AMANA®

Whirlpool®

TECHNICAL MANUAL

Amana® and Whirlpool® 16 cu ft Top Mount Refrigerator





W11668541 Rev A

FOREWORD

This Technical Manual (Part No. W11668541 Rev A), provides the In-Home Service Professional with service information for the “Amana® and Whirlpool® 16 cu ft Top Mount Refrigerator.”

Any portion of the wiring diagram used in this Technical Manual is typical and should be used for training purposes only. Always use the Wiring Diagram supplied with the product Tech Sheet when servicing the top mount refrigerator.

For specific operating and installation information on the model being serviced, refer to the literature provided with the top mount refrigerator.

GOALS AND OBJECTIVES

The goal of this Technical Manual is to provide information that will enable the In-Home Service Professional to properly diagnose malfunctions and repair the “Amana® and Whirlpool® 16 cu ft Top Mount Refrigerator.”

The objectives of this Technical Manual are to:

- Understand and follow proper safety precautions.
- Successfully troubleshoot and diagnose malfunctions.
- Successfully perform necessary repairs.

WHIRLPOOL CORPORATION assumes no responsibility for any repairs made on our products by anyone other than authorized In-Home Service Professionals.

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Amana® and Whirlpool® 16 cu ft Top Mount Refrigerator

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Section 1: General Information

This section provides general safety, parts, and information for the "Amana® and Whirlpool® 16 cu ft Top Mount Refrigerator."

- Safety
- Product Specifications
- Product Features
  - Using the Controls
- Model Number Nomenclature
- Model Number and Serial Number Label Location
- Tech Sheet Location

Safety

Your safety and the safety of others are very important.

We have provided many important safety messages in this manual and on your appliance. Always read and obey all safety messages.



This is the safety alert symbol.

This symbol alerts you to potential hazards that can kill or hurt you and others.

All safety messages will follow the safety alert symbol and either the word “DANGER” or “WARNING.” These words mean:

⚠DANGER — **You can be killed or seriously injured if you don't immediately follow instructions.**

⚠WARNING — **You can be killed or seriously injured if you don't follow instructions.**

All safety messages will tell you what the potential hazard is, tell you how to reduce the chance of injury, and tell you what can happen if the instructions are not followed.

IMPORTANT SAFETY INSTRUCTIONS

WARNING: To reduce the risk of fire, electric shock or injury to persons when using the refrigerator, follow basic precautions, including the following:

- Plug into a grounded 3-prong outlet.
- Do not remove the ground prong.
- Do not use an adapter.
- Do not use an extension cord.
- Disconnect power before servicing.
- Replace all parts and panels before operating.
- Remove doors from your old refrigerator.
- Connect only to the potable water supply.
- Use non-flammable cleaner.
- Keep flammable materials and vapors, such as gasoline, well away from the refrigerator.
- Use two or more people to move and install the refrigerator.
- Disconnect the power before installing the ice maker (on ice maker kit-ready models only).
- Use a sturdy glass when dispensing ice (on some models).
- Do not hit the refrigerator glass doors (on some models).
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified person in order to avoid a hazard.
- Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.
- This appliance is intended to be used in household and similar applications such as:
  - Staff kitchen areas in shops, offices and other working environments;
  - Farm houses and by clients in hotels, motels and other residential type environments;
  - Bed and breakfast type environments;
  - Catering and similar non-retail applications.

PLEASE KEEP THESE INSTRUCTIONS

Product Specifications

Amana® 16 cu ft Top Mount Refrigerator

AHAM Volumes And Shelf Area	
Freezer Volume (cu ft)	4.03
Refrigerator Volume (cu ft)	12.29
Total Volume (cu ft)	16.4
Dimensions	
Cabinet Width (IN, inches)	28
Depth Closed Excluding Handles (IN, inches)	31⅞
Depth Closed Including Handles (IN, inches)	31⅞
Depth Excluding Doors (IN, inches)	27⅝
Depth With Door Open 90 Degree (IN, inches)	56⅞
Height to Top of Cabinet (IN, inches)	65⅜
Height to Top of Door Hinge (IN, inches)	65⅝
Height to Top of Door Trim	66⅝
Width Doors Open 90 Degrees	28⅛
Width to Remove Crisper	28⅛
Description	
Refrigerator Type	Top Freezer
Details	
Cooling Type	Single Evaporator
Exterior	
Cabinet Color	Black or White
Cabinet Finish	Textured
Door Color	Black or White
Door Finish	Smooth
Door Opening	Right
Door Style	Contour
Handle Color	Black or White
Handle Material	Plastic
Handle Type	Short Pocket
Hidden Hinge	Yes
Levelers	2 Black
Number of Doors	2
Reversible Door	Yes
Wheels	4-Natural
Controls	
Automatic Defrost	Yes
Control Location	Interior Up Front
Control Type	Dial/Knobs
Ice Maker	
Ice Maker	Optional
Ice Maker Location	Freezer
Dispenser	
Dispenser Type	No Dispenser

GENERAL INFORMATION (CONT.)

Refrigerator Compartment	
Number of Interior Shelves	3
Conventional Shelves	1 Fixed Full-Width Plastic 2 Adjustable Full-Width Glass
Shelf Supports	Molded
Non Climate Control Drawers	1 Full Width
Door Bins	1 Fixed Full-Width 1 Fixed Full-Width Gallon 2 Adjustable Partial-Width
Liner Finish	White Glossy
Refrigerator Lighting	LED
Freezer Compartment	
Freezer Compartment Type	Standard
Freezer Door Type	Swing
Freezer Shelves	1 Fixed Full Width Glass
Freezer Door Bins	2 Fixed Full-Width
Freezer Lighting	None
Certifications	
UL	Yes
Compatibility	
Connectivity	No
Works With	No

Product Specifications

Whirlpool® 16 cu ft Top Mount Refrigerator

AHAM Volumes And Shelf Area	
Freezer Volume (cu ft)	4.03
Refrigerator Volume (cu ft)	12.27
Total Volume (cu ft)	16.3
Dimensions	
Cabinet Width (IN, inches)	28
Depth Closed Excluding Handles (IN, inches)	31⅞
Depth Closed Including Handles (IN, inches)	31⅞
Depth Excluding Doors (IN, inches)	27⅝
Depth With Door Open 90 Degree (IN, inches)	56⅞
Height to Top of Cabinet (IN, inches)	65⅜
Height to Top of Door Hinge (IN, inches)	65⅝
Height (IN, inches)	66⅝
Height to Top of Door Trim	66⅝ or 65⅝
Width Doors Open 90 Degrees	28⅛
Width to Remove Crisper	28⅛
Description	
Refrigerator Type	Top Freezer
Details	
Cooling Type	Single Evaporator
Exterior	
Cabinet Color	Black or Grey or White
Cabinet Finish	Textured
Door Color	Black or Stainless Steel or White
Door Finish	Smooth
Door Opening	Right
Door Style	Contour
Handle Color	Black or Dark Gray or White
Handle Material	Plastic
Handle Type	Short Pocket
Hidden Hinge	Yes
Levelers	2 Black
Number of Doors	2
Reversible Door	Yes
Wheels	4-Natural
Controls	
Automatic Defrost	Yes
Control Location	Interior Up Front
Control Type	Electronic Touch
Ice Maker	
Ice Maker	Optional
Ice Maker Location	Freezer

GENERAL INFORMATION (CONT.)

Dispenser	
Dispenser Type	No Dispenser
Refrigerator Compartment	
Deli Drawer	1 Flexi-Slide Bin
Door Bins	1 Fixed Full-Width 1 Fixed Full-Width Gallon 4 Adjustable Partial-Width 6 Adjustable
Humidity-Controlled Crispers	2 Half-Width
Liner Finish	White Glossy
Number of Interior Shelves	3
Refrigerator Lighting	LED
Shelf Supports	Molded
Freezer Compartment	
Freezer Compartment Type	Standard
Freezer Door Type	Swing
Freezer Number of Shelves	1
Freezer Shelves	1 Fixed Full Width Glass
Freezer Door Bins	2 Fixed Full-Width
Freezer Lighting	None
Certifications	
Energy Star® Qualified	ENERGY STAR® Qualified
UL	Yes
Compatibility	
Connectivity	No
Works With	No

Product Features

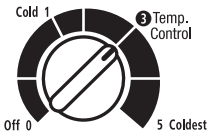
Using the Controls

IMPORTANT: Before operating this appliance, make sure it has been properly installed according to the appliance's Owner's Manual.

Your refrigerator has two controls that affect the temperature. The Temperature Control is located at the top front of the refrigerator compartment and the Airflow Control is located on the back wall of the freezer compartment.

Temperature Control (Thermostat Controlled Units) for Amana® Models

Mid-setting "3"



Recommended Settings

For your convenience, the Temperature Control is preset at the factory. When you first install your refrigerator, make sure the control is still preset as shown above.

The Temperature Control regulates the coldness of the air flowing into the compartments.

NOTE: To turn off your refrigerator, turn the refrigerator Temperature Control to the word Off. Turning the Temperature Control to Off stops cooling in the refrigerator and freezer compartments, but it does not disconnect the refrigerator from the power supply.

IMPORTANT:

- Give your refrigerator time to cool down completely before adding food. It is best to wait 24 hours before you put food into the refrigerator.

  NOTE: Adjusting the refrigerator and freezer controls to a colder than recommended setting will not cool the compartments any faster.
- If you add food before the refrigerator has cooled completely, your food may spoil.

Temperature Control (Electronic Controlled Units) for Whirlpool® Models



Recommended Settings

For your convenience, the Temperature Control is preset at the factory. When you first install your refrigerator, make sure the control is still preset as shown above.

IMPORTANT:

- The recommended setting should be correct for normal household refrigerator use. The controls are set correctly when milk or juice is as cold as you like and when ice cream is firm.
- Wait 24 hours for your refrigerator to cool completely before adding food. If you add food before the refrigerator has cooled completely, your food may spoil.

  NOTE: Adjusting the refrigerator and freezer controls to a colder than recommended setting will not cool the compartments any faster.
- If the temperature is too warm or too cold in the refrigerator or freezer, first check the air vents to be sure they are not blocked before adjusting the controls.

Adjusting The Temperature Control

The mid-settings should be correct for normal household usage. The controls are set correctly when milk or juice is as cold as you like and when ice cream is firm.

- If the temperature is too warm or too cold in the refrigerator or freezer, first check the air vents to be sure they are not blocked before adjusting the controls.

If you need to adjust the temperature in either the refrigerator or freezer compartment, use the settings listed in the chart below as a guide.

On models with two controls, adjust the refrigerator temperature first. Wait at least 24 hours between adjustments and then recheck the temperatures.

Condition/Reason:	Adjustment:
Refrigerator too warm	Temperature control one setting higher
Refrigerator too cold	Temperature control one setting lower
Freezer too warm/too little ice*	Airflow or temperature control one setting higher
Freezer too cold	Airflow or temperature control one setting lower

*Ice makers and ice maker kits are available on selected models. See online Owner's Manual.

Cooling ON/OFF (Electronic Controlled Units) for Whirlpool® Models

- To turn cooling off, press and hold the Setting button for 4 seconds until all lights stay on for 1 second. To turn cooling back on, press and hold the Setting button again for 4 seconds.

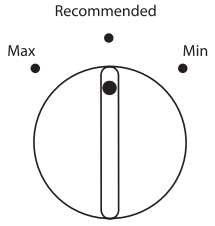
  NOTE: Neither compartment will cool when the control is set to Off.

Airflow Control

The Airflow control regulates the amount of air flowing between the freezer and the refrigerator compartments.

Changing the Airflow setting to Max removes cool air from the freezer and uses it to cool the refrigerator.

When you plug in the refrigerator for the first time, turn the Airflow control to the Recommended setting.



Adjusting the Airflow Control

If you want to temporarily increase the cold airflow to a specific compartment, adjust the control:

- Max - Increase airflow to the freezer
- Min - Increase airflow to the refrigerator

IMPORTANT: Once the performance is achieved, return the Airflow control to the recommended setting to keep the refrigerator operating at optimum efficiency.

Condition/Reason:	Adjustment:
Heavy ice use*	Max
Hot room temperature	Max – to maintain ice making production rate
Large quantity of groceries	Min – to quickly chill food and beverages

*Ice makers and ice maker kits are available on selected models. See online Owner's Manual.

Model Number Nomenclature

Amana® Top Mount Refrigerator

MODEL NUMBER	A	R	T	X	3	0	28	P	B

INTERNATIONAL SALES OR MARKETING CHANNEL

Brand
A = Amana®

Platform
R = Freestanding Refrigeration

Configuration
T = Top Mount

Physical Attribute
X = Reversible Swing TM/BM

Series
3 = Starter
5 = Standard

Series Step-Up
0-8 (even) = Used for drop-in models. Using the number that makes sense in the existing lineup

Width
28 = 28"

Year
P = 2023

Color
B = Black
W = White

Model Number Nomenclature

Whirlpool® Top Mount Refrigerator

MODEL NUMBER	W	R	T	X	5	0	28	P	M

INTERNATIONAL SALES OR MARKETING CHANNEL

Brand
W = Whirlpool®

Platform
R = Freestanding Refrigeration

Configuration
T = Top Mount

Physical Attribute
X = Reversible Swing TM/BM

Series
5 = Standard

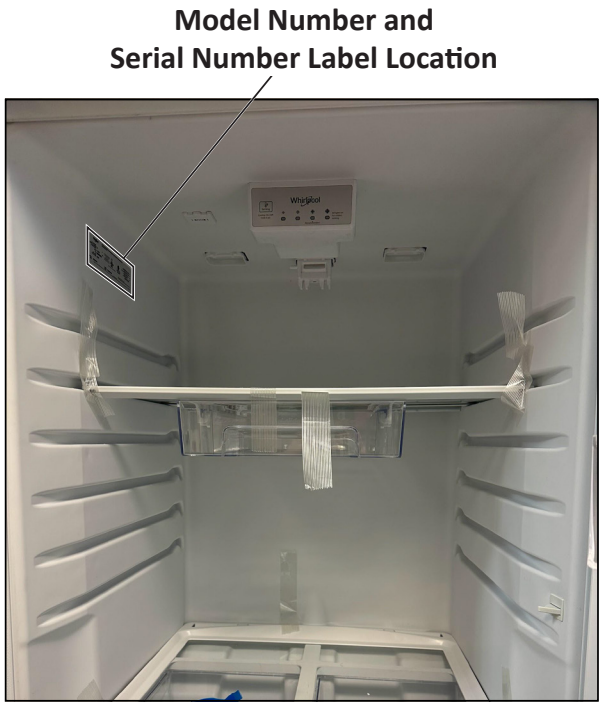
Series Step-Up
0-8 (even) = Used for drop-in models. Using the number that makes sense in the existing lineup
1-7 (odd) = Used when launching multiple models. Higher step numbers are more highly featured

Width
28 = 28"

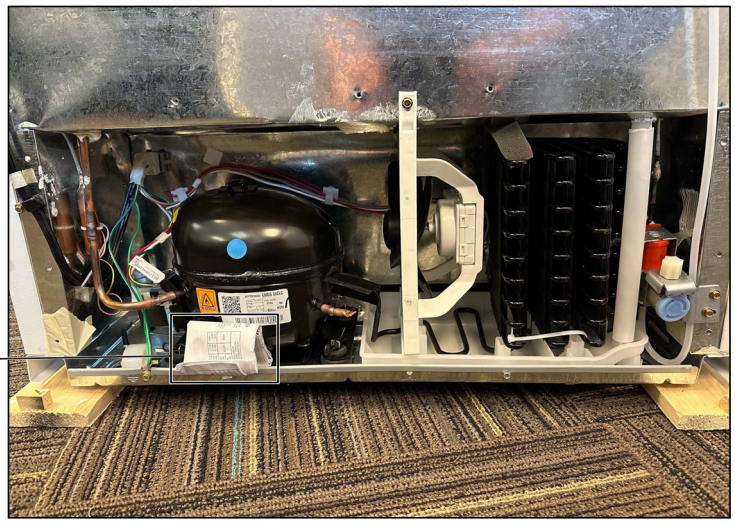
Year
P = 2023

Color
M = Monochromatic Stainless
B = Black
W = White

Model Number and Serial Number Label Location



Tech Sheet Location



Section 4: Component Access

This section provides service parts access, removal, and replacement instructions for the “Amana® and Whirlpool® 16 cu ft Top Mount Refrigerator.”

- Refrigerator Compartment (RC)
  - Electronic User Interface
  - Thermostat Controlled Units
  - RC Door Switch
- Freezer Compartment
  - Evaporator Cover
  - Defrost Heater
  - Evaporator Thermistor
  - Evaporator Fan
- Machine Compartment
  - Condenser Fan
  - Water Valve and Fill Tube (optional on some units)

Refrigerator Compartment (RC)

Electronic User Interface

⚠ WARNING



Electrical Shock Hazard

Disconnect power before servicing.

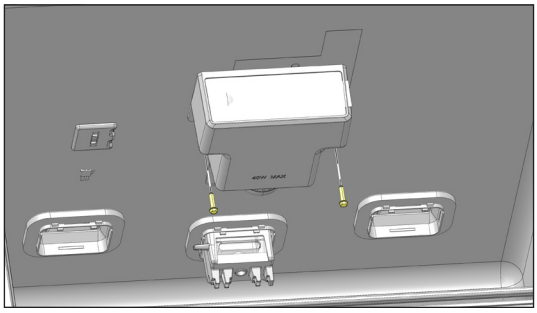
Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

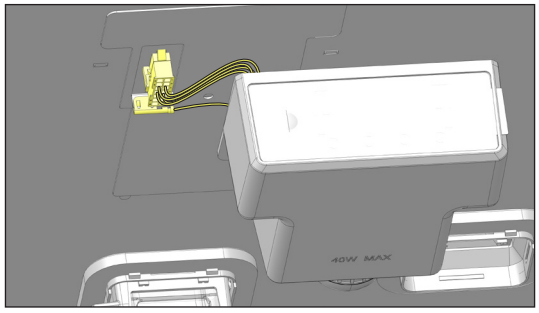
The User Interface Housing is mounted at the top of the refrigeration compartment.

User Interface Housing

1. Disconnect power to the refrigerator.
2. Remove two (2) 1/4" screws to lower housing.

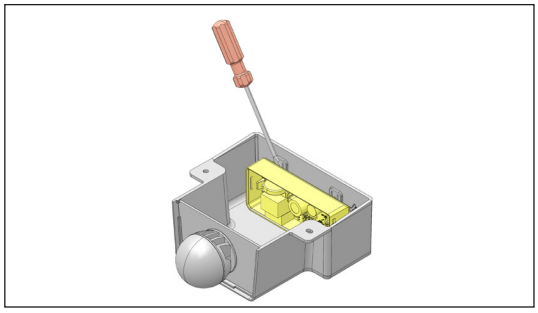


3. Disconnect the wiring harness and ground wire from above the UI.

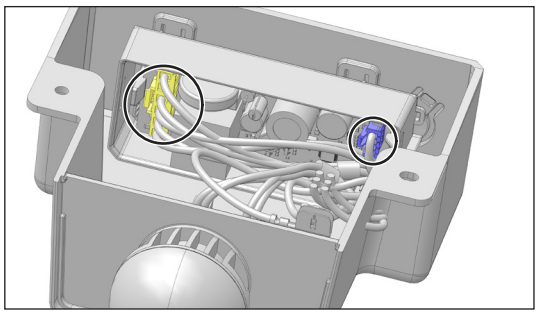


Electronic Control Board

1. Complete the steps 1-3 from User Interface Housing.
2. Use a small flathead screwdriver to release the two (2) tabs to remove the electronic control from the housing.

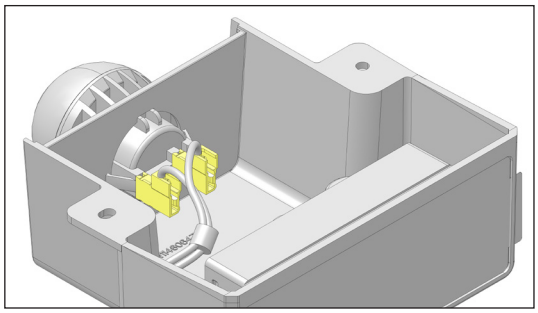


3. Remove two (2) wiring connectors to completely remove electronic control.

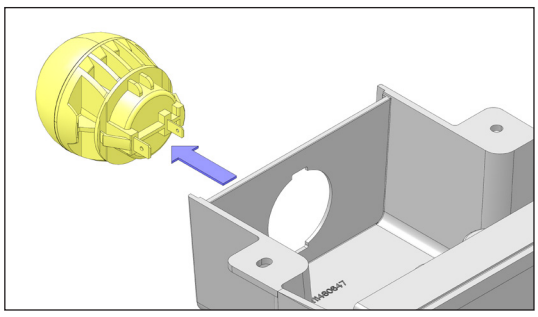


LED Assembly

1. Complete the steps 1-3 from User Interface Housing.
2. Disconnect the wiring connectors.

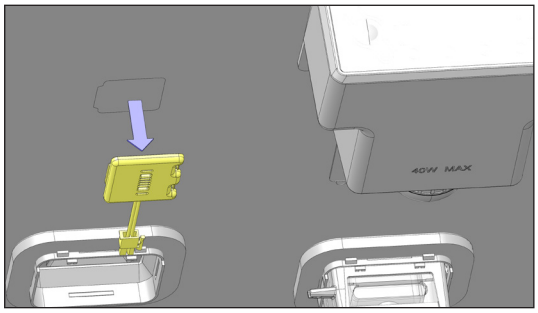


3. To remove the LED assembly from the housing, squeeze the tabs on the inside of the housing and pull the LED assembly out.

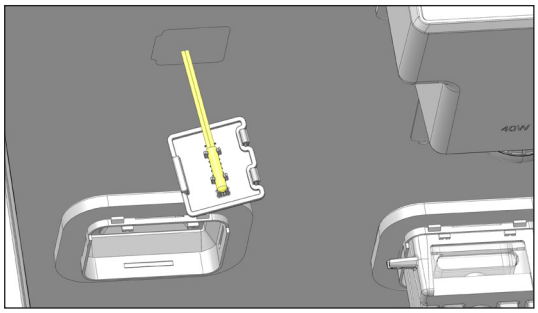


Thermistor

1. Locate the thermistor cover to the left of the electronic control. Pull off the thermistor cover.



2. Thermistor is located inside the cover.



Thermostat Controlled Units

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

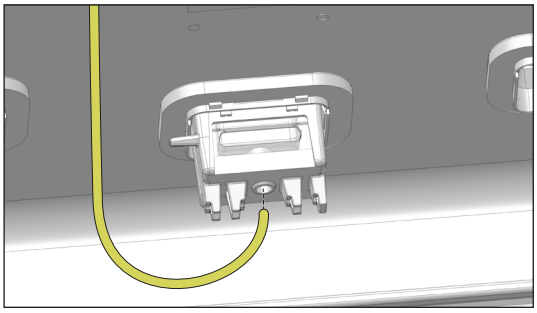
Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

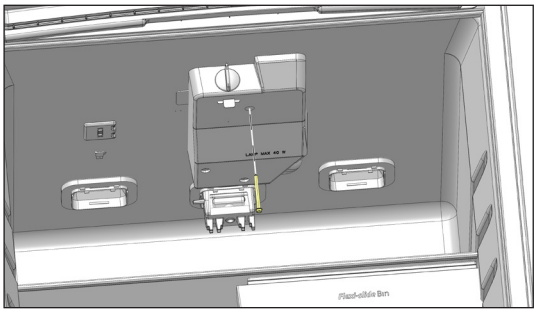
The User Interface Housing is mounted at the top of the refrigeration compartment.

Thermostat Housing

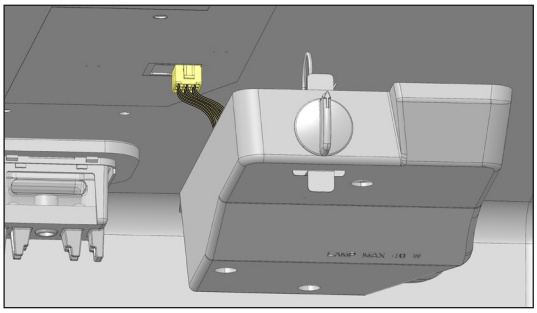
1. Disconnect power to the refrigerator.
2. From behind the control housing, unclip the thermometer end of thermostat tube.



3. Remove one (1) 1/4" screw to lower housing.

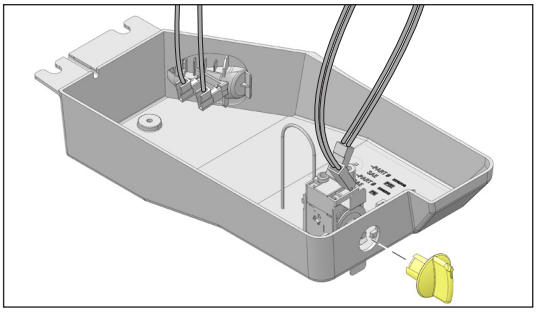


4. Disconnect the wiring harness (if needed use a small flat blade screwdriver).

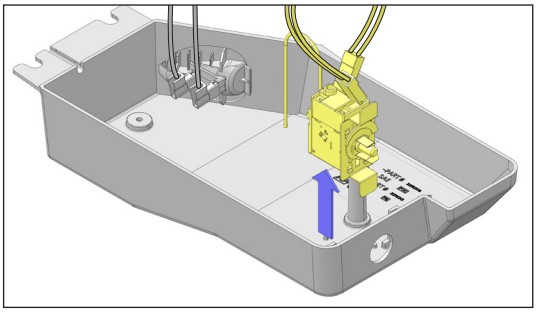


Thermostat

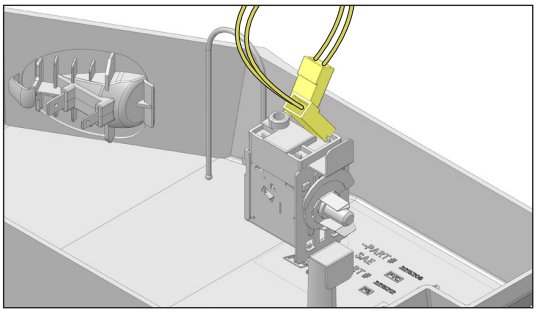
1. Complete the steps 1-4 from Thermostat Housing.
2. Pull the knob off then remove from the thermostat.



3. Slide thermostat up to remove from housing.

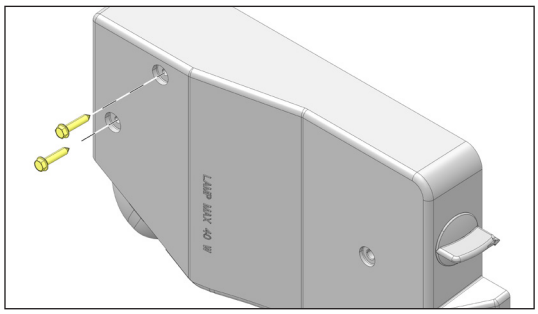


4. Disconnect two (2) wires from thermostat.

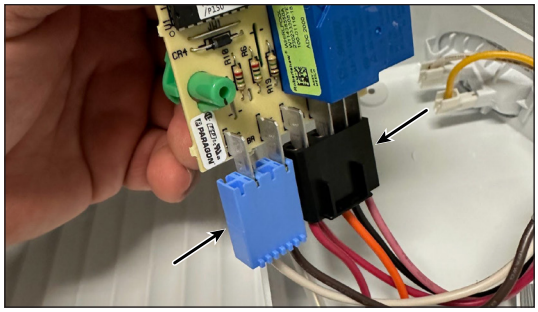


Electronic Board

1. Complete the steps 1-4 from Thermostat Housing.
2. Remove two (2) Phillips head screws from the bottom of the housing.

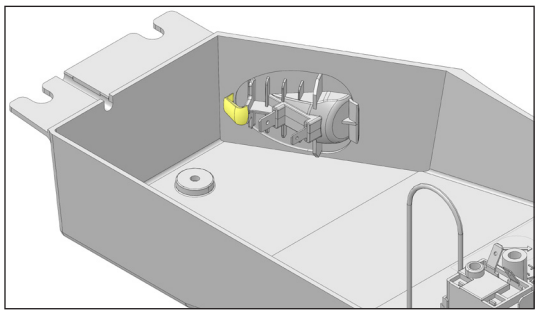


3. Remove two (2) wire connectors to remove the board.

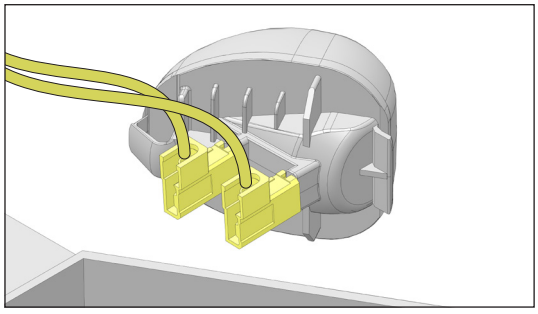


LED Assembly

1. Complete the steps 1-4 from Thermostat Housing.
2. Squeeze tab to remove LED assembly from housing.

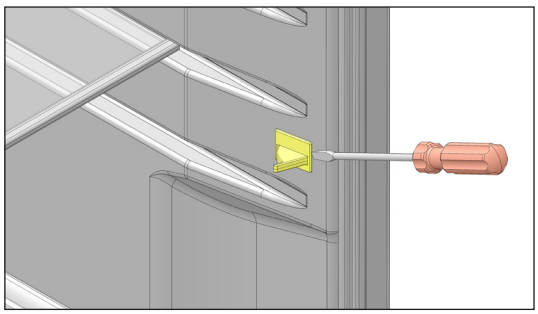


3. Remove two (2) wire connectors.



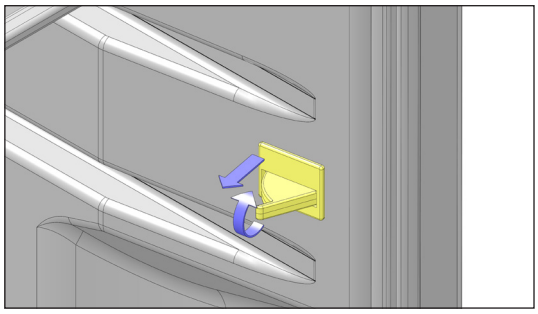
RC Door Switch

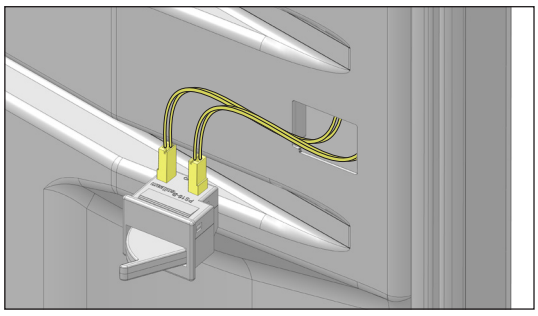
1. Use a flat blade screwdriver to push up on the retaining tab of the door switch.



2. Pull out and rotate in an upward direction to remove the door switch, then remove two (2) wire connectors.

   NOTE: The harness connectors will catch on the back side of the liner if pulled straight out.





Freezer Compartment

⚠ WARNING



Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

⚠ WARNING



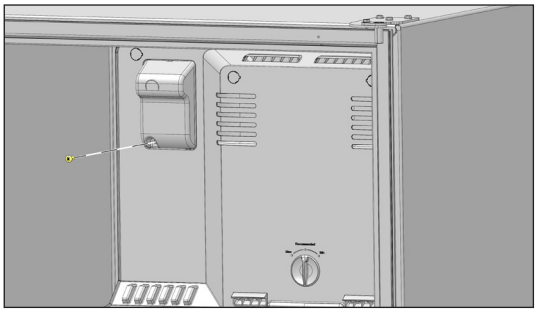
Explosion Hazard

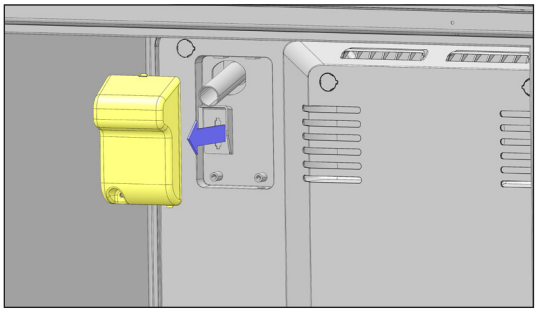
Risk of fire or explosion. Flammable refrigerant used. Do not use mechanical devices to defrost refrigerator.

Do not puncture refrigerant tubing.

Evaporator Cover

1. Disconnect power to the refrigerator.
2. Remove one (1) Phillips head screw to remove cover over Ice Maker connector.

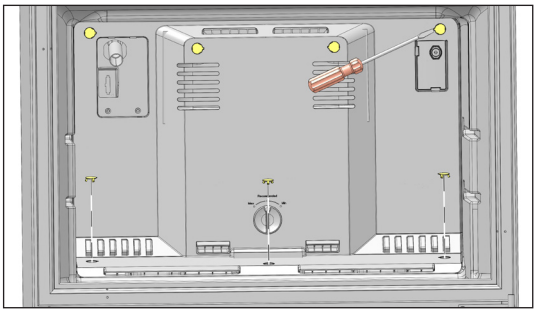




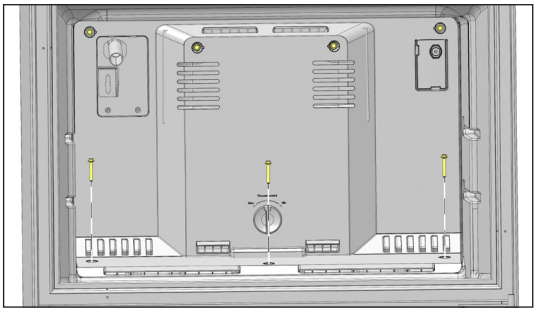
3. Squeeze tabs on ice maker wire connector and push through housing.



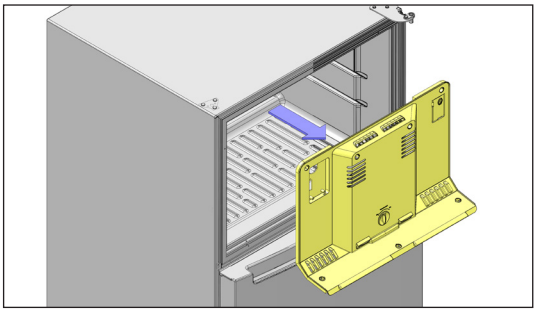
4. Use a small screwdriver to remove seven (7) screw covers.



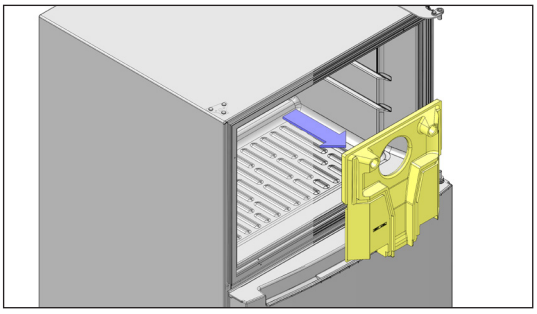
5. Remove seven (7) 1/4" screws.



6. Pull up on housing from the bottom to unsnap and remove.

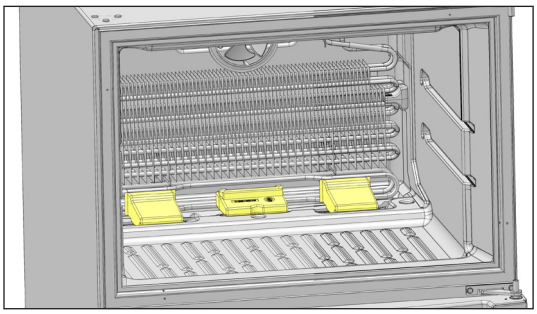


7. Remove foam over evaporator.

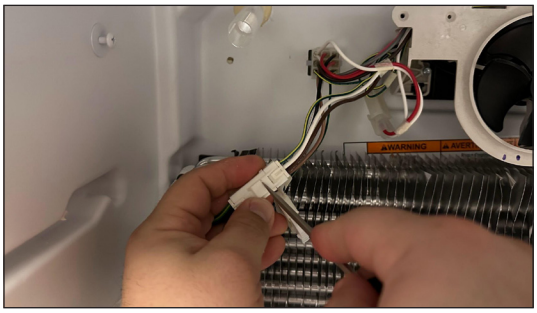


Defrost Heater

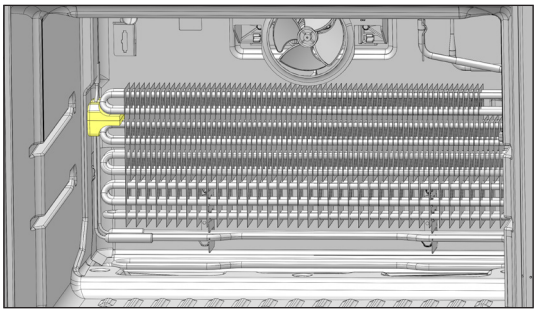
1. Complete the steps 1-7 from Evaporator Cover.
2. Carefully remove three (3) pieces of foam by pulling up and out. These all will be reused.



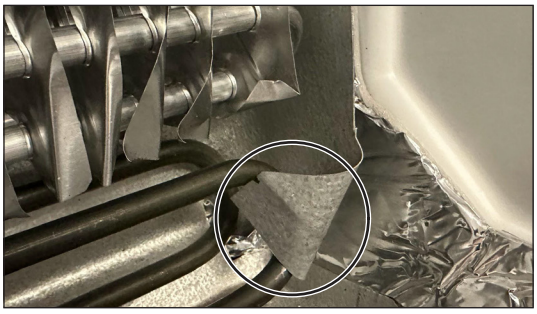
3. Disconnect the wiring harness (a small flat blade screwdriver may be needed).

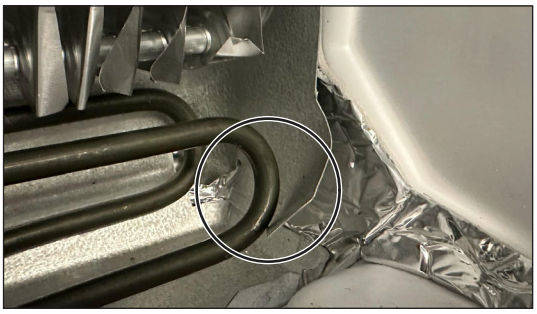


4. Carefully remove foam on the left hand side of the evaporator to get wires out. This foam will be reused.



5. Using proper tools and gloves, slightly bend metal out on right hand side to remove defrost heater.

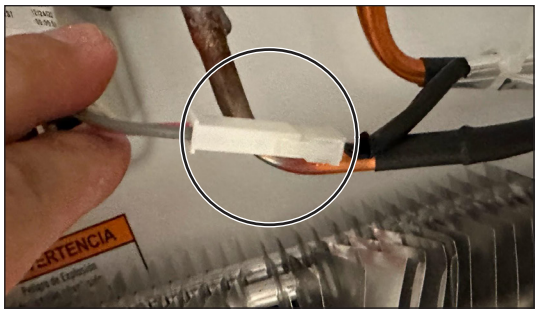




Evaporator Thermistor

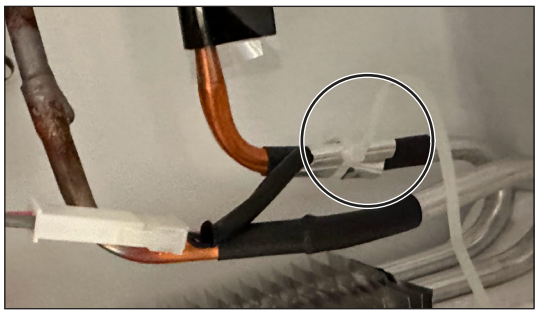
Evaporator Thermistor located above the right hand side of the evaporator.

1. Complete the steps 1-7 from Evaporator Cover.
2. Disconnect the wiring connection.



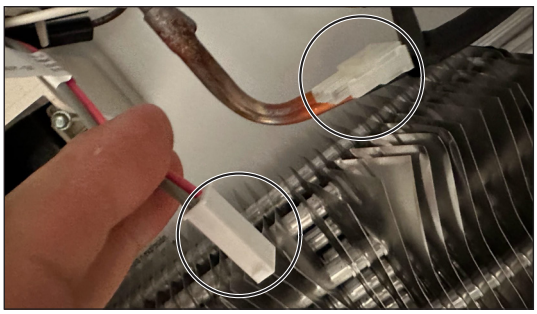
NOTE: Note the location of thermistor to locate replacement in same location.

3. Remove the zip tie to remove the thermistor.

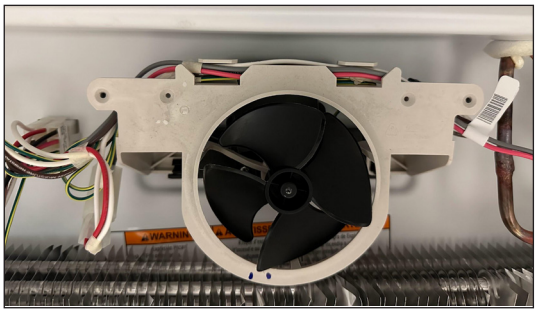


Evaporator Fan

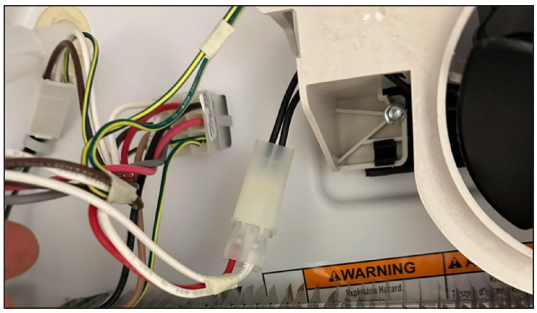
1. Complete the steps 1-7 from Evaporator Cover.
2. Disconnect wire connector to the evaporator thermistor.



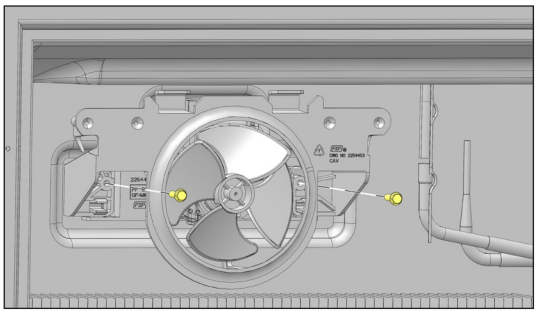
3. Unroute wires from above the evaporator fan housing (ground wire that goes to the back of the fan will still be there).



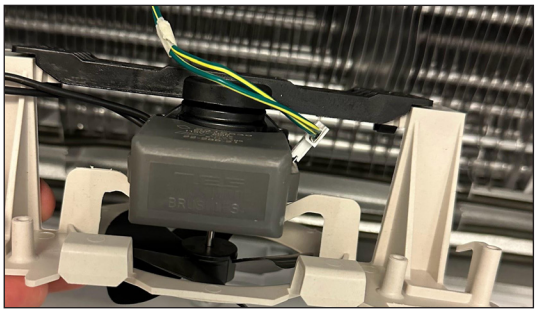
4. Disconnect the evaporator fan wire connector.



5. Remove two (2) Phillips head screws.



6. Disconnect ground wire.



Machine Compartment

⚠ WARNING



Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

⚠ WARNING



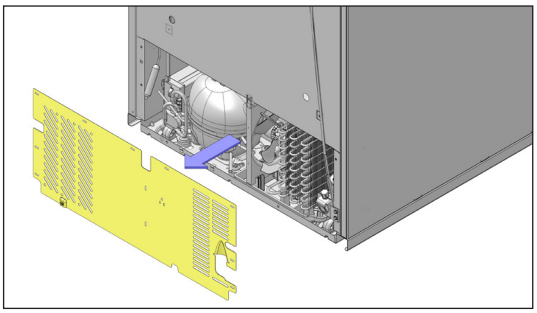
Explosion Hazard

Risk of fire or explosion. Flammable refrigerant used. Do not use mechanical devices to defrost refrigerator.

Do not puncture refrigerant tubing.

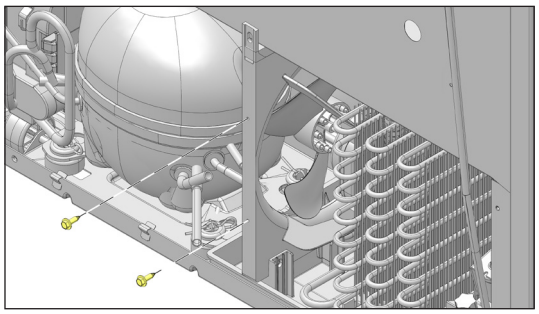
Machine Compartment

1. Disconnect power to the refrigerator.
2. Remove panel to get to the machine compartment.

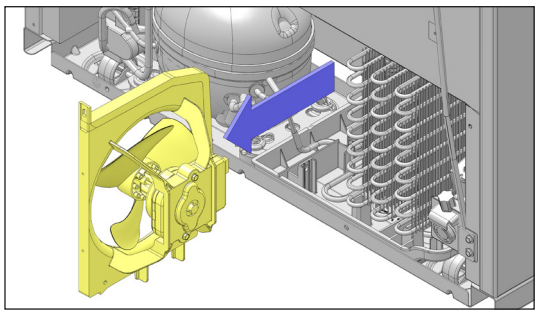


Condenser Fan

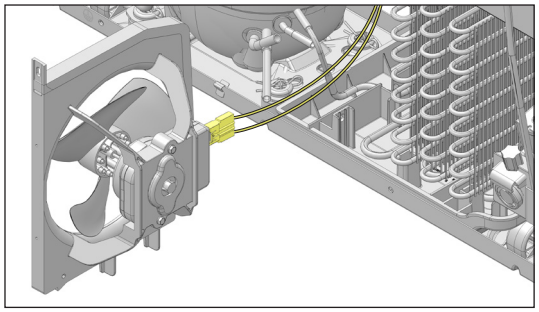
1. Remove two (2) 1/4" screws.



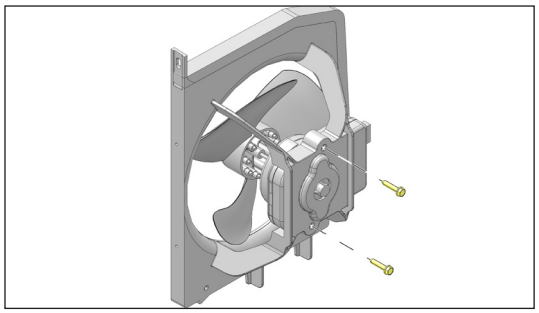
2. Slide fan out and then lean to the left to remove.



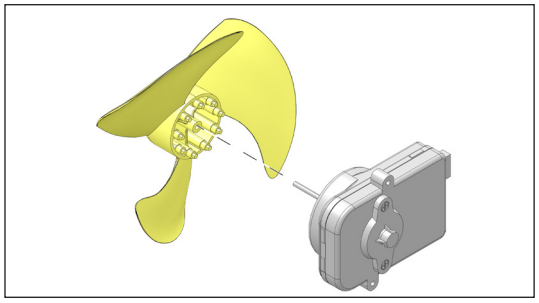
3. Disconnect wiring harness.



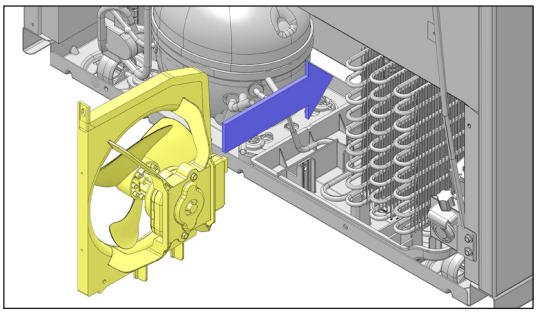
4. Remove two (2) 1/4" screws from the back of the condenser fan housing.



5. Pull out on fan blade to remove from motor.

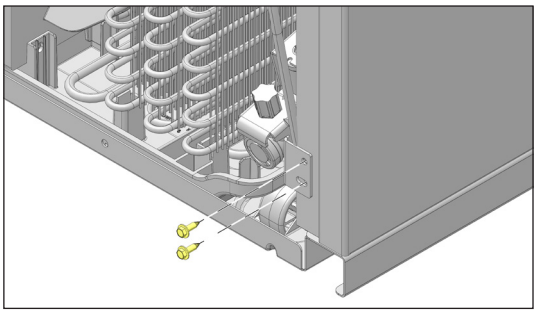


6. To replace fan follow steps in reverse order.
   NOTE: When attaching fan motor to housing, the connector should face the side with the foam around the edge.

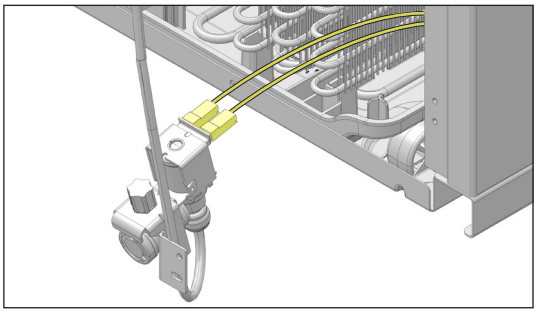


Water Valve and Fill Tube (optional on some units)

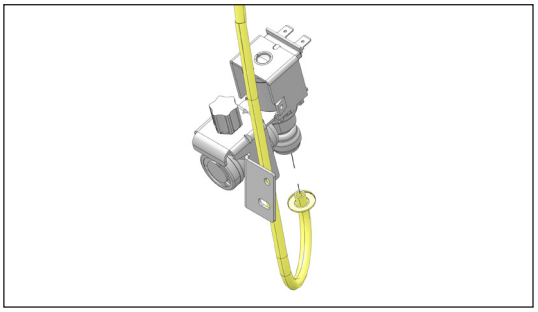
1. Remove two (2) 1/4" screws to remove the water valve.



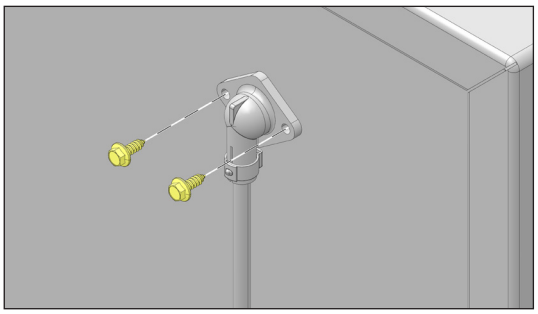
2. Remove the wiring connector.



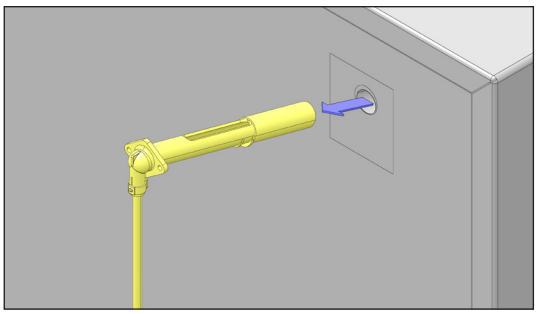
3. Depress the fitting to remove the fill tube water line.



4. Remove two (2) 1/4" screws to remove the fill tube.



5. Pull out the fill tube to remove.



NOTE: When replacing the fill tube you may need to guide the end from inside the freezer compartment.

Notes

PRODUCT SPECIFICATIONS & WARRANTY INFORMATION SOURCES

IN THE UNITED STATES:

FOR PRODUCT SPECIFICATIONS AND WARRANTY INFORMATION CALL:

FOR WHIRLPOOL PRODUCTS: 1-800-253-1301

FOR TECHNICAL ASSISTANCE WHILE AT THE CUSTOMER'S HOME CALL:

THE TECHNICAL ASSISTANCE LINE: 1-800-832-7174

HAVE YOUR STORE NUMBER READY TO IDENTIFY YOU AS AN AUTHORIZED IN-HOME SERVICE PROFESSIONAL

FOR LITERATURE ORDERS (CUSTOMER EXPERIENCE CENTER):

PHONE: 1-800-851-4605

FOR TECHNICAL INFORMATION AND SERVICE POINTERS:

www.servicematters.com

IN CANADA:

FOR PRODUCT SPECIFICATIONS AND WARRANTY INFORMATION CALL:

1-800-461-5681

FOR TECHNICAL ASSISTANCE WHILE AT THE CUSTOMER'S HOME CALL:

THE TECHNICAL ASSISTANCE LINE: 1-800-488-4791

HAVE YOUR STORE NUMBER READY TO IDENTIFY YOU AS AN AUTHORIZED IN-HOME SERVICE PROFESSIONAL

Amana® and Whirlpool® 16 cu ft Top Mount Refrigerator

W11668541 Rev A