LINE 6

HX ONE

OWNER'S MANUAL >

The Model and Serial numbers can be found on the product label. Please record these numbers below and retain this document for your records.

Model Number: _____

Serial Number: _____

Contents

Welcome

"Another Manual?"

Yes, we get it—not everyone enjoys reading through Owner's Manuals! The **Line 6® HX® One** is designed to be simple enough that you could probably just plug it in, start playing, and immediately get some amazingly gratifying tones. But, as with all Line 6 Helix® and HX family devices, there is more that you'll want to know to get the most out of your new device, which is where this manual comes in. We've also created some super handy online videos to show you just what HX One is all about. Go here: line6.com/meet-hx-one.

"Alrighty then…"

Thank you for purchasing the Line 6 HX One effects device, which boasts quite possibly the most extensive assortment of world-class effects models ever crammed into such a diminutive stompbox! We hope it helps drive your search for tonal bliss and spawns years of creativity, both on stage and in the studio.

Although you're likely anxious to rip open the box and plug in, wait! At the very least, check out the *HX One Cheat Sheet* that came in the box and keep it handy. Then read the "Quick Start" chapter of this manual and we'll have you up and shredding in no time. Also be sure to visit line6.com/videos, where we're always adding new video tutorials covering the latest Line 6 gear!

What's In the Box?

- Line 6® HX® One effects device
- *HX One Cheat Sheet* (read that one first!)
- 9VDC, 500mA power adapter
- Adhesive rubber feet
- Registration, Safety & Compliance, and Warranty documentation

Common Terminology

While reading this manual, you may encounter several unfamiliar terms. It's important to know what they mean. Be careful—we might toss a pop quiz your way.

Model Each effect that can be loaded is referred to as a *model*. HX One includes 250+ effects models from Line 6 HX Effects™, DL4™, DM4™, MM4™, FM4™, M13®, M9®, and M5® multi-effects devices.

Preset A *preset* consists of the currently loaded model and its title, parameter settings, footswitch & controller assignments.

Controller *Controllers* are used for remotely adjusting various parameters in real-time—HX One allows you to assign a controller to practically any effect parameter. For example, an expression pedal can control a wah, pitch shift, the FLUX Mode footswitch can "ramp" a chorus or vibe rate between two speed values, or the mod wheel on your MIDI keyboard can control delay feedback or reverb depth.

Send/Return The *Send* and *Return* jacks are used to insert your other favorite stompboxes anywhere in the signal flow or to connect to your guitar amp via "4-Cable Method". This provides tons of flexibility for using HX One with other gear, and to virtually position it anywhere in your signal chain.

Installing Adhesive Rubber Feet

To ensure best adhesion, please follow these steps for applying the included adhesive rubber feet to the bottom of your HX One device.

- Clean the chassis surface where feet are to be applied with a mild solvent, such as isopropyl alcohol.
- Apply when chassis and environment are at or near room temperature (approximately 70° F / 21°C).
- Peel from backing and press and hold rubber feet firmly to the chassis for several seconds to apply. Avoid disturbing the rubber feet for up to 72 hours to allow for adhesive to fully bond.

Updating HX One Firmware

It is highly recommended to routinely check for and install any available firmware update for your HX One device using the free **Line 6 Central** application, available at line6.com/software. With an active Internet connection, simply power up and connect HX One to your computer's USB port, launch Line 6 Central, and follow the steps on your screen.

Manage, Backup, & Restore HX One

The free **Line 6 HX One Librarian** app, available at line6.com/software, is an indispensable tool allowing you to easily re-order and manage all your HX One presets, as well as backup all your device's presets, settings, and customized user model defaults. You can store a virtually unlimited number of backups to your computer and restore any backup to your device in minutes.

Top Panel

1. Display Press 🏠 to display the current effect and its parameters (shown above). This OLED display also shows alternate Views for other tasks, such as loading or saving presets, configuring controller & device settings, and more, as covered in the following chapters.

2. Knobs 1-3 Turn one of the three knobs on the top row to adjust the three respective parameters currently shown in the display; press the knob to reset the parameter to its default value. Use the ❮ or ❯ PAGE button to access additional parameter pages.

> 🚀 **SHORTCUT:** For most time-based parameters such as Delay Time or Modulation Speed, press the knob to toggle the value between ms or Hz and note divisions (1/4-note, dotted 1/8-note, etc.).

> 🚀 **SHORTCUT:** Expression, FLUX, or Footswitch controllers can be assigned to most effect parameters. Press and hold a parameter's knob to enable it for Expression/FLUX control— see page 22.

3. EFFECT Turn this knob to scroll through the complete list of effects and load the desired model. To find a model more easily, push the knob and hold while turning to choose a category from the Effects Carousel, then release the knob to select the category—see "Choosing an Effect" on page 9.

Push and release the knob to display the current category's Effects list.

Press and hold the knob to enter the Settings View to edit the Input Gate, Bypass Type, and other Global and Per Preset settings—see "Settings View" on page 26.

4. ❮ PAGE ❯ If the selected model has more than one page of parameters, arrows appear at the left and/or right of the Display. Press ❮ or ❯ PAGE buttons to view more parameters. In the Effect Categories' lists, press ❯ to open the category folder. In the Effects List press ❮ to go back to the Categories list.

Press both ❮ and ❯ PAGE buttons together to access the Reset Factory Defaults and User Defaults options—see "Restoring Global Settings" on page 26 and "Saving a Model's User Default Settings" on page 10.

5. 🏠 HOME | SAVE If you ever get lost, press this button to return the Display to the Home View.

Press and hold the button to enter the Preset Save View—see "Saving/Naming a Preset" on page 11.

6. ON Press to toggle the current effect enabled or bypassed. The ON LED above lights when enabled. HX One is configured for DSP Buffered Bypass as the default, but you can alternatively choose True Bypass—see "Settings View" on page 26.

7. TAP | FLUX Press TAP two or more times to set the BPM (beats per minute) of any tempo-based effects such as delay or modulation. Press TAP once to restart any LFO-based modulation effects—see "Setting a TAP Tempo" on page 11.

> 💡 **TIP:** HX One can also sync to MIDI Clock tempo. When synced, the TAP LED flashes blue— see "Using MIDI Clock for Tempo Sync" on page 30.

Press & hold to engage FLUX Mode, where your Expression/FLUX-assigned effect parameters "ramp" up or down to your custom-specified values—see "Expression Pedal, FLUX Mode, & Footswitch Setup" on page 22.

> 💡 **TIP:** Press and hold both the ON and TAP | FLUX switches for 2 seconds to use the built-in Tuner—see "Using the Tuner" on page 12.

Preset Mode Switching

Press and release both the ON and TAP | FLUX switches to enter Preset Mode. You'll see the Preset List shown on the Display. Press and release the ON or TAP | FLUX switch individually to load the next/previous preset. See "Preset Mode" on page 10.

Rear Panel
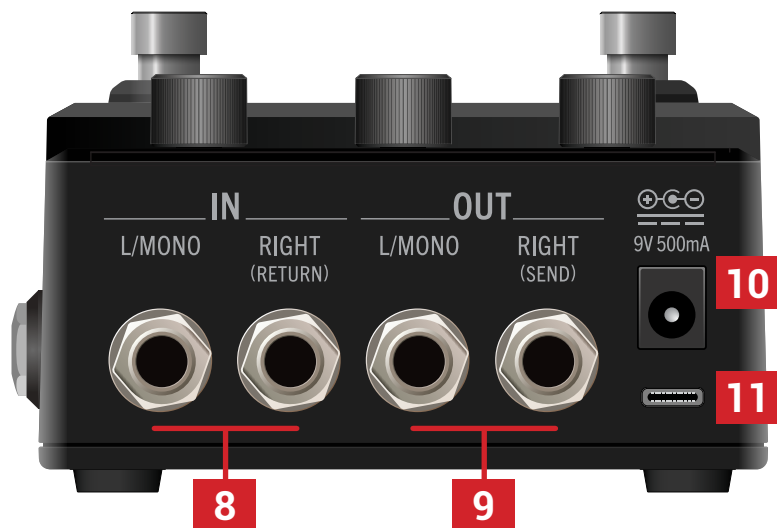
NOTE: By default, HX One is configured for stereo or mono operation—connecting cables to both IN or OUT jacks provides stereo, or connecting to only the IN or OUT–L/MONO jacks provides mono. Alternatively, you can set the "Settings View" - I/O Config option to "Insert," allowing the OUT–RIGHT and IN–RIGHT jacks to function as the SEND and RETURN of a mono effects loop. Also, see the "Setup Examples" on page 7.

8. **INPUT L/MONO, RIGHT** Use unbalanced 1/4" TS cables to connect your guitar, bass guitar, or mono pedals to the L/MONO input. Connect stereo pedals, keyboards, synths, or modelers to both the L/MONO and RIGHT inputs.

9. **OUTPUT L/MONO, RIGHT** Use unbalanced 1/4" TS cables to connect to your guitar amp or other pedals. When connecting to a mono pedal or single amp, connect only the L/MONO 1/4" jack.

10. **DC In** Use the included Line 6 power adapter (9VDC, center-negative, 2.1mm center diameter, 500mA) and connect here to power HX One. The provided adapter serves as the disconnect device.

11. **USB** Connect to your Mac or Windows computer to use the free **Line 6 HX One Librarian** application for preset & settings backup/restore, and the **Line 6 Central** application for updating to the latest firmware (available from line.com/software). HX One also offers USB MIDI control from your MIDI/DAW applications. The maximum recommended length for the USB cable is two meters (cable not included).

Left Panel
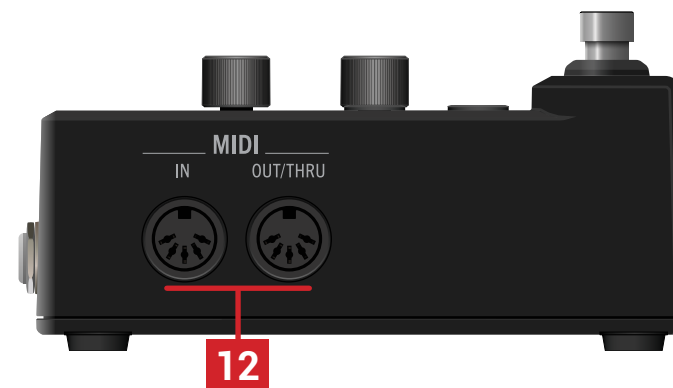
12. **MIDI IN, OUT/THRU** Connect the HX Effects hardware to your MIDI gear to receive program changes, continuous controllers, and MIDI Clock. MIDI communication is also available via USB. See "MIDI" on page 30.

Right Panel
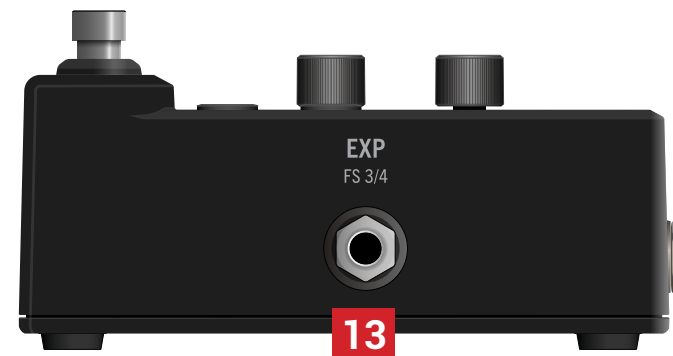
13. **EXP PEDAL | FS 3/4** Connect an expression pedal (TS cable) or dual footswitch (TRS cable) for additional control over practically any effect parameters. See "Connecting an Expression Pedal and Footswitches"

Quick Start

Setup Examples

In Front of Your Amp

The simplest way to use HX One is just like a traditional effect pedal, straight into the front of an amplifier. HX One can optionally feed a second amp for stereo operation.

GUITAR IN

GUITAR IN, FOR STEREO OUTPUT (OPTIONAL)

OPTIONALLY, ADD PEDALS BEFORE (OR AFTER) HX ONE
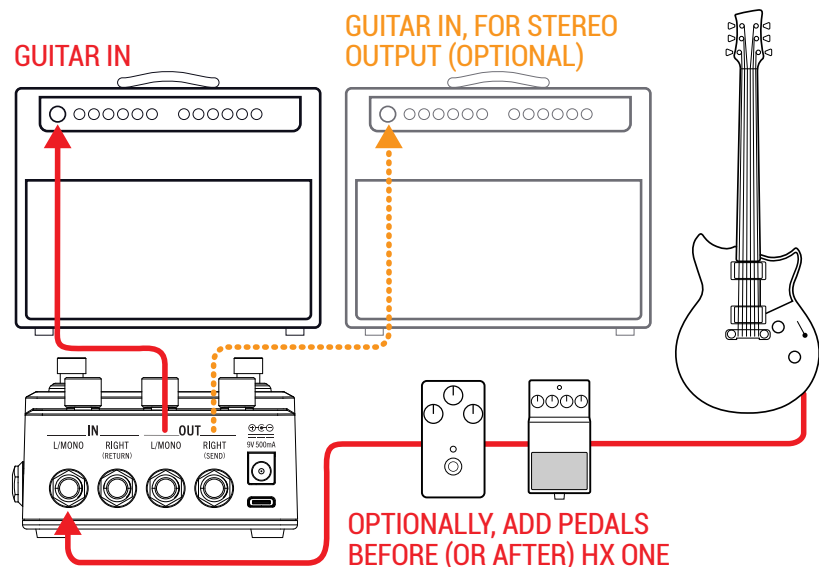
1. **Press and hold the EFFECT knob to enter the Settings View.**

   Press ❯ to go page 2 and turn knob 2 to set the I/O Config option to "Stereo" (the factory default setting), which allows you to use HX One in mono or stereo.

2. **Connect your guitar or instrument into HX One's IN – L/MONO IN jack.**

   Optionally, you can connect pedals between your guitar and HX One.

3. **Connect HX One's OUT - L/MONO jack into your amp's input.**

   Note that when connecting only HX One's OUT - L/MONO jack, your output is folded to mono. You can connect from the OUT - RIGHT jack to a second amplifier for stereo.

   Optionally, you can also connect pedals between HX One and your amplifier(s).

In Your Amp's Effects Loop

Some guitarists prefer to place time-based effects such as delay, and reverb (sometimes called "post" effects) within their amp's effects loop. If your amp has an effects loop, HX One can accommodate these setups with ease—with or without additional pedals (such as overdrive, fuzz, compression, etc.) before the amp.
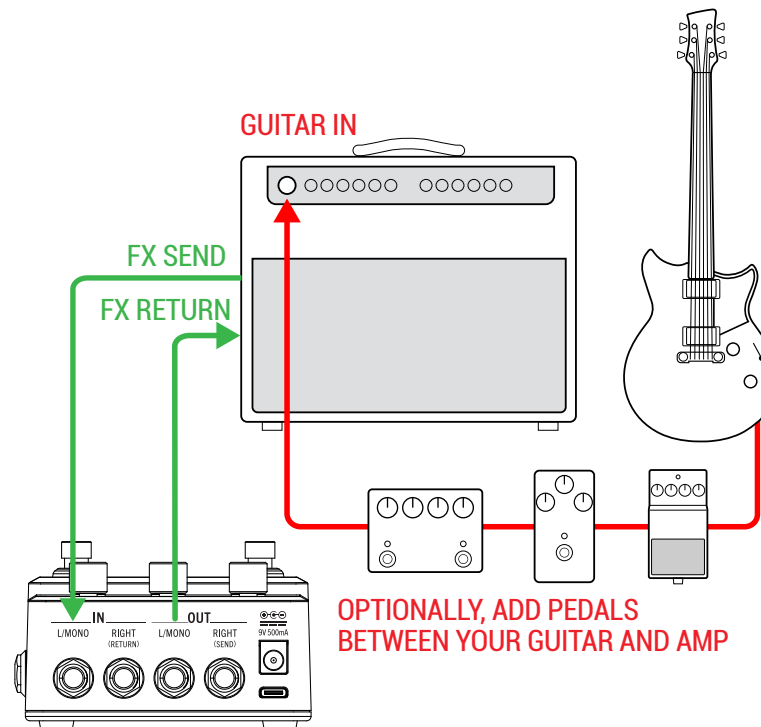
GUITAR IN

FX SEND

FX RETURN

OPTIONALLY, ADD PEDALS BETWEEN YOUR GUITAR AND AMP

1. **Press and hold the EFFECT knob to enter the Settings View.**

   Press ❯ to go to page 2 and turn knob 2 to set the I/O Config option to "Stereo" (the factory default setting).

   NOTE: Typically, guitar amp effects loops are instrument level, but some may be line level. You can change HX One's In and Out levels between "Instrument" (the factory default) or "Line" within the "Settings View"

2. **Connect your guitar or instrument into your amp's input.**

   Optionally, you can connect pedals between your guitar and HX One. Typically, these would be a fuzz, wah, compressor, and/or distortion type pedals.

3. **Connect the amp's effects loop Send to HX One's IN - L/MONO jack.**

4. **Connect HX One's OUT - L/MONO jack to the amp's effects loop Return.**

4-Cable Method

If your amp offers an effects loop, connecting HX One this way is especially functional, since you can configure each HX One preset individually to position its own Send & Return Insert to be "Pre" or "Post" its current effect model (see the "Settings View" - "Insert" and "Insert Position" options). This provides the best of both worlds—allowing you to position HX One within your amp's effects loop (HX One's Insert Position - "Pre" setting) when using a Delay, or Reverb, or before the amp (HX One's Insert Position - "Post" setting) when using a Wah, Distortion, or Dynamic type effect).
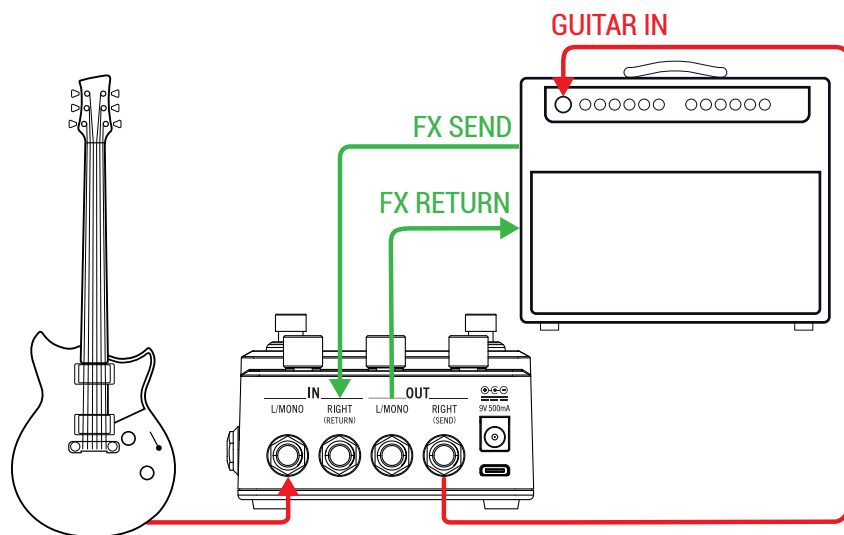
1. **Press and hold the EFFECT knob to enter the Settings View.**

   Press ❯ to go to page 2 and turn knob 2 to set the I/O Config option to the "Insert" setting.

2. **Connect your guitar HX One's IN - L/MONO jack.**

   Optionally, you can connect pedals between your guitar and HX One. Typically, these would be a wah, pitch, compression, and distortion type pedals.

3. **Connect HX One's OUT - RIGHT (SEND) jack to the amp's Guitar Input.**

4. **Connect the amp's Effects Loop Send to HX One's IN - RIGHT (RETURN) jack.**

5. **Connect HX One's OUT - L/MONO jack to your amp's Effects Loop Return.**

6. **Optionally, enter the HX One Settings View and configure the "Insert Position" (Page 2, Knob 3) option for your current preset.**

   If you're using an HX One model you prefer positioned within your amp's effects loop, choose "Pre."

   If you're using an HX One model that you prefer positioned in front of your amp, choose "Post."

   Save your preset to retain these settings. You can configure each of your presets with the preferred effect model and Pre/Post setting.

> 💡 **TIP.** To get even fancier with your setup, you can send MIDI to HX One from a modeler or other effect to recall presets, remotely control the Looper & effect parameters, or provide MIDI Clock tempo for syncing HX One's time-based effects. See "MIDI" on page 30.

Enabling and Bypassing HX One

Press the On switch to toggle HX One as enabled or bypassed.

When enabled, you'll see the ON LED lit brightly (see explanation of the LED colors below) and the Display shows the effect name in solid text.

Adriatic Delay
Time   Scale   Feedbk

When bypassed, the ON LED is dim and the Display shows the effect name in grayed text.

Adriatic Delay
Time   Scale   Feedbk

> **NOTE:** There are two types of Bypass for HX One: Buffered DSP Bypass (the default setting), where any delay echoes and reverb tails decay naturally, or True Bypass, where mechanically switching relays route your signal directly from the inputs to the outputs with no processing or A/D/A conversion. You can change the Bypass behavior within the "Settings View"

ON LED Colors

Whether HX One is in the Home, Preset List, or Effects Carousel Views, you'll notice that the ON LED appears as one of several different colors to cleverly provide a visual indicator for the current effect's category.

- 🟠 **Orange:**   🎚️ **Distortion**
- 🟡 **Yellow:**   📈 〰️ **Dynamic, EQ**
- 🔵 **Blue:**   〰️ **Modulation**
- 🟢 **Green:**   ◎◎ **Delay**
- 🟠 **Dark Orange:**   ⬛ **Reverb**
- 🟣 **Purple:**   🎹 ⬛ **Pitch, Filter/Wah**
- ⚪ **White:**   ◎◎ **Looper**

> **TIP.** See "Effects" on page 13 to see which effects models are offered within each of these categories.

Choosing an Effect

To select an effect model within the same category—say, changing a Simple Delay to a Reverse Delay—is as simple as just turning the EFFECT knob. This will incrementally load the next or previous model within the current category, and sequentially into the next or previous effects list categories. However, as HX One has over 250 models to choose from, using this method to change a distortion (beginning of the effects list) to a Looper (end of the list) is very slow! Instead, you should open the Effects Carousel:

1. **Press and hold down the EFFECT knob while turning it to browse and select a category within the Effects Carousel View.**

   In our example, we're choosing the Delay category within the Carousel. Release the EFFECT knob. Then press and release the EFFECT knob to select the desired category and open its Effect list.

   MOD   DELAY   REVERB   PT

2. **Within the selected category's Effect list, turn the EFFECT knob to choose an effect and then press the knob to load it.**

   You'll see that the Effect list's category is indicated by the icon at the left (as well as by the ON LED's color). We're choosing the Mod/Chorus Echo model to load it.

   ‹DLY   Simple Delay
   ◎◎   Mod/Chorus Echo
              Dual Delay

   Mod/Chorus Echo
   Time   Feedbk Low Cut
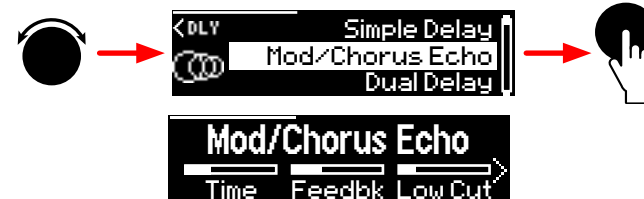
3. **At any time from the Home View, you can press and release the EFFECT knob to show the current effect's Category List.**

   As in the previous step's illustration, turn the Effect knob to select a model and press the knob to load it.

4. **Note the left arrow indicator at the top left of the Effect list screen. You can press the ‹ PAGE button to step back to the Effect Category list to choose a different category.**

Within the Effect Category list, turn the EFFECT knob to choose a category, then press the knob to display the category's Effect list. Here we're choosing the Pitch/Synth category, from which a model can be loaded.
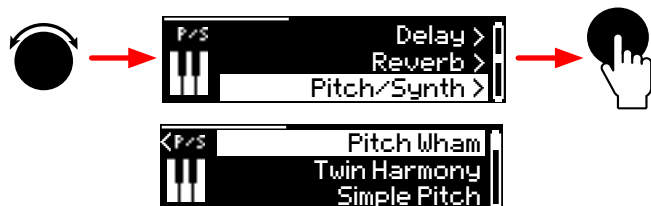
> NOTE: Most HX One effects are stereo, with the exception of polyphonic pitch models and mono Looper operation. Please see "Effects" on page 13 for details..

Editing the Current Effect

1. **Press the Home ⌂ button to display the current effect and its parameters. Turn Knobs 1-3 to edit the three shown parameters.**

While adjusting an effect's parameters, their values briefly appear:

If the current effect model has more than three parameters, arrows appear to the right and/or left of the value bars, as well as a portion bar at the top. In our above example, the right arrow and portion bar indicate additional pages of parameters.

> SHORTCUTS: For most time-based parameters such as a delay's Time or a modulation's Speed or Rate, press its knob to toggle between setting the value in ms or Hz versus note divisions (1/4-note, dotted 1/8-note, etc.).
>
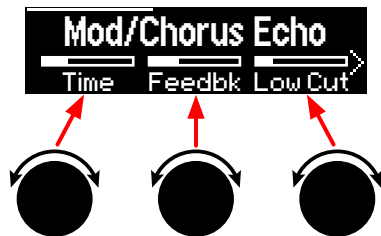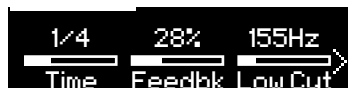> For other parameters, press the knob to instantly reset to its default value. Even better, you can set your edited value as the model's parameter default—see "Saving a Model's User Default Settings" on page 10.

2. **Press the ‹ or › PAGE buttons to access the previous or next parameter pages.**

> SHORTCUT: To jump to the last page of parameters, hold HOME ⌂ and press PAGE › To jump to the first page of parameters, hold HOME and press ‹.

3. **If you want to retain all your current settings, use Save to create a preset.**

See "Saving/Naming a Preset" on page 11.

> NOTE: When you power off HX One, it restores your last bypass state and last-edited parameter changes on the next power up, provided that you wait 3 seconds or more after making changes before disconnecting the power.

Saving a Model's User Default Settings

If you find yourself continually re-tweaking an effect model from its factory default settings, you can edit its settings and store them as your new defaults, so the model shows up that way every time you load it.

1. **Load any effect model and tweak it exactly how you like it.**

Configure any of its parameters, EXP/FLUX controller settings, and bypass state.

2. **Press and release both ‹ and › PAGE buttons, then press Knob 3 set the User Default option.**

All your current parameter settings are saved as the "User Default" for future uses of the model. (Existing presets that include the model are not affected.)

3. **To return a model to its Factory Defaults, go to the User Default screen again and press Knob 2.**

You'll see the Factory Defaults restored the next time you load the effect.

Preset Mode

Adding and editing effects is all well and good, but having presets with all your specific effect and other settings just a tap away can be a faster way to work! Your HX One comes loaded with numerous Factory Presets, which you can recall and use as they are, modify, or completely replace with your own creations (more about Saving presets in the next section). To access HX One's 128 preset locations, enter Preset Mode.

> TIP: You can also load HX One's presets remotely via MIDI—see "Preset Recall via MIDI Program Change" on page 30.

1. **Press and release both the ON and TAP|FLUX switches to enter Preset Mode.**

   The 000~127 Preset List screen is displayed and the footswitch LEDs go dark. Note that the category type for the selected preset's effect model is handily displayed at the left of the screen.

   > REV 014 Beach Fuzz
   >   015 Dream Verb
   >   016 Squealing Echo
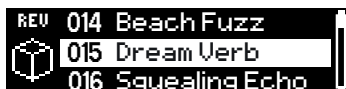
2. **Press-release the TAP|FLUX ∨ switch while in Preset Mode to load the next preset, or ON ∧ to load the previous preset in the list.**

   Alternatively, you can turn the EFFECT knob to select through the list. You can also press and hold either footswitch to scroll through the preset list, then release on the desired selected preset to load it.

   > **NOTE:** You can utilize the Preset Select global setting (see "Settings View" on page 26) so that the selected next or previous preset loads instantly (the default behavior) or is queued only and loaded when you next press both the ON + TAP switches, the HOME button, or the EFFECT knob.

Saving/Naming a Preset

1. **Press and hold the HOME button for 1 second to display the Save Preset View.**

   > < Dream Verb >
   > → 106 Squealing Echo
   > Dest   Delete   Save
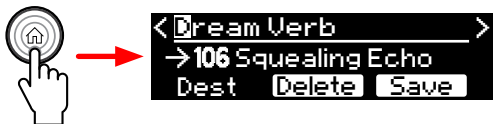
2. **If you just want to Save the current preset without editing its name and to its current 000~127 location, skip to Step 5.**

3. **If you want to Rename your preset:**

   Press the ⟨ and ⟩ PAGE buttons to move the edit cursor left and right and turn the EFFECT knob to scroll through available characters.

   The list of characters wraps around; that is, turning the EFFECT knob clockwise past the last character [/] cycles back to the first character [SPACE].

   Press the EFFECT knob to cycle through A, a, 0, and [SPACE]

   Press Knob 2 (Delete) to clear the current character and shift all following characters to the left.

   Preset names can be up to 16 characters.

4. **If you want to Save your preset to a different 000~127 location:**

   Turn Knob 1 (Destination) to choose the 0~127 location to which you want to save. The destination number and its existing preset's name appear on the center line, to the right of the arrow symbol (shown as "106 Squealing Echo" in the preceding image).

5. **When you're happy with the name and destination, press Knob 3 (Save) or hold the HOME button for 1 second to Save and overwrite the existing preset in the destination.**

   To exit without saving, press and release the HOME button.

   > **NOTE:** HX One presets are not compatible with other Line 6 Helix/HX family devices or with HX Edit and Helix Native software.

Setting a TAP Tempo

The TAP|FLUX switch can be configured for TAP Tempo (as indicated by the TAP LED above flashing red, the default), or for FLUX functionality (LED is white). If not already, you'll want to press-hold the switch to set it for TAP functionality.

Press the TAP switch repeatedly to set a tempo in BPM (Beats Per Minute).

You'll see the TAP LED flash red at your entered BPM rate. Certain Delay, Reverb, and Modulation effects models' parameters, such as Time, Rate, and Speed, can be represented with note values (1/4-note, dotted 1/8-note, etc.) or fixed numeric values (ms or Hz). When set to note values, the parameter will be synced to Tap Tempo. **Press the parameter knob to toggle between note or ms (or Hz) values.**

> **TIP.** Also, see the "Settings View" where you can fine-tune your Tap Tempo value, configure the TAP Tempo as "Per Preset" (the default) or "Global," or configure your HX One device to sync tempo with external MIDI hardware and software via MIDI Clock.

Using the Tuner

Neatly tucked away within HX One is a chromatic Tuner to keep your instrument in tune. You can access it from the Home View.

📌 **NOTE:** Yeah, we realize that if you're positioning HX One after other pedals, especially such as pitch or modulation type pedals, a Tuner within HX One is really not going to be able to detect your instrument's true pitch and tune very well! But we've included a built-in Tuner anyway for use in cases when it is not preceded by other active effects. Please tune responsibly.

1. **Press and hold both the ON and TAP | FLUX switches for two seconds to enter the Tuner.**

2. **Pluck an individual string on your instrument.**

   When your input signal enters the Tuner, the Tuner will detect and display the target note and indicators to let you know how flat or sharp your instrument is compared to the target note.

   You'll want to tune your string so that the moving "needle" indicator becomes centered in the display and both the ON and TAP | FLUX LEDs are lit green.

   IN TUNE

   FLAT   **SHARP**
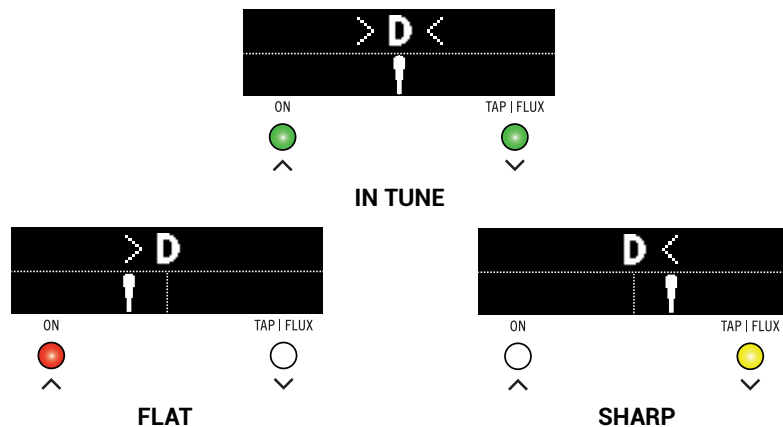
3. **Press the Home button or either footswitch to exit the tuner.**

📌 **NOTE:** By default, your output signal is muted when the Tuner is engaged, and the Tuner is set to a reference pitch of 440Hz. You can change these values within the "Settings View".

Effects

The HX One device comes loaded with effects of the Line 6 award-winning HX Effects guitar processor, including selected effects from the classic DL4, DM4, MM4, and FM4 stompboxes and M13, M9, and M5 processors. You'll find all effects neatly organized by category within the Effects Carousel. All effects models are listed per category within the following tables for your reference.

With the exception of polyphonic pitch type models and mono Loopers (as indicated in the following tables), all HX One effects models process your signal in stereo. Legacy type models, just as on earlier Line 6 devices, are limited to mono-in/stereo-out processing. Stereo models process the signal as discrete stereo-in, stereo-out (provided you are using both the Left and Right Input and Output jacks and the default I/O Config - Stereo option)—see the "Settings View" on page 26.

💡 **TIP:** When connecting only the L-MONO OUT jack, HX One's output signal is folded to mono.

Turn the EFFECT knob to load the next or previous model, or hold and turn the EFFECT knob to select an effect category—see "Choosing an Effect" on page 9.

Effects Models - Reference Tables

Distortion

Model	Based On*
—HX MODELS —	
Kinky Boost	Xotic® EP Booster
Deranged Master	Dallas Rangemaster Treble Booster
Minotaur	Klon® Centaur
Teemah!	Paul Cochrane Timmy® Overdrive
Heir Apparent	Analogman Prince of Tone
Tone Sovereign	Analogman King of Tone
Alpaca Rogue	Way Huge® Red Llama (modded)
Compulsive Drive	Fulltone® OCD
Dhyana Drive	Hermida Zendrive
Horizon Drive	Horizon Precision Drive
Valve Driver	Chandler Tube Driver
Top Secret OD	DOD® OD-250

Model	Based On*
Prize Drive	Nobels® ODR-1(bc)
Scream 808	Ibanez® TS808 Tube Screamer®
Pillars	Earthquaker Devices® Plumes
Hedgehog D9	MAXON® SD9 Sonic Distortion
Stupor OD	BOSS® SD-1 Overdrive
Deez One Vintage	BOSS DS-1 Distortion (Made-in-Japan)
Deez One Mod	BOSS DS-1 Distortion (Keeley modded)
Ratatoullie Dist	Pro Co RAT (with LM308 opamp)
Vermin Dist	Pro Co RAT
Vital Dist	Earthquaker Devices Life - Octave/Distortion circuit
Vital Boost	Earthquaker Devices Life - Boost circuit
KWB	Benadrian Kowloon Walled Bunny Distortion
Legendary Drive	Carvin® VLD1 Legacy Drive (hi gain channel)
Swedish Chainsaw	BOSS HM-2 Heavy Metal Distortion (MIJ)
Arbitrator Fuzz	Arbiter® Fuzz Face®
Pocket Fuzz	Jordan Boss Tone Fuzz
Bighorn Fuzz	'73 Electro-Harmonix® Ram's Head Big Muff Pi
Triangle Fuzz	Electro-Harmonix Big Muff Pi
Dark Dove Fuzz	Electro-Harmonix Russian Big Muff Pi
Ballistic Fuzz	Euthymia ICBM Fuzz
Industrial Fuzz	Z.Vex Fuzz Factory
Tycoctavia Fuzz	Tycobrahe® Octavia
Wringer Fuzz	Garbage's modded BOSS FZ-2
Thrifter Fuzz	Line 6 Original
Xenomorph Fuzz	Subdecay Harmonic Antagonizer
Megaphone	Megaphone
Bitcrusher	Line 6 Original
Ampeg Scrambler	Ampeg® Scrambler Bass Overdrive
ZeroAmp Bass DI	Tech 21® SansAmp Bass Driver DI V1
Regal Bass DI	Noble Preamp Bass DI
Obsidian 7000	Darkglass® Electronics Microtubes® B7K Ultra
Clawthorn Drive	Wounded Paw Battering Ram

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Model	Based On*
—LEGACY MODELS—	
Tube Drive	Chandler Tube Driver
Screamer	Ibanez Tube Screamer
Overdrive	DOD Overdrive/Preamp 250
Classic Dist	Pro Co RAT
Heavy Dist	BOSS Metal Zone
Colordrive	Colorsound® Overdriver
Buzz Saw	Maestro® Fuzz Tone
Facial Fuzz	Arbiter Fuzz Face
Jumbo Fuzz	Vox® Tone Bender
Fuzz Pi	Electro-Harmonix Big Muff Pi
Jet Fuzz	Roland® Jet Phaser
L6 Drive	Colorsound Overdriver (modded)
L6 Distortion	Line 6 Original
Sub Oct Fuzz	PAiA Roctave Divider
Octave Fuzz	Tycobrahe Octavia
Bronze Master	Maestro Bass Brassmaster
Killer Z	BOSS Metal Zone MT-2

Dynamics

Model	Based On*
—HX MODELS —	
Deluxe Comp	Line 6 Original
Red Squeeze	MXR Dyna Comp
Kinky Comp	Xotic SP Compressor
Ampeg Opto Comp	Ampeg Opto Comp compressor
Rochester Comp	Ashly® CLX-52 (in conjunction w/ B. Sheehan)
LA Studio Comp	Teletronix® LA-2A®
3-Band Comp	Line 6 Original
Noise Gate	Line 6 Original
Hard Gate	Line 6 Original

Model	Based On*
Horizon Gate	Horizon Precision Drive - Gate Circuit
Autoswell	Line 6 Original
Feedbacker (mono)†	Line 6 Original, Feedback Generator
—LEGACY MODELS—	
Tube Comp	Teletronix LA-2A
Red Comp	MXR Dyna Comp
Blue Comp	BOSS CS-1
Blue Comp Treb	BOSS CS-1 (Treble switch on)
Vetta Comp	Line 6 Original
Vetta Juice	Line 6 Original
Boost Comp	MXR Micro Amp

EQ

Model	Based On*
—HX MODELS —	
Simple EQ	Line 6 Original
Low and High Cut	Line 6 Original
Low/High Shelf	Line 6 Original
Parametric	Line 6 Original
Tilt	Line 6 Original
10 Band Graphic	MXR 10-Band Graphic EQ
Cali Q Graphic	MESA/Boogie Mark IV Graphic EQ
Acoustic Sim	Line 6 Original

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† The Feedbacker model utilizes DSP-intensive polyphonic pitch shifting and, therefore, is mono.

〰️ Modulation

Model	Based On*
—HX MODELS —	
Optical Trem	Fender® optical tremolo circuit
60s Bias Trem	Vox AC-15 Tremolo
Tremolo/Autopan	BOSS PN-2
Harmonic Tremolo	Line 6 Original
Bleat Chop Trem	Lightfoot Labs Goatkeeper
Script Mod Phase	MXR Phase 90
Pebble Phaser	Electro-Harmonix Small Stone
Ubiquitous Vibe	Shin-ei Uni-Vibe®
FlexoVibe	Line 6 Original
Deluxe Phaser	Line 6 Original
Gray Flanger	MXR 117 Flanger
Harmonic Flanger	A/DA Flanger
Courtesan Flange	Electro-Harmonix Deluxe EM
Dynamix Flanger	Line 6 Original
Chorus	Line 6 Original
70s Chorus	BOSS CE-1
PlastiChorus	Modded Arion SCH-Z chorus
Ampeg Liquifier Chorus	Ampeg Liquifier Chorus
Trinity Chorus	Dytronics® Tri-Stereo Chorus
4-Voice Chorus	Line 6 Original
Bubble Vibrato	BOSS VB-2 Vibrato
Vibe Rotary	Fender Vibratone
122 Rotary	Leslie® 122
145 Rotary	Leslie 145
Triple Rotary	Yamaha® RA-200
Retro Reel	Line 6 Original
Double Take	Line 6 Original

Model	Based On*
AM Ring Mod	Line 6 Original
Pitch Ring Mod	Line 6 Original
Poly Detune (mono) †	Line 6 Original
—LEGACY MODELS—	
Pattern Tremolo	Line 6 Original
Panner	Line 6 Original
Bias Tremolo	1960 Vox AC-15 Tremolo
Opto Tremolo	1964 Fender Deluxe Reverb®
Script Phase	MXR Phase 90 (script logo version)
Panned Phaser	Ibanez Flying Pan
Barberpole	Line 6 Original
Dual Phaser	Mu-Tron® Bi-Phase
U-Vibe	Shin-ei Uni-Vibe
Phaser	MXR Phase 90
Pitch Vibrato	BOSS VB-2
Dimension	Roland Dimension D
Analog Chorus	BOSS CE-1
Tri Chorus	Dytronics Tri-Stereo Chorus
Analog Flanger	MXR Flanger
Jet Flanger	A/DA Flanger
AC Flanger	MXR Flanger
80A Flanger	A/DA Flanger
Frequency Shift	Line 6 Original
Ring Modulator	Line 6 Original
Rotary Drum	Fender Vibratone
Rotary Drum/Horn	Leslie 145
Tape Eater	Line 6 Original
Warble-Matic	Line 6 Original
Random S&H	Line 6 Original
Sweeper	Line 6 Original

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† The Poly Detune model utilizes DSP-intensive polyphonic pitch shifting and, therefore, is mono.

◐ Delay

Model	Based On*
—HX MODELS —	
Simple Delay	Line 6 Original
Mod/Chorus Echo	Line 6 Original
Dual Delay	Line 6 Original
Multitap 4	Line 6 Original
Multitap 6	Line 6 Original
Ping Pong	Line 6 Original
Sweep Echo	Line 6 Original
Ducked Delay	TC Electronic® 2290
Reverse Delay	Line 6 Original
Vintage Digital	Line 6 Original
Vintage Swell	Line 6 Original
Pitch Echo	Line 6 Original
Transistor Tape	Maestro Echoplex® EP-3
Cosmos Echo	Roland RE-201 Space Echo®
Harmony Delay	Line 6 Original
Bucket Brigade	BOSS DM-2
Adriatic Delay	BOSS DM-2 w/ Adrian Mod
Adriatic Swell	Line 6 Original
Elephant Man	Electro-Harmonix Deluxe Memory Man
Multi Pass	Line 6 Original
Heliosphere	Line 6 Original
Glitch Delay	Line 6 Original
Euclidean Delay	Line 6 Original
ADT	Line 6 Original
Crisscross	Line 6 Original
Tesselator	Line 6 Original
Ratchet	Line 6 Original
Poly Sustain (mono) †	Line 6 Original

Model	Based On*
—LEGACY MODELS—	
Ping Pong	TC Electronic 2290
Dynamic	TC Electronic 2290
Stereo	Line 6 Original
Digital	Line 6 Original
Dig w/Mod	Line 6 Original
Reverse	Line 6 Original
Lo Res	Line 6 Original
Tube Echo	Maestro Echoplex EP-1
Tape Echo	Maestro Echoplex EP-3
Sweep Echo	Line 6 Original
Echo Platter	Binson® EchoRec®
Analog Echo	BOSS DM-2
Analog w/Mod	Electro-Harmonix Deluxe Memory Man
Auto-Volume Echo	Line 6 Original
Multi-Head	Roland RE-101 Space Echo
Bubble Echo	Line 6 Original
Phaze Eko	Line 6 Original

◻ Reverb

Model	Based On*
—HX MODELS —	
Dynamic Hall	Line 6 Original
Dynamic Plate	Line 6 Original
Dynamic Room	Line 6 Original
Dynamic Ambience	Line 6 Original
Dynamic Bloom	Line 6 Original
Shimmer	Line 6 Original
Hot Springs	Line 6 Original

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† The Poly Sustain model utilizes DSP-intensive polyphonic pitch shifting and, therefore,is mono.

Model	Based On*
Nonlinear	Line 6 Original
Glitz	Line 6 Original
Ganymede	Line 6 Original
Searchlights	Line 6 Original
Plateaux	Line 6 Original
Double Tank	Line 6 Original
—LEGACY MODELS—	
Plate	Line 6 Original
Room	Line 6 Original
Chamber	Line 6 Original
Hall	Line 6 Original
Echo	Line 6 Original
Tile	Line 6 Original
Cave	Line 6 Original
Ducking	Line 6 Original
Octo	Line 6 Original
'63 Spring	Line 6 Original
Spring	Line 6 Original
Particle Verb	Line 6 Original

🎹 Pitch/Synth

Model	Based On*
—HX MODELS —	
Pitch Wham	Digitech Whammy®
Twin Harmony	Eventide® H3000
Simple Pitch	Line 6 Original
Dual Pitch	Line 6 Original

Model	Based On*
Boctaver	Boss OC-2 Octaver
3 OSC Synth	Line 6 Original
3 Note Generator ‡	Line 6 Original
4 OSC Generator ‡	Line 6 Original
Poly Pitch (mono) †	Line 6 Original
Poly Wham (mono) †	Line 6 Original
Poly Capo (mono) †	Line 6 Original
12 String (mono) †	Line 6 Original
—LEGACY MODELS—	
Bass Octaver	EBS® OctaBass
Smart Harmony	Eventide H3000
Octi Synth	Line 6 Original
Synth O Matic	Line 6 Original
Attack Synth	Korg® X911 Guitar Synth
Synth String	Roland GR700 Guitar Synth
Growler	Line 6 Original
Buzz Wave	Line 6 Original
Rez Synth	Line 6 Original
Seismik Synth	Line 6 Original
Analog Synth	Line 6 Original
Synth Lead	Line 6 Original
String Theory	Line 6 Original
Synth FX	Line 6 Original
Saturn 5 Ring Mod	Line 6 Original
Synth Harmony	Line 6 Original
Double Bass	Line 6 Original

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† These indicated Pitch/Synth models utilize DSP-intensive polyphonic pitch shifting and, therefore, are mono.

‡ The 3 Note Generator and 4 OSC Generator models make sound without any instrument connected, therefore, these models are turned off by default when loaded. Be sure to first set your amplifier to low volume before enabling via the ON footswitch.

▨ Wah/FLT - Wah & Filter

Model	Based On*
—HX MODELS —	
UK Wah 846	Vox V846
Teardrop 310	Dunlop® Cry Baby® Wah Fasel model 310
Fassel	Dunlop Cry Baby Super Wah
Weeper	Arbiter Cry Baby Wah
Chrome	Vox V847 Wah
Chrome Custom	Modded Vox V847 Wah
Throaty	RMC® Real McCoy Wah
Vetta Wah	Line 6 Original
Colorful	Colorsound Wah-fuzz
Conductor	Maestro Boomerang Wah
Mutant Filter	Musitronics Mu-Tron III
Mystery Filter	Korg A3
Autofilter	Line 6 Original
Asheville Pattrn	Moog® Moogerfooger® MF-105M MuRF Filter
—LEGACY MODELS—	
Voice Box	Line 6 Original
V Tron	Musitronics® Mu-Tron III
Q Filter	Line 6 Original
Seeker	Z Vex Seek Wah
Obi Wah	Oberheim® voltage-controlled S&H filter
Tron Up	Musitronics Mu-Tron III (up position)
Tron Down	Musitronics Mu-Tron III (down position)
Throbber	Electrix® Filter Factory
Slow Filter	Line 6 Original
Spin Cycle	Craig Anderton's Wah/Anti-Wah
Comet Trails	Line 6 Original

Common FX Settings

Parameter	Description
Drive	Adjusts the amount of overdrive, distortion, or fuzz.
Bass	Adjusts the bass level.
Mid	Adjusts the midrange level.
Treble	Adjusts the treble level.
Speed	Adjusts the speed of the effect, with higher settings providing faster rates. **Press the knob to toggle between Hz and note values.** Choosing a Hz value provides a specific modulation speed in cycles per second; choosing a note value provides a time based on the current tempo. Not all Speed parameters can be synced to note values, as they may be non-linear and highly interactive. (Note that stepping on TAP once resets any LFO-based effects, such as tremolos and rotary speakers.)
Rate	Adjusts the rate of the effect, with higher settings providing faster rates. **Press the knob to toggle between numeric and note values.** Not all Rate parameters can be synced to note values, as they may be non-linear and highly interactive. (Note that stepping on TAP once resets any LFO-based effects, such as tremolos and rotary speakers.)
Time	Adjusts the delay/repeat time, with higher settings providing longer delays. **Press the knob to toggle between ms and note values.** Choosing a ms value provides a specific time in milliseconds; choosing a Note Division value provides a time based on the current tempo. With a note division value, this parameter's value is retained when changing models.
Depth	Adjusts the intensity of the modulation. Higher settings result in more extreme pitch bending, wobble, or throb, depending on the effect.
Feedback	Adjusts the amount of delayed signal fed back into the effect. Higher settings can provide more dramatic textures.
Decay	Sets the length of time the reverb effect sustains.
Predelay	Determines the time before the reverb effect is heard—higher settings emulate larger spaces.
Scale	On stereo delays, the Scale offers control over the left & right channel repeats proportionately. The left channel repeats following the Time value, and the right channel will repeat at a time that is the percentage of the left time. For example, if a delay's Time is set for 1 second and the Scale set to 75%, the left channel will repeat at 1 second and the right at 750 milliseconds (ms).

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Parameter	Description
Spread	Spread differs slightly among stereo delay effects. For most, it adjusts how widely the repeats bounce left and right. For example, with the Ping Pong Delay, 0 is in the middle (mono), and 10 is full left to right panning on the repeats. For modulated stereo delays, Spread affects the LFOs' (low frequency oscillators) stereo modulation behavior. At 0, the LFOs are in sync. At 10, the two LFOs are 180 degrees out of sync, so that when one side is modulating up, the other side is modulating down.
Headroom	Some mod and delay models' internal signal paths exhibit a bit of grit. Negative values increase the perceived amount of grit; positive values clean things up a bit. At 0dB, the model behaves like the original pedal.
Low Cut	Filters a portion of the block's bass and/or treble frequencies, which can help remove rumble and/or high-end harshness.
Hi Cut	
Mix	Blends the effected "wet" signal vs. the "dry" signal passed through the effect model. When set to 0%, the path bypasses the effect completely. When set to 100%, the entire input signal is fed through the effect, and no dry thru signal is heard.
Level	Adjusts the overall output level of the model. You should typically leave this at 0.0dB, unless an output boost or cut is desired when HX One is enabled. Where the original pedal's level or volume knob behavior doesn't really apply to dB values, 0.0-10 may be used.

▣ Looper

HX One offers two different Looper types, the Simple and Shuffling Looper, each of which are selectable from the Effect List as Mono or Stereo.

Model	Max. Loop Length
Simple Looper M (mono)	60 seconds*
Simple Looper S (stereo)	30 seconds*
Shuffling M (mono)	60 seconds
Shuffling S (stereo)	30 seconds

For full stereo Looper operation - you must use the following configuration:

- Select a stereo (Simple Looper S or Shuffling S) Looper from the Effect List
- Set the "Settings View" - I/O Config to "Stereo"
- Connect your stereo inputs to both the IN - L/MONO and RIGHT jacks
- Connect both the OUT - L/MONO and RIGHT jacks to your stereo amplifier/effects

NOTE: Whenever the "Settings View" - I/O Config is set to "Insert," Looper recording and playback are **mono**.

Loop recording or playback is automatically stopped when changing presets. Your recorded loop is also discarded when loading another preset or when powering HX One off.

✱TIP. You can change the Simple Looper between Full-Speed and Half-Speed via MIDI—see "MIDI" on page 30. When recording in Half-Speed mode, the Simple Looper's maximum record time is doubled.

Using the Simple Looper

The Simple Looper is designed to be fast and simple to use, allowing you to capture song ideas or create a jam track at the stomp of a footswitch.

1. **Press and turn the EFFECT knob, select the ▣ Looper category, and choose the mono or stereo Simple Looper from the Effect list.**

   The Looper will be automatically assigned to the ON footswitch. You'll see the ON LED initially appear dim white. Optionally, you can adjust the Simple Looper's parameters.

Parameter	Description
Playbk	Adjusts looper playback level. You may find it useful to turn this down a bit so your live guitar can be slightly louder.
Ovrdub	*Relatively* sets the level of your loop while overdubbing. For example, if your Overdub Level is set to 90%, each time your loop repeats, its volume will be reduced by 10%, sounding quieter and quieter with each overdub pass.
Low Cut	Filters a portion of the loop's bass and treble frequencies, which can improve the mix with your live guitar.
High Cut	

2. **To start recording your loop, press and release the ON switch.**

   The ON LED lights red, indicating the loop is recording.

3. **Press the ON switch again.**

   The ON LED lights green, indicating that recording has stopped and your loop is playing back. You can now jam along endlessly with your repeating loop.

4. **Press the ON switch again.**

   The ON LED lights amber, indicating the loop is in overdub mode. Play some additional riffs to layer more onto your loop. Subsequent presses of the ON switch toggle between the play and overdub modes.

5. **While the Looper is in play or overdub mode, press and hold the ON switch for 1 second.**

   Your most recent recording is undone. Hold the switch again to redo the recording.

6. Quickly double-press the ON switch.

Playback/recording stops, and the LED lights bright white, indicating a loop is in memory.

7. While Looper playback/recording is stopped, press and hold the ON switch for 1 second.

Your most recent recording is deleted, and the LED lights dim white.

> 💡 **TIP.** You can also control the Simple Looper via external MIDI, including the ability to trigger a few additional looping tricks such as Reverse and Half-Speed—see "MIDI" on page 30.

Using the Shuffling Looper

Part looper, part sampler, part performance instrument—the Shuffling Looper chops up your recorded loop, randomizes the slices, and gives you control over reordering, octave shifting, reversing, repeating, and more.

1. Press and turn the EFFECT knob, select the ▣▣ Looper category, and choose the mono or stereo Shuffling Looper from the Effect list.

The Looper will be automatically assigned to the ON footswitch. You'll see the ON LED initially appear dim white.

2. Turn knob 1 (Slices) to set the number of slices your loop will be chopped into.

3. Press the ON switch to begin recording.

The ON LED lights red, indicating the loop is recording.

4. When done recording your loop, press the ON switch.

The ON LED lights green and the sliced loop sequence immediately plays.

5. During playback, adjust the following Shuffling Looper parameters (or assign them to the Expression/FLUX controller):

Parameter	Description
Slices	Determines the number of slices your loop will be chopped into
SeqLength	Determines the number of steps in the sequence before it loops
Shuffle	Determines the likelihood of slices shuffling/reordering
Octave	Determines the likelihood of slices playing back an octave higher or lower
Reverse	Determines the likelihood of slices playing backward
Repeat	Determines the likelihood of slices repeating

Parameter	Description
Smooth	Higher values apply smoothing between slices and can give a synth-pad type quality. Lower values maintain transients. Or, set it just high enough to avoid pops and clicks
Drift	Determines the likelihood of a slice changing after it has played
Playback	Sets the playback level of the loop sequence
Low Cut	Filters a portion of the loop's bass and treble frequencies, which can improve the mix with your live guitar.
Hi Cut	

> 💡 **TIP.** To only use pitch and reverse effects on your loop, turn Shuffle down to 0% and set the Slices and SeqLen to the same value.

6. Want to change it up? While the loop is playing, press the ON switch to randomize its slice sequence.

7. Quickly double-press the ON switch.

Playback/recording stops, and the LED lights white, indicating a loop is in memory.

8. While the loop is playing or stopped, press and hold the ON switch.

The recording is deleted, and the LED lights dim white.

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Expression Pedal, FLUX Mode, & Footswitch Setup

HX One supports the use of several controller types for added control during a performance. The most obvious controller would be a connected expression pedal (such as for Wah or Pitch Wham). But, you can also utilize FLUX Mode for a footswitch to "ramp" or toggle between two values of any effect parameter or parameters. Additionally, you can connect up to two external footswitches and configure them individually to control TAP, FLUX, or Preset changes.

TIP. HX One also includes support for many parameters to be controlled via MIDI—see page 30.

"So what is this Expression and FLUX Mode stuff all about?"

Fair question... The big idea is that you can configure any effect's parameter—for example, a Delay's Feedback parameter—with your preferred "Min" and a "Max" values, which can then be remotely recalled by either an expression pedal or the TAP | FLUX switch (or a FLUX-assigned FS3 or FS4 footswitch).

When using an expression pedal - the Min value is recalled when you move the pedal to the "heel" position and the Max at the "toe" position, allowing you to manually sweep the defined range of the Feedback parameter in real-time.

When using the FLUX switch - (press-hold the TAP | FLUX switch to set it to FLUX mode, where the LED is lit white) the Min and Max Feedback values are recalled on your toggles of the footswitch, and you can configure the specific time it takes to "ramp" between the two.

• The first toggle ramps from the Min to Max value. You can adjust the effect's "OnTime" and "OnCurv" parameters to set the duration of time and shape of the curve used for any assigned parameter of the effect to automatically ramp from Min to Max.

• The next toggle ramps from the Max to Min value. You can adjust the effect's "OffTime" and "OffCurv" parameters to set the duration of time and shape of the curve used for any assigned parameter of the effect to automatically ramp from Max to Min.

• You can optionally configure an external footswitch for "Ramp" to toggle your Exp/FLUX assigned parameters—see the following sections.

Note that you can optionally configure multiple parameters of the current effect to be controlled simultaneously! Your customized Expression/FLUX Min and Max values are stored individually with each preset. Also see "Creating Expression/FLUX Assignments" on page 24 for more on using these controllers.
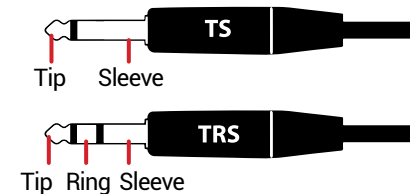
Connecting an Expression Pedal and Footswitches

You'll want to decide if you want to use just an expression pedal, a pedal + single footswitch, or two footswitches. Depending on which you want to connect, you'll need to configure HX One's Settings View options for your specific setup. Please see the following setup examples for details.

NOTE: Expression pedal and footswitches are sold separately:

The Line 6 EXP-1 pedal is a fine choice, or most 3rd party expression pedals will work as well.

For single or dual external footswitches, you'll want to get the "momentary" (non-latching) type.

TS versus TRS Cable Types

First things first... In case you are not already familiar, you'll want to be able to identify the difference between these two types of 1/4" cable connections for your expression pedal or footswitches for our examples in this section:

• A Tip-Sleeve (TS) type cable consists of two conductors, the Tip (positive) and Sleeve (ground).

• A Tip-Ring-Sleeve (TRS) type cable consists of three conductors: the Tip (positive 1), Ring (positive 2), and Sleeve (common ground).

TS
Tip   Sleeve

TRS
Tip Ring Sleeve

The HX One EXP PEDAL jack is a TRS type jack, into which you can connect a single expression pedal using a TS cable, or a dual-footswitch using a TRS cable. It is also possible to connect an expression pedal with a TS cable and a footswitch with a TS simultaneously, provided you connect them into a dual TS-to-TRS splitter (or "Y" adapter). Please see the following hookup examples.

Connecting an Expression Pedal

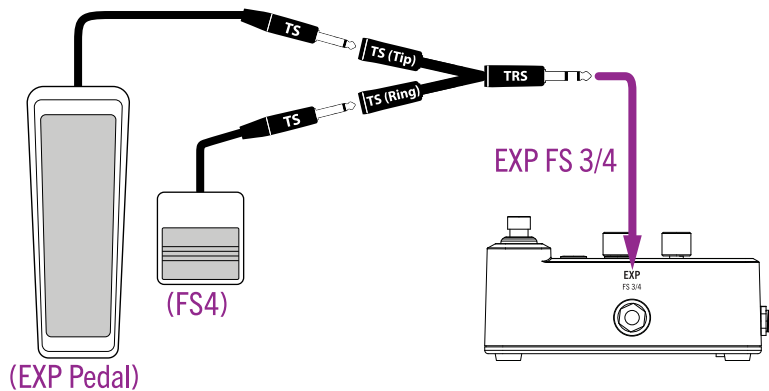If you're connecting only an expression pedal, use a TS instrument cable.
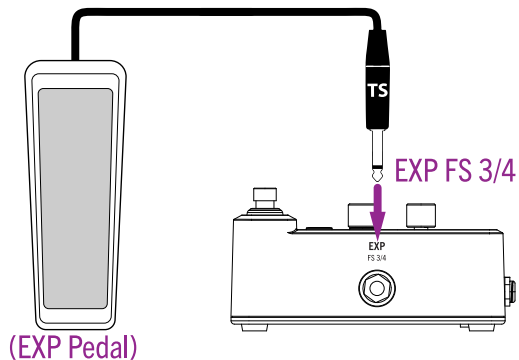
Connecting an expression pedal (TS cable connection)

For this expression pedal connection, you'll need to keep the "Settings View" - Pedal Jack option set to the default "ExpFS4" setting for proper pedal and device operation.

Connecting an Expression Pedal and a Footswitch

For this setup, use a dual TS-to-TRS splitter. Your expression pedal should connect to the "Tip" and the footswitch to the "Ring" leads of the splitter.


**Connecting an expression pedal and footswitch (dual TS-to-TRS splitter connection)**

For this connection, you'll need to keep the "Settings View" - Pedal Jack set to the default "ExpFs4" setting for proper controller and device operation. The footswitch controls FS4 which, by default, triggers the "Next" preset switching option. Alternatively, you can use the Settings View - FS4 Func to change your FS4 function to "TAP" to control TAP tempo, or to "FLUX" to utilize the FLUX feature.

Connecting Two Footswitches

You can achieve this type of setup using either a dual-footswitch unit (which typically utilizes a TRS cable) or two individual footswitches (each of which typically utilizes a TS cable).
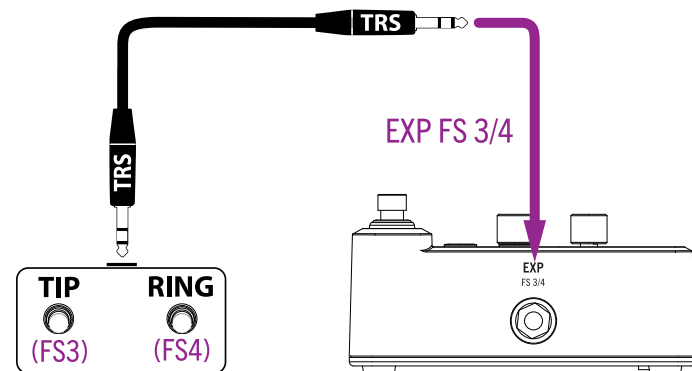
Connecting a dual-footswitch (TRS - TRS connection)
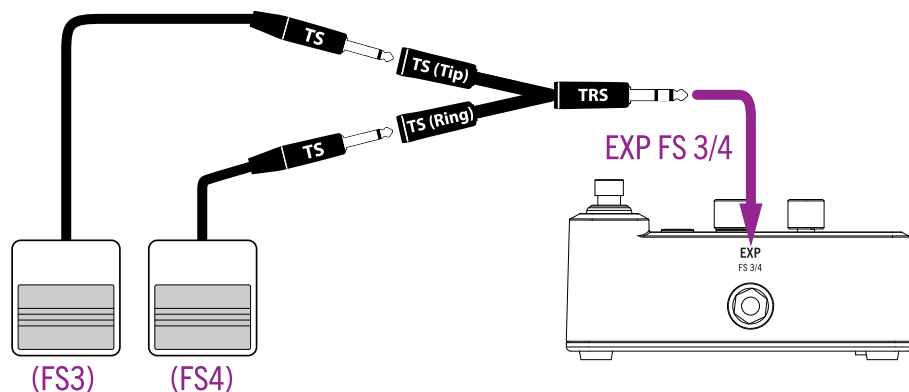
Connecting two individual footswitches (dual TS-to-TRS splitter connection)

For either a dual-footswitch or a two individual footswitch type connection, you'll need to configure the "Settings View" - Pedal Jack for the "Fs3/4" setting for proper switch and device operation. Use the Settings View - FS3 Func and FS4 Func options to choose your preferred function for each footswitch: "TAP" for TAP tempo, "Ramp" for the FLUX feature, or "Prev/Next" for preset switching.
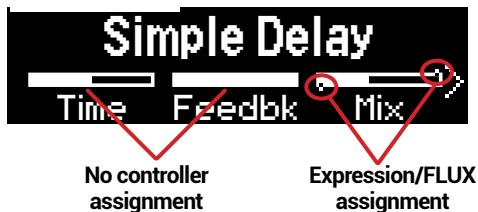
Creating Expression/FLUX Assignments

Once you have your pedal/footswitches configured and connected to HX One, it is time to put them to work! You'll see that many factory presets already include an effect parameter which is pre-assigned to Expression/FLUX.* Use the following steps to customize what your pedal or FLUX Mode switch will perform for each preset.

💡 ***TIP.** By default, all Wah, Pitch Wham, and Poly Wham models are automatically configured with their Position parameter assigned for Expression/FLUX.

1. To create an Expression/FLUX assignment:

Press and hold the parameter's Knob for 1 second.

Once assigned, you'll see the Min/Max indicator "nodes" appear, as shown on the Simple Delay - Mix parameter bar in the illustration below.

No controller assignment   **Expression/FLUX assignment**

Your connected expression pedal and FLUX switch will now work to control this parameter—just try rocking the pedal or toggling the FLUX switch! Read on to see how to customize things further.

To remove an existing Expression/Flux assignment from a parameter, press and hold its Knob for 1 second—you'll see the Min/Max indicators cleared.

2. To customize the Min and Max values:

Press and hold the TAP | FLUX switch to enter FLUX Mode (the switch's LED changes to white when in FLUX Mode).

To adjust the assignment's Min value - press-release the FLUX switch so that its LED is dim white.

Turn the parameter's Knob—you'll see the Min. node move to indicate your new value. (If you have multiple assigned parameters, adjust the Min value for each.)

To adjust the assignment's Max value - press-release the FLUX switch so that its LED is bright white.

Turn the parameter's Knob—you'll see the Max. node move to indicate your new value. (If you have multiple assigned parameters, adjust the Max. value for each.)

💡 **TIP.** You can "reverse" the expression/FLUX Min and Max direction by adjusting the Min value higher than the Max value!

3. Move the expression pedal back and forth (or press FLUX several times slowly) to hear your assigned parameter(s) in action!

You'll see the FLUX indicator line across the top of the Display move back and forth to show the Min - Max movement in real-time. You'll also see the FLUX LED change incrementally from dim to bright white to indicate the Min - Max movement.

4. To customize the control options for the assigned parameter, use the model's FLUX parameters.

Use the PAGE button to go the last two pages of the Home View to access the following FLUX parameters.

FLUX Parameter	Values/Range	Default	Description
OnTime	0.0 ms ~ 8.0 sec 1/64 Trip ~ 32 Beats*	1.000 s	Sets the duration of time it will take for the parameter to automatically ramp from the Min to the Max value. Press the knob to toggle between ms and note values.
OnCurv	Slow 5, Slow 4, Slow 3, Slow 2, Slow 1, Linear, Fast 1, Fast 2, Fast 3, Fast 4, Fast 5	Linear	Sets the audible slope of the ramp from Min to Max. The graphic shown on the screen also illustrates the setting.
OffTime	0.0 ms ~ 8.0 sec 1/64 Trip ~ 32 Beats*	1.000 s	Sets the duration of time it will take for the parameter to automatically ramp from the Max to the Min value. Press the knob to toggle between ms and note division values.
OffCurv	Slow 5, Slow 4, Slow 3, Slow 2, Slow 1, Linear, Fast 1, Fast 2, Fast 3, Fast 4, Fast 5	Linear	Sets the audible slope of the ramp from Min to Max. The graphic shown on the screen also illustrates the setting.

💡 ***TIP.** When OnTime or OffTime are set to note division values, a "Beat" is the equivalent of a 1/4 note duration (i.e., "4 Beats" = a whole note, "8 Beats = two whole notes, etc.).

5. Be sure to SAVE your preset to retain your Expression/Flux assignments and customized settings!

If you change to a different model or preset before saving, all settings will be discarded.

💡 **TIP.** You can also configure an effect model's Expression/FLUX *default* assignment and parameters. Press both the 〈 and 〉 PAGE buttons, and select **User** to set your customized settings as the defaults every time the model is loaded—see <u>"Saving a Model's User Default Settings" on page 10</u>.

Tips for Creative Controller Assignment

- The FLUX "OnTime" and "OffTime" can be set to 0 ms (the default) for instant toggling between Min and Max—useful for something such as toggling a Distortion's Level for a solo boost.

- Set the FLUX "OnTime" and "OffTime" to longer durations for dramatic ramping effects, such as changing the speed of a modulation effect or the sweep of a filter.

- Press an effect's "OnTime" and "OffTime" knob to toggle it between ms value versus a note division value—when in note division value, the parameter's timing syncs to your current TAP tempo.

- Pressing the FLUX switch before the parameter completes its Min-Max ramp immediately reverses the direction.

- For extreme psychedelic dub delay squeals, create Expression/FLUX assignments to both increase a Delay's Feedback and decrease its Time to maximum values.

- You can also create Expression/FLUX assignments to Looper parameters, allowing you to control your loop playback & overdub volumes, high & low cut, and all kinds of interesting parameters for the Shuffling Looper.

Settings View

The Settings View offers numerous "Per Preset" and "Global" options to allow you to configure the operation of your HX One device for your own setup and preferences. Please reference the "Settings View Options" table in this chapter to see parameter descriptions.

To access the Settings View:

1. **Press and hold the EFFECT knob for 1 second to display the Settings View.**
2. **Use the ❮ or ❯ PAGE buttons to access the several pages of Settings, using Knobs 1-3 to edit the desired parameters on each page.**

```
 Off   -48.0dB  500ms
━━━        ━━━━     ━━━━
Gate    Gate    Gate
Enabl   Thrsh   Decay
```

3. **Press HOME to exit the Settings menu.**

Restoring Global Settings

As noted in the following Settings View Options table, many of the options are "Global" and include factory defaults. Resetting the HX One's Global Settings returns them all to their factory default values. Note that performing this reset does not affect the Settings View's "Per Preset" values you may have edited, nor any of your presets.

1. **If not already there, press and hold the EFFECT knob to enter the Settings View.**
2. **Press and hold both the ❮ and ❯ PAGE buttons for one second.**
3. **Press Knob 3 (OK) to perform the Restore, or press Knob 1 (Cancel) to exit the screen without performing a restore.**

```
       Restore all
       Global Settings?
  Cancel          OK
```
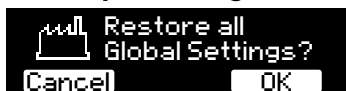
Setting Proper Levels

The various inputs and outputs should be set to match that of your instrument, amp, and other pedals to ensure an ideal tone, low noise, and no ugly clipping distortion (unless, of course, you want ugly clipping distortion—who are we to judge?).

1. **Within the Settings View screen, go to page 3 where you'll find the Input Level and Output Level parameters.**
2. **Using Knobs 1-3, set levels according to the following table:**

Parameter	What are you connecting?	Then do this:
Input Level	Guitar or bass with passive pickups*	Set to "Instrument"
	Guitar or bass with really loud or active pickups	Set either "Instrument" or "Line" (trust your ears)
	Keyboard, synth, or drum machine	Set "Line"
Output Level	To the instrument input on a guitar or bass amp	Set to "Instrument"
	To the guitar input(s) of a stompbox or other multi-effect	
	To the instrument-level effects return of a guitar or bass amp for post effects or 4-cable method	
	To the inputs of a studio rack effect or mixer	Set to "Line"

💡 ***TIP.** You can also experiment with the "Input Z" parameter on page 2 of the "Settings View" to set the impedance per preset, which can change the tone and "feel" of your instrument or optimize the input for a particular effect model.

Settings View Options

Page	Knob	Parameter	Values	Default	Applied	Description
1	1	Input Gate	Off, On	Off	Per Preset	Choose to set the HX One Input Gate bypassed or enabled for the current preset.
	2	Gate Threshold	-96.0dB~0.0dB	−48.0dB		Set the input level at which the Gate acts on your input signal. If your input gets cut off too abruptly, turn the Threshold up.
	3	Gate Decay	10ms~1.000 sec.	500ms		Set how abruptly the Gate is applied to reduce low level noise once the signal drops below the threshold level.
2	1	Input Z	Auto, 10kΩ, 22kΩ, 32kΩ, 70kΩ, 90kΩ, 136kΩ, 230kΩ, 1MΩ	Auto	Per Preset	HX One includes an impedance circuit on its Left and Right inputs that affects tone and feel by loading your guitar's pickups as they would by an effect pedal or amplifier. Choose a lower value to apply some high frequency attenuation, lower gain, and an overall "softer" feel. Choose a higher value for full frequency response, higher gain, and an overall "tighter" feel. Choose the "Auto" option to allow the impedance to match the input impedance of the currently loaded effect model.
	2	I/O Config	Stereo, Insert	Stereo	Global	Set the preferred stereo or mono configuration for HX One: Choose "Stereo" for discrete left & right stereo signal paths when connecting to both IN and both OUT jacks. Note that if no cable is connected to the OUT - RIGHT jack, your HX One output is folded to mono. Choose "Insert" to utilize the OUT - RIGHT as a Send output and IN - RIGHT as a Return input for a mono effects loop. When Insert is selected, the following Knob 3 - "Insert Position" option can be used to position the HX One effect model in relation to HX One's effects loop. Also, see "Setup Examples" on page 7.
	3	Insert Position	Pre/Post	Pre*	Per Preset	*NOTE: This option is only available when the preceding Knob 2 - "I/O Config" is set to "Insert." Choose whether you want the HX One effects loop positioned before ("Pre") or after ("Post") the current HX One effect model's processing.
3	1	In Level	Instrument, Line	Inst	Global	Set the HX One Inputs for accepting Instrument level (typically best for electric guitar/bass) or Line level (for keyboard, drum machine, etc.) See "Setting Proper Levels" on page 26.
	2	Out Level	Instrument, Line	Inst		Set whether the HX One Outputs signal levels are Instrument (-10dB, best for connecting to the input of another pedal or amplifier) or Line (+4dB, preferable for connecting to the input of outboard gear). See "Setting Proper Levels" on page 26.
	3	Bypass Type	True, DSP	DSP		Select the preferred type of Bypass for HX One: For "True" bypass, your input signal continues to be sent directly through HX One with no A/D/A conversion, and all DSP is bypassed. For "DSP" buffered bypass, your input is sent through the DSP path along with delay/reverb trails, but any further effect processing is bypassed. Any current sustaining delay repeats or reverb tails are allowed to decay naturally. NOTE: If you've set the I/O Config to "Insert," you'll need to set the Bypass Type to "DSP" to allow your signal to continue to be fed through HX One's Send and Return jacks when the device is bypassed.

Page	Knob	Parameter	Values	Default	Applied	Description
4	1	**Screen Bright**	1 ~ 10	10	Global	Set the brightness of the OLED display, with 10 being the brightest setting.
	2	**Auto Dim**	30 sec, 1 min, 2 min, 5 min, 10 min, 20 min	20 min		Configure the display to automatically dim its brightness approximately 50% after the selected time. Turning a knob or pressing a switch or button resets the timer.
	3	**TAP Flash**	Off, On	On		If you'd prefer to not see the red TAP footswitch LED constantly flashing, you can turn it off.
5	1	**Preset Select**	Instant, Load	Instant	Global	Set to determine whether the preset instantly loads while scrolling the Preset List (Instant) or loads when exiting the Preset Mode by pressing both the ON and TAP footswitches, HOME button, or EFFECT knob (Load). The "Load" option allows you to effectively "queue" a new effect without having to hear all the presets between the current and target preset. In this case, the queued preset flashes until the selection is engaged
	2	**Preset Min**	0–126	0		Set these Min and Max values to specify the range of presets accessible when pressing Preset Mode - Next/Prev preset switches. For example, if Preset Min is "9" and Preset Max is "12," pressing Next repeatedly will cycle 9, 10, 11, 12, 9, 10, 11, 12, 9, etc. All 128 presets are still selectable via the EFFECTS knob; when a preset outside of the selected range is active, pressing Next/Prev will still increment/decrement normally, but once inside the selected range, they will cycle as configured.
	3	**Preset Max**	1–127	127		
6	1	**Pedal Jack**	ExpFs4, Fs3/4	ExpFs4	Global	Configure the device's EXP FS 3\4 jack to accommodate either a single expression pedal or expression pedal + single footswitch (ExpFs4), or two footswitches (Fs3/4). See <u>"Connecting an Expression Pedal and Footswitches" on page 22</u>.
	2	**FS3 Function (Tip)**	TAP, FLUX, Previous	Prev*		*NOTE: This parameter is only configurable if the preceding Pedal Jack parameter is set to "Fs3/4." Choose the function of your connected Fs3 switch as a TAP tempo switch ("TAP"), to trigger EXP-assigned parameters with the FLUX feature ("FLUX"), or to load the previous preset ("Prev").
	3	**FS4 Function (Ring)**	TAP, FLUX, Next	Next		Choose the function of your connected Fs4 switch as a TAP tempo switch ("TAP"), to trigger EXP-assigned parameters with the FLUX feature ("FLUX"), or to load the next preset ("Next").
7	1	**Pedal Polarity**	Normal, Invert	Normal	Global	If your external expression pedal appears to work backwards—for example, when controlling a Wah the treble boost occurs at heel down rather than toe down—set this polarity to "Invert" to reverse the pedal's behavior.
	2	**Pedal Position**	Preset, Global	Preset		Set to determine whether the expression pedal position is set per preset or globally. If you want an Expression pedal-assigned parameter to maintain its position when switching presets, set this to "Global."
	3	**Tempo Pitch**	Authentic, Transparent	Auth		Set to determine whether pressing TAP (or changes in incoming MIDI clock) while a synced Delay is selected causes accurate pitch artifacts to be heard (Auth), such as old tape delay units are known for, or minimizes these artifacts (Trans).

Page	Knob	Parameter	Values	Default	Applied	Description
8	1	MIDI Channel	1~16, Omni	1	Global	Select the MIDI Channel on which HX One receives MIDI messages. Note that MIDI OUT/THRU is always sent on Channel 1.
	2	MIDI Thru	Off, On	On		When On, MIDI OUT also acts as a MIDI THRU; that is, it passes through any MIDI messages received at the MIDI IN jack or USB MIDI IN. **NOTE:** Incoming MIDI Clock is always routed to MIDI OUT/THRU and USB MIDI OUT, regardless of this MIDI THRU On/Off setting.
	3	MIDI PC Rx	Off, On	On		Set to determine whether HX One will respond to MIDI Program Change 000 to 127 messages (for preset changes) received via MIDI IN or USB.
9	1	Rx Clock	Off, On, Auto	Auto	Global	Choose if HX One receives and syncs to MIDI Clock messages received via MIDI IN or USB—see "Using MIDI Clock for Tempo Sync" on page 30. When "Off," HX One uses only its internal TAP tempo and ignores any incoming MIDI Clock messages. Note that incoming MIDI Clock is still routed to MIDI THRU. When "On," HX One automatically syncs to incoming MIDI Clock. You cannot enter your own tempo manually via the TAP switch. When set to "Auto," HX One automatically syncs to incoming MIDI Clock tempo, and you can optionally enter your own tempo via the TAP switch.
	2	Tempo	Preset, Global	Preset		Choose whether your TAP tempo is applied (and saved & recalled) with the current preset or globally.
	3	BPM	20.0~240.0 External	120.0	Global*	Choose the TAP tempo rate to which Delay - Time and Modulation - Speed/Rate can sync. When HX One is synced to incoming MIDI Clock, you'll see the TAP LED flashing blue rather than red to indicate the Cock tempo. *NOTE: The BPM's Per Preset vs. Global behavior is determined by the preceding Tempo option's setting, which is Global by default.
10	1	Tuner Reference	425Hz~455Hz	440Hz	Global	If you prefer to calibrate the tuner to reference pitch other than the standard 440Hz, you can change it with this setting. (And no, we're not taking sides in the 432Hz vs. 440Hz debate!)
	2	Tuner Audio	Mute, Dry, Effect	Mute		Choose what is heard from HX One's Outputs when the Tuner is engaged. "Mute" - all output is muted "Dry" - your unprocessed input signal is heard. "Effect" - your HX One current effect model's processed signal is heard.
	3	Tuner ♭ / ♯	♭ (flat), ♯ (sharp)	♭ (flat)		Choose whether the note display indicates pitches expressed as "♭ (flat)" or "♯ (sharp)."

MIDI

HX One receives MIDI messages via its 5-pin MIDI In, as well as via USB, providing functionality with most popular MIDI hardware or software controllers for control of HX One's preset changes, effect parameters, Looper, and MIDI Clock tempo sync. USB MIDI operation is functional with Mac & Windows computers. The following sections and tables provide the details for MIDI functionality.

- Connect the MIDI output of your external MIDI controller device to the HX One MIDI IN, and HX One will respond to MIDI Program Change (PC), Note On, MIDI CC, and MIDI Clock messages, as covered within this chapter.
  - When connected to your computer, HX One also receives and responds to the same MIDI messages via your computer USB connection.
- Connect HX One's MIDI OUT/THRU to your other MIDI gear (or connect USB to your computer) to pass incoming MIDI control or MIDI Clock messages "THRU" to another device or computer app.*
  - HX One does not transmit MIDI for any of its own actions, but will pass incoming MIDI control and MIDI Clock out via its MIDI OUT/THRU and USB MIDI ports.

> 📌 ***NOTE:** MIDI THRU is On by default, to disable it, configure the"Settings View" - MIDI THRU **Off**. MIDI Clock messages received by HX One are always routed out the MIDI THRU 5-pin and USB MIDI, regardless if the Settings View" - MIDI Thru is On or Off.

- All MIDI control is global, meaning, all commands listed in this chapter will control their respective HX One functions regardless of the currently loaded preset.

> 📌 **NOTE:** HX One uses MIDI Channel 1 as the factory default, but this can be changed via the"Settings View" - **MIDI Channel** option.

Preset Recall via MIDI Program Change

> 📌 **NOTE:** HX One is configured by default to receive Program Change type messages. You can change the Settings View" - **MIDI PC Rx** to "Off" to ignore incoming PC messages:

To recall a preset, send a MIDI Program Change (PC) message to your HX One device.

PC: 000 thru 127 will load HX One presets 000 thru 127, respectively. (Bank messages are ignored by HX One.)

Using MIDI Clock for Tempo Sync

HX One can receive MIDI Clock via its MIDI IN, as well as via USB MIDI, to allow you to sync your time-based effects to the tempo from other effects devices and computer applications. Use the "Settings View" - **Rx MIDI Clock** option to set the desired MIDI Clock functionality:

- **Off** - HX One does not sync to incoming MIDI Clock. The TAP tempo can be set manually via the TAP footswitch.
- **Auto** - (The default setting) HX One's TAP tempo syncs to incoming MIDI Clock messages. The TAP switch's LED flashes blue once MIDI Clock sync is established. While set to Auto, tempo can optionally be set manually by tapping the TAP footswitch.

> 📌 **NOTE:** If you manually tap a tempo on HX One with MIDI Clock set to Auto, the TAP LED flashes at your new tempo while remaining blue.

Once you've selected the preferred setting described above, use the following steps to sync HX One to your source MIDI Clock device's tempo.

1. **Connect your source MIDI Clock device's MIDI OUT to HX One's MIDI IN port. Or, USB-connect HX One to your computer and select the HX One USB MIDI port within your MIDI/DAW software.**

2. **On the source device, set the desired tempo rate and start the MIDI Clock send.**

3. **Once HX One receives the MIDI Clock "start" command, you'll see HX One's TAP LED change to flashing blue to indicate it is actively following the received MIDI Clock tempo rate.**

> 📌 **NOTE:** The Looper's loop playback does not sync to tempo and, therefore, does not sync to MIDI Clock.

Controlling HX One Parameters via MIDI

HX One has numerous functions all pre-configured for specific, global MIDI CC commands, as listed in the following tables.

Exp Pedal & Footswitch Emulation - MIDI CC

CC	VALUE	PEDAL/FOOTSWICH/KNOB FUNCTION
0	--	Reserved
1	0-127	Emulates ON switch. If effect is off, any CC1 value will turn it on; if effect is on, any CC1 value will turn it off. Provided primarily for use with MIDI footswitches.
2	0-127	Emulates FLUX switch (note that TAP Tempo uses CC93). HX One does not need to be in FLUX Mode.
3	0-127	Emulates Expression Pedal (when Settings > Pedal Jack is set to "ExpFS4")
4	0-63: Bypass; 64-127: Engage	Bypass/Engage (independent of CC1, which toggles the effect on and off, regardless of current bypass state). Provided primarily for use with MIDI knobs, where moving them past 12:00 will turn the effect on/off
5	0-2	Provides remote control of HX One's Views: 0: Home 1: Preset List 2: Tuner
93	0-127	Enters Tap Tempo

Effect Parameter Control - MIDI CC

CC	VALUE	PARAMETER
21	0-127	Parameter 1
22	0-127	Parameter 2
23	0-127	Parameter 3
24	0-127	Parameter 4
25	0-127	Parameter 5
26	0-127	Parameter 6
27	0-127	Parameter 7
28	0-127	Parameter 8
29	0-127	Parameter 9
30	0-127	Parameter 10
31	0-127	Parameter 11

CC	VALUE	PARAMETER
32	--	Reserved
33	0-127	Parameter 12
34	0-127	Parameter 13
35	0-127	Parameter 14
36	0-127	Parameter 15
37	0-127	Parameter 16
38	0-127	Parameter 17
39	0-127	Parameter 18
40	0-127	Parameter 19
41	0-127	Parameter 20
42	0-127	Parameter 21
43	0-127	Parameter 22
44	0-127	Parameter 23
45	0-127	Parameter 24
46	0-127	FLUX - OnTime
47	0-10	FLUX - OnCurve 0~4: Slow 5 to Slow 1 5: Linear 6~10: Fast 1 to Fast 5
48	0-127	FLUX > OffTime
49	0-10	FLUX - OffCurve: 0~4: Slow 5 to Slow 1 5: Linear 6~10: Fast 1 to Fast 5

Effect Parameter Control - MIDI Note On

MESSAGE	PARAMETER
Note C [0]	Toggles Bypass/Enable—Each subsequent press of the key is like pressing the ON switch, bypassing or enabling the current effect model. (Looper models do not respond to this message.)
Note C# [0]	Enters TAP Tempo—Repeated presses of the key is like presses of the TAP switch, setting the TAP tempo value
Note D [0]	Engages FLUX—Each subsequent press of the key is like pressing the FLUX switch, triggering the FLUX feature

📌 **NOTE:** Line 6 follows Yamaha's MIDI note spec, where middle C is "C3" (unlike some other gear manufacturers that prefer to say middle C is "C4").

Controlling the Simple Looper via MIDI

With the use of either **MIDI CC** or **MIDI Note On** messages, you can control numerous aspects of the HX One Simple Looper.* Be sure to read through the Looper sections on page 19 to get familiar with all functions, then try sending the following MIDI messages to HX One for your looping performance.

> *NOTE: These options are available for the Mono and Stereo Simple Looper.

Simple Looper Control - MIDI CC Messages

CC	VALUE	LOOPER FUNCTION
60	0-63: Overdub 64-127: Record	Overdub is enabled only if device is currently playing or recording a loop Record is enabled only if no loop exists in memory or if playback or recording is stopped
61	0-63: Stop; 64-127: Play	Play/Stop
62	64-127	Play Once (note that values 0-63 do nothing)
63	64-127	Toggle on each press between Undo and Redo for the most recent overdub recording (note that 0-63 do nothing)
65	0-63: Forward 64-127: Reverse	Forward/Reverse
66	0-63: Full; 64-127: Half	Full Speed/Half Speed

Simple Looper Control - MIDI Note On Messages

MESSAGE	LOOPER FUNCTION
Note C [-1]	Toggles on each press between Record* > Play > Overdub (*Initiates Record only if no loop is currently in memory)
Note D [-1]	Toggles on each press between Play and Stop
Note E [1]	Play Once
Note F [-1]	Record - note that this will clear the current loop, if one exists, and record a new loop
Note F# [-1]	Toggles on each press between Undo and Redo, for overdub recordings
Note G [-1]	Overdub
Note G# [-1]	Toggles on each press between Forward and Reverse
Note A [-1]	Play
Note A# [-1]	Toggles on each press between Half Speed and Full Speed
Note B [-1]	Stop

> NOTE: Line 6 follows Yamaha's MIDI note spec, where middle C is "C3" (unlike some other gear manufacturers that prefer to say middle C is "C4").