

Model TLC Installation Instructions

Sheet
S-7

Firestop/Joist Shield, Pitched Ceiling Plate & Wall Thimble

Read Sheet GS for important clearance and safety precautions before installing any of the parts described in this sheet. Sheet GS is packaged with supports, including ceiling support, wall support, insulated tee and anchor plate.

Model TLC chimney systems require shielded firestops when passing through ceiling joist areas and wall thimbles when passing through walls.

FIRESTOP/JOIST SHIELD

For all Model TLC ceiling joist penetrations below the roof (other than that in which a ceiling support is installed), the firestop/joist shield must be installed. (Ceiling supports incorporate their own firestops, so no supplemental firestopping is required.) The firestop performs the following essential functions for both the dwelling and the chimney.

1. Together with a fully framed opening (all four sides), it acts as a firestop to control vertical and horizontal spread of any fire external to the chimney. (See additional comments on firestopping.)
2. It stabilizes the chimney in the framed opening, and defines and maintains the required 2" AIRSPACE clearance to combustibles.
3. It provides supplemental shielding for joist areas.

INSTALLATION REQUIREMENTS

The firestop/joist shield can be installed on the top or bottom of a joist area, but is most effective as a firestop if installed from beneath. As such, unless otherwise directed to do so, install firestop/joist shield in the orientation shown in Figure 1A with the plate to the bottom side and the shield extending up through opening (see Figure 2).

To install:

1. Frame a level square opening for 2" clearance from the outside of the chimney to the framing.
NOTE: If the ceiling is pitched, the joist shield needs to be installed on the top side, and a level frame will need to be built to ensure the joist shield can be installed level and in a vertical orientation (see Figure 3).
2. Place the firestop/joist shield over the chimney and attach to the framed opening as shown in Figure 2.
3. Nail side flanges into the framing.
4. If installed on top and the firestop/joist shield is to be installed over the flooring, cut a square opening, then place it on top of the flooring, and nail for security.

IMPORTANT: 10" to 14" are non-HT.



WARNING

Failure to follow these Installation Instructions could cause FIRE, CARBON MONOXIDE POISONING, OR DEATH. If you are unsure of Installation requirements, call the phone number listed on the back of these instructions.

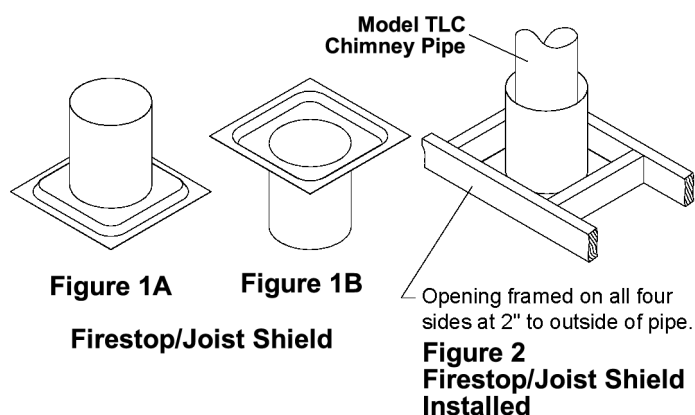


Figure 1A **Figure 1B** **Figure 2**
Firestop/Joist Shield **Firestop/Joist Shield Installed**

5. Subflooring or finished floor can be placed over the firestop/joist shield edges, provided that 2" clearance is maintained from the chimney pipe to the flooring.
6. If the framed opening is larger than necessary, the firestop/joist shield outer edges must be extended by appropriate means (attaching metal plates, 26-gauge galvanized steel or heavier) to completely block the framed opening from any vertical airflow around the chimney.
7. Install the lengths of chimney as necessary to extend through the firestop, securing the joints with locking bands (provided).
8. Continue with installation in accordance with the instructions for the other components, as applicable.
9. Enclose the chimney below the firestop/joist shield to prevent any accidental contact with the chimney. Exception: Exposed portions of the chimney that extend into the room where a freestanding appliance is installed should not be enclosed. In an attic, to prevent blown-in attic insulation from falling against the chimney, either use an attic insulation shield or a full enclosure.

THE FUNCTION OF FIRESTOPPING

The purpose of firestopping in a chimney system is to prevent or delay the rapid spread of fire (regardless of the cause) in a home or building. Properly installed, the sheet metal firestop prevents the chimney passageway from becoming an easy pathway for fire to spread from one floor to another.

PITCHED CEILING PLATE

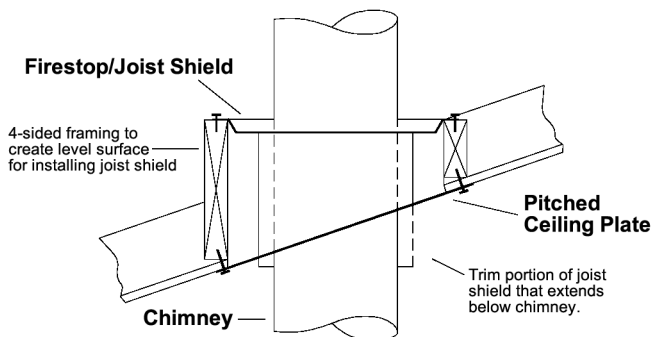
(used at ceiling of equipment room only)

This part provides for firestopping and a finished appearance for the ceiling opening when the chimney is extended down into the equipment room to a freestanding appliance (see Figure 3). Use a pitched ceiling plate for pitched or flat ceilings. A firestop/joist shield is used on the top side of the opening in either case.

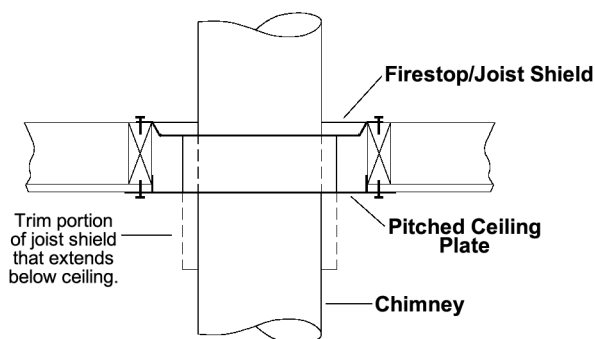
The firestop/joist shield (installed on the top side of the framed opening) requires trimming of the portion of the shield that extends beneath the ceiling before installing the pitched ceiling plate (see Figure 3).

NOTE: If the ceiling is pitched, a level frame will need to be built to ensure the joist shield can be installed level and in a vertical orientation (see Figure 3).

To trim the joist shield, after setting the joist shield in position on top of the opening (with open end down), mark a line around the perimeter of the shield at the elevation of the plane of the ceiling. Use sheet metal shears to



Cross-Section - Joist Shield in Pitched Ceiling



Cross-Section - Joist Shield in Flat Ceiling

Figure 3

trim the portion of the shield beneath the marked line. The shield should now extend down through the framed opening in the ceiling and end flush with the ceiling surface as shown in Figure 3. After extending the pipe down through the joist shield, install the pitched ceiling plate by sliding it up around the pipe until it is in contact with the ceiling. Secure the pitched ceiling plate with screws.

WALL THIMBLE

A wall thimble must be installed in combustible through-the-wall installations of the Model TLC chimney systems. Framing dimensions are as follows.

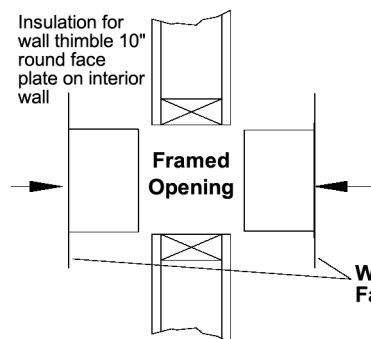
16 $\frac{1}{8}$ " x 16 $\frac{1}{8}$ " for 10" diameter

18 $\frac{1}{8}$ " x 18 $\frac{1}{8}$ " for 12" diameter

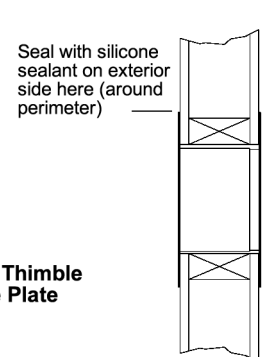
20 $\frac{1}{8}$ " x 20 $\frac{1}{8}$ " for 14" diameter

Following are the installation requirements.

1. Verify thimble opening is appropriate for diameter of pipe being used.
2. Frame a level, square opening to the appropriate size as noted above.
3. Insert the two halves from opposite sides of the wall (see Figure 4). The half that incorporates the black and/or round painted face plate is for the interior side of the wall.
4. Engage the shields together until a snug fit is achieved. Level the face plates of the thimble with respect to the opening.
5. Attach the face plates to the wall using screws through the predrilled holes found at each corner.
6. Seal around the perimeter of the wall thimble's face plate (on exterior side) with a silicone sealant to prevent any rain infiltration (see Figure 5).
7. Proceed with installation of wall support and chimney as described in Sheet S5.



**Figure 4
Wall Thimble Halves**



**Figure 5
Wall Thimble Installed**

NOTES:

- (1) The wall thimble accommodates a wall thickness of 6" to 11". If a larger range is needed due to a thicker wall, it is permissible to field-fabricate a metal sleeve extension and rivet or screw it to the shields.
- (2) Ten-inch wall thimbles come with one square and one round faceplate and a piece of insulation to insulate the round faceplate, while the 12" and 14" come with two square face plates and no insulation. The round and/or painted face plate goes on the interior side of the wall (see Figures 4 and 6).
- (3) Install thimble before installing wall support and chimney.
- (4) **IMPORTANT:** Due to limited space, the locking band cannot be used to join the horizontal section passing through wall thimble to branch of tee. Three #8 x 1/2" stainless steel screws should be used (see Figure 6 below).

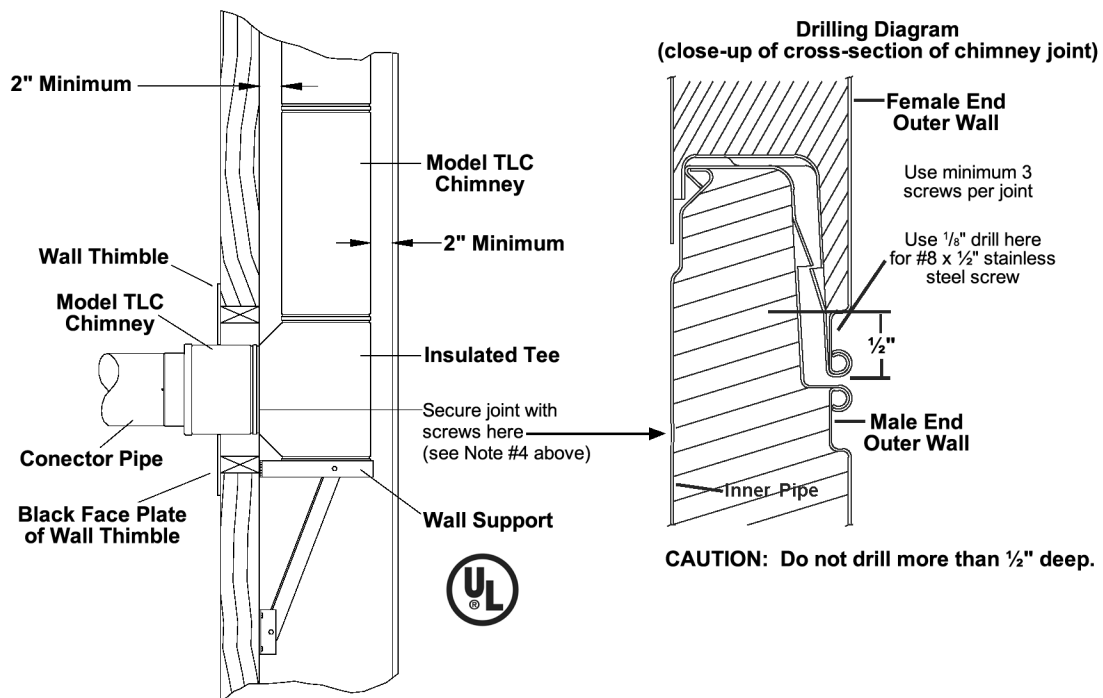


Figure 6 Wall Thimble/Chimney Completed Assembly



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