

hear back PRO

16-CHANNEL PERSONAL MIXER SYSTEM

PRO Intercom Footswitch



SCAN FOR
DOWNLOADS

OVERVIEW

The Hear Back PRO Intercom Footswitch allows one microphone to serve a dual role as both a vocal microphone and as an intercom microphone for discrete communication with other band members or the sound engineer.

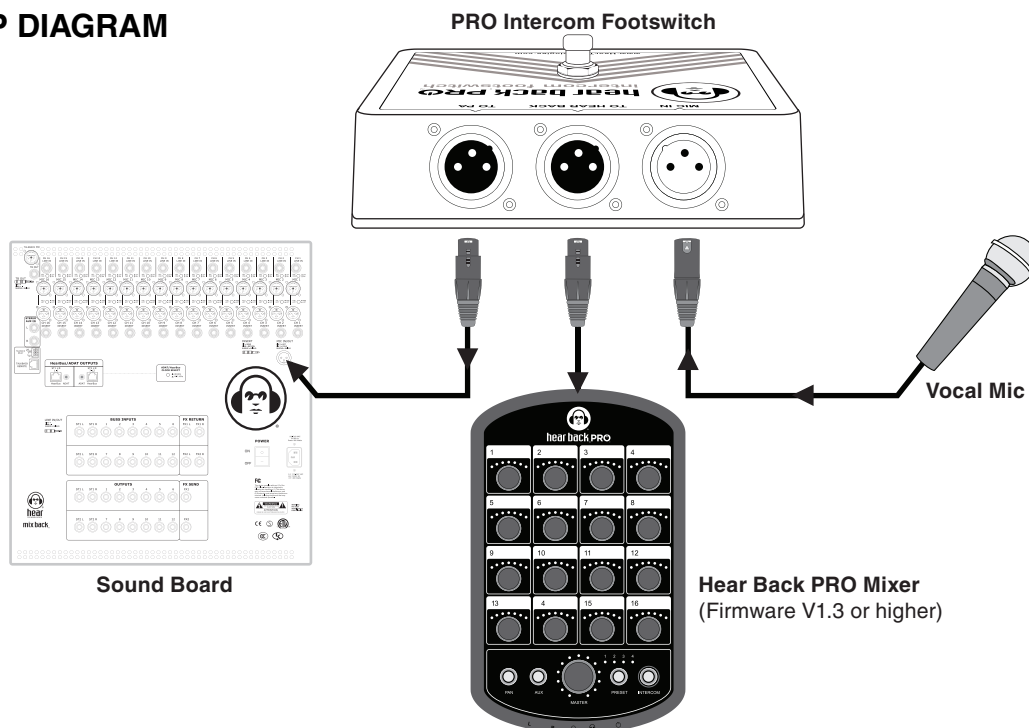
The Intercom Footswitch features a silent mute design; it mutes the microphone signal going to the sound board without any pops or clicks. The microphone signal is then routed to the Hear Back PRO Mixer along with a special 22kHz signal that automatically engages the intercom feature on the Mixer (firmware v1.3 or higher*). The 22kHz signal is not only above the human hearing range, it is also at a very low level – just enough for the Hear Back PRO Mixer to detect.

The switch is momentary, so as long as you hold your foot on the switch, the microphone will route to the intercom instead of the sound board. All outputs are transformer isolated from the microphone and each other. A special phantom-power circuit allows the microphone to be powered from the sound board (if the microphone requires phantom power).

You can also use the footswitch in any application where an A/B momentary footswitch is needed.



HOOK-UP DIAGRAM



Checking the Mixer's Firmware Version

In order for the Intercom Footswitch to work with a Hear Back PRO Mixer, the Mixer must have at least Version 1.3 firmware or greater. To check the version of firmware installed on your Mixer, start with the Mixer network cable unplugged. **While pressing the "PRESET" button, plug in the network cable and continue to press the PRESET button until the LEDs illuminate.** Release the PRESET button.

The illuminated LEDs indicate the firmware version. The LED on the "Master" volume knob that is lit indicates the whole number part of the firmware version. Next, the channel with all its LEDs lit indicates the decimal part of the firmware version. In the example pictured, the firmware version is 1.7: the first LED of the master volume is lit and all of the LEDs of channel 7 are lit. Since this version of firmware is greater than the required version 1.3, this mixer does not need to be updated in order for the intercom footswitch to work.

If your mixer has version 1.1 or version 1.2, you will need to follow the directions below for updating the firmware. If your mixer has version 1.3 or greater, you can skip the following steps for upgrading the firmware – instead follow the directions on enabling the intercom footswitch feature.

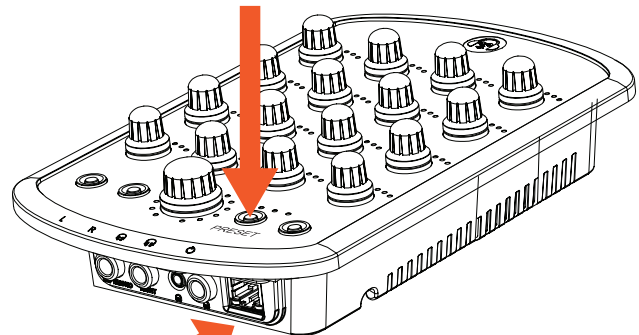
Upgrading the Mixer's Firmware

To upgrade your Mixer's firmware, locate the **Firmware Update Card** that is included with your Intercom Footswitch.

To upgrade your Mixer's firmware:

- 1) Unplug the network cable so the Mixer is powered down.
- 2) Turn the Mixer upside down and remove the two screws that secure the expansion card cover as shown (set aside the two screws and expansion card cover).
- 3) Insert the Hear Back PRO Mixer Firmware Update Card into the expansion slot as shown. Notice the "UP" printed on one side of the card. This should be facing the same direction as the top of the mixer.
- 4) After the card is inserted, connect a network cable from the Mixer to either a Hear Back PRO Hub or Mixer Distro that is powered on. The Mixer should power on and begin the update process (this takes a couple of minutes to complete).
- 5) As the firmware updates, the LEDs will illuminate green one-by-one to indicate the progress of programming the new firmware into the Mixer's memory. Next, the LEDs around the master knob will illuminate purple one-by-one to indicate the progress of upgrading the user interface – the final step in the process.
- 6) Once all of the master LEDs are illuminated purple, wait 30 seconds. It will reboot once it is finished. After it reboots, you are now ready to enable the Intercom Footswitch feature, which is discussed in the next section.

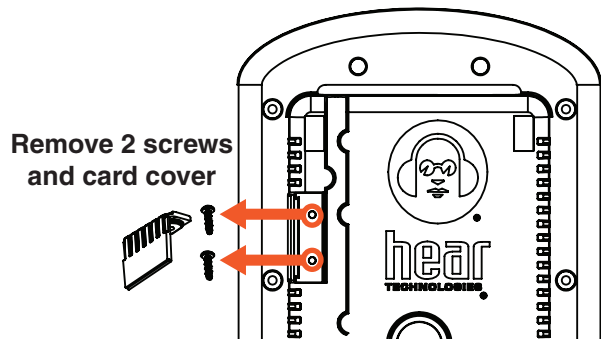
Continuously Press
"PRESET" Button



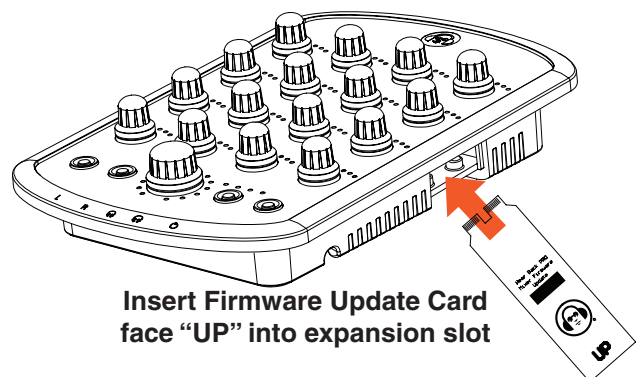
Insert Network Cable



Firmware version shown by LEDs



Remove 2 screws
and card cover



Insert Firmware Update Card
face "UP" into expansion slot

Enabling the Intercom Footswitch Feature on the Hear Back PRO Mixer

For the Hear Back PRO Mixer to support the Intercom Footswitch feature, it must have firmware version 1.3 or greater (see “Checking the Mixer’s Firmware Version”).

To enable the Intercom Footswitch feature on your Mixer:

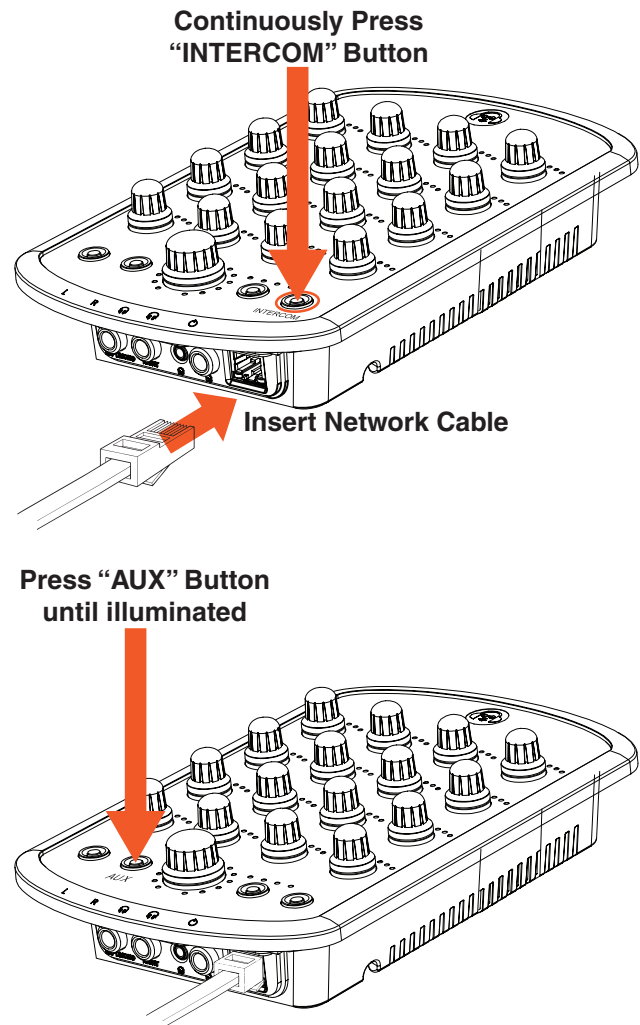
1. Unplug the Mixer network cable.
2. While pressing the “INTERCOM” button, plug in the network cable and continue to press the button until the PAN, AUX, and INTERCOM LEDs begin to flash. Release the intercom button.
3. Press the “AUX” button until it is illuminated. This indicates that the Intercom Footswitch feature is now enabled.
4. If the AUX button does not illuminate, make sure that the INTERCOM button is illuminated. If it is not, press the INTERCOM button until it is illuminated (this indicates that the INTERCOM function is enabled), then press the AUX button until it is also illuminated. To save this setting to memory, push and hold the INTERCOM button until the Mixer reboots. Note that the INTERCOM button LED may turn off when you push to hold; this is normal as long as you continue to hold until the mixer reboots.

If you ever wish to disable the Intercom Footswitch feature, you can follow this same process. Make sure that the AUX button LED is OFF instead of ON. This will disable the feature.

Using the Intercom Footswitch with your Hear Back PRO Mixer

Note that once you enable the Intercom Footswitch feature, the AUX input becomes a dedicated Intercom Footswitch input. This is because the Mixer must monitor the incoming signal to detect when the footswitch is pressed. Pressing the AUX button will change the MASTER knob’s LEDs so that they are red, and the knob will control the input gain of the footswitch.

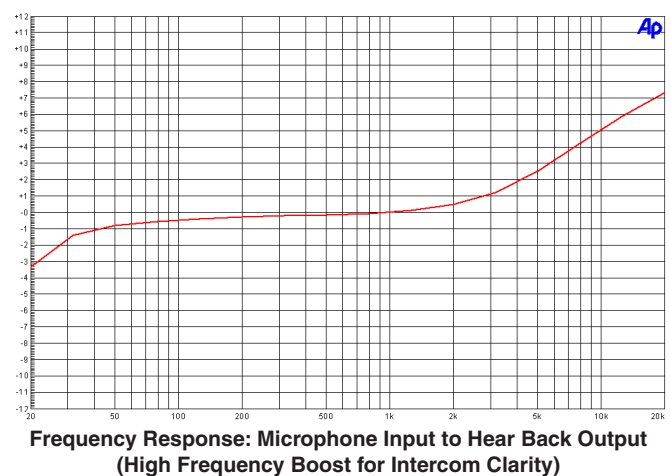
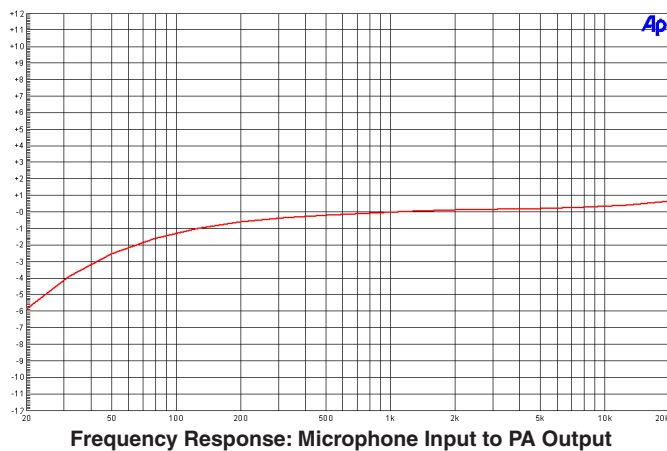
Note that if you set the input gain too low, your microphone may not be sensitive enough (people may have a hard time hearing you). If you set the input gain too high, your intercom may continually broadcast because there is too much noise and it is triggering the intercom circuitry. If you see your intercom LED ON when you are not pressing the footswitch, try turning down the gain a little. A good place to start is to set the gain at about 65%. Typically anything above 85% is too high.



After Intercom Footswitch feature is enabled, press the AUX button to control input gain of the footswitch (MASTER LEDs will illuminate red)

TECHNICAL SPECIFICATIONS

Microphone Input Impedance:	600Ω
PA and Hear Back Output Impedance:	600Ω
Maximum Input:	+30dBu
Microphone Input to PA Output (with 100k Input Impedance) Loss:	-0.28dBu
Microphone Input to Hear Back Output (with 100k Input Impedance) Loss:	-2.80dBu
THD on PA Output for -36dBu input:	0.05%
THD on PA Output for +4dBu input:	0.06%
THD on Hear Back Output for -36dBu Input:	0.05%
THD on Hear Back Output for +4dBu Input:	0.01%
Phantom Power Bypass:	48 volts from PA output to microphone input (phantom power present regardless of input selected)
Pilot Tone:	22kHz @ -75dBu sine wave on Hear Back output when footswitch pressed (oscillator powered from phantom power on the Hear Back output)



LIMITED WARRANTY

Hear Technologies warrants the equipment against defects in materials and labor for a period of one year from the original date of purchase. The duration of this warranty is limited to claims made to Hear Technologies within the periods stated with respect to parts and labor from the date of purchase. During the warranty period, defective equipment will be replaced or repaired to the general condition as received, at the discretion of Hear Technologies.

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This warranty applies only to defects in materials and workmanship and does not cover failure or damage due to shipping loss or damage, abuse, misuse, misapplication, incorrect or varying power line voltages, lack of proper maintenance, natural disasters, acts of God, or unauthorized modifications, repairs, or any alterations done without the expressed

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Hear Technologies®
991 Discovery Drive
Huntsville, AL 35806

www.HearTechnologies.com
Phone: 1-256-922-1200
Fax: 1-256-922-1221

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