

biamp.[™]



Cambridge DS1390

**LOW PROFILE SOUND MASKING
AND PAGING SPEAKER**

GENERAL INFORMATION

The DS1390 plenum masker is a complete loudspeaker assembly ready for installation, either in an open structure office facility or above suspended ceilings. The unit is composed of a six-inch diameter loudspeaker, metallic back box, 70V transformer, and volume control. The unit should be wired to a power amplifier with a 70.7 V output.

UNPACKING

The plenum maskers are carefully tested before leaving the factory. Inspect both the units and their shipping container for indication of improper handling. Report any equipment damage to the distributor immediately. If the unit was shipped to you, notify the shipping carrier without delay and place your claim. Unpack the unit. It is ready to be installed.



TOOLS REQUIRED

- Ladder, Wire strippers, Crimp Connectors, Flat headed screwdriver, others depending on attachment method
- Hanging wire or chain, as preferred
- 18 Gauge twisted pair wire for electrical connection

FIELD MAINTENANCE

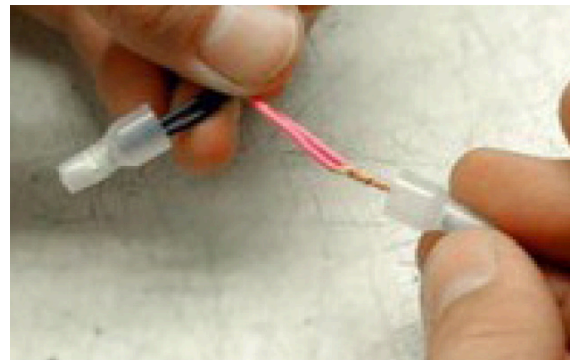
No maintenance is required on these maskers other than possible repair of a wire broken during installation. The output level of the unit can be changed, if necessary, by rotating the volume control on the body of the housing. If the speakers fail to make sound on initial installation, check for an open or shorted home run wire. Check to make sure the amplifier has an output voltage when the home run wire is disconnected. If the zone wire has a short, the amplifier output fuse may have failed to protect the unit.

MECHANICAL INSTALLATION

The eyebolt on the DS1390 provides a single point suspension. Determine the correct method for attaching the hanging wire to the structure above the ceiling. Typically, the method used to hang ceiling grid is the best for speaker installation. For example, hangers can be shot into concrete structures or suspension wire can be wrapped around bar joists in metal ceiling structures. Set the volume control on each speaker at 1 W (one Watt). Determine the locations for the speakers and open the appropriate ceiling tiles. Inspect the plenum for places to hang the speaker. It is always preferable to independently hang the speaker assembly. Cut a length of hanging wire such that the speaker may be hung from the chosen location.

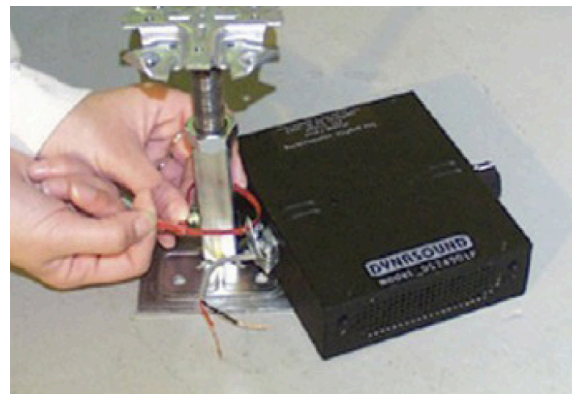
ELECTRICAL CONNECTION

All speakers will be connected in parallel. Run the zone wiring so that the wires pass each speaker. Start at the speaker at the end of the zone. Strip the two zone wires. Twist the black wires together and twist the red (or white) wires together. Put a crimp connector on each connection to stuff the connections into the speaker, and then screw down the strain relief clamp. Verify the speaker is on the 1 W setting. Move to the next speaker and pull up any slack from the previous speaker, and then cut the zone wire. The zone wire should be suspended well above the ceiling and not left in loose loops. Some local codes require the wire to be suspended between the speakers. Use fire-rated wire ties, where required by code, to dress the zone wires to speaker suspensions and to ceiling attachments. Strip both ends to twist all black wires together and twist all red (or white) wires together.

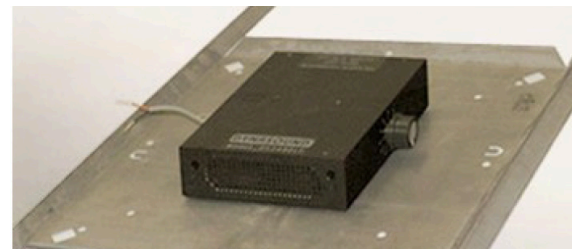


PROPER INSTALLATION TECHNIQUES

All electrical connections should be inserted into the speaker enclosure before tightening the strain relief. In addition, the wires should be attached to the hanging wire, using wire ties, as illustrated. Fastening the lead wires at these two points while adjusting the speaker to be level is normally all that is needed to keep the speaker in the appropriate position.



Leaving the speaker connections outside the enclosure is bad wiring practice, and provides less ability to level the speaker. In some cases where there is difficulty getting the speaker to hang correctly, the balance of the speaker can be changed by bending the eyebolt, very slightly, in the direction of the low point of the speaker. It is not critical that the speaker be perfectly level, other than for aesthetic reasons.



WARRANTY

The DS1390 plenum masker is covered by the standard Biamp 5-year warranty.





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