General Description
The BOSE® 102°F commercial loudspeaker is engineered for true high-fidelity performance as part of a distributed sound system. It incorporates a BOSE® 4.5-inch (11.4 cm) HVC (Helical Voice Coil) full-range driver in a dual-ported enclosure.

The 102°F flush-mount speaker can be installed in ceilings and standard studded walls. The actively equalized models require use of their active equalization curve available in select Bose electronics, and feature a factory installed line transformer with 2, 4, 8, 16, and 25 Watt taps. The front panel of this version contains a level tap switch that is easy to adjust with a screwdriver.

The 102°F loudspeaker has a polyvinyl-chloride injection-molded enclosure and baffle. This provides a high level of reliability and ruggedness. Grille and mounting accessories are available.

<table>
<thead>
<tr>
<th>Sensitivity’ specifications</th>
<th>Actively Equalized</th>
<th>Passively Equalized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speech</td>
<td>89</td>
<td>83</td>
</tr>
<tr>
<td>Music</td>
<td>86</td>
<td>85</td>
</tr>
</tbody>
</table>

Safety Standards
The BOSE® 102°F flush-mount speaker is UL listed under UL standard 1480, complies with ANSI/EIA-636, and when properly installed complies with NFPA-70 (NEC). The speaker has a flammability rating of 94-V1. Suitable for use indoors in damp locations. Suitable for use in air handling plenum spaces when used with a backcan.

Electrical Connections
1. Loosen the wiring-well rear cover screws; swing the cover to one side.
2. Route the source wires through the appropriate entryway and secure with the supplied strain relief.
3. Using the supplied wire nuts, connect the positive source wire to the speaker’s black lead.
4. Fit the leads into the portion of the well where the speaker leads emerge (not where the transformer and switch are located).
5. Reseat the wiring-well cover; tighten the cover screws.

1 Sensitivity is measured according to the standard established by the International Electrotechnical Commission (IEC Publication #268-5, Sound System Equipment, Part 5: Loudspeakers, page 31). Special random noise spectra used other than pink noise are described below.
2 Speech sensitivity is measured using pink noise shaped to an average speech spectrum as defined by the International Electrotechnical Commission (IEC Publication #268-16, Sound System Equipment, Part 16: The objective rating of speech intelligibility in auditoria by the “RASTI” method, page 19).
3 Music sensitivity is measured using pink noise shaped to an average music spectrum as defined by the International Electrotechnical Commission (IEC Publication #268-5, Sound System Equipment, Part 5: Loudspeakers, page 53).
Optional Grille Accessories

The 102° Speaker Snap-On Grille
This durable, high-pressure injection-molded vinyl grille has a flat white exterior finish that can be painted. Its ratchet mechanism allows quick, secure installation with no tools or fastening hardware required. Grilles are packaged as singles and 8 per carton.
1. To attach, push up and snap in place.
2. To remove, press at the center of the grille, while pulling down at its edges.

The 102 Flush-Mount Speaker Grille Adapter
This is used to adapt standard ceiling speaker grilles to fit the ratchet system of the 102 passive flush-mount speaker. Adapters are sold individually. Order part number 127589.

Use of Metal Backcans
The requirement for backcan use with loudspeakers in a commercial or public space is usually based on the local inspector’s interpretation of applicable codes. The BOSE® 102° flush-mount loudspeaker will fit into these standard backcans:
> Atlas/Soundolier models 95-8-7 and 96-8-7
> Lowell Manufacturing models CP87 and XCP87-S (without torsion receptacles)

NOTE: The BOSE® 102° flush-mount loudspeaker does not fit into tapered, stackable backcans.

Equalizer Module
The 102 equalizer module (102 EQM) provides active equalization for the FreeSpace® 102F loudspeaker. It is specifically designed to be used in commercial-type modular amplifiers that accept 6-pin edge-connector plug-in circuit boards, such as TOA 900 and Peavey MA amplifiers. It is intended to be used with the actively equalized 102 flushmount loudspeaker. The module provides system equalization for all inputs on the amplifier, and includes stereo (summed to mono) unbalanced audio inputs. The AUX input is muted whenever the amplifier muting bus is shorted to ground.

For more information: pro.bose.com