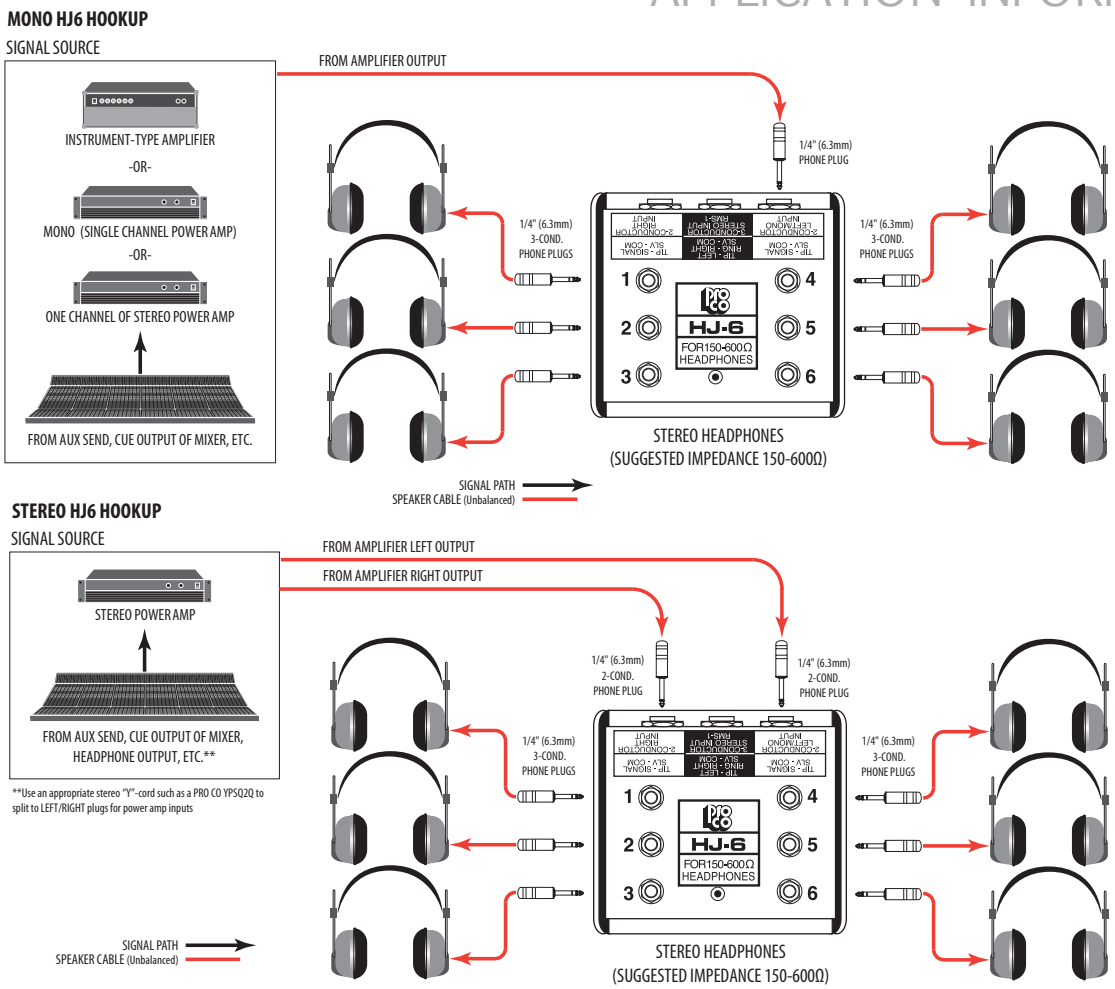
Pro Co On Stage with the Best

TradeTools™

HJ6

HEADPHONE JUNCTION BOX

APPLICATION INFORMATION



CONTROLS:

LEFT/MONO INPUT: ¼" (6.3mm) phone jack accepts signals from unbalanced speaker-level sources (power amplifier outputs). If no plug is inserted into the RIGHT INPUT, the LEFT INPUT feeds both sides of the headphones in monaural.

RIGHT INPUT: ¼" (6.3mm) phone jack accepts signals from unbalanced speaker-level sources (power amplifier outputs). Inserting a plug into this jack breaks the normal connection from the LEFT/MONO INPUT, permitting stereo operation.

STEREO/RMS-1 INPUT: ¼" stereo phone jack accepts signal from stereo speaker level sources (power amplifier outputs), and is intended to simplify the use of the HJ6 with small headphone amplifiers or with the Pro Co *RMS-1 Recording Monitor Selector. Depending upon the sound pressure required, the HJ6 may also be driven from the headphone outputs of mixers, tape decks, etc. Inserting a plug in this jack also breaks the normal connection from the LEFT/MONO INPUT.

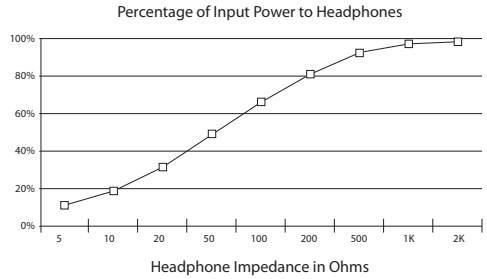
HEADPHONE OUTPUTS: ¼" (6.3mm) stereo phone jacks for connection of 6 sets of stereo headphones, each with resistive isolation from the inputs. Recommended headphone nominal impedance is 150 to 600 ohm, but the HJ6 is useable with virtually any headphones. The amount of input power actually delivered to the headphones depends on the headphone impedance, with higher impedance phones receiving a higher percentage of input power.

**RMS-1 Recording Monitor Selector is no longer available from the factory.*

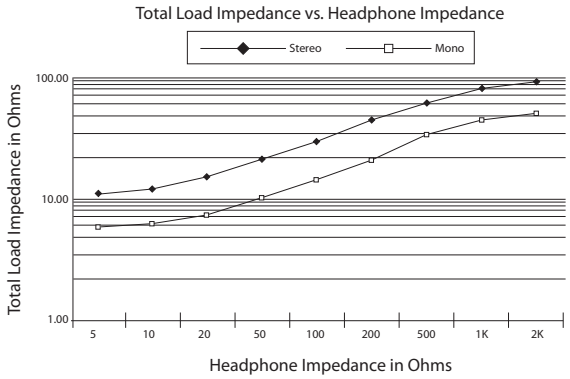
Pro Co Sound
225 Parsons Street | Kalamazoo, MI 49007
800-253-7360

» www.procosound.com

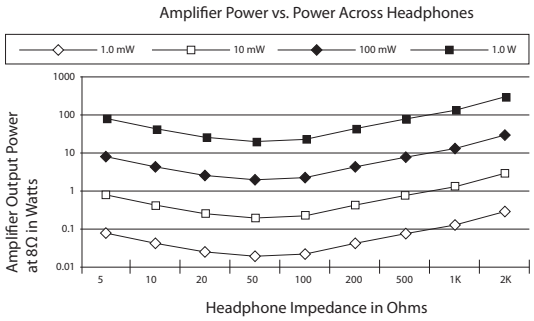
NOTES:



Percentage of Input Power to Headphones
Shows the percentage of power that is delivered to the HJ6 that actually reaches the headphones. Because of the 47 ohm current-limiting resistors, low-impedance headphones receive a much lower percentage of input power than higher impedance units.



Total Load Impedance vs. Headphone Impedance
Shows the actual load impedance seen by the amplifier when 6 sets of identical headphones of various impedances are connected to the HJ6. The MONO load impedance will be half that of the STEREO load impedance because the left and right channels will appear in parallel.



Amplifier Power vs. Power Across Headphones
Shows the rated 8 ohm power required in the power amplifier to produce various power levels across headphones of various impedances. This can be used together with the rated sensitivity of the headphones being used to determine the power required from the amplifier to produce the desired level in the headphones. Headphone sensitivity is generally stated in decibels (dB) output at 1.0 milliwatt (mW) input. Increasing the input power by a factor of ten results in a 10 dB increase in output from the headphones. Hence, a set of phones with a rated sensitivity of 97 dB output at 1.0 mW input will produce 107 dB at 10 mW, 117 dB at 100 mW and 127 dB at 1.0 watt. Power amplifiers are basically constant-voltage devices, so the amount of power delivered to a load is dependent upon the impedance of the load. If output voltage remains constant, decreasing the load impedance will result in increased current flow through the load, which in turn results in more power being dissipated. Because of this, a power amplifier that delivers 10 watts to an 8 ohm load will only deliver 1 watt to an 80 ohm load. To put it simply, it takes a larger amplifier (producing a higher output voltage) to push high-impedance headphones to loud levels than it does to push low-impedance headphones. As can be seen from the graph, a set of 500 ohm headphones requires an amplifier with an 8 ohm power output of almost 100 watts to drive the headphones to a 1 watt level.

CIRCUIT DIAGRAM:

PRO CO MODEL: HJ6

DIMENSIONS.....4.88" D x 4.25" W x 3.38" H
123.2mm D x 108.0mm W x 85.9mm H
WEIGHT.....2.50 lb/0.92 kg
SHIPPING WEIGHT.....3.00 lb/1.38 kg