



## 3101121 OPTIONAL HEAT PACKAGE INSTALLATION INSTRUCTIONS

MODEL SERIES: 579XX, 590XX & 59516 (60XXXX, 61XXXX ON PAGE 2)  
ALL MODELS ARE PREWIRED WITH A POWER RECEPTACLE IN THE  
ELECTRIC BOX FOR EASY INSTALLATION

### PRECAUTIONS:

#### **⚠ WARNING**

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

- Read Installation and Operating Instructions carefully before attempting to start your air conditioner.
- The Dometic Corporation will NOT be liable for any damages or injury incurred due to failure in following these instructions.
- The installed air conditioner and heat kit must be serviced by qualified personnel and some States require these people to be licensed.
- Read and understand these instructions before attempting to install the Heat Kit.

#### **⚠ WARNING**

The electrical power supply to the air conditioner must be "OFF" during the installation of this heat kit. Failure to follow this instruction may create a shock hazard.

#### **⚠ WARNING**

This accessory heat kit connects to an appliance that is equipped with a 3-wire (grounded) system for protection against shock hazards. Make sure that the appliance is wired into a properly grounded 115 volt AC circuit and that the polarity is correct before installation of this kit. Failure to do so could result in death, injury or damage to the equipment.

If the air conditioner is currently installed, remove the air box per Paragraph A.

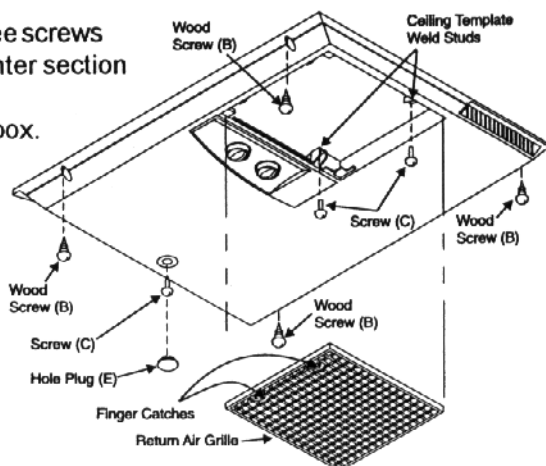
If the heater is being installed during the air conditioner installation, install the heater per Paragraph B. **"Before the Air Box is Installed"**.

#### **⚠ WARNING**

The main power supply to the unit must be OFF for safety from electric shock.

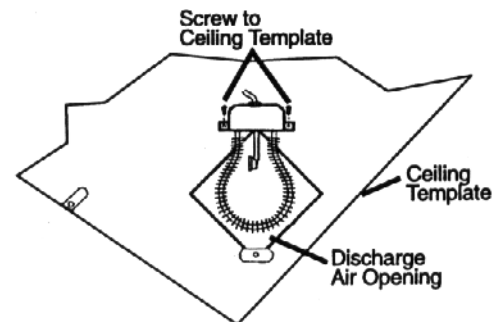
### A. AIR BOX REMOVAL (when air conditioner is currently installed)

1. Remove the return air grill.
2. Remove the hole plug at the rear of the air box (held by friction pins).
3. Remove four wood screws "B" around outside of box (if installed).
4. Remove three screws "C" from center section of box.
5. Remove air box.



### B. HEATER INSTALLATION

1. Install heat package to ceiling template using two metal screws provided. The heater element will align directly below the discharge air opening when located correctly.

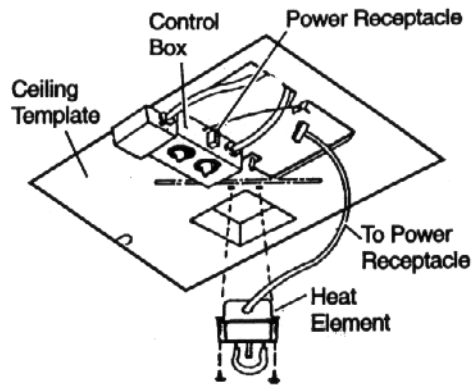


2. Push the three position electric heater connector into the mating three position connector on the electric box.
3. If you have a Dometic Electronic Comfort Control Kit installed to control your air conditioner, go to the instructions on the configuration of that system in Section D. If you have a Dometic Analog Control Kit (Part Number 3107541.017) installed to control your air conditioner, see the instructions for that system in Section E.

### REVISION

Form No. 3103833.061 11/99  
(Replaces 3103833.053)  
(French 3108107.016)

©1999 The Dometic Corporation  
LaGrange, IN 46761



### C. AIR BOX INSTALLATION

1. The air box is notched. Slit the insulation and foil tape or plastic knockout where the power cord goes through the air box.
2. Slide the air box up to the ceiling template.
3. Secure with the seven screws (refer to the air conditioner installation instructions).
4. Install the hole plug.
5. Install the return air grill.
6. Turn on the power and check operation per the air conditioner installation and operating instructions.

## 3101121 OPTIONAL HEAT PACKAGE INSTALLATION INSTRUCTIONS

MODEL SERIES: 60XXXX, 61XXXX (579XX, 590XX & 59516 ON PAGE 1)  
ALL MODELS ARE PREWIRED WITH A POWER RECEPTACLE IN THE  
ELECTRIC BOX FOR EASY INSTALLATION

### PRECAUTIONS:

#### ⚠ WARNING

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

- Read Installation and Operating Instructions carefully before attempting to start your air conditioner.
- The Dometic Corporation will NOT be liable for any damages or injury incurred due to failure in following these instructions.
- The installed air conditioner and heat kit must be serviced by qualified personnel and some States require these people to be licensed.
- Read and understand these instructions before attempting to install the Heat Kit.

#### ⚠ WARNING

The electrical power supply to the air conditioner must be "OFF" during the installation of this heat kit. Failure to follow this instruction may create a shock hazard.

#### ⚠ WARNING

This accessory heat kit connects to an appliance that is equipped with a 3-wire (grounded) system for protection against shock hazards. Make sure that the appliance is wired into a properly grounded 115 volt AC circuit and that the polarity is correct before installation of this kit. Failure to do so could result in death, injury or damage to the equipment.

If the air conditioner is currently installed, remove the air box per Paragraph A.

If the heater is being installed during the air conditioner installation, install the heater per Paragraph B. **"Before the Air Box is Installed"**.

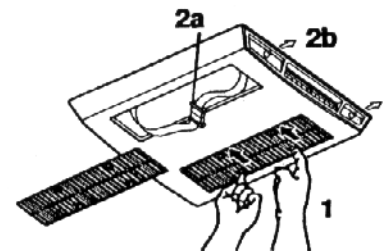
#### ⚠ WARNING

The main power supply to the unit must be OFF for safety from electric shock.

### A. AIR BOX REMOVAL (when air conditioner is currently installed)

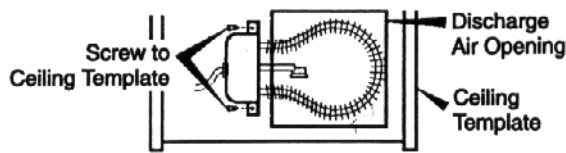
1. Remove filter/grill assembly by placing fingers on long portion of latches and with an over-and-downward pressure, unlatch the catches.
2. a) **Electronic Models:** Disconnect cables.  
b) **Mechanical Models:** Remove knobs.

3. Remove four screws.
4. Remove box.

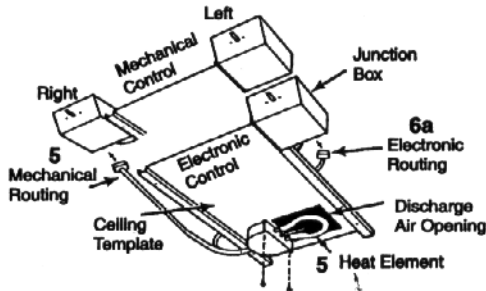


## B. HEATER INSTALLATION

1. Install heat package to ceiling template using two sheet metal screws provided. The heater element will align **directly** below the discharge air opening when located correctly.



2. Push the heater electric connector into the back of the mating connector on the electric box.
  - a) **Electronic Control:** The cord routes over the ceiling template to the junction box (left side).
  - b) **Mechanical Control:** The cord routes directly into the right side switch box.

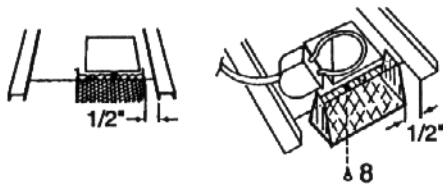


## C. GUARD INSTALLATION

### ⚠ WARNING

The guard must be installed to prevent shock hazard to the user.

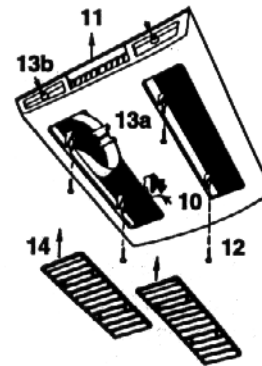
1. Remove the screw at the back center of the ceiling template, holding the return air duct.
2. Install the guard 1/2" from the ceiling template left channel with the same screw (through the grill as shown).



3. If you have a Dometic Electronic Comfort Control Kit installed to control your air conditioner, go to the instructions on the configuration of that system in Section E. If you have a Dometic Analog Control Kit (Part Number 3107541.017) installed to control your air conditioner, see the instructions for that system in Section F.

## D. AIR BOX INSTALLATION

1. Remove the knockout in the air box wall. The insulation is pre-cut. (**DO NOT remove any. It is necessary for a seal.**)
2. Slide the air box into place (over the switch knobs if you have a mechanical control unit and then . . .) over the heater and guards.
3. Secure the four screws through the air box legs into the ceiling template (refer to the air conditioner Installation Instructions).
4.
  - a) **Electronic Controls:** Reconnect the cables.
  - b) **Mechanical Controls:** Reinstall the knobs.
5. Snap the grills into place.
6. **TURN ON THE POWER** and check operation per the air conditioner Installation and Operating Instructions.

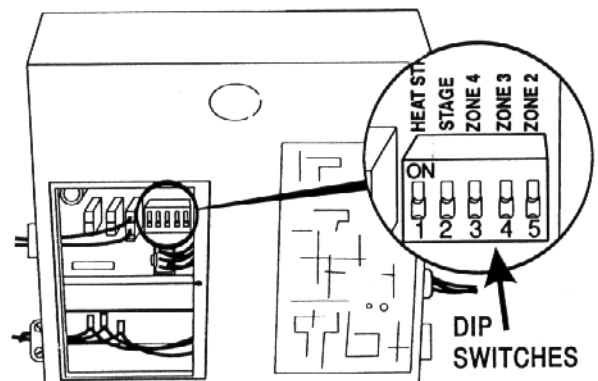


## E. COMFORT CONTROL CENTER CONFIGURATION FOR ELECTRIC HEAT KIT

### ⚠ WARNING

Ensure all 115 Volt AC and 12 Volt DC power is shut off.

1. Locate **Electronic Control Box**.
2. Remove access cover to expose dip switches. **NOTE:** The Electronic Control Box is factory shipped with dip switches in the "OFF" position.
3. Place dip switch #1 Heat Strip to "ON" position.
4. Replace access cover.
5. Turn on electrical power to the air conditioner.



## 6. SYSTEM CHECKOUT AND CONFIGURATION

Now that the system is installed, it is necessary to reset the Comfort Control Center and check out the system. Refer to the Operating Manual for a description of the air conditioner operation.

### a. **RESET COMFORT CONTROL CENTER:**

1. Turn control on to insure annunciator data and light are present. If data and light are present, continue with next step.
2. Press mode switch to activate annunciator light.
3. Simultaneously press the bottom two buttons (Temperature up and down) and hold.
4. While holding these buttons down, press the mode button once and release.
5. Release the two buttons previously held down
6. Depress the mode button once again.
7. At this time the light should extinguish and the mode should register "OFF". If not, repeat steps 2 through 6.

b. **SYSTEM CHECKOUT:** Verify that all features of the installed system work. Check fan speeds, cooling mode, heat pump mode, furnace (if connected) and heat strip. If the features do not work, check all wiring and confirm that the correct options have been selected on the Electronic Control Box. (See Comfort Control Center™ Operating Instructions).

c. Return to Step C for 579XX, 590XX and 59516 instructions. For Models 60XXXX and 61XXXX, refer to Step D Air Box Installation.

## F. ANALOG CONTROL HEAT STRIP INSTALLATION

### **! WARNING**

**Ensure all 115 Volt AC and 12 Volt DC power is shut off.**

1. Locate the 3107541.017 Analog Control Box.
2. Route the heater three position connector to its matching outlet on the Analog Control Box.

**Note:** The electric heat kit will not be accepted for use with the 3107541.009 cooling furnace or the 3107541.027 cooling, furnace and heat pump controls.

3. Return to Step C for 579XX, 590XX and 59516 instructions. For Models 60XXXX and 61XXXX refer to Step D - Air Box Installation.



RECORD THIS UNIT INFORMATION FOR FUTURE REFERENCE:

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

# 600 Series PENGUIN

## Roof Top Air Conditioner

### USED WITH

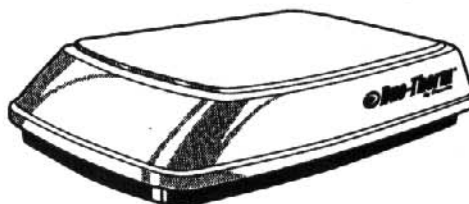
## Part No. 3105457

## Air Distribution Box Kit

### PRE-WIRED FOR OPTIONAL HEAT PACKAGE

**USA**  
SERVICE OFFICE  
The Dometic Corp.  
509 So. Poplar St.  
LaGrange, IN 46761  
(219) 463-4858

**CANADA**  
Dometic Dist.  
866 Langs Dr.  
Cambridge, Ontario  
CANADA N3H 2N7  
(519) 653-4390



### WARNING

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information consult a qualified installer or service agency.

### AVERTISSEMENT

Une mauvaise installation, de mauvais réglages, modifications ou opérations d'entretien peuvent endommager les biens ou même blesser. Se reporter à la notice. Pour obtenir de l'aide ou des renseignements complémentaires, consulter un installateur qualifié ou une agence de service après-vente.

## INSTALLATION & OPERATING INSTRUCTIONS

**MODELS**  
600312.321  
600312.421  
600315.321  
600315.421

REVISION  
Form No. 3105448.033 12/99  
(Replaces 3105448.025)  
(French 3108189.006)  
©1999 The Dometic Corporation  
LaGrange, IN 46761

# 1. SPECIFICATIONS

MODEL NUMBER	600312.421	600312.321	600315.321	600315.421
Nominal Capacity (BTU/HR)	11,000	11,000	13,500	13,500
Electrical Rating	115 VAC, 60 Hz., 1 PH.			
Compressor Rated Load Amps	10.7	9.5	12.4	11.5
Fan Motor Rated Load Amps	3.1	3.1	3.1	3.1
Compressor Locked Rotor Amps	50.0	53.0	60.0	50.0
Fan Motor Locked Rotor Amps	8.8	8.8	8.8	8.8
Heater Amps/Watts @ 120V AC	12.7 / 1530			
Refrigerant (R22) oz.	16.0	16.5	15.5	17.0
Minimum Wire Size *	12 AWG Copper up to 24 ft.			
AC Circuit Protection	20 Amp Time Delay Fuse or 20 HACR Circuit Breaker			
Installed Weight (Pounds)	101	95	96	102
Minimum Generator	1 UNIT	2.5 KW	2.5 KW	3.5 KW
Size **	2 UNITS	4.0 KW	4.0 KW	5.0 KW

\* For lengths over 24 ft., consult the National Electrical Code.

\*\* The Dometic Corp. 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. Also keep in mind generators lose power at high altitudes and from lack of maintenance.

# 2. PRECAUTIONS

## WARNING

**IMPROPER INSTALLATION MAY DAMAGE EQUIPMENT, COULD ENDANGER LIFE, CAUSE SERIOUS INJURY AND/OR PROPERTY DAMAGE.**

- Read installation and operating instructions carefully before attempting to start your air conditioner.
- The Dometic Corporation will not be liable for any damages or injury incurred due to failure in following these instructions.
- Installation **must** comply with the National Electrical Code and any State or Local Codes or regulations.
- DO NOT** add any devices or accessories to this air conditioner except those specifically authorized by Dometic.
- This equipment must be serviced by qualified personnel and some states require these people to be licensed.

# 3. OPERATING INSTRUCTIONS

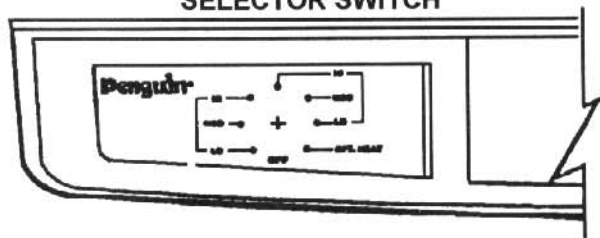
## A. CONTROLS:

- The Selector Switch has eight positions including "OFF". This controls fan speed, heating mode, and cooling modes.
- The thermostat controls the compressor ON/OFF operation in cooling temperature range of 65° to 90°F.  
NOTE: The thermostat does not control the unit optional electric heater if installed.

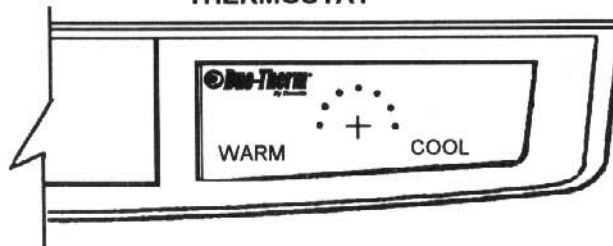
## B. COOLING OPERATION:

- Set the thermostat at the desired temperature level.
- Select the fan speed that best satisfies your needs:
  - HIGH COOL:** Selected when maximum cooling and dehumidification required.
  - MED. COOL:** Selected when normal or average cooling required.
  - LOW COOL:** Selected when room at desired comfort level and needs to be maintained. Normally this speed used for night time operation.

SELECTOR SWITCH



THERMOSTAT



**NOTE:** The blower runs continuously to circulate air and maintain an even temperature. The compressor will come on as cooling is required to maintain the selected temperature level.

### **WARNING**

**AFTER SHUTTING THE AIR CONDITIONER DOWN WITH EITHER SELECTOR SWITCH OR THERMOSTAT, WAIT AT LEAST TWO (2) MINUTES BEFORE RESTARTING. THIS ALLOWS THE REFRIGERANT PRESSURE TO EQUALIZE AND COMPRESSOR TO RESTART EASILY. FAILURE TO FOLLOW THIS INSTRUCTION MAY CAUSE CIRCUIT BREAKER OR FUSE TO OPEN.**

#### **C. FAN OPERATION:**

This will circulate the air in your RV without cooling or heating. There are three positions: HIGH FAN, MED. FAN or LOW FAN to select from, depending upon personal choice.

#### **D. HEATING OPERATION:**

(With Optional Heat Kit Installed)

**NOTE:** This electric heater will not replace a furnace for heating your RV in cold weather. The intent is to remove the chill on cool days or mornings.

1. Turn the selector switch to "OPT. HEAT".
2. The Heater will come on and begin heating.
3. When desired temperature level in RV is reached, move the selector switch to off position or fan position. (NOTE: Thermostat does not control heater ON/OFF cycle.)

**E. "OFF" POSITION:** This is to turn Unit off.

## **4. MAINTENANCE**

#### **A. AIR FILTER:**

Periodically remove the return air filter located above the removable panel in the air box. Wash the filter with soap and warm water, let dry and the reinstall.

**NOTE:** Never run the air conditioner without return air filter in place. This may plug the unit evaporator coil with dirt and may substantially affect the performance of the unit.

#### **B. AIR BOX HOUSING:**

Clean air box housing and control panel with a soft cloth dampened with a mild detergent. Never use furniture polish or scouring powders.

#### **C. FAN MOTOR:**

Factory lubricated and requires no service under normal use.

#### **D. FROST FORMATION ON COOLING COIL:**

Under certain conditions, frost may form on the evaporator coil. If this should occur, inspect the filter and clean if dirty. Make sure air louvers are not obstructed. Air conditioners 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 LOW, MED. or HIGH FAN setting until the cooling coil is free of frost.

## **5. GENERAL INFORMATION**

The ability of the 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 vehicle may be reduced by:

- a. Parking the RV in a shaded area
- b. Using window shades (blinds and/or curtains)
- c. Keeping windows and doors shut or minimizing usage
- d. Avoiding the use of heat producing appliances

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.

### **NOTE**

The manufacturer of this air conditioner 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 air conditioner removes this moisture from the air during normal operation. Keeping doors and windows closed when this air conditioner is in operation will minimize condensed moisture on cold surfaces.

## **6. SERVICE - Unit Does Not Operate**

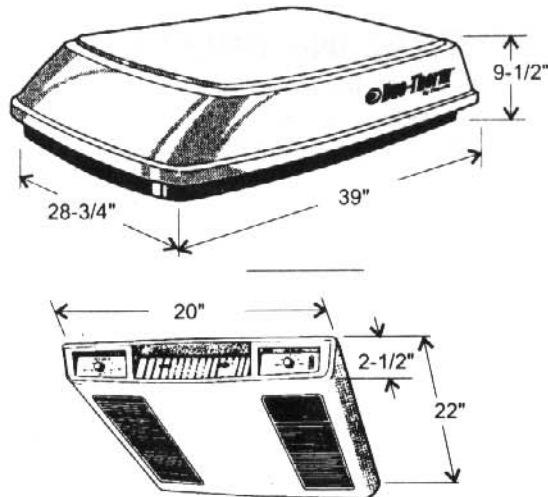
If your unit fails to operate or operated improperly, check the following before calling your service center.

- A. If RV connected to motor generator, check to be sure motor generator is running and producing power.
- B. If RV connected to power supply by a land line, check to be sure line is sized properly to run air conditioner load and it is plugged into power supply.
- C. Check your fuse or circuit breaker to see if it is open.
- D. After the above checks, call your local service center for further help. This unit must serviced by qualified service personnel only.

**When calling for service, always give the following:**

1. Air Conditioner Model and Serial Number found on rating plate located on base pan of air conditioner bottom.
2. Air Distribution Box Kit Part and Serial Number found on rating plate located on ceiling template. Observe this rating plate through the air discharge louver of Air Distribution Box.

## 7. INSTALLATION INSTRUCTIONS



### A. PRECAUTIONS

#### WARNING

**IMPROPER INSTALLATION MAY DAMAGE EQUIPMENT, COULD ENDANGER LIFE, CAUSE SERIOUS INJURY AND/OR PROPERTY DAMAGE.**

1. Read Installation and operating instructions carefully before starting your air conditioner installation.
2. The Dometic Corporation will not be liable for any damages or injury incurred due to failure in following these instructions.
3. Installation must comply with the National Electrical Code and any State or Local Codes or regulations.
4. **DO NOT** add any devices or accessories to this air conditioner except those specifically authorized by Dometic.
5. This equipment must be serviced by qualified personnel and some states require these people to be licensed.

### B. CHOOSING LOCATION FOR THE AIR CONDITIONER

This air conditioner is specifically designed for installation on the roof of a recreational vehicle (RV).

#### 1. NORMAL LOCATIONS:

The air conditioner is designed to fit over an existing roof vent opening. When the vent is removed, it normally creates a 14" x 14" opening.

#### 2. OTHER LOCATIONS:

When no roof vent is available or another location is desired, the following is recommended:

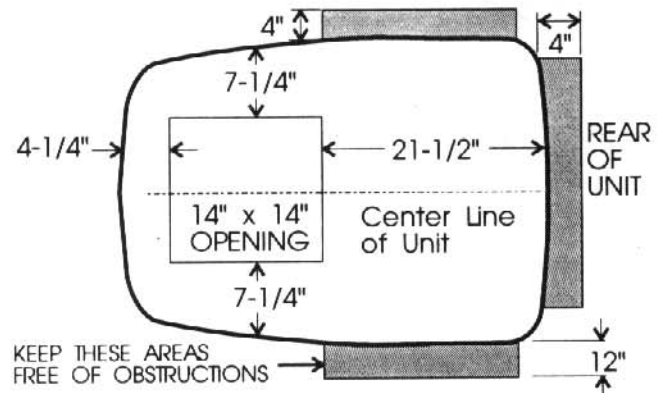
**For one unit installation:** The air conditioner should be mounted slightly forward of center (front to back) and centered from side to side.

**For two unit installations:** Install one air conditioner 1/3 and one air conditioner 2/3's from front of RV and centered from side to side.

It is preferred that this air conditioner be installed in a relatively flat and level roof section measured with the RV parked on a level surface; however, up to an 8° slant to either side, or front to back, is acceptable.

### 3. AFTER LOCATION SELECTION:

- a. Check for obstructions in the area where air conditioner will be installed.
- b. 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 air box obstructions. (i.e. door openings, room dividers, curtains, ceiling fixtures, etc.)



### C. ROOF PREPARATION

#### 1. ROOF VENT REMOVAL:

- a. Unscrew and remove the roof vent.
- b. Remove all caulking compound around opening.
- c. Seal all screw holes and seams where the roof gasket will be located. Use a good grade of all weather sealer.



2. **NEW OPENING:**  
(Installations Other Than Vent Openings)

**WARNING**

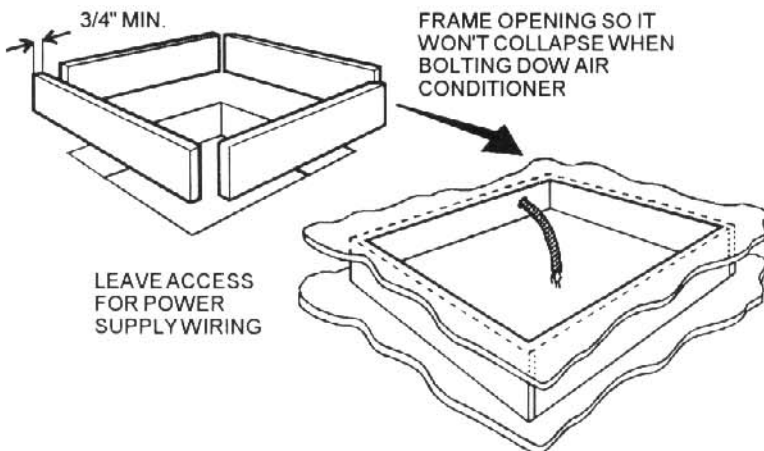
**DISCONNECT ALL POWER SUPPLIES AND THE POSITIVE (+) TERMINAL FOR THE SUPPLY BATTERY. FAILURE TO FOLLOW THIS INSTRUCTION MAY CREATE A SHOCK HAZARD.**

- a. A 14" x 14" opening must be cut through the roof and ceiling of the RV. It is recommended this opening be located between roof reinforcing members.
- b. Mark a 14" x 14" square on the roof and carefully cut the opening.
- c. Using the roof opening as a guide, cut the matching hole in the ceiling.

**CAUTION: There may be electrical wiring between the roof and ceiling.**

3. **OPENING PREPARATION:**

- a. If the opening exceeds 14-1/2" x 14-1/2", it will be necessary to install spacers.
- b. If the opening is less than 14" x 14", it must be enlarged.
- c. Route a copper 12 AWG, with ground, supply line from the fuse or circuit breaker box to the roof opening.
  1. The power supply must be on a separate 20 amp Time Delay Fuse or HACR Circuit Breaker.
  2. Wiring must comply with all National, State and Local wiring codes.
  3. Make sure at least 20" of wire extend into the roof opening. This insures easy air conditioner attachment.
  4. If vent fan was removed, the existing wire may be used provided it is of proper size and correctly fused.
- d. The opening must be framed to provide adequate support and prevent air from being drawn from the roof cavity. Lumber 3/4" thick or more and long enough to bridge the opening must be used. Remember to provide and entrance hole for the power supply wire.



**NOTE: NEVER create a LOW SPOT on the roof where water will collect. Water standing around the air conditioner may leak into the RV interior.**

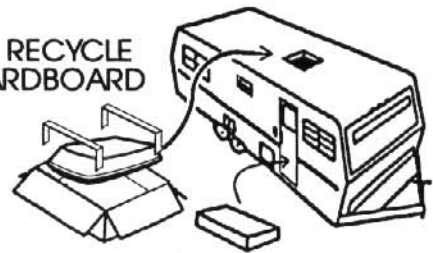
- e. The 14" x 14" roof opening is part of the return air duct and must be finished in accordance with NFPA standard 501C, Standard for Recreational Vehicles, Section 2-7.

D. **PLACING THE AIR CONDITIONER ON THE ROOF**

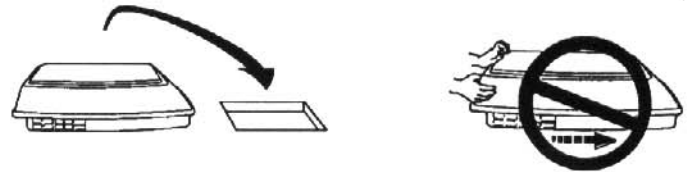
1. Remove the Air Conditioner from the carton and discard the carton.
2. Place the air conditioner on the roof.

**CAUTION: Use care in lifting- this unit weights approximately 100 pounds.**

PLEASE RECYCLE ALL CARDBOARD



3. Lift and place the unit over the prepared opening using the gasket as a guide. The condenser coil goes toward the rear of the RV.



**CAUTION: DO NOT slide the unit. This may damage the neoprene gasket attached to the bottom and create a leaky installation.**

4. Place the 3105457 Air Box Kit inside the RV. This box contains mounting hardware for the air conditioner and will be used inside the RV.

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

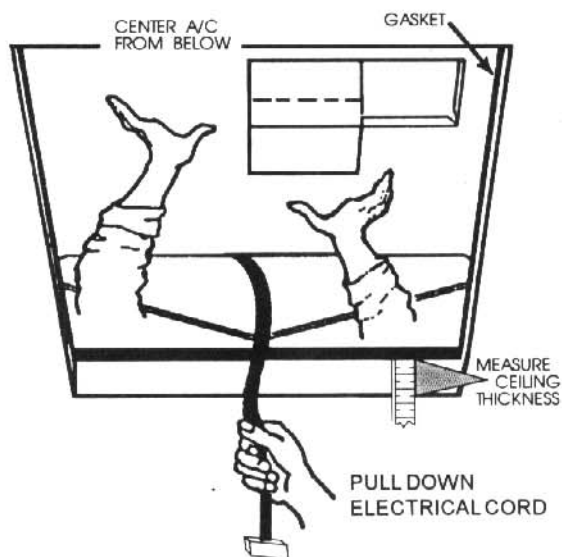
## E. DISCHARGE DUCT AND CEILING TEMPLATE INSTALLATION

1. Remove air box and mounting hardware from carton. The upper duct is shipped inside the lower duct which is part of the ceiling template.
2. Remove upper duct from ceiling template and locate it over blower discharge.

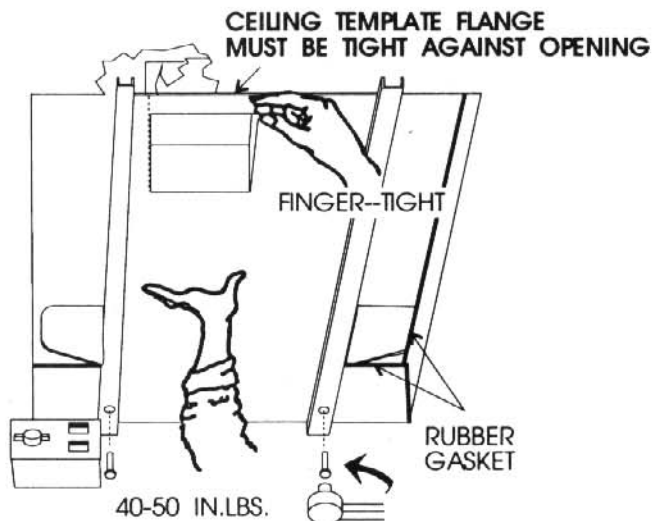
**NOTE: Edge without flange installs toward REAR of opening.**

3. Use two (2) sharp pointed #10 sheet metal screws (A) to hold duct to base pan. Holes provided in bottom of base pan for these screws to go into.

4. Check for correct alignment and adjust the unit as necessary (Roof Gasket centers over 14" opening).
5. Reach up into return air opening of the air conditioner and pull the unit electrical cord down for later connection.



6. Measure the ceiling to roof thickness:
  - a. If distance is 1"-2", remove perforated tabs from both upper and lower ducts.
  - b. If distance is 2"-3", remove perforated tabs from bottom duct only.
  - c. If distance is 3"-4", install ducts as received.
  - d. If distance is 4"-6", use optional duct adaptor, Part No. 318557 and Bolt Kit, Part No. 318556.
7. Install ceiling template by sliding lower duct over upper duct.



8. Hold the ceiling template with one hand and with the other, install the three 1/4" mounting bolts through the template and into the base pan.
  - a. Finger-tighten the bolts and check alignment. There should be an equal opening on each side and the rear flange must be tight against the roof opening.
  - b. **EVENLY** tighten the three bolts to a torque of 40 to 50 inch pounds. This will compress the roof gasket to approximately 1/2".

### **! CAUTION**

If bolts are left loose there may not be an adequate roof seal. If bolts are overtightened, damage may occur to the air conditioner base or ceiling template.

## F. CONNECTION OF POWER SUPPLY

**NOTE:** All wiring must comply with the National Electrical Code and any State or Local Codes or regulations.

1. Route supply line into junction box on ceiling template.

### **! WARNING**

**Disconnect ALL power before wire leads are connected.**

2. Connect white to white; black to black; and green to green or bare copper wire using appropriate sized twist connectors.
3. Tape the connectors to the wire with electrician's tape.
4. Push the wires into the box and tighten the strain relief.
5. Install the cover (part of the mounting hardware) with the one blunt point screw provided.

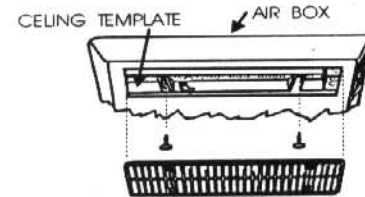
**NOTE:** If optional heater is part of this installation, now is the time to install it. Installation instructions are provided with the heater kit.

## G. INSTALL AIR BOX

1. Remove the two filter-grilles from the air box.
2. Slide the air box over the shafts of the thermostat and selector switch.
3. Install the four (4) sharp pointed screws through the air box legs and into the prepunched holes in ceiling template.

**NOTE:** There are four optional mounting holes on the outer edge of the return air opening for which **NO** screws are provided. These are **only** required where an uneven ceiling does not allow proper fitting of the air box.

4. Install the filter-grilles by pushing them into place.



5. Install the two knobs by pushing them onto the shafts.
6. Turn on power to the air conditioner for operational check.

