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Model Number \_\_\_\_\_  
 Serial Number \_\_\_\_\_  
 Date Purchased \_\_\_\_\_

**USA**  
 Dometic Corporation  
 1120 North Main Street  
 Elkhart, IN 46514

**SERVICE CENTER &  
 DEALER LOCATION**  
 Please visit:  
[www.eDometic.com](http://www.eDometic.com)

Roof Top Unit					
Description	Model	Use With Return Air Grille			
		Model	CCC 2 Electronic Control Kit	CCC 2 Thermostat	Indoor Temperature Sensor Kit
Air Conditioner	640312 640315	3105007.XXX OR 3105935.XXX	3312020.000	3312024.XXX OR 3314082.XXX	3311931.XXX

This Unit is designed for OEM installation. All initial installations must be approved by Dometic Corporation

# INSTALLATION INSTRUCTIONS

## MODEL

640312.30X	640315C35X
640312C35X	640315.80X
640312.80X	640315.83X
640312.83X	640315.84X
640312C85X	640315C85X
640315.30X	

**REVISION B**  
 Form No. 3314448.014 6/18  
 (French 3314985.015\_B)  
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 LaGrange, IN 46761



**Read these instructions carefully. These instructions MUST stay with this product.**

# INTRODUCTION

This air conditioner (hereinafter referred to as “unit” or “product”) is designed and intended for installation on the roof of a Recreational Vehicle (RV) during the time it is manufactured.


This unit can be installed by one person with brief help from additional personnel. Use the following procedure to ensure a properly installed, and properly functioning product.

Dometic Corporation reserves the right to modify appearances and specifications without notice.

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# DOCUMENT SYMBOLS

 Indicates additional information that is **NOT** related to physical injury.

 Indicates step-by-step instructions.

# IMPORTANT SAFETY INSTRUCTIONS

This manual has safety information and instructions to help users eliminate or reduce the risk of accidents and injuries.

## A. Recognize Safety Information



This is the safety alert symbol. It is used to alert you to potential physical injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

## B. Understand Signal Words

A signal word will identify safety messages and property damage messages, and will indicate the degree or level of hazard seriousness.

**WARNING** indicates a hazardous situation that, if **NOT** avoided, could result in death or serious injury.

**CAUTION** indicates a hazardous situation that, if **NOT** avoided, could result in minor or moderate injury.

**NOTICE** is used to address practices **NOT** related to physical injury.

## C. Supplemental Directives



Read and follow all safety information and instructions to avoid possible injury or death.

Read and understand these instructions before [installing / using / servicing / performing maintenance on] this product.

Incorrect [installation / operation / servicing / maintaining] of this product can lead to serious injury. Follow all instructions.

The installation **MUST** comply with all applicable local or national codes, including the latest edition of the following standards:

### U.S.A.

- ANSI/NFPA70, National Electrical Code (NEC)
- ANSI/NFPA 1192, Recreational Vehicles Code

### CANADA

- CSA C22.1, Parts I & II, Canadian Electrical Code
- CSA Z240 RV Series, Recreational Vehicles

## D. General Safety Messages



Failure to obey the following warnings could result in death or serious injury:

- This product **MUST** be [installed / serviced] by a qualified service technician.
- Do **NOT** modify this product in any way. Modification can be extremely hazardous.
- Do **NOT** add any devices or accessories to this product except those specifically authorized in writing by Dometic Corporation.

# SPECIFICATIONS

## A. Table - Unit Data

Model No.	Nominal Capacity (BTU HR) Cooling	Electrical Rating 120 Vac 60 Hz 1 ph	Compressor Rated Load Amps	Compressor Locked Rotor Amps	Fan Motor Rated Load Amps	Fan Motor Locked Rotor Amps	Refrigerant R-410A (oz)	Minimum Wire Size* 12 AWG Copper Up to 24'	AC Circuit Protection ***Installer Supplied	Minimum Generator Size** 1 Unit / 2 Units
640312.30X	11,000		10.5	53.0	3.5	10.0	19.0		20 Amp	3.5 kW / 5.0 kW
640312C35X	11,000		10.5	53.0	3.5	10.0	19.0		20 Amp	3.5 kW / 5.0 kW
640312.80X	11,000		11.5	53.0	2.6	8.5	20.0		20 Amp	3.5 kW / 5.0 kW
640312.83X	11,000		12.5	63.0	2.6	8.5	18.0		20 Amp	3.5 kW / 5.0 kW
640312C85X	11,000		11.5	53.0	2.6	8.5	20.0		20 Amp	3.5 kW / 5.0 kW
640315.30X	13,500		12.5	61.0	3.5	10.0	17.5		20 Amp	3.5 kW / 5.0 kW
640315C35X	13,500		12.5	61.0	3.5	10.0	17.5		20 Amp	3.5 kW / 5.0 kW
640315.80X	13,500		12.6	63.0	2.6	8.5	18.0		20 Amp	3.5 kW / 5.0 kW
640315.83X	13,500		12.5	63.0	2.6	8.5	19.0		20 Amp	3.5 kW / 5.0 kW
640315.84X	13,500		12.5	63.0	3.5	8.5	19.0		20 Amp	3.5 kW / 5.0 kW
640315C85X	13,500		12.6	63.0	2.6	8.5	18.0		20 Amp	3.5 kW / 5.0 kW

\* For wire length over 24 ft., consult the National Electrical Code for proper sizing.

\*\* Dometic Corporation gives **GENERAL** guidelines for generator requirements. These guidelines come from experiences people have had in actual applications. When sizing the generator, the total power usage of your RV must be considered. Keep in mind generators lose power at high altitudes and from lack of maintenance.

\*\*\* CIRCUIT PROTECTION: Time Delay Fuse or Circuit Breaker Required.

## B. Roof Requirements

- A 14-1/4" x 14-1/4" ( $\pm 1/8$ ") square opening (hereinafter referred to as "roof opening") is required for installing this unit. This opening is part of the return air system of the unit and **MUST** be finished in accordance with NFPA 1192.
- Roof construction with rafters/joists support frames on a minimum of 16 inch centers.
- Minimum of 2 inches and maximum of 5-1/2 inches distance between roof to ceiling of RV.

## C. Table - Air Distribution Duct Sizing & Design

	<b>Return Air Grille Kit</b> <b>3105007.XXX</b> <b>3105935.XXX</b>
<b>Roof Cavity Depth</b>	2.0 In. Min. - 5-1/2 In. Max.
<b>Duct Cross Sectional Area</b>	21.0 Sq. In. Min.
<b>*Duct Size</b> Depth Width Total Duct Length Duct Length (short run)	1-1/2 In. Min. - 2-1/2 In. Max. 7.0 In. Min. - 10.0 In. Max. 15.0 Ft. Min. - 40.0 Ft. Max. 1/3 Total Duct Length
<b>Register Requirements per A/C Unit</b> Number Required Register Free Air Area Distance From Duct End Distance From Elbow	4 Min. - 8 Max. 14.0 Sq. In. 5.0 In. Min. - 8.0 In. Max. 15.0 In.
<b>Total System Static Air Pressure Blower at High Speed, Filter &amp; Grill In Place</b>	0.12 - 0.65 In W.C.

\*Duct sizes listed are inside dimensions. Duct material **MUST** meet or exceed any agency or RVIA Standard in effect at the time the RV is manufactured.

# INSTALLATION PROCEDURE

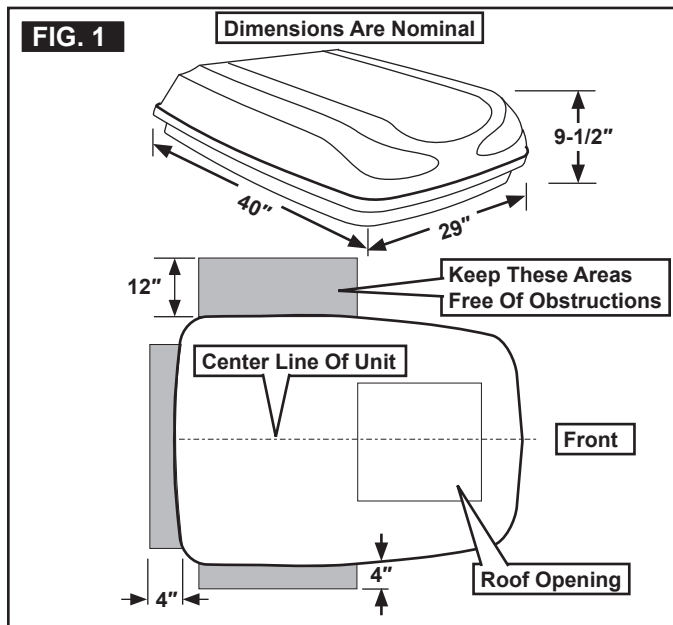
## A. Choosing Proper Location For Unit

This unit is specifically designed for installation on the roof of a recreational vehicle (RV). When determining your cooling requirements, the following should be considered:

- Size of RV;
  - Window area (increases heat gain);
  - Amount of insulation in walls and roof;
  - Geographical location where the RV will be used;
  - Personal comfort level required.
1. For one unit installation: The unit should be mounted slightly forward of center (front to back) and centered from side to side.
  2. For two unit installations: Install one unit 1/3 and one unit 2/3's from front of RV and centered from side to side.

It is preferred that the unit be installed on a relatively flat and level roof section measured with the RV parked on a level surface, but up to a 8° tilt is acceptable.

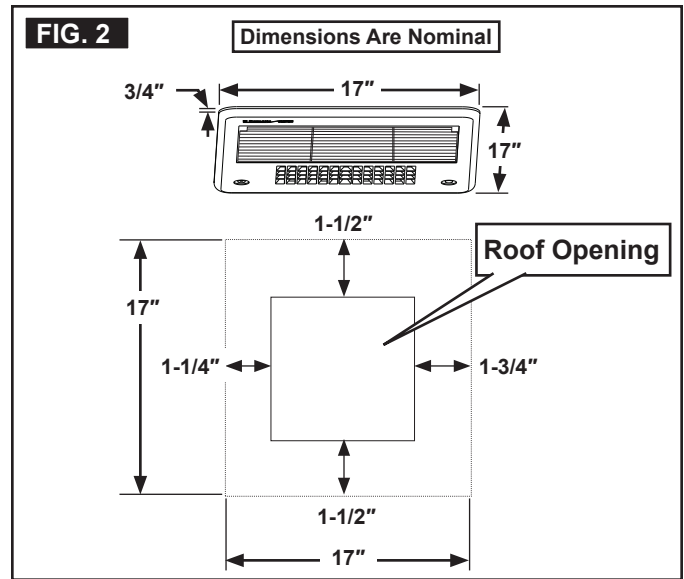
3. After Location Has Been Selected:
  - a. Check for obstructions in the area where unit will be installed. See (FIG. 1).



- b. **NOTICE** Maintain structural integrity. Otherwise damage to product and/or RV could occur.

The roof must be designed to support 130 pounds when the RV is in motion. Normally a 200 lb. static load design will meet this requirement.

- c. Check inside the RV for return air grille obstructions (i.e. door openings, room dividers, curtains, ceiling fixtures, etc.). See (FIG. 2).



## B. Roof Preparation

1. **WARNING** FIRE OR ELECTRICAL SHOCK HAZARD. Verify there are no obstacles inside RV's roof and/or walls (wires, pipes, etc.). Shut **OFF** gas supply, disconnect 120 Vac power from RV, and disconnect positive (+) 12 Vdc terminal from supply battery **BEFORE** drilling or cutting into RV. Failure to obey these warnings could result in death or serious injury.

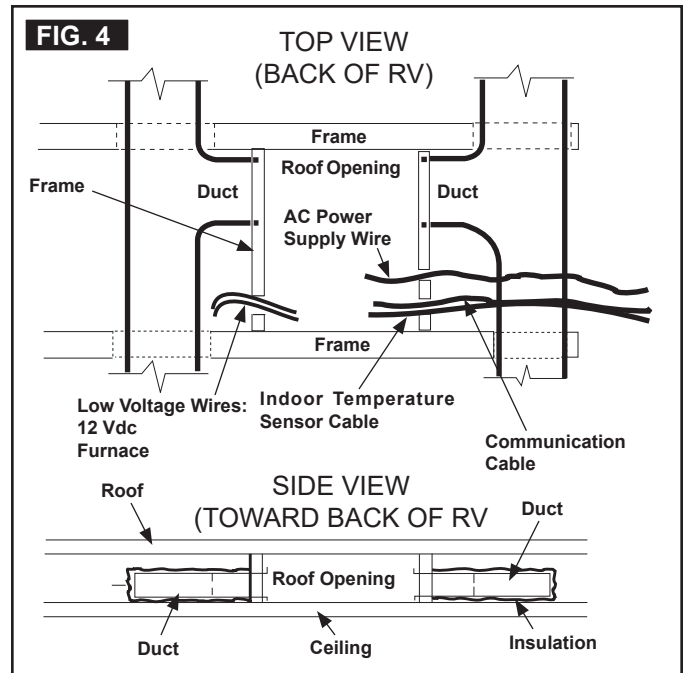
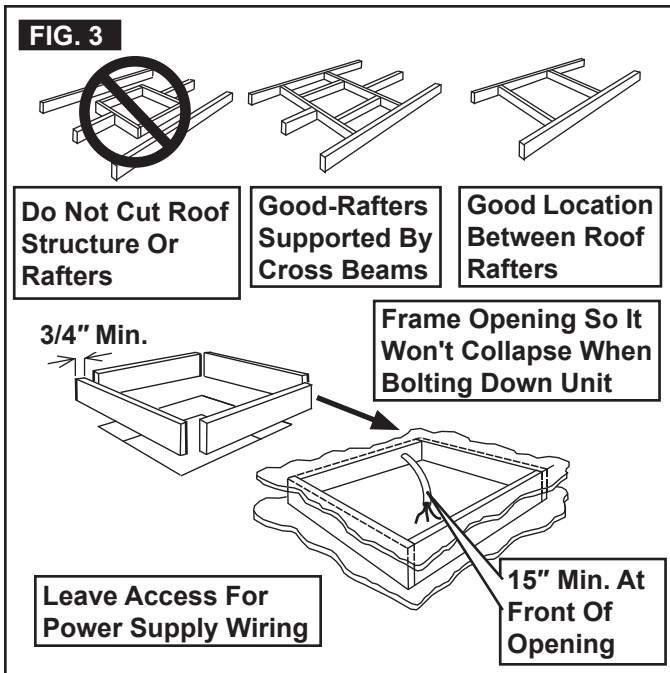
**i** Opening Requirements - Before preparing the ceiling opening, the type of system options **MUST** be decided upon. Read all of the following instructions before beginning the installation.

2. Carefully mark and cut the required roof opening. See "B. Roof Requirements" on page (4).
3. Using the roof opening as a guide, cut the matching hole in the ceiling.
4. **NOTICE** Maintain structural integrity. Otherwise damage to product and/or RV could occur.

**NOTICE** NEVER create a low spot on RV roof. Otherwise, water will pool and could cause a leak.

The opening created must be framed to provide adequate support and prevent air from being drawn from the roof cavity. Framing stock 3/4" or more in thickness must be used. Remember to provide an entrance hole for power supplies, indoor temperature sensor cable (if applicable), 4 conductor communication cable, and furnace wiring (if applicable). See (FIG. 3).

# INSTALLATION PROCEDURE



## C. Air Distribution Duct System Sizing & Design

The Installer of this system must design the air distribution system for their particular application. Several requirements for this system must be met for the unit to operate properly. These requirements are as follows:

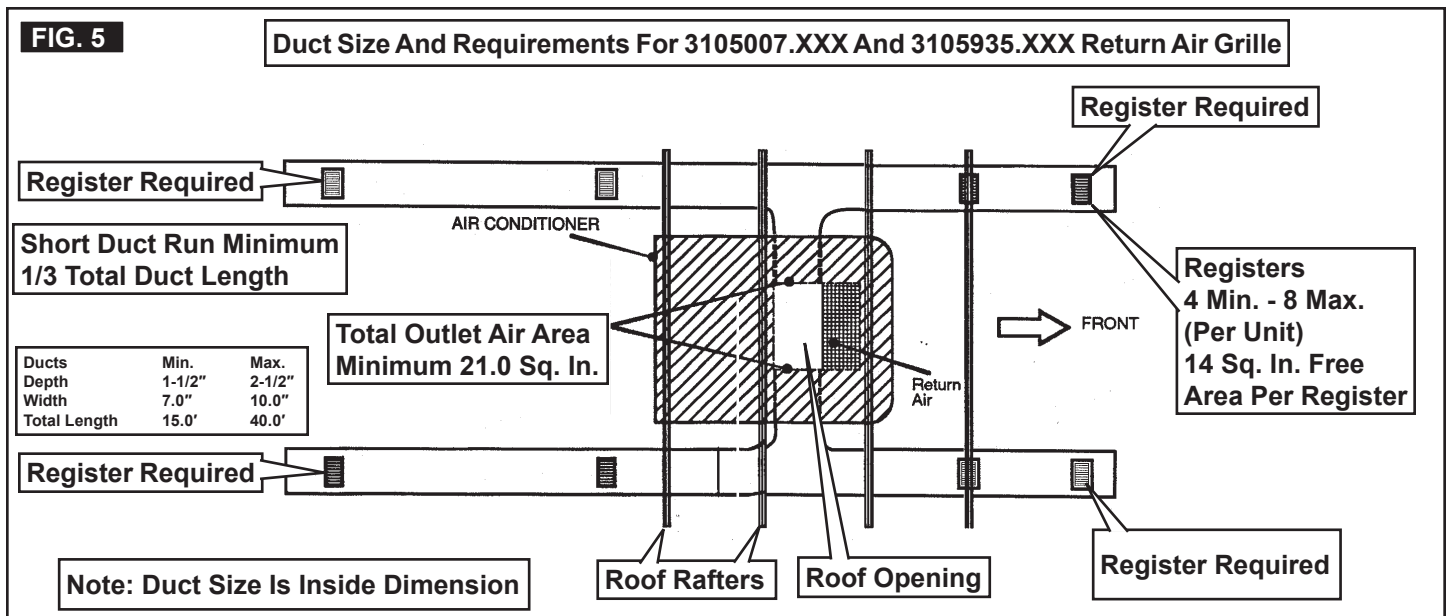
1. **NOTICE** Make sure ductwork will **NOT** bend or collapse during and after installation, and that it is correctly insulated and sealed. Otherwise, damage to roof structure and ceiling could occur.
2. All discharge air ducts must be properly insulated to prevent condensation from forming on their surfaces or adjacent surfaces during operation of the unit. This insulation must be R-7 minimum. See (FIG. 4).

3. Ducts and their joints must be sealed to prevent condensation from forming on adjacent surfaces during operation of the unit.
4. Return air openings must have 40 square inches minimum free area including the filter.
5. Return air to the unit must be filtered to prevent dirt accumulation on unit cooling surface.
6. Air Distribution System Installation
  - a. Dometic Corporation recommends the basic configuration shown on page 7, for installing this system. We have found by testing, that this configuration works best in most applications of this system. It is the responsibility of the installer of this system to review each RV floor plan and determine the following:
    - Duct size
    - Duct layout
    - Register size
    - Register location
    - Thermostat location
    - Indoor Temperature Sensor Location

This items must be determined in conjunction with the Air Distribution Duct System Sizing & Design Requirements. See "C. Table - Air Distribution Duct Sizing & Design" on page (4).

**i** Alternate configurations and methods may be used which still allow the unit to operate properly; however, these alternate configurations and methods **MUST** be approved by Dometic Corporation in writing. The following instructions are based upon the use of Return Air Grille Kits 3105007.XXX & 3105935.XXX.

# INSTALLATION PROCEDURE



## D. Wiring Requirements

1. Route a copper, with ground, 120 Vac supply wire from the time delay fuse or circuit breaker to the roof opening. The proper size wire can be determined from chart on page 4.
  - a. This supply wire must be located in the front portion of the roof opening.
  - b. The power **MUST** be on an appropriately sized separate time delay fuse or circuit breaker. The proper size protection can be determined from the chart on page 4.
  - c. Make sure that at least 15" of supply wire extends into the roof opening. This insures an easy connection at the junction box.
  - d. Protect the wire where it passes into the opening with approved method.
2. Route a dedicated 12 Vdc supply wire (18-22 AWG) from the RV's converter (filtered side) or battery to the roof opening.
  - i** When a Comfort Control Center 2 (hereinafter referred to as CCC 2) thermostat is being installed with more than 2 zones, route a dedicated 12 Vdc supply wire (18-22 AWG) to zone 1 and zone 3 roof opening.
    - a. This supply wire must be located in the front portion of the roof opening.
    - b. Make sure that at least 15" of supply wire extends into the roof opening.
3. Route an indoor temperature sensor (optional) from the roof opening to the indoor temperature sensor location. The 2 pin connector end goes to the roof opening. See indoor temperature sensor installation instructions for proper sensor location.
4. Route a 4 conductor communication cable from the roof opening to the thermostat mounting location using the shortest most direct route. Make sure that at least 15" of the wire extends into the roof opening and 6" extends from the wall at the thermostat mounting location. See "E. Choosing Thermostat Location" on page (8).
  - i** When more than one unit is being installed (additional zones) with the CCC 2 thermostat, an additional 4 conductor communication cable **MUST** be routed to each additional unit roof opening. Make sure that at least 15" of the wire extends into the roof opening. See (FIG. 27).
5. If system includes a gas furnace, route two 18 gauge thermostat wires from the furnace to the roof opening of the unit that will control it. If more than one furnace is to be used, route the second set of thermostat wires to the second unit. Make sure that at least 15" of wire extends into the opening.
6. If an Energy Management System (load shed feature) is to be used with the control, two wires must be routed to the roof opening of the zone to be managed. The signal required for this function is normally an open relay contact. When the EMS calls for the compressor to shut off, the relay contacts should close. Make sure that at least 15" of the EMS wire extends into the roof opening.
7. If an Automatic Generator Start (AGS) kit will be installed, an additional 4 conductor communication cable must be routed from the last unit to the location of the AGS kit. Follow AGS kit instructions for installation.




# INSTALLATION PROCEDURE

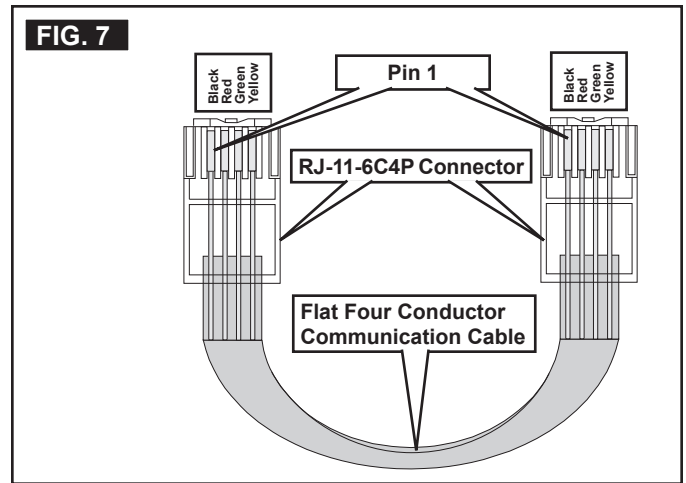
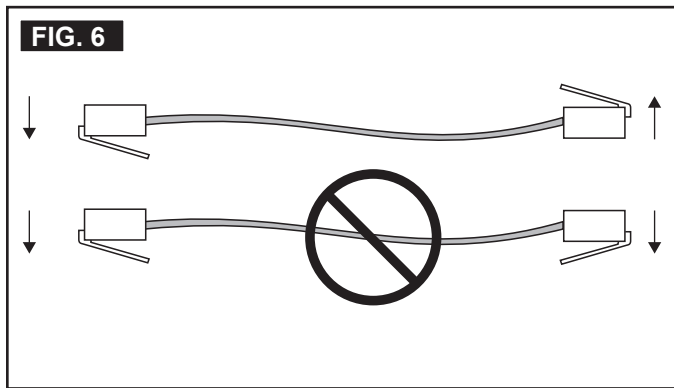
## E. Choosing Thermostat Location

1. If the system is to be used **WITHOUT** an indoor temperature sensor, the proper location of the CCC 2 thermostat is very important to ensure that it will provide a comfortable RV temperature. Observe the following rules when selecting a location:
  - Locate the CCC 2 thermostat 54" above the floor.
  - Install the CCC 2 thermostat on a partition, not on an outside wall.
  - **NEVER** expose it to direct heat from lamps, sun or other heat producing items.
  - Avoid locations close to doors that lead outside, windows or adjoining outside walls.
  - Avoid locations close to supply registers and the air from them.
2. If the system is to be used **WITH** an indoor temperature sensor in **ALL** zones, the CCC 2 thermostat may be mounted anywhere that is convenient in the coach. Try to avoid hard to reach and hard to see areas.
  - Refer to the instructions provided with the indoor temperature sensor for details of installation.

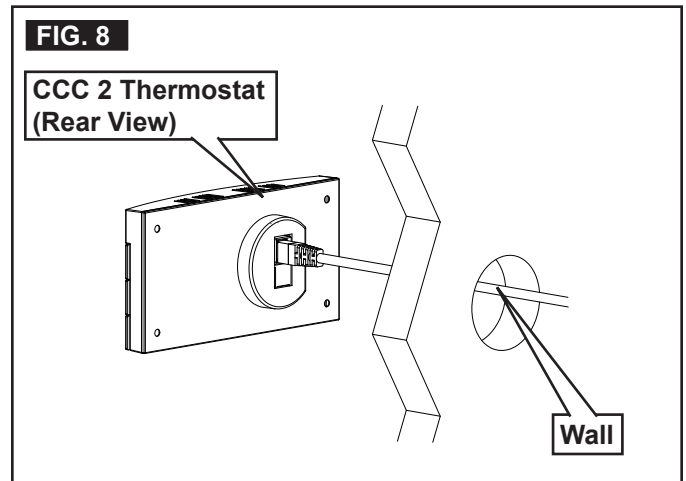
## F. Thermostat, Indoor Temperature Sensor, & Thermostat Communication Cable Installation

1. The previously run communication cable (4 conductor telephone cable) must be terminated with two (2) RJ-11-6C4P telephone connectors. Refer to the crimp tool manufacturer for crimping instructions. See (FIG. 6) & (FIG. 7).

 RJ-11-6C4P connectors **MUST** be installed as shown in (FIG. 6) & (FIG. 7).



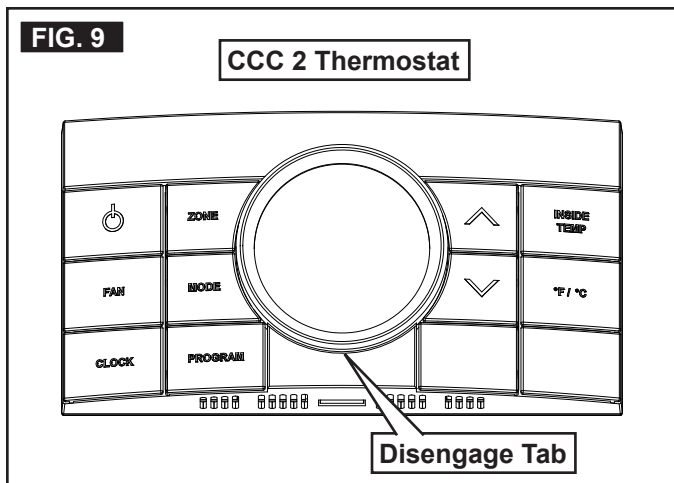
2. Route the communication cable through the 2" diameter hole in the wall required for the thermostat. See (FIG. 8).



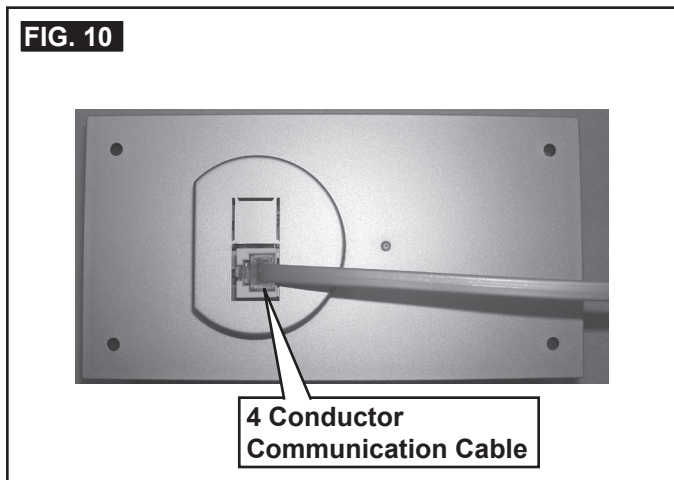
3. Optional Indoor Temperature Sensor
  - a. Refer to the instructions provided with the indoor temperature sensor for details of installation.
4. Thermostat Installation
  - a. Carefully separate the thermostat base plate from the thermostat cover. Insert a small screw driver into the slot on bottom of thermostat and disengage the tab. See (FIG. 9).



# INSTALLATION PROCEDURE



- b. Insert the 4 conductor communication cable through the hole in base plate. Align thermostat base plate with hole in wall. Make sure base plate is level and attach base plate to wall using the 4 supplied screws.
- c. Insert the 4 conductor communication cable connector (RJ-11-6C4P) into the connector on the back of the thermostat. See (FIG. 10).

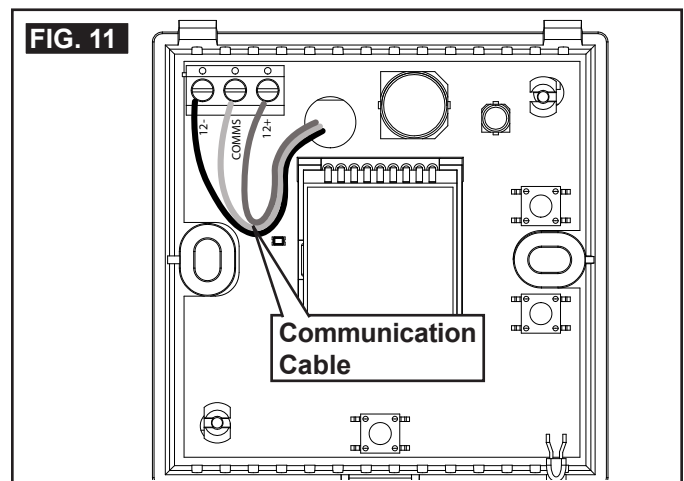


- d. Align the thermostat with the back plate and snap into position.

## G. Installing The LCD SZ System

**i** Wire colors listed for the communication cable (3-conductor cable) match the wire colors in the unit wire harness and the wire harness at the LCD SZ electronic control box. Available wire colors may vary.

1. Separate the cover from the LCD SZ thermostat by pressing down on the tab located at the bottom of the base.
2. Insert the previously run communication cable (3-conductor cable) through the hole in the base assembly.
3. Cut back the outer cable shield approximately 3 inches and strip 1/4" insulation from each wire.
4. Mount the thermostat level on the wall using the screws provided.
5. Connect the wires. See (FIG. 11).
6. Inspect all connections to make sure they are tight and not touching any other terminals or wires.
7. Push the wires back through the base into the wall. Place the cover on the thermostat and push until an audible click is heard.



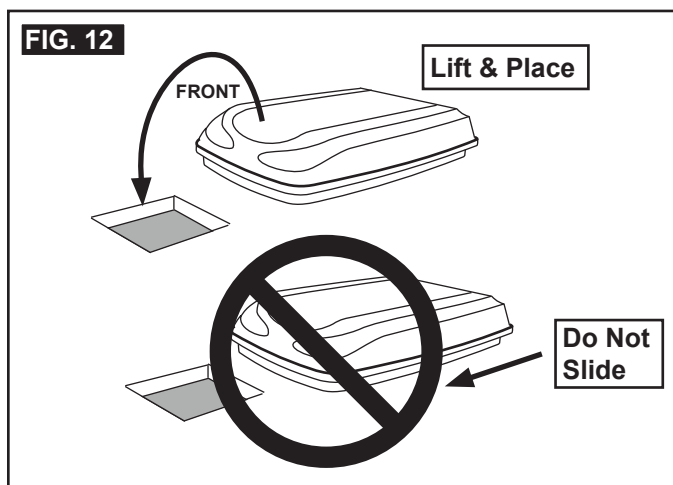
- Red/white wire to the 12V+ terminal
- Black wire to the 12V- terminal
- Orange wire to the "COMMS" terminal

# INSTALLATION PROCEDURE

## H. Placing Unit On Roof

1. Remove the unit from the carton and discard carton.
2. **CAUTION** LIFTING HAZARD. Use proper lifting technique and control when lifting product. Failure to obey this caution could result in injury. Place the unit on the roof.
3. **NOTICE** Do **NOT** slide unit. Otherwise, damage to gasket (on bottom of unit) may occur, and could cause a leak.

Lift and place the unit over the prepared opening using the gasket on the unit as a guide. See (FIG. 12).

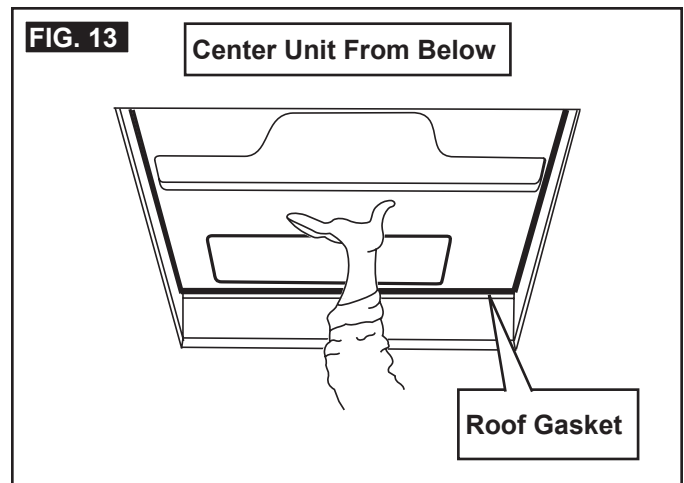


4. Place the electronic control kit and the return air cover kit inside the RV. These boxes contain mounting hardware for the unit and will be used inside the RV.

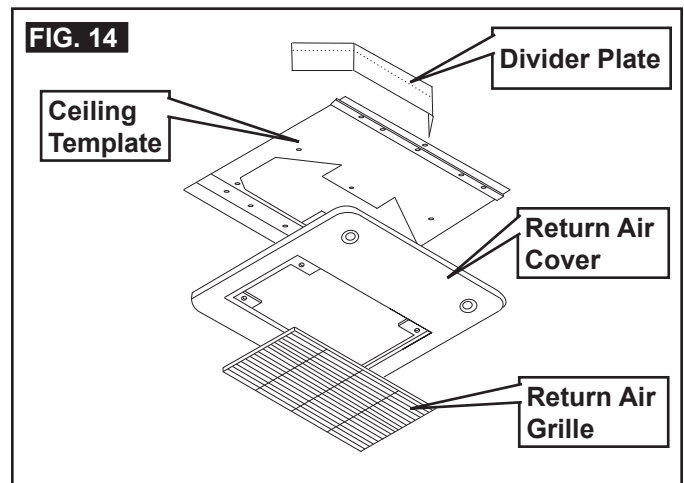
**i** This completes the outside work. Minor adjustments can be done from inside the RV if required.

## I. Installing Unit

1. Check gasket alignment of the unit over the roof opening and adjust if necessary. Unit may be moved from below by slightly lifting. See (FIG. 13).

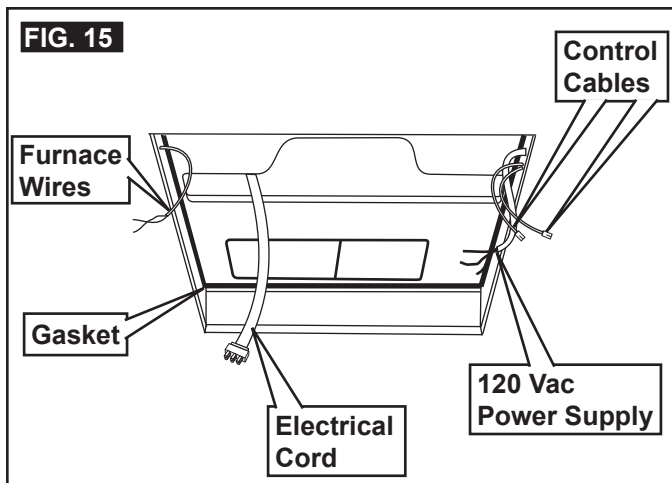


2. Remove return air cover and ceiling template from carton.

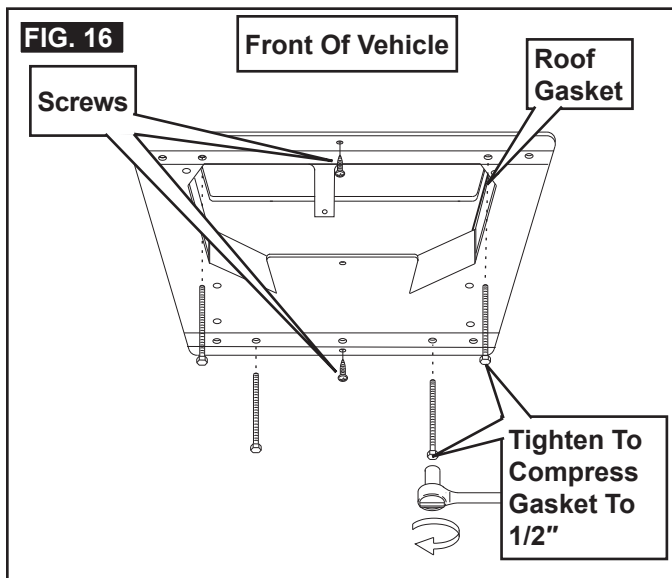


3. All models listed in this manual will use a four (4) bolt pattern for installing the return air cover kit. These bolts along with the electronic control box cover are furnished in the CCC 2 electronic control box kit.
4. Reach up into the return air opening and pull the unit electrical cord down for later connection. See (FIG. 15).

# INSTALLATION PROCEDURE



5. Hold the ceiling template up to the roof opening. Be sure the large plate faces the rear of the RV. See (FIG. 16).
- Start each mounting bolt through the ceiling template and up into the unit base pan by hand. Install wood screw in each end of the ceiling template. This insures a tight fit of the return air cover to ceiling. See (FIG. 16).

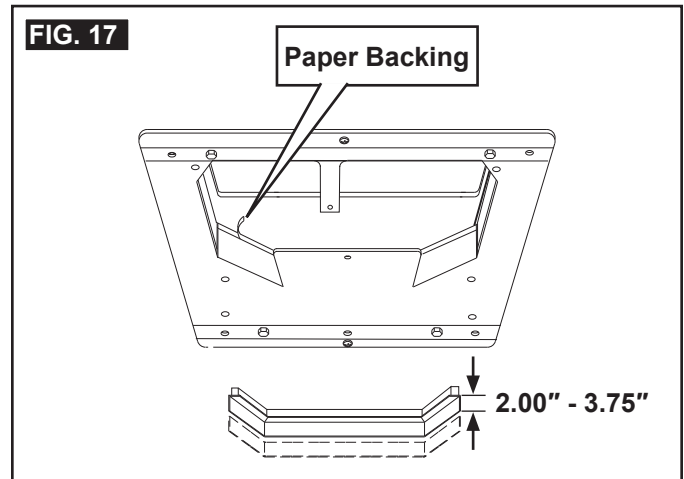


- NOTICE** Tighten mounting bolts to correct torque specifications. Overtightening could damage unit's base pan or ceiling template. Not enough torque will allow an inadequate roof seal, and could cause a leak.

Tighten all four (4) mounting bolts **EVENLY** within 40 to 50 inch pounds. See (FIG. 16).

**i** This will compress the roof gasket to approximately 1/2".

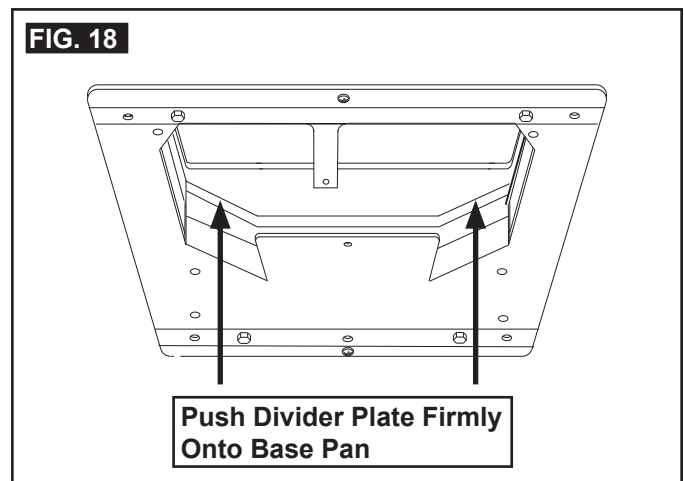
- Installation Of Divider Plate
  - Measure the ceiling to roof thickness:
    - If distance is 2.0" - 3-3/4", remove perforated tab from divider plate. See (FIG. 17).
    - If distance is 3-3/4" - 5-1/2", remove no tabs.
  - Remove the backing paper from double sided tape located on ceiling template. See (FIG. 17).



- NOTICE** Divider plate **MUST** be installed correctly. Incorrect installation could cause compressor to quick-cycle, and could result in supply circuit overload and reduced product performance.

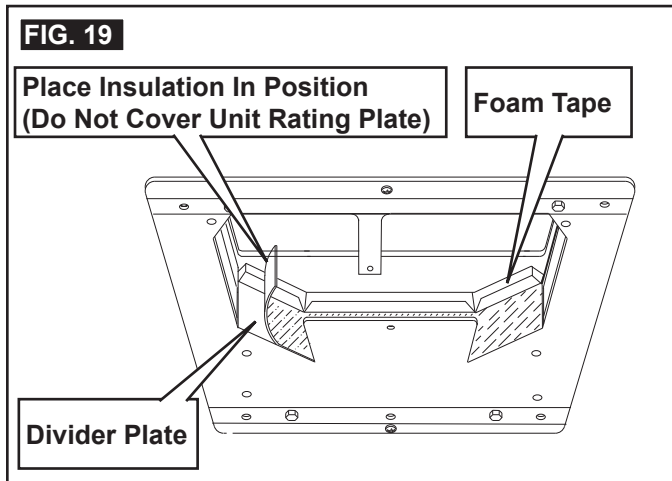
**i** The adhesive on the double sided tape is extremely sticky. Be sure the divider plate is in proper position before pressing into place.

Place divider plate up to bottom of the unit base pan firmly. The foam tape on the divider plate must seal to bottom of base pan. See (FIG. 18).

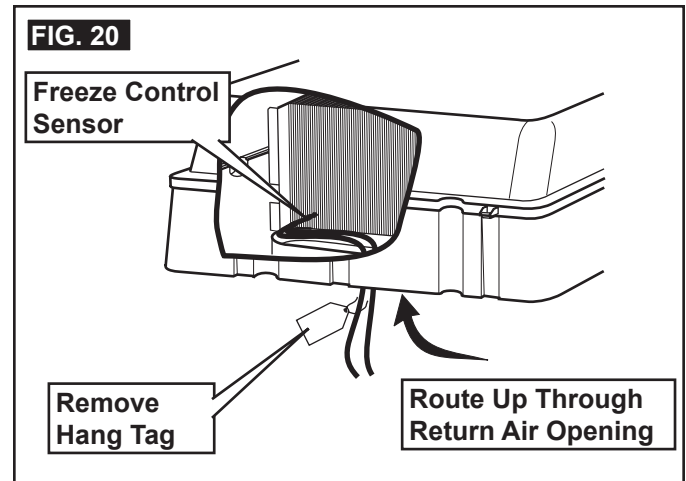


# INSTALLATION PROCEDURE

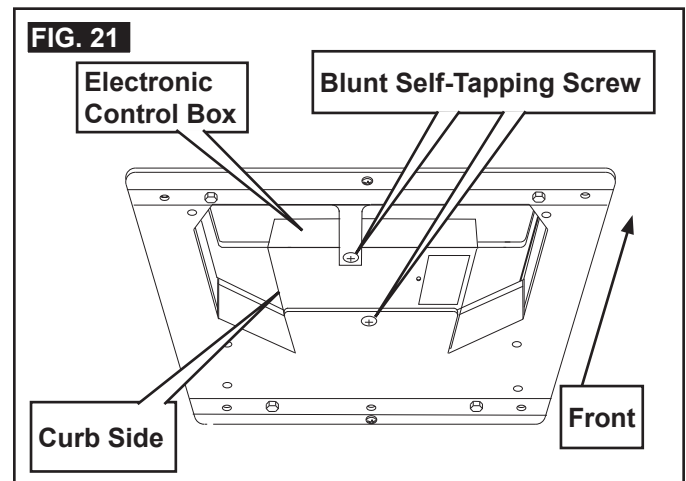
- d. With slight pressure push the divider plate against the double sided tape on the ceiling template.
- e. Locate the 1/8" x 7" x 18" self-adhesive insulation supplied with the return air grille kit. Remove the backing paper from the insulation and carefully stick onto the ceiling template divider panel. See (FIG. 19).



- Excess width is intended to seal the divider plate to the sides of the roof opening. This is to help prevent cold air discharge from circulating into the unit return air opening.
  - If the insulation is too high, stick excess height of insulation to the unit base pan. Do not cover up unit rating plate.
- f. Place the electronic control box on the ceiling template with the white 6 pin plug on the curb side of the RV. Do **NOT** attach at this time.
  - g. Plug the 6 pin electrical cord from the unit into the matching 6 pin connector in the electronic control box. The plug is polarized and will only fit in one direction.
  - h. Plug the freeze control into the matching black 2 pin connector in the electronic control box.
  - i. Insert the freeze control sensor into the evaporator coil fins approximately 1" above the bottom of the coil fins and on the left side. See (FIG. 20). Bend fins over sensor to secure in place.



- j. Plug the 6 Wire harness into the matching 6 pin connector in the electronic control box.
- k. Attach electronic control box to the ceiling template using the two (2) blunt self-tapping screws provided in the electronic control box kit. See (FIG. 21).



## J. Wiring System

Reach up into the return air opening and pull the remaining wires down. See (FIG. 15).

### 1. Low Voltage Wire Connections

- a. **NOTICE** Verify the positive (+) 12 Vdc terminal is disconnected from supply battery. Otherwise, damage to unit could occur.
- b. Connect the previously run 12 Vdc wires to the red and black wires in the 6 wire harness. Connect +12 Vdc to the red wire; -12 Vdc to the black wire.
- c. Connect the previously run furnace thermostat wires (if applicable) to the blue wires in the 6 wire harness. The polarity of these connections does not matter.

# INSTALLATION PROCEDURE

- d. Terminate the 4 conductor communication cable(s) protruding into the roof opening. The cable(s) must be terminated with a telephone RJ-11-6C4P connector. Refer to the crimp tool manufacturer for crimping instructions.

**i** RJ-11-6C4P connectors **MUST** be installed as shown in (FIG. 6) & (FIG. 7).

- e. Plug the 4 conductor communication cable into one of the RJ-11-6C4P telephone couplers in the electronic control box. It doesn't matter which one.
- f. Plug the indoor temperature sensor cable (if applicable) into the matching white 2 pin connector in the electronic control box.
- g. Connect the previously run Energy Management System wires (if applicable) to the yellow wires in the 6 wire harness. The polarity of these connections does not matter.
- h. If an automatic generator start (AGS) kit is installed, follow installation instructions furnished with AGS kit.

## 2. 120 Vac Power Supply Connection

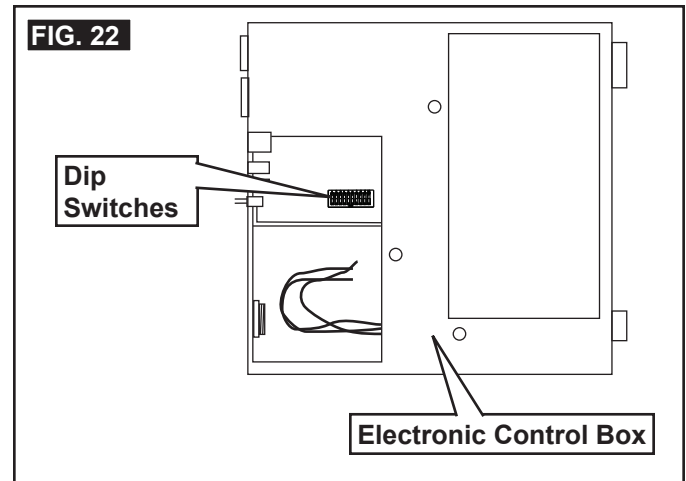
- a. **⚠ WARNING ELECTRICAL SHOCK HAZARD.** Verify 120 Vac power is disconnected from RV. Failure to obey this warning could result in death or serious injury.
- b. **⚠ WARNING ELECTRICAL SHOCK HAZARD.** Provide grounding in compliance with all applicable electrical codes. Failure to obey this warning could result in death or serious injury.
- c. Route the previously run 120 Vac power supply wire through the Romex connector and into the electronic control box. Tighten connector making sure not to damage wires.
- d. Connect white to white; black to black; and green to green or bare copper wire using appropriate size connectors.
- e. Tape the connectors to the supply wire to assure they don't vibrate off.
- f. Push the wires into the electronic control box.

## K. System Configuration

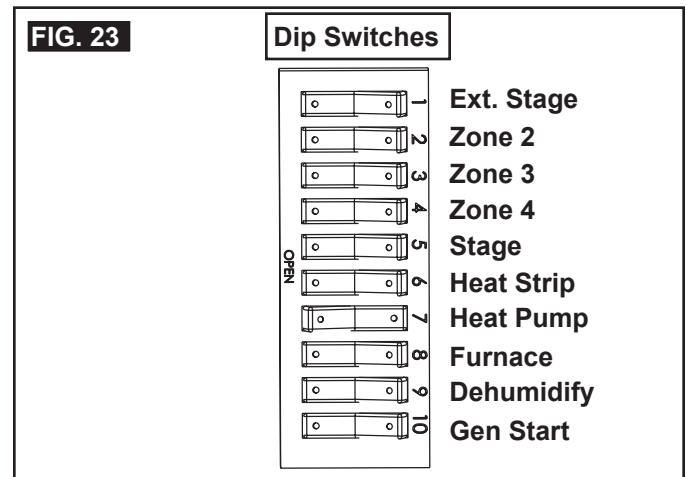
Now that the system is installed, it is necessary to do a system configuration.

### 1. Electronic Control Configuration

Depending on the equipment options installed by the recreational vehicle manufacturer, the appropriate dip switches will need to be switched to the "ON" position. Placing the switch in the "ON" position selects that option. See (FIG. 22), (FIG. 23), & (FIG. 24).



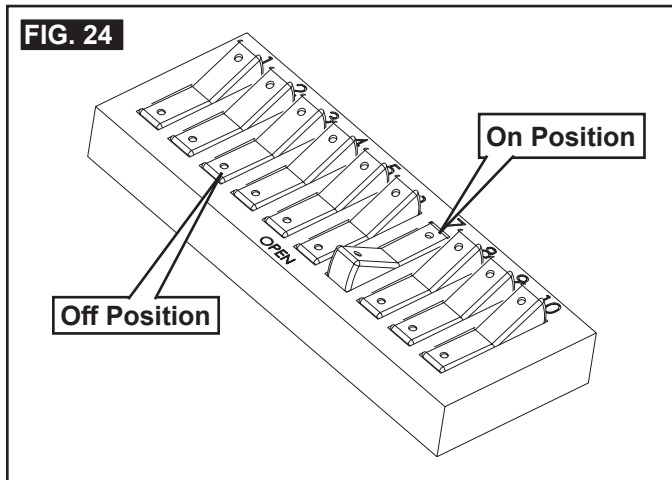
**i** Dip switches are in the "OFF" position when shipped from the factory. They are visible through the opening in the electronic control box. See (FIG. 22), (FIG. 23) & (FIG. 24).



- a. Ext. Stage - Ext. Stage is not used on this unit. Leave in the "OFF" position.
- b. Zone selection - Each CCC 2 thermostat can have up to 4 zones. When only one unit is installed it becomes Zone 1 and no dip switch setting is required. Each additional unit must be assigned a zone (2 through 4). Each unit must have a different zone setting.
- c. Stage selection - Stage is not used on this unit. Leave in the "OFF" position.
- d. Heat Strip - Heat strip is not used in these units. Leave in the "OFF" position.
- e. Heat Pump - Heat pump is not used in these units. Leave in the "OFF" position.
- f. Furnace - If a Furnace/Aqua heat system has been connected to this unit, the furnace dip switch must be placed in the "ON" position.

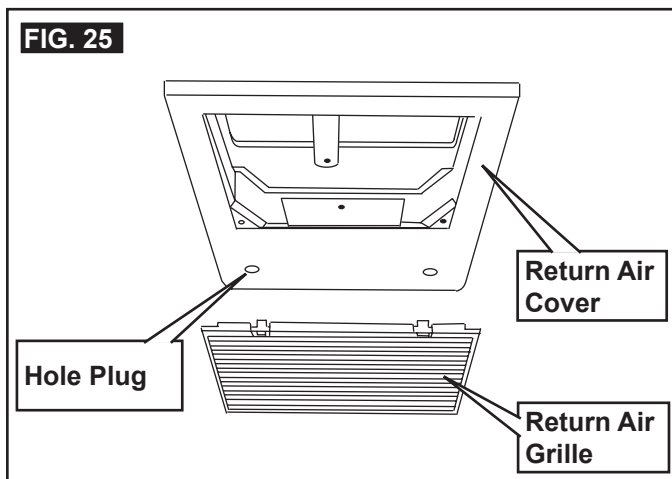
# INSTALLATION PROCEDURE


- g. Dehumidify - Dehumidify is not used on this unit. Leave in the "OFF" position.
- h. Gen start selection - Leave in the "OFF" position.
- i. Install electronic control box cover.
- j. Repeat this procedure for each additional zone.



## L. Installing Return Air Cover

1. Remove the return air grille from the return air cover.
2. Place the return air cover up to the ceiling template.
3. Install cover to template with #8 x 3/8" blunt point Phillips head screws provided (6 required).
4. Reinstall filter return air grille into return air cover. Align tabs with mating notches and snap into place.
5. Install two hole plugs into screw holes in back of return air cover. See (FIG. 25).



 The unit installation is now complete and ready for operation.

## M. System Reset & Checkout

1. System Reset
 

After setting the dip switches in the electronic control, do a system reset.

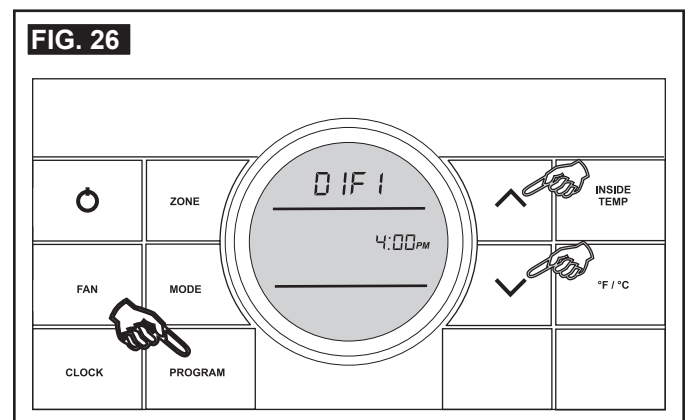
  - a. Reconnect the 12 Vdc and 120 Vac power supplies.
  - b. Make sure the CCC 2 thermostat is in the **OFF** mode.
  - c. Simultaneously press the **MODE** and **ZONE** buttons. The LCD will display "IniT" and all available zones.
  - d. Release the **MODE** and **ZONE** buttons.
  - e. Press the **ON/OFF** button to exit system set up.
  - f. When a dip switch is turned on after initial configuration, a system reset will need to be done before the CCC 2 thermostat will recognize the updated selection.
2. System Checkout
 

Verify that all features of the installed system work. See CCC 2 thermostat Operating Instructions or User's Guide. Check fan speeds, cooling mode, and furnace mode (if connected). If the features do not work disconnect the 12 Vdc and 120 Vac power supplies and verify that all wiring is correct and that the correct dip switches have been turned on.

## N. Furnace/Aqua Temperature Differential Setting

This system can be configured to operate using an ON/OFF differential of either 1 degree F. or 2 degree F. See (FIG. 26).

1. To set the differential, simultaneously press the **PROGRAM** button and the ^ up button on the CCC 2 thermostat. "diF1" will appear in the display while the buttons are pressed. See (FIG. 26). To set the 2 degree differential, simultaneously press the **PROGRAM** button and the v down button. "diF2" will appear in the display while the buttons are pressed.





# GENERAL INFORMATION

## A. Frost Formation On Cooling Coil

Frost on a small portion of the coil is not unusual. Under certain conditions, ice may form on the evaporator coil. This is indicated by very cold output at very low air speed and the icing can be seen through the air inlet hole with the filter removed. If this should occur, inspect the filter and clean if dirty. Make sure air vents are open and not obstructed. Units have a greater tendency to frost when the outside temperature is relatively low. This may be prevented by adjusting the thermostat control knob to a warmer setting (counter clockwise). Should frosting continue, operate on any FAN ONLY setting until the cooling coil is free of frost; then resume normal operation. If frost condition persist, contact your local service center for assistance.

## B. Heat Gain

The ability of this air conditioner to maintain the desired inside temperature depends on the heat gain of the RV.

Some preventative measures taken by the occupants of the RV can reduce the heat gain and improve the performance of the air conditioner. During extremely high outdoor temperatures, the heat gain of the RV can may be reduced by:

1. Parking the RV in a shaded area
2. Using window shades (blinds and/or curtains)
3. Keeping windows and doors shut or minimizing usage
4. Avoid the use of heat producing appliances

Operation on High Fan/Cooling mode will give optimum or maximum efficiency in high humidity or high outside temperatures.

Starting the air conditioner early in the morning and giving it a "head start" on the expected high outdoor ambient will greatly improve its ability to maintain the desired indoor temperature.

For a more permanent solution to high heat gain, accessories like Dometic outdoor patio and window awnings will reduce heat gain by removing the direct sun. They also add a nice area to enjoy company during the cool of the evening.

## C. Condensation

The manufacturer of this unit will not be responsible for damage caused by condensation forming on ceilings, windows, or other surfaces. Air contains water vapor which condenses when temperature of a surface is below Dew point. During normal operation this unit is designed to remove a certain amount of moisture from the air, depending on the size of the space being conditioned. Keeping doors and windows closed when this air conditioner is in operation will greatly reduce the chance of condensation forming on interior surfaces.

## D. Air Distribution

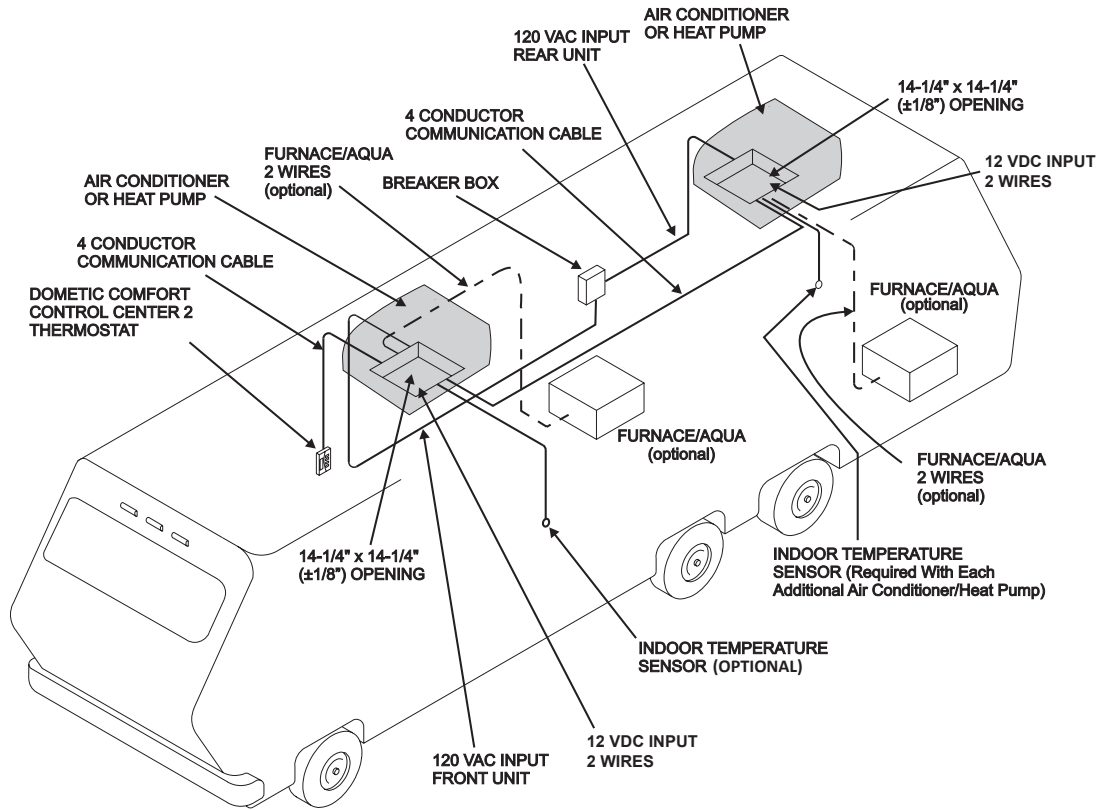
Each A/C unit operating in cool mode, must have a minimum of 2 distribution vents, or the quick cool vent and one vent open, to avoid the risk of freezing coils and improper function.



# WIRING DIAGRAMS

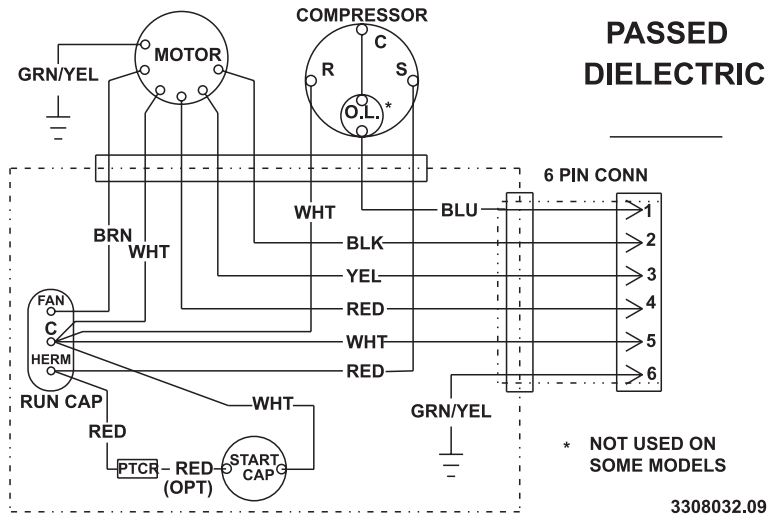
## A. Simple RV Wiring Diagram

**FIG. 27**



# WIRING DIAGRAMS

## B. Unit Wiring Diagram

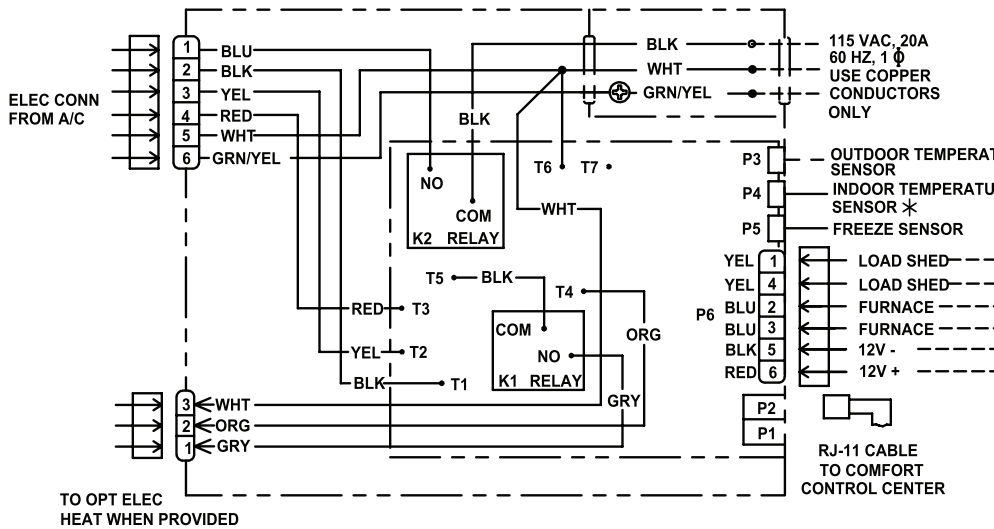


## C. 3312020.000 CCC 2 Electronic Control Kit Wiring Diagram

3312387.040

\* INDOOR TEMPERATURE SENSOR  
OPTIONAL FOR ZONE 1 AND REQUIRED  
FOR ZONES 2, 3 AND 4

----- FIELD WIRING  
----- OPTIONAL WIRING  
----- FACTORY WIRING  
● LINE SPLICE



PART No: 3312226.000

SERIAL No.

FOR USE WITH AIR CONDITIONER:

579, 595, 4579, 4595, 59156,  
459156, 600, 640, 6308, 6508,  
520, 520300, 5307, 540,  
540300, 5507, 59530 &  
459530 W/O ELECTRIC HEAT

**PASSED  
DIELECTRIC**