

Output Block - DT25/50 Remote Settings			
Page	Knob	Parameter	Description
	1	DT Reverb	Determines the On/Off state of the DT amp's on-board Reverb.
	2	DT Rev Mix	Determines the wet/dry Mix of the Reverb effect: 0~100%.
5	3	DT 12AX7 Boost	(DT50 only) Determines the On/Off state of the DT amp's 12AX7 Boost. Available when the DT50 Low Volume Mode is Off.
	4	DT Feedback Cap	(DT50 only) Determines the DT feedback capacitor type: X (Tight) or Y (Smooth).
	5	DT B+ Voltage	(DT50 only) Determines the level of the DT phase inverter B+ Voltage: Low or High.

TIPS: Just like with any amp, cab, or effect parameter, Powercab, and DT remote parameters can be quickly assigned to footswitches or snapshots.


When using the L6 LINK Out, often, the Helix Preamp models are a better choice than Amp or Amp+Cab models, allowing you to adjust the power amp and speaker cab options offered by the Powercab or DT units to taste.

Powercab Plus users can also utilize the IR and Reverb options available on the Powercab, thereby alleviating the need to add IR or Reverb blocks within their Helix presets.

It is possible to use Helix to control several parameters remotely on your DT-Series amp (channel select, power amp topology, reverb, etc.) via MIDI. Connect a 5-pin MIDI cable from Helix's MIDI Out to the DT amp's MIDI In and use the Helix ["Command Center"](#) to configure the desired MIDI commands for any preset.

Start by loading the **TEMPLATES > DT25-DT50 Remote** preset since it has several handy DT commands already mapped to Helix switches for you. You can customize this template and create your own sets of controls to add to your presets. See the [DT MIDI Implementation Guide](#) for a complete list of MIDI commands.

Effects

Many Helix effects blocks are offered in mono or stereo versions. Stereo effects display  after the model name. Also, Helix includes selected effects from the classic Line 6 DL4™, DM4™, MM4™, and FM4™ stompboxes, as well as M13®, M9®, and M5® processors; these appear in the Legacy subcategory (also see ["Block Order and Stereo Imaging" on page 23](#)).



Select an effects block and turn the joystick to change its model, or press the joystick knob to enter the Model menu.



TIP: The Favorites category that appears at the start of the Model menu is initially empty, awaiting you to add your preferred models to it—see [page 17](#).

Distortion Models

Model	Subcategories	Based On*
Kinky Boost	Mono, Stereo	Xotic® EP Booster
Deranged Master	Mono, Stereo	Dallas Rangemaster Treble Booster
Minotaur	Mono, Stereo	Klon® Centaur
Teemah!	Mono, Stereo	Paul Cochrane Timmy® Overdrive
Heir Apparent	Mono, Stereo	Analogman Prince of Tone
Tone Sovereign	Mono, Stereo	Analogman King of Tone
Alpaca Rogue	Mono, Stereo	Way Huge® Red Llama (modded)
Compulsive Drive	Mono, Stereo	Fulltone® OCD
Dhyana Drive	Mono, Stereo	Hermida Zendrive
Horizon Drive	Mono, Stereo	Horizon Precision Drive
Valve Driver	Mono, Stereo	Chandler Tube Driver
Top Secret OD	Mono, Stereo	DOD® OD-250
Prize Drive	Mono, Stereo	Nobels® ODR-1(bc)
Scream 808	Mono, Stereo	Ibanez® TS808 Tube Screamer®
Pillars	Mono, Stereo	Earthquaker Devices® Plumes
Hedgehog D9	Mono, Stereo	MAXON® SD9 Sonic Distortion
Stupor OD	Mono, Stereo	BOSS® SD-1 Overdrive
Deez One Vintage	Mono, Stereo	BOSS DS-1 Distortion (Made-in-Japan)
Deez One Mod	Mono, Stereo	BOSS DS-1 Distortion (Keeley modded)

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Model	Subcategories	Based On*
Ratatoullie Dist	Mono, Stereo	Pro Co RAT (with LM308 opamp)
Vermin Dist	Mono, Stereo	Pro Co RAT
Vital Dist	Mono, Stereo	Earthquaker Devices Life - Octave/Distortion circuit
Vital Boost	Mono, Stereo	Earthquaker Devices Life - Boost circuit
KWB	Mono, Stereo	Benadrian Kowloon Walled Bunny Distortion
Legendary Drive	Mono, Stereo	Carvin® VLD1 Legacy Drive (hi gain channel)
Swedish Chainsaw	Mono, Stereo	BOSS HM-2 Heavy Metal Distortion (MIJ)
Arbitrator Fuzz	Mono, Stereo	Arbiter® Fuzz Face®
Pocket Fuzz	Mono, Stereo	Jordan Boss Tone Fuzz
Bighorn Fuzz	Mono, Stereo	'73 Electro-Harmonix® Ram's Head Big Muff Pi
Triangle Fuzz	Mono, Stereo	Electro-Harmonix Big Muff Pi
Dark Dove Fuzz	Mono, Stereo	Electro-Harmonix Russian Big Muff Pi
Ballistic Fuzz	Mono, Stereo	Euthymia ICBM Fuzz
Industrial Fuzz	Mono, Stereo	Z.Vex Fuzz Factory
Tycoctavia Fuzz	Mono, Stereo	Tycobrahe® Octavia
Wringer Fuzz	Mono, Stereo	Garbage's modded BOSS FZ-2
Thrifter Fuzz	Mono, Stereo	Line 6 Original
Xenomorph Fuzz	Mono, Stereo	Subdecay Harmonic Antagonizer
Megaphone	Mono, Stereo	Megaphone
Bitcrusher	Mono, Stereo	Line 6 Original
Ampeg Scrambler	Mono, Stereo	Ampeg® Scrambler Bass Overdrive
ZeroAmp Bass DI	Mono, Stereo	Tech 21® SansAmp Bass Driver DI V1
Regal Bass DI	Mono, Stereo	Noble Preamp Bass DI
Obsidian 7000	Mono, Stereo	Darkglass® Electronics Microtubes® B7K Ultra
Clawthorn Drive	Mono, Stereo	Wounded Paw Battering Ram
Tube Drive	Legacy	Chandler Tube Driver
Screamer	Legacy	Ibanez Tube Screamer
Overdrive	Legacy	DOD Overdrive/Preamp 250
Classic Dist	Legacy	Pro Co RAT
Heavy Dist	Legacy	BOSS Metal Zone

Model	Subcategories	Based On*
Colordrive	Legacy	Colorsound® Overdriver
Buzz Saw	Legacy	Maestro® Fuzz Tone
Facial Fuzz	Legacy	Arbiter Fuzz Face
Jumbo Fuzz	Legacy	Vox® Tone Bender
Fuzz Pi	Legacy	Electro-Harmonix Big Muff Pi
Jet Fuzz	Legacy	Roland® Jet Phaser
L6 Drive	Legacy	Colorsound Overdriver (modded)
L6 Distortion	Legacy	Line 6 Original
Sub Oct Fuzz	Legacy	PAiA Roctave Divider
Octave Fuzz	Legacy	Tycobrahe Octavia
Bronze Master	Legacy	Maestro Bass Brassmaster
Killer Z	Legacy	BOSS Metal Zone MT-2

Dynamics Models

Model	Subcategories	Based On*
Deluxe Comp	Mono, Stereo	Line 6 Original
Red Squeeze	Mono, Stereo	MXR Dyna Comp
Kinky Comp	Mono, Stereo	Xotic SP Compressor
Ampeg Opto Comp	Mono, Stereo	Ampeg Opto Comp Compressor
Rochester Comp	Mono, Stereo	Ashly® CLX-52 (in conjunction w/ B. Sheehan)
LA Studio Comp	Mono, Stereo	Teletronix® LA-2A®
3-Band Comp	Mono, Stereo	Line 6 Original
Noise Gate	Mono, Stereo	Line 6 Original
Hard Gate	Mono, Stereo	Line 6 Original
Horizon Gate	Mono, Stereo	Horizon Precision Drive - Gate Circuit
Autoswell	Mono, Stereo	Line 6 Original
Feedbacker †	Mono	Line 6 Original, Feedback Generator
Tube Comp	Legacy	Teletronix LA-2A
Red Comp	Legacy	MXR Dyna Comp
Blue Comp	Legacy	BOSS CS-1
Blue Comp Treb	Legacy	BOSS CS-1 (Treble switch on)

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† The Feedbacker model utilizes polyphonic pitch shifting and, therefore, is extremely DSP-intensive—possibly utilizing up to half of all DSP available for Path 1 or Path 2!

Model	Subcategories	Based On*
Vetta Comp	Legacy	Line 6 Original
Vetta Juice	Legacy	Line 6 Original
Boost Comp	Legacy	MXR Micro Amp



TIP: Dynamics - Compressor and Gate models display a handy gain reduction meter—see [page 45](#).

EQ Models

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

Modulation Models

Model	Subcategories	Based On*
Optical Trem	Mono, Stereo	Fender® optical tremolo circuit
60s Bias Trem	Mono, Stereo	Vox AC-15 Tremolo
Tremolo/Autopan	Mono, Stereo	BOSS PN-2
Harmonic Tremolo	Mono, Stereo	Line 6 Original
Bleat Chop Trem	Mono, Stereo	Lightfoot Labs Goatkeeper
Script Mod Phase	Mono, Stereo	MXR Phase 90
Pebble Phaser	Mono, Stereo	Electro-Harmonix Small Stone
Ubiquitous Vibe	Mono, Stereo	Shin-ei Uni-Vibe®
FlexoVibe	Mono, Stereo	Line 6 Original
Deluxe Phaser	Mono, Stereo	Line 6 Original
Gray Flanger	Mono, Stereo	MXR 117 Flanger
Harmonic Flanger	Mono, Stereo	A/DA Flanger

Model	Subcategories	Based On*
Courtesan Flange	Mono, Stereo	Electro-Harmonix Deluxe EM
Dynamix Flanger	Mono, Stereo	Line 6 Original
Chorus	Mono, Stereo	Line 6 Original
70s Chorus	Mono, Stereo	BOSS CE-1
PlastiChorus	Mono, Stereo	Modded Arion SCH-Z chorus
Ampeg Liquifier Chorus	Mono, Stereo	Ampeg Liquifier Chorus
Trinity Chorus	Stereo	Dytronics® Tri-Stereo Chorus
4-Voice Chorus	Mono, Stereo	Line 6 Original
Bubble Vibrato	Mono, Stereo	BOSS VB-2 Vibrato
Vibe Rotary	Stereo	Fender Vibratone
122 Rotary	Stereo	Leslie® 122
145 Rotary	Stereo	Leslie 145
Triple Rotary	Mono, Stereo	Yamaha® RA-200
Retro Reel	Mono, Stereo	Line 6 Original
Double Take	Mono, Stereo	Line 6 Original
Poly Detune [†]	Mono	Line 6 Original
AM Ring Mod	Mono, Stereo	Line 6 Original
Pitch Ring Mod	Stereo	Line 6 Original
Pattern Tremolo	Legacy	Line 6 Original
Panner	Legacy	Line 6 Original
Bias Tremolo	Legacy	1960 Vox AC-15 Tremolo
Opto Tremolo	Legacy	1964 Fender Deluxe Reverb®
Script Phase	Legacy	MXR Phase 90 (script logo version)
Panned Phaser	Legacy	Ibanez Flying Pan
Barberpole	Legacy	Line 6 Original
Dual Phaser	Legacy	Mu-Tron® Bi-Phase
U-Vibe	Legacy	Shin-ei Uni-Vibe
Phaser	Legacy	MXR Phase 90
Pitch Vibrato	Legacy	BOSS VB-2
Dimension	Legacy	Roland Dimension D

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[†]The Poly Detune model utilizes polyphonic pitch shifting and, therefore, is extremely DSP-intensive—possibly utilizing up to half of all DSP available for Path 1 or Path 2!

Model	Subcategories	Based On*
Analog Chorus	Legacy	BOSS CE-1
Tri Chorus	Legacy	Dytronics Tri-Stereo Chorus
Analog Flanger	Legacy	MXR Flanger
Jet Flanger	Legacy	A/DA Flanger
AC Flanger	Legacy	MXR Flanger
80A Flanger	Legacy	A/DA Flanger
Frequency Shift	Legacy	Line 6 Original
Ring Modulator	Legacy	Line 6 Original
Rotary Drum	Legacy	Fender Vibratone
Rotary Drum/Horn	Legacy	Leslie 145
Tape Eater	Legacy	Line 6 Original
Warble-Matic	Legacy	Line 6 Original
Random S&H	Legacy	Line 6 Original
Sweeper	Legacy	Line 6 Original

Delay Models

Model	Subcategories	Based On*
Simple Delay	Mono, Stereo	Line 6 Original
Mod/Chorus Echo	Mono, Stereo	Line 6 Original
Dual Delay	Stereo	Line 6 Original
Multitap 4	Stereo	Line 6 Original
Multitap 6	Stereo	Line 6 Original
Ping Pong	Stereo	Line 6 Original
Sweep Echo	Mono, Stereo	Line 6 Original
Ducked Delay	Mono, Stereo	TC Electronic® 2290
Reverse Delay	Mono, Stereo	Line 6 Original
Vintage Digital	Mono, Stereo	Line 6 Original
Vintage Swell	Mono, Stereo	Line 6 Original
Pitch Echo	Mono, Stereo	Line 6 Original
Transistor Tape	Mono, Stereo	Maestro Echoplex® EP-3
Cosmos Echo	Mono, Stereo	Roland RE-201 Space Echo®

Model	Subcategories	Based On*
Harmony Delay	Stereo	Line 6 Original
Bucket Brigade	Mono, Stereo	BOSS DM-2
Adriatic Delay	Mono, Stereo	BOSS DM-2 w/ Adrian Mod
Adriatic Swell	Mono, Stereo	Line 6 Original
Elephant Man	Mono, Stereo	Electro-Harmonix Deluxe Memory Man
Multi Pass	Mono, Stereo	Line 6 Original
Heliosphere	Mono, Stereo	Line 6 Original
Poly Sustain †	Mono	Line 6 Original
Glitch Delay	Mono, Stereo	Line 6 Original
Euclidean Delay	Mono, Stereo	Line 6 Original
ADT	Mono, Stereo	Line 6 Original
Crisscross	Mono, Stereo	Line 6 Original
Tesselator	Mono, Stereo	Line 6 Original
Ratchet	Mono, Stereo	Line 6 Original
Ping Pong	Legacy	TC Electronic 2290
Dynamic	Legacy	TC Electronic 2290
Stereo	Legacy	Line 6 Original
Digital	Legacy	Line 6 Original
Dig w/Mod	Legacy	Line 6 Original
Reverse	Legacy	Line 6 Original
Lo Res	Legacy	Line 6 Original
Tube Echo	Legacy	Maestro Echoplex EP-1
Tape Echo	Legacy	Maestro Echoplex EP-3
Sweep Echo	Legacy	Line 6 Original
Echo Platter	Legacy	Binson® EchoRec®
Analog Echo	Legacy	BOSS DM-2
Analog w/Mod	Legacy	Electro-Harmonix Deluxe Memory Man
Auto-Volume Echo	Legacy	Line 6 Original
Multi-Head	Legacy	Roland RE-101 Space Echo
Bubble Echo	Legacy	Line 6 Original
Phaze Eko	Legacy	Line 6 Original

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† The Poly Sustain model utilizes polyphonic pitch shifting and, therefore, is extremely DSP-intensive—possibly utilizing up to half of all DSP available for Path 1 or Path 2!

Reverb Models

Model	Subcategory	Based On*
Dynamic Hall	Mono, Stereo	Line 6 Original
Dynamic Plate	Mono, Stereo	Line 6 Original
Dynamic Room	Mono, Stereo	Line 6 Original
Dynamic Ambience	Mono, Stereo	Line 6 Original
Dynamic Bloom	Mono, Stereo	Line 6 Original
Shimmer	Mono, Stereo	Line 6 Original
Hot Springs	Mono, Stereo	Line 6 Original
Nonlinear	Mono, Stereo	Line 6 Original
Glitz	Mono, Stereo	Line 6 Original
Ganymede	Mono, Stereo	Line 6 Original
Searchlights	Mono, Stereo	Line 6 Original
Plateaux	Mono, Stereo	Line 6 Original
Double Tank	Mono, Stereo	Line 6 Original
Plate	Legacy	Line 6 Original
Room	Legacy	Line 6 Original
Chamber	Legacy	Line 6 Original
Hall	Legacy	Line 6 Original
Echo	Legacy	Line 6 Original
Tile	Legacy	Line 6 Original
Cave	Legacy	Line 6 Original
Ducking	Legacy	Line 6 Original
Octo	Legacy	Line 6 Original
'63 Spring	Legacy	Line 6 Original
Spring	Legacy	Line 6 Original
Particle Verb	Legacy	Line 6 Original

Pitch/Synth Models

Model	Subcategories	Based On*
Pitch Wham	Mono, Stereo	Digitech Whammy®
Twin Harmony	Mono, Stereo	Eventide® H3000
Simple Pitch	Mono, Stereo	Line 6 Original
Dual Pitch	Mono, Stereo	Line 6 Original
Boctaver	Mono/Stereo	Boss OC-2 Octaver
3 OSC Synth	Stereo	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
3 Note Generator ‡	Mono, Stereo	Line 6 Original
4 OSC Generator ‡	Mono, Stereo	Line 6 Original
Bass Octaver	Legacy	EBS® OctaBass
Smart Harmony	Legacy	Eventide H3000
Octi Synth	Legacy	Line 6 Original
Synth O Matic	Legacy	Line 6 Original
Attack Synth	Legacy	Korg® X911 Guitar Synth
Synth String	Legacy	Roland GR700 Guitar Synth
Growler	Legacy	Line 6 Original
Buzz Wave	Legacy	Line 6 Original
Rez Synth	Legacy	Line 6 Original
Seismik Synth	Legacy	Line 6 Original
Analog Synth	Legacy	Line 6 Original
Synth Lead	Legacy	Line 6 Original
String Theory	Legacy	Line 6 Original
Synth FX	Legacy	Line 6 Original
Saturn 5 Ring Mod	Legacy	Line 6 Original
Synth Harmony	Legacy	Line 6 Original
Double Bass	Legacy	Line 6 Original

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† These indicated Pitch/Synth models utilize polyphonic pitch shifting and, therefore, are extremely DSP-intensive. Each one might take up half of all DSP available for Path 1 or Path 2!

‡ The 3 Note Generator and 4 OSC Generator models make sound without any instrument connected, therefore, their blocks are turned off by default. Be sure to first set your Helix volume to low, and press BYPASS to turn them on.

Filter Models

Model	Subcategories	Based On*
Mutant Filter	Mono, Stereo	Musitronics Mu-Tron III
Mystery Filter	Mono, Stereo	Korg A3
Autofilter	Mono, Stereo	Line 6 Original
Asheville Pattn	Mono, Stereo	Moog® Moogerfooger® MF-105M MuRF Filter
Voice Box	Legacy	Line 6 Original
V Tron	Legacy	Musitronics® Mu-Tron III
Q Filter	Legacy	Line 6 Original
Seeker	Legacy	Z Vex Seek Wah
Obi Wah	Legacy	Oberheim® voltage-controlled S&H filter
Tron Up	Legacy	Musitronics Mu-Tron III (up position)
Tron Down	Legacy	Musitronics Mu-Tron III (down position)
Throbber	Legacy	Electrix® Filter Factory
Slow Filter	Legacy	Line 6 Original
Spin Cycle	Legacy	Craig Anderton's Wah/Anti-Wah
Comet Trails	Legacy	Line 6 Original

Wah Models

Model	Subcategories	Based On*
UK Wah 846	Mono, Stereo	Vox V846
Teardrop 310	Mono, Stereo	Dunlop® Cry Baby® Fasel model 310
Fassel	Mono, Stereo	Dunlop Cry Baby Super
Weeper	Mono, Stereo	Arbiter Cry Baby
Chrome	Mono, Stereo	Vox V847
Chrome Custom	Mono, Stereo	Modded Vox V847
Throaty	Mono, Stereo	RMC® Real McCoy 1
Vetta Wah	Mono, Stereo	Line 6 Original
Colorful	Mono, Stereo	Colorsound Wah-fuzz
Conductor	Mono, Stereo	Maestro Boomerang
Teardrop Bass Q	Mono, Stereo	Modified Dunlop 105Q

Volume/Pan Models

Model	Subcategories	Based On*
Volume Pedal	Mono, Stereo	Line 6 Original
Gain	Mono, Stereo	Line 6 Original
Pan	Stereo	Line 6 Original
Stereo Width	Stereo	Line 6 Original
Stereo Imager	Stereo	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.

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Parameter	Description
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 repeats 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).
Spread	Spread differs slightly among stereo delay effects. For most delays, 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 for 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 pedals' internal signal paths exhibit a bit of grit, especially when placed after a high-gain amp block. 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.
High Cut	
Mix	Blends the effected "wet" signal vs. the "dry" signal passed through the block. When set to 0%, the path bypasses the effect completely. When set to 100%, the entire path is fed through the effect, and no dry thru signal is heard.
Level	Adjusts the overall output level of the effects block. Be careful not to boost this parameter too high on multiple blocks, as digital clipping could occur (also see " Block Level Indicators and Meters "). You should typically leave this at 0.0dB for most blocks. Where the original pedal's level or volume knob behavior doesn't really apply to dB values, 0.0-10 may be used.
Trails	<i>Trails Off:</i> Any delay repeats or reverb decays are instantly muted when the block is bypassed. <i>Trails On:</i> Any delay repeats or reverb decays continue to decay naturally when the block is bypassed, or a different snapshot is selected.

Amp+Cab

Amp+Cab blocks are convenient in that when you select an Amp model, its matching Cab model is automatically loaded.

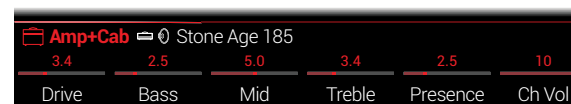


NOTE: As of Helix firmware version 3.50, all Amp+Cab blocks include new IR-based Cab models! Please see "[Speaker Cabinet Models](#)" on [page 36](#) for more info.

To change the amp model in an Amp+Cab block, press <PAGE until the amp icon is white and turn the joystick. To change the cab model, press PAGE> until the cab icon is white and turn the joystick.



The first page of Amp+Cab parameters is called the *tonestack*, and represents the knobs you would see on the real amp's panel:



SHORTCUTS: Press to quickly select the Amp+Cab, Amp, or Preamp block and access its tonestack parameters (Gain, Bass, Mid, Treble, etc.). If a preset has more than one of these blocks, press repeatedly to cycle through all tonestacks.

While the Model List is open, press to jump to highlight the Amp category without having to scroll down to it.

Amp and Preamp Models

Model	Subcategory	Based On*
WhoWatt 100	Guitar	Hiwatt® DR-103 Brill
Soup Pro	Guitar	Supro® S6616
Stone Age 185	Guitar	Gibson® EH-185
Voltage Queen	Guitar	Victoria Vintage Queen
Tweed Blues Nrm	Guitar	Fender Bassman® (normal channel)
Tweed Blues Brt	Guitar	Fender Bassman (bright channel)
Fullerton Nrm	Guitar	Fender 5C3 Tweed Deluxe (normal channel)

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Model	Subcategory	Based On*
Fullerton Brt	Guitar	Fender 5C3 Tweed Deluxe (bright channel)
Fullerton Jump	Guitar	Fender 5C3 Tweed Deluxe (jumped channels)
GrammaticoLG Nrm	Guitar	Grammatico LaGrange (normal channel)
GrammaticoLG Brt	Guitar	Grammatico LaGrange (bright channel)
GrammaticoLG Jmp	Guitar	Grammatico LaGrange (jumped channels)
US Small Tweed	Guitar	Fender Champ®
US Princess	Guitar	Fender Princeton Reverb®
US Super Nrm	Guitar	Fender Super Reverb® (normal channel)
US Super Vib	Guitar	Fender Super Reverb (vibrato channel)
US Deluxe Nrm	Guitar	Fender Deluxe Reverb® (normal channel)
US Deluxe Vib	Guitar	Fender Deluxe Reverb (vibrato channel)
US Double Nrm	Guitar	Fender Twin Reverb® (normal channel)
US Double Vib	Guitar	Fender Twin Reverb (vibrato channel)
Mail Order Twin	Guitar	Silvertone® 1484
Divided Duo	Guitar	÷13 JRT 9/15
Interstate Zed	Guitar	Dr Z® Route 66
Derailed Ingrid	Guitar	Trainwreck® Circuits Express
Grammatico GSG	Guitar	Grammatico GSG100
Jazz Rivet 120	Guitar	Roland JC-120 Jazz Chorus
Essex A15	Guitar	Vox AC-15
Essex A30	Guitar	Vox AC-30 with top boost
A30 Fawn Nrm	Guitar	Vox AC-30 Fawn (normal channel)
A30 Fawn Brt	Guitar	Vox AC-30 Fawn (bright channel)
Matchstick Ch1	Guitar	Matchless® DC30 (channel 1)
Matchstick Ch2	Guitar	Matchless DC30 (channel 2)
Matchstick Jump	Guitar	Matchless DC30 (jumped)
Mandarin 80	Guitar	Orange® OR80
Mandarin Rocker	Guitar	Orange Rockerverb 100 MkIII (dirty channel)
MOO)))N T Nrm	Guitar	Sunn® Model T (normal channel)
MOO)))N T Brt	Guitar	Sunn Model T (brite channel)
MOO)))N T Jump	Guitar	Sunn Model T (jumped channels)

Model	Subcategory	Based On*
Brit J45 Nrm	Guitar	Marshall® JTM-45 (normal channel)
Brit J45 Brt	Guitar	Marshall JTM-45 (bright channel)
Brit Trem Nrm	Guitar	Marshall JTM-50 (normal channel)
Brit Trem Brt	Guitar	Marshall JTM-50 (bright channel)
Brit Trem Jump	Guitar	Marshall JTM-50 (jumped)
Brit Plexi Nrm	Guitar	Marshall Super Lead 100 (normal channel)
Brit Plexi Brt	Guitar	Marshall Super Lead 100 (bright channel)
Brit Plexi Jump	Guitar	Marshall Super Lead 100 (jumped)
Brit P75 Nrm	Guitar	Park® 75 (normal channel)
Brit P75 Brt	Guitar	Park 75 (bright channel)
Brit 2203	Guitar	Marshall JCM-800, 100W, 2203
Brit 2204	Guitar	Marshall JCM-800, 50W, 2204
Placater Clean	Guitar	Friedman BE-100 (clean channel)
Placater Dirty	Guitar	Friedman BE-100 (BE/HBE channel)
Cartographer	Guitar	Ben Adrian Cartographer
German Xtra Blue	Guitar	Bogner® Ecstasy 101B, EL34 (blue channel)
German Xtra Red	Guitar	Bogner Ecstasy 101B, EL34 (red channel)
German Mahadeva	Guitar	Bogner Shiva
German Ubersonic	Guitar	Bogner Überschall®
Cali Texas Ch1	Guitar	MESA/Boogie Lone Star® (clean channel)
Cali Texas Ch2	Guitar	MESA/Boogie Lone Star (drive channel)
Cali IV Rhythm 1	Guitar	MESA/Boogie Mark IV (channel I)
Cali IV Rhythm 2	Guitar	MESA/Boogie Mark IV (channel II)
Cali IV Lead	Guitar	MESA/Boogie Mark IV (lead channel)
Cali Rectifire	Guitar	MESA/Boogie Dual Rectifier®
Archetype Clean	Guitar	Paul Reed Smith® Archon® (clean channel)
Archetype Lead	Guitar	Paul Reed Smith Archon (lead channel)
ANGL Meteor	Guitar	ENGL® Fireball 100
Solo Lead Clean	Guitar	Soldano SLO-100 (clean channel)
Solo Lead Crunch	Guitar	Soldano SLO-100 (crunch channel)
Solo Lead OD	Guitar	Soldano SLO-100 (overdrive channel)

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Model	Subcategory	Based On*
EV Panama Blue	Guitar	EVH® 5150III 100, 6L6 (blue channel)
EV Panama Red	Guitar	EVH 5150III 100, 6L6 (red channel)
PV Panama	Guitar	Peavey® 5150®
PV Vitriol Clean	Guitar	Peavey Invector (clean channel)
PV Vitriol Crunch	Guitar	Peavey Invector (crunch channel)
PV Vitriol Lead	Guitar	Peavey Invector (lead channel)
Revv Gen Purple	Guitar	Revv® Generator 120 (purple/gain ch. 3)
Revv Gen Red	Guitar	Revv Generator 120 (red/high gain ch. 4)
Das Benzin Mega	Guitar	Diezel VH4 (mega channel)
Das Benzin Lead	Guitar	Diezel VH4 (lead channel)
Line 6 Clarity	Guitar	Line 6 Original
Line 6 Aristocrat	Guitar	Line 6 Original
Line 6 Carillon	Guitar	Line 6 Original
Line 6 Voltage	Guitar	Line 6 Original
Line 6 Kinetic	Guitar	Line 6 Original
Line 6 Oblivion	Guitar	Line 6 Original
Line 6 Ventoux	Guitar	Line 6 Original
Line 6 Elmsley	Guitar	Line 6 Original
Line 6 Elektrik	Guitar	Line 6 Original
Line 6 Doom	Guitar	Line 6 Original
Line 6 Epic	Guitar	Line 6 Original
Line 6 2204 Mod	Guitar	Line 6 Original
Line 6 Fatality	Guitar	Line 6 Original
Line 6 Litigator	Guitar	Line 6 Original
Line 6 Badonk	Guitar	Line 6 Original
Ampeg B-15NF	Bass	Ampeg B-15NF Portaflex®
Ampeg SVT Nrm	Bass	Ampeg SVT® (normal channel)
Ampeg SVT Brt	Bass	Ampeg SVT (bright channel)
Ampeg SVT-4 PRO	Bass	Ampeg SVT-4 PRO
US Dripman Nrm	Bass	Fender Bassman (Silverface)
Woody Blue	Bass	Acoustic® 360

Model	Subcategory	Based On*
Agua Sledge	Bass	Aguilar® Tone Hammer
Agua 51	Bass	Aguilar DB51
Mandarin Bass 200	Bass	Orange AD200 MkIII
Cali Bass	Bass	MESA/Boogie M9 Carbine
Cali 400 Ch1	Bass	MESA/Boogie Bass 400+ (channel 1)
Cali 400 Ch2	Bass	MESA/Boogie Bass 400+ (channel 2)
G Cougar 800	Bass	Gallien-Krueger® GK 800RB
Del Sol 300	Bass	Sunn® Coliseum 300
Busy One Ch1	Bass	Pearce BC-1 preamp (channel 1)
Busy One Ch2	Bass	Pearce BC-1 preamp (channel 2)
Busy One Jump	Bass	Pearce BC-1 preamp (jumped)
Studio Tube Pre	Preamp > Mic	Requisite Y7 mic preamp

Common Amp Settings

Parameter	Description
Master	Adjusts the amount of power amp distortion. This parameter is highly interactive with all other power amp parameters—the lower the Master is set, the less effect the other controls will have.
Sag	Lower Sag values offer “tighter” responsiveness for metal and djent playing; higher values provide more touch dynamics & sustain for blues and classic rock riffs.
Hum Ripple	Controls how much heater hum and AC ripple interacts with your tone. At higher settings, things get freaky.
Bias	Changes the Bias of the power tubes. Lower values achieve a “colder” Class AB biasing. At maximum, the amp is operating in Class A.
Bias X	Determines how the power amp tubes’ voicing reacts when pushed hard. Set low for a tighter feel. Set high for more tube compression. This parameter is highly reactive with the Drive and Master settings.

Tonestack and deeper amp parameters found on subsequent pages may differ depending on the amp model selected.

Amp

Amp blocks are identical to Amp+Cab blocks, except they contain no matched cab model.



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Preamp

We've also included a complete set of Preamp versions of each Amp model, which provide the tone of just the preamp stage of the amp—recommended when feeding Helix into an external amplifier (either via 1/4" to your traditional amp or via L6 LINK to a Line 6 Powercab Plus, DT25, or DT50).



Preamp blocks require less DSP than a full Amp block.

Speaker Cabinet Models

As of Helix firmware v3.50, there are both IR-based **Cab** and **Legacy** type speaker cabinet models to choose from (more on these below). You can also choose between two subcategories of Cab blocks—**Single** and **Dual**. Single Cab blocks are mono. Dual Cab blocks offer stereo output, with the ability to utilize two separate Cab & Mic models, independent parameter settings, and optionally be panned left and right. Not surprisingly, Dual Cabs take twice as much DSP as single Cabs.



TIP: You can optionally utilize a Single or Dual IR block instead of a Cab block to add speaker cabinet emulation to your preset—see ["Impulse Response \(IR\)" on page 40](#).

Don't worry—all the pre-v3.50 factory Cab models are all still included, now renamed as **Legacy Cabs** and in their own menu category, as covered in ["Legacy Cab Models" on page 39](#). Your pre-v3.50 presets will automatically load and utilize the Legacy Cabs, but you can certainly try out the new cabs in all your new and old presets! The **Amp+Cab** type blocks also now utilize the new Cabs. Note that the new Cab and IR models utilize significantly less DSP power than the older Legacy Cabs.

To change the first cab model in a Cab > Dual block, press <PAGE until the left cab icon is white and turn the joystick. To change the second cab, press PAGE> until the right cab icon is white and turn the joystick.



TIP: Dual Cabs can optionally be "Linked" as a global option (see the **Link Dual Cabs** option within ["Global Settings > Preferences" on page 69](#)). When set to "On," selecting a cab model for the Cab A slot automatically selects the same Cab model for the Cab B slot within the block. You can also access this Link option within the HX Edit application.

Cab Models

The following table lists the new IR-Based Cab models available within the Model Browser's **Cab - Single** and **Dual**, and **Amp+Cab - Guitar** and **Bass** categories.

Model	Subcategories	Captured From*
Soup Pro Ellipse	Single, Dual	1x6x9" Supro, S6616
1x8 Small Tweed	Single, Dual	1x8" Fender Champ
1x10 US Princess	Single, Dual	1x10" Fender Princeton Reverb
1x12 Fullerton	Single, Dual	1x12" Fender 5C3 Tweed Deluxe
1x12 Grammatico	Single, Dual	1x12" Grammatico LaGrange
1x12 US Deluxe	Single, Dual	1x12" Fender Deluxe, Oxford
1x12 Open Cast	Single, Dual	1x12" Custom open-back, EVM12L
1x12 Open Cream	Single, Dual	1x12" Custom open-back, G12M-65
1x12 Cali EXT	Single, Dual	1x12" MESA/Boogie Extension, EVM12L
1x12 Cali IV	Single, Dual	1x12" MESA/Boogie MkIV Combo
1x12 Blue Bell	Single, Dual	1x12" Vox AC-15, Blue Alnico
2x12 Blue Bell	Single, Dual	2x12" Vox AC-30 Fawn, Blue Alnico
2x12 Silver Bell	Single, Dual	2x12" Vox AC-30TB, Silver Alnico
2x12 Match H30	Single, Dual	2x12" Matchless DC30, Custom G12H-30
2x12 Match G25	Single, Dual	2x12" Matchless DC30, Custom G12M-35
2x12 Double C12N	Single, Dual	2x12" Fender Twin, C12N
2x12 Interstate	Single, Dual	2x12" Dr. Z Z Best, V30
2x12 Jazz Rivet	Single, Dual	2x12" Roland JC-120
2x12 Mail C12Q	Single, Dual	2x12" Silvertone 1484, Jensen C12Q
2x12 Mandarin30	Single, Dual	2x12" Orange, V30
4x10 Tweed P10R	Single, Dual	4x10" Fender Bassman, P10R
4x10 US Super	Single, Dual	4x10" Fender Super Reverb, CTS® alnico
4x12 WhoWatt	Single, Dual	4x12" Hiwatt AP Fane®
4x12 Greenback20	Single, Dual	4x12" Marshall Basketweave G12M-20
4x12 Greenback25	Single, Dual	4x12" Marshall Basketweave G12M-25
4x12 Greenback30	Single, Dual	4x12" Marshall Basketweave G12H-30
4x12 1960A T75	Single, Dual	4x12" Marshall 1960A, G12T-75
4x12 Blackback30	Single, Dual	4x12" Park 75, G12H-30

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Model	Subcategories	Captured From*
4x12 Brit V30	Single, Dual	4x12" Marshall 1960AV, V30
4x12 Cali V30	Single, Dual	4x12" MESA/Boogie 4FB, V30
4x12 Mandarin EM	Single, Dual	4x12" Orange, Eminence®
4x12 MOO)))N T75	Single, Dual	4x12" Sunn, G12T-75
4x12 Cartog Guv	Single, Dual	4x12" Modified Lee Jackson, Eminence Governor
4x12 Cartog C90	Single, Dual	4x12" Modified Lee Jackson, Mesa C90
4x12 Uber T75	Single, Dual	4x12" Bogner Uberkab, G12T-75
4x12 Uber V30	Single, Dual	4x12" Bogner Uberkab, V30
4x12 XXL V30	Single, Dual	4x12" ENGL XXL, V30
4x12 SoloLead EM	Single, Dual	4x12" Soldano, Eminence 12-5875
1x12 Epicenter	Single, Dual	1x12" Epifani® Ultralight
1x15 Ampeg B-15	Single, Dual	1x15" Ampeg B-15
2x15 Brute	Single, Dual	2x15" MESA/Boogie, EV
2x15 US Dripman	Single, Dual	2x15" Fender Bassman, JBL® D130
4x10 Garden	Single, Dual	4x10" Eden D410XLT
4x10 Ampeg Pro	Single, Dual	4x10" Ampeg PR-410HLF
6x10 Cali Power	Single, Dual	6x10" MESA/Boogie PowerHouse®
8x10 SVT AV	Single, Dual	8x10" Ampeg SVT-810AV


Microphone Models

Model	Captured From*
- GUITAR -	
57 Dynamic	Shure® SM57
421 Dynamic	Sennheiser MD 421-U
7 Dynamic	Shure SM7B
906 Dynamic	Sennheiser e906
30 Dynamic	Heil Sound® PR 30
121 Ribbon	Royer® R-121
160 Ribbon	Beyerdynamic® M 160
4038 Ribbon	Coles 4038
84 Ribbon	AEA R84
414 Cond	AKG® C414XLS
47 Cond FET	Neumann® U47 FET
67 Cond	Neumann U67
- BASS -	
57 Dynamic	Shure SM57
421 Dynamic	Sennheiser MD 421-U
7 Dynamic	Shure SM7
88 Dynamic	Beyerdynamic M88TG
52 Dynamic	Shure Beta 52A
112 Dynamic	AKG® D112
D6 Dynamic	Audix® D6
40 Dynamic	Heil Sound PR 40
4038 Ribbon	Coles 4038
414 Cond	AKG C414XLS
47 Cond FET	Neumann U47 FET
67 Cond	Neumann U67

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Editing Cab Options

The following table lists the parameters you'll see available when a **Cab > Single** or **Cab > Dual** model is selected from the Model Browser. You'll also see these parameters when editing the Cab on an **Amp+Cab - Guitar** or **Bass** block. When using a Dual Cab you'll see this same set parameters, as well as Pan and Delay parameters, for Cab A and Cab B, allowing you to adjust the Cabs individually.


 **TIP:** When connected to the Line 6 HX Edit application, a graphical interface is available in the app for editing any Cab block (shown below), allowing you to easily click and drag the microphone itself to adjust its Position and Distance! For a Dual Cab, you can drag the mic for either cab to edit its Position & Distance. Please see the [HX Edit Pilot's Guide](#) for details.



The HX Edit app's Cab editing interface (Dual Cab block shown)

Single & Dual Cab Parameters

Parameter	Description
Single & Dual Cab Parameters: The following are available for both Single & Dual Cabs	
Mic [†]	Selects one of the available Guitar or Bass cab mic models.
Distance [†]	Sets the distance (1 inch to 12 inches) between the mic and the speaker.
Position [†]	Sets the left/right position of the mic, from the center to the edge of the speaker cone.
Angle [†]	Selects the angle of the mic in relation to the speaker: 0 degrees (on-axis) or 45 degrees (off-axis).
Low Cut	Filters a portion of the cab's bass (from Off up to 500 Hz) and/or treble (from Off down to 500 Hz) frequencies, which can help remove rumble and/or high-end harshness.
High Cut	
Level	Adjusts the overall output level of the Cab.
Dual Cab Parameters: The following are available for Dual Cabs only	
Pan	Adjusts the selected Cab's left/right stereo output balance. TIP: With a Dual Cab block, try using two different Cab models and panning each oppositely for a larger stereo effect.
Delay	Delays the selected Cab up to 50 ms. Use to delay the output of one Cab model to simulate a "double tracking" effect—most effective when the two Cab models are also panned opposite. The "Auto" option automatically applies a delay amount to approximate the selected cab's "Distance" parameter value. This results in a more accurate representation of the two cabs' mics blending together.

 ***NOTE:** These parameters are not available for Expression Pedal, Variax Knob, or MIDI CC Controller assignment.

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Legacy Cab Models

In addition to the preceding IR-based Cab Models, the following Legacy Cab Models are available within the **Cab - Single Legacy** and **Dual Legacy**, and **Amp+Cab - Guitar+Legacy** and **Bass+Legacy** categories (firmware v3.50 and later). All Cab models also include your choice of Legacy Mic model type used on the Cab, as well as several Mic settings (see the following list of Legacy Mic Models).

When selecting a Legacy Dual Cab, you can independently choose the specific cab and settings for each. Dual Cab blocks are stereo, with each of its two Cab models panned hard left and right.

Legacy Cab Models

Model	Subcategories	Based On*
Soup Pro Ellipse	Single, Dual Legacy	1 x 6x9" Supro S6616
1x8 Small Tweed	Single, Dual Legacy	1x8" Fender Champ
1x10 US Princess	Single, Dual Legacy	1x10" Fender Princeton Reverb
1x12 Field Coil	Single, Dual Legacy	1x12" Gibson EH185
1x12 Fullerton	Single, Dual Legacy	1x12" Fender 5C3 Tweed Deluxe
1x12 Grammatico	Single, Dual Legacy	1x12" Grammatico LaGrange
1x12 US Deluxe	Single, Dual Legacy	1x12" Fender Deluxe Oxford
1x12 US Princess	Single, Dual Legacy	1x12" Fender Princeton Reverb
1x12 Celest 12H	Single, Dual Legacy	1x12" ÷13 JRT 9/15 G12 H30
1x12 Blue Bell	Single, Dual Legacy	1x12" Vox AC-15 Blue
1x12 Lead 80	Single, Dual Legacy	1x12" Bogner Shiva CL80
1x12 Cali IV	Single, Dual Legacy	1x12" MESA/Boogie Mk IV
1x12 Cali Ext	Single, Dual Legacy	1x12" MESA/Boogie EVM12L
2x12 Double C12N	Single, Dual Legacy	2x12" Fender Twin C12N
2x12 Mail C12Q	Single, Dual Legacy	2x12" Silvertone 1484
2x12 Interstate	Single, Dual Legacy	2x12" Dr Z Z Best V30
2x12 Jazz Rivet	Single, Dual Legacy	2x12" Roland JC-120
2x12 Silver Bell	Single, Dual Legacy	2x12" Vox AC-30TB Silver
2x12 Blue Bell	Single, Dual Legacy	2x12" Vox AC-30 Fawn Blue
2x12 Match H30	Single, Dual Legacy	1x12" Matchless DC-30 G12H30
2x12 Match G25	Single, Dual Legacy	1x12" Matchless DC-30 Greenback 25
4x10 Tweed P10R	Single, Dual Legacy	4x10" Fender Bassman P10R

Model	Subcategories	Based On*
4x12 WhoWatt 100	Single, Dual Legacy	4x12" Hiwatt AP Fane
4x12 Mandarin EM	Single, Dual Legacy	4x12" Orange Eminence
4x12 Greenback25	Single, Dual Legacy	4x12" Marshall Basketweave G12 M25
4x12 Greenback20	Single, Dual Legacy	4x12" Marshall Basketweave G12 M20
4x12 Blackback30	Single, Dual Legacy	4x12" Park 75 G12 H30
4x12 1960 T75	Single, Dual Legacy	4x12" Marshall 1960 AT75
4x12 Uber V30	Single, Dual Legacy	4x12" Bogner Uberkab V30
4x12 Uber T75	Single, Dual Legacy	4x12" Bogner Uberkab T75
4x12 Cali V30	Single, Dual Legacy	4x12" MESA/Boogie 4FB V30
4x12 XXL V30	Single, Dual Legacy	4x12" ENGL XXL V30
4x12 SoloLead EM	Single, Dual Legacy	4x12" Soldano
1x12 Del Sol	Single, Dual Legacy	1x12" Sunn Coliseum
1x15 Ampeg B-15	Single, Dual Legacy	1x15" Ampeg B-15
1x18 Del Sol	Single, Dual Legacy	1x18" Sunn Coliseum
1x18 Woody Blue	Single, Dual Legacy	1x18" Acoustic® 360
2x15 Brute	Single, Dual Legacy	2x15" MESA/Boogie 2x15 EV
4x10 Ampeg HLF	Single, Dual Legacy	4x10" Ampeg SVT 410HLF
6x10 Cali Power	Single, Dual Legacy	6x10" MESA/Boogie Power House
8x10 Ampeg SVT E	Single, Dual Legacy	8x10" Ampeg SVT

Legacy Microphone Models

To follow is the list of Mic Models offered for all Legacy Cabs.

Model	Based On*
57 Dynamic	Shure SM57
409 Dynamic	Sennheiser MD 409
421 Dynamic	Sennheiser MD 421-U
30 Dynamic	Heil Sound PR 30
20 Dynamic	Electro-Voice® RE20
121 Ribbon	Royer R-121
160 Ribbon	Beyerdynamic M 160

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Model	Based On*
4038 Ribbon	Coles 4038
414 Cond	AKG C414 TLII
84 Cond	Neumann KM84
67 Cond	Neumann U67
87 Cond	Neumann U87
47 Cond	Neumann U47
112 Dynamic	AKG D112
12 Dynamic	AKG D12
7 Dynamic	Shure SM7

Editing Legacy Cab & Mic Settings

To follow are the parameters available when a **Cab - Single Legacy** or **Dual Legacy**, or **Amp+Cab - Guitar+Legacy** or **Bass+Legacy** block is selected. When using a Dual Cab, you'll see two sets of these parameters, allowing you to adjust Cabs A and B individually.

Legacy Cab Parameters

Parameter	Description
Mic	Selects one of the 16 available mic models.
Distance	Sets the distance (1 inch to 12 inches) between the mic and the speaker grille.
Low Cut High Cut	Filters a portion of the cab's bass and/or treble frequencies, which can help remove rumble and/or high-end harshness.
EarlyReflec	Sets the amount of "early reflections." Higher values add more reflective room sound to your Amp tone.
Level	Adjusts the overall output level of the Cab.

Impulse Response (IR)

Impulse Responses are mathematical functions representing the sonic measurements of specific audio systems (for Helix, speaker cabinet, and microphone combinations). Helix can load and store up to 128 custom or third-party IRs at a time.



Single and Dual IR Blocks

From the IR menu, you can select either a mono **Single IR** block type or a stereo **Dual IR** block type.

- A Single IR block allows you to choose either the 1024-Sample or 2048-Sample higher resolution IR type. Optionally, you can add up to two Single 1024 IR blocks on a signal path (such as one each within the A & B parallel paths).*
- A Dual IR block provides the ability to load two of your IRs into one block, which can be independently set with different parameter settings, delayed, and panned as desired. You can add one Dual IR block max. per signal path.*



***NOTE:** The maximum IR blocks per signal path is also combined with the v3.50 Cab, Dual Cab, and Amp+Cab block types—see ["Dynamic DSP" on page 22](#).

IR Block Parameters

Individual IR Parameters - The following are available for an IR block. You'll see two sets of these parameters in a Dual IR block—one set for each of the block's "A" and "B" IRs.

Parameter	Description
IR Select	Loads the IR index 1-128 from the IR Library—see the following section.
Low Cut High Cut	Filters a portion of the IR block's bass/treble frequencies, which can help remove rumble and/or high-end harshness.
Mix	Adjusts the balance of dry and wet (IR processed) signals. 0% = completely dry, and 100% = completely wet.
Level	Adjusts the overall output level of the IR.
Dual IR Block Parameters - The following are additionally available for any Dual IR block.	
Pan	Pan the output of each IR independently up to 100% Left or 100% Right.
Polarity	Sets the polarity (Normal or Inverted) for either IR. If you encounter audible phasing, try setting one IR's Polarity to Inverted.

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Parameter	Description
Dual IR Block "Both" Parameters - The following are applied to both IRs in a Dual IR block.	
Delay	Delays either the "A" or "B" IR up to 50 ms. You can use this to correct minor phasing issues between the blocks' IRs (as an alternative to using Polarity), or to delay the output of one IR to simulate a "double tracking" effect—most effective when the two IRs are also panned opposite.
Mix	Adjusts the balance of dry and wet (IR processed) signals for the entire Dual IR block. 0% = completely dry, and 100% = completely wet.

IR Formats

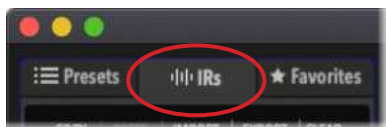
For all Helix family devices, as well as Helix Native plugin, the following IR file types are supported.

- **Helix Impulse Response (.hir)** - This is the proprietary Line 6 IR file format. All IRs purchased through the Line 6 Marketplace are of this file type—see ["Marketplace" on page 6](#).
- **WAV (.wav)** - Most IR producers and vendors typically offer IRs in the .wav format. It is possible to import a mono or stereo .wav file IR, regardless of its bit depth, length, or sample rate frequency. Upon import, IR .wav files are automatically converted to a 48kHz sample rate, 32-bit, mono, and 2,048 sample length for Helix. You can use the **HX Edit** app's Preferences to set the preferred behavior for importing Stereo WAV IRs (import the left or right channel data of the file, or a mix of both).

Loading IRs into Helix

Loading Impulse Response files into Helix requires connecting to the HX Edit application in your Mac or Windows computer. The HX Edit application is available as a free download from line6.com/software.

1. **Connect Helix to your computer via USB and open the HX Edit application.**
2. **Click the IRs tab.**



3. **Drag one or more IR files from the desktop or any Finder window directly into the HX Edit application's Impulses list (or use the HX Edit IR - Import command).**

The HX Edit app updates the Helix hardware's IR list automatically. Helix can load and store up to 128 IRs at a time.

Loading an IR in an IR Block

Once you've imported IR files into Helix (see the previous section), you can then put them to use by adding one or more IR blocks into your tone. It is recommended to use an Amp block preceding an IR block (rather than an Amp+Cab type block).

1. **Move the joystick knob to select an empty block location just to the right of your Amp block on the signal path.**
2. **Push the joystick knob and turn it to select the IR category. You can choose either a Single IR, for mono operation, or a Dual IR.**

NOTE: When choosing a Single IR, you may optionally choose the higher fidelity 2048-sample IR (there is a max. limit of one 2048-sample IR block per Path, or two 1024-sample IR blocks per path).

3. **Turn Knob 1 (IR Select) to choose the IR index (1~128) to utilize the preferred IR file within your IR library.**

Use Knobs 2~5 to fine tune the IR settings to taste—see below.

If you've selected a Dual IR, you can repeat this step using the second page of options to independently select another IR and adjust its settings.

TIP: Optionally, you can create a Snapshot assignment (see ["Using Snapshots" on page 50](#)) on the IR Select parameter, which then allows you to change between different IRs within the block per snapshot!

IR File Reference

Once an IR block is configured to utilize an IR index slot that includes an imported IR (.wav or .hir) file, and the preset then saved, the preset creates a "reference signature" to the imported IR from its file name. Likewise, if you save your IR block as a Favorite (see ["Adding a Block to Favorites" on page 17](#)) or set the IR block's current settings as the User Model Defaults (see ["Saving a Model's User Default Settings" on page 18](#)), the IR block also creates a reference to the specific IR file within your IR library. Therefore, if you re-order IRs within the IR library list, your preset (or IR Favorite or User Model Default block) will still intelligently reference the originally associated IR file, even if it now resides in a different IR Library index location. This also makes it easy to share your presets with friends since they can then insert the same IR file in any slot within their Helix IR library, and the preset will find it. Please also refer to the [HX Edit Pilot's Guide](#) for additional info regarding the use of IRs.