



RECORD THIS UNIT INFORMATION
FOR FUTURE REFERENCE:

Model Number _____
Serial Number _____
Date Purchased _____

USA
SERVICE OFFICE
Dometic, LLC
2320 Industrial Parkway
Elkhart, IN 46516
574-294-2511

CANADA
Dometic, LLC
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Brantford, ON N3T 5L8
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519-720-9578

**For Service Center
Assistance Call:**
800-544-4881



**579 Series
595 Series**
Roof Top Air Conditioners
Ducted Installation
Used With Part No.
3309697.005 Digital Control Kit, Cool/Furnace
and one of
3105007 Return Air Grill
3105935 Quick Cool Grill
3308120 Genesis Air Filtration System

**THIS UNIT IS DESIGNED FOR OEM INSTALLATION
ALL INITIAL INSTALLATIONS MUST BE APPROVED BY
DOMETIC CORPORATION**

WARNING

This manual must be read and understood before installation, adjustment, service, or maintenance is performed. This unit must be installed by a qualified service technician. Modification of this product can be extremely hazardous and could result in personal injury or property damage.

AVERTISSEMENT

Lire et comprendre ce manuel avant de procéder à l'installation, à des réglages, de l'entretien ou des réparations. L'installation de cet appareil doit être effectuée par un réparateur qualifié. Toute modification de cet appareil peut être extrêmement dangereuse et entraîner des blessures ou dommages matériels.

INSTALLATION INSTRUCTIONS

MODELS

57912.542 57915.756 59516.741
57912.742 59516.341 59516.746
57915.351 59516.346 59516.751
57915.356 59516.351 59516.756
57915.551 59516.356 59530.542
57915.556 59516.541 59530.546
57915.751 59516.546

3312770.000

Form No. 3312770.000 10/08
(French 3312771.000)
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LaGrange, IN 46761

Important: These instructions must
stay with unit. Owner read carefully.

SAFETY INSTRUCTIONS

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

RECOGNIZE SAFETY INFORMATION



This is the safety-alert symbol. When you see this symbol in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating instructions.

UNDERSTAND SIGNAL WORDS

A signal word, **WARNING** OR **CAUTION** is used with the safety-alert symbol. They give the level of risk for potential injury.

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION indicates a potentially hazardous situation which, if not avoided may result in minor or moderate injury.

CAUTION used without the safety alert symbol indicates, a potentially hazardous situation which, if not avoided may result in property damage.

Read and follow all safety information and instructions.

1. GENERAL INFORMATION

- A. Product features or specifications as described or illustrated are subject to change without notice.
- B. This "Air Conditioner" (hereinafter referred to as the "unit") Is Designed For:
 1. Installation on a recreational vehicle at the time the vehicle is manufactured.
 2. Mounting on the roof of a recreational vehicle.
 3. Connection to an air distribution system located in the ceiling/roof cavity of the recreational vehicle.
 4. Roof construction with rafters/joists on minimum of 16 inch centers.
 5. Minimum of 2.00" and maximum of 5.50" distance between roof to ceiling of recreational vehicle. Alternate installation methods will allow for roofs more than 5.50" thick.
- C. The ability of the unit 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 unit. During extremely high outdoor temperatures, the heat gain of the vehicle 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. Avoiding the use of heat producing appliances.
 5. Operation on High Fan/Cooling mode will give optimum or maximum efficiency in high humidity or high outside temperatures.
 6. Starting the unit 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.
 7. For a more permanent solution to high heat gain, accessories like A&E 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.

D. Condensation

Note: The manufacturer of this unit will not be responsible for damage caused by condensed moisture on ceilings or other surfaces. Air contains moisture and this moisture tends to condense on cold surfaces. When air enters the RV, condensed moisture may appear on the ceiling, windows, metal parts, etc. The unit removes this moisture from the air during normal operation. Keeping doors and windows closed when this unit is in operation will minimize condensed moisture on cold surfaces.

SPECIFICATIONS

Model Number	Nominal Capacity (BTU/HR) Cooling	Electrical Rating Amps	Compressor Rated Load Amps	Compressor Locked Rotor Amps	Fan Motor Rated Load Amps	Fan Motor Locked Rotor Amps	Refrigerant R-22 (Oz.)	Minimum Wire Size*	AC Circuit Protection *** User Supplied	Installed Weight (Pounds)	Minimum Generator Size** 1 Unit/2 Units
57912.542	11,000	120VAC 60Hz. 1 Phase	8.0	53.0	2.5	5.8	18.5	12 AWG Copper Up To 24'	20 Amp	94	2.5 KW / 4.0 KW
57912.742	11,000		8.6	44.0	2.5	5.8	18.5		20 Amp	94	2.5 KW / 4.0 KW
57915.351	13,500		11.5	58.0	2.5	5.8	15.5		20 Amp	100	3.5 KW / 5.0 KW
57915.356	13,500		11.5	58.0	2.5	5.8	15.5		20 Amp	101	3.5 KW / 5.0 KW
57915.551	13,500		11.3	62.0	2.5	5.8	16.0		20 Amp	94	3.5 KW / 5.0 KW
57915.556	13,500		11.3	62.0	2.5	5.8	16.0		20 Amp	95	3.5 KW / 5.0 KW
57915.751	13,500		13.2	62.0	2.5	5.8	15.5		20 Amp	94	3.5 KW / 5.0 KW
57915.756	13,500		13.2	62.0	2.5	5.8	15.5		20 Amp	95	3.5 KW / 5.0 KW
59516.341	15,000		12.7	60.0	2.0	5.6	29.0		20 Amp	101	3.5 KW / 5.0 KW
59516.346	15,000		12.7	60.0	2.0	5.6	29.0		20 Amp	102	3.5 KW / 5.0 KW
59516.351	15,000		12.7	60.0	2.0	5.6	29.0		20 Amp	101	3.5 KW / 5.0 KW
59516.356	15,000		12.7	60.0	2.0	5.6	29.0		20 Amp	102	3.5 KW / 5.0 KW
59516.541	15,000		12.7	79.0	2.0	5.6	29.0		20 Amp	101	3.5 KW / 5.0 KW
59516.546	15,000		12.7	79.0	2.0	5.6	29.0		20 Amp	102	3.5 KW / 5.0 KW
59516.741	15,000		13.3	62.0	2.0	5.6	29.0		20 Amp	101	3.5 KW / 5.0 KW
59516.746	15,000		13.3	62.0	2.0	5.6	29.0		20 Amp	102	3.5 KW / 5.0 KW
59516.751	15,000		13.3	62.0	2.0	5.6	29.0		20 Amp	101	3.5 KW / 5.0 KW
59516.756	15,000		13.3	62.0	2.0	5.6	29.0		20 Amp	102	3.5 KW / 5.0 KW
59530.542	N/A		8.0	53.0	2.5	5.8	18.5		15 Amp	93	2.5 KW / 4.0 KW
59530.546	N/A		8.0	53.0	2.5	5.8	18.5		15 Amp	94	2.5 KW / 4.0 KW

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

** Dometic, LLC 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 recreational vehicle must be considered. Keep in mind generators lose power at high altitudes and from lack of maintenance.

*** **CIRCUIT PROTECTION:** Time Delay Fuse or HACR Circuit Breakers Required.

2. PRECAUTIONS



WARNING

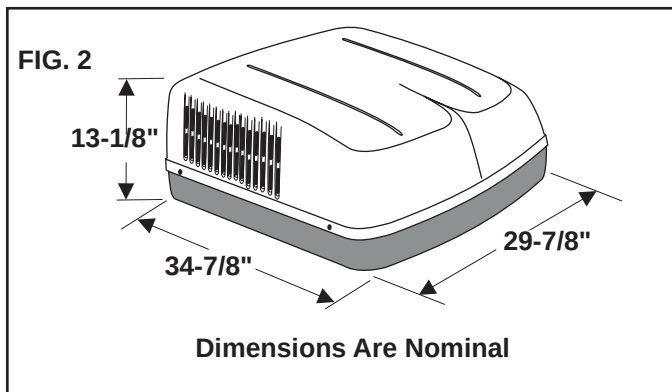
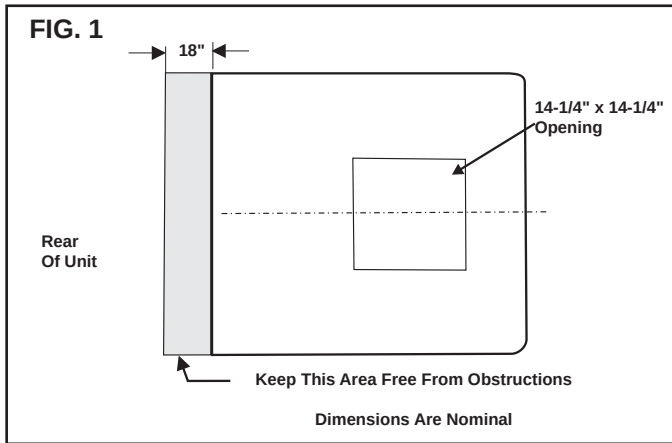
Improper installation may damage equipment, could endanger life, cause serious injury and/or property damage.

- A. Read and understand installation instructions before attempting to start your unit installation.
- B. Dometic, LLC will not be liable for any damages or injury incurred due to failure in following these instructions.
- C. Installation must comply with the National Electrical Code and any State or Local Codes or regulations.
- D. DO NOT add any devices or accessories to this unit except those specifically authorized by Dometic.
- E. This equipment must be serviced by qualified personnel and some states require these people to be licensed.

3. CHOOSING LOCATION FOR THE 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:

1. Size of RV.
 2. Window area (increases heat gain).
 3. Amount of insulation in walls and roof.
 4. Geographical location where the RV will be used.
 5. Personal comfort level required.
 6. 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; however: up to a 15° slant to either side or front-to-back is acceptable on 579 or 595 series units.
- A. **For One Unit Installation:**
The unit should be mounted slightly forward of center (front to back) and centered from side to side.
 - B. **For Two Unit Installations:**
Install one unit one-third and one unit two-thirds from front of RV and centered from side to side.
 - C. **After Location Has Been Selected:**
 1. Check for obstructions in the area where unit will be installed. See FIGS. 1 & 2.



CAUTION

It is the responsibility of the installer of this unit system to ensure structural integrity of the RV roof. Never create a low spot on the roof where water will collect. Water standing around the unit may leak into the interior causing damage to the product and the RV.

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

4. AIR DISTRIBUTION SYSTEM SIZING & DESIGN

The Installer of this unit 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:

- A. The duct material must meet or exceed any agency or RVIA Standard that may be in existence at the time the RV is produced.
- B. 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.
- C. Ducts and their joints must be sealed to prevent condensation from forming on adjacent surfaces during operation of the unit.

AIR DISTRIBUTION DUCT SIZING & DESIGN CHART

Return Air Cover Model	3105007.XXX 3105935.XXX	3308120.XXX Genesis Air Filtration System
Roof Cavity Depth	2.0 In. Min. - 5-1/2 In. Max.	2.0 In. Min. - 5-1/2 In. Max.
Duct Cross Sectional Area	21.0 Sq. In. Min.	32.0 Sq. In. Min.
Duct Size		
Depth	1-1/2 In. Min. - 2-1/2 In. Max.	2.0 In. Min. - 2-1/2 In. Max.
Width	7.0 In. Min. - 10.0 In. Max.	8.0 In. Min. - 10.0 In. Max.
Total Duct Length	15.0 Ft. Min. - 40.0 Ft. Max.	15.0 Ft. Min. - 40.0 Ft. Max.
Duct Length (short run)	1/3 Total Duct Length	1/3 Total Duct Length
Register Requirements		
Number Required Per Run	4 Min.	4 Min.
Register Free Air Area	14.0 Sq. In.	14.0 Sq. In.
Distance From Duct End	5.0 In. Min. - 8.0 In. Max.	5.0 In. Min. - 8.0 In. Max.
Distance From Elbow	15.0 In.	15.0 In.

Note: Duct sizes listed are inside dimensions.

⚠ CAUTION

It is the responsibility of the installer to insure the duct work will not collapse or bend during and after the installation. Dometic, LLC will not be liable for roof structural or ceiling damage due to improperly insulated, sealed or collapsed duct work.

- D. Return air openings must have 40 square inches minimum free area including the filter.
- E. Return air to the unit must be filtered to prevent dirt accumulation on unit cooling surface.

5. AIR DISTRIBUTION SYSTEM INSTALLATION

- A. Dometic, LLC recommends the basic configuration shown on page 6 for installing this unit system. We have found through testing that this configuration works best in most applications of this unit system. It is the responsibility of the Installer of this system to review each RV floor plan and determine the following:

1. Duct size
2. Duct layout
3. Register size
4. Register location
5. Thermostat location

These items must be determined in conjunction with the Air Distribution System and Sizing and Design Requirements listed in the chart on page 4.

Important: 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 the Dometic, LLC in writing. The following instructions are based upon the use of Dometic 3105007.XXX Return Air Kits, 3105935.XXX Quick Cool Kits, or 3308120.XXX Genesis Air Filtration System. The 3309697.005 Digital Thermostat Kit has

⚠ WARNING

There may be electrical wiring between the roof and the ceiling. Disconnect 120 VAC power cord and the positive (+) 12 VDC terminal at the supply battery. Failure to follow this instruction may create a shock hazard causing death or severe personal injury.

the mounting bolts supplied for use in the kit.

B. ROOF AND CEILING OPENING PREPARATION

1. A 14-1/4" x 14-1/4" ($\pm 1/8$ ") opening must be cut through the roof and ceiling of the RV. This

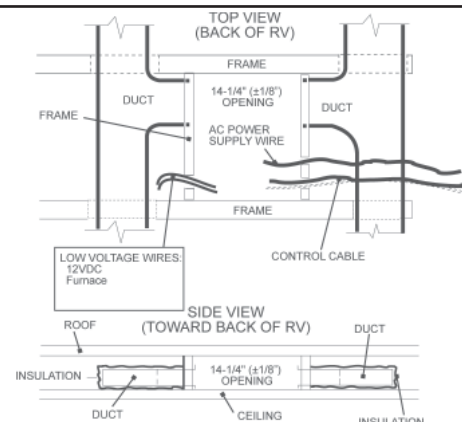
opening must be located between the roof reinforcing members.

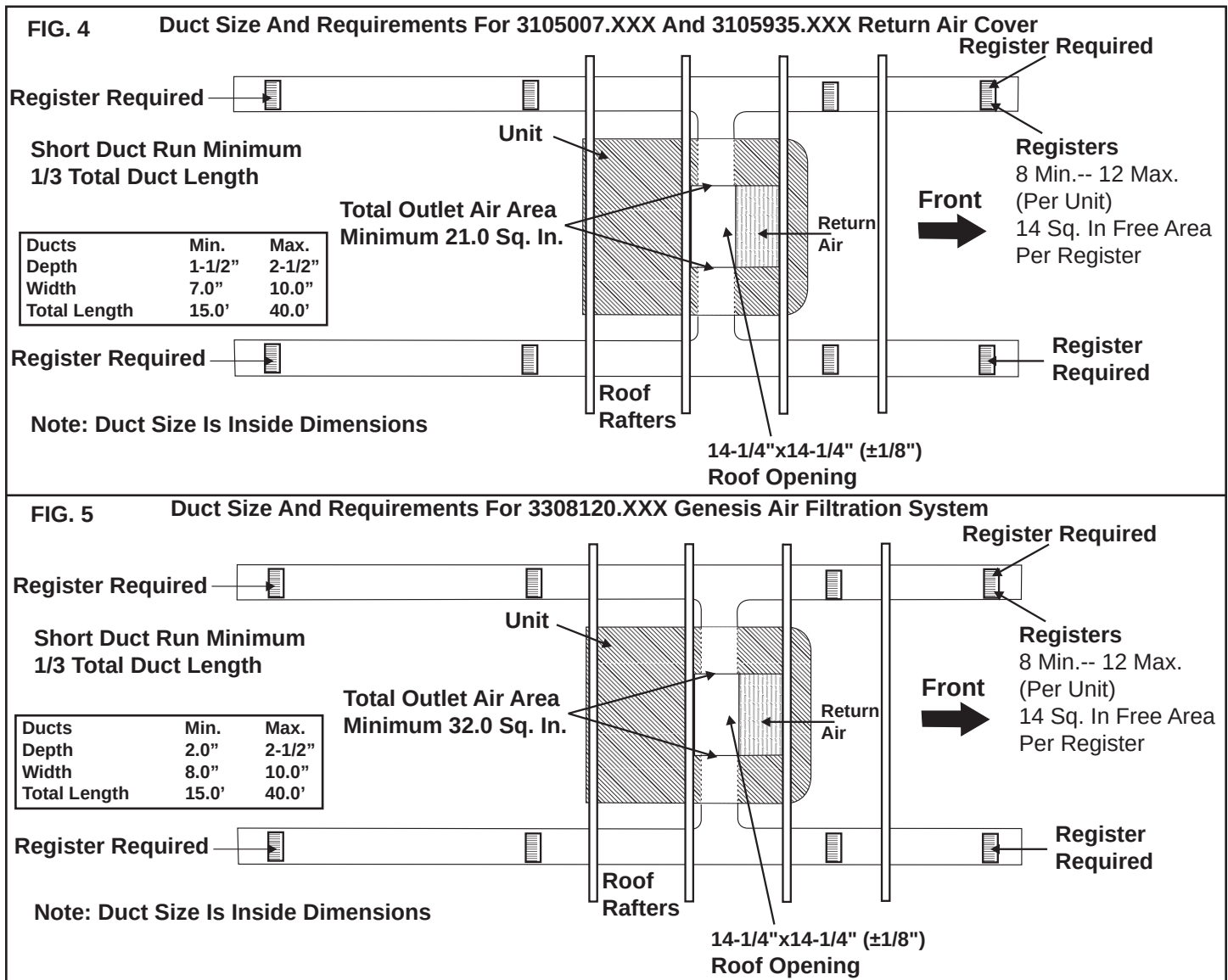
2. Mark a 14-1/4" x 14-1/4" ($\pm 1/8$ ") square on the roof and carefully cut the opening.
3. Using the roof opening as a guide, cut the matching hole in the ceiling.
4. The opening created must be framed to provide adequate support and prevent air from being drawn from the roof cavity. Lumber 3/4" or more in thickness must be used. Remember to provide an entrance hole for power supply wiring and thermostat cable.
5. The 14-1/4" x 14-1/4" ($\pm 1/8$ ") opening is part of the return air system of the unit and must be finished in accordance with NFPA Standard 501C Section 2.7.
6. Route a copper 12 AWG (max. length 24'), with ground, 120 VAC supply line from the fuse or circuit breaker box to the roof opening.
 - a. This supply line must be located in the front portion of the 14-1/4" x 14-1/4" ($\pm 1/8$ ") opening.
 - b. The 120 VAC power supply **MUST** be on a separate 20 amp Time Delay Fuse or HACR Circuit Breaker for 579 and 59516 model series. A 15 amp Time Delay Fuse or HACR Circuit Breaker for 59530 model series.
 - c. Make sure at least 15" of supply wire extends into the roof opening. This ensures easy connection at the junction box.
 - d. Wiring must comply with all National, State and Local Wiring Codes.
 - e. Use a steel sleeve and a grommet or equivalent method to protect the wire where it passes into the opening.
7. See Section 6. Digital Thermostat and Cable Installation.

C. AIR DISTRIBUTION DUCT INSTALLATION

1. Install the Air Distribution Ducts in the RV Roof Cavity. The Distribution System must meet:
 - a. RV's requirements
 - b. System requirements listed in Section 4 on page 4 of this Manual. Start the Duct

FIG. 3





at the back edge of the 14-1/4" x 14-1/4" (±1/8") opening previously cut. See FIGS. 3, 4, & 5.

6. Dometic Digital Thermostat & Cable Installation

A. Location Of Digital Thermostat

1. It is very important to ensure proper location of the **Digital Thermostat**, to provide a comfortable RV temperature. Observe the following rules when selecting a location:
 - a. Locate the **Digital Thermostat** 54" above the floor.
 - b. Install the **Digital Thermostat** on a partition, not on an outside wall.
 - c. **NEVER** expose it to direct heat from lamps, sun or other heat producing items.
 - d. Avoid locations close to doors that lead outside, windows or adjoining outside walls.
 - e. Avoid locations close to supply registers

and the air from them.

- f. **NEVER** locate a Digital Thermostat in a room that is warmer or cooler than the rest of the coach - such as the kitchen.
- g. The major living area is normally a good location.

B. Control Cable Installation:

A 4-conductor control cable must be routed from the roof opening to the **Digital Thermostat**.

1. Choose the shortest, most direct route from the 14-1/4" x 14-1/4" (±1/8") opening to the **Digital Thermostat** location selected. Leave 6" of cable extending through the wall.
2. The control cable must be terminated with two (2) RJ-11-6P4C telephone connectors. Refer to the crimp tool manufacture for crimping instructions. See FIGS. 6 and 7.

FIG. 6

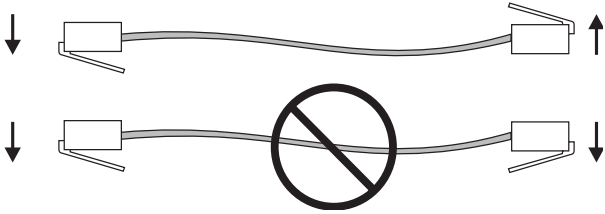
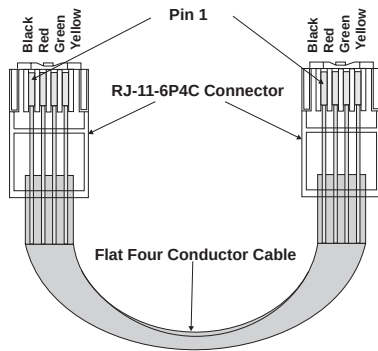


FIG. 7



3. The RJ-11-6P4C terminals must be connected to the control cable with the same polarity on both end. Pre-made standard telephone cable will not work. See FIGS. 6 & 7.

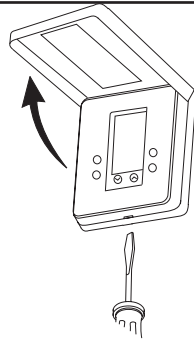
Important: RJ-11-6P4C connectors must be installed as shown in FIG. 6 & 7.

C. Digital Thermostat Installation:

1. Carefully remove the base plate from the

FIG. 8

**Push Screw Driver
In Slot To Release Latch**



Digital Thermostat. This may be accomplished by pushing a small screwdriver in the slot on the bottom edge of the front cover to release latch. See FIG. 8.

2. Insert the control cable through the hole in the base plate and mount the plate to the wall with two (2) screws provided. Check the alignment to ensure level installation.
3. Install the control cable RJ-11-6P4C connector into the back of the **Digital Thermostat** and snap onto the base plate. See FIG. 8.

CAUTION

This unit weighs approximately 100 pounds. To prevent back injury, use a mechanical hoist to place unit on roof.

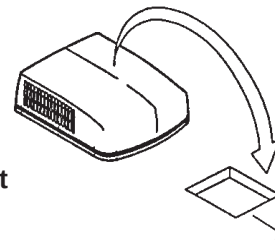
7. PLACING UNIT ON THE ROOF

- A. Remove the unit from the carton and discard car-

CAUTION

Do not slide the unit. This may damage the neoprene gasket attached to the bottom and create a leaky installation.

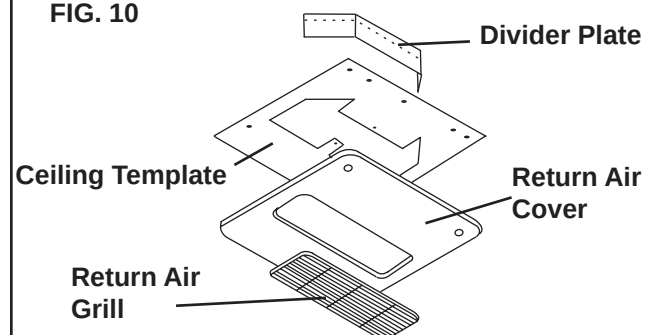
FIG. 9



**Lift And
Place Do Not
Slide**

- ton.
- B. Place the unit on the roof.
- C. Lift and place the unit over the prepared opening using the gasket on the unit as a guide. See FIG. 9.
- D. Place the 3309697.013 Control Kit and Return Air Kit inside the RV. This box contains mounting hardware for the unit and will be used inside the RV. This completes the outside work. Minor adjustments can be done from the inside of the RV if required.

FIG. 10

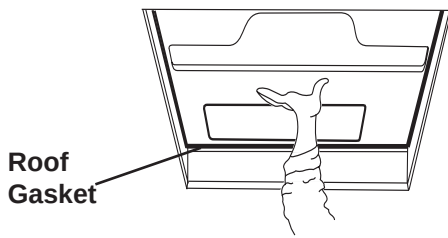


8. INSTALLING THE UNIT

- A. Installing Unit with 3105007 or 3105935 Return Air Kit. For installation of Genesis Air Filtration System, see page 10.

1. Installation Of Ceiling Template:
 - a. Check gasket alignment of the unit over the roof opening and adjust if necessary.

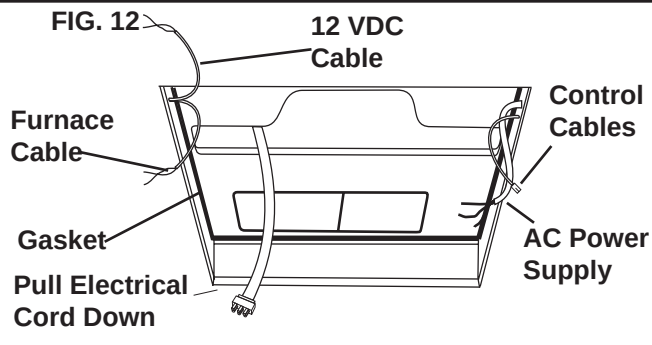
FIG. 11 Center Unit From Below



Unit may be moved from below by slightly lifting and moving. See FIG. 11.

- b. Remove return air cover and ceiling template from the 3105007 or 3105935

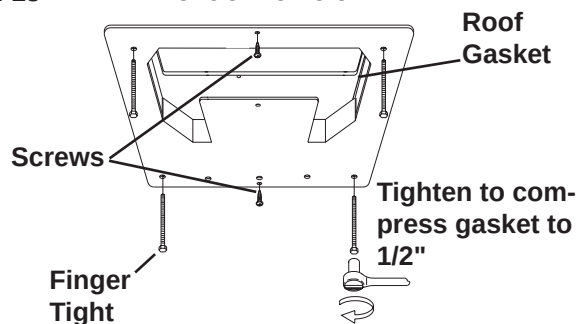
FIG. 12



carton.

- c. Locate the four 8" x 1/4"-20 unit mounting bolts Supplied with relay kit.
- d. Pull down the unit's electrical cord See FIG. 12.
- e. Hold the ceiling template up to the 14-1/4" x 14-1/4" ($\pm 1/8"$) opening. Be sure the large plate faces the rear of the RV.
 - Start each mounting bolt through the

FIG. 13 Front of Vehicle



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. 13.

- **EVENLY** tighten the four bolts to

CAUTION

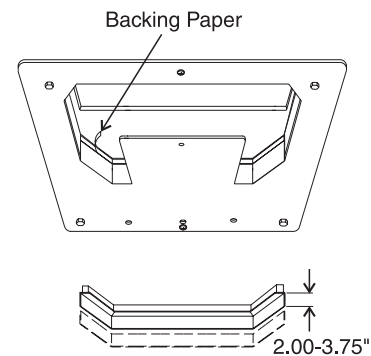
If bolts are left loose there may not be adequate roof seal or if over tightened, damage may occur to the unit base or ceiling template. Tighten to specifications listed in this manual.

a torque of 40 to 50 inch pounds. This will compress the roof gasket to approximately 1/2". The bolts are self locking so over tightening is not necessary. See FIG. 13.

2. Installation Of Divider Plate

- a. Measure the ceiling to roof thickness:
 - If distance is 2.0" - 3-3/4", remove perforated tab from divider plate.

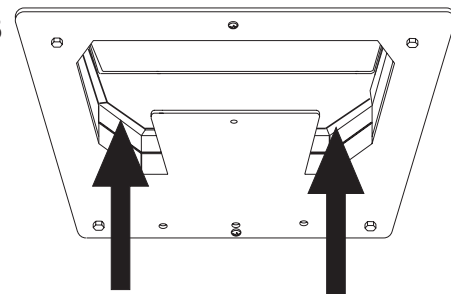
FIG. 14



- If distance is 3-3/4" - 5-1/2", remove no tabs.

- b. Remove the backing paper from double sided tape located on ceiling template.

FIG. 15



Push Divider Plate firmly onto Base Pan

See FIG. 14.

- c. Place divider plate up to bottom of unit base pan firmly. The foam tape on the divider plate must seal to bottom of base pan. See FIG. 15.

Note: The adhesive on the insulation is extremely sticky. Be sure the part is located where desired before pressing into place.

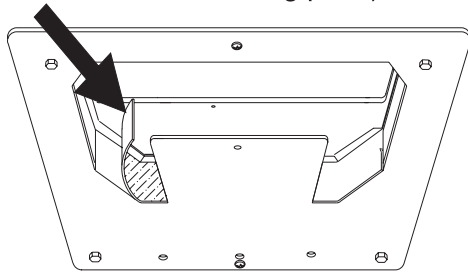
- d. With slight pressure then push the divider plate against the double sided tape on the ceiling template.

CAUTION

Improper installation and sealing of divider plate will cause the compressor to quick cycle on the cold control. This may result in fuse or circuit breaker opening and/or lack of cooling.

FIG. 16

Place insulation in position
(Do not Cover unit rating plate)



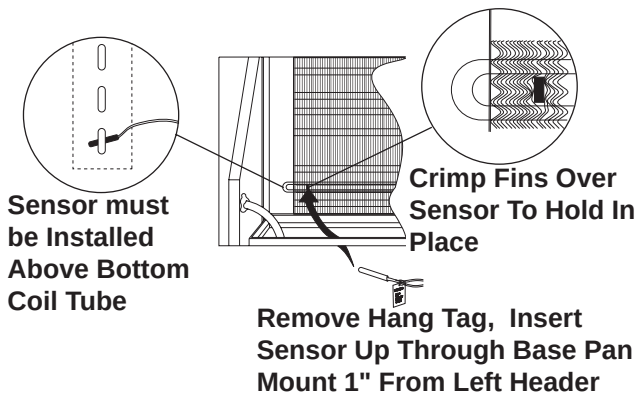
- e. Locate the 1/8" x 7" x 18" self-adhesive insulation supplied with the return air kit. Remove the backing paper from the insulation and carefully stick onto the ceiling template divider panel. See FIG. 16.

- The extra insulation width is intended to seal the divider plate to the sides of the 14-1/4" x 14-1/4" ($\pm 1/8$ ") 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.

3. Wiring the control box

- a. Connect the 6 pin plug to the control box.

FIG. 17 FREEZE CONTROL



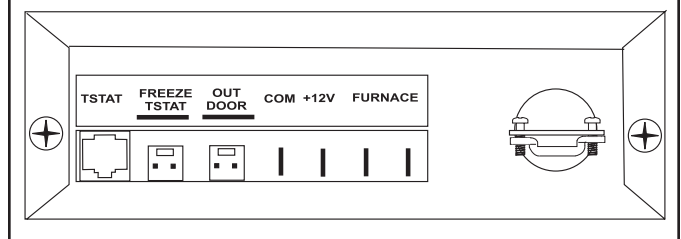
The plug is polarized and will only fit in one direction.

- b. Insert the Freeze Control Sensor approximately 1" into the evaporator coil fins

located at the curb side. See FIG. 17.

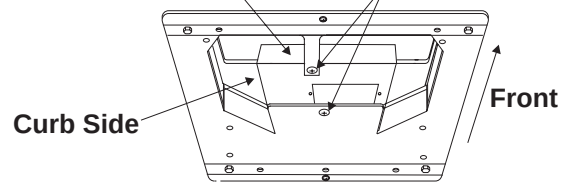
- c. Bend fins over sensor to secure in place.

FIG. 18



- d. Connect the 2 pin connector with BLUE wires on the control box terminals labeled "FREEZE STAT". See FIG. 18.
- e. Attach the relay control box on the ceiling template with the white 6 connector plug

FIG. 19 Electronic Control Box Blunt Self-Tapping Screws



on the curb side of RV. Secure the control box to the ceiling template with 2 blunt self tapping screws. See FIG. 19.

⚠ WARNING

Disconnect 120 volt AC. Failure to follow these instructions could create a shock hazard causing death or severe personal injury.

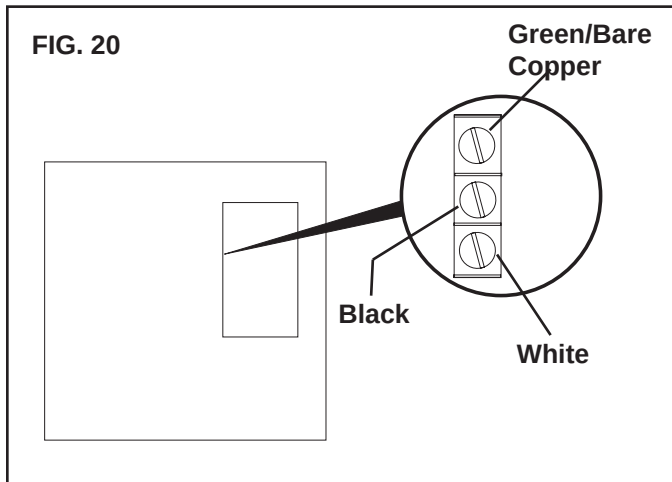
⚠ WARNING

This product is equipped with a 3-wire (grounded) system for protection against shock hazard. Make sure that the appliance is wired into a properly grounded 120 volt AC circuit and the polarity is correct. Failure to do so could result in death, personal injury or damage to the equipment.

- f. Reach up into the return air opening and pull the remaining wires down.
4. Connection Of 120 Volt Power Supply
- a. Route power supply line through Romex

connector into control box. Tighten connector making sure not to pinch or short wires.

- b. Terminate the green/bare copper, black



and white wires with spade terminals to fit a #8 screw. Fasten wires in control box

CAUTION

Disconnect the positive (+) 12 volt DC terminal at the supply battery. Damage to equipment could occur if the 12 volt DC is not shut off.

as shown in FIG. 20.

- c. Install the cover onto the control box.

5. Connection Of Low Voltage Wires

Note: If solar panel is installed see instructions packaged with solar panel option.

- a. Terminate the previously run 12 VDC wires with female 1/4" x 0.032 disconnects. Connect +12 VDC red wire to the "+12V" and the -12 VDC black wire to terminal labeled "COM" at the electrical control box. See FIG. 18.
- b. Terminate the previously run furnace wires (if applicable) with 1/4" x 0.032" female terminals. Connect these to the spade terminals labeled "FURNACE" at the electronic control box. The polarity of these connections does not matter. See FIG. 18.
- c. Terminate the flat 4-conductor control cable protruding into the 14-1/4" x 14-1/4" (±1/8") roof opening. The cable must be terminated with a telephone RJ-11-6P4C connector. See FIGS. 6 & 7. Refer to the crimp tool manufacturer for crimping instructions.

Important: RJ-11-6P4C connectors must be installed as shown in FIG. 6 & 7.

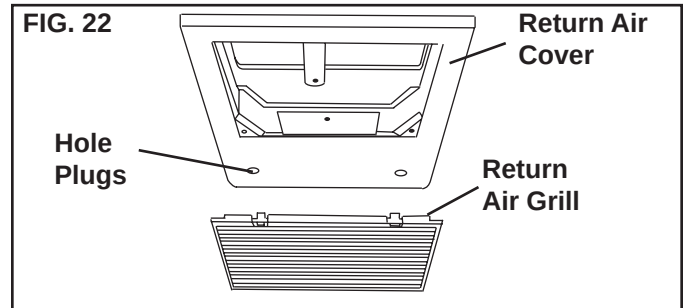
- d. Plug the control cable into the telephone jack on the control box. See FIG. 18.

4. Installing Decorative Inside Cover

- a. Remove the return air grill from the return

air cover.

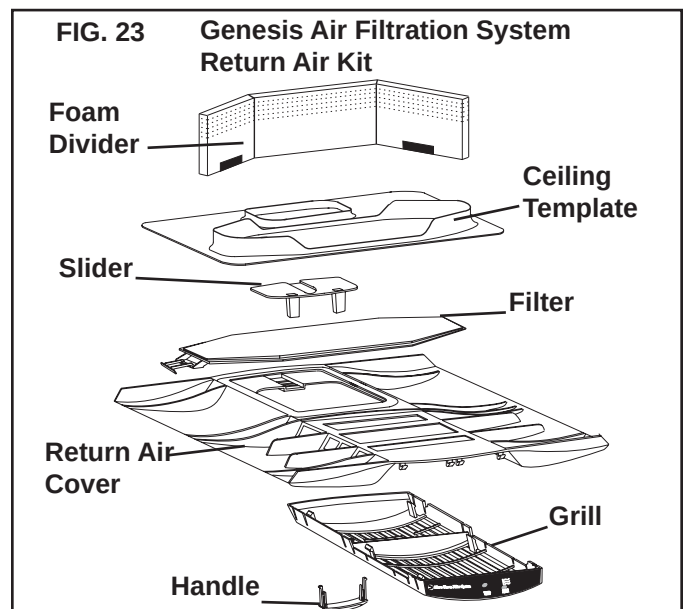
- b. Place the return air cover up to the ceiling template.
- c. Install cover to template with #8 x 3/8" blunt point Phillips head screws provided (6 required).
- d. Reinstall filter return air grill into return air cover. Align tabs with mating notches and



snap into place.

- e. Install two hole plugs into screw holes in back of return air cover. See FIG. 22.
- f. This completes the installation of the unit. We recommend that power be supplied to the unit and check for proper operation. Refer to Operating Manual or Users Guide for a description of the unit operation.

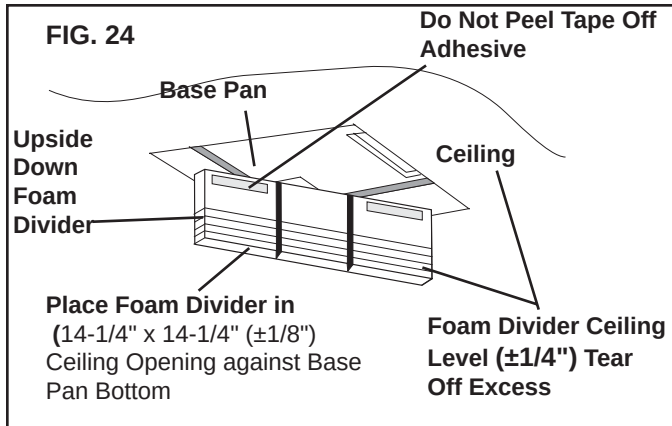
B. Installing Unit with 3308120 Genesis



Air Filtration System. For installation of 3105007 or 3105935 Return Air Kit, see page 7.

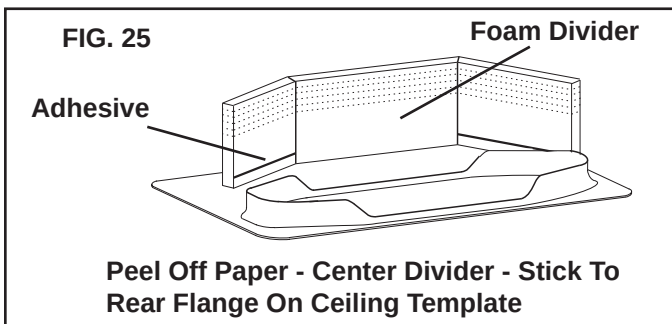
1. Check gasket alignment of the unit over the roof opening and adjust if necessary. Unit may be moved from below by slightly lifting and moving. See FIG. 12.
- a. Remove return air cover, ceiling template, foam divider and air filter from the

- 3308120 carton.
- b. Locate the four (8" x 1/4-20) unit mounting bolts.
 - c. Pull down the unit's electrical cord. See FIG. 13.
2. Installing Foam Divider
- a. Locate the foam divider and insert it corner to corner in the 14-1/4" x 14-1/4" ($\pm 1/8$ ") opening with the adhesive tape up (Do not remove paper to expose adhesive). The foam divider should be level with the



ceiling ($\pm 1/4$ "). Tear off the excess at the pre-cut perforations in divider. See FIG. 24.

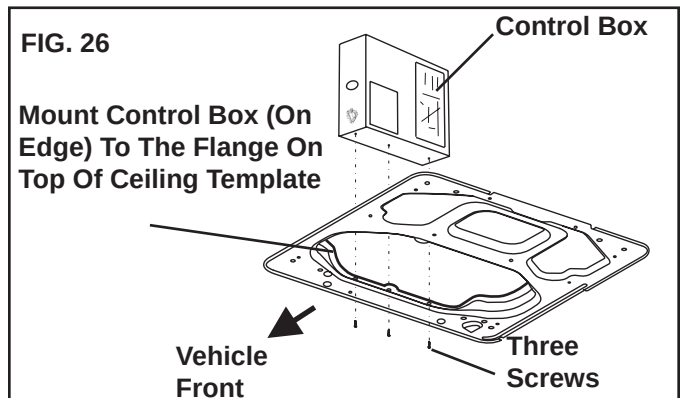
- b. Peel the paper off of the foam divider and



CAUTION

Improper installation and sealing of foam divider will cause the compressor to quick cycle on the cold control. This may result in fuse or circuit breaker opening and/or lack of cooling.

- stick it in place on the center of the rear flange of the return air opening on the ceiling template. See FIG. 25.
3. Install control box on ceiling template with blunt self-tapping screws. See FIG. 26.
4. Place the ceiling template up into the return air opening and plug the unit's control cable into the control box before installing the mounting



bolts.

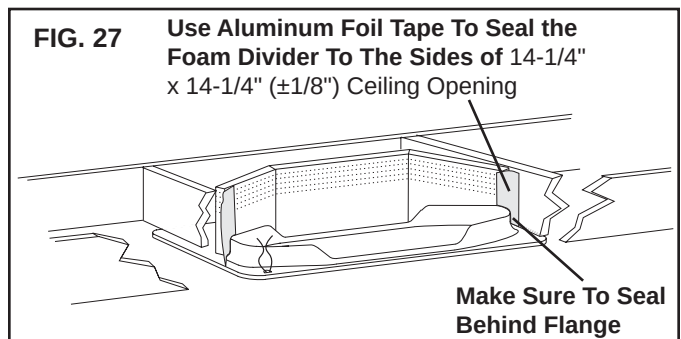
5. Insert the Freeze Control Sensor as shown in FIG. 17.
6. Start each mounting bolt through the ceiling template and up into the unit base pan by hand. **EVENLY** tighten the four bolts to a torque of 40 to 50 inch pounds. This will

CAUTION

If bolts are left loose there may not be adequate roof seal or if over tightened, damage may occur to the unit base or ceiling template. Tighten to specifications listed in this manual.

compress the roof gasket to approximately 1/2". The bolts are self locking so over tightening is not necessary.

7. Use Aluminum foil tape (not supplied) to seal the ends of the foam divider to the sides of



the opening. Make sure the area behind the flange on the ceiling template is sealed. See FIG. 27.

8. Wiring The Control Box.
 - a. Connect the 6 pin plug to the control box. The plug is polarized and will only fit in one direction.
 - b. Insert the Freeze Control Sensor approximately 1" into the evaporator coil fins

- located at the curb side. See FIG. 17.
- c. Bend fins over sensor to secure in place.
- d. Connect the 2 pin connector with BLUE wires on the control box terminals labeled "FREEZE STAT". See FIG. 18.

! WARNING

Disconnect 120 volt AC. Failure to follow these instructions could create a shock hazard causing death or severe personal injury.

! WARNING

This product is equipped with a 3-wire (grounded) system for protection against shock hazard. Make sure that the appliance is wired into a properly grounded 120 volt AC circuit and the polarity is correct. Failure to do so could result in death, personal injury or damage to the equipment.

- e. Reach up into the return air opening and pull the remaining wires down.
- 9. Connection Of 120 Volt Power Supply
 - a. Route power supply line through Romex connector into control box. Tighten connector making sure not to pinch or short wires.
 - b. Terminate the green/bare copper, black and white wires with spade terminals to fit a #8 screw. Fasten wires in control box

CAUTION

Disconnect the positive (+) 12 volt DC terminal at the supply battery. Damage to equipment could occur if the 12 volt DC is not shut off.

as shown in FIG. 20.

- c. Install the cover onto the control box.

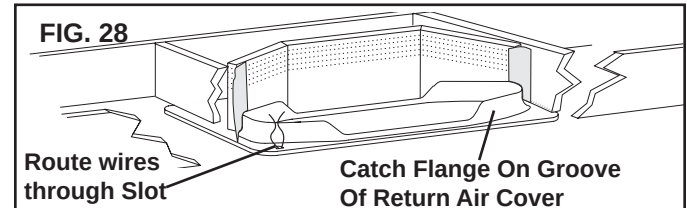
10. Connection Of Low Voltage Wires

Note: If solar panel is installed see instructions packaged with solar panel option.

- a. Terminate the previously run furnace wires (if applicable) with 1/4" x 0.032" female terminals. Connect these to the spade terminals labeled "FURNACE" at the electronic control box. The polarity of these connections does not matter. See FIG. 18.
- b. Terminate the flat 4-conductor control cable protruding into the 14-1/4" x 14-1/4" (±1/8") roof opening. The cable must be terminated with a telephone RJ-11-6P4C connector. See FIGS. 6 & 7. Refer to the crimp tool manufacturer for crimping instructions.

Important: RJ-11-6P4C connectors must be installed as shown in FIG. 6 & 7.

- c. Plug the control cable into the telephone jack on the control box. See FIG. 18.
- 11. Installation of 3308120 Genesis Air Filtration System Decorative Cover
 - a. Install the slider in the return air cover and raise it to the ceiling template. See FIG. 23.
 - b. Route the filter indicator wires from the



return air cover through the template slot leaving 3" extended. See FIG. 28.

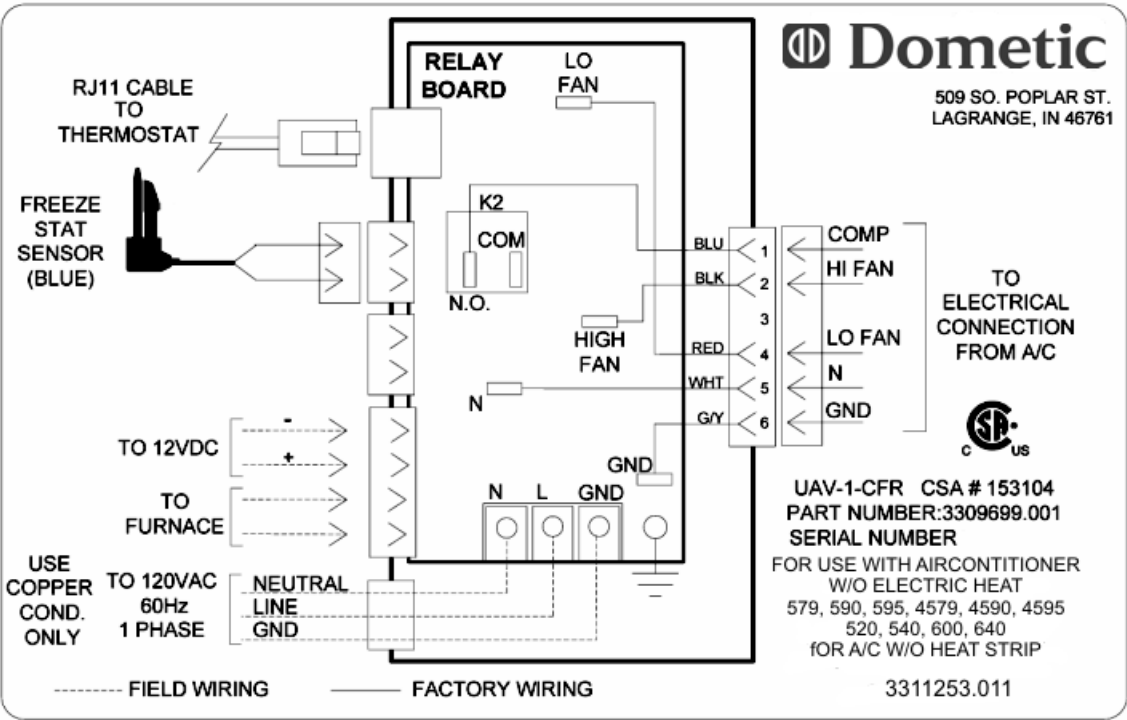
- c. Place the wires where they can be reached after plastic cover is installed. Place the front of the return air cover against the ceiling and slide towards the rear. The flange on the ceiling template will catch in the groove on the return cover. Adjust the position (right to left) and install the front two screws. Start and tighten the remaining screws to hold it in place.
- d. Cut one each Black & Red wire 18 - 22 AWG. 6"-8" long. Terminate end of both cut wires with female 1/4" x 0.032" terminals. Strip opposite end of the wires.
- e. Splice together using a "listed" connector the + 12 VDC supply Red wire, Red filter indicator wire, the Red wire from the solar panel (if applicable) and the stripped end of the Red female 1/4" x 0.032" terminated 6"-8" red wire. Connect the 1/4"x0.32 female terminal on the 6"-8" Red wire to the spade connector marked +12V. on the electrical control box. Do the same on the black leads. Attach to spade terminal labeled COM. on the control box. See FIG. 18.

Note: Number 10 cabinet screw can be used to replace the two front screws when the ceiling material is hard.

Note: If solar panel is installed see instructions packaged with solar panel option.

- f. Tighten the screws holding the return air cover. Slide the filter from the right side (looking toward the RV front) over the wires. Make sure the wires are above the filter and are out of its way.
- g. Place grill on return air cover and snap in place, and install decal on end over circuit board.
- h. Place slide handle through slots in grill into the slide posts. Handle will fit in either direction.
- i. This completes the installation of the unit. We recommend that power be supplied

ELECTRONIC FIELD WIRING DIAGRAM



579 & 595 SERIES FIELD WIRING DIAGRAM (A/C)

