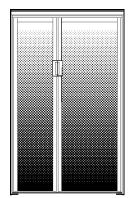
# **Dometic**®

RECORD THIS INFORMATION BEFORE INSTALLING THE		EFERENCE
Model No.		Serial No.
Date Purchased	Place of Purchase	





## **MODEL RM7030**

**Automatic Energy Selector** REFRIGERATOR FOR LP/GAS AND ELECTRIC OPERATION

**USA** 

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

SERVICE OFFICE

#### **CANADA**

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





#### FOR YOUR SAFETY

If you smell gas:

- 1. Shut off gas supply at main valve.
- 2. Open windows.
- 3. Don't touch electrical switches.
- 4. Extinguish any open flame.
- 5. Immediately call your gas supplier.

#### FOR YOUR SAFETY

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

#### 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.

#### **AVIS**

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

## **INSTALLATION & OPERATING INSTRUCTIONS**

Form No. 3106367.000 1/95 The Dometic Corp. LaGrange, IN 46761 © 1995 The Dometic Corporation

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# REFRIGERATOR MODEL **RM7030**

Product No. 9218904

**IMPORTANT INSTRUCTIONS** READCAREFULLY

### 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 design certified by A.G.A. under ANSI Z21.19 Refrigerator Standard for installation in a mobile home or recreational vehicle and are approved by the Canadian Gas Association.

The certifications 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-(latest edition)
- 2. Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280
- 3. Recreational Vehicles ANSI A119.2-(latest edition).

The unit must be electrically grounded in accordance with the National Electric Code ANSI/NFPA 70-(latest edition) when installed if an external alternating current electrical source is utilized.

4. Any applicable local code.

#### In Canada, the installation must conform with:

- 1. Current CGA B 149 Gas Installation Codes
- 2. Current CSA Standard Z 240.4 GAS-EQUIPPED REC-REATIONAL VEHICLES AND MOBILE HOUSING
- 3. Any applicable local code

The unit must be electrically grounded in accordance with the CANADIAN ELECTRICAL CODE C 22 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 fresh air intake and one upper exhaust vent. The ventilation kits shown in this instruction manual have been certified for use with the refrigerator model listed in the Table. For "Certified Vent System Kits" see Section B. The ventilation kits must be installed and used without modification. An opening toward the outside at floor level in the refrigerator compartment must be provided for ventilation of heavier-than-air fuel gases. The lower vent of the recommended kits is provided with proper size openings. The flow of combustion and ventilation air must not be obstructed.

The lower side vent is fitted with a panel which provides an adequate access opening for ready serviceability of the burner and control manifold of the refrigerator. This should be centered on the back of the refrigerator.

#### 3. CERTIFIED INSTALLATION

Certified installations require one roof vent and one lower side vent.

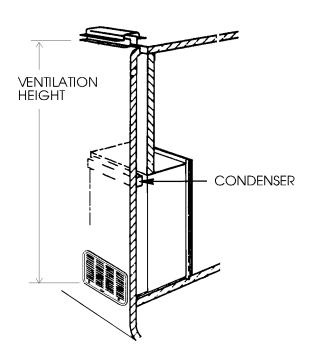
For certified vent system kits, see Section B.
For further information, contact your dealer or distributor.

#### 4. METHOD OF INSTALLATION

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

NOTE: The upper vent should be centered over the condenser coil at the back of the refrigerator.

FIG. 1



### **5. VENTILATION HEIGHTS**

Refer to FIG 1., Page 2

Installation with roof vent and lower side vent	Minimum Ventilation heights in:			
REFRIGERATOR	INCHES	ММ		
RM7030	65	1651		

#### **LOWER VENT CUTOUT**



NOTE: RADIUS CAN BE +1/4"-0" HEIGHT AND WIDTH ± 1/8"

### 6. CLEARANCES

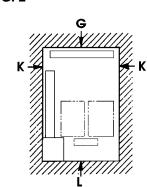
Minimum clearances in inches to combustible materials are:

G: Top 0"
K: Side 0"
L: Bottom 0"
M: Rear 1"
N: 65"

NOTE: Clearance "M" is between the rearmost part of the refrigerator and the wall behind the refrigerator.

NOTE: Clearance "N" is the distance between the bottom of the lower vent to the roof material. For ventilation height, refer to Section A. Installation, Item 5. Ventilation Heights. See FIG. 2.

FIG. 2



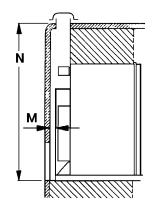
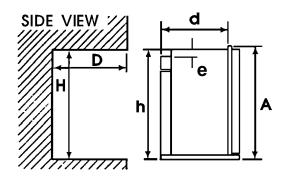
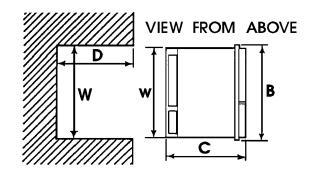


FIG. 3





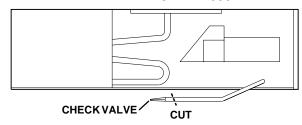
Refrigerator Model	or Overall Dimensions		Installation Dimensions		Recess Dimensions			Distance between top of condenser		
RM7030	Height A	Width B	Depth C	Height h	Width w	Depth d	Height H	Width W	Depth D	and top of refrigera- tor e
(Inches	58-3/4	33-1/2	23-5/8	57-1/8	32-3/8	22-5/8	57-3/8	32-7/8	23-5/8	1-1/8
(mm)	1492	850	600	1450	822	574	1258	544	612	29

## 7. INSTALLING REFRIGERATOR IN ENCLOSURE

**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.

FREEZER DRAIN HOLE: A 3/4" hole must be drilled through flooring "L" (FIG. 2). The installer MUST make sure that the hose does not kink when run through the floor. Seal around the hose that goes through the drilled hole. If a longer hose than supplied is required to get the water to drain outside of the vehicle, follow the additional instructions shown below. Either option is acceptable.

#### **REAR VIEW OF RM7030**



#### **OPTION A:**

- 1. Remove black water check valve from hose.
- 2. Add additional hose.
- 3. Reinstall black water check valve.

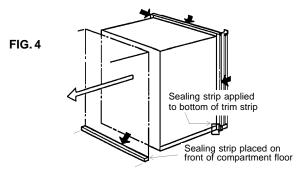
#### **OPTION B:**

- 1. Cut drain tube at location shown above.
- 2. Install new drain tube between pieces cut.

NOTE: Black water check valve must be reinstalled to ensure proper freezer operation. Do not kink hose.

**INSTALLATION**: The refrigerator must be installed in a substantial enclosure and must be level. When installing the refrigerator in the enclosure, all areas within the recess in which the refrigerator is installed must be sealed.

Make sure that 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. Also apply a sealing strip to the foremost floor of the enclosure and apply a second sealing strip to the bottom of the trim strip on the front base as shown in FIG. 4. The sealing should provide a complete isolation of the appliance's combustion system from the vehicle interior.



**NOTE:** Be careful not to damage the sealing strip applied to the floor of the enclosure when the refrigerator is put in place. The refrigerator is secured in the enclosure with six screws and they must be installed in the following order:

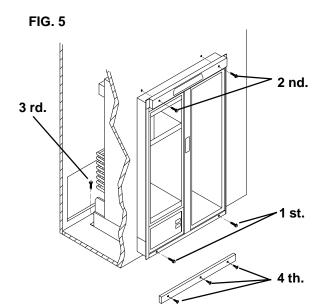
First Two Screws installed on front base;

Second Two Screws installed in the top frame;

Third Two Screws installed in the rear base.

**Fourth** - The refrigerator is provided with a lower front strip (shipped as a loose part). The front strip is to be attached after the refrigerator is set into the cutout opening and secured with 3 screws (FIG. 5).

Failure to follow the sequence in securing refrigerator in enclosure can cause leakage between the frame and cabinet. The plastic caps are snapped in the decoration strip to cover the screw heads. Any space between the top and sides of the refrigerator and its enclosure must be blocked. The heat produced at the rear of the refrigerator will become trapped in this space, making the top and sides of the refrigerator hot and reduce the efficiency of the refrigerator. The dimensions shown in FIG. 3 will give you adequate space for service and proper installation.



#### 8. GAS CONNECTION

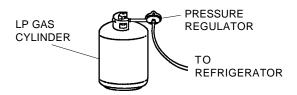
Hook up to the gas supply line is accomplished at the manual gas shutoff valve, which is furnished with a 3/8" SAE (UNF 5/8"-18) male flare connection. A back-up wrench must be used when tightening the gas supply line. All completed connections should be checked for leaks with a noncorrosive leak detector. (See FIG. 6 – Gas Shut-Off Valve may have a different orientation than shown).



## WARNING

DO NOT USE A FLAME TO CHECK FOR GAS LEAKS.

The gas supply system must incorporate a pressure regulator to maintain a supply pressure of not more than 13-1/2 inches water column, (static) no load.



When testing the gas supply system at test pressures in excess of 1/2 psig, the refrigerator and its individual shutoff valve must be disconnected from the gas supply piping system.

When testing the gas supply system at pressures less than or equal to 1/2 psig, the appliance must be isolated from the gas supply piping by closing its individual manual shutoff valve.

In case detailed instructions on the installation and connection to the gas supply are required, contact your dealer or distributor.

# 9.TESTING LP GAS SAFETY SHUTOFF

The gas safety shutoff must be tested after the refrigerator is connected to LP gas supply.

#### To test the gas safety shutoff, proceed as follows:

- A. Start the refrigerator according to the instructions, and switch to gas mode. See "Section C. Operation Instructions."
- B. Check that the gas flame is lit and the gas mode indicator lamp (C) is on. See FIG. 9.
- C. Close the manual shutoff valve at the back of the refrigerator. (See FIG. 6)
- D. Wait for one minute. The check indicator lamp (D) should now be lit and the gas mode indicator lamp should be off.

- E. Remove cover (see FIG. 6) and open the manual gas valve. Apply a noncorrosive commercial bubble solution to burner jet (see FIG. 6).
- F. No bubbles should appear at the opening of the burner jet. The presence of bubbles indicates a defective gas safety shutoff, and service is required.
- G. If no bubbles were present at the burner jet, the gas safety valve is working properly. Rinse jet thoroughly with fresh water before proceeding. Be careful not to damage burner jet. Replace cover and turn the main switch OFF and back ON. (See "Section C. Operation Instructions, Item 2. Control Panel"). Normal operation of the burner should return. Allow the burner to operate for a minimum of 5 minutes.

#### WARNING

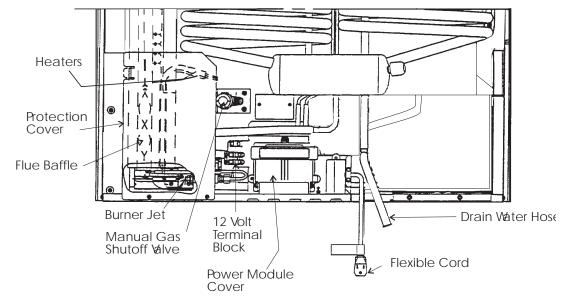
DO NOT use a flame to check for leaks.



# 10. 120 VOLT AC ELECTRICAL CONNECTION

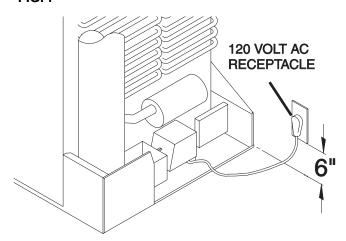
The refrigerator is equipped with a three-prong (grounded) plug for protection against shock hazards, and should be plugged directly into a properly grounded three-prong receptacle. DO NOT cut or remove the grounding prong from this

FIG. 6



plug. The free length of the cord is 2 feet and therefore recommended that the receptacle be located to the right side of the refrigerator (viewed from the rear) and approximately 6 inches from the floor (see FIG. 7). This allows easy access through the vent door. The cord should be routed to avoid direct contact with the burner cover, flue cover or any other components that could damage the cord insulation.

FIG. 7



### 11. 12 VOLT DC CONNECTION

This refrigerator model is not designed for 12 volt DC operation of the cooling system; however, 12 volt DC must be supplied to the refrigerator to operate the controls. Use a minimum of a 14 gauge wire between the battery and refrigerator to supply the control voltage. The connection is made to the positive (+) and negative (-) terminals of the terminal block on back of refrigerator (See FIG. 6). The 12 volt DC supply circuit must be fused, and the maximum fuse size is 5 amps.

DO NOT use the body or chassis of the vehicle as a substitute for either of the two conductors. Do not connect any other electrical equipment of lighting to the refrigerator circuit.

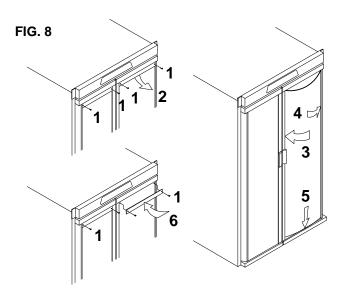
#### CAUTION

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.

# 12.INSTRUCTION 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. 8).

NOTE: If raised door panels are going to be used, be



sure the consumer can properly operate the door handles.

#### **REFRIGERATOR DOOR:**

- A. On new refrigerators, the decoration strips are taped inside the door. If installed on the door, remove the door decoration strip (2) by removing its two screws (1).
- B. Insert one vertical edge into the groove of the door frame (3).
- C. Bend the panel gently so that the free side of the panel can be slipped into the corresponding groove of the door frame (4). Slide the panel down into the groove of the bottom frame (5).
- D. Between the upper edge of the panel and door frame there is a gap which should be covered by the decoration strip.
- E. Put the decoration strip across the door so that the gap is covered and push it upward (6). The tabs on the inside of the strip should fit behind the flange of the door frame. Secure the decoration strip with the two screws removed in Step A.

#### FREEZER DOOR ONLY:

If the above instructions will not work on freezer door, use the following instructions:

- A. Remove two screws under control panel (one on each side near the hinges).
- B. Remove freezer door hinge pin.
- C. Remove freezer door.
- D. Remove two screws in BOTTOM of freezer door.
- E. Remove BOTTOM strip of freezer door.

F. Slide door panel into BOTTOM of freezer door, making sure it slides into top groove.

Reverse Steps A through E to replace door. Install decoration strip (FIG. 8, Step 2).

NOTE: Do not overtighten screws.

PANEL DIMENSIONS MAX. THICKNESS 5/32" (4 mm)						
Refr. Model	HE	IGHT	WIDTH			
RM7030	MAX.	MIN.	MAX.	MIN.		
Frozen Food Comp.	54-23/32 (1390)	54-19/32 (1387)	10-13/16 (275)	10-11/16 (272)		
Fresh Food Comp.	54-23/32 (1390)	54-19/32 (1387)	17-3/16 (437)	17-1/16 (434)		

# 13. ICE MAKER, FACTORY INSTALLED (If so Equipped)

See Section E. Page 13, ICE MAKER INSTRUCTIONS

### SECTION B. CERTIFIED VENT SYSTEM KITS

REFRIGERATOR MODEL	KIT NO.	COMPONENTS	PART NO.
RM7030	5A	ROOF BASE ROOF COVER LOWER SIDE VENT	3103633.XXX * 3103634.XXX * 3103847.004
	POWER VENT (Island/through floor)	POWER VENT ASM. ROOF BASE ROOF COVER	3104131.002 ** 3103633.XXX* 3103634.XXX*

<sup>\*</sup> Fill in "XXX" with color code numbers. For color codes, contact your supplier.

## SECTION C. OPERATING INSTRUCTIONS

## 1. IMPORTANCE OF LEVELING A REFRIGERATOR

In an absorption refrigerator system, ammonia is liquefied in the finned condenser coil at the top of the refrigerator. The liquid ammonia then flows into the evaporator (inside the freezer section) and 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,

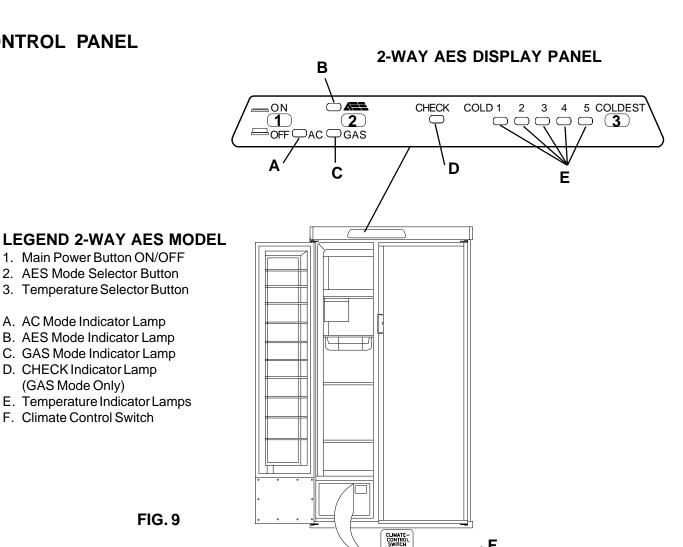
liquid ammonia will accumulate in sections of the evaporator tubing. This will slow the circulation of hydrogen and ammonia gas, or in severe cases, completely block it, resulting in a loss of cooling.

Any time the vehicle is parked for several hours with the refrigerator operating, the vehicle should be leveled to prevent this loss of cooling. The vehicle needs to be leveled only so it is <u>comfortable to live in</u> (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.

<sup>\*\*</sup> Alternate instructions forwarded with the Vent Kit for island installations.

#### 2. CONTROL PANEL



#### FIG. 9

#### 3. OPERATING INSTRUCTIONS

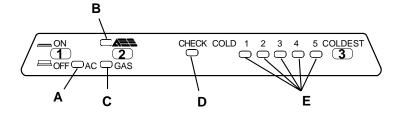
1. Main Power Button ON/OFF 2. AES Mode Selector Button 3. Temperature Selector Button

A. AC Mode Indicator Lamp B. AES Mode Indicator Lamp C. GAS Mode Indicator Lamp D. CHECK Indicator Lamp (GAS Mode Only)

E. Temperature Indicator Lamps F. Climate Control Switch

- A. A 12 volt DC supply must be available for the electronic control to function.
- B. Press the main power ON/OFF button (1) to the DOWN position.
- C. Press the TEMPERATURE SELECTOR BUTTON (3) 2-Way Model, until the lamp at the desired setting is illuminated.

#### 2-WAY AES DISPLAY PANEL



#### D. AES MODE

- 1. Move the AES/GAS mode selector button (2) to the DOWN position. (If 120 volts AC is available, the AC mode indicator lamp (A) will illuminate indicating AC operation. If 120 volts AC is not available, the GAS mode indicator lamp (C) will illuminate and the control system will automatically switch to GAS operation.
- 2. If the CHECK indicator lamp (D) illuminates and the GAS mode indicator lamp (C) is off, the controls have failed to ignite the burner in the GAS mode. GAS operation may be reset by pressing the main power ON/OFF button (1) to the OFF then ON position. (See Step 2, under GAS MODE).
- 3. Press the TEMPERATURE SELECTOR button (3) until the lamp at the desired position is illuminated.
- 4. When operating in the AES mode, the AES mode indicator lamp (B) will illuminate. The control system will automatically select between AC and GAS operation with AC having Priority over GAS. Either the AC indicator lamp (A) or the GAS indicator lamp (C) will illuminate depending on the energy source selected by the control system. If the control system is operating with AC energy

and it then becomes unavailable, the system will automatically switch to GAS. As soon as AC becomes available again the control will switch back to AC regardless of the status of GAS operation.

#### **E. GAS MODE**

- Move the AES/GAS mode selector button (2) to the UP position. The GAS mode indicator lamp (C) will illuminate. After 45 seconds the burner should be ignited and operating normally.
- On the initial refrigerator start-up, it may take longer than 45 seconds to allow air to be purged from the gas line. If the gas does not ignite within 45 seconds the CHECK indicator lamp (D) will illuminate and the GAS mode indicator lamp (C) will go off. To reset when the CHECK indicator lamp (D) is illuminated, press the main power ON/OFF button (1) to the OFF then ON position.

If the control is switched to AC operation while the CHECK indicator lamp is on, it will function properly, but the CHECK indicator lamp will not go off until the main power ON/OFF button is pressed to the OFF then ON position.

NOTE: Do not continue to reset GAS operation if the CHECK indicator lamp continues to be illuminated after several tries. 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 shutoff valves in the lines are open. If the problem is still not corrected, contact a service center for assistance.

3. Press the TEMPERATURE SELECTOR button (3) until the lamp at the desired position is illuminated.

### ! 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, when refueling, shut off all LP gas appliances which are vented to the outside.

The refrigerator must be shut off during refueling. To do this, turn the main power button (1) to "OFF". Only after the vehicle has been moved away from the refueling area should the main power button (1) be turned back "ON".

#### F. THERMOSTAT

The thermostat on the refrigerator controls both the gas and electric operation, thereby eliminating the necessity of resetting each time a different energy source is employed.

After the initial start-up, the thermostat should be moved

from "COLDEST" to the desired temperature setting, usually about mid-setting.

#### **G. STANDBY MODE OF OPERATION**

This control system contains a feature where it will continue to operate the cooling system in the event of a failure of a major operating component. Two different modes of operation can occur in this category.

If for some reason the display module becomes nonfunctional, the control system will revert to fully automatic operation - selecting the best energy source available with AC and GAS priority. The temperature of the refrigerator will be maintained at the MID position within normal temperature tolerances. The power module will continually attempt to reestablish operation of the display module.

The second standby mode of operation will execute when a failure of the temperature sensing device or associated electronic circuitry occurs. If this should occur, the control system will operate on the energy source selected via the control panel. The cooling unit will run continuously on the selected energy source. The refrigerator will continue to operate in this mode indefinitely or until a new sensor is installed and the system is reset.

#### H. TO SHUT OFF THE REFRIGERATOR

The refrigerator may be shut off while in any mode of operation by pressing the main power ON/OFF button to the UP (OFF) position. This shuts off all DC power to the refrigerator.

## 4. HOW TO USE THE REFRIGERATOR 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 those that absorb odors easily should be covered. Vegetables, salads, etc. should be covered to retain their crispness. The coldest positions in the refrigerator are under the cooling fins and at the bottom of the refrigerator. The warmer areas are on the upper door shelves. This should be considered when placing different types of food in the refrigerator.

## B. FROZEN FOOD STORAGE COMPARTMENT

Quick frozen soft fruits and ice cream should be placed in the coldest part of the compartment, which is on the top freezer shelf. Frozen vegetables may be stored in any part of the compartment.

This compartment is not designed for deep or quick freezing of food. Meat or fish, whether raw or prepared, can be stored in the frozen food storage compartment provided they are precooled first in the refrigerator. They can be stored about three times longer in the frozen food compartment as compared to the fresh food compartment. To prevent food

from drying out, keep it in covered dishes, containers, plastic bags or wrapped in aluminum foil.

#### C. ICE MAKING

Ice cubes can be made in the ice tray placed in the freezer compartment. The tray should be filled with water to within 1/4" (5mm) from the top. For faster ice making, the tray should be placed in direct contact with the freezer shelf.

To release the ice cubes, seize the tray with both hands and twist the tray. Cubes not required should be replaced in the tray. Refill the tray with water and replace the tray on the freezer shelf.

Ice will be made more rapidly if the thermostat is set at its highest position. It is a good idea to do this a few hours before the anticipated need for ice, but be sure to move the thermostat back to normal setting, usually about midsetting, when ice is formed. Food in the lower compartment may be frozen if the setting is left on "COLDEST" position.

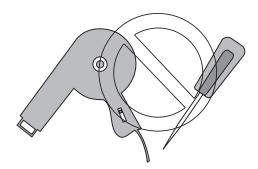
#### D. DEFROSTING

Shut off the refrigerator by pressing the main power ON/OFF button to the UP (OFF) position. Empty the refrigerator, leaving the drip tray under the finned evaporator, and the cabinet and freezer door open. Defrosting time can be reduced by filling the ice bucket with hot water and place it in the freezer.

#### **CAUTION**

<u>DO NOT</u> use a hot air blower. Permanent damage could result from warping the metal or plastic parts. DO NOT use a knife or an ice pick, or other sharp tools to remove frost from the freezer shelf. They can create a leak in the ammonia system.

When all frost is melted, dry the interior of the refrigerator and



freezer with a clean cloth. Replace all food and set thermostat to the COLDEST temperature setting for a few hours. Then reset the thermostat to the desired setting, usually at mid-setting.

#### E. CLEANING

Cleaning the refrigerator is usually done after it is defrosted or put into storage. To clean the interior liner of the refrigerator, use lukewarm weak soda solution. Use only warm water to clean the finned evaporator, ice trays and shelves. **NEVER** use strong chemicals or abrasives to clean these parts as the protective surfaces will be damaged. It is important to always keep the refrigerator clean.

#### F. SHUT-OFF (STORAGE PROCEDURE)

Shut off the refrigerator by pressing the main power ON/OFF button to the UP (OFF) position.

If the refrigerator will not be in operation for a period of weeks, it should be emptied, defrosted, cleaned and the doors left ajar. The ice tray should also be dried and kept outside the cabinet.

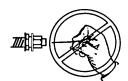
#### **MAINTENANCE:**

NOTE: The following maintenance is required once or twice a year, but should only be done by a qualified serviceman who is familiar with LP gas systems and refrigerators.

- A. The LP gas pressure should be checked and the main regulator readjusted if pressure is incorrect. The correct operating pressure is 11 inches of water column. The correct place to take the LP gas pressure is at the test port just ahead of the burner jet. (See FIG. 10).
- B. Inspect the flue baffle. It should be reasonably clean and free of soot. Heavy soot formation indicates improper functioning of the burner. The flue and burner both require cleaning in the following manner:
  - 1) Unplug the refrigerator power cord from the 120 volt AC outlet (see FIG. 7).
  - Disconnect or shut off the 12 volt power to the refrigerator.
  - 3) Turn manual shutoff valve to OFF. (See FIG. 7 & 10).
  - 4) Remove cover from the burner housing. (See FIG. 7).
  - 5) Disconnect the wire from the high voltage electrode.
  - 6) Remove the burner mounting screws and remove the burner assembly.
  - 7) Remove the flue cap from top of flue tube and lift out the wire and spiral baffle. Clean the flue from the top using a flue brush. Blowing compressed air into the flue will not properly clean soot and scale out of the flue tube. Replace spiral baffle and flue cap.
  - 8) Clean burner tube with a brush. Blow out burner with compressed air.
  - 9) Before removing burner jet, clean burner area of soot and scale that fell out of flue tube. Remove the burner jet. Soak the jet in wood alcohol and allow it to air dry. Reinstall and tighten burner jet.

### ! WARNING

DO NOT use a wire or pin when cleaning the burner jet as damage can occur to the precision opening. This can cause damage to the refrigerator or create a fire hazard.



- 10) Reinstall burner, being careful that the end of the burner fits into the slot on the burner bracket. Check to make sure slots are centered under the flue tube and the thermocouple is positioned properly (tip of thermocouple extends over two slots of burner).
- 11) Be sure to reconnect the wire to high voltage electrode. Check the electrode for proper location and gap. (See FIG. 11).

#### **G. CLIMATE CONTROL**

During the summer months of high temperatures and humidity, the metal frame between the freezer and fresh food compartments may have water droplets forming. The number of water droplets will increase if the vehicle isn't air conditioned during these months.



(3-5 mm)

- 13) Connect 120 volt power cord to the outlet and reconnect or turn on the 12 volt DC power.
- 14) Check LP gas safety shutoff. See Section A. Installation, Item 9. Testing LP Gas Safety Shutoff.

This refrigerator comes standard with a 12 volt (DC) climate control that will evaporate the water droplets when they form.

To have this climate control on, you position the switch (See "F", Fig. 9) located behind freezer door on the panel under the freezer to ON. The climate control can be left on continuously or only used when temperatures require it.

NOTE: The climate control will draw 12 volts DC power continuously when in the ON position. It should be turned OFF when a charging source is not available.

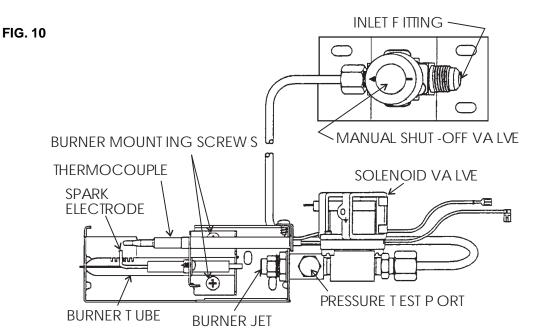
### ! WARNING

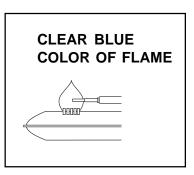
Most LP gas appliances used in recreational vehicles are vented to the outside of the vehicle. When parked close to a gasoline pump, it is possible that the gasoline fumes could enter this type of appliance and ignite from the burner flame, CAUSING A FIRE OR AN EXPLOSION.

FOR YOUR SAFETY, when refueling, shut off all LP gas appliances which are vented to the outside.

12) Turn on manual gas shutoff valve and check all fittings for leaks.

### GAS EQUIPMENT ASSEMBLY





## **SECTION D. MAINTENANCE & SERVICE**

### TIPS FOR THE SERVICE TECHNICIAN

The User should be aware of service that must be done on a regular schedule to keep the refrigerator operating properly. The service should only be performed by a qualified technician.

#### 1. REFRIGERATOR REMOVAL

Before working on the refrigerator, make sure the AC voltage and DC voltage leads are disconnected. Shut off the gas supply. Disconnect the gas supply line. Cap the gas supply line, loosen the screws anchoring the refrigerator to the enclosure and slide the refrigerator out of the compartment.

Replacement is the reverse of removal. Check all connections for gas leaks. Refer to *Section A, Item 1 to 13 of Installation Instructions*.

#### 2. PERIODIC MAINTENANCE

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

A. It is important to keep the area at the back of the refrigerator clean. Check the lower vent, upper vent and area between these openings for any obstructions such as bird/insect nests, spider webs, etc. Clean the coils on the back of the refrigerator. Use a soft bristled brush to dust off the coils.

It is important to keep the refrigerator area free from combustible material, gasoline and other flammable vapors or liquids.

## NOTE: AVOID SPRAYING WATER THROUGH THE REFRIGERATOR VENTS WHILE WASHING YOUR RV.

B. Check all connections in the LP gas system (at the back of the refrigerator) for gas leaks. The LP gas supply must be turned on. Apply a noncorrosive bubble solution to all LP gas connections. The appearance of bubbles indicates a leak and should be repaired immediately by a QUALIFIED SERVICEMAN WHO IS FAMILIAR WITH LP GAS SYSTEMS AND REFRIGERATORS.

## ! WARNING

#### DO NOT USE A FLAME TO CHECK FOR GAS LEAKS.



C. Check the AES control system by connecting/disconnecting 120 volt AC power, start/stop the engine, etc. Compare the operation with the operation described in *Section C. Operation Instructions*.

#### F. FUSES

The 2-way AES model is equipped with 2 fuses, one for the refrigerator control system and one for the AC cartridge heater. (See Table below).

To replace fuse(s) proceed as follows:

- 1. Disconnect the wall plug, and the 12 volt wires.
- 2. Remove the power module cover. See FIG. 6.
- 3. Snap the fuse out of the fuse holder.
- 4. Fit a new fuse in to the fuse holder.
- 5. Replace the power module cover.

Control System	3-amp
AC Heater	5-amp

#### 3. TROUBLESHOOTING

### **Refrigerator Does Not Cool Properly**

A. Burner jet clogged.

Clean. See Section D. Maintenance & Service, Item 1. Periodic Maintenance, Paragraph E. Item 19.

- B. Check level of refrigerator.
- C. Venting problem.

Restriction in air flow across cooling unit.

- D. Heavy frost buildup on evaporator fins.
   Defrost.
- E. Flue baffle not inserted properly in flue tube.
- F. Improperly set thermostat. See Section C. Operating Instructions, Item 4. Paragraph F.
- G. Burner dirty.

Clean. See Section D. Maintenance & Service, Item 1. Periodic Maintenance, Paragraph E.8.

H. LP gas pressure low at burner.

Set main regulator so pressure does not drop below 11 inches water column at pressure tap.

- I. Burner not located properly under flue tube. Relocate.
- J. Burner damaged.

Replace.

- K. Odors and fumes.
  - 1. Dislocated burner
  - 2. Damagedburner
  - 3. Dirty flue tube
- L. FUSES
  - 1. Refrigerator AC Supply
  - 2. Refrigerator DC Supply
  - 3. Control system. See Section D. Maintenance & Service, Item 2. Paragraph F.

Contact an authorized service center for parts and repairs as needed.

## SECTION E. ICE MAKER OPERATING INSTRUCTIONS

All installations, adjustments and repair of the Ice Maker must be done by a qualified technician.

#### 1. WATER CONNECTION

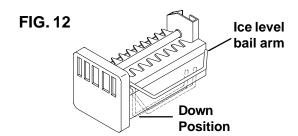
The water supply system must have a minimum pressure of 15 psig and maximum pressure of 100 PSI. A water line 1/4 inch in diameter shall be used to the water valve connection at the rear of the refrigerator. The water line must have a manual shutoff valve placed where it is easily accessible, and connected to only the cold water supply.

#### 2. 120 VOLT AC ELECTRICAL CONNECTION

The ice maker is equipped with a three-prong (grounded) plug for protection against shock hazards, and should be plugged directly into a properly grounded three-prong receptacle. DO NOT cut or remove the grounding prongfrom this plug. The free length of the cord is 2 feet and therefore recommended that the receptacle be located to the right side of the refrigerator (viewed from the rear) and approximately 6 inches from the floor. This allows easy access through the vent door. The cord should be routed to avoid direct contact with the burner cover, flue cover or any other components that could damage the cord insulation.

#### 3. HOW TO OPERATE THE ICE MAKER

The refrigerator must be allowed to precool properly before starting the ice maker. The refrigerator has to be connected to 120 volts AC before the ice maker can operate. The water line manual shutoff valve must be open. To start the ice making, move the ice level bail arm to down position, see FIG. 12. To shut off the ice making, move the ice level bail arm to fully up position, see FIG. 12.



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.

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 return to the start position.

The absorption system will keep the compartment at the proper temperature for storage of ice. Ice making is accelerated if the temperature is set to the coldest position. It is a good idea to do this a few hours before an anticipated need for ice.

NOTE: IFTHEICE MAKER WAS CLEANED AND DRAINED, NO ICE CUBES WILL BE DUMPED INTO THE STORAGE

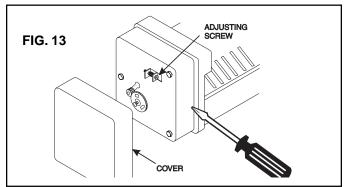
#### CONTAINER DURING THE FIRST CYCLE.

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.

#### 4. HOW TO ADJUST SIZE OF ICE CUBES

If the ice maker has run through several cycles and the cubes are to small or sticking together, adjustments is 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. 13).

To increase the size of the cubes turn the adjusting screw counterclockwise. 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.

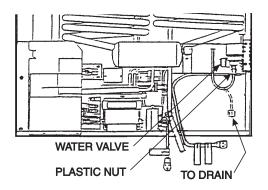
**5.** If you plan to put the RV into winter storage or continue its use in temperatures below 32°F/0°C without the use of heat strip/tape (on the refrigerator water solenoid valve and its outlet tube), the ice maker should be drained to prevent component damage and leaks.

CAUTION: The heat strip/tape must be approved for use on polyethylene tubing rated at 100 PSI max. at 70°F., maximum temperature 125°F.

Follow these steps:

- 1. Shut off water supply valve to ice maker.
- 2. Place a shallow pan under water solenoid valve.
- 3. Remove inlet fitting to ice maker water solenoid valve. Drain water from the supply line.
- 4. Remove the plastic nut and water line from outlet side of water solenoid valve. Drain water from the line.
- Cycle ice maker several times while blowing compressed air through water solenoid valve. Be sure all water is out of the solenoid.
- Reconnect and tighten lines on water solenoid valve. Leave the water supply turned off until temperatures are above 32°F/ 0°C.
- Dry out ice maker mold assembly with soft cloth. Place bail arm in UP/OFF position.

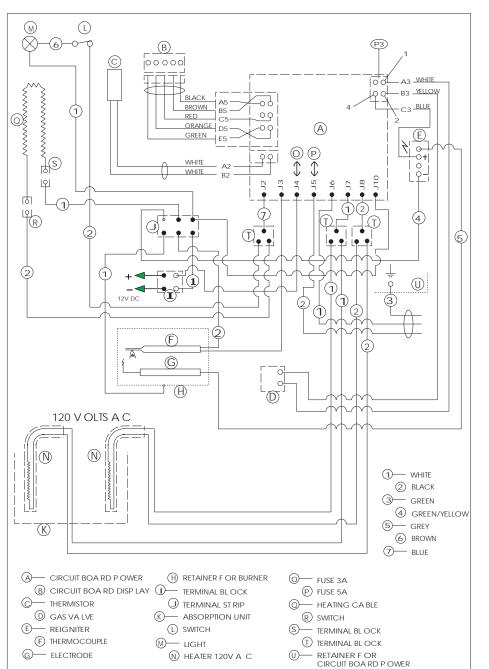
# FOR POSSIBLE ALTERNATE METHODS OF WINTERIZ-ING, CONSULTTHE OWNER'S AND OPERATOR MANUAL FOR THE RECREATIONAL VEHICLE WATER SYSTEM.

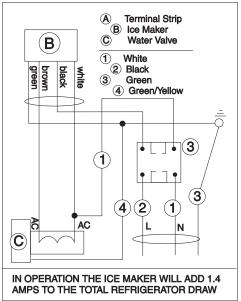


## 6. TROUBLESHOOTING (Ice Maker Fails-Does Not Make Ice)

- A. Check fuses or breaker supplying 120 volts AC to refrigerator and check that RV is connected to power.
- B. Check that ice level bail arm is in "down" position.
- C. Check that the water line manual shutoff valve is open.
- D. Check that ice has not jammed the level bail arm.

## WIRING DIAGRAM FOR ICE MAKER





WIRING DIAGRAM