

## **FEATURES AT A GLANCE**

Features may vary according to model

### **IMPORTANT**

- Cleaning your Refrigerator
- Remove tape and glue residue from surfaces before turning on the refrigerator. Rub a small amount of liquid dish soap over the adhesive with your fingers. Rinse with warm water and dry with a soft cloth.
- Do not use sharp instruments, rubbing alcohol, flammable fluids, or abrasive cleaners to remove tape or glue. These products can damage the surface of your refrigerator.
- After you remove all of the package materials, clean the inside of your refrigerator before using it. See the “Care & Cleaning” section in this manual.
- See important information about cleaning glass shelves and covers in the “Optional Features” section of this manual.

### **IMPORTANT**

- Moving your Refrigerator
- Your refrigerator is heavy. When moving the refrigerator for cleaning or service, be sure to cover the floor with cardboard or hardboard to avoid floor damage. Always pull the refrigerator straight out when moving it. Do not wiggle or “walk” the refrigerator when trying to move it as floor damage could occur.

## **INSTALLATION**

This Use & Care Guide provides general operating instructions for your model. Use the refrigerator only as instructed in this Use & Care Guide. Before starting the refrigerator, follow these important first steps.

### **Location**

- Choose a place that is near a grounded electrical outlet. Do Not use an extension cord or an adapter plug.
- If possible, place the refrigerator out of direct sunlight and away from the range, dishwasher or other heat sources.
- The refrigerator must be installed on a floor that is level and strong enough to support a fully loaded refrigerator.

- Consider water supply availability for models equipped with an automatic ice maker. If you do not hook up water to the refrigerator, remember to turn the ice maker off.

#### CAUTION

- Do not install the refrigerator where the temperature will drop below 55°F (13°C) or rise above 110°F (43°C). The compressor will not be able to maintain proper temperatures inside the refrigerator.
- Do not block the toe grille on the lower front of your refrigerator. Sufficient air circulation is essential for the proper operation of your refrigerator.

NOTE: For additional instructions on garage installation, refer to “Controls” section.

## Installation

### Installation clearances

- Allow the following clearances for ease of installation, proper air circulation, and plumbing and electrical connections: Sides & Top:  $\frac{3}{8}$  inch; Back: 1 inch

NOTE: If your refrigerator is placed with the door hinge side against a wall, you may have to allow additional space for the handle so the door can be opened wider.

Guidelines for final positioning of your refrigerator:

- All four corners of the cabinet must rest firmly on the floor.
- The cabinet should be level at the front and rear.
- The sides should tilt  $\frac{1}{4}$ -inch (6 mm) from front-to-back (to ensure that doors close and seal properly).
- Doors should align with each other and be level.

To level the cabinet using the front rollers

1 Remove the toe grille.

2 Use a flat-blade screwdriver or  $\frac{3}{8}$  inch socket wrench to raise or lower the front rollers (Figure 2). Do not raise the cabinet more than  $\frac{9}{16}$  inch.

3 Use adjustable wrench to adjust leveling screws. Lower the leveling screws on each side clockwise until they contact the floor (Figure 3). Do not raise the cabinet more than  $\frac{9}{16}$  inch.

NOTE: Raise the front of the refrigerator enough so the doors close freely when opened halfway. The refrigerator should slope  $\frac{1}{4}$  inch to  $\frac{1}{2}$  inch from front-to-back. Then level the refrigerator from side-to-side.

### **Door Removal/Reversal Instructions (some models).**

NOTE: The direction in which your refrigerator doors open (door swing) can be reversed, from left to right or right to left, by moving the door hinges from one side to the other. Reversing the door swing should be performed by a qualified person.

IMPORTANT: Before you begin, turn the refrigerator temperature control to "0" and remove the electrical power cord from the wall outlet. Remove any food from door shelves.

### **Door removal and reversal instructions:**

1. Remove toe grille.
2. Remove top hinge cover. Trace around the hinge with a soft lead pencil. This makes reinstallation easier. Remove top hinge and lift door off center hinge pin. Set door aside.
3. Unscrew center hinge pin using adjustable wrench and save for reassembly. Ensure plastic washer stays on hinge pin.
4. Lift refrigerator door off of bottom hinge and set aside.
5. Remove center hinge and shim by removing inside screw and loosening two outside screws enough to allow hinge and shim to slide out. Tighten screws.
6. Loosen two outside screws on opposite side of refrigerator, remove inside screw and install center hinge.
7. Remove two screws on bottom hinge with  $\frac{3}{8}$ " socket wrench.
8. Install bottom hinge on opposite side with the two screws removed from step 7.
9. Unscrew bottom hinge pin using adjustable wrench. Move hinge pin to other hole in hinge and tighten with adjustable wrench.
10. Reverse door handles (see instruction on next page).
11. Move freezer and refrigerator door stops to opposite side. Before starting screws, use an awl to puncture the foam.
12. Position refrigerator door onto bottom hinge pin and screw center hinge pin through center hinge into top of door. Close refrigerator door to help align hinge hole.
13. Tighten center hinge pin with adjustable wrench.
14. Remove cabinet and hinge hole plugs and move to opposite side.
15. Lower freezer door onto center hinge pin.
16. Close freezer door. Lift up on handle side of door and grasp the thinnest part of the top hinge cover (which was removed in Step 2) and insert the thickest part between the doors on the handle side approximately 3 inches from the outside edge. This will ensure proper spacing.

17. Tighten the top hinge screws and check door gasket for open seal condition (gap between gasket and cabinet flange).

18. Should open seal condition exist, try to massage the gasket to make sure it is seated into the channel.

**IMPORTANT:** If the condition still exists, try heating the gasket with a hair dryer with the door closed. Use Caution and be careful not to damage the interior door panel or gasket by applying too much heat.

19. If the open seal condition still exists, it may be necessary to flip the gasket. In this case, remove the gasket from the door by pulling it out. Rotate the gasket half a turn (180 degrees). Reinstall the gasket by inserting the corners first then work towards the middle assuring that it is fully seated in the channel.

20. Flip toe grille and reinstall.

21. Plug in electrical power cord and turn refrigerator temperature control to center position. Adjust setting as necessary.

## **Handle Installation**

**CAUTION:** Wear gloves and use extreme CAUTION when installing these handles. The rounded end of the handles may be sharp.

### **IMPORTANT**

- To ensure proper installation of handles, please review these instructions and illustrations thoroughly prior to installing the handles.
- Additionally, before installing the door handles, make sure the door swing is correct. Your model will have either a right hand or left hand door swing. Follow instructions in the Use & Care Guide to reverse the doors, if necessary

To attach metal refrigerator handle:

1. Place rounded part of handle onto shoulder screw on face of door and align the two holes in top of handle with the two holes in top of door. Do not tighten the set screw yet.
2. Install the two screws into the top of the handle.
3. Tighten the set screw on the rounded part of the handle until the handle is flush with the door, then tighten another ½ turn

To attach metal freezer handle:

1. Place rounded part of handle onto shoulder screw on face of door and align the two holes in bottom of handle with the two holes in bottom of door. Do not tighten the set screw yet.
2. Install the two screws into the bottom of the handle.

3. Tighten the set screw on the rounded part of the handle until the handle is flush with the door, then tighten another ½ turn.

## **Stainless Steel Models**

To reverse metal refrigerator/freezer handles: Handles may be easier to reverse while doors are off. Reverse freezer and refrigerator handles as shown.

**CAUTION:** Be sure doors are set aside in a secure position where they cannot fall and cause personal injury.

**CAUTION:** Do not use an electric screwdriver to attach handles; overtightening handles may crack them. Use a handheld screwdriver only.

To attach plastic refrigerator handle:

1. With the door open, place the end of the handle on the dove tail mounting screw and pull down to secure in place.
2. Align handle base with holes in top of door.
3. Install screws packaged with the handle.

To attach plastic freezer handle:

1. With the door open, place the end of the handle on the dove tail mounting screw and push up to secure in place.
2. Align handle base with holes in bottom of door.
3. Install screws packaged with the handle

## **CONNECTING THE WATER SUPPLY**

**WARNING:** To avoid electric shock, which can cause death or severe personal injury, disconnect the refrigerator from electrical power before connecting a water supply line to the refrigerator.

**CAUTION:** To Avoid Property Damage

- Copper or Stainless Steel braided tubing is recommended for the water supply line. Water supply tubing made of ¼ inch plastic is not recommended to be used. Plastic tubing greatly increases the potential for water leaks, and the manufacturer will not be responsible for any damage if plastic tubing is used for the supply line.
- DO NOT install water supply tubing in areas where temperatures fall below freezing.
- Chemicals from a malfunctioning softener can damage the ice maker. If the ice maker is connected to soft water, ensure that the softener is maintained and working properly.

**IMPORTANT:** Ensure that your water supply line connections comply with all local plumbing codes

**Before Installing The Water Supply Line, You Will Need:**

- Basic Tools: adjustable wrench, flat-blade screwdriver, and Phillips™ screwdriver

- Access to a household cold water line with water pressure between 30 and 100 psi.
- A water supply line made of ¼ inch (6.4 mm) OD, copper or stainless steel tubing. To determine the length of tubing needed, measure the distance from the ice maker inlet valve at the back of the refrigerator to your cold water pipe. Then add approximately 7 feet (2.1 meters), so the refrigerator can be moved out for cleaning (as shown).
- A shutoff valve to connect the water supply line to your household water system. DO NOT use a self-piercing type shutoff valve.
- Do not re-use compression fitting or use thread seal tape.
- A compression nut and ferrule (sleeve) for connecting a copper water supply line to the ice maker inlet valve.

**NOTE:** Check with your local building authority for recommendations on water lines and associated materials prior to installing your new refrigerator. Depending on your local/ state building codes, Frigidaire recommends for homes with existing valves its Smart Choice® water line kit 5305513409 (with a 6 ft. Stainless Steel Water Line) and for homes without an existing valve, Frigidaire recommends its Smart Choice® water line kit 5305510264 (with a 20 ft. Copper Water Line with self-tapping saddle valve). Please refer to [www.frigidaire.com/store](http://www.frigidaire.com/store) for more information

### **To Connect Water Supply Line To Ice Maker Inlet Valve**

1. Disconnect refrigerator from electric power source.
2. Place end of water supply line into sink or bucket. Turn ON water supply and flush supply line until water is clear. Turn OFF water supply at shutoff valve.
3. Remove plastic cap from water valve inlet and discard cap.
4. If you use copper tubing - Slide brass compression nut, then ferrule (sleeve) onto water supply line. Push water supply line into water valve inlet as far as it will go (¼ inch / 6.4 mm). Slide ferrule (sleeve) into valve inlet and finger tighten compression nut onto valve. Tighten another half turn with a wrench; DO NOT over tighten. See Figure 1. If you use braided flexible stainless steel tubing - The nut is already assembled on the tubing. Slide nut onto valve inlet and finger tighten nut onto valve. Tighten another half turn with a wrench; DO NOT over tighten. See Figure 2.
5. With steel clamp and screw, secure water supply line (copper tubing only) to rear panel of refrigerator as shown.
6. Coil excess water supply line (copper tubing only), about 2½ turns, behind refrigerator as shown and arrange coils so they do not vibrate or wear against any other surface.
7. Turn ON water supply at shutoff valve and tighten any connections that leak.
8. Reconnect refrigerator to electrical power source.
9. To turn ice maker on, lower wire signal arm (side mounted) or set the ice maker's On/Off power switch to the "I" position (rear mounted).

NOTE: These instructions do not cover after market ice maker installation. Instructions in after market ice maker kit should be used.

## ICE SERVICE

- **ICE SERVICE** If your refrigerator has an automatic ice maker, minimal ice will be produced during the first 24 hours of operation. Air in new plumbing lines may cause the ice maker to cycle two or three times before making a full tray of ice. With no usage, it will take approximately one to two days to fill the ice container.
- New plumbing connections may cause the first production of ice cubes to be discolored or have an odd flavor. Discard ice made during the first 24 hours.

NOTE: Automatic ice makers are also optional accessories that may be installed in most models at any time. Call your local dealer for information.

- **Turning your Ice Maker On:** After the plumbing connections have been completed, the water supply valve must be opened. Place the ice container under the ice maker, pushing it as far back as possible. Lower the wire signal arm to its “down” or ON position.
- **Turning your Ice Maker Off:** To stop the ice maker, lift the wire signal arm until it clicks and locks in the “up” or OFF position. The ice maker also turns off automatically when the ice container is full.

**IMPORTANT:** Your ice maker is shipped from the factory with the wire signal arm in the ON position. To ensure proper function for your ice maker, hook up water supply immediately or turn ice maker OFF by lifting the wire signal arm until it clicks and locks in the UP position. If the ice maker is on and the water supply is not connected, the water valve will make a loud chattering noise.

### ICE PRODUCTION: WHAT TO EXPECT

- The ice maker will produce 2.5 to 3 pounds of ice every 24 hours depending on usage conditions. Ice is produced at a rate of 8 cubes every 80 to 160 minutes.

CAUTION: Do Not place the ice container in your dishwasher.

## CONTROLS

### Cool Down Period

- To ensure safe food storage, allow the refrigerator to operate with the doors closed for at least 8 hours before loading it with food.

## Refrigerator & Freezer Controls

- **NOTE:** When first turning refrigerator on, adjust control to recommended. This is the recommended initial setting. After 24 hours, adjust the controls as needed.
- **IMPORTANT:** Adjusting the refrigerator temperature control to “0” turns off the compressor and prevents the refrigerator from cooling, but does not disconnect the power to the light bulb and other electrical components. To turn off power to your refrigerator, you must unplug the power cord from the wall outlet.

## Temperature Adjustment

- Adjust temperature gradually: adjust the knob in small increments, allowing the temperature to stabilize.
- For colder temperatures, adjust the knob towards coldest.
- For warmer temperatures, adjust the knob towards cold.

Adjusting the refrigerator control will change temperatures in both compartments. The auxiliary freezer control can be left at the factory pre-set (mid position) or adjusted as desired; it has no effect on electrical power to the refrigerator.

To maintain temperatures, a fan circulates air in the refrigerator and freezer compartments. For good circulation, do not block cold air vents with food items.

**CAUTION:** Do not install the refrigerator where the temperature will drop below 55°F (13°C) or rise above 110°F (43°C). The compressor will not be able to maintain proper temperatures inside the refrigerator.

### IMPORTANT

- If you install your refrigerator in a garage or other unheated area, you may experience freezer temperature problems during the winter months when temperatures dip below 55° F.
- Upgrading your refrigerator with a Garage Kit will lower the minimum operating temperature of your unit to 34° F. This kit can be ordered by calling the phone number listed at the bottom of the warranty page or back cover at an additional cost.

Auxiliary Freezer Control

## OPTIONAL FEATURES

**CAUTION:** Do not clean glass shelves or covers with warm water when they are cold. Shelves and covers may break if exposed to sudden temperature changes or impact, such as bumping. Tempered glass is designed to shatter into many small, pebble-size pieces. This is normal. Glass shelves and covers are heavy. Use both hands when removing them to avoid dropping

**CAUTION:** To avoid personal injury or property damage, handle tempered glass shelves carefully. Shelves may break suddenly if nicked, scratched, or exposed to sudden temperature change.

## **Shelf Adjustment**

Refrigerator shelves are easily adjusted to suit individual needs. Before adjusting the shelves, remove all food.

To adjust sliding shelves:

1. Remove shelf by pulling forward to stop position.
2. Lift front edge up and pull out.

To replace shelf, rest side edges on any pair of shelf rails and carefully push shelf back into position.

## **Door storage**

- Door bins, shelves, and racks are provided for convenient storage of jars, bottles, and cans. Frequently used items can be quickly selected.
- The dairy compartment, which is warmer than the general food storage section, is intended for short term storage of cheese, spreads, or butter.

## **Door rack**

Some models have door racks or bins that can accommodate gallon-sized plastic drink containers and economy-sized jars and containers.

To remove door rack:

1. Push on rack sides to release from locking tabs.
2. Pull straight out.

To install door rack:

1. Push rack straight ahead.
2. You will hear the sides lock into the tabs.

## **Crisper Humidity Control (some models)**

The crisper humidity control, present on the crisper drawers of some models, allows you to adjust the humidity within the crisper. This can extend the life of fresh vegetables that keep best in high humidity

**NOTE:** Leafy vegetables keep best when stored with the Humidity Control set on High Humidity, or in a drawer without a Humidity Control. This keeps incoming air to a minimum and maintains maximum moisture content. Store non-leafy vegetables and fruits still in their skins at the low humidity setting.

## Crispers (some models)

- The crispers, located under the bottom refrigerator shelf, are designed for storing fruits, vegetables, and other fresh produce. Wash items in clear water and remove excess water before placing them in the crispers. Items with strong odors or high moisture content should be wrapped before storing.

## NORMAL OPERATING SOUNDS AND SIGHTS

### Understanding the sounds you may hear

Your new, high-efficiency refrigerator may introduce unfamiliar sounds. These sounds normally indicate your refrigerator is operating correctly. Some surfaces on floors, walls, and kitchen cabinets may make these sounds more noticeable.

NOTE: Rigid foam insulation is very energy efficient, but is not a sound insulator.

Following is a list of major components in your refrigerator and the sounds they can cause:

A Evaporator Refrigerant through the evaporator may create a boiling or gurgling sound.

B Evaporator fan You may hear air being forced through the refrigerator by the evaporator fan.

C Defrost heater During defrost cycles, water dripping onto the defrost heater may cause a hissing or sizzling sound. After defrosting, a popping sound may occur.

IMPORTANT: During the automatic defrost cycle, you may notice a red glow in the vents on the back wall of your freezer compartment. This is normal during the defrost cycle.

D Automatic ice maker When ice has been produced, you will hear ice cubes falling into the ice bin.

E Automatic Defrost control These parts can produce a snapping or clicking sound when turning the cooling system on and off.

F Condenser fan You may hear air being forced through the condenser.

G Compressor Modern, high-efficiency compressors run much faster than in the past. The compressor may have a highpitched hum or pulsating sound.

H Water valve If your refrigerator is equipped with an automatic ice maker, you will hear a buzzing sound as the water valve opens to fill the ice maker during each cycle.

I Drain pan (not removable) You may hear water dripping into the drain pan during the defrost cycle.

J Condenser May create minimal sounds from forced air.

# CARE & CLEANING

## Protecting your investment

Keeping your refrigerator clean maintains appearance and prevents odor build-up. Wipe up any spills immediately and clean the freezer and fresh food compartments at least twice a year. When cleaning, take the following precautions:

- Never use CHLORIDE or cleaners with bleach to clean stainless steel.
- Do not wash any removable parts in a dishwasher.
- Always unplug the electrical power cord from the wall outlet before cleaning.
- Remove adhesive labels by hand. Do not use razor blades or other sharp instruments which can scratch the appliance surface.
- Do not remove the serial plate.

Do not use abrasive cleaners such as window sprays, scouring cleansers, brushes, flammable fluids, cleaning waxes, concentrated detergents, bleaches or cleansers containing petroleum products on plastic parts, interior doors, gaskets or cabinet liners. Do not use paper towels, metallic scouring pads, or other abrasive cleaning materials or strong alkaline solutions

**NOTE:** If you set your temperature controls to turn off cooling, power to lights and other electrical components will continue until you unplug the power cord from the wall outlet.

### CAUTION

- Pull the refrigerator straight out to move it. Shifting it from side to side may damage flooring. Be careful not to move the refrigerator beyond the plumbing connections.
- Damp objects stick to cold metal surfaces. Do not touch refrigerated surfaces with wet or damp hands.

### IMPORTANT

- If you store or move your refrigerator in freezing temperatures, be sure to completely drain the water supply system. Failure to do so could result in water leaks when the refrigerator is put back into service. Contact a service representative to perform this operation.

Care & Cleaning Tips		
Part	What To Use	Tips and Precautions



Interior & Door Liners	<ul style="list-style-type: none"> <li>• Soap and water</li> <li>• Baking soda and water</li> </ul>	Use 2 tablespoons of baking soda in 1 quart of warm water. Be sure to wring excess water out of sponge or cloth before cleaning around controls, light bulb or any electrical part.
Door Gaskets	<ul style="list-style-type: none"> <li>• Soap and water</li> </ul>	Wipe gaskets with a clean soft cloth.
Drawers & Bins	<ul style="list-style-type: none"> <li>• Soap and water</li> </ul>	Use a soft cloth to clean drawer runners and tracks.
Glass Shelves	<ul style="list-style-type: none"> <li>• Soap and water</li> <li>• Glass cleaner</li> <li>• Mild liquid sprays</li> </ul>	Allow glass to warm to room temperature before immersing in warm water.
Toe Grille	<ul style="list-style-type: none"> <li>• Soap and water</li> <li>• Mild liquid sprays</li> <li>• Vacuum attachment</li> </ul>	Vacuum dust from front of toe grille. Remove toe grille (see Installation Instructions). Vacuum backside, wipe with sudsy cloth or sponge. Rinse and dry.
Exterior & Handles	<ul style="list-style-type: none"> <li>• Soap and water</li> <li>• Non Abrasive Glass Cleaner</li> </ul>	Do not use commercial household cleaners containing ammonia, bleach or alcohol to clean handles. Use a soft cloth to clean smooth handles. DO NOT use a dry cloth to clean smooth doors.
Exterior & Handles (Stainless Steel Models Only)	<ul style="list-style-type: none"> <li>• Soap and water</li> <li>• Stainless Steel</li> <li>• Cleaners</li> </ul>	Never use CHLORIDE or cleaners with bleach to clean stainless steel.  Clean stainless steel front and handles with non abrasive soapy water and a dishcloth. Rinse with clean water and a soft cloth. Use a non-abrasive stainless steel cleaner. These cleaners can be purchased at most home improvement or major department stores. Always follow manufacturer's instructions. Do not

## BEFORE YOU CALL

		<p>use household cleaners containing ammonia or bleach.</p> <p>NOTE: Always clean, wipe and dry with the grain to prevent scratching. Wash the rest of the cabinet with warm water and mild liquid detergent. Rinse well, and wipe dry with a clean soft cloth.</p>
Replacing Light Bulbs	<ul style="list-style-type: none"> <li>• Unplug refrigerator</li> <li>Wear gloves</li> <li>• Remove light cover (some models)</li> <li>• Replace old bulb</li> <li>• Replace light cover (some models)</li> <li>• Plug in the refrigerator</li> </ul>	<p><b>CAUTION:</b> Wear gloves when replacing light bulbs to avoid getting cut. Use same wattage when replacing bulb</p>

	<p>and expense. This list includes common occurrences that are not the result of defective workmanship or materials in this appliance.</p>
Refrigerator does not run.	<p>Ensure plug is tightly pushed into electrical outlet.</p> <p>Check/replace fuse with a 15 amp time-delay fuse.</p> <p>Reset circuit breaker.</p> <p>The refrigerator/freezer control is turned to "0"</p> <p>Refrigerator may be in defrost cycle. Wait 20 minutes and check again.</p>
Freezer temperature is colder than preferred. Refrigerator temperature is satisfactory.	<p>Set auxiliary freezer control to a warmer setting until freezer temperature is satisfactory. Allow 24 hours for the temperature to stabilize.</p>
Refrigerator temperature is too cold. Freezer temperature is satisfactory.	<p>Set refrigerator/freezer control to a warmer setting.</p> <p>Allow 24 hours for temperature to stabilize. Then check freezer temperatures and adjust as needed.</p>
Freezer temperature is warmer than preferred. Refrigerator temperature is satisfactory.	<p>Set auxiliary freezer control to a colder setting until freezer temperature is satisfactory. Allow 24 hours</p> <ul style="list-style-type: none"> <li>• for the temperature to stabilize.</li> </ul>
Refrigerator temperature is too	<p>Set refrigerator/freezer control to a colder setting.</p>

	Light switch may be stuck. Push in light switch, located on the refrigerator control box, to release.
Automatic ice maker not working (some models)	<p>Ensure the wire signal arm is not in UP position.</p> <p>Ice maker should produce 2.5 to 3 pounds of ice in a 24 hour period.</p> <p>Water supply is turned off.</p> <p>Water pressure is too low.</p> <p>The freezer is not cold enough.</p>

	<ul style="list-style-type: none"> <li>• Ensure plug is tightly pushed into electrical outlet.</li> <li>• Light switch may be stuck. Push in light switch, located on the refrigerator control box, to release.</li> </ul>
Automatic ice maker not working (some models)	<ul style="list-style-type: none"> <li>• Ensure the wire signal arm is not in UP position.</li> <li>• Ice maker should produce 2.5 to 3 pounds of ice in a 24 hour period.</li> <li>• Water supply is turned off.</li> <li>• Water pressure is too low.</li> <li>• The freezer is not cold enough.</li> </ul>

**Warning**

This content is compiled from multiple sources and is provided for reference purposes only. It may not be complete or fully applicable to all situations. If you are unable to resolve your issue, please contact the product manufacturer or an authorized service provider for official support.

