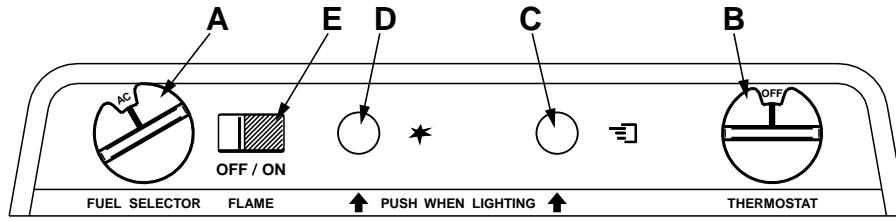


# OPERATING INSTRUCTIONS



## IMPORTANCE OF LEVELING A REFRIGERATOR

In an absorption refrigerator system, ammonia is liquefied in the finned condenser coil at the top rear 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.

When starting this refrigerator for the very first time, the cooling cycle may require up to four hours of running time before the cooling unit is fully operational.

The tubing in the evaporator section is specifically sloped to provide a continuous movement of liquid ammonia, flowing 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 comfortable to live in (no noticeable sloping of floor or walls).

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

## LP GAS OPERATION

Before starting the refrigerator, check that all the manual gas valves are in the ON position. DO NOT forget the manual shutoff valve on the rear of the refrigerator see FIG. 1.

1. To start the refrigerator, turn knob A to the "GAS" position.
2. Turn the thermostat knob B to position 4.
3. Push the button C in until it reaches the bottom - and hold, push the button D for the piezo igniter several times to light the burner. This can be observed on the flame indicator E. When the flame is on, the red indicator is in the green field, (ON).
4. After the gas is lit keep the button C pressed for 10 seconds. Release the button and check that the RED indicator is in the GREEN field, (ON).
5. To shut off the refrigerator turn the knob A to "OFF" position.

**NOTE:** After changing an LP tank, or after a long shut-off period, the gas line is likely to be filled with air. You may have to repeat the lighting procedure several times to purge the air out of the gas lines.

## ! WARNING

**DO NOT OPERATE THE REFRIGERATOR ON LP GAS WHILST TRAVELLING**

## 230-240 V OPERATION

Before operating the refrigerator, check that the voltage stated on the data plate is the same as main voltage in use.

1. Check to be sure that the power cord is properly connected to the power supply. (See FIG. 9).
2. Turn the knob A to position marked "AC" for 230-240 volt AC operation.
3. Turn the thermostat knob B to position 4.
4. To shut off the refrigerator turn the knob A to "OFF" position.

## 12 V OPERATION

Only operate your refrigerator on 12V when the engine of the vehicle is running - otherwise your battery will soon be discharged.

1. Turn the knob A to the position marked "DC" for 12 volts operation.
2. **Note:** there is no thermostat function on 12 V DC operation, the refrigerator works continuously.
3. To shut off the refrigerator turn the knob A to "OFF" position.

## REGULATING THE TEMPERATURE

The refrigerator is equipped with a thermostat that can be adjusted by turning the knob B to different setting to maintain the desired cabinet temperature.

**At OFF** In gas operation, the thermostat closes its main valve and the burner runs continuously at the bypass rate, just enough to keep the burner lit. In electrical operation, the contacts in the thermostat are open and the heating elements are off.

**At MAX** In gas operation, the thermostat allows the burner to remain on high flame continuously. In electric operation, the heating element is "ON" continuously. Lowest cabinet and freezer temperatures are obtained at this setting.

The thermostat can be adjusted between “MAX” and “OFF” to obtain the desired cabinet temperature.

The closer the knob is to “MAX” - the colder the cabinet temperature. The closer the knob is to “OFF” - the warmer the cabinet temperature.

When the thermostat reaches the set temperature, it will cut the burner back to bypass or, in electric operation, (230-240 V AC) shut off the heating element.

The setting of the thermostat is not critical, but we recommend it be adjust to maintain a dry frost on the cooling fins. Adjust the thermostat knob closer to “MAX” when the outside temperature becomes warm.

## HOW TO USE THE REFRIGERATOR

### 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.

### 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. 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 aluminium foil.

Ice cubes can be made in the freezer compartment. For faster ice making, the trays should be placed in direct contact with the bottom of the freezer compartment.

Ice making is accelerated if the thermostat knob B is turned to the “MAX” setting.

It is a good idea to do this a few hours before the anticipated need for ice, but be sure to turn the thermostat back to the normal setting when the ice is formed.

Food in the lower compartment may be frozen if the thermostat is left on “MAX”.

### DEFROSTING

Shut off the refrigerator by turning the knob A to “OFF” position. Empty the refrigerator, leaving the drip tray under the finned evaporator, and the cabinet and freezer doors open. Defrosting time can be reduced by filling the ice trays with hot water and placing them in the freezer compartment.

**NOTE:** Defrost water runs from the drip tray to a receptacle at the rear of the refrigerator where it normally evaporates. (See FIG. 1).

With a lot of defrost water as a result of heavy frosts build up on the cooling fins, move the plastic drain tube into a water tight bucket or container, (access through louvered service panel on the outside of the vehicle).

When all frost has melted, wipe up the excess moisture and empty the accumulated water from the bucket. Replace the drain tube to its original position.

Dry the interior of the refrigerator with a clean cloth. Replace all food and set the thermostat to “MAX” for a few hours, then reset the thermostat to its normal position.

### ! CAUTION

**DO NOT 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 compartment. They can create a leak in the ammonia system.**

### CLEANING THE REFRIGERATOR

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, gasket, ice tray 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.**

### SHUT- OFF (STORAGE PROCEDURE)

To shut off the refrigerator, turn the knob A to “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 trays should also be dried and kept outside the cabinet.

### ! WARNING

**DO NOT store explosive substances in the refrigerator, such as cigarette lighter gas, gasoline, ether or the like.**

**NOTE:** Sodium chromate is used for corrosion protection (less than 2 weight % of the coolant).

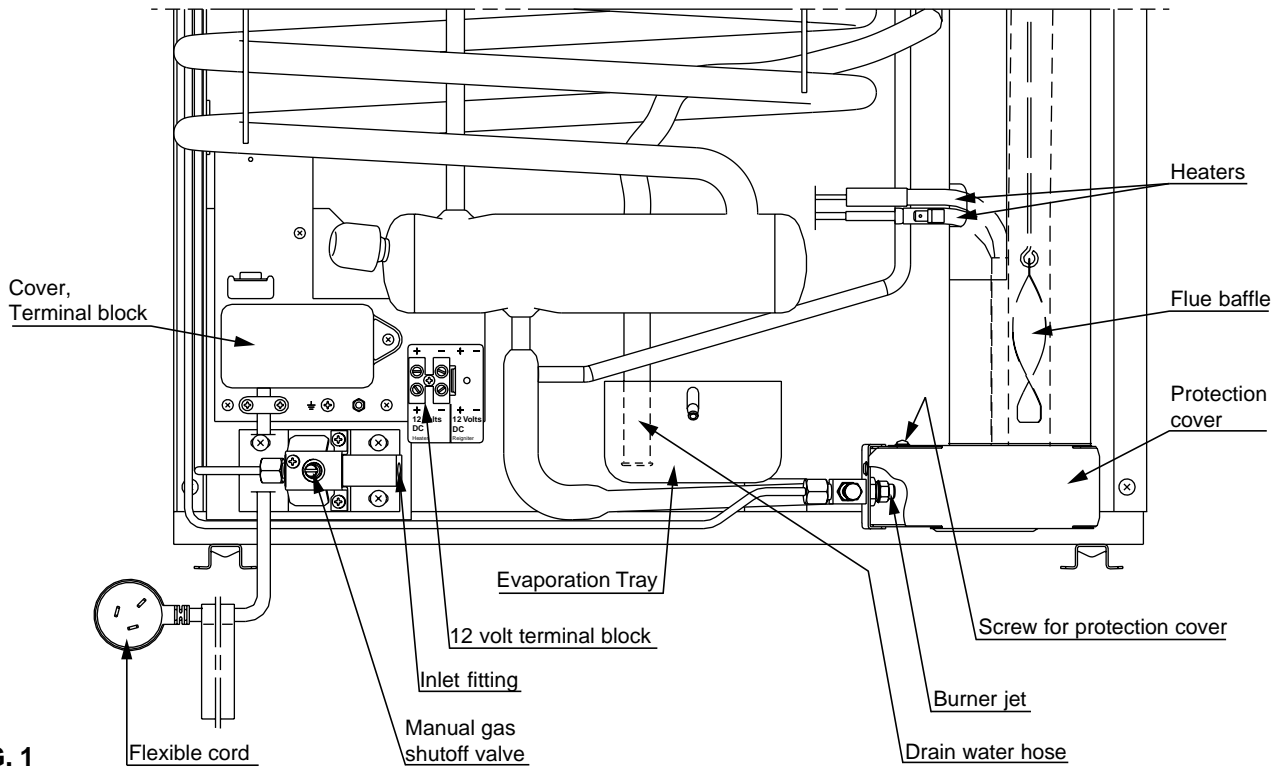
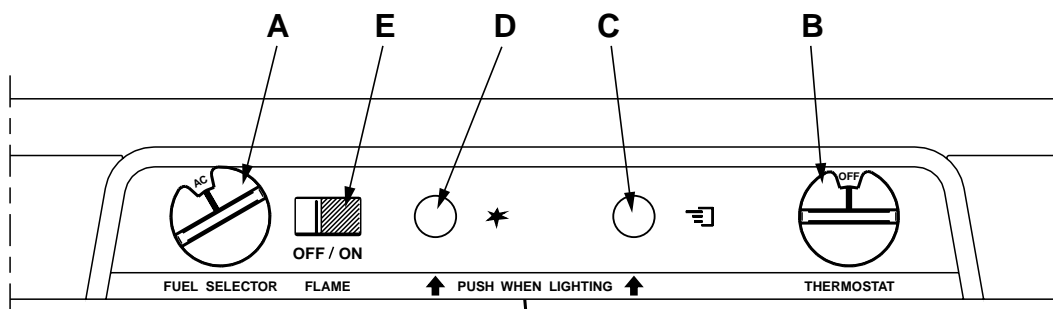


FIG. 1

### Refrigerator control panel



### LEGEND

- A. ON/OFF, Fuel Selector Switch
- B. Thermostat Knob, Gas/Electric
- C. Flame Failure Safety Valve Push-button
- D. Piezo Igniter
- E. Flame Indicator

FIG. 2

