INSTALLATION INSTRUCTIONS AND PARTS LIST

WAPR11-* Return Air Acoustical Plenum

The WAPR11-* Wall Mount Return Air Acoustical Plenum is designed to reduce the sound level at the return air section of a Bard wall-mount A/C or H/P system. It does this by blocking and/or absorbing both the sound produced by the wall-mounted HVAC unit and the intrusion of outside noise entering through open ventilation options. The amount of sound reduction can be significant and will vary depending on the Bard wall-mounted HVAC system, the type of installation such as ducted versus non-ducted, room size and type of construction.

The WAPR11-* requires additional framing for attachment. See Figure 1 on page 2 for framing instructions.

INSTALLATION

A T25 Torx bit is required for installation. The WAPR11-* requires a minimum of 6" of free area below the bottom of the acoustical plenum. A minimum of 10" is required on the sides and front of the WAPR11-* (see Figure 2 on page 3). The WAPR11-* requires a minimum of 58" from the floor to the lower edge of the return air opening to install the acoustical plenum vertically. If the bottom of the return air opening is less then 58" from the floor, install the acoustical plenum horizontally. See the **Horizontal Installation** section on page 6 for instructions on configuring the acoustical plenum for horizontal applications. See Figure 2 for dimensional positioning information.

Vertical Installations – see Figure 3 on page 4.

1. Remove the return air grille from the return air opening if installed.

2. Remove the front cover of the acoustical plenum by removing the outer circle Torx screws securing it to the sides. Leave the two inner vertical rows screws in place.

3. Determine stud or framing locations in the wall above the return air opening. Mount the top mounting bracket with the bottom of the vee 0 to 4.5" above the top of the return air opening to maintain the 6" of clearance to the bottom of the acoustical plenum (see Figure 2).

4. Lift the base portion of the acoustical plenum and hang it on the top mounting bracket.

5. Check that the opening in the back of the acoustical plenum does not cover any portion of the return air opening of the unit.

6. Use the predrilled holes or drill holes in the back of the acoustical plenum to secure the bottom of the acoustical plenum to studs in the wall. The holes may be drilled anywhere within 1" of the perimeter of the acoustical plenum and around the return opening (see Figure 4 on page 5). Use at least eight screws to secure the bottom (minimum screw size #10 x 2"). Do not over tighten the screws. The acoustical plenum should be drawn snug against the wall, not tight, so that the foam around the back of the acoustical plenum is touching the wall but the screws are not.
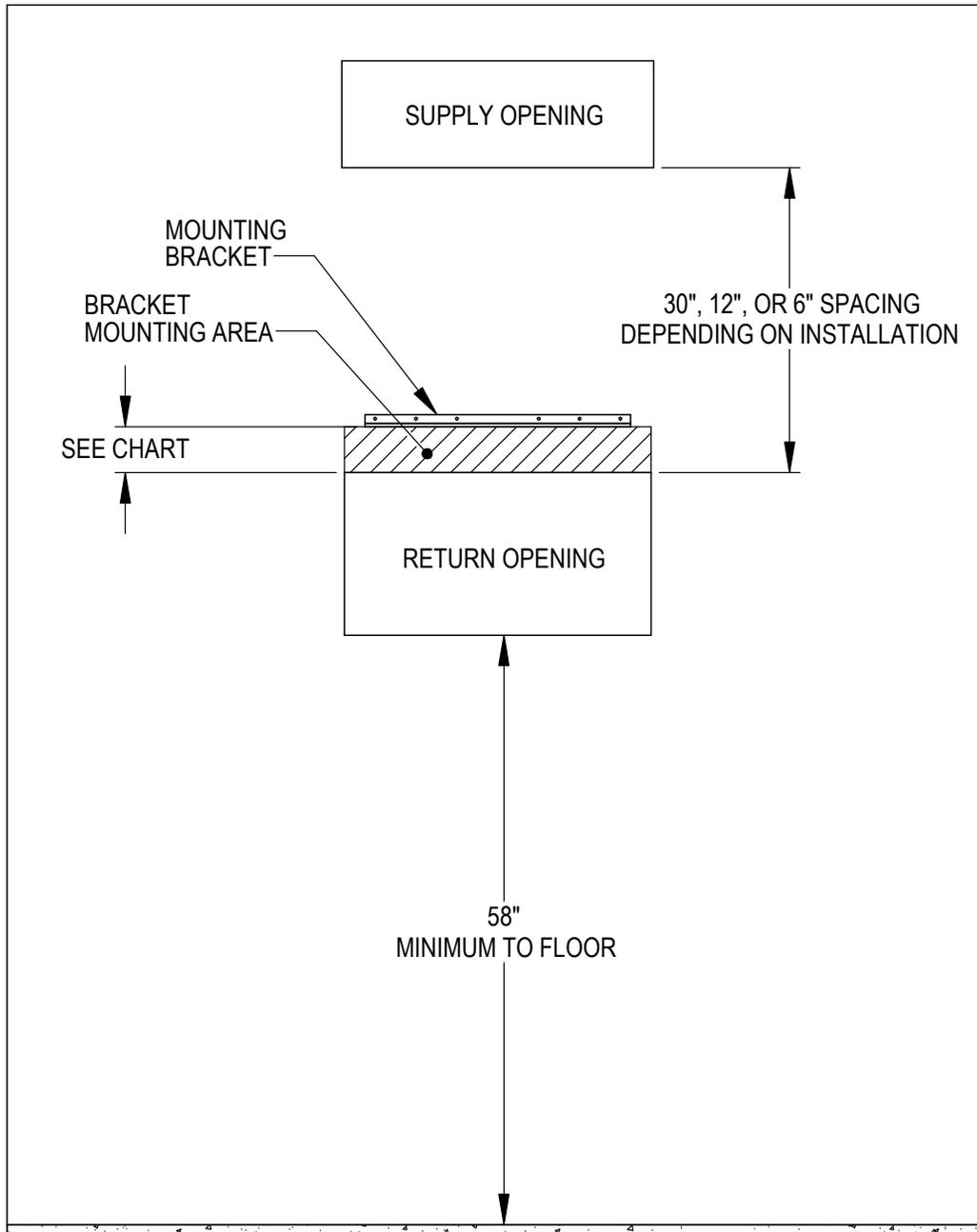
7. Re-install the front cover.

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Climate Control Solutions

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FIGURE 1

SHEETMETAL SUPPLY DUCT
TOP DISCHARGE WG*S MODEL WITH WMSC5 CURB
INCLUDES FRAMING FOR ACOUSTICAL SUPPLY AND RETURN PLENUMS

WARNING:
A MINIMUM OF 1 INCH CLEARANCE MUST BE MAINTAINED BETWEEN THE SUPPLY AIR DUCT AND ANY COMBUSTIBLE MATERIAL FOR THE FIRST 36" OF DUCTING

ADDITIONAL FRAMING FOR SECURING ACOUSTICAL PLENUMS

4 X 4 OR DOUBLE 2 X 4 FLAT

BOTTOM OF UNIT WHEN CURB IS USED

BOTTOM OF CURB

2X4 FLAT

2X4 STANDING

	SUPPLY		RETURN				△1	
UNIT	A	B	C	D	E	F	G	H
WG3S	12"	32"	16 1/2"	31"	29"			
WG4S, WG5S	12"	32"	16 1/2"	31"	29"	56"	43"	55 1/2"

△1 NO BOTTOM BRACKET USED ON "WG*S" UNITS

MIS-3850

FIGURE 2

DIMENSION BELOW RETURN AIR OPENING	MOUNTING ANGLE POSITION ABOVE RETURN AIR OPENING
58"	4.5"
59"	3.5"
60"	2.5"
61"	1.5"
62"	.5"
63" >	0

MIS-2274

FIGURE 3

FRONT VIEW   SIDE VIEW

SUPPLY OPENING

10"
MIN.

10"
MIN.

10"
MIN.

RETURN OPENING

DO NOT
REMOVE
THESE
SCREWS

DO NOT
REMOVE
THESE
SCREWS

6" MINIMUM
CLEARANCE
TO FLOOR

FREE AREA AROUND
SILENCER MUST BE
MAINTAINED

MIS-2275 A

FIGURE 4

SCREW
ATTACHMENT
AREAS

SCREW
ATTACHMENT
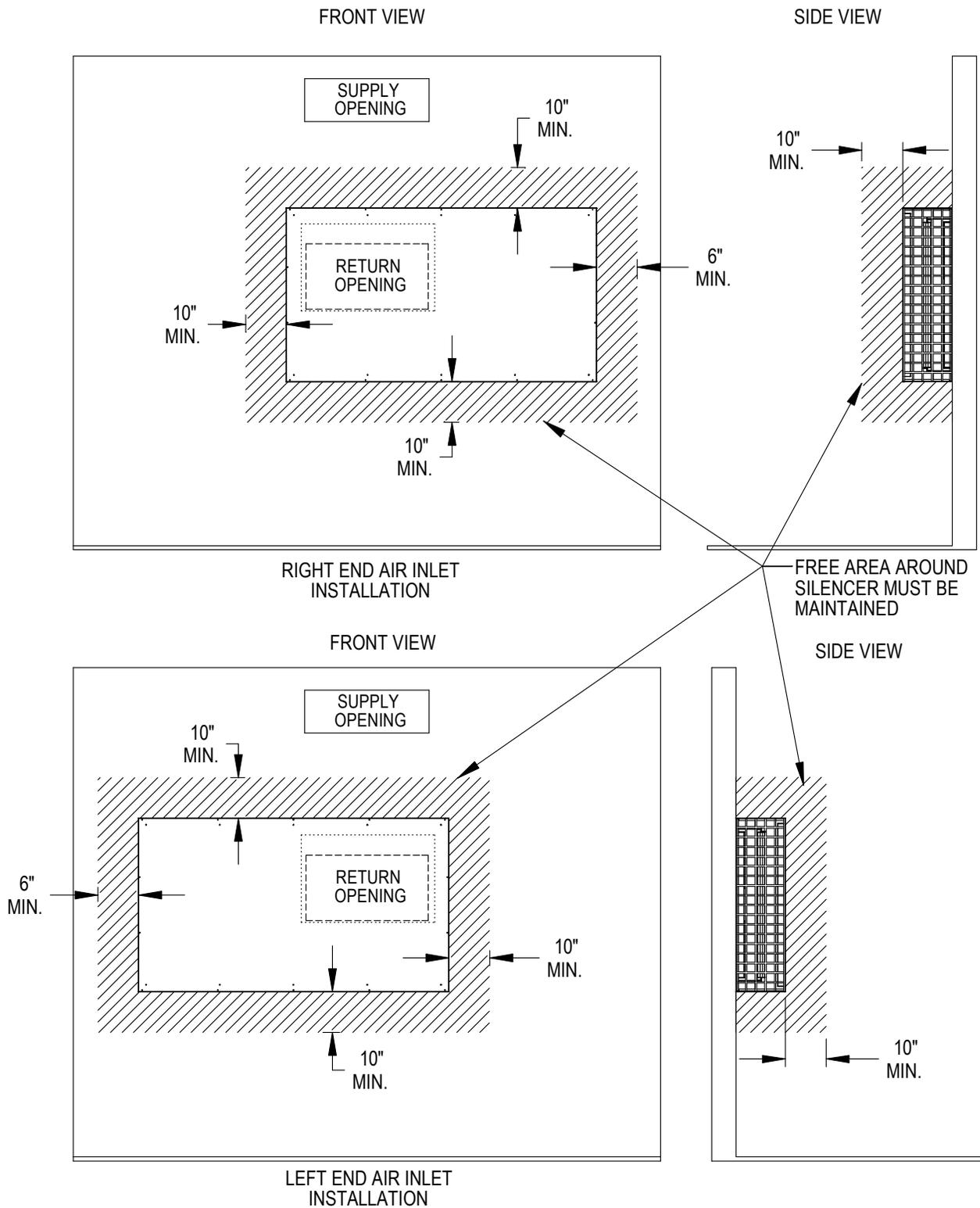AREAS
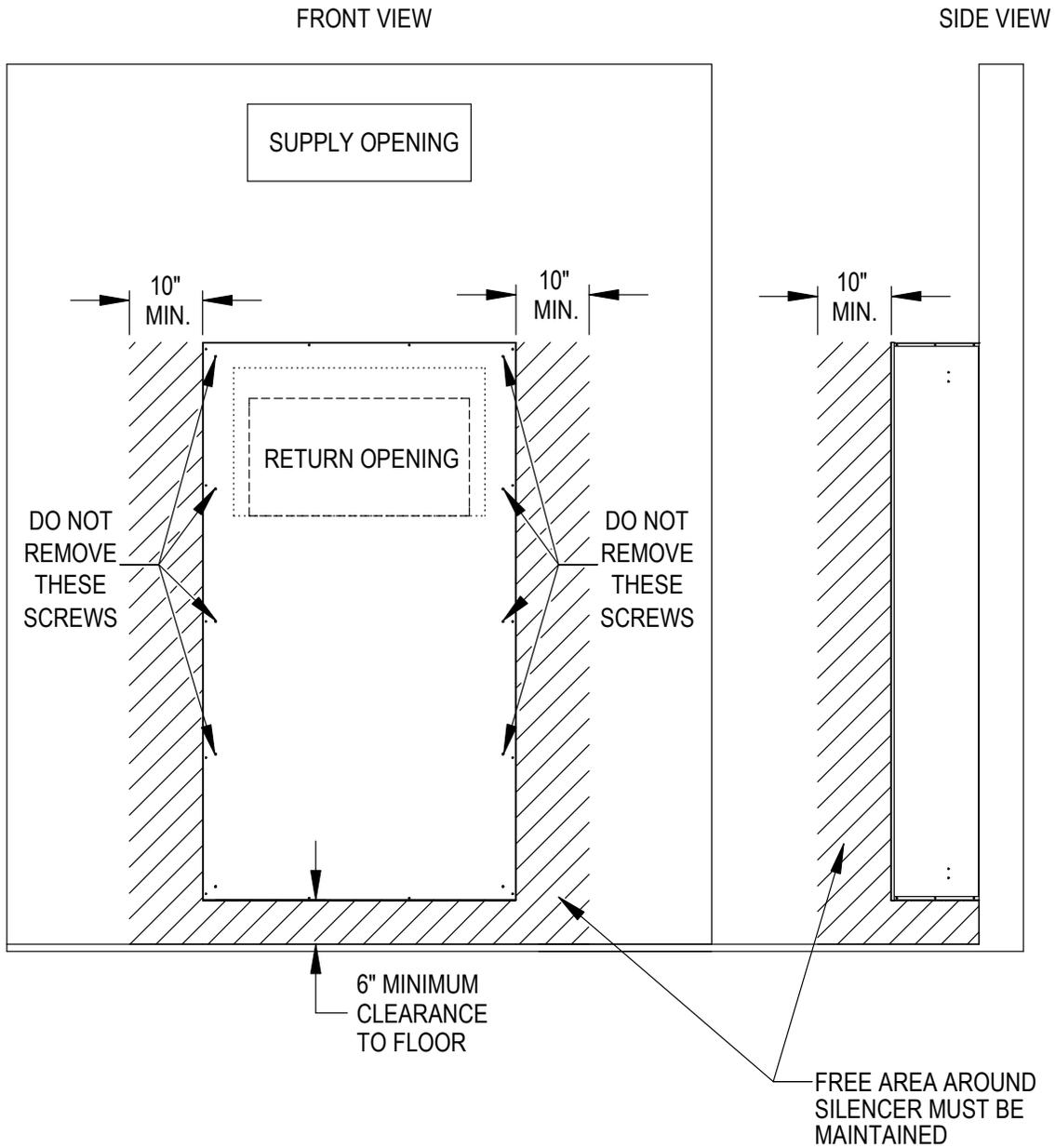
SCREW
ATTACHMENT
AREAS
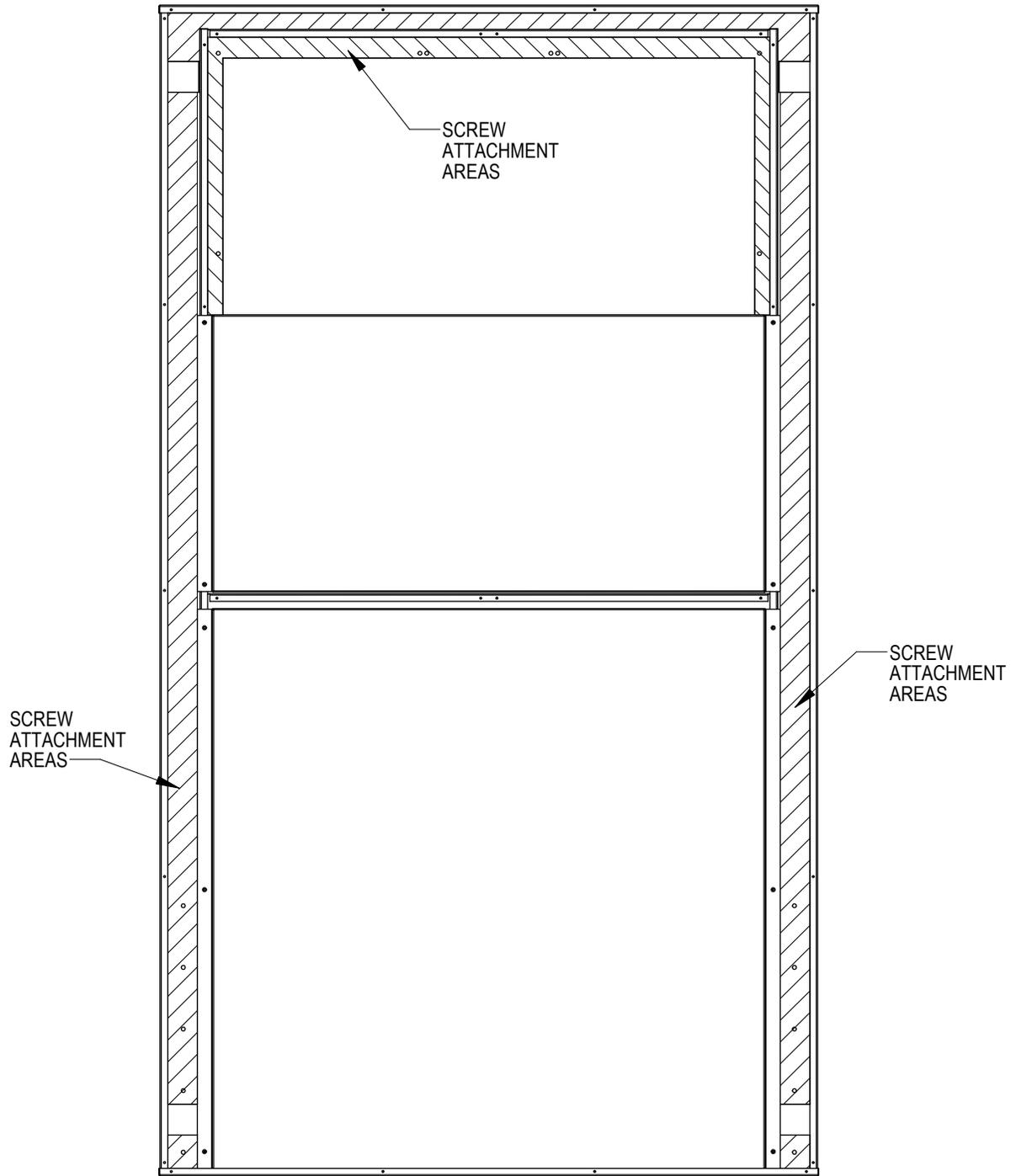
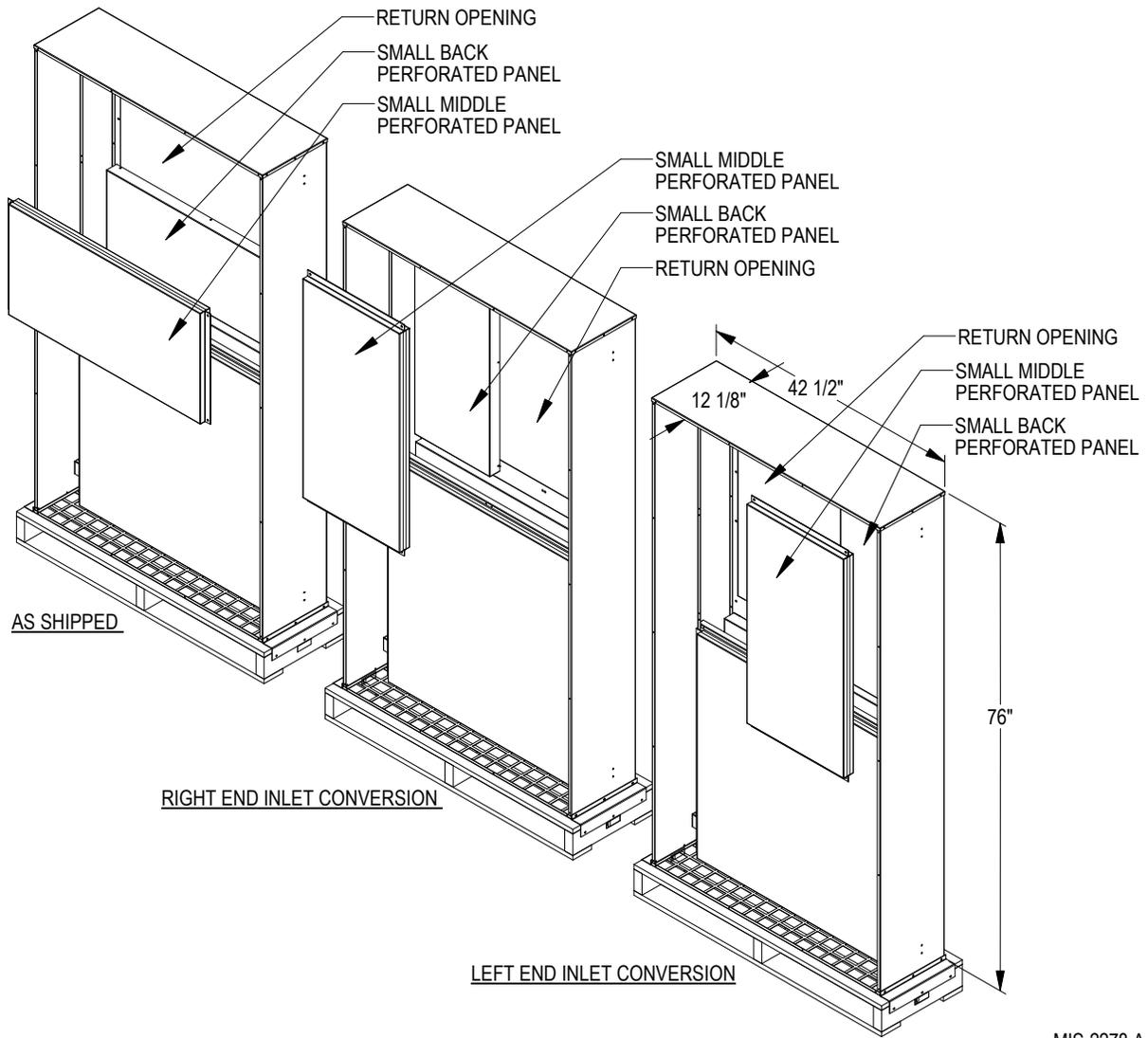MIS-2276

Horizontal Installation – see Figure 5.

1. With the acoustical plenum still on the skid, remove the front cover by removing the outer circle of Torx screws securing it to the sides. Leave the two inner vertical rows screws in place.

2. From the back of the acoustical plenum, remove the four hex head screws holding the small back perforated panel in place. Rotate the panel 90° to the right or left depending on which way the acoustical plenum is to protrude either right or left of the return air opening. Move the panel to the left if the acoustical plenum is to protrude to the right of the return air. Move the panel to the right if the acoustical plenum is to protrude to the left of the return air. See Figure 6 on page 8.

3. From the front of the unit, remove the four hex head screws holding the small middle perforated panel. Rotate the panel 90° to the right or left depending on which way the acoustical plenum is to protrude either right or left of the return air opening. Move the panel to the right if the acoustical plenum is to protrude to the right of the return air. Move the panel to the left if the acoustical plenum is to protrude to the left of the return air.

4. Determine stud or framing locations in the wall above the return air opening. Mount the top mounting bracket with the bottom of the vee 0 to 4.5" above the top of the return air opening.

5. Remove acoustical plenum from skid. Lift the base portion of the acoustical plenum and hang it on the top mounting bracket. Support the other end temporarily.

6. Check that the opening in the back of the acoustical plenum does not cover any portion of the return air opening of the unit.

7. Use the predrilled holes or drill holes in the back of the acoustical plenum to secure the bottom of the acoustical plenum to studs in the wall. The holes may be drilled anywhere within 1" of the perimeter of the acoustical plenum and around the return opening (see Figure 4). Use at least eight screws to secure it. Do not over tighten the screws. The acoustical plenum should be drawn snug against the wall, not tight, so that the foam around the back of the acoustical plenum is touching the wall but the screws are not.

8. Remove temporary support and re-install front cover.

FIGURE 5

FRONT VIEW

SIDE VIEW

SUPPLY
OPENING

10"
MIN.

10"
MIN.

RETURN
OPENING

6"
MIN.

10"
MIN.

10"
MIN.

RIGHT END AIR INLET
INSTALLATION

FREE AREA AROUND
SILENCER MUST BE
MAINTAINED

FRONT VIEW

SIDE VIEW

SUPPLY
OPENING

10"
MIN.

RETURN
OPENING

6"
MIN.

10"
MIN.

10"
MIN.

10"
MIN.

LEFT END AIR INLET
INSTALLATION

MIS-2277 A

FIGURE 6

RETURN OPENING

SMALL BACK
PERFORATED PANEL

SMALL MIDDLE
PERFORATED PANEL

SMALL MIDDLE
PERFORATED PANEL

SMALL BACK
PERFORATED PANEL

RETURN OPENING

RETURN OPENING

SMALL MIDDLE
PERFORATED PANEL

SMALL BACK
PERFORATED PANEL

42 1/2"

12 1/8"

76"

AS SHIPPED

RIGHT END INLET CONVERSION

LEFT END INLET CONVERSION

MIS-2278 A

PARTS LIST

SEXP-496

Drawing No.	Part No.	Description	Qty.
1	S115-149-✳ ①	Front Door	1
2	134-224	Door Baffle	1
3	134-225	Large Front Baffle	2
4	134-228	Small Front Baffle	2
5	140-323	Verticle Support	2
6	131-332	Support Bracket	4
7	140-332	Horizontal Support	2
8	134-226	Large Back Baffle	1
9	134-227	Small Back Baffle	1
10	137-532	Small Back Baffle Fill	1
11	126-352-✳ ①	Bottom	1
12	S101-491-✳ ①	Left Side	1
13	S106-260-✳ ①	Top	1
14	S109-199	Back	1
15	S101-488-✳ ①	Right Side	1
16	S104-1184	Mounting Angle	1

① *Exterior cabinet parts are manufactured with various paint color options. To ensure the proper paint color is received, include the complete model and serial number of the unit for which parts are being ordered.*