

An Explanation of the Big Blue Power Connector

For many years, Boulder has equipped all of our larger amplifiers with a large, blue power connector. We have received many questions about this connector and are happy to provide an explanation.

The question, “Why does Boulder use an industrial connector?” is actually backwards. The proper question should be, “Why do industrial applications *never* use standard or audiophile connectors?” High power applications need much better and secure connections for optimized power transfer and safety than any standard connector can provide.

For example, the 1160 Stereo Amplifier can draw a maximum of 3,000 watts. At maximum power it will draw 25 amperes with 120V AC mains, or 30 amperes with 100V AC mains. 2100 and 3000 Series amplifiers have even higher maximum power draws. This puts their potential current draw well above the safety capabilities of traditional home or audiophile connectors that max out at 20 amperes. In order to safely transfer power to our amplifiers and provide absolute maximum performance, Boulder has chosen to go with a higher-rated 32A IEC connector. The housing design and connection quality of this connector are far beyond anything offered in standard, hospital grade, or even “audiophile grade” connectors.

The large connector offers numerous benefits, including:

- Unique insertion sleeve design with locking, adjustable strain relief offers a stronger and much more secure connection for the connector itself, conductors, and connector pins and sockets.
- Adjustable and locking rubber-covered “gripping” strain relief can be securely tightened around the power cable to prevent any movement of the power cable or disconnection of the conductors within the connector.
- Because of the large size and adjustable nature of the strain relief, the connector can securely handle very large aftermarket power cords

Because of the length of the connector at the rear of the amplifier, Boulder is able to machine a connector that exits the rear of the amplifier at a 90-degree angle and does not take up as much space. All other aspects of the connector are the same.

All connection pins and sockets have extremely tight spring tension and are precision machined out of solid brass. Some benefits of this type of connection design are:

- Each connector can handle large gauge cable conductors
- Double set screw wire termination for better and more direct electrical transfer than crimped or soldered connections
- Much more precise pin-and-socket connection over a larger contact area
- Larger contact area results in much lower contact resistance for improved power transfer and better current flow, especially in lower voltage applications

- Much higher current capacity rating
- Precision machined connections fit around the entire length and diameter of the connector pin, not a small point of contact on a stamped or pressed spring contact made from thin sheet stock
- Brass contacts have no plating

For customers who wish to have the same quality connection for their AC mains outlet, Boulder is able to provide connectors for the same type of housing in a wall-mounted connection. For further information about this connector, please contact the factory.

All assembled power cords use cabling that is also rated for 250V and 32A for safety. When considering the change of power cord, we strongly suggest checking that the cable being considered is capable of handling the proper voltage and current ratings for the amplifier. Boulder is not responsible for damage incurred if improper wiring and/or power ratings are used.

