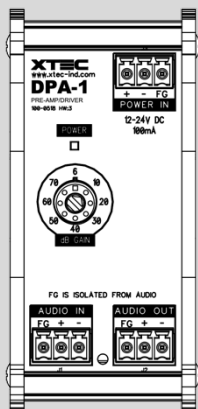


User Manual

DPA-1

Audio Pre-Amplifier



XTEC
INDUSTRIES

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Safety Information

- Not for use in life safety applications.
- Not for use in outdoor or high humidity environments, unless protected in a suitable enclosure.
- The audio input and output are ESD protected, but are not safety isolated. Your application may require additional protection.
- Never attempt to disassemble or repair this product yourself.

Overview

The XTEC **DPA-1** is an audio pre-amplifier, intended for professional applications where microphones or other low level audio sources need to be amplified before connecting to line-level inputs.

It features an ultra-low noise balanced audio input, with gain adjustable from 6dB to 70dB. The balanced output is designed for driving long cable runs into 600Ω loads.

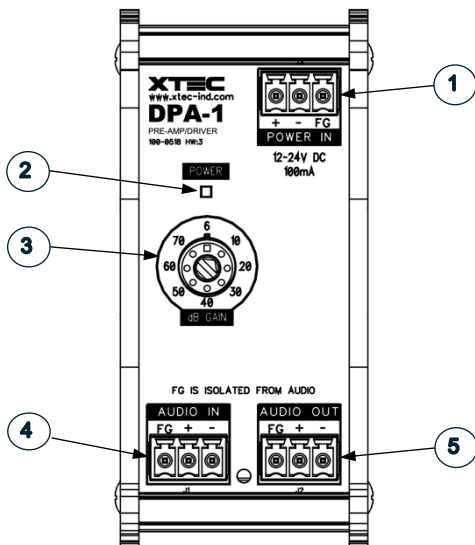
Audio signals are floating unless externally tied to a ground. This mimics the characteristics of transformer type inputs / outputs.

The unit can be powered from 12 to 24v DC, and uses a linear voltage regulator with excellent supply noise rejection.

The DPA-1 is designed to be clipped on to standard 35mm DIN, and uses removable terminal blocks for all wiring. All terminals are protected against ESD and voltage spikes.

Note the DPA-1 does not have phantom power.

Front View



1 12 – 24v DC power supply input

2 Power LED

3 Gain control

4 Audio input connector

5 Audio output connector

Power Supply

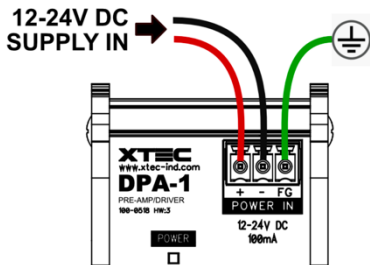
Connect a regulated 12v to 24v DC power supply to the + (positive) and – (negative) terminals. The power LED will light up when power is applied.

For safety, the power input is protected from over current by a fuse link. If the fuse blows you must return the DPA-1 for repair.

The “FG” terminal is for Frame (protective) Ground. It is used for shielding and electrical safety. You should connect the FG terminal to something that is electrically earthed.



Make sure you double check the polarity and voltage levels of the supply before switching on!



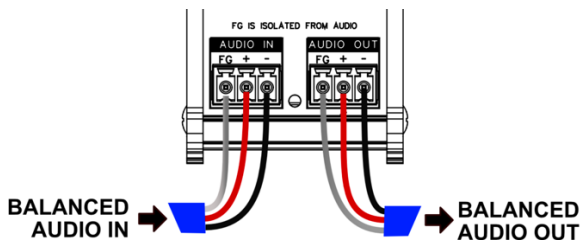
Audio Input & Output

Connect your microphone or other low-level source to the Audio Input connector.

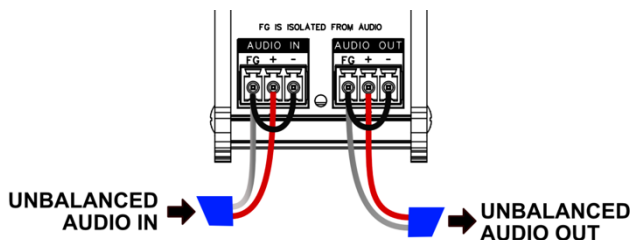
Connect the Audio Output to the input of your external line level device.

You can use balanced or unbalanced wiring.

If you use un-balanced wiring, connect the input signal to the “+” terminal, and connect the “-” and FG terminals together, and then to the shield of the wire.



Example of Balanced Wiring



Example of Un-balanced Wiring

Gain Switch

This low-noise switch allows you to set the audio gain from 6dB to 70dB, in stepped increments. Use a small screwdriver to turn the switch to the desired gain.

We recommend starting at the lowest setting, and increasing the gain as required. Be careful not to over-drive your external line level input.

Make a note of the final gain setting you select, in case the DPA-1 ever needs to be replaced.

At high gain levels above 50dB, you will notice increased noise, and susceptibility to external interference.



To help reduce the interference:

- Make sure all wiring is properly shielded
 - Try using a linear (transformer type) power supply
 - House the DPA-1 in a shielded enclosure, and away from sources of EMI / RFI.
-

Limited Warranty

This product is warranted to be free from defects in materials and workmanship under normal use for a period of three (3) years from the date of purchase. This Limited Warranty is valid only for the original purchaser and is non-transferable.

During the warranty period, if this product is found to be defective, we will repair or replace it, at our discretion, without charge. This warranty does not cover damage caused by misuse, abuse, accidents, unauthorized repairs, or alterations.

To obtain warranty service, please contact our customer service team and provide proof of purchase. We reserve the right to request the return of the defective product for inspection.

This Limited Warranty is the sole and exclusive warranty for the product, and no other warranties, express or implied, are made. In no event shall we be liable for any incidental, consequential, or special damages.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state or country to country.

For more information on our products, please visit:
www.xtec-ind.com



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