



POWERCAB FAMILY

POWERCAB 112

POWERCAB 112 PLUS

POWERCAB 212 PLUS

PILOT'S GUIDE ►

Contents




Specifications	3	Impulse Responses	16
Overview	4	Powercab Edit Software	16
Background	4	USB Audio	16
Speakers	4	ASIO Driver (Windows only).....	16
Amplifier.....	4	USB Audio Modes.....	17
Features.....	5	Global Settings	17
Powercab 112 Plus & 212 Plus - Top Panel Controls	6	Input 2 Monitor Mode	19
Powercab 112 Plus & 212 Plus - Rear Panel Controls	7	Input 2/Aux USB Mode	19
Powercab 112 - Rear Panel Controls	8	Setup Examples	20
Speaker Models vs Cabinet Modeling	9	L6 LINK	23
Full Range, Flat Response and Cabinet Modeling/Impulse Response Methods	9	Powercab Remote using HELIX via L6 LINK.....	23
Amp-in-the-Room Speaker Modeling Method	10	L6 LINK Setup Examples.....	23
Powercab Speaker Models	10	AES/EBU	24
User Presets	12	MIDI	24
Preset Parameters	12	MIDI Program Changes.....	24
		MIDI CC.....	24

Please Note:

Line 6, the Line 6 logo, Powercab, Helix, POD, and POD Farm are trademarks or registered trademarks of Yamaha Guitar Group, Inc. in the U.S. and/or other jurisdictions. Apple, Mac, OS X, macOS, iPhone, iPad, and iTunes are trademarks of Apple Inc. registered in the U.S. and other countries. iOS is a trademark of Cisco, registered in the U.S. and other countries. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Windows is a registered trademark of Microsoft Corporation in the United States and/or other countries. YouTube is a trademark of Google, Inc.

SERIAL NO: _____

Specifications

POWERCAB SPECIFICATIONS			
Features	 Powercab 112	 Powercab 112 Plus	 Powercab 212 Plus
Wattage	250W RMS	250W RMS	500W RMS Total, Stereo Amplifier
Speaker Size	(1x) 12" Mono	(1x) 12" Mono	(2x) 12" Stereo/Dual Mono
Speaker Type	Ceramic Coaxial Custom by Eminence®	Ceramic Coaxial Custom by Eminence	Neodymium Coaxial Custom by Eminence
Compression Driver	(1x) Celestion® CDX 1-1010	(1x) Celestion CDX 1-1010	(2x) Celestion CDX 1-1010
Frequency Response	70Hz – 20kHz	70Hz – 20kHz	70Hz – 20kHz
Porting	Front	Front	Rear
Calculated Maximum Output	125dB (C) SPL @ 1m	125dB (C) SPL @ 1m	131dB (C) SPL @ 1m
XLR Direct Outs	1 (Mono)	1 (Mono)	2 (Stereo)
Combination Input Jacks	1	2	2
L6 LINK™ / AES/EBU	No	Input and Output	Input and Output
USB Audio Interface	No	Yes	Yes
User Presets	No	Yes (128)	Yes (128)
Display	No	2" LCD	2" LCD
Speaker Models	6	6 (+6 more with firmware v2.0)	12
User Impulse Response Support	No	Yes (48kHz, 24-bit, Mono, 2048-sample)	Yes (48kHz, 24-bit, 2048-sample Mono, 1024-sample Stereo)
MIDI I/O	No	Yes	Yes
Kick Stands	Yes	Yes	Yes
Weight	33 lb, 4 oz (15.08 kg)	35 lb, 8 oz (16.10 kg)	47 lb, 10 oz (21.59 kg)
Dimensions	22.3 x 18.2 x 12 (in) 567 x 462 x 305 (mm)	22.3 x 18.2 x 12 (in) 567 x 462 x 305 (mm)	28 x 21.1 x 12 (in) 711 x 537 x 305 (mm)

Overview

Congratulations on your purchase of the Line 6® Powercab® active guitar speaker system. This **Powercab Family Pilot's Guide** contains details of the Powercab system's features and functionality.

The Powercab is a first-of-its-kind, powered speaker unit, designed specifically for users of guitar amp modelers that desire a compact, lightweight amplification solution. This system provides either a flat response or the sound and feel of a traditional guitar cab. It is also designed to be intuitive and easy to setup and operate - whether you're on stage or in the studio.

Package includes: Powercab 112, Powercab 112 Plus, or Powercab 212 Plus, IEC power cable, Pilot's Guide, and amp-top Quick Start Guide.

Background

Typically, users of modeling gear have two choices when it comes to amplifying their signal while playing live or in the studio; plug into a traditional amplifier and utilize their modeler primarily for effects, or use speaker cabinet emulation and play through full-range monitor speakers. While this latter option may be simpler and provide a more direct translation to a recording or the front-of-house PA, it can often sound more like a recording, and lack the feel and response of standing in front of, and playing through, a traditional amplifier "in the room." The Powercab family of products aim to bridge this gap by allowing the user to choose which method they prefer depending on their needs.

Speakers

The Powercab family of products are active speaker cabinets with internal power amplifiers designed to faithfully reproduce a modeled guitar signal chain. Each speaker is comprised of a 12" low frequency driver, with a 1" high frequency compression driver mounted in a coaxial configuration. This speaker system has been carefully engineered with a very distinct concept in mind; to be very loud and consistent like a PA, but also provide the faster, mid-focused transient response and natural breakup of a guitar speaker. To achieve this goal, we've specified a custom driver, with components built by Eminence and Celestion to our exact specifications.

Amplifier

The Powercab family utilizes specially designed, Class D amplifiers. These amplifiers are designed specifically to provide the optimum wattage for the speakers to achieve the maximum throughput and efficiency. The passive cooling design means noisy cooling fans are not required, and there is no need for bulky heat sinks on the outside of the Powercab.

Features



Powercab 112

- 12" coaxial drivers, custom speakers by Eminence®, designed by Line 6
- High frequency compression driver by Celestion® CDX 1-1010
- Full-Range, Flat-Response (FRFR) Mode
- 6 "real feel" guitar Speaker Modes
- 250W RMS
- 125dB (C) SPL @ 1m
- Combination Line Input (balanced, 1/4" TRS and XLR)
- XLR Line Output
- High Pass Filter switch
- Ground Lift switch



Powercab 112 Plus (also includes)

- Additional combination Line Input
- L6 LINK / AES In/Out
- Daisy chain two units for stereo configuration
- MIDI In/Out
- 128 User Presets
- Bright, auto-dimming display
- USB Audio Interface functionality (stereo, low latency)
- Support for up to 128 User Impulse Responses
- 6 additional Speaker Models with firmware version 2.0





Powercab 212 Plus (also includes)

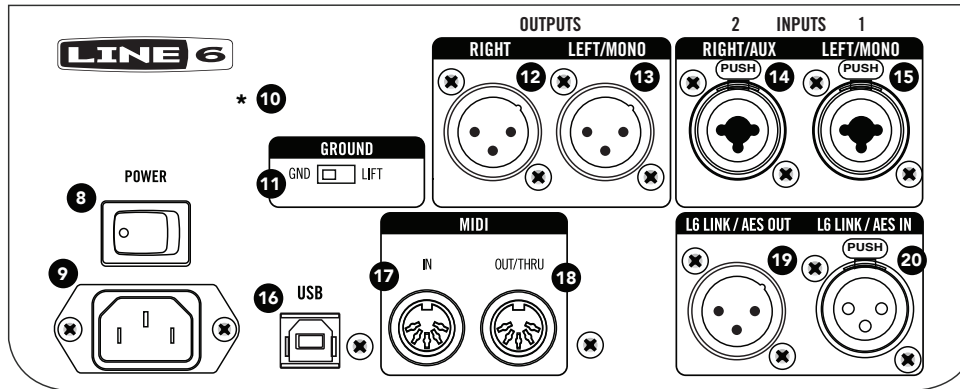
- 500W RMS total, stereo amplifier
- 131dB (C) SPL @ 1m
- Two 12" neodymium coaxial custom speakers by Eminence, designed by Line 6
- 2 high frequency compression drivers by Celestion CDX 1-1010
- Blend two Speaker Models or two User IRs simultaneously
- Ships with firmware version 2.0 for a total of 12 Speaker Models

Powercab 112 Plus & 212 Plus - Top Panel Controls






- 1. VOLUME Knob** - Controls the output level of the power amp to the speaker system. Center position is 6dB down from maximum output.
- 2. Signal LEDs** - Indicate the overall level of the sound as it is processed through the system. Green indicates the presence of an input signal, yellow indicates that it is approaching the upper limit, and red indicates clipping. If you encounter clipping, try turning down the level of the source device (e.g., your amp modeling device). When the signal LED(s) turn yellow, the Powercab speaker system will have the most realistic non-linear natural breakup characteristics.
NOTE: Powercab 112 Plus has one signal LED, while Powercab 212 Plus has two signal LEDs.
- 3. HOME Button** - If you ever get lost, press this button to return to the main Home screen, or press and hold it for 2 seconds to enter the Global Settings. See "[Global Settings](#)" on page 17.
- 4. Backlit Display** - This backlit display shows the current preset on its Home screen. It can also display the Preset Editing and Global Settings screens. The display backlight will dim automatically after a short period of inactivity.
- 5. SAVE Button** - Once you've modified the settings of a given preset, press Save to confirm the changes, re-name, or copy it to a new preset location.
- 6. SELECT Knob** - This is the main control for changing presets or their parameter values. From the Home screen, turn this knob to cycle through the presets. Press to select and turn to edit the value of the currently highlighted parameter.
- 7. LED Ring** - This ring indicates the "Color" parameter assigned to the current preset for easy identification.
 Powercab 212 Plus allows you to select up to two LED colors, representing Speaker 1 and Speaker 2.
 **TIP:** Assign different colors for user presets to see them from afar. The LED ring will dim automatically after a short period of inactivity.

Powercab 112 Plus & 212 Plus - Rear Panel Controls



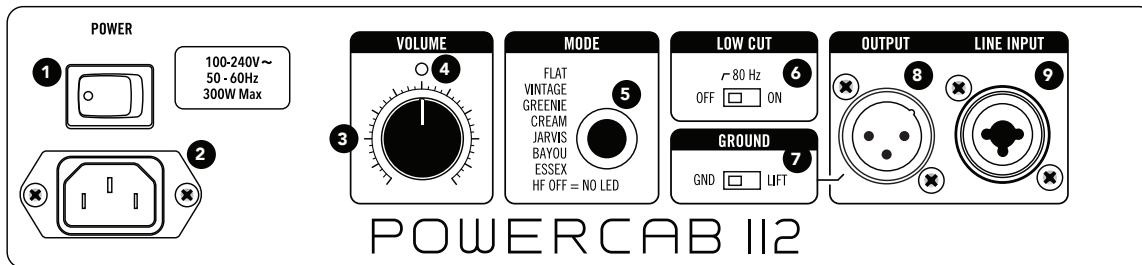
Powercab 212 Plus rear panel (112 Plus features differ slightly, as noted below)

8. **POWER Switch** - Turns the Powercab on or off.
9. **AC In** - Connect the included IEC power cable here.
10. ***LOW CUT Switch** -  Powercab 112 Plus only. Toggles the 80Hz Low Cut Filter on/off, useful for removing unwanted low end vibration (does not apply to the XLR or L6 LINK - AES/EBU Outputs' signals).
*  On Powercab 212 Plus, access the Low Cut feature within the Global Settings.
11. **GROUND GND/LIFT Switch** - Controls whether the ground circuit is lifted for the XLR Output jacks. Can be useful for identifying ground loops, which can cause unwanted hum.
12. & 13. **XLR Output Jacks** - Connect to a mixer's input. The output level is switchable between Line Level (+13dBu) or Mic Level (-0.0dBu) - see "Global Settings" on page 17.
 Powercab 112 Plus includes only a single XLR Output jack.
NOTE: XLR Outputs are not affected by 48V phantom power.
14. & 15. **Combo Input Jacks** - Connect the line level output(s) of your amp modeler to these balanced 1/4" TRS/XLR inputs (e.g., Line 6 Helix® or POD® devices, etc.). A Helix device should be set to **Line Level**. A POD® HD device should be set to **+4dB**. "Amp-in-a-box" type preamp pedals may require additional boosting to achieve the appropriate line level for these inputs (maximum +13dBu).
16. **USB-B Jack** - Connect to a Mac or PC to use the *Powercab Edit* software to load IRs, customize, backup & restore all presets, or to use the *Line 6 Updater* software. Both are available free from line6.com/software/.
17. & 18. **MIDI IN, OUT/THRU Jacks** - Connect to your MIDI gear for sending and receiving MIDI program change and continuous controller messages. Connect a second Powercab Plus to send patch changes to both units.

19. **L6 LINK, AES/EBU OUT** - Connect one Powercab Plus to another Powercab Plus to automatically configure them as a stereo pair. See [page 23](#) for details.

20. **L6 LINK, AES/EBU IN** - L6 LINK provides easy digital audio connectivity and remote control capability between Helix and Powercab Plus devices. Alternatively, digitally connect your amp modeler that supports AES/EBU using an AES/EBU (110Ω XLR) cable. See [page 23](#) for details.

Powercab 112 - Rear Panel Controls



- 1. POWER Switch** - Turns the Powercab 112 on or off.
- 2. AC In** - Connect the included IEC power cable here.
- 3. VOLUME Knob** - Controls the output of the power amp to the speaker system. 12 o'clock is -6dB from maximum.
- 4. Signal LED** - Bright green indicates the presence of an input signal, yellow indicates that it is approaching the limit of the unit's output capabilities, and red indicates digital clipping. If you encounter clipping, try turning down the level of the source device (e.g., your amp modeling device). When the signal LED turns yellow, the speaker in Powercab will have the most realistic non-linear breakup characteristics.
- 5. MODE Button and LED Ring** - Push the button to cycle through different Speaker Modes. The button's LED color indicates the Speaker Mode in use. See "[Preset Parameters](#)" on [page 12](#).
NOTE: HF OFF is equivalent to the **Natural** speaker model.
- 6. LOW CUT Switch** - Toggles the 80Hz Low Cut Filter on/off, useful for removing unwanted low end vibration (does not apply to the XLR Out).
- 7. GROUND GND/LIFT Switch** - Controls whether the ground circuit is lifted for the XLR Output jack. Can be useful for identifying ground loops, which can cause unwanted hum.
- 8. XLR Output Jack** - Connect to an analog mixer's input. The output is mic level, with a maximum of 0.0dBu.
NOTE: This XLR Output is not affected by 48V phantom power.
- 9. Combo Input Jack** - Connect the line level output of your amp modeler to this balanced 1/4" TRS/XLR input (e.g., Line 6 Helix or POD device, etc.). Helix should be set to **Line Level**. POD HD should be set to **+4dB**. "Amp-in-a-box" type preamp pedals may require additional boosting to achieve the appropriate line level for these inputs (maximum +13dBu).

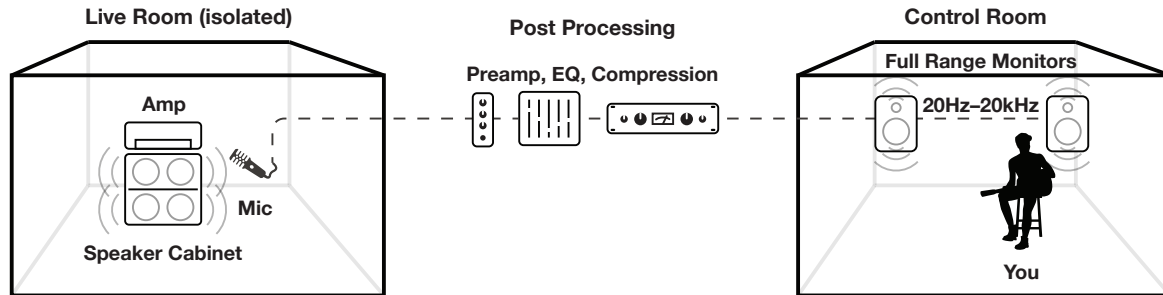
Speaker Models vs Cabinet Modeling

A **Speaker Model** is our proprietary method of taking a known, flat and neutral guitar cabinet and through signal processing, we virtually "install" a different speaker into it. Each speaker model is intended to sound like wiring up your cabinet with that guitar speaker.

You might say "But wait... isn't that the same thing as cabinet model?" **No!** A cabinet model is a speaker cabinet that has a microphone placed over one or more of its speakers, which is then typically run through a mic preamp and other post processing—similar to placing a mic on a cab in the studio, which is then piped into the studio monitors or headphones (as in the following illustration).

Instead, a speaker model takes an existing speaker, resonating in a cabinet, and only changes its frequency response to match that of a different speaker. The result is, when standing in front, it still behaves like a traditional guitar amp, just with a different speaker. For the most authentic experience, Powercab is designed to sound like a high-powered cabinet of the same size (1x12 or 2x12) rather than attempting to emulate the sound of a larger (4x12) cabinet through a microphone and studio preamp.

Full Range, Flat Response and Cabinet Modeling/Impulse Response Methods

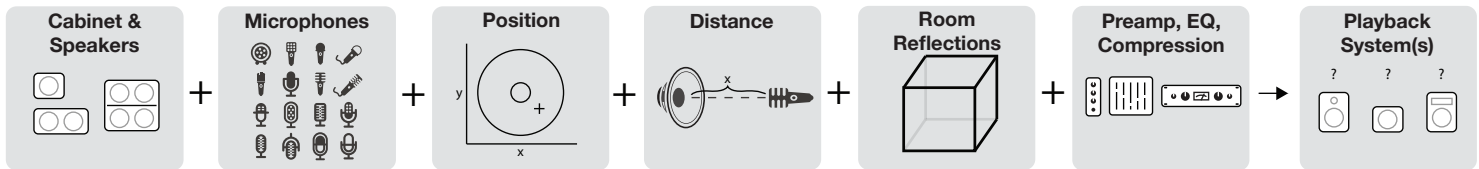


Pro: You hear what the audience hears.

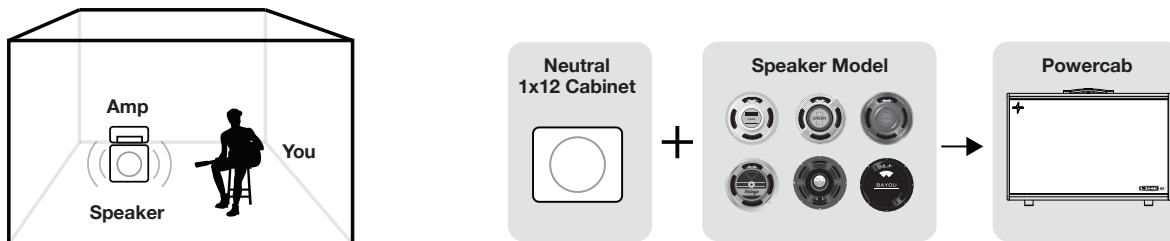
Con: It's not the same as the sound and feel of the amp by itself.

Cabinet Modeling

Impulse Response



Amp-in-the-Room Speaker Modeling Method




Pro: Sounds like you're playing through an amp and you're in front of it.

Con: Audience isn't hearing the same thing that you are.

Powercab Speaker Models

To properly take advantage of these speaker models, disable cabinet emulation blocks within your modeler or "amp-in-a-box" type pedal, and let the Powercab take over to provide the accurate speaker sound and feel. An added benefit is that these models provide a variety of speaker tones that can still be captured through a microphone at any placement, thanks to the coaxial speaker system design.

 Powercab 112 includes the first six speaker models in the list below, as well as **HF OFF / Natural**, and cannot be updated by an end-user to add or change speaker models.

VINTAGE – Based on* the ubiquitous Celestion Vintage 30 which, despite its name, is commonly used and beloved for "modern" tones.

GREEN – Based on* the Celestion Greenback speaker, typically paired with vintage Marshall® Plexi amplifiers for a signature classic rock tone.

CREAM – Based on* the Celestion G12M-65, a higher powered version of the ceramic C12N with a brighter top end.


JARVIS – Based on* the Jensen® P12Q, often paired with Fender® amps for great rich, full clean tones.

BAYOU – Based on* the Eminence Patriot Series Swamp Thang™, which provides big aggressive bottom end with classic American tone, perfect for blues and jazz.

ESSEX – Based on* the Blue Bell speakers often paired with Vox® amplifiers and Class A style amps for a "chimey" tone.

HF OFF / Natural – This is the natural sound and feel of the speaker in the Powercab with the high-frequency compression driver disabled and no EQ of any kind applied

*See "U.S. Registered Trademarks" on page 11. All product names used in this document are trademarks of their respective owners and neither Yamaha Guitar Group nor Line 6 are associated or affiliated with them. These trademarks appear solely to identify products whose tones and sounds were studied by Line 6 during sound model development.

 The following models are only available in the Powercab 112 Plus and 212 Plus running firmware version 2.0 and higher. To update your firmware, please download the *Line 6 Updater* application at line6.com/software/.

DINO – Based on* the Eminence Cannabis Rex™. Uniquely constructed with a hemp-based speaker cone material, the Cannabis Rex is described as having a smoky, smooth high-end definition, and boasts a full, clean tonality, with lots of body and sparkle.

LECTO – Based on* the Electro-Voice® EVM 12L. Designed for professionally precise, fully overdriven, punchy tones and brilliant cleans. They are a signature component of the classic Mesa/Boogie® sound.

HERALD – Based on* the Celestion G12H(55) Heritage. Featuring a heavier magnet than the original G12M Greenback, this speaker replicates the sound of the original G12H.

BROWN – Based on* the Celestion G12 EVH®. While the Greenback 20 played an essential role in the sound of Eddie Van Halen's unmistakable sound, this speaker was based on the 60s version Greenback and used in his signature amplifier.

SHADE – Based on* the Mesa/Boogie Black Shadow C90. Custom made for Mesa/Boogie by Celestion in the UK, this speaker provides a tight and controlled low end, aggressive midrange attack, and strong high-bass / low-mid punch. They are a feature in many Mesa/Boogie amps.

JETSON – Based on* the Jensen C12K. The C12K is often paired with Fender® amps for great for a heavy mid and solid, straight forward, slightly darker tone. Can also present bold and heavy overdriven tones.


U.S. Registered Trademarks

*All product names used within this document are trademarks of their respective owners, which are in no way associated or affiliated with Line 6. These trademarks of other manufacturers are used solely to identify the products of those manufacturers whose tones and sounds were studied during Line 6's sound model development. Celestion is a registered trademark of KH Technology Corp. Eminence, Swamp Thang, and Cannabis Rex are trademarks or registered trademarks of Eminence Speaker, LLC. Marshall is a registered trademark of Marshall Amplification Plc. Jensen is a registered trademark of Electronics Trademark Holding Company LLC. Vox is a registered trademark of Vox R&D Limited. EVH is a registered trademark of E.L.V.H., Inc. Electro-Voice is a registered trademark of Electro-Voice, Inc. Mesa/Boogie is a registered trademark of Mesa/Boogie, Ltd. Fender is a registered trademark of Fender Musical Instruments Corp.

User Presets







Powercab Plus systems include the ability to create and save customized presets. A preset allows you to store and recall your complete speaker tone, which consists of the Speaker Mode in use (Flat, Speaker, or IR), its color, and parameter settings. To change presets, **turn the Select Knob**. To edit a preset, **press the Select Knob**. Presets can also be selected or automated via L6 LINK or MIDI - please see these respective sections.

Preset Parameters

 For Powercab 212 Plus, **Speaker 1** refers to the physical left speaker and **Speaker 2** refers to the physical right speaker, as you're facing the front of the unit. With stereo inputs connected, the Powercab 212 Plus will send the left channel audio to Speaker 1 and the right channel audio to Speaker 2, unless the **Stereo Width** parameter is set to 0% (see "[Global Settings](#)" on page 17). With a mono input, the Powercab 212 Plus will send the mono audio to both speakers.




1. To view preset parameters, press the **SELECT** knob.
2. Turn the **SELECT** knob to scroll up and down the parameter list; press **SELECT** to toggle between scrolling the list and setting values.

NOTE: Features indicated with  are available on Powercab 212 Plus only.

  EDIT SETTINGS					
Name	Value	Default	MIDI CC	CC VALUE	Function
Mode	Flat Speaker Dual Speaker  User IR Dual User IR 	Flat	CC 20	0 = Flat 1 = Speaker 2 = User IR 3 = Dual Speaker  4 = Dual User IR 	Selects between the supported modes (Flat, Speaker, User IR - and additionally, Dual Speaker and Dual User IR on Powercab 212 Plus) and provides access to available mode parameters.
FLAT MODE PARAMETERS	Essentially full-range, flat-response, and equivalent to the signal being sent to a front-of-house mixer. This mode is most helpful for simple plug-and-play compatibility, letting your amp modeler do all the work. This mode is ideal for simply plugging in as if you were connecting directly to a PA, active monitor, or recording interface. It provides a flat frequency response, ideal for guitar signals that already include cabinet emulation or for playing back music and backing tracks.				
Voicing	FRFR LF Flat LF Raw	FRFR	CC 21	0 = FRFR 1 = LF Flat 2 = LF Raw	Selects the final post-processing EQ and crossover settings for the speaker system.






EDIT SETTINGS



Name	Value	Default	MIDI CC	CC VALUE	Function	
SPEAKER MODE PARAMETERS	Intended to respond like a real guitar speaker for a traditional "amp-in-the-room" experience. This mode applies different tonal characteristics of the selected speaker model to the system's coaxial driver, with the following adjustable parameters.					
Speaker 1	Vintage Green Cream Jarvis Bayou Essex Natural	Dino Lecto Herald Brown Shade Jetson	Vintage	CC 22	0 = Vintage 1 = Green 2 = Cream 3 = Jarvis 4 = Bayou 5 = Essex 6 = Natural 7 = Dino 8 = Lecto 9 = Herald 10 = Brown 11 = Shade 12 = Jetson	Selects which speaker model is applied to Speaker 1.
 Speaker 2	Same Value options as Speaker 1, but for Speaker 2		Vintage	CC 102	0 - 12 Same MIDI CC Value options as Speaker 1, but for Speaker 2	Selects which speaker model is applied to Speaker 2.
Mic Model 1	57 Dyn 409 Dyn 421 Dyn 30 Dyn 20 Dyn 121 Ribbon 160 Ribbon 4038 Ribbon	414 Cond 84 Cond 67 Cond 87 Cond 47 Cond 112 Dyn 12 Dyn 7 Dyn	57 Dyn	CC 23	0 = 57 Dyn 1 = 409 Dyn 2 = 421 Dyn 3 = 30 Dyn 4 = 20 Dyn 5 = 121 Ribbon 6 = 160 Ribbon 7 = 4038 Ribbon 8 = 414 Cond 9 = 84 Cond 10 = 67 Cond 11 = 87 Cond 12 = 47 Cond 13 = 112 Dyn 14 = 12 Dyn 15 = 7 Dyn	Selects the microphone model that is applied to the XLR Left output signal while in Speaker Mode, intended to emulate placing the selected mic type in front of the Powercab.
Mic Distance 1	1" – 12"	1.5"	CC 24	0 – 22	Sets the distance between the simulated microphone and the simulated cabinet.	
 Mic Model 2	Same Value options as Mic Model 1, but for XLR Out Right		57 Dyn	CC 103	0 – 15 Same MIDI CC Value options as Mic Model 1, but for Speaker 2	Same Function as Mic Model 1, but for XLR Out Right.
 Mic Distance 2	1" – 12"	1.5"	CC 104	0 – 22	Same Function as Mic Distance 1, but for XLR Out Right.	



EDIT SETTINGS

Name	Value	Default	MIDI CC	CC VALUE	Function
USER IR MODE PARAMETERS	This mode allows for the use of a third-party cabinet simulation (Impulse Response) that reproduce the sound of a "miked" cabinet. See "Impulse Responses" and "Powercab Edit Software".				
IR (1)	IR location 0 – 127	0	CC 25	0 – 127	Selects which User IR is being applied to Speaker 1. The selected IR's name is displayed on the screen.
 IR (2)	IR location 0 – 127	0	CC 105	0 – 127	Same Function as IR (1), but for Speaker 2.
GENERAL PRESET PARAMETERS	The following parameters are available regardless of which mode is selected within the preset.				
Low Cut 1	Off 20Hz – 500Hz	Off	CC 26	0 – 127	Tone too muddy or boomy? Apply the Low Cut Filter to clean it up.
High Cut 1	Off 500Hz – 20kHz	Off	CC 27	0 – 127	Guitar speakers typically roll off high frequencies well below the range of a full-range reproduction system. Tone too harsh and unnatural? Apply the High Cut Filter to reduce the higher frequencies.
 Low Cut 2	Off 20Hz – 500Hz	Off	CC 106	0 – 127	Same as Function as Low Cut 1, but for Speaker 2.
 High Cut 2	Off 500Hz – 20kHz	Off	CC 107	0 – 127	Same as Function as High Cut 1, but for Speaker 2.
Level 1	-60.0dB to +6.0dB	0.0dB (Flat Mode) -15.0dB (Speaker) -18.0dB (User IR)	CC 28	0 – 127	Controls the volume of the current preset and can be adjusted to match levels between presets. When an IR is in use, the default is -18.0dB to compensate for the higher amplitude common to IR files. When the Flat Mode is in use, this is set to 0.0dB for maximum headroom.


EDIT SETTINGS

Name	Value	Default	MIDI CC	CC VALUE	Function
 Level 2	-60.0dB to +6.0dB	Same Default as Level 1, but for Speaker 2	CC 108	0 – 127	Same Function as Level 1, but for Speaker 2.
Color 1	Auto White Red Blue Green Yellow Cyan Magenta Off	White	CC 29	0 = Off 1–18 = White 19–36 = Red 37–54 = Blue 55–72 = Green 73–90 = Yellow 91–108 = Cyan 109–126 = Magenta 127 = Auto	Allows you to customize the color of the Select Knob's LED Ring. This can be helpful for identifying which speaker model or user IR you've selected for your preset, if automating or remotely controlling it with a Helix or other MIDI gear.
 Color 2	Same Value options as Color 1, but for Speaker 2	White	CC 109	Same CC Value options as Color 1, but for Speaker 2	Same Function as Color 1, but for Speaker 2.

Impulse Responses

Powercab Plus systems allow you to import 128 Impulse Response (IR) files for an even greater variety of speaker cabinet models. By default, the Line 6 Allure pack of IRs is already included, and you can optionally load your choice of third-party IRs. This can be a great way to off-load some of the DSP usage from your Helix or POD device, making room for additional effects on your modeler.

Powercab Plus systems can import IRs by way of the *Powercab Edit* software (see next section). It is possible to import any mono .wav file IR, provided it conforms to the compatible IR properties (48kHz, 24-bit, mono, 2048 samples). While this is very convenient, please be careful not to load just any .wav file as an IR or you may experience unexpected sonic results. SysEx files are not supported.

When used in User IR stereo mode, the sample length is carefully truncated to 1024 samples.



TIP: You can also load Acoustic Guitar IRs for enhancing the tone of your acoustic guitar. It is recommended that a preamp is used to achieve proper impedance when connecting a line level input signal.

Powercab Edit Software

Powercab Edit is the free editor software for Mac and PC that allows you to customize & manage presets and load your own IRs into a Powercab Plus. The latest *Powercab Edit* application version is available at line6.com/software/. Once you've downloaded the application to your computer, launch it and follow its installation steps.

Connect your Powercab Plus to your computer's USB port and launch the *Powercab Edit* application. You'll see a list of 128 presets and all adjustable parameters available. Click on the **Impulses** tab to see and manage IRs. You may add one or more IRs by selecting an IR slot and clicking **Import**.

USB Audio

Powercab Plus systems function as USB 2.0, low latency, stereo input/output, 16-bit, 44.1 kHz or 48 kHz, audio interfaces for Mac or PC, and are also capable of being used as an audio interface for iPad and iPhone mobile devices.* They are compatible with all major DAW software.



***NOTE:** Connectivity with iPad & iPhone requires an Apple Camera Connection Kit USB adapter (sold separately). There is no driver installation necessary for Mac or Windows® computers or for Apple iPad or iPhone mobile devices. (See the **ASIO Driver** section below for Windows low-latency audio performance.)

This USB audio functionality allows you to jam along with your backing tracks, YouTube™, iTunes, or to record high quality audio within your DAW software. By configuring your DAW software track to record from the Powercab Plus USB 1/2 source, you'll capture your processed signal from the Powercab within the DAW track—with zero-latency monitoring, since you are hearing your input from the Powercab Plus hardware outputs before it is routed through your software.

ASIO Driver (Windows only)

When using a Powercab Plus as an audio interface for Windows DAW applications, it is highly recommended to download and install the **Line 6 Powercab ASIO driver**, available free from line6.com/software/. This ASIO driver offers the superior, low-latency USB audio performance required for DAW recording. It is also necessary to configure your DAW software to utilize the Powercab ASIO driver. This setting is typically found within your DAW software's Preferences or Options dialog - please see your software's documentation.

USB Audio Modes

Powercab Plus systems offer two different **USB Modes** for use as your computer or mobile device interface. You can access these options in the **Global Settings** (see next section).

Normal - In this mode, incoming USB audio remains unprocessed, and is routed directly to the Powercab Plus speaker system for playback.





Processed - In this mode, incoming USB audio is processed by the Powercab Plus, adding even greater flexibility when used as your computer's audio interface for amp modeling software, such as the Line 6 Helix Native plug-in or POD Farm® application.

Global Settings

These global parameters allow you to optimize the Powercab Plus system for your particular needs, whether it be for practice, on stage or in the studio. These settings are persistent (automatically saved) and not part of the preset data.


1. To view **Global Settings**, press and hold **HOME**.
2. Turn the **SELECT** knob to scroll up and down the **Global Settings** list; press **SELECT** to toggle between scrolling the list and setting values.

NOTE: Settings indicated with  are available on Powercab 212 Plus only.

  GLOBAL SETTINGS						
Name	Value	Range	Default	MIDI CC	CC VALUE	Function
Input 1/L Gain	dB	-96.0 to +12.0	0.0	CC 1	0-127 100 = 0.0dB	Adjustable input gain level for Input 1 (Left/Mono).
 Input 1/L Level	Line Instrument		Line	CC 30	0-63: Line 64-127: Instrument	Controls the input level and impedance for Input 1. Use Instrument impedance when connecting a guitar or pedals. Use Line Level for modelers that support line level output.
Input 2/R Gain	dB	-96.0 to +12.0	0.0	CC 2	0-127 100 = 0.0dB	Adjustable input gain level for Input 2 (Right/Aux).
 Input 2/R Level	Line Instrument		Line	CC 31	0-63: Line 64-127: Instrument	Controls the input level and impedance for Input 2. Use Instrument impedance when connecting a guitar or pedals. Use Line Level for modelers that support line level output.





GLOBAL SETTINGS

Name	Value	Range	Default	MIDI CC	CC VALUE	Function
Input 2/R Mode	Normal Monitor USB		Normal	CC 3	0-4 0: Normal 41-80: Monitor 81-127: USB	Normal: Processes input and routes signal through the XLR Output. Monitor: No processing is applied and the signal is not rerouted to XLR Output. USB: Input 2 is routed to the USB 1/2 input and can be used with guitar amp modeling software like Helix Native. Be sure to enable input monitoring in your DAW software and arm the track for recording. Also see " Input 2 Monitor Mode ".
Link Inputs	Off On		On	CC 4	0-63: Off 64-127: On	Selects whether or not both Input 1 & Input 2 Gain levels are matched to the same value.
HF Trim	dB	-96.00 to +12.00	0.0	CC 5	0-127 100 = 0.0dB	Gain adjustment for the high frequency compression driver.
 Low Cut	Off On		Off	CC 111	0-63: Off 64-127: On	Applies a global 80 Hz low cut (high pass filter) to speaker output
MIDI Channel	#	1–16, Omni	1			Selects the MIDI channel to which the Powercab Plus responds and transmits to the MIDI DIN (when MIDI Thru is set to "On").
MIDI Thru	Off On		On			Determines whether or not incoming MIDI is passed through the unit.
MIDI Receive	Off PC+CC PC Only CC Only		PC+CC			Determines whether or not this unit changes presets in response to incoming MIDI Program Change (PC) messages, MIDI Control Change (CC) messages, both, or neither.
MIDI Send	Off PC		PC			Determines whether or not MIDI PC messages are transmitted whenever a local PC change event occurs (when a preset change is made on the unit).
MIDI Over USB	Off On		Off			Determines whether or not MIDI data is received and sent over USB.
USB Mode	Normal Processed		Normal	CC 6	0-63: Normal 64-127: Processed	Normal: Use for playback directly to an FRFR system. Processed: Processes the USB signal with Flat, Speaker, or User IR modes.



GLOBAL SETTINGS

Name	Value	Range	Default	MIDI CC	CC VALUE	Function
Direct Out Level	Line Mic		Mic			Controls the output level of the XLR Direct Outs. Use Line Level for nominal line inputs and use Mic Level when going into the mic preamp of a mixing board or audio interface.
 Direct Out Mode	Mono Stereo		Stereo			Determines whether or not the Left/Mono XLR output is merged to mono.
 Stereo Width	%	0 – 200	100	CC 110	0-100 50 = 100% 100 = 200%	Collapses to mono at 0%, nominal at 100%, and extra wide at 200%.
Auto Dim	Off 5 seconds 10 seconds 30 seconds	Off – 30 seconds	10 seconds			Selects how long the time out is before the Auto-Dim feature activates for the LCD display and Select knob LEDs.
Firmware Version	2.00.0					Displays the Powercab system's current firmware version (x.xx.x)
Factory Reset						Press SELECT and confirm to restore all factory presets and global settings.

Input 2 Monitor Mode

This mode is intended for running a monitor feed, which may include vocals or other instruments, from a mixing board back into Input 2 of your Powercab Plus. This signal goes straight to the power amplifier system and does not loop back out to the XLR Output.

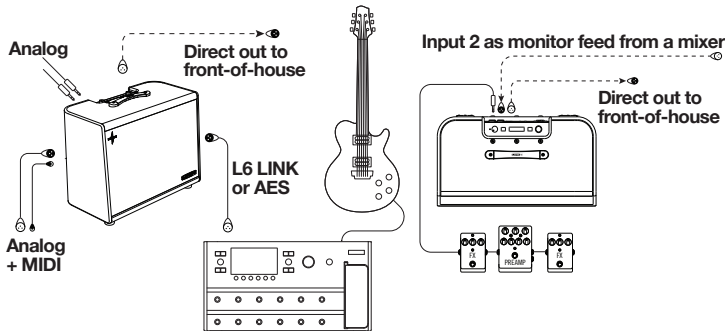
Input 2/Aux USB Mode

This mode is intended for the use of Powercab Plus as a traditional audio interface. Plug your guitar or line level feed into Input 2 ("Right/Aux" on Powercab 212 Plus) and you can use a DAW or audio software to process your signal. For example, this mode could be for processing the guitar signal with the Helix Native plug-in, which then plays back through the Powercab Plus amplifier and speaker(s). This could be done with or without speaker/IR processing, depending on the Powercab Plus **USB Mode** global setting. This method does add some round trip latency and will depend on your computer processing power and buffer settings.

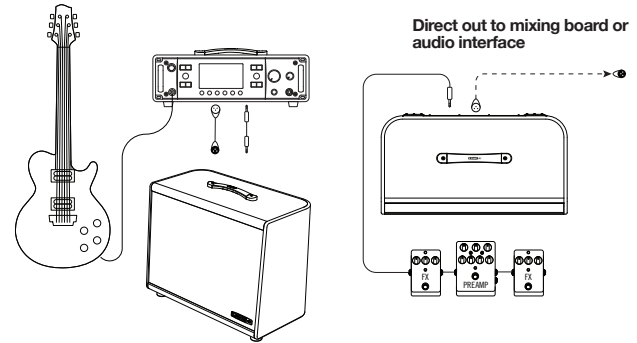
Setup Examples

Several setup configurations are possible with your Powercab or Powercab Plus system(s).

- Connect your modeler's analog 1/4" or XLR mono output to the Powercab input, or your modeler's stereo analog outputs each to a separate Powercab input.
- If using an "amp-in-the-box" type and/or effects pedals, connect them into to the Powercab with a 1/4" audio cable.
- Connect digitally via L6 LINK or AES/EBU to one or two Powercab Plus systems (see "L6 LINK" on page 23).
- To use a remote MIDI controller device, connect it to the Powercab Plus MIDI IN ("MIDI" on page 24).
- Send a direct signal to a P.A. or mixer using the Powercab analog XLR Output.
- Optionally, you can use the Powercab Plus combo Input 2 to receive a monitor feed from a mixer, or as a USB audio interface to process your guitar signal on a computer and listen through Powercab.



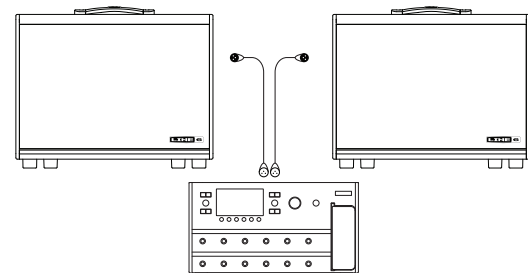
Powercab 112 Analog Setup



1. Connect the 1/4" or XLR output from the modeler/processor to the combo input on Powercab.

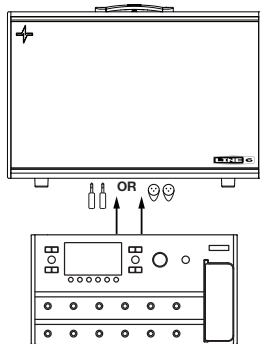
2. Optional: Connect an XLR cable to the output of Powercab to send to a mixing board or recording interface. The output signal will have an SM57 microphone model applied when using speaker models.

Powercab 112 or 112 Plus Analog Stereo Setup



Connect the left and right analog 1/4" or XLR outputs of your modeler (or stereo effects unit) separately to two Powercab devices.

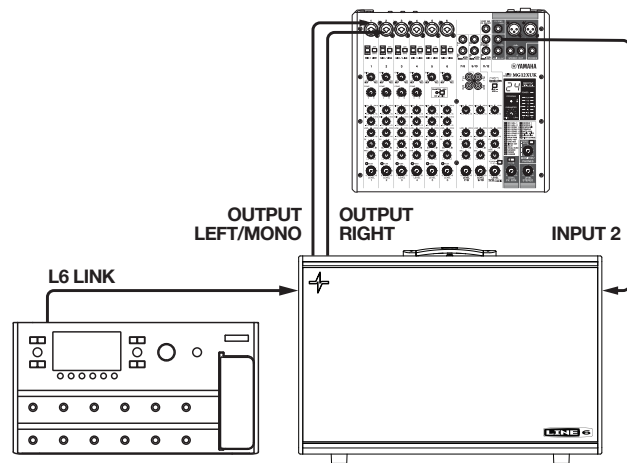
Powercab Plus Analog Setup



1. Connect the 1/4" or XLR output(s) from the modeler/processor to the combo input(s) on Powercab Plus.

2. Optional: Connect XLR cable(s) to the output of Powercab Plus to a mixing board or recording interface. The output signal will have a user-defined microphone model applied when using Speaker models, configurable within the Powercab Plus preset.

Powercab Plus Doubling as a Floor Monitor for Vocals



1. Connect your modeler to Powercab 112 Plus or 212 Plus using either analog or L6 LINK/AES cables.

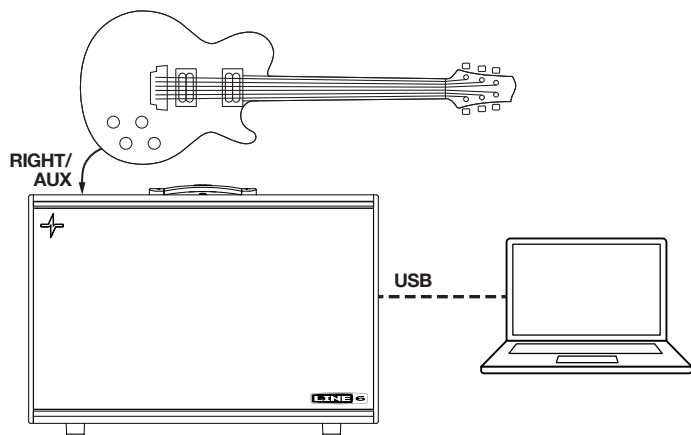
2. Connect an XLR or 1/4" balanced cable from a mixer or audio interface's Aux or Monitor Send (as would be used to route to active monitors).

3. On Powercab, navigate to Global Settings by holding the HOME button and set Input 2 Mode to **Monitor**. This will use a separate crossover and filters to provide flat-response, full-range audio through the Powercab built-in amplifier and speaker(s) – just like an active PA monitor.

XLR output(s) on Powercab Plus can still be used but will only output processed signals from Input 1 or L6 LINK.

Powercab Plus USB Processing (Instrument Level)

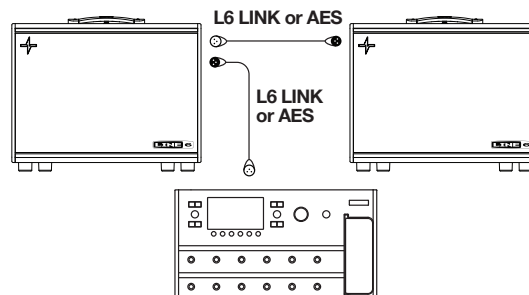
If for some reason your modeler is unavailable, borrowed, stolen, broken, etc., your Powercab Plus can still perform! Using a computer in lieu of a dedicated hardware modeler, Powercab Plus can double as an audio interface with DSP for speaker modeling and IR processing. This can be used in tandem with a DAW or a plug-in, such as Line 6 Helix Native, to process the guitar signal.



1. **Connect the guitar** directly to Powercab Plus Input 2 (Right/Aux)
2. **Connect a USB cable** to a computer or mobile device.
3. On Powercab Plus, **navigate to Global Settings by holding the HOME button and set Input 2 Mode to USB.**
4. Optional: If you want to add speaker modeling or IRs to the output signal, **set the USB Mode to Processed.**

NOTE: If you are playing backing tracks through Powercab Plus, **set the USB Mode to Normal** to hear them unprocessed.

Powercab Plus Digital Stereo Setup



1. **Connect a L6 LINK/AES cable** from the Helix/POD HD device to the L6 LINK Input on Powercab Plus.*
2. **Connect a L6 LINK/AES cable** from the first Powercab Plus L6 LINK Output to a second Powercab Plus L6 LINK Input.
3. Optional: **Connect XLR cable(s)** to the output of each Powercab Plus to send to a mixing board or recording interface. The output signal will have a user-defined microphone model applied when using speaker models, configurable within the preset on Powercab Plus.

Also see "[L6 LINK](#)" on page 23.



***NOTE:** A 110Ω type XLR cable should be used for all L6 LINK and AES connections.

L6 LINK

Powercab Plus devices include the Line 6 proprietary L6 LINK technology, providing a simple, single-cable connection for mono/stereo audio and remote control capability between a Line 6 Helix device and one or more Powercab Plus systems. This allows you to store and recall Powercab Plus parameters via your Helix device, globally or even per Helix preset!

For L6 LINK functionality, it is required that Helix device firmware is updated to v2.80 (or later), and Powercab Plus system firmware is updated to v2.00 (or later). For best results, always run the latest available firmware version on all your Line 6 devices.

NOTE: A 110Ω type XLR cable should be used for all L6 LINK and AES connections.

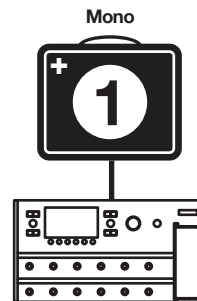
Powercab Remote using HELIX via L6 LINK

Use the following steps to configure a Line 6 Helix Floor, Rack, or LT device for L6 LINK remote functionality with Powercab Plus.

1. On Helix, from any Output > Multi or Output > Digital block, **press PAGE> once**. Powercab remote parameters appear.
2. **Turn Knob 1 (Powercab Remote)** to select:
 - **Off** - No remote control of Powercab Plus parameters, but audio is still active
 - **Per Preset** - Powercab Plus parameters are stored and recalled with the Helix preset
 - **Global** - Powercab Plus parameters are stored and recalled globally
3. **Turn Knob 3 (Speaker Select)** to select which speaker(s) you'd like to control. If you have a single Powercab 112 Plus, leave this set to "Speaker 1+2."

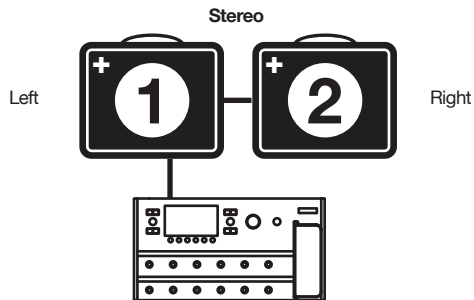
L6 LINK Setup Examples

One Powercab 112 Plus - Mono



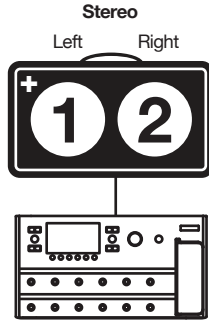
When using one Powercab 112 Plus, it can be controlled from Helix by selecting **Speaker 1**.

Two Powercab 112 Plus Systems - Stereo



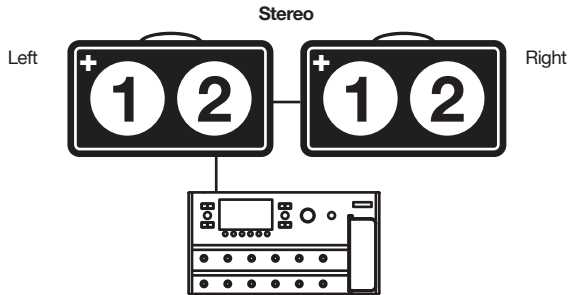
When using two Powercab 112 Plus systems, the first can be controlled from Helix by selecting **Speaker 1**, the second can be controlled by selecting **Speaker 2**, or both can be controlled as one by selecting **Speaker 1+2**.

One Powercab 212 Plus - Stereo



When using a single Powercab 212 Plus, both speakers can be matched by selecting **Speaker 1+2**, or configured individually by selecting **Speaker 1** or **Speaker 2**.

Two Powercab 212 Plus Systems - Stereo



When using two Powercab 212 Plus systems, both speakers can be matched by selecting **Speaker 1+2**, or configured individually by selecting **Speaker 1** or **Speaker 2** - with any of these Speaker settings, both Powercab 212 Plus systems will have their settings matched to create a stereo pair.

AES/EBU

Powercab Plus systems can also accept AES/EBU with 48kHz sample rate. When an AES signal is detected by the first Powercab Plus unit in the chain, the chain will split the signal's #1 channel going to the first Powercab Plus and the #2 channel to the second Powercab Plus. If there is only one Powercab 112 Plus in the chain, the signal will merge to mono. If there is only one Powercab 212 Plus, the signal will be in stereo.

MIDI

By default, Powercab Plus devices are set to transmit and receive MIDI on MIDI Channel 1. To configure the MIDI Channel, enable MIDI over USB, and other settings, see the MIDI options within the "[Global Settings](#)" on page 17.

MIDI Program Changes

Powercab Plus systems respond to traditional MIDI Program Change messages from an external MIDI device (or from MIDI software via USB) and will recall presets 000-127 accordingly.

MIDI CC

Powercab Plus systems include reserved MIDI CC values for numerous functions, allowing remote control via an external MIDI device (or from MIDI software via USB). Please see the tables in "[Preset Parameters](#)" on page 12 and "[Global Settings](#)" on page 17 to reference MIDI CC and CC Value information.