

# **CATALYST CX FAMILY**

CATALYST CX 200 CATALYST CX 100 CATALYST CX 60

PILOT'S GUIDE ▶

## Supplier's Declaration of Conformity 47 CFR § 2.1077 Compliance Information

**Unique Identifiers:** Line 6® Catalyst® CX 200, Catalyst® CX 100, Catalyst® CX 60.

#### Responsible Party - U.S. Contact Information:

Yamaha Guitar Group, Inc. 26580 Agoura Road Calabasas, CA 91302-1921 (818) 575-3600 https://line6.com/

#### **FCC Compliance Statement:**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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SERIAL NO.: _	
MODEL NO.: _	

## **CATALYST CX COMPARISON**

FEATURES	CATALYST CX 200	CATALYST CX 100	CATALYST CX 60
Amplifier Wattage	200 Watts	100 Watts	60 Watts
Power Damping	Full Power, Half Power, 0.5 Watts, Mute		
Speakers	2x12" custom voiced	1x12" custom voiced	1x12" custom voiced
Number of Channels	2		
Amp Voicings	12		
Instrument Inputs	1 x 1/4"		
EQ	3-Band		
Controls	Boost, Gain, Presence, Channel Volume, Ma	ster Volume	
Digital Effects	6 types of each Delay, Modulation, Pitch/Filte each edited independently	er, and Reverb effects - two different types of	effects can be enabled simultaneously and
Tap Tempo	Yes		
Tuner	Yes		
FX Loop	Yes		
Aux In	3.5 mm		
Headphone Out	1/4"		
Direct Out	XLR w/ground lift		
USB Audio Interface	4-in/4-out		
Power Amp In	1/4" (via FX Loop Return)		
MIDI	5-Pin DIN or USB USB		
Software	Catalyst Edit - Remote software editor (PC, Mac, iOS, Android)		
Weight	41.6 lbs / 18.9 kg	31.9 lbs / 14.5 kg	25.9 lbs / 11.8 kg
Dimensions (H x W x D)	19.2 x 27.3 x 10.3 inches 488 x 694 x 262 mm	19.8 x 22.2 x 10.3 inches 488 x 564 x 262 mm	17.5 x 19.8 x 10.3 inches 444 x 503 x 262 mm
Accessories	LFS2 Footswitch (Channel A/B, Effects on/off)		
(sold separately)	Catalyst 200 Cover	Catalyst 100 Cover	Catalyst 60 Cover

NOTE: All features above are also available in first generation Line 6 Catalyst 200, 100, and 60 amplifiers with version 2.0 or later firmware installed.

## **Overview**

Welcome to the **Line 6® Catalyst® CX Family Pilot's Guide**. This guide covers the features and functionality of the Catalyst and Catalyst CX amplifiers.\* The Catalyst CX family of amplifiers offers twelve Line 6 Amp Voicings, from sparkling clean to blistering hi-gain, allowing guitarists to blaze their own musical trails. With a familiar 2-channel control panel layout and analog-style controls, the Catalyst amplifiers will allow you to dial up a great sound in seconds. Catalyst amplifiers also offer 24 onboard effects, an FX loop, a power amp input, a power level control, an XLR output, and a USB connection for deep editing or recording.

\*NOTE: All Catalyst CX features described in this guide are also included for all Catalyst 60/100/200 amplifiers that have been updated to firmware v2.00 (or later).

#### **Features:**

- Now featuring 12 Line 6 Amp Voicings taken from our famed Helix®/ HX® family of modelers, from sparkling clean to the highest of high gain, with a custom-tailored boost control
- Six banks containing two channels each, for a total of twelve preset locations
- Six high quality, custom-curated reverbs
- · Six custom delays
- · Six modulation effects
- · Six pitch shift and filter effects
- Power Amp In feature that allows you to connect external effects pedals, pedalboards, or amp and effects processors (such as Line 6 Helix, HX Stomp<sup>TM</sup>, or POD® Go) direct to the power amplifier for the cleanest amplification of your modeling
- XLR Direct Output with cabinet emulation to connect to a PA mixer or recording device
- · USB audio interface for recording and editing
- FX Loop for use with external effects
- MIDI In jack for use with external MIDI controller devices (Catalyst CX 100 and 200 only—note that all Catalyst models offer MIDI In via USB)
- Headphone Output jack

- 1/8" / 3.5 mm Aux Input for other audio sources
- Change amp channels and control effects using the optional Line 6 LFS2 footswitch (sold separately)
- Protect your investment with a custom-designed Line 6 amp cover (sold separately)

**Package Includes:** Catalyst® CX amplifier, IEC power cable, amp-topper Cheat Sheet guide, and Pilot's Guide.

## **Catalyst Edit Application**

The free **Catalyst Edit** software is available for macOS and Windows® computers and iOS and Android™ mobile devices. Catalyst Edit allows you to edit, backup, restore, and manage your Amp Voicings, including your amp knob settings, effects, and more—see "Using the Catalyst Edit Application" on page 11.

**Catalyst Edit Software Requirements:** macOS 10.14, Windows 7 or 10, iOS 12.1, or Android OS 6.0 (or newer versions).

**For macOS and Windows Computers:** Go to <u>line6.com/software</u>, download the Catalyst Edit installer, then double-click the downloaded file and follow the on-screen instructions.

**For iOS Mobile Devices:** Visit the <u>Apple App Store</u> and follow the on-screen installation instructions.\*

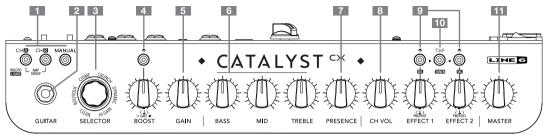
For Android Mobile Devices: Visit the Google Play™ Store and follow the on-screen installation instructions.\*

\*For iOS and Android devices with USB-C ports, a USB-B to USB-C adapter is required. For all other supported iOS devices, a USB-A to lightning adapter is required. For all other Android devices, a USB OTG (On-The-Go) adapter is required. All adapters sold separately. Check line6.com/android for more information.

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**TIP!** You can also download additional tones for your Catalyst, or upload and share your own tones at customtone.com.

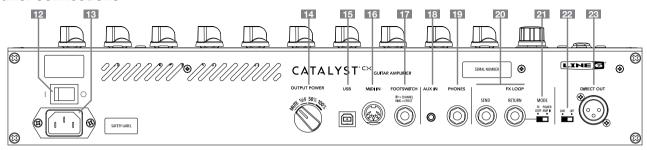
## **Top Panel Controls**



- CHANNEL SELECT Press either the CH A or CH B button to select the preset channel you want to configure.
  - Optionally, press MANUAL to enter Manual mode and use the knobs like a traditional amp.
  - Make any changes you like to the amp knob settings, effects, etc., and optionally save your changes—see "How To:" on page 9.
  - Press CH A & CH B simultaneously to switch between Amp Groups—see the item #3 description.
- 2. GUITAR INPUT Plug your guitar in here.
- SELECTOR & LED RING There are two Amp Groups, each containing six Line 6 Amp Voicings.
  - Press both the CHANNEL SELECT CH A & CH B buttons together to toggle between Amp Groups. The full LED RING flashes once to indicate Amp Group 1 and twice for Group 2
  - Turn the SELECTOR encoder to load an Amp Voicing within the current Group—see page 9.
- 4. BOOST CONTROLS Press the switch to enable/disable the Boost feature, which is built-in to each Amp Voicing and optimized for superior sound. Use the knob to adjust the Boost level.
- 5. GAIN Controls how much distortion you get in your tone.

- BASS, MID, TREBLE Allows you to adjust the overall EQ for each preset that you store. When in "MANUAL" mode, these knobs operate just like those on a traditional amp.
- 7. PRESENCE Typically found on tube amplifiers, this boosts specific upper midrange and treble frequencies to make your tone more pronounced and "present" in a mix.
- 8. **CH VOL** Controls the preset's channel volume and is the primary way to adjust and match the volume level of your presets.
- 9. EFFECT 1 & 2 CONTROLS Use the button and knob for independent model selection and parameter control of Effect 1 and Effect 2—also see see "How To:" on page 9. When an effect is engaged, the knob blends the "wet" effect level into your signal.
- 10. TAP/TUNER BUTTON Tap in time with the music to set the tempo of delay and modulation effects.\* Press and hold to engage the Tuner. Press again to exit.
- \*TIP! Use the Catalyst Edit app to configure your delay and modulation to sync to a specific note division value (1/8 dotted, 1/4 triplet, 1/2 note, etc.).
- MASTER VOLUME Controls the overall volume of the amplifier as well as the PHONES output (when in use).

## **Rear Panel Connections**



- 12. POWER Switch Turns the amplifier on/off.
- 13. AC IN The included power cable connects here. See the rear panel markings for electrical information.
- 14. OUTPUT POWER Controls the overall power amp output. There are four selections: MUTE (for recording/headphone use), ½W (0.5 Watts). 50%(half power), and 100% (full power).
- 15. USB-B PORT Connect a macOS or Windows computer, iOS or Android mobile device\* to edit tones, update, playback, and record audio. This USB connection offers 4-channel audio at 24-bit depth and 44.1 kHz or 48 kHz sample rates—see page 11. The maximum recommended length for the USB cable is 1.50 meters (cable not included).
- \*NOTE: See "Catalyst Edit Application" on page 4 for software and adapter cable requirements.
- 16. MIDI IN Connect an external MIDI controller device to the 5-pin MIDI DIN connector here to control preset changes, controller assignments, and more (available on Catalyst CX 100/200). See "Using a MIDI Controller with Catalyst" on page 13.
- 17. FOOTSWITCH Connect the optional Line 6 LFS2 2-button footswitch here to control A/B channel switching and EFFECT 1 on/off (or configure the footswitches for other functions using Catalyst Edit).

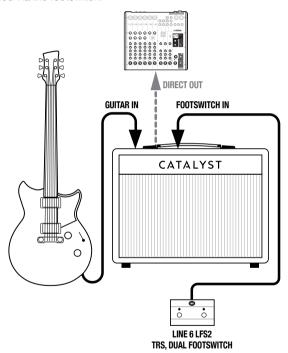
- 18. AUX IN An auxiliary input for running MP3 players or other audio sources directly (unprocessed) into the amplifier's speakers.
- 19. PHONES Connect a pair of headphones here. The top panel's MASTER VOLUME controls the level to your headphones. For silent practicing, the speakers are muted when headphones are connected. When muted, the DIRECT OUT is still active.

To avoid hearing damage, always turn the MASTER VOLUME all the way down before connecting headphones!

- 20. FX LOOP Connect external effects using standard 1/4" instrument cables. Connect the SEND to your effect input and the RETURN to your effect output.
- 21. MODE SWITCH Controls the state of the FX Loop RETURN. When switched to the left, the FX Loop is engaged (as described above). When switched to the right, Power Amp In is engaged, sending the return signal directly to the power amp. This feature is great for use with external effects processors or pedals.
- 22. GND-LIFT Ground lift switch for XLR DIRECT OUTPUTS.
- 23. DIRECT OUT Connect an XLR cable to route audio to a PA, mixer, or audio interface. The output level for the DIRECT OUT is fixed at line level (not affected by the MASTER VOLUME knob). Note that the AUX IN signal is not routed to the DIRECT OUT.

## **Standard Hookup**

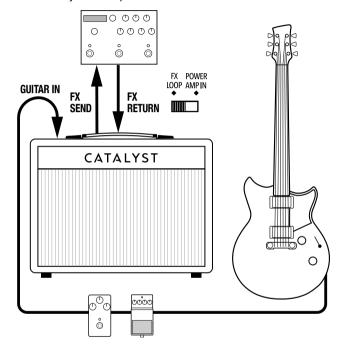
Plug in a **Line 6 LFS2 Footswitch** (sold separately), or other compatible "latching" footswitch into the FOOTSWITCH jack.\* A standard latching type, dual footswitch controls the Channel Select (A/B) and Effects On/Off. Note that the effect stored within the current preset is the effect that will be accessed via the footswitch.



\*NOTE: Optionally, you can connect two individual single footswitches to the FOOTSWITCH jack using a 1/4" TRS splitter adapter. Momentary type footswitches can be assigned to work with your Catalyst via the Catalyst Edit software.

## **FX Pedal Hookup**

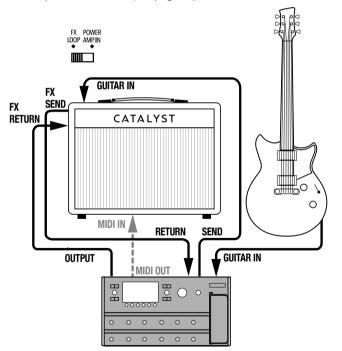
Typical setup with pedals before the amp, and an effects unit connected within the Catalyst FX Loop. The Mode switch should be set to FX LOOP.



## **Modeler 4-Cable Method Hookup**

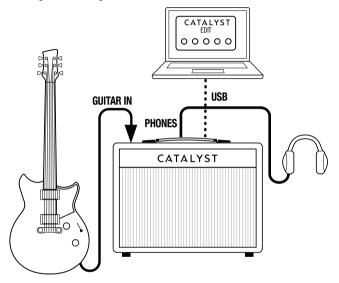
If using an amp/multi-effects modeler, such as a Line 6 Helix, HX Stomp, or POD Go device, it is most functional to use the 4-Cable Method:

- Connect your guitar into the modeler's GUITAR IN.
- Connect the modeler's SEND to the Catalyst's GUITAR IN.
- Connect the Catalyst's SEND to the modeler's RETURN.
- Connect the modeler's OUTPUT to the Catalyst's RETURN.
- Set the Catalyst's MODE switch to FX LOOP.
- Optionally, connect the modeler's MIDI OUT to Catalyst's MIDI IN for parameter control (see page 13).



## **Computer Hookup**

Connect your computer (or mobile device) to the Catalyst USB port to use Catalyst Edit for tone editing, jamming along with your favorite music, or recording with a DAW application (also see "Using Catalyst as a USB Audio Device" on page 12). Optionally, connect headphones for "silent" performing or recording.



### How To:

## **Change Presets**

- 1. Press the desired CHANNEL button (A, B, or MANUAL) at any time to return to that amp channel.
- 2. Turn the SELECT knob to cycle through the Amp Voicings.

#### Save a Preset

- After making any changes to a preset, simply press and hold CHANNEL A or B to store your edited settings for the preset.
- Note that after holding the button for approximately two seconds, the front panel channel LEDs will blink, then turn solid when saving is complete.

## **Change Preset Banks**

- Catalyst CX amps feature six banks of channel presets that you can access from the front panel. Each bank contains a Channel A and Channel B location.
  - Press and hold the MANUAL channel button, and use the AMP SELECTOR encoder to scroll through the six banks of channel selections.
  - You can save the channel settings for each bank when that bank is selected.
  - Optionally, use the Catalyst Edit software to save your settings to any of the 12 preset locations.
- ▼ TIP! You can also load presets remotely via MIDI—see page 14.

## **Select an Amp Voicing**

Catalyst CX offers two versions of each of Amp Type, arranged within Groups 1 and 2, for a total of twelve Line 6 Amp Voicings.

 Press both the CHANNEL SELECT CH A & CH B buttons together to toggle between Amp Group 1 and 2—the LED RING blinks once to indicate Group 1 and twice to indicate Group 2.  Turn the SELECTOR encoder to choose an Amp Voicing within the current Group. The selected amp is indicated by the lit segment of the LED Ring.

**TIP!** When you toggle between the Amp Groups, the Amp Voicing of the same Amp Type is automatically loaded, allowing you to easily compare the two voicings.

Amp Type	Group	Voicing	Description
	1	CLARITY*	Pristine clean, even when cranked.
CLEAN	2	ARCHETYPE CLEAN MOD	Rich and clear clean tones.
BOUTIQUE	1	ARISTOCRAT*	Inspired by iconic, hand-crafted tones.
BOOTIQUE	2	GRAMMATICO GSG	A wide range of ultra-boutique GSG100 tones.
CHIME	1	CARILLON*	Classic chime, only bigger and deeper.
Ormivic	2	ELMSLEY*	Smooth lows combined with well-defined high-end sparkle.
	1	VOLTAGE*	Crunchy, with a British accent.
CRUNCH	2	2204 MOD	Classic British mid-gain amp tones, but with additional edge.
	1	KINETIC*	Highly touch-responsive, mid-gain tone.
DYNAMIC	2	VENTOUX*	Vintage American and British sounds combined, with an emphasis on the mids.
HI GAIN	1	OBLIVION*	Contemporary hi-gain, with extended lows.
HI GAIN	2	BADONK*	Super high-gain tones with massive low end.

<sup>\*</sup>Line 6 Original Amp Voicings.

#### Select and Enable Effects

Use the EFFECT 1 and EFFECT 2 controls to add up to two different effects.

- Press the EFFECT 1 or EFFECT 2 button to enable its effect model. Turn the respective EFFECT knob to blend in more "wet" signal.
- The current EFFECT category is indicated by the color of the button's LED (Delay = GREEN, Modulation = BLUE, Pitch/Filter = PURPLE, Reverb = ORANGE).
- 3. Press & hold the EFFECT 1 or 2 button for two seconds to enter Effect Selection mode. The SELECTOR's full LED RING will blink twice.
- TIP! Edit the effects' deep parameters, controlling things like delay time, pitch shift amount, and more using the Catalyst Edit software.
  - To change EFFECT models, turn the SELECTOR to scroll through the six different effects within the current category—your model selection is indicated by the lit LED RING segment. (See the following tables for the included effect models per category.)
  - To change EFFECT categories, press the TAP button to scroll through the other available effect categories.
- NOTE: The same effect category cannot be used simultaneously by both EFFECT 1 and EFFECT 2.
  - Press & release the EFFECT button to set the selected effect within your preset. The full LED RING will blink three times to indicate you are exiting the selection mode.
  - Once you've exited Effect Selection mode, press and hold CH A or CH B to save your settings to that preset location if desired.

#### DELAY

LED INDICATOR	MODEL	BASED ON*
1 (CLEAN)	Simple Delay	Line 6 Original
2 (BOUTIQUE)	Vintage Digital	Line 6 Original
3 (CHIME)	Transistor Tape Echo	Maestro® Echoplex EP-3
4 (CRUNCH)	Adriatic Delay	Line 6 Original
5 (DYNAMIC)	Dual Delay	Line 6 Original
6 (HI GAIN) Dynamic "Ducking" Delay		Line 6 Original

#### **MODULATION**

LED INDICATOR	MODEL	BASED ON*
1 (CLEAN)	PlastiChorus	Arion ACH-Z Chorus
2 (BOUTIQUE)	Opto Trem	Fender® Optical Tremolo
3 (CHIME)	Script Mod Phaser	MXR® Phase 90
4 (CRUNCH)	Gray Flanger	MXR 117 Flanger
5 (DYNAMIC)	Ubiquitous Vibe	Shin-ei Uni-Vibe®
6 (HI GAIN)	Rotary	Leslie® 145

#### PITCH/FILTER

LED INDICATOR	MODEL	BASED ON*
1 (CLEAN)	Bass Octaver	EBS® OctaBass
2 (BOUTIQUE)	Growler Synth	Line 6 Original
3 (CHIME)	Pitch Harmony	Line 6 Original
4 (CRUNCH)	Pitch Shift	Line 6 Original
5 (DYNAMIC)	Tycoctavia Fuzz	Tycobrahe® Octavia
6 (HI GAIN)	Synth String	Line 6 Original

#### **REVERB**

LED INDICATOR	MODEL	BASED ON*
1 (CLEAN)	Hot Spring	Line 6 Original
2 (BOUTIQUE)	Hall	Line 6 Original
3 (CHIME)	Chamber	Line 6 Original
4 (CRUNCH)	Plate	Line 6 Original
5 (DYNAMIC)	Ganymede	Line 6 Original
6 (HI GAIN)	Plateaux	Line 6 Original

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#### **Activate the TUNER**

Catalyst CX includes a simple chromatic tuner, which utilizes the EFFECT 1, TAP, and EFFECT 2 buttons' LEDs. When the tuner is engaged, the speaker, Direct Out, and Phones are muted.

- 1. Press and hold TAP; the button LEDs flash three times.
- 2. If the note is in tune, the TAP LED lights WHITE, while the EFFECT 1 & 2 LEDs illuminate GREEN.
- 3. If the note is flat, the EFFECT 1 LED illuminates, gradually moving from RED through to GREEN as you approach in-tune.
- **4.** If the note is sharp, the EFFECT 2 LED illuminates from RED through to GREEN as you approach in-tune.
- 5. Press any button other than TAP to exit the tuner.

#### **Additional Power User Functionality**

**Noise Gate** - To activate the Noise Gate from the front panel; Press and hold the BOOST button and turn the BOOST knob.

• From the 9:00~12:00 position, the Noise Gate is bypassed; past the 12:00 position, the Noise gate is enabled.

**Effect Pre/Post Position** – By default, all Modulation and Pitch/Filter effects will load "PRE" the amp voicing, while Delays and Reverbs will load "POST." You can change the PRE/POST location within the Catalyst Edit Software, or from the amplifier's panel by pressing/holding the associated EFFECT button and turning its knob—before the "12 o'clock" position is PRE, past "12 o'clock" is POST.

## **Using the Catalyst Edit Application**

The free **Catalyst Edit** application can be installed on your macOS or Windows computer or mobile device—see page 4 for requirements.

Simply connect your Catalyst amplifier to your computer or mobile device's USB port and launch the Catalyst Edit app. The app will automatically connect to your amp, sync, and display all controls for editing the current preset.

#### **Edit Settings**

The Catalyst Edit app layout is intuitive—simply adjust the controls as desired to edit your current preset. You can audition your changes in real-time while playing through Catalyst. You'll find even more settings within the app, such as advanced amp and effect parameters, speaker cab & mic model options, footswitch and expression pedal assignment, and tempo sync/note subdivision options.

#### **Save and Load Presets**

BANK 1 CH A B To access your amp's onboard presets, use the toolbar's BANK 1~6 selector and CH A & B buttons to load one of the twelve presets.



Click the App Menu button at the top left of the app to access the Preset commands.

- Save Current Preset to File... Save an unlimited number of presets to your computer/mobile device.
- Save Current Preset To... Save your preset to any of the amp's twelve onboard preset locations, overwriting its current presets.
- Load Preset... Load a preset from your computer/mobile device.
- Backup Catalyst... Create backups of your entire amp's memory to your computer/mobile device.
- Restore Catalyst... Restore from one of the saved backups on your computer/mobile device.

## **EXP Pedal Assignment**

Click the "EXP" toolbar button to choose any parameter within the current preset for MIDI expression pedal control (see <a href="mailto:page 13">page 13</a>). Configure the selected parameter's range using the "Heel" and "Toe" position sliders. (Settings are saved individually per preset.)

## **Global Settings**

SOS Click the "gear" button at the right of the toolbar to access the application's Global Settings for options such as toggling the FX Loop, Volume and Expression Pedal, Delay and Reverb Trails on/off, and changing the amp's receiving MIDI Channel.

Within the Global Settings window, click directly on the FS1 and FS1 FS2 FS2 icons to change the function for each switch. The default assignments are "Channel A/B Select" for FS1 and "Effect 1 Bypass" for FS2

## Using Catalyst as a USB Audio Device

Catalyst functions as a USB 2.0, multichannel, 24-bit, low-latency audio interface for Windows and Mac computers, as well as for iPad and iPhone mobile devices (with optional Apple Camera Connection Kit adapter), and is compatible with all major Digital Audio Worksation (DAW) software.\* Please see your device and software manufacturer's documentation for details.

\*NOTE: For optimal performance with Windows audio applications, vou'll need to install the Line 6 Catalyst Driver—available free at line6. com/software.

Within most DAW applications, you'll see that Catalyst offers four mono USB audio input and output channels:

USB Input	Source
USB 1 and 2	Fully processed output from Catalyst.
USB 3 and 4	Dry, DI signal from Catalyst (use to record an unprocessed signal for re-amping later).

<b>USB Output</b>	Destination
USB 1 and 2	Catalyst playback (direct, no processing) for monitoring your audio app's output or jamming along with YouTube™, Spotify, etc.
USB 3 and 4	Catalyst re-amping inputs (route the playback of your audio app's DI track here to re-amp it using Catalyst's processing).

To record a dry DI (Direct Input) signal, such as the unprocessed signal from your guitar, select the CATAYLST USB Inputs 3-4 as your DAW track recording input. This allows you to process the DI track later with plugins (such as the Helix Native plugin), and/or "re-amp" the DI track through an amp or other outboard gear.

For easy re-amplification, select the Catalyst USB Outputs 3-4 as your DAW's DI track output. This routes the DI track playback into Catalyst where vou can dial in your preferred amp & effects and then hear and record the fully processed tone back into another DAW track, using the Catalyst USB 1-2 as the track recording input.

## **Factory Reset**

In the event that you want to return your Catalyst amplifier to factory settings, follow the steps below.

- 1. It is highly recommended that you first use the Backup/Restore feature found in the Catalyst Edit software to create a backup of your custom presets and settings—see page 11.
- 2. Exit Catalyst Edit and disconnect your amplifier from the computer.



The following step will erase any and all edits you have made to your presets, effects, etc. in the amplifier. You did make that backup, right?

3. Hold down the CHB and MANUAL buttons on the front panel of your Catalyst while powering on the amplifier.

## **Catalyst Firmware Updates**

It is highly recommended to always use the latest device firmware for your Catalyst amplifier. Firmware Updates are available via the Line 6 Central app on macOS and Windows computers (free from line6.com/software).

If you are performing a Firmware Update, be sure to perform a Factory Reset as outlined in the preceding section; this will update the presets to their new default settings.



**NOTE:** Due to some inconsistencies with Host Mode support in USB for Android devices, firmware updates must be performed using macOS or Windows computers.

## **Using a MIDI Controller with Catalyst**

Optionally, using MIDI controllers can open a number of control possibilities for Catalyst amplifiers, providing total hands-free, remote control of all Amp Voicings & Effects, including their parameters. See the following MIDI Implementation Table for a list of controllable functions.

- 1. Start by connecting a MIDI controller to the MIDI IN jack on your Catalyst CX 100 or 200 (or send MIDI from your computer via USB to the Catalyst CX 60, 100, or 200). Set your MIDI controller to transmit on MIDI Channel 1.
- 2. If using a MIDI expression pedal to control the volume, the position of the "Volume Block" is assignable to either "Pre" (before the amp block) or "Post" (after the amp block) via the Catalyst Edit software. It is not assignable from the front panel UI; it can be assigned through the Catalyst Edit software or via MIDI CC 47, and is saved within each preset.

#### MIDI CC IMPLEMENTATION TABLE

CC COMMAND	VALUE/RANGE	FUNCTION	NOTES
MIDI CC 4	0-127	Expression	Controls the value of the Expression (Expression can be mapped to the desired parameter using Catalyst Edit app)
MIDI CC 5	0-11: 0-5 = Amp Group models 6-11 = Amp Group 2 models	Amp Voicing Type	Selects Amp Voicings 1-12
MIDI CC 6	0-63 = Off; 64-127 = On	Volume Pedal Bypass/Enable	Controls bypass state of the Volume Pedal
MIDI CC 7	0-127	Volume Pedal Level	Controls the Volume Pedal level value
MIDI CC 13	0-127	Gain	Matches physical knob
MIDI CC 14	0-127	Bass	Matches physical knob
MIDI CC 15	0-127	Mid	Matches physical knob
MIDI CC 16	0-127	Treble	Matches physical knob
MIDI CC 17	0-127	Channel Volume	Matches physical knob
MIDI CC 18	0-127	Effect 2 Amount	Matches physical knob
MIDI CC 19	0-23 0-5 = Delay models 6-11 = Modulation models 12-17 = Pitch/Filter models 18-23 = Reverb models	Effect 1 Model Select	Selects the model loaded for Effect 1  NOTE: The six values that correspond to the category that is currently in use with Effect 2 will not perform any action for Effect 1
MIDI CC 21	0-127	Presence	Matches physical knob
MIDI CC 22	0-63 = Off; 64-127 = On	Gate Bypass/Enable	Controls bypass state of the Gate
MIDI CC 23	0<>31 = -96dB, 32 = 96dB127 = 0dB	Gate Threshold	Controls the Threshold of the Gate
MIDI CC 24	0 =.1 ms; 127=3000 ms	Gate Decay	Controls the Decay time of the Gate
MIDI CC 25	0-63 = Off; 64-127 = On	Boost Bypass/Enable	Controls bypass state of the Boost (matches button behavior)

CC COMMAND	VALUE/RANGE	FUNCTION	NOTES
MIDI CC 26	0-127	Boost Level	Matches physical knob
MIDI CC 28	0-63 = Off; 64-127 = On	Effect 1 Bypass/Enable	Controls bypass state of Effect 1
MIDI CC 29	0-63 = Off; 64-127 = On	Effect 2 Bypass/Enable	Controls bypass state of Effect 2
MIDI CC 30	0-63 = A; 64-127 = B	Preset Channel A/B Select	Selects the amplifier's Preset Channel A or B
MIDI CC 34	0-127	Effect 1 Amount	Matches physical knob
MIDI CC 37	0-23: 0-5 = Delay models 6-11 = Modulation models 12-17 = Pitch/Filter models 18-23 = Reverb models	Effect 2 Model Select	Selects the model loaded for Effect 2  NOTE: The six values that correspond to the category that is currently in use with Effect 1 will not perform any action for Effect 2
MIDI CC 41	0-63 = Pre; 64-127 = Post	Effect 2 Pre/Post Amp	Controls position of Effect 2, before (Pre) the Amp Voicing or after (Post)
MIDI CC 43	0-63 = Off; 64-127 = On	Expression Bypass/Enable	Controls bypass state of Expression
MIDI CC 47	0-63 = Pre; 64-127 = Post	Volume Pedal Pre/Post Amp	Controls position of the Volume Pedal, before (Pre) the Amp Voicing or after (Post)
MIDI CC 64	64-127 = one Tap	Tap Tempo	Each press simulates a Tap Tempo button press
MIDI CC 70	0-14: 0 = 4038	Direct Out Mic Select	Selects Mic type 1-15 (utilized on the XLR Direct, Phones, and USB 1-2 outputs):
MIDI CC 71	0-2: 0 = 1x12 1 = 2x12 2 = 4x12	Cabinet Select	Selects Speaker Cabinet 1-3 (utilized on the XLR Direct, Phones, and USB 1-2 outputs)
MIDI CC 74	0-63 = Pre; 64-127 = Post	Effect 1 Pre/Post Amp	Controls position of Effect 1, before (Pre) the Amp Voicing or after (Post)
MIDI CC 107	0-63 = Off; 64-127 = On	FX Loop Bypass/Enable	Toggles FX Loop On/Off (regardless of jack sensing)

## **Preset Loading**

MIDI Program Change (PC) messages can be used to load the Catalyst amp's MANUAL mode and its twelve Channel A and B presets. PC 0 sets the amp to MANUAL mode, and PC  $1\sim12$  loads presets  $1\sim12$ , respectively.