HEADRUSH®

Antares AUTOTUNE® VX5

User Guide

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(1.0) Introduction

(1.1) Box Contents

AutoTune VX5

USB Cable

Power Cable

Quickstart Guide

Safety & Warranty Manual

(1.2) Support

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

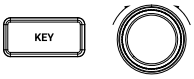
For additional product support, visit **support.headrushfx.com**.

(2.0) Setup

Note: For best results, use AutoTune on only one singer.

1. Press the **Preset button**. Rotate the encoder and then push the encoder to select a preset that closely matches your incoming source audio.

2. Press the **Key button** and turn the **Preset/Edit encoder** to set the Key, Scale, and Range for the singer.



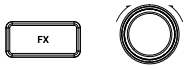
3. Press the **AutoTune button** to turn on the AutoTune feature.

4. Adjust the **Speed knob**. A slower setting gives a more natural sounding pitch correction while a faster setting gives a more noticeable effect.

5. Adjust the **Humanize knob** to add more or less natural sounding pitch correction on sustained notes.

6. Press the **Harmony button** to turn the effect on, indicated by the button back light. Press the **Harmony** or **FX button** to turn on the respective feature. Then press and hold the respective button again to enter the menu. You can also select the "Inst." setting to use the guitar input to determine the key and scale.

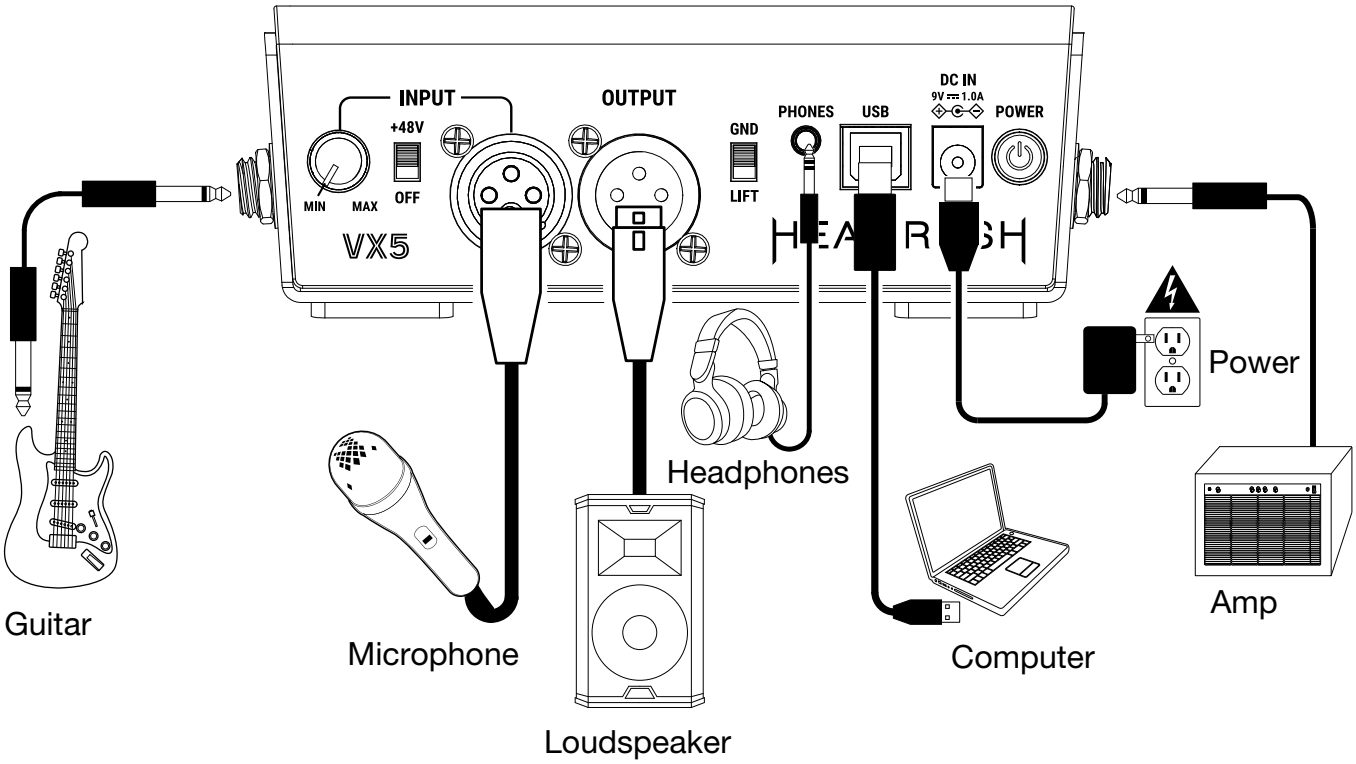
7. Press the **FX button** to turn the effect on, indicated by the button's back light. Press and hold the **FX button**, then turn the **Preset/Edit encoder** to adjust parameters to create your own signature sound.



When you are finished using AutoTune VX5 and ready to shut it down, power off your connected output devices first, and then power off AutoTune VX5.

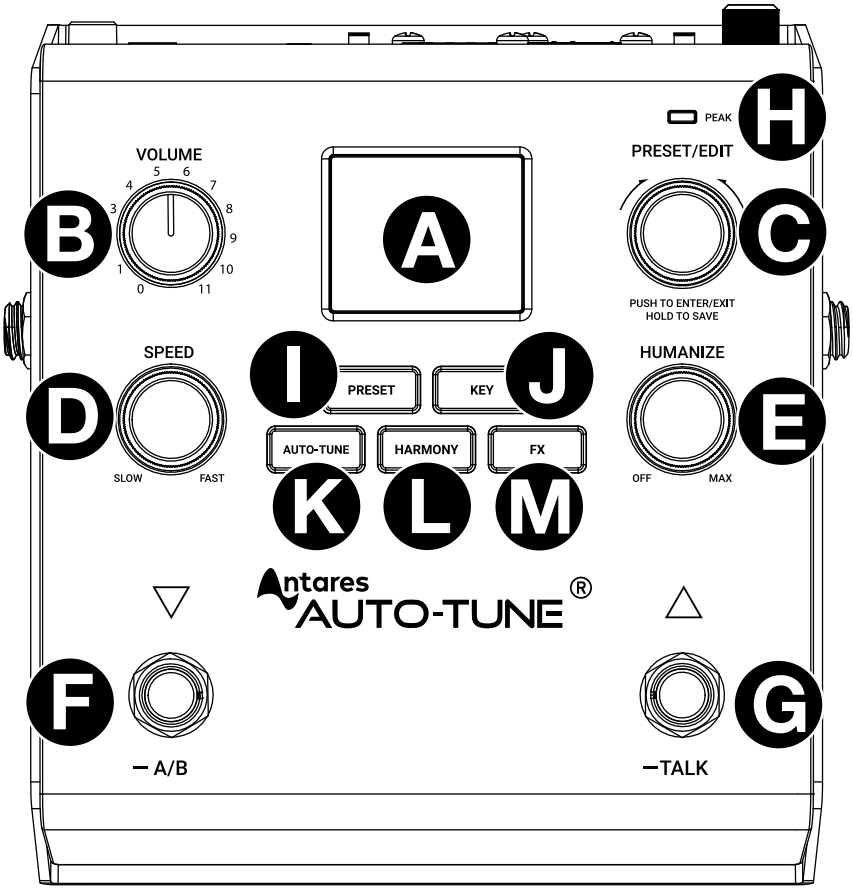
(2.1) Connection Diagram

Items not listed under ***(1.1) Introduction*** > ***Box Contents*** are sold separately.



(3.0) Features

(3.1) Top Panel



A. Display

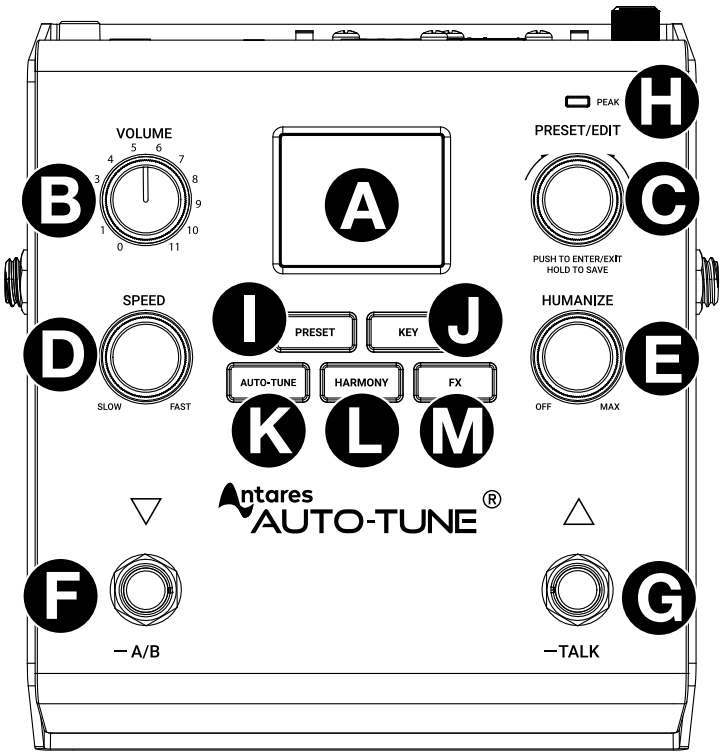
Use this 1.8” color screen to view menus and edit parameters. Press the **Key** button to enter the menu on the display. Press and hold the **Harmony** or **FX** buttons to enter these menus on the display.

B. Volume

Adjusts the level of the **Main** and **Phones Outputs**.

C. Preset/Edit

Turn this encoder to adjust parameters, press to enter/exit menus, and hold to save a preset. The last selected preset will be retained when the power is cycled off and on.



D. Speed

Turn this knob to adjust how rapidly pitch correction is applied to incoming audio. For a more noticeable effect, set this towards the “Fast” side. For a more natural sounding pitch correction, set this towards the “Slow” side. See the ***(4.3) Speed*** section for more details.

E. Humanize

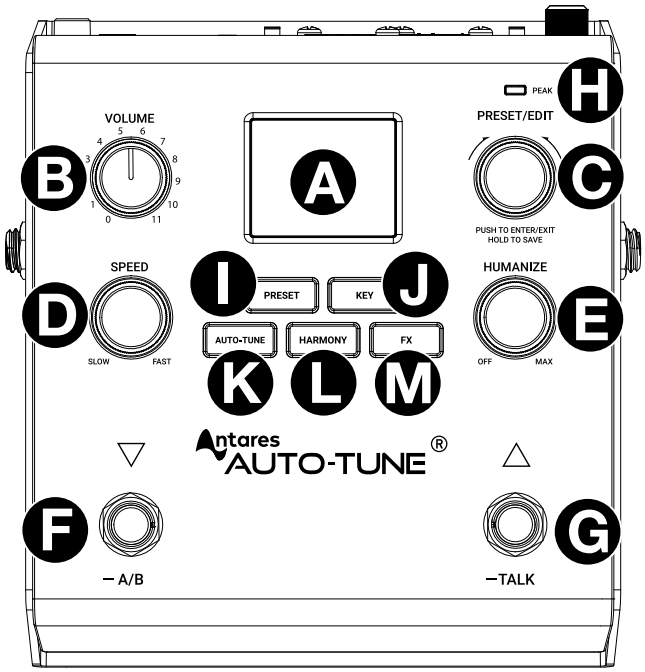
Turn this knob to the right to add realism to sustained notes by preserving subtle variations in pitch. Turn the knob to the left to minimize the natural sounding pitch correction, enabling settings that resemble the classic “robotic” AutoTune effect. See the ***(4.4) Humanize*** section for more details.

F. Preset Down / A/B Mode

Press to switch to the previous preset. Press and hold for two seconds to enter A/B mode to use the left and right footswitches to turn the selected effect on or off within a preset. Press and hold this footswitch to exit A/B mode. See the ***(4.9) Footswitch Menu*** section for more details.

G. Preset Up / Talk Mode

Press to switch to the next preset. Press and hold for two seconds to activate Talk mode and bypass the AutoTune, Harmony, and FX features without any effects applied to your vocals. Press either footswitch to exit Talk mode. See the ***(4.9) Footswitch Menu*** section for more details.



H. Peak LED

This LED will flash red if the XLR input signal is clipping. If this occurs, reduce the microphone level using the **Input Gain** knob.

I. Preset

Press to go to the Preset screen to see the current preset or to select another one. See the ***(4.2) Preset/Edit Menu*** section for more details.

J. Key

Press to go to the Key screen and select the key, scale, and vocal range for the preset. See the ***(4.5) Key Menu*** section for more details.

K. AutoTune

Press to turn the AutoTune feature on or off for the current preset. See the ***(4.6) Autotune*** section for more details.

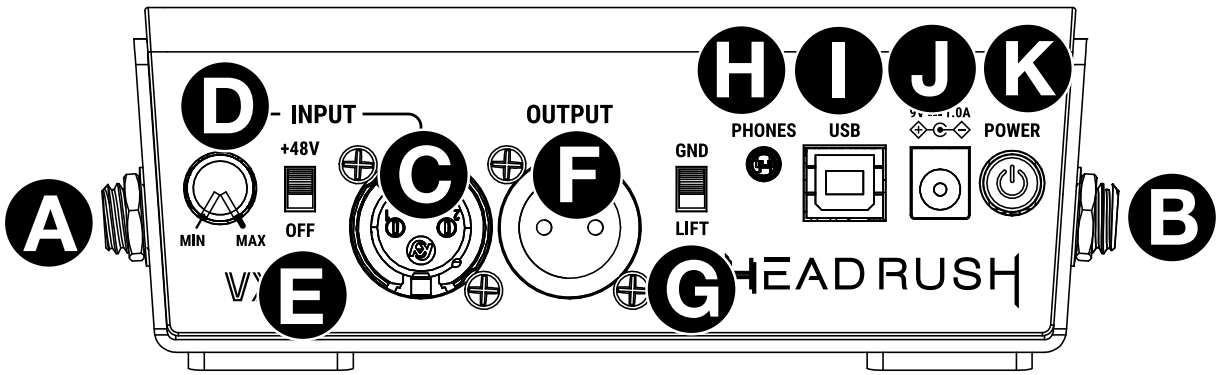
L. Harmony

Press once to turn the Harmony feature on or off for the current preset. The backlight will illuminate when it is on. Press and hold to enter the parameter edit screen. See the ***(4.7) Harmony*** section for more details.

M. FX

Press once to turn the FX feature on or off for the current preset. The backlight will illuminate when it is on. Press and hold to enter the parameter edit screen. See the ***(4.8) FX Menu*** section for more details.

(3.2) Rear Panel



A. Guitar Input (right-side panel, 1/4” [6.35 mm] TS, Mono)

Connect your guitar here.

B. Guitar Thru (left-side panel, 1/4” [6.35 mm] TS, Mono)

Connect this output to an amp or powered speaker.

C. Microphone Input (XLR, Mono, Balanced)

Connect a dynamic or condenser microphone here.

D. Microphone Input Gain Knob

Adjust the input gain for the **Microphone Input**. If the **Peak LED** flashes, reduce the gain knob.

E. +48V Phantom Power Switch

Use this switch to enable +48V phantom power for condenser microphones connected to the **Microphone Input**.

F. Main Output (XLR, Balanced)

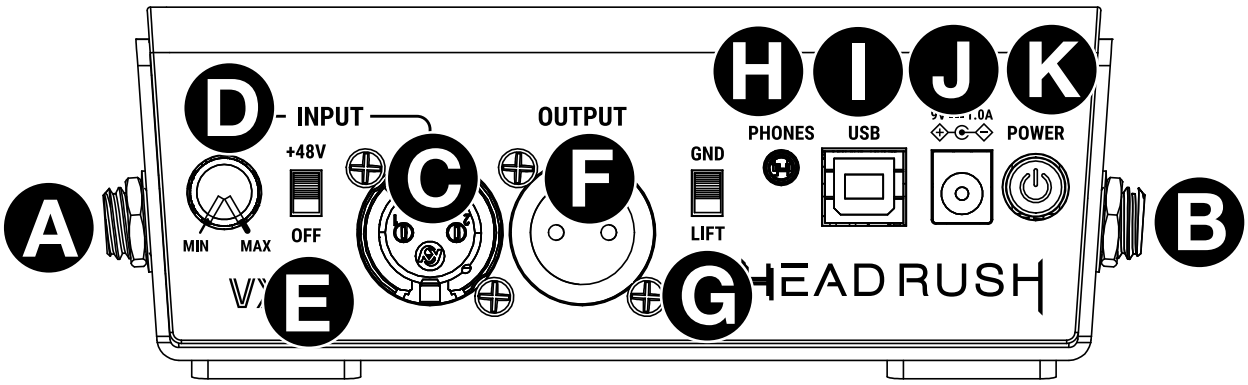
Connect to an amplifier system or speakers.

G. Ground Lift Switch

Engage this switch to reduce hum or noise.

H. Phones Output (Stereo 1/8” [3.5 mm])

Connect your headphones (not included) here.



I. USB-B Port

Connect this USB port to a computer to send a stereo audio signal to your computer, receive a stereo audio signal from your computer, send MIDI program change messages (for preset recall, A/B mode, and Talk mode), and access the web interface for software updates. See the ***(4.12) MIDI Control*** section for more details.

J. Power Input (DC 9V, 1A, center negative)

Connect the included power cable here to power the unit.

K. Power Button

Press to power on/off.

(4.0) Operation

This chapter describes how to use AutoTune VX5

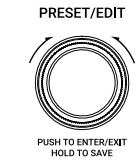
(4.1) Main Screen Overview

To access the main screen (the default screen when powering on), press the **Preset button** from any menu. Turn the **Preset/Edit encoder** to scroll through the available presets, and then press it again to select and load the preset.

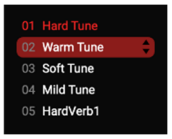
To cancel loading a preset, press the **Preset button** to return to the main screen or wait five seconds to automatically return to the main screen.

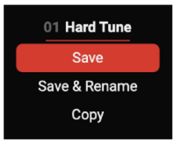
(4.2) Preset/Edit Menu

Loading/Saving a Preset

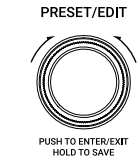


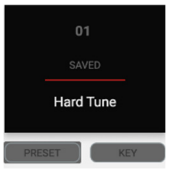
1. From the main screen, turn the **Preset/Edit encoder** to select a preset. Push the encoder again to load the selected preset.
2. Adjust the Humanize, Speed, Key, Harmony, or FX parameters for the preset.
3. Press and hold the **Preset/Edit encoder to select from these options:**
   - Select **Save** to overwrite the existing preset
   - Select **Save and Rename** to save to a new preset
   - Select **Copy** to copy over another preset



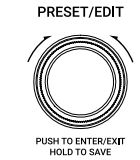


4. Turn the **Preset/Edit encoder** to scroll to a character, then push the encoder again to highlight that character. Scroll with the encoder through the character list. Once one is found, push the encoder to select. Press the **Key button** on a highlighted character space to delete that character. Once the preset is named, press the **Preset button** to save the preset.





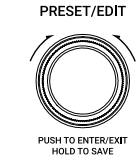
Renaming a Preset



1. Turn the **Preset/Edit encoder** to select a preset.
2. Press and hold the **Preset/Edit encoder** and turn the encoder to select **Save & Rename** before scrolling through the alpha numeric characters. Up to nine characters can be used for a name. Push the **encoder** to select a character and advance to the next position to continue naming the preset.

3. To save the preset name, press the **Preset button**.

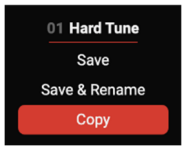
Copying a Preset



Note: Saving over a Preset slot will erase that preset. Save to an **<Empty>** slot to avoid this.

1. Press and hold the **Preset/Edit encoder**.
2. Turn the **Preset/Edit encoder** to select **Copy**.

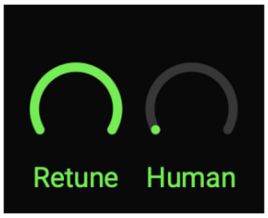
   Note: Make sure to always rename your preset before copying them to avoid naming confusion.



3. In the **Save to Preset** menu, select a Preset slot and save a copy of the loaded preset to that slot by pressing the **Preset/Edit encoder**.

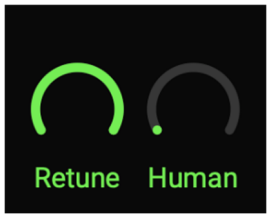
(4.3) Speed

Turn the **Speed knob** to adjust how rapidly pitch correction is applied to incoming audio (0 – 400ms). For a more noticeable effect, turn the Speed knob to adjust the Retune setting towards the “Fast” side. For a more natural sounding pitch correction, turn this towards the “Slow” side.



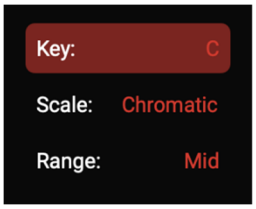
(4.4) Humanize

Turn the **Humanize knob** (Off - Max) clockwise for a more natural or human voice. Turn the knob counterclockwise to minimize the natural sounding pitch correction for a classic “robotic” AutoTune effect.



(4.5) Key Menu

Press the **Key button** to select the key, scale, and vocal range for the preset.



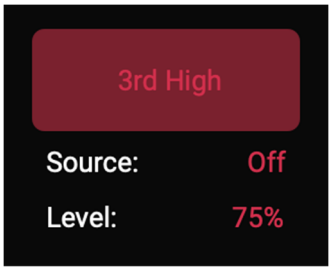
Key Range:	C, D^b, D, E^b, E, F, F#/G^b, G, A^b, A, B^b, B
Scale:	Chromatic, Major, Minor, Melodic Minor, Harmonic Minor, Dorian, Phrygian, Lydian, Mixolydian, Locrian
Range:	Very Low, Low, Mid, High, Very High

(4.6) AutoTune Menu

Press the **AutoTune button** to turn the autotune function on or off for the loaded preset. You may wish to have this turned off if you just want to use the Harmony or FX parts of the preset without autotuning the input signal.

(4.7) Harmony Menu

Editing a Harmony

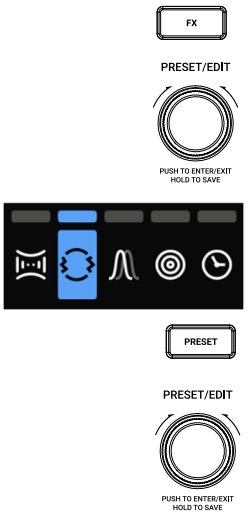


1. Press and release the **Harmony button** to toggle this on/off. Press and hold the button again to enter its options menu.
2. Turn the **Preset/Edit encoder** to select the Harmony Range, Source, or Level, and push the encoder to see its options.
3. Turn the **Preset/Edit encoder** to browse parameters. Push the encoder to select a parameter and turn the encoder to adjust that parameter.
4. Push the **Preset/Edit encoder** button again to select the parameter and return to the options menu.

Harmony Range: (Source set to Instrument)	Highest, Higher, High, Unison, Low, Lower, Lowest
Harmony Range: (Source set to Off)	3rd High, 5th High, Oct High, 3rd Low, 5th Low, Oct Low, 3rd Low + 3rd High, 5th Low + 3rd High, 5th Low + 5th High, 3rd High + 5th High, Oct Low + Oct High
Source:	Off, Instrument
Level:	0 – 100%

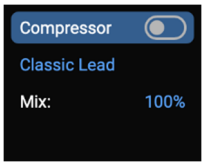
(4.8) FX Menu

Selecting an Effect



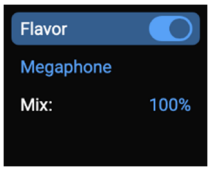
1. Press the **FX button** to toggle this on/off. Then press and hold the button again to enter the menu.
2. Rotate the **Preset/Edit encoder** and then push to select Compressor, Flavor, Chorus, Reverb, Delay.
3. Push the **Preset/Edit encoder** to select a parameter and rotate the encoder to browse effects presets or adjust parameters. Press the **Preset button** to go back to the main preset page.
4. Push the **Preset/Edit encoder** to confirm the parameter selections or to toggle the effect's on/off switches.

Compressor:



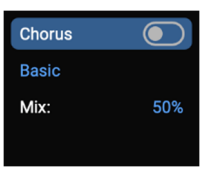
Compressor Type:	Soft, Mild, Hard, Crunch
Mix:	0 – 100%

Flavor:



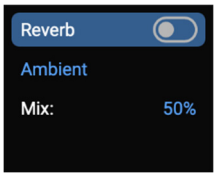
Flavor Type:	Sizzle, Megaphone, Radio, Soft LoFi, Tube, Phone Vox, Zinger
Mix:	0 – 100%

Chorus:



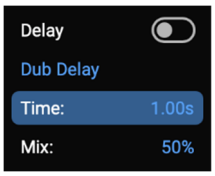
Chorus Type:	Basic, Smooth, Deep Chorus, Heavy Slow, Robot Voice
Mix:	0 – 100%

Reverb:



Reverb Type:	Hall, Big Room, Chamber, Ambient, Church
Mix:	0 – 100%

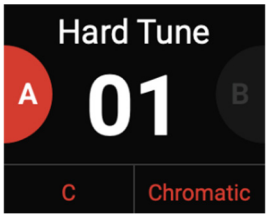
Delay:



Delay Type:	Short Echo, Long Echo, Slapback, Ping Pong, Rhythmic Tail, Dub Delay, DM Resonator
Time:	1ms – 4.00s
Mix:	0 – 100%

(4.9) Footswitch Menu

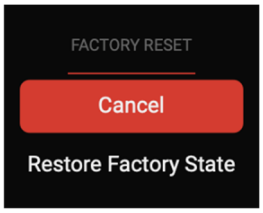
Press the **Preset Down / -A/B** footswitch to switch to the previous preset. Press and hold the footswitch for two seconds to enter A/B mode. Then use the left and right footswitches to turn a selected effect on or off within a preset. Press and hold the footswitch to exit A/B mode.



Press the **Preset Up / Talk Mode** footswitch to switch to the next preset. Press and hold the footswitch for two seconds to activate Talk mode to bypass the AutoTune, Harmony, and FX features without any effects applied to your vocals. Press either footswitch to exit Talk mode.

(4.10) Factory Reset

Hold the **Key** and **Preset** buttons while powering on VX5 to confirm or cancel a reset to factory default settings. This will clear all user presets and restore the factory presets.



(4.11) Web Interface

Connect AutoTune VX5 to your computer and go to **vx5.local** in a web browser to access the web interface (Windows 11 and macOS 13 - 15 are supported) when any firmware updates are made available. Follow the instructions included with the firmware update file to update AutoTune VX5.

(4.12) MIDI Control

External MIDI Control

When external MIDI control is enabled, you can use a MIDI device to remotely control some functions of AutoTune VX5. AutoTune VX5 receives MIDI messages on ALL channels. The chart below lists the parameters that can be controlled by sending the listed incoming MIDI messages from your external MIDI hardware:

Function	MIDI Message	Values
Select Preset (Within the current bank)	Program Change	0-127 (Bank 1) 0-121 (Bank 2)
Select Preset Bank	CC 32	0 = Bank 1 (Presets 1-128) 1 = Bank 2 (Presets 129-250)
Footswitch A/B Mode	CC 16	0 = Disables Footswitch A/B Mode 1 = Selects Footswitch A Mode 2 = Selects Footswitch B Mode
Talk Mode	CC 17	0-63 = Disable Talk Mode 64-127 = Enable Talk Mode

(5.0) Appendix

(5.1) Presets

Preset #	Category	Preset Name	Preset #	Category	Preset Name
1	AUTOTUNE	Hard Tune	**30**	AT + FX [Delay]	MildTail
2	AUTOTUNE	Warm Tune	**31**	AT + HARM + FX [Comp + Flavor]	Oct Vox
3	AUTOTUNE	Soft Tune	**32**	AT + FX [Comp + Flavor]	WarmSizzl
4	AUTOTUNE	Mild Tune	**33**	AT + HARM + FX [Comp + Flavor]	Oct LoFi
5	HARM + FX [Comp + Chorus]	Octaves	**34**	AT + FX [Comp + Flavor]	WarmZing
6	HARM + FX [Comp + Chorus]	Fifths	**35**	AT + HARM + FX [Comp + Flavor]	Oct Radio
7	AT + FX [Verb]	HardVerb1	**36**	AT + HARM + FX [Chorus + Verb]	HardJuice
8	AT + FX [Verb]	HardVerb2	**37**	AT + HARM + FX [Chorus + Verb + Delay]	WarmJuice
9	AT + FX [Verb]	HardVerb3	**38**	AT + HARM + FX [Flavor + Chorus + Verb]	SoftJuice
10	AT + FX [Verb]	WarmVerb1	**39**	AT + HARM + FX [Chorus + Verb]	MildJuice
11	AT + FX [Verb]	WarmVerb2	**40**	AT + HARM + FX [Flavor + Chorus + Delay]	HardWow
12	AT + FX [Verb]	WarmVerb3	**41**	AT + HARM + FX [Chorus + Verb + Delay]	WarmWow
13	AT + FX [Verb]	SoftVerb1	**42**	AT + HARM + FX [Chorus + Verb + Delay]	SoftWow
14	AT + FX [Verb]	SoftVerb2	**43**	AT + HARM + FX [Chorus + Delay]	MildWow
15	AT + FX [Verb]	SoftVerb3	**44**	FX [Verb]	Hall
16	AT + FX [Verb]	MildVerb1	**45**	FX [Verb]	Room
17	AT + FX [Verb]	MildVerb2	**46**	FX [Verb]	Chamber
18	AT + FX [Verb]	MildVerb3	**47**	FX [Verb]	Ambient
19	AT + FX [Delay]	HardSlap	**48**	FX [Verb]	Church
20	AT + FX [Delay]	HardEcho	**49**	FX [Delay]	SlapBack
21	AT + FX [Delay]	HardPong	**50**	FX [Delay]	ShortEcho
22	AT + FX [Delay]	WarmSlap	**51**	FX [Delay]	LongEcho
23	AT + FX [Delay]	WarmEcho	**52**	FX [Delay]	PingPong
24	AT + FX [Delay]	WarmDub	**53**	FX [Delay]	DubDelay
25	AT + FX [Delay]	SoftSlap	**54**	FX [Delay]	Rhythmic
26	AT + FX [Delay]	SoftEcho	**55**	FX [Delay]	Resonator
27	AT + FX [Delay]	SoftPong	**56**	FX [Chorus]	Chorus
28	AT + FX [Delay]	MildSlap	**57**	FX [Chorus]	Smooth C
29	AT + FX [Delay]	MildEcho	**58**	FX [Chorus]	Deep C

Preset #	Category	Preset Name	Preset #	Category	Preset Name
59	FX [Chorus]	Heavy C	**80**	FX [Flavor]	Zinger
60	FX [Chorus]	Robot C	**81**	AT + FX [Comp + Flavor]	HardZing
61	AT + HARM + FX [Comp + Chorus + Verb]	3HiVerbMj	**82**	HARM + FX [Comp + Flavor + Chorus]	HarmZing
62	AT + HARM + FX [Comp + Chorus + Verb]	3HiVerbMn	**83**	FX [Flavor]	Radio
63	HARM + FX [Comp + Chorus + Verb]	5HiVerb	**84**	AT + FX [Comp + Flavor]	HardRadio
64	HARM + FX [Comp + Chorus + Verb]	OctHiVerb	**85**	HARM + FX [Comp + Flavor + Chorus]	HarmRadio
65	AT + HARM + FX [Comp + Chorus + Verb]	3LoVerbMj	**86**	FX [Flavor]	Mega
66	AT + HARM + FX [Comp + Chorus + Verb]	3LoVerbMn	**87**	AT + FX [Comp + Flavor]	HardMega
67	HARM + FX [Comp + Chorus + Verb]	5LoVerb	**88**	HARM + FX [Comp + Flavor + Chorus]	HarmMega
68	HARM + FX [Comp + Chorus + Verb]	OctLoVerb	**89**	FX [Flavor]	Phone
69	HARM + FX [Comp + Chorus + Verb]	DblOctVrb	**90**	AT + FX [Comp + Flavor]	HardPhone
70	HARM + FX [Comp + Chorus + Verb]	5ths Verb	**91**	HARM + FX [Comp + Flavor + Chorus]	HarmPhone
71	FX [Flavor]	Sizzle	**92**	AT + HARM + FX [Flavor + Chorus + Delay]	Crazinger
72	AT + FX [Comp + Flavor]	HardSiz	**93**	AT + HARM + FX [Flavor + Chorus + Delay]	Flosizzle
73	HARM + FX [Comp + Flavor + Chorus]	HarmSiz	**94**	AT + HARM + FX [Comp + Flavor + Chorus + Verb]	MinorLoFi
74	FX [Flavor]	LoFi	**95**	AT + HARM + FX [Comp + Flavor + Chorus + Verb]	MajorLoFi
75	AT + FX [Comp + Flavor]	HardLoFi	**96**	AT + HARM + FX [Comp + Flavor + Chorus + Delay]	RadioGaGa
76	HARM + FX [Comp + Flavor + Chorus]	HarmLoFi	**97**	AT + HARM + FX [Flavor + Chorus + Delay]	Tubular
77	FX [Flavor]	Tube	**98**	AT + HARM + FX [Comp + Flavor + Chorus + Verb + Delay]	SpookyHrm
78	AT + FX [Comp + Flavor]	HardTube	**99**	AT + HARM + FX [Comp + Flavor + Chorus + Verb + Delay]	MeloMinor
79	HARM + FX [Comp + Flavor + Chorus]	HarmTube			

(5.2) Technical Specifications

XLR Input (Balanced XLR)	
Frequency Response	20 Hz – 20 kHz (±0.2 dB)
Dynamic Range	111 dB (A-weighted)
Signal-to-Noise Ratio	110 dB (1 kHz, +4 dBu, A-weighted)
THD+N	0.003% (1 kHz, +4 dBu, -1 dBFS)
Preamp EIN	-133 dBu (max gain, 40 Ω source, A-weighted) -127 dBu (max gain, 150 Ω source, unweighted)
Max Input Level	+10 dBu
Sensitivity	-46 dBu
Gain Range	59 dB
+48V Phantom Power	Switchable on/off

Guitar Input (Balanced 1/4” / 6.35 mm TRS or unbalanced 1/4” TS)	
Frequency Response	20 Hz – 20 kHz (±0.2 dB)
Dynamic Range	111 dB (A-weighted)
Signal-to-Noise Ratio	110 dB (1 kHz, +4 dBu, A-weighted)
THD+N	0.003% (1 kHz, +4 dBu, -1 dBFS)
Max Input Level	+13 dBu
Input Impedance	1 MΩ
Sensitivity	-46 dBu

Guitar Thru (Balanced 1/4" / 6.35 mm TRS or unbalanced 1/4” TS)	
Output Impedance	540/270 Ω (unbalanced/balanced)
Buffered	Yes

Main XLR Output (Balanced XLR)	
Frequency Response	20 Hz – 20 kHz (±0.2 dB)
Dynamic Range	113 dB (A-weighted)
THD+N	0.001% (1 kHz, -1 dBFS)
Maximum Output Level	+20 dBu
Output Impedance	100 Ω
Ground Lift	Switchable on/off

Headphone Output (1/8” / 3.5 mm TRS)	
Frequency Response	20 Hz – 20 kHz (+0.2 dB)
Dynamic Range	112 dB (A-weighted)
THD+N	0.008% (1 kHz, 10mW per channel into 32 Ω)
Maximum Output Level	+20 dBu (unloaded)
Power Output	100 mW RMS (per channel into 32 Ω)
Output Impedance	32 Ω

General	
Footswitches	(2) Footswitches
Knobs	Preset/Edit encoder, Volume knob, Speed knob, Humanize knob
Display	1.8” (45.7 mm) full-color LCD
Connectors	Guitar Input (1/4” TS, Mono), Guitar Thru (1/4” TS, Mono), Mic Input (XLR female), Main Output (XLR male), Phones Output (1/4”), USB-B
USB	**Bit rate:** 24 bit **Sample Rate:** 48 kHz
Power	9V DC, 1A center-negative; 2.1 mm barrel power adapter
Dimensions (width x depth x height)	6.6” x 6.0” x 2.8” / 16.7 x 15.2 x 7.1 cm
Weight	2.5 lbs / 1.1 kg

Specifications are subject to change without notice.

(5.3) Trademarks & Licenses

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