

User Guide

Version 1.5



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Introduction

Engine is the exclusive revolutionary DJ software under the hood of the various Denon DJ players that enables you to perform without a laptop. This amazing software brings you front and center to play your sets with the ability to just use a USB thumb drive with Engine. This software has many advantages once installed on your PC/Mac to create your playlists and crates, set cue points, and analyze your entire music library.

System Requirements & Product Support

For complete system requirements, compatibility information, and product registration, visit denondj.com.

For additional support, visit denondj.com/support.

Installation

- 1. Double-click the .exe (Windows®) or .pkg (Mac® OS X®) installer file you downloaded.
- 2. Follow the on-screen instructions.



About Engine

Engine Library vs. Engine Target

Engine Library refers to a database on your computer that contains all the tracks you use with Engine. You can add tracks stored on the computer's internal hard drive or an external USB hard drive or flash drive connected to the computer. You can even create databases that span multiple drives. A database can contain up to 100,000 tracks.

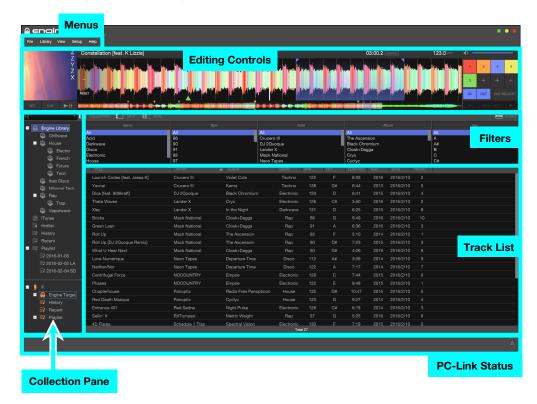
Engine Target refers to a database on your USB hard drive or flash drive that is connected to a player. You can add tracks to it by adding tracks from your Engine Library to Engine Target. Your Engine-compatible DJ player searches for music using the Engine Target database. Each USB drive can have an independent Engine Target database on it, so if your player lets you connect multiple USB drives, you can use it to access multiple Engine Targets.

Engine Target Engine Target



Overview

This is an overview of the different areas of Engine's main software window. Click a name to jump to its Overview chapter: *Menus*, *Editing Controls*, *Collection Pane*, *Filters*, *Track List*, or *PC-Link Status*.



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Menus

Five software menus are in the upper-left corner: *File*, *Library*, *View*, *Setup*, and *Help*. Click a menu name, and then click an option in the drop-down menu that appears to select it.

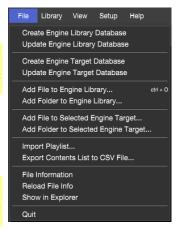
File

 Create Engine Library Database: Click this to add all tracks in your computer's music folder and iTunes[®] Media folder to Engine Library.

Note: If you have added a track to Engine Library before, the database will update (and therefore overwrite) the track's information, but the track itself will not be copied, so you do not need to worry about wasting space with duplicate tracks.

- **Update Engine Library Database:** Click this to add any tracks in your computer's music folder and iTunes Media folder that have **not** been registered to Engine Library.
- Create Engine Target Database: Click this to add all tracks on your USB drive to Engine Target.

Note: If you have added a track to Engine Target before, the database will update (and therefore overwrite) the track's information, but the track itself will not be copied, so you do not need to worry about wasting space with duplicate tracks.



- Update Engine Target Database: Click this to add and register any tracks on your USB drive (shown in the Target section) that have not been registered to Engine Target.
- Add File to Engine Library: Click this to add the selected track to Engine Library. Alternatively, press Ctrl+O (Windows) or \$\mathbb{8}+O (Mac OS X).
- Add Folder to Engine Library: Click this to add all tracks in the selected folder to Engine Library.
- Add File to Selected Engine Target: Click this to add the selected track to Engine Target.

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- Add Folder to Selected Engine Target: Click this to add all tracks in the selected folder to Engine
 Target.
- Import Engine Music Manager Database: Click this to import the database information on Engine Music Manager (Windows only).

Note: Engine Music Manager is the previous music management application for Denon DJ.

- Import Playlist: Click this to import a playlist as an XML, M3U, or M3U8 file.
- Export Contents List to CSV File: Click this to export information on the tracks in Engine Library as a CSV file.
- File Information: Click this to display and edit tag information for the selected tracks.
- Reload File Info: Click this to reload tag information for the selected tracks.
- Show in Explorer: Click this to open the folder that includes the selected track in Explorer (Windows) or Finder (Mac OS X).
- Quit: Click this to close Engine.

Library

- Auto Backup to Engine Library: Click this to turn Auto Backup on or off (the default is off). When on, tracks that you add to Engine Library from a USB drive will automatically back up to your computer's Engine system folder.
- Engine Library
 - Create New Crate: Click this to create a new crate in Engine Library (up to 8 levels).
 - Delete Crate: Click this to delete the selected crate from Engine Library.
 - Rename Crate: Click this to rename the selected crate in Engine Library.
 - Create New Playlist: Click this to create a new playlist in Engine Library.





- o **Delete Playlist:** Click this to delete the selected playlist from Engine Library.
- o Rename Playlist: Click this to rename the selected playlist in Engine Library.
- Import Playlist: Click this to import an iTunes playlist into Engine Library. See Operation >
 Using an iTunes Library to learn more.

Engine Target

- Create New Crate: Click this to create a new crate in Engine Target (up to 8 levels).
- o **Delete Crate:** Click this to delete the selected crate from Engine Target.
- o Rename Crate: Click this to rename the selected crate in Engine Target.
- Create New Playlist: Click this to create a new playlist in Engine Target.
- o **Delete Playlist:** Click this to delete the selected playlist from Engine Target.
- Rename Playlist: Click this to rename the selected playlist in Engine Target.

Memo Data

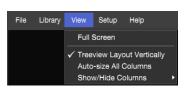
- Auto Analyze: Click this to turn Auto Analyze on or off. When on, track data will be
 automatically analyzed when adding tracks to Engine Library. This data includes cue points, hot
 cue points, loop points, audio waveform data, BPM values, and beat point data. See Operation
 > Adjusting Settings > Auto Analyze to learn about this.
- o Analyze All: Click this to re-analyze the data of all tracks in Engine Library.
- o **Analyze Selected:** Click this to re-analyze the data for the selected tracks only.
- o **Delete All:** Click this to delete the data of **all** tracks in Engine Library.
- Delete Selected: Click this to delete the data of the selected tracks only.

View

- Full Screen: Click this to switch to a full-screen display.
- Treeview Layout Vertically: Click this to vertically align the library display.
- Auto-Size All Columns: Click this to automatically adjust the size of all display columns.
- Show/Hide Columns: Click this to select the display columns to show or hide. You can show or hide any of the following columns:

Title	Bpm	Playback Count	Bit Rate
Artist	Year	Track	Label Name
Album	Date	Key	File Name
Genre	Comment	Duration	Path

 Time Mode Select: Click this to switch the time measurement units displayed in the offline editing controls between milliseconds and CD frames.



Setup

- Audio Configuration: Click this to configure the audio playback settings on the computer when using offline editing.
 - See Operation > Adjusting Settings > Audio to learn about this.
- Snap to Beat Point: Click this to set whether or not offline editing will use beat point data.
 - See **Operation** > **Adjusting Settings** > **Beat Point** to learn about this.
- Beat Point: Click this to set how beat point data is detected when adding or re-analyzing tracks.
 - See Operation > Adjusting Settings > Beat Point to learn about this.
- Adjust Beat Points: Click this to adjust the position of beat points.
- Auto Cue: Click this to set the automatic configuration feature for cue points.
 - See *Operation > Adjusting Settings > Auto Cue Point* to learn about this.
- Set iTunes Library Folder: Click this to select the iTunes library database (.xml) to use when referencing an iTunes library.
 - See Operation > Adjusting Settings > iTunes Library to learn about this.

Help

- Site Link: Click this to visit denondj.com (your computer must be connected to the Internet for this
 feature to work).
- Version Info: Click this to view the software information for your current version of Engine. Click on the window to close it.



File Library View

Site Link Version Info

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- Set: Click this to set a cue point at the current playhead position. When Snap to Beat Point is on, this will set a cue point at the beat point closest to the current playhead position. Cue point settings are automatically saved as data in the track.
- Cue: Click this to start playback from the set cue point.
 See Operation > Editing Tracks > Cue Points to learn more.
- 3. Play/Pause (►II): Click this to start/resume or pause playback.
- 4. Audio Waveform: This large waveform represents a section of the current track. The waveform is color-coded to indicate the frequency of the audio signal: red represents low-frequency (bass) content, green represents mid-range-frequency content, and blue represents high-frequency (treble) content. This will also show the current playback position, cue point, hot cue points, loop points, and beat points.
 - Click and drag the waveform to "scratch" and move through the track.
- 5. +/-: Click either of these buttons to adjust the zoom level for the audio waveform.
- 6. **Reset:** Click this to return to the original zoom level for the audio waveform.
- 7. Track Overview: This smaller waveform represents the entire current track. The waveform is color-coded to indicate the frequency of the audio signal: red represents low-frequency (bass) content, green represents mid-range-frequency content, and blue represents high-frequency (treble) content. This includes the current playback position, cue point, hot cue points, and loop points.
 - Click a location in this overview during playback to skip immediately to that position in the track. The audio waveform above it will change to show the new position.

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- 8. **Hot Cue:** Click a hot cue point number (1–8) this to set hot cue points. The supported number of hot cue points differs depending on the player. For details, refer to your player's manual.
 - Right-click a hot cue point button and click **Delete Hot Cue** to delete the corresponding hot cue point.
 - See Operation > Editing Tracks > Hot Cue Points to learn more.
- 9. Playback Volume (Vol.): Click on this meter to adjust the playback volume while editing.
- 10. **Looping:** Use these buttons during playback to set, edit, play, or exit a loop. While editing loop points, the display will be different. Loop settings are automatically saved as data in the track.
 - See Operation > Editing Tracks > Hot Cue Points to learn more.
- 11. BPM: This field displays the tempo of the current track as a BPM value (beats per minute). Engine automatically detects this value with its Auto Analyze feature (see Operation > Adjusting Settings > Auto Analyze to learn about this).
 - To enter a new tempo, press **B** on your computer's keyboard to the beat of the track. Engine will detect the new tempo and update the BPM value.
- 12. **Time Counter:** This field displays the current time elapsed or remaining of the track. Click the field to switch between **Elapsed** or **Remain**.
- 13. Track Name: This field displays the name of the current track. You can change this within Engine.
 - See Operation > Editing Tracks > ID3 Tags to learn more.
- 14. **Album Art:** This field displays the album artwork of the current track. You can change this within Engine.
 - See **Operation** > **Editing Tracks** > **ID3 Tags** to learn more.



Collection Pane

The Collection pane lets you browse Engine Library and Engine Target on any connected USB drives.

To show or hide the Collection pane, click the Collection button.

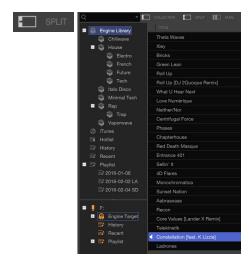


Engine Library and Engine Target each have their own sections in the Collection pane. Engine Library is shaded **gray**, and Engine Target is shaded **orange**.

To change how the Collection is displayed, click Split or Dual. In Split View, the Engine Library and Engine Target panes are displayed in a single column. In Dual View, they each have their own column next to each other.

To adjust the size of each pane, click and drag the small gray dot in the center of a border.

To expand or collapse an item in either pane, click the - or + next to it.





Engine Library Pane

1. **Engine Library:** The main Engine database. Any crates and sub-crates you have created will be listed here.

See Operation > Using Crates to learn more.

2. iTunes: Tracks or playlists from an iTunes library.

See Operation > Using the iTunes Library to learn more.

3. **Hotlist:** A "favorites" playlist, to which you can manually add tracks. When using PC-Link, this hotlist is shared with Engine Library.

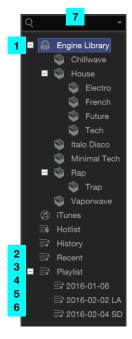
See Operation > Using PC-Link > Using the Hotlist to learn more.

- 4. History: A list of already-played tracks. When using PC-Link, the tracks loaded into the player are automatically added in their playback order. You can view the playback history for the last 100 tracks.
- 5. **Recent:** The last **100** tracks added to Engine Library. This list is automatically updated when you add tracks to Engine Library.
- 6. **Playlist:** Any playlists you have created will be listed here.

See *Operation* > *Using Playlists* to learn more.

Word Search: Click this field, and then use your computer keyboard to enter text to search for it in your tracks.

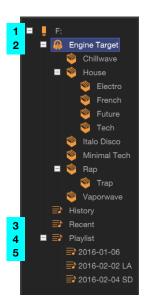
Click the magnifying glass icon (\mathcal{P}) or downward arrow (\blacktriangledown) to select categories for word searches.





Engine Target Pane

- USB Devices: The USB hard drive or flash drive connected to your computer.
- Engine Target: The database used for USB hard drives or flash drives connected to a player. All tracks used under Target are added to this database. Any crates and sub-crates you have created will be listed here.
 - See Operation > Using Crates to learn more.
- History: A list of already-played tracks. The tracks loaded into the player are automatically added in their playback order. You can view the playback history for the last 100 tracks.
- Recent: The last 100 tracks added to Engine Target. This list is automatically updated when you add tracks to Engine Target.
- Playlist: A playlist you have created.
 See Operation > Using Playlists to learn more.





Filters



The 5 filters enable you to display tracks only when they belong to the category/categories you select. The available categories are: **Genre**, **BPM**, **Artist**, **Album**, and **Key**. You can select one or more categories in each filter column.

To show or hide the filters, click the Filters button.

To rearrange the filters, click and drag each one to the desired location.

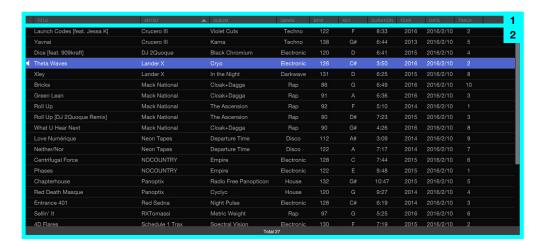
To select a category in a filter column, click it.

To select multiple categories in a filter column, press and hold **Ctrl** (Windows) or **%** (Mac OS X) and click each one. You can also press and hold **Shift** to select all categories from the currently selected one to the one you click.

Note: This can be used in combination with a word search.



Track List



1. Columns: Click the top of a column to sort the track list by that column.

To select the columns to display, right-click a column and then select any of the following options:

Title	Bpm	Playback Count	Bit Rate
Artist	Year	Track	Label Name
Album	Date	Key	File Name
Genre	Comment	Duration	Path

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Track List: This field displays the information for all tracks in the currently selected location: Engine Library, Engine Target, a crate, a playlist, or the search results. The tracks are sorted by column. The bottom of the window displays the total number of tracks in the list.

To edit information for a track, click it to select it, and then click a column to edit it. You can edit information for any of the following columns:

Title	Album	Track
Artist	Genre	Label Name
Comment	ВРМ	
Kev	Year	

When you are done editing, press Enter on your computer keyboard to save your edits.

To reset the playback count, right-click a track and select **Reset Playback Counts**.

PC-Link Status

The lower part of the window shows the playback status of players connected via PC-Link. See the *Using PC-Link* chapter to learn more.

To change the position of a player icon, click and drag it.

To disconnect all PC-Linked players, click the Eject icon.

Operation

Launching Engine

To open Engine:

- On Windows: Click Start (the Windows icon), click All Programs, click Denon, and click Engine.
- On Mac OS X: In your Applications window, double-click Engine.





Adjusting Settings

The first time you use Engine, configure the settings described in this chapter.

Audio



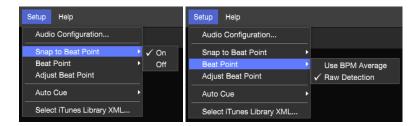


To set up devices for playing tracks on the computer during offline editing:

- 1. Click the **Setup** menu, and then click **Audio Configuration**.
- 2. Configure the following settings:
 - Audio Device Type: The type of driver used by the device for playing tracks.
 - Output: The driver for the device for playing tracks. Click **Test** to play a tone so you can determine that the output plays the audio correctly.
 - Sample Rate: The sampling frequency for playing tracks.
 - Audio Buffer Size: The buffer size that the driver will use.



Beat Point



To set whether or not to use beat point data during offline editing, click the Setup menu, and then click Snap to Beat Point to turn this feature on or off (the default setting is on).

- On: When placing a cue point, hot cue point, or loop point in a track, its position will automatically be aligned with the nearest beat point.
- Off: When placing a cue point, hot cue point, or loop point in a track, it will be placed precisely
 where you set it—not aligned to a beat point.

To set how beat points are created when adding or re-analyzing tracks:

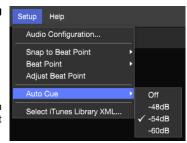
- 1. Click the Setup menu, and then click Beat Point.
- 2. Select one of the following options:
 - Raw Detection: Engine will automatically detect and set beat points. (This is the default setting.) We recommend using this option when analyzing tracks with widely varying BPM values.
 - Use BPM Average: Engine will set beat points based on the average BPM of a track.



Auto Cue Point

To set how cue points are placed when adding or re-analyzing tracks:

- 1. Click the **Setup** menu, and then click **Auto Cue**.
- 2. Select one of the following options:
 - Off: Set the cue point at the start of a track.
 - -48dB/-54dB/-60dB: Set the cue point at the first position on a track that exceeds the set volume. (The default setting is -54dB.)



iTunes® Library

To select the iTunes library database to reference when using the iTunes library:

- Click the Setup menu, and then click Select iTunes Library XML...
- In the window that appears, select the desired iTunes library database (.xml).

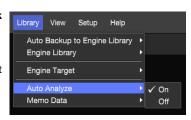




Auto Analyze

To set whether or not Engine will automatically analyze track information you add tracks:

- 1. Click the Library menu, and then click Memo Data.
- Click Auto Analyze to turn the feature on or off (the default setting is on):
 - On: Engine will automatically analyze track information.
 - Off: Engine will not analyze track information.



Engine supports the following file types:

Important: DRM-protected files cannot be added.

File Type	Extension	Details
MP3	.mp3	CBR/VBR, 44.1 kHz, stereo or mono
AAC	.m4a, .aac	CBR/VBR, 44.1 kHz, stereo or mono
WAV	.wav	LPCM, 44.1 kHz, 16-/24-bit, stereo or mono
AIFF	.aif, .aiff	LPCM, 44.1 kHz, 16-/24-bit, stereo or mono

Using USB Drives

To prepare a USB hard drive or flash drive to use with an Engine-compatible player, you will need to create an **Engine Target database** on the USB drive. When a player plays the tracks on the USB drive, it will reference its Engine database information, resulting in a smoother performance. Each USB drive can have an independent Engine Target database on it, so if your player lets you connect multiple USB drives, you can use it to access multiple Engine Targets.

An Engine database includes information to enable the following features:

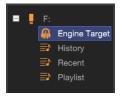
Crates	Cue Points	Loop Points	BPM	Filter Search
Playlists	Hot Cue Points	Beat Points	Waveform Data	Word Search

Important:

An Engine database requires approximately 500 MB of free space on your USB drive.

Make sure your player supports the USB drive's file system format and capacity. When formatting a USB drive for Engine Target, we recommend using a FAT32 partition type for the best performance.

Before adding tracks, playlists, or crates to a USB drive, make sure your USB drive is properly connected to your computer. An icon and the drive name will appear in the Collection pane to indicate it is connected.



To learn how to add tracks to a USB drive, see Adding & Deleting Tracks.

To learn how to add a playlist to a USB drive, see Using Playlists.

To learn how to add a crate to a USB drive, see *Using Crates*.

Using an iTunes[®] Library

If you use iTunes® on your computer, you can add tracks from your iTunes library into your Engine Library and Engine Targets.

To view tracks in your iTunes library, click **iTunes** in the Collection pane. Your iTunes library will appear in the track list (this may take a few minutes if you have a large iTunes library).

Tip: You can search for tracks in the iTunes library as you normally would in **Engine Library**. See **Searching for Tracks** to learn about this.

To add tracks from iTunes to Engine Library or Engine Target, click and drag them from the track list onto **Engine Library** or **Engine Target**. To select multiple tracks, press and hold **Ctrl** (Windows) or **%** (Mac OS X) and click each one. You can also press and hold **Shift** to select all tracks from the currently selected one to the one you click.

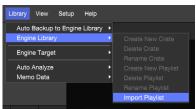
To add a playlist from iTunes to Engine Library, use one of the following methods:

- 1. In the Collection pane, right-click the playlist under iTunes.
- 2. In the menu that appears, click **Import Playlist**.

or

- 1. In the Collection pane, click the playlist under iTunes.
- 2. Click the Library menu, and select Engine Library.
- 3. In the menu that appears, click Import Playlist.





Adding & Deleting Tracks

This chapter explains how to add tracks to or delete tracks from Engine Library or Engine Target.

Notes:

If Auto Analyze is **on**, Engine will automatically analyze all tracks you add to Engine Library. A progress bar will appear to indicate the current status. See *Adjusting Settings* > *Auto Analyze* to learn about this. If you try to quit Engine while analyzing tracks, an alert window will appear. Click **OK** to quit Engine, or click **Cancel** to continue the analysis. If you quit Engine, the analysis resume the next time you open Engine. You can also add tracks from an iTunes library. See *Using an iTunes Library* to learn about this.

Important: Do not rename a connected USB drive after you add tracks from it. This will prevent Engine from detecting those tracks. If you do rename the USB drive, rename it so it uses the name it had when you originally added the tracks.

To add tracks to Engine Library, use one of the following methods:

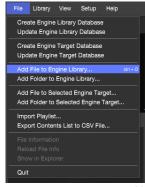
In the Collection pane, click **Engine Library**, and then click and drag a track or folder from your **Explorer** (Windows) or **Finder** (Mac OS X) onto the track list. You can do this with single or multiple tracks or folders.

or

- Click the File menu, and click Add File to Engine Library. Alternatively, press Ctrl+O (Windows) or \$\mathbb{H}\$-O (Mac OS X).
 To add all tracks in a folder (instead of a single track), click Add Folder to Engine Library.
- In the window that appears, select the track(s) or folder(s) you want to add. To select multiple tracks, press and hold Ctrl (Windows) or % (Mac OS X) and click each one. You can also press and hold Shift to select all tracks from the currently selected one to the one you click.
- 3. Click **OK** or **Cancel** to confirm or cancel the operation.

or

Add a track or folder to Engine Target (see the next page).



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To add tracks to Engine Target, use one of the following methods:

Notes:

If you add a track to Engine Target, it will automatically be added to Engine Library, as well.

If you have added a track to **Engine Target** before, the database will update (and therefore overwrite) the track's information, but the track itself will not be copied, so you do not need to worry about wasting space with duplicate tracks.

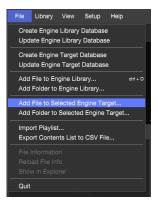
In the Collection pane, click **Engine Target**, and then click and drag a track or folder from your **Explorer** (Windows) or **Finder** (Mac OS X) onto the track list. You can do this with single or multiple tracks or folders.

or

- 1. In the Collection pane, click Engine Target.
- 2. Click the File menu, and click Add File to Selected Engine Target.

To add all tracks in a folder (instead of a single track), click **Add** Folder to Selected Engine Target.

- In the window that appears, select the track(s) or folder(s) you want to add. To select multiple tracks, press and hold Ctrl (Windows) or % (Mac OS X) and click each one. You can also press and hold Shift to select all tracks from the currently selected one to the one you click.
- 4. Click **OK** or **Cancel** to confirm or cancel the operation.



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To delete tracks from Engine Library or Engine Target:

- 1. In the Collection pane, click Engine Library or Engine Target.
- In the track list, click the track you want to delete. To select multiple tracks, press and hold Ctrl (Windows) or % (Mac OS X) and click each one. You can also press and hold Shift to select all tracks from the currently selected one to the one you click.
- Press Delete or Backspace on your computer keyboard.
 Alternatively, right-click the track(s), and click Delete in the menu that appears.
- 4. Click **OK** or **Cancel** to confirm or cancel the operation.

Important:

Deleting a track from Engine Library or Engine Target will **not** delete it from its original location on your computer or USB drive.

Deleting a track from Engine Library will **not** delete it from Engine Target—and vice versa.

Deleting a track from Engine Target on one USB drive will remove it from that Engine Target only. It will **not** affect Engine Targets on other USB drives.



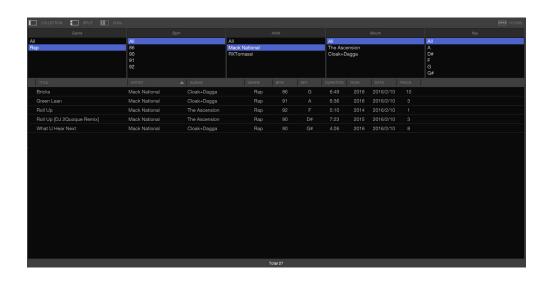


Searching for Tracks

To search for tracks using the filters:

- 1. In the Collection pane, click where you want to search: **Engine Library**, **Engine Target**, a crate, or a playlist. The track list will display all tracks in that location.
- 2. Under any one or more of the filter columns, click a category whose tracks you want to show: **Genre, BPM, Artist, Album,** or **Key**. Only the tracks in that category will be shown in the track list.

To select multiple categories in a filter column, press and hold **Ctrl** (Windows) or **%** (Mac OS X) and click each one. You can also press and hold **Shift** to select all categories from the currently selected one to the one you click.





To search for tracks by word:

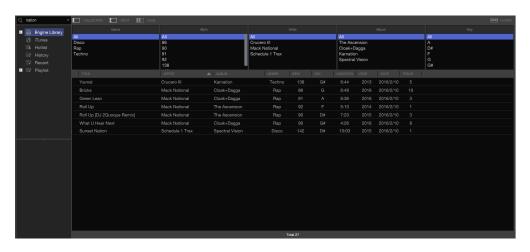
- 1. In the Collection pane, click where you want to search: **Engine Library**, **Engine Target**, a crate, or a playlist. The track list will display all tracks in that location.
- 2. Click the word search field, and use your computer keyboard to enter text into the field. All tracks containing that text will be shown in the track list.

The following information is referenced during searches.

Title	Comment	Genre	Key
Artist	Label Name	Album	File Name

To search for multiple words, enter a space between each word. All tracks that include **all** of the words will be shown in the track list.

To show tracks with the word(s) you entered only within a specific category, click the magnifying glass icon (\mathcal{P}) or downward arrow (\mathbf{v}), select a category, and enter text into the word search field.



Using Crates

You can manage the tracks in your library by sorting them into "crates." A crate will reference the tracks in it as well as the tracks in any sub-crates below it. You can create up to 8 levels of sub-crates. Multiple sub-crates can be created on the same level.

Note: When viewing a crate on an Engine-compatible player, the tracks will be sorted by their titles.

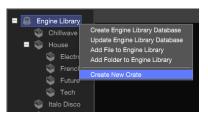
Creating Crates

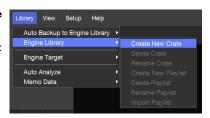
To create a crate, use one of the following methods:

- In the Collection pane, right-click Engine Library or Engine Target, depending on where you want to create the crate.
- 2. In the menu that appears, click Create New Crate.
- 3. Enter a name for the crate, and press Enter.

or

- In the Collection pane, right-click Engine Library or Engine Target, depending on where you want to create the crate.
- Click the Library menu, and select the same option: Engine Library or Engine Target.
- 3. In the menu that appears, click Create New Crate.
- 4. Enter a name for the crate, and press Enter.





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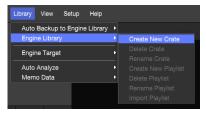
To create a sub-crate, use one of the following methods:

- In the Collection pane, right-click the "parent" crate under Engine Library or Engine Target.
- 2. In the menu that appears, click Create New Crate.
- 3. Enter a name for the crate, and press **Enter**.

or



- In the Collection pane, click the "parent" crate under Engine Library or Engine Target.
- Click the Library menu, and select the same option: Engine Library or Engine Target.
- 3. In the menu that appears, click Create New Crate.
- 4. Enter a name for the crate, and press Enter.



Adding & Deleting Tracks

To add tracks to crate or sub-crate, click and drag them from the track list onto the crate or sub-crate.

To delete tracks from a crate or sub-crate:

- 1. In the track list, click the track you want to delete.
- Press Delete or Backspace on your computer keyboard.
 Alternatively, right-click the track(s), and click Delete in the menu that appears.
- 3. Click **OK** or **Cancel** to confirm or cancel the operation.

Note: Deleting tracks from a crate will not delete it from Engine Library or Engine Target.





Moving & Editing Crates

To move a crate or sub-crate, click and drag it onto its "destination" in the Collection pane. The crate or sub-crate and all of its contents (including other sub-crates) will become sub-crates of the destination crate.



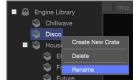
To add a crate to a USB drive, click and drag the desired crate onto Engine Target or onto its "destination" crate under Engine Target.



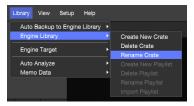
To rename a crate, use one of the following methods:

- In the Collection pane, right-click the crate under Engine Library or Engine Target.
- 2. In the menu that appears, click **Rename**.
- 3. Enter a new name, and press Enter.





- In the Collection pane, click the crate under Engine Library or Engine Target.
- Click the Library menu, and select the same option: Engine Library or Engine Target.
- 3. In the menu that appears, click Rename Crate.
- 4. Enter a new name, and press Enter.



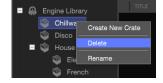


Deleting Crates

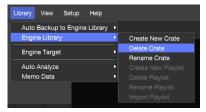
To delete a crate or sub-crate, use one of the following methods:

- In the Collection pane, right-click the crate under Engine Library or Engine Target.
- 2. In the menu that appears, click **Delete**.
- 3. Click **OK** or **Cancel** to confirm or cancel the operation.

or



- In the Collection pane, click the crate under Engine Library or Engine Target.
- Click the Library menu, and select the same option: Engine Library or Engine Target.
- 3. In the menu that appears, click **Delete Crate**.
- 4. Click **OK** or **Cancel** to confirm or cancel the operation.



Using Playlists

You can use playlists to manage tracks and the order in which they play.

Note: When viewing a playlist on an Engine-compatible player, the tracks will be sorted by the order in which you added them to the playlist.

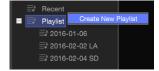
Creating Playlists

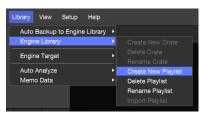
To create a playlist, use one of the following methods:

- In the Collection pane, right-click Playlist under Engine Library or Engine Target, depending on where you want to create the playlist.
- 2. In the menu that appears, click Create New Playlist.
- 3. Enter a name for the playlist, and press Enter.

or

- In the Collection pane, right-click Engine Library or Engine Target, depending on where you want to create the playlist.
- Click the Library menu, and select the same option: Engine Library or Engine Target.
- 3. In the menu that appears, click Create New Playlist.
- 4. Enter a name for the playlist, and press Enter.







Adding & Deleting Tracks

To add tracks to a playlist, click and drag tracks from the track list onto the playlist. The tracks will be numbered according to the order they were added to the playlist. You can add up to **1,000** tracks to each playlist. You can add the same track to a playlist multiple times.



To delete tracks from a playlist:

- 1. In the track list, click the track you want to delete.
- Press Delete or Backspace on your computer keyboard.
 Alternatively, right-click the track(s), and click Delete in the menu that appears.
- 3. Click **OK** or **Cancel** to confirm or cancel the operation.

Note: Deleting tracks from a playlist will not delete it from Engine Library or Engine Target.

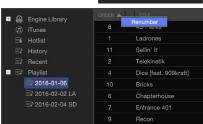
Moving & Editing Playlists

To add a playlist to a USB drive, click and drag the desired playlist onto **Playlist** under **Engine Target**.



To reorder tracks in a playlist:

- 1. Click a playlist to select it.
- Click and drag the tracks to the desired location in the track order.
- Right-click the Order column in the playlist, and click Renumber. The numbers of each track in the playlist will update.



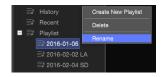
DENON DJ

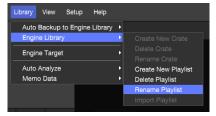
To rename a playlist, use one of the following methods:

- In the Collection pane, right-click the playlist under Engine Library or Engine Target.
- 2. In the menu that appears, click Rename.
- 3. Enter a new name, and press Enter.

or

- In the Collection pane, click the playlist under Engine Library or Engine Target.
- Click the Library menu, and select the same option: Engine Library or Engine Target.
- 3. In the menu that appears, click Rename Playlist.
- 4. Enter a new name, and press Enter.







Deleting Playlists

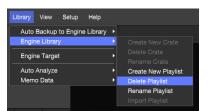
To delete a playlist, use one of the following methods:

- In the Collection pane, right-click the playlist under Engine Library or Engine Target.
- 2. In the menu that appears, click **Delete**.
- 3. Click **OK** or **Cancel** to confirm or cancel the operation.

or

- In the Collection pane, click the playlist under Engine Library or Engine Target.
- Click the Library menu, and select the same option: Engine Library or Engine Target.
- 3. In the menu that appears, click Delete Playlist.
- 4. Click **OK** or **Cancel** to confirm or cancel the operation.

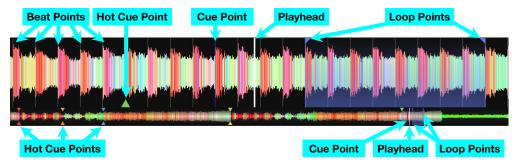






Editing Tracks

You can use Engine to set cue points, hot cue points, loop points, and beat points to use while DJing on a player in the future.



To prepare a track to edit, in the track list, double-click the track you want to edit, or click and drag it onto the waveform or editing controls above. The track will load, where you can play and/or edit it. Its waveform will appear, and its beat points will appear on the waveform.

To skip to the next or previous track, press Ctrl+→ or Ctrl+→ (Windows) or %+→ or %+→ (Mac OS X) on your computer keyboard.

To find a position in your track, use one of the following methods:

- Click and drag the audio waveform to move through the track.
- Press → or ← on your computer keyboard to search forward or backward through the track.
- Click on the track overview to jump to show that location in the audio waveform.

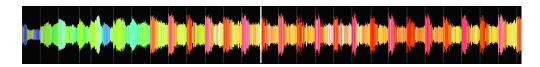
To set the zoom level of the audio waveform, click the -/+ buttons to zoom out/in, or click Reset to return to the normal zoom level.

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The track overview and audio waveform show the following information:

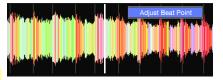
- The waveform color-coding indicates the frequency of the audio signal:
 - o **Red** represents low-frequency (bass) content.
 - o **Green** represents mid-range-frequency content.
 - o **Blue** represents high-frequency (treble) content.
- The playhead (the current track position) is a white line.
- Beat points are gray lines that are shown in the audio waveform only.
- The cue point is a blue line.
- Hot cue points are triangles whose color depends on the hot cue point number.
- Loop points are purple lines with shading between them.

Beat Points



To adjust the position of the beat points, right-click above the expanded waveform display at the desired location, and then click **Adjust Beat Point**. The beat point closest to the playhead will shift to the playhead's current position. All other beat points will also shift accordingly.

Important: When the Snap to Beat Point feature is **on**, cue points, hot cue points, and loop points will be automatically aligned with the nearest beat points. See *Adjusting Settings* > *Beat Point* to learn about this.

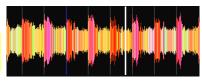




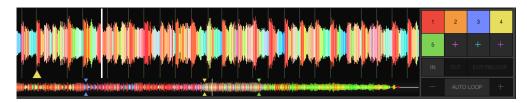
Cue Points

To set a cue point, click **Set** at the desired location. Now, when you click **Cue**, playback will start from that point.

Important: When the Snap to Beat Point feature is **on**, cue points will be automatically aligned with the nearest beat points. See *Adjusting Settings* > *Beat Point* to learn about this.



Hot Cue Points



To set a hot cue point, do either of the following:

- Click a numbered hot cue button (1-8) at the desired location.
- Press the corresponding number key (1–8) on your computer keyboard at the desired location.

Now, when you click that hot cue button (1-8), playback will start from that point.

Important:

The supported number of hot cue points differs depending on the player. For details, refer to your player's manual.

When the Snap to Beat Point feature is **on**, hot cue points will be automatically aligned with the nearest beat points. See *Adjusting Settings* > *Beat Point* to learn about this.

To delete a hot cue point, do either of the following:

- Right-click the numbered hot cue button (1–8), and click **Delete Hot Cue**.
- Press and hold Shift and press the corresponding number key (1–8) on your computer keyboard.



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Loop Points



To set loop points (create a loop):

- 1. Click **In** at the location where you want to start the loop.
- 2. Click **Out** at the location where you want to end the loop. Loop playback will begin immediately.

To set an auto loop, click Auto Loop at the desired location. Loop points will be automatically set based on the BPM, and loop playback will begin immediately.

Important: When the Snap to Beat Point feature is **on**, loop points will be automatically aligned with the nearest beat points. See *Adjusting Settings* > *Beat Point* to learn about this.

To increase the length of a loop, click +. The length of the loop will double each time you click it (e.g, twice its original length, 4 times its original length, 8 times..., and then 16 times).

To decrease the length of a loop, click –. The length of the loop will be halved each time you click it: (e.g, 1/2 of its original length, 1/4 of its original length, 1/8..., and then 1/16).

To play the loop, click Exit/Reloop while the loop is inactive. The loop will play immediately from its start point and repeat when it reaches its end point.

To stop playing the loop, click Exit/Reloop while the loop is active. When playback reaches the loop's end point, it will continue through the track and not return to its start point.

ID3 Tags

ID3 tags are a track's metadata—information about the track that is stored in the file itself: the title, artist, album, track number, etc. You can update and edit these ID3 tags within Engine.

To update a track's information:

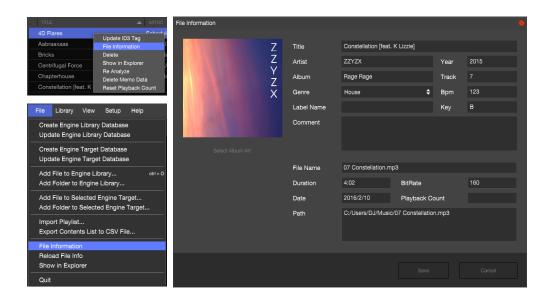
- In the track list, click a track whose tags you want to update.
 To select multiple tracks, press and hold Ctrl (Windows) or % (Mac OS X) and click each one. You can also press and hold Shift to select all tracks from the currently selected one to the one you click.
- 2. Right-click the track(s) and select **Update ID3 Tag** in the menu that appears.



You can also manually edit a track's information within Engine. See the *next page* to learn how to do this.

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In addition to automatically updating a track's ID3 tags (described on the *previous page*), you can manually edit the information.



To edit a track's information manually:

- In the track list, click a track whose tags you want to edit. To select multiple tracks, press and hold Ctrl (Windows) or # (Mac OS X) and click each one. You can also press and hold Shift to select all tracks from the currently selected one to the one you click.
- 2. Right-click the track(s) and select **File Information** in the menu that appears. Alternatively, click the **File** menu, and then click **File Information**.

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3. In the window that appears, click any of the following fields to edit its information:

Title	Label Name	Key
Artist	Year	Comment
Album	Track	
Genre	ВРМ	

To edit album art information, do either of the following:

- Click Album Art Select and then select an image file (.jpg or .png) in the window that appears.
- Click and drag an image file (.jpg or .png) from your Explorer (Windows) or Finder (Mac OS X) over the album art panel.

The window also shows the following information, which you cannot edit in this window:

File Name Bit Rate

Duration Playback Count

Date Path

To edit the file name or file path, see **Showing the Track Location**.

To reset the playback count, see Resetting the Playback Count.

4. To save your changes, click Save.

To cancel your changes, click **Cancel** or the red circle in the upper-right corner.



Re-Analyzing Tracks

When Engine analyzes a track, it will detect or process the track's waveform data, BPM value, and beat point data. Additionally, it will find any cue points, hot cue points, or loop points within the track (created in Engine or in Serato DJ).

Important: In order to use Serato DJ cue points, hot cue points, or loop points within a track, you must first add it to your Engine Library and/or Engine Target and analyze it.

Tip: Keep the Auto Analyze feature **on** so tracks will be automatically analyzed when you add them to Engine Library. See *Adjusting Settings > Auto Analyze* to learn about this.

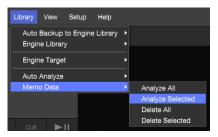
If you previously changed the BPM value or beat points of a track and later want to restore the original value or locations, you will need to re-analyze the track.

To re-analyze a track:

- In the track list, click a track you want to re-analyze. To select multiple tracks, press and hold Ctrl (Windows) or **%** (Mac OS X) and click each one. You can also press and hold Shift to select all tracks from the currently selected one to the one you click.
- 2. Right-click the track(s) and select **Re Analyze** in the menu that appears. Alternatively, click the **Library** menu, select **Memo Data**, and click **Analyze Selected**.

To re-analyze all tracks (instead of the selected track[s]), click **Analyze All** instead.







Deleting Memo Data

When you add a track to Engine Library or Engine Target, it will automatically copy and cue points, hot cue points, and loop points that were created in Engine or in Serato DJ.

Important: In order to use Serato DJ cue points, hot cue points, or loop points within a track, you must first add it to your Engine Library and/or Engine Target and analyze it.

If you want to remove all of this data, you will need to delete the track's "memo data."

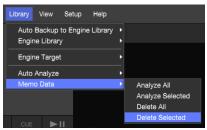
Note: Deleting a track's memo data will not affect its waveform data, BPM value, or beat points.

To delete a track's memo data:

- 1. In the track list, click a track whose memo data you want to delete. To select multiple tracks, press and hold **Ctrl** (Windows) or **%** (Mac OS X) and click each one. You can also press and hold **Shift** to select all tracks from the currently selected one to the one you click.
- Right-click the track(s) and select **Delete Memo Data** in the menu that appears. Alternatively, click the **Library** menu, select **Memo Data**, and click **Delete Selected**.

To delete the memo data for all tracks (instead of the selected track[s]), click Delete All instead.





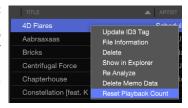


Resetting the Playback Count

Another part of a track's metadata is the playback count—how many times a track has been played. You can reset the playback count, which is useful if you just added the track to your Engine Library.

To reset a track's playback count:

- In the track list, click a track whose playback count you want to reset. To select multiple tracks, press and hold Ctrl (Windows) or **%** (Mac OS X) and click each one. You can also press and hold Shift to select all tracks from the currently selected one to the one you click.
- 2. Right-click the track(s) and select **Reset Playback Count** in the menu that appears.





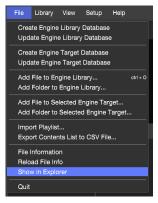
Showing the Track Location

You can immediately open a track's location on your computer or on a connected USB drive. This is useful if you want to rename or move the file itself.

To open a track's location on your computer or USB drive:

- In the track list, click the track you want to locate. To select multiple tracks, press and hold Ctrl (Windows) or % (Mac OS X) and click each one. You can also press and hold Shift to select all tracks from the currently selected one to the one you click.
- Right-click the track(s) and select Show in Explorer (Windows) or Show in Finder (Mac OS X) in the
 menu that appears. Alternatively, click the File menu, and click Show in Explorer (Windows) or
 Show in Finder (Mac OS X).





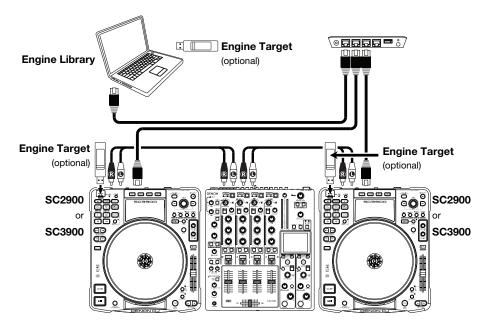


Using PC-Link

PC-Link is a feature on older Denon DJ players—specifically, **SC2900** and **SC3900**. By using an Ethernet cable to connect the player and a computer to the same network, you can play tracks on the computer or on a USB drive connected to the player—all while viewing the playback status on the computer.

In this setup, because the player handles the track playback and audio signal processing, there are some advantages:

- It reduces audio latency (delay) because the tracks are being played directly from the player.
- Operation is stable even without a high-performance computer.
- Even if the computer freezes up, playback will continue uninterrupted.



Setting Up PC-Link

Important:

When multiple players are connected to your computer, set a different network ID for each player used to ensure that Engine can recognize them. To learn how to set a network ID, refer to your player's manual.

We recommend using a router that has a DHCP server function for network connections. When using a switching hub, it may take a few minutes to determine the network address after connection.

Always connect the player and computer using a wired local area network (LAN). Also, if the computer has multiple Ethernet/LAN ports, we recommend disabling all ports other than the one being used. If the other ports are not disabled, the link with player may not be established.

If a folder contains **2,048** or more subfolders or **1,024** or more tracks, the folder and files will not be displayed (not including folders and files under the displayed folder).

To set up PC-Link:

- 1. Use Ethernet cables—and a router, if necessary—to establish a network connection between the computer (with Engine installed on it) and your player.
- 2. Power on your computer and player.
- 3. After IP addresses have been assigned to your computer and player, open Engine. In Engine, an icon for your player will appear in the PC-Link Status area (at the bottom of the Engine software window). It will also show the following information:
 - Its playback status: Play, Pause, or Cue
 - Its network ID
 - The title of the currently loaded track
- 4. Connect a USB drive containing an Engine Target database to the player. An icon for the player will appear in the Collection pane.
- 5. Click the player's icon in the Collection pane to expand or collapse its contents:
 - To select a folder on the USB drive, click the Folder icon. Available tracks will appear in the track list.
 - To select Engine Target, click Engine Target under that USB drive in the Collection pane.

You can also use the controls on your player to control Engine.



Using the Hotlist

The hotlist is a list of tracks that is shared between your Engine Library and your PC-Linked player.

To add tracks to the hotlist, click and drag tracks from the track list onto **Hotlist** in the Collection pane. The tracks will be numbered according to the order they were added to the hotlist.



To delete tracks from the hotlist:

- 1. In the track list, click the track you want to delete.
- Press Delete or Backspace on your computer keyboard.
 Alternatively, right-click the track(s), and click Delete in the menu that appears.
- 3. Click **OK** or **Cancel** to confirm or cancel the operation.

Note: Deleting tracks from the hotlist will **not** delete it from Engine Library or Engine Target.



DJing with PC-Link

While using PC-Link, you can play tracks from these locations:

- Engine Library on your computer. Your track's playback status will be shown in Engine on your computer.
- Engine Target on a USB drive connected to your computer. Your track's playback status will be shown in Engine on your computer.
- Engine Target on a USB drive connected to your player. Your track's playback status will be shown on your player. (This is the same as using your player without your computer.)

To load tracks onto your player, use one of the following methods:

- Click and drag the tracks from the track list onto the player's icon in the **PC-Link Status** area.
- Click the tracks in the track list, right-click them, and select your player in the menu that appears.
- Click and drag the tracks from your Explorer (Windows) or Finder (Mac OS X) onto the player's
 icon in the PC-Link Status area.

Note: Tracks loaded using this method will not be added to Engine Library.

• Use your Engine-compatible player to select the tracks directly.



Appendix

Troubleshooting

Problem	Solution
I cannot add tracks to Engine.	If you are using a Windows computer, make sure Apple® QuickTime® is installed and up-to-date. If it is not, download and install the latest version from: apple.com/quicktime
	Make sure that Engine supports the format of the track you want to add. See <i>Operation > Adjusting Settings > Auto Analyze</i> .
	Make sure that the track's album art image is smaller than 1 MB.
While editing a track, audio playback is noisy.	Make sure that your audio settings are properly configured. See Operation > Adjusting Settings > Audio.
	Increase the playback buffer size. See <i>Operation > Adjusting Settings > Audio</i> .
	If Engine is analyzing tracks, wait to edit until the analysis is complete. (Engine operates slightly slower during track analysis.)
I cannot copy the Engine Target file.	Make sure that you have enough free space on your USB drive. (You will need more space than the total file size.)
My player cannot play tracks from Engine Target on a USB drive.	Make sure that your player supports the format and capacity of your USB drive.



Problem	Solution
The PC-Link connection between my SC2900 or SC3900 and my computer fails.	Restart Engine and the player. If you have restarted Engine while using PC-Link, establish PC-Link connection with the player again. See Operation > Using PC-Link > Setting Up PC-Link.
	When using a switching hub, it may take a few minutes to determine the network address after connection. We recommend using a router that has a DHCP server function for network connections.
	If your computer has multiple Ethernet/LAN ports, we recommend disabling all ports other than the one being used for PC-Link.
	Make sure your computer's operating system or security software has not disabled.



Technical Specifications

Supported Operating Systems	Windows 8 & 8.1, Windows 10 Mac OS X 10.8–10.11	
Library Support	iTunes 10, iTunes 11, iTunes 12 Serato DJ Hot Cue Points	
Maximum Database Size	Files Crates Playlists	≥ 100,000 playable files ≥ 512 crates with 7 sub-crate layers ≥ 512 playlists
Playable Files	MP3 (.mp3) AAC (.aac, .m4a) WAV (.wav) AIFF (.aif, .aiff)	CBR/VBR, 44.1 kHz, stereo or mono CBR/VBR, 44.1 kHz, stereo or mono LPCM, 44.1 kHz, 16-/24-bit, stereo or mono LPCM, 44.1 kHz, 16-/24-bit, stereo or mono

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