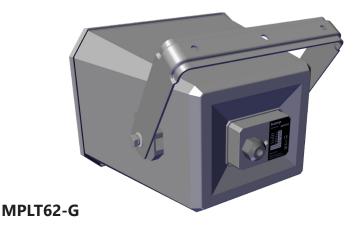


# COMMERCIAL LOUDSPEAKERS MPLT62-G LONG THROW FULL-RANGE LOUDSPEAKER

# **Installation and Operation Guide**





#### PRODUCT DESCRIPTION

- A horn-loaded full range, 2-way loudspeaker that offers quality sound over long distances in wide areas
- Long-distance projection
- Indoor / Outdoor use
- 70 V/ 100 V operation with 5 tap settings

#### Rigging and Electrical Safety



DANGER: The loudspeakers described in this manual are designed and intended to be suspended using a variety of rigging hardware, means, and methods. Installation of loudspeakers should only be performed by trained and qualified personnel. It is strongly recommended that a licensed and certified professional structural engineer approve the mounting design. Severe injury and/or loss of life may occur if these products are improperly installed! All electrical connections must conform to applicable city, county, state, and national (NEC) electrical codes.



DANGER: 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.



IMPORTANT: All electrical installation connections for loudspeaker lines are subject to all applicable governmental building and fire codes. The selection of appropriate electrical hardware to interface

with the loudspeaker lies solely with the installation professional. Biamp recommends that an appropriately licensed engineer, electrician, or other qualified professional identify and select the appropriate conduit, fittings, wire, etc. for the installation.



DANGER: The output power capabilities of audio amplifiers present a danger to installers. To minimize the risk of electric shock from loudspeaker connecting cables, confirm that the power amplifiers are

turned "off" before connecting loudspeaker cable(s) to the loudspeaker or amplifier. Always follow local electrical codes and proper electrical safety procedures.



WARNING: After wiring the amplifier(s) to the loudspeaker(s), first power-up all devices that are upstream of the amplifier, such as mixers, equalizers, compressor/limiters, etc., before powering-up the amplifier.

This is to avoid passing any clicks or pops that may originate in the upstream devices to the loudspeakers. The amplifier should initially be powered-up with its gain controls turned all the way down. After making sure that a continuous signal is present, such as a CD playing, slowly raise the level of the gain controls to establish that the wiring has been installed correctly. Only then should the loudspeaker be operated at normal output levels.

#### Wiring and Electrical Safety

The MPLT-62 comes with an attached gland nut. The installer must provide the cable. The designer must account and compensate for cable losses between the amplifier and the loudspeaker system. Refer to this <u>article</u> on Cornerstone for more information on cable loss calculations. Please contact the Customer Support for additional assistance (email: <a href="mailto:support@biamp.com">support@biamp.com</a>)

Wire the loudspeaker. A typical installation method is to locate a junction box (J-box) close to the loudspeaker and connect to it with a shorter cable. Connections within the J-box should be made with appropriate wire connectors. Terminate per your local electrical code.

**NOTE:** Be sure to read the loudspeaker safety guide included in the carton with the loudspeakers.



# **PRODUCT REPRESENTATION**

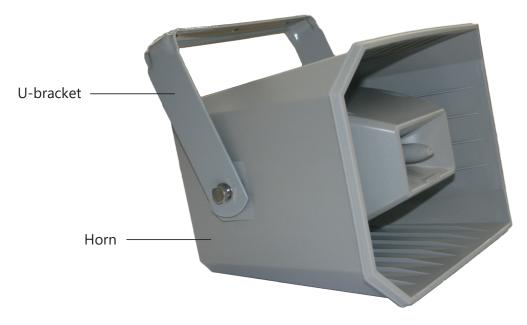


Figure 1. Front view MPLT-62-G

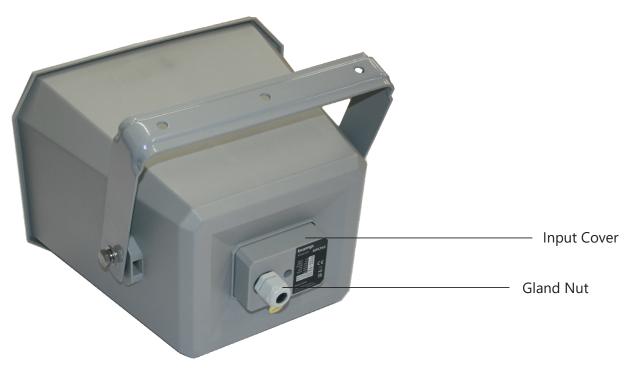


Figure 2. Back view MPLT-62-G

#### INSTALLATION

Each loudspeaker comes with an attached powder-coated aluminum U-bracket for easy surface installation. The installer must provide the appropriate hardware for the application. The horn and cable egress are watertight and may be installed indoor or in outdoor applications.

- 1. Determine where the horn is to be installed.
- 2. Attach the horn to the structure or surface using the holes in the U-bracket (mounting hardware not provided).

**NOTE:** The U-bracket can be removed and pre-installed. Reserve the hardware to reattach to the horn.

- 3. Once the horn is installed, attach a safety cable.
- 4. Aim the loudspeaker to the desired angle and tighten the bolts on either side to hold it in place.

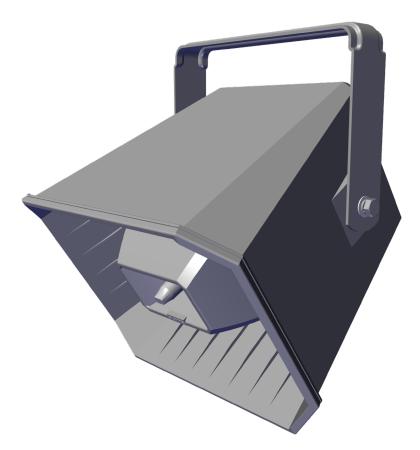


Figure 3. Position horn

**NOTE:** The safety cable and associated hardware are not included. Consult all applicable codes for your application. Confer with a structural engineer for the appropriate cable/hardware for the load, application, and locale. If required, the safety cable must be secured to a suitable load-bearing point separate from the array mounting, with as little slack as possible, so as not to develop undue kinetic force if the primary mount were to fail.

#### WIRING / TAP CONNECTION

- 1. Remove the rear input cover (Phillips head screw circled)
- 2. Loosen the gland nut, and thread a 2-conductor cable through it. The gland nut will accommodate 13-18 mm (0.5-0.7") diameter cable.



Figure 4. MPLT62-G input cover

**NOTE:** Two or more smaller diameter cables may be used in the gland nut when wiring a parallel daisy chain of MPLT62-G speakers. Additional precautions may be required to ensure watertightness of the gland nut. High-quality silicone caulking is typically used in this situation.

3. Strip the ends 6 mm (.25") and prepare the wires for insertion into the barrier strip as shown in Figure 5.



Figure 5. Typical cable

- 4. Insert the (+) wire in the appropriate terminal and tighten the screw to hold the wire. Do the same for the (-) wire to the common (black) location as shown in Figure 6.
- 5. Choose the appropriate tap setting. See page 5 for an example of tap settings on a line of MPLT-62s.



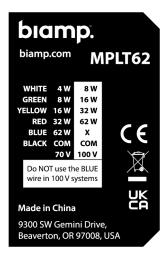


Figure 6. Connect to the appropriate tap

#### WIRING / TAP CONNECTION CONTINUED

- 6. Replace the input cover and fully tighten the retaining screw as shown in Figure 7.
- 7. Tighten the gland nut around the cable, ensuring a weatherproof seal.
- 8. After all of the horns are installed and connected to the appropriate DSP/amplifier equipment, power and test the system.

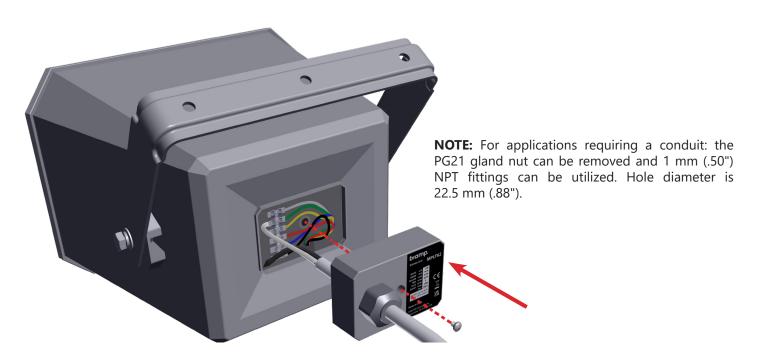


Figure 7. Reattach cover

### Amplifier power per channel must be higher than total power of all speakers on that channel

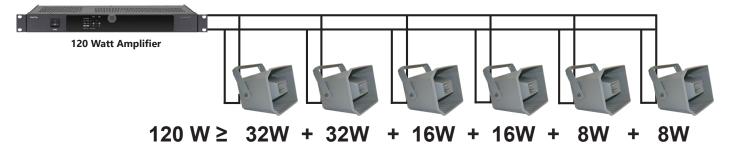


Figure 8. Typical amp & loudspeakers tab settings

#### **OPTIONAL ACCESSORIES**

# **Dual Gang Box Mounting Bracket Kit (SPA-HMB100)**

The bracket provides attachment from the horn's U-bracket to a standard 4-square or dual gang junction box cover (North America only).

- 1. Attach the bracket to the horn as shown in Figure 9.
- 2. Keep the connection loose to allow horn rotation.



Figure 9. Bracket

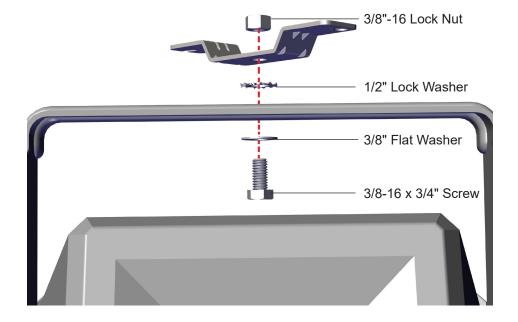


Figure 10. Bracket install

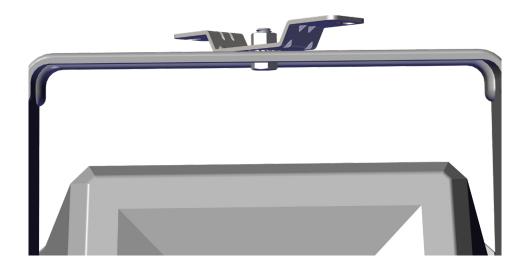


Figure 11. Secure bracket to yoke

## **OPTIONAL ACCESSORIES CONTINUED**

# **Dual Gang Box Mounting Bracket Kit (SPA-HMB100)**

- 3. Partially install screws (not included) holding the cover on the box as shown in Figure 12.
- 4. Slide the bracket slot onto the lower screw (a) shown in Figure 13.
- 5. Rotate and capture the upper bracket keyhole on the top screw (b) in Figure 13.



Figure 12. Loosen screws

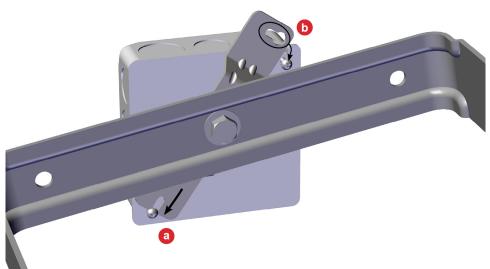


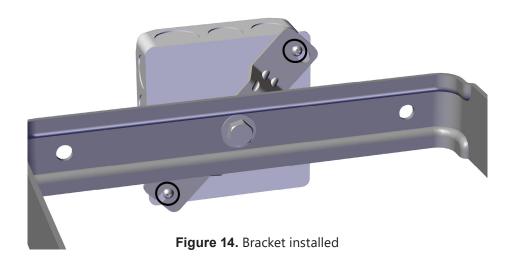
Figure 13. Securely attach bracket to box

#### **OPTIONAL ACCESSORIES CONTINUED**

# **Dual Gang Box Mounting Bracket Kit (SPA-HMB100)**

- 6. Rotate the bracket down to fully capture the screw (circled) in Figure 14.
- 7. Fully tighten the screws to secure the bracket to the box.

**NOTE:** Vertically mounted mounted boxes must have the straight bracket slot at the bottom for security/saftey.



8. Aim the horn and fully tighten center bracket hardware.

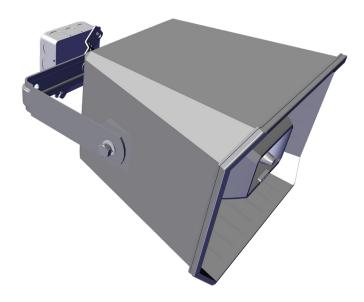


Figure 15. Typical placement

#### **OPTIONAL ACCESSORIES CONTINUED**

# biamp.

Figure 16. Beam clamp

#### Beam Clamp Installation (SPA-HBC100)

This beam clamp has a 125 lb. (56.6 kg) load capacity.

- 1. Attach clamp to beam or building structure.
- 2. Beam clamp supports 1/4" threaded rod as shown in Figure 16. (rod and horn mounting hardware not included).
- 3. One or two clamps may be used to suspend the horn. One clamp in the center position is shown in Figure.17.
- 4. Position and secure beam clamp to beam or support structure by tightening the bolt.
- 5. Secure horn bracket to the rod.
- 6. Aim the horn and secure the angle by tightening the side bolts.
- 7. Install safety cable to a secondary mounting point.
- 8. Refer to the note on page 3 of this manual.

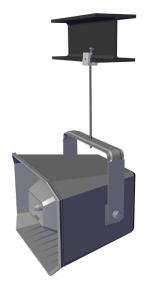
**NOTE:** Hardware securing horn to the rod and beam clamp is not shown, must be supplied by the installer.



Figure 17. Beam clamp attached



Figure 18. Rod attachment



**Figure 19.** Typical horn attachment

#### **CONTACT US**

Email: <a href="mailto:support@biamp.com">support@biamp.com</a>
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Warranty: biamp.com/legal/warranty-information

