

INSTALLATION INSTRUCTIONS

SPLIT SYSTEM AIR CONDITIONER COIL ONLY INDOOR SECTION

FOR USE WITH:

**OIL
GAS
FURNACES**

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BRYAN, OHIO

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SPLIT SYSTEM AIR CONDITIONER EVAPORATOR COIL INSTALLATION INSTRUCTIONS

GENERAL

The model indoor cooling coils are designed for use with outdoor section air conditioners listed in Table 2. They are designed for use with gas or oil furnaces. Optional coil casing plenums are also available.

These instructions cover the indoor coil sections listed in Table 2, all of which are supplied less blower. The outdoor compressor units shown can also be matched with blower coil indoor sections, and those are covered by separate installation manuals shipped with the respective blower coil units.

TABLE 1

COIL DIMENSIONS (Inches)					
Coil	A	B	C	Drain Pan Opening (WGL)	Coil Type
18QS3	13	20-1/2	13	None	Slant
24QS1	13	20-1/2	16-1/4	None	Slant
2ACQ1	18	20-1/2	10-3/4	12-1/4 & 15-1/4	"A"
3ACQ3	18	20-1/2	14	12-1/2 & 15-3/4	"A"
4ACQ2	22	20-1/2	17	14-3/4 & 15-1/4	"A"
5ACQ1	22	28	17	15-1/2 & 23-1/2	"A"
5ACQ2	22	20-1/2	24	14-3/4 & 15-1/4	"A"
3BCQ1	7	31-1/2	16-3/4		"B"
4BCQ	9-1/8	40-3/4	19-1/2		"B"
5BCQ	9-1/8	40-3/4	19-1/2		"B"

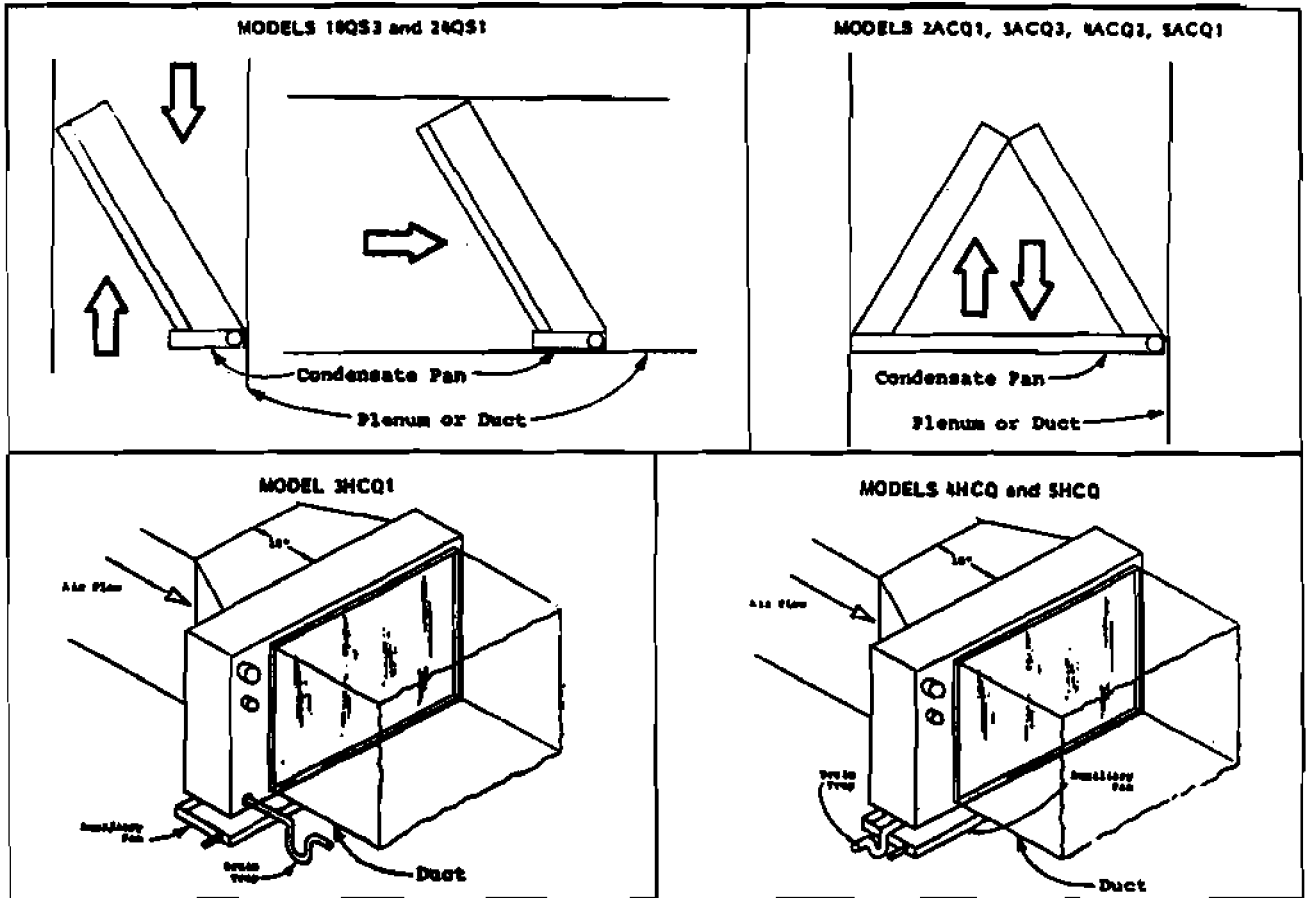


TABLE 2

APPROVED MATCHED COMBINATIONS, RATED CFM STATIC PRESSURE DROP ①				
Condensing Unit Model Number	Evaporator Coil Model Number	CFM	Rated Airflow	Recommended Air Flow Range
			Pressure Drop "H ₂ O" ②	
18BCS2	18QS3	600	.30	525 - 650
18BCQ2	2ACQ1	640	.20	550 - 700
24BCS4	24QS1	870	.30	720 - 950
24BCQ4	2ACQ1	870	.30	720 - 950
30BCS4	3ACQ3	1100	.28	925 - 1215
30BCQ4	3BCQ1	1035	.30	885 - 1135
31BCS2	3ACQ3	1050	.25	900 - 1150
31BCQ2	3BCQ1	1035	.30	885 - 1135
36BCS5	3ACQ3	1180	.30	1000 - 1300
36BCQ5	3BCQ1	1000	.30	850 - 1100
37BCS1	3ACQ3	1180	.30	1000 - 1300
37BCQ1	3BCQ1	1000	.30	850 - 1100
42BCS1	4ACQ2	1450	.23	1230 - 1600
42BCQ1	5ACQ1	1600	.14	1375 - 1750
	4BCQ	1500	.30	1275 - 1650
48BCS2	4ACQ2	1690	.30	1565 - 1950
48BCQ2	5ACQ1	1800	.18	1600 - 1850
	5ACQ2	1600	.15	1375 - 1750
	4BCQ	1600	.30	1375 - 1750
60BCS1	5ACQ1	1990	.28	1705 - 2190
60BCQ1	5ACQ2	1900	.30	1615 - 2100
60BCQ1	5BCQ	1650	.30	1525 - 1910

IMPORTANT INSTALLER NOTE:
 ① All coils are suitable for up or down airflow direction.
 ② Measured across the evaporator coil assembly, including drain pan.

CLEARANCES

Every coil must have the required minimum clearance between furnace heater exchanger and bottom of coil, and not exceed a maximum of two inches between the top of coil and bottom of horizontal ductwork.

When the ductwork takes off from only one side of the plenum, the minimum distance from top of coil to top of plenum is six inches.

A duct should never be located between the coil and the source of air supply. If your coil is larger than the top of your furnace, a transition is required with a minimum of three inches.

CAUTION: Be sure to seal area on all sides between coil drain pan and plenum to prevent air from bypassing coil.

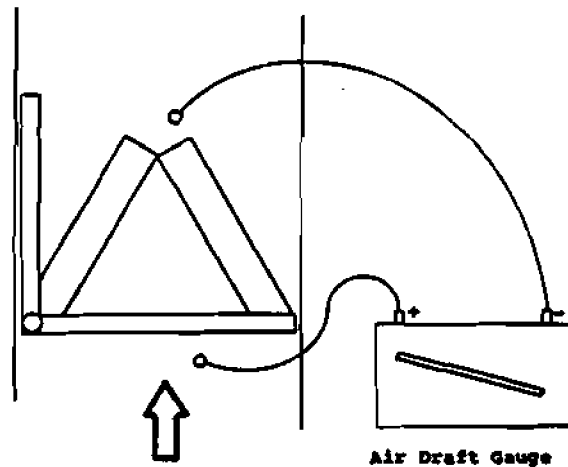
It is important to provide a removable access door in the plenum slightly larger than the coil for servicing or cleaning the coil.

AIRFLOW PRESSURE DROP MEASUREMENT

A manometer or air draft gauge is required to check the air pressure drop across the indoor evaporator coil section.

The pressure (or positive) side of the gauge should connect to the air inlet (entering) side of the coil, and the suction (or negative) side of the gauge to the downstream (leaving) side of the coil. See Figure 4.

FIGURE 2

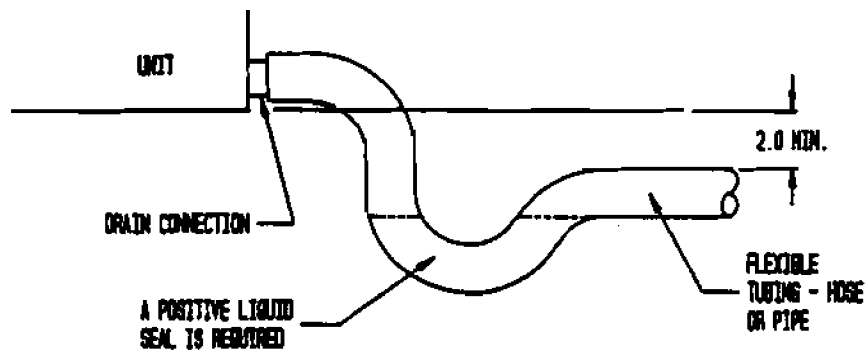


CONDENSATE DRAIN TRAP

It is very important to provide a trap in the condensate drain line to allow a positive liquid seal in the line and assure correct drainage from the coil condensate pan.

Install condensate drain trap shown below. Use drain connection size or larger. Do not operate unit without trap. Unit must be level or slightly inclined toward drain.

FIGURE 3



WALL THERMOSTATS

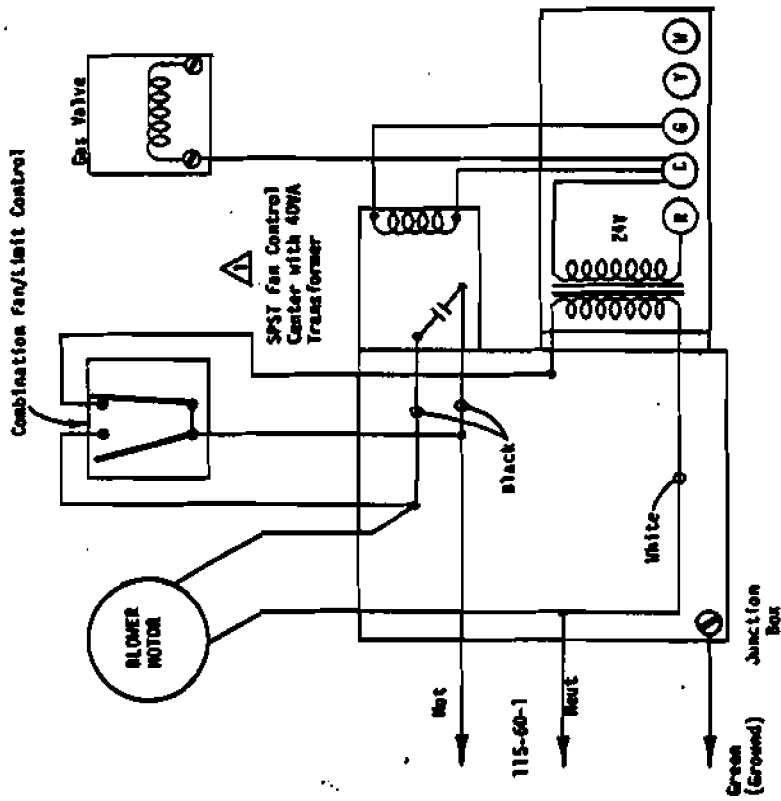
The following wall thermostats and subbases should be used as indicated, depending on the application.

TABLE 3

AIR CONDITIONING THERMOSTATS		
Part No.	Model No.	Description
8403-017	T874R1129	THERMOSTAT--1 stg. cool, 2 stg. heat, 1st stage fixed, 2nd stg. adj. heat anticipators
8404-009	Q674L1181	SUBBASE --System switch: Em. Heat-Heat-Off-Cool Fan switch: On-Auto SPECIAL FEATURE: Manual Changeover (Non-Cycling Rev. Valve) Em. heat light and System check light
8403-018	T874N1024	THERMOSTAT--1 stg. cool, 2 stg. heat, 1st stage fixed, 2nd stg. adj., heat anticipators
8404-010	Q674F1261	SUBBASE --System switch: Off-Cool-Auto-Heat-Em.Ht. Fan switch: On-Auto SPECIAL FEATURE: Auto system changeover, Em. heat light and System check light
8403-024	1F58-45	THERMOSTAT--1 stg. cool, 2 stg. heat, 1st stage fixed, 2nd stg. adj. heater System switch: Em. Heat-Heat-Off-Cool Fan Switch: On-Auto

Typical wiring for the 115V connections into the gas or oil furnace are shown on pages titled "Typical Fan Center Wiring."

TYPICAL APPLICATION — GAS FURNACE WITH SINGLE SPEED MOTOR



⚠ Remove original (existing) 24V transformer from furnace.

TYPICAL APPLICATION — GAS FURNACE WITH MULTI-SPEED MOTOR

