CATALYST FAMILY

CATALYST 200
CATALYST 100
CATALYST 60

PILOT'S GUIDE ▶

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

Unique Identifiers: Catalyst 200, Catalyst 100, and Catalyst 60.

Responsible Party - U.S. Contact Information:

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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:_____

CATALYST COMPARISON CHART

Features	CATALYST 200	CATALYST 100	CATALYST 60
Amplifier Wattage	200 Watts	100 Watts	60 Watts
Power Damping	Full Power, Half Power, 0.5 Watts, Mute	Full Power, Half Power, 0.5 Watts, Mute	Full Power, Half Power, 0.5 Watts, Mute
Speakers	2x12" custom voiced	1x12" custom voiced	1x12" custom voiced
Number of Channels	2	2	2
Amp Voicings	6	6	6
Instrument Inputs	1 x 1/4"	1 x 1/4"	1 x 1/4"
EQ	3-Band	3-Band	3-Band
Controls	Boost, Gain, Presence, Channel Volume, Master Volume	Boost, Gain, Presence, Channel Volume, Master Volume	Boost, Gain, Presence, Channel Volume, Master Volume
Digital Reverb	6 types	6 types	6 types
Digital Effects	6 types of each Delay, Modulation, and Pitch/Filter effects	6 types of each Delay, Modulation, and Pitch/Filter effects	6 types of each Delay, Modulation, and Pitch/Filter effects
Tap Tempo	Yes	Yes	Yes
Tuner	Yes	Yes	Yes
FX Loop	Yes	Yes	Yes
Aux In	3.5 mm	3.5 mm	3.5 mm
Headphone Out	1/4"	1/4"	1/4"
Direct Out	XLR w/ground lift	XLR w/ground lift	XLR w/ground lift
USB Audio Interface	4-in/4-out	4-in/4-out	4-in/4-out
Power Amp In	1/4" (via FX Loop Return)	1/4" (via FX Loop Return)	1/4" (via FX Loop Return)
MIDI	5-Pin DIN or USB	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	27.3 x 10.3 x 19.2 inches 694 x 262 x 487 mm	22.2 x 10.3 x 19.2 inches 564 x 262 x 487 mm	19.8 x 10.3 x 19.2 inches 504 x 262 x 445 mm
Accessories (sold separately)	LFS2 Footswitch (Channel A/B, Effects on/off)		
	CATALYST 200 Cover	CATALYST 100 Cover	CATALYST 60 Cover

Overview

Welcome to the ***Line 6® CATALYST™ Family Pilot's Guide***. This guide covers the features and functionality of the **CATALYST** amplifiers. The CATALYST family of amplifiers offers six Line 6 Original Amp Designs, 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 USB connection for deep editing or recording.

Features:

- Six Line 6 Original Design Amp Voicings, from sparkling clean to the highest of high gain, with a custom-tailored boost control
- Six banks of two channels 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™, 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 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 amplifier, amp-topper *Cheat Sheet* guide, IEC power cable, 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, which include your amp knob settings, effects, and more.

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

For iOS Mobile Devices: Visit the Apple App Store and follow the on-screen installation instructions.*

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

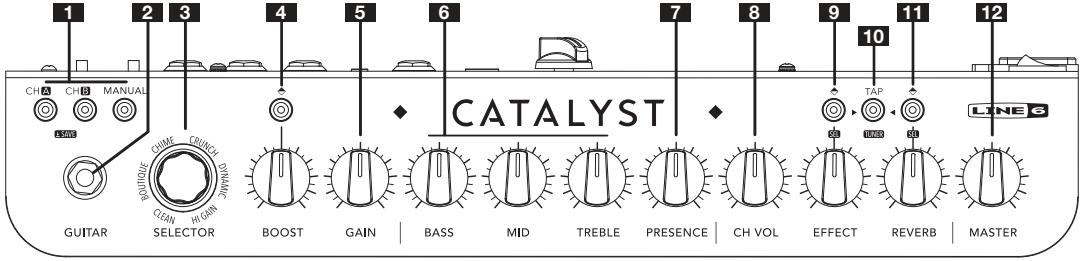
*For iOS and Android devices with USB-C ports, a USB-B to USB-C adapter is required. For all other supported iOS devices, a USB-A to lightning adapter is required. For all other Android devices, a USB OTG (On-The-Go) adapter is required. All adapters sold separately. Check line6.com/android for more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

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

CATALYST Edit Software Requirements: MacOS 10.14 or newer, Windows 7 or 10, iOS 12.1 or newer, or Android™ OS 6.0 or newer.

For optimal USB audio performance on Windows computers, download and install the free Line 6 CATALYST ASIO driver for from line6.com/software.

Top Panel Controls

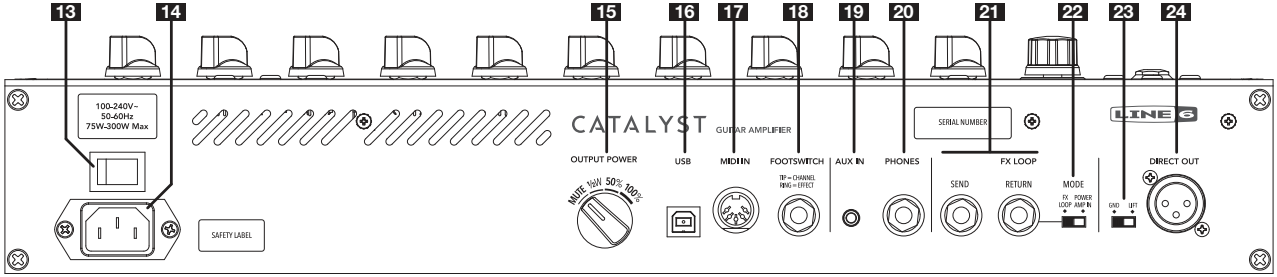


1. **CHANNEL SELECT –** Press either the CH A or CH B button to select the channel you want to configure.
   - Optionally, press MANUAL to enter Manual mode and use the knobs like a traditional amp.
   - Make any changes you like to the amp knob settings, effects, etc., and optionally save your changes—see "How To:" on page 8.
2. **GUITAR INPUT –** Plug your guitar in here.
3. **AMP SELECTOR –** Use this encoder knob to select from the Line 6 Original Amp Design Voicings.

AMP TYPE	VOICING NAME	DESCRIPTION
Clean	CLARITY	Pristine clean, even when cranked
Boutique	ARISTOCRAT	Inspired by iconic, hand-crafted tones
Chime	CARILLON	Classic chime, only bigger and deeper
Crunch	VOLTAGE	Crunchy, with a British accent
Dynamic	KINETIC	Highly touch-responsive, mid-gain tone
Hi Gain	OBLIVION	Contemporary hi-gain, with extended lows

4. **BOOST SWITCH & KNOB –** 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.
6. **BASS, MID, TREBLE –** Allow 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 SWITCH & KNOB –** Pressing the button scrolls through the separate effect types (Delay, Modulation, Pitch/Filter). Press again to switch the effects Off—see "How To:" on page 8. 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.
11. **REVERB SWITCH & KNOB –** Press to enable the on-board digital reverb—see "Bypass/Enable REVERB" on page 9. When enabled, the knob controls the level of ambience, atmosphere, and space for your tone.
12. **MASTER VOLUME –** Controls the overall volume of the amplifier as well as headphone output (when in use).

Rear Panel Connections



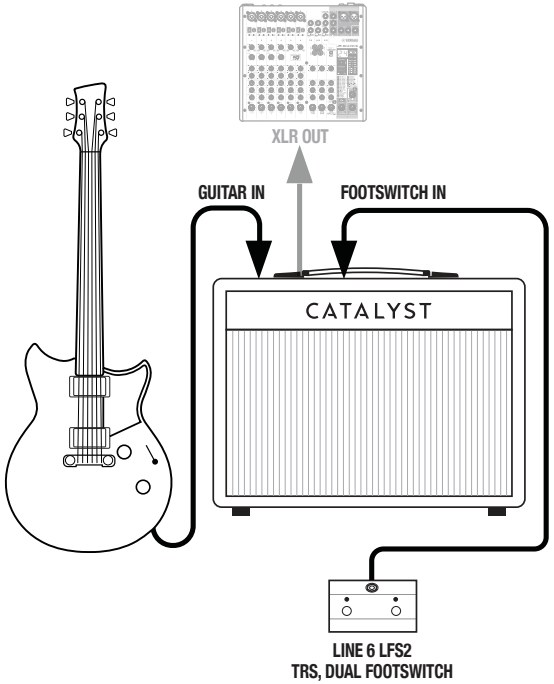
13. **POWER Switch –** Turns the amplifier on/off.
14. **AC IN –** The included power cable connects here. See the rear panel markings for electrical information.
15. **OUTPUT POWER –** Controls the overall power amp output. There are four selections: MUTE (for recording/headphone use), ½W (0.5 Watts), 50%(half power), and 100% (full power).
16. **USB-B PORT –** Connect a macOS or Windows computer, iOS or Android mobile device* to edit tones, update, playback, and record audio. This class-compliant USB connection offers 4-channel audio at 24-bit depth and 44.1 kHz or 48 kHz sample rates.

    ***NOTE:** See "CATALYST Edit Application" on page 3 for software and adapter cable requirements.
17. **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 100/200). See "Using a MIDI Controller with CATALYST" on page 10.
18. **FOOTSWITCH –** Connect the optional Line 6 LFS2 2-button footswitch here to control A/B channel switching and Effect on/off.
19. **AUX IN –** An auxiliary audio input for running MP3 players or other audio sources directly (unprocessed) into the amplifier's speakers.
20. **PHONES –** Connect a pair of headphones here. The top panel's MASTER VOLUME controls the level to your headphones. For silent practicing and recording, set the OUTPUT POWER (3) to "MUTE." When muted, the DIRECT OUT is still active.

    ⚠ To avoid hearing damage, always turn the MASTER VOLUME all the way down before connecting headphones!
21. **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.
22. **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.
23. **GND-LIFT –** Ground lift switch for XLR DIRECT OUTPUTS.
24. **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

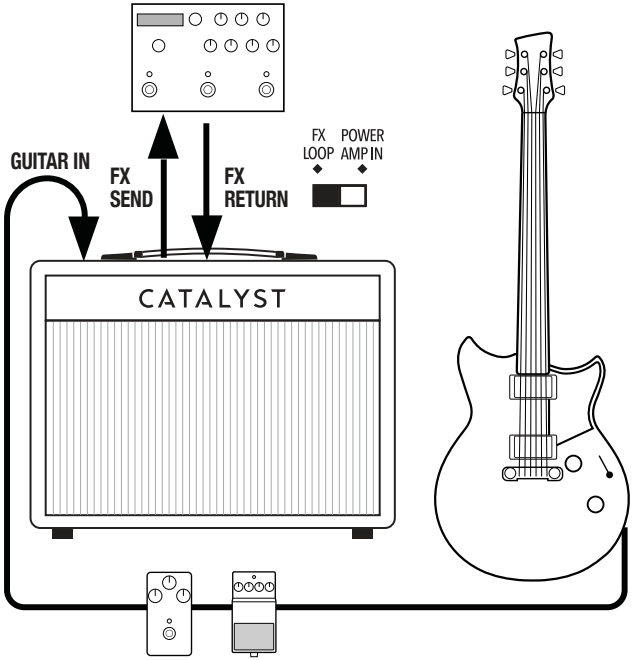
Plug in a **Line 6 LFS2 Footswitch** (sold separately), or other compatible latching footswitch into the FOOTSWITCH jack.* A standard “latching” type, dual footswitch controls the Channel Select (A/B) and Effects On/Off. Note that the effect stored within the current preset is the effect that will be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

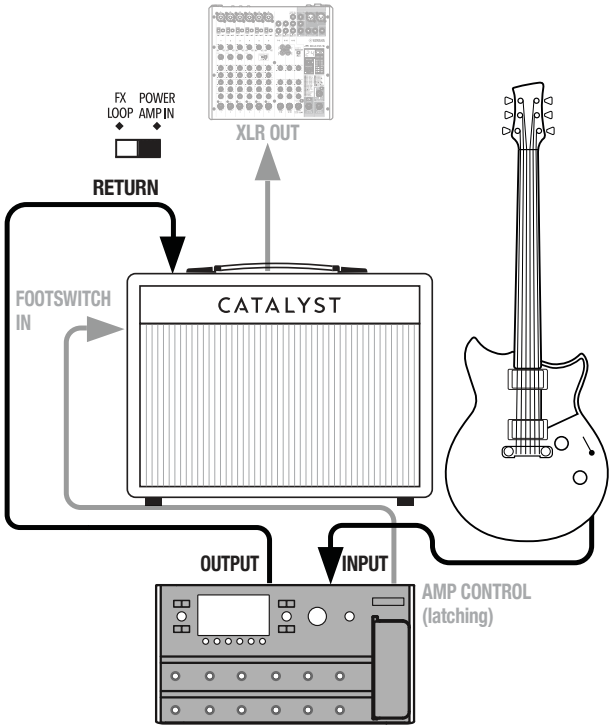
FX Pedal Hookup

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.



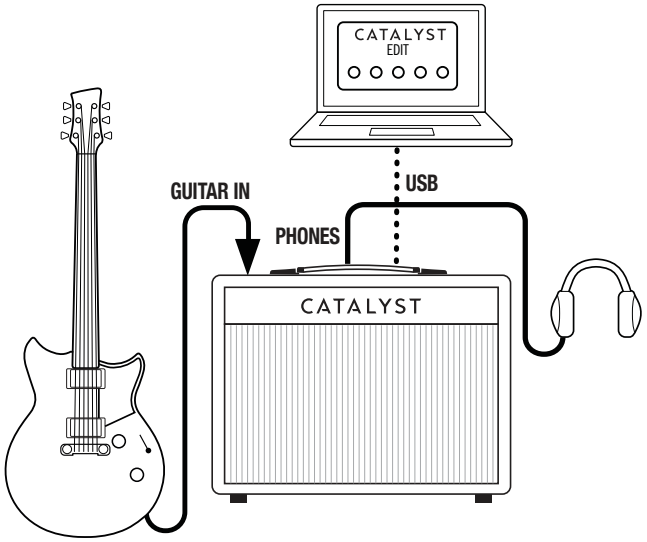
Modeler Hookup

If using an amp/multi-effects modeler, such as a Line 6 Helix, HX Stomp, or POD Go device, connect your guitar into the modeler's input, and the modeler's output into the CATALYST's RETURN jack, with the MODE switch set to POWER AMP IN. Optionally, feed the CATALYST's analog DIRECT OUT to a mixer, audio interface, or other outboard gear.



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. Optionally, connect headphones for "silent" performing or recording.



The CATALYST Edit software also allows you to choose which SW2 (EFFECT) is assigned for footswitch control (as a global, system-wide parameter), such as:

- EFFECT Bypass (default)
- REVERB Bypass
- BOOST bypass
- EFFECT & REVERB
- BOOST & EFFECT
- BOOST & REVERB
- TAP TEMPO

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

1. After making any changes to a preset, simply press and hold CHANNEL A or B to store your edited settings for the preset.
2. 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 Banks

CATALYST 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.

1. Press and hold the MANUAL channel button, and use the AMP SELECT encoder to scroll through the six banks of channel selections.
2. You can save the channel settings for each bank when that bank is selected.
3. Optionally, use the CATALYST Edit software to save your settings to any of the 12 preset locations.

Bypass/Enable FX

1. Press the EFFECT button to enable the effects. See step 4 for changing effect categories—Delay, Modulation, and Pitch/Filter.
2. EFFECT TYPE is indicated by the color LED (Delay = GREEN, Modulation = BLUE, and Pitch/Filter = PURPLE).
3. Press The EFFECT button again to select that effect category.

TIP! You can edit the deep parameters of the effects, controlling things like delay time, pitch shift amount, and more using the CATALYST Edit software.

4. Press *and hold* the EFFECT button for two seconds to enter Effect Selection mode. The AMP SELECTOR encoder LED ring will dim, and you can then use the SELECTOR to scroll through the six different effects within a given category. Press EFFECT again to set that effect within your preset.

   To change EFFECT categories, press *and hold* the EFFECT button for two seconds. The Amp SELECTOR light will dim. Then release and use the TAP button to scroll through the three separate effect types (Delay, Modulation, and Pitch/Filter). Press the EFFECT button again to exit selection mode. Remember to press *and hold* CH A or CH B to save your settings to that preset.

DELAYS	
MODEL	**BASED ON***
Simple Delay	Line 6 Original
Vintage Digital	Line 6 Original
Transistor Tape Echo	Maestro® Echoplex EP-3
Adriatic Delay	Line 6 Original
Dual Delay	Line 6 Original
Dynamic "Ducking" Delay	Line 6 Original

MODULATION	
MODEL	**BASED ON***
PlastiChorus	Arion ACH-Z Chorus
Opto Trem	Fender® Optical Tremolo
Script Mod Phaser	MXR® Phase 90
Gray Flanger	MXR 117 Flanger
Ubiquitous Vibe	Shin-ei Uni-Vibe®
Rotary	Leslie® 145

PITCH/FILTER	
MODEL	BASED ON*
Bass Octaver	EBS® OctaBass
Growler Synth	Line 6 Original
Pitch Harmony	Line 6 Original
Pitch Shift	Line 6 Original
Tycoctavia Fuzz	Tycobrahe® Octavia
Synth String	Line 6 Original

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Bypass/Enable REVERB

1. Press the REVERB button to enable the Reverb
2. Press again to switch the Reverb off.
3. Like the EFFECTS, press *and hold* the REVERB button for two seconds to enter reverb selection mode. The AMP SELECTOR encoder LED ring will dim, and you can use the SELECTOR to scroll through the six different reverbs.

   Press the REVERB button again to exit selection mode. Remember to press *and hold* CH A or B to save your reverb settings to that preset.

REVERBS	
MODEL	BASED ON
Hot Spring	Line 6 Original
Hall	Line 6 Original
Chamber	Line 6 Original
Plate	Line 6 Original
Ganymede	Line 6 Original
Plateaux	Line 6 Original

Activate the TUNER

CATALYST includes a simple tuner, utilizing the LEDs above EFFECT, TAP, and REVERB. When the tuner is engaged, the speaker, Direct Out, and Phones are muted.

1. Press and hold TAP; Three LEDs light, flashing left to right.
2. If the note is in tune, TAP LED lights WHITE, while the EFFECT and REVERB LEDs illuminate GREEN.
3. If the note is flat, the EFFECT LED illuminates, gradually moving from RED through to GREEN as you approach in-tune.
4. If the note is sharp, the REVERB 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 – CATALYST amplifiers allow you to customize the position of your effects and reverb “Pre” (before the Amp Voicing) or “Post” (after the Amp Voicing).

Tone-shaping effects (e.g., distortions, pitch shifters, and filters) typically to work best in the “Pre” position. Time-based effects (e.g., modulation effects, delays, and reverbs) tend to work well in the “Post” position.

- After selecting the appropriate effect type, press and hold the EFFECT button and turn the EFFECT knob.
  - From any setting below the 12:00 position, the EFFECT is positioned "Pre" (before the Amp Voicing). Past the 12:00 knob position, the EFFECT is placed "Post" (after the Amp Voicing).
- After enabling the REVERB, press and hold the REVERB button and turn the REVERB knob.
  - From any setting below the 12:00 position, the REVERB is positioned "Pre" (before the Amp Voicing). Past the 12:00 knob position, the REVERB is placed "Post" (after the Amp Voicing).

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.
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 CH B 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 Updater** app on macOS and Windows computers (free from line6.com/software).

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 100 or 200 (or send MIDI from your computer via USB to the CATALYST 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 and is saved within each preset.

MIDI 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	0-5	Amp Voicing Type	Selects Amp Voicings 1-6
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 position of the Volume Pedal
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	Reverb Amount	Matches physical knob
MIDI CC 19	0-2	Effect Type	Selects Effect type (Delay, Modulation, Pitch/Filter)
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=96dB...127= 0dB	Gate Threshold	Controls the Threshold of the Gate
MIDI CC 24	0=.1ms; 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)
MIDI CC 26	0-127	Boost Level	Matches physical knob
MIDI CC 28	0-63=Off; 64-127 = On	Effect Bypass/Enable	Controls bypass state of the Effect (DOES NOT match button behavior)
MIDI CC 29	0-63=Off; 64-127 = On	Reverb Bypass/Enable	Controls bypass state of the Reverb
MIDI CC 32	0-127	Effect Amount	Matches physical knob
MIDI CC 37	0-5	Reverb Type	Selects Reverb type 1-6
MIDI CC 41	0-63=Pre; 64-127 = Post	Reverb Pre/Post Amp	Controls position of the Reverb, 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 58	0-5	Modulation Type	Selects Modulation type 1-6
MIDI CC 64	64-127 = one Tap	Tap Tempo	Each press simulates a Tap Tempo button press
MIDI CC 70	0-14	Direct Out Mic Select	Selects Mic type 1-15 (utilized on the XLR Direct, Phones, and USB outputs)

CC COMMAND	VALUE/RANGE	FUNCTION	NOTES
MIDI CC 71	0-2	Cabinet Select	Selects Speaker Cabinet 1-3 (utilized on the XLR Direct, Phones, and USB outputs)
MIDI CC 74	0-63=Pre; 64-127 = Post	Effect Pre/Post Amp	Controls position of the Effect before (Pre) the Amp Voicing or after (Post)
MIDI CC 88	0-5	Delay Type	Selects Delay type 1-6
MIDI CC 103	0-5	Pitch/Filter Type	Selects Pitch/Filter type 1-6
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.

PROGRAM CHANGE	FUNCTION
0	Sets amp to MANUAL mode
1	Loads Bank 1, Channel A preset
2	Loads Bank 1, Channel B preset
3	Loads Bank 2, Channel A preset
4	Loads Bank 2, Channel B preset
5	Loads Bank 3, Channel A preset
6	Loads Bank 3, Channel B preset
7	Loads Bank 4, Channel A preset
8	Loads Bank 4, Channel B preset
9	Loads Bank 5, Channel A preset
10	Loads Bank 5, Channel B preset
11	Loads Bank 6, Channel A preset
12	Loads Bank 6, Channel B preset