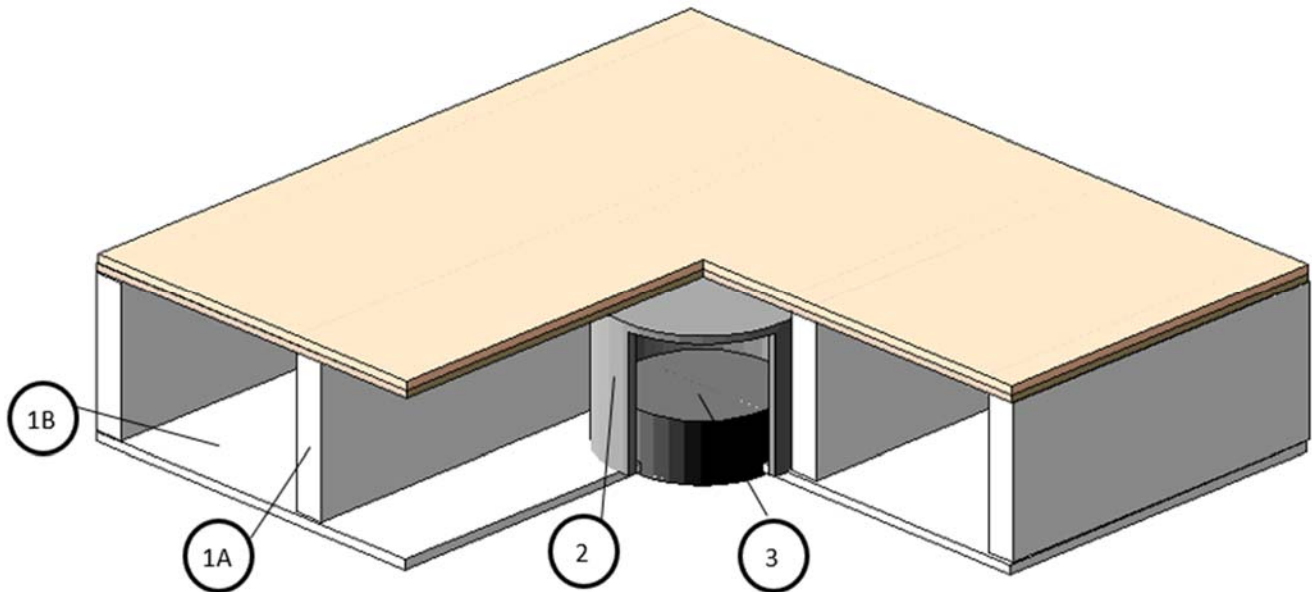


**Tenmat Inc.**  
**Design No. TEN/PF 60-03**  
**Speaker Cover**  
**Firefly FF109-FRSCO and Firefly FF109-FRSC**  
**ASTM E119**  
**Rating: 1 Hr**



**1. FLOOR/CEILING ASSEMBLY:** Use a one hour, ASTM E119 or UL 263 fire-resistance rated floor/ceiling assembly constructed in accordance with the material and construction specifications of the corresponding listed design and with the requirements listed below:

A. Framing – Min. 9-1/4 in. depth of air cavity, spacing between the top of the gypsum and underside of the subfloor. The following framing options may be used:

- Wood Joists
- Wood Trusses
- Steel Joists
- Steel Trusses
- Steel Furring Channels (if applicable)

- Steel Resilient Channels (if applicable)

B. Gypsum – Single layer of min. 5/8 in. thick proprietary Type X gypsum board secured to framing (item 1A) members spaced max. 16 in. oc.

**2. SPEAKER COVER:**

**CERTIFIED PRODUCT:** Tenmat Inc., Membrane Penetration Firestopping; Models:

- Firefly FF109-FRSCO
- Firefly FF109-FRSC

Install speaker cover centered over max. opening of 10-5/8 in. diameter in the gypsum (Item 1B). Cover may be slit to fit over obstructions to allow cover to fit flush to the gypsum (Item 1B). Ensure there is no damage to



the cover if slitting is required. Install covers per the manufacturer's instructions with the following provisions:

- Max. four openings per 100 sq. ft.
- Min. 48 in. on center (oc) spacing between openings.

**3. SPEAKER:** Install an in-ceiling loudspeaker per the manufacturer's instructions. The loudspeaker fixture must mount directly to and be supported by the gypsum (Item 1B) and meet the following requirements:

- Speaker shall use plastic ratchet-type clamps to secure it directly to the gypsum

board (Item 1B). Speaker may not be attached directly to the ceiling joists.

- Weight of speaker, including mounting fixture, shall not exceed 9.7 lb.
- Optional: A new construction bracket, consisting of a plastic ring with metal wings which is used to predetermine the location of the speaker in a ceiling for the wiring installer and drywall installer, may be used with the following requirements:
  - The speaker shall not be fastened to or supported by the new construction bracket.
  - The speaker shall be able to be secured directly to the gypsum board (Item 1B).

*Consult the listing report on the Directory of Building Products (<https://bpdirectory.intertek.com>) for the edition of the standard(s) evaluated.*

*Compliance of the assembly described in this Design Listing with the referenced standard relies on verification that the assembly constructed in the field is consistent with that described herein. Intertek certified products may be verified by the approved Intertek label; other products must be verified by the Authority Having Jurisdiction as meeting the specifications stated herein.*