

SPLIT SYSTEM AIR CONDITIONERS

EVAPORATOR INSTALLATION INSTRUCTIONS

GENERAL

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

APPROVED MATCHED COMBINATIONS AND BTU RATINGS

Outdoor Unit Model	Indoor Coil Model	Btu/Hour ¹
18ECQ2	18QS3	17,000
24ECQ4	24QS1	23,200
24ECQ4	2ACQ1	23,400
30ECQ4	3ACQ3	28,600
30ECQ4	3HCQ1	29,600
31ECQ2	3ACQ3	29,000
31ECQ2	3HCQ1	30,400
36ECQ5	3ACQ3	36,400
36ECQ5	3HCQ1	35,800
37ECQ1	3ACQ3	36,200
37ECQ1	3HCQ1	35,400
42ECQ1	4ACQ2	41,000
42ECQ1	4HCQ	42,500
48ECQ2	4ACQ2	45,000
48ECQ2	4HCQ	45,000
48ECQ2	5ACQ1	50,000
60ECQ1	5ACQ1	54,000
60ECQ1	5HCQ	51,000

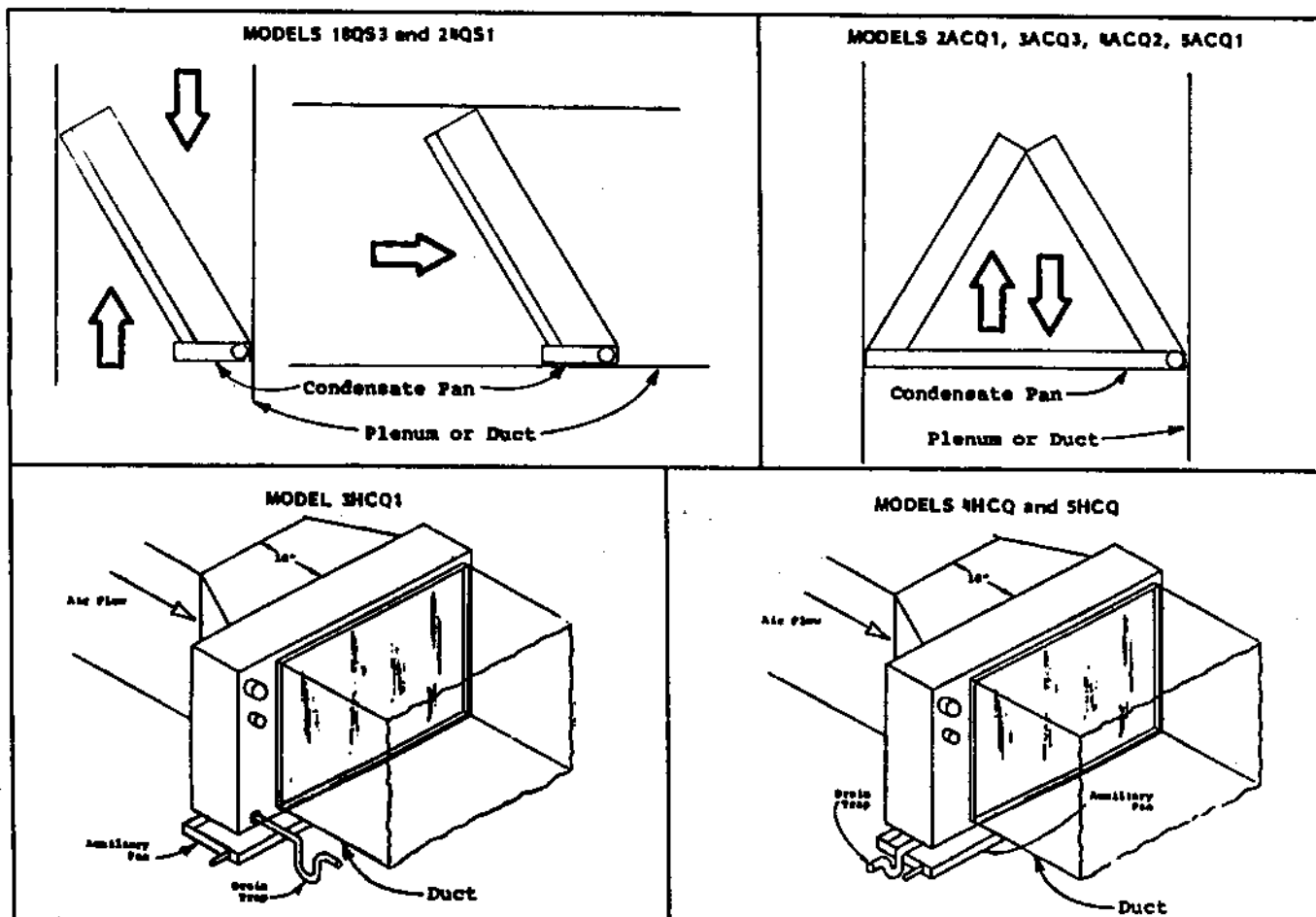
RATED AIRFLOW, STATIC PRESSURE DROP (WET COIL) AND APPROVED AIRFLOW DIRECTION

Matching Combination	Rated Cfm/Pressure Drop (Inches of H ₂ O)	Airflow Direction
18ECQ2/18QS3	600/.30	Up-Down-Horiz.
24ECQ4/24QS1	870/.30	Up-Down-Horiz.
24ECQ4/2ACQ1	870/.30	Up-Down
30ECQ4/3ACQ3	1100/.28	Up-Down
30ECQ4/3HCQ1	1000/.30	Horiz.
31ECQ2/3ACQ3	1050/.25	Up-Down
31ECQ2/3HCQ1	1035/.30	Horiz.
36ECQ5/3ACQ3	1180/.30	Up-Down
36ECQ5/3HCQ1	1000/.30	Horiz.
37ECQ1/3ACQ3	1180/.30	Up-Down
37ECQ1/3HCQ1	1000/.30	Horiz.
42ECQ1/4ACQ2	1450/.23	Up-Down
42ECQ1/4HCQ	1400/.21	Horiz.
48ECQ2/4ACQ2	1690/.30	Up-Down
48ECQ2/4HCQ	1600/.30	Horiz.
48ECQ2/5ACQ1	1800/.18	Up-Down
60ECQ1/5ACQ1	1990/.28	Up-Down
60ECQ1/5HCQ	1850/.30	Horiz.

¹ ARI Standard Rating Conditioning 95°F db outside, 60°F db, 67°F wb inside.

AIRFLOW DIRECTION

Shown below, by model number, are the intended mounting positions of the indoor evaporator coil units.



APPLICATION INFORMATION

SLANT COIL AND A-COIL TYPES

Every coil must have the required minimum clearance between furnace heat 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 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.

FLAT COIL (H-COIL) TYPES

The "H" models are horizontal type evaporator coils designed to be installed in a horizontal duct run with the air flowing horizontally through the evaporator.

If you have a coil that is either larger or smaller than the opening of the furnace or the existing ductwork, you must transition as shown. Transition should be a minimum of 18 inches in length. Best installation practice would dictate a vibration break (canvas for cooling and asbestos for heating installations).

The trunk and branches of the duct system must be on the downstream side of the evaporator coil in all cases.

CAUTION: Make sure all duct connections are sealed so as to be air tight.

Cover transitions and ducts with adequate insulation covered with complete sealed vapor barrier. This is **IMPORTANT** to prevent sweating and to reduce cooling loss in duct work.

When the evaporator coil is installed in an attic an auxiliary drain pan must be under the entire unit. Drain lines from the auxiliary drain pan must be run separately from the regular drain line and readily visible on outside of the building. Be sure to explain the purpose of this auxiliary drain line to the homeowner.

Condensate drain lines in attic should be insulated to avoid condensation.

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.



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 illustration.

