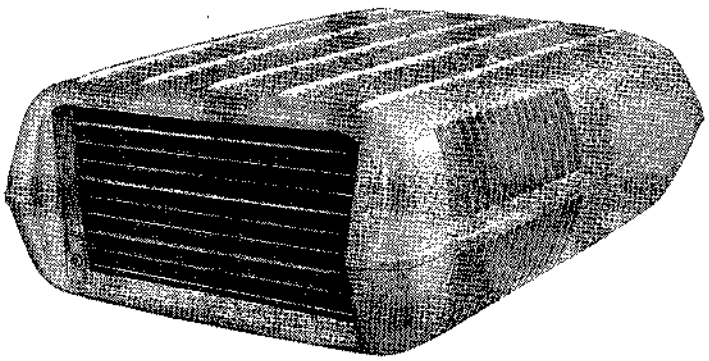
Coleman

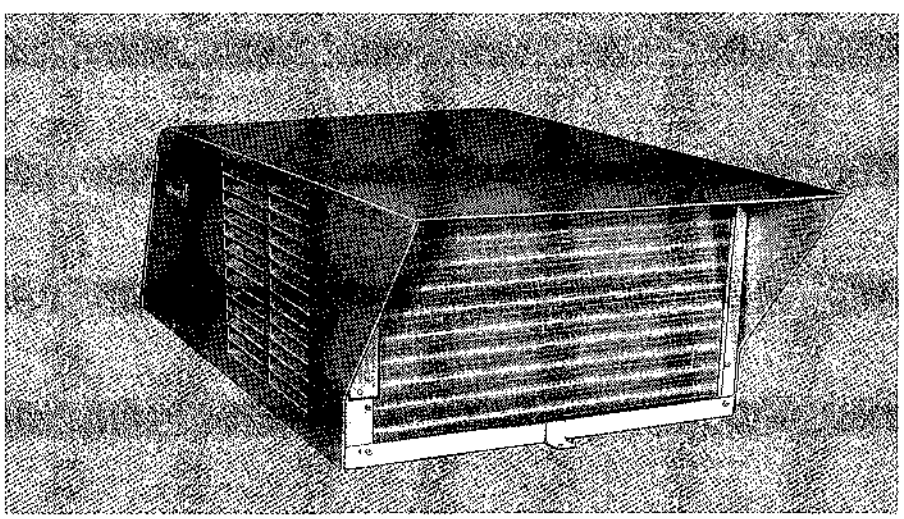
INSTALLATION AND OPI INSTRUCTIONS

RECREATIONAL VEHICLE AIR CONDITIONERS



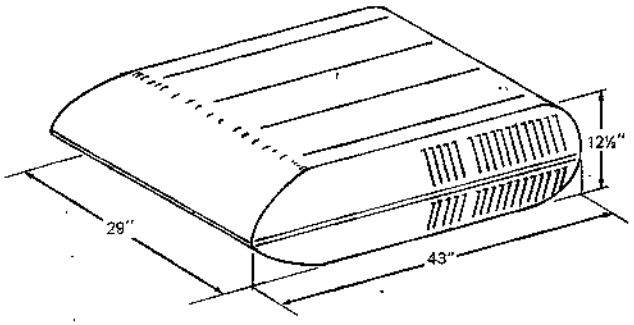
MACH I, II & III

MODELS: 6250, 6258and 6259

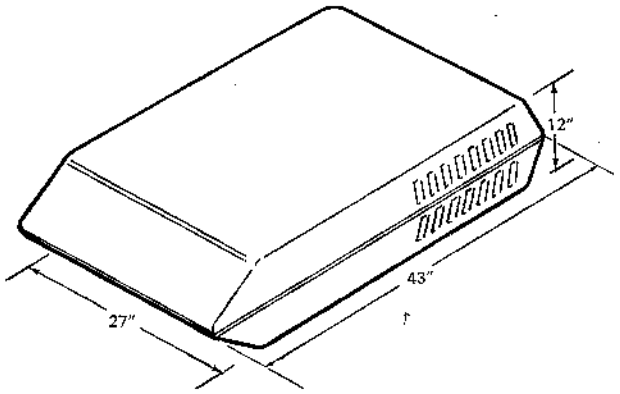


POLAR*PAL
MODEL: 6248

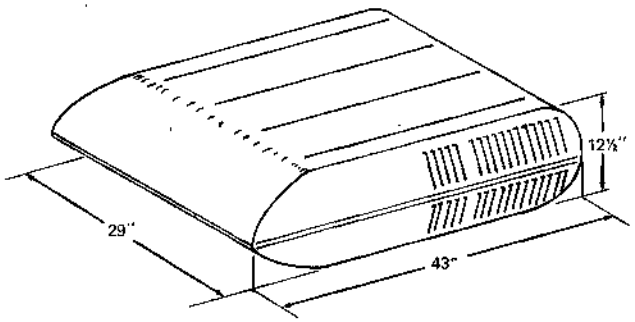
INSTALLATION INSTRUCTIONS



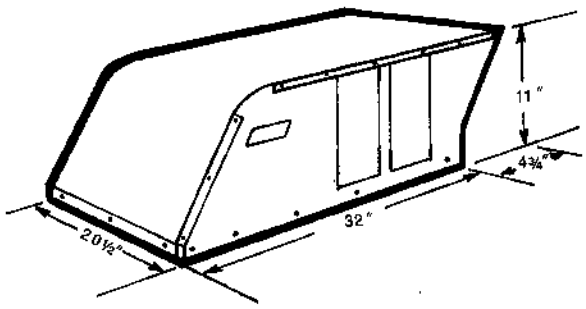
MODEL 6258 (MACH II)



MODELS 6250 (MACH I)



MODEL 6259 (MACH III)



MODEL 6248 (POLAR*PAL)

MODELS		6250-808* 6248-808**	6250E807* 6248F807**	6250D907* 6248E907**	6258-808	6258B807	6258B907	6259A807	6259A907
Nominal Capacity		10,000	10,000	10,000	12,000	12,000	12,000	13,500	13,500
R-22 Refrigerant		15.2 oz.	16.5 oz.	15.5 oz.	17.5 oz.	18.5 oz.	18.5 oz.	19.5 oz.	19.5 oz.
Evaporator Air Delivery									
High speed		310 CFM	310 CFM	310 CFM	360 CFM	360 CFM	360 CFM	360 CFM	360 CFM
Low speed		210 CFM	210 CFM	210 CFM	250 CFM	250 CFM	250 CFM	250 CFM	250 CFM
ELECTRICAL									
115 volts, 60 cycles, 1 phase									
Running Watts		1450	1400	1440	1700	1520	1640	1850	1825
Full Load Amps		12.6	12.1	12.5	14.7	13.0	13.9	16.0	15.8
Compressor		10.6	10.1	10.5	11.9	10.4	11.3	13.3	13.1
Fan Motor		2.0	2.0	2.0	2.8	2.6	2.6	2.7	2.7
Locked Rotor Amps (Total)		55.0	55.0	55.0	68.0	54.0	54.0	76.0	78.5
Compressor		50.0	50.0	50.0	62.0	48.0	48.0	70.0	72.5
Fan Motor		5.0	5.0	5.0	6.0	6.0	6.0	6.0	6.0
Installed Weight (Total approx.)		120 lbs.* 115 lbs.**	120 lbs.* 115 lbs.**	120 lbs.* 115 lbs.**	130 lbs.	130 lbs.	130 lbs.	130 lbs.	130 lbs.
Suggested Minimum Generator Size	1 A/C unit	3KW	3KW	3KW	3.5KW	3.5KW	3.5KW	4KW	4KW
	2 A/C units	4KW	4KW	4KW	5KW	5KW	5KW	5KW	5KW

INSTALLATION INSTRUCTIONS

The roof mount air conditioner has been designed for use primarily in recreational vehicles.

The unit installs easily, is quiet and efficient and will provide comfort in a wide variety of applications.

It is a sealed hermetic design with capillary tube refrigerant control and trouble free P.S.C. compressor.

The unit mounts on the roof and can be installed in place of the roof vent or at any desired location. If desired, a curved roof adapter kit is available for mounting the interior assembly on curved ceilings.

TO INSTALL UNIT ON FLAT VENT OPENING IN ROOF:

1. Provide 14" x 14" framed and reinforced vent opening in desired location, preferably toward front of coach. Roof structure must be capable of supporting up to a 140 pound weight in transit. Framing is required to provide flat roof surface to mount air conditioner.
2. Provide a time delay fused 115 volt supply circuit from coach service entrance box to A/C vent opening. The circuit must be for 15 ampere service and No. 14 A.W.G. wire minimum for models 6248 and 6250 – 20 ampere and No. 12 A.W.G. wire minimum for model 6258 and 6259. Wire sizes from coach service entrance box to power source will vary with length of the supply line.

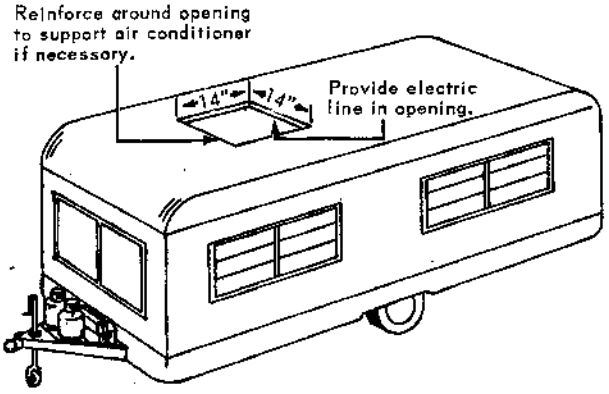


Figure 1.

a. Install metal sleeve in roof opening (see Metal Sleeve and Roof Gasket installation instructions.)
b. Adhere the two 2" x 2" gasket pads onto the underside of the base pan within 2 to 3 inches from the rear corners of the pan.

METAL SLEEVE AND ROOF GASKET INSTALLATION INSTRUCTIONS

NOTE: The rubber gasket is slipped over the "top" piece (A) of the sleeve before assembly.

The metal roof sleeve requried by Underwriter's Laboratories is provided in two sections. The top section "A" Figure 1A is approximately 3-3/4 inches deep with a flange on one end. In addition, a series of 7/8 inch diameter holes have been punched for the electrical service wiring and the corners have been notched 2-1/2 inches in each corner to facilitate forming the flange when installed through the roof of the coach. Before assembling the metal sleeve in the roof of the coach, install the plastic bushing (supplied with the metal sleeve) in the hole selected for the electrical wiring. Pull the 115 volt electrical wiring through the bushing. Install the metal sleeve in the opening and form flange by bending sides over as shown in Figure 1A.

With roof cavity depths in excess of 3 inches both sections of the metal roof sleeve must be used. The second section "B" is supplied as an accessory and is packed with the extended 7 inch bolt package 6248B1761. Its construction is exactly identical to section "A". The two sections will telescope together as shown in Figure 1B. For the electrical

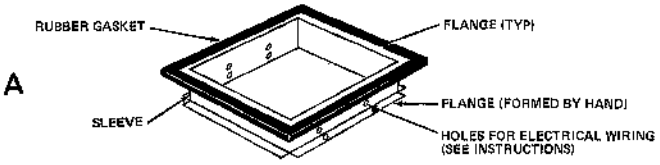


Figure 1a

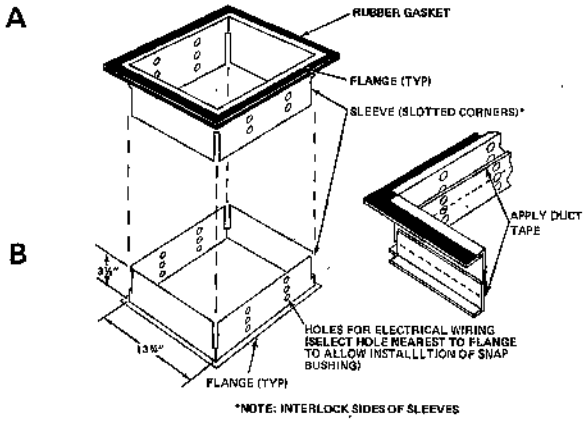


Figure 1b

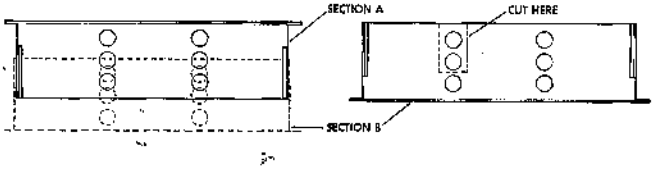


Figure 1c Figure 1d

wiring select the hole nearest to the flange, if possible, for the installation of the snap bushing. If there is interference of the holes section "A" and section "B" Figure 1C, cut the slot just large enough to clear the snap bushing in section "A". Pull the wire through the bushing. Complete the as-

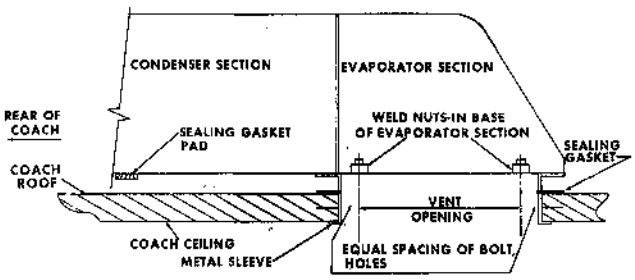


Figure 2.

sembly by telescoping section "A" and "B" together and fasten the lower section to the ceiling using 4 sheet metal screws.

1. Set the unit in place over the vent opening with the condenser facing rear of coach. The 4 bolt holes in the base of the unit, when viewed from underside, should be located an equal distance in from each corner of the 14" x 14" opening.

2. Remove Filter from Ceiling Plate Frame. Hold Ceiling Frame up against the ceiling at the underside of vent opening. The wing nuts on the assembly must be toward the back. Place washers on Mounting Bolts and insert the four bolts through the Ceiling Frame. Screw the bolts into the nuts in the base of the unit. Pull them up snug and even to provide a thorough seal around the 14" x 14" opening in the roof, and to position the unit level on the roof. Check the Gasket for a thorough seal.

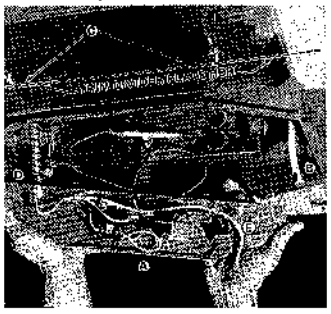


Figure 3.

3. To install the Divider Plate, remove the wing nuts and washers found on the weld bolts in the discharge side of the Ceiling Frame Assembly. Insert Divider up against bottom of the unit. Replace washers and wing nuts. Be sure the Felt Trim around upper edges of Divider Plate is providing a seal. Use snips to trim portion of Divider Plate that might extend below the Ceiling Plate. Use "duct tape", or equivalent, to seal the open slots in the Divider Plate and other openings that may remain around the Felt Gasket. (See C, Figure 3)

IMPORTANT

The Divider Plate is intended to separate the Inlet and Outlet Air Passages. Because of protrusions and variation in the opening size, seal thoroughly all openings that may be left around the divider. Failure to provide a positive seal will result in severe capacity loss.

4. Reach up into the Air Return section and pull down the Control Panel Assembly that is attached to the flexible metal Conduit. Discard the cardboard protective cover. (See A, Figure 3)

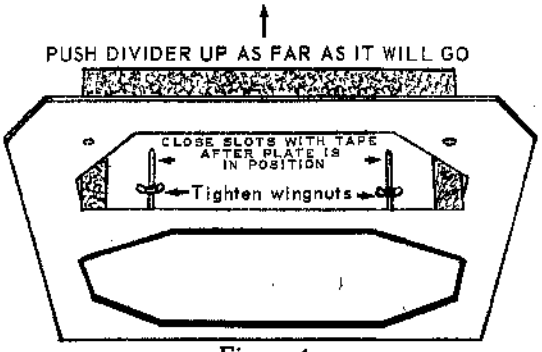


Figure 4.

5. Pass the 115 volt supply wires through the Connector on the right side of the Control Box (The right side as the installer faces the rear of the coach). Pull 3 to 5 inches of wire through and tighten the Connector to secure the wire. (See E, Figure 3)

6. Connecting Supply Wires:

a. Attach Ground Wire to Control Panel using the Green Head Screw next to the supply wire Connector. (See B, Figure 5)

b. Remove wire nut from the White Wire in the Control Panel and connect to the White Supply Wire. Twist wires together and screw the wire nut on securely. (See A, Figure 5)

c. For connecting the Black Wire of the Control Panel to the Black Supply Wire, repeat the procedure as in step b. above. (See A, Figure 5)

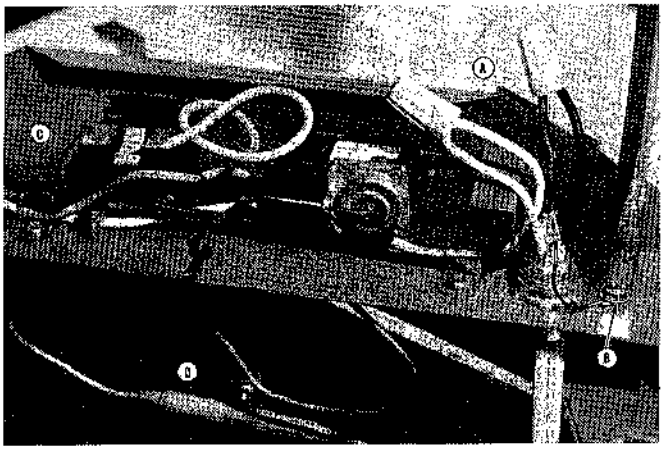


Figure 5.

NOTE

After securing the wire nuts, use electrical tape to prevent them from vibrating loose from the wires.

d. Fold the White Wires and Black Wires around Angle Bracket in the Control Panel Assembly (see Figure 5) before attaching the Control Panel to the Ceiling Frame.

Figure 6.

CAUTION

Check wiring terminals. Make sure the terminals are not touching any adjacent metal part. The Cold Control Cap Tube (D) must be clear 1/4" from all exposed terminals.

7. Secure Control Panel Assembly to the Ceiling Frame with the two (2) screws provided. Check for protruding wires before securing.

Replace Filter in Control Box Frame.

8. Check operation of Controls:

a. With selector switch in "Off" position, close the 115 volt supply circuit to the unit.

b. Turn thermostat to coldest position.

c. Turn selector switch to "Low Fan". Check that blower runs at low speed.

d. Turn selector switch to "High Fan". Check that blower goes to high speed.

e. Turn selector switch to "Normal Cooling." Check that compressor starts (cold air will be felt at the discharge outlet in a short time.) Blower will drop back to low speed.

f. Turn selector switch to "Max. Cooling." Check that blower speed increases to high speed.

h. Set selector switch and thermostat for desired operation.

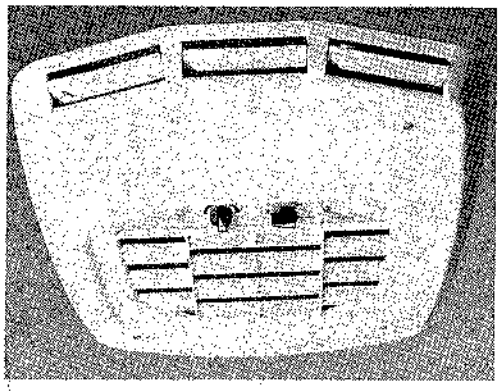


Figure 7.

NOTE

Compressor will not start again immediately after it is shut off. Allow unit to remain off 5 minutes before attempting to restart compressor.

9. Attach Air Distributor Cover to the Ceiling Plate with the four screws provided.

10. With circulating fan operating, adjust louvers in Ceiling Plate Assembly for desired air distribution.

11. Unit is now ready to operate.

Installation On Vent With Protruding Flange:

When installing the unit over an existing vent with a protruding flange, it will be necessary to remove the vent flange. The installation method is the same as for the flat roof, but requiring additional preparation.

1. Remove Vent Cap from the Vent Assembly. This can usually be accomplished by driving out the hinge pin and lifting cap off.

2. Remove any obstructions found in the opening — screen, crossbar, etc.

3. Remove protruding Vent Flange from around the opening and proceed with installation and check out per "Unit Mount on Flat Vent Openings".

Install Unit In Coach With Curved Ceiling

When installing unit in coach with curved ceiling proceed as per steps 1, 2, 3 "Flat Vent Opening Installation". Curved Ceiling Adapter Part No. 6248-5661 Required.

1. Screw allthread bolts into Air Conditioner Base. Be sure bolts go all the way through the weld nuts in the base.

2. Place Curved Ceiling Adapter Plate over 4 bolts just installed. Put nuts on the 4 bolts and draw

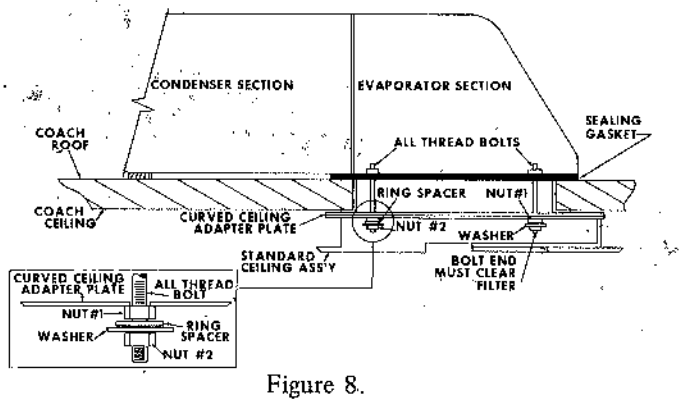


Figure 8.

Ceiling Adapter up against ceiling. Draw nuts tight to secure unit to roof and seal thoroughly around vent opening. Allow plate to bend to conform to curve of ceiling.

3. Place standard Ceiling Frame Assembly over

bolts and let the nuts come through the 3/4" hole in Ceiling Frame Assembly.

4. Install Ring Spacer, washer and nut on each allthread bolt and tighten nuts to secure assembly.

NOTE

Allthread bolts must be screwed up into base far enough that end of bolt clears filter. See Fig. 8.

5. Proceed per installation and check out per "Unit Mount on Flat Vent Openings."

Operation

1. Turn unit "ON" or "OFF" with selector switch.

2. Use "Low Fan" or "High Fan" setting on selector switch for air circulation during mild weather.

3. Use "Max. Cooling" and maximum thermostat setting for hot humid weather.

4. Use "Max. Cooling" and medium thermostat setting for hot dry weather.

5. Use "Normal Cooling" and maximum thermostat setting for mild humid weather.

6. Clean the Filter Regularly. Wash in mild suds water, rinse thoroughly and dry.

7. Check the air inlet area above the filter occasionally. If it is gathering lint or other foreign material clean it with a brush and vacuum. Rapid accumulation of foreign material in the air return area is an indication that filters are not cleaned often enough or are not properly installed.

8. Check the outdoor coil occasionally for leaves, lint, paper, etc. The outdoor coil must remain free and clear for efficient cooling.

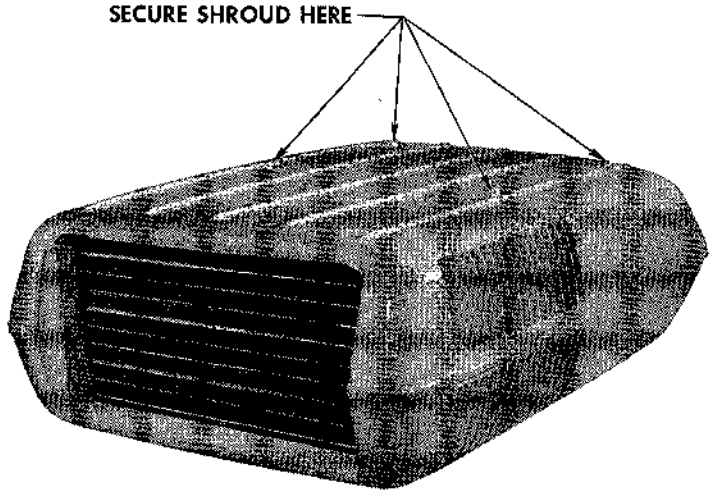
9. When changing the filter check the divider plate located between the air return and air discharge areas. Be sure it is sealing all around the felt flange. Short circuiting of the cool air at this point will greatly reduce the cooling capacity of the unit.

NOTE

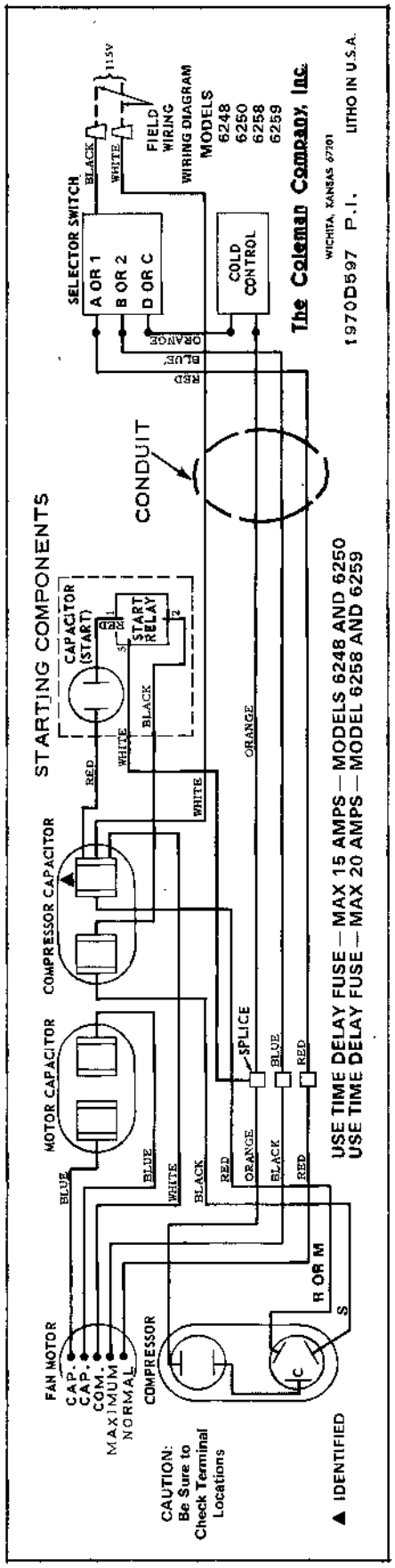
After air conditioner has been shut off, it will not start again for approximately 5 minutes.

Shroud Installation On Models 6250, 6258 and 6259

Place the shroud over the unit with the open end around the condenser coil and the four bolts extending through the top of the shroud. Secure with the four acorn lock nuts and washers provided.



INSTALLATION INSTRUCTIONS



CAUTION

BE SURE TO CHECK THE TERMINAL LOCATION

INSTALLATION INSTRUCTIONS

Coleman®

The Coleman Company, Inc.

SPECIAL PRODUCTS DIVISION

WICHITA, KANSAS 67201

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