

About Your Appliance & Installation Requirements

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! USER ACTION!



TRUE is not responsible for damage incurred during shipment. Always carefully inspect for freight damage before receiving and installing the appliance. If there is damage, note all damage on the delivery receipt, immediately file a claim with the delivery freight carrier, and contact TRUE. **Do not install the appliance or put it in service.**

Thank you for choosing TRUE Manufacturing to meet your refrigeration needs. TRUE highly recommends a qualified technician and electrician install your appliance to ensure correct installation. The cost of professional installation is money well spent. Only qualified technicians should install and service the appliance.

For assistance locating a refrigeration service technician in your area for installation, servicing or maintenance, please visit our Service Company Locator at www.truemfg.com/support/service-locator. TRUE is solely the appliance manufacturer and is not responsible for installation.

The appliance owner is responsible for proper installation and maintaining the appliance as described in this document. Routine care and maintenance procedures are not covered by TRUE's warranty.

Appliance Specifications

Some things to know about your appliance are as follows:

- Appliance tested for IEC to ISO Climate Class 5 [104°F (40°C) temperature, 40% relative humidity].
- For proper operation, ambient temperatures shall not be less than 60°F (15.5°C) and no greater than 104°F (40°C).
- Appliance is not for the storage and/or display of potentially hazardous foods when the temperature control is set above 41°F (5°C).
- Appliance is not suitable for outdoor use, unless otherwise stated on the serial label.
- Appliance is not suitable for an area where a pressure washer or hose may be used.
- Always plug the appliance into its own individual dedicated electrical circuit!
- **DO NOT** use extension cords or adapter plugs.
- Before connecting your appliance to the power supply, verify the incoming voltage ($\pm 5\%$) and the amps match the operation ratings on the appliance's serial label. Correct improper incoming voltage or amps immediately. Serial label location varies by model.
- Before connecting your appliance to the power supply, verify the power supply is correctly grounded. If the power supply is not grounded, correct immediately.
- Ensure the installation location will provide adequate clearances and sufficient airflow for the appliance. See "Clearances" (pg. 9).
- Read and follow all warnings and maintenance instructions. Failure to do so may result in damage and void the warranty on your appliance.

About Your Appliance & Installation Requirements (cont.)

Clearances

! NOTICE!



Warranty is void if ventilation is insufficient.

Be sure your appliance has the required surrounding clearances for ventilation purposes. Keep all ventilation openings in the appliance enclosure or structure housing the appliance clear of obstruction.

MODEL	TOP	SIDES	BACK
TVM Refrigerator	0" (0 mm)	0" (0 mm)	1" (25.4 mm)

About Your Appliance & Installation Requirements

Electrical Requirements

⚠ USER ACTION!



Find a copy of the wiring diagram with our serial number lookup at www.truemfg.com/support/serial-number-lookup.

Wire gauge chart (115V)

115 Volts	Distance in Feet to Center of Load											
AMPS	20	30	40	50	60	70	80	90	100	120	140	160
2	14	14	14	14	14	14	14	14	14	14	14	14
3	14	14	14	14	14	14	14	14	14	14	14	12
4	14	14	14	14	14	14	14	14	14	12	12	12
5	14	14	14	14	14	14	14	12	12	12	10	10
6	14	14	14	14	14	14	12	12	12	10	10	10
7	14	14	14	14	14	12	12	12	10	10	10	8
8	14	14	14	14	12	12	12	10	10	10	8	8
9	14	14	14	12	12	12	10	10	10	8	8	8
10	14	14	14	12	12	10	10	10	10	8	8	8
12	14	14	12	12	10	10	10	8	8	8	8	6
14	12	12	12	10	10	10	8	8	8	6	6	6
16	12	12	12	10	10	8	8	8	8	6	6	6
18	12	12	10	10	8	8	8	8	8	8	8	5
20	12	12	10	10	8	8	8	6	6	6	5	5
25	10	10	10	8	8	6	6	6	6	5	4	4
30	10	10	8	8	6	6	6	6	5	4	4	3

Wire gauge chart (230V)

230 Volts	Distance in Feet to Center of Load											
AMPS	20	30	40	50	60	70	80	90	100	120	140	160
5	14	14	14	14	14	14	14	14	14	14	14	14
6	14	14	14	14	14	14	14	14	14	14	14	12
7	14	14	14	14	14	14	14	14	14	14	12	12
8	14	14	14	14	14	14	14	14	14	12	12	12
9	14	14	14	14	14	14	14	14	12	12	12	10
10	14	14	14	14	14	14	14	12	12	12	10	10
12	14	14	14	14	14	12	12	12	10	10	10	10
14	12	12	12	12	12	12	12	10	10	10	8	8
16	12	12	12	12	12	12	10	10	10	8	8	8
18	12	12	12	12	12	10	10	10	8	8	8	8
20	12	12	12	10	10	10	10	10	8	8	8	8
25	10	10	10	10	10	10	10	8	8	6	6	6
30	10	10	10	10	10	8	8	8	6	6	6	6

Electrical Installation & Safety

⚠ DANGER!



- **Never use an extension cord!** An extension cord is any component that adds length to the OEM power cord when connecting the cord to a power source.
- **Never use an adapter plug!** An adapter plug alters the OEM plug configuration when connecting the plug to a power source.
- **Always use the correct outlet.** See "NEMA Plug Configurations" below.

NEMA Plug Configurations

60 HZ USE ONLY!

TRUE uses these types of NEMA plugs shown. If you **DO NOT** have the proper outlet, have a licensed electrician verify and install the correct power source.



115/60/1
NEMA-5-15R



115/208-230/1
NEMA-14-20R



115/60/1
NEMA-5-20R



208-230/60/1
NEMA-6-15R

International (IEC) Plugs Only

International appliances may be supplied with a power cord that will require installation. Install this cord before connecting the appliance to a power source.

NOTICE

International plug configurations will vary by country and voltage.

Installation

Fully seat the power cord into the appliance receptacle until it locks in position. See fig. 1.

Removal

Depress the red button. See fig. 2.

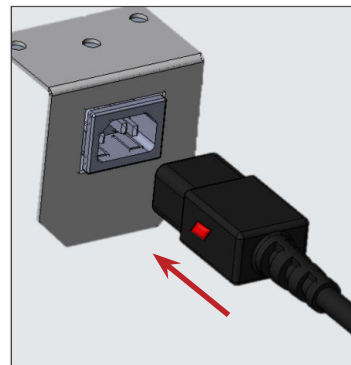


Fig. 1. Fully insert the power cord into the receptacle.

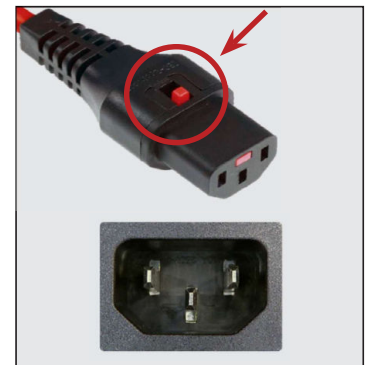


Fig. 2. Push the red button to remove the plug.

Installation & Setup

Installation & Setup

⚠ DANGER!



Risk of electrical shock or burn! Powering off an electronic control or setting temperature controls to the 0 (off) position does not remove power from all components. Unplug the appliance or disconnect power before installation or servicing.

⚠ WARNING!



Only qualified technicians should install and service the appliance. For assistance locating a refrigeration service technician in your area for installation, servicing or maintenance, please visit our Service Company Locator at www.truemfg.com/support/service-locator/.



The appliance owner is responsible for performing a Personal Protective Equipment (PPE) hazard Assessment and to ensure adequate protection during maintenance and cleaning procedures.

Use appropriate tools, safety equipment, and PPE during installation and servicing.



Sharp edges! Take care when moving, installing, cleaning, servicing and maintaining the appliance to avoid cuts. Be sure to take care when reaching under the appliance or handling metal components. Keep fingers out of pinch point areas, such as the space between appliance doors and surrounding appliances. Take care closing doors with children nearby.



Tip over hazard! Appliance may pose a tipping hazard when uncrating, installing or moving the appliance. Take appropriate safety precautions. Use of tip over restraints may only reduce (not eliminate) the tipping hazard. Never allow children to climb or hang on drawers, doors or shelves.



Crush or cut hazard! Keep clear when uncrating, installing, moving, or servicing the appliance.

Uncrating

ⓘ USER ACTION!



- If the appliance is damaged, note all damage on the delivery receipt, immediately file a claim with the delivery freight carrier, and contact TRUE. **DO NOT install the appliance or put it in service.**
- If the appliance is laid on its back or side, be sure to leave the appliance upright twice the time it has been laying down (up to four (4) hours) before plugging the appliance into a power source. If this time exceeds four (4) hours, let the appliance sit upright for 24 hours before powering the appliance.

ⓘ NOTICE!



Keys for appliances with door locks are located in the warranty packet.

Required Tools

Required tools include (but may not be limited to) the following:

- Adjustable wrench
- Phillips screwdriver

Installation & Setup (cont.)

Procedure

1. Remove the outer packaging (cardboard and bubble wrap or Styrofoam corner and clear plastic). See fig. 1. Inspect for concealed damage. **Again, immediately file a claim with the freight carrier if there is damage.**
2. With an adjustable wrench, remove all shipping bolts securing the wood skid to the bottom of the appliance. See fig. 2.

NOTICE > Move the unit as close as possible to the final location before removing the wooden skid. Some models may require removing the front and/or rear grill/cover to access the shipping bolts.

3. If leveling legs or castors **will not** be used, remove the appliance from the wood skid and set the skid aside.

NOTICE > **DO NOT** lift the cabinet by the countertops, doors, drawers, or grills.

4. If leveling legs or castors **will be used**, rotate the appliance on the skid (see fig. 3) and see the installation instructions on (pg. 14.)



Fig. 1. Remove the exterior packaging.

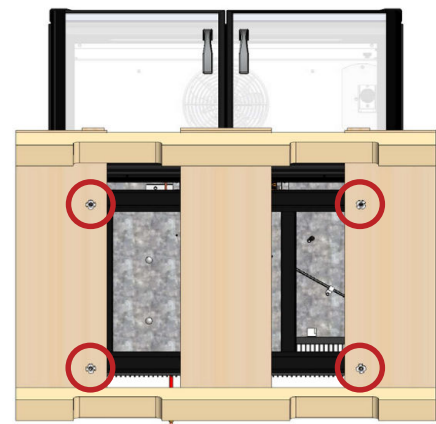


Fig. 2. Shipping bolt locations.



Fig. 3. When lifting unit, do not use countertops, doors/drawers or grills as a lifting point.

Installation & Setup (cont.)

Appliance Location

- Ensure that the drain hose or hoses are positioned in the pan.
- Free the plug and cord from inside the lower rear of the appliance (**DO NOT** plug in).
- Place the appliance close enough to the electrical supply so that extension cords are never used.

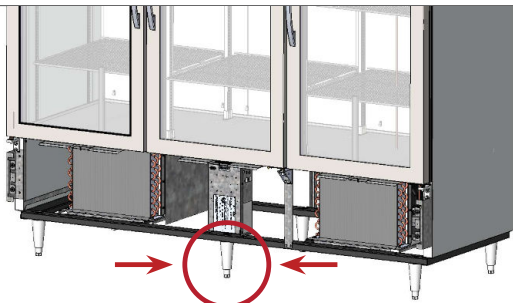
Leveling Screw, Leg, or Castor Installation

⚠ WARNING!

Tipping hazard! ALWAYS verify center leveling screws fully contact the floor after leveling the appliance.

ALWAYS be sure leveling legs or castors (and shims) are snug against the rail assembly or mounting plate.

ALWAYS verify center castors or leveling legs fully contact the floor after leveling the appliance. See fig. below.



Sharp edges! Take care when moving, installing, cleaning, servicing and maintaining the appliance to avoid cuts. Be sure to take care when reaching under the appliance or handling metal components.

Leveling screws are provided to assist with leveling the appliance. Adjustable legs provide 6" (152 mm) of clearance under the appliance. Castors provide appliance mobility.

Required Tools

Required tools include (but may not be limited to) the following:

- Adjustable Wrench

Procedure – Leveling Screws

If leveling screws are not factory installed, then, with access to the appliance bottom, install the leveling screws into the threaded holes in the frame rail or appliance bottom. See figs. 1–3.

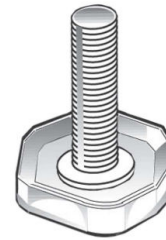


Fig. 1. Leveling screw.

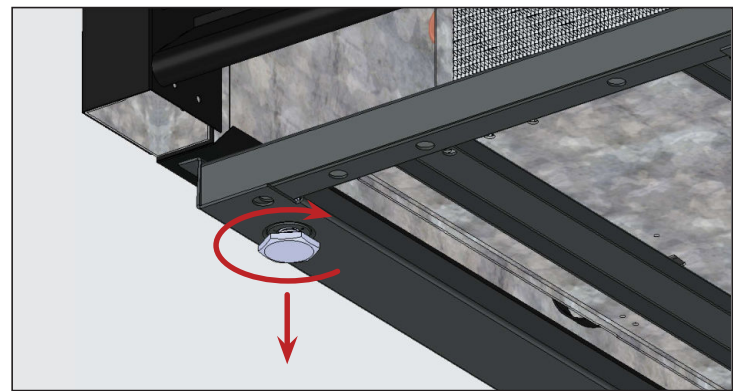


Fig. 2. Turn the leveling screws clockwise to lower the appliance.

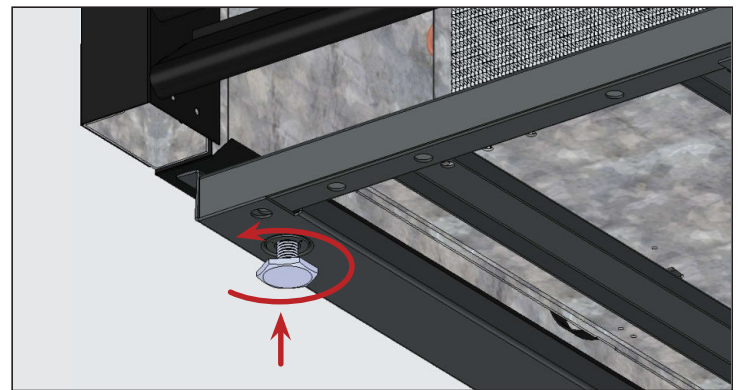


Fig. 3. Turn the leveling screws counterclockwise to raise the appliance.

Installation & Setup (cont.)

Procedure – 6" (152 mm) Leveling Legs

1. Access the appliance bottom.
2. If present, remove the leveling screws.
3. Thread the leveling legs into the frame rail or appliance bottom. See figs. 4 and 5.
4. Verify that the appliance is level. See "Level the Appliance" (pg. 16).
5. If the appliance is not level, gently lift and support the low end of the appliance. Then, with an adjustable wrench, screw the leveling leg bottom stems in or out to level and support the appliance. See fig. 4 and 6.

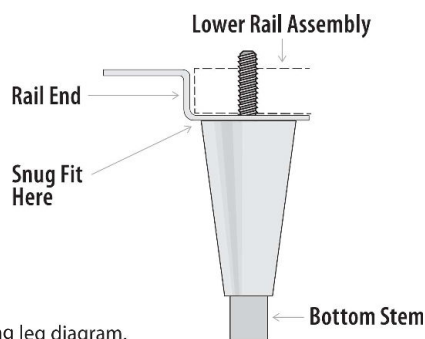


Fig. 4. Leveling leg diagram.

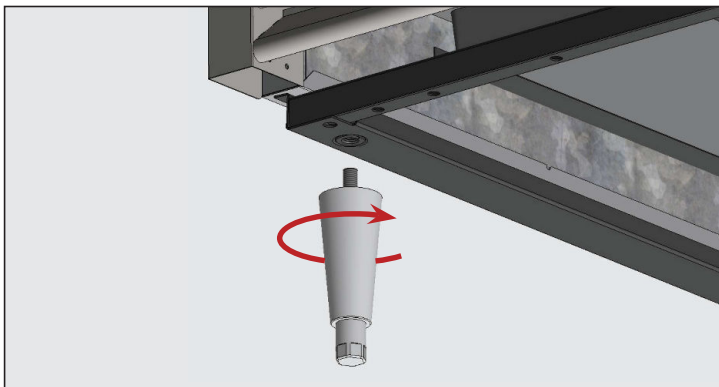


Fig. 5. Screw the leveling legs into the threaded holes.

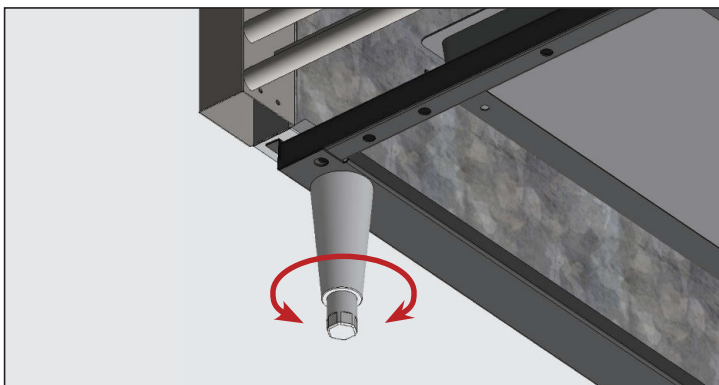


Fig. 6. Turn the bottom stem to level the appliance.

Procedure — Castors

! USER ACTION!



Install castors with brakes in the front.

1. Access the appliance bottom.
2. If present, remove the leveling screws.
3. Thread the castors into the frame rail or appliance bottom. See figs. 7 and 8.
4. Verify the appliance is level. See "Level the Appliance" (pg. 16).
5. On the low end of the appliance, loosen the castor bolt enough to slide provided castor shims between the castor bearing and the bottom rail of the appliance. See fig. 9.
6. Install the desired number of shims. See fig. 9.
 - If more than one shim is used, be sure shim slots are offset. See fig. 10.
 - **DO NOT** use more than four (4) shims on a castor.
 - Be sure each shim touches the castor stem.
7. Tighten and secure the shims and castors.
8. Verify the appliance is level.
9. If the appliance is not level, repeat the steps 3 – 6 until the appliance is level and supported.

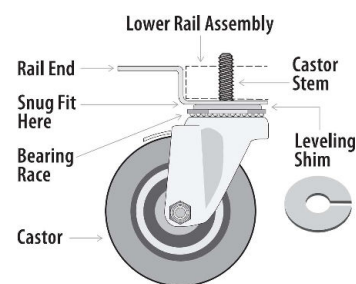


Fig. 7. Castor diagram.

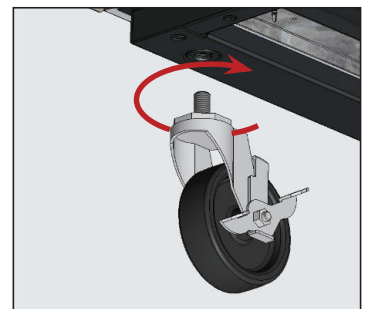


Fig. 8. Screw the castors into the threaded holes.

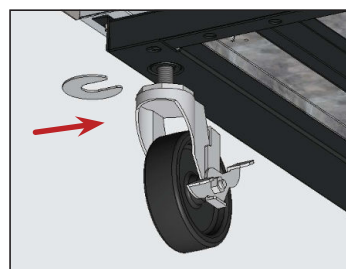


Fig. 9. Insert the castor shim(s). be sure to tighten the castor stem.

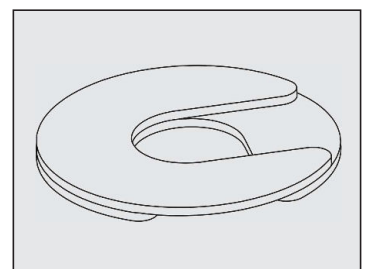


Fig. 10. Install multiple shims with offset slots.

Installation & Setup (cont.)

Level the Appliance

⚠ WARNING!



Tipping hazard! ALWAYS verify center leveling screws fully contact the floor after leveling the appliance.

Proper leveling of your TRUE appliance is critical to operating success (for non-mobile appliances). Leveling impacts effective condensate removal and door operation.

See "Leveling Screw, Leg or Castor Installation" (pg. 14) for level adjustment and shimming information.

Procedure

Position the appliance in its final installation location. Then, level the appliance front-to-back and side-to-side. See fig. 1.

1. Position the level on the inside floor of the appliance near the doors (level parallel to appliance front). Level the appliance.
2. Position the level at the inside rear of the appliance (level parallel to appliance back). Level the appliance.
3. Position the level on the left and right inside floor (level parallel to appliance sides). Level the appliance.

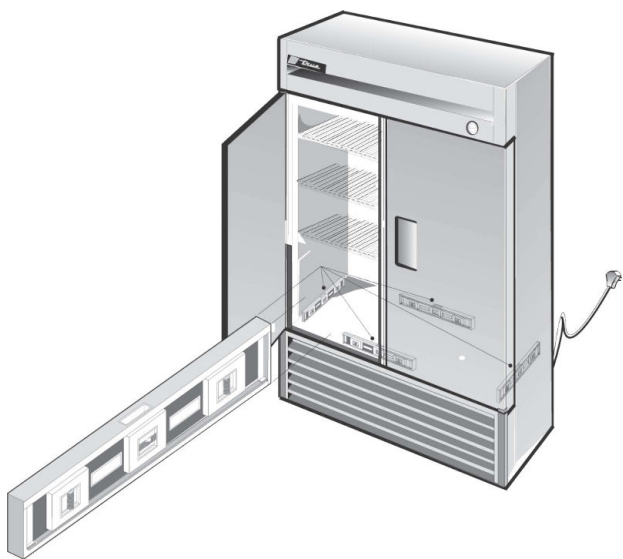


Fig. 1. Measure the level along the perimeter of the interior floor.

Seal the Appliance to the Floor

ⓘ USER ACTION!



Asphalt floors are susceptible to chemicals. TRUE recommends installing a layer of tape between the asphalt and the sealant to protect the floor.

The following procedure describes sealing a non-mobile appliance to the floor for NSF standards of proper sanitary operation. Sealing the appliance to the floor prevents liquid spillage on adjacent surfaces of the floor from passing under inaccessible portions of the equipment.

This may not be required for your application.

Procedure

1. Position the appliance in its final installation location. Be sure to leave adequate clearance between the back and sides per "Clearances" (pg. 9) to ensure proper ventilation.
2. Level the appliance front-to-back and side-to-side. See "Level the Appliance" (pg. 16).
3. Draw an outline of the appliance base on the floor.
4. Raise and block the front side of the appliance.
5. Apply a bead of NSF-approved sealant (see list below) to the floor, 1/2" (13 mm) inside the front part of the outline drawn in step 3. The bead of sealant must be heavy enough to seal the entire appliance surface when the appliance is lowered on top of the sealant.
6. Raise and block the rear of the appliance.
7. Apply sealant to the floor on the other three sides, as outlined in step 5.
8. Examine the appliance to ensure that it is sealed to the floor around the entire perimeter.

NSF-Approved Sealants

- 3M #ECU800 Caulk
- 3M #ECU2185 Caulk
- 3M #ECU1055 Bead
- 3M #ECU1202 Bead
- Armstrong Cork – Rubber Caulk
- Products Research Co. #5000 Rubber Caulk
- G.E. Silicone Sealer
- Dow Corning Silicone Sealer

Installation & Setup (cont.)

Shelf Installation

Both cantilever shelving and wire shelving (with clips) are available.

! USER ACTION!



Do not let product hang over the edge of the shelf.

! NOTICE!



Please note some doors are manufactured with a 90° Stay Open feature to assist with shelf installation, as well as loading and unloading the cabinet.

Shelf Adjustment

Shelving is adjustable for customer application. This appliance meets the IEC Shelf Weight Capacity of 47lb/ft² (230kg/m²).

Cantilever Shelving

There are two types of cantilever shelving: Solid shelves and wire shelves.

NOTICE > For ease of installation, TRUE recommends installing the lowest shelves first and then working your way up.

1. Slide the bracket support tab into the shelf standard. See figs. 1-3.
2. Slide the angle adjustment tab into the shelf standard. Hook the appropriate notch into the shelf standard to support the shelf at the desired angle. See figs. 3 and 4.
3. Repeat steps 1 and 2 for the opposite shelf support bracket.

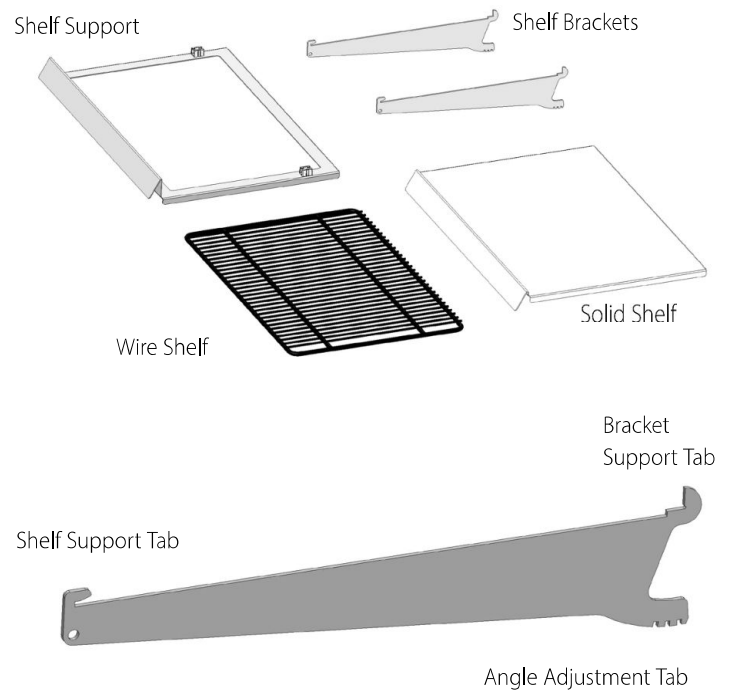


Fig. 1. Shelf support bracket tab identification.

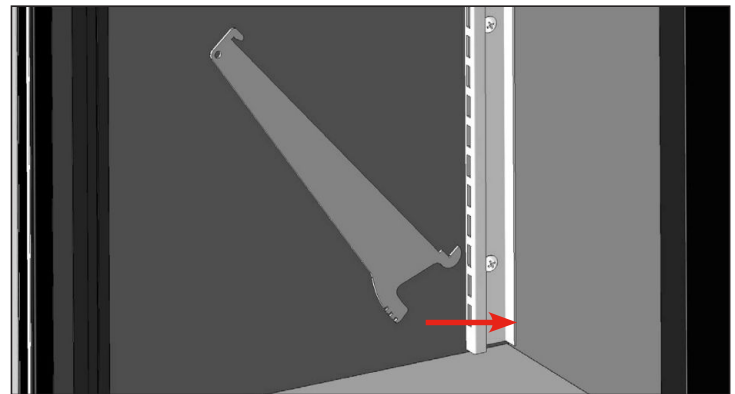


Fig. 2. Hook the shelf support into the shelf standard.

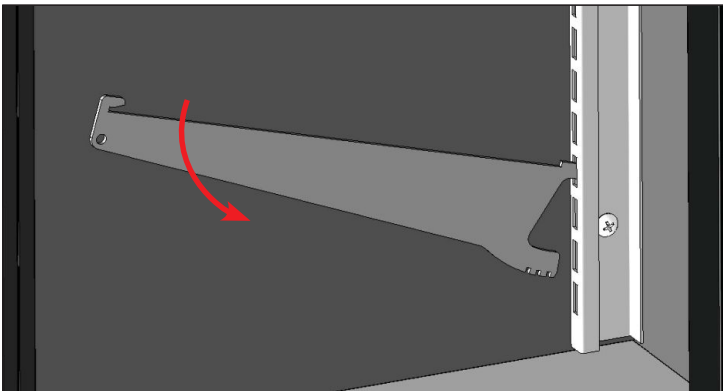


Fig. 3. Determine the appropriate adjustment slot.

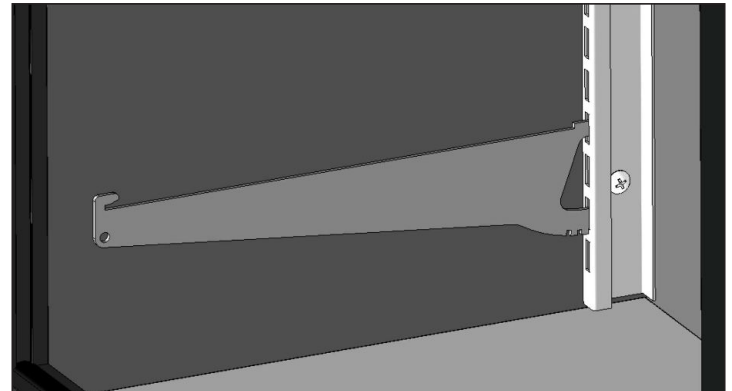


Fig. 4. Installed shelf support bracket.

Appliance Setup (cont.)

Solid Shelves

1. Install the shelf support bracket.
2. Lift the back of the shelf up. Position the shelf over the shelf support brackets. See fig. 5.
3. Carefully lower the back of the shelf and slide the shelf under the shelf support tab. See figs. 5 and 6.
4. Repeat steps 1-3 as needed.

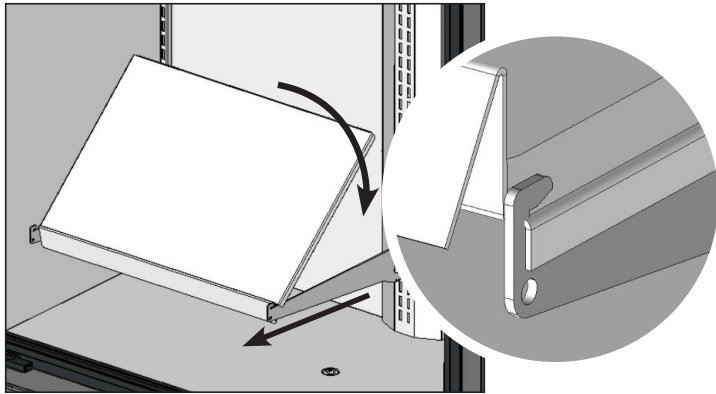


Fig. 5. Position the shelf while lifting the back of the shelf. Be sure the sides of the shelf hang over the bracket.

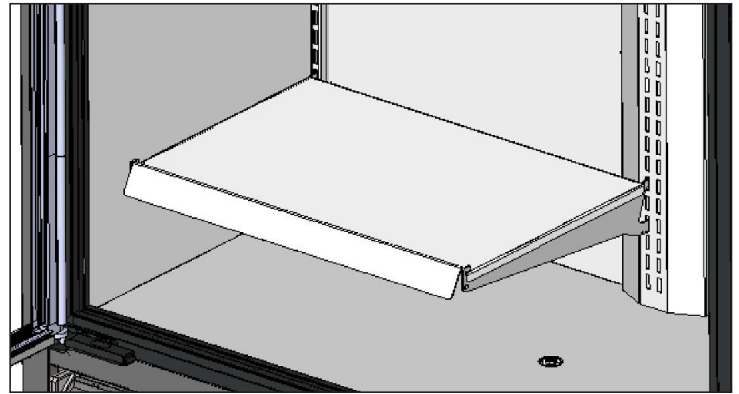


Fig. 6. Installed solid cantilever shelf.

Wire Shelves

1. Install the shelf support bracket.
2. Lift the back of the shelf up. Position the shelf over the shelf support brackets. See fig. 7.
3. Carefully lower the back of the shelf support and slide the shelf under the shelf support tab. See fig. 7.
4. Snap the wire shelf into the shelf support clips. See figs. 8 and 9.
5. Repeat steps 1-4 as needed.

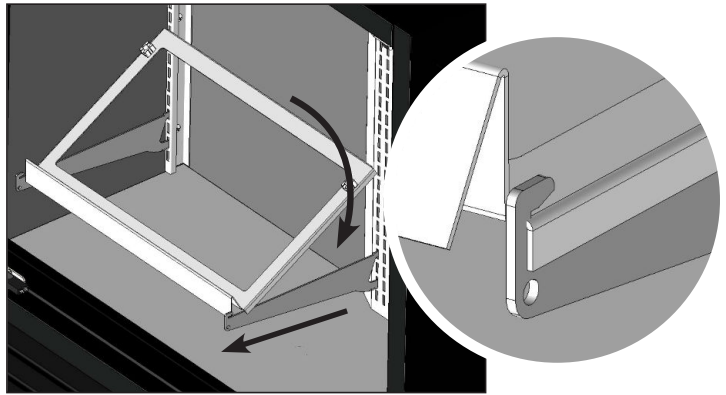


Fig. 7. Position the shelf while lifting the back of the shelf. Be sure the sides of the shelf hang over the bracket.

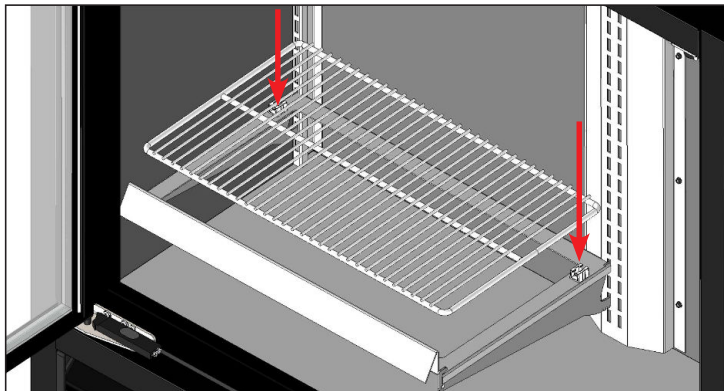


Fig. 8. Snap the wire shelf into the clips.

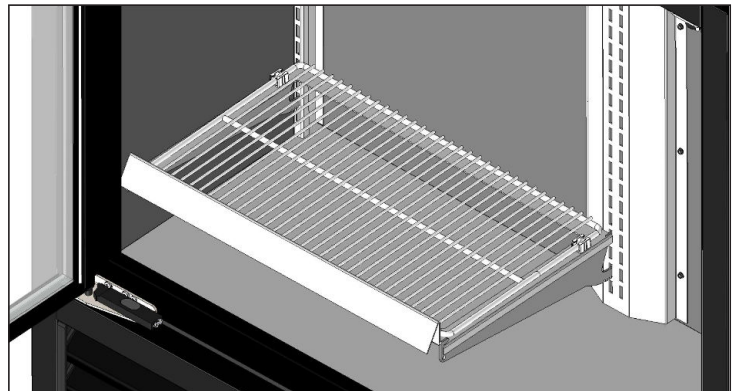


Fig. 9. Installed wire cantilever shelf.

Appliance Setup (cont.)

Wire Shelving with Clips

⚠ WARNING!



Overloading, incorrectly installing, or improperly loading shelves can cause shelf failure and negatively affect appliance operation, resulting in appliance damage, product damage, or personal injury.

DO NOT use pliers or any crimping tools when installing shelf clips. Altering shelf clips in any way can lead to shelving instability.



Installation Tips

- Install **all** the shelf clips before installing any shelves.
- Start at the bottom shelf and work your way up.
- Always lay the back of each shelf down on the rear clips before the front.

Procedure

1. Hook the shelf clips into the shelf standards. See fig. 1.
 2. Push up on the bottom of the clip. See fig. 2.
- NOTICE >** You may need to squeeze or twist the bottom of the shelf clip for proper installation. Position all four shelf clips equal in distance from the floor for flat shelves.
3. Ensure the shelf clip is not loose or able to wiggle out of the shelf standard. See figs. 3 and 4.
 4. Place the shelves on the shelf clips with the cross support bars facing down.

NOTICE > Be sure all shelf corners are properly seated.

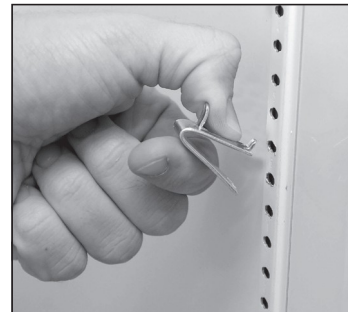


Fig. 1. Installing top tab of shelf clip.



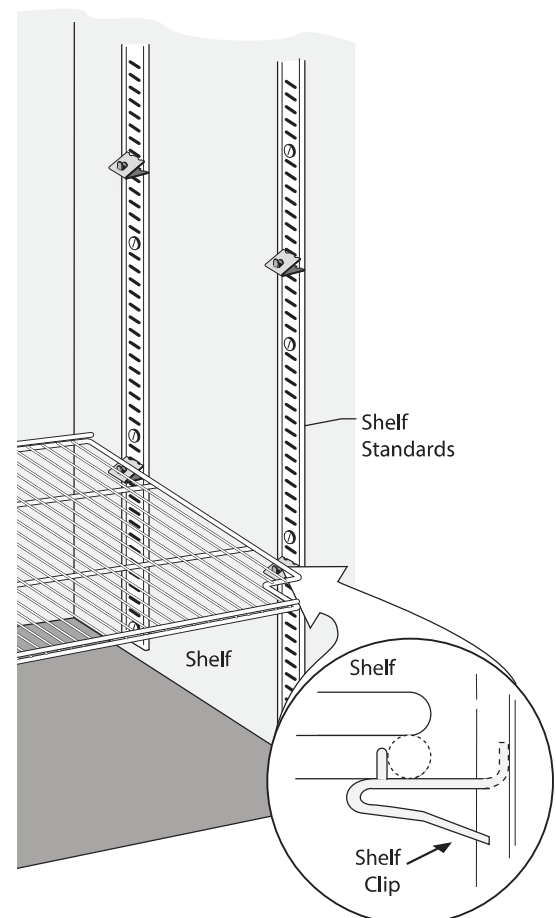
Fig. 2. The bottom tab of the shelf clip will fit tightly.



Fig. 3. You may need to squeeze or twist the bottom of the shelf clip to install.



Fig. 4. Installed shelf clip.



Installation & Setup (cont.)

Shelf Light Installation

1. Locate the LED power cord protruding from the inner back wall. See fig.1.
2. Gently pull the power cord and route it to the LED module, located under the front lip of the shelf. See fig. 2.
3. Insert the power cord into the LED module. See fig. 3.
4. Secure the power cord to the J-clip retainer on the shelf bracket. See fig. 4.

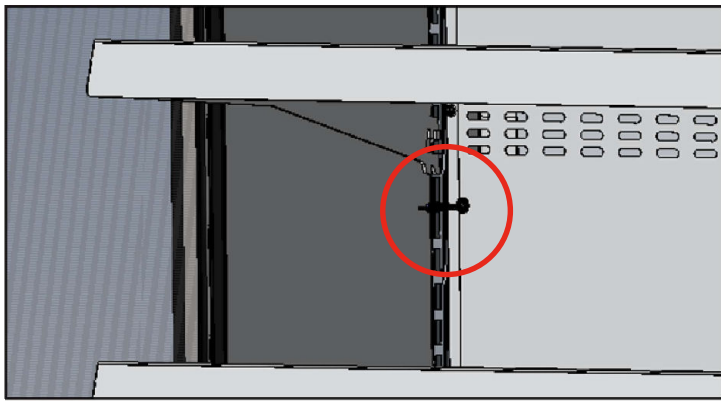


Fig. 1. Locate the LED power cord.

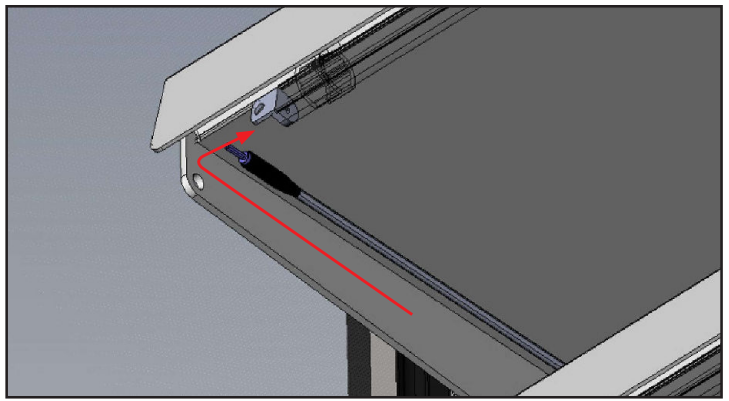


Fig. 2. Route the power cord to the LED module.

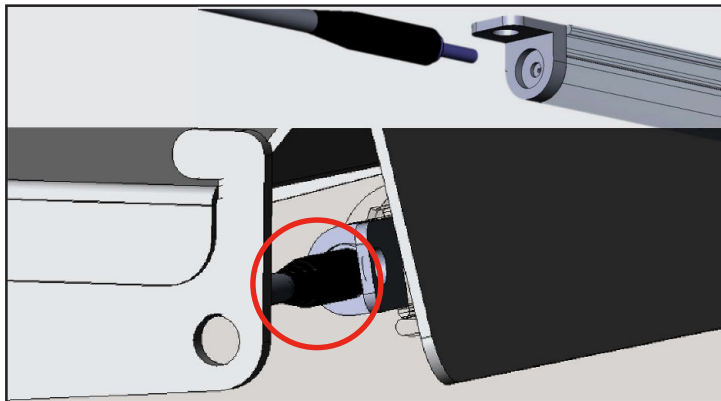


Fig. 3. Insert the power cord into the LED module.

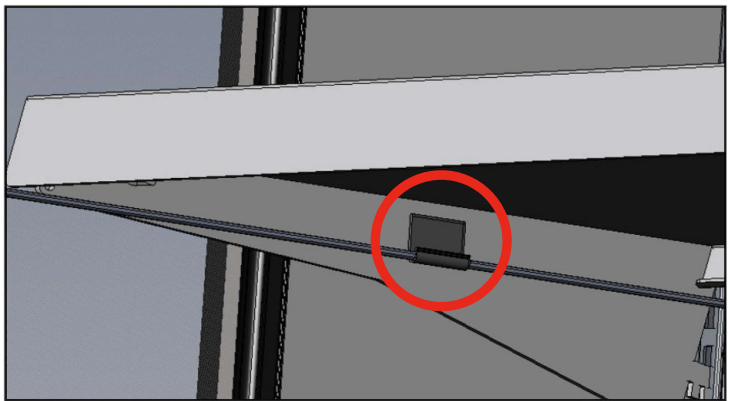


Fig. 4. Secure the power cord.

Installation & Setup (cont.)

Sign Panel Installation

Some versions of model TVM-48SL-HC will require the install of the top sign panel.

1. Locate the sign panel assembly (see fig. 1). Gently lay the sign panel assembly on top of the appliance.
2. Plug the sign panel assembly wire into the receptacle. See fig. 2.
3. Slide the sign panel assembly into the sign frame channels. See fig. 3.
4. Loosen the hardware securing the sign panel assembly support bracket to the appliance's top. See fig. 4.
5. Slide the support bracket forward until it contacts the sign panel assembly.
6. Tighten the support bracket hardware. See fig. 5.

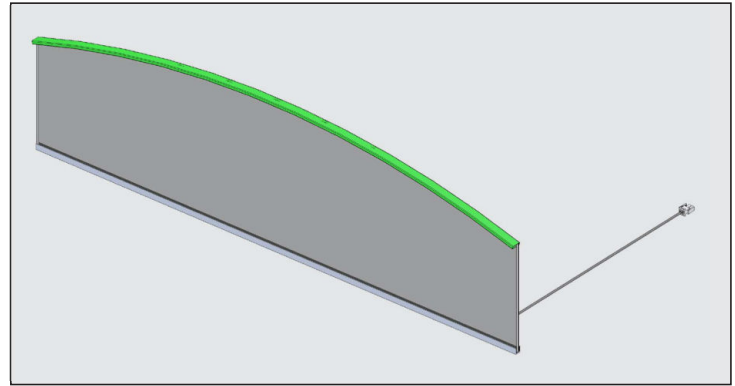


Fig. 1. Sign panel assembly.

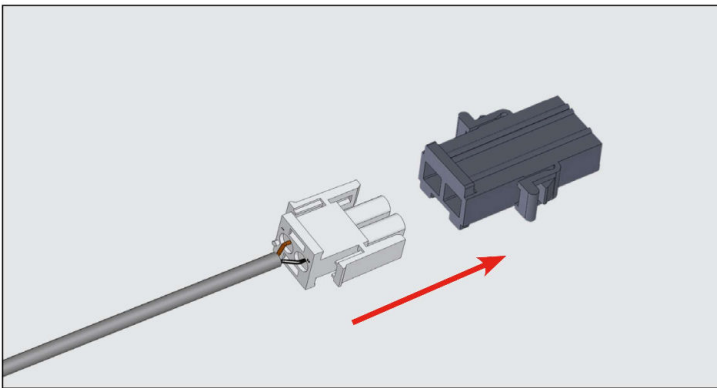


Fig. 2. Sign panel molex connector and sign area receptacle.

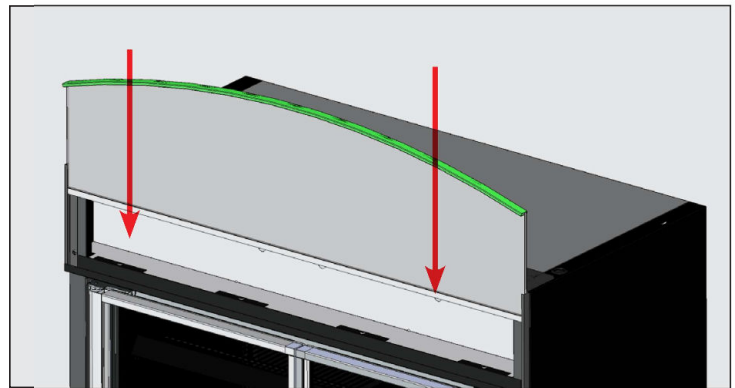


Fig. 3. Slide the sign panel assembly into place.

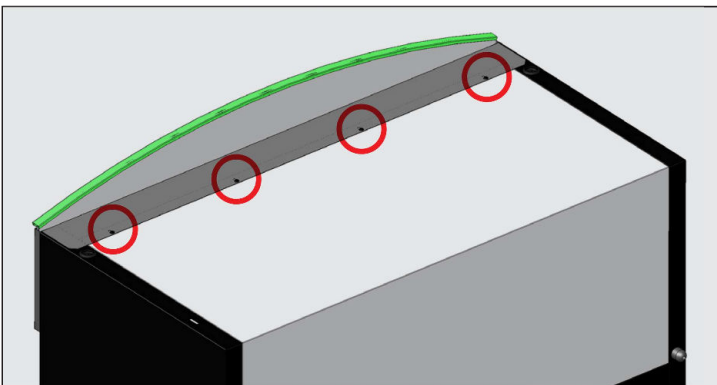


Fig. 4. Support bracket screw locations.

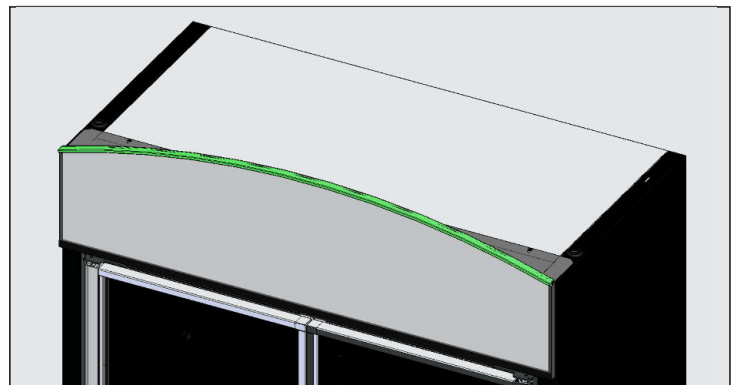


Fig. 5. Install sign panel assembly.