You can also edit all synthesis parameters and insert effect settings.

For plugin tracks, you can parameters of the plugin using the graphic interface for built-in plugins, or an overview of all plugin parameters with a slider for each for other plugins.

Each of these sections is explained in further detail below and in the ***Operation*** > ***Modes*** chapter.

Clip Mode

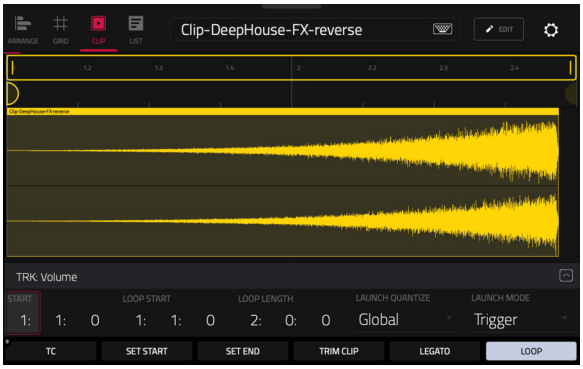
First, let's look at **Clip Mode**, where you can view and edit clip information and parameters.

To enter Clip Mode, do either of the following:

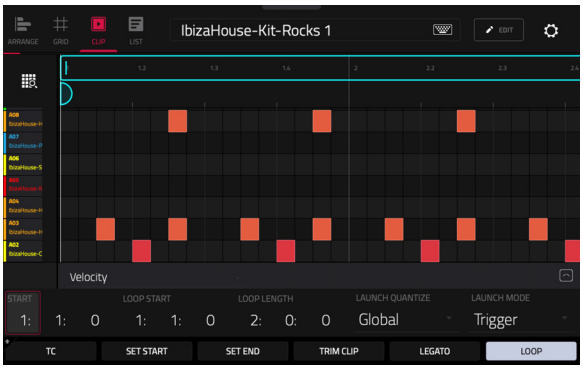
- Press **Clip**.
- Press **Menu** and then tap **Clip**.

In Clip Mode, you can view and edit the parameters of the clip container itself, such as length, launch mode, and quantization. The appearance of Clip Mode depends on what kind of track the clip belongs to:

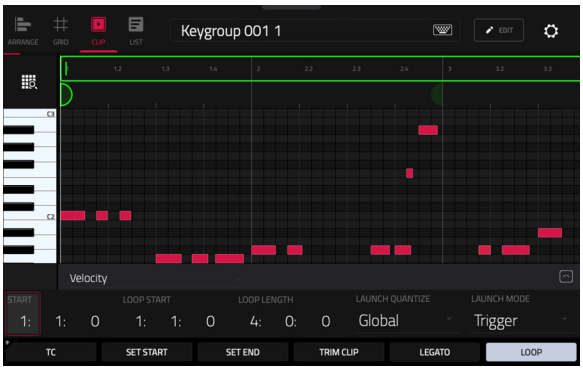
For audio tracks, the waveform of the audio clip is shown:

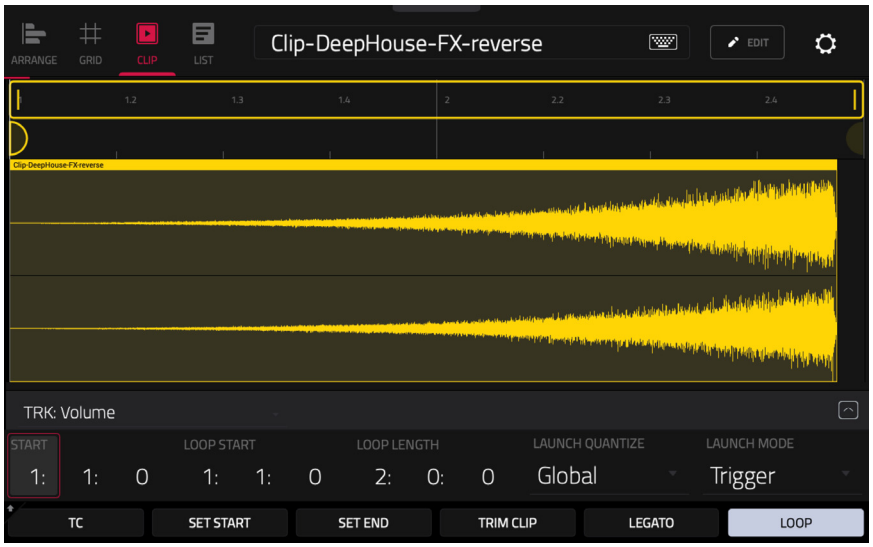


For drum tracks, the left column shows you all available pads in a vertical view with their corresponding events in the grid to the right:



For keygroup, plugin, MIDI and CV tracks, the left column shows a vertical “piano roll” keyboard with the corresponding events in the grid to the right:





Let's edit one of the clips in our demo project:

1. Make sure the **clip launch pads** are in Launch Mode by pressing the **Launch** button.
2. Press and hold the **Select** button, then press the first clip launch pad for **Track 7 – SFX**.
3. Now, try making some of the edits to the clip described below. At any time, press **Undo** to revert to the previous state.

   To adjust the length of the clip, use the **Start**, **Loop Start** and **Loop Length** fields**.** Alternatively, use the **Set Start** and **Set End** buttons during playback. The start or end point will be placed at the position of the playhead when the button was pressed.

   To adjust the launch quantization setting, tap the **Launch Quantization** field, and then use the **data dial** or **–/+** buttons to set the timing of how the clip is launched. This can be set separately from the global launch quantization. For instance, you may keep the global launch quantization at **1 Bar** to keep longer clips in sync, but set sound effects or other "one shots" to a smaller launch quantization, such as **1/8 Bar**.

   To change the clip launch behavior, tap the **Launch Mode** field, and then use the **data dial** or **–/+** buttons to change the mode. Select **Toggle** for the clip to start or stop with each successive press. Select **Trigger** for the clip to start at the beginning with each press. Toggle is useful for clips of full phrases, whereas Trigger is useful for one shot sound effects.

   To adjust the timing correction, tap the **TC** button to open the Timing Correct window. This window contains various settings to help quantize the events in your clip (learn about this feature in ***Operation*** > ***General Features*** > ***Timing Correct (TC)***).

   To trim an audio clip, use the **Loop Length** field to set the preferred length, then tap **Trim Clip** to trim the whole clip to this size.

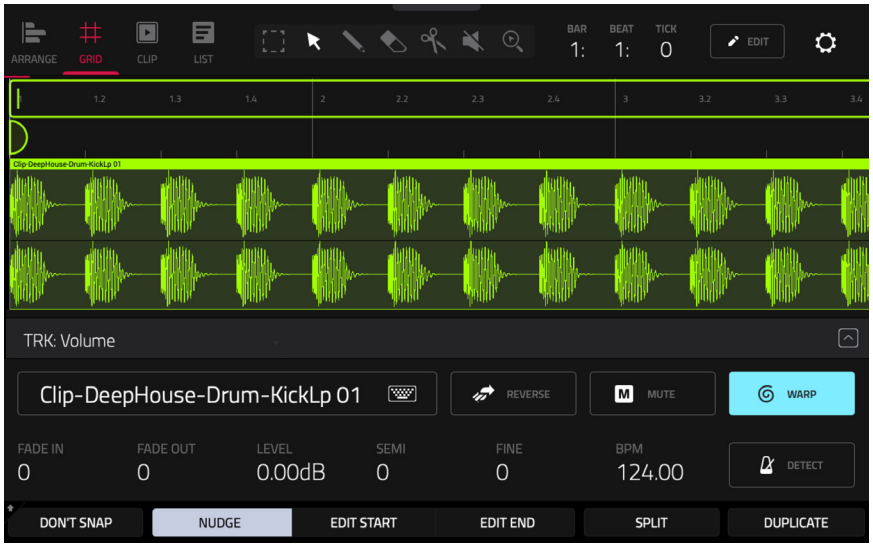
   To carry the playhead position from one clip to another in the same track, tap the **Legato** button. When active, the playhead will continue from the same position as it was in the previous clip of the same track when switching between clips. This is useful for creating seamless fills in drum breaks, working with an acapella track or other scenarios where you would like a clip to play across multiple scenes.

   To enable or disable clip looping, tap the **Looping** button. Clips like sound effects, drum hits and other "one shots" should usually have **Loop** set to **Off**. For longer melodic or rhythmic phrases, set **Loop** to **On**.

   To adjust the loop, hold **Shift** and tap the **<<Loop** or **Loop>>** buttons to shift the loop left or right, or hold **Shift** and tap the **/2** or **2X** buttons to halve or double the loop size.

Grid Mode

In Grid Mode (formerly *Region View* for audio and *Event View* for MIDI), you can edit parameters of the audio clip itself, such as length, levels, tuning and BPM.



Let's start by making some edits to an audio clip using Grid Mode.

1. Launch the first clip in **Track 1 – Kick Loop**.
2. Press **Menu** and tap **Grid**.
3. Now, try making some of the edits to the audio clip described below. At any time, press **Undo** to revert to the previous state.

    To select part of the clip, tap the **select box** icon in the upper-right corner, then tap and drag in the lower-half of the waveform.

    To move all or part of the clip, tap the **pointer** icon in the upper-right corner, and then tap and drag at the top part of the waveform.

    To shorten or lengthen a clip region (or multiple selected clip regions), tap the **select box** or **pointer** icons in the upper-right corner, and then tap and drag the lower third of it left or right.

    To split the clip into multiple parts, tap the **scissors** icon in the upper-right corner, and then tap anywhere in the waveform.

    To mute all or part of a clip, tap the **speaker** icon in the upper-right corner, and then tap in the waveform. Alternatively, select the part of the waveform you want to mute, and then press the **Mute** button.

    To scroll through or change the zoom level of the waveform, tap the **magnifying glass** icon. Then, tap and drag to scroll through the waveform, pinch with two fingers to zoom out, or spread with two fingers to zoom in.

    To change the level of the clip, tap the **Level** field, and then use the **data dial** or **–/+** buttons.

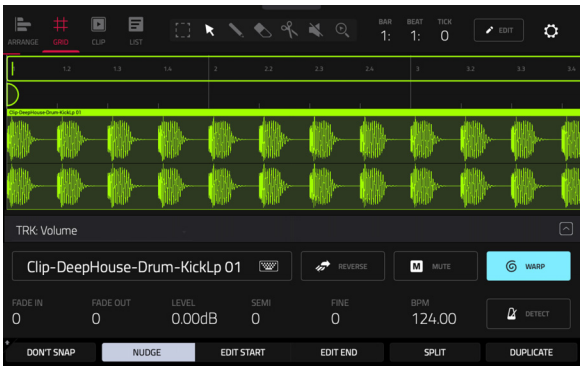
    To change the tuning of the clip, tap **Semi** or **Fine**, and then use the **data dial** or **–/+** buttons.

    To reverse the clip (or a section of it), tap the **Reverse** button.

    To rename the clip, tap the **keyboard icon** under the waveform, then use the keyboard on the display to enter a new name.

In Grid Mode, you can also use Force's powerful warp tool to adjust the tempo of any sample to match your project's tempo without changing the pitch.

To sync an audio clip to the project tempo:

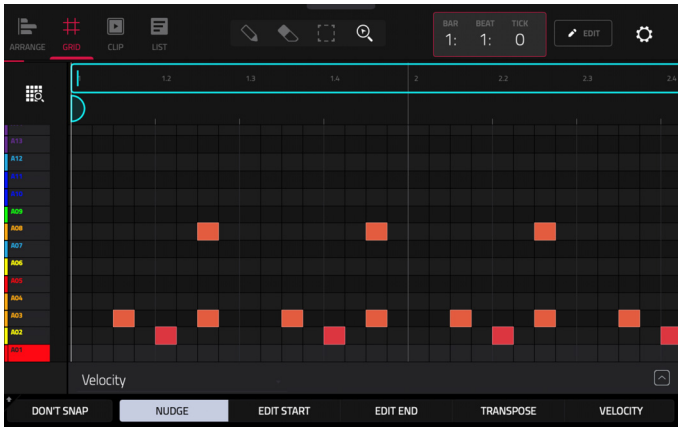


1. Load the desired sample to an empty clip launch pad using the **Browser**.
2. With the clip launch pad selected, open **Grid Mode** by pressing **Menu** and tapping **Grid**.
3. If your sample is already cut to a set number of bars and beats, you can continue to the next step.

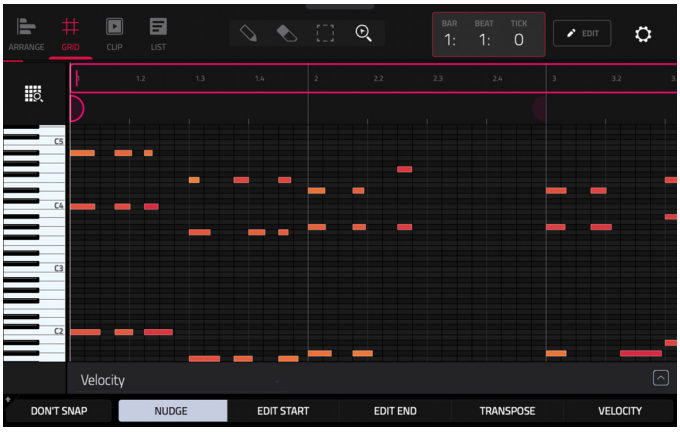
   If your sample is not already evenly cut, you can use the **Edit Start** and **Edit End** tools to isolate the section of the sample you would like to use. Alternatively, use the **scissors** icon to cut the audio.
4. Tap the **Warp** button to enable warping of the sample. This will allow you to lengthen or shorten the selected clip region to the desired loop length without changing the sample pitch.
5. To adjust the BPM of the sample, tap the **Detect** button to open the **Edit BPM** window. From here, you can set the BPM in one of three ways:
   i. Press **Detect** to have Force analyze the BPM for you.
   ii. Play the clip and use the **Tap Tempo** button to input the BPM.
   iii. Enter the BPM manually if you know it.
6. As the BPM of the sample is changed, the number of bars and beats it covers will also change.

See ***Operation*** > ***Modes*** > ***Grid Mode*** to learn more about this feature.

Grid Mode will appear differently when using a clip with MIDI data on a Drum, Keygroup, Plugin, MIDI or CV track.



Event View for a drum track



Event View for a keygroup, plugin, MIDI or CV track

Now let's make some edits to a MIDI clip using Grid Mode.

1. Launch the first clip in **Track 2 – Top Loop**.
2. Press **Menu** and tap **Grid** to open Grid Mode.
3. Now, try making some of the edits to note events described below. At any time, press **Undo** to revert to the previous state.

   To add a note, tap the **Pencil** icon in the upper-right corner of the display. Then, in the grid, tap a square.

   To erase a note, tap the **Eraser** icon in the upper-right corner. Then, in the grid, tap a note.

   To select a note, tap the **select box** in the upper-right corner. Then, in the grid, tap a note. You can also drag your finger to select multiple notes.

   To move the selected notes, tap **Nudge** at the bottom of the screen, and then use the **data dial** or **–/+** buttons to shift the notes left or right. By default, you can position notes only by quantization values defined by the **Time Correct** value (learn about this feature in ***Operation*** > ***General Features*** > ***Timing Correct (TC)***).

   To adjust the start point or end point of the selected notes (without changing their position), tap **Edit Start** or **Edit End** at the bottom of the screen, and then use the **data dial or –/+** buttons.

   To transpose the selected notes up or down, tap **Transpose** at the bottom of the screen, and then use the **data dial or –/+** buttons.

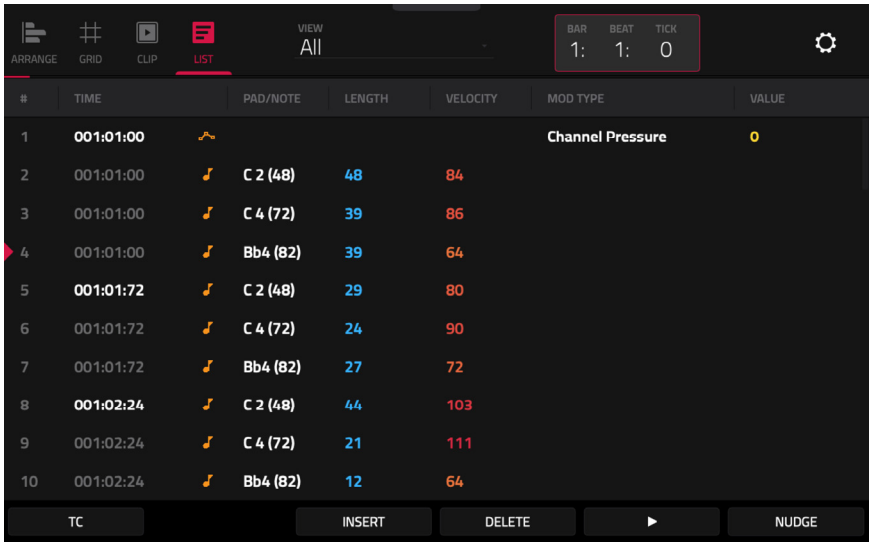
   To adjust the velocity of the selected notes, tap **Velocity** at the bottom of the screen, and then use the **data dial or –/+** buttons. The numeric value will appear on the screen.

   To show the automation lane, tap the **up arrow** (∧) button in the lower-right corner of the screen to show the automation lane below the grid. By default, the Velocity parameter is shown, with each note's velocity represented by a vertical bar. The higher and more red the bar is, the higher the velocity is. Double-tap the **Velocity** field to add a new automation parameter. See ***Addenda > Updates in Force 3.0.3*** > ***New Features*** > ***Grid/Automation Lanes*** for more information.

   When the automation lane is expanded, the **up arrow** (∧) button will turn into a **down arrow** (∨) button, which you can then tap to hide the automation lane.

See ***Operation*** > ***Modes*** > ***Grid Mode*** to learn more about this feature.

List Edit Mode



List Edit Mode is similar to Grid Mode for MIDI tracks, but uses a scrolling list workflow to display MIDI note event parameters. This allows you to quickly filter your MIDI events by a particular type using the **View** menu or by the current playhead position using the **time counter** at the top of the display. You can also insert, delete, play and nudge note events using the buttons at the bottom of the display.

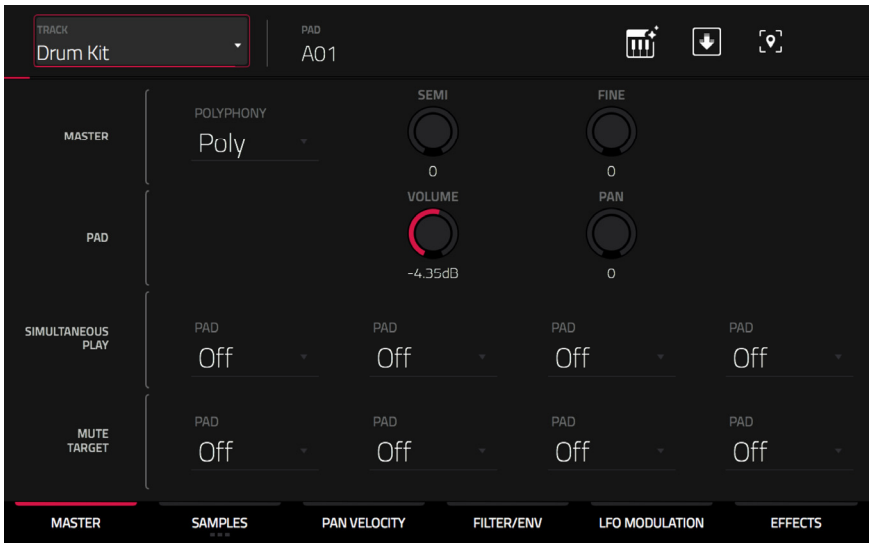
See ***Operation*** > ***Modes*** > ***List Edit Mode*** to learn more about this feature.

Track Edit Mode

In addition to editing MIDI note events using the clip edit modes, you can edit the parameters of a track using **Track Edit Mode**. This mode is not available for audio tracks.

To enter the Track Edit Mode, do either of the following:

- Press **Menu** and then tap **Track Edit**.
- Hold **Shift** and press **Clip**.



Now, let's make some simple edits to the sounds in a drum track. Try making these edits while a clip is playing to hear the difference.

1. In Matrix Mode, press and hold the **Track Select** button for **Track 8 – Drum Kit** to select the track.
2. Press the **Note** button to set the **clip launch pads** to Note mode. The lower left quadrant will now show a typical 16-pad drum kit.
3. Press the kick drum pad (A01) to select it.
4. In the **Master** tab of Track Edit Mode, adjust the **Volume** knob up or down.
5. Press the snare drum pad (A02) to select it.
6. Tap and drag the **Pan** knob up or down to adjust the stereo panning. We recommend spreading the panning of the bright sounds (e.g., cymbals, snare drum) a little.
7. Press the hi-hat pad (A03) to select it.
8. Tap the **Samples** tab so the first square under it is lit.
9. Use the **Semi** and **Fine** fields to adjust the tuning of the sample.

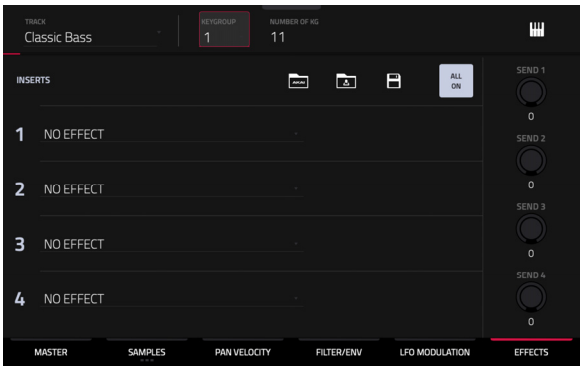
You can also apply effects to a track with Track Edit mode. Let's try adding an effect to the bass track.

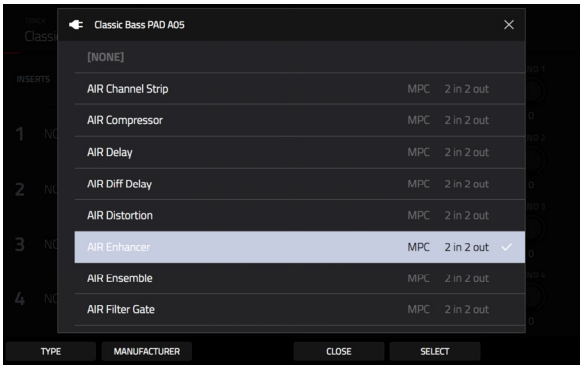
1. While in Track Edit Mode, press and hold the **Track Select** button for **Track 6 – Classic Bass** to select the track.
2. Tap the **Effects** tab at the bottom of the screen to view the Insert Effects tab.
3. Double-tap the first effect slot. A list of effects will appear.
4. Swipe up or down to move through the list.
5. **To load an effect**, double-tap it. Alternatively, tap it once and then tap **Select** or push the **data dial**. Let's try adding the **AIR Enhancer**.
6. **To close the list,** tap **Close**.
7. Now that the effect has been added to the bass track, you can adjust its parameters to your liking.

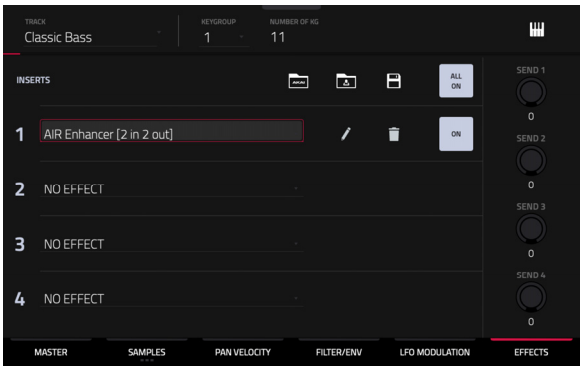
   To adjust the effect's parameters, tap the **pencil icon**.

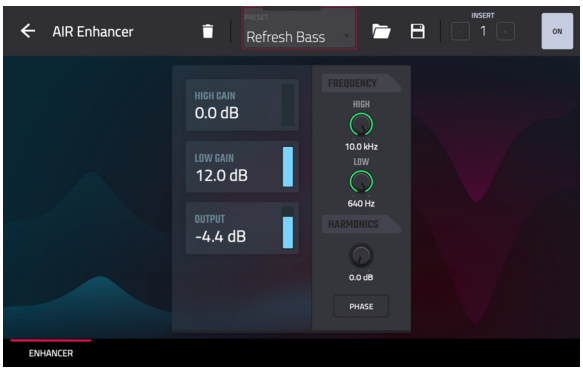
   To adjust a parameter's value, tap and drag your finger on a slider. Alternatively, tap the parameter and use the **data dial** or **–/+** buttons.

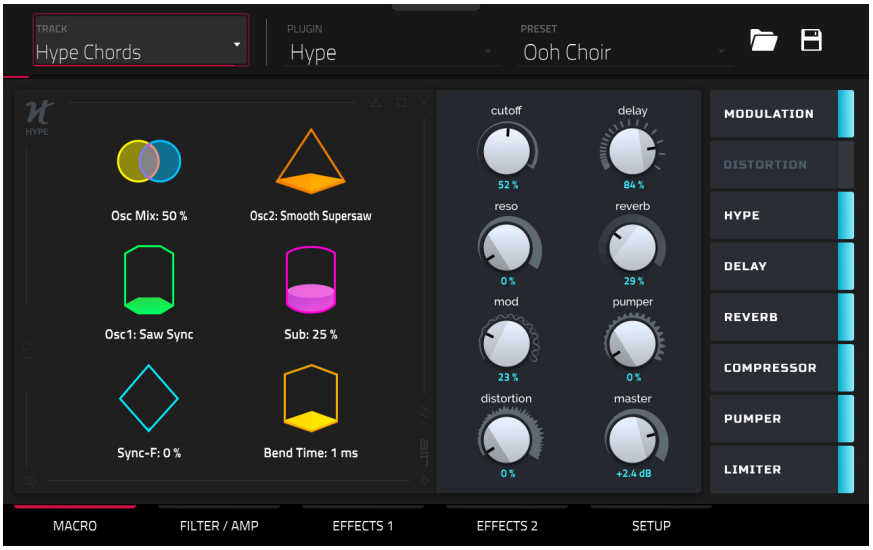
   To empty the effect slot, tap the **trash can icon**. Switch the effect on or off by tapping the **On**/**Off** button for the slot.









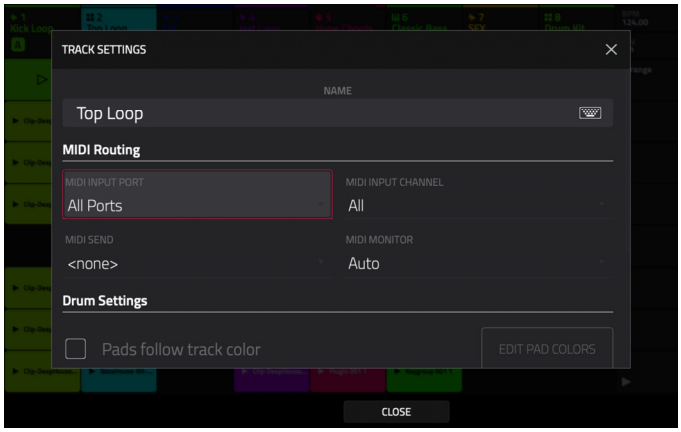


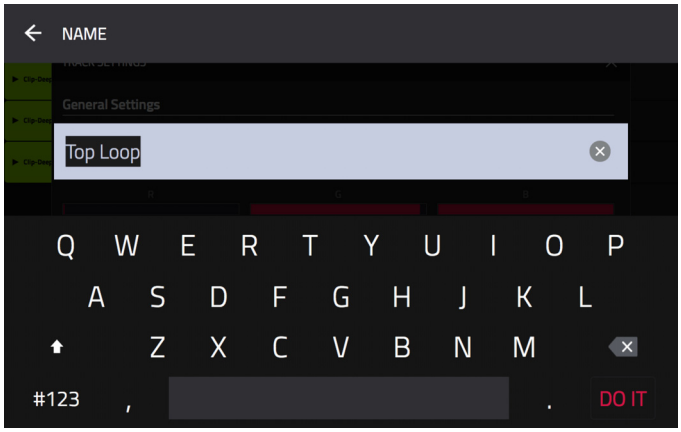
When a Plugin track is selected, Track Edit Mode shows the parameters of the loaded plugin.

1. Press **Matrix** to enter Matrix Mode.
2. Press and hold the **track selector button** for **Track 5 – Hype Chords**.
3. Launch the first clip in **Track 5 – Hype Chords**.
4. Enter Track Edit Mode.
5. While the clip is playing, try making edits to the various plugin parameters. Use the tabs at the bottom of the page to view different sets of parameters.

Renaming & Saving

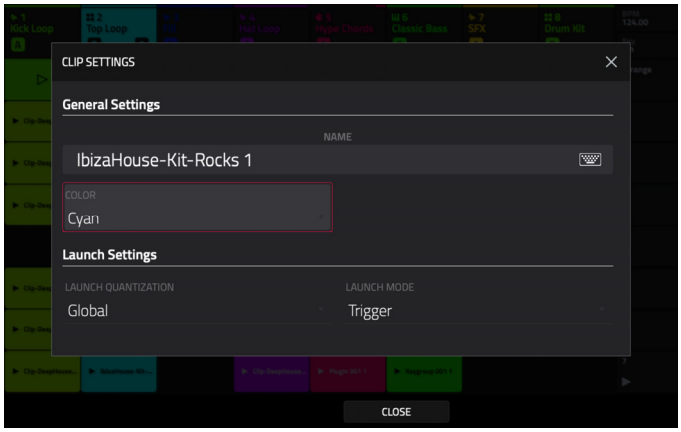
After making changes to clips and tracks, you may want to do some renaming and save your project before going further.

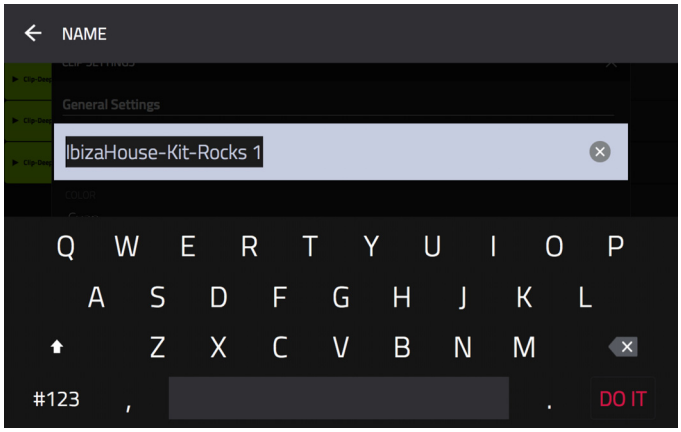




To rename a track:

1. Press **Matrix** to enter Matrix mode.
2. Double-tap the track name at the top of the display.
3. Under **Name**, tap the keyboard icon.
4. Use the virtual keyboard that appears to enter a new name (e.g., Synth Lead), and then tap **Do It**.



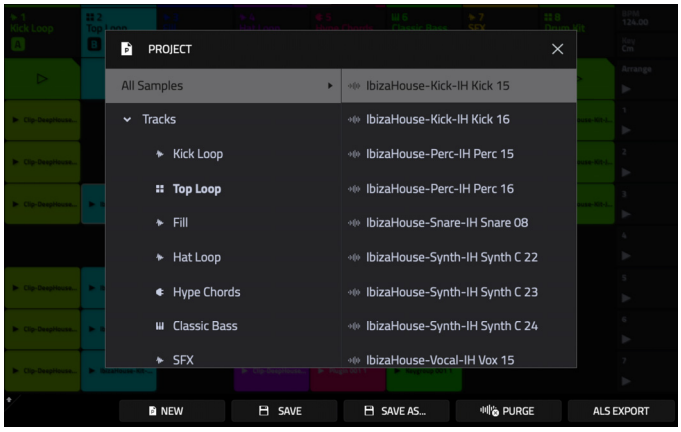


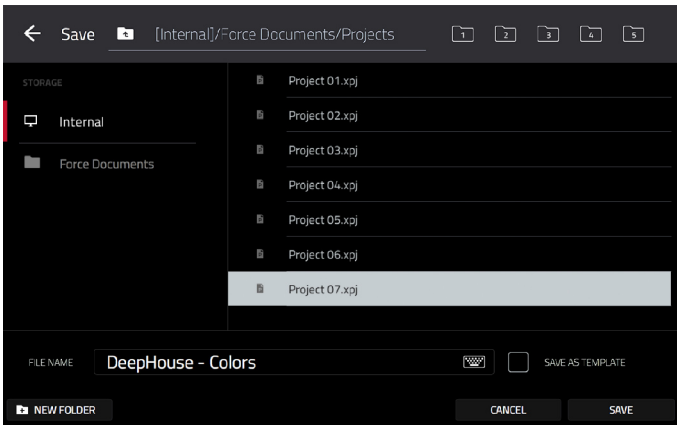
To rename a clip:

1. Press **Matrix** to enter Matrix mode.
2. Hold **Edit** press a **clip launch pad**.
3. In the window that appears, tap the keyboard icon next to **Name**.
4. Use the virtual keyboard that appears to enter a new name (e.g., Drum Fill), and then tap **Do It**.

Now that we've made changes to our demo, this would be a good time to save as a new project. You can save your project by doing either of the following:

- Press **Menu** to show the Menu, and tap the **folder icon** at the top of the screen to open the **Project** window. Then, select **Save As**.
- Press **Save** to open the Save window. Then, select **Save As**.





In the Save screen, do any of the following:

To select the storage device you want to view, tap it in the **Storage** column on the left.

Internal is the internal drive of Force.

Force Documents is a shortcut to the **Force Documents** folder on the internal drive of Force.

If you have storage devices connected to the USB ports or SD card slot of Force, they will appear in this column, as well.

To enter a folder, double-tap it. Alternatively, turn the **data dial** or use the **–**/**+** buttons to move through the list, and press the **data dial** to enter a folder. You can also tap one of the five **folder buttons** in the upper-right to jump immediately to those pre-assigned file paths (see ***Operation*** > ***Modes*** > ***Browser*** to learn how to do this).

To create a new folder, tap **New Folder**, use the virtual keyboard that appears to enter a name, and then tap **Do It**. You will immediately enter the new folder.

To move up one folder level, tap the **folder/↰ icon** in the upper-left corner.

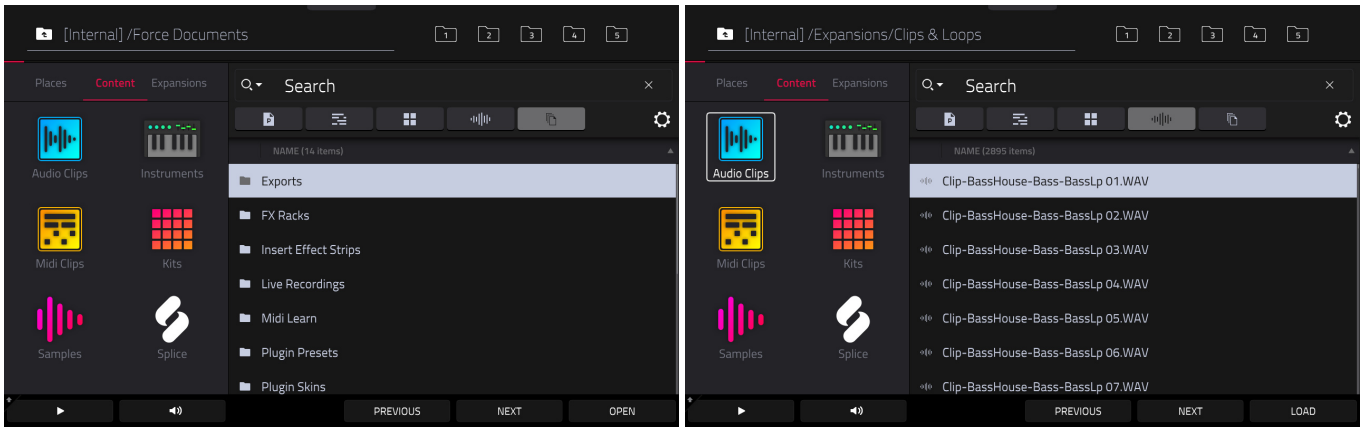
To name the file, tap the **File Name** field at the bottom of the screen, and use the virtual keyboard that appears.

To save the file, tap **Save**.

To cancel and return to the Menu, tap **Cancel**. Alternatively, tap the **← icon** in the upper-left corner.

Using the Browser

Force's Browser is where you can browse and load clips, samples, instruments and more from Force's internal library, as well as the library of any connected devices.



To open the Browser, do either of the following:

- Press **Menu** to show the Menu, and tap **Browser**.
- Press **Load**.

Let's try creating a new drum track and loading samples to it.

1. Press **Matrix** to open Matrix view.
2. Use the **right cursor** to scroll the Matrix view all the way to the right, until the last column shows a **+** sign above the clips.
3. Tap the **+** symbol to open the Add Track window. Alternatively, you can press and hold the **Track Selector** button under an unused track to open the Add Track window.
4. Select **Drum** to create a new drum track.
5. Set the pads to **Note** mode by pressing the **Note** button.
6. Tap a pad to select it. While in the Browser, the selected pad will be lit bright white. Since we are creating a drum kit, start by tapping the bottom-left pad.
7. To search for drum samples, first open the **Content** tab, then select **Samples**.
8. Start by searching for a kick drum sound. Tap in the **Search** bar, then use the keyboard that appears to type "kick" and tap **Do It** to perform the search. A list of all kick drum samples will now appear.
9. To load a sample, tap the **Load** button.
10. You can browse and preview samples in two ways:

    Turn the data dial to scroll through the list, and tap the **Play** button to preview the sample. You can enable auto-preview by tapping the **Speaker** icon and tapping the **Auto** button so it is highlighted.

    You can also quickly audition samples by using the **Previous** and **Next** buttons on the display, or the **–** and **+** buttons on Force. When you move to a new sample, it will automatically be loaded to the selected pad. If you decide to not use the sample, the old sample will automatically be deleted when a new one is loaded to the same pad.
11. Repeat this process to add a snare, hi-hat or anything else you can think of to your drum kit.

You can use this same general process for browsing and loading other files such as audio or MIDI clips, instruments, kits and projects.

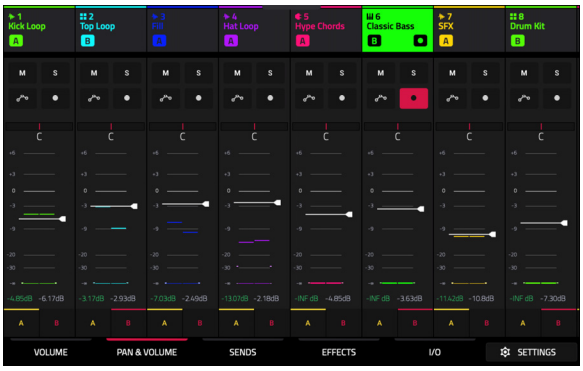
Mixing Tracks

Force's mixer allows you to adjust parameters such as level, stereo panning and routing the same way you would with a traditional mixer or digital audio workstation.

To open the Mixer, press **Mixer**. Alternatively, press **Menu** and tap **Mixer**.

The Mixer contains four tabs of pages that let you control different settings for the tracks and master. Tap and drag your finger to scroll through available tracks, or use the **cursor** buttons.

Let's start with the **Pan & Volume** tab. Tap the tab at the bottom of the display to select it. Launch a scene in your project and try making a few of the following adjustments to the tracks:



To adjust the track volume, tap and drag your finger on the volume slider, or tap it and then use the **data dial** or **-/+** buttons.

To adjust the track panning, tap and drag your finger on the Pan slider, or tap it and then use the **data dial** or **-/+** buttons.

To mute or solo the track, tap the **M** or **S** buttons, respectively.

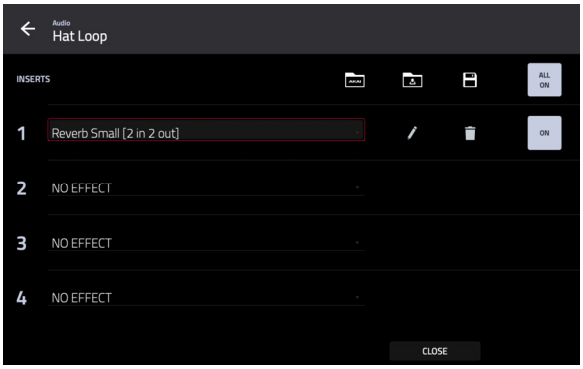
To give a track a crossfader assignment, tap the **A** or **B** buttons at the bottom of the display.

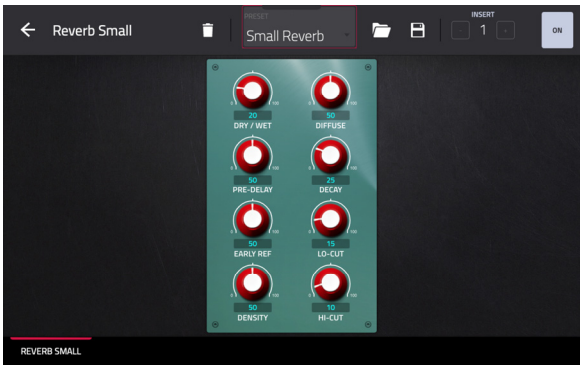
Next, tap the **Effects** tab. Let's try adding an insert effect to a track:

1. Tap the **Inserts** button in **Track 4 – Hat Loop** to open the Inserts window. Empty insert slots below this button are marked with a **+** sign.
2. Double-tap the first effect slot. A list of effects will appear.
3. Swipe up or down to move through the list, or turn the **data dial**.
4. **To load an effect**, double-tap it. Alternatively, tap it once and then tap **Select** or push the **data dial**. Let's add the **Reverb Small** effect.
5. **To close the list,** tap **Close**.
6. Now that the effect has been added to the track, you can adjust the settings to your preference.

   To adjust the effect's parameters, tap the **pencil icon**.

   To empty the effect slot, tap the **trash can icon**. Switch the effect on or off by tapping the **On**/**Off** button for the slot.



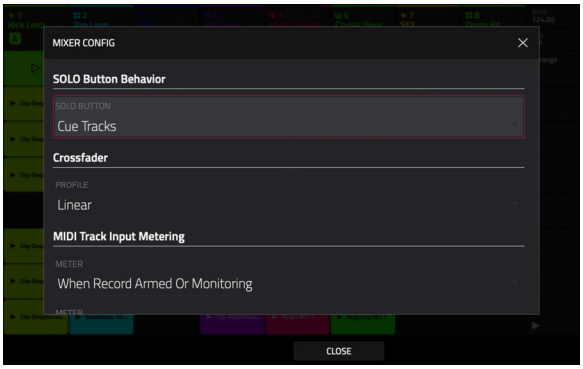


See ***Operation*** > ***Modes*** > ***Mixer*** to learn more about this feature.

Cueing Tracks

In addition to using the **Solo** button to isolate a track, you can use it to cue tracks. This allows you to preview the sound of a track using the **Phones** output or **Outputs 3/4** before sending it to the main mix for your audience to hear.

To cue tracks:



1. Connect headphones to the **Phones** output, or connect **Outputs 3/4** to your monitors, mixer, etc.
2. Open the **Mixer Config** window, either by pressing **Settings** while viewing the Mixer, or by holding **Shift** and pressing **Solo** or **Mute**.
3. Set the **Solo Button Behavior** to **Cue Tracks**.
4. Adjust the **Cue Mix** knob so that it is between **3/4** and **Master**. You can adjust the exact mix to your preference. Turn the **Cue Mix** knob toward **3/4** for more of the cued track audio, or more toward **Master** for more of the master mix audio.
5. Press the **Solo** button.
6. Press the **Track Assign** button for the track you would like to assign to the cue mix.

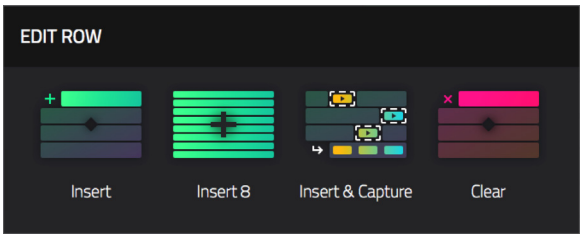
   When viewing certain pages of the Mixer, the **S** icon in the channel strip will become a **Headphones** icon that is highlighted when enabled.

   When viewing the Matrix, a **Headphones** icon will be added to the track heading.
7. Launch a clip in the track you have cued. You should hear both the master mix and the audio of the cued track.
8. Using headphones attached to the **Phones Output** on Force's front panel, and/or speakers connected to **Outputs 3/4**, listen to the cued audio to make sure it is in sync with your main mix.
9. When you are ready to send the track audio to the main mix, press the **Solo** button and the **Track Assign** button for the track to disable cueing.

Recording Clips

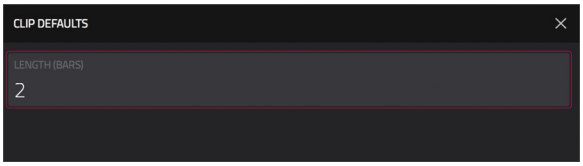
Now that you're more familiar with the basics of clip launching and editing, let's try recording new clips to add to the project.

Before recording, let's create a new scene and an empty clip to record into:



1. Press **Matrix** to open Matrix Mode on the display.
2. Hold **Edit** and press the top **Scene Launch** button (below the **Arrange** scene launch) to open the **Edit Row** window.
3. Tap the **Insert** icon. A new row will be created at the top of the Matrix.
4. On the display, double-tap an empty clip slot in your new scene to create a new clip. New clips are always created at the default length, which can be set by holding **Shift** and pressing the second **Track Assign** button.

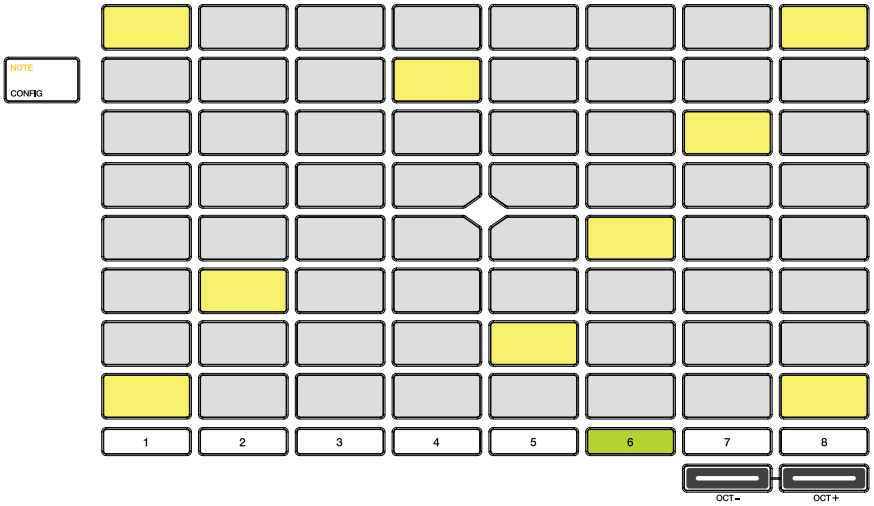
   Alternatively, you can create an empty clip using the **clip launch pads**. First, press the **Launch** button to enter Launch mode. Then, hold the **Select** button and double-tap an empty pad.



Recording with Note Mode

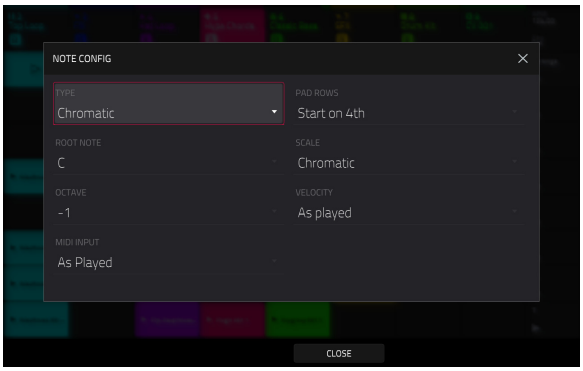
In addition to using the clip launch pads for launching clips, you can use them to record notes chromatically as you would use a MIDI keyboard. This is enabled by pressing the **Note** button to enter **Note Mode**.

In the **Deep House – Colors** project, select **Track 6 – Classic Bass** and press **Note** to view Note Mode in action. In Note Mode, the appearance of the pads will change. The root note or chord will be lit in one color, and the notes or chords in between will be lit white.



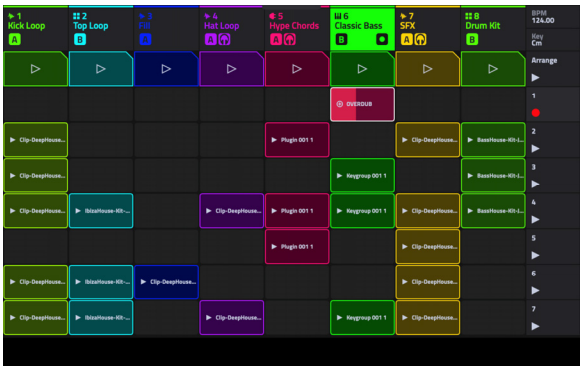
To configure the pads in Note Mode, hold **Shift** and press **Note** to open the **Note Config** window. In this window, you can set the function of the pads, from playing notes in a scale to playing full chord progressions. For now, let's leave **Type** set to **Scales** and set **Pad Rows** to **Start on root**.

See ***Operation*** > ***General Features*** > ***Pad Modes*** > ***Note Mode*** to learn more.



Now, let's prepare the clip and track for recording:

1. Create an empty clip in **Track 6 – Classic Bass** following the directions above.
2. Launch the clip to make sure it is playing.
3. Press the **Rec Arm** button, then press the sixth **Track Select** button to record enable the track. A record symbol will appear under the track name.
4. Finally, when you are ready to record, press the **Rec** button. On the display, the selected clip will turn red and show **Overdub**.
5. Try recording a simple bassline using the **clip launch pads** in Note mode. Press **Undo** at any time to undo any recorded note events.
6. You have finished recording, press the **Rec** button again to stop recording.



You can also change the recording configurations to suit your preferences.

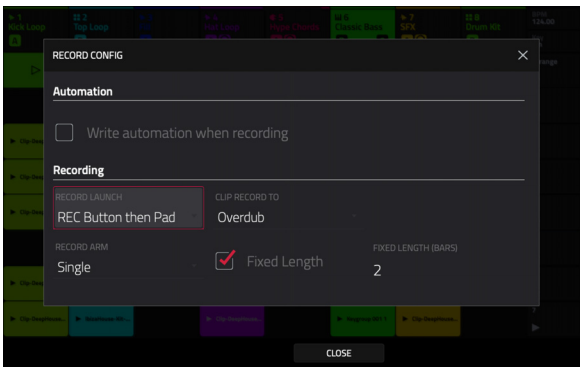
1. Press **Matrix** to open Matrix Mode on the display.
2. Press and hold **Record**, and in the window that appears, tap **Settings** to open the Record Configuration window. Alternatively, hold **Edit** and press **Record**.
3. Check the **Write automation when recording** box to capture automation while recording.

   Use the **Record Launch** field to set how recording is initiated. When set to **Pad**, tap any pad while the track is armed to begin recording. When set to **REC Button or Pad**, tap any pad while the track is armed to begin recording, or press the **Record** button to begin recording on the highlighted clip slot. When set to **REC Button then Pad**, first press the record button, then tap any pad to begin recording. This is the default mode when Force is powered on.

   Use the **Clip Record To** field to set the behavior when recording is completed, entering either **Overdub** or **Play**.

   Use the **Record Arm** field to set whether the **Track Assign** buttons can be used to arm a **Single** track at a time, or **Multiple** tracks.

   Check the **Fixed Length Recording** box to stop recording after the clip length set in the **Fixed Length (Bars)** field. Leave unchecked to record for any desired clip length.
4. When you are finished, tap **Close** to close the Record Configuration window.

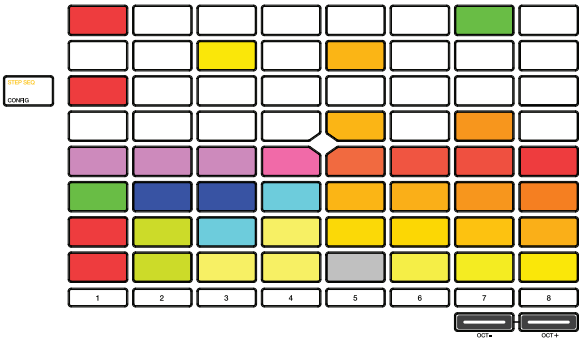


Recording with the Step Sequencer

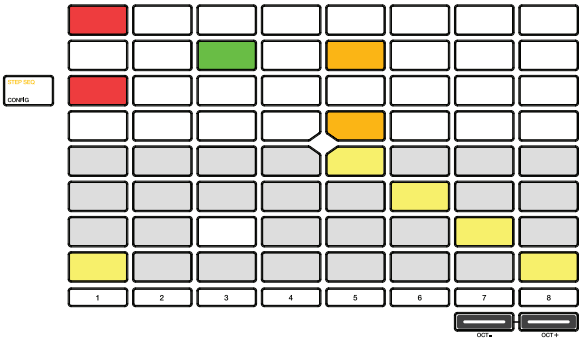
When sequencing drums, you can use Force's built-in **Step Sequencer** to quickly enter note events by using the clip launch pads as "step buttons," simulating the experience of a traditional step-sequencer-style drum machine.

When using the Step Sequencer, you can assign the clip launch pads to a number of different modes depending on the type of track. These include:

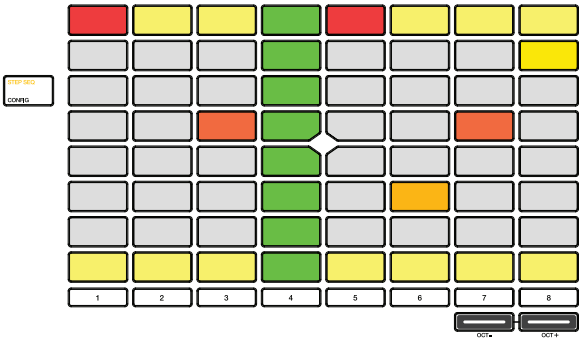
Drum: In this mode, the top four rows of pads represent each step in the clip. The bottom four rows of pads are split into two 4x4 quadrants: the left quadrant is used for selecting and triggering drum sounds, while the right quadrant is used to select the velocity of the note events. This mode is most useful for recording drum parts with the step sequencer.



Melodic: In this mode, the top four rows of pads represent each step in the clip. The bottom four rows of pads are notes in the set scale, which can be adjusted by holding **Shift** and pressing **Step Seq**. This mode is most useful for recording melodic parts such as a bassline with the step sequencer.



Lanes: In this mode, each column of clip launch pads represents a step in the clip. The eight rows represent eight different pads. You can set the base pad by holding **Shift** and pressing **Step Seq**.



See ***Operation*** > ***General Features*** > ***Pad Modes*** > ***Step Sequencer*** to learn more about the other Step Sequencer pad modes.

To cycle between these modes, press the **Step Seq** button. You can also press and hold the **Step Seq** button while in any Step Sequence mode to quickly select another mode.

Let's use the Drum mode to sequence a drum pattern using the Step Sequencer.

1. Select **Track 2 – Top Loop** and add a new empty clip as described above.
2. Make sure the clip you are recording into is playing, otherwise you won't hear the pattern you are creating.
3. Press **Menu** and then tap **Step Sequencer** on the display.
4. Press the **Step Seq** button until **Drum** is shown on the display. The pads will now be in Drum mode.
5. Select the bass drum sound by pressing its pad (A01).

   Tip: Press and hold the **Clip Select** button and then press a pad to select it without sounding the sample.
6. Use the top four rows of **clip launch pads** to sequence a simple bass drum pattern.

   You can also change portion of the clip you are viewing and editing by pressing and holding the **Step Seq** button and using the top row(s) of **clip launch pads**. The number of pages available depends on the selected step size and the number of bars in the clip.
7. Next, select a snare drum sound (A02) and sequence a pattern.
8. Finally, select a hi-hat sound (A03) and sequence a pattern. Try using the velocity pads to vary the velocity of the hi-hat sounds to make the clip sound more realistic.

See ***Operation*** > ***General Features*** > ***Pad Modes*** > ***Step Sequencer*** and ***Operation*** > ***Modes*** > ***Step Sequencer*** to learn more about this feature.

Operation

This chapter explains the complete features and functions of your Force hardware.

Important:

- When the left-most button at the bottom of the screen shows an upward arrow (⬆), it means there are additional buttons you can use when you press and hold **Shift**. Press and hold **Shift** to show the secondary buttons, and any of them, if desired. Release **Shift** to return to the previous buttons.

- Many modes shown on the screen have 1–6 buttons at the bottom. Each of these buttons select a different tab in that mode or perform a specific function in that mode.
- As an alternative to double-tapping an item on the screen to "enter" it, you can press the **data dial**.

- When a parameter is highlighted and has a red outline, this means that it is selected. You can then change it by turning the hardware's **data dial** or using the **–/+** buttons. If the parameter is a number, double-tap it to show a numeric keypad on the screen to enter a specific value.

General Features

Control Types

The Force touchscreen uses the following types of control elements:

Knobs

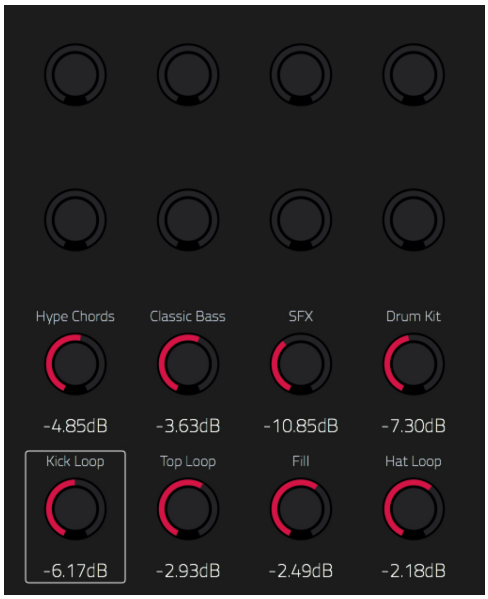
To set the value for a knob, do any of the following:

- Tap and drag the knob up or down.
- Tap the knob to select it, and then use the **data dial** or **–/+** buttons to adjust the value.
- Double-tap the knob to show it in a larger screen. Alternatively, press **data dial** when the knob is selected.

  Tap and drag the larger version that appears, or use the **data dial** or **–/+** buttons to adjust the value.

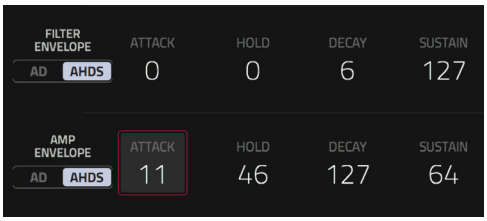
  If the knob is bipolar (has positive and negative values with the center as the default position), double-tap the larger version to reset it to the center/0 position.

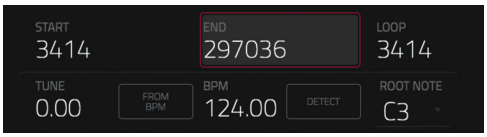
  Tap anywhere else to return to the previous screen.
- Press and hold **Shift** while turning the **data dial** to adjust a value by smaller increments.



Parameter Values

To set the value for a parameter, do either of the following:





- Tap the field to select it, and then use the **data dial** or **–/+** buttons to adjust the value.

  When the value has decimal places, you can sometimes press and hold **Shift** and then use the **data dial** or **–/+** buttons to adjust the value by smaller increments.

- Double-tap the field or hold your finger on it for a second. In the screen that appears, type in a value using the number pad, or use the **data dial** or the **–/+** buttons to adjust the value. Alternatively, tap and drag the value up or down.

  You can also tap **/2** to halve the value or **x2** to double it.

  To confirm the value and remain on this screen, tap **Apply**.

  To confirm the value and return to the previous screen, tap **Do It**.

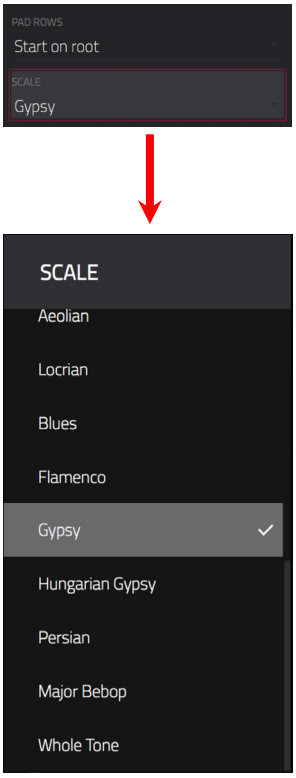
  To return to the previous screen, tap the gray area in the upper-left corner of the screen. Unsaved changes made using the number pad will not be applied. All other changes will be saved.

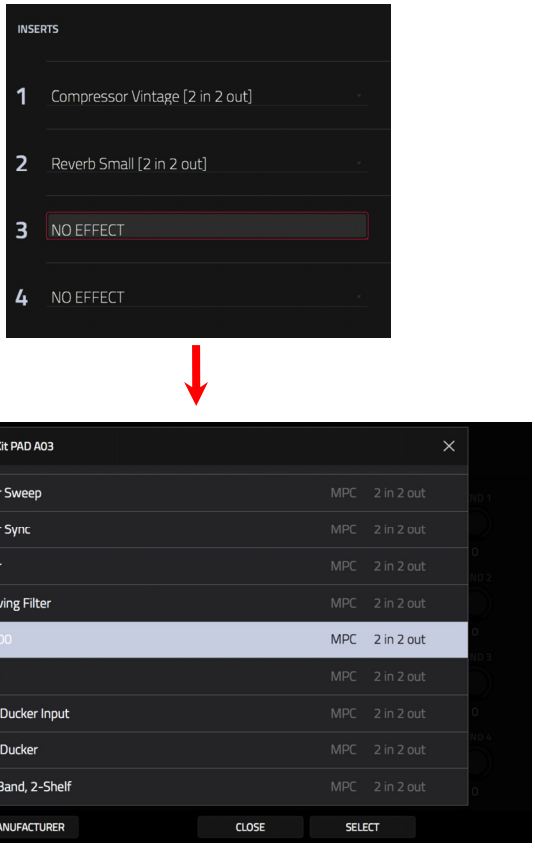
Drop-Down Menus / Lists

To select an option for a drop-down menu, do any of the following:

- Tap the field to select it, and then use the **data dial** or **–/+** buttons to select an option.
- Double-tap the field. In the list that appears (examples below), tap the desired option. Alternatively, use the **data dial** or the **–/+** buttons to select an option.

  In some windows, tap the relevant button at the bottom of the screen to confirm your selection or to cancel without changing anything.

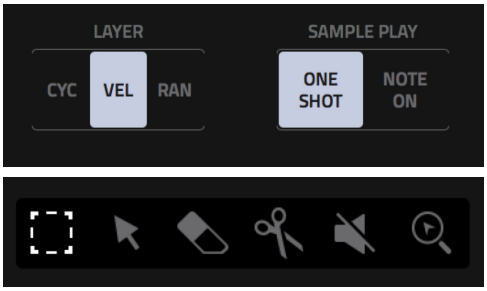




Selectors

Selectors show all available options. One of them is always selected. The selected option is highlighted while the others are dark.

To select an option, tap it.



Buttons

Buttons usually have two states: selected and deselected (active or inactive, respectively). Some may have more than two states.

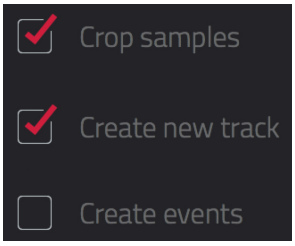
To switch between or cycle through a button's states, do either of the following:

- Tap it.
- If it is outlined in red (and is not a mute button), use the **data dial** or **–/+** buttons.

Checkboxes

Checkboxes have two states: checked and unchecked (enabled or disabled, respectively).

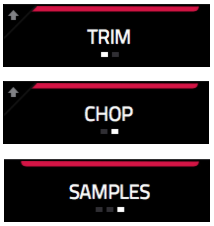
To check or uncheck a checkbox, tap it.



Tabs

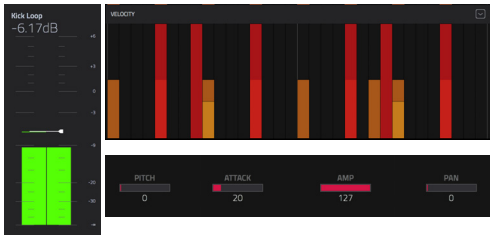
Some modes have buttons at the bottom of the screen that let you cycle through several similar tabs. For instance, you could view the send level that is routed to each of four returns—each level is shown on a separate tab. With each tap, you will move to the next tab, indicated by the squares below it.

To select a tab, tap it. Each time you tap it, it will select the next tab.



Sliders

To adjust the position of a slider, do any of the following:



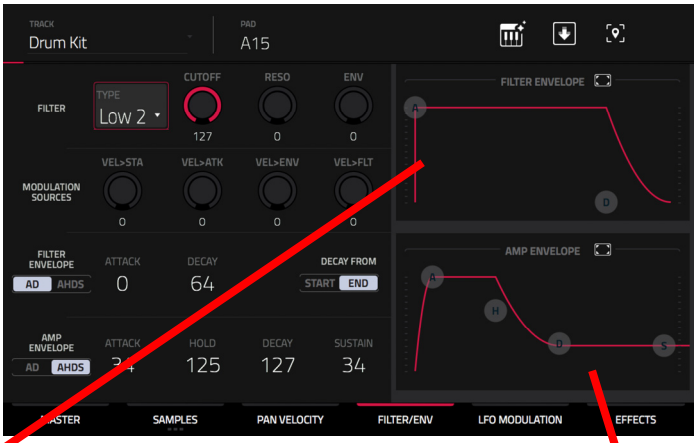
- Tap and drag the slider to the desired position.
- Tap the desired position (this works only on some sliders).
- Tap the slider to select it, and then use the **data dial** or **–/+** buttons to adjust the position (this works only on some sliders).
- Double-tap the slider, and then tap and drag the larger version that appears, or use the **data dial** or **–/+** buttons to adjust the value. Tap anywhere else to return to the previous screen.

Envelopes

To set the stages of an envelope, do either of the following:

Tip: Tap the **expand-rectangle icon** above the envelope to show a close-up view.

- Tap and drag a "handle" of an envelope stage in the desired direction.
- Set the numeric value of an envelope stage by adjusting or entering it as a parameter value (described *earlier*).



The Filter/Envelope tab in Track Edit Mode.

Close-up of an AD-type filter envelope.

Close-up of an AHDS-type amp envelope.

Grid Mode Tools

When viewing a MIDI clip in Grid Mode, these four icons enable you to use different functions in the grid.

Tap one to select its mode:

Pencil: Draw Mode:

To enter a note in an empty grid square, tap the grid square.

To select a note, tap it.

To move a note, tap and drag it to another grid square.

To erase a note, double-tap it.

To edit velocity or draw automation, open the velocity/automation lane and tap and drag.

Eraser: Erase Mode:

To erase a note, tap it. You can also tag and drag to erase multiple notes in the same row.

Select Box: Select Mode:

Note: Notes will remain selected if you switch to another mode. The selection will change, however, if you press a pad while **Hitting Pad Selects All Events** is set to **On**.

To select a note, tap it.

To select multiple notes, tap and drag across the grid to create a box around them.

To move a note, tap and drag it to another grid square.

To move multiple notes, select them as described above, and tap and drag them.

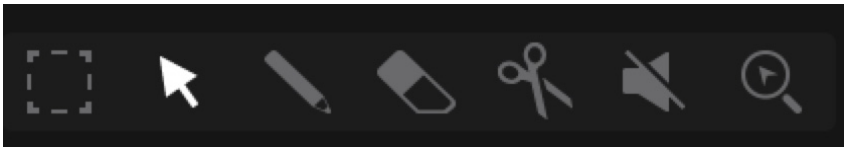
To erase multiple notes, select them as described above, and then select the **eraser tool** and tap any of the selected notes.

Magnifying Glass: Navigation Mode:

To move to another part of the grid, tap and drag it.

To zoom in or out, spread or pinch your fingers (respectively) on the grid. You can do this vertically, horizontally, or both at the same time.

When viewing an audio clip in Grid Mode, these seven tool icons enable you to use different functions in the waveform.



Tap one to select its mode:

Marquee: Marquee Mode:

To select a track region, tap the upper third of it.

To select multiple track regions, tap and drag across the grid to create a box that highlights them.

To move a track region (or multiple selected track regions), tap and drag the upper third of it left or right.

To split the track at two specific points (creating a track region on either side and between them), tap and drag across the middle third of it to create a translucent white box, and then tap the upper third of that box.

To shorten or lengthen a track region (or multiple selected track regions), tap and drag the lower third of it left or right.

Arrow: Selection Mode:

To select a track region, tap it.

To move a track region (or multiple selected track regions), tap and drag the upper third of it left or right.

To shorten or lengthen a track region (or multiple selected track regions), tap and drag the lower third of it left or right.

Pencil: Draw Mode:

To draw automation, open the velocity/automation lane and tap and drag.

Eraser: Erase Mode:

To erase a track region (or multiple selected track regions), tap it.

Scissors: Split Mode:

To split the track at a specific point (creating a track region on either side), tap that point in the track.

To select a track region, tap its left-most edge.

Mute: Mute Mode:

To mute or unmute a track region (or multiple selected track regions), tap it.

Magnifying Glass: Navigation Mode:

To move to another part of the track, tap and drag it.

To zoom in or out, spread or pinch your fingers (respectively) on the grid. You can do this vertically, horizontally, or both at the same time.

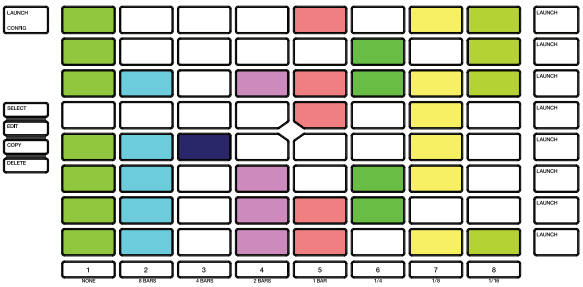
Pad Modes

In addition to the various control functions used in the display, Force features three different control modes for the 8x8 grid of **clip launch pads**: **Launch Mode**, **Note Mode**, and **Step Sequencer Mode**. You can also control Launch and Note Modes at the same time using **Launch & Note Mode**.

These modes are accessed by pressing their respective **Launch/Config**, **Note/Config**, and **Step Seq/Config** buttons on the Force hardware. At any time, you can also temporarily view any of the pad modes by pressing and holding the **Launch**, **Note**, or **Step Seq** buttons. This allows you to quickly make changes such as launching a different clip or editing the step sequencer.

Launch Mode

Launch Mode is used for launching and working with clips. The image to the right shows the pads in Launch Mode. The brightly lit pads each represent clips in the respective track columns.



To enter Launch Mode, press the **Launch** button. In Launch Mode, you can do any of the following:

To launch a clip, press the clip launch pad.

To select a clip, hold **Select** and press a pad.

To create a new clip, hold **Select** and double-press an empty pad.

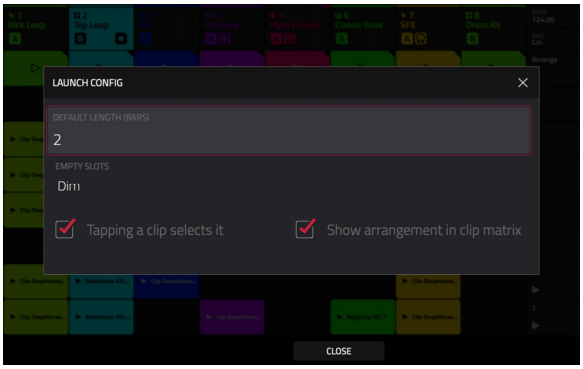
To copy a clip, hold **Copy** and press the pad you want to copy. Keep holding **Copy** and press the pad where you want to copy the clip.

To delete a clip, hold **Delete** and press the pad you want to delete.

To set the quantization of launching clips, hold **Shift** and press one of the **Track Select** buttons. The time division values are printed beneath them.

Launch Configuration

Press and hold **Shift** and press the **Launch/Config** button to open the Launch Configuration window.



Use the **Default Length (Bars)** field to set the default length of new clips in bars.

Use the **Empty Slots** field to set the appearance of the **clip launch pads** that do not have a clip loaded.

Check **Tapping a clip selects it** to automatically select a clip for editing when tapped. When unchecked, tapping a clip will only launch it.

Check **Show arrangement in clip matrix** to enable the Arrangement row at the top of the clip matrix.

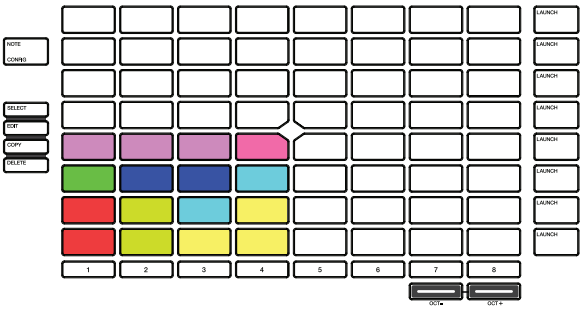
Note Mode

Note Mode is used for playing drum kits or melodic tracks like keygroups or plugins.

To enter Note Mode, press the **Note** button while a drum, keygroup, plugin, MIDI or CV track is selected. The appearance of the clip launch pads will change depending on the type of track selected. When a drum track is selected, the clip launch pads will appear in **Drum Note Mode**; when a keygroup, plugin, MIDI or CV track is selected, the clip launch pads will appear in **Melodic Note Mode**.

Drum Note Mode

In Drum Note Mode, each quadrant of clip launch pads can be used like a traditional 4x4 drum pad layout to play samples. The image to the right shows a traditional layout when using Drum Note Mode.



In Drum Note Mode, you can do the following:

To play a sample, press any of the lit clip launch pads.

To change pad banks, hold **Shift** and press the **Track Assign** buttons labeled **Oct-** and **Oct+**.

To select a pad, hold **Select** and press it.

To edit a sample in Track Edit Mode, hold **Edit** and press a pad.

To create a keygroup from a sample, hold **Shift+Edit** and press a pad. The keygroup will be created on a new track automatically.

To copy a sample, hold **Copy** and press the pad you want to copy. Keep holding **Copy** and press the pad where you want to copy the sample.

To delete a pad, hold **Delete** and press the pad you want to delete.

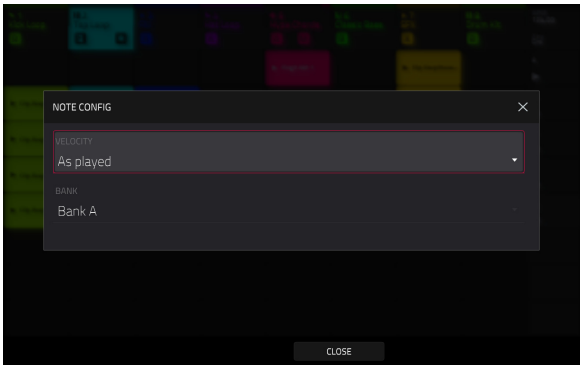
To mute a pad, hold **Mute** and press the pad you want to mute.

To solo a pad, hold **Solo** and press the pad you want to solo.

To set the quantization of launching clips, hold **Shift** and press one of the **Track Select** buttons. The time division values are printed beneath them.

Drum Note Configuration

Press and hold **Shift** and press the **Note/Config** button to open the **Drum Note Configuration** window, where you can adjust the settings of the drum pads.

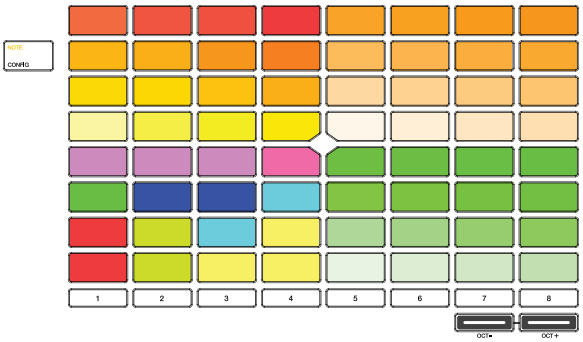


Use the **Velocity** field to set the velocity level of the drum pads. Select **As Played** for responsive velocities, or select **Half level** or **Full level** for fixed level velocities.

Use the **Bank** field to select the drum bank currently in view in the bottom left quadrant.

16 Levels Drum Note Mode

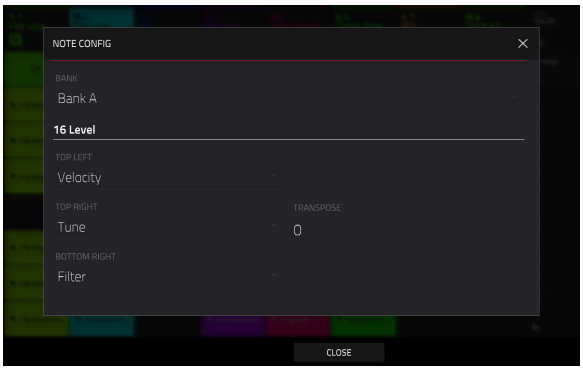
In 16 Levels Drum Note Mode, the bottom-left quadrant of clip launch pads can be used like a traditional 4x4 drum pad layout just like Drum Note Mode. The other three quadrants, however, can be set to control a selectable parameter that is fixed at values that increase as the pad numbers increase (e.g., Pad 1 is the minimum, Pad 16 is the maximum), regardless of how hard you press them.



To enter 16 Level mode, select a drum track and press **Note** until **16 Level** appears on the screen.

16 Level Drum Note Configuration

While in 16 level mode, press and hold **Shift** and press the **Note/Config** button to open the **Drum Note Configuration** window. In addition to the standard Drum Note Configuration settings mentioned above, you can use this to adjust what the 16 level quadrants control.



Use the **Top Left**, **Top Right**, and **Bottom Right** fields to set what type of 16 Level control is used in each quadrant:

Velocity: The sample velocity increases from lowest (7) to highest (127).

Tune: The sample tuning increases from the lowest pitch to highest pitch. By default, the first pad in the quadrant is the base pitch and the next 12 pads increase by one semitone each. Use the **Transpose** field to transpose the original sample down up to 12 semitones for increased range.

Filter: The cutoff value for the filter increases from lowest to highest. You can set the filter type for the pad in Track Edit mode.

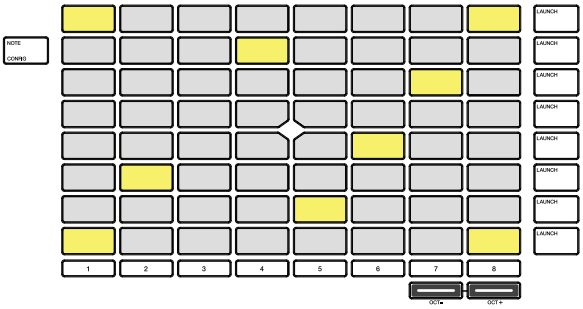
Layer: Each row of four pads covers a range of velocity from lowest to highest: 0-31, 32-64, 65-96 and 97-127. Pads with multiple samples will play back each layer according to the **Velocity Start** and **Velocity End** settings for each layer.

Attack: The attack envelope of the sample increases from lowest to highest.

Decay: The decay envelope of the sample increases from lowest to highest.

Melodic Note Mode

In Melodic Note Mode, the clip launch pads can be used like a traditional keyboard controller to play melodic notes and chords. For instance, the image to the right shows the clip launch pads set to play a scale in Melodic Note Mode. The pads with bright colors are the root notes of the scale, and the white pads in between are the other degrees of the scale.

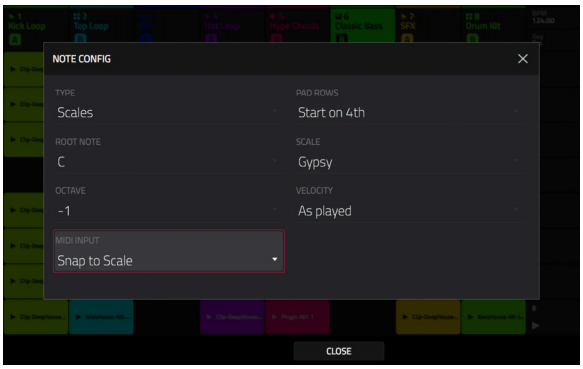


To play a note, press a clip launch pad.

To change the starting octave, hold **Shift** and press the **Track Assign** buttons marked **Oct-/Oct+**.

Melodic Note Configuration

Press and hold **Shift** and press the **Note/Config** button to open the **Melodic Note Configuration** window, where you can adjust the settings of how the notes or chords are laid out on the clip launch pads.

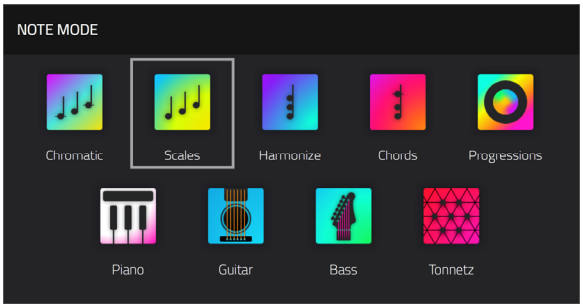


Use the **Type** selector to determine what will be mapped over the pads:

- **Chromatic**: Each pad is assigned a note, ascending by one semitone with each pad.
- **Scales**: Each pad is assigned a note, ascending by one scale degree with each pad.
- **Harmonize**: Each pad is assigned a chord, with the root note ascending by one scale degree with each pad. All available chords will play in the key determined by the **Scale**.
- **Chords**: Each pad is assigned a chord, with the root note ascending by one scale degree with each pad. You can play any chord type regardless of the key determined by the **Scale**. Essentially, this is like the Harmonize setting but with more options to play chords out of the set key.
- **Progressions**: Each pad is assigned a chord in a chord progression. You can play the pads in (or out of) order to construct songs quickly. The available chords are determined by the **Progression** field.
- **Tonnetz**: Each pad is assigned a note, ascending by a perfect fifth (7 semitones) going left to right along each row of pads, and ascending by a minor third (3 semitones) going from bottom to top along each column of pads.
- **Guitar**: The bottom six rows of pads are organized like a six-string guitar, with notes ascending E-A-D-G-B-E from bottom to top in the first column of pads, and ascending by one semitone with each pad in each row.
- **Bass**: The bottom six rows of pads are organized like a six-string bass, with notes ascending B-E-A-D-G-B from bottom to top in the first column of pads, and ascending by one semitone with each in pad in each row.
- **Piano**: Every two rows of clip-launch pads are organized like the traditional white-and-black keys layout of a piano, with the lower row representing the white keys and the upper row representing the black keys.

Note: You can also press and hold the **Note** button while in Note Mode to quickly select a Type on the display.

Note: For Guitar, Bass and Piano types, changing the Root Note or Scale will not affect the layout of notes on the pads, but will change the highlighted root and scale notes according to the selection.



Use the **Pad Rows** field to determine how the notes are laid out on Force's 8x8 pad grid:

Continuous	Start on 5th	Start on 3rd
Start on root	Start on 4th	Start on 2nd

Use the **Base Note** and **Octave** fields to set the starting point of the scale (pitch and register). The available notes are all chromatic notes across the range of the pads. The pad that's assigned the root note will be lit differently to indicate where the scale starts in each octave.

Use the **Scale** field to set the scale or mode based on the root note (this is disabled when **Type** is set to **Progressions**). The available scales are:

Major	Blues	Major Bebop	Lydian
Natural Minor	Flamenco	Whole Tone	Mixolydian
Harmonic Minor	Gypsy	Chromatic	Aeolian
Pentatonic Major	Hungarian Gypsy	Dorian	Locrian
Pentatonic Minor	Persian	Phrygian	

Use the **Velocity** field to set the velocity of the pads when played:

As played	26%	53%	80%
6%	33%	60%	86%
13%	40%	66%	93%
20%	Half	73%	Full

Use the **Scale Chord** and **Chromatic Chord** fields to determine what chord type will play when pressing a pad. The chord will use those scale degrees based off of the pad's root note. You can use this only when the **Type** is set to **Harmonize** or **Chords**.

When set to **Harmonize**, the available **Scale Chords** are:

1-3-5 (major/minor)	1-3-5-7 (major7/minor7)
1-4-5 (sus4)	1-3-5-7b (dominant)
1-2-5 (sus2)	

When set to **Chords**, the available **Chromatic Chords** are:

Major	Major7	Augmented
Minor	Minor7	Diminished
Sus2	Major9	
Sus4	Minor9	

Use the **MIDI Input** field to restrict the recorded notes to a set scale. See ***Addenda*** > ***Updates in Force 3.0.3*** > ***New Features*** > ***MIDI Input Snap to Scale*** to learn more.

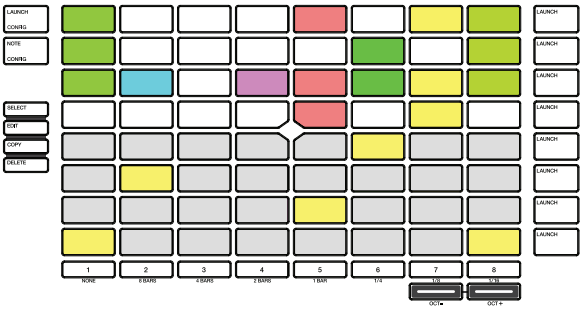
Launch & Note Mode

In addition to using the entire 8x8 pad matrix for Launch Mode or Note Mode, you can split the rows of clip launch pads into half Launch Mode and half Note Mode.

To enter Launch & Note Mode, press the **Launch** and **Note** buttons at the same time.

The top four rows of pads can be used for launching clips, and the bottom four rows of pads can be used for melodic or drum note playing, depending on the track selected.

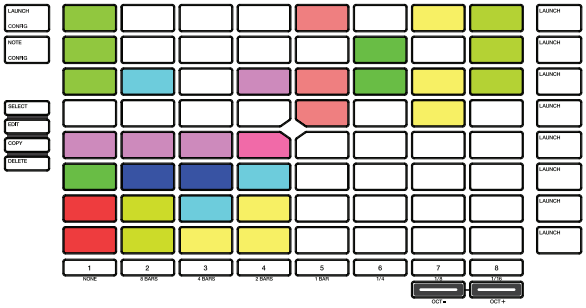
In this mode, you can perform any of the same actions that you would in either ***Launch Mode*** or ***Note Mode***.



Launch & Note Mode
(Melodic Note Mode)

Press and hold the **Note** button to adjust the **Timing Correct** value (for Drum tracks) or **Note Mode** scale type (for Plugin, MIDI and Keygroup tracks).

Hold **Shift** and press the **Launch** or **Note** button to open its respective settings.

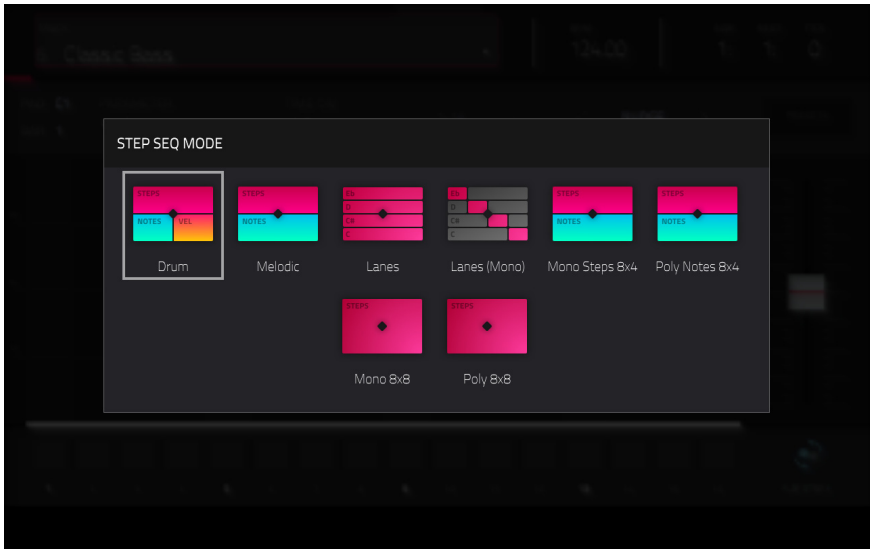


Launch & Note Mode
(Drum Note Mode)

Step Sequencer

The Step Sequencer pad mode is used to create or edit clips by using the pads as "step buttons," simulating the experience of a traditional step-sequencer-style drum machine. This pad mode is often used in conjunction with the **Step Sequencer** mode on the display, but can be used while any mode is on the display.

To enable Step Sequencer pad mode, press the **Step Seq** button. Each time you press this button, the pads will cycle through the different modes. See below for more details.



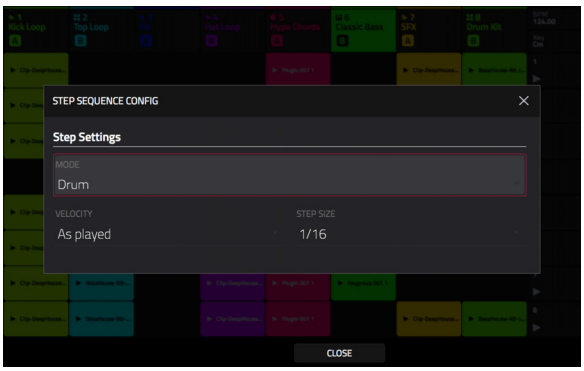
Press and hold the **Step Seq** button to do any of the following:

Quickly select a Step Sequencer Mode using the **Step Seq Mode** window that appears.

Use the top row(s) of pads to select the active page of the step sequencer. The number of pages available depends on the selected step size and the number of bars in the clip.

Use the bottom row of pads to select the beat division for the **Step Size**. The right-most pad can be used to enable or disable **Triplet** beat divisions.

Hold **Shift** and press **Step Seq/Config** button to open the Step Sequence Configuration window. In addition to these common settings, some Step Sequencer modes have additional settings available in this window, described below.

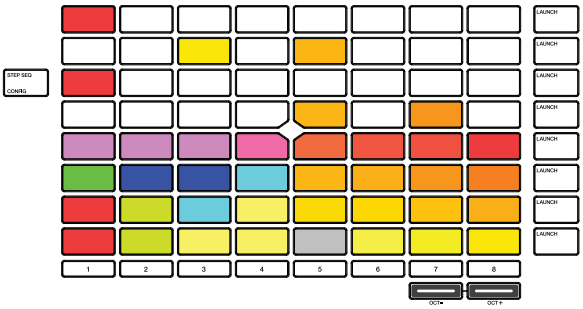


Use the **Mode** field to set the Step Sequencer pad mode: **Drum**, **Melodic** or **Lanes**.

Use the **Velocity** field to set the velocity of new steps being entered. Select **As Played** for responsive velocity, or select one of the preset levels for fixed velocity of all steps.

Use the **Step Size** field to set the beat division for each step.

Drum Mode



In Drum Step Sequencer Mode, the lower-left quadrant of pads is used like a traditional 4x4 drum pad layout to play samples.

Press a **clip launch pad** to select it. Doing so will also play back the pad's sample. If you would like to select a pad without sounding the sample, hold **Select** and press the pad.

Hold **Shift** and press the **Track Assign** buttons marked **Oct-/ Oct+** to change the active pad bank.

The lower-right quadrant of pads is used to quickly set the velocity of new steps.

Press the lower-left pad to select **As Played** for responsive velocity, or press the other pads to set a fixed velocity from low (**6%**) to high (**Full**), going left-to-right.

The top 4 rows of pads represent the steps in the clip. The number of pads available depends on the **Step Size** setting.

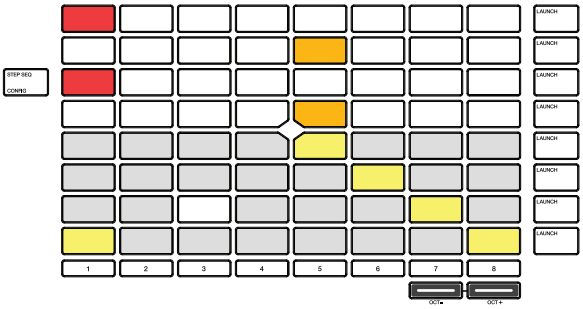
Press a pad to insert a step at that beat for the selected drum sample. The top 4 rows will be lit dimly with the color of the selected drum sample.

Press and hold **Clip Select** and tap one of the pads containing an event to select a step event.

Press and hold **Shift** and **Clip Select** at the same time, and then tap the pads containing events to select multiple step events.

Hold **Shift** and press **Step Seq** while in Drum Step Sequencer Mode to configure its settings. These are the same as mentioned ***above***.

Melodic Mode



In Melodic Step Sequencer Mode, the bottom 4 rows of the pads are used like **Melodic Note Mode**, with the pads representing notes in a scale.

Press a **clip launch pad** to select a note. The currently selected note will be lit bright white.

Hold **Shift** and press the **Track Assign** buttons marked **Oct-/ Oct+** to change the octave.

The top 4 rows of pads represent the steps in the clip. The number of pads available depends on the **Step Size** setting.

Press a pad to insert a step at that beat for the selected note.

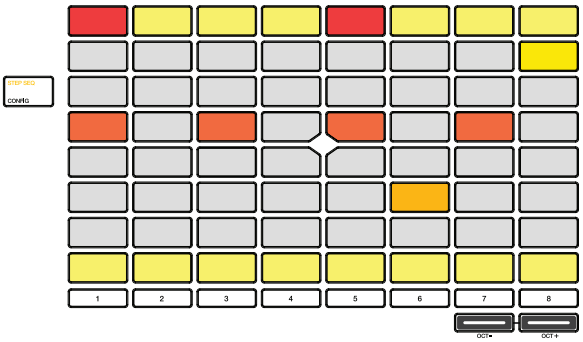
Press and hold **Clip Select** and tap one of the pads containing an event to select a step event.

Press and hold **Shift** and **Clip Select** at the same time, and then tap the pads containing events to select multiple step events.

Hold **Shift** and press **Step Seq** to open the **Configuration** window. In addition to the fields mentioned ***above***:

Use the **Note Settings** fields to set configure the **Root Note**, **Scale**, starting **Octave**, and **Filter Input**.

Lanes Mode



In Lanes Step Sequencer Mode, each column of pads represents one beat division, and each row of pads represents one drum sample in a drum bank or one note in a scale, depending on the type of track selected.

Press a **clip launch pad** to insert a step at that beat division for the respective drum sample or note.

Hold **Shift** and press the **Track Assign** buttons marked **Oct-/ Oct+** to change the octave or starting pad.

Press and hold **Clip Select** and tap one of the pads containing an event to select a step event.

Press and hold **Shift** and **Clip Select** at the same time, and then tap the pads containing events to select multiple step events.

Hold Shift and press **Step Seq** to open the **Configuration** window. In addition to the fields mentioned ***above***:

- When a drum track is selected:

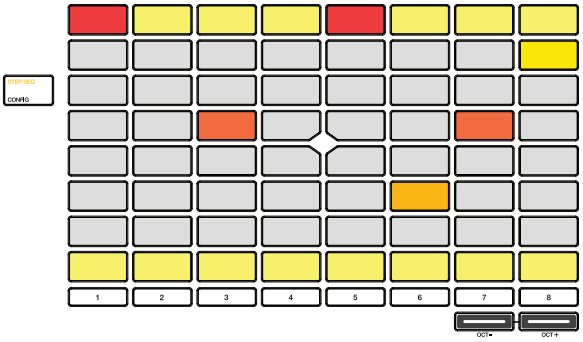
  Use the **Base Pad** field to set the starting pad for the 8 rows of clip launch pads.

- When a keygroup, plugin, MIDI or CV track is selected:

  Use the **Base Note** field to set the starting note for the 8 rows of clip launch pads.

  Use the **Note Settings** fields to set configure the **Root Note**, **Scale**, and **Filter Input**.

Lanes (Mono) Mode



Similar to Lanes Mode, in Lanes (Mono) Mode, each column of pads represents one beat division, and each row of pads represents one drum sample in a drum bank or one note in a scale, depending on the type of track. Unlike Lanes mode, however, only one note may be entered at a time.

Press a clip launch pad to insert a step at that beat division for the respective drum sample or note. If you press another clip launch pad in the same column, the previous note will be removed.

Hold **Shift** and press the **Track Assign** buttons marked **Oct-/Oct+** to change the octave or starting pad.

Press and hold **Clip Select** and tap one of the pads containing an event to select a step event.

Press and hold **Shift** and **Clip Select** at the same time, and then tap the pads containing events to select multiple step events.

Hold Shift and press **Step Seq** to open the **Configuration** window. In addition to the fields described ***above***:

- When a drum track is selected:

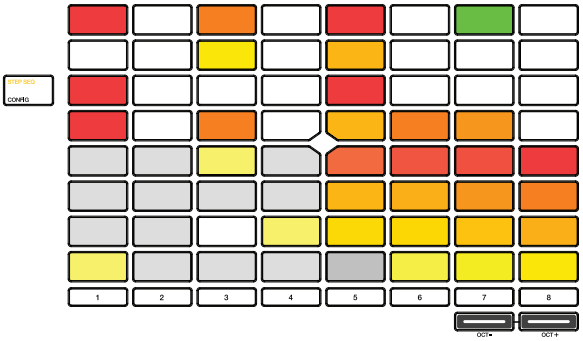
  Use the **Base Pad** field to set the starting pad for the 8 rows of clip launch pads.

- When a keygroup, plugin, MIDI or CV track is selected:

  Use the **Base Note** field to set the starting note for the 8 rows of clip launch pads.

  Use the **Note Settings** fields to set configure the **Root Note**, **Scale**, and **Filter Input** setting.

Mono Steps 8x4 Mode



In Mono Steps 8x4 Mode, the lower-left quadrant of pads represents notes in a scale.

Press a **clip launch pad** to select a note. The currently selected note will be lit bright white.

Hold **Shift** and press the **Track Assign** buttons marked **Oct-/Oct+** to change the octave or starting pad.

The lower-right quadrant of pads is used to quickly set the velocity of new steps.

Press the lower-left pad to select **As Played** for responsive velocity, or press the other pads to set a fixed velocity from low (**6%**) to high (**Full**), going left-to-right.

The top 4 rows of pads represent the steps in the clip. The number of pads available depends on the **Step Size** setting.

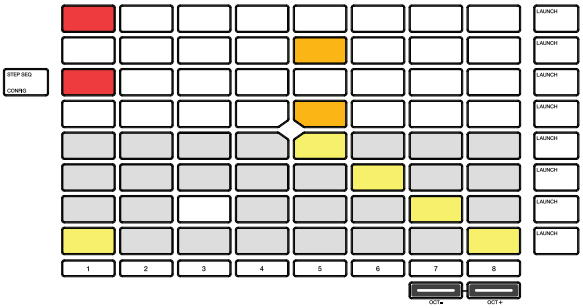
Press a pad to insert a step at that beat for the selected note. Only one note can be added per step.

Press and hold **Clip Select** and tap one of the pads containing an event to select a step event.

Press and hold **Shift** and **Clip Select** at the same time, and then tap the pads containing events to select multiple step events.

Hold **Shift** and press **Step Seq** while in Mono Steps 8x4 Sequencer Mode to configure its settings. These are the same as mentioned ***above***.

Poly Notes 8x4 Mode



Similar to Melodic Step Sequencer Mode, in Poly Notes 8x4 Mode, the bottom 4 rows of the pads are used like **Melodic Note Mode**, with the pads representing notes in a scale.

Press a **clip launch pad** to select a note. The currently selected note will be lit bright white.

Hold **Shift** and press the **Track Assign** buttons marked **Oct-/Oct+** to change the octave.

The top 4 rows of pads represent the steps in the clip. The number of pads available depends on the **Step Size** setting. Poly Notes 8x4 Mode differs from Melodic Mode in that only steps for the selected note are shown in these rows, rather than all steps with any note.

Press a pad to insert a step at that beat for the selected note.

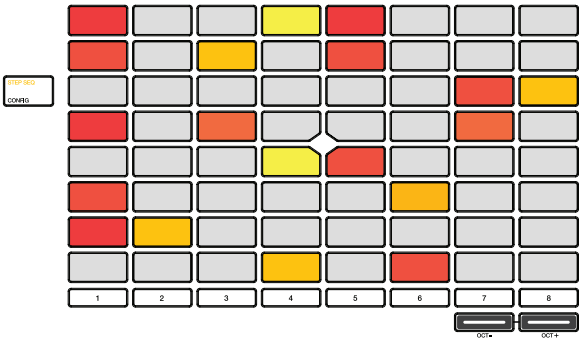
Press and hold **Clip Select** and tap one of the pads containing an event to select a step event.

Press and hold **Shift** and **Clip Select** at the same time, and then tap the pads containing events to select multiple step events.

Hold **Shift** and press **Step Seq** to open the **Configuration** window. In addition to the fields mentioned ***above***:

Use the **Note Settings** fields to set configure the **Root Note**, **Scale**, starting **Octave**, and **Filter Input**.

Mono 8x8 Mode



In Mono 8x8 Mode, the entire 8x8 pad grid represents one beat division in the current clip. Like Mono Lanes mode, however, only one note may be entered at a time. This mode can also be useful for inputting step automation.

Press a clip launch pad to insert a step at that beat division for the respective drum sample or note. If you press another clip launch pad in the same column, the previous note will be removed.

Press and hold **Note** to temporarily switch the pad launch matrix to Note mode. While holding, press a pad to select a new note.

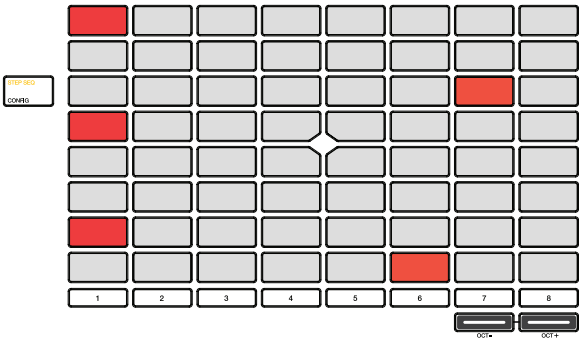
Press and hold **Clip Select** and tap one of the pads containing an event to select a step event.

Press and hold **Shift** and **Clip Select** at the same time, and then tap the pads containing events to select multiple step events.

Hold Shift and press **Step Seq** to open the **Configuration** window. In addition to the fields described ***above***:

Use the **Note Settings** fields to set configure the **Root Note**, **Scale**, and **Filter Input** setting.

Poly 8x8 Mode



In Poly 8x8 Mode, the entire 8x8 pad grid represents one beat division in the current clip. Unlike Mono 8x8 mode, however, multiple notes may be entered at a time.

Press a clip launch pad to insert a step at that beat division for the respective drum sample or note. If you press another clip launch pad in the same column, the previous note will be removed.

Press and hold **Note** to temporarily switch the pad launch matrix to Note mode. While holding, press a pad to select a new note.

Press and hold **Clip Select** and tap one of the pads containing an event to select a step event.

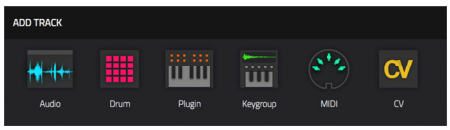
Press and hold **Shift** and **Clip Select** at the same time, and then tap the pads containing events to select multiple step events.

Hold **Shift** and press **Step Seq** to open the **Configuration** window. In addition to the fields mentioned ***above***:

Use the **Note Settings** fields to set configure the **Root Note**, **Scale**, starting **Octave**, and **Filter Input**.

Tracks

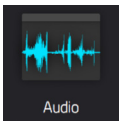
About Tracks



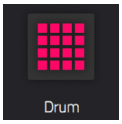
Each clip you create within a project is routed through a **track**. There are six types of tracks, each of which determines how the clip sounds or what it is used for. A single project can hold up to 128 tracks.

This chapter covers how to create each track type.

To learn about editing your tracks to your preference, see the ***Modes*** > ***Track Edit Mode*** chapter.

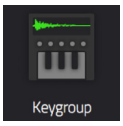


An **Audio track** lets you record audio from an external source or by resampling another track to create a clip. See ***Audio Tracks*** for more information.

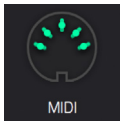


A **drum track** uses one or more samples as its sound source. It contains (**1**) a list of samples and (**2**) the settings for each sample (i.e., pad assignments, loop points, pitch tuning, effects, etc.). Drum tracks are used mostly for creating drum parts and quickly and easily assigning samples to pads. See ***Drum Tracks*** for more information.

A **plugin track** contains an instance of a plugin through which you can send your track's MIDI data. See ***Plugin Tracks*** for more information.



A **keygroup track** uses one or more samples as its sound source. It contains (**1**) a list of samples and (**2**) the settings for each sample (i.e., pitch tuning, effects, etc.). Keygroup tracks are used to play samples chromatically with a MIDI keyboard or the Force pads. See ***Keygroup Tracks*** for more information.



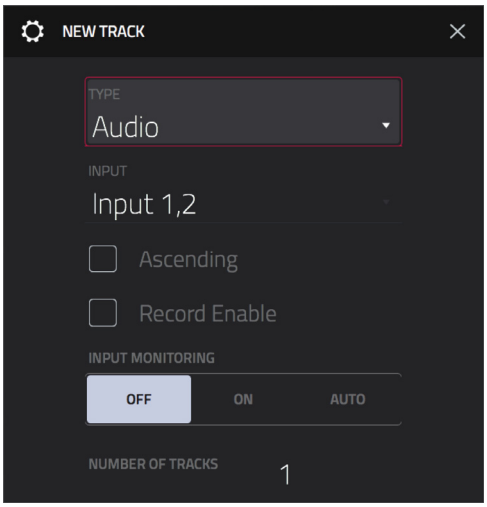
A **MIDI track** lets you send your track's MIDI data to an external MIDI device like a synth or drum machine. See ***MIDI Tracks*** for more information.

A **CV track** lets you send your track's MIDI data to an external device that uses control voltage (CV), like a synth. See ***CV Tracks*** for more information.

Audio Tracks

An audio track uses recorded or imported samples as its sound source.

To create an audio track:



1. Press **Matrix** to enter Matrix Mode.
2. At the top of the screen, press the **+ icon** to add a new track.

   If you cannot see the **+ icon**, press the **right cursor** to move the matrix view until it is shown.
3. Tap **Audio** to instantly create a new track. For more track options, tap the **Advanced** button and then select **Audio** as the track **type** in the window that appears.

   Use the **Input** field to select which inputs the audio track will use.

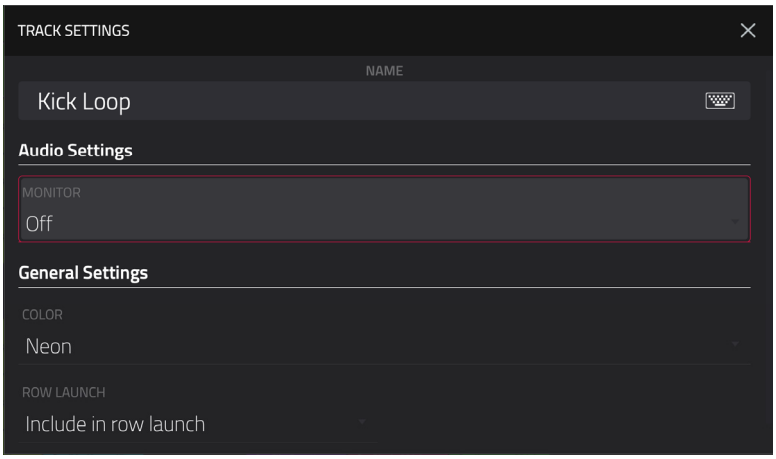
   Check the **Ascending** box to determine if the channel numbers of the input sources will ascend across the new audio tracks you create. When checked, the first new audio track will use the input source you set above (e.g., **Input 1**), the second new audio track will use the next input source (e.g., **Input 2**), etc. When unchecked, all of the new audio tracks you create in this instance will use the same input source. This feature is relevant only if you are creating more than one new audio track (determined by **Number of Tracks** below).

   Check the **Record Enable** box to set the new track to be automatically record enabled.

   Use the **Input Monitoring** field to set the monitoring behavior: **Off**, **On**, or **Auto**.

   If you would like to create more than one audio track at once, use the **Number of Tracks** field to select how many tracks you would like to create.
4. Tap **Do It** to confirm, or tap **Close**, the **X** or outside the window to go back. A new drum track will be created and appended with a number (e.g., **Audio 002**).

Alternatively, press and hold the **track select** button of an unused track, then tap **Audio**.



To edit the track settings, double-tap the **track name** at the top of the screen to open the **Track Settings** window.

To set the monitoring behavior of the track, tap the **Monitor** field and use **data dial** or **-/+** buttons to scroll through the three available states:

When set to **Auto**, you will hear incoming audio while the track is record-enabled only.

When set to **In**, you will hear incoming audio whether or not the track is record-enabled.

When set to **Off**, you will never hear any incoming audio.

To rename the track, tap the track **name** field and use the virtual keyboard that appears to enter a new name, and then tap **Do It** to confirm or the gray bar at the top of the screen to cancel.

To change the track color, tap the **color** field and use the **data dial** or **-/+** buttons to scroll through the options. You can also double-tap the **color** field and then swipe up or down, or use the **data dial** or **-/+** buttons to scroll through the options.

To change the launch behavior of clips in the track, tap the **Row Launch** field and use **data dial** or **-/+** buttons to scroll through the options:

When set to **Include in row launch**, clips from this track will be triggered when launching the entire row using the **scene launch** buttons.

When set to **Exclude from row launch**, clips in this track will not be launched with the rest of the row when triggering a scene. This is useful when using an a capella track, for example.

Drum Tracks

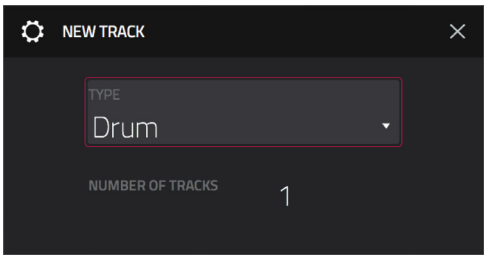
A drum track uses one or more samples as its sound source. It contains (**1**) a list of samples and (**2**) the settings for each sample (i.e., pad assignments, loop points, pitch tuning, effects, etc.). Drum tracks are used mostly for creating drum parts and quickly and easily assigning samples to pads.

To create a drum track:

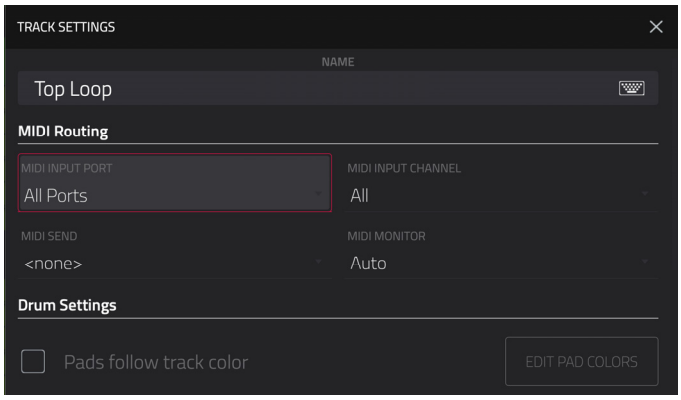
1. Press **Matrix** to enter Matrix Mode.
2. At the top of the screen, press the **+ icon** to add a new track.

   If you cannot see the **+ icon**, press the **right cursor** to move the matrix view until it is shown.
3. Tap **Drum** to instantly create a new track. For more track options, tap the **Advanced** button, and then select **Drum** as the track **type** in the window that appears.

   If you would like to create more than one drum track at once, use the **Number of tracks** field to select how many tracks you would like to create.
4. Tap **Do It** to confirm, or tap **Close**, the **X** or outside the window to go back. A new drum track will be created and appended with a number (e.g., **Drum 002**).



Alternatively, press and hold the **track select** button of an unused track, then tap **Drum**.



To edit the track settings, double-tap the **track name** at the top of the screen to open the **Track Settings** window.

To rename the track, tap the track **name** field and use the virtual keyboard that appears to enter a new name, and then tap **Do It** to confirm or the gray bar at the top of the screen to cancel.

To edit the MIDI routing for the track, use the **MIDI Input Port**, **MIDI Input Channel**, **MIDI Send** fields and use **data dial** or **-/+** buttons to scroll through the options.

MIDI Input Port: Select the MIDI port to receive MIDI data from. When set to **All Ports**, the track will receive all incoming MIDI Data from any connected port. To view and edit the available ports, go to ***Preferences*** > ***MIDI / Sync***.

MIDI Input Channel: Sets the MIDI Channel to receive MIDI data from. Select **All** to receive from all MIDI channels, or select **1–16**.

MIDI Send: Sets where the MIDI data is sent. You can use this to send the MIDI data from one track to another track.

To set the monitoring behavior of the track, tap the **MIDI Monitor** field and use **data dial** or **-/+** buttons to scroll through the four available states:

Off: The track's MIDI input is not monitored, and playback of recorded events will be heard. This setting is useful when using keyboards with Local Control active.

In: The track's MIDI input is always monitored regardless of the track's Record Arm state, and playback from recorded events will not be heard.

Auto: The track's MIDI input is monitored when the track is record armed, and playback of recorded events will be heard.

Merge: The track's MIDI input is always monitored, and playback of recorded events will be heard.

To edit the pad colors, uncheck the **Pads follow track color** field, then tap the **Edit Pad Colors** button that appears. (See ***Modes*** > ***Pad Color Mode*** to learn more about editing pad colors).

To change the track color, tap the **color** field and use the **data dial** or **-/+** buttons to scroll through the options. You can also double-tap the **color** field and then swipe up or down, or use the **data dial** or **-/+** buttons to scroll through the options.

To change the launch behavior of clips in the track, tap the **Row Launch** field and use **data dial** or **-/+** buttons to scroll through the options:

When set to **Include in row launch**, clips from this track will be triggered when launching the entire row using the **scene launch** buttons.

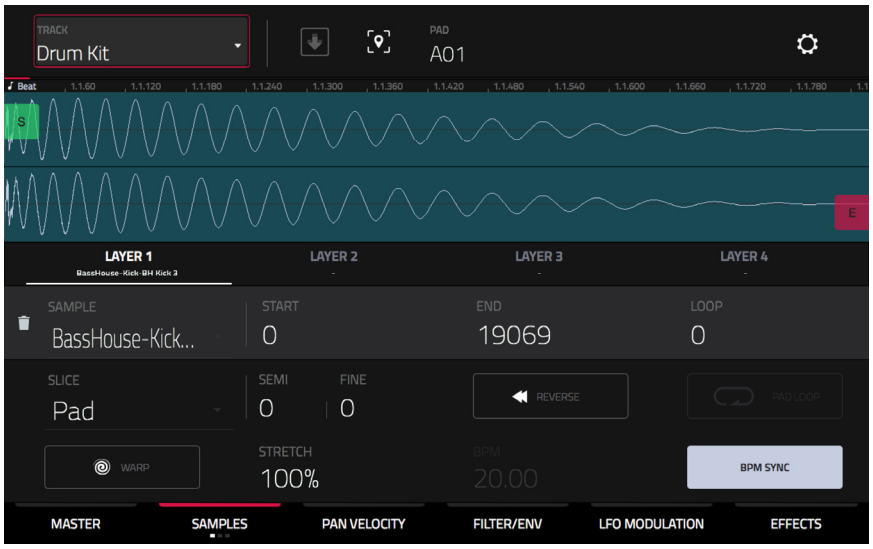
When set to **Exclude from row launch**, clips in this track will not be launched with the rest of the row when triggering a scene. This is useful when using an a capella track, for example.

To load a kit into a drum track:

1. Press **Load** or press **Menu** and tap **Browser** to show the Browser.
2. Find and select a kit, and then tap **Load** to load it to the track. Repeat this for any other kits or samples you want to load into the project. (See ***Modes*** > ***Browser*** to learn more about using the Browser specifically.)

Tip: Remember that a drum kit has 128 pads total—16 pads across eight banks.

Alternatively, assign samples in a drum track in Track Edit Mode in one of these two ways:



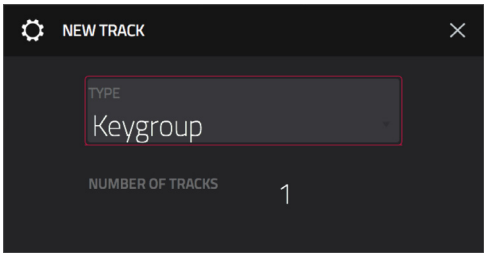
1. Press **Menu**, and then tap **Track Edit** to enter Track Edit Mode. Alternatively, press and hold **Shift** and press **Clip**.
2. Tap the **Samples** tab. This lets you view the samples assigned to all four layers of the current pad as well as tuning and level parameters for each layer.
3. Tap a pad to select it (and play its assigned samples, if any).
4. Tap one of the **Layer** fields under the sample waveform to select a layer. Tap the **Sample** field, and then use the **data dial** or **–/+** buttons to select a sample. Alternatively, double-tap the field for a layer, and then tap a sample to select it.

1. Press **Menu**, and then tap **Track Edit** to enter Track Edit Mode. Alternatively, press and hold **Shift** and press **Clip**.
2. Tap the **Pan Velocity** tab. This lets you view the samples assigned to all four layers of the current pad as well as panning and velocity ranges of each layer.
3. Tap a pad to select it (and play its assigned samples, if any).
4. Tap one of the **Layer** fields to select a layer, and then use the **data dial** or **–/+** buttons to select a sample. Alternatively, double-tap the field for a layer, and then tap a sample to select it.

Keygroup Tracks

A keygroup track uses one or more samples as its sound source. It contains (**1**) a list of samples and (**2**) the settings for each sample (i.e., pitch tuning, effects, etc.). Keygroup tracks are used to play samples chromatically with a MIDI keyboard or the Force pads.

To create a keygroup track:

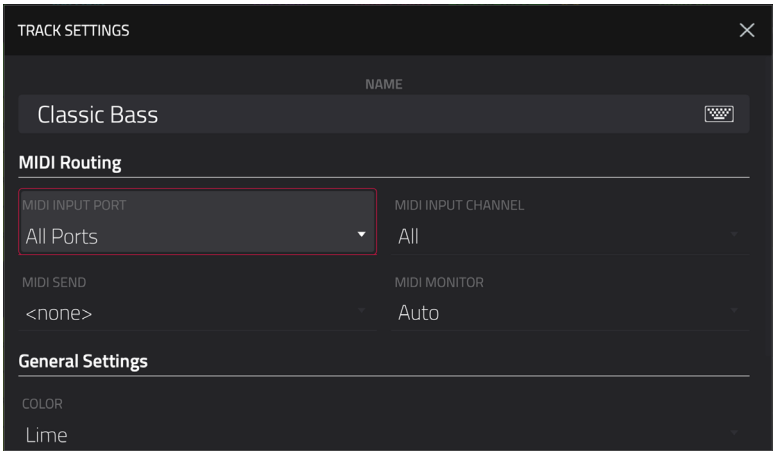


1. Press **Matrix** to enter Matrix Mode.
2. At the top of the screen, press the **+ icon** to add a new track.

   If you cannot see the **+ icon**, press the **right cursor** to move the matrix view until it is shown.
3. Tap **Keygroup** to instantly create a new track. For more track options, tap the **Advanced** button and select **Keygroup** as the track **type** in the window that appears.

   If you would like to create more than one keygroup track at once, use the **Number of tracks** field to select how many tracks you would like to create.
4. Tap **Do It** to confirm, or tap **Close**, the **X** or outside the window to go back. A new keygroup track will be created and appended with a number (e.g., **Keygroup 002**).

Alternatively, press and hold the **track select** button of an unused track, then tap **Keygroup**.



To edit the track settings, double-tap the **track name** at the top of the screen to open the **Track Settings** window.

To rename the track, tap the track **name** field and use the virtual keyboard that appears to enter a new name, and then tap **Do It** to confirm or the gray bar at the top of the screen to cancel.

To edit the MIDI routing for the track, use the **MIDI Input Port**, **MIDI Input Channel**, **MIDI Send** fields and use **data dial** or **-/+** buttons to scroll through the options.

MIDI Input Port: Select the MIDI port to receive MIDI data from. When set to **All Ports**, the track will receive all incoming MIDI Data from any connected port. To view and edit the available ports, go to ***Preferences*** > ***MIDI / Sync***.

MIDI Input Channel: Sets the MIDI Channel to receive MIDI data from. Select **All** to receive from all MIDI channels, or select **1**–**16**.

MIDI Send: Sets where the MIDI data is sent. You can use this to send the MIDI data from one track to another track.

To set the monitoring behavior of the track, tap the **MIDI Monitor** field and use **data dial** or **-/+** buttons to scroll through the four available states:

Off: The track's MIDI input is not monitored, and playback of recorded events will be heard. This setting is useful when using keyboards with Local Control active.

In: The track's MIDI input is always monitored regardless of the track's Record Arm state, and playback from recorded events will not be heard.

Auto: The track's MIDI input is monitored when the track is record armed, and playback of recorded events will be heard.

Merge: The track's MIDI input is always monitored, and playback of recorded events will be heard.

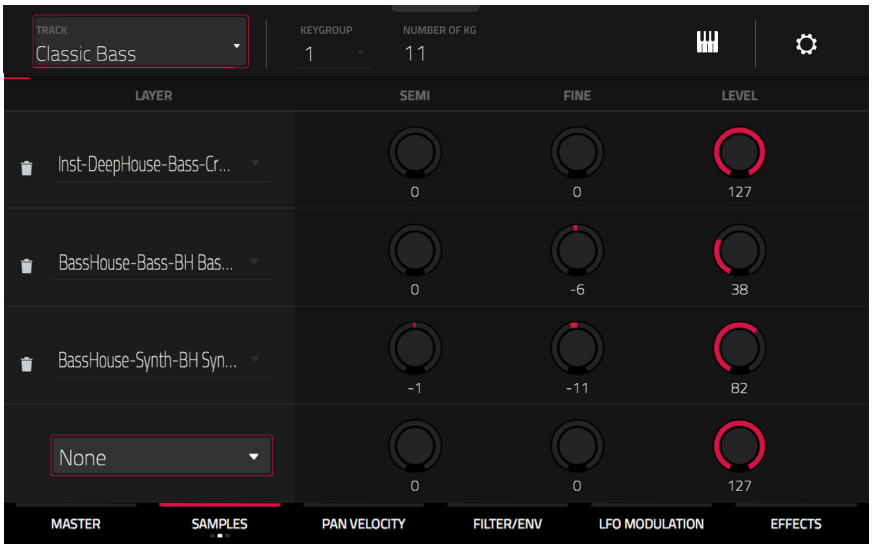
To change the track color, tap the **color** field and use the **data dial** or **-/+** buttons to scroll through the options. You can also double-tap the **color** field and then swipe up or down, or use the **data dial** or **-/+** buttons to scroll through the options.

To change the launch behavior of clips in the track, tap the **Row Launch** field and use **data dial** or **-/+** buttons to scroll through the options:

When set to **Include in row launch**, clips from this track will be triggered when launching the entire row using the **scene launch** buttons.

When set to **Exclude from row launch**, clips in this track will not be launched with the rest of the row when triggering a scene.

To transpose the keygroup track, tap the **transpose** field and use the **data dial** or **-/+** buttons to set the transposition amount.



To assign samples in a keygroup track:

1. Press **Menu**, and then tap **Track Edit** to enter Track Edit Mode. Alternatively, press and hold **Shift** and press **Clip**.
2. Tap **Samples**. This lets you view the samples assigned to all four layers of the current keygroup as well as tuning and level parameters for each layer.
3. Tap the **Number of KG** field, and then use the **data dial** or **–/+** buttons to set the number of keygroups in the track (**1**–**128**). Alternatively, double-tap the **Number of KG** field, and then use the numeric keypad on the screen.
4. Tap the **Keygroup** field, and then use the **data dial** or **–/+** buttons to select a keygroup. Alternatively, double-tap the **Keygroup** field, and then tap a keygroup to select it.
5. Tap the field for a layer, and then use the **data dial** or **–/+** buttons to select a sample. Alternatively, double-tap the field for a layer, and then tap a sample to select it.

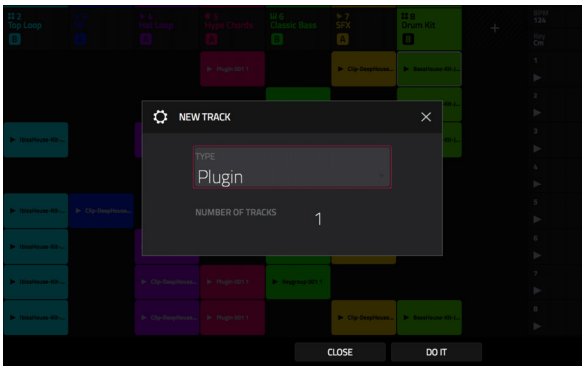
To create complex keygroup track, you can add more keygroups (up to 128). This is useful when working with multi-samples (e.g., when programming a real piano).

Tip: Remember that a keygroup track offers up to 128 keygroups, and each keygroup can hold up to four samples (Layers 1–4). This is a total of 512 samples.

Plugin Tracks

A plugin track contains an instance of a plugin through which you can send your track's MIDI data.

To create a plugin track:

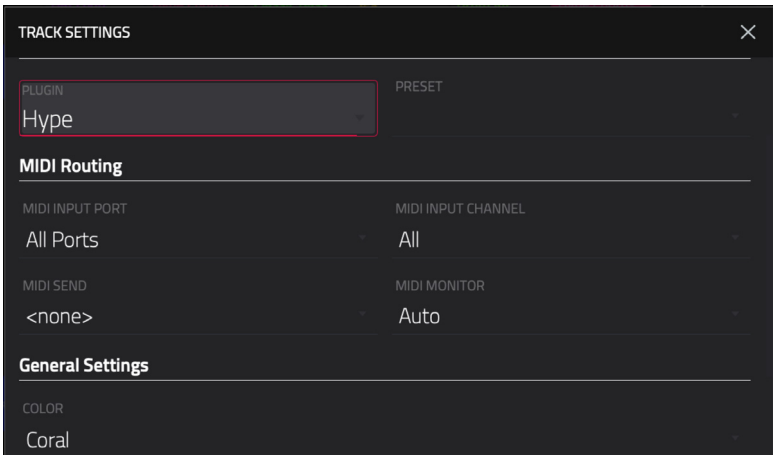


1. Press **Matrix** to enter Matrix Mode.
2. At the top of the screen, press the **+ icon** to add a new track.

   If you cannot see the **+ icon**, press the **right cursor** to move the matrix view until it is shown.
3. Tap **Plugin** to instantly create a new track. For more track options, tap the **Advanced** button and then select **Plugin** as the track **type** in the window that appears.

   If you would like to create more than one plugin track at once, use the **Number of tracks** field to select how many tracks you would like to create.
4. Tap **Do It** to confirm, or tap **Close**, the **X** or outside the window to go back. A new drum track will be created and appended with a number (e.g., **Plugin 002**).

Alternatively, press and hold the **track select** button of an unused track, then tap **Plugin**.



To edit the track settings, double-tap the **track name** at the top of the screen to open the **Track Settings** window.

To rename the track, tap the track **name** field and use the virtual keyboard that appears to enter a new name, and then tap **Do It** to confirm or the gray bar at the top of the screen to cancel.

To edit the MIDI routing for the track, use the **MIDI Input Port**, **MIDI Input Channel**, **MIDI Send** fields and use **data dial** or **-/+** buttons to scroll through the options.

MIDI Input Port: Select the MIDI port to receive MIDI data from. When set to **All Ports**, the track will receive all incoming MIDI Data from any connected port. To view and edit the available ports, go to ***Preferences*** > ***MIDI / Sync***.

MIDI Input Channel: Sets the MIDI Channel to receive MIDI data from. Select **All** to receive from all MIDI channels, or select **1**–**16**.

MIDI Send: Sets where the MIDI data is sent. You can use this to send the MIDI data from one track to another track.

To set the monitoring behavior of the track, tap the **MIDI Monitor** field and use **data dial** or **-/+** buttons to scroll through the four available states:

Off: The track's MIDI input is not monitored, and playback of recorded events will be heard. This setting is useful when using keyboards with Local Control active.

In: The track's MIDI input is always monitored regardless of the track's Record Arm state, and playback from recorded events will not be heard.

Auto: The track's MIDI input is monitored when the track is record armed, and playback of recorded events will be heard.

Merge: The track's MIDI input is always monitored, and playback of recorded events will be heard.

To change the track color, tap the **color** field and use the **data dial** or **-/+** buttons to scroll through the options. You can also double-tap the **color** field and then swipe up or down, use the **data dial** or **-/+** buttons to scroll through the options.

To change the launch behavior of clips in the track, tap the **Row Launch** field and use **data dial** or **-/+** buttons to scroll through the options:

When set to **Include in row launch**, clips from this track will be triggered when launching the entire row using the **scene launch** buttons.

When set to **Exclude from row launch**, clips in this track will not be launched with the rest of the row when triggering a scene.

To transpose the plugin track, tap the **transpose** field and use the **data dial** or **-/+** buttons to set the transposition amount.

To load a plugin to the track:

1. Double-tap the **track name** at the top of the screen to open the **Track Settings** window.
2. Double-tap the **Plugin** field. In the list that appears, tap the desired plugin. Alternatively, use the **data dial** or the **–/+** buttons to select a plugin.

   To sort your plugins by type or maker, tap **Type** or **Manufacturer**.
3. Tap **Select** to select the plugin, or tap **Close** to cancel.

   To select the MIDI channel the track will use, double-tap the **MIDI Ch** field. In the list that appears, tap the desired channel. Alternatively, use the **data dial** or the **–/+** buttons to select a channel.

   To select a preset in your plugin (if any), double-tap the **Preset** field. In the list that appears, tap the desired preset. Alternatively, use the **data dial** or the **–/+** buttons to select a preset.

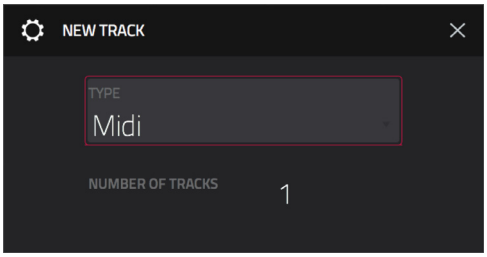
Alternatively, use the Browser to load a plugin:

1. Press **Load** or press **Menu** and tap **Browser** to show the Browser.
2. Find and select a plugin preset, and then tap **Load**. A new plugin track will be created if no other tracks exist, otherwise the currently selected track will be converted into a plugin track. Repeat this for any other plugins you want to load into the project. (See ***Modes*** > ***Browser*** to learn more about using the Browser specifically.)

MIDI Tracks

A MIDI track lets you send your track's MIDI data to an external MIDI device like a synth or drum machine.

To create a MIDI track:

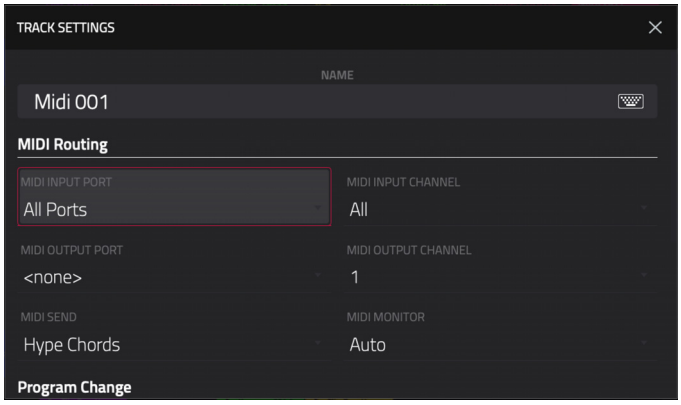


1. Press **Matrix** to enter Matrix Mode.
2. At the top of the screen, press the **+ icon** to add a new track.

   If you cannot see the **+ icon**, press the **right cursor** to move the matrix view until it is shown.
3. Tap **MIDI** to instantly create a new track. For more track options, tap the **Advanced** button and then select **Midi** as the track **type** in the window that appears.

   If you would like to create more than one MIDI track at once, use the **Number of tracks** field to select how many tracks you would like to create.
4. Tap **Do It** to confirm, or tap **Close**, the **X** or outside the window to go back. A new MIDI track will be created and appended with a number (e.g., **Midi 002**).

Alternatively, press and hold the **track select** button of an unused track, then tap **MIDI**.



To edit the track settings, double-tap the **track name** at the top of the screen to open the **Track Settings** window.

To rename the track, tap the track **name** field and use the virtual keyboard that appears to enter a new name, and then tap **Do It** to confirm or the gray bar at the top of the screen to cancel.

To edit the MIDI routing for the track, use the **MIDI Input Port**, **MIDI Input Channel**, **MIDI Send** fields and use **data dial** or **-/+** buttons to scroll through the options.

MIDI Input Port: Select the MIDI port to receive MIDI data from. When set to **All Ports**, the track will receive all incoming MIDI Data from any connected port. To view and edit the available ports, go to ***Preferences*** > ***MIDI / Sync***.

MIDI Input Channel: Sets the MIDI Channel to receive MIDI data from. Select **All** to receive from all MIDI channels, or select **1**–**16**.

MIDI Output Port: Select the MIDI port to send MIDI data to. To view and edit the available ports, go to ***Preferences*** > ***MIDI / Sync***.

MIDI Output Channel: Sets the MIDI Channel to send MIDI data to. Select **All** to receive from all MIDI channels, or select **1**–**16**.

MIDI Send: Sets where the MIDI data is sent. You can use this to send the MIDI data from one track to another track.

To set the monitoring behavior of the track, tap the **MIDI Monitor** field and use **data dial** or **-/+** buttons to scroll through the four available states:

Off: The track's MIDI input is not monitored, and playback of recorded events will be heard. This setting is useful when using keyboards with Local Control active.

In: The track's MIDI input is always monitored regardless of the track's Record Arm state, and playback from recorded events will not be heard.

Auto: The track's MIDI input is monitored when the track is record armed, and playback of recorded events will be heard.

Merge: The track's MIDI input is always monitored, and playback of recorded events will be heard.

To select a MIDI program change value for the track to send, check the **Program Change** box to enable program changes, and then double-tap the **MIDI Program Change** field. Use the number pad that appears to enter a value from **1**–**127**, then tap **Do It**. Alternatively, use the **data dial** or the **–/+** buttons to select a value. All clips in the track will send this value when launched. Once enabled, you can also select a MIDI bank change value by checking the **Bank Change** box to enable bank changes, and then use the **MIDI Bank MSB** and **MIDI Bank LSB** fields to set the bank change values.

To change the track color, tap the **color** field and use the **data dial** or **-/+** buttons to scroll through the options. You can also double-tap the **color** field and then swipe up or down, use the **data dial** or **-/+** buttons to scroll through the options.

To change the launch behavior of clips in the track, tap the **Row Launch** field and use **data dial** or **-/+** buttons to scroll through the options:

When set to **Include in row launch**, clips from this track will be triggered when launching the entire row using the **scene launch** buttons.

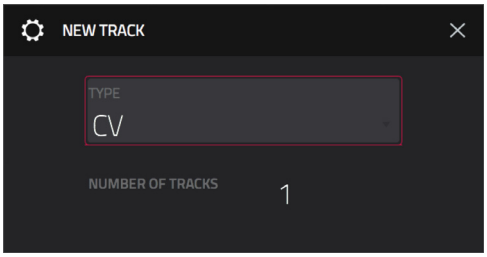
When set to **Exclude from row launch**, clips in this track will not be launched with the rest of the row when triggering a scene.

To transpose the MIDI track, tap the **transpose** field and use the **data dial** or **-/+** buttons to set the transposition amount.

CV Tracks

A CV track lets you send your control voltage (CV) signals to an external device like a synth or drum machine that uses CV.

To create a CV track:

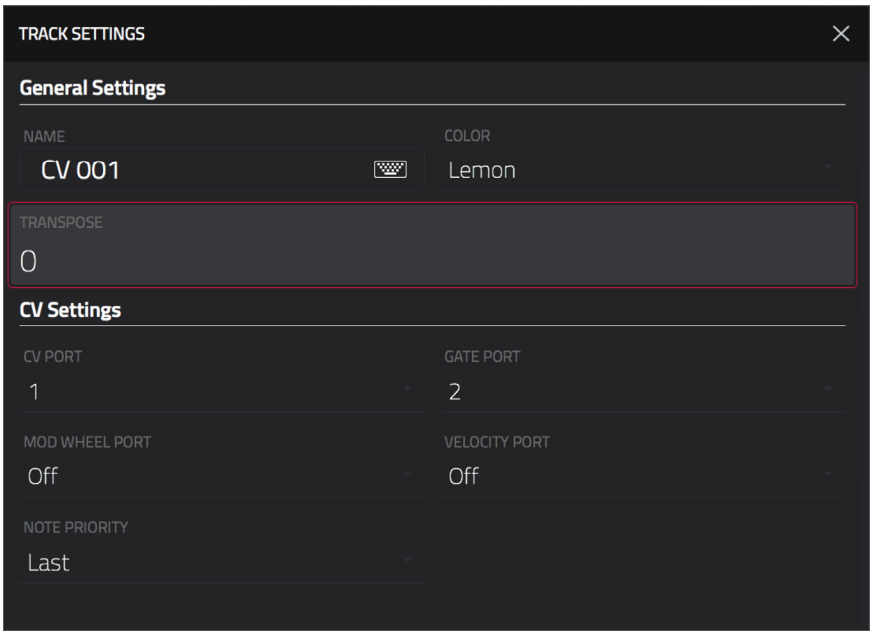


1. Press **Matrix** to enter Matrix Mode.
2. At the top of the screen, press the **+ icon** to add a new track.

   If you cannot see the **+ icon**, press the **right cursor** to move the matrix view until it is shown.
3. Tap **CV** to instantly create a new track. For more track options, tap the **Advanced** button and then select **CV** as the track **type** in the window that appears.

   If you would like to create more than one CV track at once, use the **Number of tracks** field to select how many tracks you would like to create.
4. Tap **Do It** to confirm, or tap **Close**, the **X** or outside the window to go back. A new CV track will be created and appended with a number (e.g., **CV 002**).

Alternatively, press and hold the **track select** button of an unused track, then tap **CV**.



To edit the track settings, double-tap the **track name** at the top of the screen to open the **Track Settings** window.

To rename the track, tap the track **name** field and use the virtual keyboard that appears to enter a new name, and then tap **Do It** to confirm or the gray bar at the top of the screen to cancel.

There are five additional settings to configure for a CV track: the **CV Port**, the **Gate Port**, the modulation wheel port (**Mod Wheel Port**), **Velocity Port** and **Note Priority**. Tap each field and use the **data dial** or **-/+** buttons to edit the setting.

To edit the MIDI routing for the track, use the **MIDI Input Port**, **MIDI Input Channel**, **MIDI Send** fields and use **data dial** or **-/+** buttons to scroll through the options.

MIDI Input Port: Select the MIDI port to receive MIDI data from. When set to **All Ports**, the track will receive all incoming MIDI Data from any connected port. To view and edit the available ports, go to ***Preferences*** > ***MIDI / Sync***.

MIDI Input Channel: Sets the MIDI Channel to receive MIDI data from. Select **All** to receive from all MIDI channels, or select **1–16**.

MIDI Send: Sets where the MIDI data is sent. You can use this to send the MIDI data from one track to another track.

To set the monitoring behavior of the track, tap the **MIDI Monitor** field and use **data dial** or **-/+** buttons to scroll through the four available states:

Off: The track's MIDI input is not monitored, and playback of recorded events will be heard. This setting is useful when using keyboards with Local Control active.

In: The track's MIDI input is always monitored regardless of the track's Record Arm state, and playback from recorded events will not be heard.

Auto: The track's MIDI input is monitored when the track is record armed, and playback of recorded events will be heard.

Merge: The track's MIDI input is always monitored, and playback of recorded events will be heard.

To change the track color, tap the **color** field and use the **data dial** or **-/+** buttons to scroll through the options. You can also double-tap the **color** field and then swipe up or down, use the **data dial** or **-/+** buttons to scroll through the options.

To change the launch behavior of clips in the track, tap the **Row Launch** field and use **data dial** or **-/+** buttons to scroll through the options:

When set to **Include in row launch**, clips from this track will be triggered when launching the entire row using the **scene launch** buttons.

When set to **Exclude from row launch**, clips in this track will not be launched with the rest of the row when triggering a scene.

To transpose the CV track, tap the **transpose** field and use the **data dial** or **-/+** buttons to set the transposition amount.

Menu

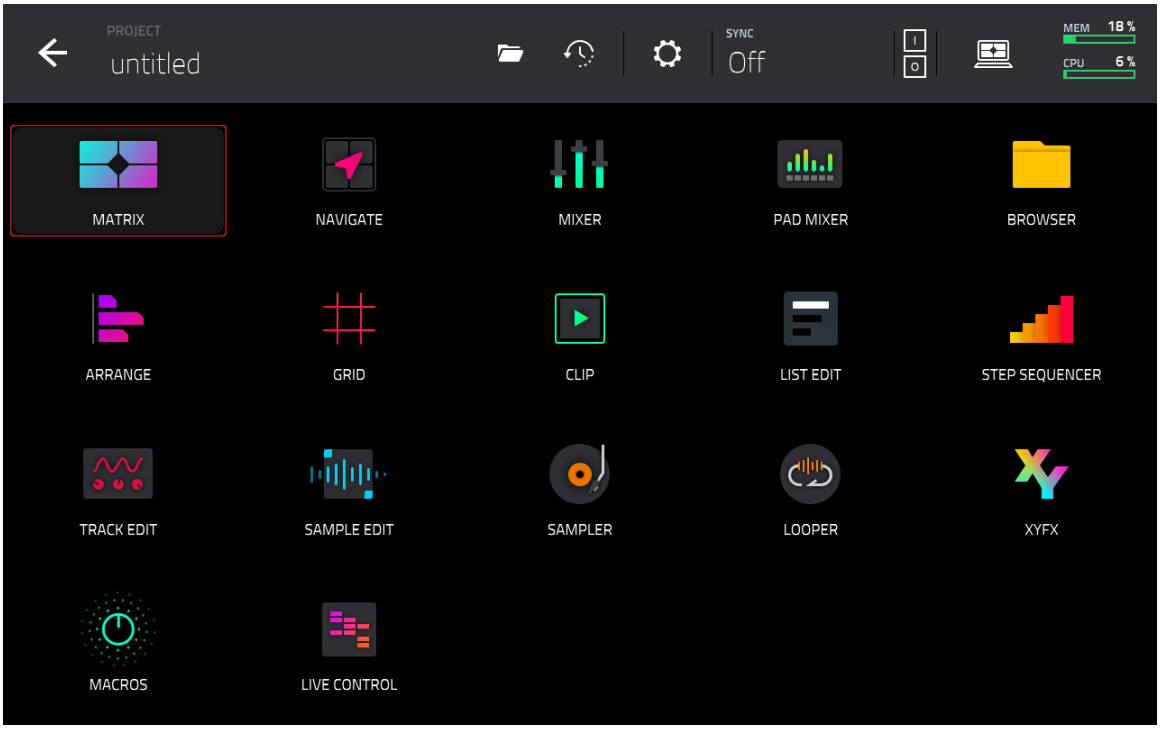
The Menu lets you select any of the 14 modes or save your project. You can also use it to set your preferences, save your project, set sync behavior or view your system resources.

To open the Menu, press **Menu**, or tap the icon in the upper-left corner of the screen while on the normal page of your current mode.

When viewing the Menu, do any of the following:

To enter a mode, tap it.

To return to the previous mode, tap the gray area in the upper-left corner, or press **Menu** again.



Click a part of the screen above to skip directly to that part of this user guide.

Save

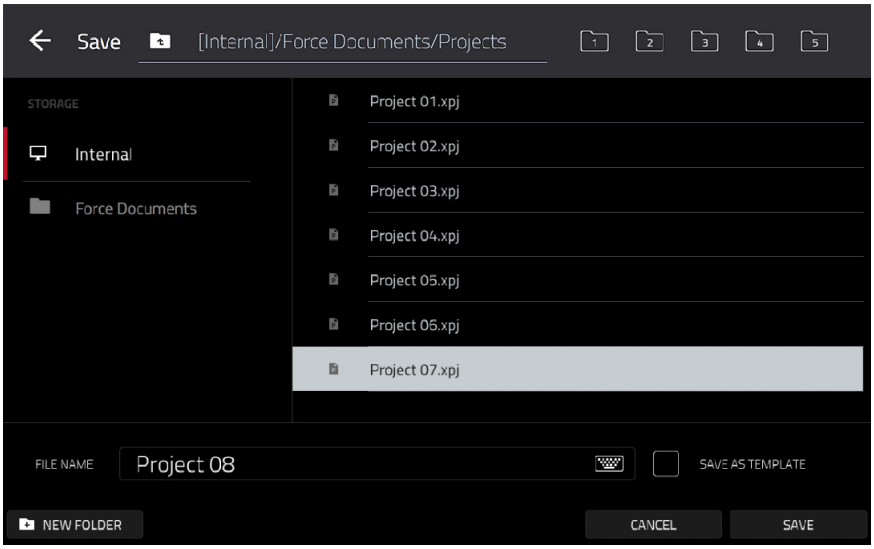
To save the project, tap the **folder icon** at the top of the screen to open the **Project** window. The Project window shows an overview of all samples and tracks in the current project.

To open a new project, tap **New**.

To save a project, tap **Save** or **Save As**. If a project has not been saved before, both options will open the Save window, described below. If a project has been saved before, tapping **Save** will automatically overwrite the most recently saved version.

To delete samples from the project (to create more free RAM space for sampling time, audio recording, etc.), tap **Purge**. In the screen that appears, tap **Unused Samples** to delete all unused samples from the project, tap **All Samples** to delete all samples from the project (from all kits and audio or MIDI tracks), or tap **Cancel** to return to the previous screen.

To export your project as an Ableton Live Set, tap **ALS Export**. See ***Addenda > Updates in Force 3.0.3 > New Features > Ableton Live Set Export*** for more information.



To select the storage device you want to view, tap it in the **Storage** column on the left.

Internal is the internal drive of Force.

Force Documents is a shortcut to the **Force Documents** folder on the internal drive of Force.

If you have storage devices connected to USB ports or SD card slot of Force, they will appear in this column, as well.

To enter a folder, double-tap it. Alternatively, turn the **data dial** or use the **–/+** buttons to move through the list, and press the **data dial** to enter a folder. You can also tap one of the five **folder buttons** in the upper-right to jump immediately to those pre-assigned file paths (see ***Modes > Browser*** to learn how to do this).

To create a new folder, tap **New Folder**, use the virtual keyboard that appears to enter a name, and then tap **Do It**. You will immediately enter the new folder.

To move up one folder level, tap the **folder/↰ icon** in the upper-left corner.

To name the file, tap the **File Name** field at the bottom of the screen, and use the virtual keyboard that appears.

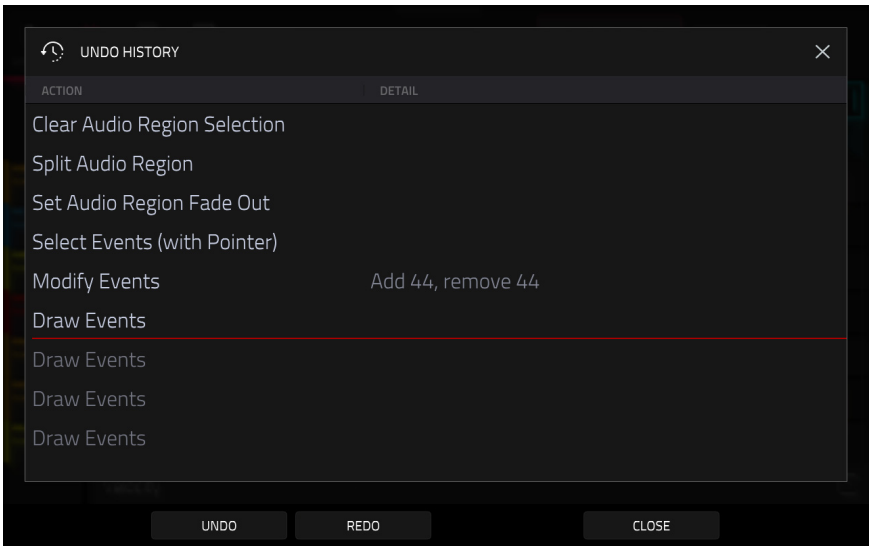
To save the file, tap **Save**.

To save the file as a project template file, tap the **Save as Template** checkbox to check it before tapping **Save**. (This file will be shown in the **Template File** field in the Preferences' **Project Load/Save** tab.)

To cancel and return to the Menu, tap **Cancel**. Alternatively, tap the **← icon** in the upper-left corner.

Undo History

To open the Undo History window, tap the **clock icon** at the top of the screen. In the Undo History window, you can view a list of recent actions along with a detail about the action if applicable.



To undo an action, tap **Undo**.

To redo an action, tap **Redo**.

Alternatively, tap and drag the **red line** in the action list to quickly undo or redo multiple actions. Actions below the red line in grey have been undone.

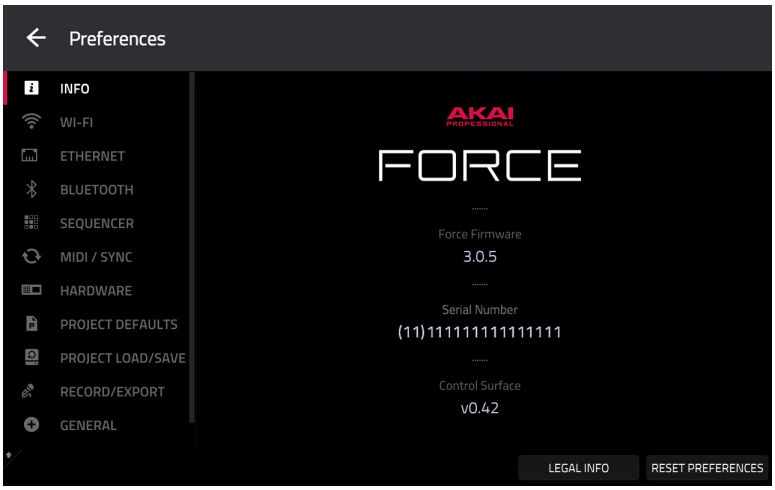
To close the Undo History window, tap **Close** or the **X**.

Preferences

To open the Preferences, tap the **gear icon** at the top of the screen.

To return to the Menu, tap the **← icon** in the upper-left corner. Changes to the **Preferences** are saved automatically.

To restore your Force hardware's default settings, tap **Reset**. In the screen that appears, tap **OK** to continue or **Cancel** to return to the Preferences. In the next window, tap **Save** to save your current project before restoring the default settings; tap **Cancel** to return to the Preferences; or tap **Don't Save** to restore the default settings without saving your current project.



Info

This screen shows current information about your Force hardware: its current firmware version, which includes its standalone operating system (**Force Firmware**); its hardware **Serial Number**; and its current firmware for the **Control Surface**.

To view legal information relevant to Force, tap **Legal Info**. For complete legal information, visit **akaipro.com/product-legal**.

To enter Update Mode, press and hold **Shift** and tap **Update**. In the screen that appears, tap **Save** to save your current project before entering Update Mode; tap **Cancel** to return to the Preferences; or tap **Don't Save** to enter Update Mode without saving your current project.

Wi-Fi

The settings on this screen will determine how your Force hardware's wireless connection works, so you can use Ableton Link, a new technology that synchronizes beat, phase and tempo of Ableton Live and Ableton Link-enabled applications over a wireless or wired network. These settings are available only for Force when used in Standalone Mode.

To activate or deactivate wireless connectivity on your Force hardware, tap the **On/Off** selector. The available wireless networks will appear in the panel below it.

To select a wireless network, tap it.

To connect to a selected wireless network, tap **Connect**. If the Wi-Fi network is password-protected, use the virtual keyboard that appears to enter the correct password to connect to it.

To view the information of a selected wireless network, press and hold **Shift** and tap **Info**. The **Network Information** window that appears will show the network name, IPv4/IPv6 address (including the subnet mask and gateway), type of security, and signal strength (as a percentage).

To disconnect from a connected wireless network, tap **Disconnect**.

To clear the connection information (e.g., the password) **from a selected wireless network**, tap **Forget**.

Ethernet

The settings on this screen will determine how your Force hardware connects to a wired network using an Ethernet cable connected to the **Link** port. This allows you to maintain a tighter network connection when using Ableton Link or the Akai Network Driver.

To activate or deactivate Ethernet connectivity on your Force hardware, tap the **Enabled** box.

To determine how your Force hardware connects to the network, use the **Address Method** dropdown. Select **Automatic** to have your Force hardware set the Ethernet connection, or **Manual** to set it yourself.

When setting the Ethernet connection manually, tap the **IP Address**, **Subnet Mask**, **Gateway**, and **DNS** fields to input the values.

Bluetooth

The settings on this screen will determine how your Force hardware's Bluetooth connection works, so you can use Bluetooth MIDI controllers (e.g., LPD8 Wireless or LPK25 Wireless) or a Bluetooth computer keyboard with it. These settings are available only when used in Standalone Mode.

To activate or deactivate Bluetooth connectivity on your Force hardware, tap the **On**/**Off** selector. The available Bluetooth devices will appear in the panel below it under **Available Devices**. The Bluetooth devices that have already paired to your Force hardware will appear under **Paired Devices**.

To select a Bluetooth device, tap it.

To pair a selected Bluetooth device (in the Available Devices section), tap **Pair**.

To connect to a selected Bluetooth device (in the Paired Devices section), tap **Connect**.

To disconnect from a connected Bluetooth device (in the Paired Devices section), tap **Disconnect**.

To return an available Bluetooth device to its original state, tap **Remove**.

Sequencer

The settings on this screen determine how sequencing works in the Event View and in the Step Sequencer.

Rec Arm: This determines the behavior of the Record Arm buttons. In **Single** mode, selecting a different track will automatically arm that track and disarm all other tracks. In **Multi** mode, you can tap any track's record button to add it to the group of armed tracks.

Record Pad Aftertouch Events: When enabled, pad aftertouch data (from the Force hardware's pressure-sensitive pads) will be recorded. When disabled, pad aftertouch data will be ignored.

Place Events Recorded During Count-In at Start Point: When enabled, pressing a pad during the recording's pre-count will record that note event at the start of the recording (this is how the MPC3000 worked). When disabled, no notes will be recorded until the pre-count is finished and recording has begun.

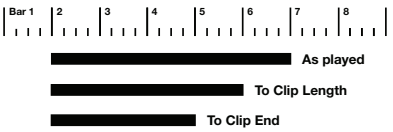
Note: This setting is ignored when recording with the Arpeggiator active.

Recording Note Length: This determines if/how events are cropped if they exceed the length of the current Clip when recording:

Truncate to Clip Length: If the length of an event exceeds the length of the clip, it will be truncated. This ensures that the event will not overlap itself when the clip loops.

Truncate to Clip End: If an event exceeds the length of the clip, it will be truncated to the end of the current clip. In other words, the event will stop playing when the clip ends or loops.

As Played: Events will play back exactly as they were recorded, even if they overlap themselves when the clip loops.



For example, if you record a note starting on the second bar of a 4-bar loop and hold it for 5 bars, the note would end: at bar 7 (As Played), at bar 6 (To Clip Length), or bar 4 (To Clip End). See image for details.

Playback Note Length: This determines if/how events are cropped if they exceed the length of the current Clip during playback:

As Recorded: Events will play back exactly as they were recorded, even if they overlap themselves when the clip loops.

Truncate to Clip Length: If the length of an event exceeds the length of the clip, it will be truncated. This ensures that the event will not overlap itself when the clip loops.

Knob Swing Control Applies TC Settings on Release: When enabled, turning the knob assigned to **Swing** and then releasing it will immediately apply that Swing setting. When disabled, you must use the Timing Correct window to apply the Swing setting.

Display Resolution: This is the display resolution (in PPQN—pulses per quarter note) of pulse values in certain areas of the operating system. Please note that this setting affects the display resolution, not the timing.

MIDI / Sync

The settings on this screen determine how your Force hardware uses and synchronizes with connected USB and MIDI devices.

Input Ports: This displays all available MIDI input ports in a list. Tap the **keyboard icon** to rename a port to a custom name. When **Master** is enabled, MIDI data from this port will always go to the current track. When **Track** is enabled, this MIDI port will appear in the list of available MIDI Inputs. Click the **revert icon** to reset the MDI Port settings.

Output Ports: This displays all available MIDI output ports in a list. Tap the **keyboard icon** to rename a port to a custom name. When **Sync** is enabled, the MIDI output port will send MIDI sync messages according to the type set under Sync ***Send***, below. When **Track** is enabled, this MIDI port will appear in the list of available track MIDI outputs. Click the **revert icon** to reset the MDI Port settings.

Enable MIDI Ports When Discovered: This determines whether the **Track** option is automatically enabled when any MIDI device is plugged in, enabling the ports to be selected as an available MIDI input or output immediately.

Receive: This determines whether your Force hardware receives MIDI Clock information (**MIDI Clock**), MIDI Time Code information (**MIDI Time Code** (**MTC**)), communication from Ableton Link (**Ableton Link**), or none of these (**Off**).

Receive MMC: When enabled, your Force hardware will be able to receive MIDI Machine Control (MMC) information. When disabled, your Force hardware will not receive this information. See ***Appendix > MIDI Machine Control (MMC)*** to learn about this.

Send: This determines whether your Force hardware sends MIDI Clock information (**MIDI Clock**), MIDI Time Code information (**MIDI Time Code** (**MTC**)), or neither (**Off**).

Send MMC: When enabled, your Force hardware will be able to send MIDI Machine Control (MMC) information. When disabled, your Force hardware will not send this information. See ***Appendix > MIDI Machine Control (MMC)*** to learn about this.

MTC Frame Rate: This determines the frame rate used by MIDI Time Code (MTC), which is important for correct timing, especially when working on film scoring projects. In most cases, you should select **25**.

Start Time: This is the starting time that will be sent when **Send MIDI** is set to anything other than **Off**. The time is formatted in **hours** : **minutes** : **seconds** : **frames**.

Filter 'All Notes Off' CC: When enabled, "All Notes Off" ("MIDI panic") messages will be ignored. This is useful if you are using an external MIDI device that can send these types of messages but you want to filter them out. When disabled, "All Notes Off" messages will be received normally.

Program Change: This determines whether incoming MIDI Program Change messages will change the **Sequence**, **Track**, or be ignored (**Off**).

Hardware

The settings on this screen determine the behavior of your Force hardware's pads and touchscreen.

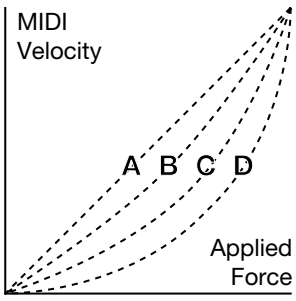
Pad Brightness: This determines the overall brightness of Force's clip matrix pads.

Empty Slots: This determines how the clip launch pads appear when no clip is loaded.

Track Select Buttons: This determines the behavior of the Track Select buttons

Pad Threshold: This determines how much force is required to strike the pads for them to trigger.

Pad Sensitivity: This determines how the pads respond to touch. At lower values, you need to use more force to generate a high-velocity note. At higher values, it is easier to generate high-velocity notes, even if you do not use much force while pressing a pad.



Pad Curve: This determines how striking the pads translates into velocity values. The **A** curve is essentially linear, while the **B**, **C**, and **D** curves are exponential (see graphic here).

Velocity & **Aftertouch**: View these meters when striking and pressing the pads to help gauge the force and pressure you are applying to them. These meters are useful when adjusting the Pad Threshold and Pad Sensitivity parameters (above).

Screen Dimming: This determines how much time must pass before your Force hardware automatically dims its screen.

Screen Brightness: This determines the brightness of the screen during normal operation: normal brightness (**Day**) or dimmed (**Night**).

Date: This is the current date, formatted as **Month** / **Day** / **Year**. When saving files on Force in Standalone Mode, the file will include the current date in its metadata.

Time: This is the current time, formatted as **Hour** : **Minute**. When saving files on Force in Standalone Mode, the file will include the current time in its metadata.

Time Zone: This is the current time zone, formatted as **Continent** / **City**, which you can change here.

Project Defaults

The settings on this screen determine various default values for any new project that you create.

New Project Dialog: This determines what options you see when you start a new project. When set to **Off**, a new project will be empty with no preconfigured settings except for the project defaults shown here. When set to **Demo**, you can choose to load a demo project (from several different genres) as a starting point or an empty project. When set to **Demo**/**Template**/**Recent**, you can choose to load a demo project, a project template file, or an empty project. You must have a project in the **Template File** field of the **Project Load**/**Save** tab to select a template in this window.

Default Tempo: This is the default tempo in BPM.

Default Arrangement Bars: This is the default number of bars in a new project arrangement.

Default Arrangement Loop Enabled: This determines whether loop is activated when a new project is created or not.

Default Pad Slice: This determines how new samples will play when you load them or record them into a project. When set to **Pad**, the **Slice** menu in Track Edit Mode will be set to **Pad**, which lets you set the start point, end point, etc. for the layer. When set to **All**, the **Slice** menu in Track Edit Mode will be set to **All**, in which the entire sample plays.

Default Drum/**Keygroup Filter**: This determines the default type of filter that drum and keygroup tracks will use. See ***Appendix*** > ***Glossary*** > ***Filter*** to learn about this.

Default Plugin Synth: This determines the default instrument plugin that a new plugin track will use. Use the window that appears to select it.

Project Load/Save

The settings on this screen determine if (and how) projects are automatically saved.

Auto Save Enabled: When enabled, your project will automatically save after each **Timeout** interval. When disabled, your project will not be automatically saved; you may save only manually.

Timeout: Use this field to select how often your project will automatically save.

Template File: Use this field to select a project template that will load automatically when you select **User Template** in the **New Project Dialog** window. (If you select the **Save as Template** box when saving a file, it will be shown in this field.) In order for the **User Template** option to be available, **New Project Dialog** (in the **Project Defaults** tab) must be set to **Demo** or **Demo**/**Template**/**Recent**.

Record/Export

The settings on this screen determine the settings for recording and exporting audio.

Recording Bit Depth: This determines the bit depth of recorded audio.

Bounce/Extract Bit Depth: This determines the bit depth of audio bounced or extracted.

General

The settings on this screen determine how other features work in the hardware and operating system.

Tap Tempo: This determines how many times you have to press the **Tap** button before the new tempo is recognized.

Flash Tap Tempo Light: When enabled, the **Tap** button's light will flash in time with the tempo. When disabled, the **Tap** button's light will be off.

Vintage Mode: This determines the type of emulation applied to the audio output. You can apply the particular sonic qualities of, for example, the **MPC3000** or **MPC60**, or of course no emulation (**None**).

Audition Auto Play: This determines how long a sample will sound when auto-previewing it.

Audition Outputs: This determines which pair of outputs will play any auditioned sounds. These sounds include: samples, tracks, and projects in the Browser; sample playback, **Cue Preview**, and **Slice Preview** in Sample Edit Mode; and sample playback in the **Keep or Discard Sample** window in the Sampler.

Cue Preview: This determines if/how audio is played as you move the cue playhead. As you move the cue playhead through a sample waveform, you can set it to play the small part of the sample before the cue playhead (**Before**), play the small part of the sample after the cue playhead (**After**), or not play at all (**Off**). You can also set this in Sample Edit Mode (see ***Modes*** > ***Sample Edit Mode*** > ***Settings***).

Slice Preview: This determines if/how audio is played as you move a slice marker. As you move the slice marker through a sample waveform, you can set it to play the small part of the sample before the slice marker (**Before**), play the small part of the sample after the slice marker (**After**), or not play at all (**Off**). You can also set this in Sample Edit Mode (see ***Modes*** > ***Sample Edit Mode*** > ***Settings***).

Audio Warp Algorithm: This determines how a sample is "warped" when you adjust the length of a sample without changing its pitch (e.g., the **Warp** function in Audio Region Edit Mode for audio tracks or in Track Edit Mode for clip tracks).

Note: The Warp algorithms are very CPU-intensive and can result in audio drop-outs during playback if used too freely. Be mindful of how (and how often) you use the warp function. You can reduce the CPU resources required by using the **Basic** warp algorithm, which is less CPU-intensive.

Audio Track Auto Warp: This determines how recorded audio track regions are warped. When set to **On**, any audio track region that you record will be warped automatically to match the current project tempo. You can then adjust the project tempo while the audio track region remains in time.

Note: When you record an audio file, the current project tempo will be embedded with it. This information is stored within the sample file when you save the project. When you warp an audio track region, the warping algorithm uses this project tempo and the current value in the **BPM** field to generate the "stretch factor."

BPM Auto Detection: This enables automatic detection of BPM from loaded samples.

BPM Detection Range: This defines the range of detectable BPM values when you use any automatic BPM detection function in the software or when you press the **Tap** button to enter a new tempo.

Splice

Use this screen to connect a Splice account and download samples to your device via a network. See ***Addenda > Updates in Force 3.0.2*** for more information.

Sync

Tap the **Sync** field (in the center of the top of the screen) and then turn the **data dial** or use the **–/+** buttons to set whether your Force hardware receives MIDI Clock information (**MIDI Clock**), MIDI Time Code information (**MTC**), communication from **Ableton Link**, or none of these (**Off**). Alternatively, double-tap **Sync** and tap the desired option to select it.

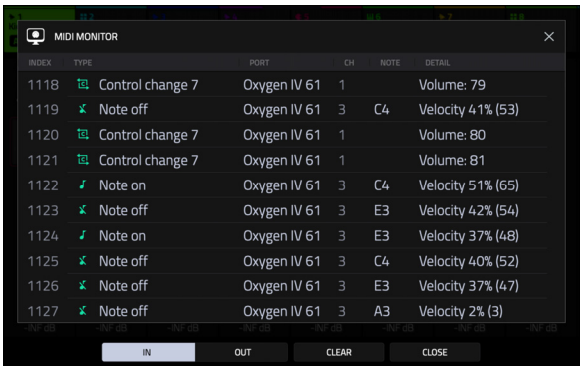
This is the same setting as the **Receive** menu in the **MIDI / Sync** tab of your **Preferences**. See ***Preferences*** > ***MIDI / Sync*** for more information.

Note: Ableton Link is a new technology that synchronizes beat, phase and tempo of Ableton Live and Ableton Link-enabled applications over a wireless or wired network. See ***Preferences*** > ***Wi-Fi*** or ***Preferences*** > ***Ethernet*** to learn how to connect to a network.

MIDI Monitor

Tap the **I/O icons** to open Force's MIDI monitor. You can use this to view incoming and outgoing MIDI data from devices connected to Force.

- **To view incoming MIDI data,** tap the **In** button.
- **To view outgoing MIDI data,** tap the **Out** button.
- **To clear the list of MIDI data,** tap the **Clear** button.
- **To close the MIDI Monitor,** tap the **Close** button or the **X**.



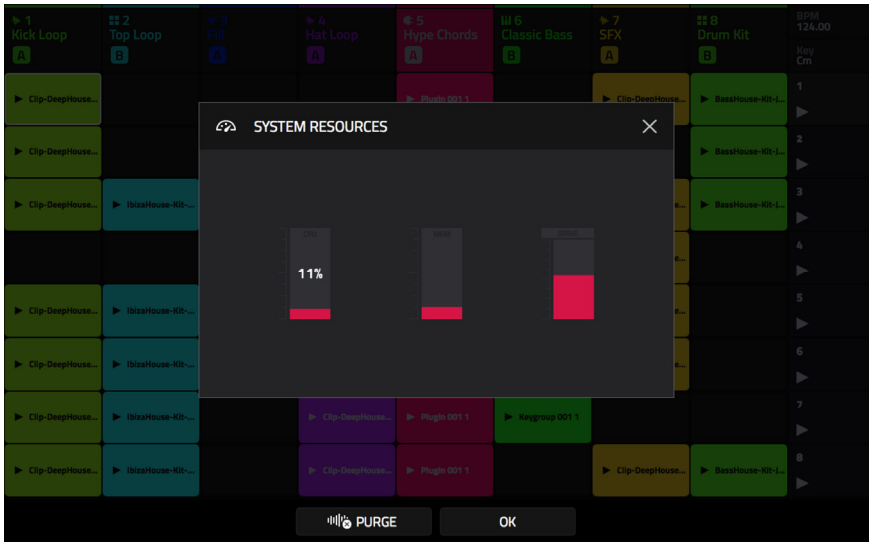
Mode

Tap this icon to switch Force to Computer Mode. In the screen that appears, select whether you want to continue to **Computer Mode** or **Cancel** and return to your current mode and project. It is recommended to save your project before switching to Computer Mode since you cannot freely switch between Standalone and Computer Modes without also closing your current project.

See ***Standalone vs. Computer Mode*** to learn more.

System Resources

Tap one of these icons to show the System Resources window for Force.



The indicators in this window show current usage statistics:

CPU: The **CPU** indicator shows the current **CPU** as a percentage.

RAM Usage: The **Mem** indicator shows your Force hardware's current RAM usage.

Important: If you encounter a warning that there is not enough memory to complete an action while using your Force hardware, do the following to make more memory available:

Make sure all audio tracks in your project are **not** record-armed.

Delete samples from your project's sample pool that were there before the warning appeared.

If you are still seeing the warning, do the following:

1. **Manually** undo the last action you performed before seeing the warning (you may not be able to use the **Undo** button for this due to how the undo history is stored in RAM).
2. Save your project.
3. Do one of the following, and then load your saved project again.
   - In the **Menu**, tap the **folder icon** at the top of the screen, and then tap **New** at the bottom of the screen.
   - Power your Force hardware off and then on again.
   - Press **Menu** and then tap the **gear icon** to open the **Preferences**. In the Preferences, tap **Reset** at the bottom of the screen, tap **OK**, and then tap **Restart** to reset the Preferences.
   - Enter Computer Mode and then reenter Standalone Mode.

Important: Although you can load multiple files at once, any samples you load into a project will be automatically converted to full-quality uncompressed audio files, so they may use more storage space than they do on your external storage device. If you are unable to load multiple files at once due to this, select fewer files and try again.

Drives: The **Drives** indicator shows the available storage space on any detected external storage devices or the internal drive of Force.

To delete samples from the project (to create more free RAM space for sampling time, audio recording, etc.), tap **Purge**. In the screen that appears, tap **Unused Samples** to delete all unused samples from the project, tap **All Samples** to delete all samples from the project (from all kits, audio or MIDI tracks), or tap **Cancel** to return to the previous screen.

To close the System Resources window, tap **OK**, the **X** in the upper-right corner, or anywhere outside the window.

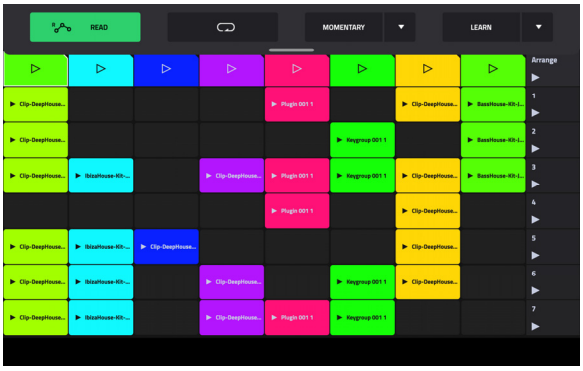
Project Menu

The pull-down Project Menu can be accessed from any Force mode, giving you quick and easy access to a variety of commonly used tools and information.

To open the project pull-down menu, tap and drag from the middle-top of the screen. The menu can be set to two sizes depending on how far down you drag your finger.

To close the menu, simply swipe it back upwards to the top of the screen.

The project pull-down menu contains the following controls when pulled partway down:



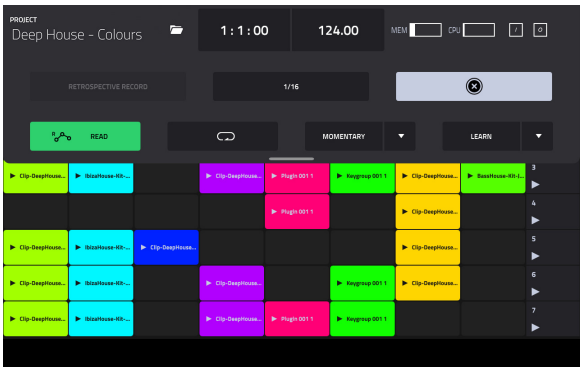
Tap the **Global Automation** button to toggle between **Read** and **Write**. To disable global automation entirely, hold **Shift** and tap this button.

Tap the **Loop** button to toggle the arrangement loop on or off.

Use the **Momentary** button to set the behavior of a macro control. See ***Macros*** for more information.

Use the **Learn** button to learn a parameter to a macro control. See ***Macros*** for more information.

When the project pull-down menu is fully opened, the following additional controls are available:



Tap the **Project** field to open the Project window, where you can load and save projects.

Tap the **Bars:Beats:Ticks** field to open the Locate window.

Tap the **BPM** field to open the **Tempo** window, where you can adjust the tempo of the project.

The **Memory** and **CPU** meters monitor Force's system resources.

Tap the **I/O** icons to open the MIDI monitor.

Tap the **Retrospective Record** button to capture recently played MIDI input and add it to the selected clip or arrangement.

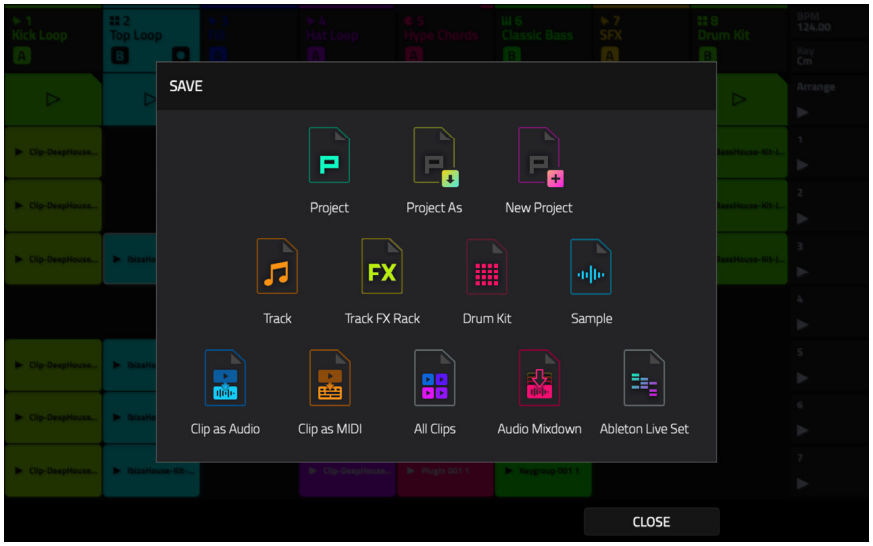
Tap the **Time Division** button to open the **Timing Correct** window.

Tap the **MIDI Rec Erase** button to enable or disable MIDI record erasing. When enabled, recording MIDI events will replace any existing events. When disabled, recording MIDI events will overdub on any existing events.

Save Window

The Save Window lets you save your project, tracks and clips in a variety of ways.

To open the Save window, press the **Save** button.



To save a project, tap **Project** or **Project As**. If a project has not been saved before, both options will open the Save window, described below. If a project has been saved before, tapping **Project** will automatically overwrite the most recently saved version.

To open a new project, tap **New Project**.

To save the current track, tap **Track**.

To save the current track inserts, tap **Track FX Rack**.

To save the current drum kit, tap **Drum Kit** when a Drum track is selected.

To save the current plugin program, tap **Plugin Program** when a Program track is selected.

To save the current keygroup, tap **Keygroup** when a Keygroup track is selected.

To save the current MIDI program, tap **MIDI Program** when a MIDI track is selected.

To save the current CV program, tap **CV Program** when a MIDI track is selected.

To save the currently selected clip as audio, tap **Clip as Audio** when a clip is selected.

Use the **Base File Name** field to name the resulting export based on the **Clip name** or **Track name**.

Check the **Include Track Volume/Pan Settings** box to include these settings in the export.

Check the **Bypass Track Effects Plugins** box to not include track effects plugins in the export.

Use the **Audio Tail** field to set the amount, in **seconds**, of extra time added to the end of the resulting audio files.

Use the **Bit Depth** field to set the bit depth to **8**, **16** or **24**.

Use the **Sample Rate** field to set the sample rate to **44.1**, **48**, **88.2** or **96 kHz**. In most cases, we recommend selecting **44.1 kHz**.

To save the currently selected clip as MIDI, tap **Clip as MIDI** when a MIDI clip is selected.

Use the **Export MIDI As** field to set the export the clip(s) as **MIDI** files or MPC **Pattern** files.

Use the **Base File Name** field to name the resulting export based on the **Clip name** or **Track name**.

To save all current clips in the project, tap **All Clips**.

Use the same settings for **Clip as Audio** or **Clip as MIDI** depending on how you would like to save the clips.

To save the project as an audio mixdown, tap **Audio Mixdown**.

Use the **Start Bar** and **End Bar** fields under Audio Length to set the time range that you want to mix down. You can add a number of seconds to the end of the mixdown to capture any ringing notes or effects (such as a reverb tail) by adjusting the **Audio Tail** field.

Use the fields under **Render Source** and **Render Options** to set the parameters for the audio mixdown. Check the **Separate Tracks** box to render each track of the arrangement as stems.

Use the fields at the bottom of the screen to configure the audio mixdown settings. You can set the **File Format**, **Bit Depth**, and **Sample Rate**.

To save the project as an Ableton Live set, tap **Ableton Live Set**.

Use the **Export MIDI As** settings to choose how MIDI tracks and clips are exported, either as **Audio** files or **MIDI** files. When using Plugin, Drum or Keygroup tracks, you can render clips as **Audio** to preserve the sound of the instruments, or render clips as **MIDI** data.

Check the **Export Arrange as Clips** box to save the arrangement as a clip row.

Check the **Include Program Volume/Pan Settings** box to include these settings in the export. When disabled, the volume and pan settings will be set to **0 dB** and center (**C**), respectively.

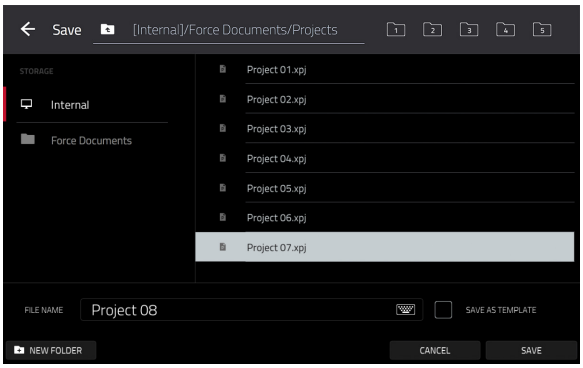
Check the **Bypass Program Effects Plugins** box to deactivate any third-party effect plugins used with the program for the export. When disabled, those effects will be activated.

Use the **Audio Tail** field to set the amount, in **seconds**, of extra time added to the end of the resulting audio files.

Use the **Bit Depth** field to set the bit depth to **8**, **16** or **24**.

Use the **Sample Rate** field to set the sample rate to **44.1**, **48**, **88.2** or **96 kHz**.

After selecting the save type, use the following to select a save location:



To select the storage device you want to view, tap it in the **Storage** column on the left.

Internal is the internal drive of Force.

Force Documents is a shortcut to the **Force Documents** folder on the internal drive of Force.

If you have storage devices connected to USB ports or SD card slot of Force, they will appear in this column, as well.

To enter a folder, double-tap it. Alternatively, turn the **data dial** or use the **–/+** buttons to move through the list, and press the **data dial** to enter a folder. You can also tap one of the five **folder buttons** in the upper-right to jump immediately to those pre-assigned file paths (see ***Modes*** > ***Browser*** to learn how to do this).

To create a new folder, tap **New Folder**, use the virtual keyboard that appears to enter a name, and then tap **Do It**. You will immediately enter the new folder.

To move up one folder level, tap the **folder/↰ icon** in the upper-left corner.

To name the file, tap the **File Name** field at the bottom of the screen, and use the virtual keyboard that appears.

To save the file, tap **Save**.

To save the file as a project template file, tap the **Save as Template** checkbox to check it before tapping **Save**. (This file will be shown in the **Template File** field in the Preferences' **Project Load/Save** tab.)

To cancel and return to the Menu, tap **Cancel**. Alternatively, tap the **← icon** in the upper-left corner.

Timing Correct (TC)

The **Timing Correct** window contains various settings to help quantize the events in your project. You can quantize note events on MIDI tracks or track regions on audio tracks (though you cannot apply all types of quantization to audio tracks).

To open the Timing Correct settings:

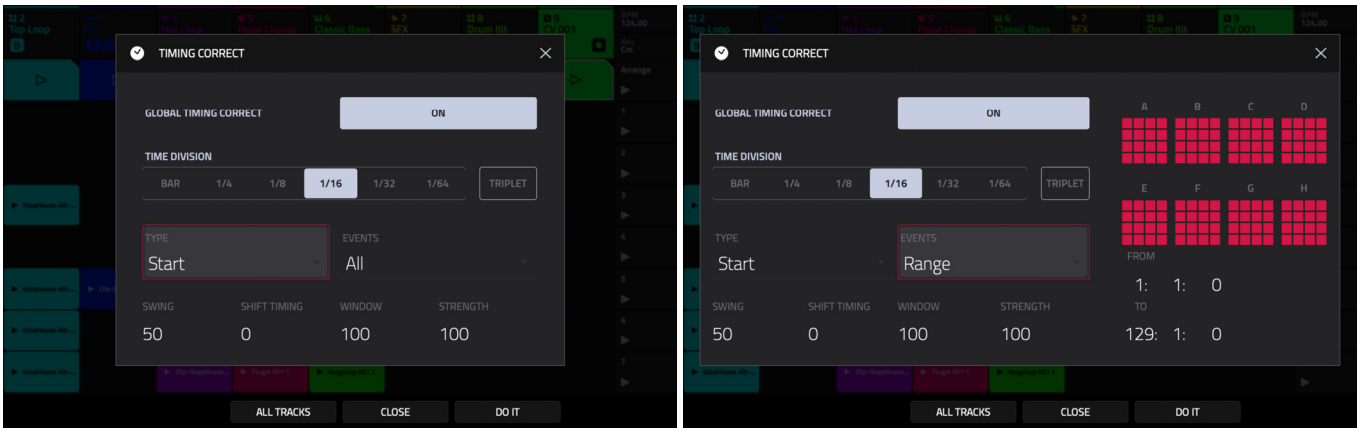
Press and hold **Shift**, and then press and hold the track 6 **Track Assign** button.

In **Arrange Mode**, **Clip Edit Mode**, **List Edit Mode**, or **Step Sequencer Mode**, tap **TC** at the bottom of the screen.

To enable or disable global timing correct, tap the **Global Timing Correct** button so it is on. Alternatively, press and hold **Shift** and press the track 6 **Track Assign** button.

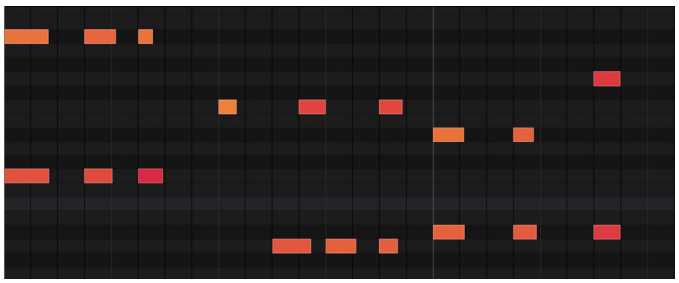
To apply the settings you selected, tap **Do It**.

To cancel and return to the previous screen, tap **Close**.

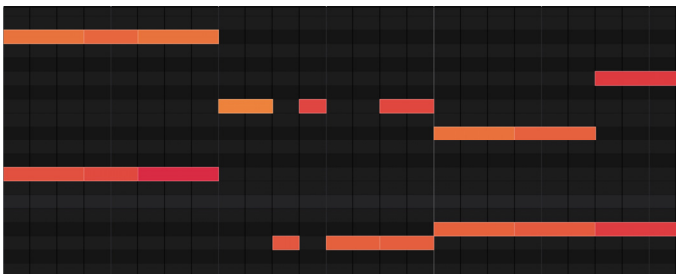


Use the **Type** selector to set how timing corrections are applied.

- **Start**: The entire note event or audio track region will be nudged forward or backward so the start point aligns with the closest time division marker in the grid. You can apply this to MIDI tracks or audio tracks.
- **End**: The end points of note events will be extended or shortened to align with the closest time division marker in the grid. The start points will remain untouched. You can apply this to MIDI tracks only.
- **Length**: The end points of note events will be extended or shortened so that each event's length is a multiple of the time division, regardless of where it is in the grid. The start points will remain untouched. You can apply this to MIDI tracks only.
- **Legato**: The end points of note events will be extended or shortened to create a long, unbroken phrase from the first note event's start point to the last note event's end point. Each note event will sustain until another note event starts. If multiple note events start at the same time (and are not the last note events), their lengths will become identical. Selecting **Legato** disables all other options in this window. You can apply this to MIDI tracks only.



Without legato applied.



With legato applied.

Use the **Time Division** selector to set the quantization value. Events will “snap” to these time divisions on the grid. The **T** indicates a triplet-based value.

Use the **Swing** field to set the amount of swing from **50%** to **75%**. Swing lets you “shuffle” your beats—from subtle to extreme.

Use the **Shift Timing** field to shift all events by clock ticks.

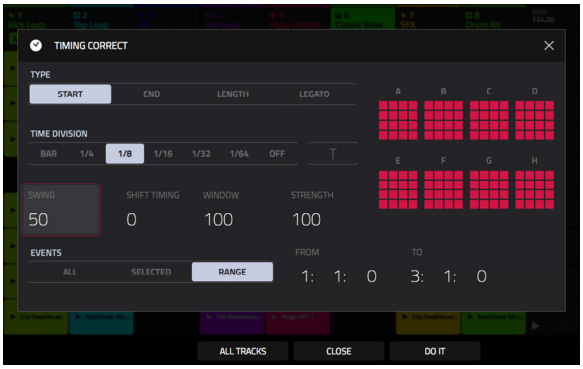
Use the **Window** field to set how many events around a quantize value will be quantized. Any events outside this range will not be quantized; events inside will.

Use the **Strength** field to set how strictly events will be quantized (i.e., shifted toward the quantize value). Lower values move events a little bit towards the closest quantize value, resulting in a less mechanical feel than a strict quantization (a higher value).

Use the **Events** selector to set the target range for the time correction. You can apply the time correction to **All** note events or to just the **Selected** ones.

To select note events to which to apply time correction, either use the various tools in Event View or Region View or press the pad with the desired events (while **Hitting Pad Selects All Events** is set to **On**). You must do this **before** opening the Timing Correct window.

When **Range** is selected, you can define the locations (**From** and **To**) as well as the pads or keys that will be quantized.

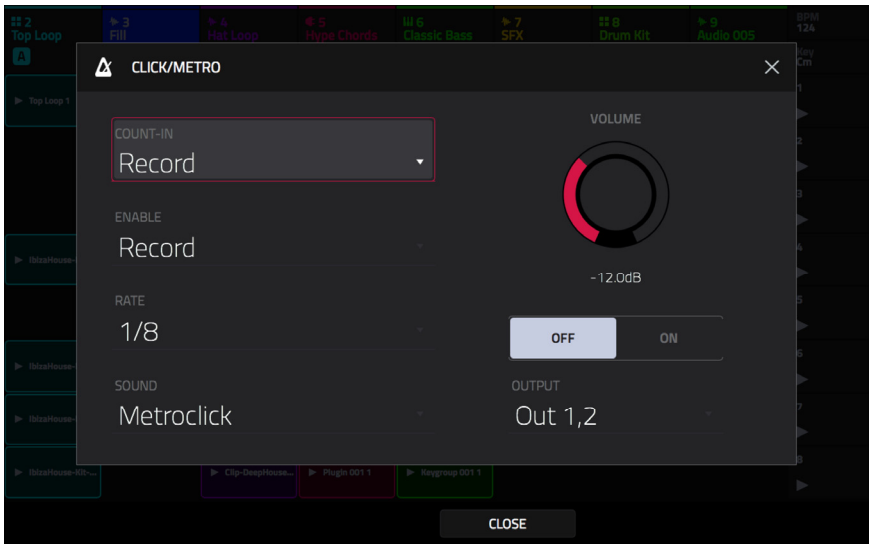


Metronome (Click/Metro)

The **Click/Metro** window contains all settings regarding the metronome (click track).

To enable or disable the metronome, press and hold **Shift** and press the track 5 **Track Assign** button.

To open the metronome settings, press and hold **Shift** and then press and hold the track 5 **Track Assign** button.



Use the **Count-In** field to set if/when the metronome counts before recording.

- **Off** disables the metronome pre-count.
- **Record** enables the pre-count during recording only.
- **Record + Play** enables pre-count in both Record and Playback Modes.

Use the **Enable** field to set if/when the metronome is enabled.

- **Off** disables the metronome.
- **Play** enables the metronome sound during playback only.
- **Record** enables the metronome sound during recording only.
- **Record + Play** enables the metronome to happen in both Record and Playback Modes.

Use the **Rate** field to select the metronome click's time division: **1/4**, **1/4T**, **1/8**, **1/8T**, **1/16**, **1/16T**, **1/32** or **1/32T**. **T** indicates a triplet-based time division.

Use the **Sound** field to select the sound that you want to hear for the metronome: **Sidestick 1**, **Sidestick 2**, **Clap**, **Metroclick**, **Shake**, **Tambourine**, or **Force Click**.

Use the **Volume** knob to set the volume of your metronome click.

Tap the **On/Off** button to enable or disable the metronome.

Use the **Output** field to set which pair of outputs will play the metronome click: **Out 1,2**, **Out 3,4** or an individual **Out 1–4**.

Automation

You can set the global automation setting, or individual tracks' automation settings, to be “written,” “read,” or disabled entirely by using the automation buttons in the pull-down project menu and the channel strip in the **Mixer**.

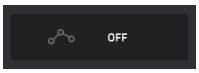
Global

In the pull-down project menu, you can enable When you tap this button to change its state, it will change the automation state for all tracks in the project.

Tap the **global automation button** to cycle through its two states:

When set to **Read** (**R**), automation data will be read but not recorded. (Think of this as a protective feature to prevent accidental changes to your automation while recording.)

When set to **Write** (**W**), automation can be recorded and will overwrite any existing automation. (Make sure not to touch the XY pad accidentally while you are recording.)



Press and hold **Shift** and tap the **global automation button** to disable global automation. When **off**, automation data will be ignored. Tap the **global automation button** again to enable global automation.

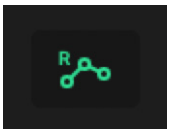
Important: If you have already recorded automation and turn it off, the track will still use the effect and its parameter values at the point where you turned it off.

Tracks

In addition to global automation, you can set automation for individual tracks by using the track automation button in the channel strip in the **Mixer**.

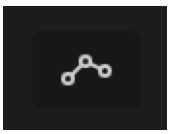
Note: Remember that tapping the global automation button will change the automation state for all programs in the project; if they were originally different, all of them will then match the global automation state.

Tap the **track automation button** to cycle through its two states:



When set to **Read** (**R**), the track will read automation data but will not record any additional automation over it. (Think of this as a protective feature to prevent accidental changes to your automation while recording.)

When set to **Write** (**W**), the track can record automation. (If you have any Q-Link knobs assigned to automatable parameters, make sure not to touch any accidentally while you are recording.)



Press and hold **Shift** and tap the **track automation button** to disable program automation. When **off**, the track will ignore automation data. If you have already recorded or entered automation, tapping this will switch between **Read** (**R**) and **Write** (**W**) only, but you can override this and turn it off by pressing and holding **Shift** while pressing or tapping the button.

Important: If you have already recorded automation and turn it off, the track will still use the effect and its parameter values at the point where you turned it off.

To quickly clear automation from a track:

1. Make sure the track is selected by pressing and holding its **Track Select** button.
2. Hold **Shift** and press the **Track 4 Track Assign** button, with **Clear Automation** written underneath.
3. All automation on the track will be immediately removed.

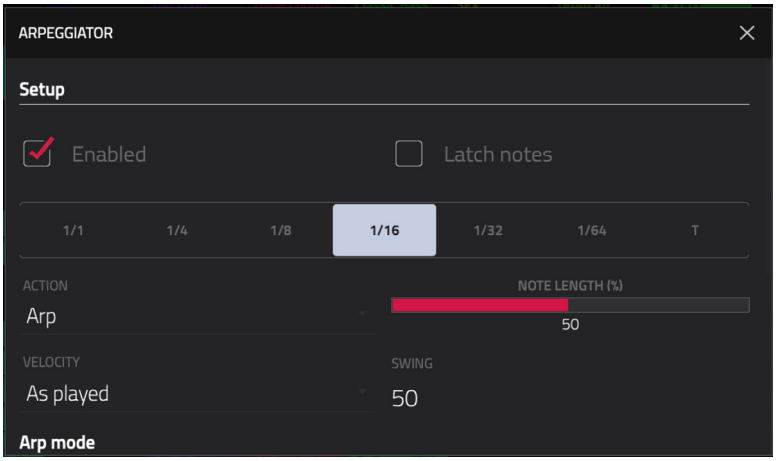
Alternatively, you can delete individual automation events using **List View** in **Clip Edit Mode**.

Arpeggiator

Force includes a full-featured arpeggiator and phrase player for melodic track types, as well as traditional note repeat functionality.

To enable the arpeggiator, press the **Arp** button.

To configure the arpeggiator setting, hold **Shift** and press the **Arp** button to open the Arpeggiator window.



The **Setup** section of the Arpeggiator window sets what kind of arpeggiator will be used and its basic functions.

Use the **Action** field to set the type: **Arp**, **Note Repeat**, **Rhythm** and **Pattern**. See ***below*** for more details about these types and their additional parameters.

Use the **Time Division** selector to set the note value of each arpeggiator step from **1/1**–**1/64** beats, including T (triplet) variations. This parameter is not available when **Action** is set to **Pattern**.

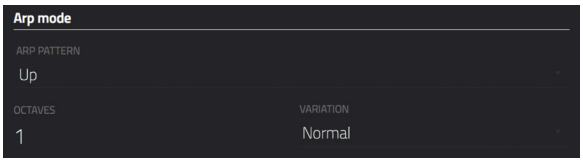
Note: This setting is tied to the project's Time Division setting, and will not function if Time Division has been set to **Off**.

Use the **Note Length** slider to set the length of the played note in each step, from **1**–**100%**.

Use the **Velocity** field to set the velocity of the arpeggiator notes. Choose **As played**, **From first note**, **Accented**, **Full**, **3/4**, **Half** or **1/4**.

Use the **Swing** field to set the amount of swing in the arpeggiator from **50%** to **75%**. Swing lets you "shuffle" your beats—from subtle to extreme.

The **Arp mode** section of the Arpeggiator window is available when the **Action** is set to **Arp**. When this action is selected, hold down a chord and the arpeggiator will play a pattern based on the notes held.

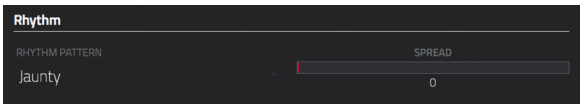


Use the **Pattern** field to set how the arpeggiator triggers the held notes.

Use the **Octaves** field to set how many octaves of the held notes the arpeggiator will cycle through.

Use the **Variation** field to apply rhythmic variation to the set pattern.

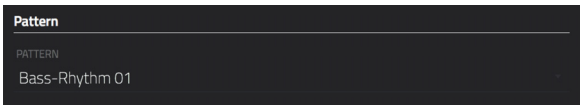
The **Rhythm** section of the Arpeggiator window is available when **Action** is set to **Note Repeat** or **Rhythm**. The Note Repeat action provides traditional MPC Note Repeat behavior. When the Rhythm arpeggiator action is selected, hold down a chord and the arpeggiator will play the held notes in a rhythmic pattern.



Use the **Spread** field to spread the timing of the held notes, creating a glissando effect.

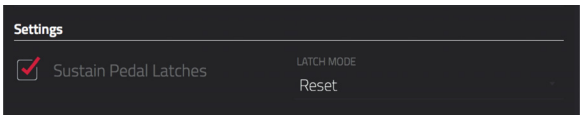
Use the **Rhythm Pattern** field to choose the pattern played when notes are held. This is only available for the **Rhythm** action.

The **Pattern** section of the Arpeggiator window is available when the **Action** is set to **Pattern**. When this arpeggiator action is selected, hold down a single note to trigger a melodic phrase. As you change what note is held, the melodic phrase will be transposed.



Use the **Pattern** field to choose the pattern.

The **Settings** section of the Arpeggiator window offers additional options to control the arpeggiator.



If you have a sustain pedal connected, you can enable **Sustain Pedal Latches** to use it to control latching.

Use the **Latch Mode** setting to set the action of the sustain pedal, either **Reset** or **Add**.

Effects

You can apply various effects to the pads, keygroups, tracks and master outputs, using **insert** and **send**/**return** effects. This chapter can help you get a good overall understanding of how the effects work.

See ***Appendix*** > ***Effects & Parameters*** for a list of all available effects (with a brief description of each) and their editable parameters.

Overview

In a track, each **pad** or **keygroup** can have up to **four insert effects** applied to it. See ***Insert Effects*** > ***Pads*** or ***Keygroups*** to learn more about this.

An entire **track** can also have up to **four insert effects** applied to it, as well. See ***Insert Effects*** > ***Tracks*** to learn more about this.

Additionally, each **pad**, **keygroup**, and **track** can each be sent to (up to) **four return channels**, each of which can have up to **four insert effects** of their own. Their audio will be routed through the insert effects on those returns, and the processed audio will be sent to a master output. See ***Send/Return Effects*** to learn more about this.

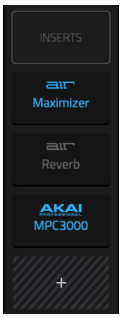
Finally, you can apply up to **four insert effects** to each master output (a stereo pair of channels: **Outputs 1/2** or **Outputs 3/4**). See ***Insert Effects*** > ***Masters*** to learn more about this.

There are three other modes that handle effects differently:

- The **Sampler** can use up to **four insert effects**, which are applied to the audio as you record it. This means that the effects cannot be “removed” from the sound later. Learn more about the Sampler in the ***Modes*** > ***Sampler*** chapter.
- Similarly, the **Looper** can use up to **four insert effects**, which are applied to the audio as you record it. This means that the effects cannot be “removed” from the sound later. Learn more about the Looper in the ***Modes*** > ***Looper*** chapter.
- In **XYFX Mode**, the effects act like a single insert effect on that track. In fact, **XYFX** is the name of the insert effect you have to load to the track before you can use this mode. Learn more about XYFX Mode in the ***Modes*** > ***XYFX Mode*** chapter.

To view, load, edit, or clear effects, tap the **Inserts** button. This usually appears in a channel strip (next to a **level slider** and **pan knob**).

To view and edit an effect, tap the effect name below the Inserts button.



When viewing loaded effects, you will see this window:

To select an effect, use the field for each insert slot. A window (described below) will appear.

To edit the parameters of a loaded effect, tap the **pencil icon** next to the insert slot.

To clear the insert slot, tap the **trash can icon** next to it.

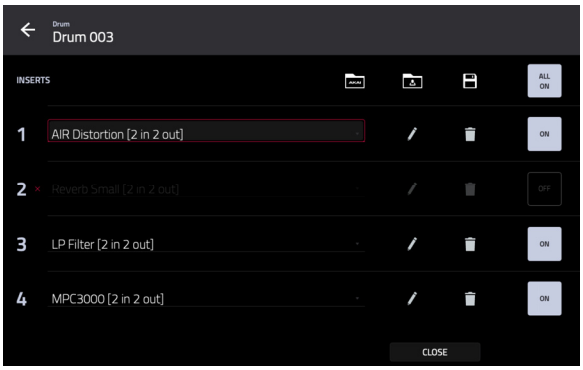
To enable or disable an effect slot, tap the **On/Off** button next to it.

To disable all four effect slots, tap the **All On/All Off** button in the upper-right corner. Tap it again to reactivate the previously active effects.

To load a factory FX rack, tap the **Akai folder icon**. Select the desired FX rack from the options and all associated effects will be added to the insert slots.

To load a user FX rack, tap the middle **folder icon**.

To save an FX rack, tap the **Save disk icon**.



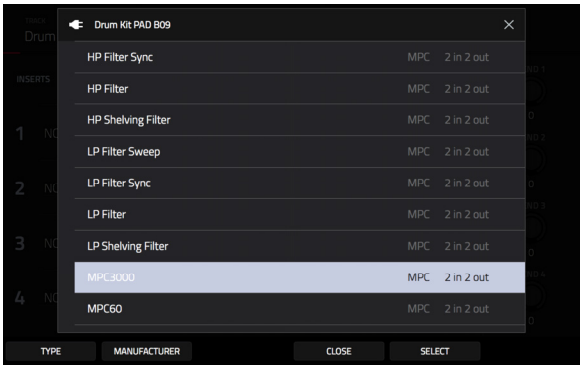
When selecting an effect, you will see this window:

To move through the list, swipe up or down. Alternatively, use the **data dial** or **–/+** buttons.

To sort or unsort the effects by type or manufacturer, tap **Type** or **Manufacturer** in the lower-left corner.

To load an effect, double-tap it. Alternatively, tap **Select** or the **data dial**.

To cancel, tap **Close** or anywhere outside the list.



When you edit an effect, you will see this window:

To adjust a parameter, tap and drag its control. Alternatively, use the **data dial** or **–/+** buttons. **To make finer adjustments**, double-tap the control and adjust the larger version of it that appears.

Tip: Set the **Knobs** to **screen mode** to quickly adjust the corresponding parameters.

To select another page of parameters, tap tabs at the bottom of the screen.

To remove the effect from the insert slot, tap the **trash can** icon.

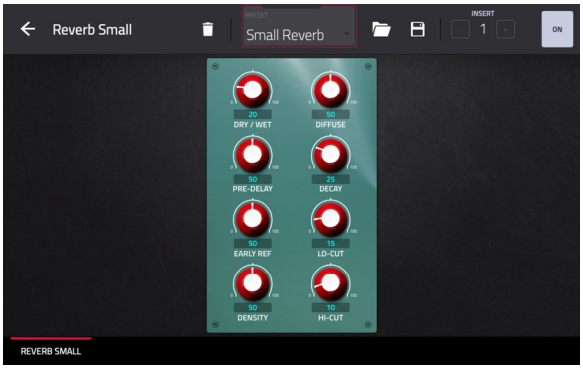
To enable or disable the effect, tap the **On/Off** button in the upper-right corner.

To load an effect preset, tap the **Folder icon**.

To save an effect preset, tap the **Save disk icon**.

To edit parameters for another insert effect on the same pad, track, etc., tap the **Insert -/+** buttons at the top of the screen.

To close the window, tap **Close** or the upper part of the screen.

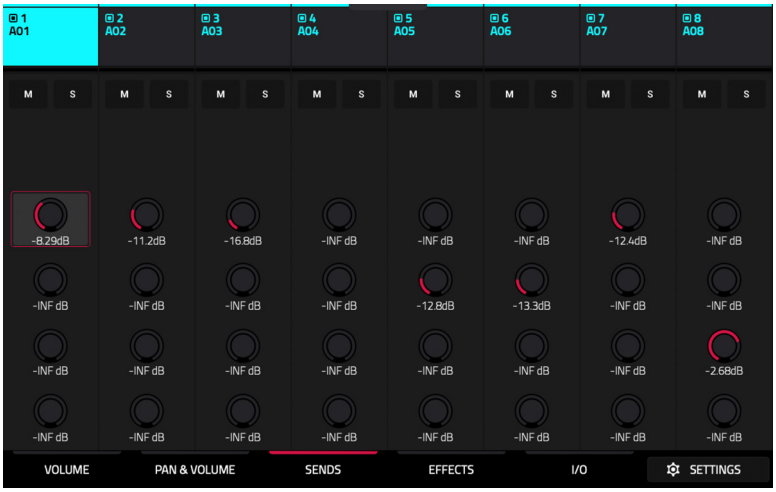


Insert Effects

Pads

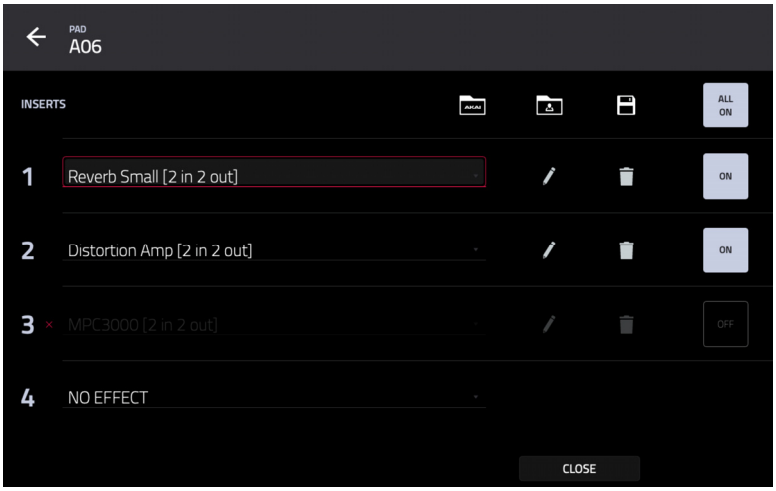
You can load up to four insert effects to each pad. You can do this in the Pad Mixer or Track Edit Mode.

Tip: When using pad insert effects, they will be applied to the selected pad only. This means that you could apply unique combinations of effects to each pad within a kit. If you want to apply the same effect to all pads, do this with a track insert effect (see ***Insert Effects*** > ***Tracks***).



To load a pad insert effect in the Pad Mixer:

1. Tap the **Effects** tab at the bottom of the screen.
2. Press the desired **pad** to select it, or tap it on the screen. Swipe your finger to the left to scroll through the banks of pads.
3. Tap an insert slot to open the effects window and use it to load or edit effects.



To load a pad insert effect in Track Edit Mode:

1. While using the desired track, press the desired **pad** to select it.
2. Tap the **Effects** tab in the lower-right corner, and use it to load or edit effects.

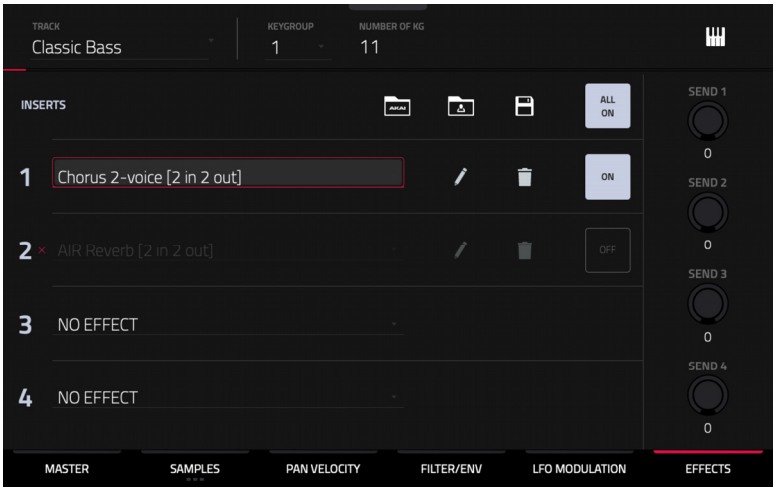
Keygroups

You can load up to four insert effects to each keygroup. You can do this in the Pad Mixer or Track Edit Mode.

Important: When using keygroup insert effects, they will be applied to that keygroup only. Keep this in mind if you load insert effects to multiple keygroups with overlapping note ranges—the effects will overlap in that range as well.

To load a keygroup insert effect in the Pad Mixer:

1. Tap the **Effects** tab at the bottom of the screen.
2. Tap an insert slot to open the effects window and use it to load or edit effects.



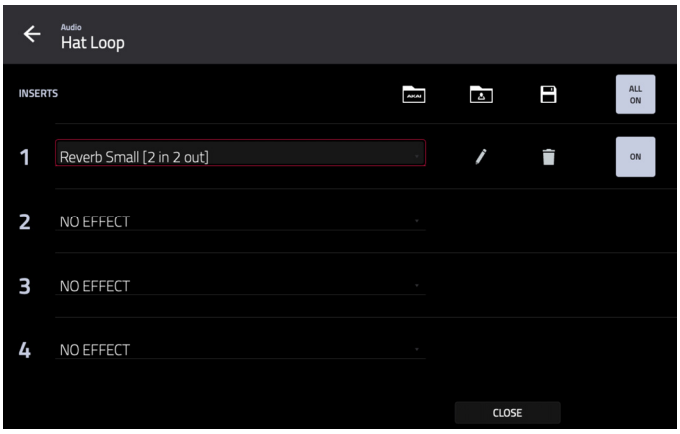
To load a keygroup insert effect in Track Edit Mode, tap the **Effects** tab at the bottom of the screen and then use the screen that appears to load or edit effects.

Important: Remember that the effect will be applied to that keygroup only.

Tracks

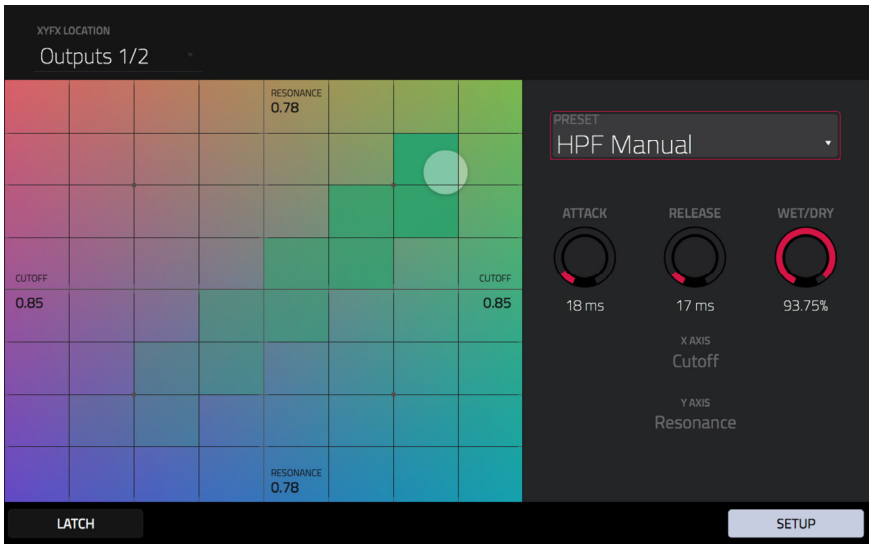
You can load up to four insert effects to each track. You can do this in the Mixer or XYFX Mode.

Note: In XYFX Mode, the effects act like a single insert effect on that track. In fact, **XYFX** is the name of the insert effect that is loaded when use this mode.



To load a track insert effect in the Mixer:

1. Tap the **Effects** tab at the bottom of the screen.
2. Tap an insert slot to open the effects window and use it to load or edit effects.



To load XYFX for a track in XYFX Mode:

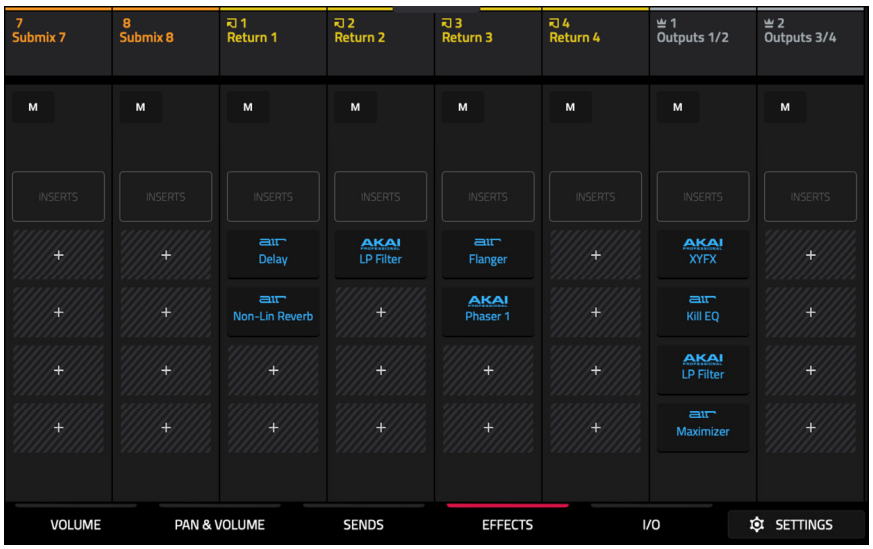
1. Select the desired track in another mode, and then enter XYFX Mode.
2. If you have not yet used XYFX Mode for this track, tap **Insert XYFX** on the screen to load it and show the XY pad.

   Note: If you already have four insert effects loaded, you will need to clear one of the insert effect slots before doing this.

   If you have already used XYFX Mode for this track, the XY pad will appear.
3. Tap **XYFX Location** in the upper-left corner, and select **Track**.
4. If the **Setup** panel is not shown, tap **Setup** in the lower-right corner to show it.
5. Use the **Preset** field to load an effect. Use the controls below the **Preset** field to edit the effect.

Masters

You can load up to four insert effects to each master output (a stereo pair of channels: **Outputs 1/2** or **Outputs 3/4**). You can do this in the Mixer.



To load a master insert effect in the Mixer:

1. Press the **Master** button to show the Returns and Master Outputs in the Mixer.
2. Tap the **Effects** tab at the bottom of the screen.
3. Tap an insert slot to open the effects window and use it to load or edit effects.

Submixes

You can load up to four insert effects to each **Submix 1–8**. You can do this in the Mixer.

To load a submix insert effect in the Mixer:

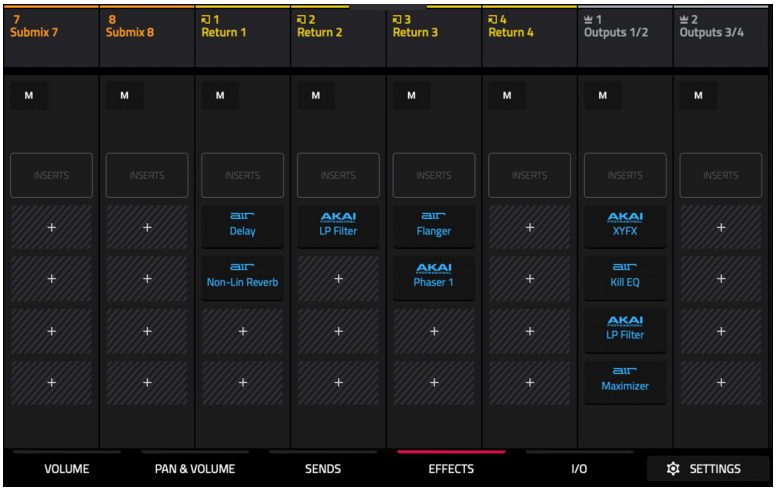
1. Press the **Master** button to show the Returns and Master Outputs in the Mixer.
2. Swipe to the right to show the Submixes to the left of the Returns.
3. Tap the **Effects** tab at the bottom of the screen.
4. Tap an insert slot to open the effects window and use it to load or edit effects.

Send/Return Effects

Send/return effects work in the following way:

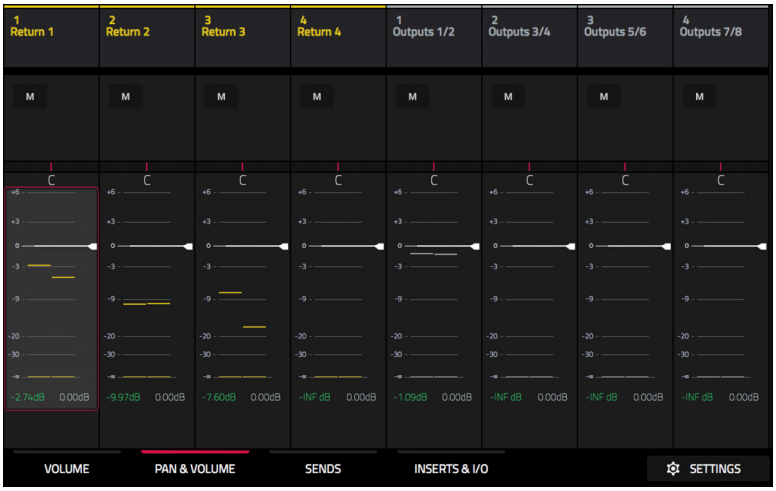
1. A **pad** or **drum**, **keygroup**, **plugin** or **audio track** sends its audio to a **return** at a designated **send level**.
2. That audio is processed by the effects on the return. Each return can have up to **four insert effects** loaded and activated.
3. The processed audio is sent to a pair of master outputs (stereo) or a single master output (mono).

You can load send/return effects and set return levels only in the Track Mixer, described below. The rest of this section describes the different ways to set the desired send levels for pads or tracks.



To load a send/return effect to a return:

1. In the Mixer, press the **Master** button on the hardware to show the **Returns** and **Master**.
2. Tap the **Effects** tab at the bottom of the screen.
3. Tap an insert slot to open the effects window and use it to load or edit effects.

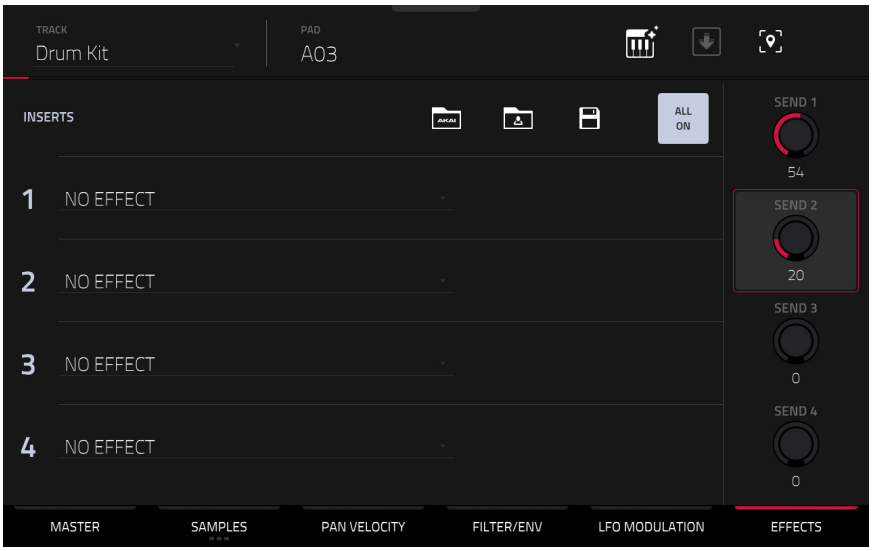


To set the return level:

1. In the Mixer, press the **Master** button on the hardware to show the **Returns** and **Master**.
2. Tap the **Volume** or **Pan & Volume** tab in the lower-left corner.
3. In the screen, tap the **track** that corresponds to the desired return.
4. **To adjust the level of the currently selected return**, use the **data dial** or **–/+** buttons. Alternatively, use the **level slider** in the channel strip. **To make finer adjustments**, double-tap the **track** on the screen and adjust the larger version of the slider that appears.

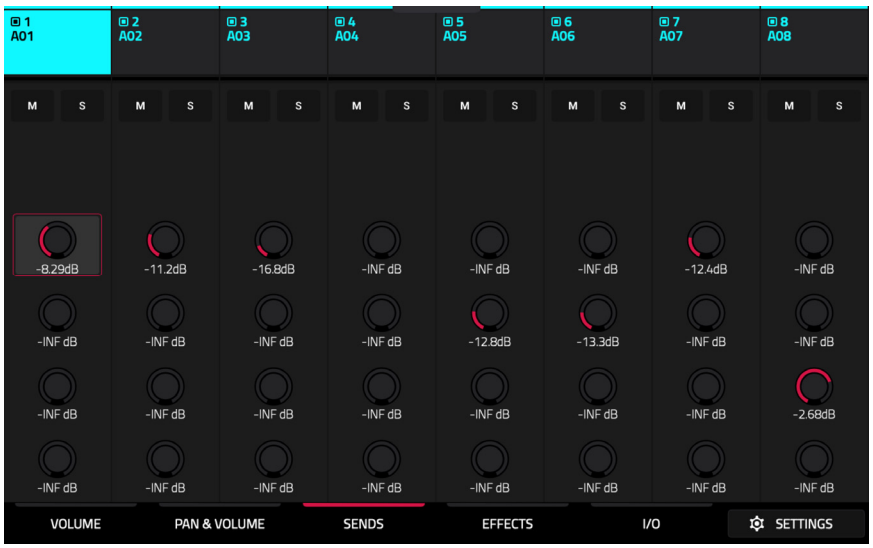
Pads

You can set the send levels for individual pads in Track Edit Mode or the Pad Mixer.



To set the send levels for a pad in Track Edit Mode:

1. While editing the desired clip in Track Edit Mode, press the desired clip launch **pad** to select it.
2. Tap the **Effects** tab in the lower-right corner.
3. Use the **Send** knobs to set the send level for each return.

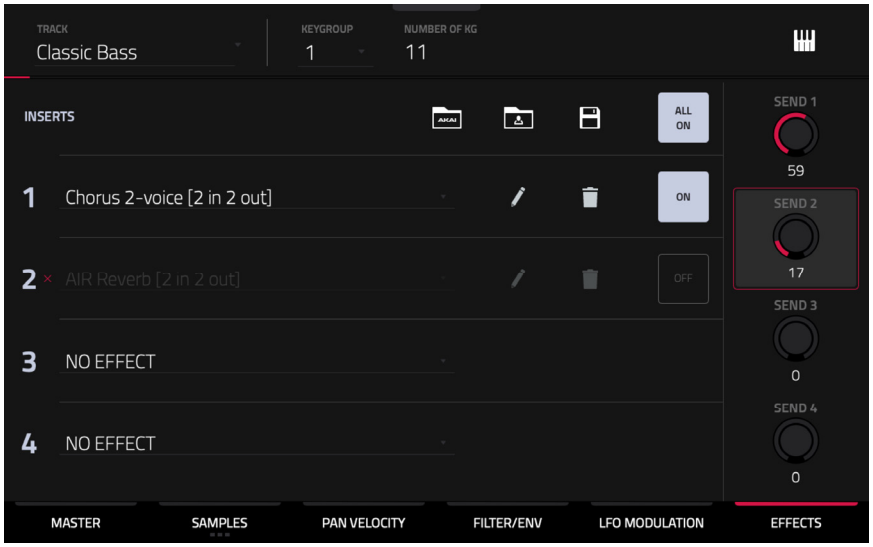


To set the send levels for a pad in the Pad Mixer:

1. Tap the **Sends** tab at the bottom of the screen.
2. Press the desired **pad** to select it, or tap it on the screen.
3. **To set the send level**, use the **data dial** or **–/+** buttons. **To make finer adjustments**, double-tap the **knob** on the screen and adjust the larger version of the knob that appears.

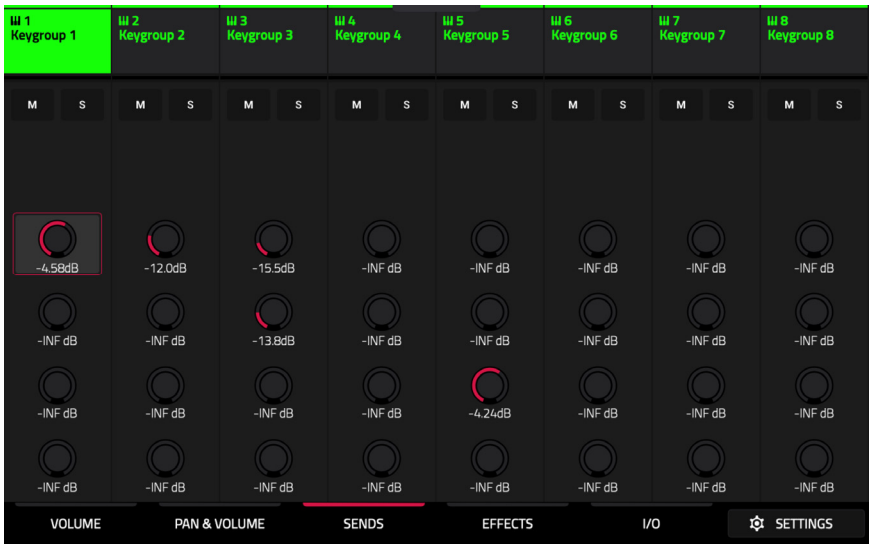
Keygroups

You can set the send levels for keygroups in Track Edit Mode or the Pad Mixer.



To set the send levels for a keygroup in Track Edit Mode:

1. While using the desired track, press the desired **pad** to select its keygroup. Alternatively, use the **Keygroup** field at the top of the screen.
2. Tap the **Effects** tab in the lower-right corner.
3. Use the **Send** knobs to set the send level for each return.



To set the send levels for a keygroup in the Pad Mixer:

1. Tap the **Sends** tab at the bottom of the screen.
2. Press the desired **pad** to select its corresponding keygroup, or tap it on the screen.
3. **To set the send level**, use the **data dial** or **–/+** buttons. **To make finer adjustments**, double-tap the **pad** on the screen and adjust the larger version of the knob that appears.

Audio and Plugin Tracks

You can set the send levels for audio and plugin tracks in the Mixer only.

To set the send levels for an audio or plugin track:

1. Tap the **Sends** tab at the bottom of the screen.
2. In the screen, tap the **send knob** in the desired track.
3. **To set the send level**, use the **data dial** or **–/+** buttons. **To make finer adjustments**, double-tap the **pad** on the screen and adjust the larger version of the knob that appears.

Plugins

Force includes four new plugins from AIR Music Technology to help you get started making music right out of the box.

To learn more about plugin tracks, see ***Operation*** > ***General Features*** > ***Tracks*** > ***Plugin Tracks***.

Bassline

The AIR Bassline plugin emulates the sound of classic mono synths, with a contemporary twist.

Osc / Filter / Envelope

Use this tab to adjust the settings for the oscillators, as well as their filter and envelope settings.

Parameter		Description	Value Range
Oscillator	Waveform	Continuously variable waveshape for the oscillator.	Saw Octave, Saw, Square, Sine
	Sub-Octave	Amount of sub-octave oscillator.	0–100%
	Fifth	Amount of fifth-oscillator.	0–100%
	Start Phase	Position of the waveform when a note is triggered.	Free, 0 degr., 180 degr.
	Glide Time	Amount of time to slide from the pitch of one note to the next note played.	10.0 ms – 2.00 s
	Boost	Boosts the signal of the oscillator.	0.0 dB – 48.0 dB
	Boost Freq.	Center frequency of the boost.	* 1.0 – * 240.0
	Boost Envelope	Amount of effect of the envelope on the Boost section. Adjust **Gain** to control the amount of boost. Adjust **Frequency** to control the width of the boosted frequency.	Gain 100–0%, Off, Frequency 0–100%
Filter	LP Cutoff	Cutoff frequency for the low-pass filter.	20.0 Hz – 20.0 kHz
	Reso	Resonance of the filter.	0–100%
	Filter Env	Envelope of the filter. At negative values, decreases the cutoff value based on the filter decay value. At positive values, increases the cutoff value based on the filter decay value.	-100% – 0 – 100%
	HP Cutoff	Cutoff frequency for the high-pass filter.	10.0 Hz – 500 Hz
Envelope	Amp Attack	Length of time for the note to reach full volume.	100–0% Soft to 0–100% Hard
	Amp Decay	Length of time for the note to reach the sustained volume.	0–100%
	Filter Decay	Length of time for the filter to reset after being released.	0–100%
	Pitch Mod	Amount of pitch modulation applied to the envelope.	0–100%

Velocity / Master / Chorus

Use this tab to adjust the Velocity Control settings, Master volume. You can also apply and adjust the settings for the built-in Chorus effect.

Parameter		Description	Value Range
Velocity	Amp Control	The amount of effect velocity has on amplitude control.	0–100%
	Filter Control	The amount of effect velocity has on filter control.	0–100%
	Boost Control	The amount of effect velocity has on boost control.	0–100%
	Env Retrigger	Sets whether the envelope will retrigger when a note is played while another note is being held.	Off, On
Master	Master Volume	Sets the volume level.	-inf dB – +6.0 dB
	Drive Type	Choose one of two drive algorithms.	Overdrive, Clip
	Drive Amount	Amount of drive applied.	0–100%
	Bend Range	Number of semitones up or down controlled by MIDI pitch bend messages	0–12
Chorus	Rate	Modulation speed of the chorus effect.	0.40 Hz – 3.20 kHz
	Depth	Modulation depth of the chorus effect.	0–100%
	Mix	Wet/dry amount of the chorus effect.	0–100%
	On/Off	Enables or disables the effect.	Off, On

Delay

Use this tab to apply and adjust the settings for the built-in delay effect.

Parameter	Description	Value Range
Time	Length of time of the delayed signal. When **Sync** is set to **Free:** When **Sync** is set to **Sync:**	 1 ms – 2.00 s 1/32 – 8/4
Sync	Set to **Free** to adjust **Time** by milliseconds, or set to **Sync** to match the Delay **Time** to the **Global Tempo**.	Free, Sync
Mix	Wet/dry amount of the delay effect.	0–100%
Feedback	Amount of signal fed back into the delay line.	0–100%
Damp	Center frequency of where the delay signal will be dampened.	1.00 – 20.0 kHz
Reso	Amount of resonance of the feedback signal.	0–100%
Reso Freq	Center frequency for feedback resonance.	100 Hz – 10.0 kHz
Ratio	Reduces the delay **Time** in either the **Left** or **Right** stereo field. This is useful for creating offset, panned delays.	L 50:100, R 50:100
HPF	Center frequency for delay signal high-pass filter.	20.0 Hz – 1.0 kHz
Width	Stereo width of delay signal. Higher values give wider stereo separation.	0–100%
On/Off	Enables or disables the effect.	Off, On

Compressor / Hype

Use this tab to apply and adjust the settings for the built-in Compressor and Hype effects.

Parameter		Description	Value Range
Compressor	Threshold	Signal level after which the compressor will be applied.	0.0 – -60. dB
	Ratio	Amount of compression applied.	1.0:1 – 100.0:1
	Output	Amount of additional output gain for the compressed signal.	0.0 – +30.0 dB
	Mix	Wet/dry mix of the compressor effect.	0–100%
	Knee	How gradually the compressor reacts as the threshold is reached. Lower values apply a "soft" knee (compression is applied more slowly as signal approaches the threshold), and higher values apply a "hard" knee (compression is immediately applied when the threshold is reached).	0–100%
	Attack	Length of time to apply the compression.	100 us – 300 ms
	Release	Length of time for compressed signal to return to original level.	10 ms – 4.00 s
	On/Off	Enables or disables the effect.	Off, On
Hype	High	Dampens or maximizes high end frequencies.	-100 – 0 – +100%
	Low	Dampens or maximizes low end frequencies.	-100 – 0 – +100%
	On/Off	Enables or disables the effect.	Off, On

Electric

The AIR Electric plugin emulates the sound of classic electric pianos.

While viewing any of the tabs listed below, you can quickly enable or disable the **Bell** and **Noise** sounds, as well as the built-in effects (**Tremolo**, **Tube**, **Chorus**, **Delay** and **Spring Reverb**).

When viewing a specific tab, you can enable or disable the sound or effect by pressing the circle in the upper-right corner of each section.

Pickup / Env

Use this tab to edit the settings for the emulated pickup and the sound envelope.

Parameter		Description	Value Range
Pickup	Type	Type of pickup emulated.	Pickup, 0–100% Electro-Static, 0–100% Electro-Magnetic
	Height	Height of the pickup to the tines.	0.0 – 5.0 mm
	Distance	Distance of the pickup to the tines.	0.1 – 10.0 mm
	Clip	Amount of clipping applied to the signal.	0–100%
	Keytrack	Ties the pickup parameters to the pitch being played. At higher values, the **Distance** is increased as the pitch is increased.	0–100%
Envelope	Attack	Length of time for the note to reach full volume.	100–0% Hard, 0–100% Soft
	Decay	Length of time for the note to reach the sustained volume.	100 ms – 20.0 s
	Release	Length of time for the note to become silent after being released.	100 ms – 5.0 s
	Peak Length	Length of time full volume is held before decaying.	3 – 50 ms
	Keytrack	Ties the envelope parameters to the pitch being played. At higher values, the envelope time is decreased as the pitch is increased.	0–100%

Bell / Noise

Use this tab to apply and adjust the settings for the Bell and Noise sounds.

Parameter		Description	Value Range
Bell	Tune	Pitch of the bell sound, in semitones above the root pitch.	0– 60 semitones
	Dry/PU	Mix of Dry versus Pickup signal for the bell sound.	-100% – 0% – +100%
	Volume	Level of the bell sound.	-inf dB – +6.0 dB
	Tune Keytrack	Ties the tuning of the bell sound to the pitches played.	0–100%
	Decay	How long it takes for the bell sound to dissipate	100 ms – 7.0 s
	Keytrack	Ties the amount of bell sound to the pitch being played. At negative values, the bell sound is increased as the pitch increases. At positive values, the bell sound is increased as the pitch decreases.	-100% – 0% – +100%
Noise	Freq	Center frequency of the noise effect	200 Hz – 16.0 kHz
	Random	Amount of randomization applied to the noise effect	0–100%
	Mix	Level of noise effect present	-inf dB – +6.0 dB
	Attack	Length of time for the noise effect to reach full level	1–50 ms
	Decay	Length of time for the noise effect to dissipate	100 ms – 3.00 s
	Keytrack	Ties the **Freq** to the pitch being played.	0–100%

Setup

Use this tab to adjust general settings for the plugin.

Parameter	Description	Value Range
Polyphony	Number of voices available.	1–16 Voices
Master Volume	Overall level of the plugin.	-inf dB – +6.0 dB
Velo Level	Adjusts how much incoming velocity is applied.	0–100%
Velo Tone	Ties the incoming velocity to tone. At higher values, increased velocity increases tone brightness.	0–100%
Velo Attack	Ties the incoming velocity to the attack envelope. At higher values, low velocities feature longer attack times.	0–100%

Trem / Tube / Chorus

Use this tab to apply and adjust the settings for the built-in Tremolo, Tube (Over Drive), and Chorus effects.

Parameter		Description	Value Range
Tremolo	Rate	Modulation speed of the effect.	
		When **Sync** is set to **Free:**	0.25 – 13.00 Hz
		When **Sync** is set to **Sync:**	8/4 – 1/16
	Sync	Sync the Tremolo **Rate** to the **Global Tempo** or let it run **Free**.	Free, Sync
	Mode	Select **Pan** for stereo field modulation, or **Tremolo** for amplitude modulation.	Pan, Tremolo
	Depth	Amount of modulation applied.	0–100%
Tube	Drive	Amount of drive applied.	0–100%
	Headroom	Amount of gain reduction between the clean signal and the driven signal.	-30.0 – 0.0 dB
	Saturation	Amount of saturation applied.	0–100%
	Output	Output level of the tube driven signal.	-20.0 – 0.0 – +20.0 dB
Chorus	Rate	Modulation speed of the effect.	0.40 – 3.20 Hz
	Depth	Amount of pitch modulation of the effect.	0–100%
	Mix	Wet/dry amount of the chorus effect.	0–100%

Delay

Use this tab to apply and adjust the settings for the built-in Delay effect.

Parameter	Description	Value Range
Time	Amount of time between the dry signal and the delayed signal.	
	When **Sync** is set to **Free:**	1 ms – 2.00 s
	When **Sync** is set to **Sync:**	1/32 – 8/4
Sync	Sync the Delay **Time** to the **Global Tempo** or set to **Free** to adjust **Time** by milliseconds.	Free, Sync
Mix	Wet/dry amount of the delay effect.	0–100%
Feedback	Amount of signal fed back into the delay line.	0–100%
Damp	Center frequency of where the delay signal will be dampened.	1.00 – 20.0 kHz
Reso	Amount of resonance of the feedback signal.	0–100%
Reso Freq	Center frequency for feedback resonance.	100 Hz – 10.0 kHz
Ratio	Reduces the delay **Time** in either the **Left** or **Right** stereo field. This is useful for creating offset, panned delays.	L 50:100, R 50:100
HPF	Center frequency for delay signal high-pass filter.	20.0 Hz – 1.0 kHz
Width	Stereo width of delay signal. Higher values give wider stereo separation.	0–100%

Spring Reverb

Use this tab to apply and adjust the settings for the built-in Spring Reverb effect.

Parameter	Description	Value Range
Pre-Delay	Length of time between dry signal and reverberated signal.	0 ms – 250 ms
Time	Length of reverb tail.	1.0 – 10.0 s
Mix	Wet/dry amount of the reverb effect.	0–100%
Diffusion	Rate of increasing density of reverb reflections. At lower settings, the sound of individual reflections is more present. At higher settings, reflections are more uniform.	0–100%
Width	Stereo width of reverb signal. Higher values give wider stereo separation.	0–100%
Low Cut	Center frequency for reverb signal low-cut filter.	20.0 Hz – 1.00 kHz

Hype

The AIR Hype plugin is a modern style dual-oscillator synthesizer that includes a wide variety of built-in effects for endless combinations of sound, as well as convenient macro controls for lightning-fast adjustments.

Macro

Use this tab to adjust the macro settings for the plugin. You can access the Effect on/off switches in all tabs.

Parameter	Description	Value Range
Macros	These six macro controls are unique to each preset.	Varies
Cutoff	Amount of filter cutoff applied.	0–100%
Reso	Amount of filter resonance applied.	0–100%
Mod	Amount of modulation effect applied.	0–100%
Distortion	Amount of distortion effect applied.	0–100%
Delay	Amount of delay effect applied.	0–100%
Reverb	Amount of reverb effect applied.	0–100%
Pumper	Amount of pumper effect applied.	0–100%
Master	Master output volume.	-inf – +6.0 dB

Filter / Amp

Use this tab to adjust the filter and amplitude envelope settings.

Parameter		Description	Value Range
Filter	Cutoff	Cutoff frequency for the filter.	0–100%
	Reso	Amount of resonance of the filter.	0–100%
Filter Envelope	Attack	Length of time for the filter to reach full level.	0–100%
	Decay	Length of time for the filter to reach sustain level.	0–100%
	Sustain	Length of time for the filter to hold sustain level.	0–100%
	Release	Length of time for the filter to dissipate when released.	0–100%
	Envelope Depth	Amount of Filter Envelope added to the filter cutoff.	0–100%
	Envelope Velocity	Amount of effect the note velocity has on the filter envelope.	0–100%
Amp	Spike	Applies additional velocity to the amplitude attack.	0–100%
	Spike Decay	Length of time for the Spike to decay.	0–100%
Amp Envelope	Attack	Length of time for the note to reach full level.	0–100%
	Decay	Length of time for the note to reach sustain level.	0–100%
	Sustain	Length of time for the note to hold sustain level.	0–100%
	Release	Length of time for the note to dissipate when released.	0–100%
	Fade	Amount added to the envelope sustain level.	0–100%
	Velocity	Amount of effect the note velocity has on the amplitude envelope.	0–100%

Effects 1

Use this tab to adjust the settings for the Low-Frequency Oscillator and Modulation, Distortion and Hype effects.

Parameter		Description	Value Range
LFO	Rate	Speed of the low frequency oscillator.	
		When **Sync** is set to **1st Note** or **Each Note**:	0.03 – 30.00 Hz
		When **Sync** is set to **Temp+Note** or **Tempo+Beat**:	8/4 – 1/64
	Sync	Enables or disables LFO sync, and sets how it is synced when enabled.	Off, 1st Note, Each Note, Tempo+Note, Tempo+Beat
	Depth	Amount of LFO modulation applied.	0–100%
Mod	Rate	Speed of modulation.	0.05 – 20.00 Hz
	Adjust	Length of time the wet signal is offset from the dry signal.	0.0 – 24.0 ms
	Depth	Amount of modulation applied.	0–100%
	Mix	Wet/dry mix of the modulation effect.	0–100%
Distortion	Drive	Amount of drive applied.	0–100%
	Bias	Emulates amount of voltage sent to a tube power-amp.	-100 – 0 – 100%
	Output	Output level of the distorted signal.	0–100%
	Mix	Wet/dry mix of the distortion effect.	0–100%
Hype	Low	Dampens or maximizes low end frequencies.	-12.0 – +12.0 dB
	Lo-Mid	Dampens or maximizes low-mid frequencies.	-20.0 – +20.0 dB
	Hi-Mid	Dampens or maximizes high-mid frequencies.	-20.0 – +20.0 dB
	High	Dampens or maximizes high end frequencies.	-12.0 – +12.0 dB

Effects 2

Use this tab to adjust the settings for the Delay, Reverb, Compressor, Pumper and Limiter effects.

Parameter		Description	Value Range
Delay	Time	Amount of time between the dry signal and the delayed signal.	1/32 – 8/4
	Feedback	Amount of signal fed back into the delay line.	0–100%
	Freq	Adjusts the filter cutoff frequency of the delayed signal.	0–100%
	Mix	Wet/dry amount of the delay effect.	0–100%
	L/R	Reduces the delay **Time** in either the **Left** or **Right** stereo field. This is useful for creating offset, panned delays.	L 50:100 – R 100:50
Reverb	Pre-Delay	Length of time between dry signal and reverberated signal.	0.0 – 250.0 ms
	Time	Length of reverb tail.	0.0 – 30.0 s
	Mix	Wet/dry amount of the reverb effect.	0–100%
Compressor	Threshold	Signal level after which the compressor will be applied.	-30.0 – +10.0 dB
	Ratio	Amount of compression applied.	1.0:1 – 20.0:1
	Attack	Length of time to apply the compression.	0–100%
	Output	Amount of additional output gain for the compressed signal.	-20.0 – +20.0 dB
Pumper	Rate	Speed of the pumper effect.	Bar, 1/2 – 1/32T
	Depth	Amount of signal attenuation by the effect.	0–100%
	Release	Amount of time to release the effect.	0–100%
Limiter	Drive	Amount of drive added after the limiter effect.	0.0 – 32.0 dB

Setup

Use this tab to adjust the plugin setup parameters.

Parameter		Description	Value Range
Setup	Transpose	Transposition of the plugin, in semitones.	-36 – +36
	Tune	Fine tuning of the plugin, in cents.	-100 – +100
	Glide Time	Amount of time to slide from the pitch of one note to the next note played.	0 ms – 32 s
	Glide Mode	Enables or disables pitch gliding for all triggered notes or legato notes.	Off, Legato, On
	Mode	Sets the plugin to polyphonic or monophonic	Poly, Mono
	Del-Rev	Level of the delay and reverb signals.	-inf – +6.0 dB
	Master	Overall level of the plugin.	-inf – +6.0 dB
MIDI Control			
Mod Wheel	Destination	Send Mod Wheel data to one of the following control destinations.	Pitch, Cutoff, Reso, Amp, Pan
	Depth	Amount of modulation applied.	
		When **Destination** is set to **Pitch**:	-12.0 – +12.0
		When **Destination** is set to **Cutoff**, **Reso**, **Amp** or **Pan:**	-100 – 0 – 100%
	LFO	Ties the modulation to the Control LFO.	Off, On
Aftertouch	Destination	Send Aftertouch data to one of the following control destinations.	Pitch, Cutoff, Reso, Amp, Pan
	Depth	Amount of modulation applied.	0–100%
		When **Destination** is set to **Pitch**:	-12.0 – +12.0
		When **Destination** is set to **Cutoff**, **Reso**, **Amp** or **Pan:**	-100 – 0 – 100%
	LFO	Ties the modulation to the Control LFO.	Off, On
Control LFO	Sync	Enables or disables Control LFO sync, and sets how the Control LFO is synced when enabled.	Off, First Note, Each Note, BPM & Note, BPM & Beat
	Rate	Speed of modulation of the Control LFO.	
		When **Sync** is set to **First Note** or **Each Note**:	0.03 – 30.00 Hz
		When **Sync** is set to **BPM & Note** or **BPM & Beat**:	8/4 – 1/64
	Shape	Waveshape of the Control LFO.	Sine, Triangle, Sawtooth, Square, S&H Random, S&H Alternate, Random Drift, Slow Drift

TubeSynth

The AIR TubeSynth plugin emulates the sound of classic vintage analog polysynths. TubeSynth is based on the highly acclaimed AIR Vacuum Pro desktop synth plugin and also includes 5 integrated AIR effects.

Oscillator

Use this tab to adjust the settings for the two variable Oscillators and the Sub Oscillator.

Parameter		Description	Value Range
Oscillator 1	Octave	Coarse tuning of the oscillator by octaves. The **Wide** setting provides additional **Fine** tuning controls.	Wide, 32', 16', 8', 4', 2'
	Fine	Fine tuning of the oscillator by semitones. When **Octave** is set to **Wide**: When **Octave** is set to 32'–2':	 -70.00 – 0.00 – +70.00 -12.00 – 0.00 – +12.00
	Shape	Waveshape of Oscillator 1 (continuously variable)	Triangle, Saw, Square, Pulse
	F-Env➔Shape	Amount of Filter Envelope output subtracted from or added to the value defined by the Osc 1 **Shape** parameter.	-100 – 0 – +100%
	Quad	Enables or disables four-voice emulation for the oscillator.	Off, On
	Detune	Adjusts tuning of the additional **Quad** voices.	0–100%
Oscillator 2	Octave	Coarse tuning of the oscillator by octaves, all the way down to LFO speed.	LFO, 32', 16', 8', 4', 2'
	Fine	Fine tuning of the oscillator. When **Octave** is set to **LFO**: When **Octave** is set to 32'–2':	 0.01 – 20.00 Hz -12.00 – 0.00 – +12.00 semitones
	Shape	Waveshape of Oscillator 2 (continuously variable)	Noise, Saw, Square, Pulse
	F-Env➔Shape	Amount of Filter Envelope output subtracted from or added to the value defined by the Osc 2 **Shape** parameter.	-100 – 0 – +100%
	Sync	Enables of disables syncing of Oscillator 2 to Oscillator 1.	Off, On
	Micro Detune	Additional detuning of Oscillator 2.	0–100%
	Phase	Position of the waveshape when the sound is triggered.	0 – 360 degrees
Sub Oscillator	Shape	Waveshape of the sub oscillator (continuously variable).	Triangle, Saw, Square, Pulse

Mixer / Filter

Use this tab to control EQ for Oscillator 2, set the levels of the oscillators and effects, and edit the low-pass filter.

Parameter		Description	Value Range
Osc 2 EQ	Gain	Amount of gain applied to the selected **Frequency**.	-48 – 0 – +48 dB
	Frequency	Center frequency for the equalization band.	25 – 10,000 Hz
	Drive	Amount of drive added to the EQ signal.	0–100%
	Keytrack	Ties the EQ settings to the pitch being played	0–100%
Mixer	Osc 1	Level of Oscillator 1.	0–100%
	Osc 2	Level of Oscillator 2.	0–100%
	Sub Osc	Level of the Sub Oscillator.	0–100%
	Ring Mod	Level of Ring Modulation effect.	0–100%
	Drive	Level of Drive effect.	0–100%
LP Filter	Cutoff	Center frequency of the low-pass filter cutoff.	0–100%
	Reso	Amount of resonance of the low-pass filter.	0–100%
	Slope	Amount of attenuation applied above the cutoff frequency.	0 – 24 dB/oct
	Saturation	Amount of saturation applied to the low-pass filter.	0–100%
	Env	Percentage of the envelope output subtracted from or added to the LP Filter **Cutoff**.	-100 – 0 – +100%
	Keytrack	Ties the LP Filter **Cutoff** to the pitch being played.	0–100%

Envelope

Use this tab to adjust the various envelope settings.

Parameter		Description	Value Range
Filter Envelope	Attack	Length of time for the filter to reach full level.	1.00 ms – 100 s
	Decay	Length of time for the filter to reach sustain level.	1.00 ms – 100 s
	Sustain	Level that a sustained note is held at, as a percentage of the maximum level.	0–100%
	Release	Length of time for the filter to dissipate when released.	1.00 ms – 100 s
Amp Envelope	Attack	Length of time for the note to reach full level.	1.00 ms – 100 s
	Decay	Length of time for the note to reach sustain level.	1.00 ms – 100 s
	Sustain	Level that a sustained note is held at, as a percentage of the maximum level.	0–100%
	Release	Length of time for the note to dissipate when released.	1.00 ms – 100 s
Envelope 3	Start Level	Initial velocity level of the envelope.	0–100%
	Start Time	Length of time for the envelope to start.	0–5000 ms
	Slope Hold	Amount of Envelope subtracted from or added to the **Destination** when a note is held.	-100 – 0 – +100%
	Slope Rel	Amount of Envelope subtracted from or added to the **Destination** when a note is released.	-100 – 0 – +100%
	Destination	Where the envelope will be applied to.	Off, Pitch, Osc 2 Pitch, LFO 1/2 Rate, Osc1 Quad Det., Osc 1/2 Shape, Osc 1/2 Level, Ring Level

LFO

Use this tab to adjust the settings for the low-frequency oscillators.

Parameter		Description	Value Range
LFO 1/LFO 2	Shape	Waveshape of the low-frequency oscillator.	Sine, Square. Saw Up, Saw Down, Pump, S&H, Drift
	Destination	Where the low-frequency oscillator is sent.	
		LFO1:	Off, Pitch, Filter, Level, Pan
		LFO2:	Pitch, Osc 1/2 Shape, Osc 1/2 Pitch, LPF, Quad Detune, Osc 2 EQ Freq, Osc 2 EQ Gain, Ring Level
	Rate	Speed of modulation.	
		When **Sync** is **Off**:	0.01 – 20.00 Hz
		When **Sync** is **On**:	8/4 – 1/32
	Depth	Amount of modulation applied.	0–100%
	Fade	Apply a fade-in or fade-out of the LFO signal.	0.00 – 20.00 s out, No fade, 0.00 – 20.00 s in
	Sync	Sync the LFO **Rate** to the **Global Tempo** or turn **Off** to adjust **Rate** by Hertz.	Off, On
Modulation	Source	Where the modulation signal is sent from.	Filter Env, Amp Env, Osc 1, Osc 2
	Destination	Where the modulated signal is received.	Pitch, Osc 1/2 Shape, Osc 1/2 Pitch, LPF, Quad Detune, Osc EQ 2 Freq, Osc 2 EQ Gain, Ring Level
	Depth	Amount of modulation applied.	-100 – 0 – 100%

Setup

Use this tab to adjust plugin setup parameters.

Parameter		Description	Value Range
Controller Destinations			
	Velocity 1	Send Velocity data to one of the following control destinations.	Amp, Cutoff, Osc1 Shape, Osc2 Shape, Osc1&2 Shape
	Depth	Amount of modulation applied.	0–100%
	Velocity 2	Send Velocity data to one of the following control destinations.	Amp, Cutoff, Osc1 Shape, Osc2 Shape, Osc1&2 Shape
	Depth	Amount of modulation applied.	0–100%
	Modwheel	Send Modwheel data to one of the following control destinations.	Amp, Cutoff, Osc1 Shape, Osc2 Shape, Osc1&2 Shape
	Depth	Amount of modulation applied.	-100 – 0 – 100%
	Aftertouch	Send Aftertouch data to one of the following control destinations.	LFO 1 Depth, Cutoff, Osc1 Shape, Osc2 Shape, Osc1&2 Shape
	Depth	Amount of modulation applied.	-100 – 0 – 100%
Setup	Polyphony	Number of allowable voices, and how voices are triggered.	Legato, Retrigger, 2, 3, 4
	Bend Range	Number of semitones up or down controlled by MIDI pitch bend messages	2–12 (semitones)
	Glide Time	Amount of time to slide from the pitch of one note to the next note played.	1.00 ms – 100 s
	Glide All	Enables or disables pitch gliding for all triggered notes, not just legato notes.	Off, On
	Detune	Amount of detuning applied. This setting is only applied when **Doubling** is enabled.	0–100%
	Doubling	Enables or disables voice doubling.	Off, On
Output	Shape	Amount of signal sent to a Tube Drive.	0–100%
	Width	Stereo width of the audio signal. Higher values give wider stereo separation.	0–100%
	Level	Overall output volume of the plugin.	-inf dB – +12.0 dB

Chorus

Use this tab to apply and adjust the settings for the built-in Chorus effect.

Parameter	Description	Value Range
Rate	Modulation speed of the effect.	0.01 – 10.0 Hz
Delay	Length of time the wet signal is offset from the dry signal.	0.00 – 24.00 ms
Voices	Number of voices used in the chorus effect.	3, 4, 6
LFO Wave	Waveshape of the low-frequency oscillator for the chorus effect.	Tri, Sine
Depth	Amount of pitch modulation of the effect.	0.00 – 24.00 ms
Width	Stereo width of the chorus effect. Higher values give wider stereo separation.	0–100%
Lo Cut	Center frequency for the chorus low-cut filter.	20.0 Hz – 1.0 kHz
Mix	Wet/dry amount of the chorus effect.	0–100%

Delay

Use this tab to apply and adjust the settings for the built-in delay effect.

Parameter	Description	Value Range
Time	Length of time between the dry signal and the delayed signal. When **Sync** is set to **Free:** When **Sync** is set to **Sync:**	 1 ms – 2.00 s 1/32 – 8/4
Sync	Enable to sync the Delay **Time** to the **Global Tempo**, disable to set the **Time** in milliseconds.	Off, On
Feedback	Amount of delay signal fed back into the delay line.	0–100%
Mix	Wet/dry amount of the delay effect.	0–100%
Damp	Center frequency of where the delayed signal will be dampened.	1.00 – 20.0 kHz
Reso	Amount of resonance of the feedback signal.	0–100%
Reso Freq	Center frequency for feedback resonance.	100 Hz – 10.0 kHz
Ratio	Reduces the delay **Time** in either the **Left** or **Right** stereo field. This is useful for creating offset, panned delays.	L 100:50, R 50:100
HPF	Center frequency for delay signal high-pass filter.	20.0 Hz – 1.0 kHz
Width	Stereo width of delay signal. Higher values give wider stereo separation.	0–100%

Reverb / Compressor / Hype

Use this tab to apply and adjust the settings for the built-in Reverb, Compressor and Hype effects.

Parameter		Description	Value Range
Reverb	Mode	Type of reverb applied.	Hall, Stadium, Room, Abstract
	Time	Length of reverb tail.	0.4 s – +inf s
	Lo Cut	Center frequency for the reverb low-pass filter.	1 – 1000 Hz
	Hi Cut	Center frequency for the reverb high-pass filter.	1.0 – 20.0 kHz
	Mix	Wet/dry mix of the reverb effect.	0–100%
Compressor	Threshold	Signal level after which the compressor will be applied.	0.0 – -60. dB
	Output	Amount of additional output gain for the compressed signal.	0.0 – +30.0 dB
	Mix	Wet/dry mix of the compressor effect.	0–100%
	Ratio	Amount of compression applied.	1.0:1 – 100.0:1
	Knee	How gradually the compressor reacts as the threshold is reached. Lower values apply a "soft" knee (compression is applied more slowly as signal approaches the threshold), and higher values apply a "hard" knee (compression is immediately applied when the threshold is reached).	0–100%
	Attack	Length of time to apply the compression.	100 us – 300 ms
	Release	Length of time for compressed signal to return to original level.	10 ms – 4.00 s
Hype	High	Dampens or maximizes high end frequencies.	-100 – 0 – +100%
	Low	Dampens or maximizes low end frequencies.	-100 – 0 – +100%

Standalone vs. Computer Mode

Force can function in two ways: **Standalone Mode** and **Computer Mode**. By default, Force will power on in Standalone Mode.

In Standalone Mode:

- The Force hardware will **not** communicate with a computer over a USB connection.
- Any files (projects, samples, etc.) that you save or load are in the internal hard drive on your Force or a connected USB drive or SD card.

In Computer Mode:

- Force will communicate with a computer over USB connection.
- Force can be used as an audio interface.

Note: Full Computer Mode support will be available in a forthcoming firmware update.

To enter Computer Mode:

1. Make sure the **USB-B Port** on Force is connected to your computer.
2. If Force is powered off, press the **power button** to turn it on.
3. With Force in Standalone Mode, press **Menu** to open the Menu, and then tap the **computer icon** in the upper-right corner.
4. When the **Enter Computer Mode** window appears, tap **Computer Mode** to continue. (If you tap **Cancel**, you can continue using Force in standalone mode.) **Looking for computer** may appear briefly on the display before your computer recognizes the USB connection as a controller.

   While in Computer Mode, the display will show **Computer Mode** with a monitor icon and a button to return to Standalone Mode.

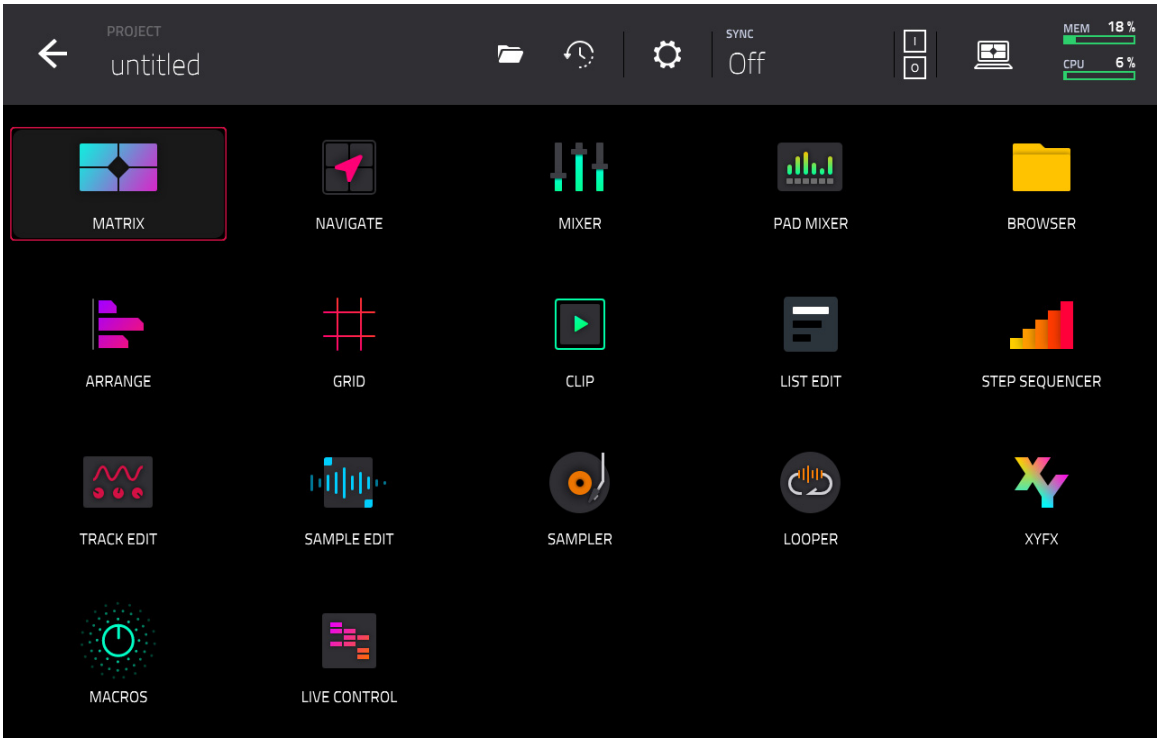
To return to Standalone Mode:

1. If Force is powered off, press the **power button** to turn it on.
2. With Force in Computer Mode, press **Standalone**.
3. A confirmation window will appear. Make sure that you have safely ejected all drives connected to Force, and then tap **Yes** to continue. (If you tap **Cancel**, you can continue using Force in computer mode.)
4. Force will restart into Standalone Mode.

Modes

The Force hardware has a Menu page that lets you select any one of several modes. This chapter describes the various features and functions of each one.

Click a button below to skip directly to that chapter.



Matrix Mode

Matrix Mode gives you an overview of your tracks and clips.

To enter Matrix Mode, do one of the following:

- Press **Matrix**.
- Press **Menu**, and then tap **Matrix**.

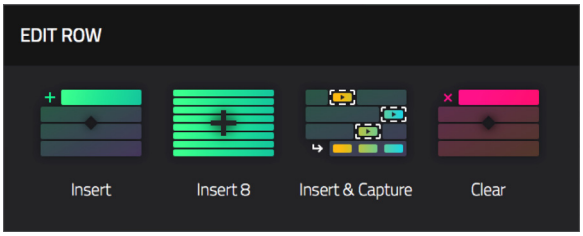
To create a new clip, double-tap an empty clip slot. Alternatively, tap and hold on an empty clip slot, and then tap **Create**.

To launch a clip, tap an existing clip.

To launch a scene, tap the scene launch icons on the far right of the display.

To add a new track, tap the **+** icon at the top of the display. If your project already has 8 tracks, move the Matrix view to the right to show this icon.

To insert a new scene or clear a scene, hold **Edit** and press a **Scene Launch** button to open the **Edit Row** window.



Tap **Insert** to insert one new scene row.

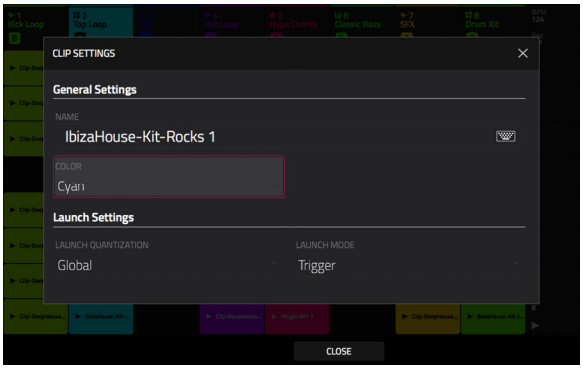
Tap **Insert 8** to insert 8 new scene rows.

Tap **Insert & Capture** to capture any clips currently playing in other scenes and add it to the new scene.

Tap **Clear** to clear the currently selected scene.

To edit track settings, double-tap the track name at the top of the display. See ***General Features*** > ***Tracks*** for more information on editing track settings.

To edit clip settings, hold **Edit** and press a clip launch pad.



Use the **Name** field to rename the clip. Tap it and use the virtual keyboard that appears.

Use the **Color** field to set the clip color.

Use the **Launch Quantization** field to set the quantization amount for launching the clip.

Use the **Launch Mode** field to set the clip launch behavior. Select **Toggle** for the clip to start or stop with each successive press. Select **Trigger** for the clip to start at the beginning with each press.

To move the current matrix display view, use the **cursors**. To move the display by eight rows or columns at a time, hold **Shift** and use the **cursors**.

To show or hide the Arrangement row in the matrix, press and hold **Shift** and press the **Launch/Config** button to open the Launch Configuration window, and then check or uncheck the **Show arrangement in clip matrix** box.

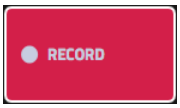
You can also tap and hold your finger on a clip slot to quickly access some of the functions above. See ***Addenda > Updates in Force 3.0.3*** > ***New Features*** > ***Callout Menus*** for more information.

The clips in Matrix Mode will change appearance based on their current status:

Stopped, playback stopped

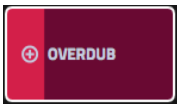
Prepared to record

Stopped, playback active



Recording

Prepared to play (flashing)



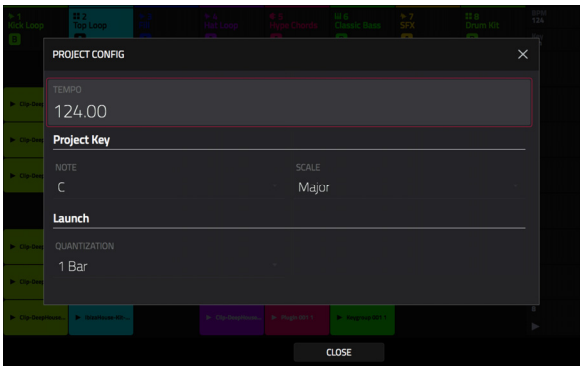
Overdubbing

Playing

Exiting recording

Prepared to stop (flashing)

To open the Project Configuration window, tap the upper left corner of the display where the BPM and Key are located. You can then do any of the following:



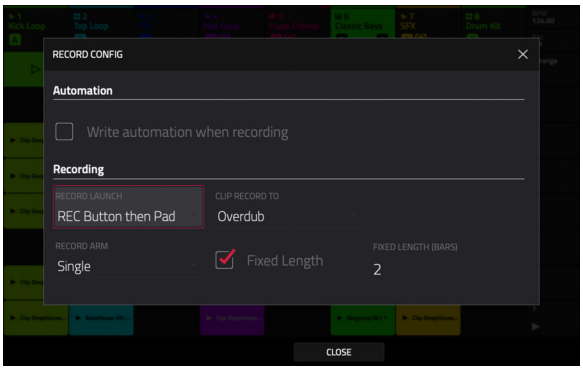
Use the **Tempo** field to set the project tempo. Use the **data dial** or **-/+** buttons to change the tempo, or double-tap the field to open the number pad. Alternatively, use the **tap tempo** button to set the tempo.

Use the **Note** and **Scale** fields to set the project key information.

Use the **Launch Quantization** field to set the global quantization amount for launching all clips.

Tap **Close**, the **X** or outside the window to close the Project Configuration window and return to Matrix Mode.

To open the Record Configuration window, press and hold **Record**, and then tap **Settings**.



Check the **Write automation when recording** box to capture automation while recording.

Use the **Record Launch** field to set how recording is initiated. When set to **Pad**, tap any pad while the track is armed to begin recording. When set to **Pad and REC Button**, tap any pad while the track is armed to begin recording, or press the **Record** button to begin recording on the highlighted clip slot. When set to **REC Button then Pad**, first press the record button, then tap any pad to begin recording. This is the default mode when Force is powered on.

Use the **Clip Record To** field to set the behavior when recording is completed, entering either **Overdub** or **Play**.

Use the **Record Arm** field to set the arming behavior of the **Rec Arm** button. When set to **Single**, Force automatically record arms the current track when changing tracks and disarms any others. When set to **Multi**, Force can record arm multiple tracks at the same time.

When using Single Record Arm, it is still possible to record arm multiple tracks. To do so, press and hold the **Select** button and then press the **Track Assign** buttons for the tracks you want to arm.

Check the **Fixed Length Recording** box to stop recording after the clip length set in the **Fixed Length (Bars)** field. Leave unchecked to record for any desired clip length.

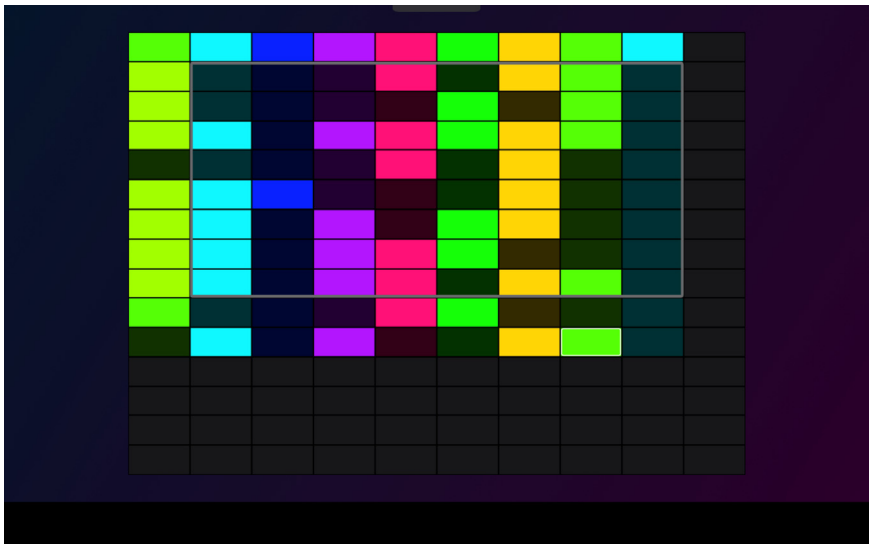
Tap **Close**, the **X** or outside the window to close the Record Configuration window and return to Matrix Mode.

Navigate Mode

Navigate Mode lets you quickly select which 8x8 grouping of clips is currently in focus for the **clip launch pads** and Matrix Mode.

To enter Navigate Mode, do one of the following:

- Press **Navigate**.
- Press **Menu**, and then tap **Navigate**.



To move the matrix view, do any of the following:

Use the **cursors** to move the view one row or column at a time. You can also hold **Shift** and use the cursors to move eight rows or columns at a time.

Use your finger to tap or drag to the desired location.

Mixer

In the Mixer, you can set levels, stereo panning, and other settings for your tracks, submixes, returns and masters.

To open the Mixer, do either of the following:

- Press **Menu**, and then tap **Mixer**.
- Press **Mixer**.

The Mixer works like an audio mixer with various settings for each track, with up to 8 tracks shown on the display at once. The name of the track is displayed at the top of each one.

To select a track, tap it or press one of the **track select** buttons.

To view more tracks, use the left or right **cursors**. Alternatively, drag your finger left or right on the display.

To view the Submixes, quickly swipe your finger to the left on the display.

To view the Return and Master tracks, press the **Master** track select button. Alternatively, quickly swipe your finger to the left on the display until the Returns and Master tracks are shown.

To open the Mixer configuration, tap the **Settings** icon in the lower-right corner of the screen to edit the Mixer configuration.

Use the **Solo Button** field to set the behavior of the solo buttons. They can be used to either **Solo Tracks** or **Cue Tracks**.

Use the **Crossfader** field to set the **Profile** of the crossfader, either **Linear**, **Exponential** or **Logarithmic**.

Volume

The **Volume** tab gives you an overview of the volume level of your tracks.

Tap a **level slider** and then use the **data dial** or **–/+** buttons to adjust the volume level of the currently selected track, return or master. Alternatively, tap and drag a **level slider** to adjust the volume level.

The level sliders and meters in each pad show a visual representation of the level. Double-tap a **track** on the screen to open a large version of the level slider and meter.

Pan & Volume

The **Pan & Volume** tab gives you a number of mixing options for your tracks.

Use the **M** and **S** buttons to mute and solo the track. When **Cue Tracks** is enabled, the **S** button will become a **Headphones** button.

Use the **automation button** to set the automation status of the track. See ***General Features*** > ***Automation*** for more information on automation.

Use the **record button** to arm the track for recording.

The **pan sliders** in each track show a visual representation of the pan. Tap a pan slider and then use the **data dial** or **–/+** buttons to adjust the panning of the currently selected track, return or master. Double-tap a pan slider on the screen to open a large version of the slider.

Tap a **level slider** and then use the **data dial** or **–/+** buttons to adjust the volume of the currently selected track, return or master. Double-tap a level slider on the screen to open a large version of the slider. Alternatively, tap and drag a **level slider** to adjust the volume level.

Tap the **A** or **B** icons to assign the track to the crossfader A or B grouping.

Sends

The **Sends** tab gives you an overview of the **Sends 1–4** level of your tracks.

Use the **M** and **S** buttons to mute and solo the track. When **Cue Tracks** is enabled, the **S** button will become a **Headphones** button.

Use the **automation button** to set the automation status of the track. See ***General Features*** > ***Automation*** for more information on automation.

Use the **record button** to arm the track for recording.

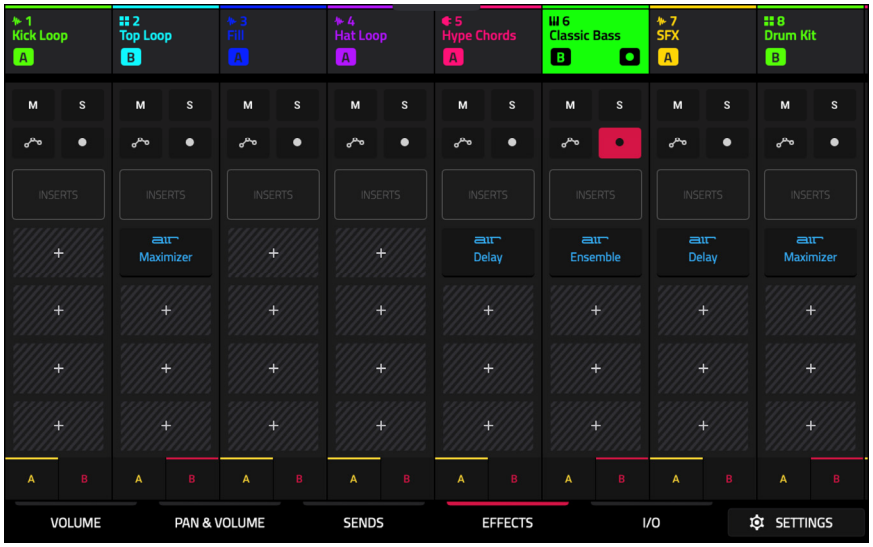
Use the **send knobs** to adjust the send level of tracks. Tap the knob and use the **data dial** or **–/+** buttons to adjust the level.

To learn how to use send effects, please see ***General Features*** > ***Effects*** > ***Send/Return Effects***.

Important: When using send channels, make sure you have already loaded at least one effect to it using the return mixer. Press the **Master** button to view the Return channels and then select the **Effects** tab, described ***below***.

Effects

The **Effects** tab lets you view and edit insert effects for your tracks.



Use the **M** and **S** buttons to mute and solo the track. When **Cue Tracks** is enabled, the **S** button will become a **Headphones** button.

Use the **automation button** to set the automation status of the track. See ***General Features*** > ***Automation*** for more information on automation.

Use the **record button** to arm the track for recording.

Tap the **Inserts** button to open the Inserts window.

Use the four **insert** fields to add insert effects to the track. Empty insert slots will show a **+** icon. Inserts with a loaded effect will show the name of the effect.

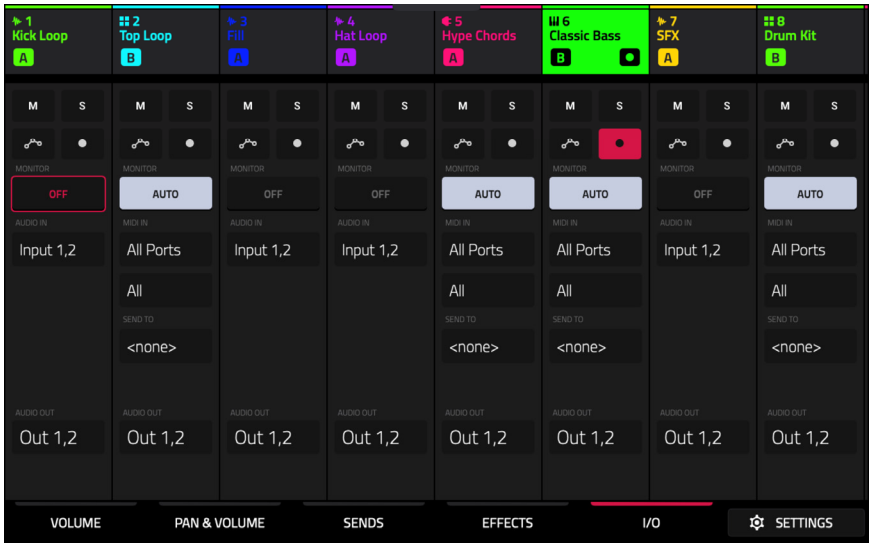
To learn how to use insert effects, please see ***General Features*** > ***Effects*** > ***Insert Effects***.

Tap the **A** or **B** icons to assign the track to the crossfader A or B grouping.

Press the **Master** button while viewing the Effects tab to view the Return and Output Insert effects slots.

I/O

The **I/O** tab lets you view and edit audio and MIDI routing for your tracks.



Use the **M** and **S** buttons to mute and solo the track. When **Cue Tracks** is enabled, the **S** button will become a **Headphones** button.

Use the **automation button** to set the automation status of the track. See ***General Features*** > ***Automation*** for more information on automation.

Use the **record button** to arm the track for recording.

Tap the **Monitor** button to set the monitoring behavior.

For Audio tracks:

Off: The track's audio input is not monitored.

In: The track's audio input is monitored whether the track is record-enabled or not.

Auto: The track's audio input is monitored while the track is record-enabled only.

For MIDI tracks:

Off: The track's MIDI input is not monitored, and playback of recorded events will be heard. This setting is useful when using keyboards with Local Control active.

In: The track's MIDI input is always monitored regardless of the track's Record Arm state, and playback from recorded events will not be heard.

Auto: The track's MIDI input is monitored when the track is record armed, and playback of recorded events will be heard.

Merge: The track's MIDI input is always monitored, and playback of recorded events will be heard.

Use the **Input** fields to select the input routing for the track.

For Audio tracks:

Use the **Audio In** field to configure the input source of the external audio signal, which you can set to a pair of inputs (Input 1,2) or a single input (Input 1, Input 2).

For MIDI tracks:

Use the **MIDI Input** and **Channel** fields to configure the MIDI input settings.

Use the **Send To** field to send the track's MIDI output to another track.

Use the **Output** field to set the output routing for the track.

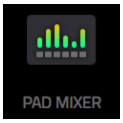
For Audio tracks:

Use the **Audio Out** field to configure where the track is routed, which you can set to a submix (Sub 1–8), a pair of outputs (Out 1,2–Out 3,4), or a single output (Out 1–4).

For MIDI tracks:

Use the **MIDI Output** and **Channel** fields to configure the MIDI output settings.

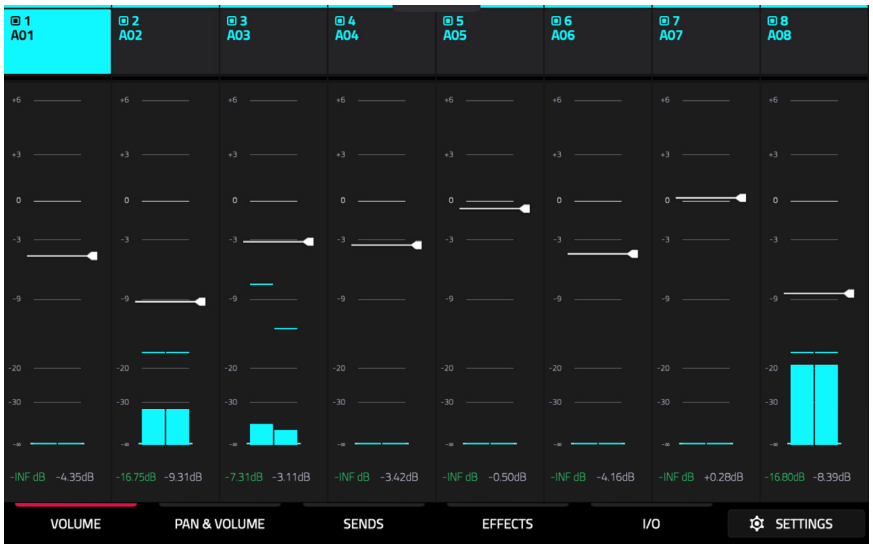
Pad Mixer



In the Pad Mixer, you can set levels, stereo panning, and other settings for individual pads. This mode is only available for Drum and Keygroup tracks.

To open the Pad Mixer, do either of the following:

- Press **Menu**, and then tap **Pad Mixer**.
- Press and hold **Shift** and press **Mixer**.



Just like the track Mixer, the Pad Mixer works like an audio mixer with various settings for each pad, with up to 8 pads shown on the display at once. The name of the pad is displayed at the top of each one.

To select a pad, tap it or press the respective **clip select** button in **Note** mode.

To view more pads, drag your finger left and right on the display.

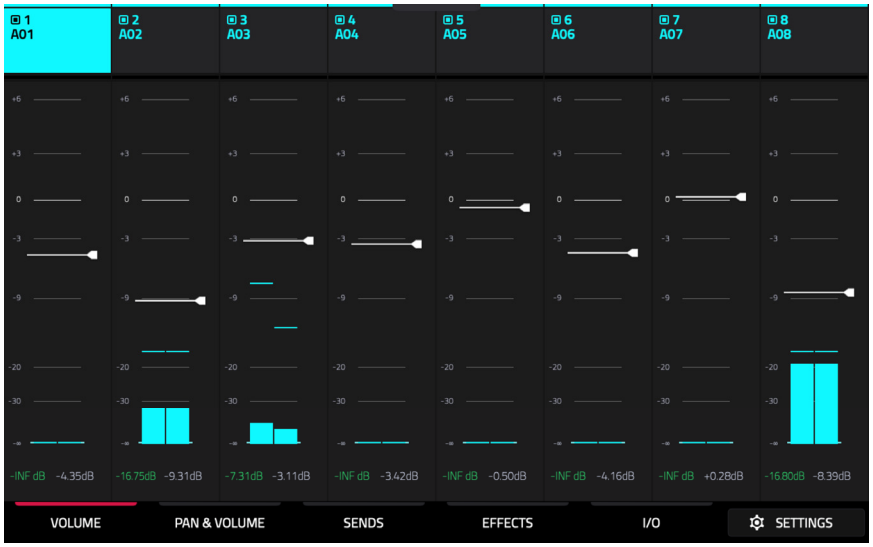
To open the Pad Mixer configuration, tap the **Settings** icon in the lower-right corner of the screen to edit the Pad Mixer configuration.

Check the **Filter by events** box to show only pads with events.

Check the **Filter by samples** box to show only pads with samples assigned.

Check the **Write automation when recording** box to set automation to always write when recording.

Volume

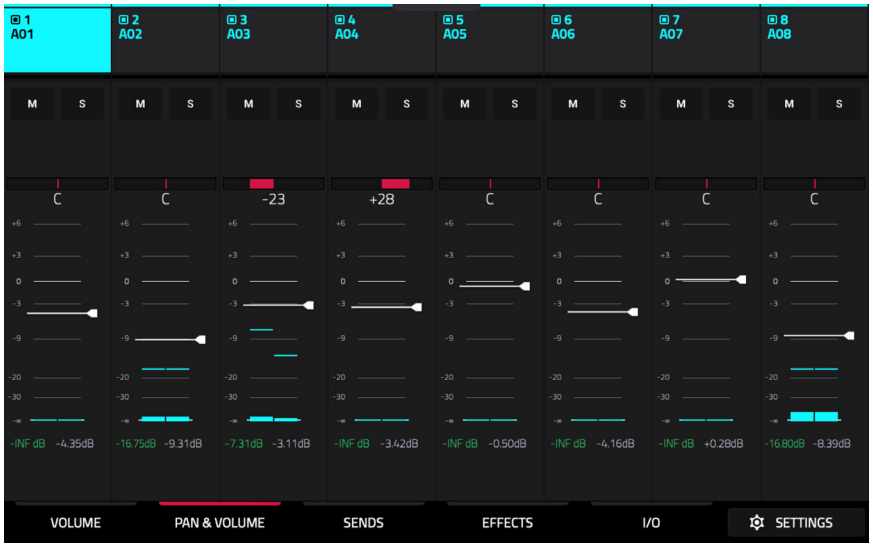


The **Volume** tab gives you an overview of the volume level of your pads.

Tap a **level slider** and then use the **data dial** or **–/+** buttons to adjust the volume level of the currently selected pad. Alternatively, tap and drag the **level slider** to adjust the volume level.

The level sliders and meters in each pad show a visual representation of the level. Double-tap a **track** on the screen to open a large version of the level slider and meter.

Pan & Volume

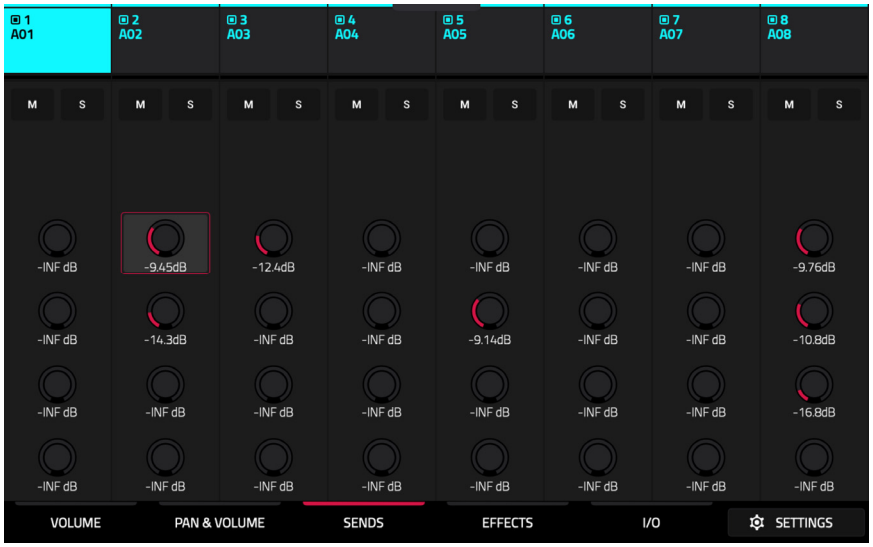


Use the **M** and **S** buttons to mute and solo the pad.

The **pan sliders** in each track show a visual representation of the pan. Tap a pan slider and then use the **data dial** or **–/+** buttons to adjust the panning of the currently selected pad.

Tap a **level slider** and then use the **data dial** or **–/+** buttons to adjust the volume of the currently selected pad. Alternatively, tap and drag the **level slider** to adjust the volume level.

Sends



Use the **M** and **S** buttons to mute and solo the pad.

Use the **send knobs** to adjust the send level of the pads. Tap the knob and use the **data dial** or **–/+** buttons to adjust the level.

To learn how to use send effects, please see ***General Features*** > ***Effects*** > ***Send/Return Effects***.

Important: When using send channels, make sure you have already loaded at least one effect to it using the return mixer.

Effects

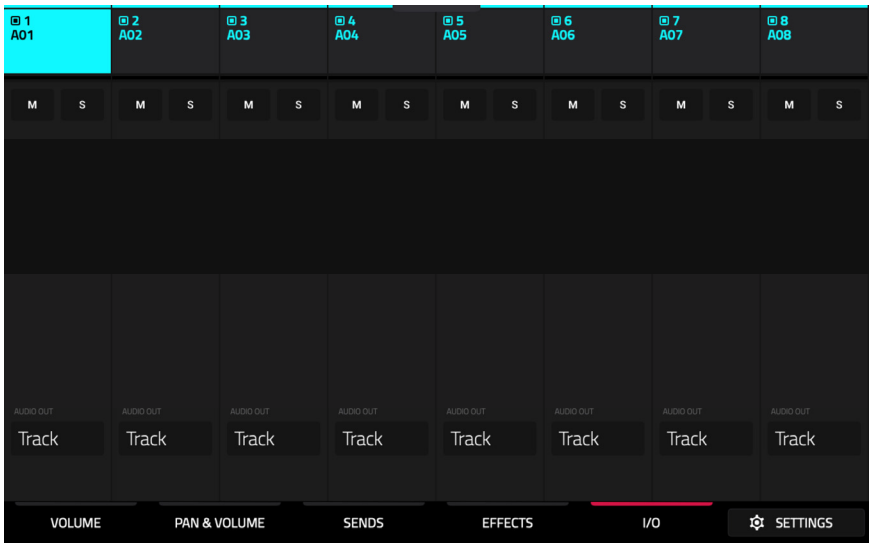
Use the **M** and **S** buttons to mute and solo the pad.

Tap the **Inserts** button to open the Inserts window.

Use the four **insert** fields to add insert effects to the pad. Empty insert slots will show a **+** icon. Inserts with a loaded effect will show the name of the effect.

To learn how to use insert effects, please see ***General Features*** > ***Effects*** > ***Insert Effects***.

I/O



Use the **M** and **S** buttons to mute and solo the pad.

Use the **Audio Out** field to set the output routing for the pad. Select **Track** to output the pad to the track, or send it directly to one of the outputs.

Browser

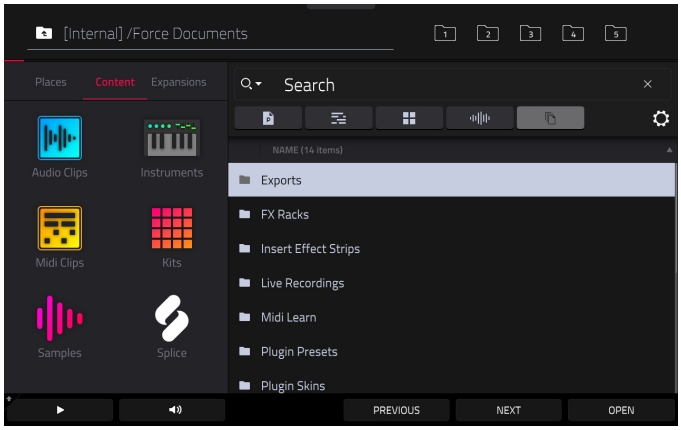
The Browser lets you navigate your Force hardware's internal and external hard disks to load samples, clips, songs, etc. Using filter buttons and user-definable folders, you can easily adapt it to your preferred workflow. You can also audition (preview) your samples before loading them.

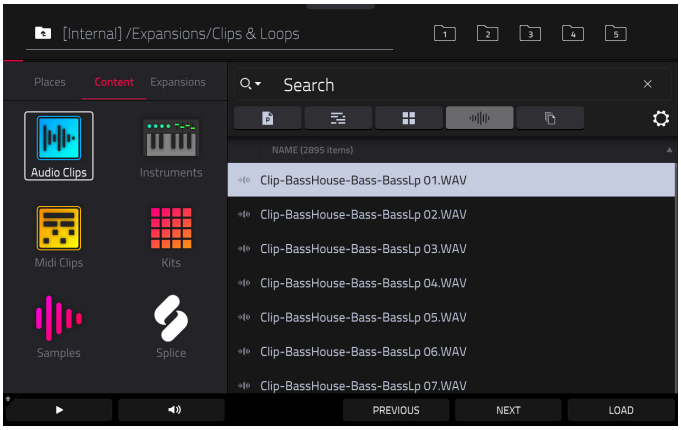
Important: You can install an additional SATA drive in your Force hardware, allowing for even more storage space. See ***Appendix > SATA Drive Installation*** to learn more about this.

Important: Force supports read and write capability for **exFAT**, **FAT32**, **NTFS**, and **EXT4** file systems as well as read-only capability for **HFS+** file systems. We recommend using an exFAT file system as it is the most robust one supported by both Windows and macOS.

To show the Browser, do any of the following:

- Press **Menu** and then tap **Browser**.
- Press **Load**.





In the **Browser**, you can do any of the following:

To browse your files by location, tap **Places** on the left side of the screen.

Internal is the internal drive of Force.

Force Documents is a shortcut to the **Force Documents** folder on the internal drive of Force.

If you have storage devices connected to USB ports or SD card slot of Force, they will appear in this column, as well.

To browse your files by content, tap **Content** and then tap the type of file: **Audio Clips**, **Instruments**, **Midi Clips**, **Kits**, **Samples** or **Splice** (see ***below*** to learn about these content buttons).

To browse your Expansions, tap **Expansions**.

To move up one folder level, tap the **folder/⮤ icon** in the upper-left corner.

To move through a list, do any of the following:

- Swipe up or down
- Turn the **data dial**
- Use the **–/+** buttons
- Tap **Previous** and **Next** at the bottom of the screen.

To sort the list, tap one of the file list headers to sort by **Name**, **Size**, **Date Modified** or **Date Created**. Tap the header again to change the sorting direction. These can be added or removed using the ***Browser Options*** window.

To select a file or folder, tap it once.

To enter a folder, double-tap it or tap **Open** in the lower-right corner. Alternatively, press the **data dial** to enter a selected folder. You can also tap one of the **folder buttons** (**1**–**5**) in the upper-right corner to jump immediately to those pre-assigned file paths (see ***below*** to learn how to assign these file paths).

To load a selected file, double-tap it, tap **Load**, or press the **data dial**. If the file is a sample, it will be loaded to the project's sample pool. If the file is a project, it will be loaded in its entirety (you will be asked if you want to close your current project).

When loading files such as clips, samples or kits, you can also use the hardware **-/+** buttons or the **Previous** and **Next** function buttons on the display to move through the files and automatically load the selected file to your clip, pad or track. If the previously selected file is not used elsewhere in your project, it will be deleted from memory.

To delete a selected file or folder, press and hold **Shift** and then tap **Delete File** at the bottom of the screen.

To preview a selected sound, tap and hold **Play** (▶) at the bottom of the screen.

To enable or disable the audition function and set its volume level, tap the **speaker icon** at the bottom of the screen. In the screen that appears, tap **Auto** to enable or disable it, and tap and drag the **level slider** up or down to set the volume level. Use the **Sync** and **Warp** buttons to audition samples and loops in time with your project. See ***Addenda*** > ***Updates in Force 3.0.2*** for more information. Tap the **speaker icon** once more to hide the window.

To show the information for the current storage device, press and hold **Shift** and then tap **Drive Info** at the bottom of the screen. The drive's information will appear in a new window. Tap **OK** to return to the previous screen.

To format a storage device to use an exFAT file system, select it in the **Browser**, press and hold **Shift** and then tap **Format Drive** at the bottom of the screen. In the window that appears, tap **OK** and then **Format** in the next window to format the device, or tap **Cancel** to return to the previous screen without formatting. This formatting process will set the device to use the exFAT file system, remove any partitions from the drive, and erase all of its content. (Devices that are uninitialized or do not have a file system will not be recognized by the Force hardware and consequently cannot be formatted.)

To get the most efficient use of the Browser, set the file paths to your favorite drive locations first. There are five **folder buttons** labeled **1**–**5** in the upper-right corner. You can set these to be shortcuts to five locations on your Force hardware's internal drive and/or any connected storage devices, giving you quick access to your files.

To assign the current location to a folder button, press and hold **Shift**, and then tap one of the **folder buttons** (**1**–**5**). Now, when you tap that folder button again, the Browser will show that folder's content immediately.

Use the five filter buttons to show only specific types of files in the list below. Folders will still be shown in the list.

To show project files only, tap the **P/page icon**.

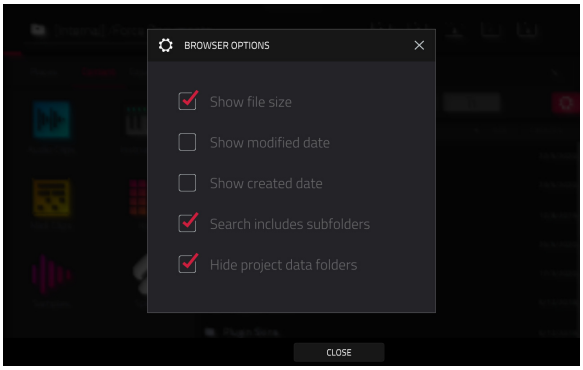
To show pattern files only, tap the **bars icon**.

To show kit files only, tap the **four-squares icon**.

To show sample files only, tap the **waveform icon**.

To show all file types, tap the **three-pages icon**.

To open the Browser Options window, tap the **gear icon**:



Check the **Show file size** box to display file size in the file list.

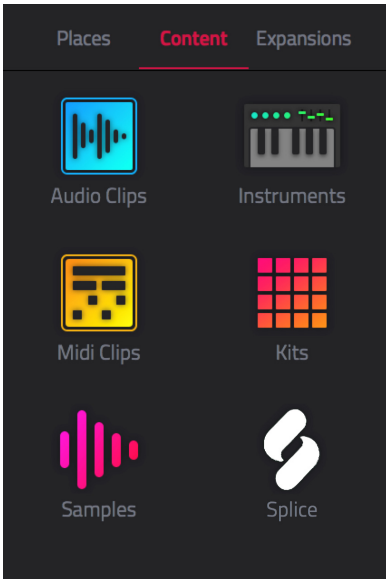
Check the **Show modified date** box to show the last date the file was modified in the file list.

Check the **Show created date** to show the date the file was created in the file list.

Check the **Search includes subfolders** box to enable recursive searching. When enabled, all files, including those in subfolders, will be appear in the search.

Check the **Hide system folders** box to disable system folder types from appearing in the file list.

Use the six **Content** buttons to show specific locations in the internal drive of Force and filter them automatically by file type:



Audio Clips: Tap this button to enter the **Expansions** folder on the internal drive, viewing **audio** files only.

Instruments: Tap this button to enter the **Expansions** folder on the internal drive, viewing **plugin preset** files only.

Midi Clips: Tap this button to enter the **Expansions** folder on the internal drive, viewing **pattern** files only.

Kits: Tap this button to enter the **Expansions** folder on the internal drive, viewing **kit** files only.

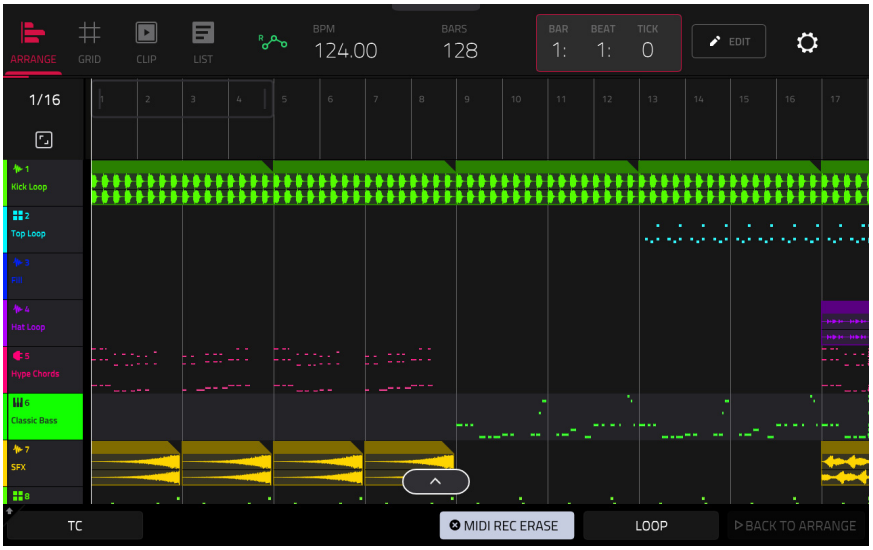
Samples: Tap this button to enter the **Expansions** folder on the internal drive, viewing **sample** files only.

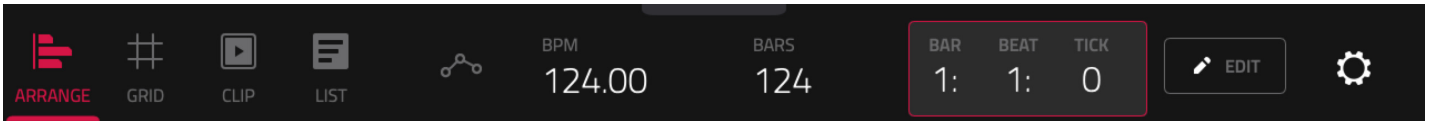
Splice: Tap this button to enter the **Splice** folder on the selected drive, where you can view samples that have been downloaded from a linked Splice account. See ***Addenda > Updates in Force 3.0.2*** for more information on how to use Splice.

Arrange Mode

Arrange Mode is a fully-featured linear sequencer where you can record a clip performance or live input (MIDI or audio) into a linear timeline to create an arrangement of a song. You can use the powerful Arrange Edit commands to edit and arrange your song and then mix it down to a stereo audio file, or stem it as separate tracks.

To enter Arrange Mode, press **Menu** and then tap **Arrange**. The event editor's Arrange, Grid, Clip and List views are displayed as tabs in the top left of the screen to make it easy to jump between them.





The toolbar at the top of Arrange Mode lets you switch between the different edit modes as well as showing project and timing information.

Use the **Arrange**, **Grid**, **Clip** and **List** icons to switch between the different Force modes.

Tap the **automation icon** to toggle between **Read** and **Write**. To disable or enable global automation entirely, press and hold **Shift** and tap this icon.

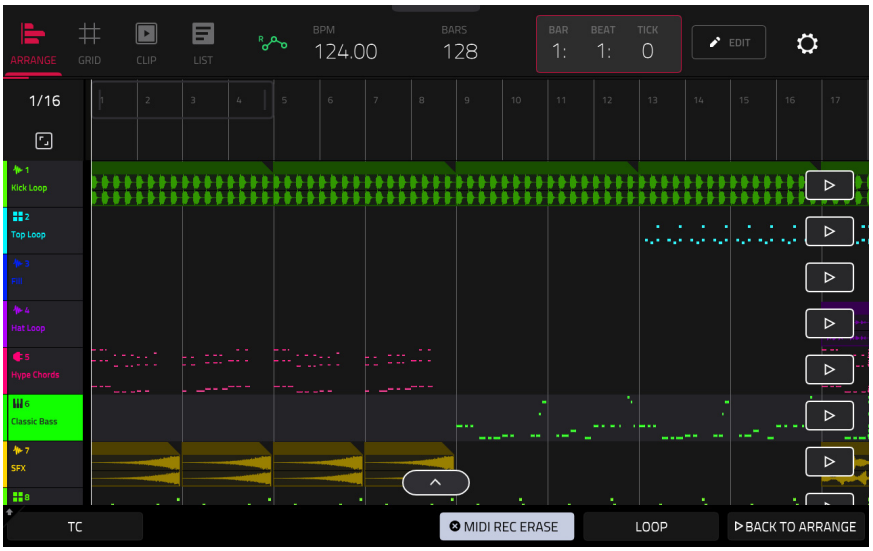
Use the **BPM** field to adjust the tempo of the project.

Use the **Bars** field to set the length of the arrangement.

The time counter at the top of the screen indicates the current playhead position. Double-tap this field to open the ***Locate Popup***.

Tap the **pencil** icon to open the ***Arrange Edit*** window.

Tap the **gear icon** to open the ***Grid Settings***.



The project's tracks are displayed in Arrange Mode on a linear timeline. Each track header will show Record Arm, Track Automation and Crossfader Assign states. Note that this requires the vertical zoom to be adjusted so there is enough space to show all components. Use the pinch and expand gestures to change the zoom level of the arrangement.

To open the Timing Correct window, tap **TC** at the bottom of the screen. Alternatively, tap the timing correct value shown above the track headers. See ***General Features*** > ***Timing Correct (TC)*** to learn about this.

To enable or disable MIDI record erasing, tap the **MIDI Rec Erase** button at the bottom of the screen. When enabled, the new recording will replace existing MIDI data. When disabled, recording MIDI will overdub on existing MIDI data in the track.

To enable or disable loop, tap **Loop** at the bottom of the screen.

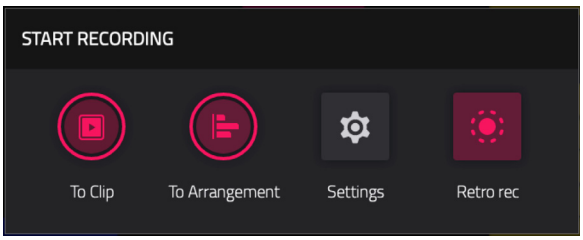
To return playback of all tracks to the recorded arrangement, tap the **Back to Arrange** button.

The Arrangement timeline also features six user-controllable Locate markers. Press and hold **Shift** to show the six Locator buttons at the bottom of the screen.

To add a locator at the playhead position, tap one of the six Locator buttons. You can also use the ***Locate Popup*** to edit these markers.

To record a clip performance into Force's arrangement timeline:

1. You must first configure the **Record** button to point to the linear arrangement rather than the clip matrix. You can set this by doing either of the following:
    - Hold **Shift** and press the **REC** button.
    - Press and hold the **REC** button to open the Start Recording Selector window, and then tap **To Arrangement**.



2. Next, enter Arrange mode by pressing **Menu** and tapping Arrange.
3. Trigger a clip or scene to begin recording. As clips are triggered, Arrange Mode will draw regions containing audio or MIDI data into the track lanes.

To replace a section of the arrangement with a new clip performance:

1. Tap the **Loop** button at the bottom of the screen to activate loop.
2. Set the **Loop Start** and **Loop End** points by tapping and dragging the beginning and end of the loop region in the timeline. Tapping and dragging in the middle of the loop region moves both the Loop Start and Loop End points at the same time.
3. Enable arrangement recording by following the directions above.
4. Trigger a clip or scene to begin recording. The recording will begin at the Loop Start point and finishes at the Loop End point, making it easy to replace a section of the arrangement.

To play the arrangement:

- Press **Play** to begin playback of the arrangement from 1:1:00, or if **Loop** is activated, from the Loop Start.
- Hold **Shift** and press **Play** to begin playback from the current playhead position.

To move the playhead position, tap the **Playhead Position** field in the toolbar to select it, and then use the **data dial** or **-/+** buttons to adjust the value. Alternatively, you can set the playhead position by tapping in the lower-half of the timeline.

Switching Between the Arrangement and Clips

For each track in Force, you can play a clip or play the linear arrangement, but never both at the same time. When you trigger a clip, the arrangement on that track will stop playing; conversely, if you are triggering clips and then play the arrangement, the clips will stop.

In Arrange Mode, a track will show the **Back to Track** icon (a square with a play symbol shown on the right side of the track lane) when either there is a clip playing or the **Stop All** button has been pressed.

To return playback of a track to its linear arrangement, simply tap the **Back to Track** icon.

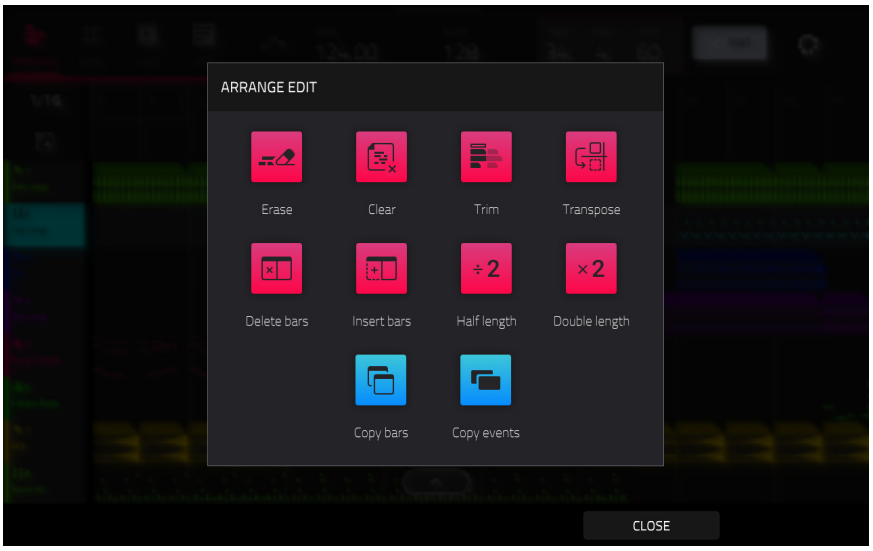
To return *all* tracks to the linear arrangement, tap the **Back to Arrange** button at the bottom of the screen in Arrange Mode.

You can also set the track's playback type from Matrix mode or Force's launch pad mode. Hold **Shift** and press the **Launch** button to open the **Launch Config** window. Select the **Show arrangement in clip matrix** option so it is enabled. The arrangement row will appear as the top row of pads above the first row of clips in Matrix/Launch mode. Tapping a pad in the arrangement row will stop playing any clips on the respective track and play the linear arrangement. Tapping the **Scene Launch** button for the arrangement row will play the linear arrangement for all tracks.

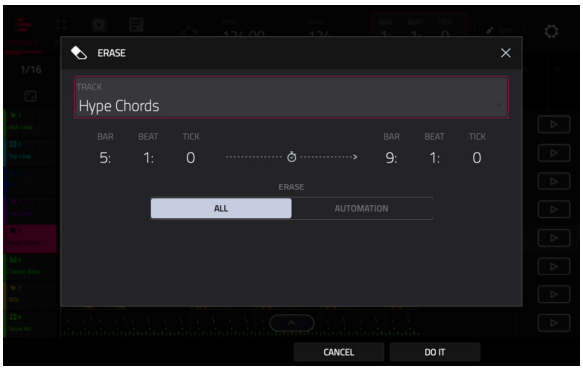
Editing Arrangements

You can edit your linear arrangement using Force's powerful Arrange Edit commands.

To edit an arrangement, tap the **pencil icon** in the Arrange Mode toolbar to open the Arrange Edit window, and then select one of the following tools.



The **Erase** function erases all or part of a track.



To select the track you want to erase within the sequence, use the **Track** field.

To set the time range of the track you want to erase, use the **Bar**, **Beat**, and **Tick** fields. The left fields set the start of the time range, and the right fields set the end of the time range.

To select what types of events you erase, select one of the **Erase** options:

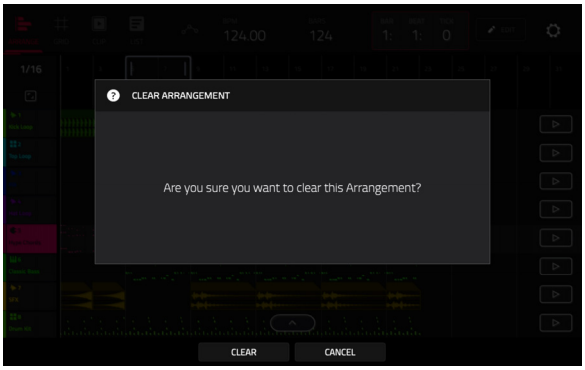
All erases all pad events from the designated time range and reset all of its settings.

Automation erases only automation from the designated time range. Use the **Parameter** field to select what type of automation is erased.

To confirm your choice, tap **Do It**.

To cancel and return to the previous screen, tap the **X**, **Cancel**, or anywhere outside the window.

The **Clear** function erases **all** events from the track and resets **all** of its settings.

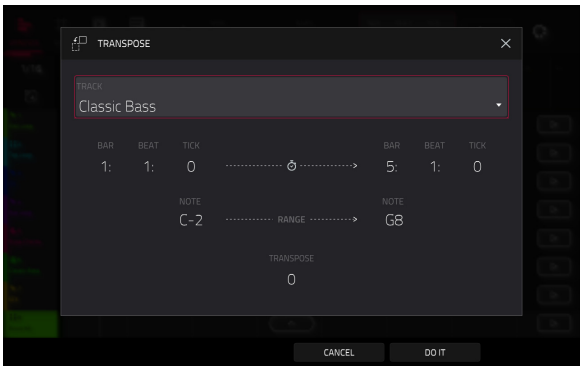


To confirm your choice, tap **Clear**.

To return to the previous screen, tap **Cancel**.

The **Trim** function immediately crops the arrangement to the **Bars** value in the main Arrangement Mode window.

The **Transpose** function transposes a range of events on a track in an arrangement. The events within that range will shift accordingly in the Grid View. This option is available for MIDI tracks only.



To select the track you want to transpose within the arrangement, use the **Track** field.

To set the time range of the arrangement you want to transpose, use the two sets of **Bar**, **Beat**, and **Tick** fields. The left fields set the start of the time range, and the right fields set the end of the time range.

For drum tracks, use the two **Pad** fields to select the "source" pad (whose events you want to move) and "destination" pad (where the events will be placed). Tap each field and then press the desired pad.

For keygroup tracks, plugin tracks, and MIDI tracks, set the range and amount of transposition:

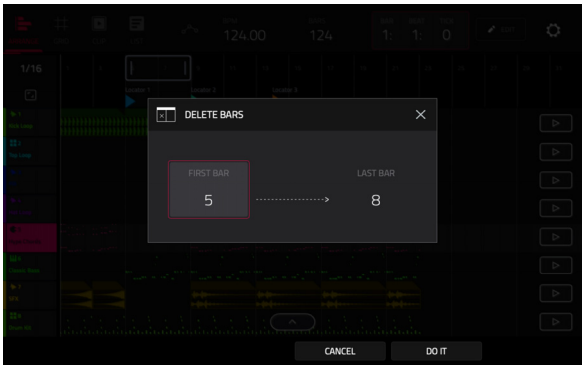
Range: Use the two **Note** fields to set the range of notes of the events you want to transpose. Note events within this range will be transposed, while note events outside of this range will remain unchanged.

Transpose: Use this field to set how many semitones up or down you want to transpose the note events.

To confirm your choice, tap **Do It**.

To cancel and return to the previous screen, tap the **X**, **Cancel**, or anywhere outside the window.

The **Delete Bars** function removes a range of bars from the arrangement.

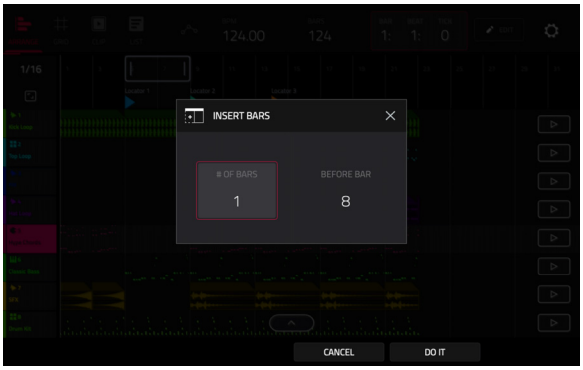


To set the range of bars to delete from the arrangement, use the **First Bar** and **Last Bar** fields.

To confirm your choice, tap **Do It**.

To cancel and return to the previous screen, tap the **X**, **Cancel**, or anywhere outside the window.

The **Insert Bars** function adds a number of bars to the arrangement.



To set how many bars to add, use the **# of bars** field.

To set where the bars are added, use the **Before Bar** field. The bars will be inserted before this bar.

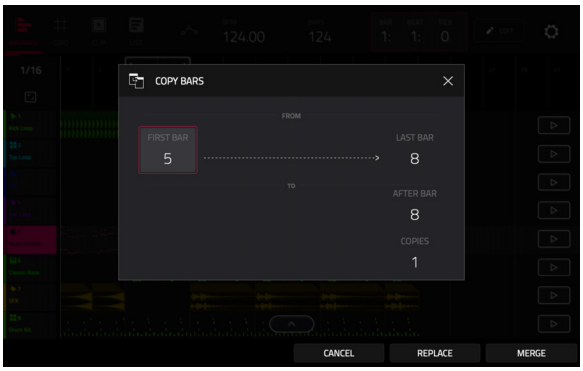
To confirm your choice, tap **Do It**.

To cancel and return to the previous screen, tap the **X**, **Cancel**, or anywhere outside the window.

The **Half Length** function **immediately** halves the length of the arrangement.

The **Double Length** function **immediately** doubles the length of the arrangement.

The **Copy Bars** function copies a range of bars from the arrangement and adds them at a specified point.



To set the range of bars to copy from the arrangement, use the **First Bar** and **Last Bar** fields.

To set where you want to add the copied bars, use the **After Bar** field. The copied bars will be inserted after this one.

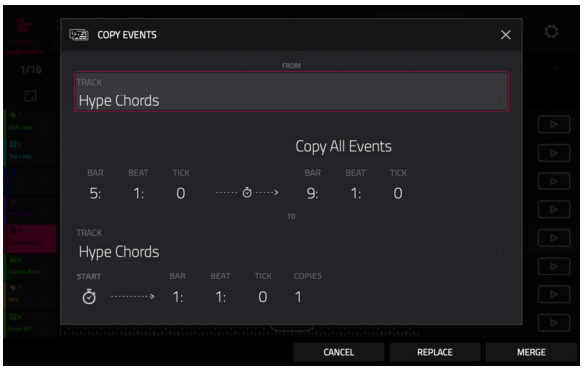
To set how many instances of the copied bars you want to add, use the **Copies** field.

To overwrite the arrangement at the destination, tap **Replace**.

To add the events to the destination without erasing anything, tap **Merge**.

To cancel and return to Arrange Mode, tap **Cancel**.

The **Copy Events** function copies a range of events or selected audio track regions from the arrangement and adds them to another at a specified point.



To select the "source" track, use the **From Track** field. This is the track whose content you want to copy.

To set what content is copied, use the field below the **From Track** field. **Copy All Events** will copy and paste all events in the track. **Copy Only Selected Events** will copy and paste only the events that are currently selected.

To set the time range of the events or the audio track you want to copy, use the **Bar**, **Beat**, and **Tick** fields. The left fields set the start of the time range, and the right fields set the end of the time range.

To select the "destination" track, use the **To Track** field. This is the track where the content of the source track will be copied.

To set where you want to add the copied events or audio track, use the **Bar**, **Beat**, and **Tick** fields. The events or audio track will be added after this point.

To set how many instances of the copied events or audio track you want to add, use the **Copies** field.

To overwrite the arrangement at the destination, tap **Replace**.

To add the events to the arrangement at the destination without erasing anything, tap **Merge**.

To cancel and return to Arrange Mode, tap **Cancel**.

In Arrange Mode, you can tap and hold on the header for an audio track (on the left side of the screen) to open a drop-down menu of Track Edit options for audio tracks.

The **Clear** function erases **all** events from the track and resets **all** of its settings.

To confirm your choice, tap **Clear**.

To return to the previous screen, tap **Cancel**.

The **Copy Track** function **immediately** duplicates the selected track to a new track.

The **Copy Events** function copies selected audio track regions from the track and adds them to another at a specified point.

To select the "source" track, use the **From Track** field. This is the track whose content you want to copy.

To set what content is copied, use the field below the **From Track** field. **Copy All Events** will copy and paste all events in the track. **Copy Only Selected Events** will copy and paste only the events that are currently selected.

To set the time range of the events or the audio track you want to copy, use the **Bar**, **Beat**, and **Tick** fields. The left fields set the start of the time range, and the right fields set the end of the time range.

To select the "destination" track, use the **To Track** field. This is the track where the content of the source track will be copied.

To set where you want to add the copied events or audio track, use the **Bar**, **Beat**, and **Tick** fields. The events or audio track will be added after this point.

To set how many instances of the copied events or audio track you want to add, use the **Copies** field.

To overwrite the arrangement at the destination, tap **Replace**.

To add the events to the arrangement at the destination without erasing anything, tap **Merge**.

To cancel and return to Arrange Mode, tap **Cancel**.

The **Reset Channel Strip** function **immediately**:

- clears all **Insert** effect slots;
- turns **Mute**, **Solo**, automation, and **Monitor** off;
- resets the **pan knob** to the center;
- resets the **level slider** to **0.00 dB**; and
- turns the **Record Arm** button off.

The **Bounce to Sample** function **immediately** renders the track as an audio sample and places it in the project's sample pool. By default, it will be named **Bounce -** and appended with the track name.

The **Flatten Track** function **immediately** renders all edits and regions within the current track's arrangement to a new audio file.

The **Flatten Track Elastique** function also **immediately** renders all edits and regions within the current track's arrangement to a new audio file, but renders any time-stretching or pitch-shifting using the Elastique Pro algorithm, providing higher-quality results with less artifacts than Force's standard algorithm.

You can also tap and hold on the header for a MIDI track (on the left side of the screen) to open a drop-down menu of Track Edit options for MIDI tracks.

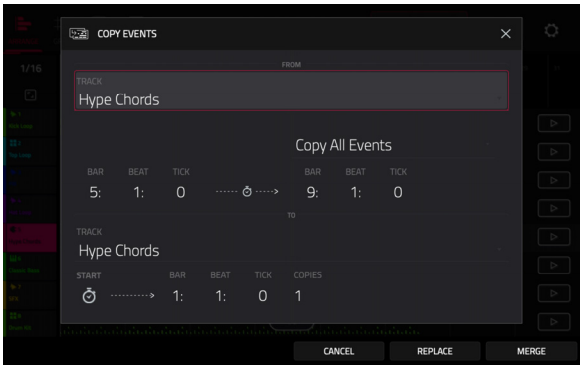
The **Clear** function erases **all** events from the track and resets **all** of its settings.

To confirm your choice, tap **Clear**.

To return to the previous screen, tap **Cancel**.

The **Copy Track** function **immediately** duplicates the selected track to a new track.

The **Copy Events** function copies a range of events from the arrangement and adds them to another at a specified point.



To select the "source" track, use the **From Track** field. This is the track whose content you want to copy.

To set what content is copied, use the field below the **From Track** field. **Copy All Events** will copy and paste all events in the track. **Copy Only Selected Events** will copy and paste only the events that are currently selected.

To set the time range of the events or the audio track you want to copy, use the **Bar**, **Beat**, and **Tick** fields. The left fields set the start of the time range, and the right fields set the end of the time range.

To select the "destination" track, use the **To Track** field. This is the track where the content of the source track will be copied.

To set where you want to add the copied events or audio track, use the **Bar**, **Beat**, and **Tick** fields. The events or audio track will be added after this point.

To set how many instances of the copied events or audio track you want to add, use the **Copies** field.

To overwrite the arrangement at the destination, tap **Replace**.

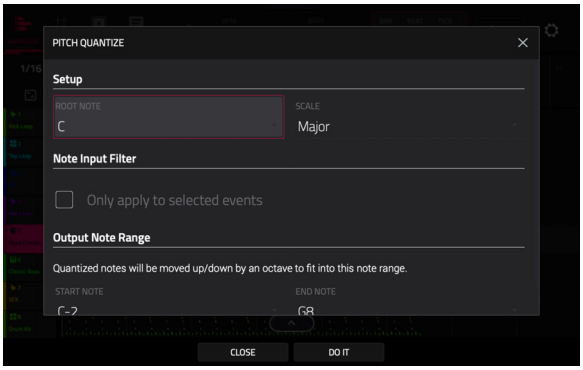
To add the events to the arrangement at the destination without erasing anything, tap **Merge**.

To cancel and return to Arrange Mode, tap **Cancel**.

The **Double-Speed Events** function **immediately** halves the lengths of all note events on the track in the arrangement as well as the distance between them. In other words, the track's notes are pressed closer together so the track sounds like it is playing at twice the previous speed. This does not actually affect the pitches of notes or the tempo.

The **Half-Speed Events** function **immediately** doubles the lengths of all note events on the track in the arrangement as well as the distance between them. In other words, the track's notes are spread further apart so the track sounds like it is playing at half of the previous speed. This does not actually affect the pitches of notes or the tempo.

The **Pitch Quantize** function forces the pitches of note events into a specific scale.



To select the desired root note of the scale, use the **Root Note** field.

To select a type of scale, use the **Scale** field.

To determine which note events will be quantized, tap the **Only apply to selected events** checkbox.

When **on**, only the currently selected note events will be quantized.

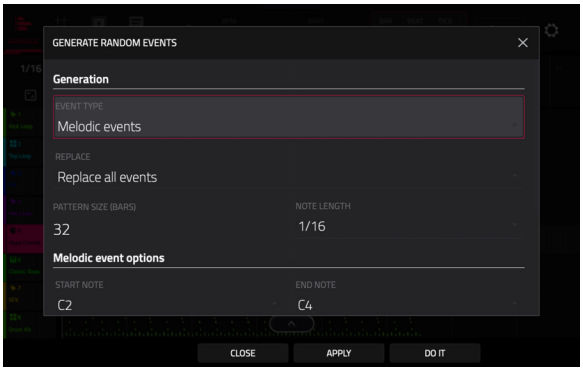
When **off**, **all** pitches in the current track will be quantized.

To set lowest-possible and highest-possible pitches where the quantized note events will be placed, use the **Start Note** and **End Note** fields (respectively). If a note event is originally outside of this range, it will be forced to the nearest pitch (within the scale) inside the range.

To continue and quantize the note events, tap **Do It**.

To cancel, tap **Close**.

The **Random Events** function creates random melodic or drum patterns on the current MIDI track in the arrangement.



To select the type of events you want to create, use the **Event Type** field to select **Drum Events** or **Melodic Events**.

To select how the events will be created relative to the existing events on the track, use the **Replace** field:

Replace All Events: Select this option to replace all events on the track with the randomly generated ones.

Replace Events in Note Range: Select this option to replace all events in the designated note range on the track with the randomly generated ones. Use the **Bank** or **Start Pad** and **End Pad** menus to set the note range for drum events or the **Start Note** and **End Note** menus to set the note range for melodic events.

Add to Existing Events: Select this option to add the randomly generated events to the track without replacing or overwriting the existing ones.

To set how many bars the events will use, use the **Pattern Size** (**Bars**) field. The highest possible value is the number of bars in the current sequence.

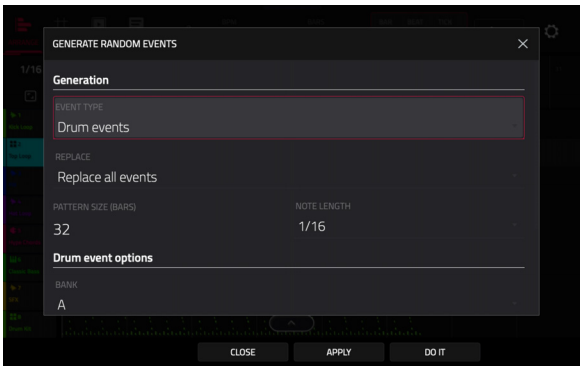
To select the duration of the events, use the **Note Length** field. (This feature is nonfunctional if **Legato** is enabled while generating melodic events.)

To generate the events and keep this window open, tap **Apply**.

To generate the events and close the window, tap **Do It**.

To close the window without generating any events, tap **Close**.

If **Event Type** is set to **Drum Events**:



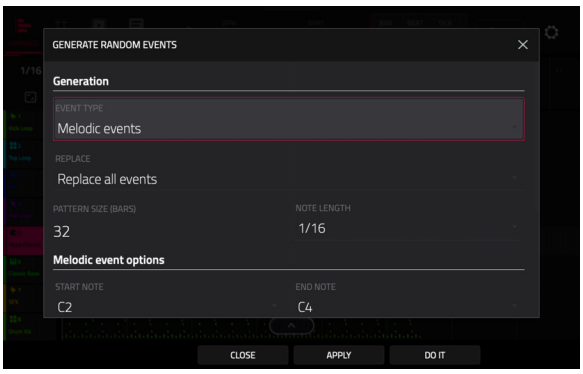
To select the pad bank that will be used to generate the events, use the **Bank** field or select **Range** to use the **Start Pad** and **End Pad** menus to define a specific pad range instead.

To define a specific pad range over which the events will be generated, use the **Start Pad** or **End Pad** fields. You can use these fields only if the **Bank** menu is set to **Range**.

To set how closely together the events will be placed in the track, use the **Density** (%) slider.

To set how widely or narrowly the rhythmic patterns of the generated notes vary, use the **Rhythm Variation** slider.

If **Event Type** is set to **Melodic Events**:



To define a specific note range over which the events will be generated, use the **Start Note** or **End Note** fields.

To enable or disable legato, tap the **Legato** checkbox.

When **on**, the generated notes will be extended or shortened to create a long, unbroken phrase from the first note event's start point to the last note event's end point. Each note event will sustain until another note event starts. If multiple note events start at the same time (and are not the last note events), their lengths will become identical.

When **off**, the generated notes will use the duration set by the **Note Length** menu.

To set the maximum number of note events that can be sounding simultaneously in the track, use the **Polyphony** field to select **1**–**8**.

To determine whether or not the notes will use a scale, tap the **Constrain Notes to Scale** checkbox.

When **on**, the notes will be within the scale determined by the **Scale** menu.

When **off**, the notes will be chromatic.

To set how closely together the events will be placed in the track, use the **Density** (%) slider.

To set the root note of the scale that the notes will use, use the **Root Note** field.

To select the scale or mode that the generated notes will use, use the **Scale** field.

The **Bounce to Sample** function **immediately** renders the track as an audio sample and places it in the project's sample pool. By default, it will be named **Bounce -** and appended with the track name. This function does not work for MIDI or CV tracks.

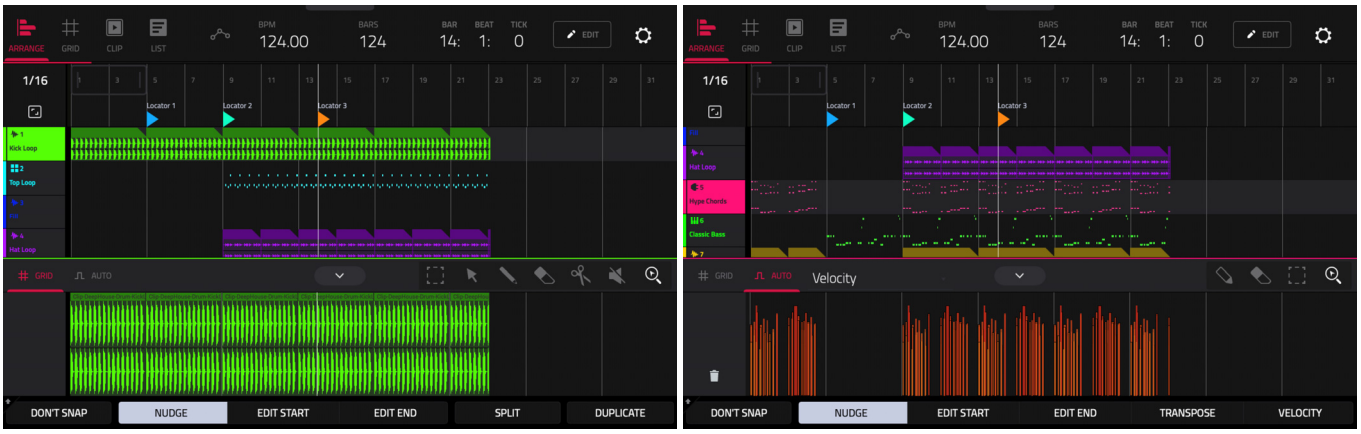
The **Bounce to Audio Track** function **immediately** renders the track as an audio track in the project. By default, it will be named **Audio** and appended with a number (e.g., **Audio 002**). This function does not work for MIDI or CV tracks.

Arrangement Track Editor

When in Arrange Mode, events from the currently selected track can be edited using the bottom panel track editor.

To open the track editor, do either of the following:

- Tap the arrow up icon at the bottom of the screen.
- Double-tap inside a track lane in the main arrangement view.



Once opened, you can also adjust the height of the track editor by tapping and dragging the arrow icon or anywhere in the editor toolbar.

For drum tracks, you can tap and hold on a pad header in the track editor to open a drop-down menu where you can quickly **Mute**, **Solo**, or change the **Color** of the pad.

To close the track editor, tap the down arrow icon.

At the top of the Track Editor are two tabs, **Grid** and **Auto**. Use the **Grid** tab to edit MIDI events or audio regions. Use the **Auto** tab to edit automation for the track. The editing workflow in the arrangement track editor is the same as in ***Clip Mode***, except that the arrangement track editor is fixed to editing the arrangement event list, whereas the clip editor follows the currently selected clip or arrangement event list.

To edit a track from your arrangement using Clip Edit Mode, make sure the arrangement is playing and the desired track is selected (you can check this by making sure the **Back to Track** icon is not displayed on the selected track). Then, open Clip Edit Mode to edit the arrangement track.

Press and hold **Shift** to view additional editing options for the Track Editor.

To select all events, tap **Select All**.

To cut the selected events, tap **Cut**.

To copy the selected events, tap **Copy**.

To paste the selected events at the playhead location, tap **Paste**.

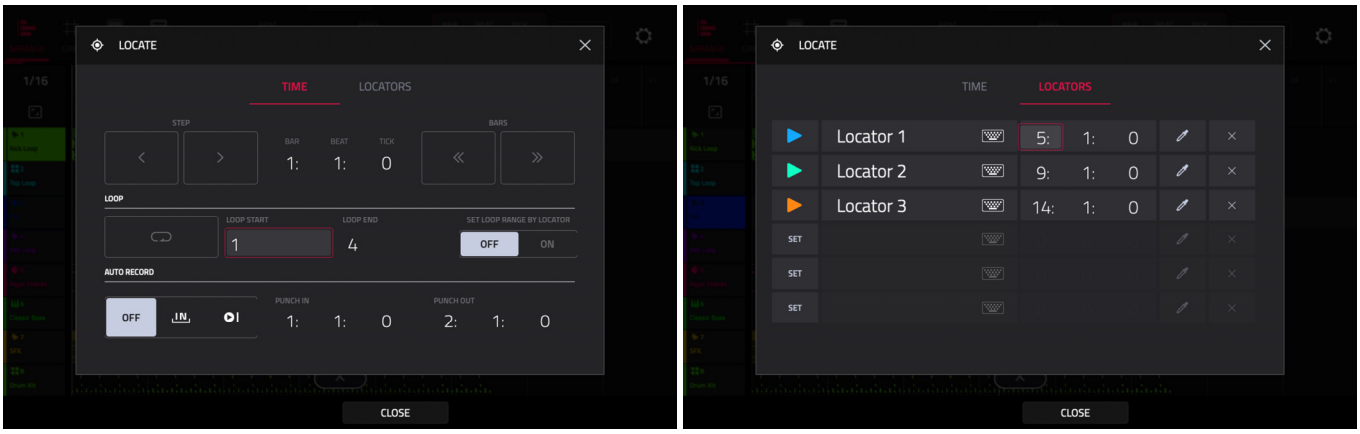
To delete the selected events, tap **Delete**.

To duplicate the selected events, tap **Duplicate**. The events will be added after the last selected event.

Locate Popup

Force now includes a popup window for the Locate function, allowing you to quickly jump to specific points in your project.

To open the Locate popup, double-tap the **Bars:Beats:Ticks** field in the **toolbar**.



The Locate popup is divided into two sections:

The **Time** tab is used to adjust the position of the playhead in the arrangement, as well as adjust Loop and Record settings.

To move the playhead in the arrangement, use the **Bars:Beats:Ticks** fields. You can also tap the **Step** and **Bars** arrow buttons to move the playhead by the specified amount.

To enable loop in the arrangement, tap the **Loop** button. Use the **Loop Start** and **Loop End** fields to set the length of the loop. Alternatively, you can set the loop length according to the Locator markers in the timeline. When **Set Loop Range By Locator** is set to **On**, the loop range will automatically adjust to the length between the selected Locator and the next Locator. The current loop region is always displayed in the timeline of the arrangement whether it is activated or not.

To enable automatic recording when the loop starts, use the **Auto Record** field. When enabled, recording will begin immediately when the arrangement loops.

The **Locators** tab is used to edit the six Locator markers which can be applied to the timeline.

To add a locator, tap **Set**.

To rename a locator, tap the **keyboard icon**, and then use the keyboard to enter a new name.

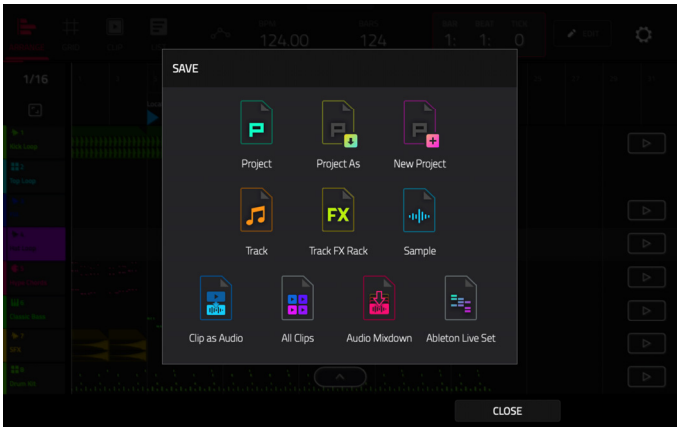
To adjust the position of the locator, use the **Bars:Beats:Ticks** fields.

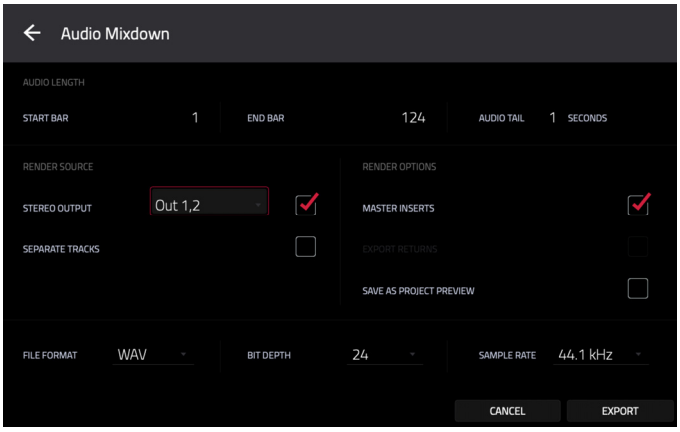
To edit the color of the locator, tap the **eyedropper icon**, and then select a color from the list.

To delete the locator, tap the **X** icon.

To close the Locate window, tap **Close**, the **X** in the upper-right corner, or anywhere outside the window to return to the arrangement.

Saving and Exporting the Arrangement





To save and export your arrangement, press the **Save** button, and then select **Audio Mixdown**. In this window, you can mixdown or stem your arrangement into individual files.

To set the time range that you want to mixdown, use the **Start Bar** and **End Bar** fields under Audio Length. You can add a number of seconds to the end of the mixdown to capture any ringing notes or effects (such as a reverb tail) by adjusting the **Audio Tail** field.

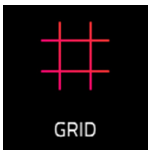
To set the parameters for the audio mixdown, use the fields under **Render Source** and **Render Options**. Check the **Separate Tracks** box to render each track of the arrangement as stems.

To configure the audio mixdown file settings, use the fields at the bottom of the screen to set the **File Format**, **Bit Depth**, and **Sample Rate**.

You can also export the arrangement as a clip row in an ALS file to use with Ableton Live.

To save the arrangement as a clip row, press the **Save** button to bring up the Ableton Live Set Export popup, and then select the **Export Arrange as Clips** option.

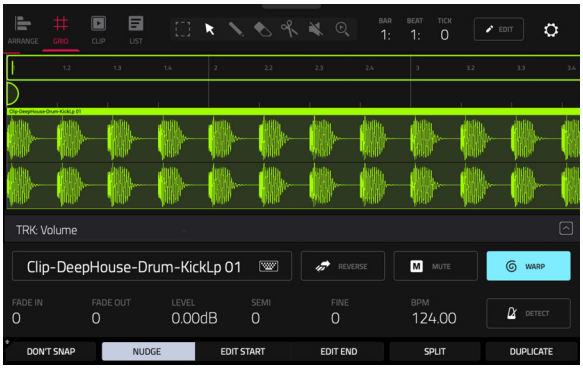
Grid Mode



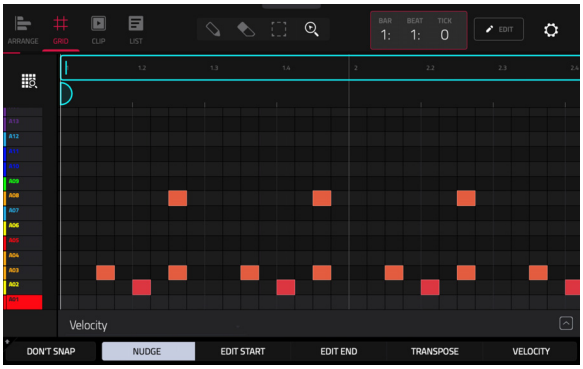
Grid Mode (formerly *Event View* for MIDI tracks and *Region View* for audio tracks) lets you view and edit the note events or audio regions of each clip of a track in a project and their velocities. This mode has three different appearances: one for audio tracks, one for drum tracks and one for keygroup tracks, MIDI tracks, and plugin tracks.

To enter Grid Mode, press **Menu** and then tap **Grid**. You can also tap **Grid** at the top of the screen in **Arrange Mode**, **Clip Mode**, or **List Mode**.

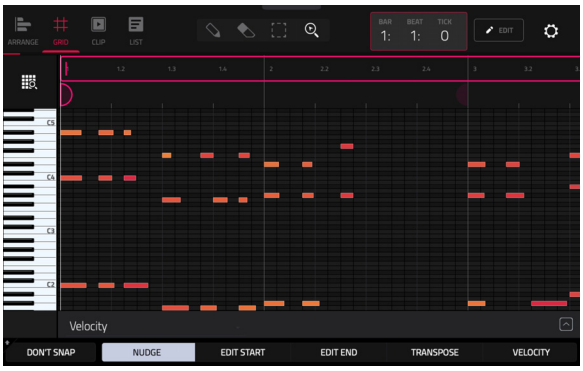
For audio tracks, the waveform of the audio clip is shown.

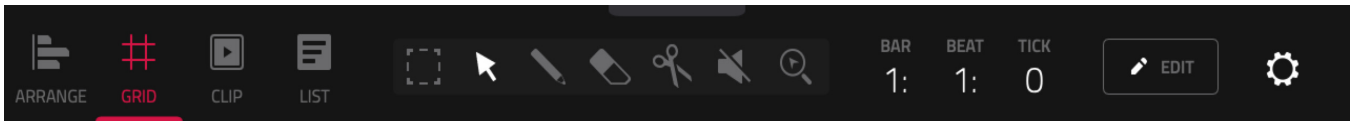


For drum tracks, the left column shows you all available pads in a vertical view with their corresponding events in the grid to the right.



For keygroup, plugin, MIDI and CV tracks, the left column shows a vertical “piano roll” keyboard with the corresponding events in the grid to the right.

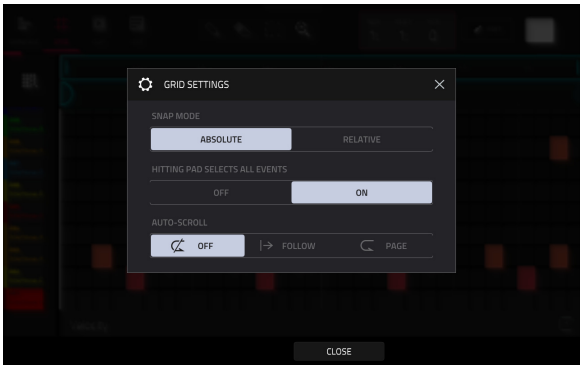




In all views, the time counter at the top of the screen indicates the current playhead position.

Additionally, the **Settings** window lets you configure certain Grid Mode settings.

To view the Settings, tap the **gear icon**.



Use the **Snap Mode** selector to set how events "snap" to the grid.

Absolute: Events will "snap" to the nearest time division on the grid (as determined by the **TC** field or **Time Correct** window). This is the typical and traditional method of using the snap/quantization feature.

Relative: Events will "snap" to the nearest time division on the grid (as determined by the **TC** field or **Time Correct** window) **plus** the original time position of the event (e.g., an event that is originally three ticks past a time division on the grid will snap only to positions that are three ticks past every time division).

Use the **Hitting Pad Selects All Events** selector to turn the feature on or off. When **On**, pressing a pad will automatically select all note events for that pad in the selected clip on that track. When set to **Off**, pressing a pad will simply play its sound without selecting any note events.

This setting is not available when using audio clips.

Use the **Auto-Scroll** selector to set how the screen behaves relative to the audio playhead.

Follow: The list will scroll along in the background while keeping the audio playhead centered.

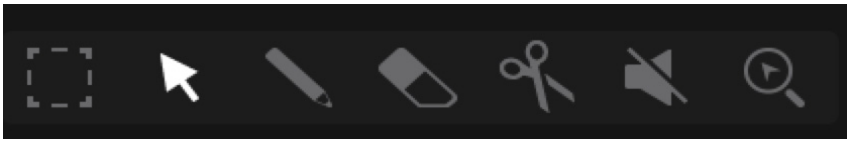
Page: The list will move to the "next page" to follow the audio playhead.

Off: The list will not move at all.

These functions also apply to ***Arrange Mode*** and ***Clip Mode***.

Audio Tracks

When viewing audio clips In Grid Mode, these seven tool icons at the top of the screen enable you to use different functions in the clip.



Tap one to select its mode:

Marquee: Marquee Mode:

To select a clip region, tap the upper third of it.

To move a clip region (or multiple selected clip regions), tap and drag the upper third of it left or right.

To split the clip at two specific points (creating a clip region on either side and between them), tap and drag across the middle third of it to create a translucent white box, and then tap the upper third of that box.

To shorten or lengthen a clip region (or multiple selected clip regions), tap and drag the lower third of it left or right.

Arrow: Selection Mode:

To select a clip region, tap it.

To move a clip region (or multiple selected clip regions), tap and drag the upper third of it left or right.

To shorten or lengthen a clip region (or multiple selected clip regions), tap and drag the lower third of it left or right.

Pencil: Draw Mode:

To draw automation, open the velocity/automation lane and tap and drag.

Eraser: Erase Mode:

To erase a clip region (or multiple selected clip regions), tap it.

Scissors: Split Mode:

To split the clip at a specific point (creating a clip region on either side), tap that point in the clip.

To select a clip region, tap its left-most edge.

Mute: Mute Mode:

To mute or unmute a clip region (or multiple selected clip regions), tap it.

Magnifying Glass: Navigation Mode:

To move to another part of the clip, tap and drag it.

To zoom in or out, spread or pinch your fingers (respectively) on the grid. You can do this vertically, horizontally, or both at the same time.

Tap the **pencil Edit** icon to open the Grid Edit menu for audio clips:

Use **Trim Audio to Clip** to trim the audio sample to the size of the clip.

Use **Clear Regions** to clear the audio sample from the clip.

Use **Export as Audio** to save the current clip as an audio file.

Use the **Base File Name** field to name the resulting export based on the **Clip name** or **Track name**.

Check the **Include Track Volume/Pan Settings** box to include these settings in the export.

Check the **Bypass Track Effects Plugins** box to not include track effects plugins in the export.

Use the **Audio Tail** field to set the amount, in **seconds**, of extra time added to the end of the resulting audio files.

Use the **Bit Depth** field to set the bit depth to **8**, **16** or **24**.

Use the **Sample Rate** field to set the sample rate to **44.1**, **48**, **88.2** or **96 kHz**. In most cases, we recommend selecting **44.1 kHz**.

Use **Flatten Clip** or **Flatten Elastique** to flatten the audio clip, rendering all the edits and regions within the clip bounds to a new audio clip in a single audio file. See ***Addenda > Updates in Force 3.0.5*** > ***New Features*** > ***Flatten Clip*** for more information.

Regardless of which tool is selected, you can do any of the following to edit the selected audio clip regions.

Tip: If you want to hear only the audio track while editing, press the **Solo** button and press the relevant **Track Assign** button to solo it.

To select a clip region, tap the arrow icon to enter Selection Mode and tap a clip region. When a clip region is selected, all region parameters will be available to edit.

To undo your last action, press **Undo**.

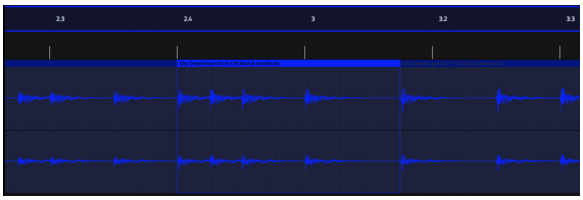
To redo the last action you undid, press **Shift**+**Undo**/**Redo**.

To move the selected clip region, tap **Nudge** at the bottom of the screen, and then use the **data dial** or **–/+** buttons to shift the clip region left or right. Alternatively, if the **arrow tool** or **marquee tool** are selected, tap and drag the upper third of the selected clip region left or right. By default, you can move a clip region only by quantization values defined by the **Time Correct** value (see ***General Features*** > ***Timing Correct (TC)*** to learn about this).

To move the selected clip region without restricting (“snapping”) **it to the quantization grid**, tap and hold **Don’t Snap** in the lower-left corner of the screen, and then use the **data dial** or **–/+** buttons to shift the clip region. In this case, each nudge is equivalent to four ticks.

To adjust the start point or end point of the selected clip region (without changing its position), tap **Edit Start** at the bottom of the screen, and then use the **data dial** or **–/+** buttons.

To split the clip at the current playhead position (creating a clip region on either side), tap **Split** at the bottom of the screen.



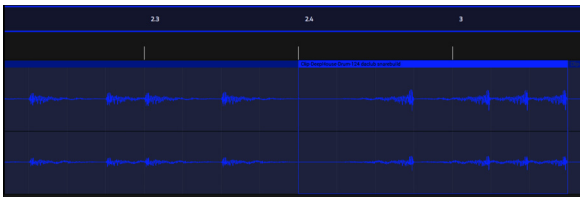
To copy, cut, or paste the selected clip region, press **Copy** or press and hold **Shift**, and then tap **Copy** or **Cut**. Turn the **data dial** to move the highlighted clip region, and then press the **data dial** to paste it at its current location. Alternatively, press and hold **Shift**, and then tap **Paste** (respectively).

To duplicate the selected clip region, tap **Duplicate** at the bottom of the screen. The duplicate clip region will appear immediately after the original one.

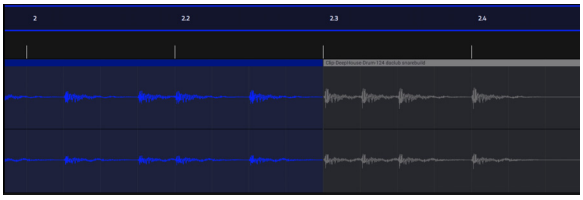
To create a fade-in or fade out for the selected clip region, use the **Fade In** or **Fade Out** fields, respectively. The fades will be shown as a sloped line at the start or end of the clip region.

To set the level of the selected clip region, use the **Level** field. The waveform amplitude will change accordingly.

To reverse the selected clip region, tap **Reverse**.



To mute the selected clip region, tap **Mute**.



To lengthen or shorten the selected clip region without changing its pitch, tap **Warp**, which will enable the **Semi**, **Fine**, and **BPM** fields next to it. Use the **BPM** field to change the tempo, which will change the length of the clip region accordingly. Use the **Semi** and **Fine** fields if you want to change the pitch (this is useful for matching the durations of two samples with different pitches).

Tip: You can configure audio track recording to ensure the resulting clip region is warped automatically. You can then adjust the project tempo while clip region remains in time. See ***Menu*** > ***Preferences*** > ***General*** to learn about this.

Note: When you record an audio file, the current project tempo will be embedded with it. This information is stored within the sample file when you save the project. When you warp an audio clip region, the warping algorithm uses this project tempo and the current value in the BPM field to generate the "stretch factor."

Note: The Warp algorithms are very CPU-intensive and can result in audio drop-outs during playback if used too freely. Be mindful of how (and how often) you use the warp function. You can reduce the CPU resources required by doing any/all of the following:

- Minimize the amount of pitch adjustment (e.g., the **Semi** and **Fine** fields).
- Avoid warping very small clip regions.
- Warp as few tracks or clip regions as possible (i.e., reduce the number of total number of voices [of the polyphonic limit] that use the warp algorithm at a given time), especially instances where the warped regions start at the same time.
- If you have warped samples used in a drum kit, consider using **the Flatten Pad** function to consolidate the affected pad's layers into one audio sample (see ***here*** to learn about this). After you flatten the pad, its sample/samples no longer need to be warped.

To open the Timing Correct window, press and hold **Shift**, and then tap **TC** at the bottom of the screen. See ***General Features*** > ***Timing Correct (TC)*** to learn about this.

To mute or solo the clip, press and hold **Shift**, and then tap **Mute** or **Solo** (respectively) at the bottom of the screen.

MIDI Tracks

When viewing MIDI tracks in Grid Mode, use these four tool icons at the top of the screen to use different functions in the grid.

Tap one to select its mode:

Pencil: Draw Mode:

To enter a note in an empty grid square, tap the grid square.

To select a note, tap it.

To move a note, tap and drag it to another grid square.

To erase a note, double-tap it.

To edit velocity or draw automation, tap and drag in the velocity/automation lane.

Eraser: Erase Mode:

To erase a note, tap it. You can also tap and drag to erase multiple notes in the same row.

Select Box: Select Mode:

Note: Notes will remain selected if you switch to another mode. The selection will change, however, if you press a pad while **Hitting Pad Selects All Events** is set to **On**.

To select a note, tap it.

To select multiple notes, tap and drag across the grid to create a box around them.

To move a note, tap and drag it to another grid square.

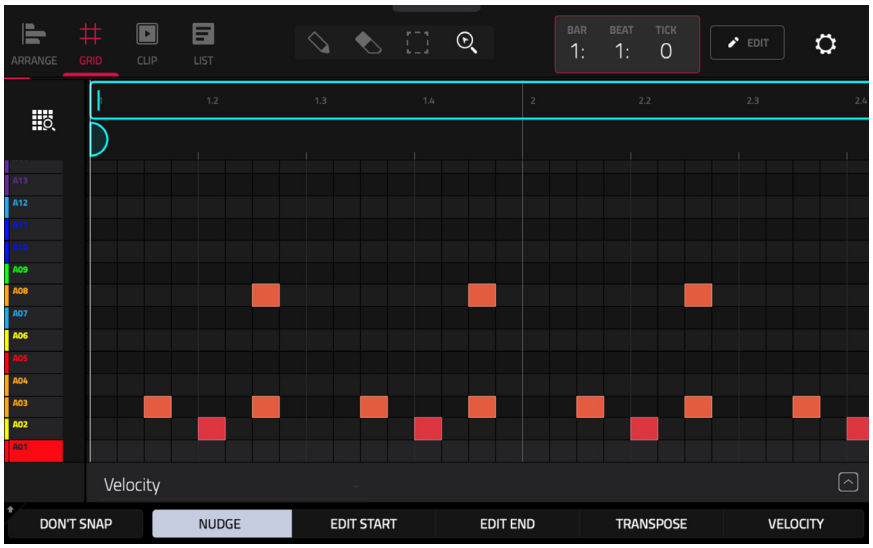
To move multiple notes, select them as described above, and tap and drag them.

To erase multiple notes, select them as described above, and then select the **eraser tool** and tap any of the selected notes.

Magnifying Glass: Navigation Mode:

To move to another part of the grid, tap and drag it.

To zoom in or out, spread or pinch your fingers (respectively) on the grid. You can do this vertically, horizontally, or both at the same time.



Regardless of which tool is selected, you can do any of the following to move, lengthen, shorten, or transpose any selected note/notes.

To automatically set the grid to view one pad bank and two bars, tap the **grid-and-magnifying-glass icon** in the upper-left corner.

To undo your last action, press **Undo**.

To redo the last action you undid, press **Shift**+**Undo**.

To select all notes for a pad, press the desired **pad**.

To move the selected notes, tap **Nudge** at the bottom of the screen, and then use the **data dial or –/+** buttons to shift the notes left or right. By default, you can position notes only by quantization values defined by the **Time Correct** value (see ***General Features*** > ***Timing Correct (TC)*** to learn about this).

To move the selected notes without restricting ("snapping") **them to the quantization grid**, tap and hold **Don't Snap** in the lower-left corner of the screen, and then use the **data dial or –/+** buttons to shift the notes. In this case, each nudge is equivalent to four ticks.

To adjust the start point or end point of the selected notes (without changing their position), tap **Edit Start** or **Edit End** at the bottom of the screen, and then use the **data dial or –/+** buttons.

To transpose the selected notes up or down, tap **Transpose** at the bottom of the screen, and then use the **data dial or –/+** buttons.

To copy the selected notes instantly, press and hold **Shift** and then tap **Copy** at the bottom of the screen. The selected notes will be duplicated and start immediately after the end of the last selected note. Nudge will be automatically selected so you can immediately use the **data dial** to move the copied notes.

To cut the selected notes, press and hold **Shift** and then tap **Cut** at the bottom of the screen. The selected notes will be copied and removed from the grid.

To paste the copied notes, press and hold **Shift** and then tap **Paste** at the bottom of the screen. The selected notes will be pasted at the playhead location.

To open the Timing Correct window, press and hold **Shift** and then tap **TC** at the bottom of the screen. See ***General Features*** > ***Timing Correct (TC)*** to learn about this.

Tap the pencil editing icon next to the time counter to open the event editing window. You can use any of these functions as described below.

To return to Grid Mode, tap **Cancel** or tap at the top of the screen.

The **Clear Events** function erases **all** events from the clip and resets **all** of its settings.

To confirm your choice, tap **Clear**.

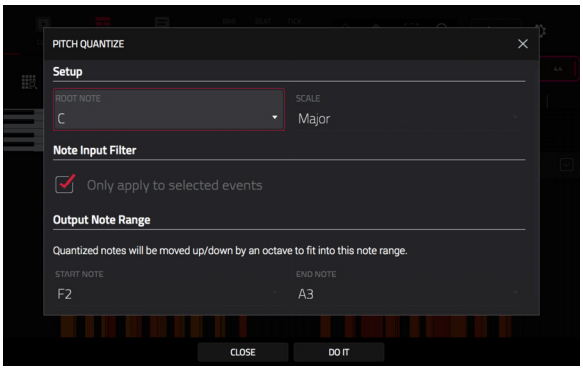
To return to the previous screen, tap **Cancel**.

The **Trim to clip** function **immediately** cuts all note events from outside the clip bounds.

The **Double-Speed Events** function **immediately** halves the lengths of all note events in the clip as well as the distance between them. In other words, all notes are pressed closer together so the clip sounds like it is playing at twice the previous speed. This does not actually affect the pitches of notes or the tempo.

The **Half-Speed Events** function **immediately** doubles the lengths of all note events in the clip as well as the distance between them. In other words, all notes are spread further apart so the clip sounds like it is playing at half of the previous speed. This does not actually affect the pitches of notes or the tempo.

The **Pitch Quantize** function forces the pitches of note events into a specific scale.



To select the desired root note of the scale, use the **Root Note** field.

To select a type of scale, use the **Scale** field.

To determine which note events will be quantized, tap the **Only apply to selected events** checkbox.

When **on**, only the currently selected note events will be quantized.

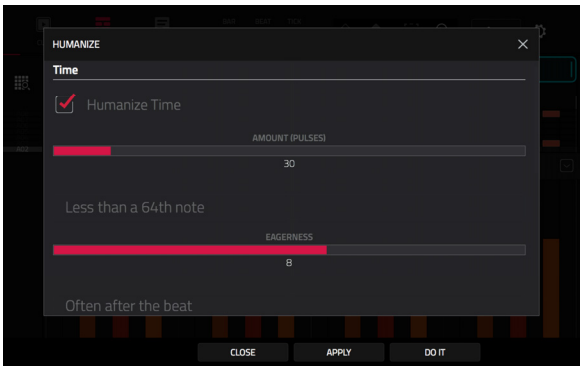
When **off**, **all** pitches in the current clip will be quantized.

To set lowest-possible and highest-possible pitches where the quantized note events will be placed, use the **Start Note** and **End Note** fields (respectively). If a note event is originally outside of this range, it will be forced to the nearest pitch (within the scale) inside the range.

To continue and quantize the note events, tap **Do It**.

To cancel, tap **Close**.

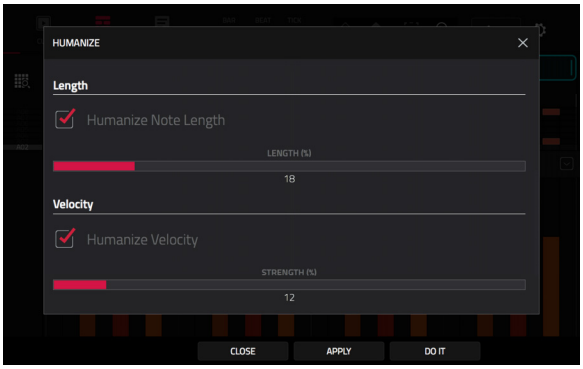
The **Humanize** function applies randomization to the timing, length, and/or velocity of note events.



To select whether or not humanization will be applied to the timing of note events, tap the **Humanize Time** checkbox.

To select the maximum number of pulses by which the timing of an event will be adjusted, use the **Amount** (**Pulses**) slider.

To set how dramatically the humanization effect is applied to the timing, use the **Eagerness** slider. Negative values correspond to playing "ahead of the beat" while positive values correspond to playing "behind the beat."



To set whether or not humanization will be applied to the duration of note events, tap the **Humanize Note Length** checkbox.

To set how dramatically the humanization effect is applied to note lengths, use the **Length** (%) slider.

To set whether or not humanization will be applied to the velocities of note events, tap the **Humanize Velocity** checkbox.

To set how dramatically the humanization effect is applied to note velocities, use the **Strength** (%) slider.

To determine which notes will use these humanization values, tap the **Only Apply to Selected Events** checkbox.

When **on**, just the currently selected notes will be humanized.

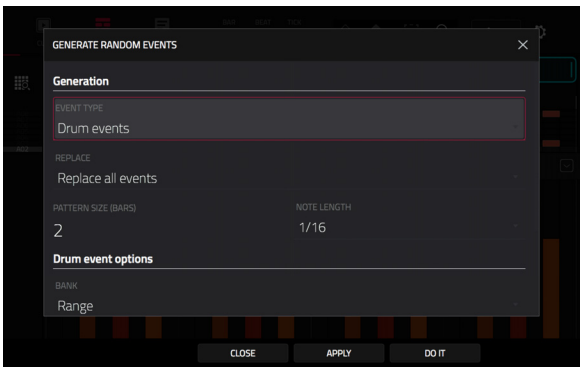
When **off**, all notes in the clip will be humanized.

To apply humanization and keep this window open, tap **Apply**.

To apply humanization and close the window, tap **Do It**.

To close the window without making any changes, tap **Close**.

The **Generate Random Events** function creates random melodic or drum patterns in the current clip.



To select the type of events you want to create, use the **Event Type** field to select **Drum Events** or **Melodic Events**.

To select how the events will be created relative to the existing events on the track, use the **Replace** field:

Replace All Events: Select this option to replace all events in the clip with the randomly generated ones.

Replace Events in Note Range: Select this option to replace all events in the designated note range in the clip with the randomly generated ones. Use the **Bank** or **Start Pad** and **End Pad** menus to set the note range for drum events or the **Start Note** and **End Note** menus to set the note range for melodic events.

Add to Existing Events: Select this option to add the randomly generated events to the clip without replacing or overwriting the existing ones.

To set how many bars the events will use, use the **Pattern Size** (**Bars**) field. The highest possible value is the number of bars in the current clip.

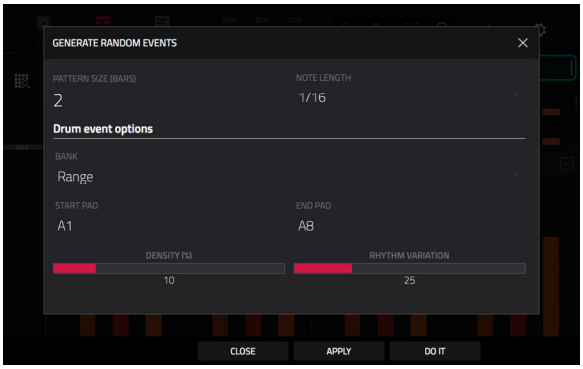
To select the duration of the events, use the **Note Length** field. (This feature is nonfunctional if **Legato** is enabled while generating melodic events.)

To generate the events and keep this window open, tap **Apply**.

To generate the events and close the window, tap **Do It**.

To close the window without generating any events, tap **Close**.

If **Event Type** is set to **Drum Events**:



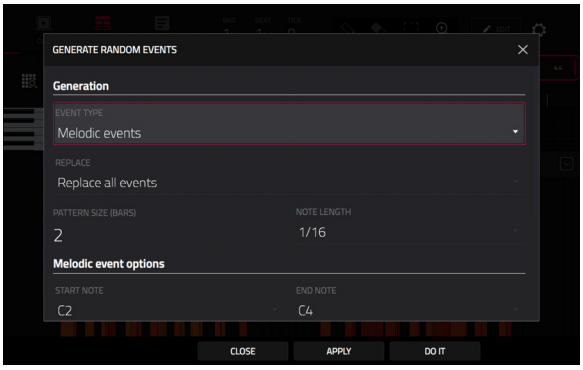
To select the pad bank that will be used to generate the events, use the **Bank** field or select **Range** to use the **Start Pad** and **End Pad** menus to define a specific pad range instead.

To define a specific pad range over which the events will be generated, use the **Start Pad** or **End Pad** fields. You can use these fields only if the **Bank** menu is set to **Range**.

To set how closely together the events will be placed in the clip, use the **Density** (%) slider.

To set how widely or narrowly the rhythmic patterns of the generated notes vary, use the **Rhythm Variation** slider.

If **Event Type** is set to **Melodic Events**:

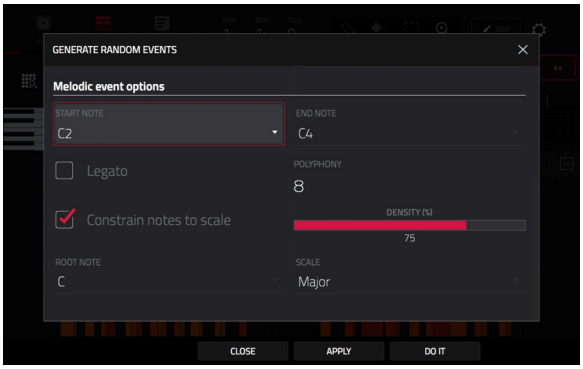


To define a specific note range over which the events will be generated, use the **Start Note** or **End Note** fields.

To enable or disable legato, tap the **Legato** checkbox.

When **on**, the generated notes will be extended or shortened to create a long, unbroken phrase from the first note event's start point to the last note event's end point. Each note event will sustain until another note event starts. If multiple note events start at the same time (and are not the last note events), their lengths will become identical.

When **off**, the generated notes will use the duration set by the **Note Length** menu.



To set the maximum number of note events that can be sounding simultaneously in the track, use the **Polyphony** field to select **1**–**8**.

To determine whether or not the notes will use a scale, tap the **Constrain Notes to Scale** checkbox.

When **on**, the notes will be within the scale determined by the **Scale** menu.

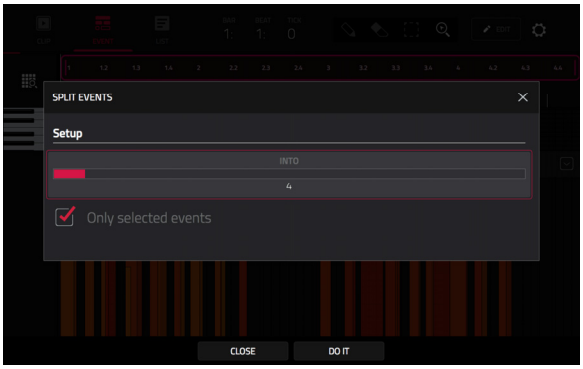
When **off**, the notes will be chromatic.

To set how closely together the events will be placed in the clip, use the **Density** (%) slider.

To set the root note of the scale that the notes will use, use the **Root Note** field.

To select the scale or mode that the generated notes will use, use the **Scale** field.

The **Split Note Events** process divides note events into an equal number of parts.



To set the number of parts note events will be split into, use the **Into** field.

To set the process to only affect selected notes, tap the **Only selected events** checkbox. When unchecked, all note events in the clip will be split.

The **Merge Pads** function allows you to merge samples and settings from two drum tracks together.

To select the track from which the pads will be copied, use the **From Track** field.

To select the track to which the copied pads will be merged, use the **Into Track** field.

To merge the samples and settings at the start of the next unused bank, check the **Start on next bank** field.

To merge the pads, tap **Do It**.

To close the window and return to the previous screen, tap **Cancel**.

The **Copy Pads** function allows you to copy one or more pads from one drum track to another.

To select the whether you want to copy an individual Pad, a Bank of pads or a Range of pads, use the **Copy Type** menu. Use the fields that appear to select the **Pad**, **From Bank** or **Start**/**End Pads** that will be copied.

To select the track from which the pads are copied, use the **From Track** field.

To select the track to which the copied pads are added, use the **To Track** field.

To set the starting point where the copied pads are added, use the **Pad**, **To Bank** or **Start Pad** fields.

To copy the pads and keep this window open, tap **Apply**.

To copy the pads and close the window, tap **Do It**.

To close the window without making any changes, tap **Close**.

The **Convert to Progression** function creates a custom Progression from a melodic MIDI track that you can use to perform with Progressions Note mode.

To set the parameters of the new Progression, use the **Progression** fields:

- **To set the progression name,** use the **Name** field.
- **To set the root note,** use the **Root Note** field.
- **To set the scale type,** use the **Scale Type** field.

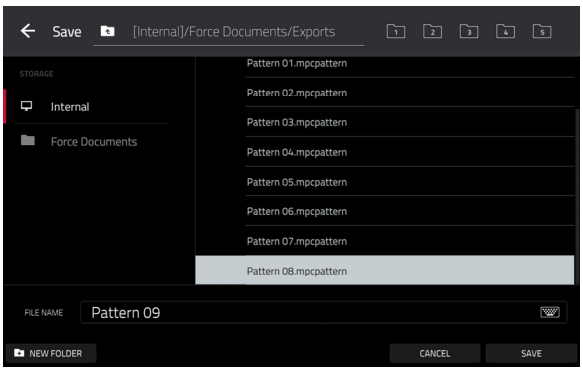
To set the parameters for the chords in the Progression, use the **Chord** fields:

- **To select a chord from the progression to edit,** use the **Chord** field.
- **To rename the selected chord,** use the **Name** field.
- **To set the type of chord,** use the **Type** field to select **Root**, **Normal** or **Below Root**.
- **To play the selected chord,** tap the **Play** button.

To convert the progression and close the window, tap **Do It**.

To close the window and return to the previous screen, tap the **X**, **Close** or anywhere outside the window.

The **Export as Pattern** and **Export as MIDI** functions save the current clip as a pattern (**.mpcpattern**) or MIDI file (**.midi**), respectively, to an external storage device or the internal drive of Force.



To select the storage device you want to view, tap it in the **Storage** column on the left.

Internal is the internal drive of Force.

Force Documents is a shortcut to the **Force Documents** folder on the internal drive of Force.

If you have storage devices connected to USB ports or SD card slot of Force, they will appear in this column, as well.

To enter a folder, double-tap it. Alternatively, turn the **data dial** or use the **–/+** buttons to move through the list, and press the **data dial** to enter a folder. You can also tap one of the five **folder buttons** in the upper-right to jump immediately to those pre-assigned file paths (see ***Browser*** to learn how to do this).

To create a new folder, tap **New Folder**, use the virtual keyboard that appears to enter a name, and then tap **Do It**. You will immediately enter the new folder.

To move up one folder level, tap the **folder/↰ icon** in the upper-left corner.

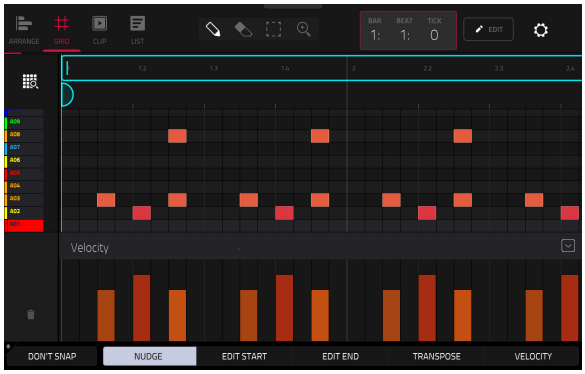
To name the file, tap the **File Name** field at the bottom of the screen, and use the virtual keyboard that appears.

To save the file, tap **Save**.

To cancel and return to the Menu, tap **Cancel**. Alternatively, tap the **← icon** in the upper-left corner.

Velocity/Automation Lane

Grid Mode also contains a velocity/automation lane where you can easily adjust note velocities and automation parameters.



The velocity/automation lane in Grid Mode.

To show or hide the velocity/automation lane:

1. Tap the up **arrow** (∧) button in the lower-right corner to show the velocity/automation lane.
2. Tap the **down arrow** (∨) to hide the velocity/automation lane.

When editing velocity, each note's velocity is represented by a vertical bar. The higher and more red the bar is, the higher the velocity is. Yellow bars indicate a lower velocity. Bars with a gray line at the top indicate a currently selected note.

To adjust the velocity of the selected notes, tap **Velocity** at the bottom of the screen, and then use the **data dial** or **–/+** buttons.

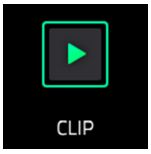
To add automation to a clip:

1. Select a **MIDI Track** or **Audio Track**, and then press **Menu** and tap **Grid** to open Grid Mode.
2. Tap the **up arrow** on the parameter bar to expand the velocity/automation lane.
3. By default, **Velocity** is shown in this lane for MIDI tracks and **TRK: Volume** is shown for Audio tracks. Double-tap this field to open the **Parameter** drop-down menu.
4. In the menu that appears, tap **Add New** to add an automation parameter. You can choose from a variety of parameters depending on the type of track, insert effects added and other options.

To edit automation, do any of the following in Grid Mode or Clip Mode:

- Use the **pencil** tool to draw your automation in the automation lane.
- Use the **eraser** tool to erase automation points. If you erase all automation points, the parameter will be removed.
- Tap the **trash can icon** to delete all automation for the selected parameter at once.

Clip Mode

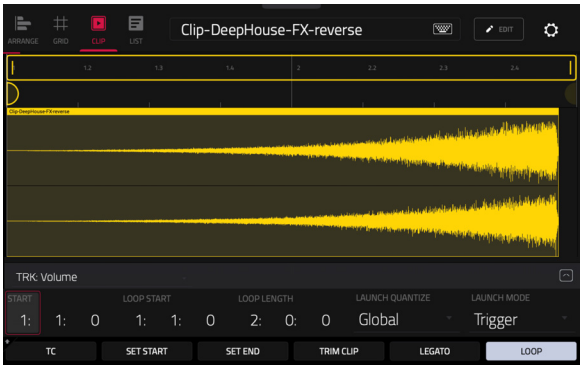


Clip Mode lets you view and edit the parameters of the clip container itself. This view has three different appearances: one of audio track, one for drum tracks and one for keygroup, plugin, MIDI and CV tracks.

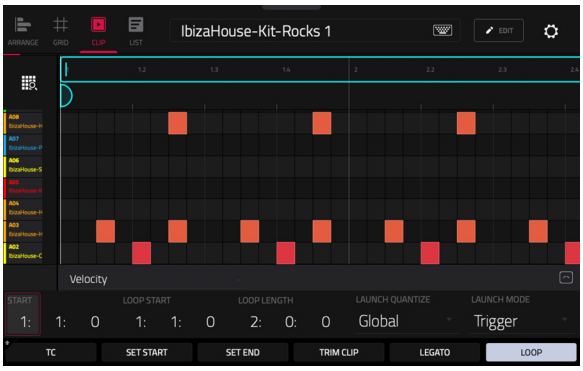
To enter the Clip Mode, do either of the following:

- Press **Menu** and then tap **Clip**.
- Press **Clip**.

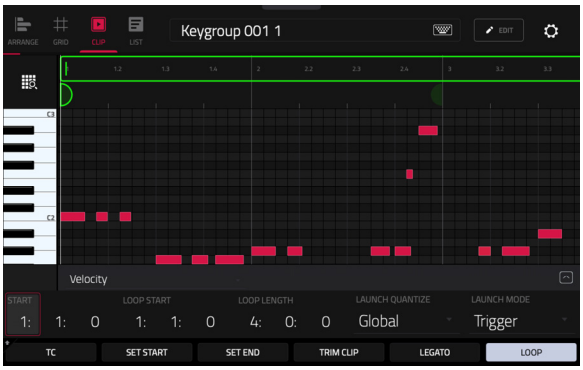
For audio tracks, the waveform of the audio clip is shown.

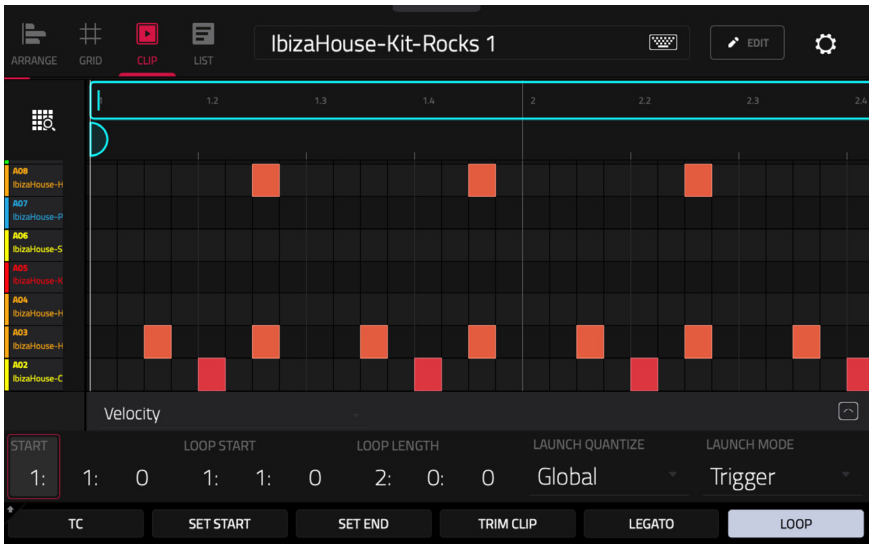


For drum tracks, the left column shows you all available pads in a vertical view with their corresponding events in the grid to the right.



For keygroup, plugin, MIDI and CV tracks, the left column shows a vertical “piano roll” keyboard with the corresponding events in the grid to the right.





Use the **Start** fields to set the starting location of the clip when launched. Alternatively, drag the start marker.

Use the **Loop Start** fields to set the starting location of the clip loop. Alternatively, drag the loop start marker.

Use the **Loop Length** fields to set the total length of the loop. Alternatively, drag the loop end marker

Use the **Launch Quantize** field to set the quantization for launching the clip. This can be set separately from the global launch quantization.

Use the **Launch Mode** field to set how the clip is launched. Select **Toggle** for the clip to start or stop with each successive press. Select **Trigger** for the clip to start at the beginning with each press.

To open the Timing Correct window, tap **TC** at the bottom of the screen. This window contains various settings to help quantize the events in your clip (learn about this feature in ***Operation*** > ***General Features*** > ***Timing Correct (TC)***).

To adjust the clip start or end points, tap **Set Start** or **Set End** while the clip is playing. The starting point or ending point will be set at the playhead location.

To trim a clip, use the **Loop Length** fields to set the preferred length, then tap **Trim Clip** to trim the whole clip to this size.

To enable or disable legato, tap **Legato**. When Legato is active, the playhead will continue from the same position as it was in the previous clip of the same track when switching between clips. This is useful for creating seamless fills in drum breaks or when using an a capella track.

To toggle the clip loop on or off, tap **Loop**. Generally, turn Loop on for complete phrases and turn it off for one shots.

To shift the entire loop area left or right, press and hold **Shift** and tap **<< Loop** or **Loop >>**.

To halve or double the loop size, press and hold **Shift** and tap **/2** or **2X**.

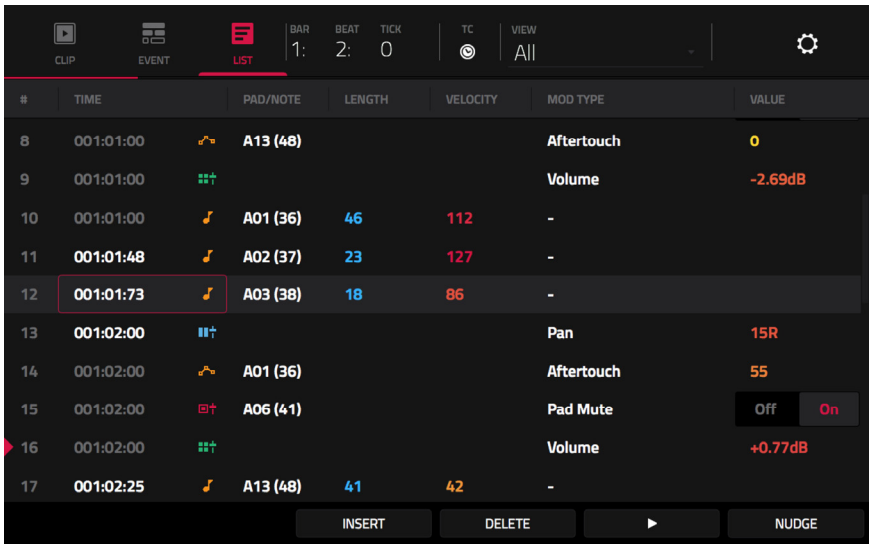
To view the velocity/automation lane, tap the up **arrow** (∧) button in the lower-right corner. Velocity and automation can be edited in ***Grid Mode***. To hide the velocity/automation lane, tap the **down arrow** (∨) when it is expanded.

The **Settings** window lets you configure certain ***Grid Mode*** settings.

To view the Settings, tap the **gear icon**.

List Edit Mode

List Edit Mode has some of the features of Grid Mode—as well as some additional ones—but with a different interface/workflow.



The time counter at the top of the screen indicates the current playhead position.

The **View** menu lets you select what type of events are shown in the list.

All: Select this option to show all event types.

Notes: Select this option to show only notes.

Aftertouch: Select this option to show only aftertouch messages.

MIDI Automation: Select this option to show only MIDI automation events.

Track Automation: Select this option to show only track automation events.

Pitch Bend: Select this option to show only pitch bend events.

Control Change: Select this option to show only MIDI CC messages.

Program Change: Select this option to show only MIDI program change messages.

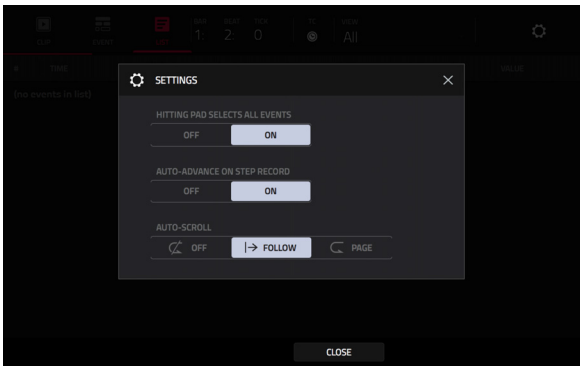
Ch Pressure: Select this option to show only channel pressure messages.

Solo/Mute: Select this option to show only solo and mute events for clips, tracks, and pads.

Other: Select this option to show other types of events not listed above, such as pad or keygroup parameters.

The **Settings** window lets you configure certain List Edit Mode settings.

To view the Settings, tap the **gear icon**.



Use the **Hitting Pad Selects All Events** selector to turn the feature on or off. When **On**, pressing a pad will automatically select all note events for that pad in the selected clip on that track. When set to **Off**, pressing a pad will simply play its sound without selecting any note events.

Use the **Auto-Advance on Step Record** selector to turn the feature on or off. When set to **On**, pressing a pad when the track is record-armed will move the audio playhead forward by a length determined by the current **Time Division** setting in the **TC**/**Timing Correct** window. When set to **Off**, pressing a pad when the track is record-armed will not change the audio playhead position.

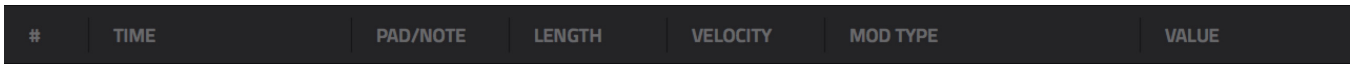
Use the **Auto-Scroll** selector to set how the screen behaves relative to the audio playhead.

Follow: The list will scroll along in the background while keeping the audio playhead centered.

Page: The list will move to the “next page” to follow the audio playhead.

Off: The list will not move at all.

These functions also apply to Grid Mode and Sample Edit Mode.



The contents of the clip will be shown as a list of events, with the following parameters:

#: This is the number of the note event.

Time: This is the position of the note event in bars, beats, and ticks. If multiple note events occur at the same time, additional note events will be listed immediately below, but their **Time** values will be grayed out.

Event Type: This icon indicates the type of event (e.g., **Note**, **Aftertouch**, **Track Automation**, etc.). See the list of icons below showing the different types of events.

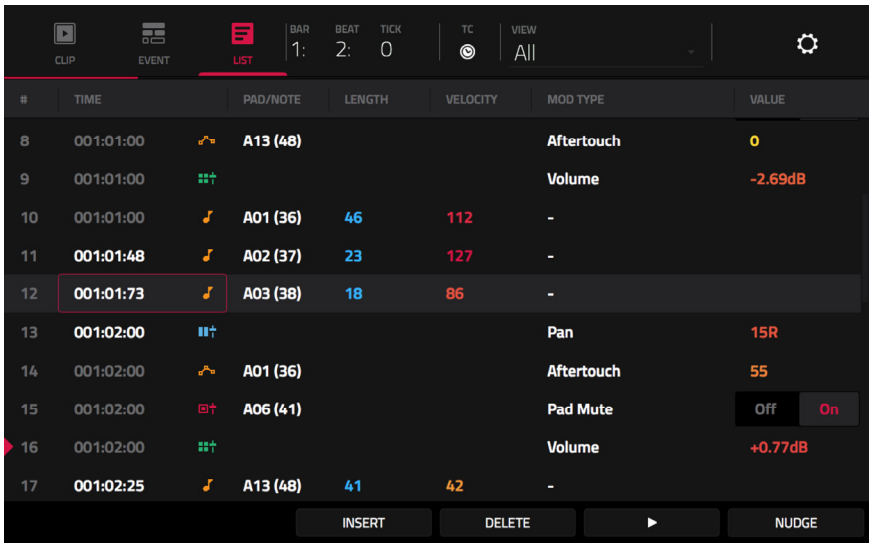
Pad/**Note**: This is the pad and/or corresponding MIDI note number. For drum tracks, you will see the pad number. For keygroup tracks, plugin tracks, and midi tracks, you will see the note.

Length: This is the length of the note event in ticks.

Velocity: This is the velocity of the note event with its corresponding color.

Mod Type: This is the type of modifier used on the note event via automation.

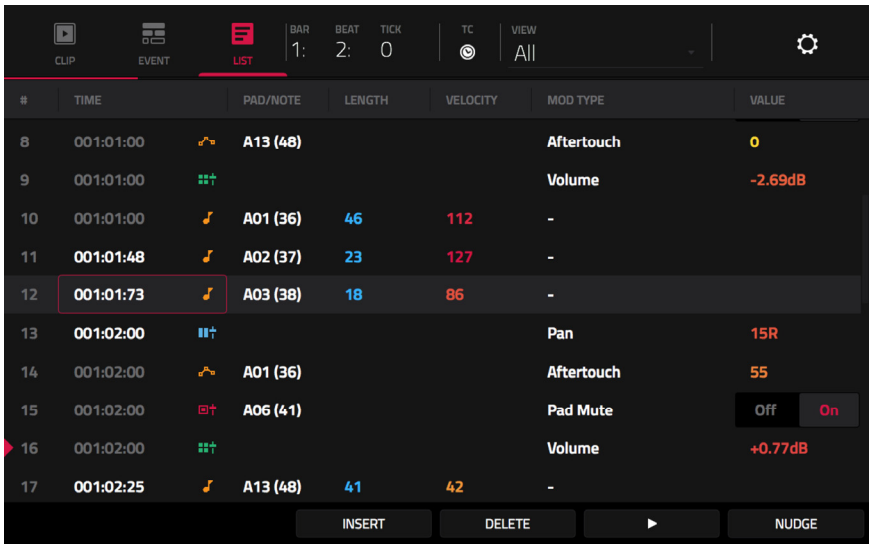
Value: This is the value of the modifier automation.



The **red arrow** (▶) on the left side of the list represents the audio playhead's current position. If your clip is playing, the arrow will move accordingly.

The following icons indicate the corresponding types of events:

- **Note**
- **MIDI** Automation (**Volume**, **Pan**, **Mute**, **Solo**)
- **MIDI CC** Automation (**0**–**127**)
- **MIDI Parameter** Automation (**Aftertouch**, **Pitchbend**, **Channel Pressure**, or **Program Change**)
- **Mixer** Automation (**Volume**, **Pan**, **Mute**, **Solo**, or **Send 1**–**4**)
- **Mixer Parameter** Automation (options vary based on the type of track)
- **Track Insert Effect** Automation (options vary based on the effect)
- **Pad/Keygroup Mixer** Automation (**Level**, **Pan**, **Pad Mute**, **Pad Solo**, or **Send 1**–**4**)
- **Pad/Keygroup Parameter** Automation (options vary based on the type of track)
- **Pad/Keygroup Insert Effect** Automation (options vary based on the effect)



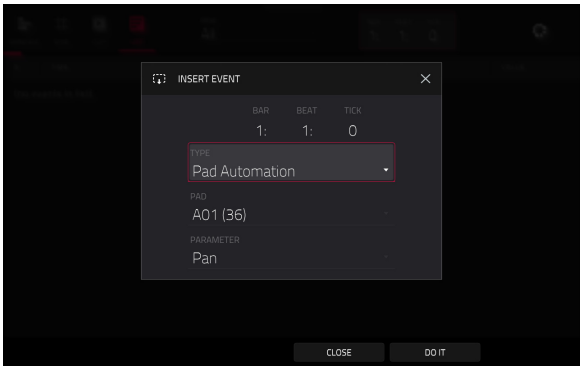
To select an event, tap it.

To select multiple events, press and hold **Shift** and tap each event.

To insert a note event, press **Rec** so the button is lit, and then press a **pad**. A note event will be created at the current location using the pad you pressed. You can keep pressing additional pads, which will continue to insert each press as a single note event in the order you pressed them (similar to a step sequencer). Press **Stop** to exit this function.

Note: Depending on the **Auto-Advance on Step Record** setting, the current time position will either advance each time you press a pad or remain in place. See the earlier description of ***Auto-Advance on Step Record*** to learn about this.

Alternatively, press the **Insert** button at the bottom of the screen to open the **Insert Event** window:



- Use the **Bar:Beat:Tick** fields to set the location where you want to add an event.
- Use the **Type** field to set what kind of event you would like to add: **Note**, **Pad Automation**, **Mixer Automation** or **MIDI Automation**.
- Use the **Pad** and/or **Parameter** fields to set the additional values or settings based on the type of event.
- Tap **Do It** to add the event.
- Tap **Cancel**, the **X** or anywhere outside the window to close the Insert Event window and return to List Mode.

To edit the Pad/Note, Length, or Velocity or numeric Value of an event, tap the value to select it, and then use the **data dial** or **–/+** buttons to change the value. Alternatively, double-tap it and use the numeric keypad that appears to enter a value (for **Length**, **Velocity**, or numeric **Value** only).

To edit the Length of an event according to your Timing Correct settings, tap the value to select it, and then press and hold **Shift** and use the **data dial** or **–/+** buttons to change the value.

To shift the Pad/Note of an event by pad bank, tap the value to select it, and then press and hold **Shift** and use the **data dial** or **–/+** buttons to change the pad bank.

To turn a Solo/Mute event on or off, tap the desired setting on the **On/Off** switch. Alternatively, tap the **On/Off** switch to select it, and then use the **data dial** or **–/+** buttons to change the value.

To move an event, tap it to select it, tap **Nudge** at the bottom of the screen, and then use the **data dial** or **–/+** buttons to shift the event up or down. Repeat this for other events, or tap **Nudge** again to turn the feature off.

To move an event according to your Timing Correct settings, tap the **Time** value to select it, and then press and hold **Shift** and use the **data dial** or **–/+** buttons to change the value.

To play an event, tap it to select it, and then tap **Play** (▶) at the bottom of the screen. This works with note events only.

To delete an event, tap it to select it, and then tap **Delete** at the bottom of the screen.

To open the Timing Correct window, tap **TC** at the bottom of the screen. See ***General Features*** > ***Timing Correct (TC)*** to learn about this.

Step Sequencer

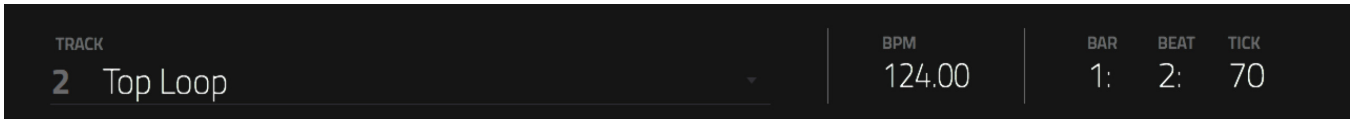
The Step Sequencer lets you create or edit clips by using the pads as “step buttons,” simulating the experience of a traditional step-sequencer-style drum machine. This is available for MIDI tracks only, not audio tracks.

You can also create and edit automation using the Step Sequencer.

To enter the Step Sequencer, press **Menu**, and then tap **Step Sequencer**. If you have not yet created a clip for the track, you will be prompted to do so.

Note: Entering the Step Sequencer mode on the display will not also put the **clip launch pads** into their own Step Sequencer pad mode. Press the **Step Seq** button to do so.

The top of the screen shows the track name and information as well as project and timing information.



The **Track** field shows the name of the current track.

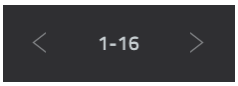
Use the **BPM** field to adjust the tempo of the project.

The time counter at the top of the screen indicates the current playhead position.

To enter or delete steps in a clip:

1. Use the **Pad –/+** buttons at the bottom of the screen to select the pad whose steps you want to enter or delete. The current pad number is shown in the upper-left corner.
2. Use the **Bar –/+** buttons at the bottom of the screen to select the bar of the clip whose steps you want to enter or delete. The current bar number is shown in the upper-left corner.
3. Press the **pads** of your Force hardware, or tap a button at the bottom of the sequencer. Each pad corresponds to a step in the bar and will light with a color corresponding to its velocity.

For time divisions larger than 16, the bar's steps will be represented by multiple pad banks. In this case, use the left and right arrows (**<** and **>**) by the step numbers (**1**–**16**, **17**–**32**, etc.) to change which steps are shown in the sequencer.



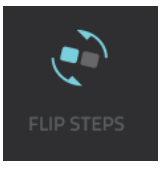
To adjust the velocities of the steps, do any of the following:

- Tap anywhere on the **velocity bar** of a step. The top of the velocity bar will jump to that point.
- Use the **slider** on the right edge of the screen to increase or decrease the velocities of all steps.

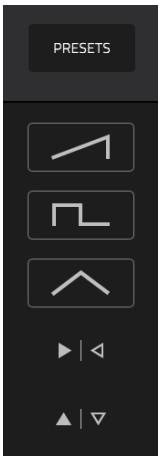
Use the **Nudge <** and **Nudge >** arrows to shift each step left or right (respectively) one step. This is useful for experimenting with different rhythmic permutations.

Use the **slider** on the right edge of the screen to increase or decrease the velocities of all steps.

Use the **Flip Steps** button to switch which steps have notes entered and which do not have notes. Steps that previously had no notes will now have notes at full velocity (**127**). Steps that previously had notes will now be empty.



Tap **Presets** to show or hide the preset velocity controls. These controls let you manipulate and transform the velocities of the current bar in the clip.



The **first** button will apply ascending or descending velocities to the steps. Each time you tap it, it will cycle through these options:

- The velocities will ascend to a single peak at the end of the bar.
- The velocities will ascend to two peaks—one after each half of the bar.
- The velocities will ascend to four peaks—one after each quarter of the bar.
- The velocities will descend from a single peak at the start of the bar.
- The velocities will descend from two peaks—one after each half of the bar.
- The velocities will descend from four peaks—one at the start each quarter of the bar.

The **second** button will set the velocities of the steps to be at the maximum value (**127**) or minimum values (**1**), depending on their position in the bar. Each time you tap it, it will cycle through these options:

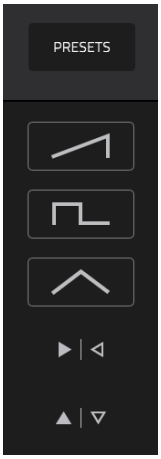
- The velocities of the first half of the bar will be set to **1**. The velocities of the second half will be set to **127**.
- The velocities of the first and third quarters of the bar will be set to **1**. The velocities of the second and fourth quarters will be set to **127**.
- The velocities of the first, third, fifth, and seventh eighths of the bar will be set to **1**. The velocities of the second, fourth, sixth, and eighth eighths will be set to **127**.
- The velocities of the first half of the bar will be set to **127**. The velocities of the second half will be set to **1**.
- The velocities of the first and third quarters of the bar will be set to **127**. The velocities of the second and fourth quarters will be set to **1**.
- The velocities of the first, third, fifth, and seventh eighths of the bar will be set to **127**. The velocities of the second, fourth, sixth, and eighth eighths will be set to **1**.

The **third** button will apply ascending or descending velocities to the steps. Each time you tap it, it will cycle through these options:

- Across the entire bar, the velocities will ascend to a peak and then descend from it.
- In each half of the bar, the velocities will ascend to a peak and then descend from it.
- In each quarter of the bar, the velocities will ascend to a peak and then descend from it.
- Across the entire bar, the velocities will descend from a peak into a valley and then ascend back up to the peak.
- In each half of the bar, the velocities will descend from a peak into a valley and then ascend back up to the peak.
- In each quarter of the bar, the velocities will descend from a peak into a valley and then ascend back up to the peak.

The **fourth** button will swap the first half and second half of the bar. In other words, the first half of the bar will become a mirrored image of the second half, and vice versa.

The **fifth** button will invert the velocities of all steps with entered notes. The sum of the old and new velocities will equal **127**. The exception is a velocity of **127** or **1** as a step with a note cannot have a velocity of **0**.



Examples:

Steps with velocities of **40** will now have velocities of **87**, and vice versa.

Steps with velocities of **75** will now have velocities of **52**, and vice versa.

Steps with velocities of **127** will now have velocities of **1**, and vice versa.

Step Automation

You can also create and edit automation using the Step Sequencer.

To add a step automation parameter:

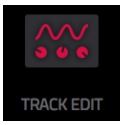
1. Press **Menu** and tap **Step Sequencer** to open the Step Sequencer.
2. By default, the **Parameter** field of the Step Sequencer displays **Velocity** for MIDI tracks and **TRK: Volume** for audio tracks. Double-tap this field to open the drop-down menu.
3. In the menu that appears, tap **Add New** to add an automation parameter. You can choose from a variety of parameters depending on the type of track, insert effects added and other options.

To edit step automation, do any of the following:

- Tap and drag your finger in the step area to freely draw step values.
- Press and hold the **Knobs** button and tap **Screen** to set the knobs to Screen Mode. While viewing the step sequencer, you can use the knobs for tactile control of each step's automation value, emulating traditional knob-based step sequencers. Use **Bank 1** of the knobs to control **Steps 1–8** and **Bank 2** to control **Steps 9–16**. While it is being adjusted, the current automation value will be shown next to the **Parameter** field, as well as in the display strip above the knobs.
- Press and hold **Shift** and tap **Clear** to clear all automation for the selected parameter in the selected clip.
- Press and hold **Shift** and tap **Clear Bar** to clear all automation for the selected parameter in the current bar of the selected clip.
- Use the **Nudge <** and **>** buttons to shift the current automation parameter to the left or right at the current Timing Correct value.
- Use the **slider** on the right side to increase or decrease the parameter values for all automation steps in the visible time range.
- Tap **Presets** and use the buttons to apply the presets to the step automation (See ***Operation*** > ***Modes*** > ***Step Sequencer*** for more information).

Note: When editing step automation, if a step is not activated, a darkened step bar will indicate the current parameter value at that step, based on the last active step.

Track Edit Mode



Track Edit Mode contains all parameters for editing your Tracks.

For **drum tracks**, this mode includes the parameters of four layers as well as all synthesis parameters and insert effect settings. See the ***Drum Tracks*** section to learn more.

For **keygroup tracks**, this mode contains slightly more parameters than drum tracks. See the ***Keygroup Tracks*** section to learn more.

For **plugin tracks**, skip to ***Plugin Tracks*** to learn more.

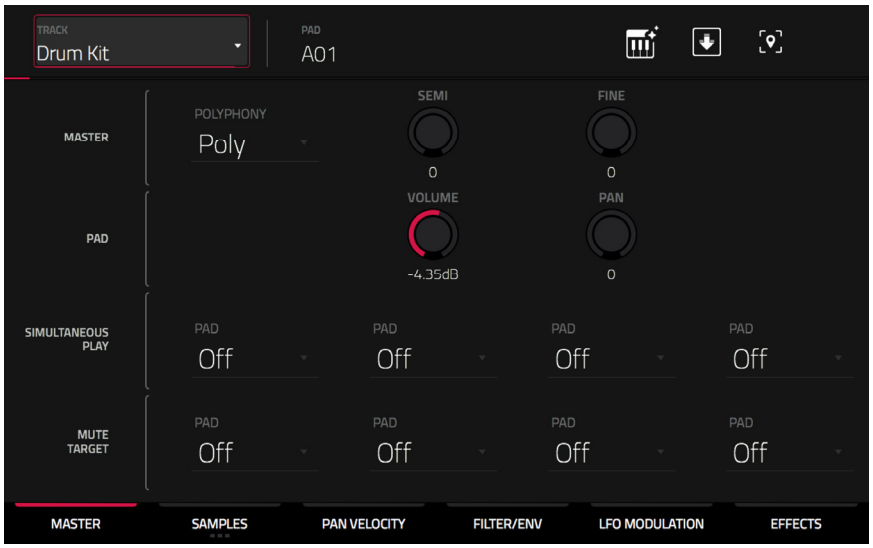
For **MIDI tracks** and **CV tracks**, skip to ***MIDI Tracks*** and ***CV Tracks*** to learn more.

For more general information on the differences between the types of tracks, please see ***General Features*** > ***Tracks***.

To enter Track Edit Mode, do either of the following:

- Press **Menu**, and then tap **Track Edit**.
- Press and hold **Shift** and press **Clip**.

Drum Tracks

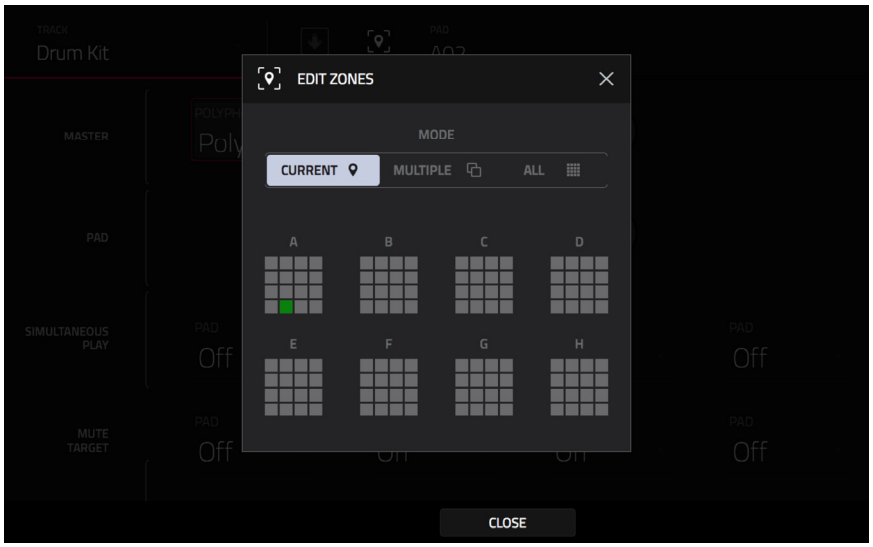


When using drum tracks, Track Edit Mode lets you edit the parameters for each pad.

To select a pad, press it. Its parameters will appear on the screen immediately.

To view a specific tab of parameters, tap the **Master**, **Samples**, **Pan Velocity**, **Filter/Env**, **LFO Modulation**, or **Effects** button at the bottom of the screen. You can tap the **Samples** button multiple times to cycle through its three available tabs.

Tap the **keyboard+** icon at the top of the screen to quickly create a keygroup from the selected sample. The new keygroup will be created on a new track and automatically be selected.

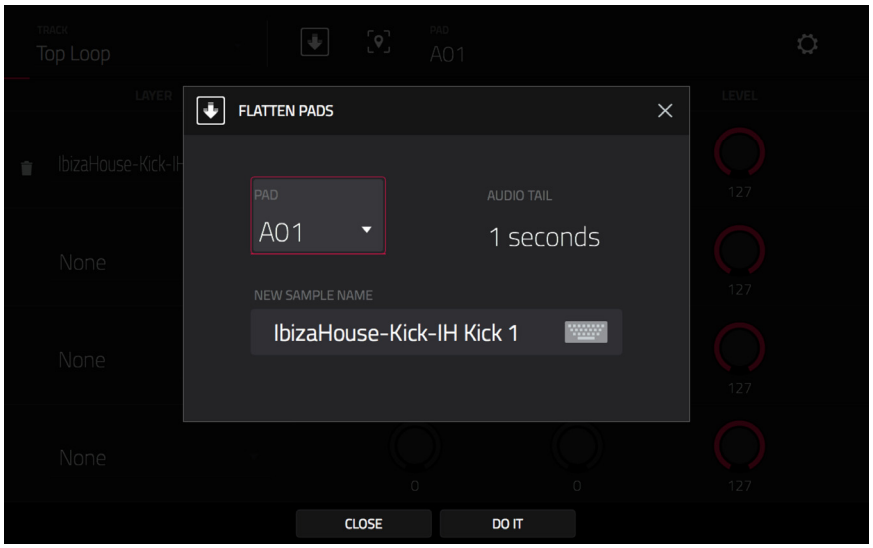


Tap the **location icon** at the top of the screen (on the right side) to open the **Edit Zones** window, which is a feature for drum tracks. This window displays an overview of any selected pads. Use the **Mode** selector to set how the selected pads will be edited:

- **Current**: Only the currently selected pad can be edited.
- **Multiple**: All selected pads can be edited simultaneously.
- **All**: All pads can be edited simultaneously.

To close the window, tap **Close**, the **X**, or anywhere outside the window.

Tip: You can immediately select multiple pads while on any tab in Track Edit Mode (regardless of the current Edit Zones setting) by pressing and holding the **Shift** button and pressing each desired pad. The Edit Zones setting will automatically change to **Multiple**.



Tap the **down-arrow icon** at the top of the screen (next to the **Track** field) to open the **Flatten Pad** window, which renders all samples on a pad as an audio sample and places it on the first layer of that pad. The resulting sample is the audio signal produced by that pad at full velocity (**127**) after the pad channel strip, which means that it includes any assigned pad insert effects and the results of warping the sample.

This function is useful if you need to reduce how CPU-intensive a pad or track is by essentially "embedding" the warping and effects in the sample itself. By default, it will use the name of the first sample. This function works for drum tracks only.

To select the pad, press it or use the **Pad** menu.

To set the length of the audio tail, use the **Audio Tail** field. This will add extra seconds to the end of the resulting audio file. This is useful if you are using effects or samples whose sounds exceed the defined audio length (e.g., long reverb or delay, one-shot samples with long decays, etc.). We recommend using an audio tail of at least a couple of seconds.

To name the new sample, tap the **Edit Name** field, and use the virtual keyboard that appears.

To confirm your choice, tap **Do It**.

To cancel, tap **Cancel**.

Master

In the Master tab, you can set the playback mode and tuning for the overall Track.

Polyphony sets the playback mode for the track's pads. In **Mono** Mode, only one pad will sound at a time. If a pad is played while another (or the same one) is still playing its sample/samples, the new pad will immediately mute all other currently playing pads in that track. In **Poly** Mode, several pads can be triggered at the same time (limited only by the total number of voices available).

Semi lets you transpose the track up to 36 semitones up or down.

Fine provides fine-tuning of the track up to 99 cents up or down.

Volume controls the overall volume level of the loaded sample/samples.

Pan controls the overall panning of the loaded sample/samples in the stereo field.

The **Simultaneous Play** section lets you set up to four pads that can be triggered by pressing one pad only. This function is useful for triggering a stack of sounds (e.g., layered kick drums). Use each **Pad** field to select the desired pad.

The **Mute Targets** tab lets you select up to four pads (in the same track) for the currently selected pad. When the currently selected pad is played, it will immediately silence its mute targets. Use each **Pad** field to select the desired mute target.

Tips:

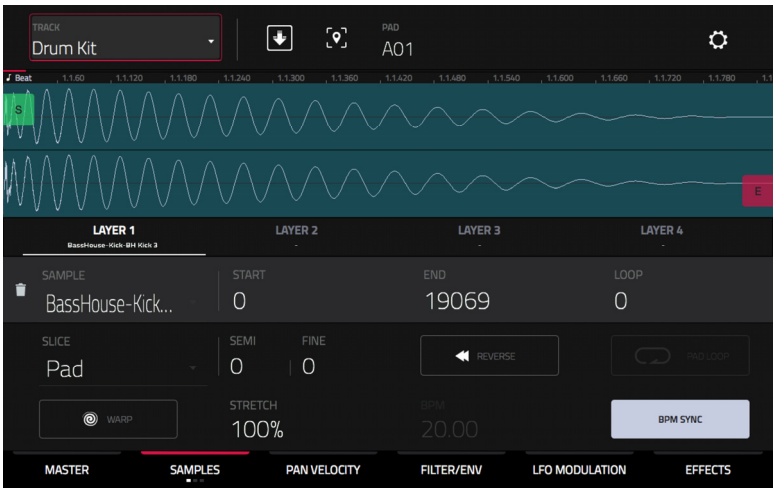
This feature is useful for programming realistic hi-hats, especially if only the open or closed hat should be heard.

This feature is similar to the mute group feature, available for both drum tracks and keygroup tracks.

Samples

Each pad can trigger up to four samples, which are assigned in four individual layers. Each layer has identical, independently assignable parameters.

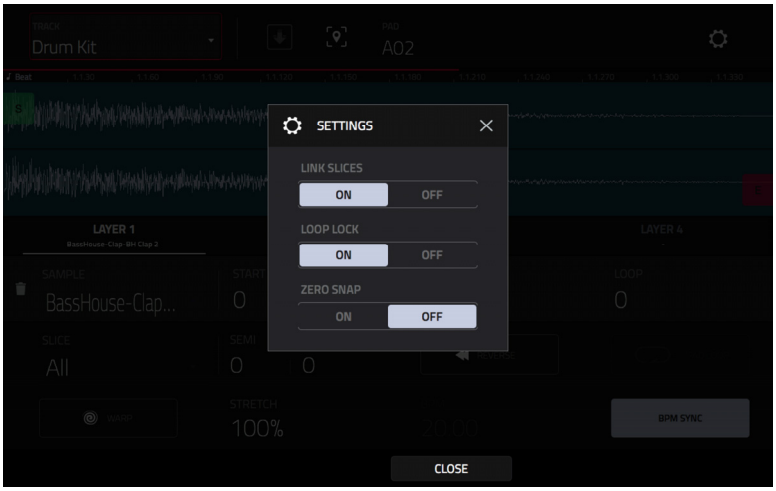
Tap **Samples** to cycle through its three available tabs.



On all three sections, you can access the **Settings** window, which lets you configure certain settings in the Samples tab.

To view the Settings, tap the **gear icon**.

To close the Settings, tap **Close**, the **X** in the upper-right corner, or anywhere outside the window.



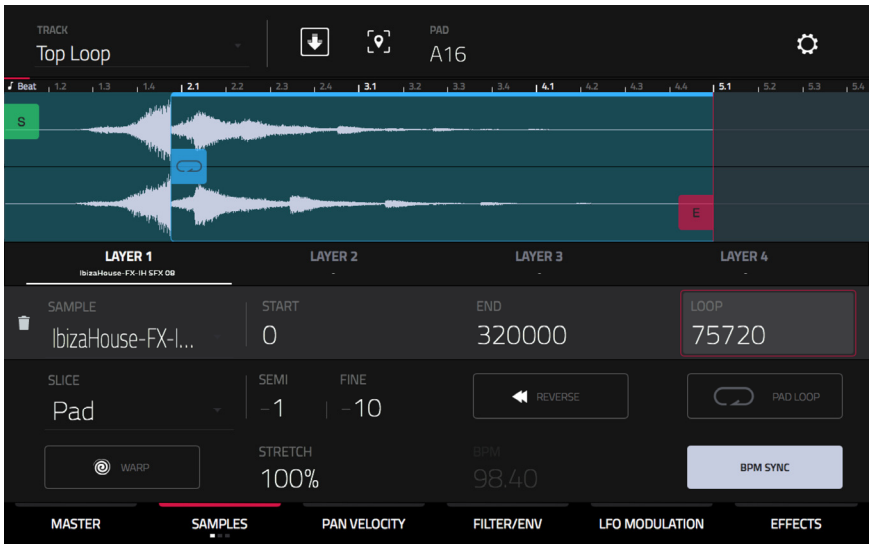
Use the **Link Slices** selector to set how the start point and end point of a slice in a larger sample is set. You can create these slices in Sample Edit Mode (Chop Mode).

When on, changing the start point of a slice will also change the end point of the previous slice. Similarly, changing the end point of a slice will also change the start point of the next slice. Disable **Link Slices** if you are trying to create slices that use non-contiguous parts of the sample. This is the same as the **Link Slices** button in Sample Edit Mode.

Use the **Loop Lock** selector to “link” or “unlink” the loop point from the start point. When on, the loop point is the same as the start point. When off, the loop point is independent from the start point and indicated by a separate loop marker. This is the same as the **Loop Lock** button in Sample Edit Mode.

Use the **Zero Snap** selector to enable or disable the Zero Snap feature, which forces start points, end points, and loop points to occur only at the waveform’s “zero-crossings.” This can help to avoid clicks and glitches when playing a sample. This is the same as the **0 Snap** button in Sample Edit Mode.

The **first Samples** tab contains the sample waveform for each layer and controls for its pitch, timing, and playback.



The upper half of the screen shows the waveform of the sample on the currently selected layer. The lower half shows the editing controls.

The waveform display shows the “active” section of the sample waveform. Swipe left or right on the waveform to move through it.

Above the waveform is the timeline, shown in bars, beats, and ticks.

Tap each layer number (**Layer 1**–**4**) under the waveform to select it. When selected, its sample waveform will be shown in the upper half of the screen and its settings will be shown in the lower half.

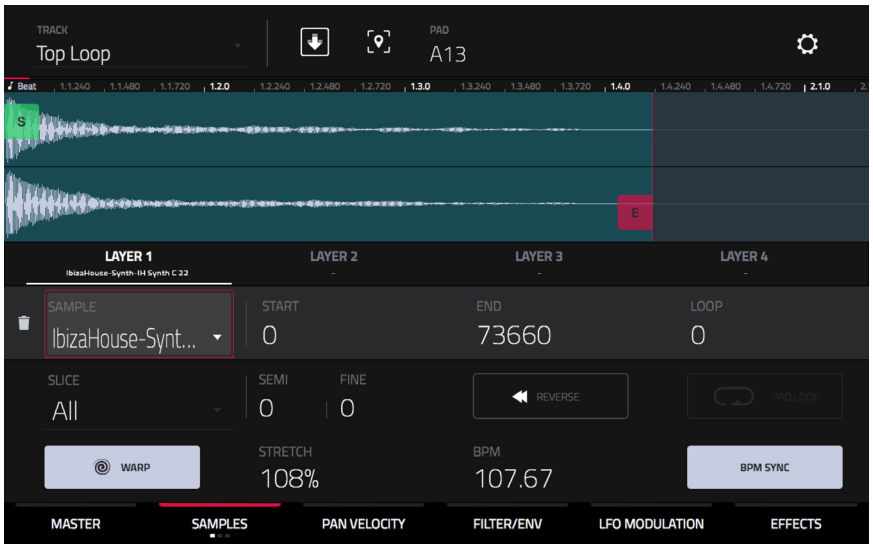
Use the **Sample** field to select the sample file for that layer. Remember that the sample has to be loaded into the project’s sample pool beforehand. For information on how to load samples into a project, please see the ***Browser*** chapter.

Important: The parameters in the **Samples** tabs work in conjunction with Chop Mode (in Sample Edit Mode). Here’s how it works:

When working in Sample Edit Mode and using Chop Mode to divide a sample into slices for your pads, you can convert a slice using **Non-Destructive Slice** or **Pad Parameters**.

A **Non-Destructive Slice** will let its pad to refer to that slice when you press it; the original sample remains intact and each slice marker is like a “bookmark” for a pad. In Track Edit Mode, you’ll see that the pad/layer to which it’s assigned has its **Slice** drop-down menu set to the corresponding **slice number** in the original sample. Playing that pad will cause it to refer to that slice marker like a “bookmark” instead of creating an entirely new sample of that slice. This means that you no longer have to clutter your project with a new sample for every slice (though you can still use this earlier method, if you prefer).

A slice converted using **Pad Parameters** is very similar to a non-destructive slice described above. The difference is that in Track Edit Mode, the pads/layers they’re assigned to have their **Slice** drop-down menus set to **Pad** (instead of the slice number), and the **start** and **end points** will correspond to the slice markers in the original sample.



The **green**/**S** marker and **red**/**E** marker are the start point and end point (respectively). These two points define the region of the sample that will be played.

To move the start point or end point, do any of the following:

- Tap and drag the **S** or **E** marker left or right.
- Use the **Start** or **End** fields shown below the waveform.
- When the **knobs** are set to **screen** mode, use **Knobs 1** and **5** to adjust the start point or **Knobs 2** and **6** to adjust the end point. Knobs 1 and 2 provide fine adjustment and Knobs 5 and 6 provide coarse adjustment.

Note: When **Loop Lock** is on, the loop position (as determined by the **Loop** field, if enabled) is the same as the sample's start point. When off, the loop position is independent from the start point.

Use the **Loop** field to determine the position where the sample's playback will repeat when **Pad Loop** is activated.

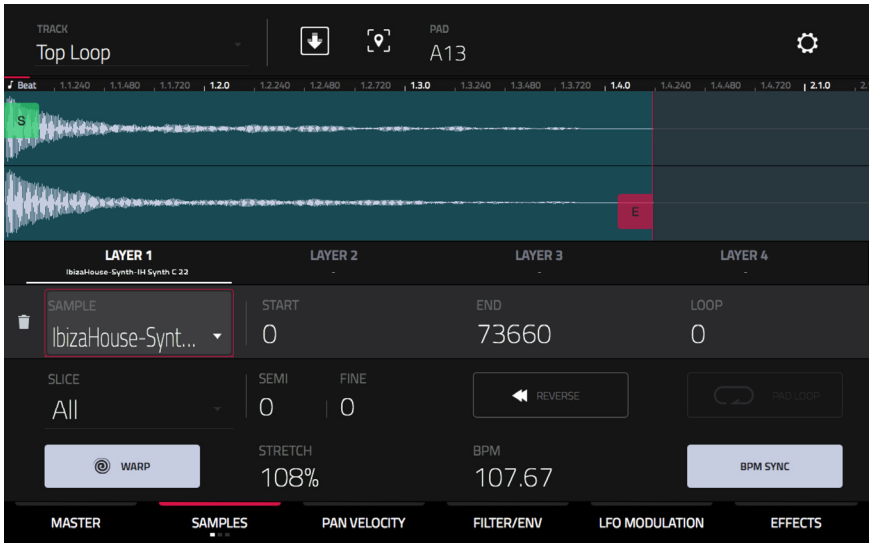
Note: When **Loop Lock** is on, the loop position is the same as the sample's start point. When off, the loop position is independent from the start point.

Use the **Slice** field to select what part/parts of the sample will play:

- **All**: The entire sample will play.
- **Pad**: The sample will play from the **Pad Start** position to the **Pad End** position, described ***earlier***. This also lets you activate ***Pad Loop*** (if the **Sample Play** field in the **LFO Modulation** tab is set to **Note On**).
- **Slice 1, 2, 3, etc.**: If you have sliced the sample in Chop Mode, you can select which slice will play when you trigger the pad.

Semi lets you transpose the selected layer 36 up to semitones up or down. This will affect the length of the sample (if **Warp** is off). This is the same as the **Semi** knob on the second Samples tab.

Fine provides fine-tuning of each layer by cents. This will affect the length of the sample (if **Warp** is off). This is the same as the **Fine** knob on the second Samples tab.

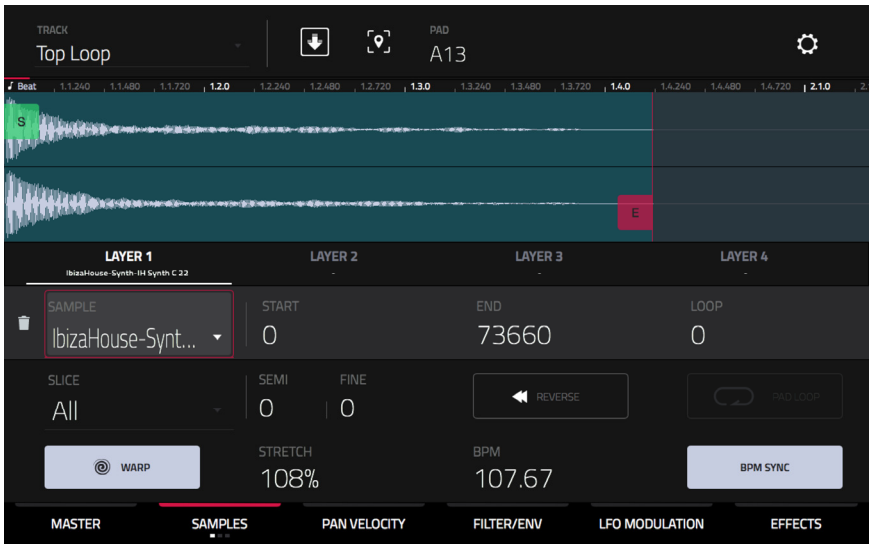


Use the **Reverse** button to select in which direction the sample will play. When on, the sample will play in reverse. When off, the sample will play in the normal forward direction.

Use the **Pad Loop** button to cycle through the available Pad Loop modes.

Important: For Pad Loop to work, you must (**1**) set the **Sample Play** field (in the **LFO Modulation** tab) to **Note On** instead of One Shot and (**2**) set the **Slice** field (in the first **Samples** tab) to **Pad** instead of All or a slice number.

- **Off**: The sample will not loop.
- **Forward**: You can hold down the **pad** to cause that sample to repeat from the **Loop Position** to the end of the sample. Release the **pad** to stop the repeating playback.
- **Reverse**: You can hold down the **pad** to cause that sample to play in reverse, repeating from the end of the sample to the **Loop Position**. Release the **pad** to stop the repeating playback.
- **Alternating**: You can hold down the **pad** to cause that sample to play from the **Loop Position** to the end of the sample and then play in reverse until it reaches the **Loop Position** again. This will repeat as long as you are holding the pad down. Release the **pad** to stop the repeating playback.



Tap **Warp** to enable or disable warping of the sample.

When enabled, lengthening or shortening the sample (based on the BPM) will not change its pitch.

When disabled, lengthening or shortening the sample will also change its pitch and vice versa.

Use the **Stretch** field to set the "stretch factor," which affects how the sample is warped (if **Warp** is on).

Use the **BPM** field to enter a tempo, which affects how the sample is warped (if **Warp** is on).

Tap **BPM Sync** to enable or disable BPM Sync.

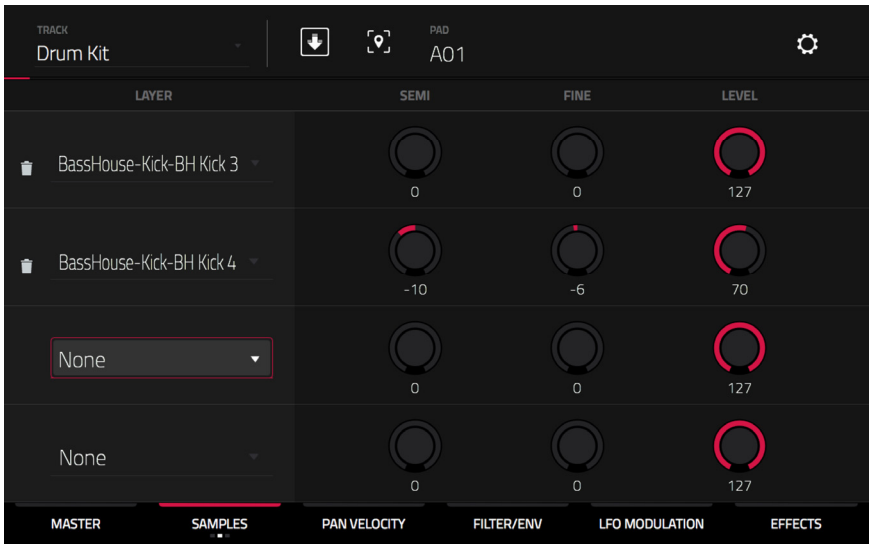
When BPM Sync and **Warp** are both enabled, the sample's BPM will be "locked" to the tempo of the project.

When BPM Sync is disabled but **Warp** is enabled, the sample will be independent of the tempo of your project—use the **Stretch** field to lengthen or shorten a sample.

Note: The Warp algorithms are very CPU-intensive and can result in audio drop-outs during playback if used too freely. Be mindful of how (and how often) you use the warp function. You can reduce the CPU resources required by doing any/all of the following:

- Avoid using extreme **Stretch** values.
- Minimize the amount of pitch adjustment (e.g., the **Semi** and **Fine** parameters) of warped audio.
- Avoid warping very small clip regions.
- Warp as few clips or clip regions as possible (i.e., reduce the number of total number of voices of the polyphonic limit that use the Warp algorithm at a given time), especially instances where the warped regions start at the same time.
- Avoid rapidly triggering samples that are warped.
- If you have warped samples used in a drum kit, consider using the **Flatten Pad** function to consolidate the affected pad's layers into one audio sample (see ***here*** to learn about this). After you flatten the pad, its sample/samples no longer need to be warped.

The **second Samples** tab contains controls for its pitch and volume level.

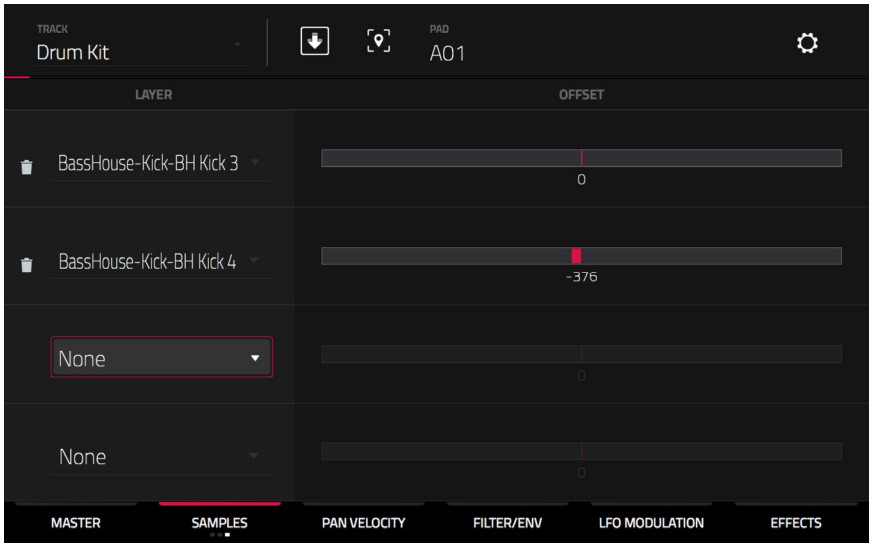


Semi lets you transpose the selected layer 36 up to semitones up or down. This will affect the length of the sample (if **Warp** is off). This is the same as the **Semi** field on the first Samples tab.

Fine provides fine-tuning of each layer by cents. This will affect the length of the sample (if **Warp** is off). This is the same as the **Fine** field on the first Samples tab.

Level lets you adjust each layer's volume, letting you control the "balance" of the samples assigned to the pad.

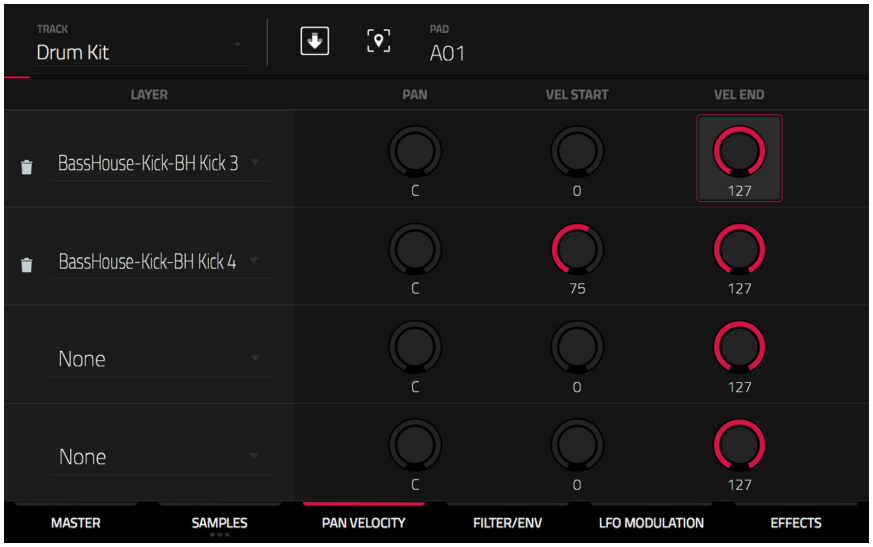
The **third Samples** tab contains the control for its offset.



Use the **Offset** slider to determine a time offset for the sample's playback.

- **Positive values** (right of center): When the pad is played, playback will start immediately but at a later point in the sample specified by the offset value.
- **Negative values** (left of center): When the pad is played, playback will be delayed by the amount specified by the offset value.

Pan Velocity



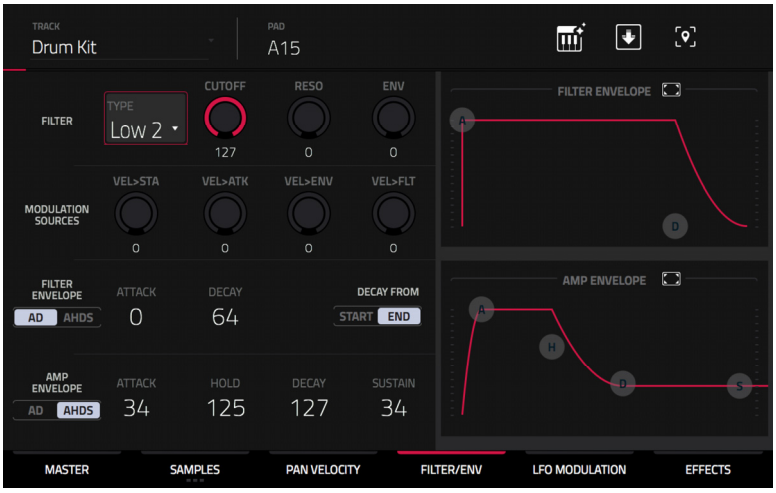
Use the **pan knob** to adjust the stereo placement of the respective layer.

Use the **Vel Start** and **Vel End** knobs to define the velocity range of each layer.

A range from **0** to **127** lets the layer respond to the entire velocity range which is input from the respective pad while, for example, a range from **100** to **127** lets the layer respond only to higher velocity levels. By assigning several samples of one instrument, you can create a realistic-sounding “multi-sample” by adjusting the velocity ranges of each layer accordingly.

For example, you may have three samples of a drum hit with low force, medium force, and high force. You can set each sample to a layer and set the Velocity ranges so only low velocities trigger the low-force sample, only mid-range velocities trigger the medium-force sample, and only high velocities trigger the high-force sample.

Filter/Envelope



Use the **Type** field to select a filter for the selected pad. See ***Appendix*** > ***Glossary*** > ***Filter*** for an explanation of the available filter types.

Use the **Cutoff** knob to set the cutoff frequency for low-pass and high-pass filter types or the center frequency for band-pass and band-stop filter types.

Use the **Reso** knob to set the resonance/emphasis of the frequencies around the cutoff point.

Tip: Use values lower than **80** to give more brilliance to the sound. At values higher than **80**, the sound will result in a strong audible boost around the cutoff frequency.

Use the **Env** to determine the amount of influence the filter envelope has on the cutoff frequency. Higher settings will increase the modulation of the filter by the envelope; lower settings will result in only subtle changes of the filter **Cutoff** over time.

Tip: **To give a sound a more distinctive attack**, increase the **Env** setting and set low **Atk** and **Decay** values as well as a medium-low **Sust** value of the **Filter Envelope**. This will start a sound with the filter opened and close it shortly afterward, giving it a bright start followed by a darker sustain. String sounds, on the other hand, can sound much more "alive" with low **Env** settings and a high **Atk** value, resulting in a slight fade-in of the higher frequencies.

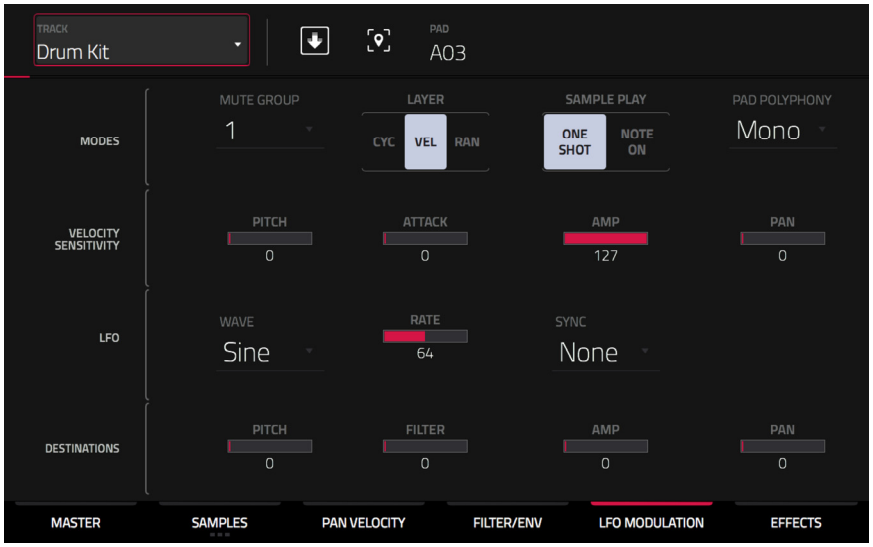
Use the **Modulation Sources** knobs to set how much velocity is required to modulate certain other parameters:

- **Vel**>**Sta** (Velocity➔Start) sets how much velocity is needed (for a triggered pad) to modulate the sample start point.
- **Vel**>**Atk** (Velocity➔Attack) sets how much velocity is needed (for a triggered pad) to modulate the Attack phase for the Amp envelope.
- **Vel**>**Env** (Velocity➔Envelope) enables velocity information to control the amount of the filter envelope's effect on the cutoff frequency.
- **Vel**>**Flt** (Velocity➔Filter) uses the velocity of a pad to modulate the cutoff frequency directly.

The **Filter Envelope** controls affect the filter frequency. Use the fields or tap and drag the "handles" of the envelope to shape the envelope or time-variant modulation output. Adjust the envelope's influence on the filter frequency with the **Env** knob. See the later ***Anatomy of an Envelope*** section to learn about the envelope parameters.

The **Amp Envelope** controls affect level changes over time. Use the fields or tap and drag the "handles" of the envelope to shape the envelope or time-variant modulation output. Adjust the envelope's influence on the filter frequency with the **Env** knob. See the later ***Anatomy of an Envelope*** section to learn about the envelope parameters.

LFO Modulation



The **Modes** controls let you set the behavior for each pad's samples in a drum track.

Use the **Mute Group** field to assign the selected pad to one of the 32 available groups. When pads assigned to the same mute group receive MIDI notes, the last pad played will silence all other pads in that mute group. A mute group affects pads within that track only; mute groups do not affect pads in other tracks.

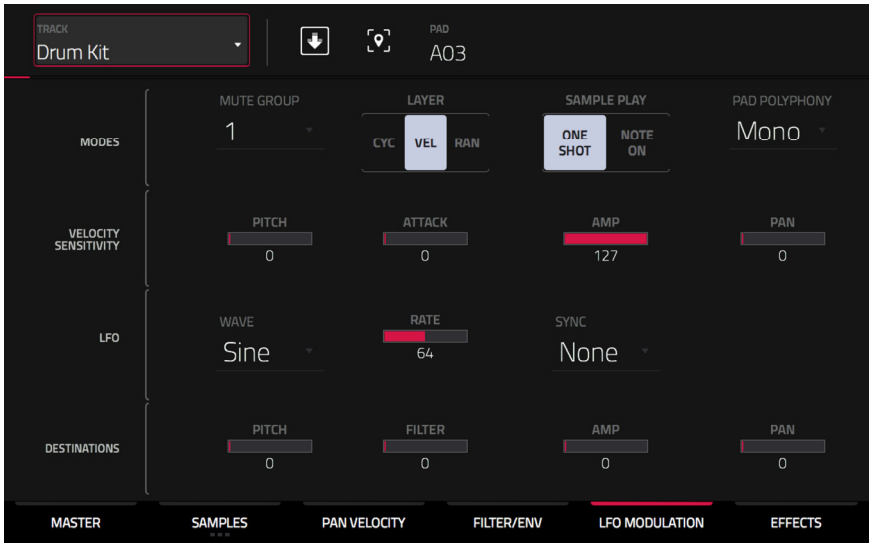
Tip: This feature is useful for programming realistic hi-hats, so only the open or closed hat is heard.

Use the **Layer Play** selector to determine how multiple samples assigned to the same pad are played:

- **Cycle** (**Cyc**): Each time the pad is played, it will play the next layer's sample. In other words, the samples will cycle through the layers as follows: 1, 2, 3, 4, 1, 2, 3, 4… etc.
- **Velocity** (**Vel**): The pad will switch between layers depending on how hard you press a pad.
- **Random** (**Ran**): Each time the pad is played, it will play one of its layer's samples at random.

Use the **Sample Play** selector to determine how much of the sample is played.

- **One Shot**: The entire sample will play from start to end. Use this when you want to play short sounds.
- **Note On**: The sample will play only as long as the pad is held. This is better for longer samples so you can control a sound's duration by pressing and holding its corresponding pad.



Use the **Pad Polyphony** field to determine how the pad's sound behaves when multiple hits are registered. When set to **Mono**, only one pad will sound at a time. If a pad is played while another (or the same one) is still playing its sample/samples, the new pad will immediately mute all other currently playing pads in that track. When set to **Poly**, several pads can be triggered at the same time (limited only by the total number of voices available). You can also select a specific number of pads (**2**–**32**) so that you can trigger up to this many pads at the same time (unless they exceed the total number of voices available).

The **Velocity Sensitivity** controls determine how much the velocity affects the pitch of the sound (**Pitch**), the attack of the filter envelope (**Attack**), the volume level of the filter envelope (**Amp**) and or the panning of the sound (**Pan**).

When you press a pad softly, only minimal modulation is applied. When you press it harder, the modulation amount also gets stronger depending on the setting of the corresponding knob.

A low-frequency oscillator (LFO) generates a periodic waveform with an adjustable frequency and shape which can be used for modulation purposes.

Use the **Wave** field to select the LFO waveform type:

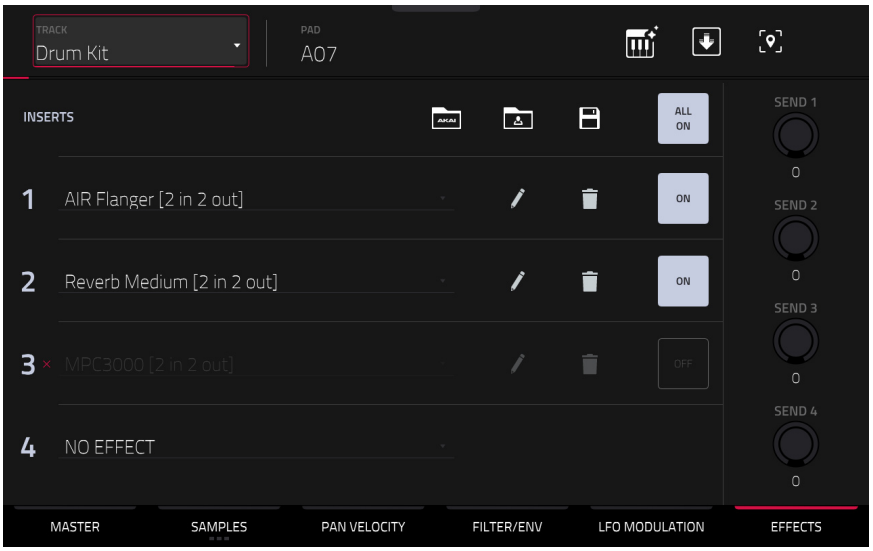
- **Sine** (best suited for smooth modulations)
- **Triangle** (best suited for smooth modulations)
- **S&H** (samples a random value and holds it until the next value is generated)
- **Saw** (can generate interesting filter or volume changes)
- **Saw Down** (can generate interesting filter or volume changes)
- **Square** (interesting results with hard-panning modulations)
- **Noise** (generates random values and glides)

Use the **Rate** field to determine the LFO frequency. At lower values, it might take some time for the LFO to complete a cycle, while higher values will come closer to audible range.

Use the **Sync** field to set if the LFO's rate is synchronized with the tempo. You can select one of several time divisions (a **.** indicates a dotted note; a **T** indicates a triplet-based time division). When **None** is selected, **Sync** is off.

Use the **Destinations** sliders to determine how much the LFO affects the pitch of the sound (**Pitch**), the cutoff frequency of the filter (**Filter**), the volume level of the sound (**Amp**) and panning of the sound (**Pan**).

Effects



Inserts

You can select up to four insert effects for each pad. To learn how to use insert effects, please see ***General Features*** > ***Effects*** > ***Insert Effects***.

To add an effect:

1. Double-tap the desired **Inserts** slot. A list of effects will appear.
2. Swipe up or down to move through the list.

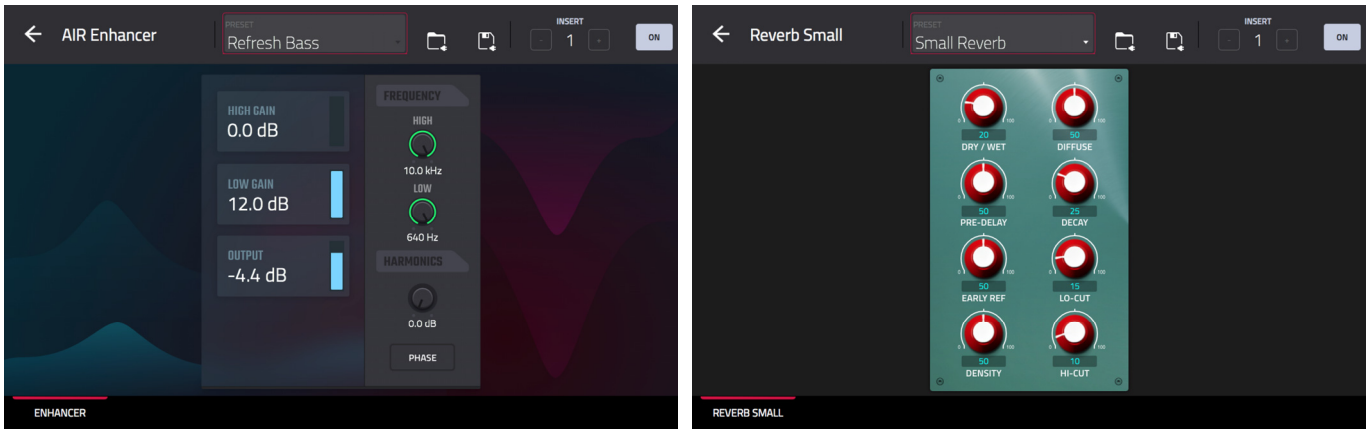
   You can tap the **Type** and **Manufacturer** buttons to sort your effects by those categories.
3. **To load an effect, double-tap it**, or tap **Select**.

   To close the list, tap **Close**.

To remove an effect from its slot, tap the **trash can icon**.

To enable or disable the effect, tap the **On**/**Off** button for the slot.

To enable or disable all four insert effects, tap the **All On**/**Off** button in the upper-right corner.



To adjust the effect's parameters, tap the **pencil icon**. Use the **sliders** to set the value of each parameter. These values affect only this instance of the effect; insert effects are not global.

To load an effect preset, tap the **folder** icon next to the preset name at the top of the display to open the file browser.

To save a new effect preset, tap the **disk** icon next to the insert selector at the top of the display.

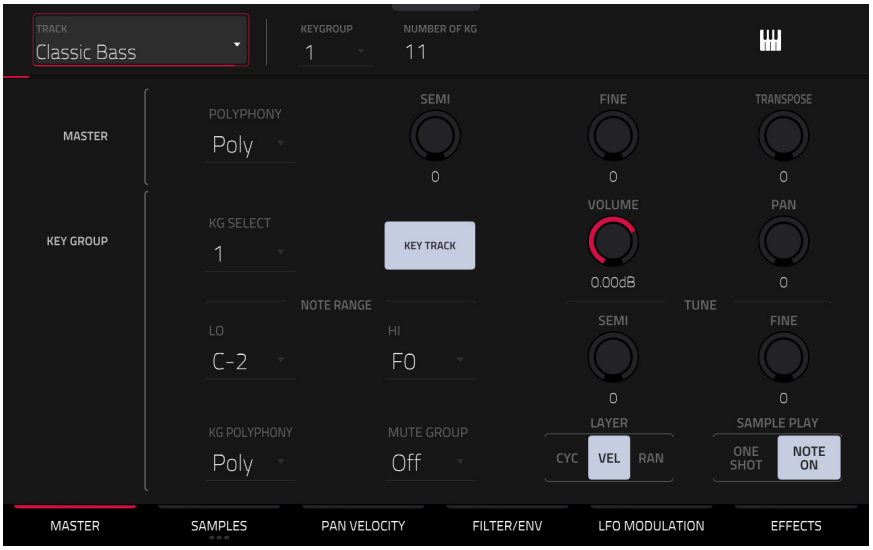
Sends

The audio of the pad will be routed to send effects (if you have any loaded) at their designated send levels. The return channels will then send the audio to an assigned master output at the designated return levels.

Use the **Send** knobs to set the volume level of the signal the pad will route to each send effect.

Important: To learn about send effects, please see ***General Features*** > ***Effects*** > ***Send/Return Effects***.

Keygroup Tracks



When using keygroup tracks, Track Edit Mode lets you edit the parameters for each keygroup.

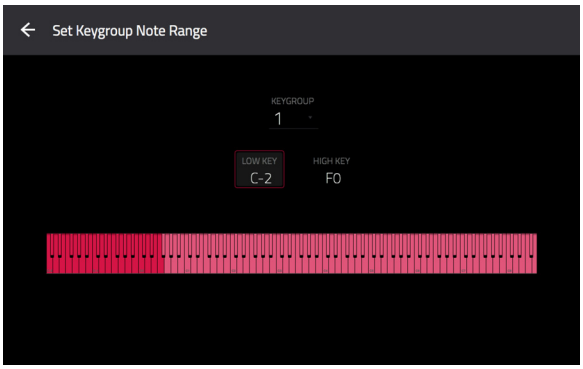
To select a keygroup, press a **pad** within that keygroup. Its parameters will appear on the screen immediately. Alternatively, use the **Keygroup** field at the top of the screen.

To view a specific tab of parameters, tap the **Master**, **Samples**, **Pan Velocity**, **Filter/Env**, **LFO Modulation**, or **Effects** button at the bottom of the screen. You can tap the **Samples** button multiple times to cycle through its three available tabs.

Number of KG (keygroups) lets you create up to 128 keygroups within a keygroup track. This is useful when working with multi-samples. For example, if you want to create a realistic piano, you can use different keygroups (e.g., 88 for a grand piano) with every keygroup containing its own sampled note (with up to four possible velocity layers).

Tap the **Keygroup** field to select a keygroup to edit. You can also select **All** to edit all keygroups simultaneously.

Tap the **piano-keys icon** to edit the note range of the current keygroup. This will open the **Set Keygroup Note Range** window. This lets you restrict the key range used for a sample's playback. Only notes with a key number higher or equal (**Low Key**) or lower and equal (**High Key**) to the selected value will trigger a sound.



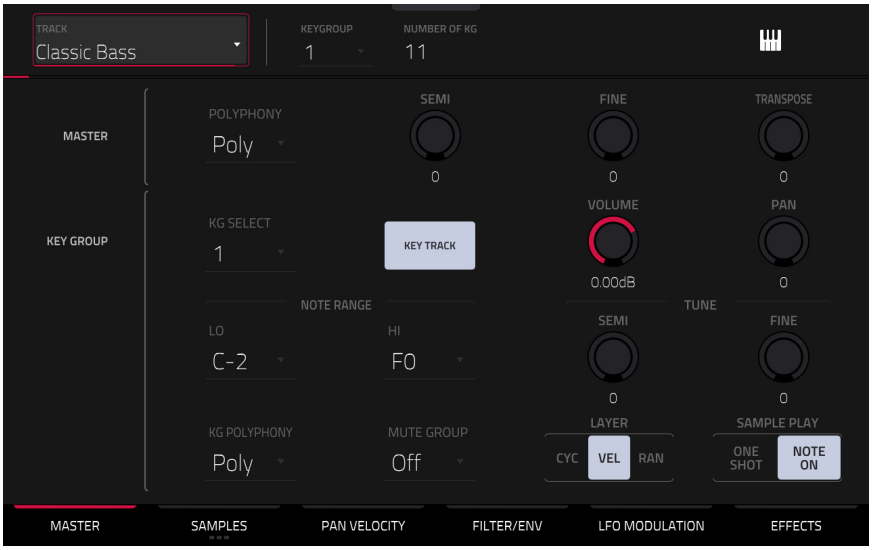
Tips:

Alternatively, you can set the current keygroup's note range by using the **Lo** and **Hi** fields under **Note Range** in the **Master** tab.

Set the **Lo** parameter to **A0** and the **Hi** parameter to **C8** to emulate the range of a standard 88-key piano.

Master

In the Master tab, you can set the playback mode and tuning for the overall track.



Polyphony sets the playback mode for the track's keygroups. In **Mono** Mode, only one keygroup will sound at a time. If a keygroup is played while another (or the same one) is still playing its sample/samples, the new keygroup will immediately mute all other currently playing keygroups in that track. In **Poly** Mode, several keygroups can be triggered at the same time (limited only by the total number of voices available).

Semi lets you tune the track up to 36 semitones up or down.

Fine provides fine-tuning of the track up to 99 cents up or down.

Transpose shifts the pitch of the MIDI notes sent to the track up to 36 semitones up or down.

KG Select (Keygroup Select) lets you select a specific keygroup for editing. This parameter works in conjunction with the **Number of KG** (keygroups) parameter at the top of the screen, which lets you create up to 128 keygroups within one keygroup track. A default keygroup track contains only one single keygroup. When you have created more than one keygroup with **Number of KG**, use **KG Select** to select any keygroup for editing. **All** selects all available keygroups of a keygroup track for simultaneous editing.

Key Track allows you to switch a sample's automatic transposition on or off. If this is off, you will always hear the same pitch of the sample, no matter which note is triggered by pads or a connected MIDI keyboard.

Level controls the overall volume level of the loaded sample/samples.

Pan controls the overall panning of the loaded sample/samples in the stereo field.

Note Range lets you restrict the key range used for a sample's playback. Only notes with a key number higher or equal (**Lo**) or lower and equal (**Hi**) to the selected value will trigger a sound. The settings for **Lo** and **Hi** are also shown in the virtual keyboard in the **Edit Layers** section. Alternatively, tap the **piano-keys icon** to open the **Set Keygroup Note Range** window.

Tip: Set the **Lo** parameter to **A0** and the **Hi** parameter to **C8** to emulate the range of a standard 88-key piano.

Semi lets you transpose the sample 36 semitones up or down, while **Fine** provides fine-tuning of each layer up to 99 cents up or down.

Tip: The **Edit Layers** section has some parameters similar to those in this section (**Level**, **Pan**, **Semi**, **Fine**, **Note Range**). Remember that **Key Group** parameters control the overall settings for the sample, while **Edit Layer** parameters control the settings for each layer (up to 4).

Use the **KG Polyphony** (keygroup polyphony) field to determine how the keygroup will play. When set to **Mono**, only one pad will sound at a time. If a pad is played while another (or the same one) is still playing its sample/samples, the new pad will immediately mute all other currently playing pads in that track. When set to **Poly**, several pads can be triggered at the same time, limited only by the total number of voices available. You can also select a specific number of pads (**2**–**32**) so that you can play up to this many pads at the same time (unless they exceed the total number of voices available).

Use the **Mute Group** field to assign the selected keygroup to one of the 32 available mute groups. When keygroups assigned to the same mute group receive MIDI notes, the last keygroup played will silence all other keygroups in that mute group. A mute group affects keygroups within that track only; mute groups do not affect keygroups in other tracks.

Layer Play determines how multiple samples assigned to the same pad are played:

- **Cycle** (**Cyc**): Each time the pad is played, it will play the next layer's sample. In other words, the samples will cycle through the layers as follows: 1, 2, 3, 4, 1, 2, 3, 4… etc.
- **Velocity** (**Vel**): The pad will switch between layers depending on how hard you press a pad.
- **Random** (**Ran**): Each time the pad is played, it will play one of its layer's samples at random.

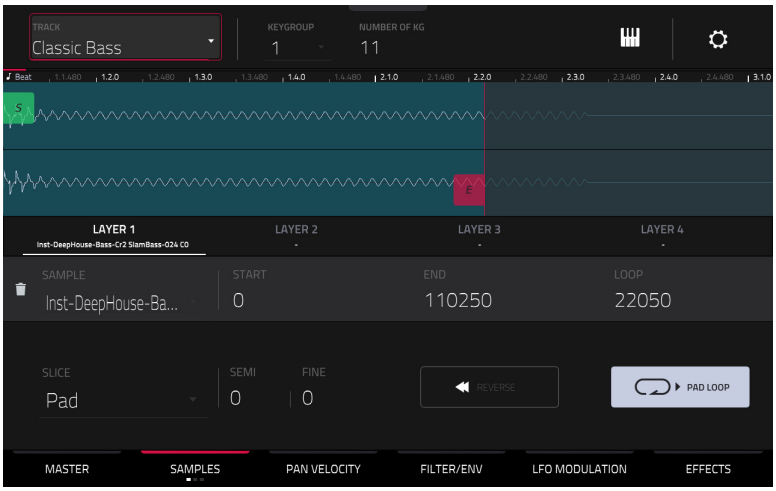
Sample Play determines how much of the sample is played:

- **One Shot**: The entire sample will play from start to end. Use this when you want to play short sounds.
- **Note On**: The sample will play only as long as the pad is held. This is better for longer samples so you can control a sound's duration by pressing and holding its corresponding pad.

Samples

Each keygroup can trigger up to four samples, which are assigned in four individual layers. Each layer has identical, independently assignable parameters.

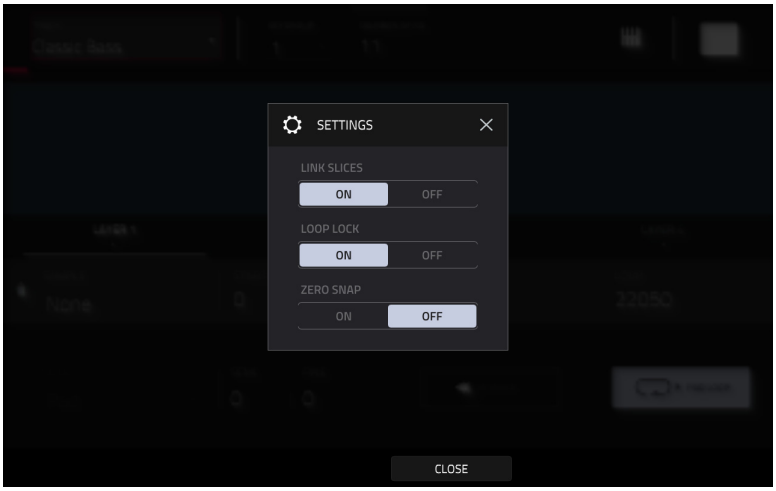
Tap **Samples** to cycle through its three available tabs.



On all three sections, you can access the **Settings** window, which lets you configure certain settings in the Samples tab.

To view the Settings, tap the **gear icon**.

To close the Settings, tap **Close**, the **X** in the upper-right corner, or anywhere outside the window.



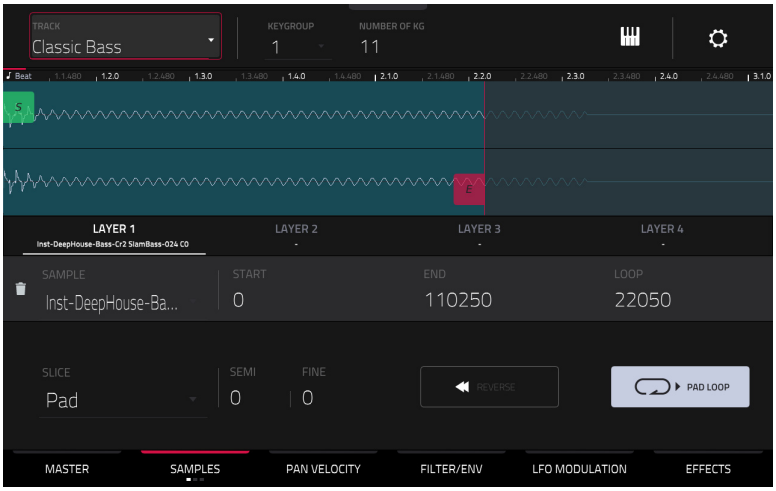
Use the **Link Slices** selector to set how the start point and end point of a slice in a larger sample is set. You can create these slices in Sample Edit Mode (Chop Mode).

When on, changing the start point of a slice will also change the end point of the previous slice. Similarly, changing the end point of a slice will also change the start point of the next slice. Disable **Link Slices** if you are trying to create slices that use non-contiguous parts of the sample. This is the same as the **Link Slices** button in Sample Edit Mode.

Use the **Loop Lock** selector to “link” or “unlink” the loop point from the start point. When on, the loop point is the same as the start point. When off, the loop point is independent from the start point and indicated by a separate loop marker. This is the same as the **Loop Lock** button in Sample Edit Mode.

Use the **Zero Snap** selector to enable or disable the Zero Snap feature, which forces start points, end points, and loop points to occur only at the waveform’s “zero-crossings.” This can help to avoid clicks and glitches when playing a sample. This is the same as the **0 Snap** button in Sample Edit Mode.

The **first Samples** tab contains the sample waveform for each layer and controls for its pitch, timing, and playback.



The upper half of the screen shows the waveform of the sample on the currently selected layer. The lower half shows the editing controls.

The waveform display shows the “active” section of the clip waveform. Swipe left or right on the waveform to move through it.

Above the waveform is the timeline, shown in bars, beats, and ticks.

Tap each layer number (**Layer 1**–**4**) under the waveform to select it. When selected, its sample waveform will be shown in the upper half of the screen and its settings will be shown in the lower half.

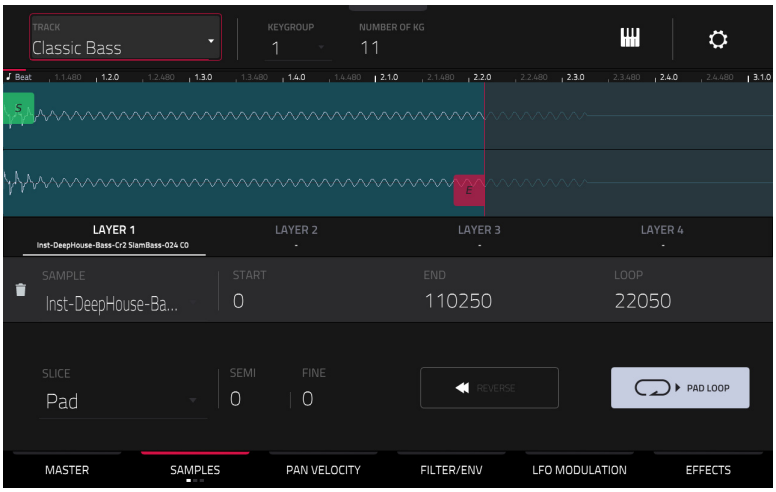
Use the **Sample** field to select the sample file for that layer. Remember that the sample has to be loaded into the project’s sample pool beforehand. For information on how to load samples into a project, please see the ***Browser*** chapter.

Important: The parameters in the **Samples** tabs work in conjunction with Chop Mode (in Sample Edit Mode). Here’s how it works:

When working in Sample Edit Mode and using Chop Mode to divide a sample into slices for your pads (keygroups), you can convert a slice using **Non-Destructive Slice** or **Pad Parameters**.

A **Non-Destructive Slice** will let its keygroup to refer to that slice when you press a pad in that keygroup; the original sample remains intact and each slice marker is like a “bookmark” for a keygroup. In Track Edit Mode, you’ll see that the layer to which it’s assigned has its **Slice** drop-down menu set to the corresponding **slice number** in the original sample. Playing that keygroup will cause it to refer to that slice marker like a “bookmark” instead of creating an entirely new sample of that slice. This means that you no longer have to clutter your project with a new sample for every slice (though you can still use this earlier method, if you prefer).

A slice converted using **Pad Parameters** is very similar to a non-destructive slice described above. The difference is that in Track Edit Mode, the layers they’re assigned to have their **Slice** drop-down menus set to **Pad** (instead of the slice number), and the **start** and **end points** will correspond to the slice markers in the original sample.



The **green/S** marker and **red/E** marker are the start point and end point (respectively). These two points define the region of the sample that will be played.

To move the start point or end point, do any of the following:

- Tap and drag the **S** or **E** marker left or right.
- Use the **Start** or **End** fields shown below the waveform.
- When the **knobs** are set to **screen** mode, use **Knobs 1** and **5** to adjust the start point or **Knobs 2** and **6** to adjust the end point. Knobs 1 and 2 provide fine adjustment and Knobs 5 and 6 provide coarse adjustment.

Note: When **Loop Lock** is on, the loop position (as determined by the **Loop** field, if enabled) is the same as the sample's start point. When off, the loop position is independent from the start point.

Use the **Loop** field to determine the position where the sample's playback will repeat when **Pad Loop** is activated.

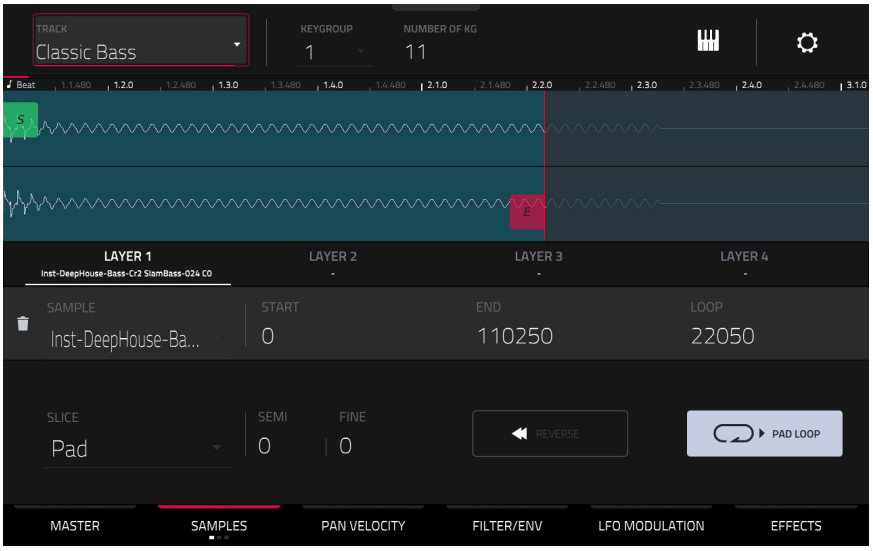
Note: When **Loop Lock** is on, the loop position is the same as the sample's start point. When off, the loop position is independent from the start point.

Use the **Slice** field to select what part/parts of the sample will play:

- **All**: The entire sample will play.
- **Pad**: The sample will play from the **Pad Start** position to the **Pad End** position, described ***earlier***. This also lets you activate ***Pad Loop*** (if the **Sample Play** field in the **Master** tab is set to **Note On**).
- **Slice 1, 2, 3, etc.**: If you have sliced the sample in Chop Mode, you can select which slice will play when you trigger the pad.

Semi lets you transpose the selected layer 36 up to semitones up or down. This is the same as the **Semi** knob on the second **Samples** tab.

Fine provides fine-tuning of each layer by cents. This is the same as the **Fine** knob on the second **Samples** tab.



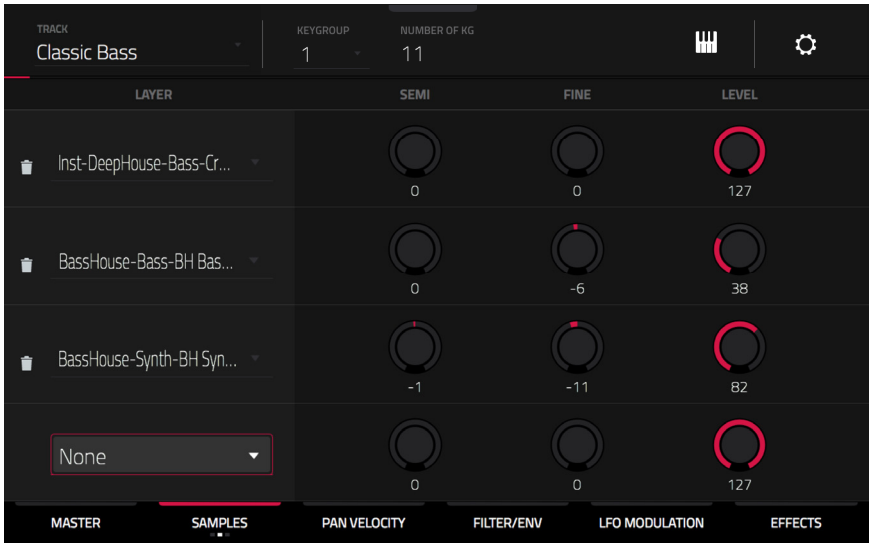
Use the **Reverse** button to select in which direction the sample will play. When on, the sample will play in reverse. When off, the sample will play in the normal forward direction.

Use the **Pad Loop** button to cycle through the available Pad Loop modes.

Important: For Pad Loop to work, you must (**1**) set the **Sample Play** field (in the **Master** tab) to **Note On** instead of One Shot and (**2**) set the **Slice** field (in the first **Samples** tab) to **Pad** instead of All or a slice number.

- **Off**: The sample will not loop.
- **Forward**: You can hold down the **pad** to cause that sample to repeat from the **Loop Position** to the end of the sample. Release the **pad** to stop the repeating playback.
- **Reverse**: You can hold down the **pad** to cause that sample to play in reverse, repeating from the end of the sample to the **Loop Position**. Release the **pad** to stop the repeating playback.
- **Alternating**: You can hold down the **pad** to cause that sample to play from the **Loop Position** to the end of the sample and then play in reverse until it reaches the **Loop Position** again. This will repeat as long as you are holding the pad down. Release the **pad** to stop the repeating playback.

The **second Samples** tab contains controls for its pitch and volume level.

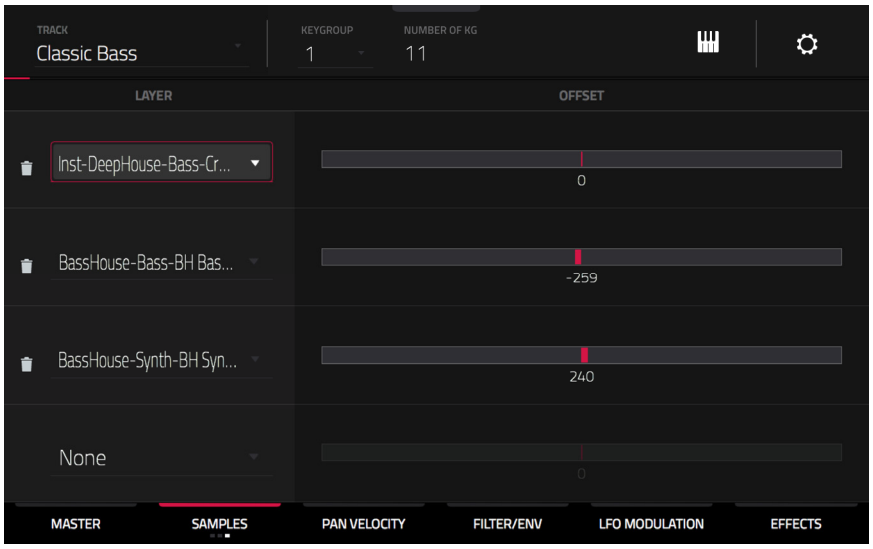


Semi lets you transpose the selected layer 36 up to semitones up or down. This will affect the length of the sample (if **Warp** is off). This is the same as the **Semi** field on the first Samples tab.

Fine provides fine-tuning of each layer by cents. This will affect the length of the sample (if **Warp** is off). This is the same as the **Fine** field on the first Samples tab.

Level lets you adjust each layer's volume, letting you control the "balance" of the samples assigned to the pad.

The **third Samples** tab contains the control for its offset.



Use the **Offset** slider to determine a time offset for the sample's playback.

- **Positive values** (right of center): When the pad is played, playback will start immediately but at a later point in the sample specified by the offset value.
- **Negative values** (left of center): When the pad is played, playback will be delayed by the amount specified by the offset value.

Pan Velocity

Use the **Pan knob** to adjust the stereo placement of the respective layer.

Use the **Vel Start** and **Vel End** knobs to define the velocity range of each layer.

A range from **0** to **127** lets the layer respond to the entire velocity range which is input from the respective pad while, for example, a range from **100** to **127** lets the layer respond only to higher velocity levels. By assigning several samples of one instrument, you can create a realistic-sounding “multi-sample” by adjusting the velocity ranges of each layer accordingly.

For example, you may have three samples of a piano key with low force, medium force, and high force. You can set each sample to a layer and set the Velocity ranges so only low velocities trigger the low-force sample, only mid-range velocities trigger the medium-force sample, and only high velocities trigger the high-force sample.

Use the **Root Note** menu to set the starting note of each loaded sample. **Smp** denotes the sample’s default pitch.

Filter/Envelope

Use the **Type** field to select a filter for the selected pad. See ***Appendix*** > ***Glossary*** > ***Filter*** for an explanation of the available filter types.

Use the **Cutoff** knob to set the cutoff frequency for low-pass and high-pass filter types or the center frequency for band-pass and band-stop filter types.

Use the **Reso** knob to set the resonance/emphasis of the frequencies around the cutoff point.

Tip: Use values lower than **80** to give more brilliance to the sound. At values higher than **80**, the sound will result in a strong audible boost around the cutoff frequency.

Use the **Env** to determine the amount of influence the filter envelope has on the cutoff frequency. Higher settings will increase the modulation of the filter by the envelope; lower settings will result in only subtle changes of the filter **Cutoff** over time.

Tip: **To give a sound a more distinctive attack**, increase the **Env** setting and set low **Atk** and **Decay** values as well as a medium-low **Sust** value of the **Filter Envelope**. This will start a sound with the filter opened and close it shortly afterward, giving it a bright start followed by a darker sustain. String sounds, on the other hand, can sound much more "alive" with low **Env** settings and a high **Atk** value, resulting in a slight fade-in of the higher frequencies.

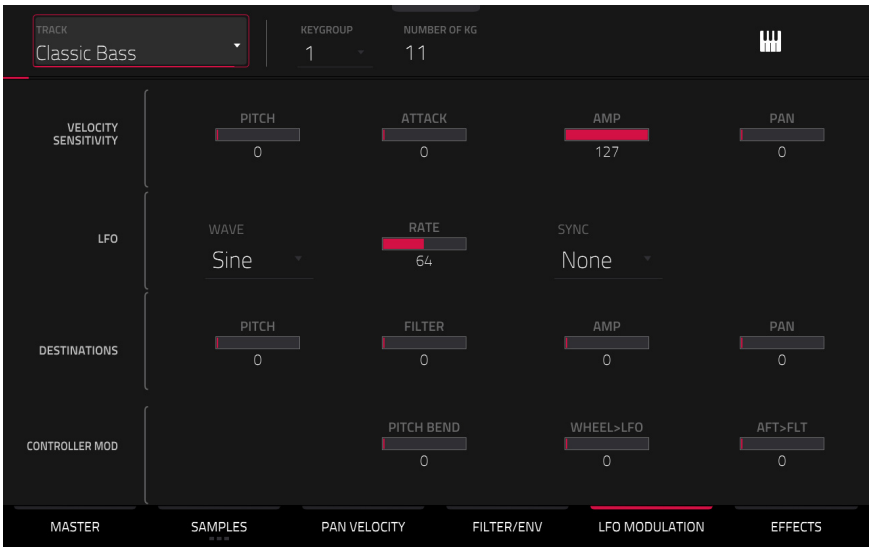
Use the **Modulation Sources** knobs to set how much velocity is required to modulate certain other parameters:

- **Kbd**>**Flt** (Keyboard➔Filter) sets how much the note value will be added to the filter cutoff. This allows samples to sound brighter as they are played higher on the keyboard.
- **Vel**>**Atk** (Velocity➔Attack) sets how much velocity is needed (for a triggered pad) to modulate the Attack phase for the Amp envelope.
- **Vel**>**Env** (Velocity➔Envelope) enables velocity information to control the amount of the filter envelope's effect on the cutoff frequency.
- **Vel**>**Flt** (Velocity➔Filter) uses the velocity of a pad to modulate the cutoff frequency directly.

The **Filter Envelope** controls affect the filter frequency. Use the fields or tap and drag the "handles" of the envelope to shape the envelope or time-variant modulation output. Adjust the envelope's influence on the filter frequency with the **Env** knob. See ***Anatomy of an Envelope*** to learn about the envelope parameters.

The **Amp Envelope** controls affect level changes over time. Use the fields or tap and drag the "handles" of the envelope to shape the envelope or time-variant modulation output. Adjust the envelope's influence on the filter frequency with the **Env** knob. See ***Anatomy of an Envelope*** to learn about the envelope parameters.

LFO Modulation



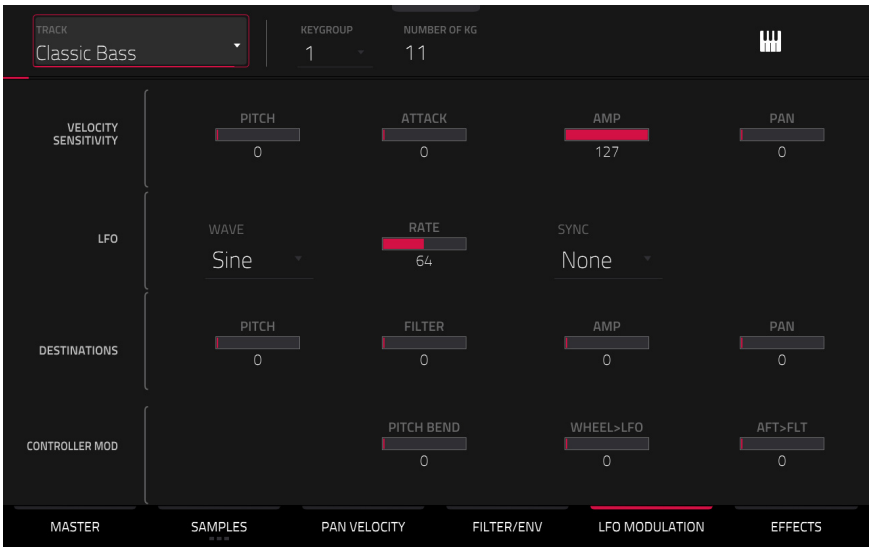
The **Velocity Sensitivity** controls determine how much the velocity affects the pitch of the sound (**Pitch**), the attack of the filter envelope (**Attack**), the volume level of the sound (**Amp**), and the panning of the sound (**Pan**).

When you press a pad softly, only minimal modulation is applied. When you press it harder, the modulation amount also gets stronger depending on the setting of the corresponding knob.

A low-frequency oscillator (LFO) generates a periodic waveform with an adjustable frequency and shape which can be used for modulation purposes.

Use the **Wave** field to select the LFO waveform type:

- **Sine** (best suited for smooth modulations)
- **Triangle** (best suited for smooth modulations)
- **S&H** (samples a random value and holds it until the next value is generated)
- **Saw** (can generate interesting filter or volume changes)
- **Saw Down** (can generate interesting filter or volume changes)
- **Square** (interesting results with hard-panning modulations)
- **Noise** (generates random values and glides)



Use the **Rate** field to determine the LFO frequency. At lower values, it might take some time for the LFO to complete a cycle, while higher values will come closer to audible range.

Use the **Sync** field to set if the LFO's rate is synchronized with the tempo. You can select one of several time divisions (a **.** indicates a dotted note; a **T** indicates a triplet-based time division). When **None** is selected, **Sync** is off.

Use the **Destinations** sliders to determine how much the LFO affects the pitch of the sound (**Pitch**), the cutoff frequency of the filter (**Filter**), the volume level of the sound (**Amp**) and the panning of the sound (**Pan**).

The **Controller Mod** section determines the influence of additional play controllers on various sound parameters.

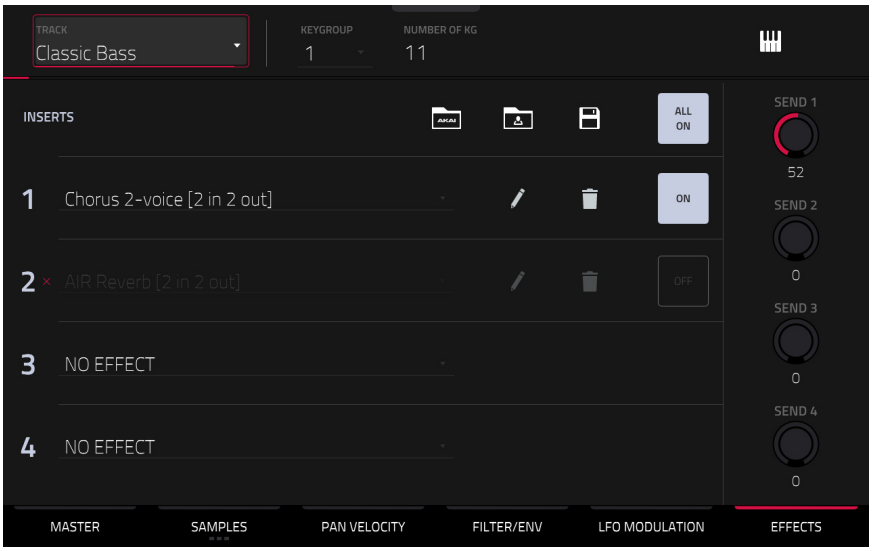
Important: To use these parameters, make sure that a connected MIDI device can send pitch bend messages as well as aftertouch and modulation wheel data.

Pitch Bend sets the range (in semitones) of a connected MIDI keyboard's pitch-bend wheel.

Wheel>**LFO** determines how much a connected MIDI keyboard's modulation wheel affects the LFO intensity.

Aft>**Filt** (Aftertouch➔Filter Cutoff) determines how much a connected MIDI keyboard's aftertouch data affects the filter cutoff.

Effects



Inserts

You can select up to four insert effects for each keygroup. To learn how to use insert effects, please see ***General Features*** > ***Effects*** > ***Insert Effects***.

Important: When using keygroup insert effects, they will be applied to that keygroup only. Keep this in mind if you load insert effects to multiple keygroups with overlapping note ranges—the effects will overlap in that range as well.

To add an effect:

1. Double-tap the desired **Inserts** slot. A list of effects will appear.
2. Swipe up or down to move through the list.

   You can tap the **Type** and **Manufacturer** buttons to sort your effects by those categories.
3. **To load an effect**, double-tap it, or tap **Select**.

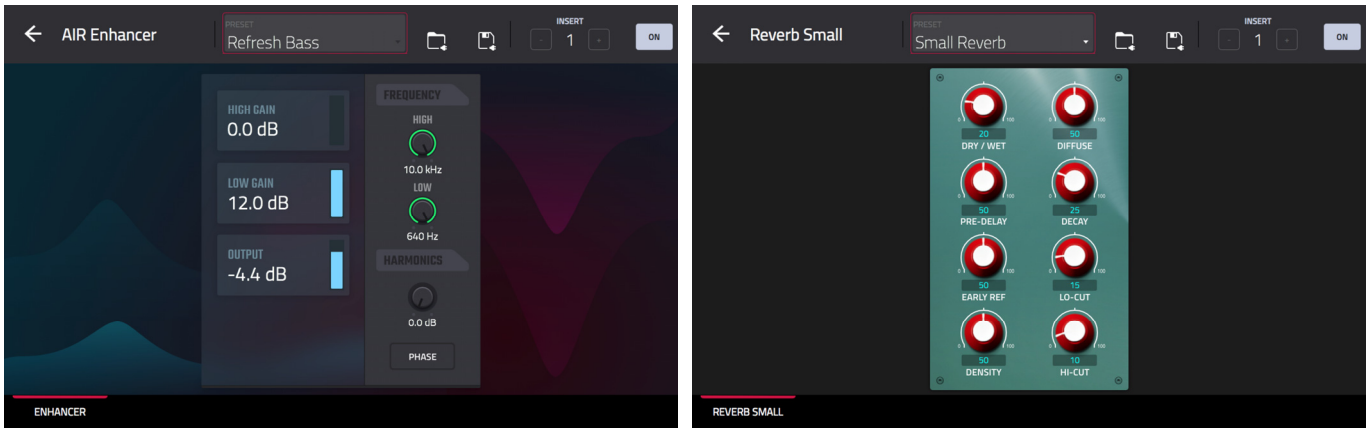
   To close the list, tap **Close**.

To remove an effect from its slot, tap the **trash can icon**.

To enable or disable the effect, tap the **On**/**Off** button for the slot.

To enable or disable all four insert effects, tap the **All On**/**Off** button in the upper-right corner.

To adjust the effect's parameters, tap the **pencil icon**. Use the **sliders** to set the value of each parameter. These values affect only this instance of the effect; insert effects are not global.



To load an effect preset, tap the **folder** icon next to the preset name at the top of the display to open the file browser.

To save a new effect preset, tap the **disk** icon next to the insert selector at the top of the display.

Sends

The audio of the track will be routed to send effects (if you have any loaded) at their designated send levels. The return channels will then send the audio to an assigned master output at the designated return levels.

Use the **Send** knobs to set the volume level of the signal the track will route to each send effect.

You can select up to four send effects for each keygroup, but remember that they will be applied to that keygroup only. Keep this in mind if you load insert effects to multiple keygroups with overlapping note ranges—the effects will overlap in that range as well.

Important: **To use a send effect**, you have to load an effect into the corresponding send effect slot in the Mixer. See ***General Features*** > ***Effects*** > ***Send/Return Effects*** to learn more how to do this.

Plugin Tracks

For plugin tracks, you will see an overview of all available plugin parameters with a slider for each, or a visual representation of the plugin interface.

Use the **sliders** to set the value of each parameter, or use the plugin interface.

Use the **tabs** at the bottom of the screen to access the available parameters.

To load a plugin preset, tap the **folder** icon next to the preset name at the top of the display to open the file browser.

To save a new plugin preset, tap the **disk** icon next to the insert selector at the top of the display.

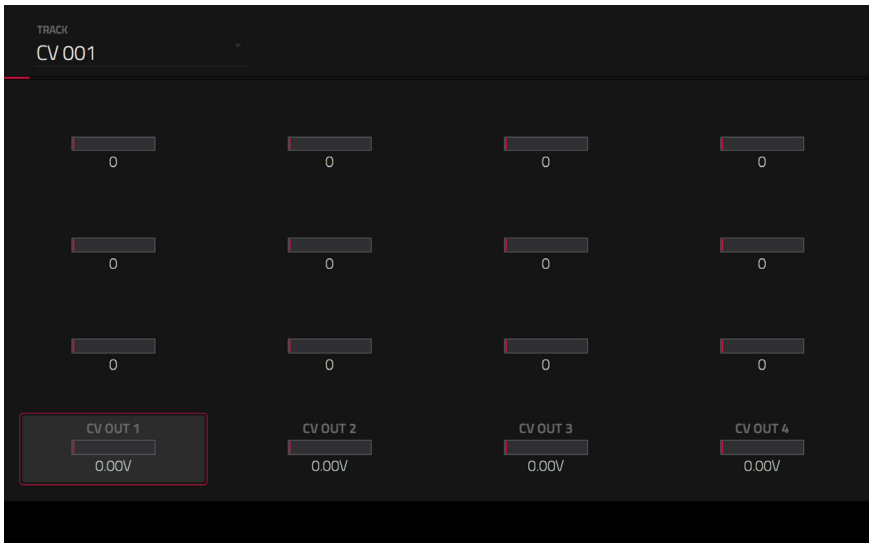
MIDI Tracks

For MIDI tracks, you will see an overview of all available MIDI CCs with a slider for each.

Use the **sliders** to set the value of each parameter.

Use the six **tabs** at the bottom of the screen to access the available parameters.

CV Tracks



For CV tracks, you will see an overview of all available CV outputs with a slider for each.

Use the **sliders** to set the value of each parameter.

Use the six **tabs** at the bottom of the screen to access the available parameters.

Anatomy of an Envelope

An envelope creates a variable control signal. It can be used, for instance, to modulate the filter settings of a sound over a given period of time.

For drum tracks, use the **AD**/**AHDS** selector to select an AD or AHDS envelope. When **Sample Play** is set to **Note-On**, it will use an ADSR envelope.

Keygroup tracks always use **AHDS** envelopes. When **Sample Play** is set to **Note-On**, it will use an **ADSR** envelope.

With **AHDS** envelopes, the following happens when you trigger a sample:

1. Within the period of time you have defined with the attack (**Atk**), the sample volume rises to its maximum value.
2. The sample's maximum volume will be maintained during the **Hold** phase.
3. During the **Decay** phase, the sample's volume will gradually drop to the sustain level.
4. The sample's volume will stay at the sustain level (**Sust**) until the pad is released.

With **AD** envelopes, the following happens when you trigger a sample:

1. Within the period of time you have defined with the attack (**Atk**), the sample volume rises to its maximum value.
2. The sample's maximum volume will be maintained until its **Decay** phase, when the sample's volume will gradually drop to zero over the set duration. Tap the **Type** drop-down menu to select how the decay functions:
    - **Decay From Start**: The volume will start decreasing immediately after reaching its maximum level.
    - **Decay From End**: The maximum volume will be maintained for a hold phase until it reaches the decay phase.

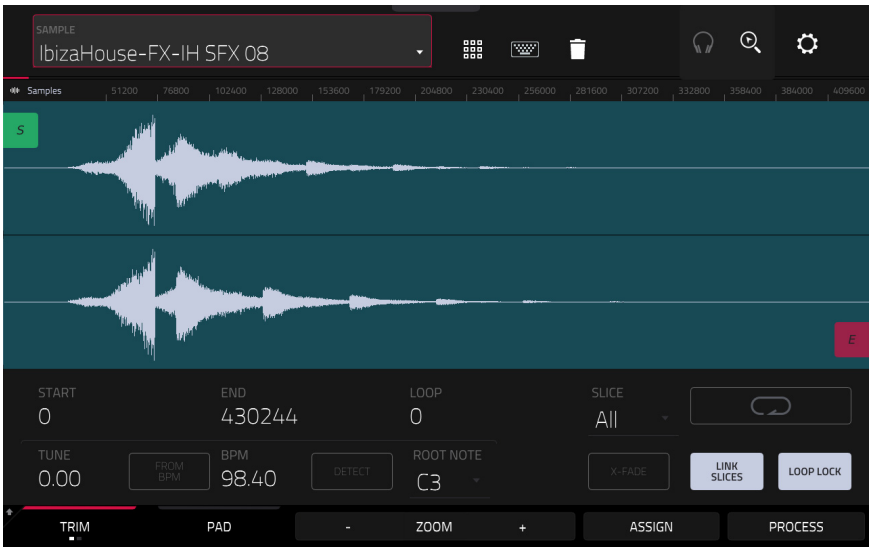
With **ADSR** envelopes, the following happens when you trigger a sample:

1. Within the period of time defined by **Attack**, the sample volume rises to its maximum value.
2. During the **Decay** phase, the sample's volume will gradually drop to the **Sustain** level.
3. The sample's volume will stay at the **Sustain** level until the note is released.
4. The sample's volume will drop to "zero" over the duration set by **Release**.

Sample Edit Mode

Sample Edit Mode lets you edit samples using various functions.

To enter Sample Edit Mode, press **Menu**, and then tap **Sample Edit**.



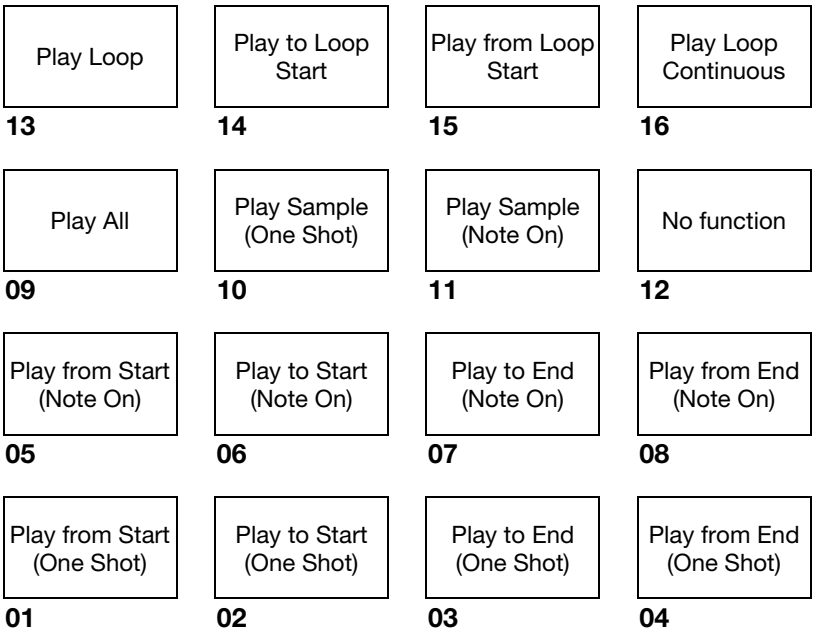
To select a sample to edit, use the **Sample** field at the top of the screen.

To edit the name of the sample, tap the **keyboard icon** next to the name at the top of the screen, and use the virtual keyboard that appears.

To delete the sample, tap the **trash-can icon** next to the name at the top of the screen. In the screen that appears, you will see the tracks that use this sample within your project. Tap **Delete Sample** to continue, or tap **Cancel** to return to the previous screen.

To enable the Sample Edit pad controls, tap the **pads** icon next to the name at the top of the screen.

When in Trim Sample Edit Mode, the lower-left quadrant of pads can be used to audition certain parts of the selected sample:



Play Sample (**One Shot**) (**Pad 10**) plays the sample once from the start point to the end point. Press the pad once to play it.

Play Sample (**Note On**) (**Pad 11**) plays the sample once from the start point to the end point. Press and hold the pad to play it, and release the pad to stop playing it. Alternatively, select the **headphones icon** in the upper-right corner, and then tap and hold your finger on the waveform.

Play Loop Continuous (**Pad 16**) plays the sample repeatedly using the mode set by the **Loop** button (**Forward**, **Reverse**, or **Alternating**; if the **Loop** button is **off**, the sample will loop forward repeatedly).

Play Loop (**Pad 13**) plays the sample repeatedly using the mode set by the **Loop** button (**Forward**, **Reverse**, or **Alternating**; if the **Loop** button is off, the sample will loop forward repeatedly). Press and hold the pad to play it, and release the pad to stop playing it.

Play to Loop Start (**Pad 14**) plays the part of the sample just before the loop point. Press and hold the pad to play it, and release the pad to stop playing it.

Play from Loop Start (**Pad 15**) plays the sample from the loop point to the end of the sample regardless of the end point. Press and hold the pad to play it, and release the pad to stop playing it.

Play All (**Pad 9**) plays the entire sample.

Pads 1–4 have the same respective functions as **Pads 5–8**, but **Pads 1–4** play the sample part as "**One Shots**" (pressing the pad once will play the entire part) while **Pads 5–8** play the sample part as "**Note Ons**" (pressing the pad and holding it will play the part; releasing it will stop playback):

Play from Start (**Pad 1**, **Pad 5**) plays the sample from the start point to the end point.

Play to Start (**Pad 2**, **Pad 6**) plays the part of the sample just before the start point to the start point.

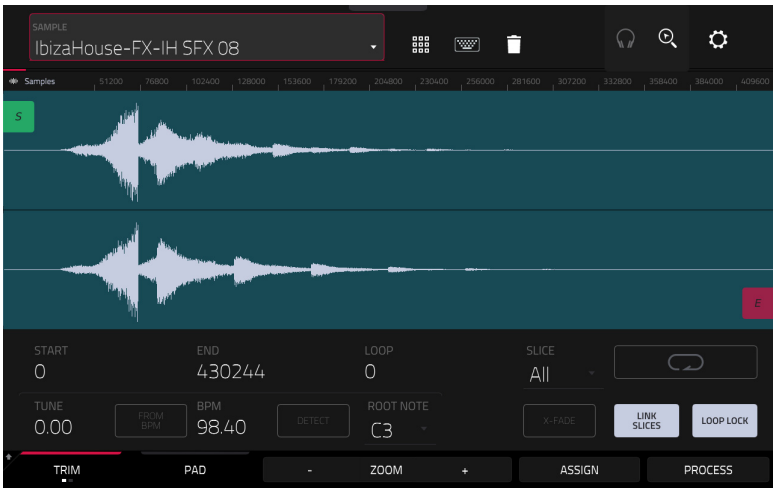
Play to End (**Pad 3**, **Pad 7**) plays the part of the sample just before the end point to the end point.

Play from End (**Pad 4**, **Pad 8**) plays the part of the sample from the end point to the end of the sample.

When in Chop Sample Edit Mode, you can use the lower-left quadrant of pads to add slices to the current sample or trigger existing slices.

When the current Track is a Drum Track and Pad Sample Edit Mode is selected, you can use the lower-left quadrant of pads to audition the current sample of the current pad, similar to using Notes mode with a Drum Track.

The upper half of the screen shows the waveform. The lower half shows the editing controls.



The waveform display shows the "active" section of the sample waveform. Swipe left or right on the waveform to move through it.

Above the waveform is the timeline, shown in **Samples**, **Time** (in seconds and milliseconds), or **Beats**. You can select the measurement units you want to show in the ***Settings***.

To zoom in or out, do any of the following:

- When the **magnifying-glass icon** (in the upper-right corner) is selected, spread or pinch your fingers (respectively) on the waveform.
- Tap the **Zoom +** or **Zoom –** buttons (respectively) at the bottom of the screen.
- Turn **Knob 8** when the knobs are set to **screen** mode.

To scroll through the waveform, do either of the following:

- When the **magnifying-glass icon** (in the upper-right corner) is selected, swipe the waveform left or right.
- Turn **Knob 7** when the knobs are set to **screen** mode.

The green marker and red marker are the start point and end point (respectively). These two points define the region of the sample that will be played.

To move the start point or end point of the selected region, do any of the following:

- Tap and drag its marker left or right.
- Use the **Start** or **End** fields shown below the waveform.
- When the **knobs** are set to **screen** mode, use **Knobs 1** and **2** to adjust the start point or **Knobs 3** and **4** to adjust the end point. Knobs 1 and 3 provide fine adjustment and Knobs 2 and 4 provide coarse adjustment.

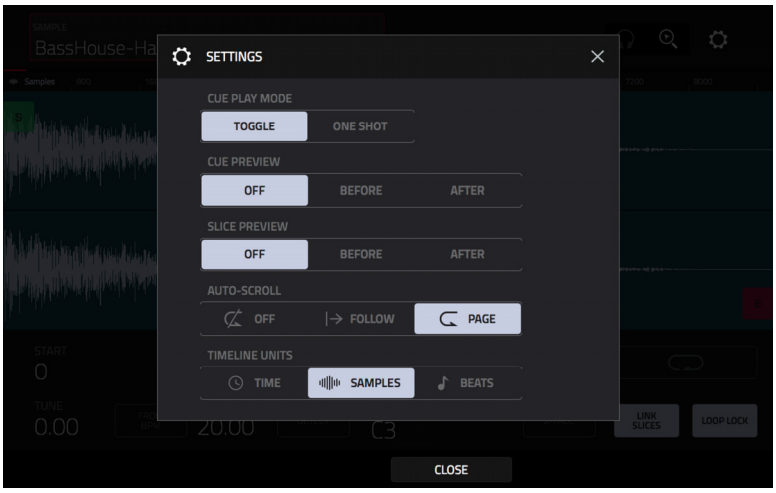
Tip: A recorded sample may have some silence at the beginning or end, which makes it difficult to time it correctly in a musical context. Fix this by adjusting the start point. You can also adjust end point to remove any extra silence or unwanted audio at the end. In addition to making your workflow easier, having a "tight," well-edited sample can enhance your production or performance.

You can use Sample Edit Mode in two different ways: **Trim Mode** or **Chop Mode**. The options for each mode are slightly different. Please refer to the following ***Trim Mode*** and ***Chop Mode*** parts of this chapter to learn how each works. Before using these modes, though, you may want to configure your settings—see the following ***Settings*** chapter to do this.

Settings

The Settings window lets you configure certain Sample Edit Mode settings.

To view the Settings, tap the **gear icon**.



Use the **Cue Play Mode** selector to set how the cue playhead will play audio.

- **One Shot**: Tapping **Play Cue** will play the entire sample from the cue playhead.
- **Toggle**: Tapping **Play Cue** once will start playback from cue playhead. Tapping it once more will stop playback.

Use the **Cue Preview** selector to set if any audio plays as you move the cue playhead. As you move the cue playhead through the sample waveform, you can set it to play the small part of the sample before the cue playhead (**Before**), play the small part of the sample after the cue playhead (**After**), or not play at all (**Off**). You can also set this in your overall Preferences (see ***General Features*** > ***Menu*** > ***Preferences*** > ***General***).

Use the **Slice Preview** selector to set if any audio plays as you move a slice marker. As you move the slice marker through the sample waveform, you can set it to play the small part of the sample before the slice marker (**Before**), play the small part of the sample after the slice marker (**After**), or not play at all (**Off**). You can also set this in your overall Preferences (see ***General Features*** > ***Menu*** > ***Preferences*** > ***General***).

Use the **Auto-Scroll** selector to set how the screen behaves relative to the audio playhead.

- **Follow**: Depending on the zoom setting, the waveform will scroll along in the background, keeping the audio playhead centered.
- **Page**: The waveform display will move to the “next page” to follow the audio playhead.
- **Off**: The waveform display will not move at all.

These functions also apply to the sample waveform in the Grid Mode.

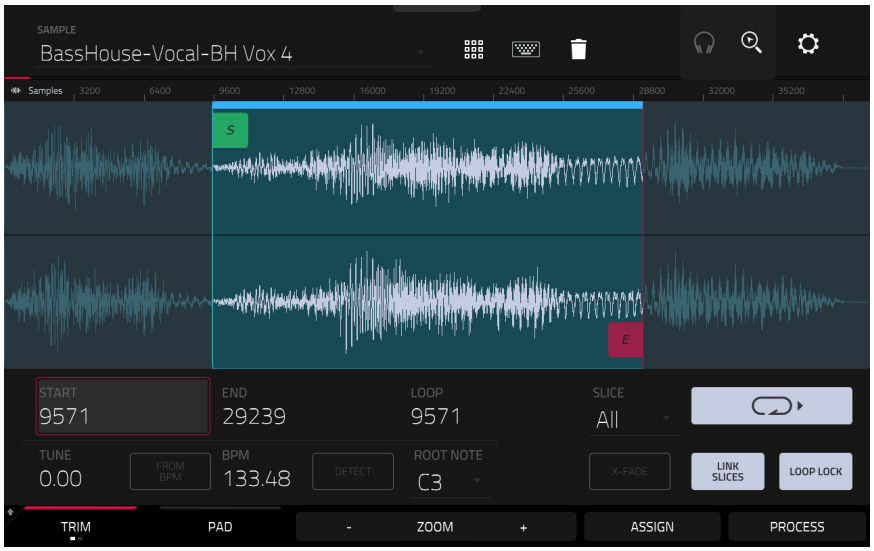
Use the **Timeline Units** selector to set the measurement units shown above the sample waveform. You can select one of the following options:

- **Time**: hours:minutes:seconds:frames
- **Samples**: number of samples
- **Beats**: bars:beats:ticks

Trim Mode

We recommend using Trim Mode to crop the start and/or ends from a sample.

To enter Trim Mode, tap the **Trim**/**Chop** button in the lower-left corner so it says **Trim**.



Use the **Start** and **End** fields to set the position of the start point and end point of the sample (respectively). Alternatively, tap and drag the start (**S**) or end (**E**) marker left or right, or use **Knobs 1** and **2** to adjust the start point or **Knobs 3** and **4** to adjust the end point when the knobs are in **screen** mode.

Trim Mode includes a loop function. When on, the region of the sample between the loop point and end point will repeat. This is useful when trying to find an ideal spot to begin the sample. The loop cannot be earlier than the start point.

To adjust the loop point, do any of the following:

- Use the **Loop** field.
- Tap and drag the start (**S**) marker (if **Loop Lock** is on) or the **loop** marker (if **Loop Lock** is off).
- When the **knobs** are in **screen** mode, use Knobs 5 and 6 to adjust the loop marker. Knob 5 provides fine adjustment and Knob 6 provides coarse adjustment.

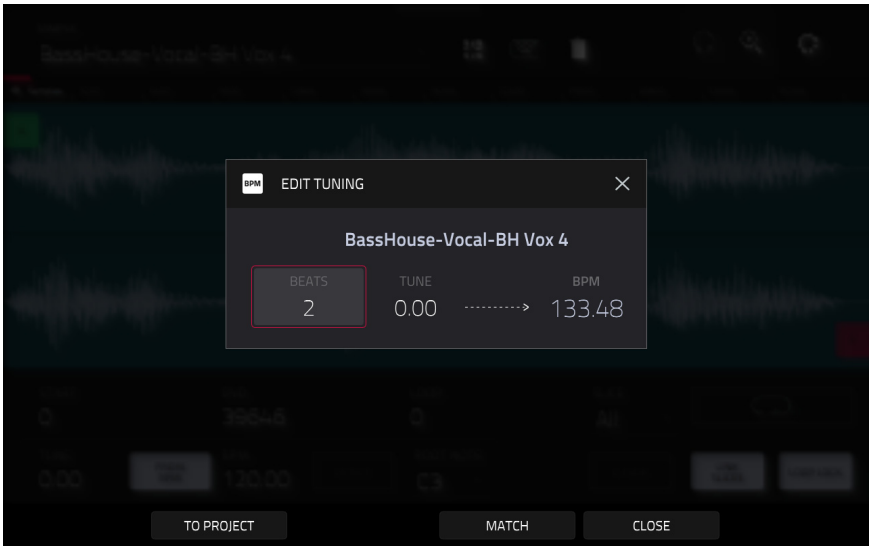
To turn Loop Lock on or off, tap the **Loop Lock** button. When on, the loop point is the same as the start point. When off, the loop point is independent from the start point and indicated by a separate loop marker.

To turn the loop function on or off, tap the **Loop** button to cycle between the four modes:

- **Off**: The sample will not loop.
- **Forward**: When the loop reaches its end point, it will start playing again from the loop point.
- **Reverse**: When the loop reaches its end point, it will play in reverse. When it reaches the loop point again, it will return to the end point and continue playing in reverse.
- **Alternating**: When the loop reaches its end point, it will play in reverse. When it reaches the loop point again, it will start playing forward again from the loop point.

To switch between Forward and off, press and hold **Shift**, and then tap **Loop** at the bottom of the screen.

Use the **Tune** field to transpose the sample up or down from its original pitch.



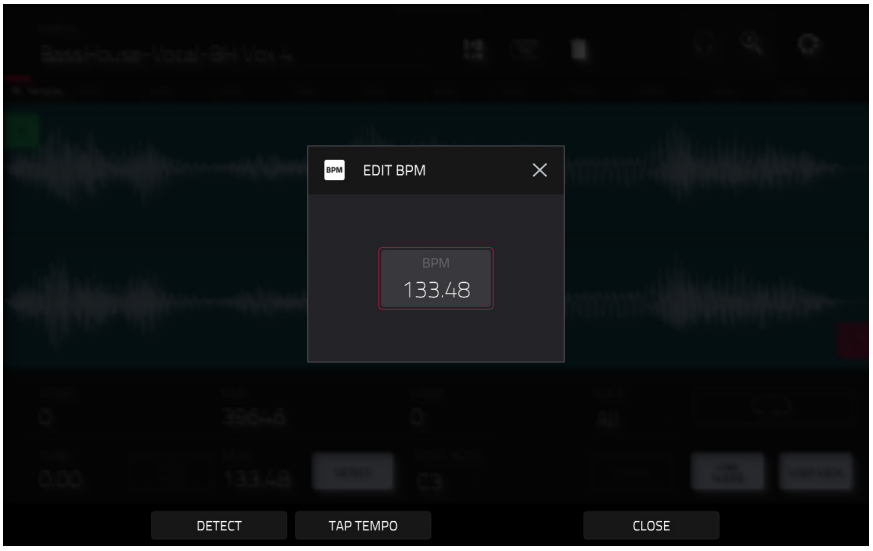
Tap **From BPM** to open the **Edit Tuning** window, which lets you tune a sample to the project.

Use the **Beats** field to match the number of beats in the sample.

To tune the sample to the project, tap **Match**. The **Tune** field will adjust automatically and close the window. The sample is now tuned to the project.

To tune the sample to the project and adjust the project tempo, tap **To Project**. This is the same as tapping Match but it also changes the project's tempo to the BPM shown in the Tempo field on the right.

To close the window, tap **Close**.



To enter a tempo manually, use the **BPM** field.

To detect the tempo automatically, tap **Detect**. In the **Edit BPM** window that appears, you can do any of the following:

- Use the **BPM** field to enter a tempo manually.
- Tap **Detect** to detect the tempo automatically.
- Tap **Tap Tempo** at the bottom of the screen at the desired rate to use it as the tempo.
- Tap **Close**, the **X**, or anywhere outside the window to close it.

Use the **Root Note** field to set the root note of the sample. This defines which note will play the sample at its original pitch when in a keygroup track.

Tap **X-Fade** to open the **X-Fade** window, which lets you apply real-time crossfade looping to sample playback. Before applying a crossfade, make sure the **Loop Lock** setting is **Off** and the **Loop** function is set to **Forward**. Then, you can set the **Length** of the crossfade and the **Type**, either **Equal Power** or **Linear**.

To select a slice to edit, (after you have created slices in Chop Mode), use the **Slice** field.

When **Link Slices** is enabled (after you have created slices in Chop Mode), changing the start point of a slice will also change the end point of the previous slice. Similarly, changing the end point of a slice will also change the start point of the next slice. Disable **Link Slices** if you are trying to create slices that use non-contiguous parts of the sample.

To enable or disable this feature, tap the **Link Slices** button.

Important: **Link Slices** must be disabled to make slices non-sequential, noncontiguous, or overlapping.

0 Snap forces start points, end points, and loop points to occur only at the waveform's "zero-crossings." This can help to avoid clicks and glitches when playing a sample.

To enable or disable 0 Snap, press and hold **Shift**, and then tap **0 Snap** at the bottom of the screen.

To enable or disable the loop function, press and hold **Shift**, and then tap **Loop** at the bottom of the screen. This switches the loop function between **Forward** and **off**. The loop function is described ***earlier***.

Tip: You can use Trim Mode for a specific slice of the sample, previously created and selected in Chop Mode. This allows for a more detailed view of a single slice than in Chop Mode and gives you more options for auditioning the slice. You can easily switch between Trim Mode and Chop Mode while doing this.

To use both Trim Mode and Chop Mode to edit a sample slice:

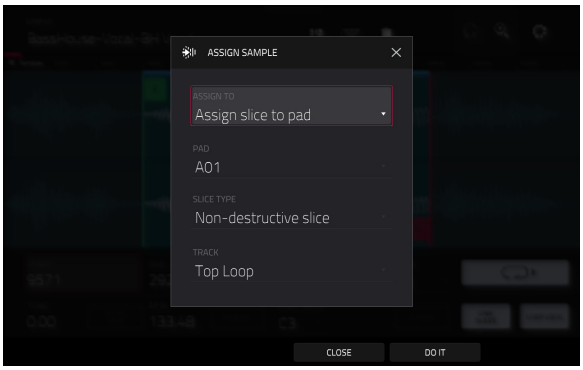
1. Tap **Trim**/**Chop** at the bottom of the screen so it says **Chop**.
2. Set all fields as desired to create your sample slices.
3. Select the desired slice.
4. Tap **Trim**/**Chop** at the bottom of the screen so it says **Trim**. The region you are now editing is indicated by the normal start point and end point markers rather than slice markers.
5. Tap **Trim**/**Chop** at any time to return to Chop Mode.

Assigning Samples

You can assign your new sample directly to a pad from Trim Mode.

To assign a sample, tap **Assign** at the bottom of the screen to open the Assign Sample window.

Important: Assigning a sample to a pad in this way will replace the sample on the first layer of the pad.



If you set the **Assign To** field to **Assign slice to a pad**, the pad will simply refer to the slice in this sample instead of creating a new sample. This is useful for reducing clutter in your project.

Use the **Pad** field to select the desired pad. Alternatively, press the desired pad.

Use the **Slice Type** field to select how the pad's layer settings will be set when the slice is assigned to it (see ***Track Edit Mode*** to learn more about the parameters mentioned below):

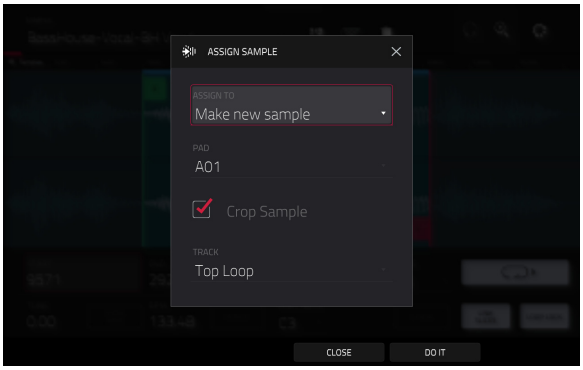
- **Non-Destructive Slice**: The pad's **Slice** setting will be set to the slice number.
- **Pad Parameters**: The pad's **Slice** setting will be set to **Pad**. The **Pad Start** and **Pad End** will be set to the slice's start point and end point values, and the **Loop Position** will be set to the slice's start point but with **Pad Loop** deactivated.

Use the **Track** field to specify the track to which you want to add the slice.

To assign the sample, tap **Do It**.

To cancel the operation, tap **Close**, the **X**, or anywhere outside the window.

If you set the **Assign To** field to **Make new sample**, this will create a new sample in your project. (The original sample will remain as it is.)



Use the **Pad** field to select the desired pad. Alternatively, press the desired pad.

Check the **Crop Sample** box to delete the unused parts from the sample when it's created and assigned. This feature is destructive, though the project will still contain your original sample.

Leave this box unchecked to keep the unused parts of the sample when it is created and assigned. This way, you will still be able to edit the entire sample further even though you are using only part of it at the moment.

Use the **Track** field to specify the track to which you want to add the slice.

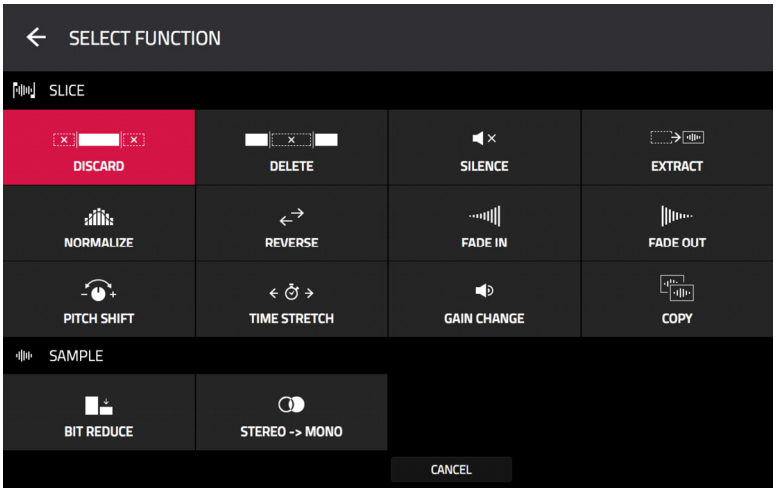
To assign the sample, tap **Do It**.

To cancel the operation, tap **Close**, the **X**, or anywhere outside the window.

Processing Slices & Samples

Tap the **Process** button to open the Process window, where you can select an editing option for the sample.

Use the **Function** field to select an editing process. Double-tap it or tap **Function** at the bottom of the screen to open the Function window, which displays an overview of all available editing processes.



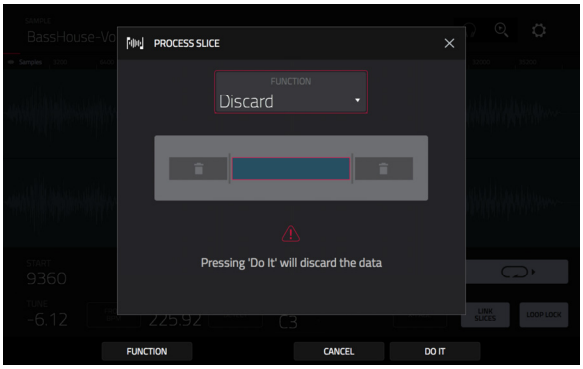
You can use any of these functions as described below.

To return to Sample Edit Mode, tap **Cancel**.

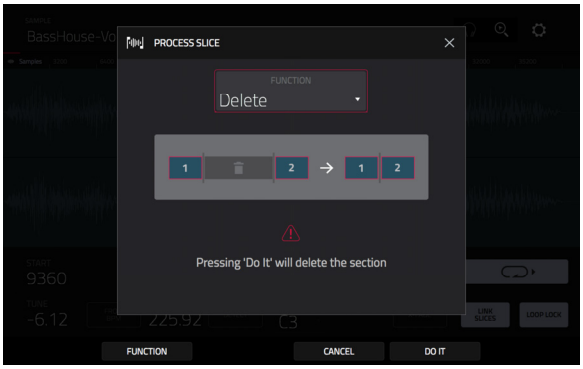
To return to the Process window, tap the top of the screen.

Note: All **Slice** processes will affect only the part of the sample between the start point and the end point. The **Sample** processes (**Bit Reduce** and **Stereo -**> **Mono**) will affect the **entire** sample regardless of its start point or end point.

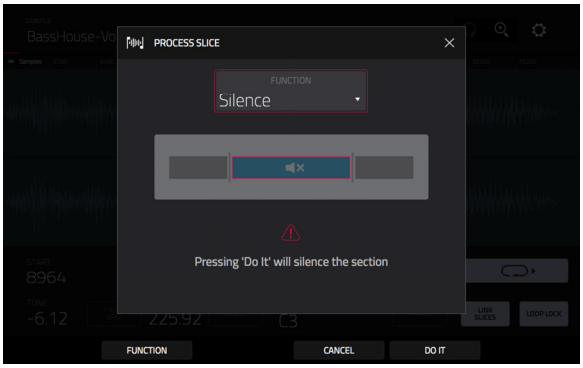
The **Discard** process deletes the regions before the start point and after the end point.



The **Delete** process deletes the region between the start point and end point and closes the gap between them.



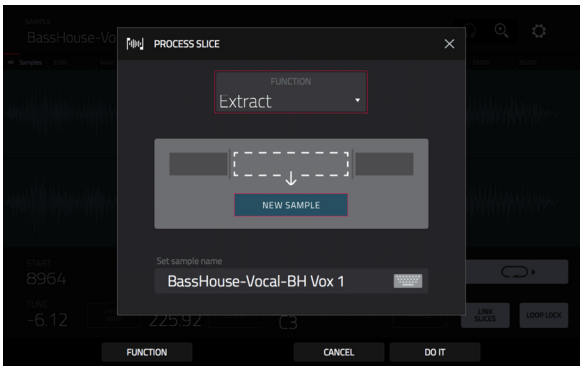
The **Silence** process replaces the region between the start point and end point with silence.



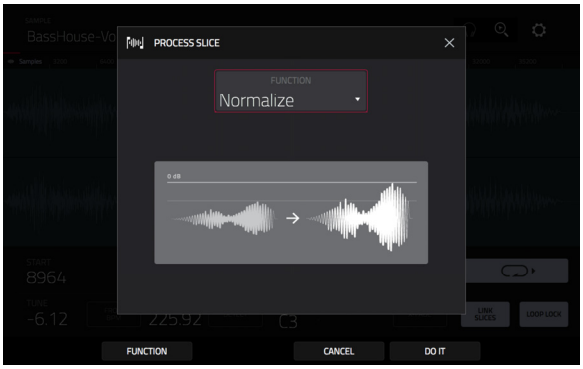
The **Extract** process deletes the regions before the start point and after the end point and saves it as a new sample in your current project.

Use the **Edit Name** field (and the virtual keyboard that appears) to name the new sample.

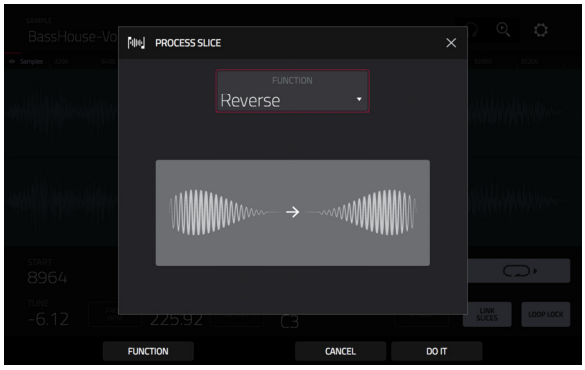
Tip: This is useful if you recorded a drum loop and wanted to remove just a snare drum hit, a kick drum hit, etc. to use separately in the project.



The **Normalize** process increases a sample's level to the highest level possible without distortion. This is essentially a kind of digital gain optimization, so you do not have to worry about excessive level settings when working with samples with a wide range of amplitudes.

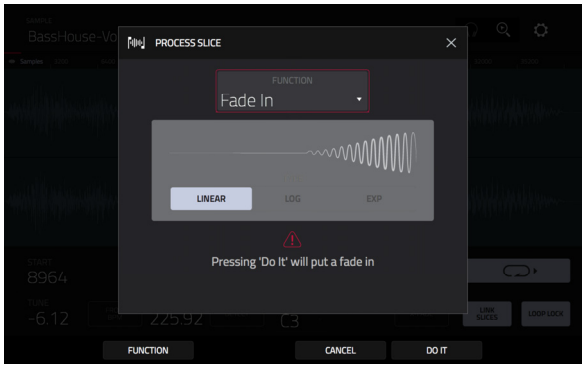


The **Reverse** process reverses the region between the start point and end point.



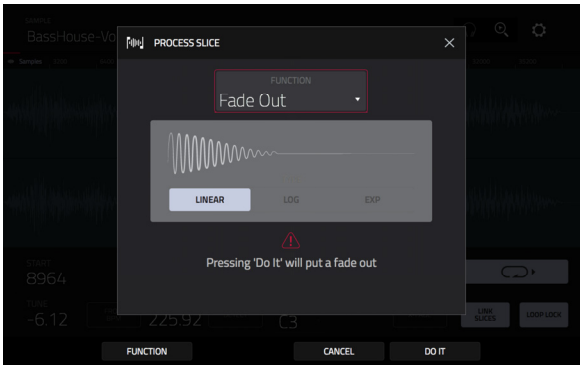
The **Fade In** process sets a fade-in between the start point and end point. The following types are available:

- **Linear** fades the audio in with a linear curve—a straight line between the start and end.
- **Log** fades the audio in with a logarithmic curve—quickly rising at the start and flattening out towards the end.
- **Exp** fades the audio in with an exponential curve—slowly rising in the beginning and growing steeper towards the end.

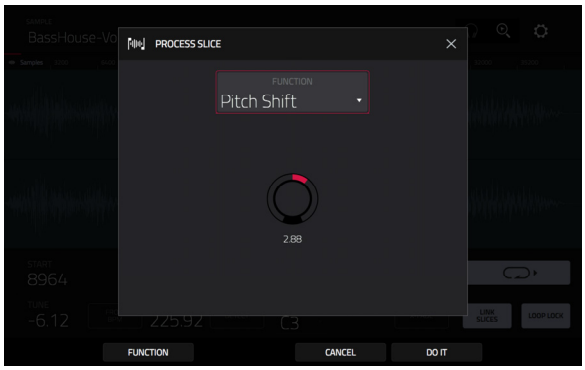


The **Fade Out** process sets a fade-out between the start point and end point. The following types are available:

- **Linear** fades the audio out with a linear curve—a straight line between the start and end.
- **Log** fades the audio out with a logarithmic curve—quickly falling at the start and flattening out towards the end.
- **Exp** fades the audio out with an exponential curve—slowly falling in the beginning and growing steeper towards the end.



The **Pitch Shift** process changes the pitch of the sample without changing its length. This lets you set the sample's pitch to your project without affecting the sample's tempo or duration. You can adjust it up to 12 semitones, up or down. Keep in mind that the audio quality may decrease at more extreme settings.

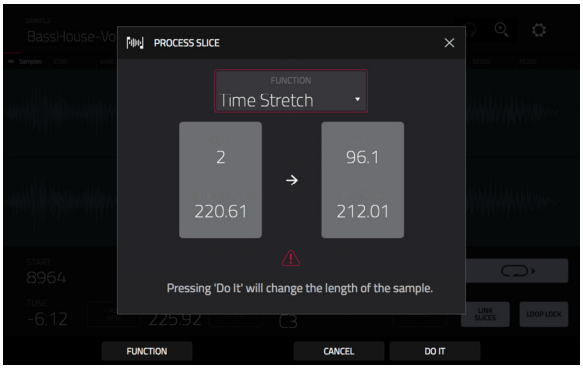


The **Time Stretch** process lengthens or shortens the sample without changing its pitch. This is useful for matching the durations of two samples with different pitches. You can enter the original tempo of the sample and the desired tempo after processing.

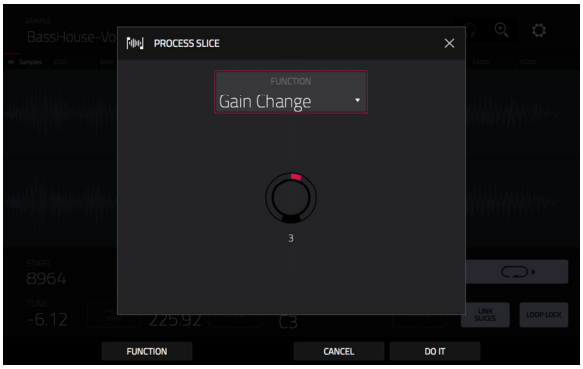
Use the **Beat** field to set the desired value number of beats.

Use the **New Tempo** field to set the new tempo. The **Ratio** field will then automatically show the time stretch factor.

Alternatively, to adjust the ratio instead, use the **Ratio** field to set the desired ratio. The **New Tempo** field will then change automatically based on the new time stretch factor.

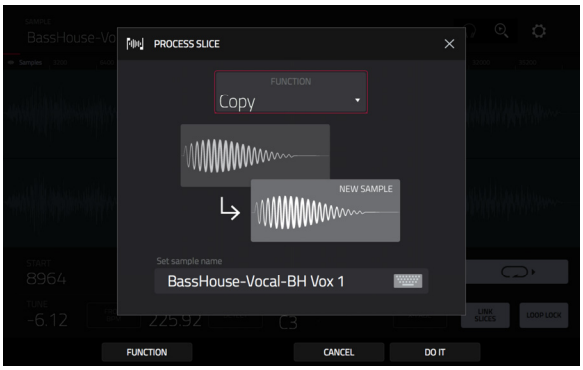


The **Gain Change** process raises or lowers the volume of the sample. You can adjust it up to 18 dB, higher or lower. This function is different than Normalize because it will allow volumes beyond clipping level. This may be a desired effect, but remember to watch your output level!



The **Copy** process saves a copy of the sample.

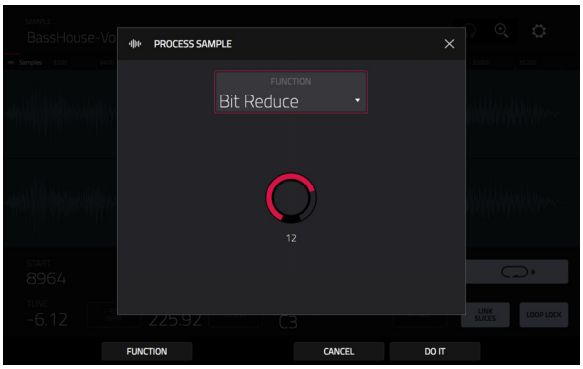
Use the **Edit Name** field (and the virtual keyboard that appears) to name the new sample. Otherwise, the process will add a consecutive number after the sample name.



The **Bit Reduce** process lowers the bit resolution of a sample, effectively reducing its degree of faithful reproduction. You can reduce it down to **1 bit**. (The sound is similar to the Resampler effect, but Bit Reduce will permanently alter the sample.)

Tip: Use this on drum loops to get a dirty, "old-school" sizzle but with a digital "edge."

Note: This process affects the **entire** sample regardless of its start point or end point.



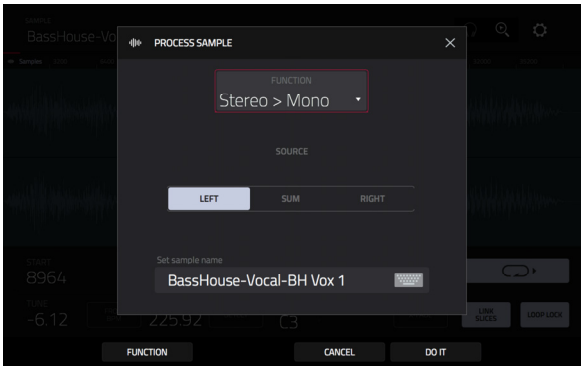
The **Stereo -> Mono** process converts a stereo sample to a new mono sample and saves it as a new sample.

Use the **Edit Name** field (and the virtual keyboard that appears) to name the new sample. Otherwise, the process will add a consecutive number after the sample name.

The following options are available:

- **Left** will convert the left channel only.
- **Right** will convert the right channel only.
- **Sum** will combine the left and right audio channels to a single mono channel.

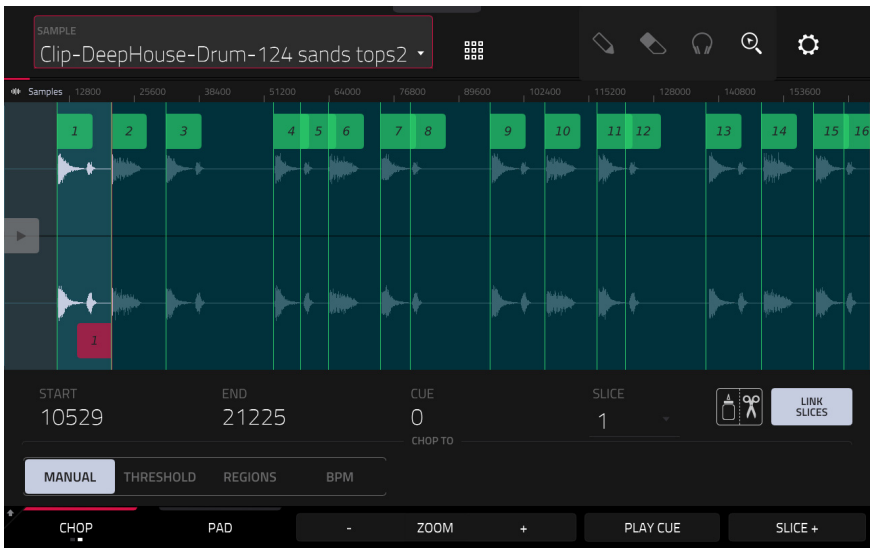
Note: This process affects the **entire** sample regardless of its start point or end point.



Chop Mode

Whereas Trim Mode crops only the start and/or end off of a sample, Chop Mode divides the sample into multiple regions called **slices**. We recommend using Chop Mode when working with a long sample with different sounds throughout (e.g., a drum loop or a long melodic or harmonic passage).

To enter Chop Mode, tap the **Trim**/**Chop** button in the lower-left corner so it says **Chop**.



Use the **Start** and **End** fields to set the position of the start point and end point (respectively) of the currently selected slice. Alternatively, tap and drag the start (**S**) or end (**E**) marker left or right, or use **Knobs 1** and **2** to adjust the start point or **Knobs 3** and **4** to adjust the end point when the knobs are in **screen** mode.

Use the selector in the lower-left corner of the screen to choose how you want to use Chop Mode:

Manual

This method lets you insert slices at locations you select.

Threshold

This method uses an adjustable detection algorithm that derives the number of slices created from the volume levels present in the sample.

Use the **Threshold** field to set the threshold level. The higher the selected value, the more slices will be created.

Use the **Min Time** field to set the minimum length of a slice in milliseconds.

Regions

This method divides a sample into several slices of equal length.

Use the **Regions** field to set how many regions the sample will be divided into. The higher the selected value, the more slices will be created.

BPM

This method divides a sample into several slices based on the tempo (beats per minute).

Use the **Bars** field to set how many bars are in the sample.

Use the **Beats** field to set how many beats are in each bar.

Use the **Time Div** field to set a note division. The slice markers will be placed according to this setting. You can select **1/4**, **1/8**, **1/16**, or **1/32**. (In most cases, you should set this parameter to **1/16**.)

To play a slice, when the **headphones icon** (in the upper-right corner) is selected, tap a **slice** in the waveform.

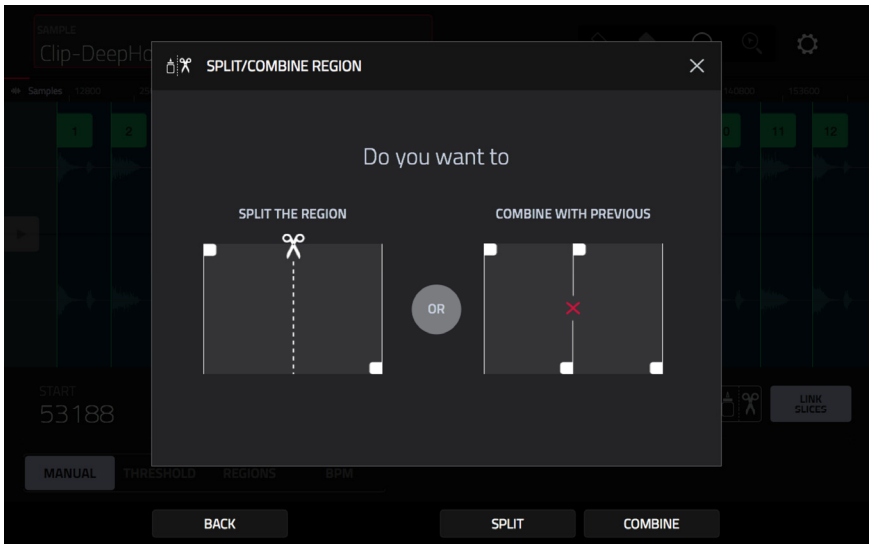
When the **One Shot** feature is enabled, you can press a pad once to play the entire slice. When this is disabled, pressing the pad and holding it will play the slice; releasing it will stop playback.

To enable or disable One Shot, press and hold **Shift**, and then tap **One Shot**.

To select a slice to edit, do any of the following:

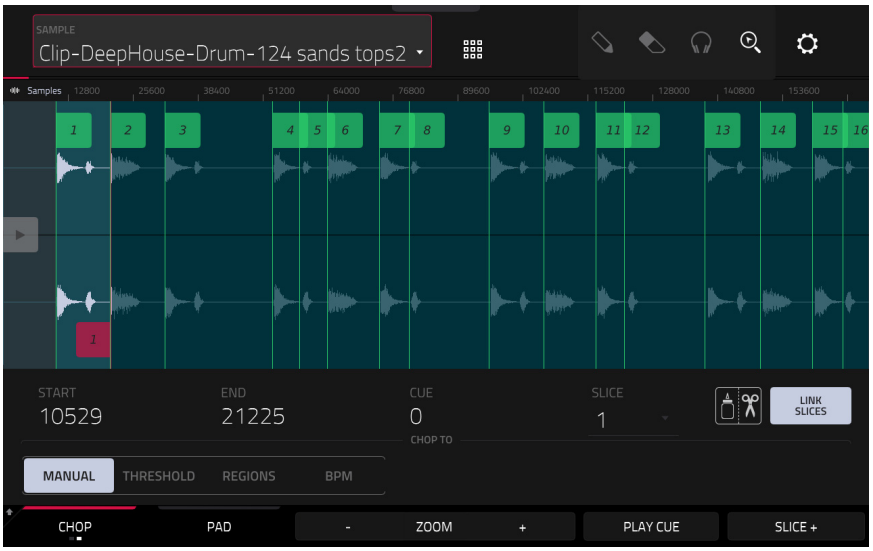
- Use the **Slice** field.
- When the **knobs** are in **screen** mode, turn **Knob 6**.
- When the **headphones icon** (in the upper-right corner) is selected, tap a **slice** in the waveform.

To add a slice at the current playhead position, tap **Slice+** at the bottom of the screen. You can do this at any point during sample playback.



To split or combine slices, tap the **glue-and-scissors icon**. In the **Split/Combine Region** screen that appears, tap one of the following buttons:

- **Split**: This splits the currently selected region into two equal slices.
- **Combine**: This combines the currently selected region with the one before it.
- **Back**: This closes the window.



When **Link Slices** is enabled, changing the start point of a slice will also change the end point of the previous slice. Similarly, changing the end point of a slice will also change the start point of the next slice. Disable **Link Slices** if you are trying to create slices that use non-contiguous parts of the sample.

To enable or disable this feature, tap the **Link Slices** button.

Important: **Link Slices** must be disabled to make slices non-sequential, noncontiguous, or overlapping.

To remove all slices from a sample, press and hold **Shift** and tap **Clear All**.

The cue playhead is useful when manually inserting slice markers. You can set its position and behavior to suit your workflow.

To adjust the position of the Cue playhead, do any of the following:

- Use the **Cue** field.
- Tap and drag the translucent marker with the triangle (▶).
- When the **knobs** are in **screen** mode, turn **knob 5**.

To play the sample from the cue playhead, tap **Play Cue** at the bottom of the screen.

To create a slice marker at the cue playhead position, tap **Slice+** at the bottom of the screen.

To set how the cue playhead behaves, use the **Settings** window (described ***earlier***).

0 Snap forces start points and end points to occur only at the waveform's "zero-crossings." This can help to avoid clicks and glitches when playing a sample.

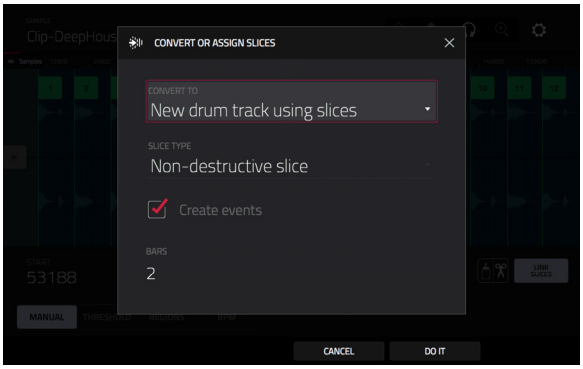
To enable or disable 0 Snap, press and hold **Shift**, and then tap **0 Snap** at the bottom of the screen.

Converting or Assigning Slices

You can assign your new sample directly to a pad from Chop Mode. You can also convert it into a new track or patched phrase.

To convert or assign a sample, press and hold **Shift**, and then tap **Convert** at the bottom of the screen to open the Convert or Assign Slices window.

If you set the **Convert To** field to **New drum track using slices**, this will create a new track and assign the sample's slices to its pads. The pads will simply refer to the slices in this sample instead of creating new samples. This is useful for reducing clutter in your project. The new track will be named after the sample and appended with **ch**.

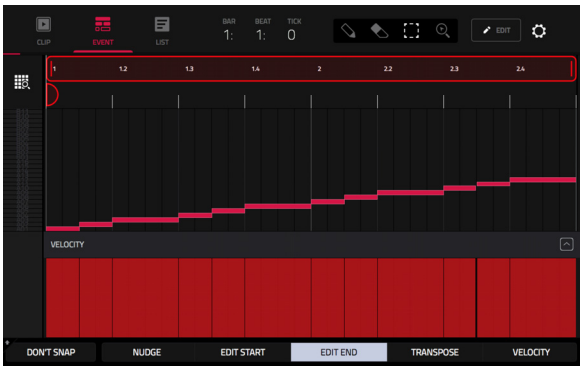


Use the **Slice Type** field to select how each pad's layer settings will be set when the slices are assigned to them (see ***Track Edit Mode*** to learn more about the parameters mentioned below):

- **Non-Destructive Slice**: Each pad's **Slice** setting will be set to the slice number.
- **Pad Parameters**: Each pad's **Slice** setting will be set to **Pad**. The **Pad Start** and **Pad End** parameters will be set to the slice's start point and end point values, and the **Loop Pos** parameter will be set to the slice's start point but with **Pad Loop** deactivated.

Check the **Create Events** box to automatically create a new clip in which each pad plays its corresponding slice in ascending sequence by pad number.

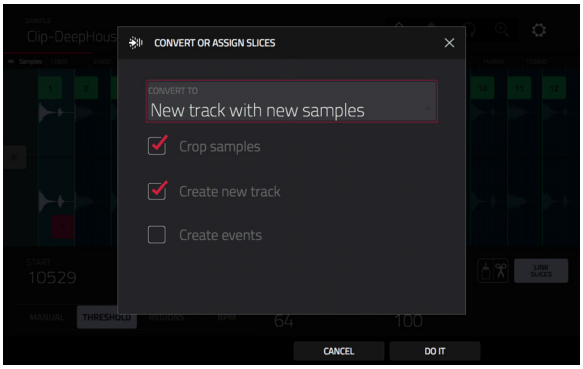
If **Create Events** is checked, use the **Bars** field to set how many bars the slices' events will occupy.



To convert the sample, tap **Do It**.

To cancel the operation, tap **Close**.

If you set the **Convert To** field to **New track with new samples**, this will create a new sample from each slice and assign them to pads in a new track.



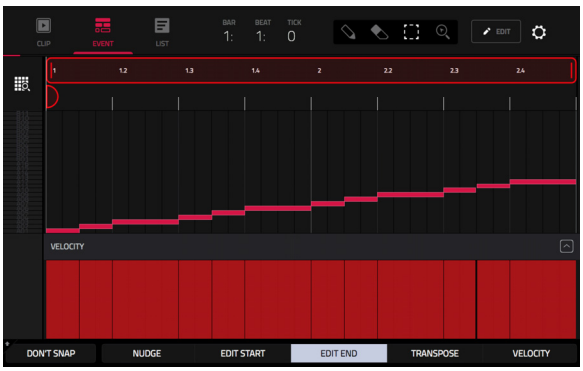
The new track will be named after the sample and appended with **ch**. The new samples will be appended with **Sl-#** (where **#** is a consecutive number).

Check the **Crop Samples** box to delete the unused parts from the sample when they are created and assigned. This feature is destructive, though the project will still contain your original sample.

Leave this box unchecked to keep the unused parts of the samples when they're created and assigned. This way, you will still be able to edit the entire samples further even though you are using only part of them at the moment.

By default, this option already will create a new track. You can **uncheck** the **Create new track** box to convert each slice into a sample that is placed in the project's sample pool but not assigned to a track or pad.

If **Create new track** is checked, check the **Create Events** box to automatically create a new clip in the new track in which each pad plays its corresponding slice in ascending sequence by pad number.

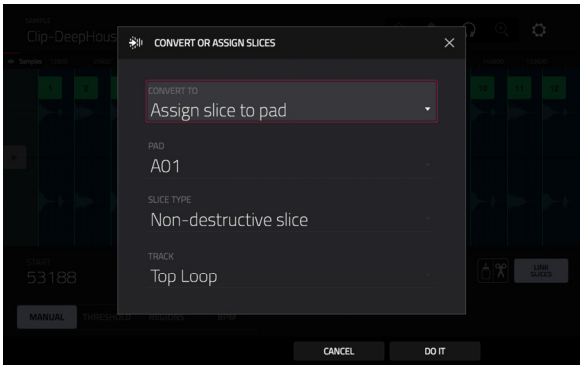


If **Create Events** is checked, use the **Bars** field to set how many bars the slices' events will occupy.

To convert the sample, tap **Do It**.

To cancel the operation, tap **Close**.

If you set the **Convert To** field to **Assign slice to a pad**, the pad will simply refer to the slice in this sample instead of creating a new sample. This is useful for reducing clutter in your project.



Important: Assigning a sample to a pad in this way will replace the sample on the first layer of the pad.

Use the **Pad** field to select the desired pad. Alternatively, press the desired pad.

Use the **Slice Type** field to select how the pad's layer settings will be set when the slice is assigned to it (see ***Track Edit Mode*** to learn more about the parameters mentioned below):

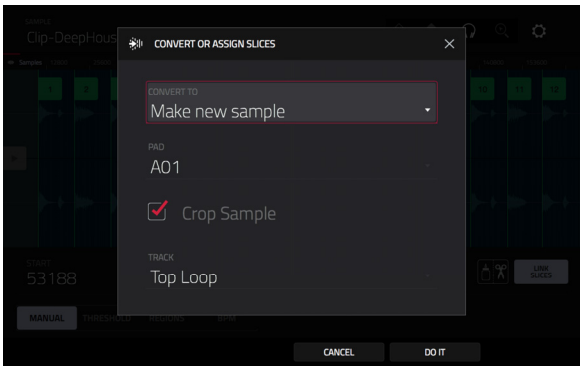
- **Non-Destructive Slice**: The pad's **Slice** setting will be set to the slice number.
- **Pad Parameters**: The pad's **Slice** setting will be set to **Pad**. The **Pad Start** and **Pad End** will be set to the slice's start point and end point values, and the **Loop Position** will be set to the slice's start point but with **Pad Loop** deactivated.

Use the **Track** field to specify the track to which you want to add the slice.

To convert the sample, tap **Do It**.

To cancel the operation, tap **Close**.

If you set the **Convert To** field to **Make new sample**, this will create a new sample in your project. (The original sample will remain as it is.)



Important: Assigning a sample to a pad in this way will replace the sample on the first layer of the pad.

Use the **Pad** field to select the desired pad. Alternatively, press the desired pad.

Check the **Crop Sample** box to delete the unused parts from the sample when it's created and assigned. This feature is destructive, though the project will still contain your original sample.

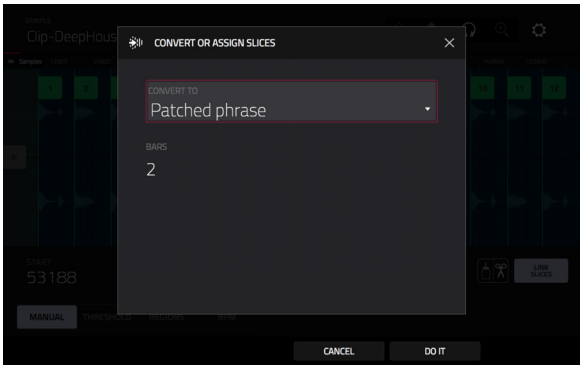
Leave this box unchecked to keep the unused parts of the sample when it is created and assigned. This way, you will still be able to edit the entire sample further even though you are using only part of it at the moment.

Use the **Track** field to specify the track to which you want to add the slice.

To convert the sample, tap **Do It**.

To cancel the operation, tap **Close**.

If you set the **Convert To** field to **Patched phrase**, this will create a new sample that will play based on the tempo of your project, and places it in the current project. The patched phrase will have the same name as the original sample but appended with **pp** and will use a different icon when viewing your project information.



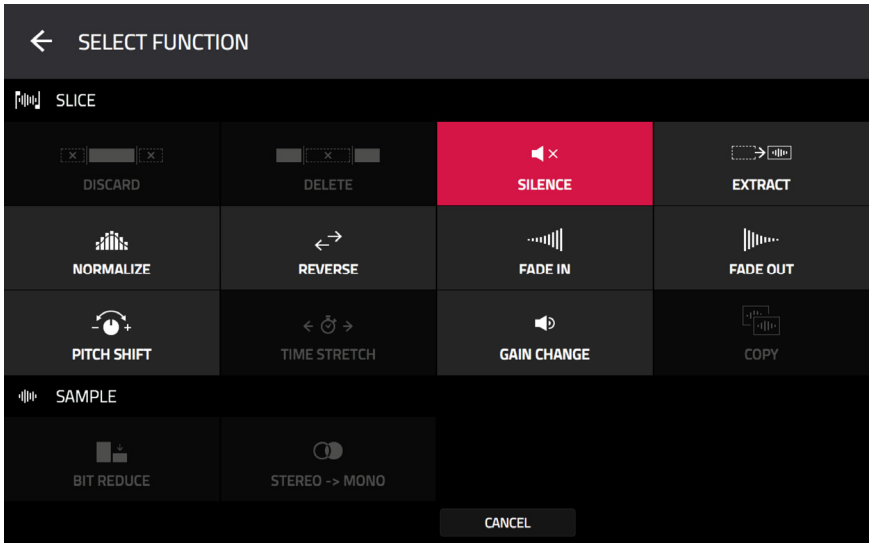
Use the **Bars** field to set how many bars long the patched phrase is meant to be.

Processing Slices

Press and hold **Shift**, and then tap the **Process** button to open the Process window, where you can select an editing option for the currently selected slice. (This has fewer options than Trim Mode. Unavailable ones are darkened.)

Use the **Function** field to select an editing process. Double-tap it or tap **Function** at the bottom of the screen to open the Function window, which displays an overview of all available editing processes.

Important: Chop Mode is non-destructive: You can choose the slice/edit behavior without destroying your original sample, giving you more control over sample playback; you can save your sliced sample and but also reuse all of the slice data in another project. See the ***Track Edit Mode*** chapter to learn more about setting a pad to play the entire sample, a specific slice of a sample, or a specific region of the sample (independent of its slice markers).



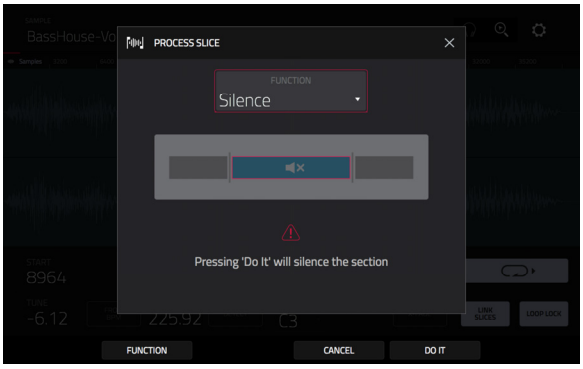
You can use any of these functions as described below.

To return to Sample Edit Mode, tap **Cancel**.

To return to the Process window, tap the top of the screen.

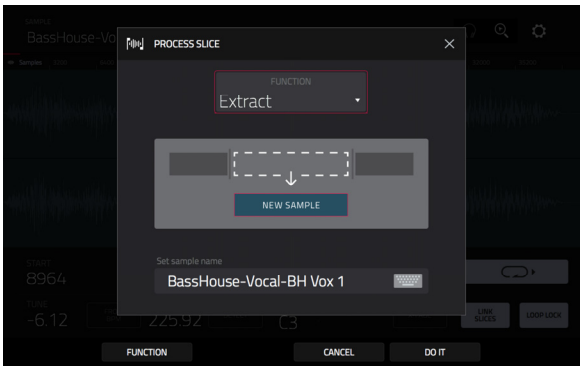
Note: All processes here will affect only the currently selected slice.

The **Silence** process replaces the region between the start point and end point with silence.

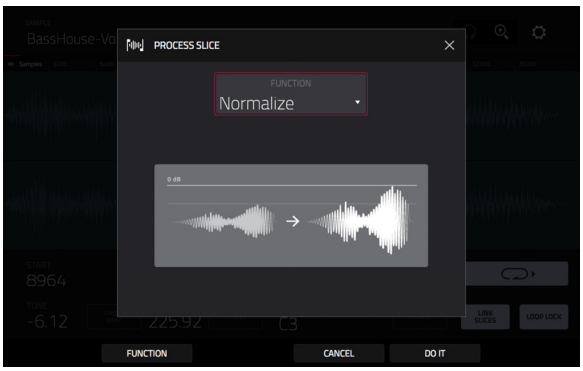


The **Extract** process deletes the regions before the start point and after the end point and saves it as a new sample (with a name you enter) in your current project.

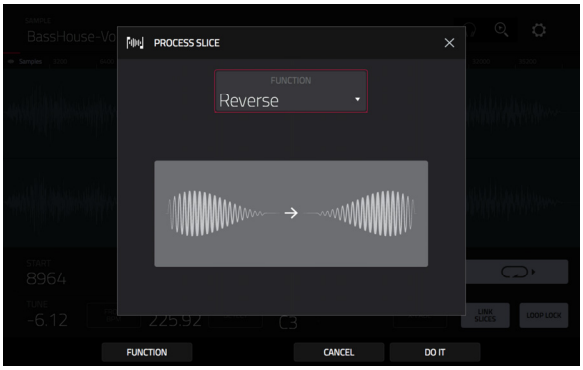
Tip: This is useful if you recorded a drum loop and wanted to remove just a snare drum hit, a kick drum hit, etc. to use separately in the project.



The **Normalize** process increases a sample's level to the highest level possible without distortion. This is essentially a kind of digital gain optimization, so you do not have to worry about excessive level settings when working with samples with a wide range of amplitudes.

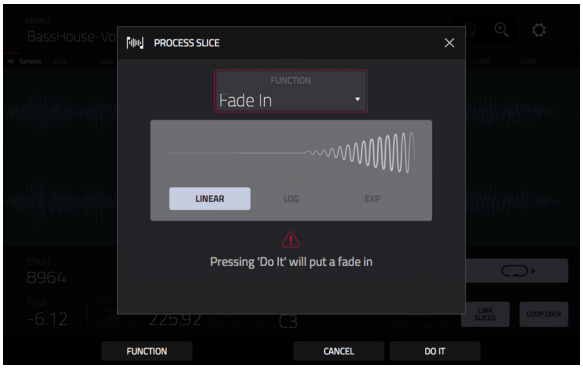


The **Reverse** process reverses the region between the start point and end point.



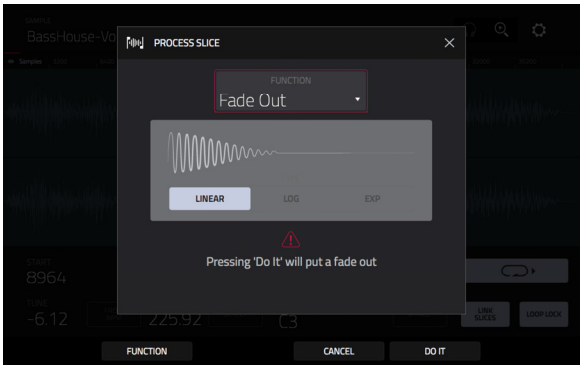
The **Fade In** process sets a fade-in between the start point and end point. The following types are available:

- **Linear** fades the audio in with a linear curve—a straight line between the start and end.
- **Log** fades the audio in with a logarithmic curve—quickly rising at the start and flattening out towards the end.
- **Exp** fades the audio in with an exponential curve—slowly rising in the beginning and growing steeper towards the end.

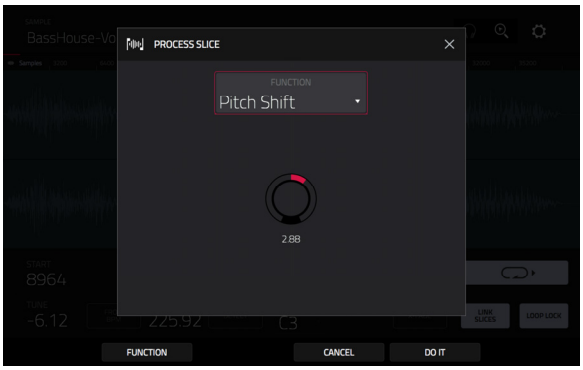


The **Fade Out** process sets a fade-out between the start point and end point. The following types are available:

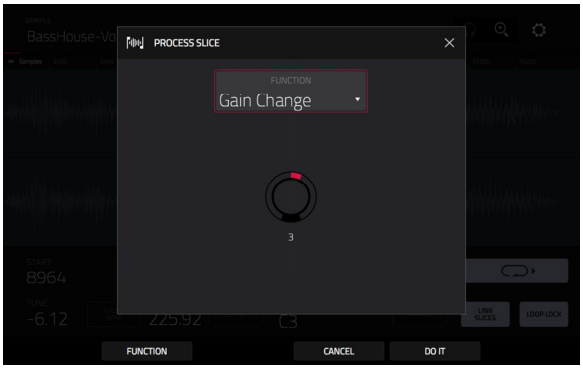
- **Linear** fades the audio out with a linear curve—a straight line between the start and end.
- **Log** fades the audio out with a logarithmic curve—quickly falling at the start and flattening out towards the end.
- **Exp** fades the audio out with an exponential curve—slowly falling in the beginning and growing steeper towards the end.



The **Pitch Shift** process changes the pitch of the sample without changing its length. This lets you set the sample's pitch to your project without affecting the sample's tempo or duration. You can adjust it up to 12 semitones, up or down. Keep in mind that the audio quality may decrease at more extreme settings.



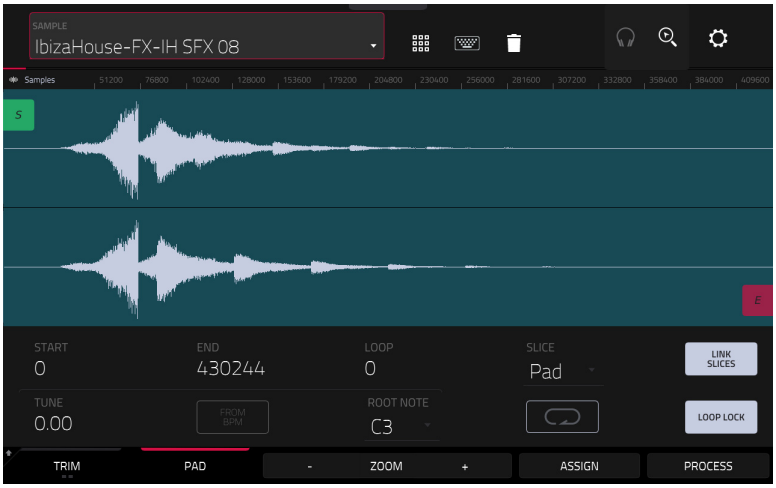
The **Gain Change** process raises or lowers the volume of the sample. You can adjust it up to 18 dB, higher or lower. This function is different than Normalize because it will allow volumes beyond clipping level. This may be a desired effect, but remember to watch your output level!



Pad Mode

Pad Mode lets you edit a sample in the context of the track in which you'll use it. You can adjust the pad parameters as though you were in Track Edit Mode, auditioning and hearing how it will sound in the program's audio path.

To enter Pad Mode, tap the **Pad** button at the bottom of the screen. The pads will show their assigned samples in the current Program.



Use the **Start** and **End** fields to set the position of the start point and end point of the sample (respectively). Alternatively, tap and drag the start (**S**) or end (**E**) marker left or right, or use **Knobs 1** and **2** to adjust the start point or **Knobs 3** and **4** to adjust the end point when the knobs are in **screen** mode.

Program Mode includes a loop function. When on, the region of the sample between the loop point and end point will repeat. This is useful when trying to find an ideal spot to begin the sample. The loop cannot be earlier than the start point.

To adjust the loop point, do any of the following:

- Use the **Loop** field.
- Tap and drag the start (**S**) marker (if **Loop Lock** is on) or the **loop** marker (if **Loop Lock** is off).
- When the **knobs** are in **screen** mode, use Knobs 5 and 6 to adjust the loop marker. Knob 5 provides fine adjustment and Knob 6 provides coarse adjustment.

To turn Loop Lock on or off, tap the **Loop Lock** button. When on, the loop point is the same as the start point. When off, the loop point is independent from the start point.

To turn the loop function on or off, tap the **Loop** button to cycle between the four modes:

Off: The sample will not loop.

Forward: When the loop reaches its end point, it will start playing again from the loop point.

Reverse: When the loop reaches its end point, it will play in reverse. When it reaches the loop point again, it will return to the end point and continue playing in reverse.

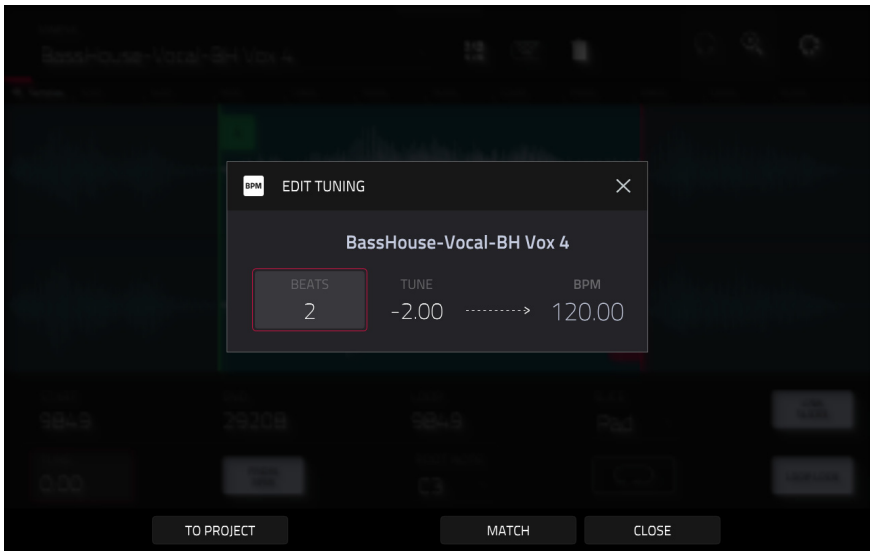
Alternating: When the loop reaches its end point, it will play in reverse. When it reaches the loop point again, it will start playing forward again from the loop point.

To switch between Forward and off, press and hold **Shift**, and then tap **Loop** at the bottom of the screen.

Tap each **pad** to hear its sample/samples. The sample on its first layer will automatically appear in the waveform display for editing.

Use the **Tune** field to transpose the sample up or down from its original pitch.

Tap **From BPM** to open the **Edit Tuning** window, which lets you tune a sample to the current sequence.



Use the **Number of Beats** field to match the number of beats in the sequence.

To tune the sample to the project, tap **Match**. The **Tune** field will adjust automatically and close the window. The sample is now tuned to the sequence.

To tune the sample to the project and adjust the project tempo, tap **To Project**. This is the same as tapping Match but it also changes the project's tempo to the BPM shown in the **Tempo** field on the right.

To close the window, tap **Close**.

Use the **Root Note** field to set the root note of the sample. This defines which note will play the sample at its original pitch when in a keygroup program.

Use the **Slice** field to display either the sample as it has been edited (**Pad**) or the entire sample (**All**).

If the **Slice** field is set to **All**, you can display the sample as it has been edited but keep the start point and end point. **To do this**, press and hold **Shift**, and then tap **To Pad** at the bottom of the screen. The **Slice** field will change to **Pad**, but the start point and end point will remain in their current locations.

The **Link Slices** button does not have a function in Pad Mode.

0 Snap forces start points, end points, and loop points to occur only at the waveform's "zero-crossings." This can help to avoid clicks and glitches when playing a sample.

To enable or disable 0 Snap, press and hold **Shift**, and then tap **0 Snap** at the bottom of the screen.

To enable or disable the loop function, press and hold **Shift**, and then tap **Loop** at the bottom of the screen. This switches the loop function between **Forward** and **off**. The loop function is described ***earlier***.

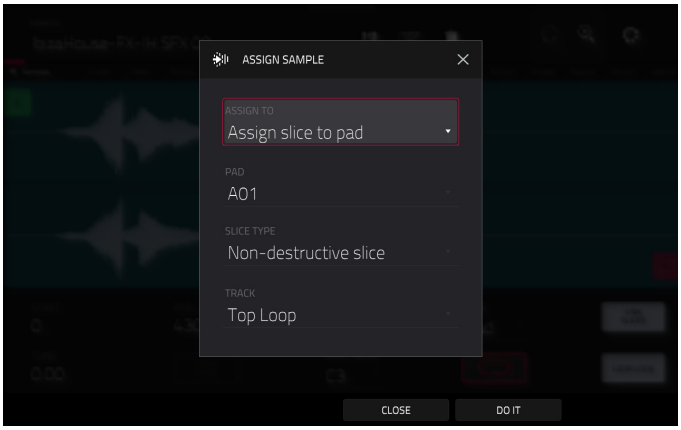
Assigning Samples

You can assign your new sample directly to a pad from Pad Mode.

To assign a sample, tap **Assign** at the bottom of the screen to open the Assign Sample window.

Important: Assigning a sample to a pad in this way will replace the sample on the first layer of the pad.

If you set the **Assign To** field to **Assign slice to a pad**, the pad will simply refer to the slice in this sample instead of creating a new sample. This is useful for reducing clutter in your project.



Use the **Pad** field to select the desired pad. Alternatively, press the desired pad.

Use the **Slice Type** field to select how the pad's layer settings will be set when the slice is assigned to it (see ***Track Edit Mode*** to learn more about the parameters mentioned below):

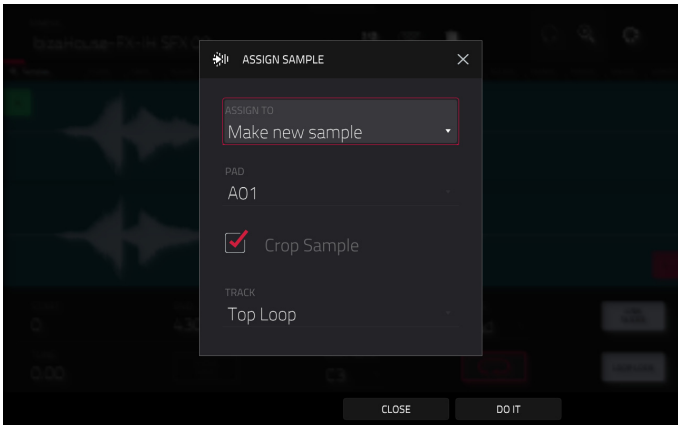
- **Non-Destructive Slice**: The pad's **Slice** setting will be set to the slice number.
- **Pad Parameters**: The pad's **Slice** setting will be set to **Pad**. The **Pad Start** and **Pad End** will be set to the slice's start point and end point values, and the **Loop Position** will be set to the slice's start point but with **Pad Loop** deactivated.

Use the **Program** field to specify the program to which you want to add the slice.

To assign the sample, tap **Do It**.

To cancel the operation, tap **Close**.

If you set the **Assign To** field to **Make new sample**, this will create a new sample in your project. (The original sample will remain as it is.)



Use the **Pad** field to select the desired pad. Alternatively, press the desired pad.

Check the **Crop Sample** box to delete the unused parts from the sample when it's created and assigned. This feature is destructive, though the project will still contain your original sample.

Leave this box unchecked to keep the unused parts of the sample when it is created and assigned. This way, you will still be able to edit the entire sample further even though you are using only part of it at the moment.

Use the **Program** field to specify the program to which you want to add the slice.

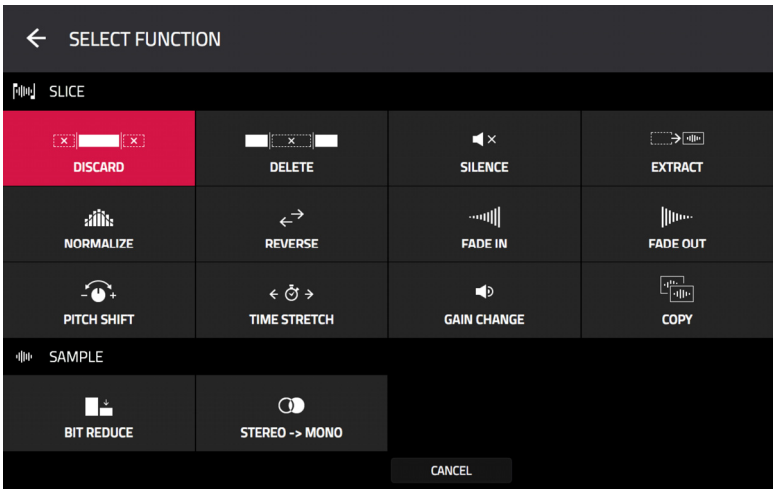
To assign the sample, tap **Do It**.

To cancel the operation, tap **Close**.

Processing Slices & Samples

Tap the **Process** button to open the Process window, where you can select an editing option for the sample.

Use the **Function** field to select an editing process. Double-tap it or tap **Function** at the bottom of the screen to open the Function window, which displays an overview of all available editing processes.



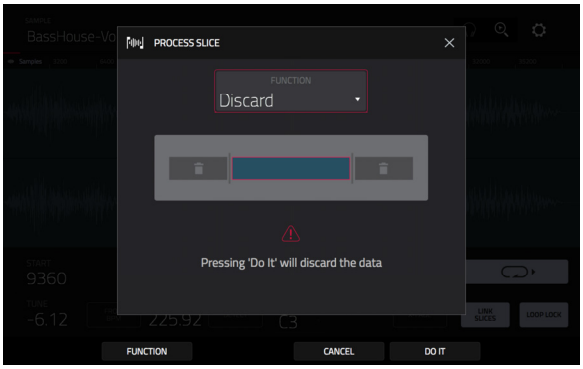
You can use any of these functions as described below.

To return to Sample Edit Mode, tap **Cancel**.

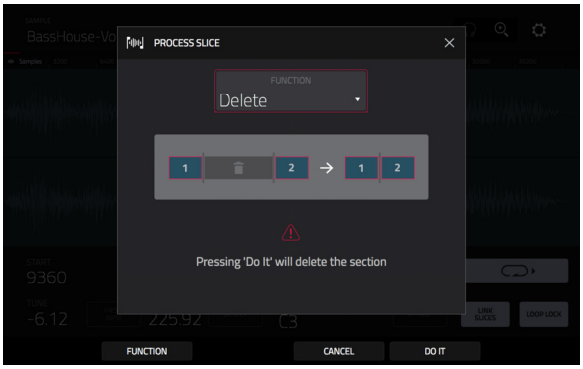
To return to the Process window, tap the top of the screen.

Note: All **Slice** processes will affect only the part of the sample between the start point and the end point. The **Sample** processes (**Bit Reduce** and **Stereo -> Mono**) will affect the **entire** sample regardless of its start point or end point.

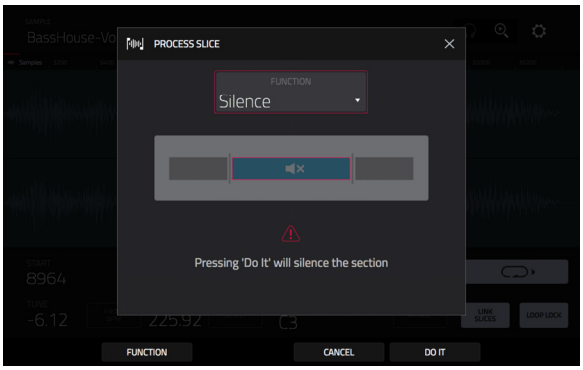
The **Discard** process deletes the regions before the start point and after the end point.



The **Delete** process deletes the region between the start point and end point and closes the gap between them.



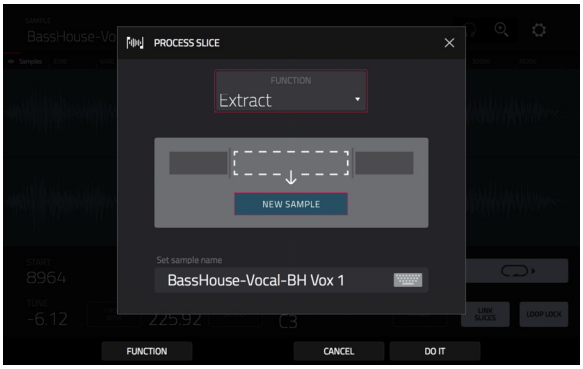
The **Silence** process replaces the region between the start point and end point with silence.



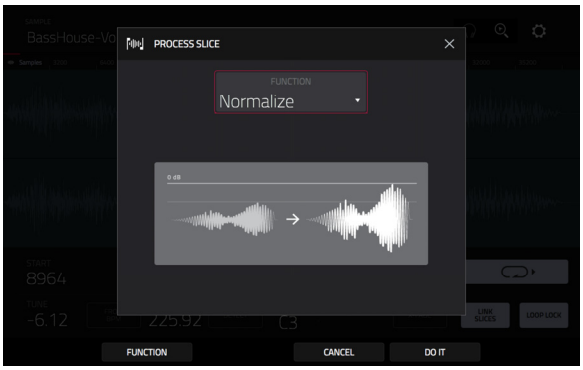
The **Extract** process deletes the regions before the start point and after the end point and saves it as a new sample in your current project.

Use the **Edit Name** field (and the virtual keyboard that appears) to name the new sample.

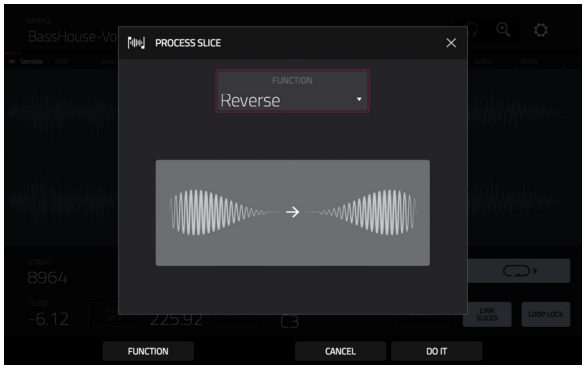
Tip: This is useful if you recorded a drum loop and wanted to remove just a snare drum hit, a kick drum hit, etc. to use separately in the project.



The **Normalize** process increases a sample's level to the highest level possible without distortion. This is essentially a kind of digital gain optimization, so you do not have to worry about excessive level settings when working with samples with a wide range of amplitudes.

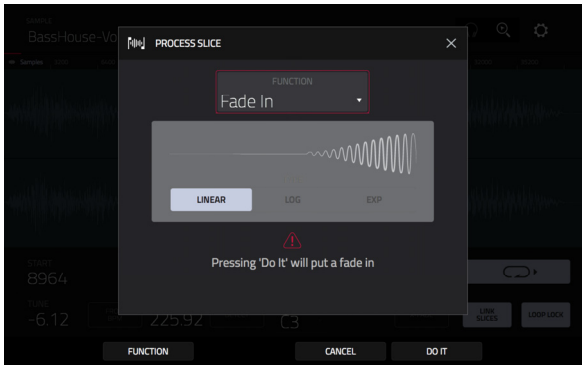


The **Reverse** process reverses the region between the start point and end point.



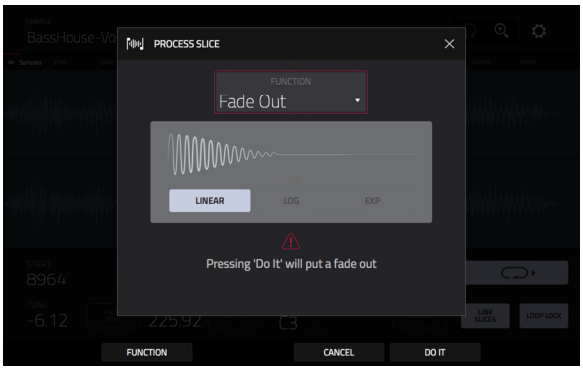
The **Fade In** process sets a fade-in between the start point and end point. The following types are available:

- **Linear** fades the audio in with a linear curve—a straight line between the start and end.
- **Log** fades the audio in with a logarithmic curve—quickly rising at the start and flattening out towards the end.
- **Exp** fades the audio in with an exponential curve—slowly rising in the beginning and growing steeper towards the end.

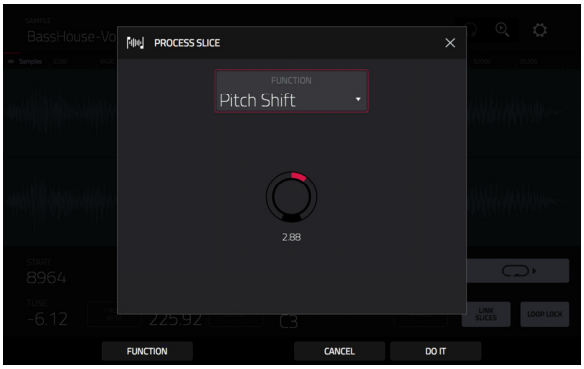


The **Fade Out** process sets a fade-out between the start point and end point. The following types are available:

- **Linear** fades the audio out with a linear curve—a straight line between the start and end.
- **Log** fades the audio out with a logarithmic curve—quickly falling at the start and flattening out towards the end.
- **Exp** fades the audio out with an exponential curve—slowly falling in the beginning and growing steeper towards the end.



The **Pitch Shift** process changes the pitch of the sample without changing its length. This lets you set the sample's pitch to your project without affecting the sample's tempo or duration. You can adjust it up to 12 semitones, up or down. Keep in mind that the audio quality may decrease at more extreme settings.

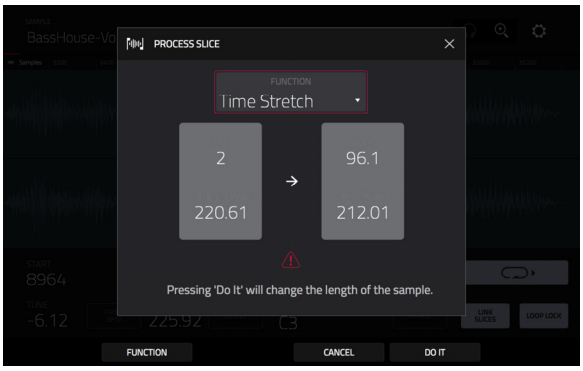


The **Time Stretch** process lengthens or shortens the sample without changing its pitch. This is useful for matching the durations of two samples with different pitches. You can enter the original tempo of the sample and the desired tempo after processing.

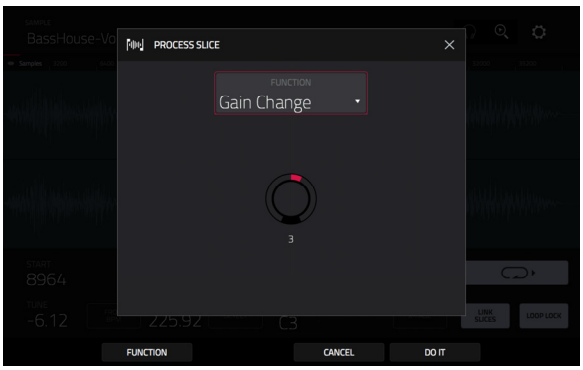
Use the **Beat** field to set the desired value number of beats.

Use the **New Tempo** field to set the new tempo. The **Ratio** field will then automatically show the time stretch factor.

Alternatively, to adjust the ratio instead, use the **Ratio** field to set the desired ratio. The **New Tempo** field will then change automatically based on the new time stretch factor.

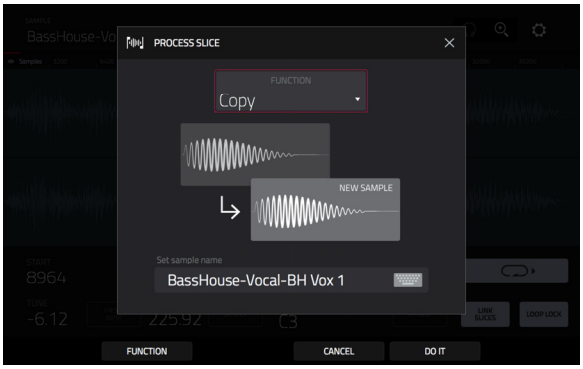


The **Gain Change** process raises or lowers the volume of the sample. You can adjust it up to 18 dB, higher or lower. This function is different than Normalize because it will allow volumes beyond clipping level. This may be a desired effect, but remember to watch your output level!



The **Copy** process saves a copy of the sample.

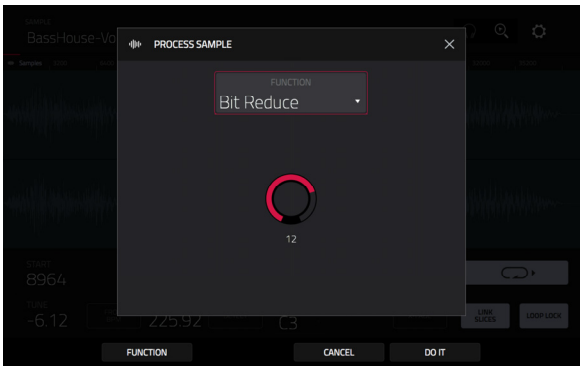
Use the **Edit Name** field (and the virtual keyboard that appears) to name the new sample. Otherwise, the process will add a consecutive number after the sample name.



The **Bit Reduce** process lowers the bit resolution of a sample, effectively reducing its degree of faithful reproduction. You can reduce it down to **1 bit**. (The sound is similar to the Resampler effect, but Bit Reduce will permanently alter the sample.)

Tip: Use this on drum loops to get a dirty, "old-school" sizzle but with a digital "edge."

Note: This process affects the **entire** sample regardless of its start point or end point.



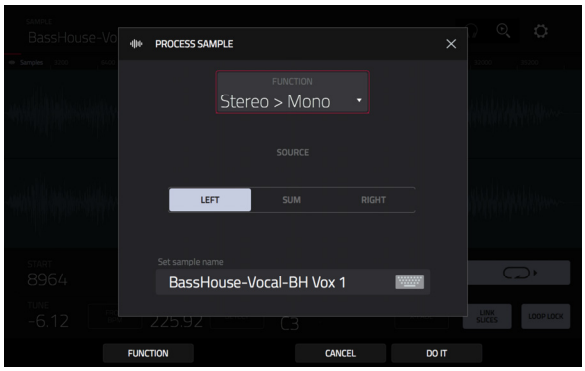
The **Stereo -> Mono** process converts a stereo sample to a new mono sample and saves it as a new sample.

Use the **Edit Name** field (and the virtual keyboard that appears) to name the new sample. Otherwise, the process will add a consecutive number after the sample name.

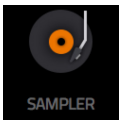
The following options are available:

- **Left** will convert the left channel only.
- **Right** will convert the right channel only.
- **Sum** will combine the left and right audio channels to a single mono channel.

Note: This process affects the **entire** sample regardless of its start point or end point.

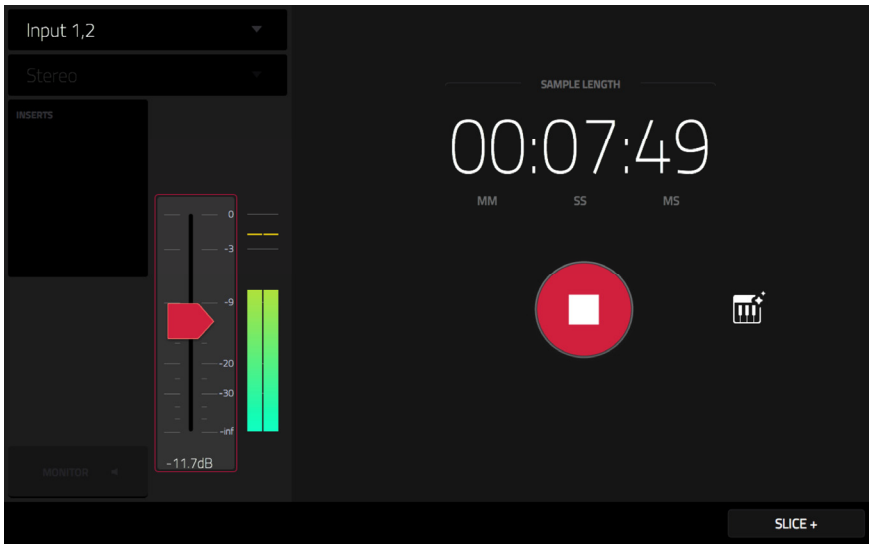


Sampler



The Sampler lets you record audio samples to use in your projects.

To open the Sampler, press **Menu** and then tap **Sampler**.



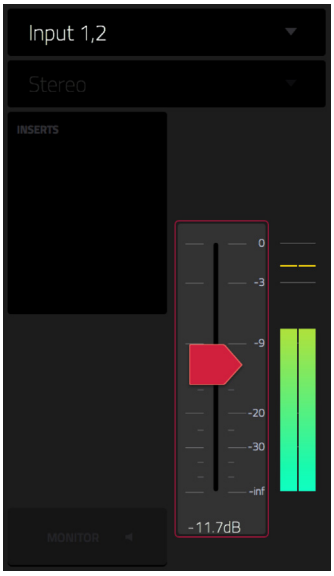
To set up the Sampler before recording:

1. Make sure to reduce the volume levels of your audio source and speakers, headphones, and/or monitors before you make any connections to avoid “pops” or feedback.
2. Connect your audio source to the input/inputs of your Force hardware.

   For line-level devices such as a synthesizer, set the **Line/Inst** switch to **Line**; for instrument-level devices such as a guitar, set the switch to **Inst**.

   If you are using a microphone that requires phantom power, set the **+48V** switch to **On**.
3. Turn the **Gain** knob to set the input level while playing your audio source. You should now see the level in the meter. Make sure it does not exceed the maximum level (the meter should not be “peaking” constantly).
4. Set the recording controls as desired (described in this chapter).
5. Tap the **Arm** button to record-arm the Sampler.

The upper-left **Input Source** field defines whether you are going to record an external audio signal, which you can set to the pair of inputs (**Input 1,2**) or a single input (**Input 1**–**2**). You can also select an internal signal from within your Force hardware (**Resample L**, **Resample R**, or **Resample L+R**).



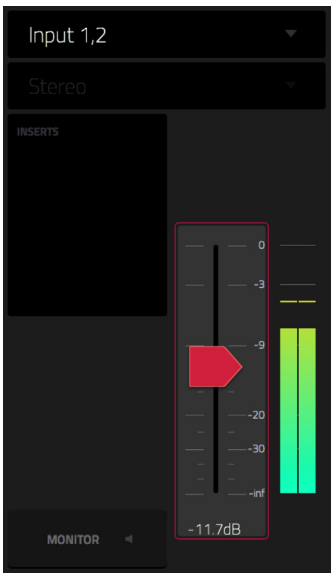
Resampling does not require an audio connection because the source is internal and is therefore recorded without any loss in audio quality. You can, for example, use Resample to record two or more samples by pressing the corresponding pads simultaneously.

Use the second upper-left **Mono**/**Stereo** field to choose whether your recorded samples will be monaural (**Mono**) or binaural (**Stereo**).

The **Inserts** field shows any enabled or disabled effects for the Sampler. Tap the area under **Inserts** to open a window where you can load, change, and enable or disable the effects.

Important: These effects are applied to the audio as you record it. This means that the effects cannot be "removed" from the sound later. Learn more about how effects work in ***General Features*** > ***Effects***.

Tap the **Monitor** button to enable or disable input monitoring. When on, the audio you hear in your headphones will be taken **before** it reaches the Sampler, ensuring zero latency. When off, the audio you hear in your headphones will be taken **after** it is processed in the Sampler, so there may be some latency, but you will hear the audio source as it sounds in the recording.



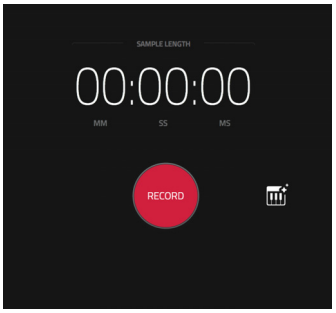
Tip: **To avoid possible clicks or feedback while input monitoring**, reduce the level of the audio sources.

Use the **threshold slider** to adjust the threshold. Alternatively, turn **Knob 1** when the knobs are set to **screen mode**.

When the Sampler is record-armed, it automatically starts recording when the level of the incoming source exceeds this setting. If you set it too high, the recording may not start when you play the input source, or the start of the material you wanted to record may be missing. If you set it too low, the recording may start too early, before you play the external source. Set this parameter to an appropriate level using the level meter.

To reset the "**peak hold**," which shows the highest level of your input signal in the level meter, tap it.

For reference, the **Sample Length** counter shows you the length of your sample during the recording procedure.

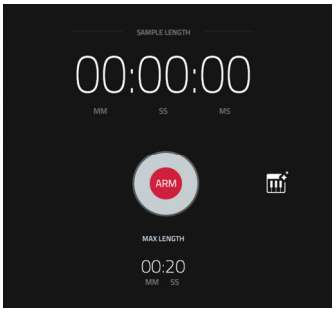


Tap **Arm** to record-arm the Sampler. The button will then change to **Record** and show **Waiting for signal**.

At that point, start recording by doing either of the following:

- Start performing so that the incoming audio level exceeds the level of the **threshold slider**.
- Tap **Record** under the **Sample Length** counter.

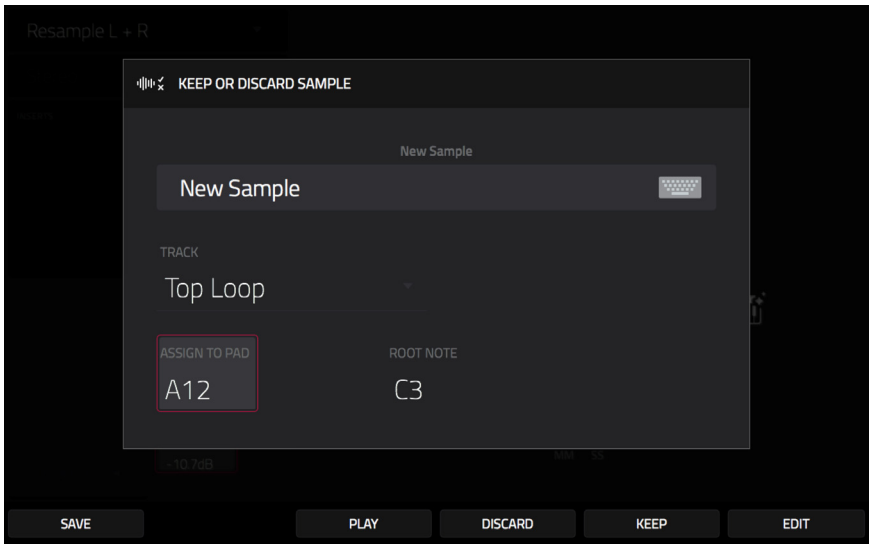
To disarm the track instead, tap **Cancel**.



Use the **Max Length** field to define the maximum sampling time.

You can record up to 15 minutes and 59 seconds (**15**:**59**) per sample. We recommend setting these to values that roughly match your estimated recording duration. The default value is 20 seconds.

After you stop your recording, the **Keep or Discard Sample** window will appear.



Use the **New Sample** field to name the new sample. Tap it and use the virtual keyboard that appears.

Use the **Track** field to assign the new sample to a track. Select <**none**> if you want to save it to the project without assigning it to a track.

Note: Newly recorded samples can only be assigned to Drum tracks.

Use the **Assign to Pad** field to assign the sample to a pad in the track.

Use the **Root Note** field to set where the sample's original pitch will be on the keyboard.

To confirm your selections, tap **Keep** at the bottom of the screen.

To discard the recording and return to the Sampler, tap **Discard** at the bottom of the screen.

To play the recording, tap **Play** at the bottom of the screen.

To save the recording, tap **Save** at the bottom of the screen.

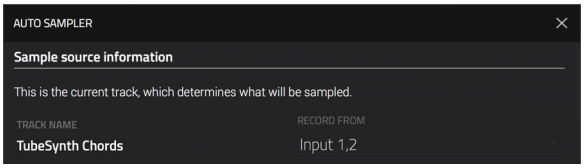
To edit the recording in Sample Edit Mode (recommended)**,** tap Edit at the bottom of the screen. See ***Sample Edit Mode*** for more information.

Auto Sampler

The Sampler page also contains the Auto Sampler, which lets you capture and covert any plugin preset or external instrument preset into a keygroup sampler patch.

To open the auto sampler, tap the **keyboard icon** next to the record button in Sampler View. The current track will be selected as the auto sample source.

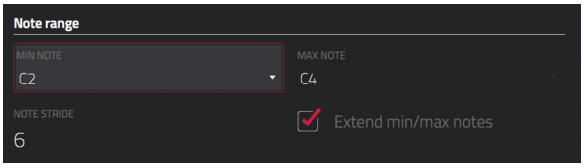
Sample Source Information



Use the **Track name** field to select the target auto sampler source.

Use the **Record from** field to select an input to record from. Select one of the **Input** options to autosample an external instrument, or select one of the **Resample** options to autosample from an internal source.

Note Range



Use the **Min Note** and **Max Note** fields to set the range of notes that will be created.

Use the **Note Stride** field to set the number of semitones between each new sample.

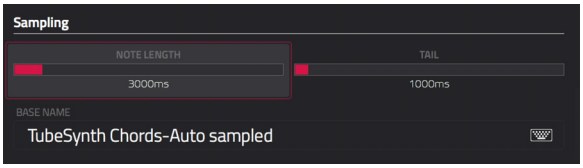
Check the **Extend min/max notes** box to sample all the way to the lowest and highest notes, regardless of the **Min Note** and **Max Note** settings.

Velocity

Tap the boxes next to **Layers 1–4** to select how many layers will be used to create the sampler patch.

Use the **Velocity** value sliders to set the velocity of each layer.

Sampling

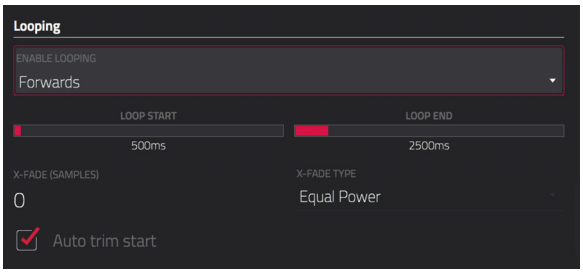


Use the **Note length** slider to set the length of the sampled note in seconds.

Use **Tail** slider to set the length of the Audio Tail in seconds. This will add extra seconds to the end of the resulting audio file. This is useful if you are capturing samples whose sounds exceed the defined audio length (e.g., long reverb or delay, one-shot samples with long decays, etc.). We recommend using an audio tail of at least a couple of seconds.

Use **Base name** to set the naming convention for the samples that will be created by the Auto Sampler.

Looping



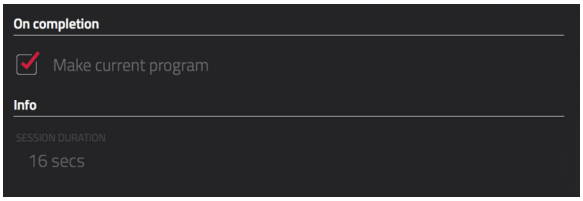
Use the **Enable looping** field to select how the resulting samples can or cannot be looped:

- **Off**: The sample will not loop.
- **Forward**: You can hold down the **pad** to cause that sample to repeat from the **Loop Position** to the end of the sample. Release the **pad** to stop the repeating playback.
- **Reverse**: You can hold down the **pad** to cause that sample to play in reverse, repeating from the end of the sample to the **Loop Position**. Release the **pad** to stop the repeating playback.
- **Alternating**: You can hold down the **pad** to cause that sample to play from the **Loop Position** to the end of the sample and then play in reverse until it reaches the **Loop Position** again. This will repeat as long as you are holding the pad down. Release the **pad** to stop the repeating playback.

Use the **Loop start** and **Loop end** sliders to set the starting and ending points in the sample where the loop will occur.

Use the **Crossfade** slider to set the amount of crossfade between the loop end and loop start in seconds.

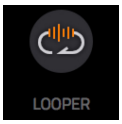
Use the **Crossfade Type** field to select **Equal Power** or **Linear** crossfade.



Under **On completion**, check **Make current program** to load the completed sampler patch as the current track.

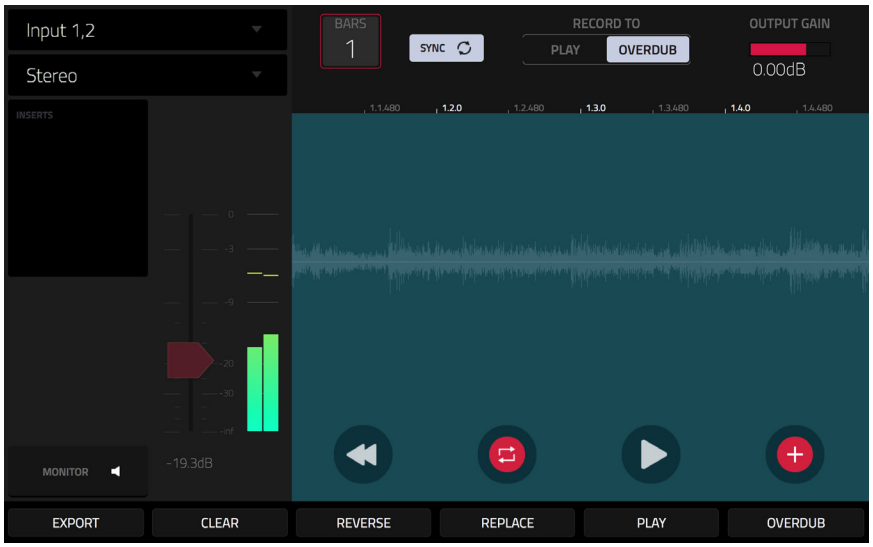
Under **Info**, the **Session Duration** field provides an estimate of how long the auto sampling process will take.

Looper



The Looper lets you record and overdub audio in real time—a great tool for live performance as well as spontaneous moments in the studio. You can export the loop as a sample to use in your project.

To open the Looper, press **Menu**, and then tap **Looper**.



Below is a brief step-by-step process so you can get started quickly. Continue reading the rest of this chapter to learn how to use the Looper in different cases.

To get started using the Looper:

1. Make sure to reduce the volume levels of your audio source and speakers/headphones/monitors before you make any connections to avoid “pops” or feedback.
2. Connect your audio source to the input/inputs of your Force hardware.

   For line-level devices such as a synthesizer, set the **Line/Inst** switch to **Line**; for instrument-level devices such as a guitar, set the switch to **Inst**.

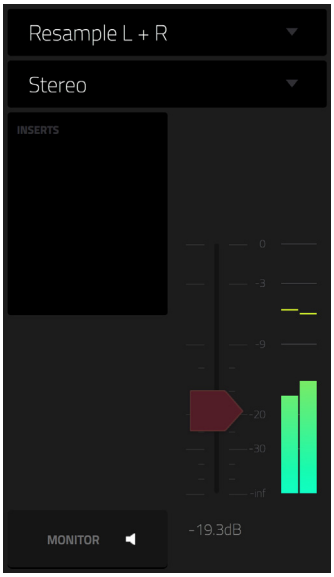
   If you are using a microphone that requires phantom power, set the **+48V** switch to **On**.
3. Turn the **Gain** knob to set the input level while playing your audio source. You should now see the level in the meter. Make sure it does not exceed the maximum level (the meter should not be “peaking” constantly).
4. Set the recording controls as desired (described in this chapter).
5. Tap the **Record To** selector so **Overdub** is selected.
6. Tap the **Rec**/**Record** button in the lower-right corner to record-arm the Looper.
7. Play your audio source. The Looper will start recording immediately when the input level reaches the threshold value. Alternatively, tap ▶/**Play** at the bottom of the screen to manually start recording.

   Each time the Looper repeats, its contents are being overdubbed—a new layer of audio will be added each time you let the Looper repeat as it records.

   Tip: You can record a loop while playing one or more clips in the background for reference.
8. **To stop recording**, tap ▶/**Play** at the bottom of the screen.

   To export your loop as a sample, tap **Export** to open the **Keep or Discard Sample** window.

   To clear the contents of the Looper, tap **Clear**.



The upper-left **Input Source** field defines whether you are going to record an external audio signal, which you can set to the pair of inputs (**Input 1,2**) or a single input (**Input 1**–**2**). You can also select an internal signal from within your Force hardware (**Resample L**, **Resample R**, or **Resample L+R**).

Resampling does not require an audio connection because the source is internal and is therefore recorded without any loss in audio quality. You can, for example, use Resample to record two or more samples by pressing the corresponding pads simultaneously.

Use the second upper-left **Mono**/**Stereo** field to choose whether your recorded loop will be monaural (**Mono**) or binaural (**Stereo**).

The **Inserts** field shows any enabled or disabled effects for the Looper. Tap the area under **Inserts** to open a window where you can load, change, and enable or disable the effects.

Important: These effects are applied to the audio as you record it. This means that the effects cannot be "removed" from the sound later. Learn more about how effects work in ***General Features*** > ***Effects***.

Tap the **Monitor** button to enable or disable input monitoring.

When **on**, the audio you hear in your headphones will be taken **before** it reaches the Looper, ensuring zero latency. You can turn input monitoring on only if the **Input Source** field is set to an input, not to a **Resample** setting.

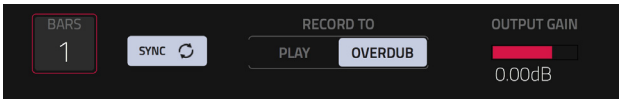
When **off**, the audio you hear in your headphones will be taken **after** it is processed in the Looper, so there may be some latency, but you will hear the audio source as it sounds in the recording.

Tip: **To avoid possible clicks or feedback while input monitoring**, reduce the level of the audio sources.

Use the **threshold slider** to adjust the threshold. Alternatively, turn **Knob 1** when the knobs are set to **screen mode**. The threshold slider will work only when **Sync** is **off** (see ***below***).

When the Looper is record-armed, it automatically starts recording when the level of the incoming source exceeds this setting. If you set it too high, the recording may not start when you play the input source, or the start of the material you wanted to record may be missing. If you set it too low, the recording may start too early, before you play the external source. Set this parameter to an appropriate level using the level meter.

To reset the "**peak hold**," which shows the highest level of your input signal in the level meter, tap it.



Use the **Bars** field to define the length of your loop. Regardless of how much or how little audio you record, this is how long your loop will be.

Use the **Sync** button to sync or un-sync the looper with transport playback. When on, the Looper will stay in step with your project. When you play or record into the Looper, it will wait until the transport starts playing to start.

Use the **Record To** selector to determine the loop recording behavior:

- **Play**: Before recording, you must first tap the ▶/**Play** button on the screen, which will start playing the Looper.
- **Overdub**: Before recording, you must first tap the **Rec**/**Record** button in the lower-right corner to record-arm the Looper.

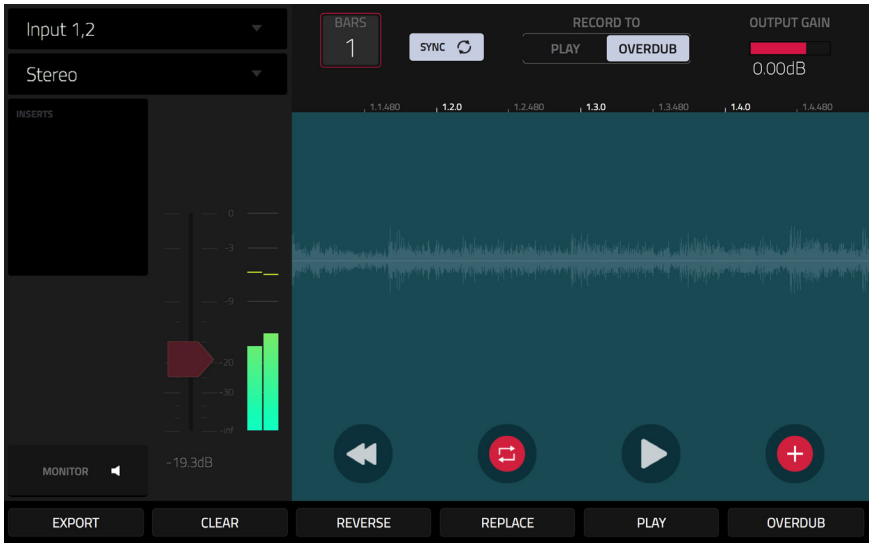
Use the **Output Gain** slider to set the output signal level of the Looper.

To record with the Looper:

Important:

To record without erasing any audio you've already recorded in the loop, use the **Overdub** button.

To overwrite the audio you've already recorded, use the **Replace** button.



If **Record To** is set to **Play**:

To start recording, tap the **Replace** or **Overdub** button as the loop is playing. The Looper will start recording immediately.

To stop recording, tap the **Replace** or **Overdub** button. The Looper will stop recording but continue playing.

To stop playback and recording, tap the ▶/**Play** button.

If **Record To** is set to **Overdub**:

To start recording, tap the ▶/**Play** button on the screen.

If **Sync** is off, you can also play your audio source so that the input level reaches the threshold value.

If **Sync** is on, you can also press the **Play** or **Play Start** button to start transport playback; recording will start when the transport starts playing.

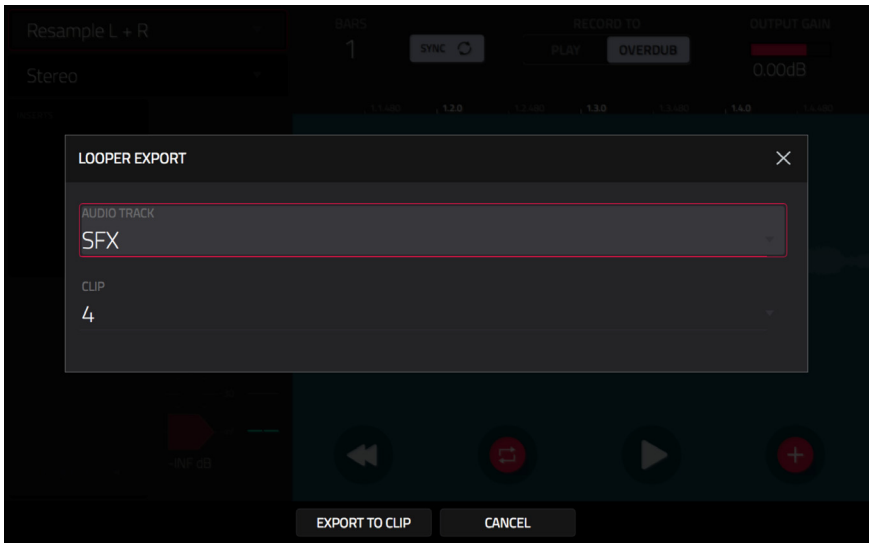
To stop recording, tap **Overdub**. The Looper will stop recording but continue playing.

To stop playback and recording, tap the ▶/**Play** button, or press **Stop** to stop transport playback.

To play or stop the loop (without recording), tap the ▶/**Play** button on the screen.

To reverse loop playback, tap **Reverse**. If **Sync** is **on**, playback will reverse once the Looper's playhead reaches the end of the loop. If **Sync** is **off**, playback will reverse immediately.

To erase the loop immediately, tap **Clear**.



To export the loop as a clip:

1. Tap **Export** to open the **Looper Export** window.
2. Use the **Audio Track** field to select the audio track you would like to export the clip to.
3. Use the **Clip** field to select the clip slot where you would like to place the loop.
4. Tap **Export to Clip** to confirm your choice, or **Cancel** to cancel.

   When your loop is done exporting, it assigned to the track and clip slot you selected.

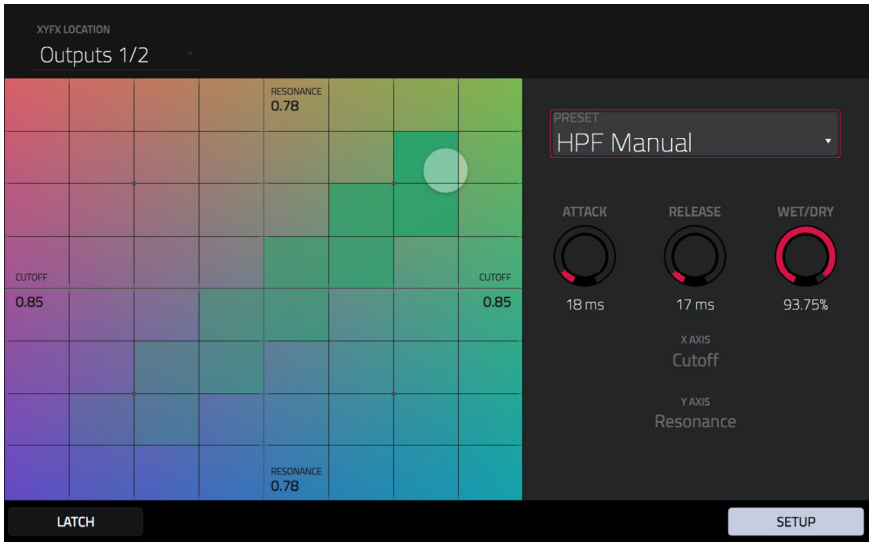
XYFX Mode

XYFX Mode turns the touchscreen into an XY pad where each axis represents the range of an effect parameter. As you move your finger on the XY pad, the current position will determine the current value of the two parameters. You can use this mode to create interesting effect automation on your tracks.

The effect you control in XYFX Mode acts like an insert effect on that track. In fact, **XYFX** is the name of the insert effect you have to load to the track before you can use this mode. Learn more about this in ***General Features*** > ***Effects***.

To enter XYFX Mode, do either of the following:

- Press **Menu**, and then tap **XYFX**.
- Press and hold **Shift** and press **Navigate**.



When you first enter this mode in a project, you may be prompted to load XYFX to the track. Tap **Insert XYFX** to do this.

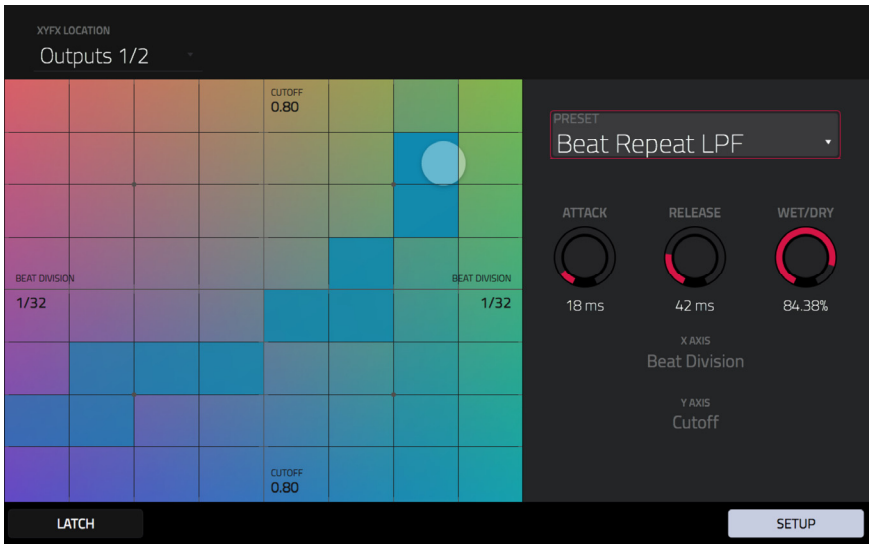
Note: If you already have four insert effects loaded, you will need to clear one of the insert effect slots before doing this.

Use the **XYFX Location** field to select the signal to which the effects will be applied: the current track (**Track**) or a master output (a stereo pair of channels: **Output 1/2** or **Output 3/4**).

Touch or move your finger on the gridded part of the screen. A marker will follow your finger to indicate the current position. The X axis is the horizontal axis, increasing in value as you move right. The Y axis is the vertical axis, increasing in value as you move up. Each axis is labeled with its assigned parameter.

When an effect has a beat division parameter, the current division will be highlighted as an entire column.

Effects are differently colored for easy visual distinction: beat-synchronized effects are **blue**, while manually controlled effects are **green**.

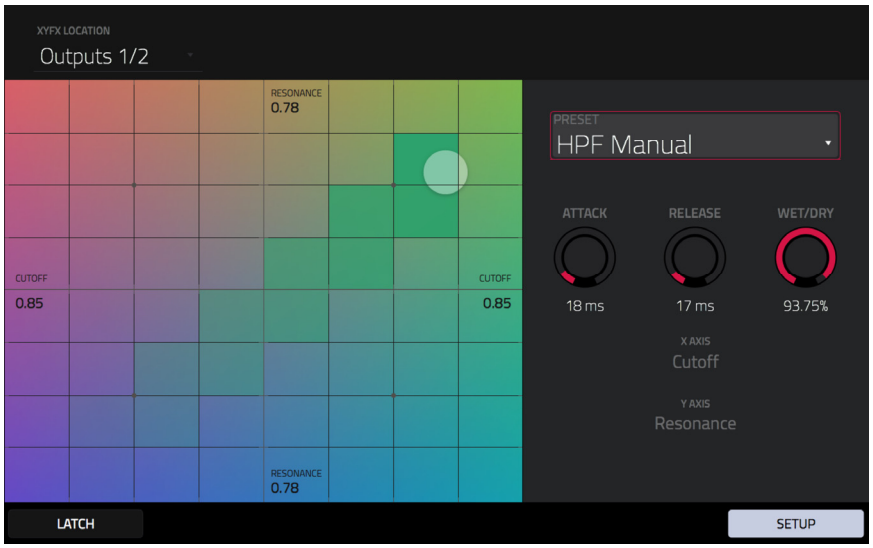


XY Mode with a beat-synchronized effect.

While touching the **XY pad**, tap **Latch** in the lower-left corner to keep the marker on the XY pad even after you release it. The marker will remain there until you touch another part of the XY pad or until you tap **Latch** again.

Use the **Setup** button to show or hide the Setup panel, which controls how the XY pad behaves.

Use the **Preset** field to select the effect you want to use in XYFX Mode.



XY Mode with a manually controlled effect.

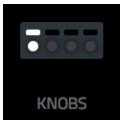
Use the **Attack** knob to set the length of the attack phase of the envelope, which is triggered when you touch the XY pad. In other words, this determines how long it takes the effect to fully respond to your touch.

Use the **Release** knob to set the length of the release phase of the envelope, which is triggered when you release the XY pad. In other words, this determines how long it takes the effect to fully deactivate after you stopping touching the XY pad.

Use the **Wet**/**Dry** knob to set the blend the original signal (dry) and the effect signal (wet).

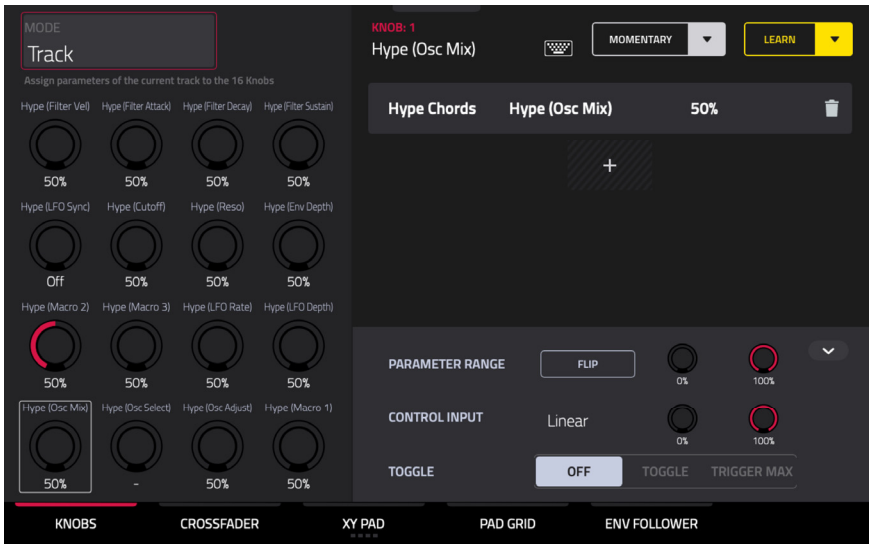
The **X Axis** and **Y Axis** fields show which parameters are controlled by each axis. This varies depending on the effect you are using.

Macros



Macros Mode (formerly *Knobs* mode) lets you determine what the various hardware controls can be used for in other modes. You can use Macros Mode to set up controls for parameters that might not be shown in a particular mode, or set up controls with multiple parameters across different modes for expressive performances.

To enter Macros Mode, press **Menu**, and then tap **Macros**.



Use the tabs at the bottom of the screen to select a control to assign parameters to:

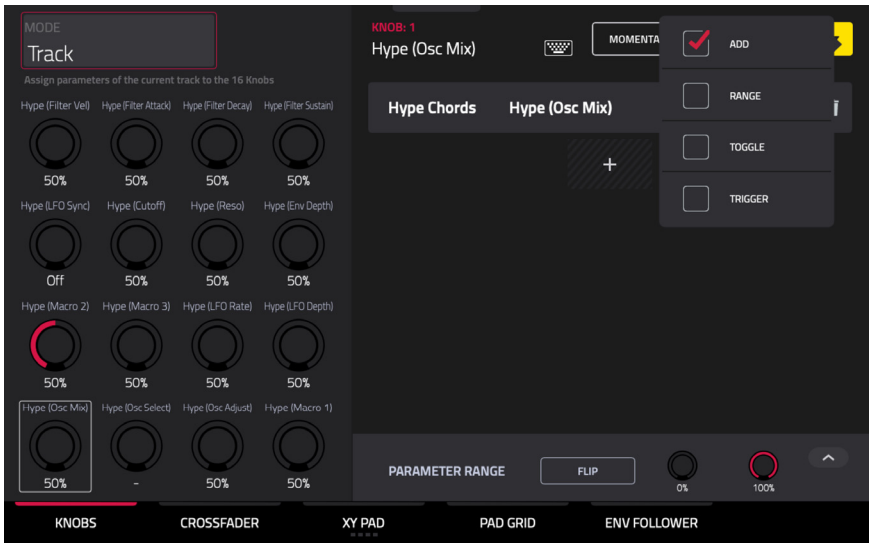
- ***Knobs***
- ***Crossfader***
- ***XY Pad***
- ***Pad Grid***
- ***Env Follower***

Click on the links above to jump to that section.

The left side of the screen shows the selected control. Use the **Mode** field to switch between the different modes for each control. Some Modes cannot be edited using Macros mode, but you can view their assignments here.

The right side of the screen shows the parameters assigned to the selected controls, and the tools for adding and editing these parameters.

Learning Macro Assignments



To learn parameters to a Macro control in user assignable modes:

1. Select a macro control type by tapping one of the buttons at the bottom of the screen: ***Knob***, ***Crossfader***, ***XY Pad***, ***Pad Grid*** or ***Env Follower***. See the following sections for more information on each control type.
2. Select the desired mode for the control by using the **Mode** field at the top of the screen. See each following section for explanation of the available modes for each control in Macros mode.
3. When one of these editable modes is selected, the yellow **Learn** button and the **learn add** (+) button will appear on the screen.

   To learn a single parameter to the control, tap the yellow **Learn** button so it is highlighted. The OLED screen above the selected knob will show **LEARNING…**.
4. Next, navigate to the mode that displays the parameter you would like to learn, and then adjust that parameter. The screen will show a message, "Learned [*parameter*] to [*macro control*]."
5. **To lock in the assignment,** return to Macros mode and tap the yellow **Learn** button again. The assigned parameters will be shown when the macro control is selected.

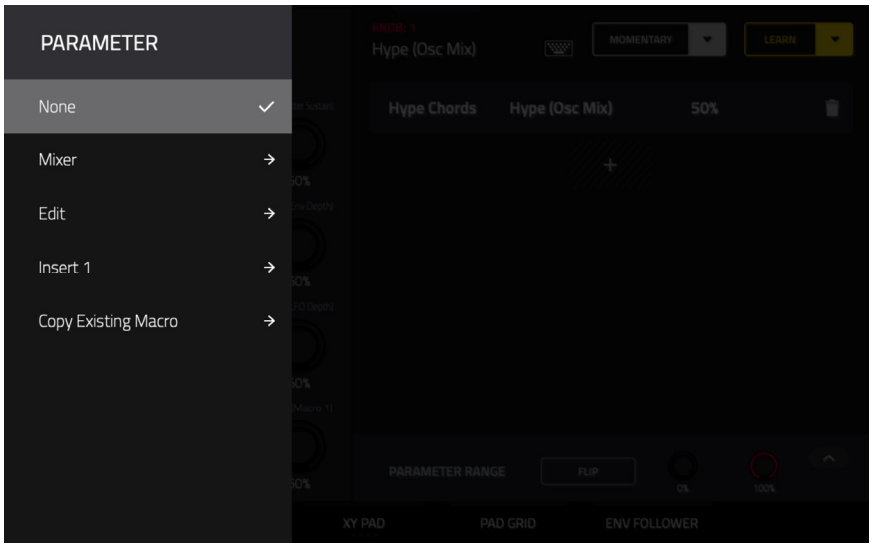
To learn multiple parameters to a macro, simply navigate to more parameters while **Learn** is engaged (step 4).

To learn another parameter to a macro that replaces the previous parameter, tap the **down arrow** next to the yellow **Learn** button, and then uncheck the **Add** box. Repeat the steps above to replace the previously learned parameter with a new one.

To learn a new parameter while also setting it to a range of values, tap the **down arrow** next to the yellow **Learn** button, and then check the **Range** box. While Learn is engaged (step 4 above), adjust the parameter to the low and high points of the value range that you want to control. When the assignment is locked in, the macro will control the parameter in the set value range.

To use a single macro to, for example, mute/unmute multiple tracks at the same time, tap the **down arrow** next to the yellow **Learn** button, and then check the **Toggle** box. Repeat the steps above to learn a parameter, which will toggle on/off when the control is touched or moved.

To use a macro to send the max value of a parameter, tap the **down arrow** next to the yellow **Learn** button, and then check the **Trigger** box. Repeat the steps above to learn a parameter, which will send its maximum value when the control is touched or moved.



Alternatively, you can add parameters by tapping the **learn add** (+) button, and then using the menu that appears to select a parameter from your project. The following parameters are available, depending on the selected Mode and the tracks in your project:

When an **Audio Track** is selected:

Mixer: Volume, Pan, Mute, Solo, Send 1–4

Insert 1–4: Available parameters depending on the effect

When a **Drum Track** is selected, and **Parameter** is set to **Track**:

Mixer: Volume, Pan, Mute, Solo, Send 1–4

Edit: Master Semi Tune, Master Fine Tune

Insert 1–4: Off, other available parameters depending on the effect

When a **Drum Track** is selected, and **Parameter** is set to **Pad**:

Mixer: Pan, Level, Send 1–4, Pad Mute, Pad Solo

Edit:

Tuning	Amp Env Sustain	Layer Semi Tune (1–4)	LFO to Amp	Velocity to Pan
Filter Cutoff	Filter Env Attack	Layer Fine Tune (1–4)	LFO to Pan	Layer Direction (1–4)
Filter Resonance	Filter Env Hold	Velocity to Start	LFO Wave	Layer Offset (1–4)
Filter Env Amount	Filter Env Decay	Vel to Filter Attack	LFO Rate	
Amp Env Attack	Filter Env Sustain	Velocity to Env Amount	LFO Sync	
Amp Env Decay	Filter Env Release	Velocity to Filter	Velocity to Pitch	
Amp Env Release	Layer Level (1–4)	LFO to Pitch	Vel to Volume Attack	
Amp Env Hold	Layer Sample Pan (1–4)	LFO to Filter	Velocity to Amp	

Insert 1–4: Off, other available parameters depend on the effect

When a **Keygroup Track** is selected, and Parameter is set to **Track**:

Mixer: Volume, Pan, Mute, Solo, Send 1–4

Edit: Master Semi Tune, Master Fine Tune

Insert 1–4: Available parameters depending on the effect

When a **Keygroup Track** is selected, and Parameter is set to **Keygroup**:

Mixer: Pan, Level, Send 1–4, Pad Mute, Pad Solo

Insert 1–4: Available parameters depending on the effect

When a **Plugin Track** is selected:

Mixer: Volume, Pan, Mute, Solo, Send 1–4

Track: Available parameters depending on the plugin

Insert 1–4: Available parameters depending on the effect

When a **MIDI Track** is selected:

MIDI CC: Standard MIDI control change assignments

When a **CV Track** is selected:

Edit: CV Out 1–4

When a **Return** is selected, the following options are available:

Mixer: Volume, Pan, Mute

Insert 1–4: Available parameters depend on the effect

When a **Submix** is selected, the following options are available:

Mixer: Volume, Pan, Mute

Insert 1–4: Available parameters depend on the effect

When a **Master** is selected, the following options are available:

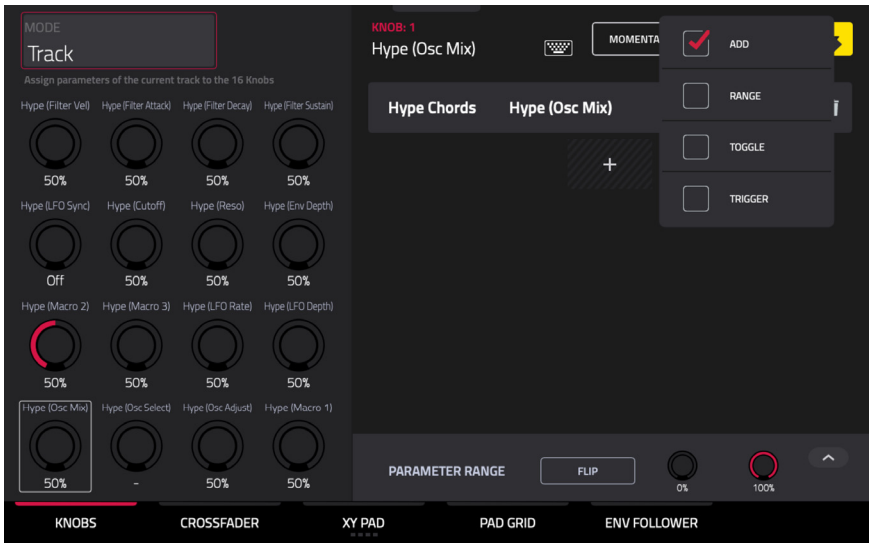
Mixer: Volume, Pan, Mute

Insert 1–4: Available parameters depend on the effect

To copy an existing macro assignment:

1. Tap the **learn add (+)** button to open the parameter menu.
2. Select **Copy Existing Macro**.
3. To replace the current macro settings with the copied macro settings, select **Replace**.
4. To merge the current macro settings with the copied macro settings, select **Merge**.
5. Use the menu to select the existing macro you would like to copy.

Note that you can copy between different macro control types, such as knobs and crossfader.



Tap the **Momentary** button to turn momentary behavior on or off.

When **on**, moving the knob will adjust its parameter, but the parameter will immediately return to its original position (when you turned Momentary on) when you release the knob.

When **off**, moving the knob will adjust its parameter, and the parameter will remain at its new setting when you release the knob.

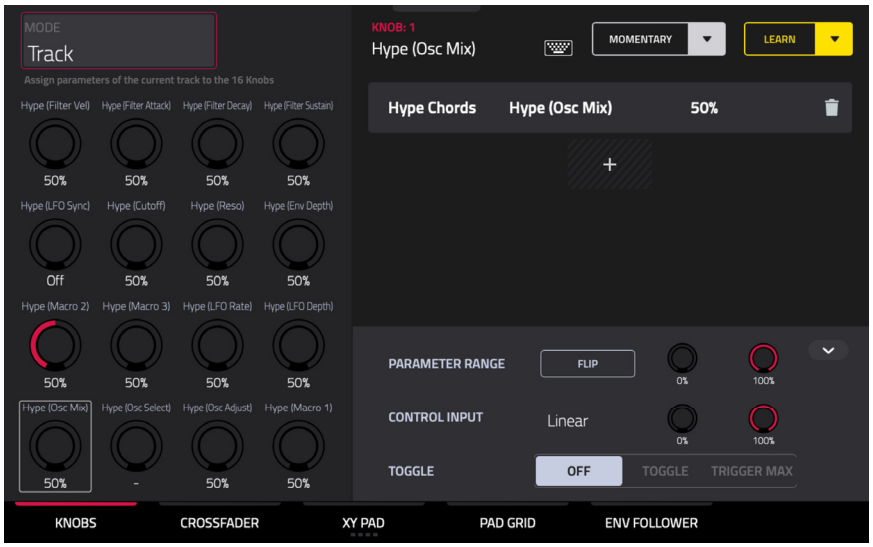
Tap the **arrow** next to the Momentary to adjust additional settings for when the macro control is released:

To revert the macro parameter(s) to its minimum value on release, check the **Go to Minimum** box.

To revert to the last value state before the macro was changed on release, check to **Go to Previous** box.

To rename a macro, tap the **keyboard icon** in the toolbar, and then use the keyboard to enter a new name.

Editing Macro Assignments



Above the Macro control tabs on the right side of the touchscreen, the collapsible parameter inspector displays the settings for the currently selected learned parameter assignment. These settings can be edited for further customization of the macro.

To edit the parameters assigned to a macro:

1. Tap the macro control on the left side of the screen, or touch or move the control on the Force, to select it.
2. Tap the learned parameter that you would like to adjust on the left side of the screen so it is highlighted gray.
3. Use the parameter inspector to view and adjust the settings for the assignment. Tap the **arrow** to view additional settings.

    To reverse the polarity of the knob, tap the **Flip** button.

    To adjust the minimum and maximum values sent by the knob, use the two **Parameter Range** knobs.

    To set the response curve of the macro, use the **Control Input** field to select **Linear**, **Logarithmic** or **Exponential**. Use the knobs next to this field to set the percentage of the control that will be active.

    To adjust the behavior of the macro, use the **Toggle** selector. When set to **Off**, moving the control sends a continuous range of values. When set to **Toggle**, moving the control toggles between the minimum and maximum values set above. When set to **Trigger Max**, moving the control always send the maximum value.

To remove a parameter assignment, tap the **trash can** icon. If all parameters are removed, the macro will no longer appear.

You can also quickly edit macro controls using the hardware **Edit Buttons**:

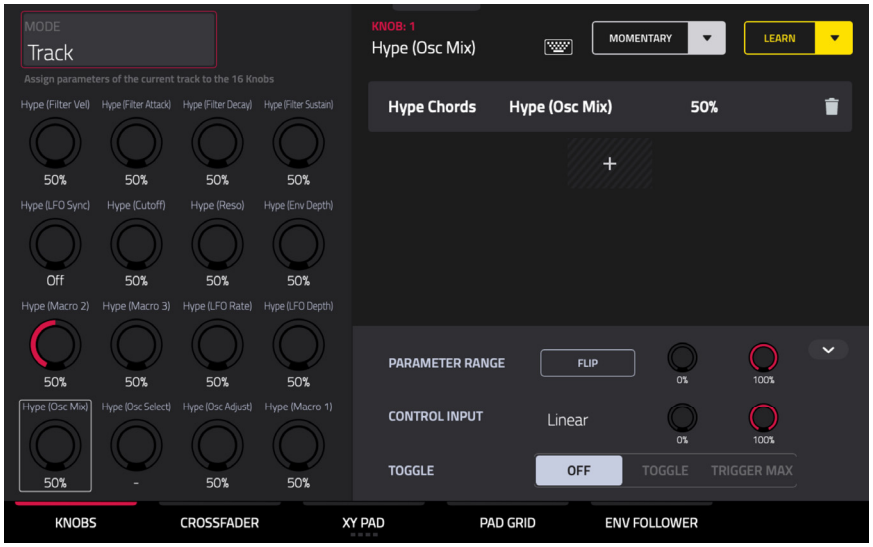
To edit an existing macro, press and hold the **Edit** button and then select the macro.

To copy and existing macro to a new macro, press and hold **Copy** to copy the source macro. Then, tap or press the control where you would like to paste the macro assignment.

To delete an existing macro, press and hold **Delete** and tap or press the macro control.

Knobs

In this tab, you can view and/or edit Knob macro assignments, depending on the **Mode** selected.

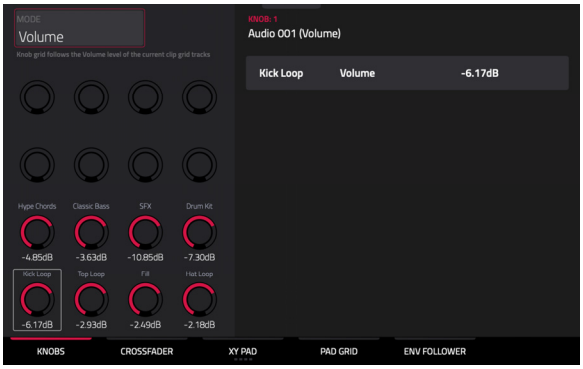


To enter Knobs mode, do either of the following:

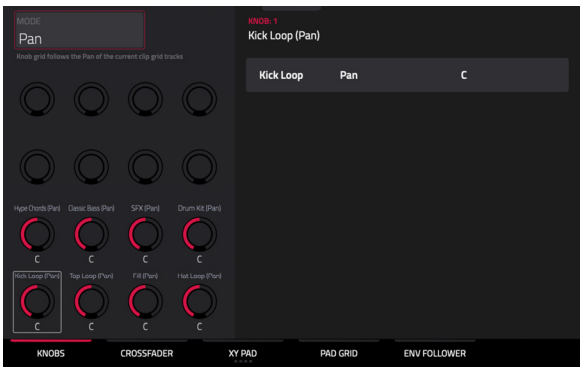
- In Macros Mode, tap the **Knobs** button at the bottom of the screen.
- Press and hold **Edit** and then tap a knob.

To select a mode for the knobs, use the **Mode** field at the top of the display to select one of the following options:

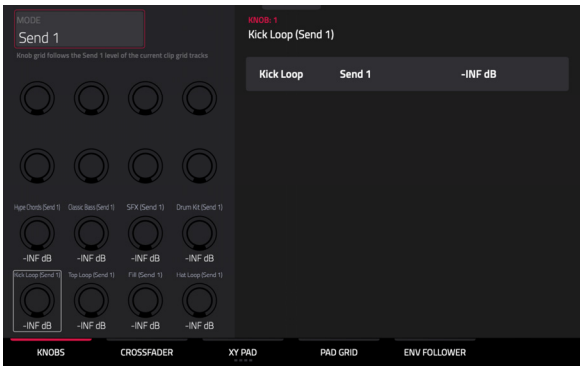
Volume: In this mode, the knobs are fixed to control track volume.



Pan: In this mode, the knobs are fixed to control track panning.



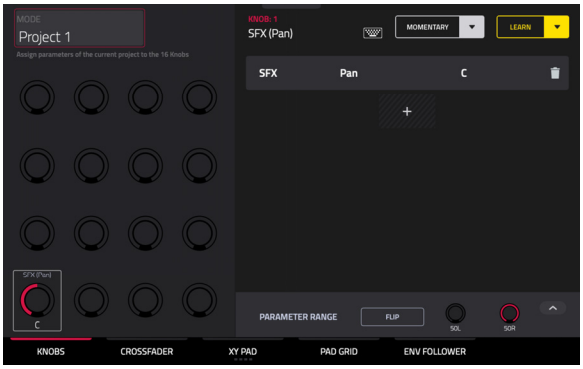
Send 1–4: In these modes, the knobs are fixed to control track send level.



Project 1–2: In these edit modes, the knobs can control 16 parameters within the current project overall.

To learn a project parameter to a knob, follow the directions ***above***. Any available parameter, including Track, Pad, Keygroup, Insert, Return, Submix or Master parameters, can be selected as part of a macro control.

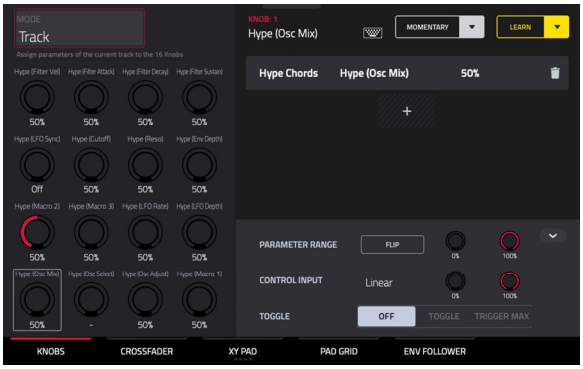
To edit a learned parameter, follow the directions ***above***.



Track: In this edit mode, the knobs can control 16 track parameters.

To learn a track parameter to a knob, follow the directions ***above***. Only parameters for the current track, any Pads or Keygroups on the current track, or any Inserts on the current track can be selected as part of a macro control. This does not include Return, Submix or Master parameters.

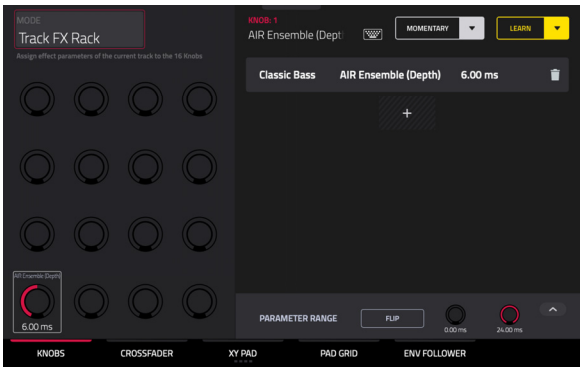
To edit a learned parameter, follow the directions ***above***.



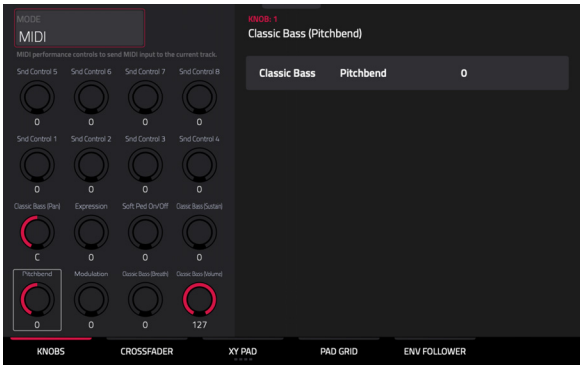
Track FX Rack: In this edit mode, the knobs can control 16 FX Rack parameters. The assignments can be saved as part of an FX Rack preset.

To learn a track FX rack parameter to a knob, follow the directions ***above***. Only parameters available in the currently selected track's Insert effects can be selected as part of a macro control.

To edit a learned parameter, follow the directions ***above***.



MIDI: In this mode, the knobs are fixed to a selection of MIDI performance controls, allowing you to control modulation, pitch bend, sustain and other common MIDI messages as you play.



Screen: In this mode, the knobs are fixed to control a parameter or group of parameters in your currently selected mode (e.g., Pad Mixer, Sample Edit Mode, etc.).

At any time, in any mode, you can show the **Knobs** window over the screen's current contents. This lets you quickly select between the knob modes.

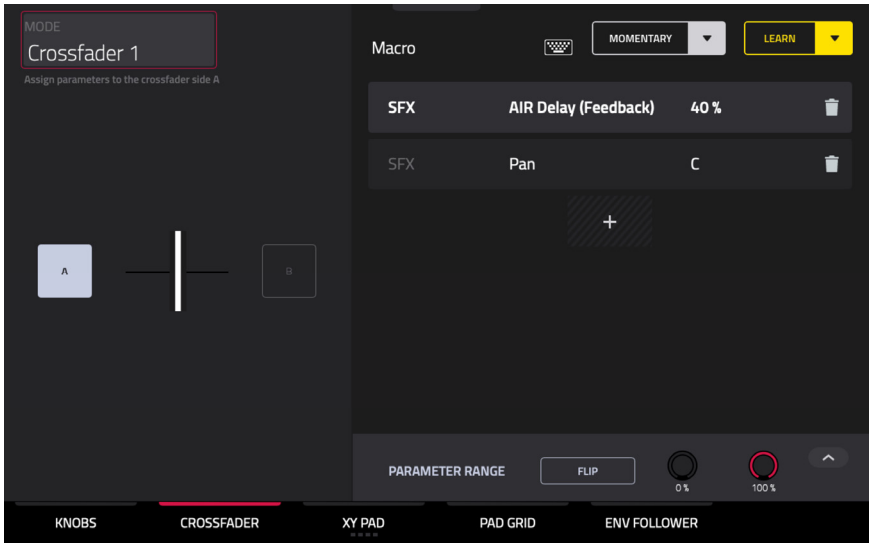
To show the Knobs window, press and hold the **Knobs** button.

To select a knob mode, tap the respective icon: **Volume**, **Pan**, **Sends 1–4**, **Project 1–2**, **Track**, **Track FX Rack**, **MIDI** or **Screen**.

To close the Knobs window, release the **Knobs** button.

Crossfader

In the Crossfader tab, you can learn any automation parameter from within your project to Force's Crossfader.



To enter Crossfader mode, do either of the following:

- In Macros Mode, tap the **Crossfader** button at the bottom of the screen.
- Press and hold **Edit** and then press **Assign A** or **Assign B**.

There are 16 available crossfader scenes, which can be selected using the **Mode** field at the top left of the screen. Each scene can be assigned to one or more parameters.

> **To change crossfader scenes directly from the hardware,** press and hold **Assign A** and then press **Assign B** to move to the next scene. To move to the previous scene, press and hold **Assign B** and then press **Assign A**.

To learn a parameter to the crossfader:

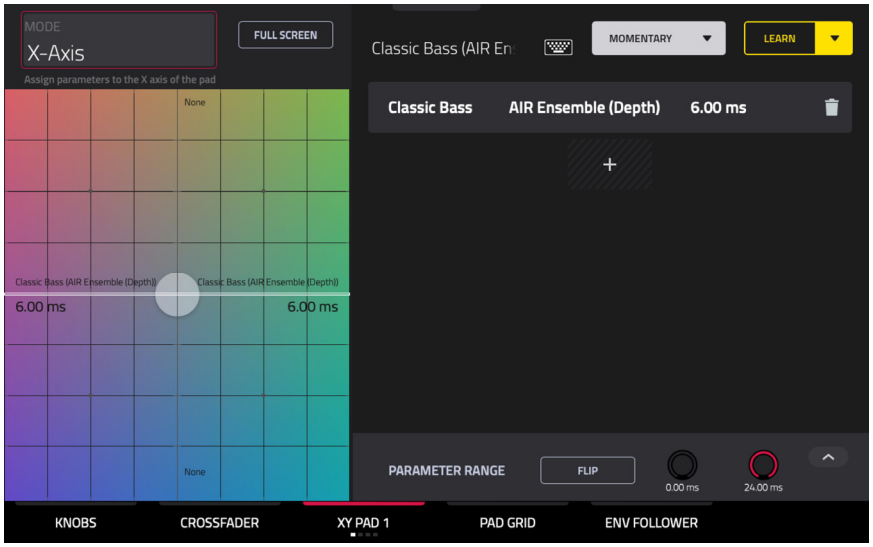
1. Make sure Force is not currently in playback.
2. Select the parameter you would like to assign to the crossfader. Any available parameter, including Track, Pad, Keygroup, Insert, Return, Submix or Master parameters, can be selected as part of a macro control.
3. Hold down either the **Assign A** or **Assign B** buttons on Force, and then move any parameter on the touchscreen. When holding **Assign A**, the parameter will be assigned to the crossfader with the minimum value to the left side and the maximum value to the right side. When holding **Assign B**, the parameter will be reversed with the maximum value on the left side and the minimum value on the right side.

To edit the crossfader assignment, press and hold **Edit** and then press **Assign A** or **Assign B**. This will take you to the **Crossfader** tab of the **Macros** page, where you can use the instructions ***above*** to edit the assignment.

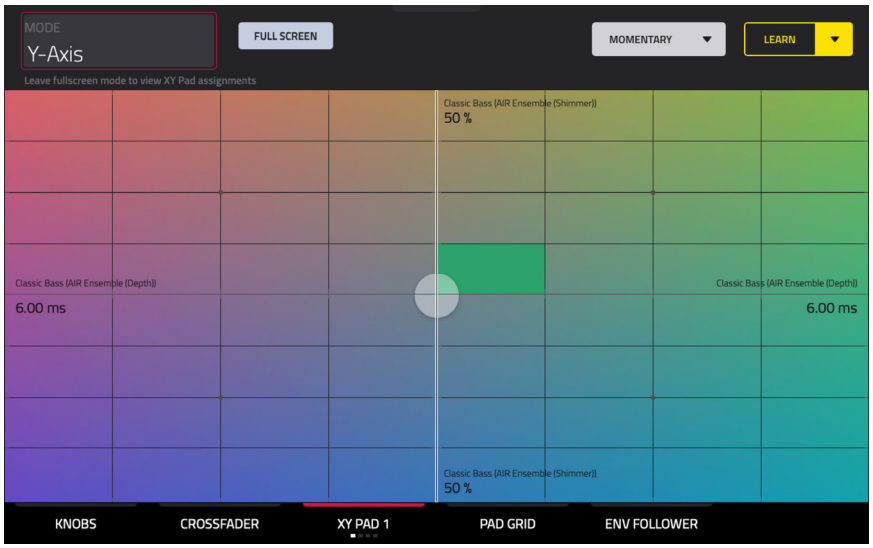
XY Pad

In the **XY Pad** tab, you can learn any automation parameter from within your project to one of four assignable XY Pads.

To cycle between the four available XY Pad assignments, tap the **XY Pad** tab.



Use the **Mode** field at the top left of the touchscreen to select the part of the XY Pad that you would like to assign parameters to. This functions like a collection of different macros, allowing you to assign parameters to the X-Axis, Y-Axis, Columns 1–8, Rows 1–8, or even different to the axes of the Quadrants in the XY Pad.

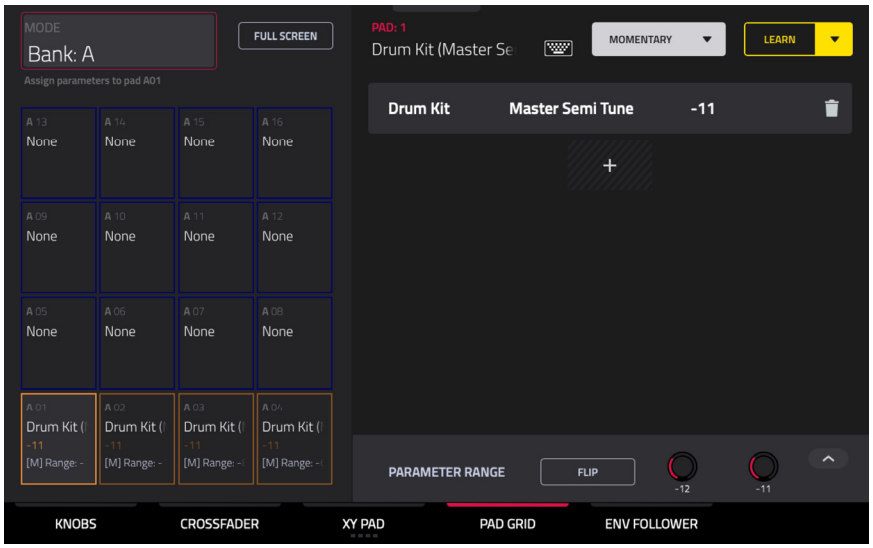


Use the **Full Screen** button to make the current XY Pad fill the entire screen.

To learn a parameter to the XY Pad, follow the directions ***above***.

Pad Grid

In the **Pad Grid** tab, you can learn any automation parameter from within your project to Force's pad matrix. Assigning automation parameters to the pads gives you a more performative way of controlling effects and mixer parameters. For example, you can assign a pad to mute a group of tracks, or to toggle insert effects on and off.



Use the **Mode** field at the top left of the touchscreen to select the pad **Bank** to assign parameters to.

Use the **Full Screen** button to make the current pad **Bank** fill the entire screen.

To access the Pad Grid macros directly from the hardware, do any of the following:

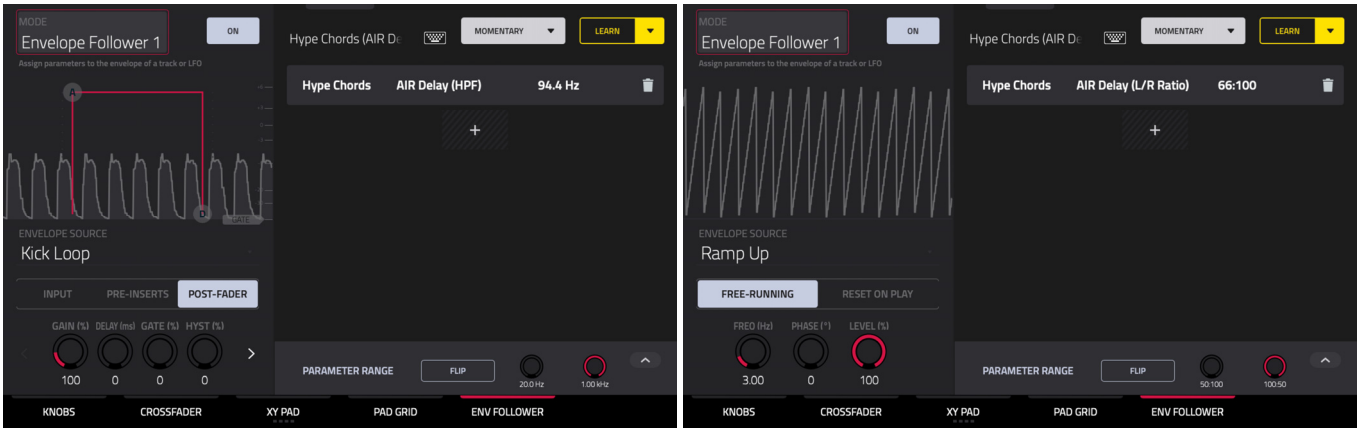
- Press and hold the **Knobs** button, and then press the **Launch/Config** button to split the pad matrix between launching clips and triggering the Pad Grid macros.
- Press and hold the **Knobs** button, and then press the **Notes/Config** button to split the pad matrix between playing notes and triggering the Pad Grid macros.
- Press and hold the **Knobs** button, and then press the **Launch/Config** and **Notes/Config** buttons at the same time to split the pad matrix between launching clips in the top quadrants and playing notes and triggering the Pad Grid macros in the bottom quadrants.

When the Pad Grid macros are active in the pad matrix, you can use the **Edit** buttons to edit, copy and delete macros from these controls directly from the hardware.

To learn a parameter to the pad grid, follow the directions ***above***.

Env Follower

In the **Env Follower** tab, you can use an audio signal (such as a kick drum) as a control signal to create side-chain or modulation effects.



There are 16 available envelope followers, which can be selected using the **Mode** field at the top left of the touchscreen.

Tap the **On** button next to the Mode field to enable or disable the envelope.

Use the **Envelope Source** field to select the audio signal that will be used as the control signal for the envelope. This can be audio from a track, or, if you choose a Drum track, audio from a specific pad. You can also select the **Returns**, **Submixes**, and **Master** tracks, as well as dedicated **LFO** (low frequency oscillator) shapes.

After selecting the Envelope Source, you can use the additional fields on the left side of the touchscreen to configure the envelope parameters. The available parameters when a track, pad or keygroup is selected as the Envelope Source are as follows:

Use the selector below the Envelope Source field to set where the envelope is applied:

- **Input:** The envelope is applied at the audio input source. This option is not available for individual Pads or Keygroups.
- **Pre-Inserts:** The envelope is applied before any insert effects.
- **Post-Fader:** The envelope is applied at the end of the channel strip after any insert effects and after the set volume level.
- **Playback:** The envelope is applied on playback of the selected track. This option is only available for MIDI and CV tracks.

Use the knobs below the envelope selector to adjust the parameters of the envelope. Tap the arrows to move between the pages of parameters when applicable.

- **Gain (%)** adjust the amount of gain applied to the envelope.
- **Delay (ms)** adjusts the amount of delay in milliseconds after which the envelope is triggered.
- **Gate (%)** adjusts the amount of gate applied to the envelope
- **Hyst (%)** adjusts the level at which the gate closes after opening.
- **Attack** adjusts the amount of attack for the envelope gate. This can also be adjusted by tapping and dragging the **A** handle in the envelope display.
- **Decay** adjusts the amount of decay for the envelope gate. This can also be adjusted by tapping and dragging the **D** handle in the envelope display.

When **LFO** is selected as the Envelope Source, the available parameters are as follows:

Use the selector to configure how the LFO is applied to the envelope. Select **Free-Running** for the LFO to continue even when not triggered, or select **Reset On Play** for the LFO to revert to its starting configuration when triggered.

Use the knobs below the selector to adjust the parameters of the LFO:

- **Freq (Hz)** adjusts the frequency, in Hertz, of the LFO.
- **Phase (º)** adjust the starting phase of the LFO.
- **Level (%)** adjusts the amount of LFO applied.

When the LFO envelope is engaged, you will see a representation of the LFO signal.

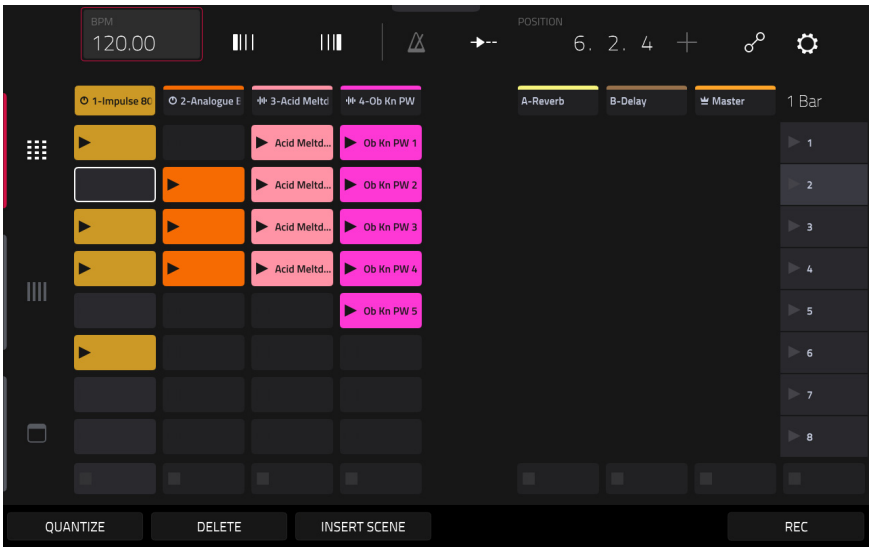
Once you have configured the envelope follower source, use the right side of the screen to select the parameter(s) that it will modulate using the same directions as ***above***.

Live Control Mode

In Ableton Live Control Mode, Force's screen will show a dynamic representation of the Ableton Live software. See ***Addenda > Updates in Force 3.0.4 > New Features > Ableton Live Control*** for more information on how to get started with Live Control Mode.

To open Live Control mode, press **Menu** on your Force and then tap **Live Control**. Alternatively, hold **Shift** and press **Matrix**.

To exit Live Control mode, press **Menu** on your Force and then select another mode. Alternatively, hold **Shift** and press **Matrix** to return to Matrix mode.



Live Control Mode consists of three main views, which can be selected by tapping the tabs on the left side of the display: ***Matrix View***, ***Mixer View*** and ***Device Control View***. Click the links to jump to that section.

In each of these modes, you will always have access to the following controls and functions on the display:

Tap a track name to select it.

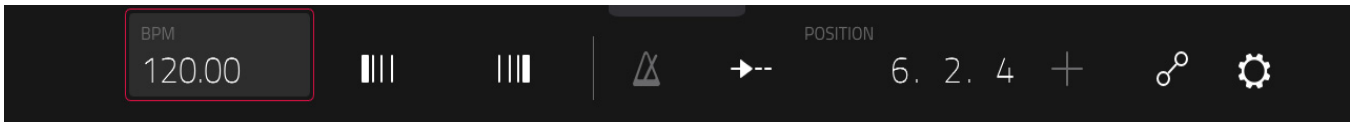
Tap the **stop icons** at the bottom of the display to stop clips in the selected track.

Tap the **Launch Quantize** field (above the scene launch arrows) to set the **Launch Quantize** value.

Tap the **Scene Launch arrows** on the right side of the display to launch all clips in that row.

Additionally, Force's hardware controls are pre-mapped to give you hands-on control of parameters and functions. See ***Control Map*** for the complete mapping.

Control Bar



At the top of the interface is the **Control Bar**. This toolbar can be configured to one of three presets based on typical Ableton Live use cases in the **Settings** window.

To open the Settings window, tap the **gear icon** in the top-right corner of the display.

Use the **Control Bar** field to select one of the three preset configurations: **Settings**, **Arrangement** or **Performance**.

- **Session:** The Session View configuration is ideal for working in Ableton Live's 8x8 clip launch matrix.

  Use the **BPM** field to adjust the tempo in Ableton Live.

  Tap the **Phase Nudge Down** and **Phase Nudge Up** icons to temporarily decrease or increase the tempo in Ableton Live.

  Tap the **metronome icon** to enable to disable the metronome in Ableton Live.

  Tap the **follow icon** to turn following on or off. When set to on, your Ableton Live software display will move along with playback to keep the current playback position in view. You can adjust the **Follow Behavior** in Ableton Live's Preferences.

  Use the **Position** field to select the playback position.

  Tap the **+ icon** to enable or disable MIDI Arrangement Overdubbing.

  Tap the **automation icon** to enable to disable automation recording.

- **Arrangement:** The Arrangement configuration is ideal for working with Ableton Live's linear Arrangement view.

  Use the **BPM** field to adjust the tempo in Ableton Live.

  Use the **Position** field to select the playback position.

  Use the **Start** field to select the Arrangement loop start point.

  Tap the **loop icon** to enable or disable Arrangement looping.

  Use the **Length** field to select the Arrangement loop length.

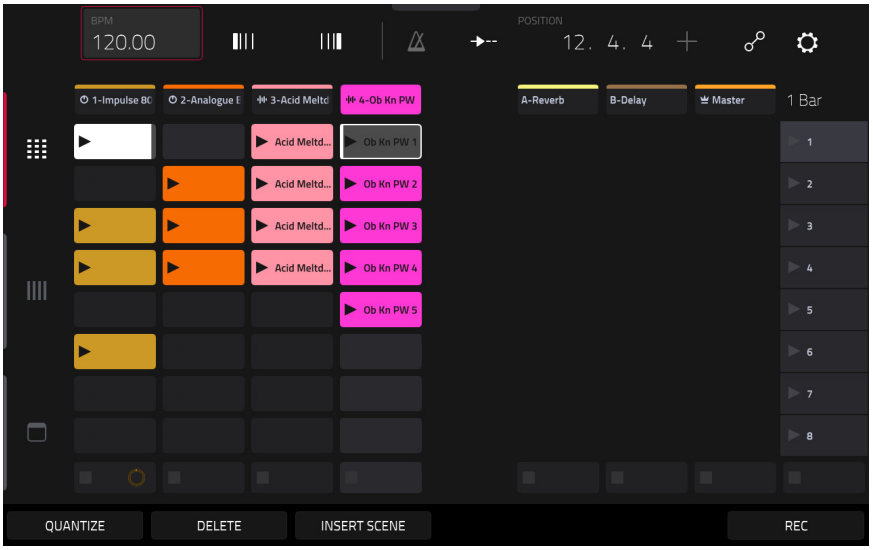
- **Performance:** The Performance configuration is ideal for real-time performance with Ableton Live.

  Use the **BPM** field to adjust the tempo in Ableton Live.

  Tap the **Phase Nudge Down** and **Phase Nudge Up** icons to temporarily decrease or increase the tempo in Ableton Live.

Use the **Quantize To** field to set the time division for quantization: **1/4**, **1/8**, **1/8T**, **1/8 and 1/8T**, **1/16**, **1/16T**, **1/16 and 1/16T** or **1/32**.

Matrix View



The Matrix View provides an overview of the clip matrix from Ableton Live's Session view, displaying up to eight tracks and eight rows of clips. The tracks displayed on Force will be shown in Ableton Live with a colored box outline.

Use the **cursor** buttons to move the Matrix view by one row or column at a time.

Press the **Master** button to select the Master track. This will also bring the Master and Sends tracks into view if they are not already.

All tracks, clips and scenes will display the same color and names as assigned in Ableton Live. The clip launch pads on Force will also change color depending on the playback or recording state:

When a clip is stopped, it will display the color set in Ableton Live on both the hardware pads and display.

When a clip is playing, the hardware pad will blink green, and the clip on the display will fill with white based on the clip length.

When a clip is preparing to record, it will flash red on both the hardware pads and display until the launch quantization value is reached.

When a clip is recording, it will blink red on the hardware pads and be lit red on the display.

You can also access the following controls and features by tapping the buttons at the bottom of the display:

Tap **Quantize** at the bottom of the screen to quantize the currently selected clip according to the **Quantize To** value (set in the Ableton Live Control ***Settings***).

Tap **Delete** at the bottom of the screen to delete the currently selected clip.

Tap **Insert Scene** at the bottom of the screen to insert a new scene after the currently selected clip.

Tap **Rec** at the bottom of the screen to enable or disable Ableton Live's Arrangement Record. Use this to capture your Session performance into the Arrangement view.

Mixer View

The Mixer View gives you control of Ableton Live's key mixing features, such as levels, stereo panning, sends and returns and more. Use the tabs at the bottom of the display to select what information is shown on Force's display.

- **Levels:** The Levels tab gives you an overview of the volume level of your tracks, including the Returns and the Master track.

  Tap a **level slider** and then use the **data dial** or **–/+** buttons to adjust the volume level of the currently selected track, return or master. Alternatively, tap and drag a **level slider** to adjust the volume level.

  The level sliders and meters in each pad show a visual representation of the level. Double-tap a **track** on the screen to open a large version of the level slider and meter.

- **Main:** The Main tab gives you a full channel strip with a number of mixing options for your tracks.

  Tap the **track activator** (under the track name) to enable or disable (mute) the track.

  Tap the **S** button to solo the track.

  Tap the **record button** to arm the track for recording.

  The **pan sliders** in each track show a visual representation of the pan. Tap a pan slider and then use the **data dial** or **–/+** buttons to adjust the panning of the currently selected track, return or master. Alternatively, tap and drag the **pan slider** to adjust the panning. Double-tap a pan slider on the screen to open a large version of the slider.

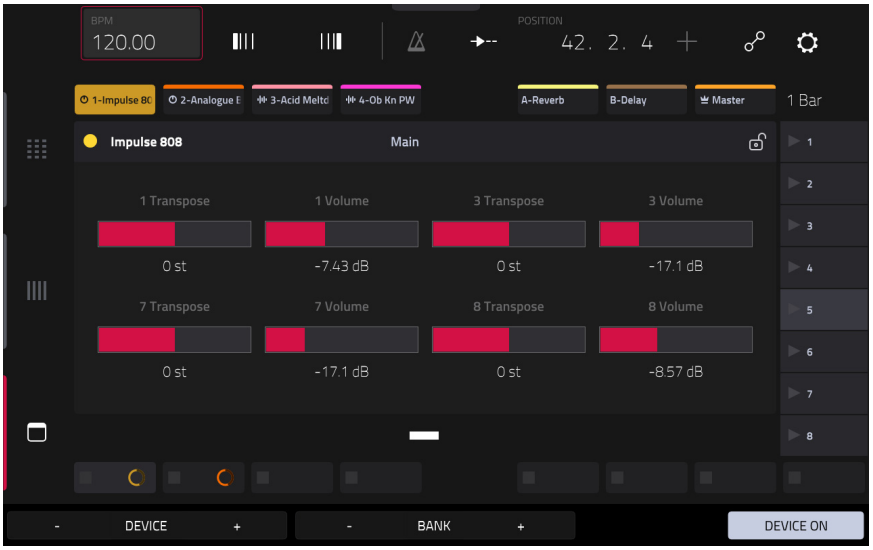
  Tap a **level slider** and then use the **data dial** or **–/+** buttons to adjust the volume of the currently selected track, return or master. Double-tap a level slider on the screen to open a large version of the slider. Alternatively, tap and drag a **level slider** to adjust the volume level.

- **Sends:** The **Sends** tab gives you an overview of the Send and Return controls in Ableton Live.

  Use the **send knobs** to adjust the send level of tracks. Tap the knob and use the **data dial** or **–/+** buttons to adjust the level. Alternatively, tap and drag the **send knob** to adjust the send level.

  Tap the **A** or **B** icons to assign the track to the Ableton Live's A or B cue mix.

Device Control View



The Device Control View allows you to control MIDI Instruments, Audio Effects and other Devices in Ableton Live directly from your Force. The current view of the Device Control Tab is determined by the "blue hand" remote control icon in Ableton Live's Detail View.

Tap the **Track Name** under the Control Bar to select the Track. If there is a Device(s) associated with the Track, the first will be shown below.

Tap the **lock icon** on the right side to lock parameter changes to the device.

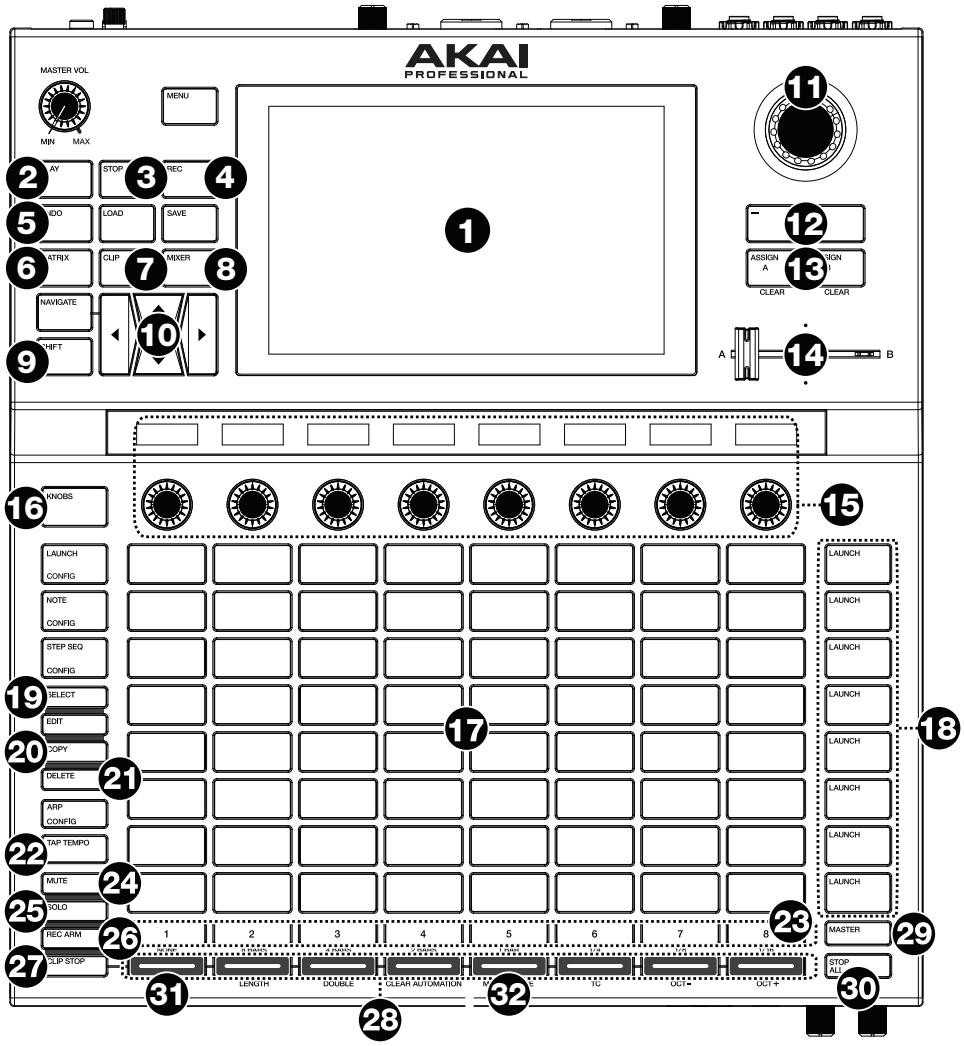
Use the **sliders** to adjust the parameters of the device. Tap a **slider** and then use the **data dial** or **–/+** buttons to adjust the parameter. Alternatively, tap and drag a **slider** to adjust the parameter.

Use the **Device –** and **+** buttons to change devices on the same track. The white and grey boxes below the parameter sliders represent the number of available Devices.

Use the **Bank –** and **+** buttons to cycle through banks of controls for the device, if available. For internal Ableton Live plugins, you will see the name of the current bank. For third party plugins, you will see the number of the current bank.

Tap **Device On** to enable or disable (bypass) the device.

Control Map



Basic Controls

#	Device Control	Ableton Live Function
1	Display	In Ableton Live Control Mode, Force's display will show a dynamic representation of Ableton Live's software.
2	Play	Start playback.
3	Stop	Stop playback.
4	Rec	Enable and disable Session Record.
5	Undo	Undo the last action.
6	Matrix	Opens the Ableton Clip Launch Matrix tab
7	Clip	Opens the Ableton Device Control tab
8	Mixer	Opens the Ableton Mixer tab.
9	Shift	Hold this button to access secondary button functions. See ***Shift Controls*** for more details.
10	Directional Cursors	Moves the 8x8 Session Matrix by one row or one column. The clip slots currently being controlled by Force's clip launch pad grid are shown in Ableton Live with a red border.
11	Data Dial	Adjusts the highlighted field.

#	Device Control	Ableton Live Function
12	-/+	Decreases or increases the value of the highlighted field.
13	Assign A / Assign B	Press and hold one of these buttons and then press a **Track Assign Button** to assign the track to one of Ableton Live's cue mixes.
14	Crossfader	Controls Ableton Live's crossfader to blend between Cue Mixes A and B.
15	Knobs	Adjusts the parameters displayed in the OLED screens above. Use the **Knobs Button** to toggle between **Knobs 1–8** (which control Track Level for the eight tracks currently viewed) and **Knobs 9–16** (which are mapped to control the device on the current track, based on the location of the "blue hand" in Ableton Live's Detail View).
16	Knobs Button	Toggles between **Knobs 1–8** and **Knobs 9–16**.
17	Clip Launch Pads	Force's pads are fixed to clip launching in Ableton Live Control Mode.
18	Launch Buttons	Launch all clips in the row.
19	Select	Press and hold this button and tap a clip to select it without launching it
20	Copy	Duplicates the selected clip into the next available clip slot.
21	Delete	Deletes the selected clip.
22	Tap Tempo	Tap this button at the desired rate to set a new tempo in Ableton Live.
23	Track Selectors	Select one of the current eight tracks. The selected track will be highlighted white.
24	Mute	Sets the Track Assign buttons to Mute for the current eight tracks.
25	Solo	Sets the Track Assign buttons to Solo/Cue for the current eight tracks.
26	Rec Arm	Sets the Track Assign buttons to Record Arm for the current eight tracks.
27	Clip Stop	Sets the Track Assign buttons to Stop Clips for the current eight tracks.
28	Track Assign	Performs the selected action (Mute, Solo, Rec Arm or Clip Stop) for the current eight tracks.
29	Master	Selects the Master track and Sends. Press again to return to the previously selected track.
30	Stop All	Stops all clips that are playing or recording.

Shift Controls: Press and hold Force's **Shift** button, and then press the following buttons for additional actions:

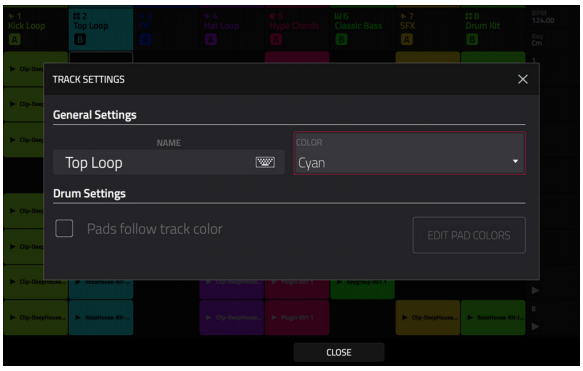
#	Device Control	Ableton Live Function
2	Play	Continue playback.
3	Stop	Stop playback and return song position to 1:1:1.
5	Undo	Redo the last action.
10	Directional Cursors	Moves the 8x8 Session Matrix by eight rows or eight columns.
23	Track Selectors	Sets the Global Launch Quantization to the value shown beneath the corresponding button. The current value will be lit white while Shift is held.
31	Quantize	Quantizes the currently selected clip to the grid value set by Force. To set this value, tap the Setting **gear icon** in the top-right of the display, then use the **Quantize To** field to set the value.
32	Metronome	Enable or disable Ableton Live's metronome.

Pad Color Mode

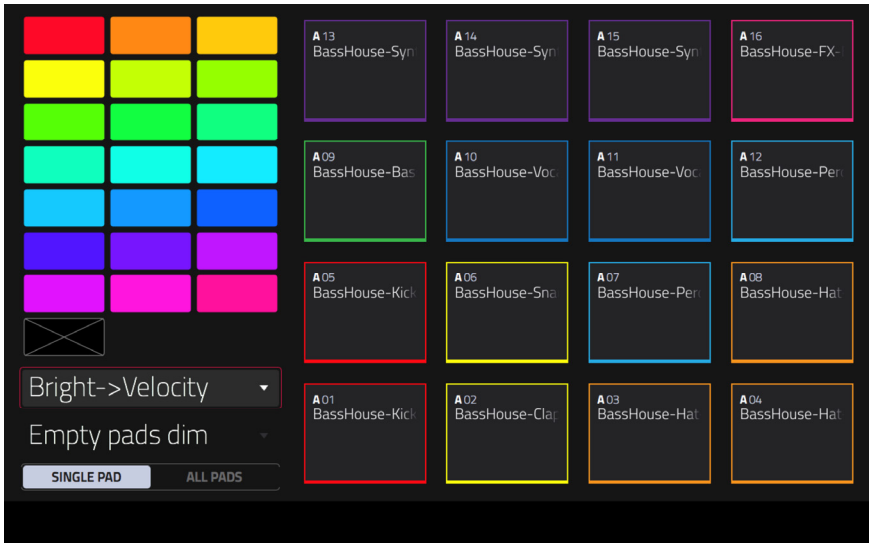
Pad Color Mode lets you assign specific colors to your pads in a drum track.

To enter Pad Color Mode:

1. Make sure you have first selected a drum track.
2. Enter **Matrix Mode** or the **Mixer**.
3. Double-tap on the track name at the top of the screen to open the **Track Settings** window.
4. Make sure the **Pads follow track color** button is unchecked. Then, tap the **Edit Pad Colors** button.



Important: If you are already in Pad Color Mode and want to assign pad colors for another track, exit Pad Color Mode first, and then select the track in another mode.



Use the field in the lower-left corner to set how the pad lights will display:

- **Off**: The pads will be unlit whether you are playing them or not.
- **Classic Velocity**: The pads will be unlit while you are not playing them. When you press them, they will light with colors according to the velocity: red indicates a high velocity, yellow indicates a low velocity.
- **Fixed**: The pads will be lit with their assigned colors whether you are playing them or not.
- **Off->Velocity**: The pads will be unlit when you are not playing them. When you press them, they will light with their assigned color with a brightness that corresponds with the velocity.
- **Dim->Velocity**: The pads will be dimly lit when you are not playing them. When you press them, they will light with their assigned color with a brightness that corresponds with the velocity.
- **Bright->Velocity**: The pads will be brightly lit when you are not playing them. When you press them, they will light with their assigned color with a brightness that corresponds with the velocity.

Use the **Empty Pads** field in the upper-left corner to set how empty pads will display:

- **Empty pads off**: Pads without any sounds will remain off.
- **Empty pads dim**: Pads without any sounds will remain more dimly lit than pads with sounds assigned.
- **Empty pads normal**: Pads without any sounds will appear the same as pads with sounds assigned.

Use the **Single Pad/All Pads** select to determine whether you are setting the color for a **Single Pad** or **All Pads**.

Tip: **To quickly assign that color to all pads in the track**, press and hold **Shift** while tapping a color button.

Use the **color buttons** to select which color you are assigning.

Tip: **To select the color button corresponding a specific pad's color**, press and hold **Shift**, and then press the pad or tap it on the screen.

Press a **pad** on your Force hardware or tap it on the screen to assign the selected color to it.

Appendix

Effects & Parameters

This chapter lists the available effects. To learn more about how effects work with Force, please see ***General Features*** > ***Effects***.

Note: Some of these effects have a "sync" version (e.g., **Flanger Sync**, **Autopan Sync**, etc.) whose rates will be affected by the current tempo. While viewing the rate of these effects, a "**.**" next to the time division indicates a triplet-based rate.

Reverbs

Options: ***AIR Non-Lin Reverb***, ***AIR Reverb***, ***AIR Spring Reverb***, ***Reverb Small***, ***Reverb Medium***, ***Reverb Large***, ***Reverb Large 2***, ***Reverb In Gate***, ***Reverb Out Gate***

AIR Non-Lin Reverb

This is a spatial effect, designed to produce synthetic, processed ambience with special gated and reversed reverb effects.

Parameter	Value Range	Default Value
Pre-Delay	0–250 ms	0 ms
Dry Delay	0–1500 ms	0 ms
Time	0–1000 ms	250 ms
Mix	0–100% (dry–wet)	50%
Diffusion	0–100%	100%
Width	0–100%	50%
Shape	Gated, Reverse	Gated
Low Cut	20.0 Hz–1.00 kHz	141 Hz
High Cut	1.00–20.0 kHz	9.46 kHz

AIR Reverb

This is a spatial effect, with a wide range of reverb types to add space or room to your audio signal.

Tab	Parameter	Values	Default Value
Reverb	Pre-Delay	0–250 ms	0 ms
	Room Size	0–100%	100%
	Time	0.4 ms – +inf s	1.9 s
	Mix	0–100%	50%
Early Reflection	Type	Off, Booth, Club, Room, Small Chamber, Medium Chamber, Large Chamber, Small Studio, Large Studio, Scoring Stage, Philharmonic, Concert Hall, Church, Opera House, Vintage 1, Vintage 2	Off
	Length	0–100%	100%
	ER / Tail Mix	0–100%	50%
Reverb	Input Width	0–100%	0%
	Output Width	0–100%	0%
	Delay	0–250 ms	0 ms
Room	Ambience	0–100%	0%
	Density	0–100%	100%
Hi/Lo Freq			
Hi Freq	Time	-100 – 0 – 100%	0%
	Freq	2.00 – 20.0 kHz	6.32 kHz
	Cut	1.0 – 20.0 kHz	9.46 kHz
Lo Freq	Time	-100 – 0 – 100%	0%
	Freq	20.0 Hz – 2.00 kHz	200 Hz
	Cut	1 – 1000 Hz	1 Hz

AIR Spring Reverb

This is a spatial effect, designed to emulate the sound of a spring reverb tank.

Parameter	Value Range	Default Value
Pre-Delay	0–250 ms	3 ms
Time	1.0–10.0 s	4.0 s
Mix	0–100% (dry–wet)	50%
Diffusion	0–100%	100%
Width	0–100%	0%
Low Cut	20.0 Hz –1.0 kHz	141 Hz

Reverb Small

This is a spatial effect, designed to emulate a small room.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Pre-Delay	1–100	50
Early Reflection	0–100	50
Density	0–100	50
Diffuse	0–100	50
Decay	0–100	50
Lo-Cut	0–100	15
Hi-Cut	0–100	10

Reverb Medium

This is a spatial effect, designed to emulate a medium room.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Pre-Delay	1–100	50
Early Reflection	0–100	50
Density	0–100	50
Diffuse	0–100	50
Decay	0–100	50
Lo-Cut	0–100	15
Hi-Cut	0–100	10

Reverb Large

This is a spatial effect, designed to emulate the sound of a large hall.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Pre-Delay	1–100	50
Early Reflection	0–100	50
Density	0–100	50
Diffuse	0–100	50
Decay	0–100	75
Lo-Cut	0–100	10
Hi-Cut	0–100	10

Reverb Large 2

This is a less CPU-intensive spatial effect, emulating the sound of a large hall.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Pre-Delay	1–100	50
Early Reflection	0–100	50
Density	0–100	50
Diffuse	0–100	50
Decay	0–100	75
Lo-Cut	0–100	10
Hi-Cut	0–100	10

Reverb In Gate

This is a hall reverb with an additional control. The reverb effect is cut off when the input drops below the level set in the **Gate In** parameter.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Pre-Delay	1–100	50
Early Reflection	0–100	50
Density	0–100	50
Diffuse	0–100	50
Decay	0–100	75
Lo-Cut	0–100	10
Hi-Cut	0–100	10
Gate In	0–100	0

Reverb Out Gate

This is a hall reverb that has an additional control. The reverb effect is cut off when the output drops below the level set in the **Gate Out** parameter.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Pre-Delay	1–100	50
Early Reflection	0–100	50
Density	0–100	50
Diffuse	0–100	50
Decay	0–100	75
Lo-Cut	0–100	10
Hi-Cut	0–100	10
Gate Out	0–100	0

Delays

Delays the original signal for a specified period of time and plays it back over an adjustable period of time.

Options: ***AIR Delay***, ***AIR Diff Delay***, ***Delay Mono***, ***Delay Mono Sync***, ***Delay Stereo***, ***Delay Sync (Stereo)***, ***Delay LP***, ***Delay HP***, ***Delay Analog***, ***Delay Analog Sync***, ***Delay Tape Sync***, ***Delay Ping Pong***, ***Delay Multi-Tap***

AIR Delay

Parameter	Value Range	Default Value
Time		
Sync Off	1 ms – 2.00 s	388 ms
Sync On	1/32 – 8/4	1/8D
Sync	Off, On	On
Feedback	0–100%	40%
Mix	0–100% (dry–wet)	50%
Delay Ratio	50:100–100:50	100:100
Delay HPF	20.0 Hz – 1.0 kHz	20.0 Hz
Delay Width	0–100%	100%
Feedback Damp	1.0 – 20.0 kHz	20.0 kHz
Feedback Reso	0–100%	0%
Fdbk. Reso Freq	100 Hz – 10.0 kHz	1.0 kHz

AIR Diff Delay

This is a delay line effect that is synchronized to your session tempo and uses an adjustable amount of diffusion to emulate the dissipation of echoes in reverberant space.

Parameter	Value Range	Default Value
Time	1/64 – 4/4 (including Triplet and Dotted variations)	1/16D
Mix	0–100% (dry–wet)	40%
Feedback	0–100%	50%
Fdbk. Diffusion	0–100%	40%
Fdbk. High Damp	0–100%	35%

Delay Mono

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	2–2000 ms	761
Feedback	0–100	51
Damping	0–100	100

Delay Mono Sync

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	1 bar – 1/16 triplets	1/4
Feedback	0–100	50
Damping	0–100	100

Delay Stereo

Stereo Delay operates similarly to Mono Delay but in true stereo.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	2–2000 ms	100
Feedback	0–100	25
Damping	0–100	100

Delay Sync

Stereo Sync Delay that operates similarly to Mono Sync Delay but in true stereo.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	1 bar – 1/16 triplets	1/4
Feedback	0–100	50
Damping	0–100	100

Delay LP

LP Delay is identical to the Mono Delay, but it uses a resonant low-pass filter in the delay line.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	2–2000 ms	500
Feedback	0–100	50
Cutoff	0–100	50
Resonance	0–100	20

Delay HP

HP Delay is identical to the Mono Delay, but it uses a resonant high-pass filter in the delay line.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	2–2000 ms	100
Feedback	0–100	50
Cutoff	0–100	33
Resonance	0–100	33

Delay Analog

Analog Delay is similar to the Mono Delay, except that it's designed to emulate an analog "Bucket Brigade"-style delay. This delay has a unique character to it that gives a warmer sound by adding subtle inaccuracies in phase and timing.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	2–2000 ms	100
Feedback	0–100	25

Delay Analog Sync

Analog Delay is similar to Mono Delay, except that it's designed to emulate an analog "Bucket Brigade"-style delay. This delay has a unique character to it that gives a warmer sound by adding subtle inaccuracies in phase and timing.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	1 bar – 1/16 triplets	1/4
Feedback	0–100	50
Ramp	0–100	50

Delay Tape Sync

Tape Delay emulates a delay system using an analog tape loop and a series of tape heads to produce an echo effect. This delay type yields a very distinct echo sound often heard in reggae and dub-style music.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	1 bar – 1/16 triplets	1/4
Feedback	0–100	50
Ramp	0–100	50
Head 1	0–100	100
Head 2	0–100	0
Head 3	0–100	0
Head 4	0–100	0
Tone	0–100	50
Spread	0–100	50
Wow & Flutter	0–100	50

Delay Ping Pong

This stereo delay allows you to set different delay times for its left and right repeats.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time, Left	2–2000 ms	100
Time, Right	2–2000 ms	100
Feedback	0–100	25
Damping	0–100	100

Delay Multi-Tap

This delay is a mono delay which has three delay generators with independently adjustable delay times and stereo position.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time 1	2–2000 ms	100
Time 2	2–2000 ms	100
Time 3	2–2000 ms	100
Feedback	0–100	25
Pan 1	0–100	50
Pan 2	0–100	50
Pan 3	0–100	50
Damping	0–100	100
Gain 1	0–100	25
Gain 2	0–100	25
Gain 3	0–100	25

Flangers

A flanger is a modulated delay to emulate the sound created when running two analog tape machines in parallel with a slight time misalignment. Slow **Rate** settings can produce a “whooshing” jet engine sound, while faster rates result in more of a “warble.”

Options: ***AIR Flanger***, ***Flanger***, ***Flanger Sync***

AIR Flanger

Parameter	Value Range	Default Value
Rate	0.02 – 10.00 Hz	0.40 Hz
Depth	0–100%	50%
Feedback	0–100%	50%
Mix	0–100% (dry–wet)	50%
Headroom	-20.0 – 0.0 dB FS	-10.0 dB FS

Flanger

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	0–100	10
Feedback	-100 – 100	0
Delay	0–100	20
Width	0–100	80

Flanger Sync

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	8 bars – 1/16 triplets	1/4
Feedback	-100 – 100	0
Delay	0–100	20
Width	0–100	80

Chorus

A chorus effect uses an LFO to modulate the pitch and a delay of the input signal, which are then added to the dry signal. In small amounts, this creates the illusion of multiple voices playing at once. Turn up the **Feedback** and **Depth** for more pronounced “shimmering” and “watery” sounds.

Options: ***AIR Multi-Chorus***, ***Chorus 2-Voice***, ***Chorus 4-Voice***

AIR Multi-Chorus

Parameter	Value Range	Default Value
Rate	0.01 – 10.0 Hz	1.00 Hz
Depth	0.00 – 24.00 ms	6.00 ms
Voices	3, 4, 6	4
Mix	0–100% (dry–wet)	50%
Chorus Low Cut	20.0 Hz – 1.00 kHz	20.0 Hz
Chorus Width	0–100%	100%
Mod Wave	Sine, Tri	Tri
Mod Delay	0.00 – 24.00 ms	6.0 ms

Chorus 2-Voice

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Delay	0–100	20
Amount	0–100	80
Width	0–100	80
Feedback	0–100	50
Rate	0–100	10

Chorus 4-Voice

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Delay	0–100	20
Amount	0–100	80
Width	0–100	80
Feedback	0–100	50
Rate	0–100	10

Autopans

This effect uses an LFO to move the incoming signal back and forth across the stereo field, creating a rotary effect.

Options: ***Autopan***, ***Autopan Sync***

Autopan

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Rate	0–100	50

Autopan Sync

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Rate	8 bars – 1/32	1/4

Tremolos

This effect uses an LFO to increase and decrease the volume of the signal. Depending on the LFO shape, this can produce a smooth wave effect (sine wave) or a stuttering “on-off” effect (square wave).

Options: ***Tremolo***, ***Tremolo Sync***

Tremolo

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	0–100	10
Sine to Square	0–100 (sine–square)	0

Tremolo Sync

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	1 bar – 1/16 triplets	1/4
Sine to Square	0–100 (sine–square)	0

Phasers

The phaser is a classic effect, created by multiple ganged all-pass filters to create “notches,” or sharp spikes, in the frequency spectrum. The frequencies of these all-pass filters are usually modulated by an LFO to create a sweeping sound.

Options: ***AIR Phaser***, ***Phaser 1***, ***Phaser 2***, ***Phaser Sync***

AIR Phaser

Parameter	Value Range	Default Value
Rate	0.10 – 10.00 Hz	1.00 Hz
Depth	0–100%	50%
Feedback	0–100%	0%
Mix	0–100% (dry–wet)	50%
Phaser Model	Vibe, Stone, Ninety, Tron,	Ninety
Offset		
Phase	-180 – +180 deg.	0 deg.
Rate	25–400%	100%
Type	Phase, Rate	Phase

Phaser 1

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	0–100	10

Phaser 2

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	0–100	10

Phaser Sync

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	1 bar – 1/16 triplets	1/4

HP (High-Pass) **Filters**

Options: ***HP Filter***, ***HP Filter Sweep***, ***HP Filter Sync***, ***HP Shelving Filter***

HP Filter

This effect is a static filter without modulation.

Parameter	Value Range	Default Value
Frequency	10–19999 Hz	1500
Resonance	0–100	0

HP Filter Sweep

This effect is a high-pass filter with its cutoff frequency modulated by an LFO.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	80
Low Frequency	0–100	50
High Frequency	0–100	100
Resonance	0–100	33
Rate	0–100	10

HP Filter Sync

This effect is a high-pass filter with its cutoff frequency modulated by an LFO.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Low Frequency	0–100	0
High Frequency	0–100	100
Resonance	0–100	50
Rate	8 bars – 1/32	1/4

HP Shelving Filter

This filter differs from the standard filter type, as it attenuates all frequencies after the cutoff point equally.

Parameter	Value Range	Default Value
Frequency	10–19999 Hz	1500
Resonance	0–100	0
Gain	-18.0 – 18.0 dB	0.0

LP (Low-Pass) **Filters**

Options: ***LP Filter***, ***LP Filter Sweep***, ***LP Filter Sync***, ***LP Shelving Filter***

LP Filter

This effect is a static filter without modulation.

Parameter	Value Range	Default Value
Frequency	10–19999 Hz	1500
Resonance	0–100	0

LP Filter Sweep

This effect is a low-pass filter with its cutoff frequency modulated by an LFO.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	80
Low Frequency	0–100	0
High Frequency	0–100	100
Resonance	0–100	33
Rate	0–100	10

LP Filter Sync

This effect is a low-pass filter with its cutoff frequency modulated by an LFO.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Low Frequency	0–100	0
High Frequency	0–100	100
Resonance	0–100	50
Rate	8 bars – 1/32	1/4

LP Shelving Filter

This filter differs from the standard filter type, as it attenuates all frequencies after the cutoff point equally.

Parameter	Value Range	Default Value
Frequency	10–19999 Hz	1500
Resonance	0–100	0
Gain	-18.0 – 18.0 dB	0.0

Filters (Other)

Options: ***AIR Filter Gate***, ***AIR Filter***

AIR Filter Gate

This effect chops your audio using a rhythmic gate effect and then applies a variable filter effect.

Parameter	Value Range	Default Value
Pattern	Straight, Pulse, Pumper, Marching, Fader, Offbeats, Off+Pan, L/R Pan, LL/RR Pan, Slow Pan, Rand Pan, Shorter, Longer, Reverse, Random, Keyed 1–2, Half Time, 12-Step, Ducked, Trance 1–6, Tech 1–6	Straight
Rate	1/2–1/32, including Dotted and Triplet	1/16
Swing	50.0–66.7%	50.0%
Mix	0–100%	100%
Filter Mode	Off, LP, BP, HP, Phaser	LP
Filter Cutoff	-100 – 0 – 100%	0%
Filter Reso	-100 – 0 – 100%	0%
Gate Attack	0–100%	25%
Gate Hold	0–100%	50%
Gate Release	0–100%	25%
Mod LFO Wave	Random; 2–12, 16, 24, 32, 48, 64, 96, 128, 192, 256 Steps	Random
Mod Env	-100 – 0 – 100%	0%
Mod LFO	0–100%	0%

AIR Filter

This effect is a high-pass filter with its cutoff frequency modulated by an LFO.

Parameter	Value Range	Default Value
Cutoff Freq	55.0 Hz – 20.0 kHz	20.0 kHz
Reso Factor	0.7 – 20.0	1.0
Type	LP4–1, BP2, BP4, HP2_LP1, HP3_LP1, HP4–1, BR2, BR4, BR2_LP1, BR2_LP2, HP1_BR2, BP2_BR2, HP1_LP2, HP1_LP3, AP3, AP3_LP1, HP1_AP3	LP4
Output Gain	-inf dB – 0.0 dB	0.0 dB
Saturation Type	Resample, Bit Crush, Rectify, Hard Clip, Distort, Overdrive	Overdrive
Saturation Drive	0.0 – 12.0 dB	0.0 dB
Saturation Mode	DCF, CVF	DCF

Parametric EQs

Options: ***AIR Para EQ***, ***PEQ 2-Band***, ***2-Shelf***, ***PEQ 4-Band***

AIR Para EQ

This effect is a powerful four-band parametric equalizer with four independent EQ ranges, adjustable Low and High EQ filter types, and dedicated Low Cut and High Cut.

Parameter	Value Range	Default Value
High Freq	1.2 – 20.0 kHz	6.00 kHz
High Q		
Shelf	0.40 – 2.00	1.00
Bell	0.40 – 10.00	1.00
High Gain		
Shelf	-12.0 – +12.0 dB	0.0 dB
Bell	-18.0 – 18.0 dB	0.0 dB
High Type	Shelf, Bell	Shelf
High Out/In	Out, In	
High Mid Freq	120 Hz – 16.0 kHz	2.00 kHz
High Mid Q	0.40 – 10.00	1.00
High Mid Gain	-18.0 – 18.0 dB	0.0 dB
High Mid Out/In	Out, In	
Low Mid Freq	40.0 Hz – 16.00 kHz	247 Hz
Low Mid Q	0.40 – 10.00	1.00
Low Mid Gain	-18.0 – 18.0 dB	0.0 dB
Low Mid Out/In	Out, In	
Low Freq	20.0 Hz – 1.00 kHz	100 Hz
Low Q		
Shelf	0.40 – 2.00	1.00
Bell	0.40 – 10.00	1.00
Low Gain		
Shelf	-12.0 – +12.0 dB	0.0 dB
Bell	-18.0 – 18.0 dB	0.0 dB
Low Type	Shelf, Bell	Shelf
Low Out/In	Out, In	
Output	-20.0 – +20.0 dB	0.0 dB
High Cut Freq	120 Hz – 20.0 kHz	20.0 kHz
High Cut Type	6, 12, 18, 24 dB	12 dB
High Cut Out/In	Out, In	
Low Cut Freq	20.0 Hz – 8.00 kHz	100 Hz
Low Cut Type	6, 12, 18, 24 dB	12 dB
Low Cut Out/In	Out, In	

PEQ 2-Band, 2-Shelf

This effect is a combination of one two-band parametric equalizer and two shelving filters.

Parameter	Value Range	Default Value
Low Frequency	22–1000 Hz	220
Frequency 1	82–3900 Hz	820
Frequency 2	220–10000 Hz	2200
High Frequency	560–19999 Hz	5600
Q1	0–100	0
Q2	0–100	0
Low Gain	-18.0 – 18.0 dB	0.0
Gain 1	-18.0 – 18.0 dB	0.0
Gain 2	-18.0 – 18.0 dB	0.0
High Gain	-18.0 – 18.0 dB	0.0

PEQ 4-Band

This effect is a powerful four-band parametric equalizer with four independent EQ ranges.

Parameter	Value Range	Default Value
Low Frequency	22–1000 Hz	220
Frequency 1	82–3900 Hz	820
Frequency 2	220–10000 Hz	2200
High Frequency	560–19999 Hz	5600
Q1	0–100	5
Q2	0–100	5
Q3	0–100	5
Q4	0–100	5
Gain 1	-18.0 – 18.0 dB	0.0
Gain 2	-18.0 – 18.0 dB	0.0
Gain 3	-18.0 – 18.0 dB	0.0
Gain 4	-18.0 – 18.0 dB	0.0

Distortions

Options: ***AIR Distortion***, ***AIR Tube Drive***, ***Distortion Amp***, ***Distortion Fuzz***, ***Distortion Grimey***, ***Distortion Overdrive***, ***Distortion Custom***

AIR Distortion

This effect is a multi-type distortion that adds color to your audio signal.

Parameter	Value Range	Default Value
Mode	Hard, Soft, Wrap	Hard
Drive	0 – 60 dB	15 dB
Output	0–100%	100%
Mix	0–100% (dry-wet)	100%
Tone Pre-Shape	-100 – 0 – +100%	0%
Tone High Cut	1.00 – 20.0 kHz	20.0 kHz
Stereo	On, Off	Off
Clipping Thresh.	-20.0 – 0.0 dB FS	-10.0 dB FS
Clipping Edge	0–100	0%

AIR Tube Drive

This effect is designed to reproduce the sound of an overdriven tube amplifier.

Parameter	Value Range	Default Value
Drive	0–100%	0%
Headroom	-30.0 – 0.0 dB	-15.0 dB
Saturation	0–100%	50%
Output	-20.0 – +20.0 dB	0.0 dB

Distortion Amp

This effect is designed to reproduce the sound of a tube amplifier at high volumes.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Drive	0–100	50
Tone	0–100	50
Dynamics	0–100	50
Output	0–100	26

Distortion Fuzz

This popular effect uses hard clipping of the audio signal, which, at extreme settings, can turn a standard waveform into a square wave, producing a “razor” effect.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Drive	0–100	50
Output	0–100	50
Low	0–100	50
Low-Mid	0–100	50
High-Mid	0–100	50
High	0–100	50

Distortion Grimey

This is a unique distortion effect that distorts a frequency range in a selectable band.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Drive	0–100	50
Grime	0–100	50
Center	0–100	50
Width	0–100	50
Resonance	0–100	50
Output	0–100	50

Distortion Overdrive

This distortion is designed to sound like a mildly distorting amplifier at medium volumes. It is the smoothest distortion type available.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Drive	0–100	50
Tone	0–100	50
Output	0–100	50

Distortion Custom

This effect is a highly customized distortion, capable of a wide range of useable sounds.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Drive	0–100	50
+Soft	5–75	1
+Clip	5–50	25
–Soft	5–75	1
–Clip	5–50	25
Low	-18.0 – 18.0 dB	0.0
Mid	-18.0 – 18.0 dB	0.0
High	-18.0 – 18.0 dB	0.0
Output	-18.0 – 18.0 dB	50

Compressors

A compressor is an effect that changes the dynamic range of a signal by automatically reducing its gain.

Options: ***AIR Compressor***, ***Compressor Master***, ***Compressor Opto***, ***Compressor VCA***, ***Compressor Vintage***

AIR Compressor

This basic compressor effect changes the dynamic range of a signal by automatically reducing its gain if it exceeds a certain level.

Parameter	Value Range	Default Value
Threshold	-60.0 – 0 dB	-12.0 dB
Ratio	1.0:1 – 100.0:1	3.9:1
Output	0.0 – 30.0 dB	15.0 dB
Mix	0–100% (dry-wet)	100%
Knee	0–100%	50%
Attack	100 us – 300 ms	5.48 ms
Release	10.0 ms – 4.00 s	200 ms

Compressor Master

This is the most transparent compressor, able to perform substantial volume adjustments without artifacts.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Attack	0–100	50
Release	0–100	50
Threshold	-50 – 0 dB	0
Ratio	1–20	1
Oldskool	Off, On	Off
Output	-6 – 24 dB	0

Compressor Opto

The Opto Compressor is modeled after a vintage compressor type using an optical circuit to control the volume reduction of the input signal. These compressors are usually associated with soft and unobtrusive attack and release characteristics.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Input	-6 – 18 dB	0
Attack	0–100	50
Release	0–100	50
Threshold	-50 – 0 dB	0
Ratio	1–20	1
Knee	1–100	1
Output	-6 – 24 dB	0

Compressor VCA

This compressor is more modern-sounding, with a slightly more transparent sound. A VCA Compressor tends to have quicker attack and release times than an Opto Compressor.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Input	-6 – 18 dB	0
Attack	0–100	50
Release	0–100	50
Threshold	-50 – 0 dB	0
Ratio	1–20	1
Knee	1–100	1
Output	-6 – 24 dB	0

Compressor Vintage

This compressor has a sound similar to classic tube compressors, with their gentle yet pumping response and a dash of tube saturation.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Input	-6 – 18 dB	0
Attack	0–100	50
Release	0–100	50
Threshold	-50 – 0 dB	0
Ratio	1–20	1
Knee	1–100	1
Output	-6 – 24 dB	0

Bit Reducers

Options: ***Decimator***, ***Resampler***

Decimator

Decimator down-samples the incoming signal by removing bits from the digital signal. The difference between decimation and resampling is that Decimator does not use any filtering to mask or correct digital artifacts. The result is an effect ranging from mild to almost completely pure digital distortion, depending on the setting and the source material.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Decimate	0–100	0
Bit Reducer	4–32	32

Resampler

Resampler is similar to Decimator in that it removes bits from an incoming signal. The difference is that Resampler applies a complex suite of filters and anti-aliasing to attempt to retain the original sound quality. This is a method used by popular vintage samplers and sampling drum machines from the 1980s. Resampler can be used to achieve a “dirty” sound on drum loops, without the harshness of distortion.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	0–100	0
Decimate	0–100	0

Other

Options: ***AIR Channel Strip***, ***AIR Enhancer***, ***AIR Ensemble***, ***AIR Freq Shift***, ***AIR Fuzz Wah***, ***AIR Kill EQ***, ***AIR Lo-Fi***, ***AIR Maximizer***, ***AIR Noise Gate***, ***AIR Pitch Shifter***, ***AIR Pumper***, ***AIR Stereo Width***, ***AIR Talk Box***, ***AIR Transient***, ***Auto Wah***, ***Frequency Shifter***, ***Mother Ducker Input***, ***Mother Ducker***, ***Transient Shaper***

AIR Channel Strip

This specially-designed plugin combines multiple effects with a fast interface. The EQ section provides a high-pass filter, low and high shelves, and a fully parametric mid-band. For dynamics, the AIR Compressor and Gate algorithms are perfect for achieving hard-hitting drum sounds.

Tab	Parameter	Value Range	Default Value
	EQ Enable	Enabled, Bypass	Enabled
	Gate Enable	Enabled, Bypass	Enabled
	Comp Enable	Enabled, Bypass	Enabled
	Output	-inf – +24.00 dB	0.00 dB
EQ	High Shelf Gain	-12.0 – +12.0 dB	0.0 dB
	High Shelf Freq	1.20 – 20.0 kHz	6.00 kHz
	Mid Gain	-18.0 – +18.0 dB	0.0 dB
	Mid Freq	40.0 Hz – 16.0 kHz	247 Hz
	Mid Q	0.40 – 10.00	1.00
	Low Shelf Gain	-12.0 – +12.0 dB	0.0 dB
	Low Shelf Freq	20.0 Hz – 1.00 kHz	100 Hz
	HP Filter	0 – 1000 Hz	0 Hz
Gate/Comp	Gate Thresh	-120.0 – 0.0 dB	-120.0 dB
	Gate Depth	0 – -120.0 dB	-120.0 dB
	Gate Attack	0.01 – 1000.00 ms	0.18 ms
	Gate Release	1.00 – 3000.00 ms	7.40 ms
	Comp Thresh	0.0 – -60.0 dB	0.0 dB
	Comp Ratio	1.0:1 – 100.0:1	3.9:1
	Comp Attack	100 us – 300 ms	5.48 ms
	Comp Release	10.0 ms – 4.00 s	200 ms

AIR Enhancer

This effect enhances the low and high broadband frequencies of the audio signal.

Parameter	Value Range	Default Value
High Gain	0.0 – 12.0 dB	0.0 dB
Low Gain	0.0 – 12.0 dB	0.0 dB
Output	- Inf – 0.0 dB	0.0 dB
Freq. High	1.0 – 10.0 kHz	3.16 kHz
Freq. Low	40.0 – 640 Hz	160 Hz
Harmonics	0.0 – 12.0 dB	0.0 dB
Phase	+ (positive), - (negative)	+

AIR Ensemble

This effect applies fluid, shimmering modulation effects to the audio signal.

Parameter	Value Range	Default Value
Rate	0.01 – 10.0 Hz	1.00 Hz
Depth	0.00 – 24.00 ms	6.00 ms
Width	0–100%	100%
Mix	0–100% (dry–wet)	75%
Mod. Delay	0.00 – 24.00 ms	0.00 ms
Mod. Shimmer	0–100%	50%

AIR Freq Shift

This effect shifts the audio signal's individual frequencies for unique effects.

Parameter	Value Range	Default Value
Mode	Up, Down, Up & Down, Stereo	Up
Frequency	10.0 mHz – 10.0 kHz	316 mHz
Feedback	0–100%	0%
Mix	0–100% (dry–wet)	100%

AIR Fuzz Wah

This is a multi-effect that combines transistor-like distortion and wah.

Tab	Parameter	Value Range	Default Value
Fuzz-Wah	Mix	0–100% (dry–wet)	100%
	Order	Fuzz>Wah, Wah>Fuzz	Fuzz>Wah
	Fuzz Mix	0–100% (dry–wet)	100%
	Wah Mix	0–100% (dry–wet)	100%
	Fuzz Drive	0 – 40 dB	20 dB
	Fuzz Tone	1.00 – 10.0 kHz	3.16 kHz
	Fuzz Output	-Inf – 0.0 dB	0.0 dB
	Fuzz Enable	Off, On	Off
	Wah Pedal	0–100%	50%
	Wah Filter Mode	Lowpass, Bandpass, Highpass	Bandpass
	Min. Freq.	50.0 Hz – 4.00 kHz	428 Hz
	Max Freq.	50.0 Hz – 4.00 kHz	2.07 kHz
	Min. Resonance	0–100%	55%
	Max Resonance	0–100%	33%
	Wah Enable	Off, On	On
Modulation	Mode	LFO, Env	LFO
	Rate LFO Env	 8/4 – 16 0–100%	 4T 75%
	Depth	-100 – 0 – 100%	0%

AIR Kill EQ

This effect can zap out the Low, Mid or High broadband frequency from an audio signal.

Parameter	Value Range	Default Value
High	Thru, Kill	Thru
Mid	Thru, Kill	Thru
Low	Thru, Kill	Thru
Output	-20.0 – +20.0 dB	0.0 dB
High Gain	-Inf – +12.0 dB	0.0 dB
Mid Gain	-Inf – +12.0 dB	0.0 dB
Low Gain	-Inf – +12.0 dB	0.0 dB
High Freq.	500 Hz – 8.00 kHz	2.00 kHz
Offset	-100 – +100%	0%
Low Freq.	50.0 – 800 Hz	200 Hz

AIR Lo-Fi

This effect is used to bit-crush, down-sample, clip, rectify and mangle an audio signal.

Tab	Parameter	Value Range	Default Value
Lo-Fi	Bit Depth	1.0 – 16.0 bit	16.0 bit
	Sample Rate	500 Hz – 50.0 kHz	50.0 kHz
	Mix	0–100%	100%
Distortion	Clip	0.0 – 40.0 dB	0.0 dB
	Rectify	0–100%	0%
	Noise Mod	0–100%	0%
Anti-Alias	Pre	0.125 – 2.000 Fs	0.5000 Fs
	Post	0.125 – 2.000 Fs	1.000 Fs
	Enable	On, Off	Off
LFO / Env	Wave	Sine, Tri, Saw, Square, Morse, S&H, Random	Sine
	Rate Sync Off: Sync On:	 0.01 – 10.0 Hz 8/4 – 16	 1.00 Hz 2T
	Sync	On, Off	Off
	Depth	-100 – 0 – 100%	0%
	Attack	0.1 – 10.0 s	0.5 s
	Release	0.1 – 10.0 s	0.5 s
	Depth	-100 – 0 – 100%	0%

AIR Maximizer

This effect is a limiter optimized for professional mastering.

Parameter	Value Range	Default Value
Threshold	-40.0 – 0.0 dB	-20.0 dB
Ceiling	-20.0 – 0.0 dB FS	-5.0 dB FS
Look Ahead	0.0 – 20.0 ms	0.0 ms
Knee	Hard, Soft	Hard
Release	10.0 ms – 10.0 s	316 ms
LF Mono	10.0 Hz – 1.00 kHz	10.0 Hz

AIR Noise Gate

This effect is similar to a compressor, but instead of attenuating audio signal that rises above a threshold, a noise gate attenuates audio signal that falls below a threshold by a set amount. This can help reduce background noise in your audio signal.

Parameter	Value Range	Default Value
Threshold	-120.0 – 0.0 dB	-48.0 dB
Depth	0 dB – -120.0 dB	-120 dB
Denoise Filter	Off, On	Off
Denoise Thresh	-120.0 – 0.0 dB	-60.0 dB
Attack	0.01 – 1000.00 ms	0.18 ms
Hold	0 – 1000 ms	250 ms
Release	1.00 – 3000.00 ms	7.40 ms

AIR Pitch Shifter

This effect alters the pitch of the audio signal and can be adjusted based on the source or style of the signal.

Parameter	Value Range	Default Value
Mode	Vocal, Bass, Beats, Chords, Textures	Vocal
Shift	-24.0 – 0 – 24.0	0.0
Mix	0–100%	100%

AIR Pumper

This effect creates a rhythmic pumping effect, similar to that of sidechain compression.

Parameter	Value Range	Default Value
Depth	0–100%	80%
Speed	Bar, 1/2 – 1/32T	1/4
Release Shape	0–100%	10%
Trigger Offset	-100.0 – +100.0 ms	0.0 ms
Attack	0–100%	5%
Hold	0–100%	10%
Release	0–100%	60%

AIR Stereo Width

This effect creates a wider stereo presence in an audio signal.

Parameter	Value Range	Default Value
Width	0–200%	100%
Delay	0.0 – 8.0 ms	0.0 ms
Level Trim	-Inf – 0.0 – +12.0 dB	0.0 dB
Pan Trim	L100 – <C> – R100	<C>
High	0–200%	100%
Mid	0–200%	100%
Low	0–200%	100%

AIR Talk Box

This effect adds voice-like resonances to audio signals.

Parameter	Value Range	Default Value
Vowel	OO, OU, AU, AH, AA, AE, EA, EE, EH, ER, UH, OH, OO	AH
Env Depth	-100 – 0 – +100%	0%
Formant	-12.00 – +12.00	0.00
Mix	0–100%	100%
LFO Wave	Sine, Tri, Saw, Square, S&H, Random	Sine
LFO Rate		
Sync Off:	0.01 – 10.0 Hz	1.00 Hz
Sync On:	8/4 – 16	2T
LFO Sync	Off, On	Off
LFO Depth	-100 – 0 – +100%	0%
Env Thresh	-60.0 – 0.0 dB	-30.0 dB
Env Attack	0.1 – 10.0 s	0.5 s
Env Release	0.1 – 10.0 s	0.5 s

AIR Transient

This effect is used to enhance or soften the Attack and Release phases of audio material.

Parameter	Value Range	Default Value
Attack	-100 – 0 – +100%	0%
Attack Shape	0–100%	50%
Sustain	-100 – 0 – +100%	0%
Output	-20.0 – +20.0 dB	0.0 dB
Limit	Off, On	On

Auto Wah

This effect is a low-pass filter modulated by an envelope that yields a classic funky “wah-wah”- like sound. The envelope is triggered by the incoming signal’s amplitude. The amount of the envelope on the cutoff frequency is user-definable.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Resonance	0–100	75
Attack	0–100	30
Release	0–100	30
Center	0–100	50
Sensitivity	0–100	50

Frequency Shifter

A frequency shifter changes the frequencies of an input signal by a fixed amount and alters the relationship of the original harmonics. This can produce a chorus-like effect as well as very crazy artificial timbres.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Frequency	-1000 – 1000	0
Asynchrony	0–1000	0
A Pan	0–100	0
B Pan	0–100	100
A Gain	0–100	75
B Gain	0–100	75

Mother Ducker Input

Add this effect to the track you want to serve as the input source for the **Mother Ducker** sidechain compressor.

Parameter	Value Range	Default Value
To	Bus 1–8	Bus 1

Mother Ducker

Use this effect in conjunction with the **Mother Ducker Input** effect for sidechain compression.

Parameter	Value Range	Default Value
Ratio	60.00:1 – 1.00:1	6.00:1
Knee	0.000 – 6.000 dB	0.000 dB
Attack	1.0 – 1000.0 ms	10.0 ms
Release	1.0 – 1000.0 ms	100.0 ms
Threshold	-100.000 – 0.000 dB	-6.021 dB
Gain	-100.000 – +12.000 dB	-0.000 dB
Auto	On, Off	On
From	Bus 1–8	Bus 1

Transient Shaper

A transient shaper can be used to enhance or soften the Attack and Release phases of audio material.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Attack	0–100	50
Release	0–100	50
Output	0–100	50

Glossary

This glossary briefly defines and explains many of the technical terms used throughout this manual.

Aftertouch The majority of contemporary keyboards are capable of generating aftertouch messages. On this type of keyboard, when you press harder on a key you are already holding down, a MIDI aftertouch message is generated. This feature makes sounds even more expressive (e.g., through vibrato).

Aliasing Aliasing is an audible side effect arising in digital systems as soon as a signal contains harmonics higher than half the sampling frequency.

Amount Describes to which extent a modulation source influences a given parameter.

Amplifier An amplifier is a component that influences the volume level of a sound via a control signal. It can be modulated by a control signal (e.g., generated by an ***envelope*** or an ***LFO***).

Attack An ***envelope*** parameter. This term describes the ascent rate of a time-relevant process (e.g., an envelope from its starting point to the point where it reaches its highest value). The attack phase is initiated immediately after a trigger signal is received (e.g., after you play a note on a trigger pad or a keyboard).

Bit Rate Bit rate (also known as **word length**), is the number of bits used to store the level information of each single sample slice within a whole sample. The higher the bit rate, the more precise the information about a sample (i.e., its dynamics' resolution). Normal audio CDs are 16-bit. The Force hardware supports full 24-bit resolution.

Clip A clip is a container for recorded audio or MIDI information. Clips that share a common type, such as clips of a particular drum kit or plugin, are grouped into ***tracks***. Clips across multiple tracks in the same row are grouped into ***scenes***.

Each **MIDI clip** contains MIDI note events and controller data. In this case, the clip contains no audio information—only MIDI information that uses the samples in a track (or an external MIDI sound module) to generate its audio. You can edit your performance in many different ways once the performance has been captured.

Each **audio clip** contains an audio signal that has been recorded or imported into your project. You can edit this audio within the software and incorporate it into your projects alongside your MIDI clips.

Clipping Clipping is a sort of distortion that occurs when a signal exceeds the maximum value that can be handled by a signal processing system it is fed into. The curve of a clipped signal is dependent on the system where the clipping occurs. In the analog domain, clipping effectively limits the signal to a given maximum level. In the digital domain, clipping is similar to a numerical overflow, resulting in negative polarity of the signal's portions exceeding the maximum level.

Control Change (Controllers) MIDI messages enable you to manipulate the behavior of a sound generator to a significant degree. This message essentially consists of two components:

- The controller number, which defines the parameter to be influenced. It can range from **0** to **127**.
- The controller value, which determines the extent of the modification.

Controllers can be used for effects such as slowly swelling vibrato, changing the stereo panning position and influencing filter frequency.

Cutoff The cutoff frequency is a significant factor for a ***filter***. A low-pass filter for example dampens the portion of the signal that lies above this frequency. Frequencies below this value are allowed to pass through without being processed.

CV

CV stands for **control voltage**, an analog method of sending control messages to external synthesizers, drum machines, etc. CV messages are typically used in conjunction with ***Gate*** messages (CV messages determine the pitch of notes while Gate messages determine note activation and length). CV messages are sent from the CV out ports of your Force hardware and to the CV in ports of your external device.

Please note that each external device uses a specific control voltage range, which determines how many volts are used in each octave (e.g., **1V/oct**). Be mindful of this when setting it up with the Force software and/or controller hardware—mismatched voltage ranges can produce unusual/undesirable "re-scaling" of the octaves.

Decay

Decay describes the descent rate of an ***envelope*** once the attack phase has reached its maximum and the envelope drops to the level defined by the sustain value.

Envelope

An envelope is used to modulate a sound-shaping component within a given time. For instance, an envelope that modulates the cutoff frequency of a filter opens and closes this filter over a period of time. An envelope is started via a trigger, usually a MIDI note.

The classic **ADSR** envelope consists of four individually variable phases: **attack**, **decay**, **sustain**, and **release**. Attack, decay and release are time or slope values, while sustain is an adjustable level. Once an incoming trigger is received, the envelope runs through the attack and decay phases until it reaches the programmed sustain level. This level remains constant until the trigger is terminated. The envelope then initiates the release phase until it reaches the minimum value.

You can see and read about the envelopes used in Force in ***Operation*** > ***Modes*** > ***Track Edit Mode*** > ***Anatomy of an Envelope***.

Filter

A filter is a component that allows some of a signal's frequencies to pass through it and dampens other frequencies. The most important aspect of a filter is the filter cutoff frequency. Filters generally come in four categories: **low-pass**, **high-pass**, **band-pass**, and **band-stop**. These are the available filters:

A **low-pass** filter (the most common type) dampens all frequencies above the cutoff frequency.

A **high-pass** filter in turn dampens the frequencies below the cutoff.

A **band-pass** filter allows only those frequencies around the cutoff frequency to pass. All others are dampened.

A **band-stop** filter does the opposite of a band-pass: it dampens only the frequencies around the cutoff frequency.

A **band-boost** filter boosts the frequencies around the cutoff frequency, similar to what a band on an equalizer would do. All other frequencies pass through normally.

The number of **poles** in a filter's "slope" determines how extreme or subtle the effect of the filter will be. Filters with one or two poles produce a subtler sound while filters with six or eight poles are much more pronounced.

The **Model** filters are analog-style emulations of famous vintage synth filters. **Model1** is a four-pole filter that distorts at high input levels. **Model2** uses a mellow resonance with a "fattening" distortion in the lower frequencies. **Model3** can produce howling, piercing resonances and extreme sub frequencies—watch your speakers!

The **Vocal** filters are formant filters that emulate the human voice. **Vocal1** produces "ah" and "ooh" vowel sounds. **Vocal2** uses three bands to produce "oh" and "ee" vowel sounds. **Vocal3** uses five bands to emulate an idealized model of the vocal tract.

MPC3000 LPF is a dynamic, resonant low-pass filter (12 dB/oct) that was used on the original MPC3000, released in 1994.

Please also see the entry for ***Resonance***, an essential characteristic of a filter's sound.

Gate

Gate messages are analog messages sent to external synthesizers, drum machines, etc. Gate messages are typically used in conjunction with ***CV*** messages (CV messages determine the pitch of notes while Gate messages determine note activation and length). Gate messages are sent from the CV out ports of your Force hardware and to the CV/Gate in ports of your external device.

LFO — **LFO** is an acronym for **low-frequency oscillator**. The LFO generates a periodic oscillation at a low frequency and features variable waveshapes. Similar to an envelope, an LFO can be used to modulate a sound-shaping component.

MIDI — **MIDI** stands for **musical instrument digital interface**. Developed in the early 1980s, MIDI enables interaction between various types of electronic music instruments from different manufacturers. At the time a communications standard for heterogeneous devices did not exist, so MIDI was a significant advance. It made it possible to link various devices with one another through simple, standardized connectors.

Essentially, this is how MIDI works: One sender is connected to one or several receivers. For instance, if you want to use a computer to play a MIDI synthesizer, the computer is the sender and the synthesizer acts as the receiver. With a few exceptions, the majority of MIDI devices are equipped with two or three ports for this purpose: MIDI In, MIDI Out and in some cases MIDI Thru. The sender transfers data to the receiver via the MIDI Out jack. Data are sent via a cable to the receiver's MIDI In jack.

MIDI Thru has a special function. It allows the sender to transmit to several receivers. It routes the incoming signal to the next device without modifying it. Another device is simply connected to this jack, thus creating a chain through which the sender can address a number of receivers. Of course, it is desirable for the sender to be able to address each device individually. To achieve this, a MIDI channel message is sent with each MIDI event.

MIDI Channel — This is a very important element of most messages. A receiver can only respond to incoming messages if its receive channel is set to the same channel as the one the sender is using to transmit data. Subsequently, the sender can address specific receivers individually. MIDI Channels 1–16 are available for this purpose.

MIDI Clock — The MIDI clock message transmits real-time tempo information to synchronize processes among several connected devices (e.g., a sound generator's delay time to a MIDI sequencer).

Modulation — A modulation influences or changes a sound-shaping component via a modulation source. Modulation sources include envelopes, LFOs or MIDI messages. The modulation destination is a sound-shaping component such as a filter or a VCA.

Note On & **Note Off** — This is the most important MIDI message. It determines the pitch and velocity of a generated note. A note-on message will start a note. Its pitch is derived from the note number, which can range from **0** to **127**. The velocity ranges from **1** to **127**. A velocity value of **0** is equivalent to a note-off message.

Normalize — Normalization is a function to raise the level of a sample to its maximum (**0 dB**) without causing distortion. This function automatically searches a sample for its maximum level and consequently raises the entire sample's level until the previously determined maximum level reaches 0 dB. In general, this results in a higher overall volume of the sample.

Panning — The process or the result of changing a signal's position within the stereo panorama.

Pitch-Bend — Pitch-bend is a MIDI message. Although pitch-bend messages are similar in function to control change messages, they are a distinct type of message. The resolution of a pitch-bend message is substantially higher than that of a conventional controller message. The human ear is exceptionally sensitive to deviations in pitch, so the higher resolution is used because it relays pitch-bend information more accurately.

Program Change — These are MIDI messages that select sound programs. Programs **1**–**128** can be changed via program change messages.

Release — An ***envelope*** parameter. This term describes the descent rate of an envelope to its minimum value after a trigger is terminated. The release phase begins immediately after the trigger is terminated, regardless of the envelope's current status. For instance, the release phase may be initiated during the attack phase.

Resonance Resonance or emphasis is an important ***filter*** parameter. It emphasizes the frequencies around the filter cutoff frequency by amplifying them with a narrow bandwidth. This is one of the most popular methods of manipulating sounds. If you increase the emphasis to a level where the filter enters a state of self-oscillation, it will generate a relatively pure sine waveform.

Root Key The root key defines the original pitch of a recorded instrument or of a sample. Samples in Force contain the dedicated root key information. This information will be created automatically during recording or importing.

Sample When you tap the pads on your Force hardware, you can trigger sounds that we call **samples**. Samples are digitized snippets of audio that can be recorded using the recording (sampling) function of your Force hardware or loaded from the Browser.

You can edit and process a sample in different ways. For example, a sample can be trimmed, looped, pitch-shifted or processed, using various effects. When you have finished editing your sample, you can assign it to one or more drum pads to play it. Samples can be either mono or stereo.

Sample Rate This is the frequency representing the amount of individual digital sample scans per second that are taken to capture an analog signal digitally. For normal CD audio recordings, **44100** samples per second are used, also written as **44.1 kHz**.

Scene A group of ***clips*** in the same row.

Stretch Factor The stretch factor is a value generated by the ***Warp*** algorithm in the software. When you record an audio file, the current project tempo will be embedded with it. This information is stored within the sample file when you save the project. When you warp an audio track region, the warping algorithm uses this project tempo and the current value in the **BPM** field to generate the stretch factor.

Sustain This term describes the level of an ***envelope*** remaining constant after it has passed the attack and decay phases. Once reached, the sustain level is kept until the trigger is terminated.

Time-Stretch See ***Warp*** below.

Track A project on your Force hardware can contain **128** MIDI tracks and **8** audio tracks.

Each **MIDI track** contains MIDI note events and controller data. In this case, the track contains no audio information—only MIDI information that uses the samples in a drum track or keygroup track (or an external MIDI sound module) to generate its audio. You can edit your performance in many different ways once the performance has been captured.

Each **audio track** contains an audio signal that has been recorded or imported into your project. You can edit this audio within the software and incorporate it into your project alongside your MIDI tracks.

Trigger A trigger is a signal that initiates events. Trigger signals are very diverse. For instance, a MIDI note or an audio signal can be used as a trigger. The events a trigger can initiate are also very diverse. A common application for a trigger is its use to start an envelope.

Warp

The Warp feature lengthens or shortens a region of an audio track or sample without changing its pitch. This enables you to fit the length of an audio track or sample to the length of a clip, a bar in your clip, etc. while maintaining its original key.

Please note that the Warp algorithms are very CPU-intensive and can result in audio drop-outs during playback if used too freely. Be mindful of how (and how often) you use the warp function. You can reduce the CPU resources required by doing any/all of the following:

Minimize the amount of pitch adjustment of warped audio.

In Track Edit Mode, avoid using extreme **Stretch** values.

Avoid warping very small audio regions.

Warp as few tracks or track regions as possible (i.e., reduce the number of total number of voices of the polyphonic limit that use the Warp algorithm at a given time), especially instances where the warped regions start at the same time.

Avoid rapidly triggering samples that are warped.

If you have warped samples used in a drum track or keygroup track, consider using the **Flatten Pad** function to consolidate the affected pad's layers into one audio sample (see ***here*** to learn about this). After you flatten the pad, its sample/samples no longer need to be warped.

SATA Drive Installation

To create more internal storage space on your Force hardware, you can purchase a **SATA** (Serial ATA) drive and install it yourself, but read this chapter first.

Your Force can support nearly any standard 2.5" SATA drive on the market—either a solid-state drive (SSD) or hard-disk drive (HDD). Make sure it uses a **2.5**" (63.5 mm) form factor and uses (or can use) one of these file systems: **exFAT**, **FAT32**, **NTFS**, or **EXT4** (for read and write capability) or **HFS+** (for read-only capability).

Note: We recommend using an exFAT file system as it is the most robust one supported by both Windows and macOS.

Note: Alternatively, you could install an **mSATA** (mini-SATA) drive, but make sure you also purchase an adapter that enables it to fit into a typical 2.5" SATA interface.

1. Make sure your Force hardware is powered **off**.
2. Locate the **SATA drive panel** in the center of the bottom panel of your Force hardware. Use a Phillips-head screwdriver to remove the screws (don't lose them!), and remove the SATA drive panel.
3. Gently pull the **SATA connector and cable** out from inside your Force hardware. Be careful not to disturb anything inside—handle just the SATA connector and cable.
4. Connect your **SATA drive** to the **SATA connector**. Make sure the connection is secure.
5. Use four **3x5mm mounting screws** (included with Force hardware or with your SATA drive) to secure the SATA drive to the SATA drive panel. Do not overtighten the screws, but make sure the drive is secure and does not shake.
6. Place the SATA drive panel back onto the bottom panel of your Force hardware, and use the original screws to secure it in place.

   You can now access this drive while using your Force hardware!

MIDI Machine Control (MMC)

Your Force hardware can send and receive MIDI Machine Control (MMC) messages, a standard protocol for transport controls.

The Force hardware can send these messages:

Force Button	MMC Command Sent
Record	MMC Record Strobe (when recording starts), then MMC Record Exit
Stop	MMC Stop
Play	MMC Deferred Play
Data Dial, –/+	MMC Locate values

To set up your Force hardware to send MMC messages to an external device:

1. Use an included 1/8"-to-MIDI adapter and a standard 5-pin MIDI cable (not included) to connect your Force hardware's **MIDI Out** to the MIDI input of your external device.
2. Press **Menu** to show the menu, and tap the **gear icon** to enter the **Preferences**.
3. Tap the **Sync** tab.
4. Tap the **Send Port 1** field, and use the **data dial** or **–/+** buttons to select **Midi Out**.
5. Tap the **Send MMC** box so it is enabled (checked).
6. Exit the **Preferences**.
7. Configure your other device properly so it can receive MMC messages.

The Force hardware can receive these messages:

Force Command Received	Force Function
MMC Deferred Play	Play
MMC Locate Zero, then Deferred Play	Play Start
MMC Stop	Stop
MMC Record Strobe	Record (Rec)
MMC Pause	Stop
MMC Locate values	Change location in clip

To set up your Force hardware to receive MMC messages from an external device:

1. Use an included 1/8"-to-MIDI adapter and a standard 5-pin MIDI cable (not included) to connect your Force hardware's **MIDI In** to the MIDI output of your external device.
2. Press **Menu** to show the menu, and tap the **gear icon** to enter the **Preferences**.
3. Tap the **Sync** tab.
4. Tap the **Receive MMC** box so it is enabled (checked).
5. Exit the **Preferences**.
6. Configure your other device properly so it can send MMC messages.

Technical Specifications

Specifications are subject to change without notice.

Mechanical	**Pads**	(64) velocity- and pressure-sensitive pads, RGB-backlit
	Knobs	(8) 360° touch-sensitive Knobs (1) 360° encoder for display navigation and selection via push (5) 270° knobs for gain, mix & level adjustment
	Buttons	(56) dedicated function buttons; red-, amber-, or green-backlit
	Display	6.9” / 176 mm (diagonal) 5.9” x 3.7” / 150 x 93 mm (width x height) Full-color LED-backlit display with touch interface
Memory	**RAM**	2 GB
	Internal Storage	16 GB (6 GB user storage + 10 GB pre-installed content) Expandable via SATA connections
File System Compatibility	exFAT (read & write) (recommended) FAT32 (read & write) NTFS (read & write) EXT4 (read & write) HFS+ (read only) Audio Files: AIF/AIFF, FLAC, MP3, OGG, WAV	
Connections	(2) XLR+1/4” (6.35 mm) TRS inputs (Input 1/2) (4) 1/4” (6.35 mm) TRS outputs (2 stereo pairs) (1) 1/8” (3.5 mm) stereo headphone output (1) 1/8" (3.5 mm) MIDI input (1) 1/8" (3.5 mm) MIDI output (1) 1/8" (3.5 mm) MIDI thru port (4) 1/8” (3.5 mm) CV/Gate outputs (1) Ethernet link port (2) USB Type-A ports (1) USB Type-B port (1) SD card slot (1) power adapter input	
Power	via power adapter: 19 V, 3.42 A, center-positive, included	
Dimensions (width x depth x height)	13.8” x 15.3” x 2.85” 350 x 389 x 72.5 mm	
Weight	8.53 lbs. 3.87 kg	

Digital Audio System	**ADCs**	32-bit @ 44.1kHz
	DACs	32-bit @ 44.1kHz
	Digital Signal Processing	32-bit floating point
Inputs	(2) combo XLR / balanced 1/4” (6.35 mm) TRS	
XLR	**Dynamic Range**	111 dB
	SNR	111 dB
	THD+N	0.003% (1 kHz, +4 dBu, -1 dBFS)
	Preamp EIN	-128 dBu (max gain, 150-ohm source, unweighted)
	Frequency Response	20 Hz – 20 kHz (+0.0/-0.1 dB)
	Maximum Input Level	+12.5 dBu
	Sensitivity	-46.5 dBu
	Gain Range	59 dB
Line	**Dynamic Range**	111 dB
	SNR	111 dB
	THD+N	0.006% (1kHz, +4 dBu, -1 dBFS)
	Frequency Response	20 Hz – 20 kHz (+0.0/-0.2 dB)
	Maximum Input Level	20 dBu
	Sensitivity	-10.5 dBu
	Gain Range	30.5 dB
Instrument	**Dynamic Range**	111 dB
	SNR	111 dB
	THD+N	0.005%
	Frequency Response	20 Hz – 20 kHz (+0.0/-0.2)
	Maximum Input Level	+16 dBu
	Sensitivity	-14.5 dBu
	Gain Range	30.5 dB
	Input Impedance	~1 M-ohm

Master Outputs 1–2 (2) impedance-balanced 1/4” (6.35 mm) TRS	**Dynamic Range**	114 dB (A-weighted)
	THD+N	0.003% (1 kHz, -1 dBFS)
	Frequency Response	20 Hz – 20 kHz (+0.0 / -0.2 dB)
	Maximum Output Level	+20 dBu
	Output Impedance	51-ohm
Outputs 3–4 (2) impedance-balanced 1/4” (6.35 mm) TRS	**Dynamic Range**	114 dB (A-weighted)
	THD+N	0.003% (1 kHz, -1dBFS)
	Frequency Response	20 Hz – 20 kHz (+0.0 / -0.2 dB)
	Maximum Output Level	+20 dBu
	Output Impedance	51-ohm
Headphone Output (1) 1/8” (3.5 mm) stereo headphone	**Dynamic Range**	108 dB (A-weighted)
	THD+N	0.007% (1 kHz, -1 dBFS, 10 mW/channel into 32-ohms)
	Frequency Response	20 Hz – 20 kHz (+0.0/-0.3 dB)
	Maximum Power Delivered	80 mW (< 1% THD, into 32-ohms)

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Addenda

Updates in Force 3.0.2

New Features

Splice Integration

Your Force now integrates with the Splice platform, allowing you to download and browse your Splice sample library on your standalone device.

To access Splice:

1. First, make sure your Force hardware is connected to a network via Wi-Fi or Ethernet. See ***Preferences*** > ***Wi-Fi*** or ***Preferences*** > ***Ethernet*** to learn how to connect to a network. You will also need access to a web browser.
2. On your Force, hold **Shift** and press **Menu** to open the Preferences page.
3. Navigate to the **Spice** tab.
4. Tap the **Get Login Code** button. (If you are not connected to a network, you will be prompted to do so before the Get Login Code button appears.)
5. Follow the on-screen instructions to pair your Force to your Splice account via a web browser. It may take your Force a few moments to successfully link.
6. A message will appear on screen when the link has been successfully established. Tap **OK** to continue and return to the Splice Preferences page.
7. Once the process is complete and your Force has been paired to your Splice account, use the **Sync Files** button to download your samples via Wi-Fi to a drive of your choice.

   By default, files will be stored on the Internal drive. You can change the selected drive by tapping the **Change** button under **Sync Files To Drive**.

To browse samples imported from Splice:

1. Open the **Browser**.
2. Under the **Content** tab, press the **Splice** shortcut icon to view samples downloaded from your Splice account.

   If nothing appears, make sure that you have connected your Splice account and synced your files by following the directions ***above***.
3. The right-side of the browser will display your Splice samples organized into a series of top level folders, allowing you to easily browse your sample library by BPM, Instrument, Key, Pack or Tag. The **All Your Samples** folder will show a list of all samples you have downloaded.

Note: The original sample files from Splice are stored in the **By Pack** folder on your selected drive. Other folders such as By Instrument contain internal links to help sort these samples by various tags. If the By Pack folder on your drive is deleted, the files in the remaining folders will become unusable. To fully remove all files, the entire Splice directory should be deleted.

IMPORTANT: Drives formatted using the FAT32 system do not support these internal links. For these drives, samples will only be sorted in the **By Pack** folder. We recommend using an exFAT file system on external drives used with Force, as it is the most robust one supported by both Windows and macOS.

To view the number of samples available to download from your account, tap the **Check For Update** button.

To log out of a Splice account, tap the **Log Out** button.

Browser Audition Warp and Sync

In the Browser, you can now audition samples that have a Force-embedded tempo in sync with the project tempo.

1. Open the Browser by doing either of the following:
   - Press **Menu** and then tap **Browser**.
   - Press **Load**.
2. Tap the **speaker icon** at the bottom of the screen.
3. In the options that appear, enable **Sync** to set samples to be auditioned at the beginning of the next bar of the clip when playback is active.

   Enable **Warp** to set samples with an embedded tempo to be warped to the project tempo. Samples with no embedded tempo or externally-embedded tempo will not be affected by this setting.
4. Select a sample, loop, program or project to preview, then tap the **Play** button to audition. If **Auto** audition is turned on, samples will audition when selected.

Updates in Force 3.0.3

New Features

Ableton Live Set Export

You can now export your projects as an Ableton Live Set (.ALS) file.

To export your project as an Ableton Live Set:

1. Press the **Save** button to open the Save window.
2. Tap **Ableton Live Set**.
3. In the window that appears, you can adjust the following settings for your export:

   Use the **Export MIDI As** settings to choose how MIDI tracks and clips are exported, either as **Audio** files or **MIDI** files. When using Plugin, Drum or Keygroup tracks, you can render clips as **Audio** to preserve the sound of the instruments, or render clips as **MIDI** data.

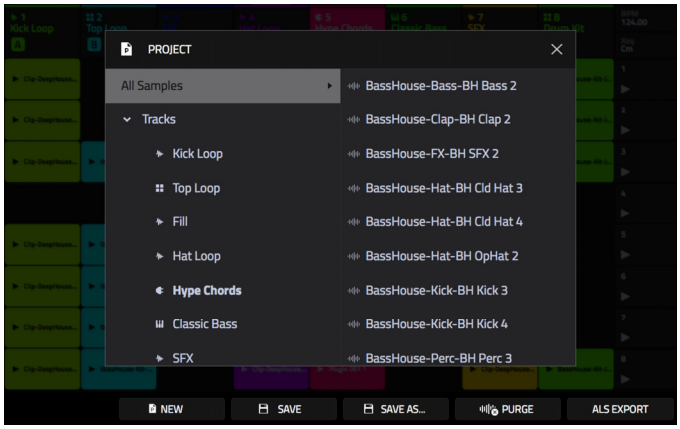
   Check the **Include Program Volume/Pan Settings** box to include these settings in the export. When disabled, the volume and pan settings will be set to **0 dB** and center (**C**), respectively.

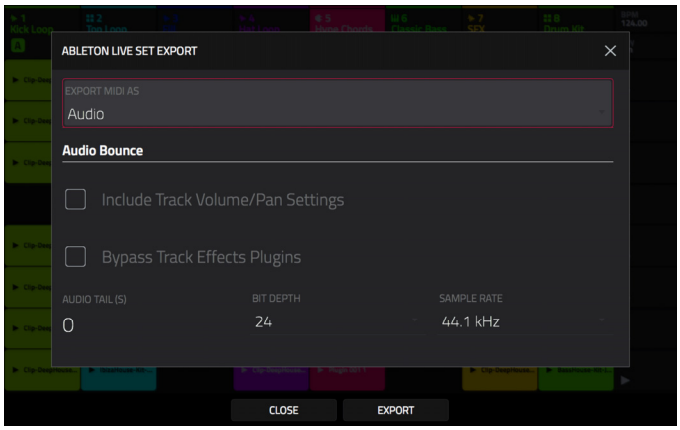
   Check the **Bypass Program Effects Plugins** box to deactivate any third-party effect plugins used with the program for the export. When disabled, those effects will be activated.

   Use the **Audio Tail** field to set the amount, in **seconds**, of extra time added to the end of the resulting audio files.

   Use the **Bit Depth** field to set the bit depth to **8**, **16** or **24**.

   Use the **Sample Rate** field to set the sample rate to **44.1**, **48**, **88.2** or **96 kHz**.
4. Tap **Export** to begin the export, or tap **Close** to cancel and return to the previous page.





Callout Menus

You can now copy, paste, create and delete clips directly from the screen in Matrix Mode.

Tap and hold on a clip slot to bring up a drop-down menu of options. For clip slots with clips in them, you can select **Copy**, **Delete**, **Edit Clip** (brings you to Clip View in Clip Edit Mode), **Edit Event/Edit Region** (brings you to Event View or Region View in Clip Edit Mode) and **Settings** (opens the Clip Settings Window).

For empty clip slots, you can **Create** a new clip or **Paste** a copied clip.

Clip Export

You can now export clips from your Force projects as audio, MIDI or MPC Pattern files.

To export a clip as audio:

1. Select a clip in an Audio, Plugin, Drum or Keygroup track.
2. Press the **Save** button to open the Save window.
3. Tap **Clip as Audio**.
4. In the window that appears, you can adjust the following settings for your export:

   Use the **Base File Name** field to name the resulting export based on the **Clip name** or **Track name**.

   Check the **Include Track Volume/Pan Settings** box to include these settings in the export.

   Check the **Bypass Track Effects Plugins** box to not include track effects plugins in the export.

   Use the **Audio Tail** field to set the amount, in **seconds**, of extra time added to the end of the resulting audio files.

   Use the **Bit Depth** field to set the bit depth to **8**, **16** or **24**.

   Use the **Sample Rate** field to set the sample rate to **44.1**, **48**, **88.2** or **96 kHz**. In most cases, we recommend selecting **44.1 kHz**.
5. Tap **Export** to begin the export, or tap **Close** to cancel and return to the previous page.

To export a clip as MIDI or Pattern:

1. Select a clip in a Plugin, Drum or Keygroup track.
2. Press the **Save** button to open the Save window.
3. Tap **Clip as MIDI**.
4. In the window that appears, you can adjust the following settings for your export:

   Use the **Export MIDI As** field to set the export the clip(s) as **MIDI** files or MPC **Pattern** files.

   Use the **Base File Name** field to name the resulting export based on the **Clip name** or **Track name**.
5. Tap **Export** to begin the export, or tap **Close** to cancel and return to the previous page.

You can also select **All Clips** from the Save window to export all audio and/or MIDI clips at the same time, using the same settings as above.

Convert to Keygroup

You can now easily convert samples to a keygroup to play the sample chromatically.

To create a keygroup from a sample:

1. Select a Drum Track and press the **Note** button to enter Note Mode.
2. You can create the keygroup by doing either of the following:
   - Hold **Shift** and **Edit**, and then tap the clip launch pad with the desired sample.
   - Open **Track Edit Mode** by pressing **Shift**+**Clip**, or by pressing **Menu** and tapping **Track Edit**. Tap the clip launch pad with the sample you would like to use, and then tap the **keyboard+ icon** at the top of the display.
3. A new keygroup track will be created and selected automatically. You can use Track Edit Mode to further edit the keygroup settings.

Erase Notes

You can now erase notes in real-time as a clip is playing.

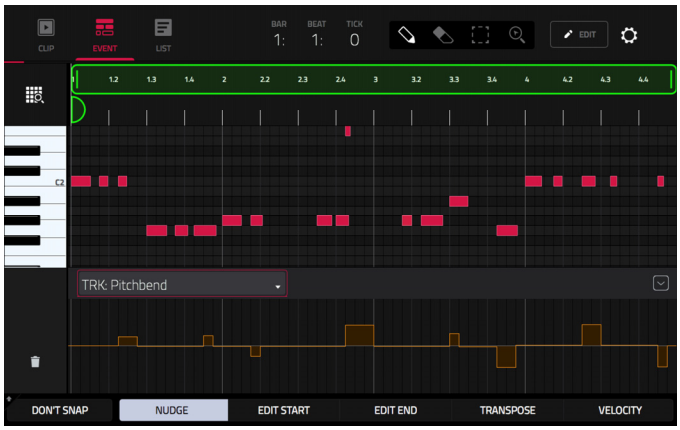
1. Select a clip with MIDI events, such as one from a Drum, Plugin or Keygroup track, and launch it.
2. Make sure the clip launch pads are in Note mode.
3. Press and hold the **Delete** button, and then press and hold a pad. As the clip plays, any corresponding events for that pad will be erased for as long as the pad is held.

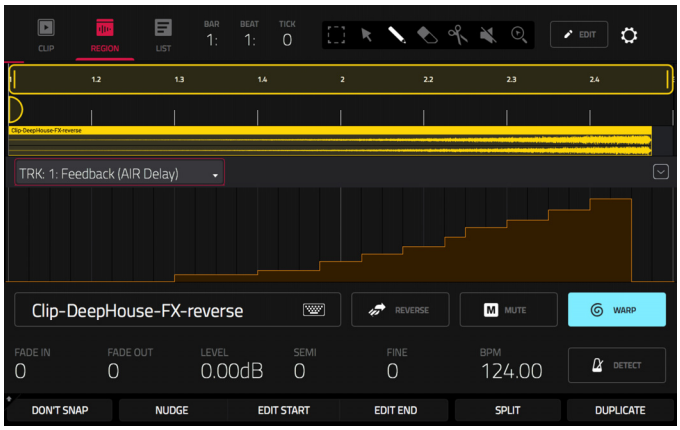
Grid/Region Automation Lanes

You can now input, view and edit automation while viewing MIDI Event View and Audio Region View.

To add automation to a clip:

5. Select a **MIDI Track** or **Audio Track**, and then open **Clip Edit Mode** by pressing **Clip**.
6. For MIDI tracks, tap **Event** to open **Event View**. For Audio tracks, tap **Region** to open Region View.
7. Tap the **up arrow** on the parameter bar to expand the velocity/automation lane.
8. By default, **Velocity** is shown in this lane for MIDI tracks and **TRK: Volume** is shown for Audio tracks. Double-tap this field to open the **Parameter** drop-down menu.
9. In the menu that appears, tap **Add New** to add an automation parameter. You can choose from a variety of parameters depending on the type of track, insert effects added and other options.





To edit automation, do any of the following in Event View or Region View:

- Use the **pencil** tool to draw your automation in the automation lane.
- Use the **eraser** tool to erase automation points. If you erase all automation points, the parameter will be removed.
- Tap the **trash can icon** to delete all automation for the selected parameter at once.

MIDI Input Snap to Scale

When recording MIDI with Force, you can now restrict the recorded notes to a set scale.

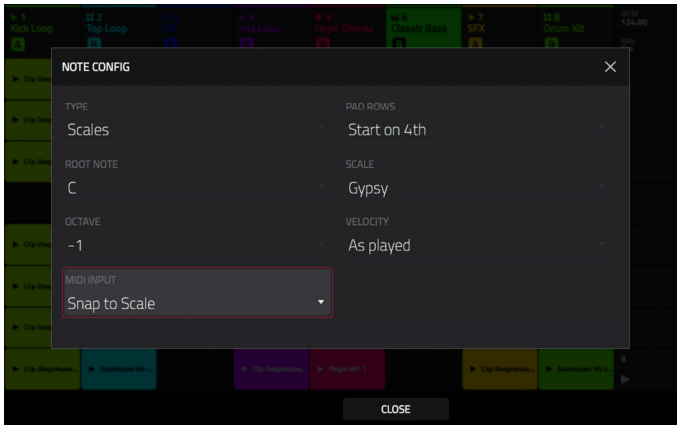
While a melodic track type is selected, press the **Note** button to enter Note Mode.

1. Hold **Shift** and press **Note** again to open the **Note Config** window.
2. Use the **MIDI Input** field to select how the incoming MIDI data is handled:

   Select **As Played** for MIDI notes to remain unfiltered.

   Select **Snap to Scale** for MIDI notes outside the scale to be transposed to the closest scale degree.

   Select **Filter to Scale** for MIDI notes outside the scale to be filtered out completely.
3. Use the **Note Config** window parameters to set the scale and root note.

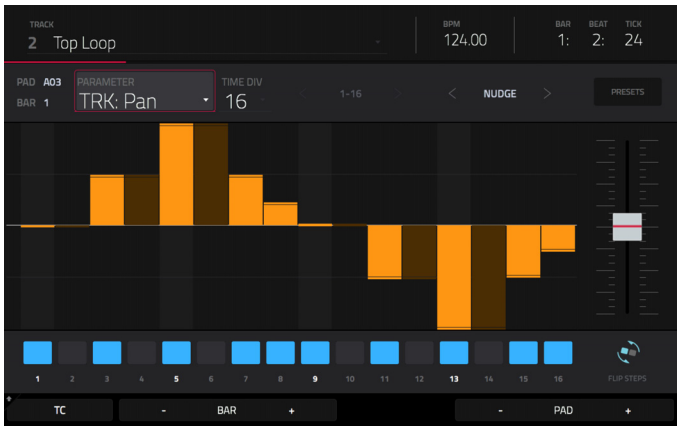


Step Automation

You can now input, view and edit automation in the Step Sequencer.

To add a step automation parameter:

1. Press **Menu** and tap **Step Sequencer** to open the Step Sequencer.
2. By default, the **Parameter** field of the Step Sequencer displays **Velocity** for MIDI tracks and **TRK: Volume** for audio tracks. Double-tap this field to open the drop-down menu.
3. In the menu that appears, tap **Add New** to add an automation parameter. You can choose from a variety of parameters depending on the type of track, insert effects added and other options.



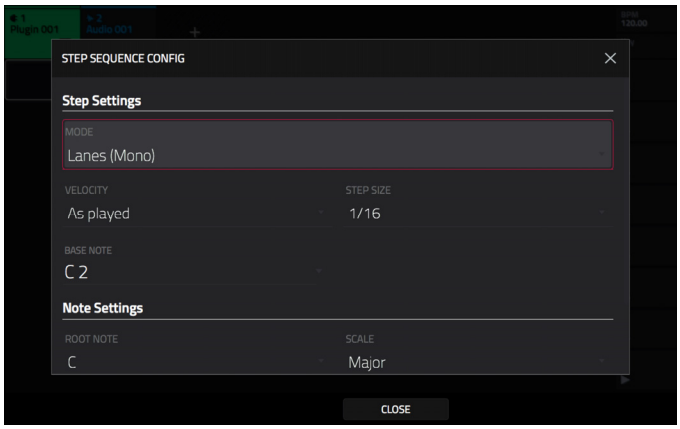
To edit step automation, do any of the following:

- Tap and drag your finger in the step area to freely draw step values.
- Press and hold the **Knobs** button and tap **Screen** to set the knobs to Screen Mode. While viewing the step sequencer, you can use the knobs for tactile control of each step's automation value, emulating traditional knob-based step sequencers. Use **Bank 1** of the knobs to control **Steps 1–8** and **Bank 2** to control **Steps 9–16**. While it is being adjusted, the current automation value will be shown next to the **Parameter** field, as well as in the display strip above the knobs.
- Press and hold **Shift** and tap **Clear** to clear all automation for the selected parameter in the selected clip.
- Press and hold **Shift** and tap **Clear Bar** to clear all automation for the selected parameter in the current bar of the selected clip.
- Use the **Nudge <** and **>** buttons to shift the current automation parameter to the left or right at the current Timing Correct value.
- Use the **slider** on the right side to increase or decrease the parameter values for all automation steps in the visible time range.
- Tap **Presets** and use the buttons to apply the presets to the step automation (See ***Operation*** > ***Modes*** > ***Step Sequencer*** for more information).

Note: When editing step automation, if a step is not activated, a darkened step bar will indicate the current parameter value at that step, based on the last active step.

Step Sequencer Mode – Mono Lanes

Force now includes an additional Step Sequencer mode for melodic track types, Mono Lanes.



Similar to Lanes Mode, in Lanes (Mono) Mode, each column of pads represents one beat division, and each row of pads represents one drum sample in a drum bank or one note in a scale, depending on the type of track. Unlike Lanes mode, however, only one note may be entered at a time.

Press a clip launch pad to insert a step at that beat division for the respective drum sample or note. If you press another clip launch pad in the same column, the previous note will be removed.

Hold **Shift** and press the **Track Assign** buttons marked **Oct-/Oct+** to change the octave or starting pad.

Hold Shift and press **Step Seq** to open the **Configuration** window. In addition to the fields described ***here***:

- When a drum track is selected:

  Use the **Base Pad** field to set the starting pad for the 8 rows of clip launch pads.

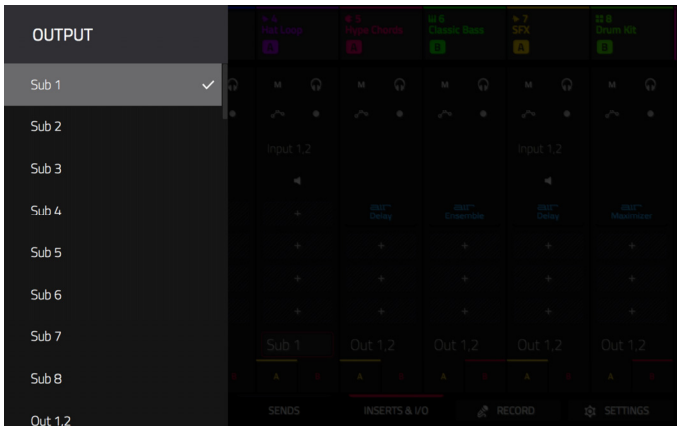
- When a keygroup, plugin, MIDI or CV track is selected:

  Use the **Base Note** field to set the starting note for the 8 rows of clip launch pads.

  Use the **Note Settings** fields to set configure the **Root Note**, **Scale**, and **MIDI Input** setting.

Submixes

Force now contains 8 submixes for additional track routing options.



To assign a track to a submix:

1. Press **Mixer** to open the Mixer. Alternatively, open the **Menu** and then tap **Mixer**.
2. Tap **Inserts & I/O**.
3. Double-tap the **Output** field of the selected track.
4. From the drop-down menu, tap to select **Sub 1**–**8**. The track's audio will now be routed to the selected submix.

To edit a Submix:

1. Press **Mixer** to open the Mixer.
2. Press **Master**, or swipe to the left to open the **Master** section of the Mixer. Submixes are located to the left of the Return and Output channel strips.
3. Use the **Pan & Volume**, **Sends**, and **Inserts & I/O** tabs to adjust the various settings for the submixes.

Workflow Enhancements

Computer Mode Audio Interface

When Force is in Computer Mode, you can now use it as an audio interface.

FX List Sorting

You can now sort FX by **Type** to quickly access plugins by the following categories: **Delay/Reverb**, **Dynamics**, **EQ/Filter**, **Harmonic**, **Modulation** and **Vintage Effects**.

Launch+Note Mode Improvements

You can now quickly change settings while in Launch+Note Mode. Press and hold the **Note** button to adjust the **Timing Correct** value (for Drum tracks) or **Note Mode** scale type (for Plugin, MIDI and Keygroup tracks). Hold **Shift** and press the **Launch** or **Note** button to open its respective settings.

Sampler Save and Edit Buttons

After recording a sample in the Sampler, you can now quickly **Save** or **Edit** the sample by pressing these buttons.

Quick Toggle Bar Length and Metronome

You can now hold **Shift** and press the **Length** and **Metronome Track Assign Buttons** to quickly toggle these features on or off. Hold **Shift** and hold the **Length** and **Metronome** buttons to open each feature's settings.

Updates in Force 3.0.4

New Features

Ableton Live Control

Your Force hardware is now pre-mapped to control Ableton Live 10.1.2 or later for instant performance and production setup, providing an unparalleled level of integration with Ableton Live from a standalone device. Force's Live Control Mode has been carefully designed to allow you to instantly switch between using Force in standalone mode and Live Control mode without ever stopping playback. You can control Ableton Live over a Wi-Fi network for cableless operation, or connect Force to your computer using an Ethernet cable for a more tightly controlled setup.

To get started with Ableton Live Control, you will need to follow the directions in the sections below to download, install and configure the necessary and software.

Akai Network Driver

The Akai Network Driver will allow your Force to seamlessly communicate with and control Ableton Live.

1. Download the Akai Network Driver from **akaipro.com** and install it by following the directions.
2. Once the installation has completed, restart your computer.
3. Power on your Force.
4. Press **Menu** and tap the **gear icon** to open the **Preferences** menu.
5. Tap **Wi-Fi** to open the Wi-Fi settings. Make sure Wi-Fi is set to **On**, and then connect to your local wireless network.

   Alternatively, you can connect Force to your network using an Ethernet connection. In this case, select **Ethernet** from the **Preferences** menu and make sure the **Enabled** option is checked.
6. Open the **Akai Network Driver** application.
7. In the **Configured Remote Device** field, locate the IP address and Serial Number of your Force and select it. If you need to verify you are selecting the correct unit, you can view network information on your Force in the **Wi-Fi** menu by holding **Shift** and tapping **Info**.
8. If you still do not see your unit's Serial Number and IP, click the **Add a Device** button to manually enter your unit's IP address.
9. Once your unit has been successfully configured, you can rename it by pressing the **Rename a Selected Device** button. When you are finished, you can close the Akai Network Driver application and open Ableton Live.

Configuring Ableton Live

1. **Important:** To use Force v3.0.4 to control Ableton Live, you will need to download and install Ableton Live 10.1.2 or later.
2. Open the Ableton Live 10.1.2 or later.
3. Open the **Preferences** menu by selecting **Live > Preferences**.
4. Make sure you have selected your preferred **Audio Device** in the **Audio** tab.
5. In the **Link / MIDI** tab, click the first available **Control Surface** field and select **Akai Force MPC**.
6. In the same row, select **Akai Network – DAW Control** as the **Input** and **Output**.
7. Under the **MIDI Ports** section, set **Remote** for the **Akai_Force_MPC Input** and **Akai_Force_MPC Output** to **On**.

Once the previous steps have been completed, you can begin controlling Ableton Live with your Force.

Live Control Mode

In Ableton Live Control Mode, Force's screen will show a dynamic representation of the Ableton Live software.

To open Live Control mode, press **Menu** on your Force and then tap **Live Control**. Alternatively, hold **Shift** and press **Matrix**.

To exit Live Control mode, press **Menu** on your Force and then select another mode. Alternatively, hold **Shift** and press **Matrix** to return to Matrix mode.

Live Control Mode consists of three main views, which can be selected by tapping the tabs on the left side of the display: ***Matrix View***, ***Mixer View*** and ***Device Control View***. Click the links to jump to that section.

In each of these modes, you will always have access to the following controls and functions on the display:

Tap a track name to select it.

Tap the **stop icons** at the bottom of the display to stop clips in the selected track.

Tap the **Launch Quantize** field (above the scene launch arrows) to set the **Launch Quantize** value.

Tap the **Scene Launch arrows** on the right side of the display to launch all clips in that row.

Additionally, Force's hardware controls are pre-mapped to give you hands-on control of parameters and functions. See ***Control Map*** for the complete mapping.

Control Bar

At the top of the interface is the **Control Bar**. This toolbar can be configured to one of three presets based on typical Ableton Live use cases in the **Settings** window.

To open the Settings window, tap the **gear icon** in the top-right corner of the display.

Use the **Control Bar** field to select one of the three preset configurations: **Settings**, **Arrangement** or **Performance**.

- **Session:** The Session View configuration is ideal for working in Ableton Live's 8x8 clip launch matrix.

  Use the **BPM** field to adjust the tempo in Ableton Live.

  Tap the **Phase Nudge Down** and **Phase Nudge Up** icons to temporarily decrease or increase the tempo in Ableton Live.

  Tap the **metronome icon** to enable to disable the metronome in Ableton Live.

  Tap the **follow icon** to turn following on or off. When set to on, your Ableton Live software display will move along with playback to keep the current playback position in view. You can adjust the **Follow Behavior** in Ableton Live's Preferences.

  Use the **Position** field to select the playback position.

  Tap the **+ icon** to enable or disable MIDI Arrangement Overdubbing.

  Tap the **automation icon** to enable to disable automation recording.

- **Arrangement:** The Arrangement configuration is ideal for working with Ableton Live's linear Arrangement view.

  Use the **BPM** field to adjust the tempo in Ableton Live.

  Use the **Position** field to select the playback position.

  Use the **Start** field to select the Arrangement loop start point.

  Tap the **loop icon** to enable or disable Arrangement looping.

  Use the **Length** field to select the Arrangement loop length.

- **Performance:** The Performance configuration is ideal for real-time performance with Ableton Live.

  Use the **BPM** field to adjust the tempo in Ableton Live.

  Tap the **Phase Nudge Down** and **Phase Nudge Up** icons to temporarily decrease or increase the tempo in Ableton Live.

Use the **Quantize To** field to set the time division for quantization: **1/4**, **1/8**, **1/8T**, **1/8 and 1/8T**, **1/16**, **1/16T**, **1/16 and 1/16T** or **1/32**.

Matrix View

The Matrix View provides an overview of the clip matrix from Ableton Live's Session view, displaying up to eight tracks and eight rows of clips. The tracks displayed on Force will be shown in Ableton Live with a colored box outline.

Use the **cursor** buttons to move the Matrix view by one row or column at a time.

Press the **Master** button to select the Master track. This will also bring the Master and Sends tracks into view if they are not already.

All tracks, clips and scenes will display the same color and names as assigned in Ableton Live. The clip launch pads on Force will also change color depending on the playback or recording state:

When a clip is stopped, it will display the color set in Ableton Live on both the hardware pads and display.

When a clip is playing, the hardware pad will blink green, and the clip on the display will fill with white based on the clip length.

When a clip is preparing to record, it will flash red on both the hardware pads and display until the launch quantization value is reached.

When a clip is recording, it will blink red on the hardware pads and be lit red on the display.

You can also access the following controls and features by tapping the buttons at the bottom of the display:

Tap **Quantize** at the bottom of the screen to quantize the currently selected clip according to the **Quantize To** value (set in the Ableton Live Control ***Settings***).

Tap **Delete** at the bottom of the screen to delete the currently selected clip.

Tap **Insert Scene** at the bottom of the screen to insert a new scene after the currently selected clip.

Tap **Rec** at the bottom of the screen to enable or disable Ableton Live's Arrangement Record. Use this to capture your Session performance into the Arrangement view.

Mixer View

The Mixer View gives you control of Ableton Live's key mixing features, such as levels, stereo panning, sends and returns and more. Use the tabs at the bottom of the display to select what information is shown on Force's display.

- **Levels:** The Levels tab gives you an overview of the volume level of your tracks, including the Returns and the Master track.

  Tap a **level slider** and then use the **data dial** or **–/+** buttons to adjust the volume level of the currently selected track, return or master. Alternatively, tap and drag a **level slider** to adjust the volume level.

  The level sliders and meters in each pad show a visual representation of the level. Double-tap a **track** on the screen to open a large version of the level slider and meter.

- **Main:** The Main tab gives you a full channel strip with a number of mixing options for your tracks.

  Tap the **track activator** (under the track name) to enable or disable (mute) the track.

  Tap the **S** button to solo the track.

  Tap the **record button** to arm the track for recording.

  The **pan sliders** in each track show a visual representation of the pan. Tap a pan slider and then use the **data dial** or **–/+** buttons to adjust the panning of the currently selected track, return or master. Alternatively, tap and drag the **pan slider** to adjust the panning. Double-tap a pan slider on the screen to open a large version of the slider.

  Tap a **level slider** and then use the **data dial** or **–/+** buttons to adjust the volume of the currently selected track, return or master. Double-tap a level slider on the screen to open a large version of the slider. Alternatively, tap and drag a **level slider** to adjust the volume level.

- **Sends:** The **Sends** tab gives you an overview of the Send and Return controls in Ableton Live.

  Use the **send knobs** to adjust the send level of tracks. Tap the knob and use the **data dial** or **–/+** buttons to adjust the level. Alternatively, tap and drag the **send knob** to adjust the send level.

  Tap the **A** or **B** icons to assign the track to the Ableton Live's A or B cue mix.

Device Control View

The Device Control View allows you to control MIDI Instruments, Audio Effects and other Devices in Ableton Live directly from your Force. The current view of the Device Control Tab is determined by the "blue hand" remote control icon in Ableton Live's Detail View.

Tap the **Track Name** under the Control Bar to select the Track. If there is a Device(s) associated with the Track, the first will be shown below.

Tap the **lock icon** on the right side to lock parameter changes to the device.

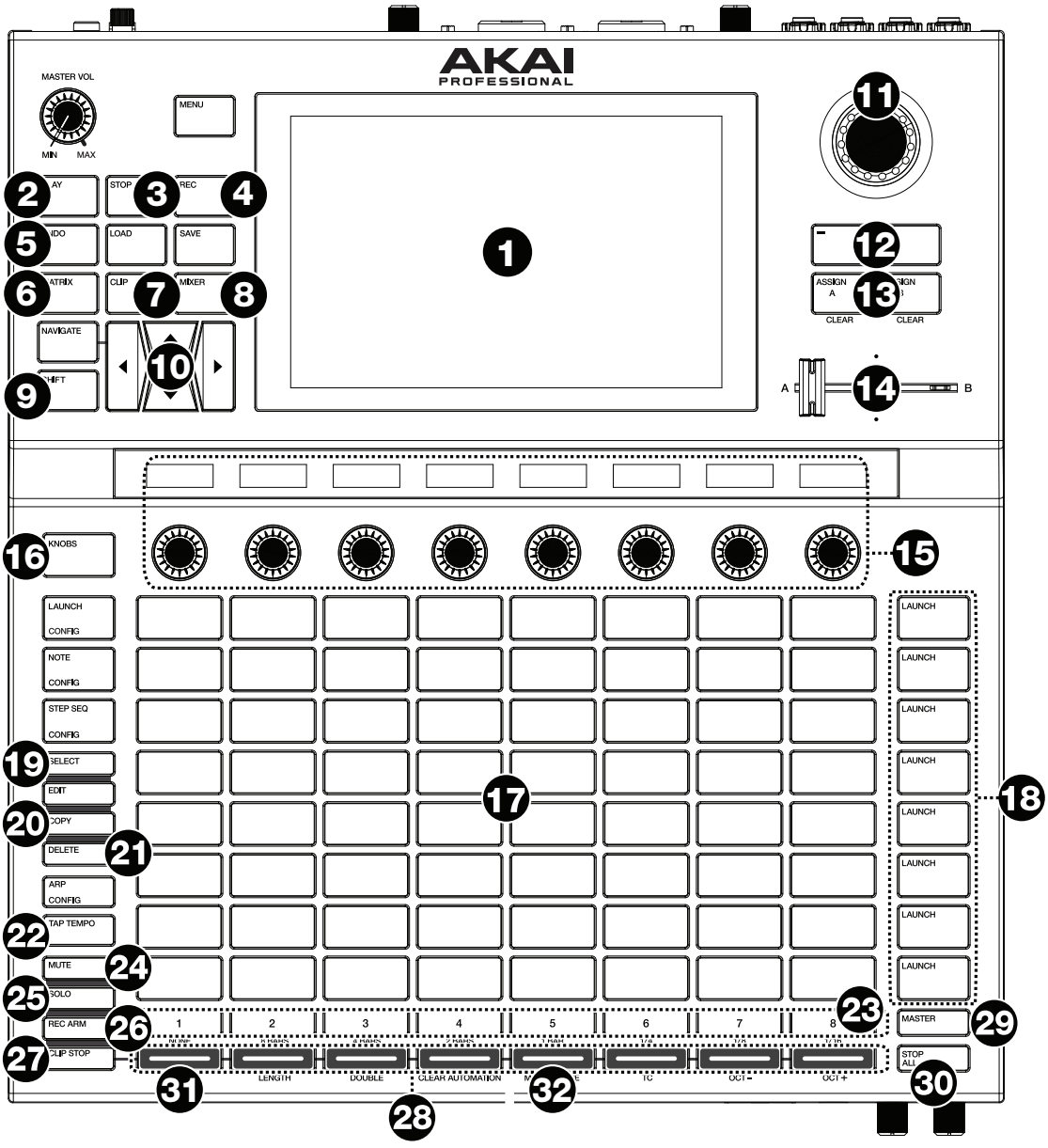
Use the **sliders** to adjust the parameters of the device. Tap a **slider** and then use the **data dial** or **–/+** buttons to adjust the parameter. Alternatively, tap and drag a **slider** to adjust the parameter.

Use the **Device –** and **+** buttons to change devices on the same track. The white and grey boxes below the parameter sliders represent the number of available Devices.

Use the **Bank –** and **+** buttons to cycle through banks of controls for the device, if available. For internal Ableton Live plugins, you will see the name of the current bank. For third party plugins, you will see the number of the current bank.

Tap **Device On** to enable or disable (bypass) the device.

Control Map



Basic Controls

#	Device Control	Ableton Live Function
1	Display	In Ableton Live Control Mode, Force's display will show a dynamic representation of Ableton Live's software.
2	Play	Start playback.
3	Stop	Stop playback.
4	Rec	Enable and disable Session Record.
5	Undo	Undo the last action.
6	Matrix	Opens the Ableton Clip Launch Matrix tab
7	Clip	Opens the Ableton Device Control tab
8	Mixer	Opens the Ableton Mixer tab.
9	Shift	Hold this button to access secondary button functions. See ***Shift Controls*** for more details.
10	Directional Cursors	Moves the 8x8 Session Matrix by one row or one column. The clip slots currently being controlled by Force's clip launch pad grid are shown in Ableton Live with a red border.
11	Data Dial	Adjusts the highlighted field.
12	-/+	Decreases or increases the value of the highlighted field.
13	Assign A / Assign B	Press and hold one of these buttons and then press a **Track Assign Button** to assign the track to one of Ableton Live's cue mixes.
14	Crossfader	Controls Ableton Live's crossfader to blend between Cue Mixes A and B.
15	Knobs	Adjusts the parameters displayed in the OLED screens above. Use the **Knobs Button** to toggle between **Knobs 1–8** (which control Track Level for the eight tracks currently viewed) and **Knobs 9–16** (which are mapped to control the device on the current track, based on the location of the "blue hand" in Ableton Live's Detail View).
16	Knobs Button	Toggles between **Knobs 1–8** and **Knobs 9–16**.
17	Clip Launch Pads	Force's pads are fixed to clip launching in Ableton Live Control Mode.
18	Launch Buttons	Launch all clips in the row.
19	Select	Press and hold this button and tap a clip to select it without launching it
20	Copy	Duplicates the selected clip into the next available clip slot.
21	Delete	Deletes the selected clip.
22	Tap Tempo	Tap this button at the desired rate to set a new tempo in Ableton Live.
23	Track Selectors	Select one of the current eight tracks. The selected track will be highlighted white.
24	Mute	Sets the Track Assign buttons to Mute for the current eight tracks.
25	Solo	Sets the Track Assign buttons to Solo/Cue for the current eight tracks.
26	Rec Arm	Sets the Track Assign buttons to Record Arm for the current eight tracks.
27	Clip Stop	Sets the Track Assign buttons to Stop Clips for the current eight tracks.
28	Track Assign	Performs the selected action (Mute, Solo, Rec Arm or Clip Stop) for the current eight tracks.
29	Master	Selects the Master track and Sends. Press again to return to the previously selected track.
30	Stop All	Stops all clips that are playing or recording.

Shift Controls: Press and hold Force's **Shift** button, and then press the following buttons for additional actions:

#	Device Control	Ableton Live Function
2	Play	Continue playback.
3	Stop	Stop playback and return song position to 1:1:1.
5	Undo	Redo the last action.
10	Directional Cursors	Moves the 8x8 Session Matrix by eight rows or eight columns.
23	Track Selectors	Sets the Global Launch Quantization to the value shown beneath the corresponding button. The current value will be lit white while Shift is held.
31	Quantize	Quantizes the currently selected clip to the grid value set by Force. To set this value, tap the Setting **gear icon** in the top-right of the display, then use the **Quantize To** field to set the value.
32	Metronome	Enable or disable Ableton Live's metronome.

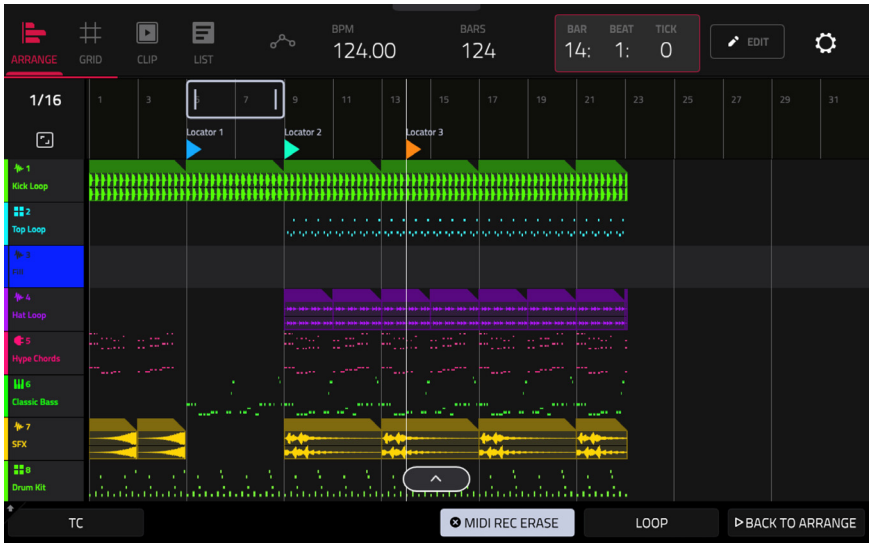
Updates in Force 3.0.5

New Features

Arrange Mode

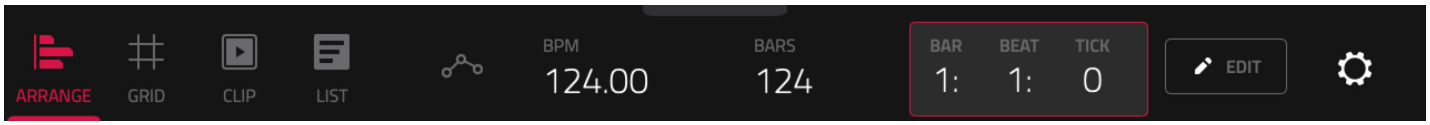
Force now includes Arrange Mode, a fully featured linear sequencer. With Arrange Mode, you can:

- Create an arrangement of a song against a linear timeline.
- Record your clip performance or live input (MIDI or Audio) into a linear timeline.
- Edit and arrange your song using Force's powerful Arrange Edit commands.
- Mixdown your song to a stereo audio file, or stem it as separate tracks.
- Experiment with different song ideas by launching clips against your linear arrangement.
- Edit a single track from your arrangement in the Arrange Mode pull-up track editor, Grid or List editors.



Getting Started

To enter Arrange Mode, press **Menu** and then tap **Arrange**. The event editor's Arrange, Grid, Clip and List views are displayed as tabs in the top left of the screen to make it easy to jump between them.



The toolbar at the top of Arrange Mode lets you switch between the different edit modes as well as showing project and timing information.

Use the **Arrange**, **Grid**, **Clip** and **List** icons to switch between the different Force modes.

Tap the **automation icon** to toggle between **Read** and **Write**. To disable or enable global automation entirely, press and hold **Shift** and tap this icon.

Use the **BPM** field to adjust the tempo of the project.

Use the **Bars** field to set the length of the arrangement.

The time counter at the top of the screen indicates the current playhead position. Double-tap this field to open the ***Locate Popup***.

Tap the **pencil** icon to open the ***Arrange Edit*** window.

Tap the **gear icon** to open the ***Grid Settings***.

The project's tracks are displayed in Arrange Mode on a linear timeline. Each track header will show Record Arm, Track Automation and Crossfader Assign states. Note that this requires the vertical zoom to be adjusted so there is enough space to show all components. Use the pinch and expand gestures to change the zoom level of the arrangement.

To open the Timing Correct window, tap **TC** at the bottom of the screen. Alternatively, tap the timing correct value shown above the track headers. See ***General Features*** > ***Timing Correct (TC)*** to learn about this.

To enable or disable MIDI record erasing, tap the **MIDI Rec Erase** button at the bottom of the screen. When enabled, the new recording will replace existing MIDI data. When disabled, recording MIDI will overdub on existing MIDI data in the track.

To enable or disable loop, tap **Loop** at the bottom of the screen.

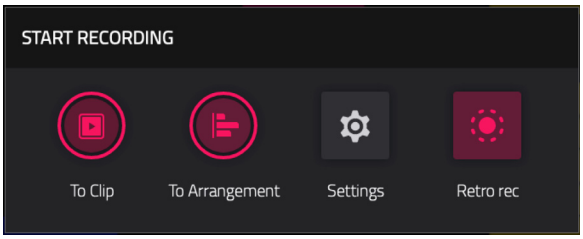
To return playback of all tracks to the recorded arrangement, tap the **Back to Arrange** button.

The Arrangement timeline also features six user-controllable Locate markers. Press and hold **Shift** to show the six Locator buttons at the bottom of the screen.

To add a locator at the playhead position, tap one of the six Locator buttons. You can also use the ***Locate Popup*** to edit these markers.

To record a clip performance into Force's arrangement timeline:

1. You must first configure the **Record** button to point to the linear arrangement rather than the clip matrix. You can set this by doing either of the following:
    - Hold **Shift** and press the **REC** button.
    - Press and hold the **REC** button to open the Start Recording Selector window, and then tap **To Arrangement**.



2. Next, enter Arrange mode by pressing **Menu** and tapping **Arrange**.
3. Trigger a clip or scene to begin recording. As clips are triggered, Arrange Mode will draw regions containing audio or MIDI data into the track lanes.

To replace a section of the arrangement with a new clip performance:

1. Tap the **Loop** button at the bottom of the screen to activate loop.
2. Set the **Loop Start** and **Loop End** points by tapping and dragging the beginning and end of the loop region in the timeline. Tapping and dragging in the middle of the loop region moves both the Loop Start and Loop End points at the same time.
3. Enable arrangement recording by following the directions above.
4. Trigger a clip or scene to begin recording. The recording will begin at the Loop Start point and finishes at the Loop End point, making it easy to replace a section of the arrangement.

To play the arrangement:

- Press **Play** to begin playback of the arrangement from 1:1:00, or if **Loop** is activated, from the Loop Start.
- Hold **Shift** and press **Play** to begin playback from the current playhead position.

To move the playhead position, tap the **Playhead Position** field in the toolbar to select it, and then use the **data dial** or **-/+** buttons to adjust the value. Alternatively, you can set the playhead position by tapping in the lower-half of the timeline.

Switching Between the Arrangement and Clips

For each track in Force, you can play a clip or play the linear arrangement, but never both at the same time. When you trigger a clip, the arrangement on that track will stop playing; conversely, if you are triggering clips and then play the arrangement, the clips will stop.

In Arrange Mode, a track will show the **Back to Track** icon (a square with a play symbol shown on the right side of the track lane) when either there is a clip playing or the **Stop All** button has been pressed.

To return playback of a track to its linear arrangement, simply tap the **Back to Track** icon.

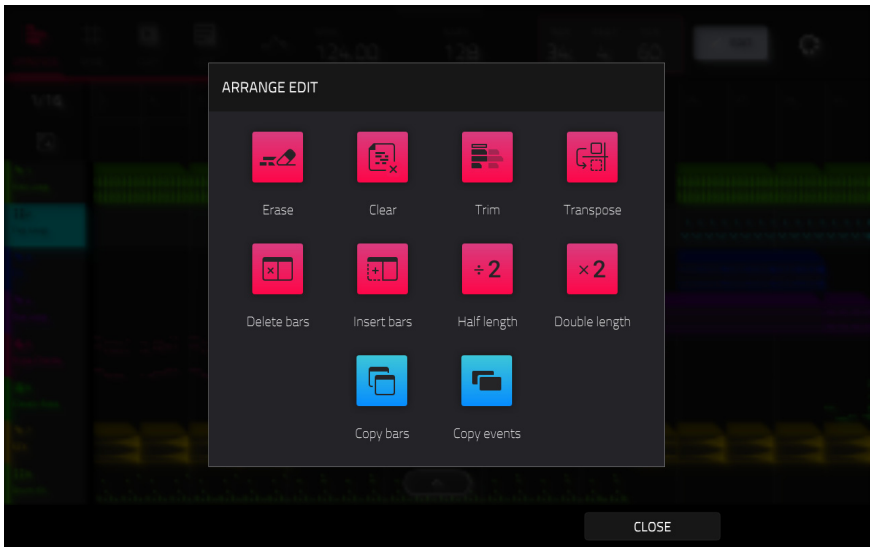
To return *all* tracks to the linear arrangement, tap the **Back to Arrange** button at the bottom of the screen in Arrange Mode.

You can also set the track's playback type from Matrix mode or Force's launch pad mode. Hold **Shift** and press the **Launch** button to open the **Launch Config** window. Select the **Show arrangement in clip matrix** option so it is enabled. The arrangement row will appear as the top row of pads above the first row of clips in Matrix/Launch mode. Tapping a pad in the arrangement row will stop playing any clips on the respective track and play the linear arrangement. Tapping the **Scene Launch** button for the arrangement row will play the linear arrangement for all tracks.

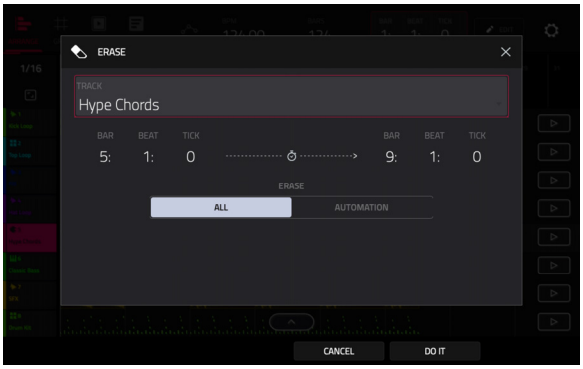
Editing Arrangements

You can edit your linear arrangement using Force's powerful Arrange Edit commands.

To edit an arrangement, tap the **pencil icon** in the Arrange Mode toolbar to open the Arrange Edit window, and then select one of the following tools.



The **Erase** function erases all or part of a track.



To select the track you want to erase within the sequence, use the **Track** field.

To set the time range of the track you want to erase, use the **Bar**, **Beat**, and **Tick** fields. The left fields set the start of the time range, and the right fields set the end of the time range.

To select what types of events you erase, select one of the **Erase** options:

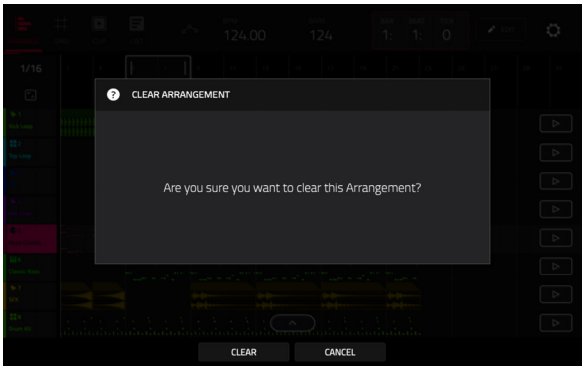
All erases all pad events from the designated time range and reset all of its settings.

Automation erases only automation from the designated time range. Use the **Parameter** field to select what type of automation is erased.

To confirm your choice, tap **Do It**.

To cancel and return to the previous screen, tap the **X**, **Cancel**, or anywhere outside the window.

The **Clear** function erases **all** events from the track and resets **all** of its settings.

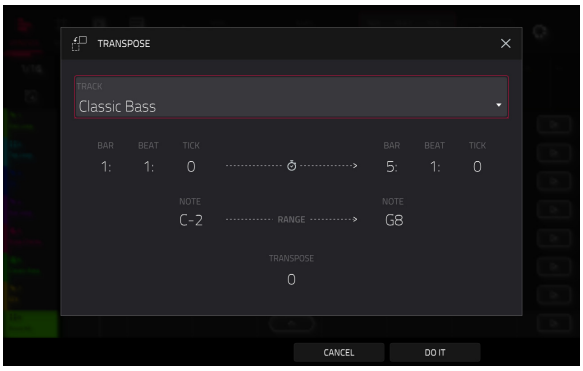


To confirm your choice, tap **Clear**.

To return to the previous screen, tap **Cancel**.

The **Trim** function immediately crops the arrangement to the **Bars** value in the main Arrangement Mode window.

The **Transpose** function transposes a range of events on a track in an arrangement. The events within that range will shift accordingly in the Grid View. This option is available for MIDI tracks only.



To select the track you want to transpose within the arrangement, use the **Track** field.

To set the time range of the arrangement you want to transpose, use the two sets of **Bar**, **Beat**, and **Tick** fields. The left fields set the start of the time range, and the right fields set the end of the time range.

For drum tracks, use the two **Pad** fields to select the "source" pad (whose events you want to move) and "destination" pad (where the events will be placed). Tap each field and then press the desired pad.

For keygroup tracks, plugin tracks, and MIDI tracks, set the range and amount of transposition:

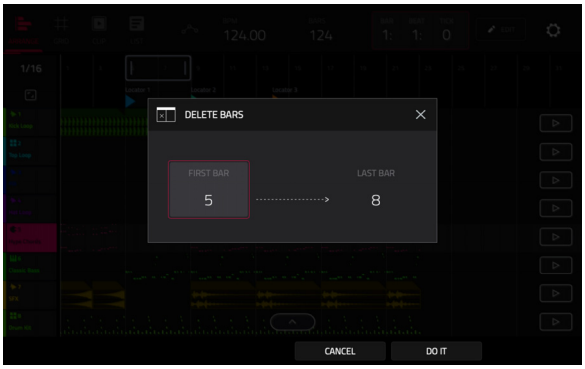
Range: Use the two **Note** fields to set the range of notes of the events you want to transpose. Note events within this range will be transposed, while note events outside of this range will remain unchanged.

Transpose: Use this field to set how many semitones up or down you want to transpose the note events.

To confirm your choice, tap **Do It**.

To cancel and return to the previous screen, tap the **X**, **Cancel**, or anywhere outside the window.

The **Delete Bars** function removes a range of bars from the arrangement.

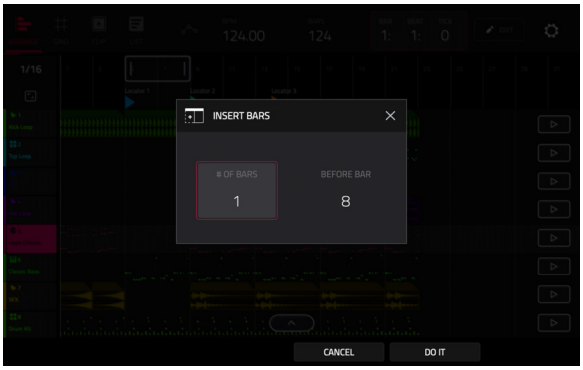


To set the range of bars to delete from the arrangement, use the **First Bar** and **Last Bar** fields.

To confirm your choice, tap **Do It**.

To cancel and return to the previous screen, tap the **X**, **Cancel**, or anywhere outside the window.

The **Insert Bars** function adds a number of bars to the arrangement.



To set how many bars to add, use the **# of bars** field.

To set where the bars are added, use the **Before Bar** field. The bars will be inserted before this bar.

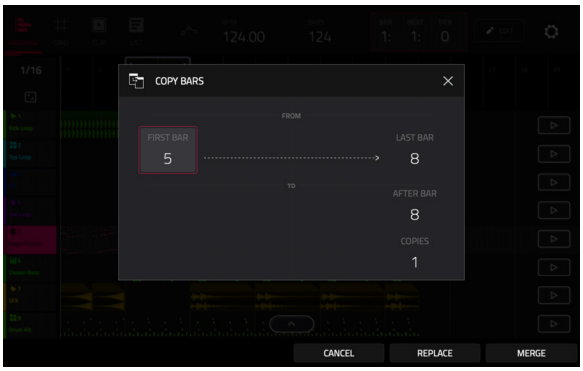
To confirm your choice, tap **Do It**.

To cancel and return to the previous screen, tap the **X**, **Cancel**, or anywhere outside the window.

The **Half Length** function **immediately** halves the length of the arrangement.

The **Double Length** function **immediately** doubles the length of the arrangement.

The **Copy Bars** function copies a range of bars from the arrangement and adds them at a specified point.



To set the range of bars to copy from the arrangement, use the **First Bar** and **Last Bar** fields.

To set where you want to add the copied bars, use the **After Bar** field. The copied bars will be inserted after this one.

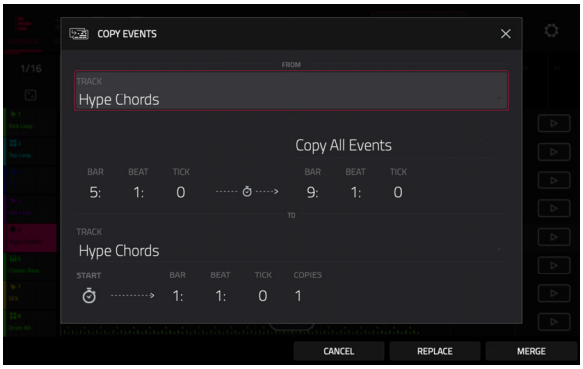
To set how many instances of the copied bars you want to add, use the **Copies** field.

To overwrite the arrangement at the destination, tap **Replace**.

To add the events to the destination without erasing anything, tap **Merge**.

To cancel and return to Arrange Mode, tap **Cancel**.

The **Copy Events** function copies a range of events or selected audio track regions from the arrangement and adds them to another at a specified point.



To select the "source" track, use the **From Track** field. This is the track whose content you want to copy.

To set what content is copied, use the field below the **From Track** field. **Copy All Events** will copy and paste all events in the track. **Copy Only Selected Events** will copy and paste only the events that are currently selected.

To set the time range of the events or the audio track you want to copy, use the **Bar**, **Beat**, and **Tick** fields. The left fields set the start of the time range, and the right fields set the end of the time range.

To select the "destination" track, use the **To Track** field. This is the track where the content of the source track will be copied.

To set where you want to add the copied events or audio track, use the **Bar**, **Beat**, and **Tick** fields. The events or audio track will be added after this point.

To set how many instances of the copied events or audio track you want to add, use the **Copies** field.

To overwrite the arrangement at the destination, tap **Replace**.

To add the events to the arrangement at the destination without erasing anything, tap **Merge**.

To cancel and return to Arrange Mode, tap **Cancel**.

In Arrange Mode, you can tap and hold on the header for an audio track (on the left side of the screen) to open a drop-down menu of Track Edit options for audio tracks.

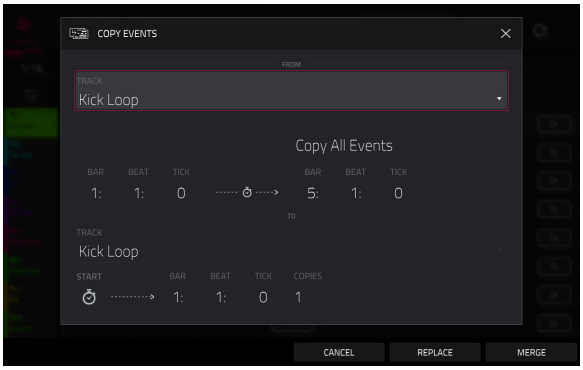
The **Clear** function erases **all** events from the track and resets **all** of its settings.

To confirm your choice, tap **Clear**.

To return to the previous screen, tap **Cancel**.

The **Copy Track** function **immediately** duplicates the selected track to a new track.

The **Copy Events** function copies selected audio track regions from the track and adds them to another at a specified point.



To select the "source" track, use the **From Track** field. This is the track whose content you want to copy.

To set what content is copied, use the field below the **From Track** field. **Copy All Events** will copy and paste all events in the track. **Copy Only Selected Events** will copy and paste only the events that are currently selected.

To set the time range of the events or the audio track you want to copy, use the **Bar**, **Beat**, and **Tick** fields. The left fields set the start of the time range, and the right fields set the end of the time range.

To select the "destination" track, use the **To Track** field. This is the track where the content of the source track will be copied.

To set where you want to add the copied events or audio track, use the **Bar**, **Beat**, and **Tick** fields. The events or audio track will be added after this point.

To set how many instances of the copied events or audio track you want to add, use the **Copies** field.

To overwrite the arrangement at the destination, tap **Replace**.

To add the events to the arrangement at the destination without erasing anything, tap **Merge**.

To cancel and return to Arrange Mode, tap **Cancel**.

The **Reset Channel Strip** function **immediately**:

- clears all **Insert** effect slots;
- turns **Mute**, **Solo**, automation, and **Monitor** off;
- resets the **pan knob** to the center;
- resets the **level slider** to **0.00 dB**; and
- turns the **Record Arm** button off.

The **Bounce to Sample** function **immediately** renders the track as an audio sample and places it in the project's sample pool. By default, it will be named **Bounce -** and appended with the track name.

The **Flatten Track** function **immediately** renders all edits and regions within the current track's arrangement to a new audio file.

The **Flatten Track Elastique** function also **immediately** renders all edits and regions within the current track's arrangement to a new audio file, but renders any time-stretching or pitch-shifting using the Elastique Pro algorithm, providing higher-quality results with less artifacts than Force's standard algorithm.

You can also tap and hold on the header for a MIDI track (on the left side of the screen) to open a drop-down menu of Track Edit options for MIDI tracks.

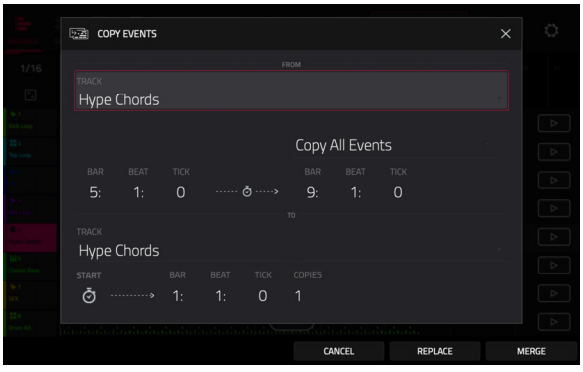
The **Clear** function erases **all** events from the track and resets **all** of its settings.

To confirm your choice, tap **Clear**.

To return to the previous screen, tap **Cancel**.

The **Copy Track** function **immediately** duplicates the selected track to a new track.

The **Copy Events** function copies a range of events from the arrangement and adds them to another at a specified point.



To select the "source" track, use the **From Track** field. This is the track whose content you want to copy.

To set what content is copied, use the field below the **From Track** field. **Copy All Events** will copy and paste all events in the track. **Copy Only Selected Events** will copy and paste only the events that are currently selected.

To set the time range of the events or the audio track you want to copy, use the **Bar**, **Beat**, and **Tick** fields. The left fields set the start of the time range, and the right fields set the end of the time range.

To select the "destination" track, use the **To Track** field. This is the track where the content of the source track will be copied.

To set where you want to add the copied events or audio track, use the **Bar**, **Beat**, and **Tick** fields. The events or audio track will be added after this point.

To set how many instances of the copied events or audio track you want to add, use the **Copies** field.

To overwrite the arrangement at the destination, tap **Replace**.

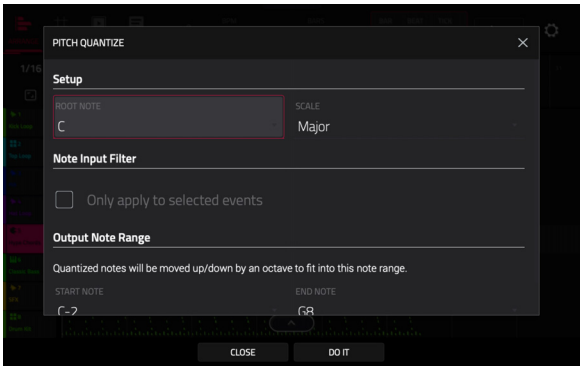
To add the events to the arrangement at the destination without erasing anything, tap **Merge**.

To cancel and return to Arrange Mode, tap **Cancel**.

The **Double-Speed Events** function **immediately** halves the lengths of all note events on the track in the arrangement as well as the distance between them. In other words, the track's notes are pressed closer together so the track sounds like it is playing at twice the previous speed. This does not actually affect the pitches of notes or the tempo.

The **Half-Speed Events** function **immediately** doubles the lengths of all note events on the track in the arrangement as well as the distance between them. In other words, the track's notes are spread further apart so the track sounds like it is playing at half of the previous speed. This does not actually affect the pitches of notes or the tempo.

The **Pitch Quantize** function forces the pitches of note events into a specific scale.



To select the desired root note of the scale, use the **Root Note** field.

To select a type of scale, use the **Scale** field.

To determine which note events will be quantized, tap the **Only apply to selected events** checkbox.

When **on**, only the currently selected note events will be quantized.

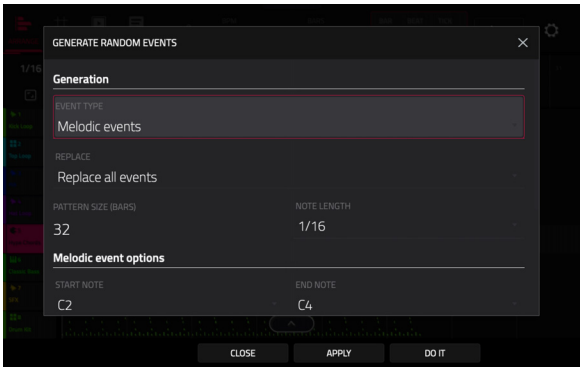
When **off**, **all** pitches in the current track will be quantized.

To set lowest-possible and highest-possible pitches where the quantized note events will be placed, use the **Start Note** and **End Note** fields (respectively). If a note event is originally outside of this range, it will be forced to the nearest pitch (within the scale) inside the range.

To continue and quantize the note events, tap **Do It**.

To cancel, tap **Close**.

The **Random Events** function creates random melodic or drum patterns on the current MIDI track in the arrangement.



To select the type of events you want to create, use the **Event Type** field to select **Drum Events** or **Melodic Events**.

To select how the events will be created relative to the existing events on the track, use the **Replace** field:

Replace All Events: Select this option to replace all events on the track with the randomly generated ones.

Replace Events in Note Range: Select this option to replace all events in the designated note range on the track with the randomly generated ones. Use the **Bank** or **Start Pad** and **End Pad** menus to set the note range for drum events or the **Start Note** and **End Note** menus to set the note range for melodic events.

Add to Existing Events: Select this option to add the randomly generated events to the track without replacing or overwriting the existing ones.

To set how many bars the events will use, use the **Pattern Size** (**Bars**) field. The highest possible value is the number of bars in the current sequence.

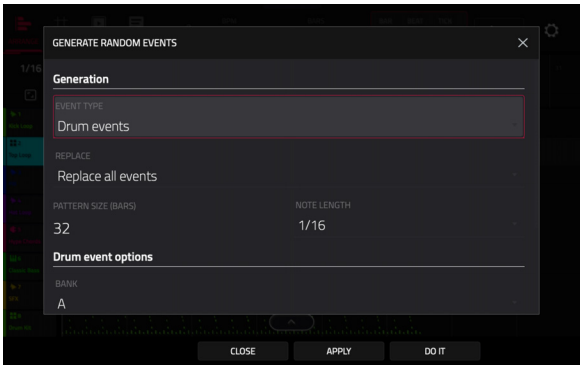
To select the duration of the events, use the **Note Length** field. (This feature is nonfunctional if **Legato** is enabled while generating melodic events.)

To generate the events and keep this window open, tap **Apply**.

To generate the events and close the window, tap **Do It**.

To close the window without generating any events, tap **Close**.

If **Event Type** is set to **Drum Events**:



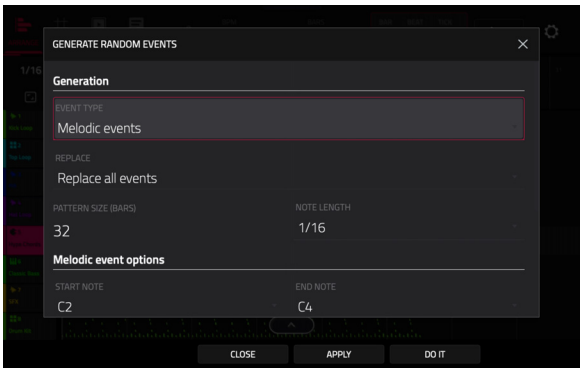
To select the pad bank that will be used to generate the events, use the **Bank** field or select **Range** to use the **Start Pad** and **End Pad** menus to define a specific pad range instead.

To define a specific pad range over which the events will be generated, use the **Start Pad** or **End Pad** fields. You can use these fields only if the **Bank** menu is set to **Range**.

To set how closely together the events will be placed in the track, use the **Density** (%) slider.

To set how widely or narrowly the rhythmic patterns of the generated notes vary, use the **Rhythm Variation** slider.

If **Event Type** is set to **Melodic Events**:



To define a specific note range over which the events will be generated, use the **Start Note** or **End Note** fields.

To enable or disable legato, tap the **Legato** checkbox.

When **on**, the generated notes will be extended or shortened to create a long, unbroken phrase from the first note event's start point to the last note event's end point. Each note event will sustain until another note event starts. If multiple note events start at the same time (and are not the last note events), their lengths will become identical.

When **off**, the generated notes will use the duration set by the **Note Length** menu.

To set the maximum number of note events that can be sounding simultaneously in the track, use the **Polyphony** field to select **1**–**8**.

To determine whether or not the notes will use a scale, tap the **Constrain Notes to Scale** checkbox.

When **on**, the notes will be within the scale determined by the **Scale** menu.

When **off**, the notes will be chromatic.

To set how closely together the events will be placed in the track, use the **Density** (%) slider.

To set the root note of the scale that the notes will use, use the **Root Note** field.

To select the scale or mode that the generated notes will use, use the **Scale** field.

The **Bounce to Sample** function **immediately** renders the track as an audio sample and places it in the project's sample pool. By default, it will be named **Bounce -** and appended with the track name. This function does not work for MIDI or CV tracks.

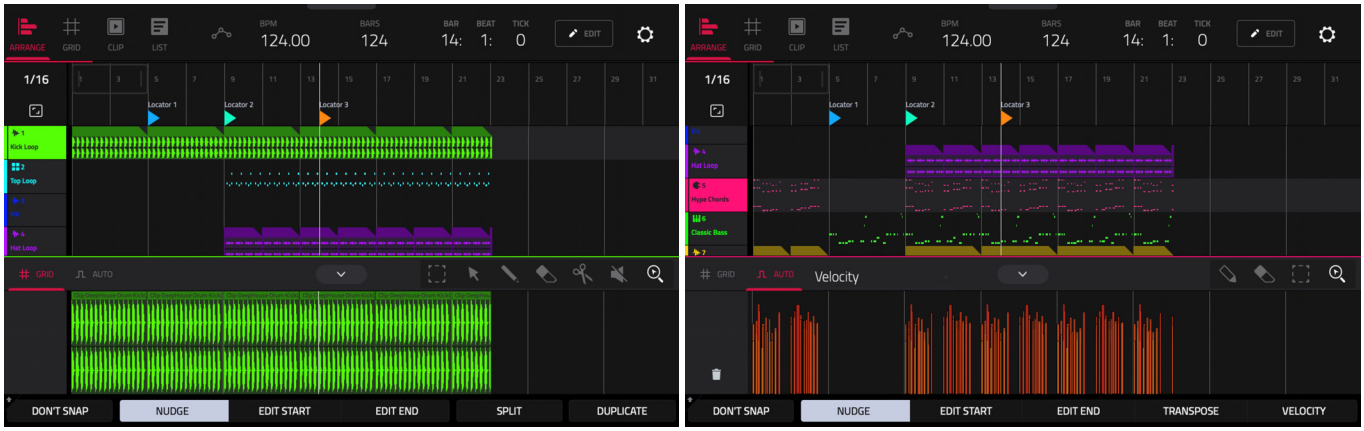
The **Bounce to Audio Track** function **immediately** renders the track as an audio track in the project. By default, it will be named **Audio** and appended with a number (e.g., **Audio 002**). This function does not work for MIDI or CV tracks.

Arrangement Track Editor

When in Arrange Mode, events from the currently selected track can be edited using the bottom panel track editor.

To open the track editor, do either of the following:

- Tap the arrow up icon at the bottom of the screen.
- Double-tap inside a track lane in the main arrangement view.



Once opened, you can also adjust the height of the track editor by tapping and dragging the arrow icon or anywhere in the editor toolbar.

For drum tracks, you can tap and hold on a pad header in the track editor to open a drop-down menu where you can quickly **Mute**, **Solo**, or change the **Color** of the pad.

To close the track editor, tap the down arrow icon.

At the top of the Track Editor are two tabs, **Grid** and **Auto**. Use the **Grid** tab to edit MIDI events or audio regions. Use the **Auto** tab to edit automation for the track. The editing workflow in the arrangement track editor is the same as in ***Clip Mode***, except that the arrangement track editor is fixed to editing the arrangement event list, whereas the clip editor follows the currently selected clip or arrangement event list.

To edit a track from your arrangement using Clip Edit Mode, make sure the arrangement is playing and the desired track is selected (you can check this by making sure the **Back to Track** icon is not displayed on the selected track). Then, open Clip Edit Mode to edit the arrangement track.

Press and hold **Shift** to view additional editing options for the Track Editor.

To select all events, tap **Select All**.

To cut the selected events, tap **Cut**.

To copy the selected events, tap **Copy**.

To paste the selected events at the playhead location, tap **Paste**.

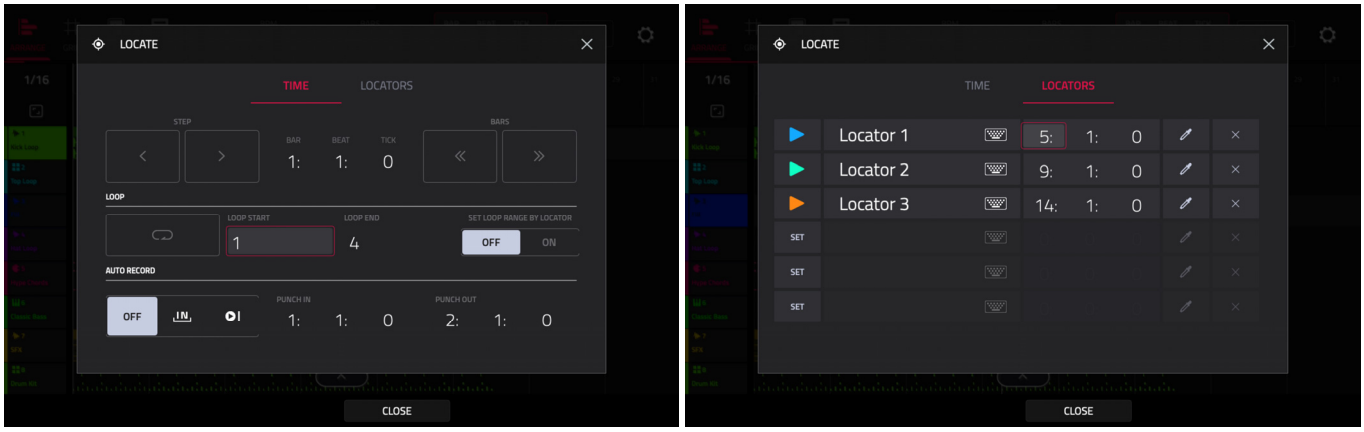
To delete the selected events, tap **Delete**.

To duplicate the selected events, tap **Duplicate**. The events will be added after the last selected event.

Locate Popup

Force now includes a popup window for the Locate function, allowing you to quickly jump to specific points in your project.

To open the Locate popup, double-tap the **Bars:Beats:Ticks** field in the **toolbar**.



The Locate popup is divided into two sections:

The **Time** tab is used to adjust the position of the playhead in the arrangement, as well as adjust Loop and Record settings.

To move the playhead in the arrangement, use the **Bars:Beats:Ticks** fields. You can also tap the **Step** and **Bars** arrow buttons to move the playhead by the specified amount.

To enable loop in the arrangement, tap the **Loop** button. Use the **Loop Start** and **Loop End** fields to set the length of the loop. Alternatively, you can set the loop length according to the Locator markers in the timeline. When **Set Loop Range By Locator** is set to **On**, the loop range will automatically adjust to the length between the selected Locator and the next Locator. The current loop region is always displayed in the timeline of the arrangement whether it is activated or not.

To enable automatic recording when the loop starts, use the **Auto Record** field. When enabled, recording will begin immediately when the arrangement loops.

The **Locators** tab is used to edit the six Locator markers which can be applied to the timeline.

To add a locator, tap **Set**.

To rename a locator, tap the **keyboard icon**, and then use the keyboard to enter a new name.

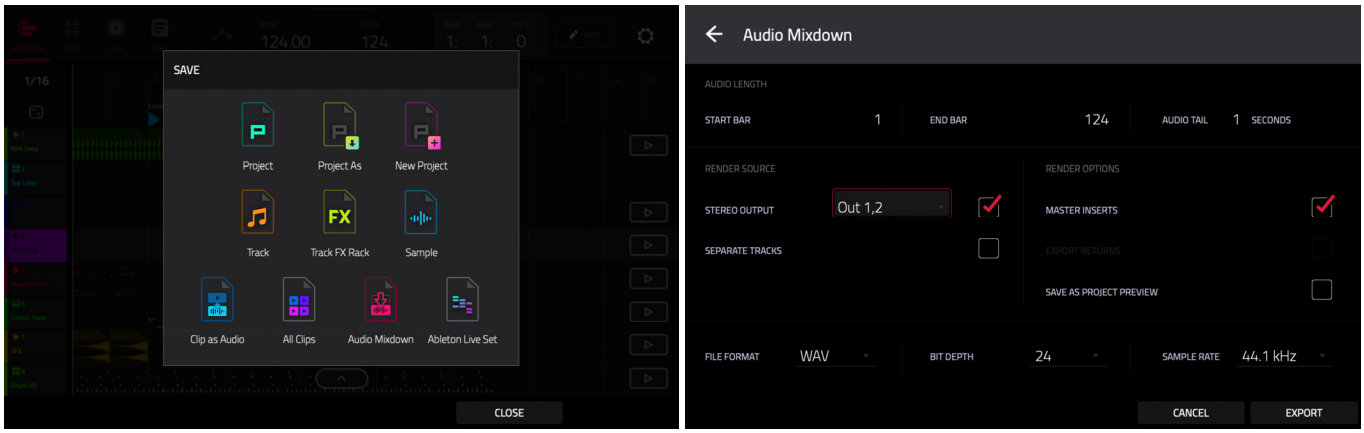
To adjust the position of the locator, use the **Bars:Beats:Ticks** fields.

To edit the color of the locator, tap the **eyedropper icon**, and then select a color from the list.

To delete the locator, tap the **X** icon.

To close the Locate window, tap **Close**, the **X** in the upper-right corner, or anywhere outside the window to return to the arrangement.

Saving and Exporting the Arrangement



To save and export your arrangement, press the **Save** button, and then select **Audio Mixdown**. In this window, you can mixdown or stem your arrangement into individual files.

To set the time range that you want to mixdown, use the **Start Bar** and **End Bar** fields under Audio Length. You can add a number of seconds to the end of the mixdown to capture any ringing notes or effects (such as a reverb tail) by adjusting the **Audio Tail** field.

To set the parameters for the audio mixdown, use the fields under **Render Source** and **Render Options**. Check the **Separate Tracks** box to render each track of the arrangement as stems.

To configure the audio mixdown file settings, use the fields at the bottom of the screen to set the **File Format**, **Bit Depth**, and **Sample Rate**.

You can also export the arrangement as a clip row in an ALS file to use with Ableton Live.

To save the arrangement as a clip row, press the **Save** button and tap **Ableton Live Set** to bring up the Ableton Live Set Export popup, and then select the **Export Arrange as Clips** option.

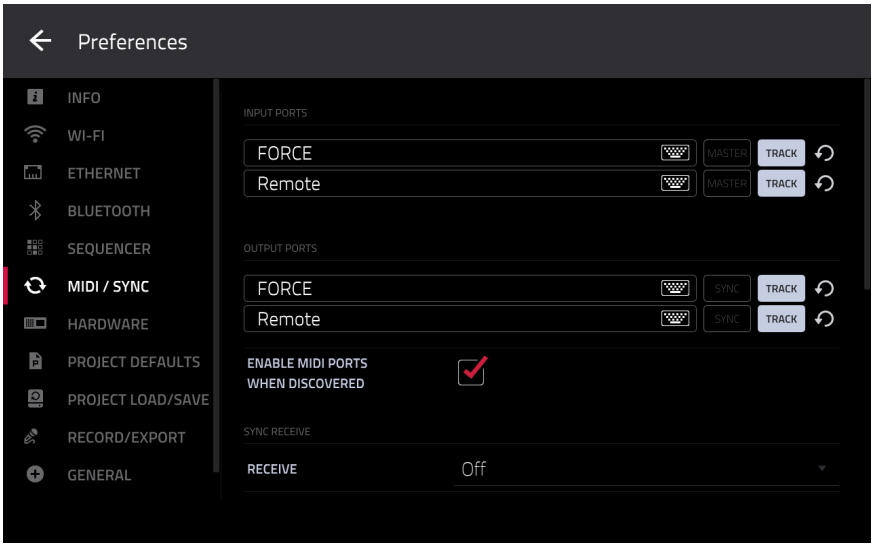
MIDI Improvements

Force now supports multi-MIDI control, making Force the ultimate MIDI sequencing studio centerpiece. In addition to getting the most out of the MIDI DIN ports on your Force hardware, you can now use your hardware's USB ports to connect class-compliant MIDI devices such as USB keyboards, MIDI interfaces and USB-to-CV modules, allowing you to dramatically increase the MIDI input and output capabilities of Force.

Note: To use multiple USB MIDI devices with standalone Force, we recommend using a high-quality, powered USB hub.

Configuring MIDI

To configure the MIDI Inputs and Outputs, go to ***Preferences*** > ***MIDI / Sync***.



The **Input Ports** section displays all available MIDI input ports in a list. Tap the **keyboard icon** to rename a port to a custom name. This is particularly useful when using multiple devices connected to a single MIDI interface or hub, as you can name the ports according to the devices connected to them. The custom port names will be reflected throughout the internal software.

Next to each MIDI input port are the **Master** and **Track** buttons:

- When **Master** is enabled, MIDI data from this port will always go to the current track. The Force Pads are an example of a device that is always Global.
- When **Track** is enabled, this MIDI port will appear in the list of available track MIDI Inputs.

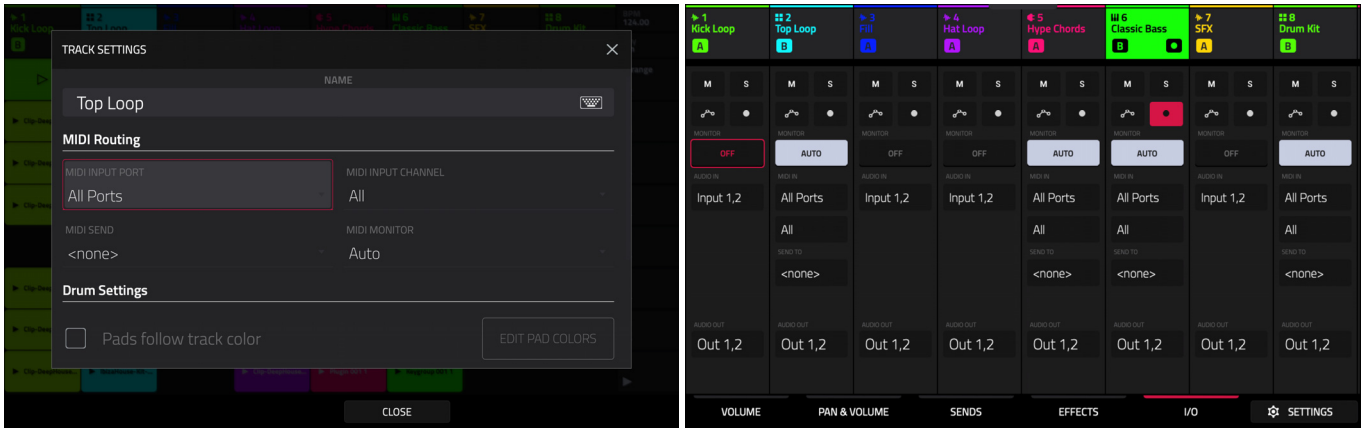
The **Output Ports** section displays all available MIDI output ports in a list. Tap the **keyboard icon** to rename a port to a custom name.

Next to each MIDI output port are the **Sync** and **Track** buttons:

- When **Sync** is enabled, the MIDI output port will send MIDI sync messages according to the type set in the Preferences menu under **MIDI / Sync > Sync Send > Send**.
- When **Track** is enabled, the MIDI output port will appear in the list of available track MIDI Outputs.

By default, the **Track Enable Ports When Discovered** option is set to **On** so that when any MIDI device is plugged in, the **Track** option is automatically enabled so the ports can be selected as an available MIDI input or output.

Note: The controls of some MIDI devices may be automatically mapped to certain Force controls, such as MIDI CC#7: Volume being mapped to MIDI volume when using a MIDI program. This may cause unintentional changes when adjusting the controls. To avoid this, you may need to reassign the affected MIDI CC on your controller. MIDI assignments can be viewed in ***Macros*** mode by viewing the MIDI Mode controls.



To configure the MIDI Input and Output for a track, do either of the following:

- In **Matrix** mode or **Arrange** mode, double-tap the track header for a MIDI track to open the **Track Settings** window. Use the **MIDI Routing** options to set the **MIDI Input Port** and **Channel**, the **MIDI Send** track where the MIDI is sent, and the **MIDI Monitor** status.
- In **Mixer** mode, select the **I/O** tab to view the MIDI track channel strip.

You can now also send MIDI from one track to another to layer two or more sound generators. For example, to layer two plugin instruments:

1. Press the **Mixer** button to open the Mixer, or press **Menu** and tap **Mixer**. Then, select the **I/O** tab.
2. Create a new **Plugin** track by tapping the **+** button to the right of the last created track. Select a plugin instrument and preset.
3. Create a second new **Plugin** track by repeating the steps above. Select a new plugin instrument and preset.
4. In the first plugin track's channel strip, use the **Send To** field to select the second plugin track.
5. Now, any note input or MIDI from the first plugin track will automatically be sent to the second plugin track as well, giving you a quick and easy way to layer two sounds.

This can also be done in **Matrix** mode by double-tapping the track headers to open the **Track Settings** window.

MIDI Recording

For recording, MIDI Tracks now have an **Input Monitor** button with four states:

- **Off:** The track's MIDI input is not monitored, and playback of recorded events will be heard. This setting is useful when using keyboards with Local Control active.
- **In:** The track's MIDI input is always monitored regardless of the track's Record Arm state, and playback from recorded events will not be heard.
- **Auto:** The track's MIDI input is monitored when the track is record armed, and playback of recorded events will be heard.
- **Merge:** The track's MIDI input is always monitored, and playback of recorded events will be heard.

MIDI Track Program Changes

You can now send a program change message from a MIDI track when launching a clip or playing your arrangement.

Press and hold **Edit** and press the corresponding pad for the clip to open the Clip Setting window. Alternatively, tap and hold on the clip in Matrix View on the screen.

To send a program change message when launching a clip, set the **Program Change** field in the Clip Setting window to **From Clip**. Use the **MIDI Program Change** and **Bank Change** fields

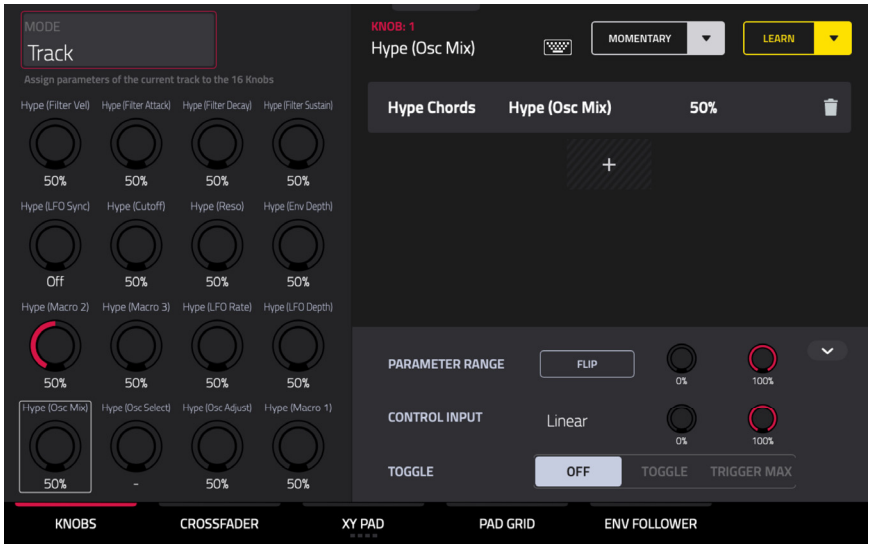
Program change messages added to a clip can also be recorded into the arrangement as an automation parameter by setting the automation button in the pull-down project menu to **Write**.

Macro Controls

Force's **Knobs** mode has been renamed **Macros**, and you can now use it to assign multiple parameters to the knobs, pads, screen and crossfader, making Force the ultimate control surface for interacting with all the automation parameters in your project. This section also includes an envelope follower, which allows you to use an audio signal such as a kick drum as a control signal to create side-chain or modulation effects.

To enter Macros mode, do either of the following:

- Press **Menu** and then tap **Macros**.
- Press and hold the **Edit** button and then press the **Knobs** button or touch a **knob**.



Getting Started

Use the tabs at the bottom of the screen to select a control to assign parameters to: ***Knobs***, ***Crossfader***, ***XY Pad***, ***Pad Grid***, or ***Env Follower***.

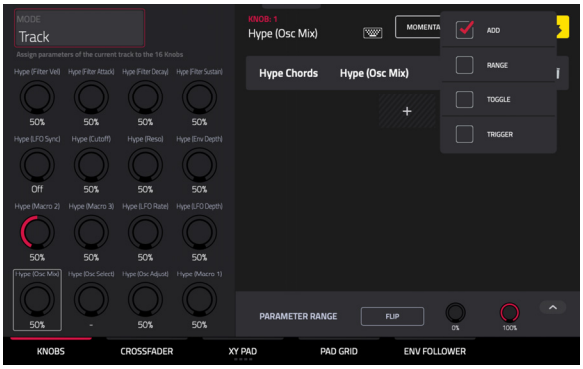
The left side of the screen shows the selected control. Use the **Mode** field at the top to switch between the different modes for each control.

The right side of the screen shows the parameters assigned to the selected controls, and the tools for adding and editing these parameters.

The **yellow Learn** button at the top right of the screen is used to add parameters to a control in user assignable modes.

To learn macro assignments:

1. Enter Macros mode.
2. Select a macro control type by tapping one of the buttons at the bottom of the screen: ***Knobs***, ***Crossfader***, ***XY Pad***, ***Pad Grid*** or ***Env Follower***. See the following sections for more information on each control type.
3. Select the desired mode for the control by using the **Mode** field at the top of the screen. See each following section for explanation of the available modes for each Macros control.



4. When one of these modes is selected, the yellow **Learn** button and the **learn add** (+) button will appear on the screen. To learn a single parameter to the control, tap the yellow **Learn** button so it is highlighted. The OLED screen above the selected knob will show **LEARNING…**.
5. Next, navigate to the mode that displays the parameter you would like to learn, and then adjust that parameter. The screen will show a message, "Learned [parameter] to [macro control]."
6. To lock in the assignment, return to Macros mode and tap the yellow **Learn** button again. The assigned parameters will be shown when the macro control is selected.

To learn multiple parameters to a macro, simply navigate to more parameters while **Learn** is engaged (step 4).

To learn another parameter to a macro that replaces the previous parameter, tap the **down arrow** next to the yellow **Learn** button, and then uncheck the **Add** box. Repeat the steps above to replace the previously learned parameter with a new one.

To learn a new parameter while also setting it to a range of values, tap the **down arrow** next to the yellow **Learn** button, and then check the **Range** box. While Learn is engaged (step 4 above), adjust the parameter to the low and high points of the value range that you want to control. When the assignment is locked in, the macro will control the parameter in the set value range.

To use a single macro to, for example, mute/unmute multiple tracks at the same time, tap the **down arrow** next to the yellow **Learn** button, and then check the **Toggle** box. Repeat the steps above to learn a parameter, which will toggle on/off when the control is touched or moved.

To use a macro to send the max value of a parameter, tap the **down arrow** next to the yellow **Learn** button, and then check the **Trigger** box. Repeat the steps above to learn a parameter, which will send its maximum value when the control is touched or moved.

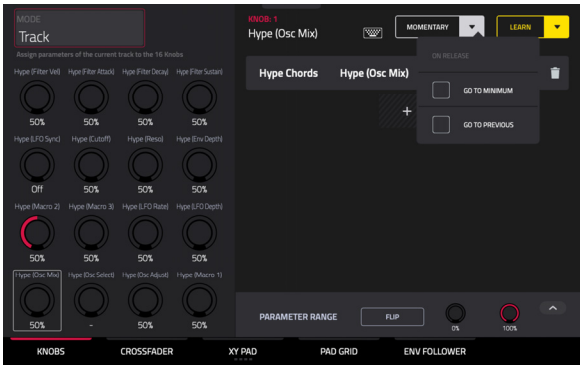
Alternatively, you can add parameters by tapping the **learn add** (+) button, and then using the menu that appears to select a parameter from your project.

To copy an existing macro assignment:

1. Tap the **learn add (+)** button to open the parameter menu.
2. Select **Copy Existing Macro**.
3. To replace the current macro settings with the copied macro settings, select **Replace**.
4. To merge the current macro settings with the copied macro settings, select **Merge**.
5. Use the menu to select the existing macro you would like to copy.

Note that you can copy between different macro control types, such as knobs and crossfader.

Use the **Momentary** button to set the behavior of the macro. When highlighted, the selected Macro will only be enabled momentarily when the control is touched or moved. When deselected, the selected Macro will toggle on and off when the control is touched or moved.



Tap the arrow next to **Momentary** to adjust additional settings for when the macro control is released.

To revert the macro parameter(s) to its minimum value on release, check the **Go to Minimum** box.

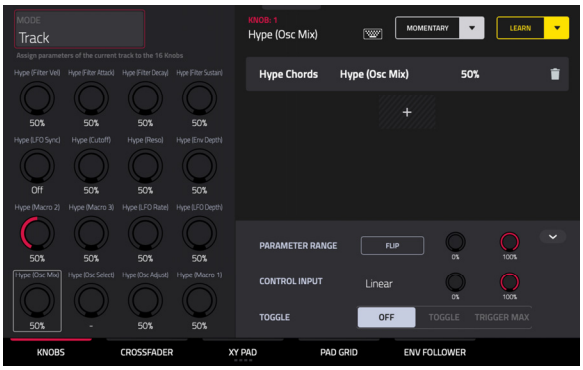
To revert to the last value state before the macro was changed on release, check to **Go to Previous** box.

To rename a macro, tap the **keyboard icon** in the toolbar, and then use the keyboard to enter a new name.

Editing Macro Assignments

Under the toolbar, the right side of the screen is split into two areas: at the top, the parameters that have been learned to the macro are shown; at the bottom, the collapsible parameter inspector displays the settings for the currently selected learned parameter.

To edit the parameters assigned to a macro:



1. Tap the macro control on the left side of the screen, or touch or move the control on the Force, to select it.
2. Tap the learned parameter that you would like to adjust on the left side of the screen so it is highlighted gray.
3. Use the parameter inspector to view and adjust the settings for the assignment. Tap the **arrow** to view additional settings.

    To reverse the polarity of the knob, tap the **Flip** button.

    To adjust the minimum and maximum values sent by the knob, use the two **Parameter Range** knobs.

    To set the response curve of the macro, use the **Control Input** field to select **Linear**, **Logarithmic** or **Exponential**. Use the knobs next to this field to set the percentage of the control that will be active.

    To adjust the behavior of the macro, use the **Toggle** selector. When set to **Off**, moving the control sends a continuous range of values. When set to **Toggle**, moving the control toggles between the minimum and maximum values set above. When set to **Trigger Max**, moving the control always send the maximum value.

To remove a parameter assignment, tap the **trash can** icon. If all parameters are removed, the macro will no longer appear.

You can also quickly edit macro controls using the hardware **Edit Buttons**:

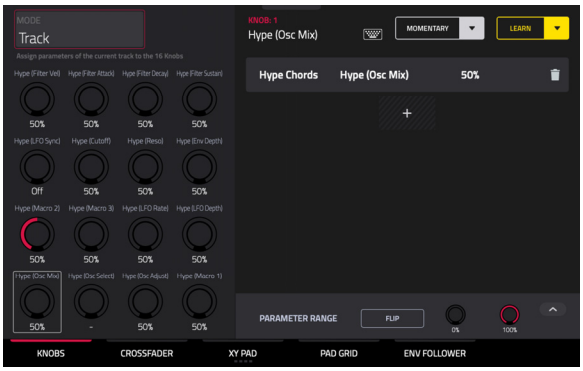
To edit an existing macro, press and hold the **Edit** button and then select the macro.

To copy and existing macro to a new macro, press and hold **Copy** to copy the source macro. Then, tap or press the control where you would like to paste the macro assignment.

To delete an existing macro, press and hold **Delete** and tap or press the macro control.

Knobs

In the **Knobs** tab, you can learn any automation parameter from within your project to Force's knobs, each with their own range and polarity.



To enter Knobs mode, do either of the following:

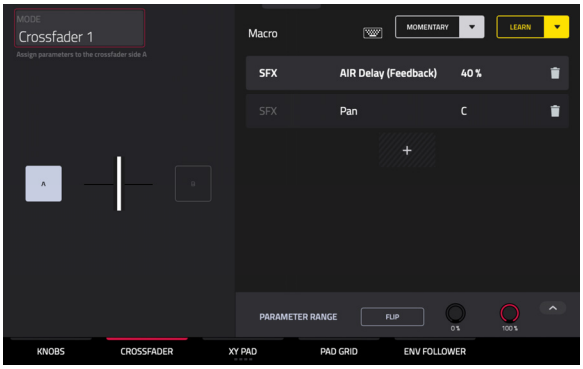
- In Macros Mode, tap the **Knobs** button at the bottom of the screen.
- Press and hold **Edit** and then tap a knob.

Use the **Modes** field at the top left of the touchscreen to select the Knobs mode to edit. The following modes in this tab are not editable as macros, but you can view their current assignments on this page: **Volume**, **Pan**, **Send 1–4**, **MIDI** and **Screen**.

In addition to these modes, the following modes can be used to assign parameters to the knobs as macros: **Project 1–2**, **Track** and **Track FX Rack**.

Crossfader

In the Crossfader tab, you can learn any automation parameter from within your project to Force's Crossfader.



To enter Crossfader mode, do either of the following:

- In Macros Mode, tap the **Crossfader** button at the bottom of the screen.
- Press and hold **Edit** and then press **Assign A** or **Assign B**.

There are 16 available crossfader scenes, which can be selected using the **Mode** field at the top left of the screen. Each scene can be assigned to one or more parameters.

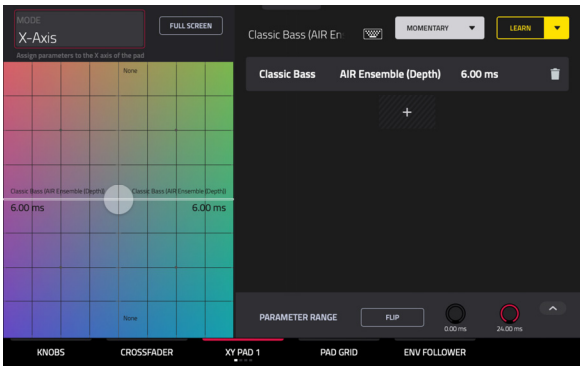
> **To change crossfader scenes directly from the hardware,** press and hold **Assign A** and then press **Assign B** to move to the next scene. To move to the previous scene, press and hold **Assign B** and then press **Assign A**.

To learn a parameter to the crossfader:

1. Make sure Force is not currently in playback.
2. Select the parameter you would like to assign to the crossfader using the directions ***above***. For example, let's learn a synthesizer parameter. Select a plugin track, and then open Track Edit mode to view the plugin parameters.
3. Hold down either the **Assign A** or **Assign B** buttons on Force, and then move any parameter on the touchscreen. When holding **Assign A**, the parameter will be assigned to the crossfader with the minimum value to the left side and the maximum value to the right side. When holding **Assign B**, the parameter will be reversed with the maximum value on the left side and the minimum value on the right side.

XY Pad

In the **XY Pad** tab, you can learn any automation parameter from within your project to one of four assignable XY Pads.



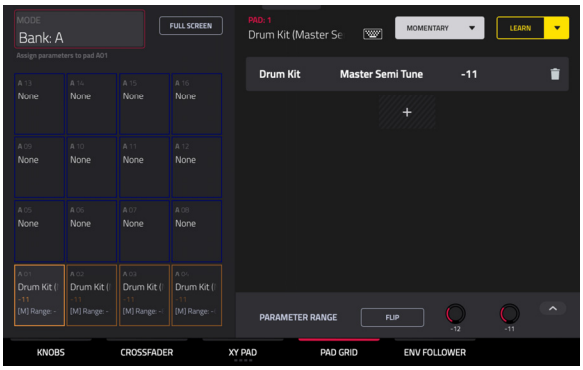
> **To cycle between the four available XY Pad assignments,** tap the **XY Pad** tab.

Use the **Mode** field at the top left of the touchscreen to select the part of the XY Pad that you would like to assign parameters to. This functions like a collection of different macros, allowing you to assign parameters to the X-Axis, Y-Axis, Columns 1–8, Rows 1–8, or even different to the axes of the Quadrants in the XY Pad.

Use the **Full Screen** button to make the current XY Pad fill the entire screen.

Pad Grid

In the **Pad Grid** tab, you can learn any automation parameter from within your project to Force's pad matrix. Assigning automation parameters to the pads gives you a more performative way of controlling effects and mixer parameters. For example, you can assign a pad to mute a group of tracks, or to toggle insert effects on and off.



Use the **Mode** field at the top left of the touchscreen to select the pad **Bank** to assign parameters to.

Use the **Full Screen** button to make the current pad **Bank** fill the entire screen.

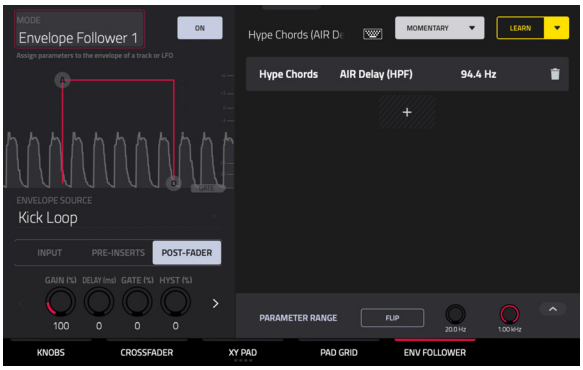
To access the Pad Grid macros directly from the hardware, do any of the following:

- Press and hold the **Knobs** button, and then press the **Launch/Config** button to split the pad matrix between launching clips and triggering the Pad Grid macros.
- Press and hold the **Knobs** button, and then press the **Notes/Config** button to split the pad matrix between playing notes and triggering the Pad Grid macros.
- Press and hold the **Knobs** button, and then press the **Launch/Config** and **Notes/Config** buttons at the same time to split the pad matrix between launching clips in the top quadrants and playing notes and triggering the Pad Grid macros in the bottom quadrants.

When the Pad Grid macros are active in the pad matrix, you can use the **Edit** buttons to edit, copy and delete macros from these controls directly from the hardware.

Envelope Follower

In the **Env Follower** tab, you can use an audio signal (such as a kick drum) as a control signal to create side-chain or modulation effects.



There are 16 available envelope followers, which can be selected using the **Mode** field at the top left of the touchscreen.

Tap the **On** button to enable or disable the envelope.

Use the **Envelope Source** field to select the audio signal that will be used as the control signal for the envelope. This can be audio from a track, or, if you choose a Drum track, audio from a specific pad. You can also select the **Returns**, **Submixes**, and **Master** tracks, as well as dedicated **LFO** (low frequency oscillator) shapes.

After selecting the Envelope Source, you can use the additional fields on the left side of the touchscreen to configure the envelope parameters. The available parameters when a track, pad or keygroup is selected as the Envelope Source are as follows:

Use the selector below the Envelope Source field to set where the envelope is applied:

- **Input:** The envelope is applied at the audio input source. This option is not available for individual Pads or Keygroups.
- **Pre-Inserts:** The envelope is applied before any insert effects.
- **Post-Fader:** The envelope is applied at the end of the channel strip after any insert effects and after the set volume level.
- **Playback:** The envelope is applied on playback of the selected track. This option is only available for MIDI and CV tracks.

Use the knobs below the envelope selector to adjust the parameters of the envelope. Tap the arrows to move between the pages of parameters when applicable.

- **Gain (%)** adjust the amount of gain applied to the envelope.
- **Delay (ms)** adjusts the amount of delay in milliseconds after which the envelope is triggered.
- **Gate (%)** adjusts the amount of gate applied to the envelope.
- **Hyst (%)** adjusts the level at which the gate closes after opening.
- **Attack** adjusts the amount of attack for the envelope gate. This can also be adjusted by tapping and dragging the **A** handle in the envelope display.
- **Decay** adjusts the amount of decay for the envelope gate. This can also be adjusted by tapping and dragging the **D** handle in the envelope display.

When **LFO** is selected as the Envelope Source, the available parameters are as follows:

Use the selector to configure how the LFO is applied to the envelope. Select **Free-Running** for the LFO to continue even when not triggered, or select **Reset On Play** for the LFO to revert to its starting configuration when triggered.

Use the knobs below the selector to adjust the parameters of the LFO:

- **Freq (Hz)** adjusts the frequency, in Hertz, of the LFO.
- **Phase (º)** adjust the starting phase of the LFO.
- **Level (%)** adjusts the amount of LFO applied.

When the LFO envelope is engaged, you will see a representation of the LFO signal.

Once you have configured the envelope follower source, use the right side of the screen to select the parameter(s) that it will modulate using the same directions as ***above***.

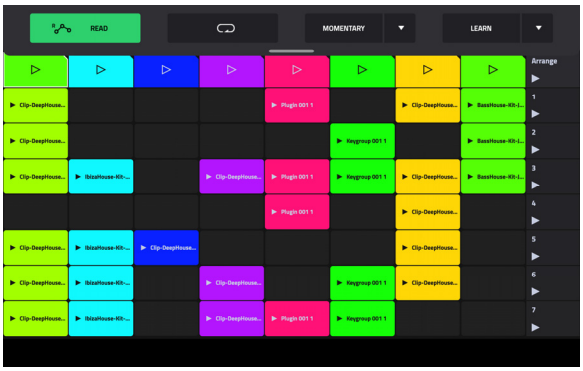
Project Pull-Down Menu

You can now easily access key Force project parameters in any mode by using the project pull-down menu.

To open the project pull-down menu, tap and drag from the middle-top of the screen. The menu can be set to two sizes depending on how far down you drag your finger.

To close the menu, simply swipe it back upwards to the top of the screen.

The project pull-down menu contains the following controls when pulled partway down:



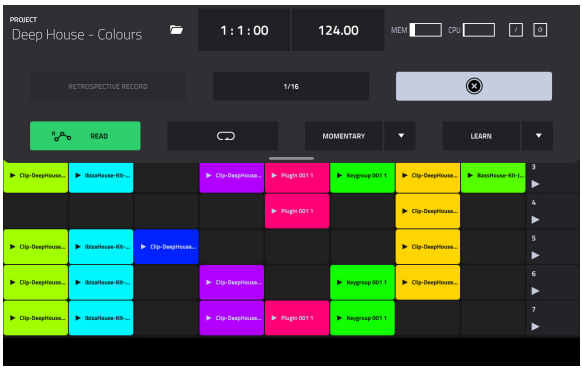
Tap the **Global Automation** button to toggle between **Read** and **Write**. To disable global automation entirely, hold **Shift** and tap this button.

Tap the **Loop** button to toggle the arrangement loop on or off.

Use the **Momentary** button to set the behavior of a macro control. See ***Macro Controls*** for more information.

Use the **Learn** button to learn a parameter to a macro control. See ***Macro Controls*** for more information,

When the project pull-down menu is fully opened, the following additional controls are available:



Tap the **Project** field to open the Project window, where you can load and save projects.

Tap the **Bars:Beats:Ticks** field to open the Locate window.

Tap the **BPM** field to open the **Tempo** window, where you can adjust the tempo of the project.

The **Memory** and **CPU** meters monitor Force's system resources.

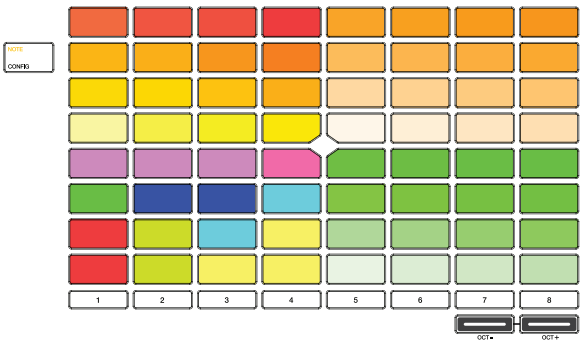
Tap the **I/O** icons to open the MIDI monitor.

Tap the **Retrospective Record** button to capture recently played MIDI input and add it to the selected clip or arrangement.

Tap the **Time Division** button to open the **Timing Correct** window.

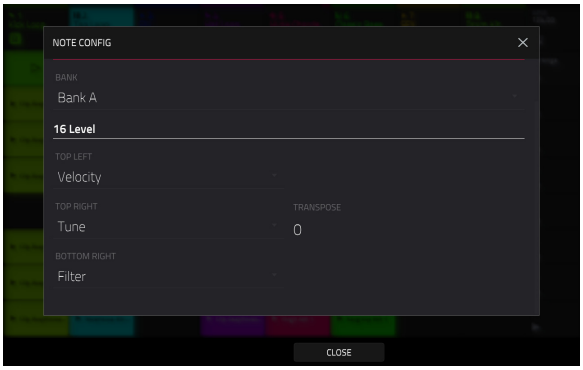
Tap the **MIDI Rec Erase** button to enable or disable MIDI record erasing. When enabled, recording MIDI events will replace any existing events. When disabled, recording MIDI events will overdub on any existing events.

16 Levels Drum Note Mode



You can now use classic MPC-style 16 Levels control when using Note mode with a Drum track. In 16 Levels Drum Note Mode, the bottom-left quadrant of clip launch pads can be used like a traditional 4x4 drum pad layout just like Drum Note Mode. The other three quadrants, however, can be set to control a selectable parameter that is fixed at values that increase as the pad numbers increase (e.g., Pad 1 is the minimum, Pad 16 is the maximum), regardless of how hard you press them.

To enter 16 Level mode, select a drum track and press **Note** until **16 Level** appears on the screen.



While in 16 level mode, press and hold **Shift** and press the **Note/Config** button to open the **Drum Note Configuration** window. In addition to the standard Drum Note Configuration settings mentioned above, you can use this to adjust what the 16 level quadrants control.

Use the **Top Left**, **Top Right**, and **Bottom Right** fields to set what type of 16 Level control is used in each quadrant:

Velocity: The sample velocity increases from lowest (7) to highest (127).

Tune: The sample tuning increases from the lowest pitch to highest pitch. By default, the first pad in the quadrant is the base pitch and the next 12 pads increase by one semitone each. Use the **Transpose** field to transpose the original sample down up to 12 semitones for increased range.

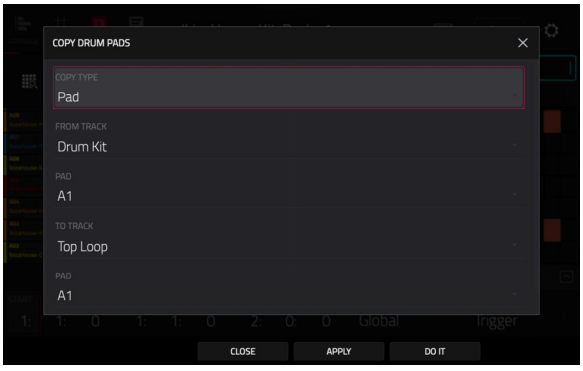
Filter: The cutoff value for the filter increases from lowest to highest. You can set the filter type for the pad in Track Edit mode.

Layer: Each row of four pads covers a range of velocity from lowest to highest: 0-31, 32-64, 65-96 and 97-127. Pads with multiple samples will play back each layer according to the **Velocity Start** and **Velocity End** settings for each layer.

Attack: The attack envelope of the sample increases from lowest to highest.

Decay: The decay envelope of the sample increases from lowest to highest.

Copy Pads



You can now copy one or more pads from one drum track to another. This process is available with other track editing processes in ***Grid*** and ***Clip*** modes.

To show the Copy Pads window, tap the **pencil icon** in the toolbar of Grid or Clip modes. After the **Grid Edit** window opens, tap **Copy Pads**.

Use the **Copy Type** menu to select the whether you want to copy an individual **Pad**, a **Bank** of pads or a **Range** of pads. Use the fields that appear to select the **Pad**, **From Bank** or **Start/End Pads** that will be copied.

Use the **From Track** menu to select the track from which the pads will be copied.

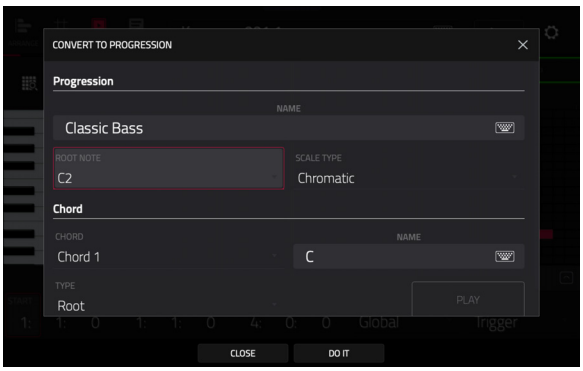
Use the **To Track** menu to select the track to which the copied pads will be added.

Use the **Pad**, **To Bank** or **Start Pad** where the copied pads will be added starting from.

Click **Apply** to confirm your setting, and then click **Do It** to copy the pads or **Cancel** to return to the previous screen.

Custom Progressions

You can now create custom Progressions based on the current MIDI track from your Force. This process is available with other clip editing processes.



To show the Convert to Progression window, tap the **pencil icon** in the toolbar of **Grid** or **Clip Edit** Modes, and then tap **Convert to Progression**. A melodic MIDI track must be selected.

Use the **Progression** fields to set the parameters of the new Progression.

To set the progression name, use the **Name** field.

To set the root note, use the **Root Note** field.

To set the scale type, use the **Scale Type** field.

Use the **Chord** fields to set the parameters for the chords in your progression.

To select a chord from the progression to edit, use the **Chord** field.

To rename the selected chord, use the **Name** field.

To set the type of chord, use the **Type** field to select **Root**, **Normal** or **Below Root**.

To play the selected chord, tap the **Play** button.

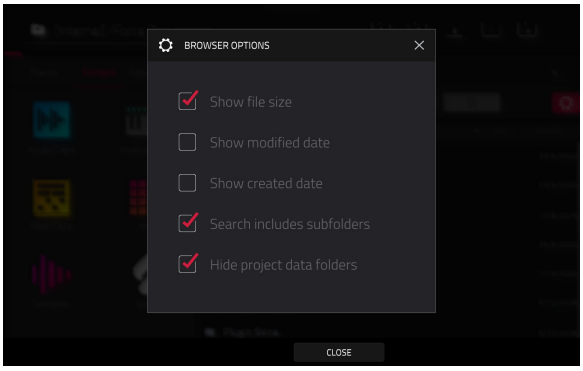
To close the window and return to the previous screen, tap the **X**, **Close** or anywhere outside the window.

To perform with the progression on a track:

1. Press the **Note** button to enter Notes mode for the pads.
2. Hold **Shift** and press **Note** again to open the **Note Config** window.
3. Set the **Type** to **Progressions**.
4. Use the **Progression** field to select your progression from the **Other** category.

File Browser Improvements

The Browser now features additional options for searching and sorting results.



Press the **Load** button to open the Browser, and then tap the **gear icon** to open the Browser settings.

Check the **Show file size** box to include file size in the file details.

Check the **Show modified date** box to show the last date the file was modified in the file details.

Check the **Show create date** box to show the date the file was created in the file details.

Check the **Search includes subfolders** to enable recursive searching. When this is enabled and a search term is entered, all folders on the device will be searched.

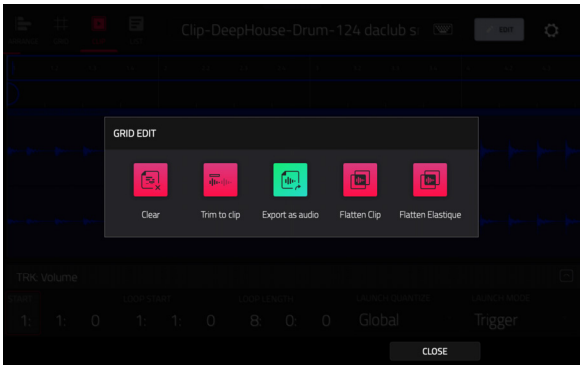
Check the **Hide system folders** box to remove system folders that are typically hidden from view from the search results. This can be especially useful if using a

You can also sort the search results by each column by tapping the column header. Tap the column header again to change the direction of the results as shown by the **gray arrow** in the column.

Additionally, you can now load saved FX Racks from the Browser.

1. Select the track where you would like to load the FX rack.
2. Open the Browser.
3. Tap the Places tab on the right side of the screen, and then select **Force Documents > FX Racks**.
4. Select the FX Rack and tap Load. The associated plugins will be added to the Inserts of the selected track.

Flatten Clip



You can now flatten an audio clip, rendering all the edits and regions within the clip bounds to a new audio clip in a single audio file:

1. First, make sure you have stopped transport playback.
2. Open Grid or Clip modes, and then tap the **pencil icon** in the toolbar to open the Grid Edit window.
3. Select **Flatten Track** to **immediately** render all edits and regions within the current track's arrangement to a new audio file.

   Select **Flatten Track Elastique** to also **immediately** render all edits and regions within the current track's arrangement to a new audio file, but using the Elastique Pro algorithm for any time-stretching or pitch-shifting, providing higher-quality results with less artifacts than Force's standard algorithm.

Import Ableton Live Projects

You can now import Ableton Live projects into your Force.

To import an Ableton Live project:

1. Press the **Load** button to open the Browser.
2. Navigate to the file location of your Ableton Live projects.
3. Select the **.ALS** file for the project you want to import, and then tap **Load**.

Note: For an Ableton Live project to be successfully imported with all proper assets, you must use the **Collect All and Save** option when saving your project in Ableton Live to collect all necessary project resources together.

When loading an Ableton Live project, Force will attempt to import the following information:

- Launch Matrix Tracks/Clips to Tracks/Clips.
- Arrangement View Sequence to Arrange tracks.
- ALS Colors to Force Colors for pads.
- Audio Clips to Audio Clips (with Looping points, names, warp, volume, pan, pitch adjustment).
- MIDI Notes to MIDI Notes at 960 PPQ units, with looping points and names.
- Basic conversion of ALS Drum Rack to XPJ Drum Kit. Only one “Selection” is handled. A maximum of four velocity variations per instrument.
- Basic conversion of ALS Impulse Instrument to XPJ Drum Kit.
- Basic conversion of ALS Sampler to XPJ Keygroup. (128 keygroup limit). Only one “Selection” is handled.
- Basic conversion of ALS Simpler to XPJ Keygroup.
- Plugin instrument tracks are converted to Force MIDI tracks.

Mixer / Pad Mixer Improvements

In both the Mixer and Pad Mixer, the **Inserts & I/O** tab has been split into separate **Effects** and **I/O** tabs.

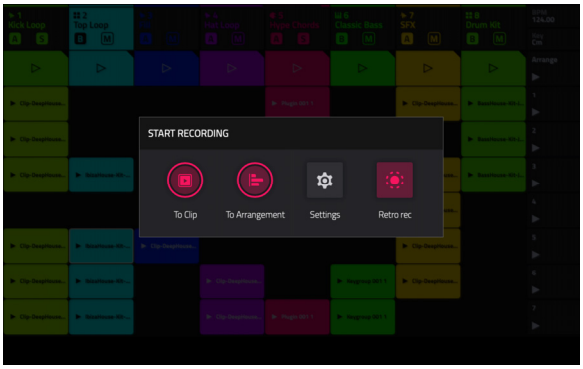
In the Effects tab, you can now add or edit an insert effect by tapping one of the four slots. The **Inserts** button above the slots will open the traditional inserts overlay window.

You can also save and load FX Racks from a mixer strip. In the Effects tab, tap the **Inserts** button to open the insert overlay. This window now contains three new icons to **Load Factory FX Rack**, **Load User FX Rack**, and **Save FX Rack**.

Alternatively, press the **Save** button and then tap **Track FX Racks**.

Retrospective Record

Your Force hardware now captures MIDI events in the background, allowing you to recall performances when record was not enabled.



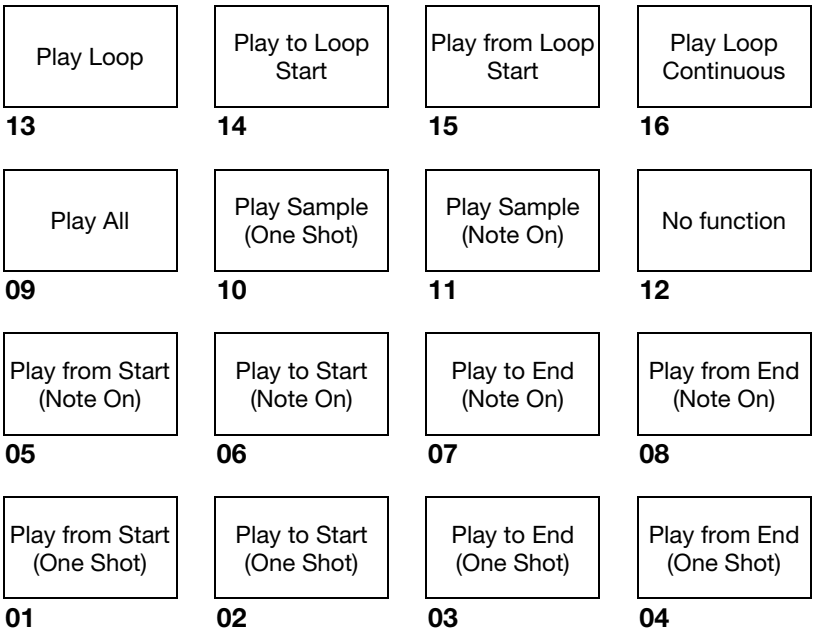
To capture events using retrospective record, select an empty clip slot or the arrange event list, and then open the ***Project Pull-Down Menu*** by swiping down from the top of the screen. Tap **Retrospective Record** to insert the recently played notes.

Sample Edit Pad Controls

You can now use the Force's pads to audition samples and create slices in ***Sample Edit Mode***.

To enable Sample Edit Pad Mode, tap the **pads icon** in the toolbar in Sample Edit Mode.

When in Trim Sample Edit Mode, the lower-left quadrant of pads can be used to audition certain parts of the selected sample:



Play Sample (**One Shot**) (**Pad 10**) plays the sample once from the start point to the end point. Press the pad once to play it.

Play Sample (**Note On**) (**Pad 11**) plays the sample once from the start point to the end point. Press and hold the pad to play it, and release the pad to stop playing it. Alternatively, select the **headphones icon** in the upper-right corner, and then tap and hold your finger on the waveform.

Play Loop Continuous (**Pad 16**) plays the sample repeatedly using the mode set by the **Loop** button (**Forward**, **Reverse**, or **Alternating**; if the **Loop** button is **off**, the sample will loop forward repeatedly).

Play Loop (**Pad 13**) plays the sample repeatedly using the mode set by the **Loop** button (**Forward**, **Reverse**, or **Alternating**; if the **Loop** button is off, the sample will loop forward repeatedly). Press and hold the pad to play it, and release the pad to stop playing it.

Play to Loop Start (**Pad 14**) plays the part of the sample just before the loop point. Press and hold the pad to play it, and release the pad to stop playing it.

Play from Loop Start (**Pad 15**) plays the sample from the loop point to the end of the sample regardless of the end point. Press and hold the pad to play it, and release the pad to stop playing it.

Play All (**Pad 9**) plays the entire sample.

Pads 1–4 have the same respective functions as **Pads 5–8**, but **Pads 1–4** play the sample part as "**One Shots**" (pressing the pad once will play the entire part) while **Pads 5–8** play the sample part as "**Note Ons**" (pressing the pad and holding it will play the part; releasing it will stop playback):

Play from Start (**Pad 1**, **Pad 5**) plays the sample from the start point to the end point.

Play to Start (**Pad 2**, **Pad 6**) plays the part of the sample just before the start point to the start point.

Play to End (**Pad 3**, **Pad 7**) plays the part of the sample just before the end point to the end point.

Play from End (**Pad 4**, **Pad 8**) plays the part of the sample from the end point to the end of the sample.

When in Chop Sample Edit Mode, you can use the lower-left quadrant of pads to add slices to the current sample or trigger existing slices.

When the current Track is a Drum Program and Pad Sample Edit Mode is selected, you can use the lower-left quadrant of pads to audition the current sample of the current pad, similar to using Notes mode with a Drum Program.

Single or Multi Record Arm

You can now configure the behavior of the Record Arm buttons by adjusting the **Record Arm** setting under ***Preferences > Sequencer***.

- In **Single** mode, selecting a different track will automatically arm that track and disarm all other tracks. This is the default mode and is the same as previous Force releases. To arm multiple tracks to record in Single mode, hold **Shift** and tap each track's record button.
- In **Multi** mode, you can tap any track's record button to add it to the group of armed tracks. This is useful when doing multitrack recording.

Workflow Enhancements

You can now disable multiple Mute, Solo or Record Arm buttons by holding the **Delete** button and pressing one of the **Assign Mode Buttons**.

You can now add the **Slice** parameter to automation for Drum and Keygroup tracks.

When the **Master** button is pressed, a notification now appears on screen temporarily to indicate whether the pads are showing the Master tracks or

The **track automation buttons** available in Mixer Mode now toggle between **Read** and **Write** states when tapped. To turn automation off or on, hold **Shift** and tap the **track automation button**.

The **Timing Correct** (TC) window now has a convenient **Global Timing Correct On/Off** button.

You can now exclude a track from a scene launch. Double-tap the track header in Matrix mode to open the Track Settings popup, and then select the **Row Launch** field. When this field is set to **Exclude from row launch**, the track's clips will not launch when a scene is launched. This is useful when playing a full acapella track while triggering different clips underneath.

In the **Arpeggiator** window, the **Time Division** field is now a radio selector, making it easier to use.

You can now merge samples and settings from two drums tracks together.

To show the Merge Pads window, tap the **pencil icon** in the toolbar of Grid or Clip modes. After the **Grid Edit** window opens, tap **Merge Pads**.

Use the **From Track** menu to select the track from which the pads will be copied.

Use the **Into Track** menu to select the track to which the copied pads will be merged.

Check the **Start on next bank** box to merge the samples and settings at the start of the next unused bank.

Click **Do It** to merge the pads or **Cancel** to return to the previous screen.

You can now configure the brightness of the Force's pads. Go to ***Preferences*** > ***Hardware*** and use the **Pad Brightness** slider to adjust the intensity of the pads.

You can now select a single event or multiple events when using the Step Sequence pad mode.

1. Open Grid or Clip modes to view the Grid editor.
2. Press the **Step Seq** button to enter Step Sequence mode for the pad matrix.
3. Enter some note events into the sequence using the pads.
4. **To select step event,** press and hold **Clip Select** and tap one of the pads containing an event.

   To select multiple step events, press and hold **Shift** and **Clip Select** at the same time, and then tap the pads containing the events.

The MIDI Monitor now contains port names.

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