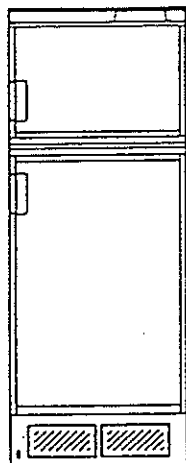


MODEL RM 4804.006

Automatic Energy Selector Refrigerator
and Ice Maker for
LP Gas & Electric Operation



3-WAY
DESIGNER SERIES



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, service agency or the gas supplier.

USA
SERVICE OFFICE
The Dometic Corp.
509 So. Poplar St.
LaGrange, IN 46761

CANADA
Dometic Dist.
866 Langs Dr.
Cambridge, Ontario
CANADA N3H-2N7

WARNING

This unit must be serviced by an authorized serviceman. Modification of the appliance can be extremely hazardous and could lead to serious injury or death.

AVIS

Cet appareil doit être réparé seulement par un réparateur autorisé. Modification de l'appareil pourrait être extrêmement dangereuse, et pourrait causer mal ou mort.

FOR YOUR SAFETY

If you smell gas:

1. Open Windows.
2. Don't touch electrical switches.
3. Extinguish any open flame.
4. Immediately call your gas supplier.

DO NOT store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

INSTALLATION & OPERATING INSTRUCTIONS

MODEL
RM4804.006
PRODUCT NO.
926890361

IMPORTANT INSTRUCTIONS
READ CAREFULLY

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SECTION A. INSTALLATION

1. GENERAL INSTRUCTIONS

This appliance is designed for storage of foods and storage of frozen foods and making ice.

The refrigerators outlined herein have been designed certified under ANSI Z21.19a-1989; Refrigerators by the American Gas Association for installation in a mobile home or recreational vehicle and are approved by the Canadian Gas Association. The certificates are; however, contingent on the installation being made in accordance with the following instructions as applicable:

In the U.S.A., the installation must conform with:

1. National Fuel Gas Code ANSI Z223.1-1988
2. Manufactured Home Construction and Safety Standard Title 24 CFR, Part 32-80
3. Recreational Vehicles ANSI/NFPA No. 501C-1987.

The unit must be electrically grounded in accordance with the National Electric Code ANSI/NFPA No. 70-1987, when installed where an external electrical source is utilized.

4. Any applicable local codes.

In CANADA, the installation must conform with:

1. Current CGA B 149 Gas Installation Codes
2. Current CSA Standard Z240.4 Gas-Equipped Recreational Vehicles and Mobile Housing
3. Any applicable local codes.

The unit must be electrically grounded in accordance with the current Canadian Electrical Code C22, Parts 1 and 2.

2. VENTILATION

The installation shall be made in such a manner as to separate the combustion system from the living space of the mobile home or recreational vehicle. Openings for air supply or for venting of combustion products shall have a minimum dimension of not less than 1/4 inch.

Proper installation requires one lower fresh air intake and one upper exhaust vent. The ventilation kits shown in this instruction manual have been certified for use with refrigerator models listed in the Table. For certified vent system kits, see separate list. The vent kits must be installed and used without modification. An opening toward the outside at floor level in the refrigerator compartment must provide for ventilation of heavier-than-air fuel gases. The flow of combustion and ventilating air must not be obstructed.

A. WHEEL-WELL INSTALLATION

When the refrigerator is installed over a wheel-well, the openings provided in the lower vent panel are adequate to vent fuel gases to the outside. The location and size of the lower vent panel will allow ready access to the burner and control for service. See FIG. 1

B. FLOOR LEVEL INSTALLATION

When the refrigerator is installed on the floor, the lower vent panel should be 7-15/32" (190mm) above the floor line. This will allow service of the burner and controls; however, openings must be provided at floor level to vent fuel gases to the outside. See FIG. 2.

The compressor and condenser coils are ventilated toward the living space. The grill on the lower front of the refrigerator must be free from all obstructions. Any interference with air flow through the grill will cause improper operation of the ice maker.

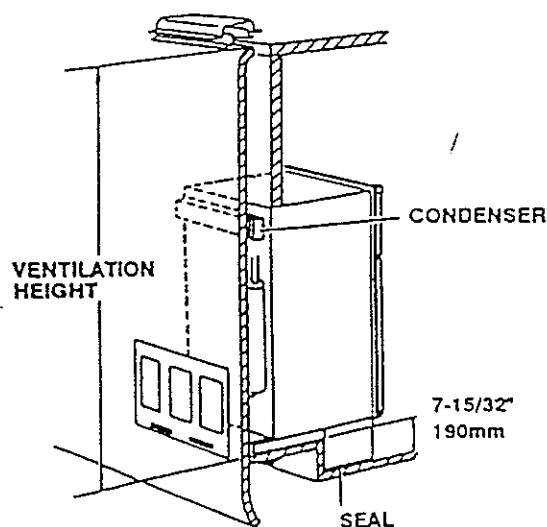


FIG. 1
WHEEL-WELL
INSTALLATION

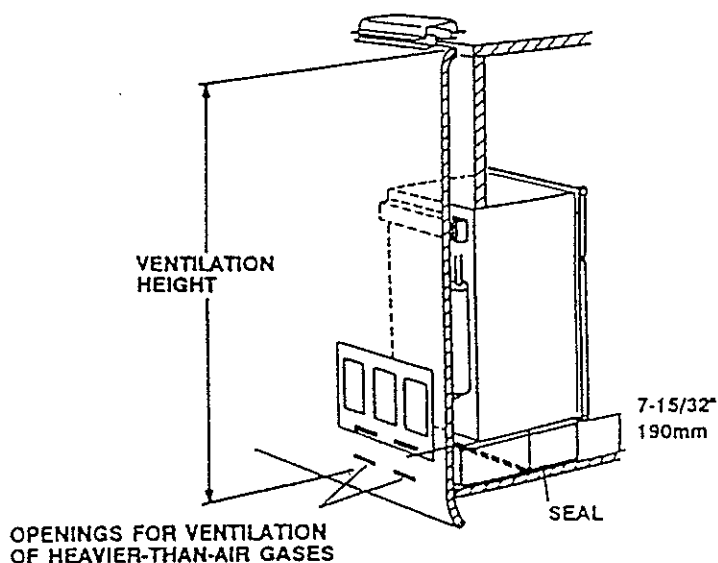


FIG. 2
FLOOR LEVEL
INSTALLATION

3. CERTIFIED INSTALLATION

Certified installations require one roof vent and one lower side vent. For certified vent system kits, see separate list. For further information, contact your dealer or distributor.

4. METHOD OF INSTALLATION

The methods of installation are shown in FIGS. 1 and 2. It is essential that all maximum of minimum dimensions are strictly maintained as the performance of the refrigerator is dependent on adequate flow of air over the rear of the refrigerator.

6. CLEARANCES

Minimum clearances to combustible materials are:

- G: Top 0"
- K: Side 0"
- L: Bottom 0"
- M: Rear 1/2"
- N: Ventilation Height, *See Clearance N NOTE.

Clearance M is the distance between rearmost part of the refrigerator and the wall behind the refrigerator.

Clearance N is the distance between the bottom of the lower vent to the roof material.

*NOTE: Ventilation height is 60 inches. When installing refrigerator on a flat floor, the bottom of the lower vent should be 7-15/32 inches above the floor level. See FIGS. 3 and 4.

5. VENTILATION HEIGHTS

Refer to FIGS. 1 and 2.

Installation with Roof Vent and Lower Side Vent Refrigerators:	Minimum Ventilation Heights in	
	Inches	mm
RM4804.006	60	1524

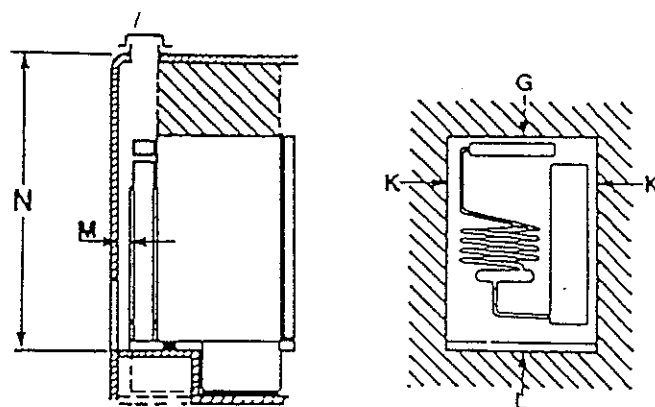
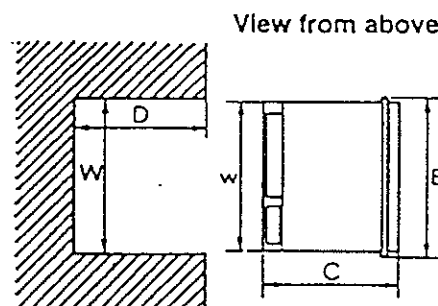
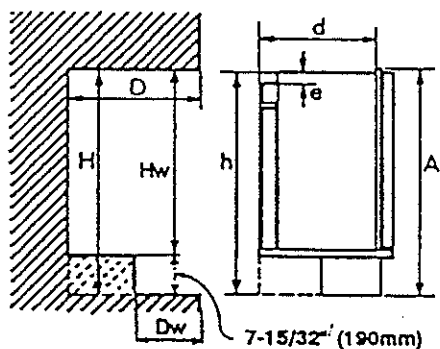


FIG. 3

Side view
FIG. 4



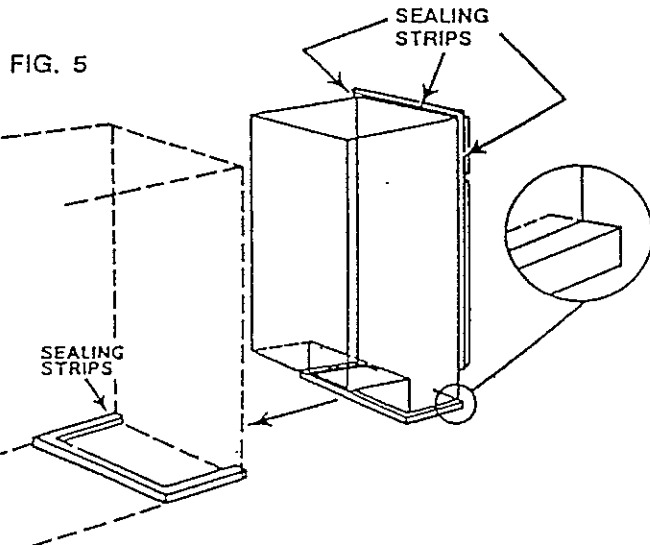
Refrigerator model	Overall dimensions			Installation dimensions			Recess dimensions			Distance between top of condenser and refrigerator e
	Height A	Width B	Depth C	Height h	Width w	Depth d	Height+ H	Width W	Depth D	
RM4804.006 inch mm	63 29/32 1623	24 7/16 621	24 3/8 619	62 29/32 1598	23 71/16 595	23 9/16 599	63 1600	23 13/16 605	24 1/16 611	1 1/8 29
							for wheelhouse mounting			
							Hw	W	Dw	
							55 5/8 1413	23 13/16 605	14 355	

7. INSTALLING REFRIGERATOR IN AN ENCLOSURE

A. GENERAL INSTRUCTIONS

NOTE: DO NOT install the appliance directly on carpeting. Carpeting must be removed or protected by a metal or wood panel beneath the appliance, which extends at least the full width and depth of the appliance.

The refrigerator must be installed in a substantial enclosure and must be level. When installing the refrigerator in the enclosure be certain there is a complete seal between the front frame of the refrigerator and the top, sides and bottom of the enclosure. A length of sealing strip is applied to the rear surface of the front frame for this purpose. The rear and sides of the base must be sealed with a length of sealing strip. See FIG. 5. The sealing should provide complete isolation of the appliance's combustion system from the vehicle interior.



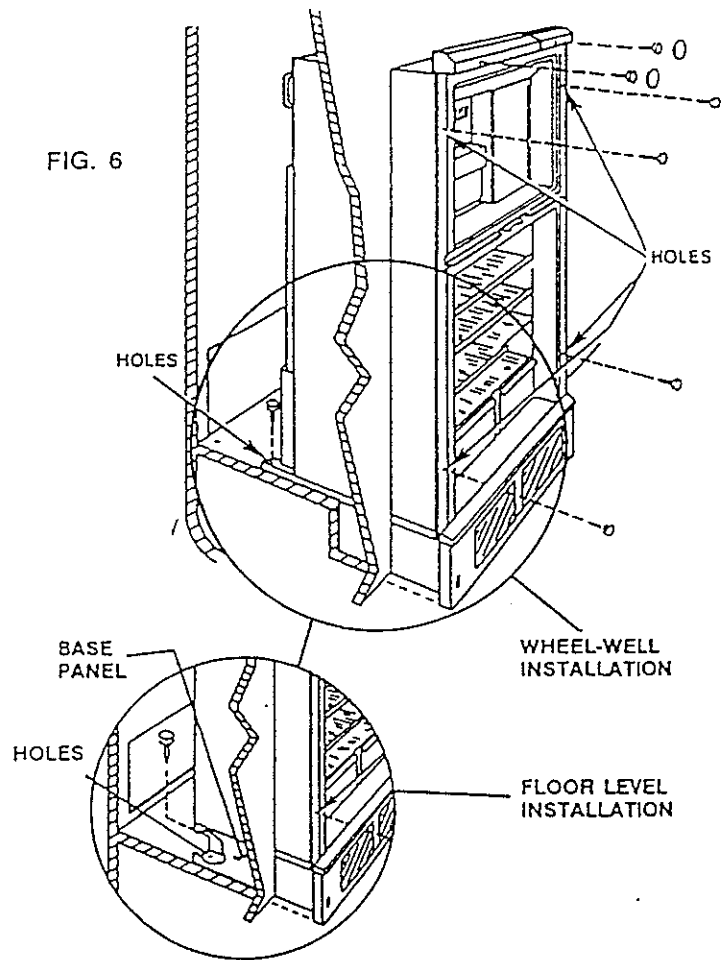
B. INSTALLING REFRIGERATOR ON FLOOR

NOTE: When the refrigerator is installed directly on the floor, the area between the RV wall and the refrigerator base must be ventilated to the outside by openings in the wall at floor level. The openings must be a minimum of 1/4" by 12". (Example: Two louvers with an opening of 1/4" by 6"). See FIG. 2.

Be careful not to damage the sealing strip applied to the floor of the enclosure when refrigerator is put in place. See FIG. 5.

The refrigerator is secured in the enclosure with eight screws: two are installed in the rear corner of the removable plates and six are installed in the front frame. See FIG. 6.

FIG. 6



C. INSTALLATION ON A WHEEL-WELL

When the refrigerator is installed on a wheel-well, the lower vent kit is manufactured with the proper openings to vent fuel gas to the outside. Additional openings in the rear compartment are not required for venting of fuel gas to the outside.

Remove the screws that secure the side base panels to the bottom of the refrigerator. See FIG. 6. It is recommended that the wheel-well be insulated between the rear of the refrigerator base and side of wheel-well.

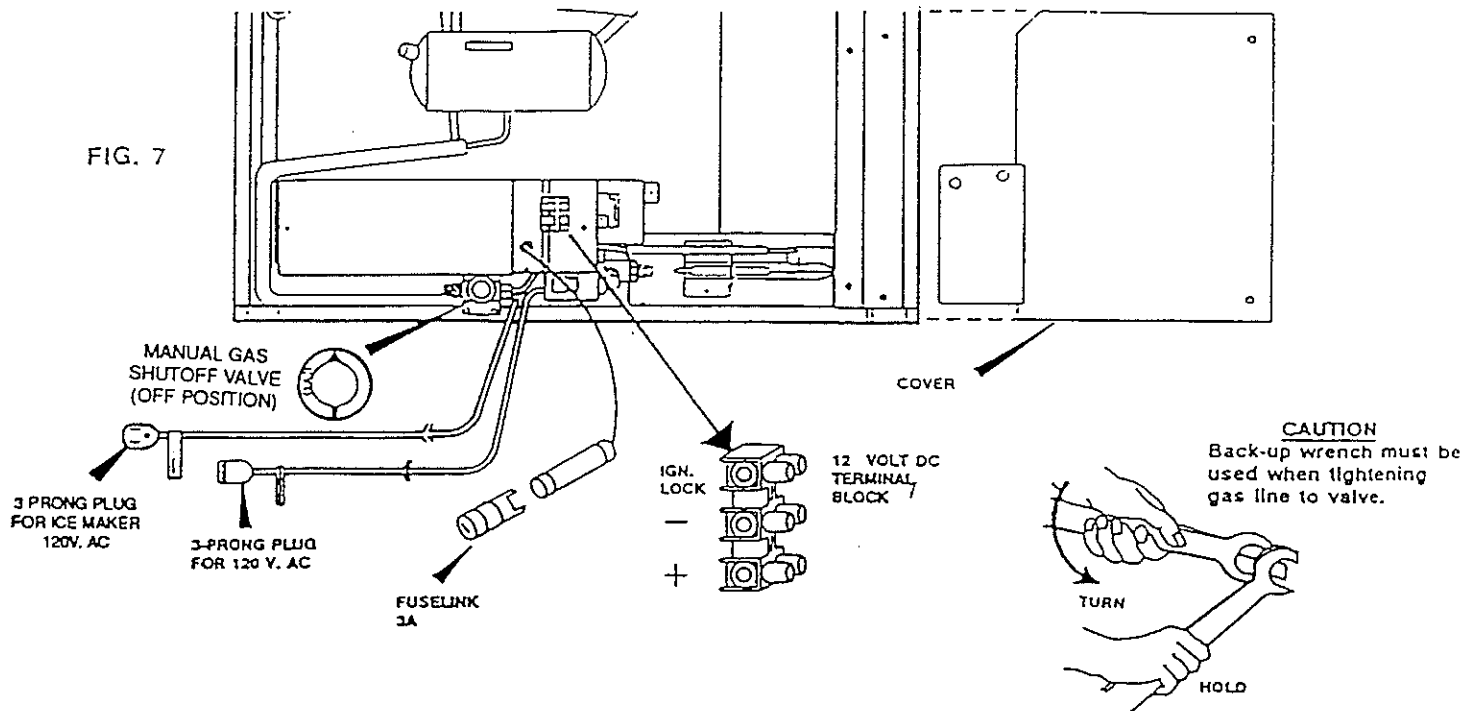
Be careful not to damage the sealing strips applied to the floor of the enclosure when the refrigerator is put in place. See FIG. 5.

The refrigerator is secured in the enclosure with eight screws. Two screws are installed in the rear base and six in the front frame. See FIG. 6.

D. AIR SPACES

Any air space between a counter or storage area and the top of the refrigerator greater than 1-1/2 inches should be blocked. This will prevent heat produced at the rear of the refrigerator from becoming trapped; which would reduce the efficiency of the refrigerator.

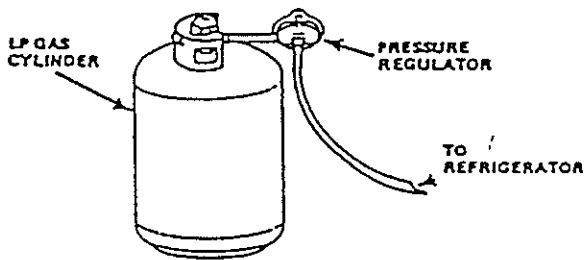
FIG. 7



8. GAS CONNECTION

The gas supply line is connected to the manual gas valve at the rear of the refrigerator. See FIG. 7. The manual gas valve has a male flair connection with a 3/8 inch SAE (UNF 5/8"-18) male threads. All completed connections should be checked with a non-corrosive leak detector. **DO NOT USE AN OPEN FLAME TO CHECK FOR GAS LEAKS.**

The gas supply system must incorporate a pressure regulator to maintain a supply pressure of not more than 11 inches water column.



When testing the gas supply system at test pressures in excess of 1/2 psig, the refrigerator and its individual shut-off valve must be disconnected from the gas supply piping. When testing the gas supply system at LESS than 1/2 psig, the appliance must be isolated from the gas supply system by closing the refrigerator manual shut-off valve.

If detailed instructions on the installation and connection of the gas supply are required, contact your dealer or distributor.

9. TESTING LP GAS SAFETY SHUT-OFF

The gas safety shut-off must be tested after the refrigerator is connected to the LP gas supply.

To test the gas safety shut-off, proceed as follows:

- Start the refrigerator according to the instructions, without connecting 120 volt AC or 12 volt DC power to the ignition lock. This will force the AES controls to gas operation.
- Check that the gas flame is lit and the green indicator lamp "A" is ON. See "Section B. Operating Instructions, Item 2. Control Panel."
- Close the manual shut-off valve at the back of the refrigerator. See FIG. 7.
- Wait four minutes. The red indicator lamp "K" should be ON and the green indicator lamp "A" should be OFF, and the gas flame extinguished. See "Section B. Operating Instructions, Item 2. Control Panel".
- Remove cover (see FIG. 7) and open the manual gas valve WITHOUT turning the main switch "D". See "Section B. Operating Instructions, Item 2. Control Panel". Apply a non-corrosive commercial bubble solution to burner jet orifice. See FIG. 8.

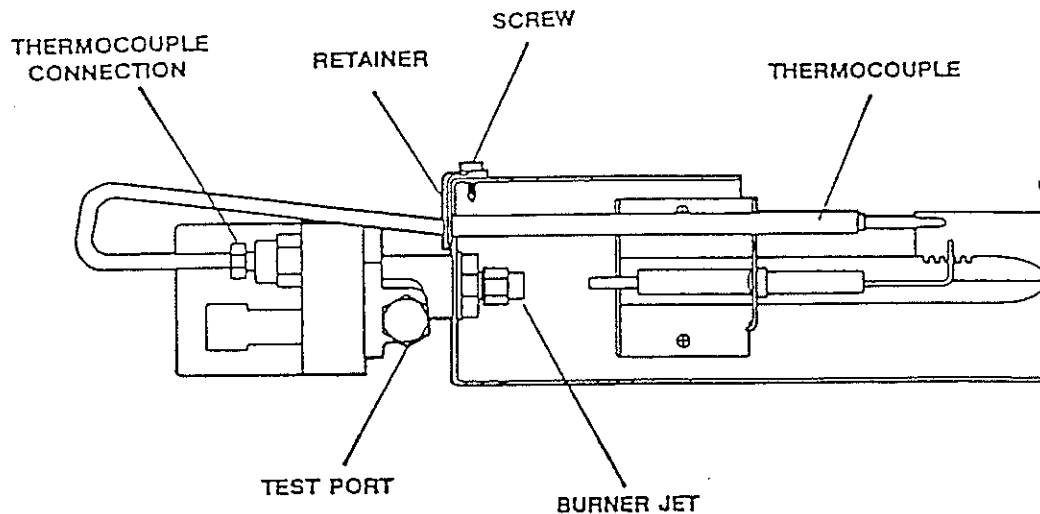


FIG. 8

- F. No bubbles should appear at the opening of the burner jet orifice. The presence of bubbles indicates a defective gas safety shut-off and service is required.
- G. If no bubbles were present at the burner jet orifice, it should be rinsed with fresh water. Be careful not to damage burner jet orifice. Replace cover and turn the main switch "C" OFF and back ON. See "Section B. Operating Instructions, Item 2. Control Panel". Normal operation of the burner should return. Allow the burner to operate for a minimum of five minutes.

WARNING

Do not use a flame to check for gas leaks.



10. ELECTRICAL CONNECTION

A. 120 VOLT AC CONNECTION

The refrigerator is equipped with 2 three-pronged (grounded) plugs for protection against shock hazards. These should be plugged into a properly grounded, three-pronged receptacle. DO NOT cut or remove the ground prong from the plugs. The cords should be routed to avoid coming in contact with the manual gas valve knob, burner, flue or other hot components. See FIG. 7.

B. 12 VOLT DC CONNECTION

The connection is to be made at the DC terminal block. See FIG. 7. The refrigerator must be connected to the battery circuit with two wires properly sized to avoid voltage drop. The length of the wire must be considered when choosing the wire gauge. Please refer to the table showing wire gauge and length. The 12 volt DC circuit must be protected with a maximum fuse size of 25 amps.

DO NOT use the body or chassis of the vehicle as a substitute for either of the two conductors. No other electrical equipment or lighting should be connected to the refrigerator circuit. The refrigerator will draw 18 amps at 12 volts.

Suggested Maximum Wire Length in Feet (m)

AWG	RM4804.006
10	17 (5)
8	27 (8)

CAUTION

The 12 volt DC control circuit must be connected directly to a battery. Connecting the control circuit to an unregulated converter can result in improper operation of the refrigerator. Any repairs to correct the operation or damages to the refrigerator resulting from improper connection of the 12 volt control circuits are NOT covered by Dometic's Warranty.

C. IGNITION LOCK CONNECTION

In order for the refrigerator to perform certain functions, like the 12 volt cooling mode and gas time delay; it must receive a signal from the vehicle ignition system indicating the engine is running and the alternator is charging the auxiliary batteries. The signal wire (16 gauge minimum) should originate at the run terminal of the ignition switch and connect to the ignition lock terminal on the refrigerator's 12 volt DC terminal block. See FIGS. 7, 9 and 10.

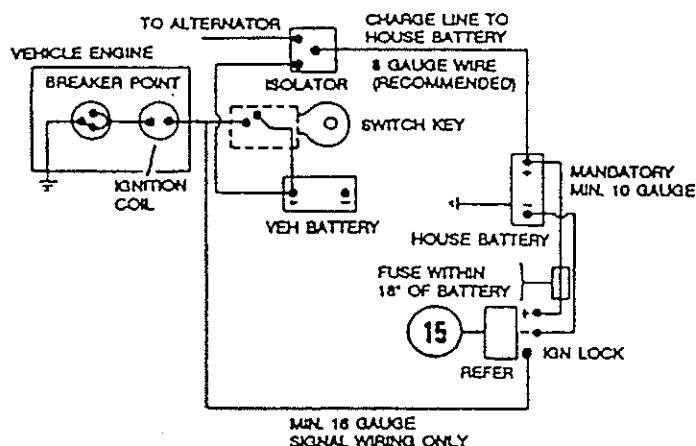


FIG. 9
MOTOR HOME

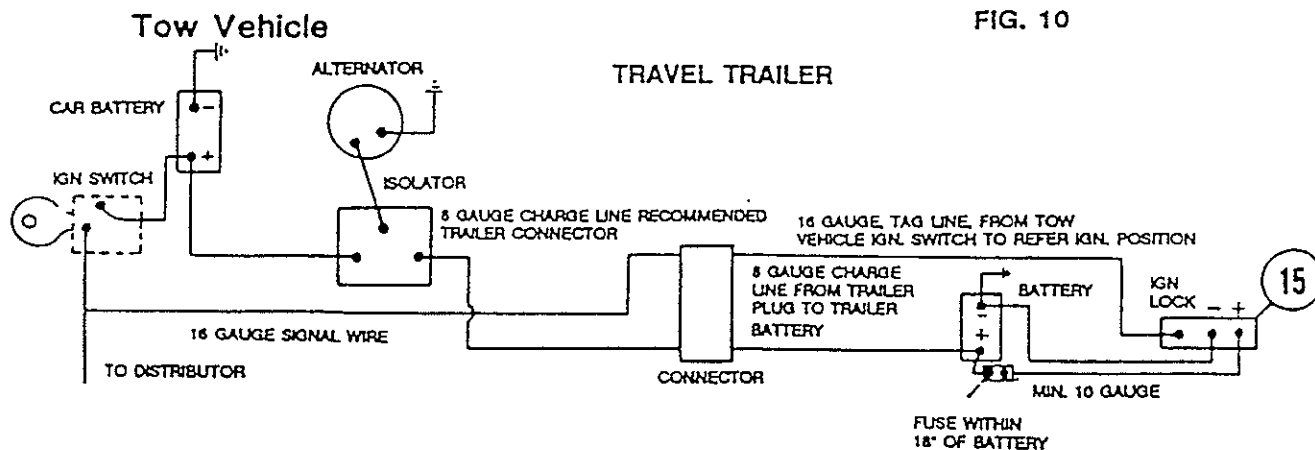
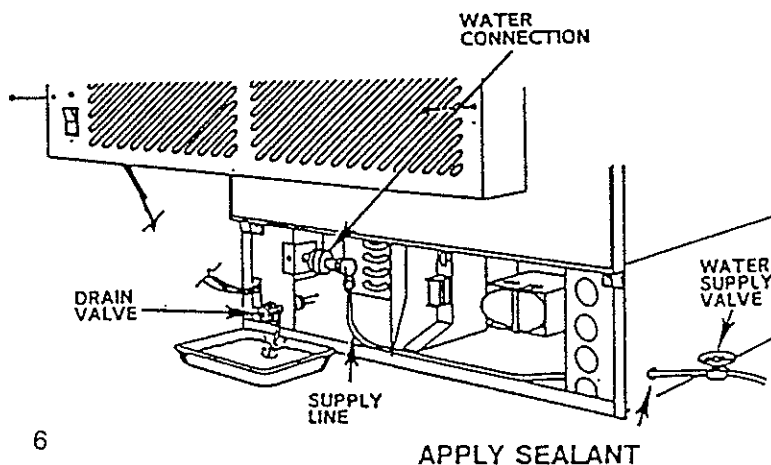


FIG. 10

FIG. 11



11. WATER CONNECTION

The water supply system must have a minimum pressure of 15 psig. A water line 1/4 inch in diameter can be run through a hole on either side and the rear of the refrigerator base and connected to the water valve in the left-front corner of the compressor compartment. The water line must have a manual shut-off valve placed where it is easily accessible. NOTE: A sealant must be applied around the water line where it enters through the compartment wall. (See FIG.11).

12. CHANGING DOOR HINGES FROM ONE SIDE TO THE OTHER

Open the top door and remove the screws holding the top decoration. The screws are accessible from beneath (FIG. 12, Item 1).

Remove the top hinge pin (FIG. 12, Item 2) and lift out the top door. Remove center hinge pin (FIG. 12, Item 3) and lift out lower door.

Unscrew the bottom hinge pin and move it to opposite side of the base. Remove the catches (FIG. 12, Item 3) and move them to the opposite side of box.

Replace the door and hinge pins in opposite order of removal.

Gently pry off the decorative cover plates from the handles. (On new installations, the decorative cover plates are in the parts bag.) (FIG. 12, Item 6). This will expose the screws that secure the handles to the door. Unscrew the handles and refasten them on opposite side of door. Snap the metal cover plate back in position on the door handle. Insert the plastic plugs (from parts bag) into holes left open on the doors.

Check travel latch to make sure it works properly and that the doors close easily. Check the door gaskets for proper seal. Replace the top decoration to complete.

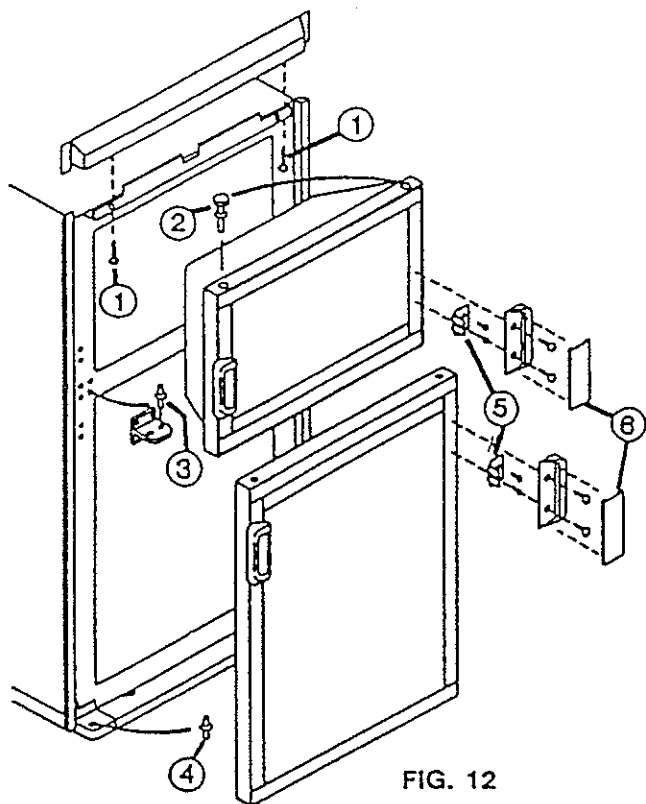


FIG. 12

13. INSTRUCTIONS FOR MOUNTING DOOR PANEL

The refrigerator is normally delivered without the door panels. Before starting the mounting work, check that the panel dimensions are in compliance with those given in the Table on Page 7, and the instructions are read thoroughly. When mounting the panel proceed as follows: (See FIG. 13)

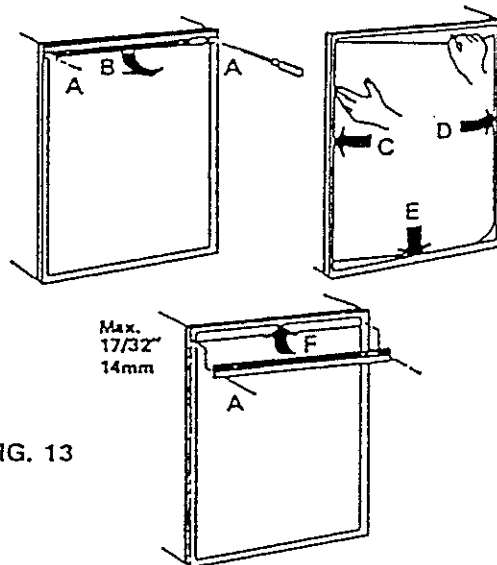


FIG. 13

- Decoration strips are taped inside the lower door when delivered. If they are installed on the door, remove the door decoration strip. (B) with its two screws (A). See FIG. 13.
- Insert a vertical edge of the panel into the groove of the door frame (C).
- Bend the panel gently outward and insert the free side into the opposite groove of the door frame (D).
- Push the panel downward until the lower edge of panel is fitted into the bottom groove (E).
- Place the decoration strip across the door so that the gap is covered and push it upward (F). The tabs on the inside of the strip should fit behind the flange. Replace the two screws (A) to complete the installation.

Panel Dimensions
Thickness Max. 5/32" (4mm)

RM4804.006 Refrigerator		Height		Width	
		Max	Min	Max	Min
upper	mm inch	392 15-7/16	389 15-5/16	544 21-13/32	541 21-19/64
lower	mm inch	911 35-7/8	908 35-3/4	544 21-12/32	541 21-19/64

SECTION B. OPERATING INSTRUCTIONS

1. IMPORTANCE OF LEVELING REFRIGERATOR

In an absorption refrigerant system, ammonia is liquified in the finned condenser coil at the top-rear section of the refrigerator. The liquid ammonia flows into the evaporator (inside freezer section) where it is exposed to a circulating flow of hydrogen gas, which causes the ammonia to evaporate, creating a cold condition in the freezer.

The tubing in the evaporator section is specifically sloped to provide a continuous movement of liquid ammonia downward by gravity through this section. If the refrigerator is operated when it is not level and the vehicle is not moving, liquid ammonia will accumulate in sections of the evaporator tubing. This will slow the

circulation of hydrogen and ammonia gas, or in severe cases, completely block it, resulting in a loss of cooling.

Any time the vehicle is parked for several hours with the refrigerator operating, level the vehicle to prevent this loss of cooling. The vehicle needs to be leveled only so it is comfortable to live in (no noticeable sloping of floors or walls).

When the vehicle is moving, the leveling is not critical as the rolling and pitching motion of the vehicle will pass to either side of level - keeping the liquid ammonia from accumulating in the evaporator tubing.

2. CONTROL PANEL

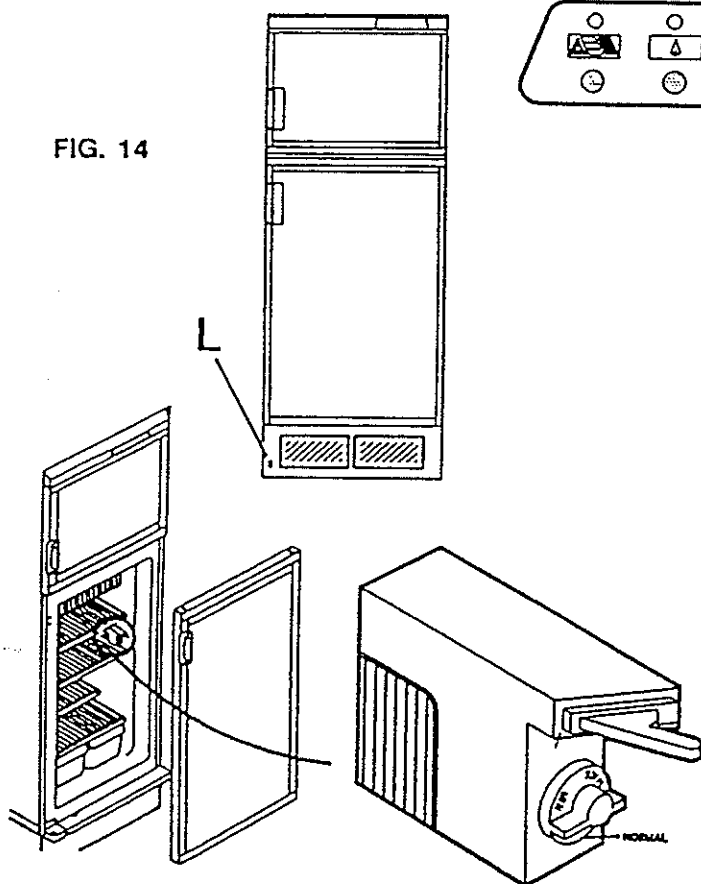


FIG. 14

- A Push button, green indicator - indicates full AES operation
- B Push button, green indicator - indicates LP Gas operation only
- C Push button, green indicator - indicates limited AES operation, 120 V or LP gas
- D Main system switch (ON/OFF)
- E Yellow indicator - indicates 12 volt DC operation mode
- F Yellow indicator - indicates 120 volt AC operation mode
- G Yellow indicator - indicates LP GAS DELAY mode
- H Yellow indicator - indicates LP Gas operation
- J Push button - press to light up indicator E, F, G or H
- K Flame Failure indicator (Red) - indicates flame failure on LP Gas operation
- L Switch for Ice Maker

3. BASIC OPERATION OF THE ABSORPTION SYSTEM

- A. To start the refrigerator, set switch "D" to the ON position. Lamp "A" above push button will turn green.
- B. Turn thermostat knob (FIG. 14) to normal setting (mid-range).
- C. To shut off the refrigerator, turn switch "D" to OFF.

4. GENERAL INFORMATION

This refrigerator is equipped with an Automatic Energy Selector (AES) control system, which can automatically select the most suitable energy source available. The source selection for operation is: first priority 120 volts AC; second priority 12 volts DC; and third priority is LP gas. The system can be set by user to be either fully automatic; AC or LP gas only, or LP gas only.

Before starting the refrigerator, check that all the manual LP gas shut-off valves are in the ON position. DO NOT forget the manual shutoff valve on the rear of the refrigerator. (See FIG. 7).

CAUTION

DO NOT store any combustible materials, gasoline or other flammable vapors or liquids in the refrigerator area.

5. THERMOSTAT

The refrigerator is equipped with a thermostat (FIG. 14) that can be adjusted to maintain various temperatures. Turn the knob clockwise () toward "MAX" for a lower temperature and for a warmer temperature turn the knob counter-clockwise () toward "MIN". Set the thermostat approximately mid-range and adjust it toward "MIN" or "MAX" to obtain the desired cabinet temperature.

6. AES FULLY AUTOMATIC MODE

Turn switch "D" to the ON position. The bulb above push button "A" will light up green indicating the control system is in the fully automatic mode. In this mode 120 volt AC operation has first priority, meaning the refrigerator will operate on 120 volts AC power whenever it is available. If 120 volts AC power is not available and the engine is running, the refrigerator receives a signal voltage on the "IGN LOCK" terminal. The refrigerator will now operate on the 12 volt DC power produced by the vehicle's alternator. If neither 120 volt AC nor 12 volt DC power is available, the AES control will switch to gas operation. See "Section B. Operating Instructions, Item 12. LP Gas Operation".

NOTE: The AES controls will automatically go to the fully automatic mode each time switch "D" is turned on.


7. LP GAS ONLY OPERATION



Turn switch "D" to the ON position and press push button "B". The green lamp over push button "B" will come on and the refrigerator will operate only on LP gas even if 120 volts AC is available. When the vehicle engine is turned OFF, the AES system initiates a 25 minute delay, preventing the refrigerator from operating on LP gas. For more information on the delay, see "Section B. Operating Instructions, Item 13. LP Gas Delay Mode; and Item 14. Flame Failure During LP Gas Operation".



8. 120 VOLT AC & LP GAS ONLY






Turn switch "D" to the ON position and press push button "C". The green lamp over push button "C" will come on and the AES system will select between 120 volt AC and LP gas. First priority is 120 volt AC, which means the control system will select 120 volt AC whenever 120 volts is available.


9. MODE INDICATOR LAMPS

The control panel is equipped with mode indicator lights that will show the user which energy source the refrigerator is using - when push button "J"  (question mark) is pressed. See "Section B. Operating Instructions, Item 2. Control Panel". The four yellow indicator lights are:



 120 Volt DC
 LP Gas

 120 Volt AC
 Delay

If the  lamp "E" lights when push button "J"  (question mark) is pressed, the refrigerator is operating off the 12 volts DC engine alternator power. If the  lamp "F" lights, it indicates the refrigerator is operating on 120 volt AC. If the  lamp "H" lights, the refrigerator is operating on LP gas. If the clock  lamp "G" lights, the AES system is in a delay mode. For further information on the Delay, see "Section B. Operating Instructions, Item 13. LP Gas Delay Mode".


On the far right-hand side of the AES control panel is the flame failure indicator lamp "K" . This indicator lamp will light only when there has been a flame failure in the LP gas operation. For more information, see "Section B. Operating Instructions, Item 14. Flame Failure During LP Gas Operation".

10. 120 VOLTS DC OPERATION


The refrigerator contains an additional heating element for use with 12 volt DC power; however, due to the high amperage draw (18 amps), the refrigerator would operate only a short time from the battery unless the battery is constantly being recharged. The 12 volt DC operation is possible only in the AES mode (Fully Automatic Mode). If the green light is on above push button "B"  or "C" , 12 volt DC operation is not possible. The AES control system receives a signal from the vehicle engine through the "IGN. LOCK". This signal lets the AES control system know that the vehicle alternator is charging the batteries. The AES control system will monitor the supply DC power for one minute and switch to 12 volt DC operation only if 13.6 volts DC is present at the positive (+) and negative (-) terminals on the back of the refrigerator. If 13.6 volts DC is not present, the AES control system will go to gas. When 13.6 volts DC or higher is available at the terminal block, 12 volt DC operation will begin. If the demand on the 12 volt DC system causes the battery voltage to drop below 11.6 volts DC, the AES control system will begin a 25 minute delay. Should the voltage return to 13.6 volts DC during the delay, 12 volt DC operation will return again. If 13.6 volts DC does not return by the end of the 25 minute delay period LP gas operation will start and remain on until the alternator charges the battery back to 13.6 volts DC. If the vehicle ignition is turned off during LP gas operation the burner will go out and a 25 minute delay period will start. For more information, see "Section B. Operating Instructions, Item 13. LP Gas Delay Mode".

The thermostat also controls the temperature inside the food compartment by turning the 12 volt heating element ON and OFF.

11. 120 VOLTS AC OPERATION

Since 120 volt AC operation is usually the most economical source for operation of the refrigerator, the AES control system is designed to select this mode whenever it is available. The only exception to this is when push button "B"  (LP gas only) is selected. The 120 volt heating element attached to the boiler provides the heat necessary to operate the cooling system. The thermostat controls the power ON and OFF to the heating element and maintains the desired temperature.

12. LP GAS OPERATION


LP gas operation of the refrigerator will start if 120 volts AC power or ignition lock signal for 12 volt DC operation is removed from the refrigerator or push button "B"  (LP gas only) has been pressed.

When the thermostat calls for cooling, the following takes place:

- A. A high voltage spark is created above the burner.
- B. Power is sent to a solenoid which opens the gas control, allowing LP gas to flow to the burner. The spark ignites the LP gas and the small flame provides heat for the boiler.
- C. The electrode mounted above the burner tube monitors the flame continuously. If the flame should fail for any reason, the high voltage will start immediately and relight the flame.

13. LP GAS DELAY MODE

When the vehicle is turned off, the AES system initiates a delay cycle which prevents the refrigerator from operating on LP gas for 25 minutes. The purpose of the delay is to avoid having a gas flame burning during a refueling stop at a gas station. See WARNING.

If the vehicle engine is restarted during this delay period, the LP gas operation will not start until the delay period is over. This means each time the vehicle engine is stopped, the complete 25 minute delay cycle will take place. If 120 volt AC becomes available during this delay cycle the AES system will start operation in the 120 volt AC mode immediately, unless the push button "B"  (LP gas only) has been pressed.

If the RV is stopped somewhere other than a gas station, you may wish to cancel the delay cycle. To do this, turn the main system switch "D" to OFF for several seconds; then turn the main system switch "D" back to ON. The system will immediately start operation in the LP gas mode.

WARNING


Most LP gas appliances used in recreational vehicles are vented to the outside of the vehicle. When parked close to a gasoline pump, it is possible that the gasoline fumes could enter this type of appliance and ignite from the burner flame, CAUSING A FIRE OR AN EXPLOSION.

FOR YOUR SAFETY It is recommended that all LP gas appliances which are vented to the outside should be shut off when refueling.

The AES system is designed to turn off the LP flame during refueling stops by the use of the delay cycle explained previously. However, you must remember that the delay cycle will be activated only if the refrigerator is properly connected to the vehicle engine electrical circuit. "See Section A. Installation; Item 10. Electrical connection; Paragraph C. Ignition Lock Connection".

If the refrigerator is not connected to the engine by the ignition lock wiring, the refrigerator must be shut off during refueling. To do this, turn the main system switch "D" to "OFF". Only after the vehicle has been moved away from the refueling area should the main system switch "D" be turned back ON.

14. FLAME FAILURE DURING LP GAS OPERATION



If the LP gas flame fails to ignite when burner cycle begins, or if the flame fails during the burner cycle, the high voltage spark will continue arcing for up to three minutes. At the end of the three minutes the gas control will stop the flow of LP gas to the burner, the sparking will stop and the red indicator lamp  "K" will light up. LP gas operation will not be possible as long as this indicator is on.



The restart LP gas operation, turn the main system switch "D" to OFF for five seconds and then back on. The system will start another cycle for gas ignition.

If the refrigerator has not been used for a long time or the LP tanks have just been refueled, air may be trapped in the supply lines. To purge the air from the lines may require resetting the ON/OFF switch "D" three or four times.

If repeated attempts fail to start the LP gas operation, check to make sure that the LP gas supply tanks are not empty and all manual shut off valves in the lines are open.

If the problem is still not corrected, contact a service center for assistance.

NOTE: If you are in the AES mode, or AC/GAS mode when flame failure light "K"  comes on, the mode indication lamps (green light) will go out. If 120 volt AC or 12 volt DC (AES model only) power becomes available during this period, the mode indication lamp (green light) will come on showing that the refrigerator is operating on another energy source. The red lamp "K"  will remain on until the AES system is reset with an OFF/ON operation of the main switch "D".

If button "B"  (LP gas only) has been pressed and flame failure occurs, the AES controls CAN NOT switch to 120 volt AC or 12 volt DC operation and all cooling will be lost. This fact must be considered when selecting gas only  operation. //

15. LOW VOLTAGE MONITOR ON 12 VOLT CONTROL SYSTEM

The AES system requires 12 volts DC power at all times to operate properly. The DC power must be 9.5 volts DC or higher. If the DC voltage drops below 9.5 volts DC, the AES system will switch to an emergency cooling mode as follows:

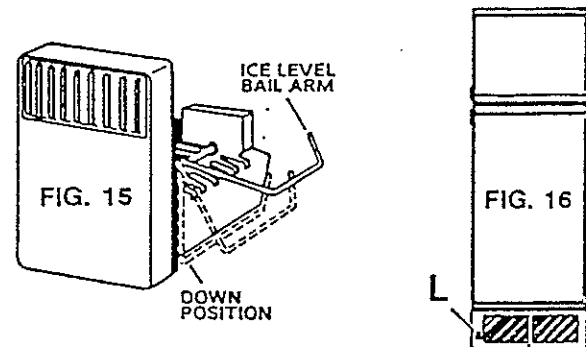
- A. The mode indicator lamp will go off (green light);
- B. The system will revert to continuous LP gas operation, with no thermostat control.

The refrigerator will continue to operate in the emergency mode until the DC power supply is increased to 10.5 volts DC. When 10.5 volts DC is reached the mode indicator light (green) will come back on and normal operation will resume.

During the low voltage condition, the interior light will operate normally.

16. HOW TO OPERATE THE ICE MAKER

The refrigerator has to be connected to 120 volts AC before the ice maker can operate. The water valve supplying the refrigerator must be turned on and the ice level bail arm in the fully down position. See FIGS. 11 and 15.



The switch "L" on the refrigerator lower front panel (see FIG. 16) is turned on, starting the compressor. The compressor operation lowers the temperature in the ice maker compartment. When the ice maker thermostat senses the preset temperature for ejection of the ice cubes, the fingers will start to rotate - dumping any ice cubes and filling the mold with water.

NOTE: IF THE ICE MAKER WAS CLEANED AND DRAINED, NO ICE CUBES WILL BE DUMPED INTO THE STORAGE CONTAINER DURING THE FIRST CYCLE. See "Section B. Operating Instructions, Items D, E and F". The first few cycles may have small cubes due to air trapped in the water lines. The first container of ice cubes should be dumped if the water system has been winterized or not used for several weeks.

When storage container is full of ice, the ice level bail arm can not return to the down position. This will stop further production of ice until the container is emptied and the bail arm is returned to the start position. The compressor will still function and keep the ice maker compartment at the proper temperature for storage of ice.

17. HOW TO ADJUST SIZE OF ICE CUBES

If the ice maker has run through several cycles and the cubes are too small or sticking together, adjustments are necessary on the amount of water entering the mold.

To adjust the amount of water entering the mold, remove the protective cover from the ice maker mechanism. See FIG. 17. To increase the size of the cubes turn the adjusting screw counter-clockwise ↺. To decrease the size of the ice cubes, turn the adjusting screw clockwise ↻. CAUTION: DO NOT turn the screw more than one turn at a time. The ice maker should be allowed to cycle several times before another adjustment is made. Be sure to replace protective cover on the cycle after adjustments have been made.

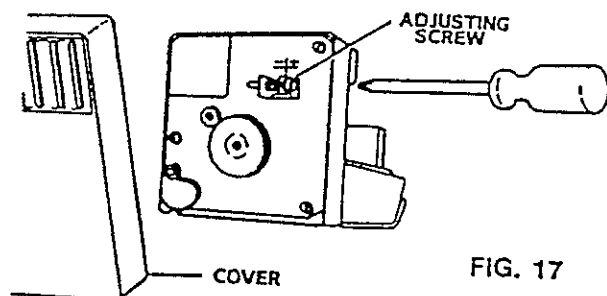


FIG. 17

18. HOW TO USE THE REFRIGERATOR

CAUTION

DO NOT STORE ANY COMBUSTIBLE MATERIALS, GASOLINE OR OTHER FLAMMABLE VAPORS OR LIQUID IN THE REFRIGERATOR AREA.

A. FOOD STORAGE COMPARTMENT

The food storage compartment is completely closed and unventilated, which is necessary to maintain the required low temperature for food storage. Consequently, foods having a strong odor or foods liable to absorb odors should be covered. Vegetables, salads, etc., should be covered to retain their crispness. The coldest positions in the refrigerator are underneath the cooling evaporator and at the bottom of the refrigerator. The least cold positions are on the upper door shelves. This should be considered when different types of food are placed in the refrigerator.

When the refrigerator is heavily loaded, it will take a longer time to lower the temperature; therefore, to get maximum efficiency, the refrigerator and the food items should be pre-cooled prior to loading. It is essential that the shelves not be covered with paper or plastic so air may freely circulate within food storage area.

B. FROZEN FOOD STORAGE COMPARTMENT

Quick frozen soft fruits and ice cream should be placed in the coldest part of the compartment which is at the bottom of the aluminum liner or, in models with a shelf, on or just below the shelf. Frozen vegetables on the other hand may be stored in any part of the compartment.

This compartment is not designed for the deep, quick freezing of food. Meat or fresh foods, whether raw or prepared, can, however, also be stored in the frozen food storage compartment provided they are pre-cooled in the refrigerator. They can be stored about three times as long as in the fresh food storage compartment. To prevent food from drying out, keep it in covered dishes, containers, plastic bags or wrapped in aluminum foil.

If you want to use this ice maker compressor for pre-loading frozen food without starting the absorption refrigerator, start the compressor as described in "Section B. Operating Instructions. Item 16. How to Operate the Ice Maker". The ice level bail arm is raised to the OFF or up position (see FIG. 15). When the ice maker compartment temperature has dropped sufficiently, pre-frozen food can be placed inside the ice maker compartment.

If you want to rapidly cool the entire refrigerator, both the absorption and ice maker systems are started together.

To prevent water from splashing out of the ice maker while traveling, raise the ice maker bail arm to the up position (see FIG. 15) about 1 1/2 hours before departing. This will allow any water in the mold to freeze.

Ice making is accelerated if the thermostat is set to MAX ↻. It is a good idea to do this a few hours before an anticipated need for ice. Be sure to turn the knob back to the normal setting when ice is formed or the food in the lower cabinet may be frozen.

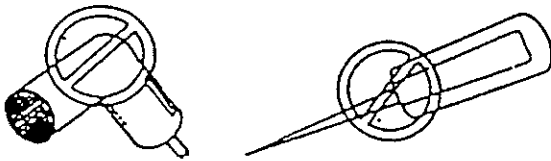
C. DEFROSTING THE REFRIGERATOR

Shut off the refrigerator by setting switches "D" and "L" to OFF. This will stop the operation of both the absorption and compressor cooling system.

Empty the refrigerator, leaving the drip tray under the finned evaporator and the cabinet and freezer doors open. If desired, defrosting can be speeded up by filling ice bucket with hot water and placing it on the freezer shelf.

CAUTION

DO NOT USE A HOT AIR BLOWER OR SHARP INSTRUMENT AS PERMANENT DAMAGE COULD RESULT.



When all the frost is melted, empty the drip tray and dry the interior of the refrigerator and freezer with a clean cloth.

Replace drip tray and ice tray. Replace all food and set thermostat to MAX for a few hours. Then reset to its normal position.

NOTE: An evaporator cup is placed on the rear side of the refrigerator. If normal evaporation does not dissipate the accumulated condensation, empty the cup. DO NOT allow it to overflow.

D. CLEANING

To clean the interior lining of the refrigerator, use lukewarm, weak soda solution. The ice maker, the evaporator and shelves must, however, be cleaned with warm water only. NEVER use strong chemicals or abrasives to clean these parts or the protective surfaces will be damaged. It is important to always keep the refrigerator clean.

E. WHEN REFRIGERATOR IS NOT BEING USED

To shut off the refrigerator, set switches "D" and "L" to the OFF position. If the refrigerator will not be in operation for a period of weeks, it should be emptied, cleaned and the doors left ajar. The handle of the travel latch is designed to keep the refrigerator doors open slightly to allow air to circulate and prevent odors and mildew from forming. The doors can be secured in the vented position by pushing the square button "A" (FIG. 18) until the notch seizes the catch "B" (FIG. 18). To release the door, simply pull the handle.

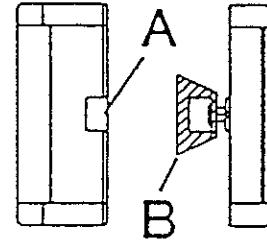


FIG. 18

The ice maker mold cavity should be dried to prevent water from turning stale. The water to the ice maker should be shut off at the water supply valve. (FIG. 11).

F. HOW TO DRAIN THE ICE MAKER

If the RV is left unheated during the winter or put into storage, drain and dry the ice maker to prevent damage from freezing of water lines and valves. This will also prevent water from becoming stale and producing bad tasting ice.

To drain the ice maker, remove the lower front cover by removing the two screws holding it in place. Close the water supply valve in the supply line to be sure no water can enter the ice maker. Place a pan under the drain valve to catch the water (FIG. 11). Open the drain valve a few turns to allow the water to drain out. Dry the mold cavities with a clean cloth.

G. CAUTION: NO WATER ON CONTROLS

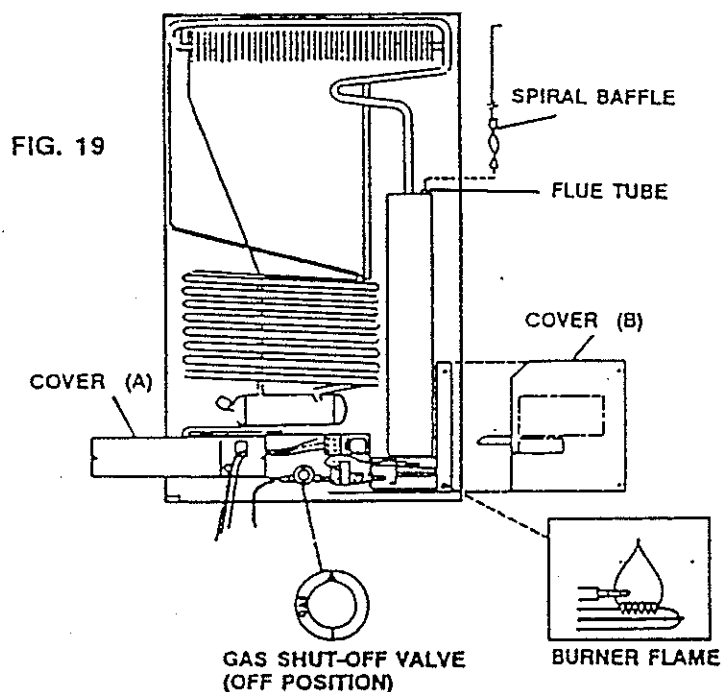
When washing your RV, avoid spraying water through the refrigerator vents. Moisture on the electronic control circuits can cause improper operation and may damage the printed circuits.

SECTION C: MAINTENANCE AND SERVICE

1. PERIODIC MAINTENANCE

To keep your Dometic refrigerator operating efficiently and safely, periodic inspection and cleaning of several components is recommended once or twice a year.

- A. Check all connections in the LP gas system (at the back of the refrigerator) for gas leaks. Remove cover (A) and cover (B) from the back of the refrigerator (see FIG. 19). Apply a non-corrosive commercial leak detector solution to all LP gas connections. **DO NOT USE A FLAME TO CHECK FOR LEAKS.**
- B. Check the burner flame for proper appearance. The flame should be light blue, with no yellow at the tip. (See FIG. 19).



- C. Keep the area at the back of the refrigerator clear. Check the lower vent, upper vent, and the area between these openings for any obstructions such as bird nests, spider webs, etc.

In addition to the above, the following maintenance should be performed once or twice a year by a qualified serviceman who is familiar with LP gas systems and refrigerators.

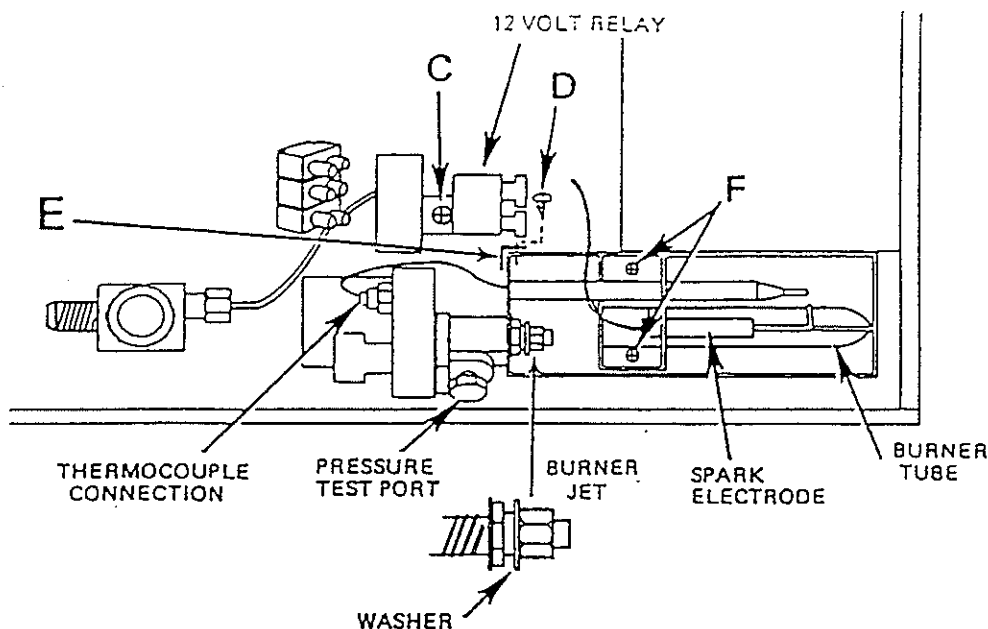
D. CHECK GAS PRESSURE

The LP gas pressure should be checked, and the LP pressure regulator re-adjusted if necessary. The correct operating pressure is 11 inches water column. The pressure reading must be taken at the pressure test port located next to the gas control solenoid. (See FIG. 20).

E. CLEANING FLUE TUBE AND BURNER JET

1. Unplug the 120 volt cord from the wall outlet.
2. Shut off the 12 volt supply to the refrigerator.
NOTE: Do not remove the fuse mounted on cover (A), as this will not shut off the 12 volt power supply.
3. Turn the gas shut-off valve to the OFF position. See FIG. 19.
4. Remove metal cover (A) and cover (B). See FIG. 19. Cover (A) needs to be moved out only far enough to expose the thermocouple connection.
5. Remove screw (C) which attaches the 12 volt relay and move the relay out from the refrigerator. Do not remove the relay or disconnect its wiring. See FIG. 20.
6. Disconnect the thermocouple connection and remove screw (D) and clip (E). See FIG. 20. Remove thermocouple by pulling it left, then outward.

FIG. 20



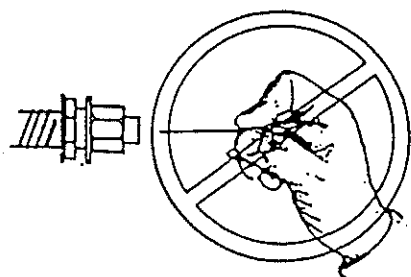
7. Disconnect the electrode wire from the spark electrode. Remove the two burner mounting screws (F), and remove the burner assembly. See FIG. 20.

8. Remove the flue cap from the top of the flue tube, and lift out the wire and spiral baffle. See FIG. 19. Clean the flue from the top, using a flue brush. Replace the spiral baffle and flue cap.

Alternate Method: On some installations the top of the flue tube cannot be reached for cleaning. In this case, the flue tube can be cleaned by blowing compressed air into the bottom to loosen any scale or soot.

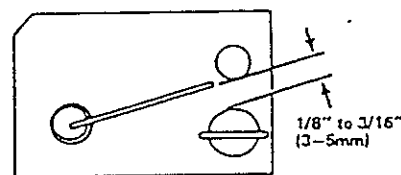
9. Remove all loose scale or soot from the area below the flue tube, then remove the burner jet. DO NOT lose the small washer. See FIG. 20. Clean the burner jet by soaking in wood alcohol and blowing out with compressed air, then re-installing the jet and washer.

CAUTION: DO NOT use a wire or pin when cleaning the burner jet, as the precision opening could be damaged, affecting the flow of gas. This could cause damage to the refrigerator, or create a fire hazard.



10. Clean the burner tube and check the electrode setting. See FIG. 21 for the correct setting. Install the burner assembly and attach the electrode wire. Make sure the electrode setting is not disturbed.

FIG. 21



11. Install the thermocouple and screw (D) and clip (E). Tighten the thermocouple connection finger-tight plus 1/4 turn. DO NOT OVERTIGHTEN.

12. Attach the 12 volt relay and install cover (A).

13. Turn gas shutoff valve to the "ON" position, and restore the 12 volt power supply to the refrigerator.

14. Check all LP connections for gas leaks, using a non-corrosive commercial leak detector solution. DO NOT USE A FLAME TO CHECK FOR LEAKS.

15. Set the refrigerator thermostat to the coldest position and check for proper operation. Turn the gas shut-off valve off and on several times and make sure the spark is lighting the burner each time.

16. Plug in the 120 volt cord to the wall outlet. If the vehicle is connected to 120 volt AC power, the burner should shut off at this time, indicating that the refrigerator is now operating in the 120 volt AC mode.

17. Install cover (A).

F. TESTING LP GAS SAFETY SHUT-OFF

This test was covered previously in *Section A. Installation, Item 9. Testing LP Gas Safety Shut-off.*

2. SERVICE

TROUBLESHOOTING GUIDE

The following list of possible causes is given as a guide for the serviceman when troubleshooting some common problems that may occur.

1. Refrigerator Does Not Cool Properly-All modes:
 - a. Refrigerator not level
 - b. Thermostat set too warm
 - c. Air circulation at rear of refrigerator restricted
 - d. Evaporator coil in freezer coated with frost
 - e. Air circulation in food compartment blocked (compartment too full)
 - f. Excessive heat load, because of:
 - Food too warm when put in refrigerator
 - Refrigerator not pre-cooled before adding food
 - Doors opened too much
 - g. 12 volt control circuit connected to AC/DC converter output, causing erratic operation.
2. Refrigerator Does Not Cool Properly - Electric Modes:
 - a. Voltage drop to heating element (undersized wire or loose connection)
 - b. Defective heating element
 - c. Defective 12 volt relay (12 volt operation only)

3. Refrigerator Does Not Cool Properly - LP gas mode
 - a. Low gas pressure - minimum 11 inches water column
 - b. Burner jet restricted
 - c. Burner head plugged or damaged
 - d. Burner not located under center of flue tube
 - e. Spiral flue baffle not in flue tube
 - f. Flue tube needs cleaning
4. Ice Maker Fails - Does Not Make Ice
 - a. Check fuses or breaker supplying 120 volts AC to refrigerator and check that RV is connected to power.
 - b. Ice maker switch is turned on.
 - c. Ice level bail arm is in down position
 - d. Water supply valve is turned on
 - e. Ice has not jammed