



# "The Fire Barrier Connection" for 8" Speakers in Fire Rated Ceilings

Tee Bar Bridge - Model PB8  
Drywall Bridge - Model PW8  
Enclosure - Model PE8  
Seal Ring - Model PR8  
Thermal Barrier - Model PT8

## LOUDSPEAKER INSTALLATION SYSTEMS FOR FIRE BARRIER CEILINGS AND FIRE RESISTANT CONSTRUCTION

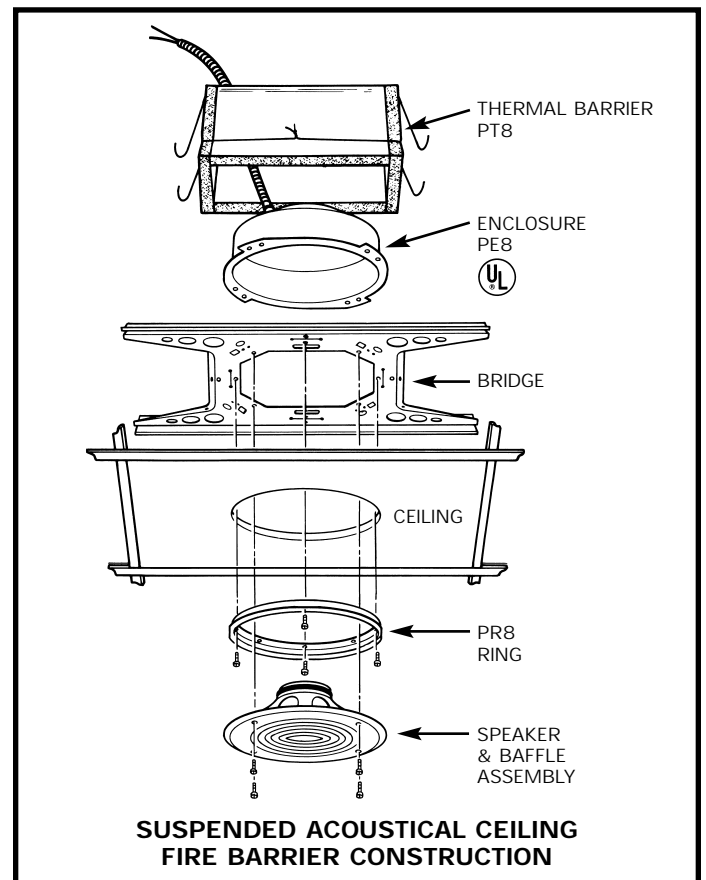
Fire resistance refers to the ability of a structure to act as a barrier against the spread of fire and confine it to the area of origin. Fire may spread from one area to another by collapse of the barrier, or by openings through which hot gases may pass or by conduction of sufficient heat to ignite combustibles beyond the barrier. A fire barrier ceiling is an essential part of a fire resistant rated floor/ceiling or roof/ceiling construction. The ceiling assembly is designed to contain a room fire and to limit the heat rise rate of the floor or roof assembly above, preventing structural failure and fire spread while allowing for safe evacuation. Improper construction or failure of the ceiling would compromise integrity of the entire structure.

Installation guidelines for loudspeakers in fire resistant construction are not shown in construction listings and are seldom covered in building designs or codes, therefore local authorities should be consulted to verify approved methods. A reasonable approach is to follow UL Fire Resistance Directory guidelines for recessed lighting fixtures. Fourjay has engineered "The Fire Barrier Connection" to satisfy the following requirements for recessed fixtures.

1. **Flame barrier or fire stop:** Model PE8 Enclosure, 20 ga. steel assembled to support bridge per instructions. This assembly completely covers the ceiling speaker hole for a fire tight seal.
2. **Means of attachment to the floor/ceiling assembly:** The PE8 assembly is secured to the ceiling with Model PR8 Ring. The PB8 Tee Bar Bridge may also be retained by tile clips and by hanger wires to the structure. The drywall bridge is fastened directly to the structure.

3. **Heat barrier protection** Model PT8 Thermal Barrier is secured to the assembly with tie-wires and acts as a heat containment barrier.

"Fire resistant construction" must not be confused with "ceiling cavity air handling spaces." These are two separate subjects though requirements for both may apply to the same building. "The Fire Barrier Connection" can satisfy both subjects. (See Form 444-00, "The Plenum Connection").



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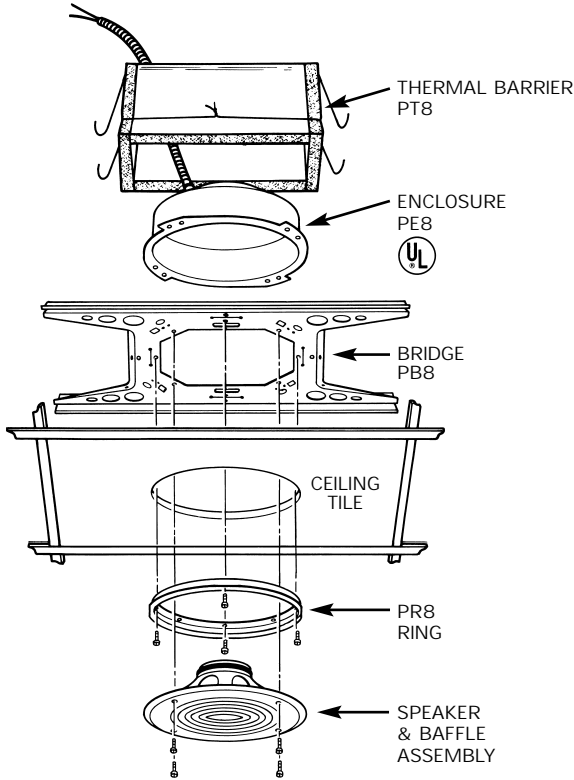
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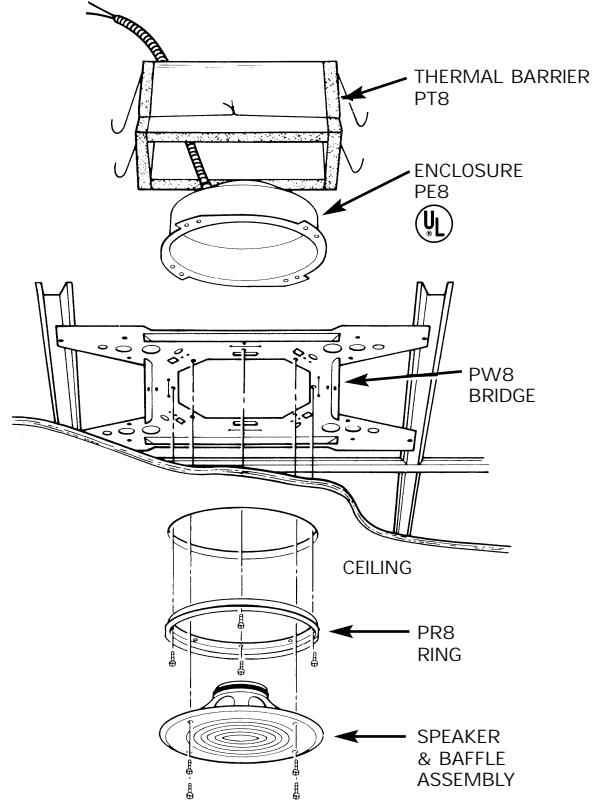
# Installation Concepts

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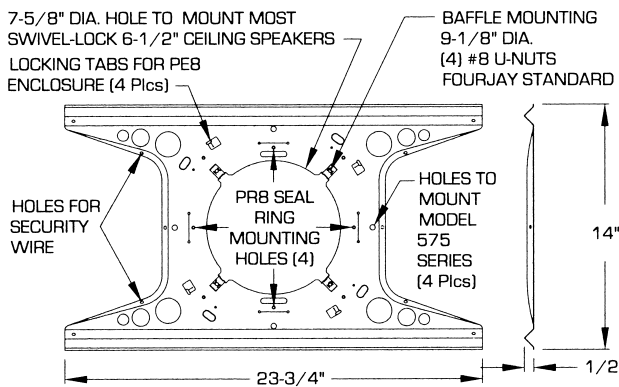
## Tee Bar Ceilings



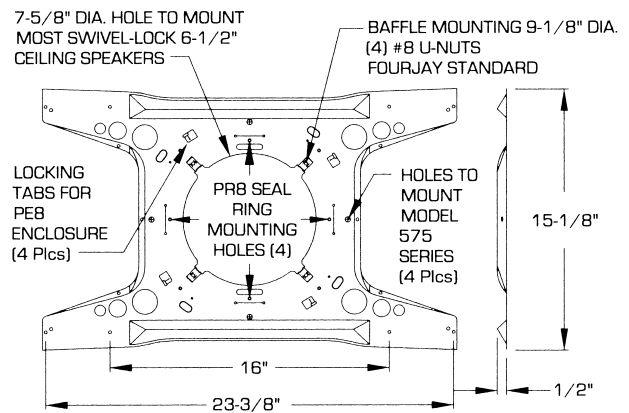
## Drywall Ceilings



## Model PB8 Tee Bar Bridge



## Model PW8 Drywall Bridge



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# "The Fire Barrier Connection"

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## Model PB8 Tee Bar Bridge

- Spans 2 ft. dimension of 2' x 2' and 2' x 4' tiles.
- 24 gauge galvanized steel construction.
- Load deflection 1/8" max with 50 lb. load. Exceeds EAI-636.
- Convenient tie points for support wires where required for safety and seismic security.
- Parts nest together for minimum storage space.

## Model PW8 Drywall Bridge

- Designed for flush mounting to 16" or 24" drywall ceiling grid construction.
- 24 gauge galvanized steel construction.
- Tie points for PT8 Thermal Barrier wires.
- Parts nest together for minimum storage space.

## Model PE8 Enclosure

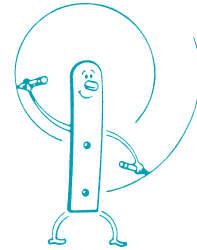
- Twist-snap-lock enclosure to either Model PB8 or PW8 Bridge — **secures without screws.**
- 20 gauge galvanized steel, deep-draw, one piece construction.
- Three knockouts accept metallic type fittings for 1/2" conduit, 3/8" armored cable and plenum rated cable.
- Panel resonance is controlled for minimal sound "coloration". No acoustic treatment material needed.
- Maintains ceiling integrity; no unnecessary openings.
- The PE8 Enclosure with bridge assembly was tested and passed a 3 hour pilot-scale fire endurance test for non-combustible floor/ceiling construction.
- Listed by Underwriters Laboratories, Inc. category UUMW. Material and construction permits use where ceiling cavity is part of an air handling system. (See "The Plenum Connection" for guidelines).
- Parts nest together for minimum storage space.

## Model PR8 Seal Ring

- Secures Model PE8 Enclosure and bridge assembly to ceiling before installing speaker/baffle.
- Complete assembly secured to ceiling with PR8 Seal Ring passes 3 hour fire endurance test.
- 24 gauge, galvanized steel construction.
- Fits 10" hole in ceiling. Secures to bridge with furnished (4) #8 x 3/4" sheet metal screws.

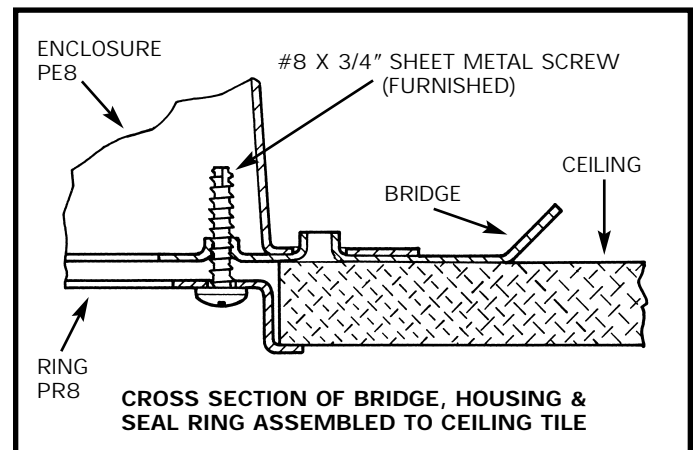
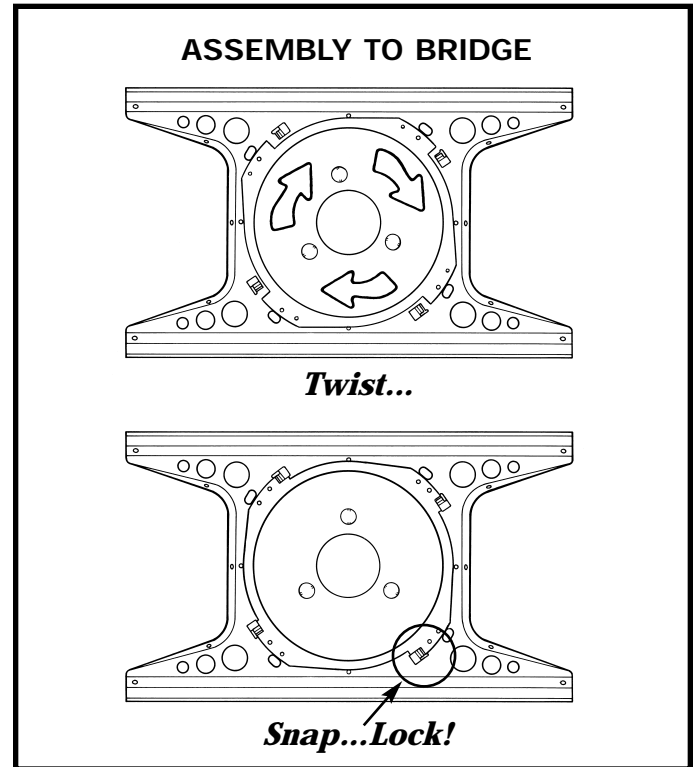
## Baffles

Fourjay Model RE8W steel baffle is recommended for fire barrier ceiling speakers. See spec sheets Form 229 baffles and Form 236 for factory assembled speaker/transformer/baffle combinations.



### MR. SCRIBER

Mounting hole marker  
supplied with PB8 & PW8.



In Stock

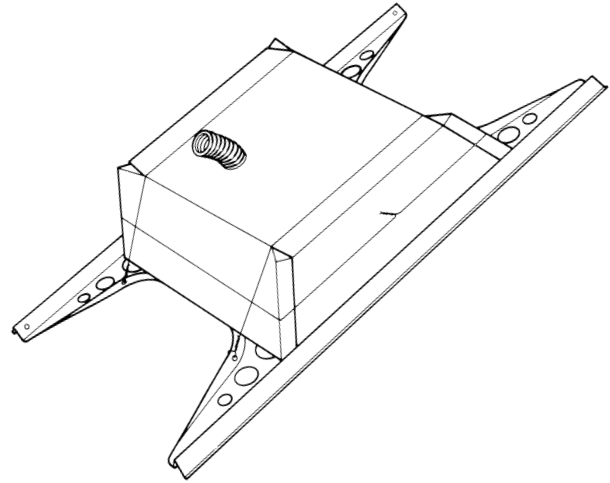
...Immediate Shipment



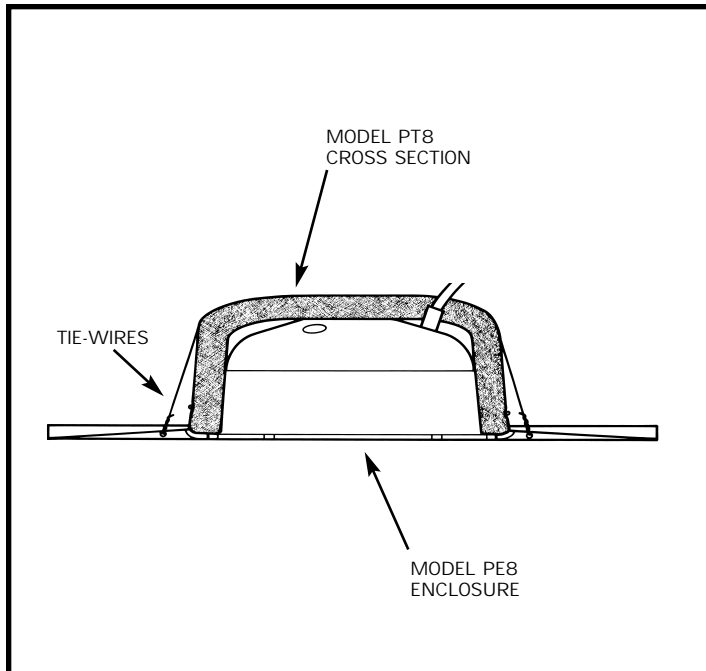
Fourjay's Model PT8 Thermal Barrier is a cost effective and labor-saving alternative to the construction of drywall boxes in fire resistant ceilings.

Engineered as an effective heat containment component used with Model PE8 as a flame barrier enclosure to form a fire resistive assembly for 1 to 3 hour fire rated construction.

- Cost effective Thermal Barrier for fire resistive construction.
- Pre-cut for easy assembly and installation.
- Tie-wire fasteners furnished.
- Non-combustible mineral fiber material, contains no asbestos.
- Material meets ASTM Fire Hazard and Non-Combustible standards. Designed to satisfy 1 to 3 hour fire resistance requirements.
- NIOSH approved dust mask for installer safety provided with each standard package.
- Assembly and safety notes included with each shipment.



**Model PT8 covers the PE8 Enclosure assembled to Model PB8 Tee Bar Bridge or Model PW8 Drywall Bridge.**



**MATERIAL & PRODUCT SPECIFICATIONS**

**Composition:** Unfaced batt, made of bonded rock wool mineral fiber (spun Basaltic rock or Basalt/slag mix). No asbestos or fiberglass.

**Melting Point:** over 2000°F

**Density:** 2.5 lb./cu.ft. nominal

**Fire Performance:** Flame spread – less than 15  
Smoke – 0  
Combustion – non-combustible  
Reference Standards – ASTM E84, ASTM E136  
Tested by an independent laboratory.

**Other:** Non-corrosive, inorganic (mildew resistant)

**Size:** 21-1/2" x 19-1/2" x 1-1/2" Flat  
12-1/2" x 13" x 6" Formed

**Tie-Wires:** 18 ga. mild steel, galvanized

**Weight:** 0.8 lb. (12.8 oz.) with wires

**Std. Package:** 10 (with tie-wires, instructions and dust mask)

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