



RDL[®]
Radio Design Labs

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

TWISTED PAIR FORMAT-A Model TP-HA1A Format-A Stereo Headphone Amplifier

- Headphone Amplifier with User Level Control
- 25 mW Power into Standard Headphones
- Output on Standard Mini Jack
- Mounts to Any Flat Surface
- Input and Power Connection on RJ45
- Connects to Format-A Sender using Twisted-Pair Cable
- Powered from RDL Twisted Pair Format-A Sender
- RJ45 Loop-Thru for Connecting Additional Modules
- Protected by Automatically Resetting Fuse
- Ultra-Compact All Metal Construction



The TP-HA1A is part of the group of versatile Twisted Pair products from Radio Design Labs. The unique case can be directly screwed or bolted to cabinets, shelves or furniture.

APPLICATION: The TP-HA1A is a two-pair receiver and audio headphone amplifier compatible with RDL Format-A twisted pair products. Each TP-HA1A receives stereo audio and 24 Vdc power through a rear-panel RJ45 jack fed from a Format-A sender. The left and right audio signals received on pairs B and C of the twisted pair cable are amplified and fed to the left and right channels of the output 3.5 mm Mini-jack.

The front panel provides the headphone output jack and a single-turn user volume control. There are no illuminated indicators that could be distracting in dark locations, such as a hotel room. The audio input circuits feature very high common mode rejection and a high quality stereo headphone amplifier for superior audio fidelity and low-noise performance.

The TP-HA1A is ideally suited to guest room installations with bedside and restroom listening stations. The input is fully compatible with all RDL Format-A senders.

The TP-HA1A is equipped with two Format-A RJ45 jacks. Either jack may be used as the input. The other RJ45 may be used to connect an additional TP-HA1A or other Format-A receiver.

Installation is simple and economical. Standard twisted pair cable is used to connect a Format-A sender to the TP-HA1A. The base plate of the TP-HA1A has cutouts that allow installers to pre-wire the twisted pair cable with RJ45 connectors attached. The finished twisted pair cable/connector can be fed through the base plate prior to mounting. The base plate is mounted with two screws, the twisted pair cable is plugged in, then the cover plate is attached with one screw.

RDL FORMAT-A features superior audio performance that rivals or exceeds shielded wiring. Design simplicity, ease of installation, unsurpassed flexibility, automatic fused power, exceptional hum rejection, low noise, and low distortion provide designers and installers the optimum choice in economical twisted pair products.



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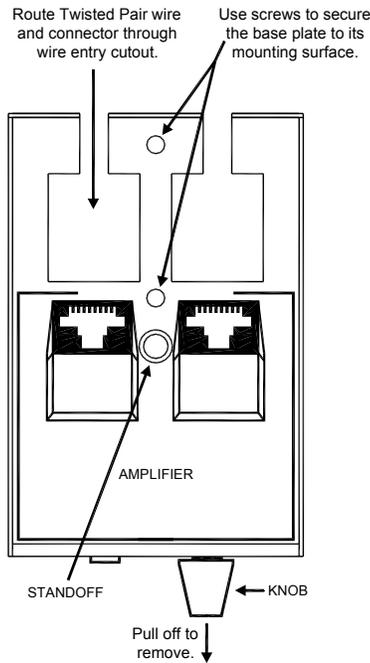
**TWISTED PAIR FORMAT-A
Model TP-HA1A
Format-A Stereo Headphone Amplifier**

Installation/Operation



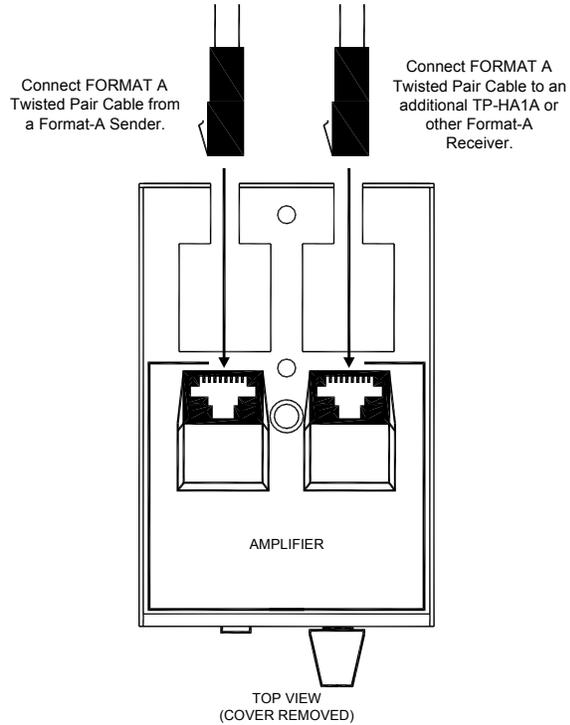
EN55103-1 E1-E5; EN55103-2 E1-E4; EN60065
Typical Performance reflects product at publication time exclusive of EMC data, if any, supplied with product. Specifications are subject to change without notice. This product is Professional Apparatus.

MOUNTING DETAILS

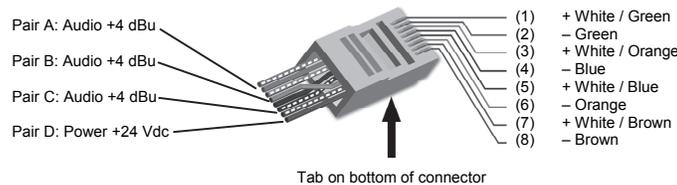


In the event of damage to the amplifier, it can be quickly replaced. Remove the knob and the standoff. Lift the amplifier out of the base plate. Fit the new amplifier in its place. Replace the standoff and knob.

WIRING CONNECTIONS



RJ45 Standard Wiring



RJ45 conductor colors shown are for 568A standard. The 568B standard may be used if the connectors at both ends of the cable are wired identically.

TYPICAL PERFORMANCE

Input:	RDL TP Format-A
Input Connection:	RJ45
Format-A Signal Pairs Used (2):	B, C
Format-A Output:	RJ45 (loop-through)
Output:	Stereo, 25 mW per channel (into 100 ohms)
Frequency Response:	10 Hz to 40 kHz (+/- 1 dB, into 100 Ohms)
THD+N:	< 0.01% (1 kHz, 10 mW)
Noise:	< -90 dB (maximum gain)
Crosstalk:	< -85 dB (1 kHz); < -70 dB (20 Hz to 20 kHz)
Power Connection:	RJ45 (power provided by Format-A sender)
Power Requirement:	24 Vdc @ 30 mA
Dimensions:	3.9" (9.92 cm) L; 2.57" (6.53 cm) W; 1.13" (2.87 cm) H

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