PCH

Active Direct Interface

strymon®

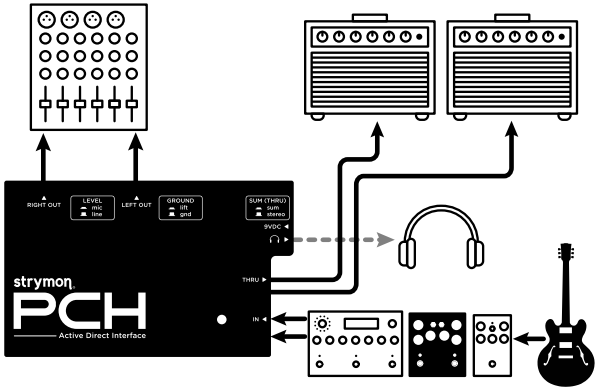
QUICK START GUIDE

WELCOME TO PCH

The Strymon® PCH is a Direct Interface (DI) and electronically balanced Line Isolator device. PCH is designed to provide optimized impedance and noise-free signal routing of your instrument or other mono/stereo audio sources to mixing consoles, audio interfaces, amplifiers, and other external equipment. Additionally, PCH features a high-fidelity headphone amplifier for detailed monitoring.

Live Setup: Using PCH with an Instrument and Pedalboard

1. Connect your guitar into a pedalboard containing an amp + cab simulation pedal or modeling device (such as Strymon Iridium).
2. Connect the 1/4" outputs of your pedalboard to PCH's 1/4" Ins. Connect to the Left In only for mono, or both Ins for stereo.
   - Engage SUM to merge Left and Right Ins as a mono signal to both THRU Outs. Disengage SUM to route Left and Right Ins for stereo THRU output.
3. Connect PCH's 1/4" THRU Outs to the input(s) of your guitar/bass amp(s) for stage monitoring. Or, connect either of the THRU Outs to other unbalanced input gear, such as effects, 1/4" FRFR amp inputs, a recording device, etc.
4. Connect PCH's XLR Outs to the XLR input(s) of a mixing console for a house PA system, audio interface, or FRFR amp(s).
   - Set PCH's LEVEL switch to match the level requirements of the connected device (Mic or Line level).
5. Optionally, connect headphones to PCH's stereo PHONES Out for personal monitoring.



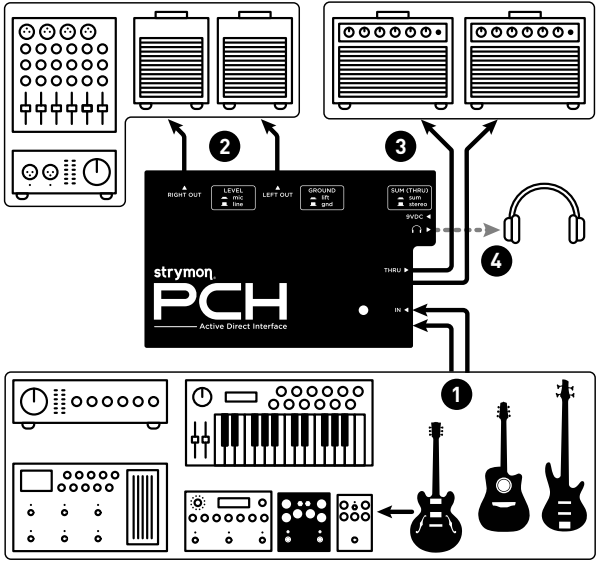
- Minimize the volume on all devices before connecting to PCH.
- Minimize the PHONES LEVEL before connecting headphones.
- Use shielded instrument cables for 1/4" IN and THRU connections.

REAR PANEL CONNECTIONS

Live, Studio, and Home Setup

PCH can be used for optimal connectivity with a wide variety of audio gear for performing, recording, and practicing.

1. Connect your instrument: a guitar, bass, piezo pickup/acoustic instrument, amp + cab pedal/modeling device, keyboard, audio player, etc., to PCH's 1/4" Ins.
   - Connect to PCH's Left In only for mono or both Ins for stereo.
2. Connect PCH's XLR Outs (Left out only for mono or both for stereo) to the XLR inputs of a mixing console, preamp, audio interface, recording device, FRFR amp(s), or other device's inputs.
   - Set PCH's LEVEL switch to match the level requirements of the connected device (Mic or Line level).
   - Enable the GROUND lift switch if experiencing ground hum.
3. Connect PCH's 1/4" THRU Outs to the input of your guitar or bass amplifier(s). Or, connect either of the THRU Outs to other unbalanced input gear, such as additional effects, a recording device, 1/4" FRFR amp inputs, etc.
   - Engage SUM to route Left and Right Ins as a mono signal to both THRU Outs. Disengage SUM to route Left and Right Ins for stereo THRU output.
4. Optionally, connect headphones to PCH's Phones Out for detailed monitoring of your input signal. Use the dedicated PHONES knob to adjust your listening volume.



ABOUT PCH

A Direct Interface (DI) device is an essential tool that connects unbalanced and/or high impedance instruments—such as guitars, basses, pedalboards, or keyboards—to low impedance audio setups, including mixing desks, FRFR/powered speakers, or recording interfaces.

While many DI boxes are basic passive units that dutifully convert a 1/4" unbalanced input to a balanced, low impedance XLR output, the Strymon **PCH Active DI** takes performance to the next level. Operating at an internal 24V, it features a built-in buffer for exceptional sound clarity, expanded headroom, and minimal distortion, complemented by a high-quality stereo headphone output. With flexible mono and stereo I/O, it accommodates both high and low impedance sources and outputs, making it a highly adaptable solution for a variety of stage, studio, and rehearsal configurations.

PCH's 1/4" inputs adjust the incoming signal's impedance and buffer it for delivery to both the balanced XLR Left and Right outputs. At the same time, the signal is split to the Left and Right THRU outputs, either as stereo or optionally summed as mono, allowing the input to be sent to amplifiers and/or other unbalanced input gear for seamless integration into your rig. The adjustable headphone out additionally provides detailed monitoring of your input sources.

FEATURES

1/4" Ins
Two buffered, unbalanced inputs for instruments or other audio sources.

- Input up to two mono or one stereo instrument.
- 24V internal power supply provides increased headroom to handle passive or active instruments with exceptional clarity.

1/4" THRU Outs
Two buffered, unity gain, unbalanced outputs ideal for routing the input signal to an amp (or two amps for stereo), additional effects, a recorder, a line mixer, etc.

- Low noise/distortion output faithfully reproduces the source signal, even with long cable runs.
- SUM optionally merges both Left and Right Ins to provide flexibility for utilizing mono or stereo configurations.

Stereo Headphone Out with Adjustable Level
Unsurpassed fidelity for detailed monitoring of your instrument, pedalboard, and other input sources:

- Low noise/low distortion amplifier.
- 24V internal power supply provides support for a wide range of headphone impedances.

FEATURES

XLR Outs

Two XLR balanced outputs with flexible level options for optimal signal routing with low noise & distortion, even with long cable runs, to stage and studio gear. When using the Left In only, the mono signal is routed to both XLR Outs. When using both Left and Right Ins, the signal is routed as stereo to the Left and Right XLR Outs.

- Line Level (0dB gain)
- Mic Level (-20dB)

9V Input

PCH requires power to its 9VDC connection—it is not powered by batteries or phantom power. This design offers several benefits:

- Galvanically isolated for exceptional low-noise operation.
- Voltage internally converted to 24V (+/-12V) for optimal performance and clarity.
- High headroom eliminates clipping and allows for driving high impedance headphones.

SPECIFICATIONS

INPUT	
Input Impedance:	1 MΩ
Max. Input Level:	+20dBu

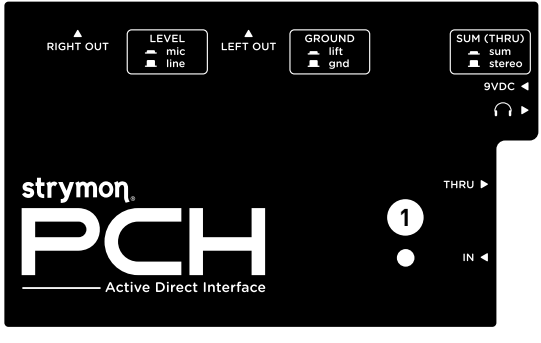
THRU	
Output Impedance:	100 Ω
Gain, Relative to Input:	+0dB
Frequency Response:	+/- 0.25dB, 10Hz - 80kHz

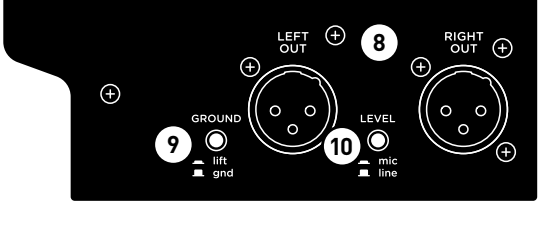
HEADPHONES	
Output Impedance:	2 Ω
Frequency Response:	+/- 0.25dB, 10Hz - 80kHz

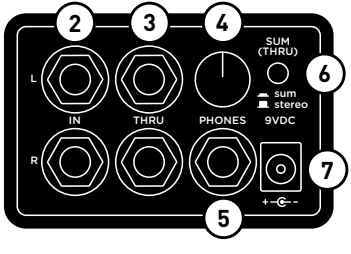
XLR OUTPUT - LINE & MIC SETTINGS	
Output Impedance:	**Line:** 275 Ω, **Mic:** 100 Ω
Gain, Relative to Inputs:	**Line:** +0dB, **Mic:** -20dB
Max. Output Level:	**Line:** +20dBu, **Mic:** +0.0dBu
Frequency Response:	**Line & Mic:** +/- 0.25dB, 10Hz - 80kHz

POWER SUPPLY	
Input Voltage:	9VDC
Min. Current Requirement:	500mA

CONTROLS AND CONNECTIONS







1. **POWER LED** Lit brightly when PCH is powered on.
2. **INS** 1/4" unbalanced, Left and Right, TS, high-impedance inputs. Connect two mono or one stereo source: guitar, bass, keyboard, amp+cab simulation pedal, or modeler.
   - Connect to the Left In only for a single mono input, or connect to both the Left and Right Ins for stereo.
3. **THRU** 1/4" unbalanced, Left and Right, TS outputs. Pass your buffered input sources to amplifiers, effects, or other devices. Use the SUM (THRU) switch for mono or stereo THRU output.
4. **PHONES LEVEL** Use to adjust the headphone volume.

CONTROLS AND CONNECTIONS

CAUTION: PCH's PHONES output is very powerful! Protect your hearing by turning the PHONES LEVEL counterclockwise to minimum before connecting headphones and avoid high-volume listening.

1. **PHONES** Connect headphones for precision stereo monitoring of your input sources.
2. **SUM (THRU)** When connecting a stereo source to both Left and Right Ins, keep the SUM switch disengaged for stereo THRU output. Or, engage SUM to merge the stereo input to a mono signal fed to both THRU Outs.
   - When connecting to the Left In only, its mono signal is routed to both THRU Outs, unaffected by the SUM switch.
   - The XLR Outs are unaffected by the SUM switch.
3. **9VDC** PCH is an active device and requires a power connection. Use a power supply with the rating: 9VDC, center negative, 500mA minimum (sold separately).
4. **XLR LEFT/RIGHT OUTS** Balanced, low impedance outputs. Connect to a mixing console or other low impedance gear for low noise/distortion routing of your source input(s):
   - When connecting to the Left 1/4" In only, the mono input is routed to both XLR Outs.
   - When connecting a stereo source to both Left and Right 1/4" Ins, the stereo signal is routed to the Left and Right XLR Outs.
5. **GROUND** Press to the "in" position to lift the ground if experiencing hum on the XLR Outs.
6. **LEVEL** Press to the "in" position for **mic** level XLR output. Set to the "out" position for **line** level XLR output.

SUPPORT

Additional Product Information:
strymon.net/support/PCH

Questions & Technical Support:
support@strymon.net

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strymon.net

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