

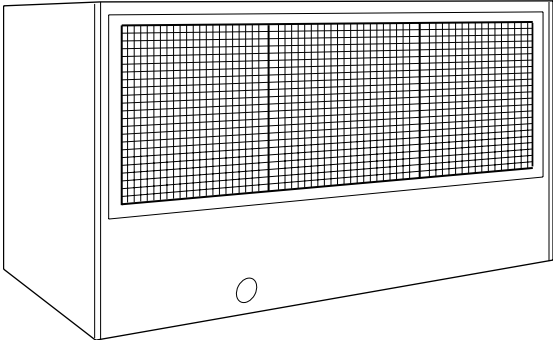
# ACCESSORY KIT INSTALLATION INSTRUCTIONS

## SUPPLY AIR PLENUM ACCESSORY MODELS, 1SP0450, 1SP0451, 1SP045

FOR 5 THRU 15 TON SPLIT SYSTEM INDOOR UNITS AND  
7-1/2 THRU 15 TON SPLIT-SYSTEM HEAT PUMP INDOOR UNITS

TABLE 1: PLENUM ACCESSORY REFERENCE

PLENUM ACCESSORY MODEL #	INDOOR UNIT MODEL #					
1SP0450	K*EU060	K*BU060				
1SP0451	K*EU090,120	K*ES120	F*EH090,120	K*BU090,120	K*BS120	F*HP*90,120
	LA090		FA090	LF-07		FF-07
1SP0452	K*EU180	F*EH180	K*BU180	F*HP*180		
	LA120	FA120	LF-10	FF-10		



1SP0450 - Two Section Grille  
 1SP0451 - Shown  
 1SP0452 - Five Section Grille

### GENERAL

This instruction covers the field assembly and installation of these supply air plenum accessories.

Each plenum is fully insulated and finished to match the exterior of the indoor unit. All joints are gasketed to provide air tight seals.

These accessories can be applied with either vertical or horizontal units that will be located in the conditioned space. They are designed for "free blow" operation and should never be applied with supply air ductwork.

Their double deflection metal grilles can be adjusted to vary the throw, spread and drop of the supply air per Table 2.

The Model 1SP0452 plenum accessory has knockouts for both the power and the control wiring and these knockouts will always be used because all of the field wiring must be routed through the plenum panel.

### INSTALLATION

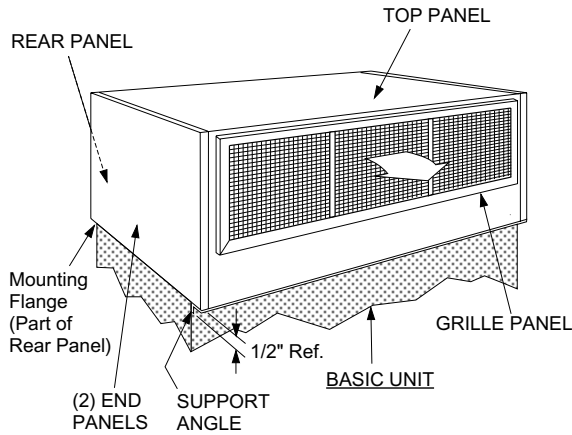
#### SUPPLY AIR PLENUM ACCESSORY MODEL 1SP0450

#### SUPPLY AIR PLENUM ACCESSORY MODEL 1SP0451

This accessory consists of 5 panels, a support angle and all screws necessary for assembling the plenum and for securing it to the unit.

For front air discharge on a vertical unit, assemble the panels as shown in Figure 1, using the No. 10 x 1-1/4" tapping screws. Attach the support angle to the bottom of the plenum with the No. 10 x 1/2" tapping screws. Position the plenum on top of the unit. Drill 5/32" holes through the unit cabinet using the holes in the mounting flange and the support angle as templates. Secure the plenum to the unit with the No. 10 x 1/2" tapping screws.

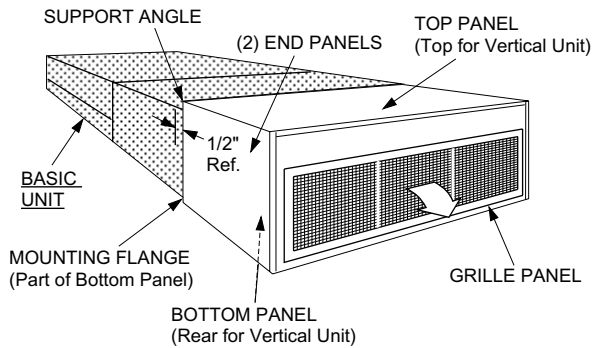
**NOTE:** Electric Heat is not U.L. approved with the Supply Plenum Accessory.



**FIGURE 1 : PLENUM ACCESSORY MODELS 1SP0450 & 1SP0451 (VERTICAL UNIT WITH FRONT AND REAR AIR DISCHARGE)**

For rear air discharge on a vertical unit, assembly and mounting of plenum shall be the same as outlined above except the plenum must be positioned with the grille panel overhanging the rear of the unit.

For horizontal air discharge on a horizontal unit, assemble the panels as shown in Figure 2, using the No. 10 x 1-1/4" tapping screws. Attach the support angles shown with the No. 10 X 1/2" tapping screws.



**FIGURE 2 : PLENUM ACCESSORY MODELS 1SP0450 & 1SP0451 (HORIZONTAL UNIT WITH HORIZONTAL AIR DISCHARGE)**

Position the plenum over the supply air opening and secure to the unit per the same procedure as outlined above for a vertical installation.

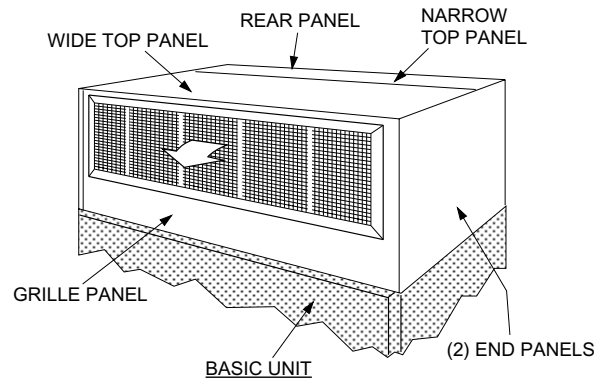
#### **SUPPLY AIR PLENUM ACCESSORY MODEL 1SP0452**

This accessory consists of 6 panels and all the screws necessary for assembling the plenum and for securing it to the unit.

For front air discharge on a vertical unit, assemble the panels as shown in Figure 3 using the No. 10 x 1" tapping screws.

Position the plenum on top of the unit. Remove one of the end panels from the plenum for access to the flanges inside. Drill 5/32" holes through the unit cabinet using the holes in the plenum flanges as templates. Secure the plenum to the unit with the No. 10 x 1/2" tapping screws.

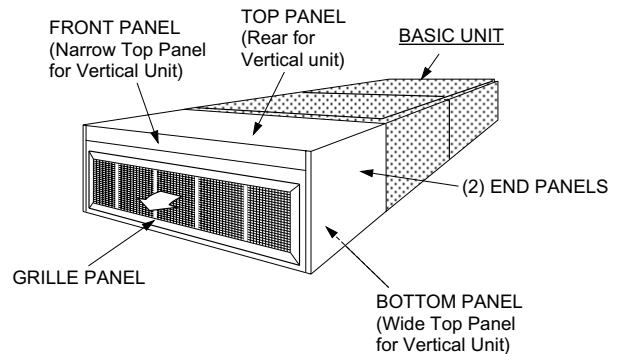
**NOTE:** The other end panel may be removed for easy access to the flanges on the opposite end of the plenum.



**FIGURE 3 : PLENUM ACCESSORY MODELS 1SP0452 (VERTICAL UNIT WITH FRONT OR REAR AIR DISCHARGE)**

For rear air discharge on a vertical unit, rotate the blower section 180° (end to end) before installing the plenum as outlined above.

For horizontal air discharge on a horizontal unit, assemble the panels as shown in Figure 4 using the No. 10 x 1" tapping screws.



**FIGURE 4 : PLENUM ACCESSORY MODEL 1SP0452 (HORIZONTAL UNIT WITH HORIZONTAL AIR DISCHARGE)**

Position the plenum over the supply air opening and secure to unit per the same procedure as outlined above for a vertical installation.

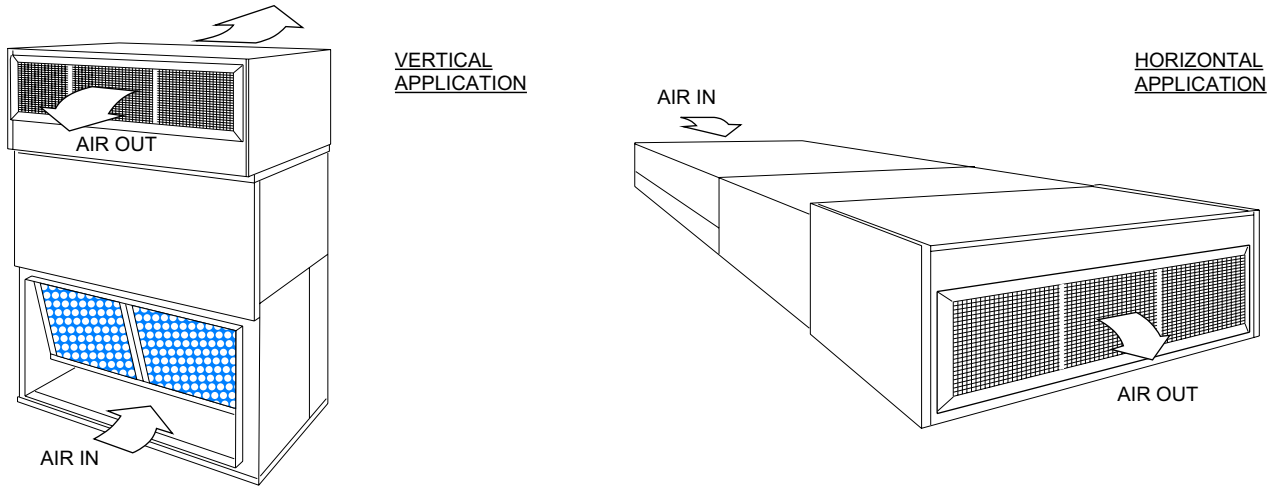


FIGURE 5 : VERTICAL AND HORIZONTAL UNIT ASSEMBLY

TABLE 2: SUPPLY AIR PLENUM PERFORMANCE

Basic Unit (Tons)	CFM	Face Velocity (FPM)	Sound Power DB (10') <sup>12</sup> Watts	Angle of Deflection																	
				Vertical Louvers <sup>1</sup> (Plan View)				Horizontal Louvers <sup>2</sup> (Elevation View)				Vertical Louvers <sup>1</sup> (Plan View)				Horizontal Louvers <sup>2</sup> (Elevation View)					
				Throw (Feet) <sup>3</sup>		Spread (Feet) <sup>3</sup>		Drop (Feet) <sup>4</sup>		Throw (Feet) <sup>3</sup>		Spread (Feet) <sup>3</sup>		Drop (Feet) <sup>4</sup>		Throw (Feet) <sup>3</sup>		Spread (Feet) <sup>3</sup>		Drop (Feet) <sup>4</sup>	
				Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
5	1600	630	20	38	59	13	20	15	8	27	43	12	19	14	7	21	32	33	48	8	4
	1800	710	21	43	47	14	22	16	8	30	48	14	22	14	7	23	37	35	56	8	4
	2000	790	22	48	74	16	25	16	9	34	53	15	24	14	8	25	40	38	60	9	5
	2200	870	23	52	81	17	27	16	9	37	58	17	26	15	8	29	44	44	66	9	5
	2400	940	24	57	89	19	30	17	9	41	64	18	29	15	8	30	48	45	72	9	5
7-1/2	2400	615	20	47	74	20	29	19	9	34	53	23	33	17	8	26	39	45	65	9	5
	2700	690	21	53	83	22	32	20	10	39	59	25	36	18	9	29	45	48	71	10	5
	3000	770	22	59	92	24	35	21	10	42	66	27	40	19	9	32	50	52	78	10	5
	3300	845	23	65	101	26	38	21	10	46	73	29	44	19	9	35	55	56	85	10	5
	3600	920	24	71	110	28	41	22	11	50	79	32	47	20	10	38	60	60	91	11	6
10	3200	820	22	63	98	25	37	21	10	45	70	29	43	19	9	34	53	54	82	10	5
	3600	920	24	71	110	28	41	22	11	50	79	32	47	20	10	38	60	60	91	11	6
	4000	1025	26	78	123	30	45	22	11	56	88	35	52	20	10	42	66	67	102	11	6
	4400	1130	28	86	135	33	49	23	12	62	97	38	57	21	11	47	73	76	115	12	6
	4800	1230	30	94	147	35	53	23	12	68	106	41	62	21	11	51	80	85	127	12	6
15	4800	880	26	84	132	32	48	23	12	61	95	38	56	21	11	46	72	73	112	12	6
	5400	1000	28	95	149	36	54	24	12	68	107	42	63	22	11	52	81	81	124	12	6
	6000	1110	30	106	165	39	59	25	13	76	119	46	69	23	12	57	89	90	138	13	7
	6600	1220	33	116	182	43	65	26	13	84	131	50	76	23	12	63	98	99	152	13	7
	7200	1330	36	126	199	46	70	27	14	92	143	55	83	24	12	68	107	109	166	14	7

<sup>1</sup>Adjusting the vertical louvers will vary the throw, the spread and the drop.

<sup>2</sup>Adjusting the horizontal louvers will only vary the drop.

<sup>3</sup>The velocity of the air will be 125 ft./min. at the minimum distance and 80 ft./min. at the maximum distance.

<sup>4</sup>The velocity of the conditioned air at the bottom of the drop will be 50 ft./min. Drafts will occur if the drop extends into the occupied level of the conditioned space.

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