



TB 240 Mains Booster

208 VAC to 240 VAC

Features

- Increases 208V single-phase AC mains to 240 VAC
- Enables increased output voltage of up to 400 Vp when operating the 8504 amplifier from 208 VAC AC mains
- Prewired, ready to go out of the box

Application

The AE Techron TB 240 is an AC Mains Booster designed to allow customers who have access to 208 VAC but not 240 VAC single-phase mains, and need voltages over 200 Vp from their AE Techron 8504 amplifier, to get voltages up to 400 Vp from the amplifier.

Description

The 8504 amplifier has a linear power supply that produces voltages that are proportional to the input voltages it is presented. The 8504 will produce the same total power from any AC mains voltage from 208V to 240V at output voltages of up to about 200 V_{RMS} . AC mains voltages below the optimal (240 VAC) will need to be increased if higher output voltages than 200 V_{RMS} are needed,

The TB 240 will increase a 208 VAC mains by approximately 15% (to 240 VAC). This will enable the output voltage of the 8504 to increase by an additional 15% (at power levels of up to 4000 watts

continuous) and to achieve a no-load voltage of approximately 280 V_{RMS} (400 Vp).

The TB 240 uses an autotransformer concept to boost AC Mains voltages while maintaining a small, low-cost form factor. The TB 240 is correctly sized and prewired to be ready right out of the box for you to wire and go from your facility's 208 VAC single-phase AC mains to your 8504 power amplifier.

Unit Setup

Safety First



Throughout these instructions, special emphasis is placed on good safety practices. The LIGHTNING FLASH and EXCLAMATION POINT graphics are used to highlight certain topics that require extra precaution.

Watch for These Symbols:






The lightning flash with the arrowhead symbol within an

equilateral triangle is intended to alert the user to the presence of “dangerous voltage” inside the product that may constitute a risk of electric shock.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the product.

Important Safety Instructions

1. Read and keep these instructions. Follow all instructions and heed all warnings.
2. Do not use this apparatus near water. To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. Do not expose this equipment to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the equipment. 
3. Disconnect this product from all sources of electrical power before cleaning. Use a damp cloth for cleaning. Clean the outside of the product only. 
4. Care should be taken so that objects do not fall into the product.
5. Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
6. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
7. Only use attachments/accessories specified by the manufacturer.
8. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged 


in any way, such as liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

9. Do not remove product covers. No user serviceable parts inside. Refer servicing to qualified service personnel.
10. Always use the appropriate wire size and insulator for maximum voltage and current expected.
11. Operating conditions: 10°C to 40°C; Humidity: 70% or less, non-condensing.

Unpacking

Carefully unpack and inspect the unit. Please note any damage for future reference and notify the shipping company immediately if damage is found. Also, please save the shipping carton and materials as evidence of damage and/or for returning the unit for repair.

Connecting the TB 240 Mains Booster

1. Before connecting the TB 240, make sure all equipment you are connecting is disconnected from AC power. 
2. Locate the cable labeled 208V IN and terminated with four ferrule terminals on the TB 240 Mains Booster. Install an appropriate AC connector or wire the cable directly to your 208V source as shown in Figure 1.
3. Connected the cable terminated with three spade terminals (red, black and white wires) and one ring terminal (green wire) to the 8504 amplifier’s back-panel AC input block and GND output connector, as shown. See Figure 2.

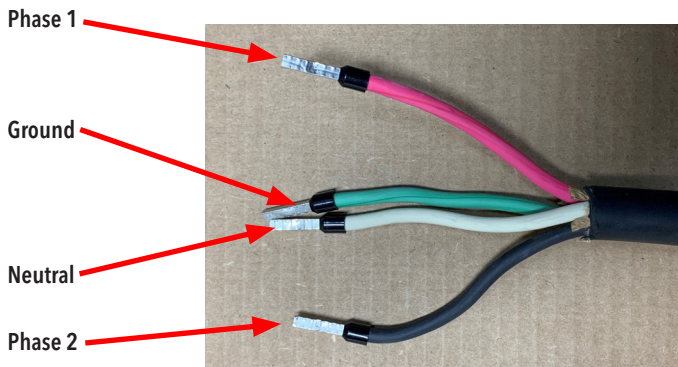


Figure 1 – Connecting to the AC Supply



Figure 2 – Connecting to the 8504 Amplifier

Installing the TB 240 Mains Booster

The Line Voltage Booster can be wall-mounted, if desired. A wall-mounting bracket has been included with the Line Voltage Booster. Follow the instructions

included with the mounting bracket to mount the Line Voltage Booster. See Figure 3.

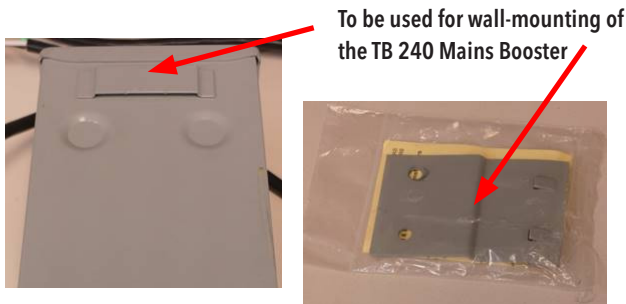


Figure 3 – Installing the TB 240 Mains Booster

Equipment Maintenance

To prevent electric shock, do not remove product covers. No user serviceable parts inside. Internal fuses should only be replaced by a service technician. Refer all servicing to qualified service personnel.

Disconnect this product before cleaning. Use a damp cloth for cleaning. Clean the outside of the product only.

Factory Service

If the unit fails to perform, it may need to be returned for Factory Service. All units under warranty will be serviced free of charge (customer is responsible for one-way shipping charges as well as any custom fees, duties, and/or taxes). Please review the Warranty included with this Instruction Sheet for more information.

All service units must be given Return Authorization by AE Techron, Inc. before being returned. Return Authorizations can be requested on our website or by contacting our Customer Service Department.

Please take extra care when packaging your unit for repair. It should be returned in its original packaging or a suitable alternative. Replacement packaging materials can be purchased for a nominal fee.

Please send all service units to the following address and be sure to include your Return Authorization Number on the box.

AE Techron, Inc.

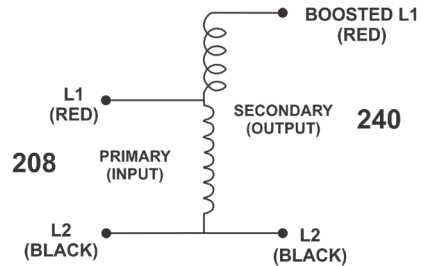
**Attn: Service Department / RMA#
2507 Warren Street
Elkhart, IN 46516**

Specifications

Maximum Secondary Amperage:
31.2 amps

Approximate Shipping Weight:
28 lbs. (12.73 kg)

Dimensions (HxWxD):
10.0 in. x 6.0 in. x 5.0 in. (25.4 cm x
15.24 cm x 12.7 cm)



Additional Product Information

This manual does not include all of the details of design, production, or variations of the equipment. Nor does it cover every possible situation which may arise during installation, operation or maintenance.

Additional information may be included with your unit.

Information Accuracy

The information provided in this manual was deemed accurate as of the publication date. However, updates to this information may have occurred. To obtain the latest information for your unit, please visit the AE Techron website at www.aetechron.com.

Three-Year, No-Fault Warranty

SUMMARY OF WARRANTY

AE TECHRON INC., of Elkhart, Indiana (Warrantor) warrants to you, the ORIGINAL COMMERCIAL PURCHASER and ANY SUBSEQUENT OWNER of each NEW **AE TECHRON INC. product**, *for a period of three (3) years from the date of purchase, by the original purchaser (warranty period) that the product is free of defects in materials and workmanship and will meet or exceed all advertised specifications for such a product. We further warrant the new AE Techron product regardless of the reason for failure, except as excluded in the Warranty.*

ITEMS EXCLUDED FROM WARRANTY

This AE Techron Warranty is in effect only for failure of a new AE Techron product which occurred within the Warranty Period. It does not cover any product which has been damaged because of any intentional misuse, or loss which is covered under any of your insurance contracts. This warranty does not extend to any product on which the serial number has been defaced, altered, or removed. It does not cover damage to loads or any other products or accessories resulting from **AE TECHRON INC.** product failure. It does not cover

defects or damage caused by the use of unauthorized modifications, accessories, parts, or service.

WHAT WE WILL DO

We will remedy any defect, regardless of the reason for failure (except as excluded), by repair or replacement, at our sole discretion. Warranty work can only be performed at our authorized service centers or at our factory.

Expenses in remedying the defect will be borne by **AE TECHRON INC.**, including one-way surface freight shipping costs within the United States. (Purchaser must bear the expense of shipping the product between any foreign country and the port of entry in the United States and all taxes, duties, and other customs fees for such foreign shipments.

HOW TO OBTAIN WARRANTY SERVICE

When you notify us of your need for warranty service, we will give you an authorization to return the product for service. All components must be shipped in a factory pack or equivalent which, if needed, may be obtained from us for a nominal charge. We will take corrective actions within a reasonable time of the date of receipt of the defective product. If the repairs made by us are not satisfactory, notify us immediately.

DISCLAIMER OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

You are not entitled to recover from us any consequential or incidental damages resulting from any defect in our product. This includes any damage to another product or products resulting from such a defect.

WARRANTY ALTERATIONS

No person has the authority to enlarge, amend, or modify this warranty. The warranty is not extended by the length of time for which you are deprived of the use of this product. Repairs and replacement parts provided under the terms of this warranty shall carry only the unexpired portion of this warranty.

DESIGN CHANGES

We reserve the right to change the design of any product from time to time without notice and with no obligation to make corresponding changes in products previously manufactured.

LEGAL REMEDIES OF PURCHASER

There is no warranty that extends beyond the terms hereof. This written warranty is given in lieu of any oral or implied warranties not contained herein. We disclaim all implied warranties, including, without limitation, any warranties of merchantability or fitness for a particular purpose. No action to enforce this Warranty shall be commenced later than ninety (90) days after expiration of the warranty period. This statement of warranty supersedes any others contained in this manual for AE Techron products.

AE Techron, Inc.

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