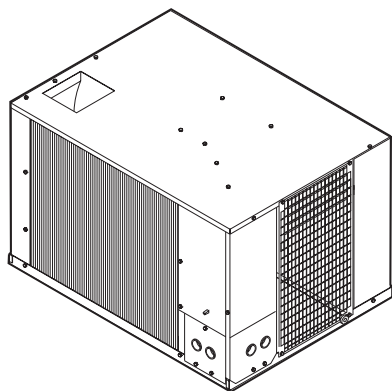




RECORD THIS INFORMATION FOR FUTURE REFERENCE
BEFORE INSTALLING THE UNIT:

Model Number _____
Serial Number _____
Date Purchased _____
Place of Purchase _____

SELF-CONTAINED HEAT PUMP FOR BASEMENT PARK MODEL



ROTARY COMPRESSOR SYSTEM MODEL **39335**



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

For Service Center
Assistance Call:
800-544-4881

THIS UNIT IS DESIGNED FOR OEM INSTALLATION
ALL INITIAL INSTALLATIONS MUST BE APPROVED BY THE SALES DEPT.

! 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 & OPERATING INSTRUCTIONS

**SYSTEM
MODEL
39335.637**

REVISION

Form No. 3107137.055 12/99
(Replaces 3107137.048)
(French 3108236.039)
©1999 The Dometic Corporation
LaGrange, IN 46761

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

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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: means if the safety information is not followed someone could be injured or killed and/or damage to equipment could occur.

CAUTION: means if the safety information is not followed someone might be injured or killed and/or damage to equipment might occur.

Read and follow all safety information and instructions.

Learn how to operate the air conditioner properly.

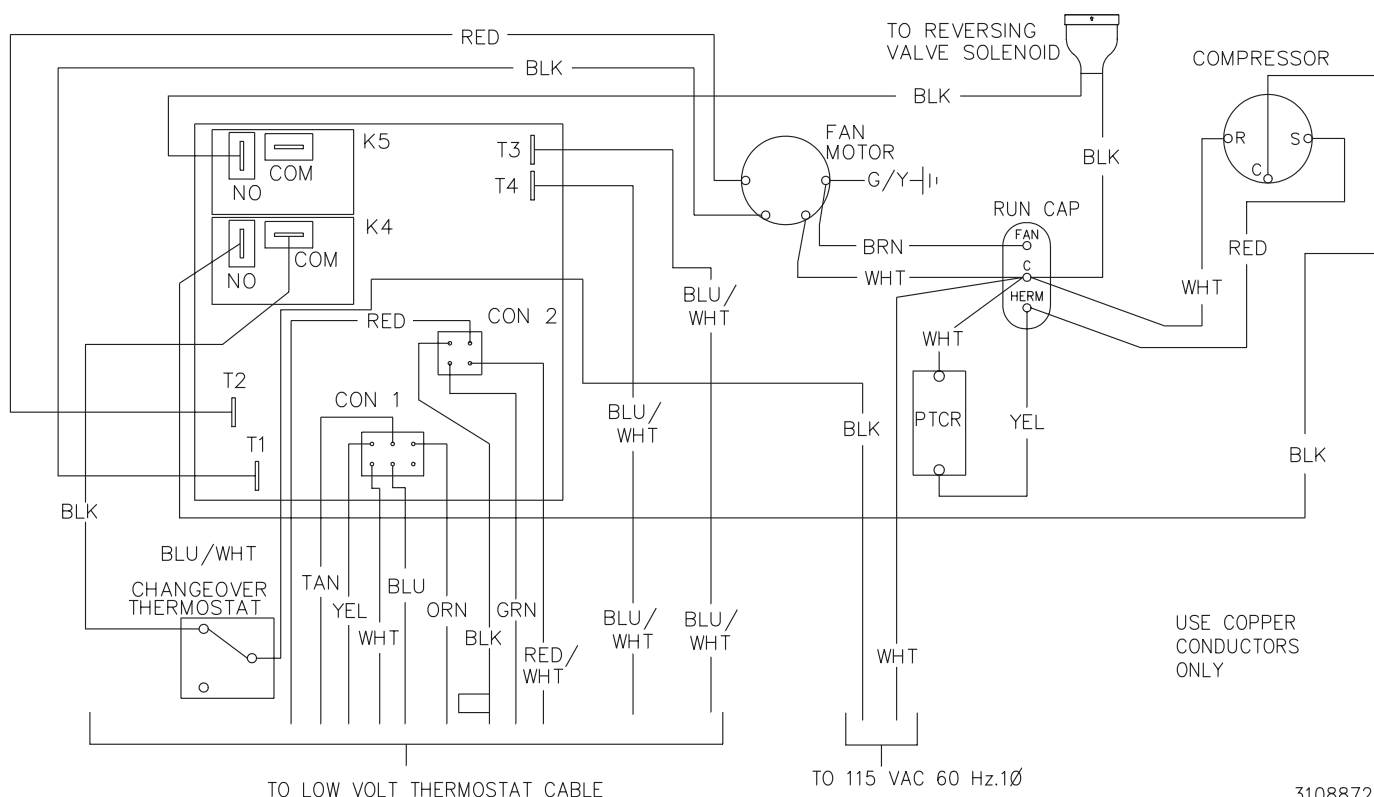
Keep your air conditioner in proper operating condition. See maintenance (Section 4) Do not modify the air conditioner which may impair the function.

1. SPECIFICATIONS and WIRING DIAGRAM

SPECIFICATIONS

System Model	39335		
Nominal BTU Capacity (Cool/Heat)	15,000		
Volts/Phase/Hertz	115 / 1 / 60 / 50		
Run Amps Comp/Motor	12.1 /4.0		
LRA Compressor	77		
Wire Size	Up to 24 ft. - Use No. 12 AWG Copper Conductors		
Circuit Protection	20 Amp Time Delay Fuse or 20Amp HACR Circuit Breaker		
Refrigerant	R-22		
System Refrigerant Charge	34.5		
Size (In Inches)	Width	Height	Depth
	26.25	16.25	19.25
Installed Weight	102 Pounds		
Duct Size Supply	42 sq. in.		

WIRING DIAGRAM

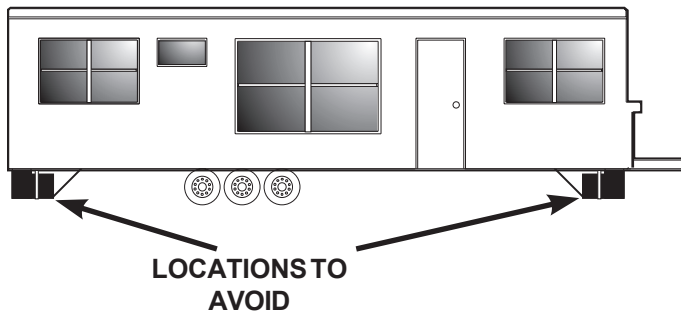


2. INSTALLATION INSTRUCTIONS

A. LOCATION

The system is intended for installation in a Park Model RV where the interior is essentially one undivided space. When locating the unit, avoid any area where the unit could be damaged when transporting. An area to avoid during mounting is the extreme front and rear of the unit.

FIG. 1



Vibration eliminators are supplied to prevent the transmittance of vibration into the living area.

The air conditioning unit may be attached to rails beneath the vehicle, attached to the frame, or mounted directly to the floor of some vehicles.

Unit should be mounted with a tilt toward the rear (condenser) a half-bubble using a level. Unit rear should be 1/4" lower than the front.

B. VENTILATION REQUIREMENTS

1. OUTDOOR SECTION

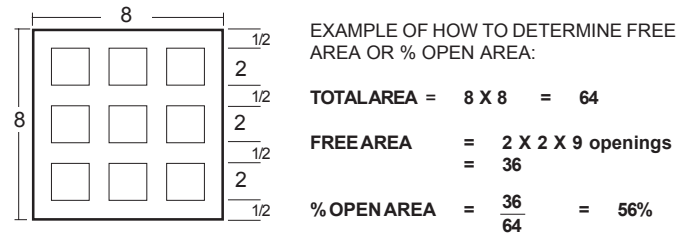
- The condenser coil is designed to have a fresh supply of air. If skirting is installed, allow a 15" x 22" opening (330 square inches) for supply air and a 15" x 22" opening (330 square inches) for discharge air. Use the cross flow method for good air circulation.

⚠ CAUTION

Do not totally enclose the underside of the unit. Maintain minimum requirements as stated in this manual. Air circulation prevents heat from building under unit and if minimum opening requirements are not met you could sacrifice performance, cause circuit breaker to trip and/or damage compressor.

The condenser section is a "blow-through" type. When the face of the coil is positioned behind a louvered or other type of restrictive opening, the FREE AREA of the opening must be **at least 260 square inches**.

- FREE AREA** — is the opening that remains in a grill or louvered panel after the restrictions are taken away. For example, an opening of 10 x 20 inches has 200 square inches. When this opening is covered with a grill that is 56 percent open, the FREE AREA is (200 x .56), 112 square inches.



Expanded and perforated metal grills in general vary from 30 percent to 60 percent open. Be certain that **260 square inches** of FREE AREA is available to the face of the condenser.

IMPORTANT: Service access must always be supplied either as clearance or as a defined access panel.

c. SERVICE ACCESS

Be sure **NOT** to block the inlet or discharge air, or service access, when mounting.

2. INDOOR SECTION

a. Clearances

The minimum clearances to the evaporator are zero inches to the bottom, top, left and right sides. Access to the electrical connections and drain connection must be provided when making the installation.

IMPORTANT: Be sure to allow sufficient room to service the electrical components.

b. Inlet Air

The evaporator section must have free access to room air. **A minimum of 180 square inches** of FREE AREA opening is required. Where the return air must be provided through louvers or mesh screen, the FREE AREA percentage of the material used shall be taken into consideration when making this determination. An example of how to determine FREE AREA is included under "1. OUTDOOR SECTION".

c. Outlet Air:

The 39335 central air conditioning unit is designed to use a 3" x 14" discharge air duct at a static pressure of .10 to .25 inches water column. This duct size is necessary to maintain proper air flow without loss of static pressure and provide good air circulation.

All air handling ducts must be properly insulated to prevent condensation forming on their surface during operation. A vapor barrier must also be supplied on the outer surface of the insulation to prevent moisture from traveling through the insulation and condensing on the cold ductwork.

Note: If the air conditioning unit is attached to the central furnace, a damper must be installed at the furnace outlet to prevent cold air from circulating through the furnace heat exchanger.

3. GRILLS, REGISTERS AND DUCTS:

Note: The return air grill must have the same square surface as the coil face (15"H x 17"L).

a. Grills

For each air conditioning system, there must be a return grill to bring cabin air back into the unit. There must also be at least four discharge grills per unit.

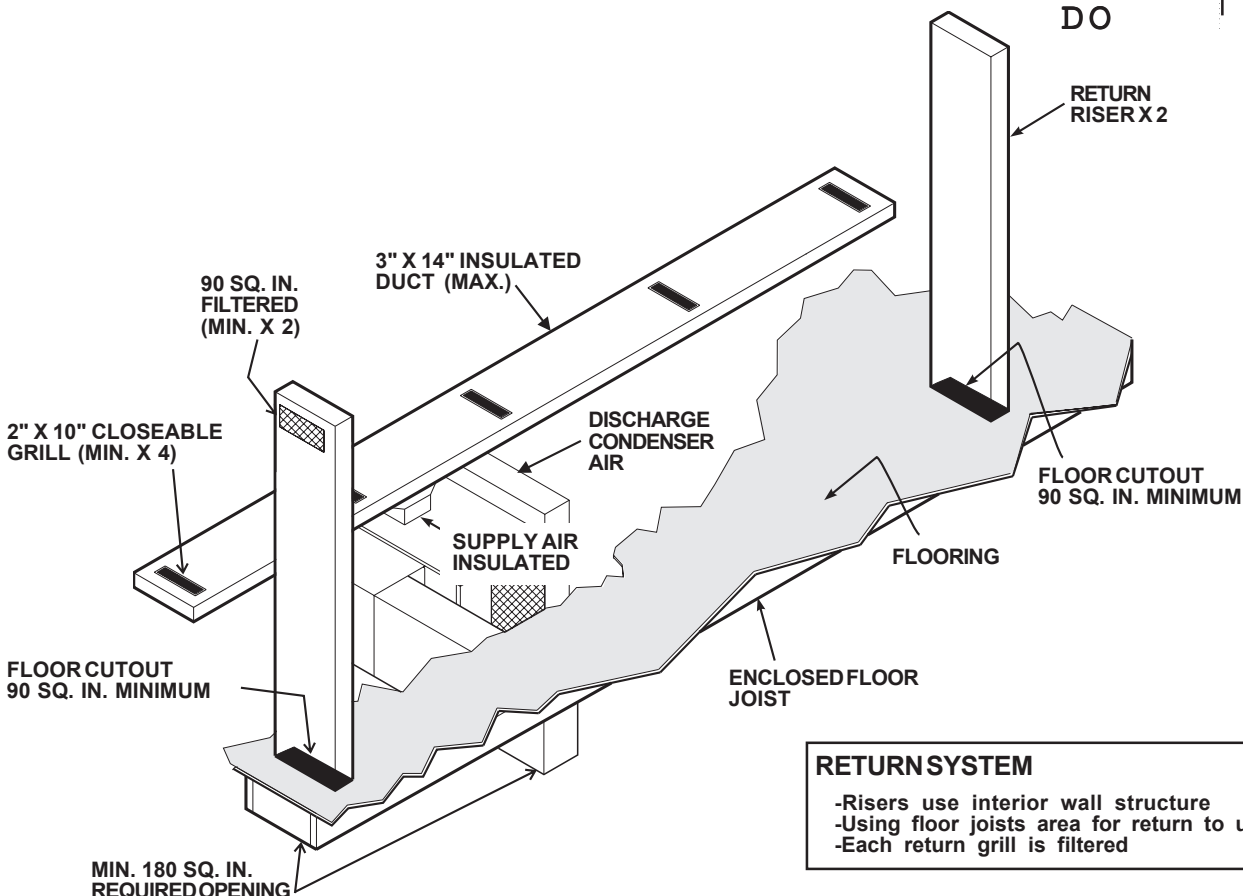
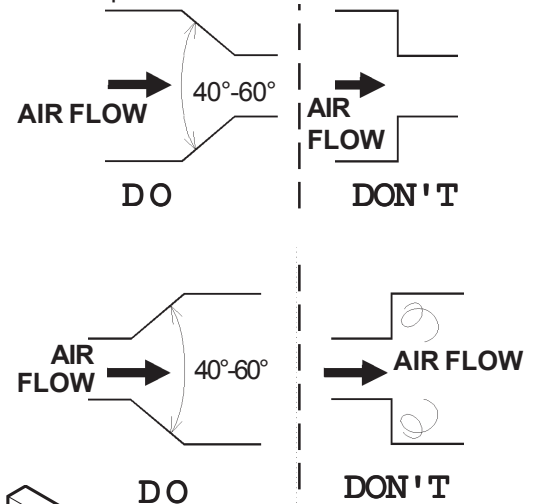
If floor duct system is used, a duct size of 3" x 14" (with 2" x 10" floor registers) is recommended for good air conditioning performance.

Each return air grille must be filtered and accessible for cleaning or replacement.

b. Ducts

Note: Streamlining of the air duct system means less resistance to air flow. Sharp angles and turns are to be avoided.

1. Pressure losses increase as the diameter of the duct is reduced. When installing your ductwork on long runs, increase the duct diameter and avoid sharp turns.
2. The final evaluation of air distribution in a space is determined by the occupants' comfort.
3. When building around duct runs or placement of duct material, **DO NOT** kink or crush tubing. If turns are required, maintain largest radii possible to decrease pressure loss.



C. POWER SUPPLY CONNECTION

Note: All wiring must comply with the National Electrical Code or CSA Standard C22.1, Canadian Electric Code, Part 1; and all local codes.

1. GENERAL

- All wiring must be at least 12 AWG.
- Two conductors plus a ground must be provided from a supply circuit protected by a 20 AMP slow-blow fuse or a 20 AMP HACR type circuit breaker to the second opening at the right of the evaporator section electrical box.
- A 12V DC power source must be run to the heat pump electrical box. Connect +12V DC to red –12V DC to black.

2. EVAPORATOR SECTION - Line Voltage

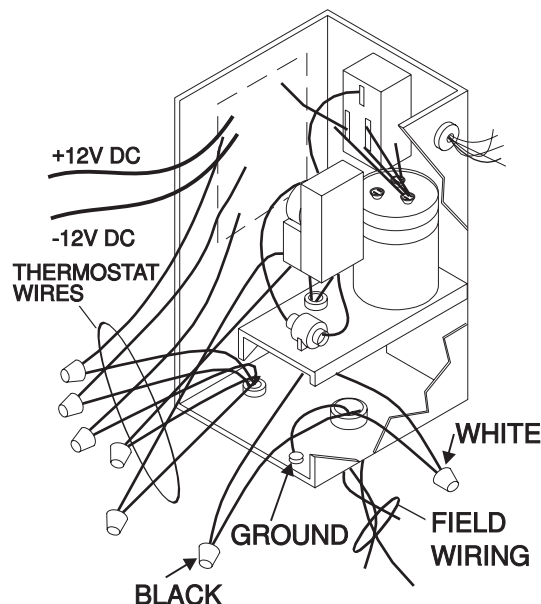
- Remove electrical box cover.
- Route supply wires through one of the bushings.
- Route supply wire through the connector and tighten lock nut to ensure against twisting of the wires.
- Connect the white wire in the junction box and the white (neutral) wire from the supply line using an appropriate wire connector.
- Connect the black wire in the junction box to black (hot) wire from the supply line using an appropriate wire connector.
- Connect the ground wire from the supply line to the unit ground screw.

⚠ WARNING

Failure to properly wire this unit may cause personal injury and will damage this product.

- A thermostat cable must be used with the heat pump air conditioner. To connect the thermostat cable to the heat pump low voltage wires. Follow the Table below. Secure each connection using a wire nut.

HEAT PUMP TO THERMOSTAT WIRING		
HEAT PUMP		THERMOSTAT
RED/WHITE		+7.5
YELLOW		COOL
BLUE		HIFAN
ORANGE		H-P/H-S
TAN		FAN
WHITE		FURNACE
GREEN		GROUND
RED	to	+12VDC
BLACK	to	-12VDC



D. THERMOSTAT MOUNTING

Contact The Dometic Corporation for the proper thermostat kit. The proper location of the thermostat is very important to ensure that it will provide a comfortable temperature. Observe the following general rules when selecting a location.

- Locate thermostat about 5 feet above the floor.
- Install 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.
- Never locate thermostat in a room that is warmer or cooler than the rest of the coach — such as the kitchen.
- The major living area is normally a good location.

E. THERMOSTAT WIRING

Thermostat wiring for Dometic Analog thermostat:

Route a (7) conductor cable from the heat pump to the thermostat location. Leave enough cable within the electrical box to connect to the low voltage cable. At the thermostat location, leave about six (6") inches of cable extending through the wall. Connect the thermostat cable to the thermostat. (See Table at left)

When an auxiliary furnace is used with the heat pump, a two conductor cable must be routed from the furnace to the heat pump location. Connect the furnace blue thermostat leads to the blue/white wires at the heat pump. Secure with a wire nut. Tuck the excess wire back into the wall and fill opening with insulation to prevent drafts that could affect the thermostat operation. Secure the thermostat to the wall using the two screws supplied.

3. OPERATING INSTRUCTIONS

A. GENERAL INFORMATION

The Basement/Park Model heat pump was designed to operate in a **MILD GEOGRAPHICAL AREA** for heating where the heat loss is minimum. The heat pump will operate down to an outside ambient temperature of 40 degrees. At 40 degrees, the outdoor thermostat will turn off the heat pump circuit. As long as the temperature remains below 40 degrees, the main furnace will heat your home.

As the outside temperature increases to 45 degrees, switch back to the heat pump circuit.

The advantages of the 39335 Heat Pump Central Air Conditioner are:

1. User friendly; only one unit for both heating and air cooling.
2. Heat pump heating uses the campsite electrical hookup and you save on trips to refill LP tanks.
3. When used in mild climates where the outdoor temperature range is 40 degrees or higher, an LP furnace is not needed.
4. The unit is not exposed to the elements.

Note: Geographical location usage should be determined before omitting a central furnace.

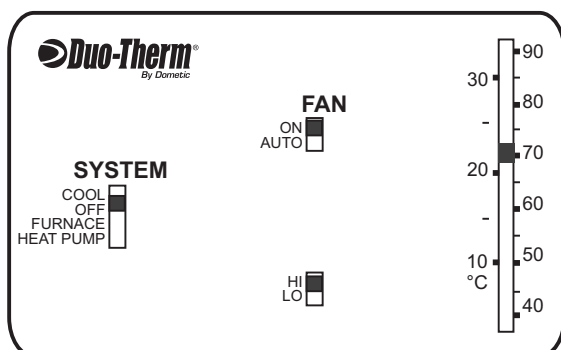
B. THERMOSTAT OPERATION

Cooling:

1. Set the SYSTEM SWITCH to COOL.
2. Set the temperature LEVER to your comfort level.
3. Set the FAN switch to:
 - a. AUTO: The fan cycles off and on with the compressor.
 - b. ON: The fan will run continuously. The compressor will turn off when the room temperature is cool enough to satisfy the thermostat setting.

Heating:

1. Set the system switch to HEAT PUMP:
2. Set the temperature LEVER to your comfort level.
3. Set the FAN switch to:
 - a. AUTO: The fan will cycle off and on with the compressor.
 - b. ON: The fan will run continuously. The compressor will cycle off and on with thermostat demand.



Furnace:

1. Set the system switch to FURNACE.
2. Set the temperature lever to your comfort level.

Note: The FURNACE position is only used if:

1. You have a factory installed furnace operating from the heat pump system thermostat.
2. The outside temperature is above 40 degrees and you wish to operate your furnace.
3. For quick interior warm up.
4. There is no 115 volt AC power available to operate your heat pump and you must operate the furnace for your comfort.

Fan:

To circulate air without heating or cooling:

1. Set the SYSTEM SWITCH to OFF.
2. Set the FAN SWITCH to ON.

Hi/Low:

HIGH: Fan speed position

LOW: Fan speed position

4. MAINTENANCE

A. AIR FILTER

Your air conditioner will operate more efficiently with a clean filter. Replace the filter with a new one every three months.

B. CONDENSER COIL

To maintain efficient operation, the exposed CONDENSER COIL should be cleaned as often as necessary to keep it free of dirt and debris. Be careful not to damage the coil fins when cleaning.

5. SERVICING

If service work is needed, contact your dealer or the nearest authorized service center. When requesting service, always give complete model and serial numbers. These numbers are located on the left side of the condenser bulkhead.

A. BEFORE YOU CONTACT A SERVICEMAN

There are several built-in features that may automatically shut off the unit under abnormal operating conditions. If your unit should shut off, here are some things you should check before you contact a service center.

1. Wait a 15 to 30 minutes — to see if unit will resume operation.
2. Check thermostat to see if it is properly set.
3. Check fuses on electrical supply in the vehicle.
4. Check the filter (indoor section) to see if it is clean.
5. Check the condenser coil to be sure it is clean.