

# INSTALLATION INSTRUCTIONS

## WMSC5A-\* Sound Curb

The WMSC5A-\* is an accessory item intended to lower the interior sound level when applied with a Bard wall mount air conditioner or heat pump. This is accomplished by using the following principals:

1. Isolating the vibrations created by the mechanical devices of the wall mount operation using rubber isolation mounts to prevent the energy from transferring into the wall of the structure that it is mounted on. This will be more beneficial on wood or steel frame structures in eliminating the drumming effect of the wall than on masonry structures.
2. Creating an indirect return air path with additional sound attenuation material to lower sound transmission into the structure through the return air opening.

The offset return will require a different supply to return spacing for the applied structure than specified by the wall mounted unit. In an existing installation, this will require structural modifications to relocate the return air openings. For new construction, this can be planned for in advance. See Figures 1-3 on pages 3-5.

Refer to Table 1 for application.

\* Denotes Color  
 X = Beige  
 4 = Buckeye Gray  
 5 = Desert Brown  
 8 = Dark Bronze

**TABLE 1**  
**WMSC5A-\* Applications<sup>①</sup>**

Bard Model	Non-Ducted Applications	Approved for Ducted Applications	Required Blower Speed	Duct Design Maximum ESP (" WC)
W42AC/W42HC	Yes	Yes	High Speed	0.40"
W48AC/W48HC	Yes	Yes	High Speed	0.30"
W60AC/W60HC	Yes	Yes	High Speed	0.40"
W72AC <sup>②</sup>	Yes	Yes	High Speed	0.40"

<sup>①</sup> Models not listed in chart are self regulating and rated up to 0.50"WC.

<sup>②</sup> Requires additional mounting holes drilled into unit mounting flange (see Figure 5 on page 7)



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## Adding to Existing Installation

1. Disable power upstream of unit. Check at unit to confirm power is disabled before proceeding.
2. Disconnect the electrical entrance and thermostat wires.
3. Disconnect the duct work as required.
4. Supporting the unit, remove the mechanical fasteners retaining the wall mount unit to the structure, then lower the unit and move it off to the side for reapplication later in this instruction.
5. Refer to Figures 1-3 on pages 3-5 and modify building structure for new return air location. Two different supply to return spacings are available (see **NOTE** below). Inner and outer curb sections must be separated to allow the return duct connection to be inverted.

**NOTE:** WMSC5A-\* is shipped with optimal 6" supply/return duct spacing. There is a 12" optional spacing by removing return duct connection and inverting it (see Figure 6 on page 8).

**NOTE:** WMSC5A-\* is shipped with optimal 6" supply/return duct spacing. There is a 30" optional spacing by removing return duct connection and inverting it (see Figure 7 on page 9).

6. Remove and discard bottom mounting bracket for wall mount.
7. Go to next section labeled **New Installation**.

## New Installation

1. Frame wall structure in accordance with these instructions (see Figures 1-3).
2. Uncarton WMSC5A-\* assembly.
3. Separate inner and outer curb sections (see Figure 4 on page 6, #1 and #2) by removing four (4) 12MM bolts and lock washers from the inner curb sides (see Figure 4, #3 and #4).
4. On the inner curb section, locate the side stamped "TL" indicating Top Left (see Figure 4, #5).
5. On the rear of the attachment flange, apply a liberal amount of silicone caulk to weather seal the inner curb frame to the structure (see Figures 1 and 4).
6. Place inner curb section onto structure aligning (centering) the supply and return air openings, driving fasteners into frame work. If adding to existing installation, these holes will line up with fasteners removed from previous installation.

## CAUTION

**Must maintain 1/4" spacing to combustibles for the first 3' of the supply duct as listed on the unit nameplate.**

7. Take outer curb assembly and locate the seam in the flex seal. Orient this seam so that it is on the bottom, setting the outer curb over the inner curb (see Figure 4, #2).
8. Using the four (4) 12MM bolts and lock washers removed in Step 3, reattach the outer curb to the inner curb (see Figure 4, #1 – #4).

**NOTE:** A clamp or pliers will have to be used to compress the rear gasket at the top of the curb to align the bolt holes. It is necessary for this seal to be under compression so that when the wall mount is installed, adequate weather sealing is maintained.
9. Raise the unit to the curb with a suitable lift and engage the top of the unit to the curb first by slightly tipping the unit toward the curb.

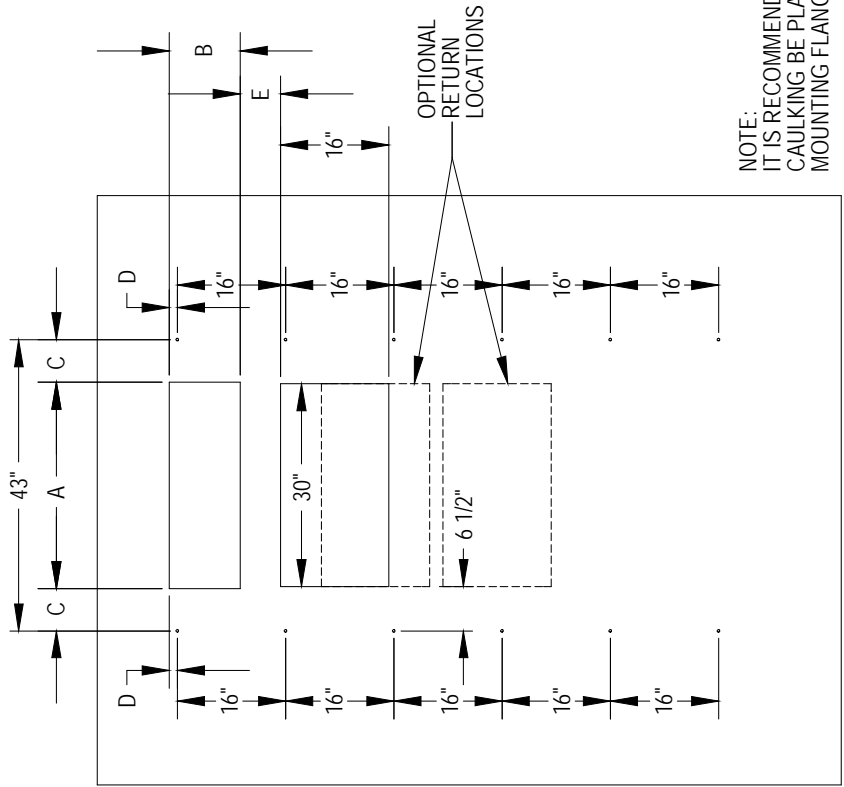
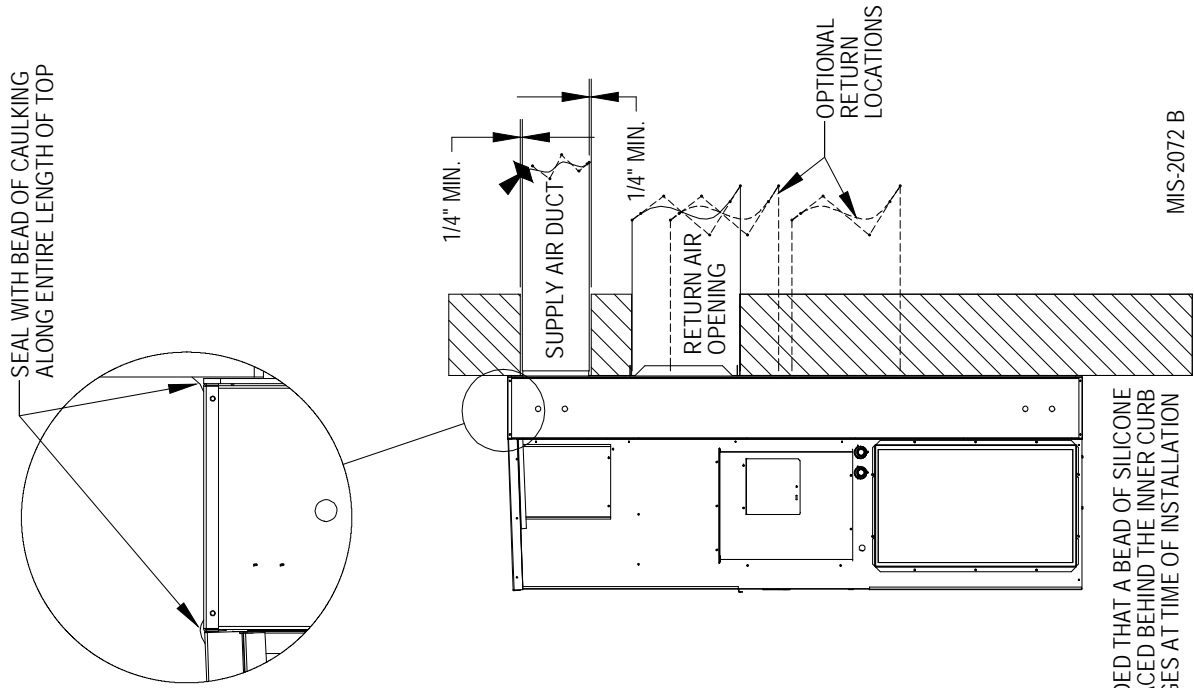
**NOTE:** If installing a 95" tall unit, see Figure 5 on page 7 prior to this step.
10. Engage nuts and washers (supplied) loosely to the top two (2) bolts in the curb to help keep the top of the unit in position.
11. Pivot the unit down to engage the remainder of the bolts and fasten securely to the curb with nuts and washers (supplied) as shown in Figure 4.
12. Apply a liberal amount of caulk across the seam between the unit top and the top of the curb. At the same time, apply caulk between the inner curb frame and the rear seal of the outer curb frame all the way across the top and 2" down each side (see Figure 1).
13. Connect electrical entrance and thermostat wires to the unit. Use flexible conduit to maintain vibration isolation. Use of rigid conduit is not recommended as this could cancel the effects of the vibration isolators inclusive with this accessory.
14. Connect duct work per standard practice.

**NOTE:** Refer to Table 1 for maximum allowable static and duct usage.

**FIGURE 1**

	A	B	C	D	E *
REQUIRED DIMS. TO MAINTAIN 1/4" MIN. CLEARANCE FROM COMBUSTABLE MATERIALS	30 1/2"	10 1/2"	6 1/4"	1 1/4"	6" 12" 30"
REQUIRED DIMS. TO MAINTAIN RECOMMENDED 1" CLEARANCE FROM COMBUSTABLE MATERIALS	32"	12"	5 1/2"	2"	5 1/4" 11 1/4" 29 1/4"

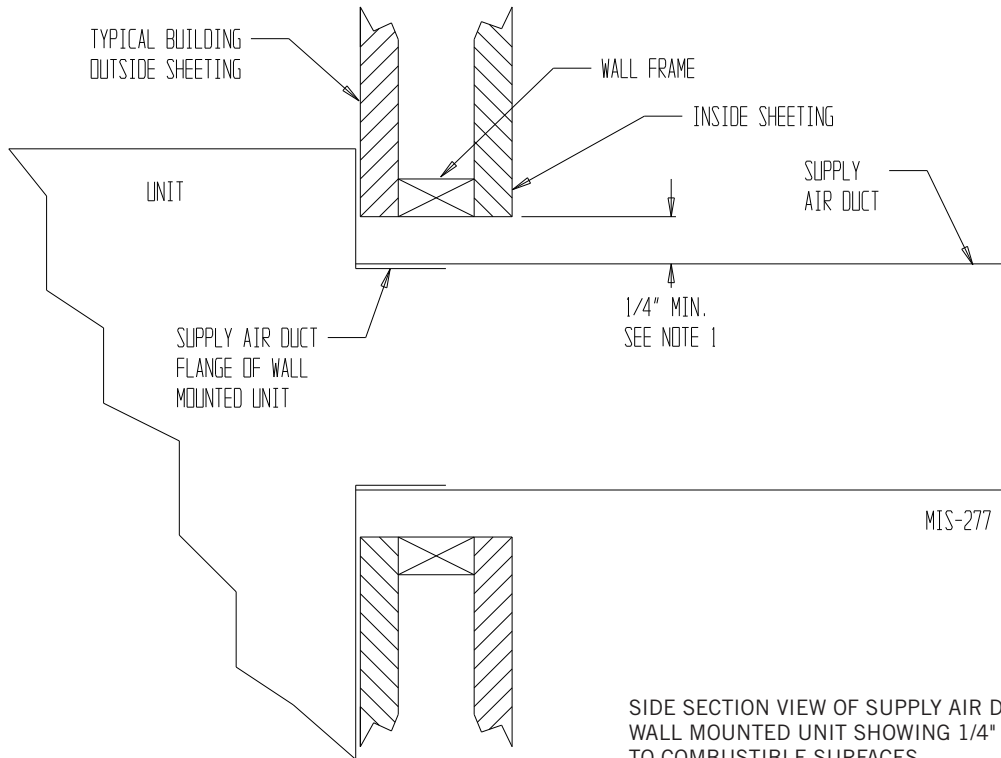
\* 6" SUPPLY TO RETURN SPACING  
 12" SUPPLY TO RETURN SPACING  
 30" SUPPLY TO RETURN SPACING



NOTE:  
 IT IS RECOMMENDED THAT A BEAD OF SILICONE CAULKING BE PLACED BEHIND THE INNER CURB MOUNTING FLANGES AT TIME OF INSTALLATION

MIS-2072 B

**FIGURE 2**  
**Electric Heat Clearance**



SIDE SECTION VIEW OF SUPPLY AIR DUCT FOR WALL MOUNTED UNIT SHOWING 1/4" CLEARANCE TO COMBUSTIBLE SURFACES.

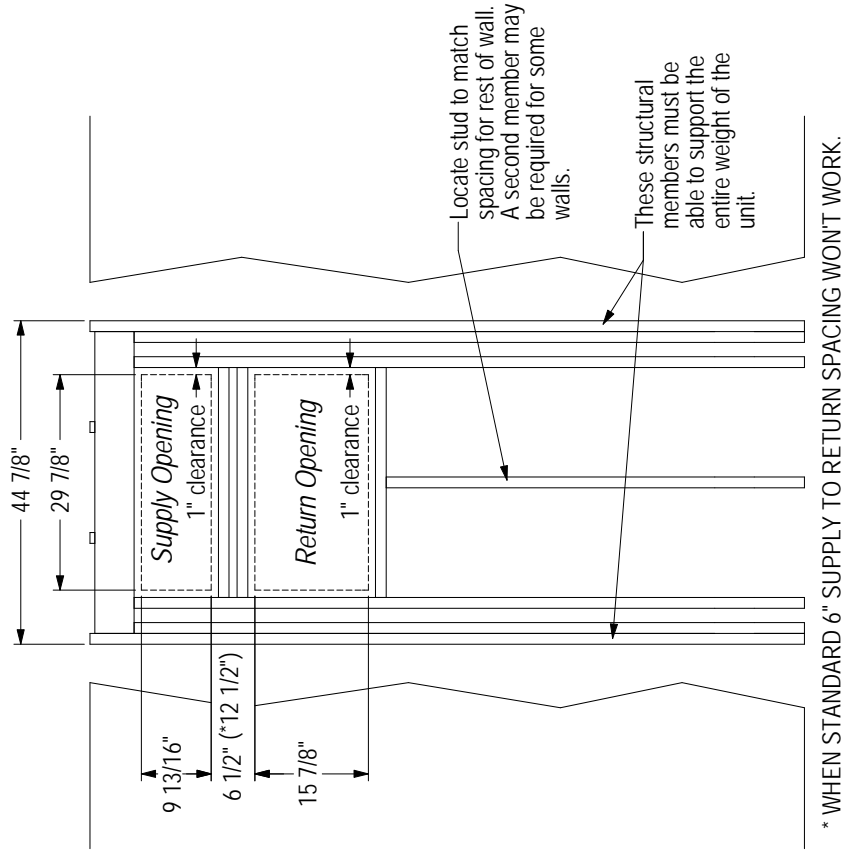
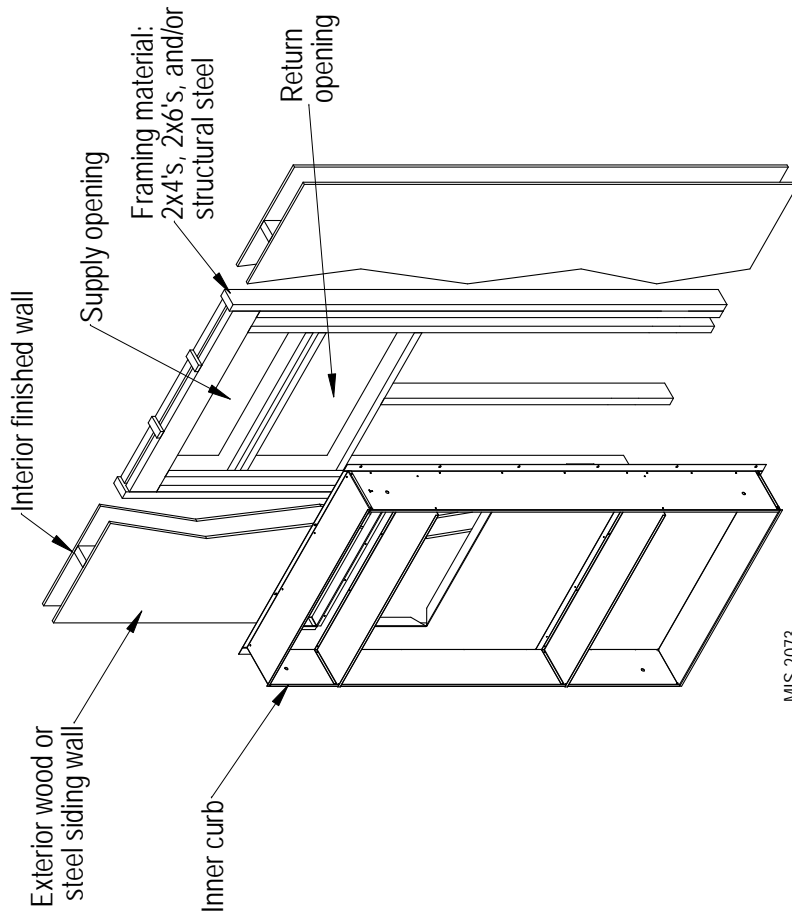
## **WARNING**

A minimum of 1/4" clearance must be maintained between the supply air duct and combustible materials. This is required for the first 3' of ducting.

It is important to ensure that the 1/4" minimum spacing is maintained at all points.

Failure to do this could result in overheating the combustible material and may result in a fire causing damage, injury or death.

**FIGURE 3**

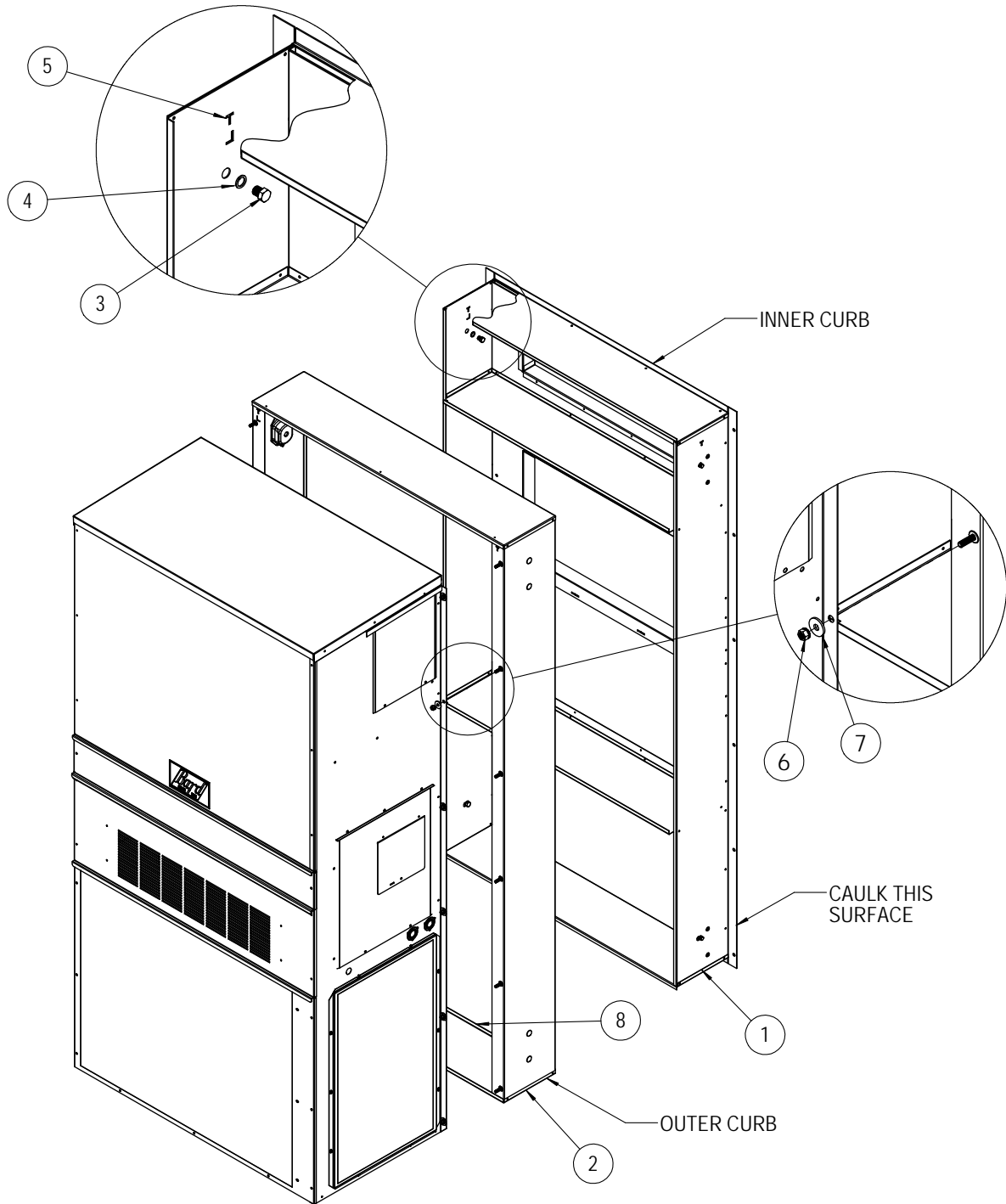


Follow all local building codes when framing wall to support unit.

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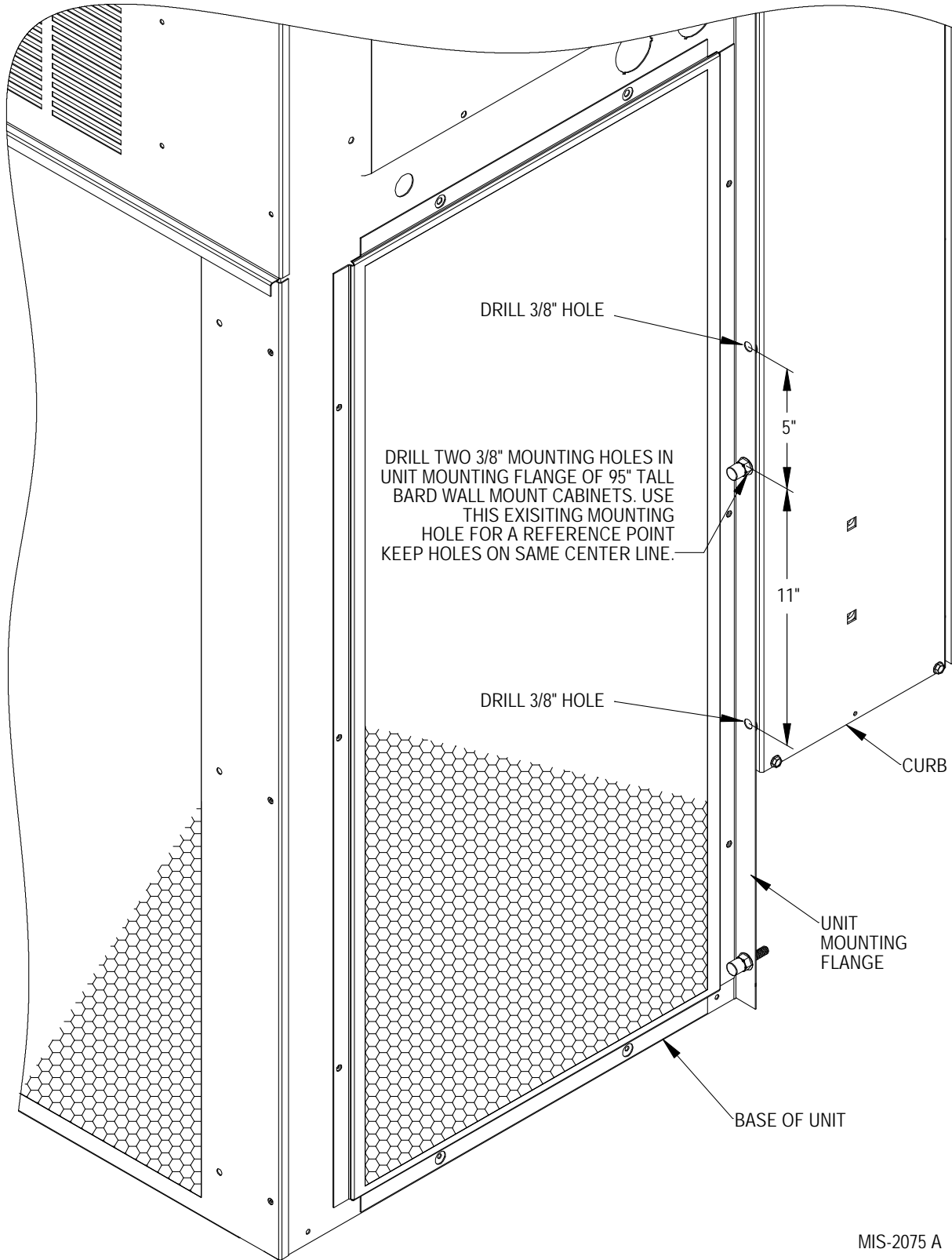
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FIGURE 4



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**FIGURE 5**



MIS-2075 A

**NOTE: This figure applicable to model W72AC.**

FIGURE 6

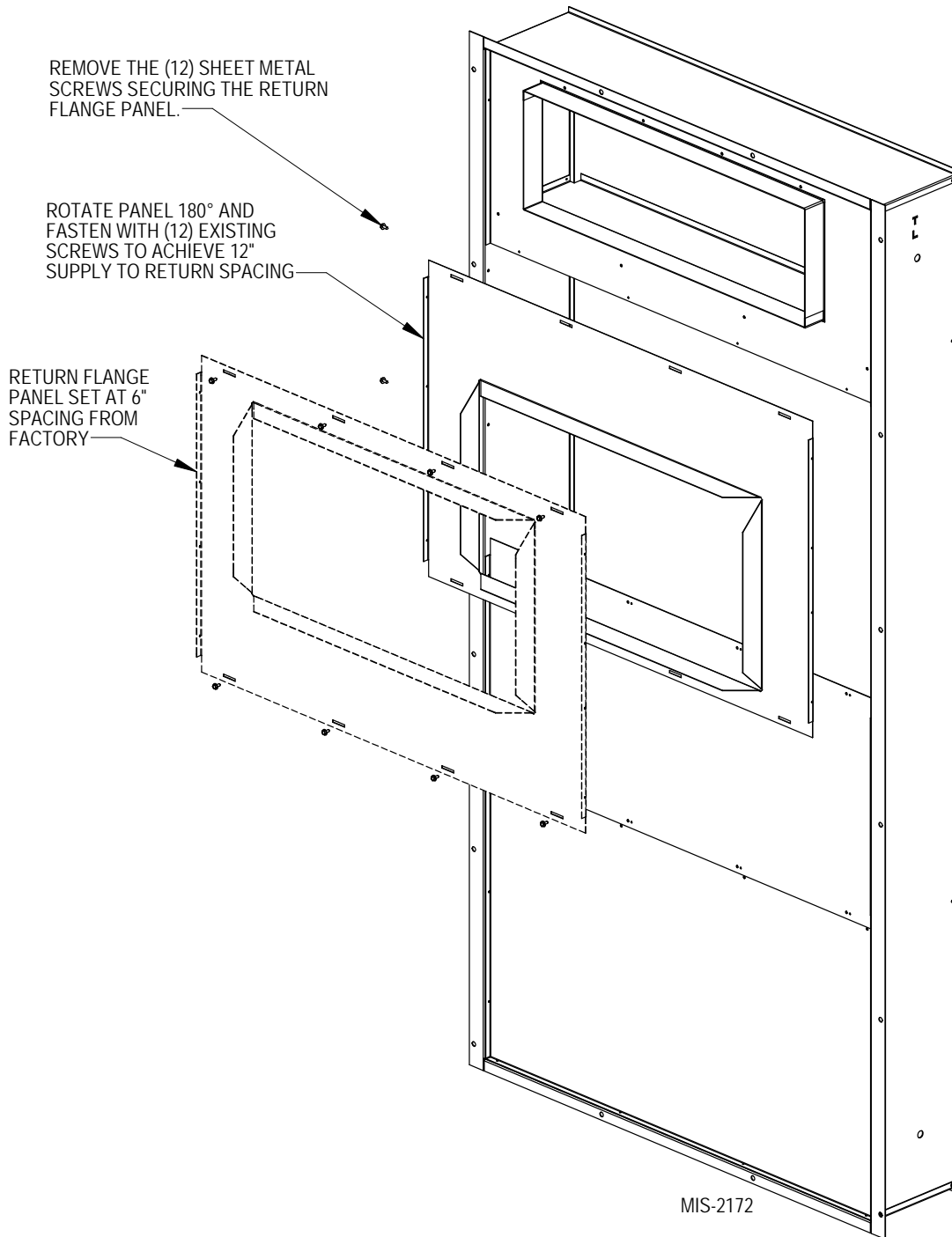




FIGURE 7

