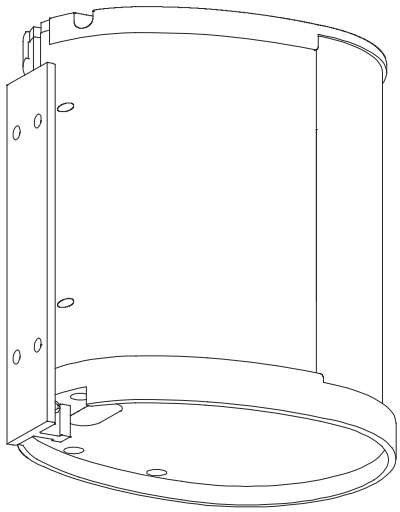
Desono™
E Series 750 Watt Autoformer (ENT-750T)
Installation & Operation Guide

PRODUCT DESCRIPTION

The ENT 750 W autoformer is a step-down auto-transformer for use with the ENT-FR or ENT-LF in constant voltage distribution systems. Designated the ENT-750T, it can be used to minimize the I^2R losses of long cable runs by converting the distributed high voltage, low current signal to a lower voltage, higher current signal that can effectively drive the ENT-FR/LF column loudspeakers. The ENT-750T is available in either black (ENT-750T) or white (ENT-750TW) to match the color of the enclosure(s). A matching autoformer mounting bracket is also included.

Kit Contents:

Part	Qty
750-Watt Auformer	1
“T” Mounting Bracket for Autoformer	1
Joiner Bar	1
6mm Flat Washer	4
6 mm Lock Washer	4
M6 Hex Nuts	4
M6 x 20mm Flat Head Screw	4
Dual Banana Jumper Plug	1
Input Panel Cover	1
Rubber Recess Plug	1



RIGGING AND ELECTRICAL SAFETY

CAUTION: It is strongly recommended that a licensed and certified professional structural engineer approve the mounting. Severe injury and/or loss of life may occur if this product is improperly installed.

IMPORTANT: Installation of loudspeakers should only be performed by trained and qualified personnel. All electrical connections must conform to applicable city, county, state, and national (NEC) electrical codes.

WARNING: It is possible to experience severe electrical shock from a power amplifier. Always make sure that all power amplifiers are in the "OFF" position and unplugged from an AC Mains supply before performing electrical work.

WARNING: It is essential that the secondary cable be secured to a suitable load-bearing point separate from the primary loudspeaker mounting point, with as little slack as possible so as not to develop undue kinetic force if the primary mount were to fail.

IMPORTANT: No hardware is provided to attach the ENT column assembly and ENT-750T Bracket to the mounting surface. Such hardware must be supplied by the installer and should be sized and rated for the weight load of the enclosures. This is particularly important if the enclosures are steeply angled upward or downward, as most or all of the weight may be supported by the front or rear points only.

WARNING: The bolts used and wall material into which the ENT-750T Autoformer assembly and ENT columns are bolted must be capable of supporting the load of the autoformer and ENT array to be mounted. It is the responsibility of the installer to verify these items.

INSTALLATION

1. A mounting bracket ("T" bracket) is attached to the autoformer. This is similar to, but shorter than, the mounting bracket supplied with ENT-FR/LF loudspeakers. This bracket may be used to mount the autoformer directly to a wall as shown in Figure 1. This is the only way to mount the autoformer if it is to be placed below an ENT array. The autoformer may be electrically connected to the array using the barrier strip terminals on the top of the autoformer. When this mounting is used the included Rubber Plug should be inserted into the bottom dual banana jack recess area to seal it from moisture (Figure 2)
2. The autoformer may be mechanically attached to the top of an array using the Joiner Bar and the associated hardware that is included with the ENT-750T. This attachment method is shown in Figure 3. Mounting the autoformer in this manner allows the output of the autoformer to be routed to the input of the ENT array via the dual banana jumper plug, also included with the ENT-750T.
3. The input wires to the autoformer are then attached to the barrier strip terminal. Note the proper terminals to which the input wires should be connected to yield the desired maximum drive level to an ENT array comprised of one, two, or three columns. This information is printed on the input label of the autoformer and is shown in Figure 4. Once all of the wires are connected to the autoformer the Input Panel Cover may be attached to the autoformer. This will help protect the input connections from moisture and debris.

WARNING: Never attempt to attach an ENT-750T to the bottom of an ENT-FR/LF loudspeaker. It is NOT strong enough to support the weight of the loudspeaker(s) column above it.

IMPORTANT: The installer is solely responsible for determining if all rigging components that are used to mount or suspend the enclosure(s) are adequately sized and rated, and if the structure they are mounted or suspended from is capable of safely supporting the aggregate weight load. If multiple enclosures are suspended, it is the installer's responsibility to insure that the combined weight load does not exceed the Working Load Limit of any one rigging fitting.

For more information on using the ENT 750-Watt Autoformer, please refer to the complete ENT-FR/LF Installation/Operation Guide available on biamp.com.

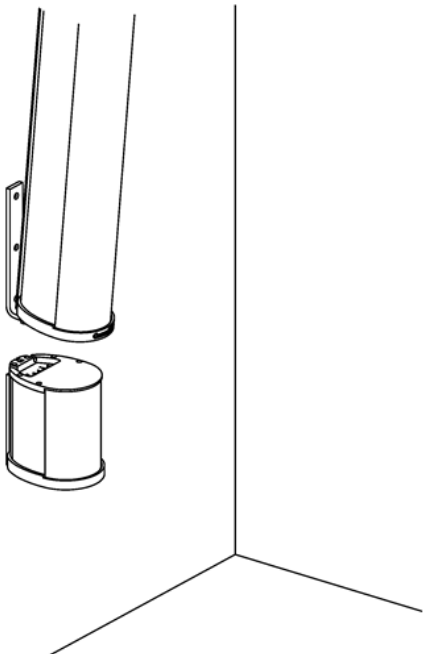


Figure 1. ENT-750T mounted below array

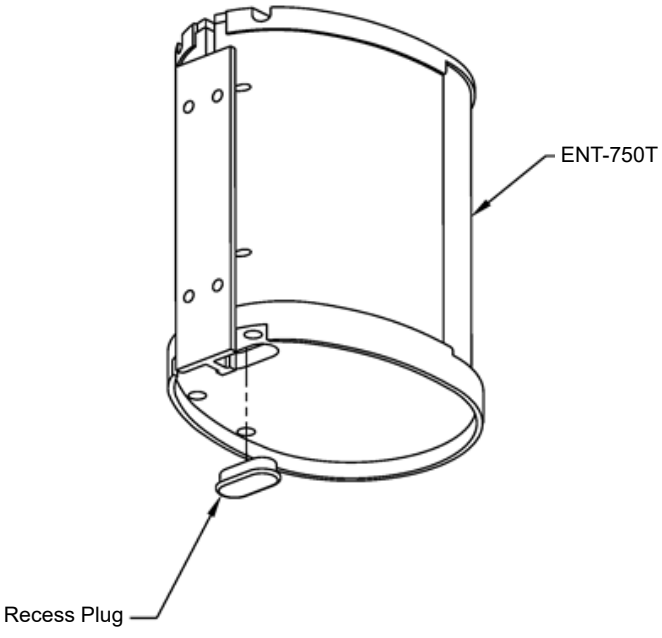


Figure 2. Push recess plug into opening (if mounted below array)

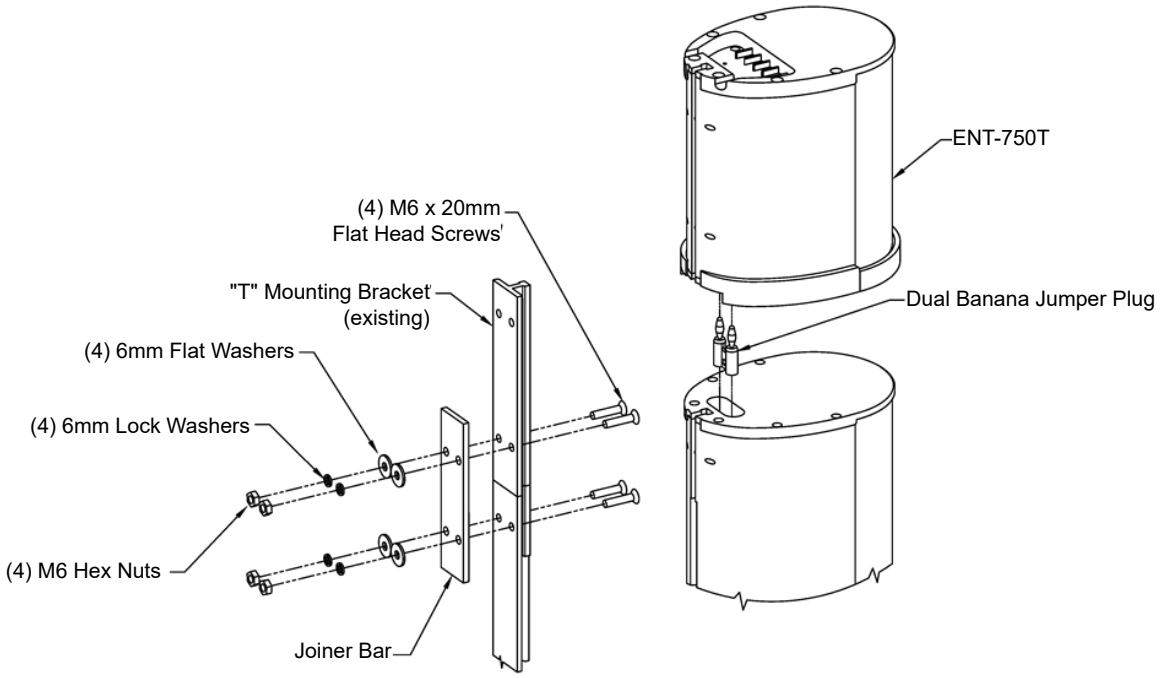


Figure 3. Attach ENT-750T to the top of an ENT array

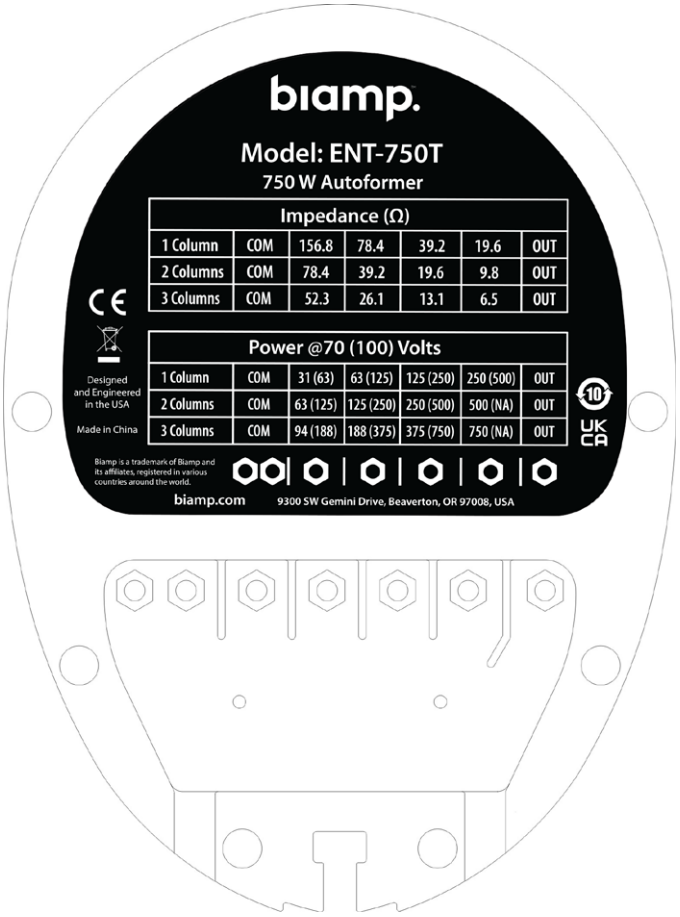


Figure 4. ENT-750T top view

ENT-750T SPECIFICATIONS

Frequency Response	See chart below
Insertion Loss	0.5 dB
Low Frequency Limit at Maximum Input	100 Hz
Recommended HP Filter	200 Hz, 24 dB/octave
Input Connection	Top: Barrier Strip Terminals Bottom: (1) Dual Banana Jack (female)
Mounting Provisions	"T" Mounting bracket (included)
Enclosure	One piece aluminum extrusion with molded nylon end caps
Finish	Black or White
Dimensions H x W x D	7.67" x 5.5" x 7.36" (195 x 140 x 187 mm)

ENT-750T Frequency Response Chart		
Highest Power Tap		
Column Configuration**	**Frequency Range**	**Deviation**
1 FR	200 Hz - 15 kHz	+0.0 / -0.0 dB
1FR+1LF or 1FR+2LF or 2FR or 2FR+1LF	200 Hz - 15 kHz	+0.25 / -0.25 dB
3FR	200 Hz - 15 kHz	+0.25 / -0.5 dB
Lowest Power Tap		
Column Configuration**	**Frequency Range**	**Deviation**
1 FR	200 Hz - 15 kHz	+0.25 / -1.0 dB
1FR+1LF or 1FR+2LF or 2FR or 2FR+1LF	200 Hz - 7 kHz	+0.5 / -1.0 dB
1FR+1LF or 1FR+2LF or 2FR or 2FR+1LF	200 Hz - 15 kHz	+0.5 / -2.0 dB
3FR	200 Hz - 7 kHz	+1.0 / -1.0 dB
3FR	200 Hz - 15 kHz	+1.0 / -3.0 dB

** Under "Column Configuration", FR refers to the E Series ENT Full-Range Column (ENT-FR) while LF refers to the E Series ENT Low Frequency Extension Column (ENT-LF).

CONTACT US

Email: support@biamp.com

Web: support.biamp.com

IMPORTANT: Whenever ENT column loudspeakers are installed outdoors, or exposed to direct rain, water or precipitation, the loudspeaker enclosure must be angled downward at a minimum of two (2) degrees.

IMPORTANT: All rigging elements must be reviewed by a licensed engineer or certified rigging professional to ensure they are sufficient for the application.

NOTE: Every effort has been made to ensure that the information contained in this manual was complete and accurate when printed. However, due to ongoing technical advances, changes or modifications may have occurred that are not covered in this manual. The latest version is available at www.biamp.com.