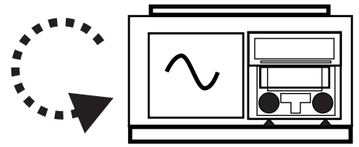
6 STARTUP PROCEDURE

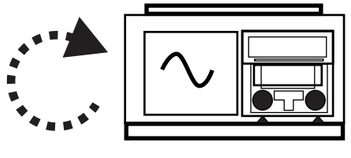


1. Turn down the level of your signal source.

2. Place the back-panel breaker switch in the ON position.

3. Press the front-panel POWER switch to turn the amplifier ON.

4. Wait until the Run/Standby indicator turns solid green.



5. Adjust the input signal level to achieve the desired output level.

AETECHRON®

8504 QUICK START

CONGRATULATIONS on your purchase of the AE Techron 8504 digital power amplifier. 8500 series amplifiers are the first (and only) wide-bandwidth, high-power digital amplifiers available from any manufacturer. An 8500 series amplifier has a linear amplifier's advantages of speed and low noise floors paired with a switch-mode amplifier's efficiency and ability to safely drive a wide variety of loads and impedances.

This combination of abilities makes 8500 series amplifiers a singular solution for many common and some previously unsolvable amplifier applications. 8500 series amplifiers can be used for EMC conducted immunity testing, MIL-PRF tests, DC automotive dropout testing and as a source for AC voltages required for ISO 61000 and Aviation testing. Plus, they have low enough noise and distortion specifications to be the reference power source in power quality measurements.

8500 series amplifiers pack a lot of power into a small package. They are able to produce surge power ratings at up to 2.5X continuous and process apparent power at levels up to 5X the continuous power ratings. This makes an 8500 series amplifier an ideal choice for many difficult-to-drive reactive loads.

Key Performance Capabilities

- Bandwidth: DC - 50 kHz
- Voltage: 0 to 250 VRMS; 0 to 350 VDC
- Current: 60 to 300 ARMS
- Slew Rate: 60V/us
- Distortion: 0.1%
- Power: 4 kW
- Power levels up to 5X rated power when driving reactive loads

1 UNPACKING

Carefully unpack your amplifier from the carton and visually inspect the amplifier for damage. All amplifiers are tested and inspected for damage before leaving the factory, so if any damage is found, please notify the shipping company immediately. Save the shipping carton and materials as evidence of damage.

2 MOUNTING/ INSTALLATION

Use the rack “ears” located on each side of the front panel to mount the amplifier to a standard EIA (Electronic Industries Association) rack. Use standard rack mounting hardware to mount the amplifier. Optionally, the amplifier can be placed on a bench top.

The 8504 weighs approximately 80 pounds. Be sure this weight is properly supported by using rack supports at both front and rear of the amplifier and by using all the screw locations.

WARNING

Crushing bodily injury can result if care is not taken during installation. If product is rack-mounted, cabinet may overturn if not secure.

3 COOLING

When mounting the amplifier in a rack cabinet, mount units directly on top of each other. Close any open spaces in the rack with blank panels. DO NOT block front or rear airvents.

The sidewalls of the rack must be at least 2 inches (5.1 cm) away from the chassis on both sides, and the back of the rack should be a minimum of four inches (10.2 cm) from the amplifier back panel.

CAUTION

Do not operate the amplifier in a small, sealed chamber of any kind. Improper operation and overheating will result.

4 CONNECTIONS

A. Connecting the Load

WARNING

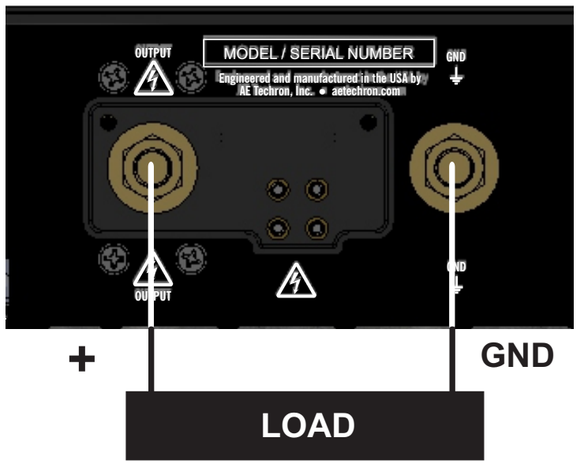
ELECTRIC SHOCK HAZARD.
Output potentials can be lethal. Make connection only with amplifier disconnected from AC Power and input signals removed.

Wires terminated with 3/8-inch ring terminals are recommended when connecting to the output terminals. Connect the load across the terminals marked "OUTPUT" (positive) and "GND" (ground). The GND terminal also can be connected to an external ground point such as the rack chassis, if desired.

Always use the appropriate wire size and insulation for the maximum current and voltage expected at the output. Never connect the output of the amplifier to any other model amplifier, power supply, signal source or other inappropriate load; fire can result.

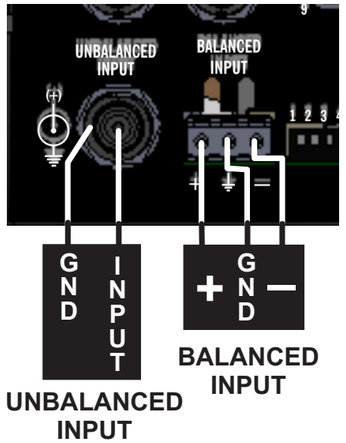
CAUTION

Never use shielded cable for output wiring.



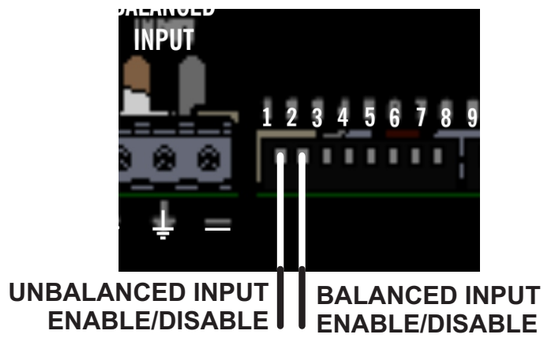
B. Input Wiring

Both an unbalanced Input BNC jack and a balanced Input "WECO" terminal block connector are provided on the amplifier back panel for signal input. Connect your input signal source to the unbalanced or balanced input connector. Input cables should be high quality and shielded to minimize noise and guard against possible feedback.



The back-panel DIP switch #1 can be used to enable/disable the unbalanced input connector, and DIP switch #2 can be used to enable/disable the balanced input connector.

When these two DIP switches are placed in the UP position (factory default), the input connectors are enabled. When the DIP switches are placed in the DOWN position, the input connectors are disabled.



C. DIP Switch Settings (optional)

Other DIP switches can be used to enable features or configure the amplifier for special applications. See the ***Advanced Configuration*** section of the product’s Operator’s Manual for more information. Before operating the amplifier, check to make sure all DIP switches are set as intended.

D. Connect AC Supply

DANGER

The risk of lethal ELECTRICAL SHOCK exists when connecting AC mains! Disconnect the source before connecting AC power wires to the amplifier’s AC inputs.

Always operate the amplifier from the proper AC mains. The 8504 amplifier requires single-phase, 50-60 Hz, 230/240 VAC with no more than 10% variance above or below the line voltage. The amplifier will not operate properly outside these limits.
Connect the AC supply to the three-terminal barrier strip located on the amplifier back panel.