

# Amana<sup>®</sup> 2 PLUS 2 1/2<sup>®</sup>

## Stor-Mor<sup>®</sup> Refrigerator Use & Care Manual

*The Heritage of* **Amana<sup>®</sup>**

*An American Tradition*

In 1854 a group of God-fearing people of West German, Swiss and Alsatian ancestry left New York State and founded the seven villages of Amana in the fertile fields of Iowa. They established their own woolen mills, wagon shops, furniture factory and other industries. Each member contributed some particular skill handed down from father to son in true old-world tradition.

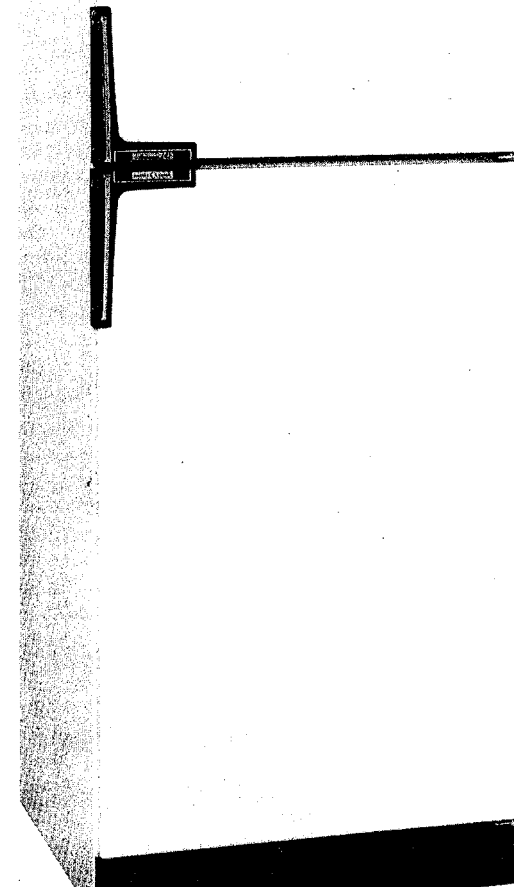
The excellence of the Amana products soon attracted the attention of the outside world and the colonies enjoyed a national reputation for superb workmanship. In all America there is no other community quite like the Amana colonies in Iowa. Here today are blended the new ways with the old . . . 20th century efficiency and time honored, fine craftsmanship.

Amana pioneered in low temperature refrigeration; and Amana Refrigeration Inc., continues to be a leading manufacturer of a quality line of microwave ovens, refrigerators, freezers, room air conditioners, electric ranges and cooktops, trash compactors, and central cooling and heating products. Every Amana product reflects the heritage of technical skill, integrity, pride of workmanship and high quality standards.

**Amana<sup>®</sup>**

*Backed by a Century Old Tradition  
of Fine Craftsmanship*

Model TM-14 Q TM18Q  
TM16 Q TM20Q



# WELCOME TO THE AMANA FAMILY

Record in the space below the information found on the nameplate of your refrigerator. The nameplate is located in the upper left hand corner of the refrigerator section. Also, please retain a copy of your sales receipt for future reference should warranty service be needed.

Serial No. \_\_\_\_\_

Model No. \_\_\_\_\_

Manufacturing No. \_\_\_\_\_

Date of Purchase \_\_\_\_\_

Selling Dealer \_\_\_\_\_

Your purchase of an Amana refrigerator/freezer—a household appliance known for its quality and reliability—is sincerely appreciated by Amana Refrigeration, Inc. Your total satisfaction with this new product is extremely important to us, and this Use and Care Manual will aid you in understanding the operation of your new appliance.

Each product is thoroughly tested and checked at the factory. Once in your home, you may want to make a few simple adjustments of control settings, etc. to tailor your new unit to your own individual requirements. These adjustments are easily made following the instructions in this manual.

Should your new unit ever require service, certain product information will aid in obtaining service faster! For your convenience and protection, please record this information in the box at left and retain this booklet for future reference.

The Registration Card in the packet with the manual should be filled out and returned to Amana Refrigeration, Inc.

## WARNING

**Electrical Grounding Instructions**—This appliance is equipped with a three-prong (grounding) plug for your protection against possible shock hazards. Where a two-prong wall receptacle is encountered, it is the personal responsibility and obligation of the customer to contact a qualified electrician and have it replaced with a properly grounded three-prong wall receptacle in accordance with the National Electrical Code (see figure.) Unit is designed to operate on a separate 120 volt, 15 amp., 60 cycle line.



**DO NOT UNDER ANY CIRCUMSTANCES CUT OR REMOVE THE ROUND GROUNDING PRONG FROM THE PLUG. THE UNIT MUST BE GROUNDED AT ALL TIMES. DO NOT REMOVE WARNING TAG FROM THE SERVICE CORD.**

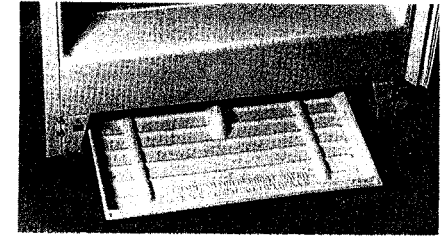
**DO NOT USE A TWO-PRONG ADAPTER.  
DO NOT USE AN EXTENSION CORD.**

## CONTENTS

	PAGE
Electrical Warning .....	1
Unpacking, Placement, Leveling .....	2
Setting the Controls .....	3-4
General Features .....	5
Refrigerator Features .....	5-6
Freezer Features .....	6
Other Features .....	7
Sounds .....	8
Care and Cleaning .....	8-9
Save Energy .....	9
Before Calling for Service .....	10

## UNPACKING

Remove all tape and packing material. To remove tape residue, touch a portion of the tape to the residue and lift it off. If the wood base is still attached, tilt the unit onto its back, placing a sturdy support underneath. Remove the mounting bolts from the base and discard bolts and wood base.



With the unit upright, pull the grill from the bottom front and make sure the Condensate Pan is located underneath the defrost water drain tube. The tube extends from the back wall of the cabinet. During automatic defrosting, water drains through this tube into the pan. Heat from the coil under the pan evaporates the water.

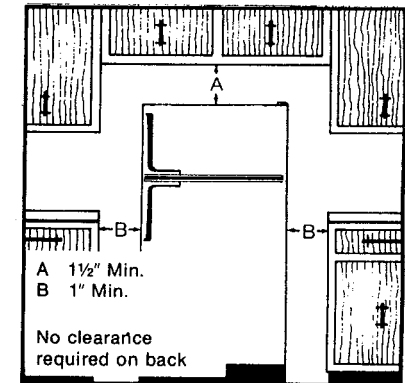
Remove all tape and packing material from inside the unit. Make sure the shelf support is in place between the crisper drawers.

## PLACEMENT AND LEVELING

Install the unit on a solid floor that is strong enough to support the combined weight of the unit and the food.

**The unit must be free-standing. DO NOT BUILD IT IN!** You must leave ample air circulation space for maximum operating efficiency. The energy saving radiant shell condenser in the cabinet releases heat from food inside the unit to the outside air, without the need for a fan motor used in some "no frost" refrigerators. It is normal for the cabinet sides, back and top to feel warm. This is the heat being transferred to the outside. It is warmest when the compressor is operating.

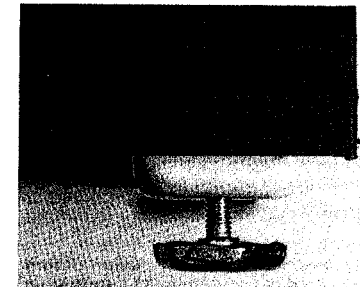
Locate the unit away from direct source of heat. Allow at least 1½" between the top of the unit and overhead cabinets. Allow at least 1" between each side of the unit and wall, countertop or another appliance. The back of the unit does not require minimum clearance and may be pushed against the wall. If installing next to a wall, allow at least 2" of clearance space on the hinge side of the unit so the doors can be opened 90°.



The unit must be level to insure complete door closings and proper ice making. Improper leveling can cause water spills and uneven ice cubes.

Four leveling feet are shipped taped to a refrigerator shelf. They must be threaded into the corner holes under the unit.

Level from side to side with a slight downward tilt from front to back. This allows the doors to close firmly. The feet must rest firmly on the floor. If the floor is uneven, shim under one of the rear feet. Adjust the front

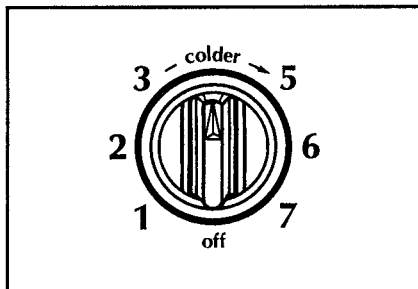


## SETTING THE CONTROLS

### • Freezer Control

This is the main control. If it is turned off, the entire unit will not operate. The control has seven settings, from "1" (the warmest) to "7" (the coldest). Start by setting the dial between "3" and "4". Allow 24 hours for freezer to cool after unit is installed.

The best temperature for frozen food storage is in the 0° to +2°F. range. Check food temperature as instructed on the next page. Adjust the control as needed, one number at a time.



### MAXIMUM RECOMMENDED FREEZER STORAGE TIMES

The times shown are approximate. It is better to store foods for shorter periods and replenish more often as needed.

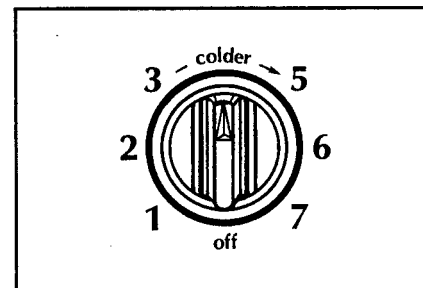
PRODUCT	MONTHS-APPROXIMATE
Beef	12 months
Lamb	8-10 months
Mutton	
Pork, fresh	
Veal	6-8 months
Poultry	
Lean Fish	
Game	
Ground meat	
Sausage, unseasoned	
Shellfish	4-6 months
Variety meats	
Fatty fish	
Bacon, Slab	2-4 months
Ham	
Sausage, Seasoned	

PRODUCT	MONTHS-APPROXIMATE
Bacon, sliced	1-1½ months
Fruits	10-12 months
Vegetables	
Eggs	6-8 months
Butter	4-5 months
Cheese	
Cream	2-4 months
Ice Cream	1-1½ months
Milk, homogenized	½-1 month
Baked Products	2-6 months
Unbaked Products	2 months
Prepared dishes (stews, casseroles, etc.)	4-6 months

### • Sensi-matic® Refrigerator Control

This control operates independently of the freezer control after the freezer control is turned on. A hidden thermostatic sensor measures refrigerator air temperature constantly, and automatically lets in more cold air if temperature rises as little as 1½°F. from your setting.

The control has seven settings, from "1" (the warmest) to "7" (the coldest). The best food storage temperature is in the 38° to 40°F. range. Check food temperature as instructed on the next page. Adjust the control as needed, one number at a time.



## SETTING THE CONTROLS

### • Checking Food Temperature

Twenty-four hours after the unit is installed, check the food temperature in the refrigerator and freezer sections. Use a quality thermometer that can register below-zero temperatures.

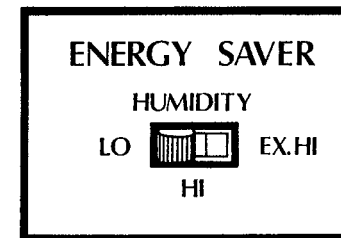
**FREEZER:** Place the thermometer in the center of the freezer, surrounded by frozen packages. Wait 3 to 4 hours, then check the reading. If temperature is not within 0° to +2°F., adjust control as needed and check temperature again after 3 to 4 hours.

**REFRIGERATOR:** Place the thermometer in a glass of water and place the glass in the middle of the refrigerator section. Be sure air can flow around it. Wait 3 to 4 hours, check the temperature and adjust the control as needed to within the 38° to 40°F. range. Wait 3 to 4 hours and check the temperature again.

### • Energy Saver Control

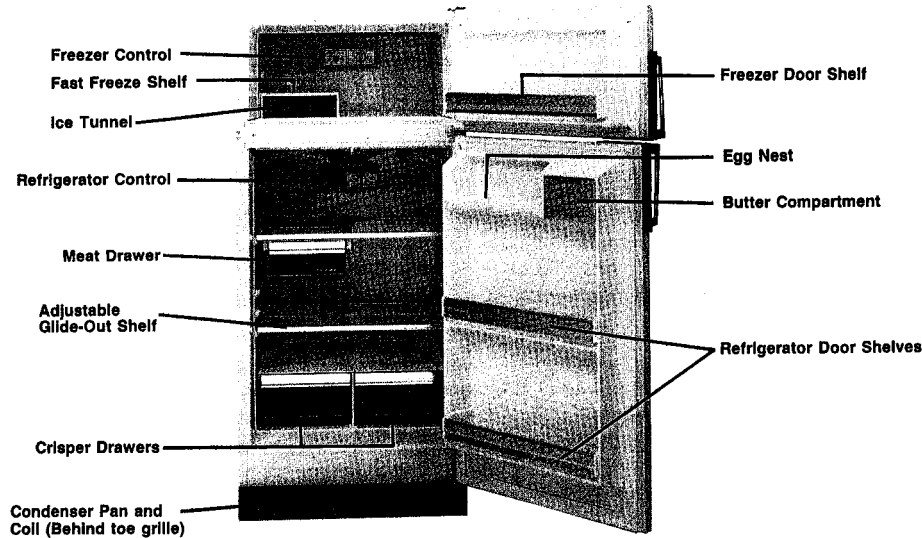
The 3-Position Energy Saver Control lets you save energy by adjusting refrigerator operation to the levels of humidity in your house. During hot, humid weather, any refrigerator/freezer will form moisture around the doors, similar to the way condensate forms on a glass of ice water. The cabinet has special heaters to minimize this condensation. The Energy Saver Control lets you turn these heaters on or off. When turned on, the heaters operate only when the compressor runs.

- "EX. HI" is for periods of high humidity.
- "HI" reduces the amount of electricity used. This setting is for moderate humidity conditions.
- "LO" turns the heaters off for maximum energy savings. Use for periods of low humidity.



A minimum amount of condensation is normal. During extreme high humidity, condensate may also form on the cabinet sides and doors. This is normal and will disappear when climatic conditions return to normal.

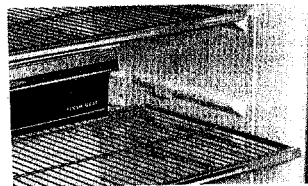
## GENERAL FEATURES



## REFRIGERATOR FEATURES

### • Shelves

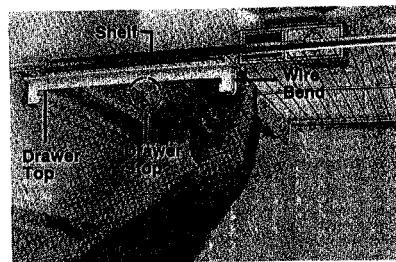
Use the meat drawer shelf in the upper position only. Lift out to remove for cleaning. The bottom shelf slides out for easy access to back items. It can be moved to other heights wherever you see guides in the liner wall. To remove shelf, pull out slightly, tilt up to free runner balls from the guides, then pull from unit. Reverse procedure to install.



### • Meat Storage Drawer

This drawer is for fresh meat storage. To remove only the drawer, pull until it touches the "stop" built into the drawer top (see photo for location). Reach inside the drawer and push up on the top while you tilt the back of the drawer down and under the stop. Pull drawer out.

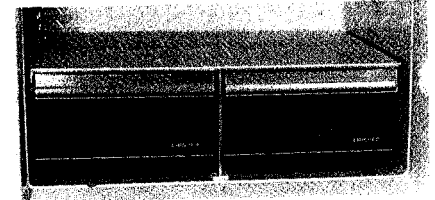
To remove the drawer top from the wire shelf, depress plastic clip behind the front wire bend (see photo) and pull the top forward until its rear plastic clip touches the wire bend. Depress the rear clip and pull top from shelf.



## REFRIGERATOR FEATURES

### • Crisper Drawers

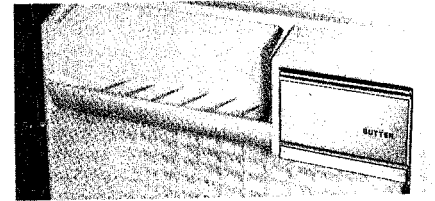
These drawers are for storage of fresh fruits and vegetables. It is normal for moisture to accumulate inside. The drawers can be pulled from the unit for easy cleaning.



### • Stor-Mor® Door

**Egg Storage.** A built-in egg nest lets you keep eggs at your fingertips. The nest will also accept standard egg cartons.

**Butter Storage.** Store butter and cheese in this compartment. The door tilts up for easy use. For your convenience, there is a sturdy butter dish that can be taken to the table. It is dishwasher safe. (Recommended placement: top rack of dishwasher.)

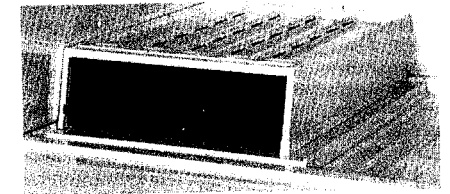


**Door Shelves.** Retainer bars help hold half-gallon milk cartons and tall bottles securely. To remove the bars for cleaning, lift and pull out from the bottoms. When replacing, insert top tabs and swing bottom tabs in and push down to snap into place.

## FREEZER FEATURES

### • Fast Freeze Shelf/ Ice Tunnel

Foods placed on the shelf freeze fastest. The shelf/ice tunnel is located directly over the freezer air inlet. Supercold air flows through the tunnel, across the ice cube trays and up through vents in the shelf to freeze foods fast. Two Flex-Action™ ice cube trays shipped with the unit fit behind the flip-up door. If an automatic ice maker is added, the shelf/ice tunnel must be removed. To remove, lift and move compartment towards center of freezer to release tabs from the freezer floor and left side wall.



### • Freezer Door

The door shelf can hold large and small packages. The retainer bar can be removed for cleaning and replaced in the same manner described for the refrigerator door retainer bars.

## OTHER FEATURES

### • Automatic Free-O'Frost™ Operation

The freezer and refrigerator sections are completely frost-free. The Amana Frost-Magnet™ evaporator coil stops frost before it ever starts. You'll never have to defrost the unit, because it's automatic.

### • Extra Insulation

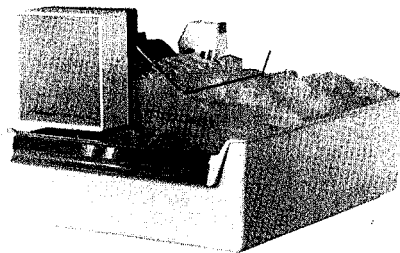
Instead of the usual 1¾" insulation overall, Amana put 2" of polyurethane foam wall insulation around the refrigerator section plus 2½" around the freezer where it's needed most. The doors have combination urethane foam and fiberglass insulation—a superior combination to fiberglass alone. This extra insulation helps keep the cold in and the heat out for minimum energy usage and low electric bills.

### • Reversible Doors

The doors are factory-installed opening to the right. However, you can easily reverse them to open to the left. This is especially convenient if your current kitchen layout requires a left side opening, or if you move or remodel. Just follow the easy instructions shipped with the unit.

### • Optional Automatic Ice Maker (extra cost)

The freezer is factory-wired and plumbed so you can have an ice maker installed now or later. The plastic caps on the left and rear freezer walls are for this purpose. See your Amana retailer for details.



**How to Operate the Automatic Ice Maker.** After installation, allow 4 to 12 hours before the first ice harvest occurs. The time required will depend on the freezer temperature setting and on the amount of food in the freezer. The ice maker will automatically fill itself with water and empty ice into the bin. A wire arm will sense the amount of ice and stop ice production when the bin is full.

**To start ice production:** Install the ice bin and lower the wire arm.

**To stop ice production:** Raise the wire arm until it locks. (NOTE: As long as the arm is raised, the ice maker will not operate.)

Discard the first several ice harvests so any impurities flushed through the water line or ice maker will not be consumed.

Ice cubes are porous and will absorb food odors, so be sure to keep foods covered in the freezer and refrigerator sections. (See "Before Calling For Service" on page 10.)

Cold, dry air circulates through the entire refrigerator/freezer to maintain safe storage temperatures. After several weeks, this air movement can cause cubes stored open in the ice bin to evaporate and stick together.

## SOUNDS

Your new unit may be replacing a smaller refrigerator of different design and/or a product which operated less efficiently. We have taken steps in product design and operation which will continue to provide our customers the highest quality product, one which is energy efficient and operates as economically as possible. With this new design, you may hear sounds which are unfamiliar to you, yet quite normal.

Polyurethane foam insulation, while a much better insulator, does not have the sound-absorbing characteristic of fiberglass insulation. Sounds may be amplified further by the wall and/or floor acting as a sounding board.

Because your product is designed to provide greater efficiency, the compressor operates at a much higher speed than previously. This results in a high speed hum which will be

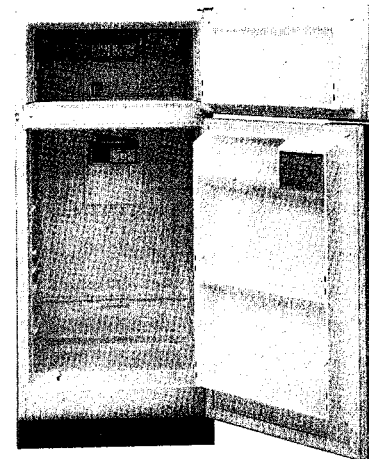
more noticeable than the sound produced by a slower speed compressor. In addition, the compressor's increased torque may cause some vibration during start up or shut down of the unit.

The refrigerant flowing through the refrigeration tubing may create "water running" or "gurgling" sounds during operation and shortly after shut down. You may also hear the ice falling out of the automatic Ice Maker or the activation of the water solenoid valve during an ice making cycle.

Periodically, your refrigerator will automatically defrost. When this happens, you may hear "dripping water" or "sizzling" sounds.

None of these sounds are unusual, and will soon become familiar. They indicate the unit is operating and performing as designed.

## CARE AND CLEANING



**BEFORE CLEANING, UNPLUG THE POWER CORD TO AVOID POSSIBLE ELECTRIC SHOCK.**

Remove all food and special compartments from the freezer and refrigerator sections.

**Exterior.** Wash with warm, soapy water, rinse and dry. Use appliance polish or wax periodically to keep the exterior looking like new.

**Door Gaskets.** Clean at least twice a year with mild soap and water. Rinse and dry.

Apply a light film of petroleum jelly to the gaskets on the hinge side to keep them soft and pliable.

**Interior.** Wash the liner with warm, soapy water. Rinse and dry. Interior components such as shelves and drawers may be washed in warm water and baking soda to "sweeten" these parts. Rinse and dry thoroughly.

## CARE AND CLEANING

Do not use liquid detergent, abrasive cleansers, solvents or polishing agents on plastic parts. These cleansers may cause cracking or discoloring.

Do not wash plastic parts in an automatic dishwasher. They may warp. (The butter dish can be washed in the top rack of a dishwasher.)

**Ice Maker.** If your water has a high mineral content, the ice maker may require periodic cleaning. Contact your local water treatment dealer for cleaning instructions. An in-line water filter may also be necessary.

**Clean Condensate Pan.** The pan is located underneath the unit behind the toe grill. Every three months, remove the drain pan, wash it with warm soapy water, rinse and dry. When replacing the pan, make sure it is directly underneath the defrost water tube

that extends from the back of the unit. Pull the toe grill forward to remove.

**Clean Condenser Coil.** The condenser coil is located behind the toe grill. Use a long-handled bottle brush and a vacuum cleaner to remove dust and lint from the coil. A suitable brush can be purchased from your Amana dealer. Dust and lint act as an insulator and prevent the coil from expelling heat taken from inside the unit. Failure to keep the coil clean will reduce cooling performance and efficiency.

**Reconnect Power Cord.** After cleaning, reconnect the power cord.

## NON-USE PERIODS

**Vacation Time.** If you will be away for vacation, remove perishable foods from the unit. Shut off the ice maker by moving the wire arm to its uppermost position.

**Extended periods of non-use.** If you are going to be away for longer periods, empty and unplug the unit. This will reduce needless operation and assure that food will not be spoiled if electrical service is interrupted. Just clean the unit as instructed in this manual and prop open the doors so air can circulate inside. Leave the unit unplugged.

**When You Move.** Unplug the unit and clean it. Use strapping tape or masking tape to secure all trays, shelves and other parts to prevent damage during shipment. (**CAUTION:** Do not use tape that has "permanent" type adhesive!) Do not leave the unit closed for an extended period of time.

## YOU CAN HELP SAVE ENERGY!

Your new Amana Stor-Mor® Refrigerator/Freezer is designed to operate efficiently. You can help reduce energy consumption by following these suggestions:

**Energy Saver Control.** This control regulates special heaters that help reduce condensation during periods of high humidity. Reduce energy consumption by setting the control according to current climatic conditions.

**Keep Freezer Section Full.** The unit operates more economically when the freezer is filled to capacity, but not overfilled. A full freezer helps maintain frozen temperatures when the door is opened.

**Controls.** Set the freezer and refrigerator controls so the compartments are not colder than necessary. See pages 3-4 for details.

**Doors.** Make sure the door gaskets do not become blocked, dirty or worn. Air leaks will cause the unit to operate unnecessarily.

**Location.** Install the unit away from heating equipment or direct sunlight.

**Keep the Condenser Coil Clean.** A dirty condenser coil will cause the unit to operate more than necessary. See above for details.

## BEFORE CALLING FOR SERVICE

Unnecessary service calls may be avoided by checking for the following common sources of difficulty. You will be charged for a serviceman's travel expenses and labor, even though the product may be in warranty, if the difficulty is not caused by *workman-*

### If product does not appear to be operating:

- Does the light work? A dim light indicates low voltage or a weak bulb.
- Is cord plugged in?
- Is a fuse or circuit breaker open? Check by plugging in another appliance or lamp at the same wall outlet.
- Has either of the doors been left open? Make certain food items stored within the refrigerator are not obstructing proper door closure. Check leveling of unit. (See page 2).
- If the lights work and the freezer control is on, but the fan and compressor are not operating, the unit is likely in the defrost cycle. Wait 30 minutes to see if the unit will restart. If it does not, remove the toe grill and condensate pan. The defrost time is located at the lower left front corner. Turn the timer knob clockwise until you hear a click. The refrigerator should begin running.

### If the unit still won't operate:

- Be sure you have completed the steps listed above.
- Unplug the unit and take the steps necessary to preserve the food stored in the unit. Dry ice may be placed in the freezer section of the unit to preserve food until the unit can be serviced. Doors should be left closed until the unit has been repaired. Your product warranty does not cover food loss.
- Call your nearest Amana dealer or authorized service center listed in the Yellow pages.

### If food temperature appears to be warm:

- See prior sections.
- Have you recently added a large load of food? Allow adequate time for the food to reach freezing temperature.
- Are any shelves covered with foil or plastic, preventing proper air flow?
- Is the condenser area clean? (See page 9).
- Adjust freezer control. (See page 3).

### If refrigerator section is too warm:

- See prior sections.
- Adjust Sensi-matic refrigerator control (See page 3).

### If refrigerator food temperature is too cold:

- Is condenser area clean? (See page 9).
- Are any shelves covered with foil or plastic, preventing proper air flow?
- Adjust Sensi-matic refrigerator control. (See page 3).
- Adjust freezer control to warmer setting. Allow several hours for temperature to change.

### If the unit runs too much or too frequently:

- It may be normal to maintain an even temperature.
- Is condenser area clean? (See page 9).
- Have doors been opened frequently or for an extended period of time?
- Is freezer running too cold? Adjust freezer control (See page 3).

*ship or material*, or if the component is *customer replaceable*. The following items are considered customer replaceable: condensate drain pan, door and cabinet, shelves and drawers, butter dish, ice or egg trays, light bulbs, and accessories.

**If the unit makes unfamiliar sounds such as popping or cracking; tapping, gurgling, boiling or bubbling; rumbling or rattling on shutdown:**

- These may be normal operating sounds. Refer to page 8 for information on sounds the unit may make.

**If you hear running water in the unit:**

- This is normal when the ice maker fills.
- This is normal when the unit defrosts and water enters the condensate pan.

**If you hear periodic buzzing:**

- Is the ice maker hooked up?

**If condensate forms on the inside of the unit:**

- This is normal during periods of high humidity.
- Some condensate is normal in crisper area where foods are not wrapped in moisture proof wrap or containers.
- Check for proper door closure.
- Have doors been opened frequently or for an extended period of time? This will cause condensate to form inside the unit.

**If condensate forms on the outside of the unit.**

- This is normal during periods of high humidity.
- Is Energy Saver control on highest setting? This will help reduce condensate.
- Check door alignment and gasket seal for proper closure.

**If crisper or meat drawers do not close freely.**

- Check for package obstructing proper closure.
- Check to confirm drawer is in proper position in assembly.
- Apply thin layer of petroleum jelly to slide channels.
- Make sure refrigerator is level.

**If there is an odor in the unit or ice cubes.**

- Clean product. (See page 8).
- Cover all foods tightly.
- Use different containers or brand of wrap.

**If ice forms in the inlet tube to the ice maker.**

- Indicates sediment in solenoid valve which has not allowed the valve to close. An in-line water filter should be added. If problem persists the solenoid valve will need to be cleaned or changed.

**If light bulb needs replacing.**

- Unplug unit from wall outlet to avoid electrical shock. A pair of gloves should be worn as a precaution against broken glass.

Amana has a large network of Authorized Service Centers in the U.S. However, should you have a service problem and are unable to resolve it locally, write:

Customer Relations Department  
Amana Refrigeration, Inc.  
Amana, Iowa 52204

Or dial:  
319-622-5511 and ask for  
Customer Relations

Please provide in your letter or call the complete model, serial and manufacturing numbers and the date of purchase.