

INSTALLATION MANUAL FOR UNDERCOUNTER FREEZERS & WORKTOP FREEZERS



TUC-27FG



TUC-48F-D-4



TWT-44F



TWT-67F

TABLE OF CONTENTS

► **Safety Information**

Safety Precautions	1
Proper Disposal	2
Connecting Electricity	3
Adapter Plugs	3

► **Installation / Operation Instructions**

Ownership	4
Required Tools	4
Uncrating	4
Locating & Installation of Leg/Castors	5
Leveling Cabinet	6
Electrical Instructions	6
Start-up	7
Defrost Timer Instructions	8
Wire Gauge Chart	9
Danfoss Temperature Control	10
LAE Temperature Control	11-17
Shelving Install/Operation & Light Switch	18

► **Maintenance, Care & Cleaning**

Cleaning Condenser Coil	19-20
Cabinet Cleaning	21-22
Warranty (U.S.A. & Canada Only!)	23

*Spanish, German, French and Dutch versions included.

CONGRATULATIONS!

You have just purchased the finest commercial freezer available. You can expect many years of trouble-free operation.

UNDERCOUNTER & WORKTOP FREEZERS

NOTICE TO CUSTOMER:



**Loss Or Spoilage Of Products
In Your Refrigerator/Freezer
Is NOT Covered By Warranty.
In Addition To Following
Recommended Installation
Procedures You Must Run
The Refrigerator/Freezer
24 Hours Prior To Usage.**

True Manufacturing Company, Inc.

SAFETY INFORMATION

How to Maintain Your TRUE Unit to Receive the Most Efficient and Successful Operation

You have selected one of the finest commercial refrigeration units made. It is manufactured under strict quality controls with only the best quality materials available. Your TRUE cooler when properly maintained will give you many years of trouble-free service.

WARNING!

Use this appliance for its intended purpose as described in this Owner Manual.

TO LOCATE REFRIGERANT TYPE, SEE SERIAL LABEL INSIDE CABINET.

This cabinet may contain fluorinated greenhouse gas covered by the Kyoto Protocol (please refer to cabinet's inner label for type and volume, GWP of 134a= 1,300. R404a= 3,800).

For Hydrocarbon Refrigeration Only (R-290) See Below:

- **Danger** - Risk of fire or explosion. Flammable refrigerant used. Do not use mechanical devices to defrost refrigerator. Do not puncture refrigerant tubing.
- **Danger** - Risk of fire or explosion. Flammable refrigerant used. To be repaired only by trained service personnel. Do not puncture refrigerant tubing.
- **Caution** - Risk of fire or explosion. Flammable refrigerant used. Consult repair manual/owner's guide before attempting to service this product. All safety precautions must be followed.
- **Caution** - Risk of fire or explosion. Dispose of properly in accordance with federal or local regulations. Flammable refrigerant used.
- **Caution** - Risk of fire or explosion due to puncture of refrigerant tubing; follow handling instructions carefully. Flammable refrigerant used.
- **Caution** - Keep clear of obstruction all ventilation openings in the appliance enclosure or in the structure for building-in.

SAFETY PRECAUTIONS

When using electrical appliances, basic safety precautions should be followed, including the following:

- This refrigerator must be properly installed and located in accordance with the Installation Instructions before it is used.
 - Do not allow children to climb, stand or hang on the shelves in the refrigerator. They could damage the refrigerator and seriously injure themselves.
 - Do not touch the cold surfaces in the refrigerator compartment when hands are damp or wet. Skin may stick to these extremely cold surfaces.
 - Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
 - Keep fingers out of the "pinch point" areas; clearances between the doors and between the doors and cabinet are necessarily small; be careful closing doors when children are in the area.
- NOTE**
We strongly recommend that any servicing be preformed by a qualified individual.
- Unplug the refrigerator before cleaning and making repairs.
 - Setting temperature controls to the 0 position does not remove power.

SAFETY INFORMATION

DANGER!

RISK OF CHILD ENTRAPMENT

PROPER DISPOSAL OF THE FREEZER

Child entrapment and suffocation are not problems of the past. Junked or abandoned freezers are still dangerous... even if they will sit for “just a few days.” If you are getting rid of your old freezer, please follow the instructions below to help prevent accidents.

Before You Throw Away Your Old Refrigerator or Freezer:

- Take off the doors.
- Leave the shelves in place so that children may not easily climb inside.

Refrigerant Disposal

Your old refrigerator may have a cooling system that uses “Ozone Depleting” chemicals. If you are throwing away your old refrigerator, make sure the refrigerant is removed for proper disposal by a qualified service technician. If you intentionally release any refrigerants you can be subject to fines and imprisonment under provisions of the environmental regulations.

USE OF EXTENSION CORDS

NEVER USE AN EXTENSION CORD! TRUE will not warranty any refrigerator that has been connected to an extension cord.

REPLACEMENT PARTS

- Component parts shall be replaced with like components.
- Servicing shall be done by authorized service personnel, to minimize the risk of possible ignition due to incorrect parts or improper service.
- Lamps must be replaced by identical lamps only.
- If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent.

SAFETY INFORMATION

WARNING!

HOW TO CONNECT ELECTRICITY

Do not, under any circumstances, cut or remove the ground prong from the power cord. For personal safety, this appliance must be properly grounded.

The power cord from this appliance is equipped with a grounding plug which minimizes the possibility of electric shock hazard.

Have the wall outlet and circuit checked by a qualified electrician to make sure the outlet is properly grounded.

If the outlet is a standard 2-prong outlet, it is your personal responsibility and obligation to have it replaced with the properly grounded wall outlet.

The freezer should always be plugged into it's own individual electrical circuit, which has a voltage rating that matches the rating plate.

This provides the best performance and also prevents overloading building wiring circuits which could cause a fire hazard from overheated wires.

Never unplug your freezer by pulling on the power cord. Always grip plug firmly and pull straight out from the outlet.

Repair or replace immediately all power cords that have become frayed or otherwise damaged. Do not use a cord that shows cracks or abrasion damage along its length or at either end.

When removing the freezer away from the wall, be careful not to roll over or damage the power cord.

USE OF ADAPTER PLUGS

NEVER USE AN ADAPTER PLUG! Because of potential safety hazards under certain conditions, we strongly recommend against the use of an adapter plug.

La carga de poder que entra al gabinete, incluyendo cualquiera de los adaptadores utilizados, debe ser la carga adecuada disponible y debe estar propiamente conectada a tierra. Solamente los adaptadores enlistados con UL deben ser utilizados.

(North America Use Only!)

NEMA plugs

TRUE uses these types of plugs. If you do not have the right outlet have a certified electrician install the correct power source.



115/60/1
NEMA-5-15R

INSTALLATION / OPERATION INSTRUCTIONS

INSTALLATION / OPERATION INSTRUCTIONS

OWNERSHIP

To ensure that your unit works properly from the first day, it must be installed properly. We highly recommend a trained refrigeration mechanic and electrician install your TRUE equipment. The cost of a professional installation is money well spent.

Before you start to install your TRUE unit, carefully inspect it for freight damage. If damage is discovered, immediately file a claim with the delivery freight carrier.

TRUE is not responsible for damage incurred during shipment.

REQUIRED TOOLS

- Adjustable Wrench
- Phillips Head Screwdriver
- Level

UNCRATING

The following procedure is recommended for uncrating the unit:

- A.** Remove the outer packaging, (cardboard and bubbles or styrofoam corners and clear plastic). Inspect for concealed damage. Again, immediately file a claim with the freight carrier if there is damage.
- B.** Move your unit as close to the final location as possible before removing the wooden skid.
- C.** Remove door bracket on swing glass door models (see image 1-2).

NOTE

Keys for coolers with door locks are located in warranty packets.



Glass Door Models Only.

REMOTE UNITS (This section applies to remotes only!)

- Remote cabinets must be ordered as remote. We do not recommend converting for a standard self contained to remote system.
- All remote cabinets must be hard wired.
- No castors available.
- All remote cabinets come standard using 404A refrigerant.
- All remote units come standard with expansion valve, liquid line solenoid, heated condensate pan, and defrost timer when applicable.

- Contact TRUE Technical Service for BTU requirements.
- No wiring necessary between cabinet and condensing unit.
- All remote condensing units purchased from TRUE are 208/230 volts single phase.

If you have any questions regarding this section, please call TRUE at 1-(800)-325-6152.

INSTALLATION / OPERATION INSTRUCTIONS

LOCATING

WARNING: Be sure there is adequate ventilation in your room. Under extreme heat conditions, (100°F+, 38°C+), you may want to install an exhaust fan. Warranty is void if ventilation is insufficient.

CLEARANCES (For proper cabinet operation, clearance guidelines should be followed).

TUC/TWT Freezers – 1” at the rear, 0” at the sides, and 0” at the top.

TUC-24F-HC - 0” at the rear, 0” at the sides, and 0” at the top.

A. Place packing material behind cabinet as a cushion. Carefully lay the unit on its back to remove skid.

When lifting unit remember to leave the cabinet upright for 24 hours before plugging into power source.

B. Remove skid by unscrewing all base rail anchor brackets. Place skid to the side.

C. Carefully lift cabinet upright.

D. Appliance tested according to the climate classes 5 and 7 for temperature and relative humidity.

Removing skid from bottom of cabinet.



INSTALLATION OF LEGS AND CASTORS

Important Safeguard for installation of leg/castor (Images 1-5 demonstrate procedure)

Securing Castors and Legs

To obtain maximum strength and stability of the unit, it is important that you make sure each castor is secure. Legs are hand-tightened securely against the lower rail assembly. The bearing race on the castor of the top edge of the leg must make firm contact with the rail.

Unit leveling

Four leveling shims have been provided for leveling castored units positioned on uneven floors. Shims must be positioned between rail end and bearing race. TRUE requires a four shim limit to each individual castor.

A. Turn the bearing race counter-clockwise until the cabinet is level. Level front to back and side to side. (diagonally)

B. Install the desired number of shims, making sure the slot of the shim is in contact with the threaded stem of the castor.

C. If more than one shim is used, turn the slot at a 90° angle so they are not in line.

D. Turn the bearing race clockwise to tighten and secure the castor by tightening the anchoring bolt with a 3/4 inch open-end wrench or the tool provided.

CAUTION: To avoid damage to lower rail assembly, slowly raise unit to upright position.



1 Thread castor into the underside of cabinet frame rail.



2 For leveling, insert the shim between the castor and frame rail.



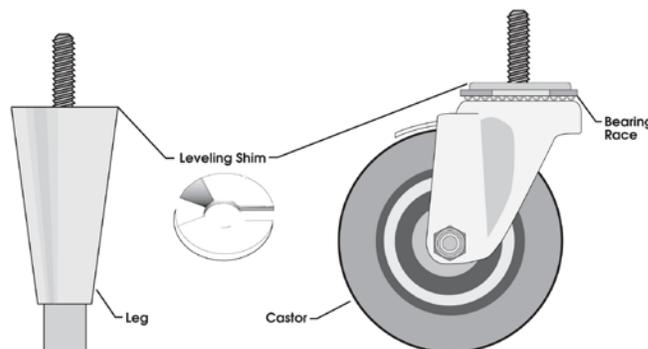
3 Use the tool provided to tighten the castor into place.



4 Thread leg into cabinet bottom frame rail.



5 The end of the leg is adjustable to easy leveling.



INSTALLATION / OPERATION INSTRUCTIONS

LEVELING

- A.** Set unit in its final location. Be sure there is adequate ventilation in your room. Under extreme heat conditions, (100°F+, 38°C+), you may want to install an exhaust fan.

WARNING

Warranty is void if ventilation is insufficient.

- B.** Proper leveling of your TRUE freezer is critical to operating success (for non-mobile models). Effective condensate removal and door operation will be effected by leveling.
- C.** The freezer should be leveled from inside the cabinet. Place a level on the inside floor of the unit front to back and side to side.

- D.** Ensure that the drain hose or hoses are positioned in the pan.

- E.** Free plug and cord from inside the lower rear of the freezer (do not plug in).

- F.** The unit should be placed close enough to the electrical supply so that extension cords are never used.

WARNING

Cabinet warranties are void if OEM power cord is tampered with. TRUE will not warranty any units that are connected to an extension cord.

ELECTRICAL INSTRUCTIONS

- A.** Before your new unit is connected to a power supply, check the incoming voltage with a voltmeter. If anything less than 100% of the rated voltage for operation is noted, correct immediately.

- B.** All units are equipped with a service cord, and must be powered at proper operating voltage at all times. Refer to cabinet data plate for this voltage.

TRUE requires that a sole use circuit be dedicated for the unit. Failure to do so voids warranty.

WARNING

Compressor warranties are void if compressor burns out due to low voltage.

WARNING

Power supply cord ground should not be removed!

WARNING

Do not use electrical appliances inside the food storage compartments of the appliances unless they are of the type recommended by the manufacturer.

NOTE

To reference wiring diagram - Remove front louvered grill, wiring diagram is positioned on the inside cabinet wall.

INSTALLATION / OPERATION INSTRUCTIONS

STARTUP

- A.** The compressor is ready to operate. Plug in the freezer.
- B.** Temperature control set at No. 4 position gives freezers an approximate temperature of -10°F. Allow unit to function several hours, completely cooling cabinet before changing the control setting.
- C.** Excessive tampering with the control could lead to service difficulties. Should it ever become necessary to replace temperature control, be sure it is ordered from your TRUE dealer or recommended service agent.
- D.** Good air flow in your TRUE unit is critical. Be careful to load product so that it neither presses against the back wall, nor comes within four inches of the evaporator housing. Refrigerated air off the coil must circulate down the back wall.

NOTE

If the freezer is disconnected or shut off, wait five minutes before starting again.

RECOMMENDATION

Before loading product we recommend you run your TRUE unit empty for two to three days. This allows you to be sure electrical wiring and installation are correct and no shipping damage has occurred. Remember, our factory warranty does not cover product loss!

REPLACEMENT PARTS

TRUE maintains a record of the cabinet serial number for your freezer. If at any time during the life of your cooler, a part is needed, you may obtain this part by furnishing the model number and serial number to the company from whom you purchased the cooler. Call Toll-Free: (800)-424-TRUE (Direct to Parts Department). (800)-325-6152 (U.S.A. & Canada only) or call: (636)-240-2400.

Defrost Time Periods:

Smaller freezer Worktop and Undercounter units have an automatic defrost. As soon as the unit is plugged into a power source a defrost will automatically start in eight hours. A defrost period will occur every eight hours after connecting to power source. Larger Worktop & Undercounter freezers have a different defrost timer. See instructions on the next page for operation information.

INSTALLATION / OPERATION INSTRUCTIONS

DEFROST TIMER INSTRUCTIONS

Defrost Time Clock Operation
Instructions for TUC-60-32F, 67F,
93F, TWT-60-32F,
67F, and 93F models.

RECOMMENDED DEFROST SETTINGS:

TRUE Manufacturing has factory set your defrost time clock to a recommended time and duration defrost scenario. Your TRUE equipment has been designed for three defrost periods (6:00 a.m., 2:00 p.m. and 10:00 p.m.). If you decide to deviate from these defrost time settings please follow the procedures for adjustment below.

NOTE

Defrost timer will need to be set at current time of day before plugging unit into power supply. The defrost times have been set from the factory. If you want to change defrost times please read through the defrost timer instructions.

REQUIRED TOOLS:

- Phillips Screwdriver
- 1/4" Nut Driver or Socket

TUC/TWT Defrost Timer Location:

Defrost timer can be found by removing the rear screen.

Setting the timer:
(UNPLUG UNIT FROM
POWER SUPPLY!)

Turn the clock (outer dial) clock-wise until the correct time of day on the outer dial is aligned with the marker of the inner dial. (See image 2).

Adjusting The Defrost Timer:
 (time initiated, time terminated)

Your TRUE equipment contains a defrost system that is time initiated and time terminated. While TRUE requires a minimum 3 defrost periods not to exceed 30 minutes the procedure on this page should be followed to customize your specific needs.

NOTICE

If timer is not set for a minimum of 3 defrost per day for 30 minutes each, the coil may develop excessive frost. This may lead to system failure and product loss, which is not covered under warranty.

The following procedure may be followed to customize your needs.

High usage, high temperature, and high humidity may require 4 defrost settings per day.

STEP 1

The white tabs located on the outmost area of the time clock have been factory set for (6:00 a.m., 2:00 p.m., and 10:00 p.m.). Each tab represents 15 minutes of defrost time. Notice that at each defrost time two white tabs are set for 15 minutes each for a total of 30 minutes of defrost.

STEP 2

In order to program the time to begin the defrost cycle, flip the white tabs out to set the defrost time. To eliminate a defrost time flip the white tabs back toward the center of the Defrost Timer.

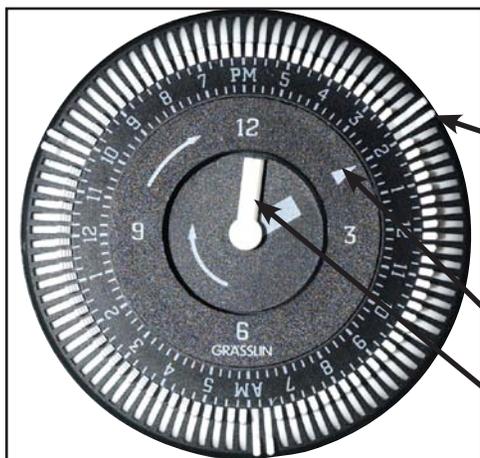
STEP 3

TRUE recommends a 30 minute defrost cycle three times per day.



Defrost Timer Box Image 1

WARNING
 Always follow the manufacturer's recommended settings when programming the amount and duration of the defrost cycles.



Defrost Timer Image 2

Outer most dial. White tabs represent 15 minutes of defrost time.

Time of day.

Inner most dial.

INSTALLATION / OPERATION INSTRUCTIONS

CONDUCTORS AND CIRCUITS

Wire Gauge for 2% Voltage Drop in Supply Circuits

115 Volt Amps	Distance In Feet To Center of Load											
	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	14	14	12	10	10	10	8	8	8	6	6	6
16	14	12	12	10	10	8	8	8	8	6	6	6
18	14	12	10	10	8	8	8	8	8	8	8	5
20	14	12	10	10	8	8	8	6	6	6	5	5
25	12	10	10	8	8	6	6	6	6	5	4	4
30	12	10	8	8	6	6	6	6	5	4	4	3
35	10	10	8	6	6	6	5	5	4	4	3	2
40	10	8	8	6	6	5	5	4	4	3	2	2
45	10	8	6	6	6	5	4	4	3	3	2	1
50	10	8	6	6	5	4	4	3	3	2	1	1

Wire Gauge for 2% Voltage Drop in Supply Circuits

230 Volts Amps	Distance In Feet To Center of Load											
	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	14	12	12	12	10	10	10
14	14	14	14	14	14	12	12	12	10	10	10	8
16	14	14	14	14	12	12	12	10	10	10	8	8
18	14	14	14	12	12	12	10	10	10	8	8	8
20	14	14	14	12	10	10	10	10	10	8	8	8
25	14	14	12	12	10	10	10	10	8	8	6	6
30	14	12	12	10	10	10	8	8	8	6	6	6
35	14	12	10	10	10	8	8	8	8	6	6	5
40	14	12	10	10	8	8	8	6	6	6	5	5
50	12	10	10	8	6	6	6	6	6	5	4	4
60	12	10	8	6	6	6	6	6	5	4	4	3
70	10	10	8	6	6	6	5	5	4	4	2	2
80	10	8	8	6	6	5	5	4	4	3	2	2
90	10	8	6	6	5	5	4	4	3	3	1	1
100	10	8	6	6	5	4	4	3	3	2	1	1

DANFOSS CONTROL FREEZER

GENERAL SEQUENCE OF OPERATION

TUC-27F, TUC-27F-LP, TUC-60F, TUC-60F-LP, TWT-27F, TWT-60F

1. Cabinet is plugged in.
 - a. Interior lights will illuminate of Glass Door Models only. If lights do not come on verify the light switch is in the “ON” position. Solid door cabinet may or may not have lights that may be controlled by the door switch.
 - b. Cabinet will start in a Defrost Cycle.

2. During the initial Defrost Cycle, the evaporator fan(s) and the compressor will remain off for a minimum of 4 minutes.
 - a. After the Defrost Cycle there will be a 2 minute delay.
 - b. After the 2 minute delay the compressor will start.
 - c. The evaporator fans will remain off for an additional 3 minutes.

3. The Danfoss control will cycle the compressor and the evaporator fan(s) on and off together.
 - a. The temperature control is sensing the discharge air temperature.
 - b. The temperature control should be set on the #4 or #5.
 - c. The warmest setting is #1 and #0 is the off position.
 - d. The thermometer is designed to read and display a cabinet temperature not a product temperature. This cabinet temperature may reflect the refrigeration cycle determined by the temperature control. The most accurate temperature on a cabinets operation is to verify the product temperature.

4. The Danfoss control is preprogrammed to initiate defrost every 4 hours of compressor run time.
 - a. At this time the compressor and evaporator fan(s) will turn off and the evaporator coil heater and drain tube heater will be energized. Some cabinets may also change the rotation of the reversing condenser fan motor.
 - b. Once a preprogrammed temperature of the evaporator coil is reached, the Defrost Cycle will terminate and the 2 minute delay will occur.
 - c. After the 2 minute delay the compressor will restart.
 - d. The evaporator fans will remain off for an additional 3 minutes.

TUC-24F-HC Only



DISPLAY

DISPLAY	
<i>dEF</i> Defrost in progress	<i>h_i</i> Room high temperature alarm
<i>aFF</i> Controller in stand-by	<i>L_o</i> Room low temperature alarm
<i>d_o</i> Door open alarm	<i>E₁</i> Probe T1 failure
<i>t₁</i> Instant probe 1 temperature	<i>E₂</i> Probe T2 failure
<i>t₂</i> Instant probe 2 temperature	<i>E₃</i> Probe T3 failure
<i>t₃</i> Instant probe 3 temperature	<i>t_h</i> Maximum probe 1 temperature recorded
<i>r_m</i> Minutes of the Real Time Clock	<i>t_{L_o}</i> Minimum probe 1 temperature recorded
<i>h_r</i> Hours of the Real Time Clock	<i>L_{oC}</i> Keypad state lock

LAE CONTROL SEQUENCE OF OPERATION

1. Cabinet is plugged in.
 - a. Display will illuminate.
 - b. Interior light will illuminate on glass door models only. (If lights do not come on please see instructions on following page(s).) Solid door cabinet lights are controlled by door switch.
2. After the LAE control preprogrammed time delay of 3 minutes, the compressor and evaporator fan(s) will start if the control is calling for cooling.
 - a. Control may be already pre-programmed from the factory so at the start of every compressor cycle or during a defrost cycle, the condenser fan(s) will reverse for 30 seconds to blow dirt off the condensing coil.
3. The LAE control will cycle the compressor but may also cycle evaporator fan(s) on and off determined by the Set-Point and Differential temperatures. (If the Set-Point needs to be changed due to conditions please see instructions on the following page(s).)
 - a. The **Set-Point** is the preprogrammed temperature which shuts off the compressor.
 - b. The **Differential** is the preprogrammed temperature that is added to the Set-Point temperature that will start the compressor.

Example: If the Set-Point is -9°F/-23°C and the Differential is 10°F/5°C

(Set-Point) -9°F + 10 (Differential) = 1°F

Or

(Set-Point) -23°C + 5 (Differential) = -18°C

The compressor and evaporator fan(s) will cycle off -9°F/-23°C
and back on at 1°F/-18°C

4. The LAE control may be preprogrammed to initiate defrost by interval or at specific times of day. (If additional Defrost Intervals or Cycles are needed or a Manual Defrost is required due to conditions please see instructions on the following page(s).)
 - a. At this time the “dEF” will appear on the display and compressor will turn off until a preprogrammed temperature or duration is reached. During this time for freezers only, evaporator fan(s) will also turn off and the coil heater and drain tube heaters will also be energized.
 - b. After the preprogrammed temperature or duration for defrost has been reached there may be a short delay for both the compressor and evaporator fans to restart. At this time “dEF” may still appear on the display for a short time.

True Manufacturing recommends that ONLY the Set-Point and/or Defrost Interval may be adjusted due to certain conditions.

This sequence is NOT model specific.

If you have any questions, please contact the Technical Service Department.

Phone: 800-325-6152 • Email: service@truemfg.com

..... www.truemfg.com

LAE Electronic Control



LAE Control Icons	
	Compressor Running
	Evaporator Fan Running
	Cabinet in Defrost
	Activation of 2nd Parameter Set - NA
	Alarm - NA



Info/Set Point Button



Manual Defrost/Down Button



Manual Activation/Up Button



Stand-By Button

LOCKING & UNLOCKING LAE CONTROLLER

WHY:

LOCKING OF CONTROL IS NECESSARY TO PREVENT CHANGES TO PROGRAM THAT MAY AFFECT CABINET OPERATION

HOW:

- A.** To change lock setting press and release the info button . "t1" will appear. See image 1.
Press the up button until "Loc" appears. See image 2.
- B.** While pressing and holding the info button press the up or down button to change the lock settings. If "no" appears, the controller is unlocked. If "yes" appears, the controller is locked. See images 3 and 4.
- C.** Once the lock setting has been set correctly release the info button .
Wait 5 seconds for the display to show temperature. See image 5.



Image 3:
If "no" appears on screen, the controller is unlocked.



Image 4:
If "yes" appears on screen, the controller is locked.



LAE Electronic Control



LAE Control Icons	
	Compressor Running
	Evaporator Fan Running
	Cabinet in Defrost
	Activation of 2nd Parameter Set - NA
	Alarm - NA



Info/Set Point Button



Manual Defrost/Down Button



Manual Activation/Up Button



Stand-By Button

HOW TO TURN GLASS DOOR MODEL LIGHTS ON/OFF

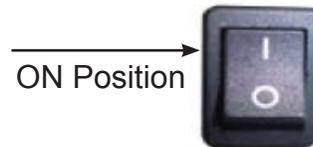
May need to unlock control.

WHY:

LIGHT MAY BE CONTROLLED BY LAE CONTROLLER OR INTERIOR LIGHT SWITCH.

HOW:

- A.** To control interior/sign lights by the LAE Controller, press and release the “Manual Activation”  button.
- B.** To control interior/sign lights by the interior door switch, depress the rocker switch to the “ON” position. Light Switch is located on inside top right of the ceiling.



(Solid Door models lights are controlled by a door switch)

LAE Electronic Control



LAE Control Icons	
	Compressor Running
	Evaporator Fan Running
	Cabinet in Defrost
	Activation of 2nd Parameter Set - NA
	Alarm - NA



Info/Set Point Button



Manual Defrost/Down Button



Manual Activation/Up Button



Stand-By Button

HOW TO CHANGE THE “SET POINT”

May need to unlock control.

WHY:

THE SET POINT IS THE TEMPERATURE AT WHICH THE COMPRESSOR WILL SHUT OFF.

Please note that the “set point” IS NOT the cabinet holding temperature.

HOW:

- A.** To see the set point, press and hold the info button. See image 1.
- B.** While still holding the info button , press the up  or down  button to change the “set point”.
- C.** Once the “set point” has been set correctly release the info button . The display will show temperature. See image 2.



LAE Electronic Control



LAE Control Icons	
	Compressor Running
	Evaporator Fan Running
	Cabinet in Defrost
	Activation of 2nd Parameter Set - NA
	Alarm - NA



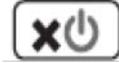
Info/Set Point Button



Manual Defrost/Down Button



Manual Activation/Up Button



Stand-By Button

HOW TO INITIATE A MANUAL DEFROST

May need to unlock control.

WHY:

A ONE TIME ADDITIONAL DEFROST MAY BE NECESSARY TO CLEAR ACCUMULATED FROST/ICE FROM EVAPORATOR COIL.

HOW:

The method to initiate a manual defrost is determined by the Defrost Mode Parameter “DTM” preprogrammed in the controller.

A. REGULAR TIME DEFROST (TIM)

If controller is preprogrammed for “TIM”, press and release the Manual Defrost button until “dEF” appears.

B. REAL TIME CLOCK (RTC)

If controller is preprogrammed for “RTC” press the and hold the Manual Defrost button for 5 seconds until “dh1” appears. Release the Manual Defrost button and then press and hold for an additional 5 seconds until “dEF” appears.

DEFROST WILL ONLY TERMINATE ONCE A SPECIFIC PRESET TEMPERATURE OR A PRESET TIME DURATION IS REACHED.

LAE Electronic Control



LAE Control Icons	
	Compressor Running
	Evaporator Fan Running
	Cabinet in Defrost
	Activation of 2nd Parameter Set - NA
	Alarm - NA



Info/Set Point Button



Manual Defrost/Down Button



Manual Activation/Up Button



Stand-By Button

HOW TO CHANGE “DEFROST INTERVALS”

May need to unlock control.

This can only be changed if defrost mode parameter “DFM” is set for “TIM”.

WHY:

THE DEFROST INTERVAL IS THE TIME DURATION BETWEEN DEFROST CYCLES.

The Defrost Interval time starts when the cabinet is supplied power or after a manual defrost.

HOW:

- A.** To see the set point, press and hold the info button and the stand-by button at the same time. “ScL” will appear. See image 1.
- B.** Push the up button until “dFt” appears. See image 2.
- C.** Press and hold the info button to see the “defrost interval time”. See image 3.
- D.** While pressing and holding the info button , press the up or down button to change the “defrost interval times” (higher the number the less frequent the cabinet will defrost).
- E.** Once the “defrost interval time” has been changed, release the info button .
Wait 30 seconds for the display to show temperature. See image 4.

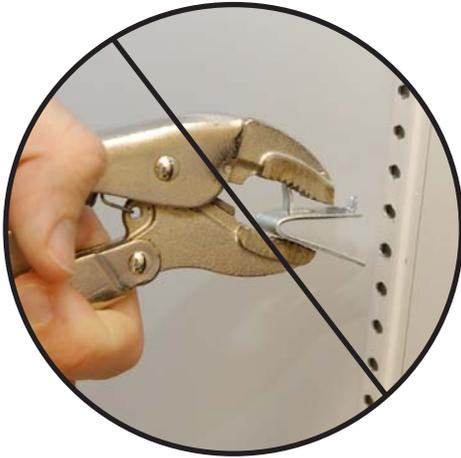


INSTALLATION / OPERATION INSTRUCTIONS

SHELVING INSTALLATION / OPERATION & LIGHT SWITCH LOCATION

WARNING

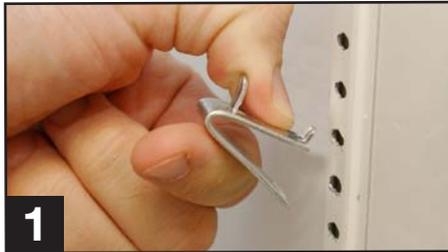
Do not use pliers or any crimping tools when installing shelf clips. Altering shelf clips in any way can lead to shelving instability.



For Proper Shelf Clip Installation Please Read The Following Instructions.

Step 1

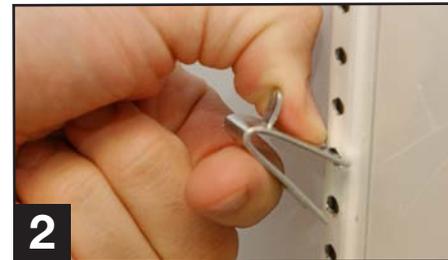
Shelf clips are to be installed into the shelf standards next to the labels on the interior cabinet wall. This label can be seen in images 1-4. Install the top tab of the shelf clip into the proper hole. Push up on the bottom of the clip. (See image 1).



1 (Installing top tab of shelf clip)

Step 2

Bottom tab of the shelf clip will fit tightly. You may need to squeeze or twist the bottom of the shelf clip to install. (See image 2 & 3).



2 (Installing bottom of the shelf clip)



3 (You may need to squeeze or twist the bottom of the shelf clip to install)



4 (Shelf clip installation complete)

Step 3

After installation, the shelf clip will fit snug into the shelf standard. The shelf clip should not be loose or able to wiggle out of the shelf standard.

Shelf Installation Tips

1. Install all the shelf clips before installing the shelves.
2. Start at the bottom in terms of shelf installation and work your way up.
3. Always lay the back of each shelf down on the rear clips before the front.

SHELF INSTALLATION:

Step 1

A. Hook shelf clips onto shelf standards. (see illustration).

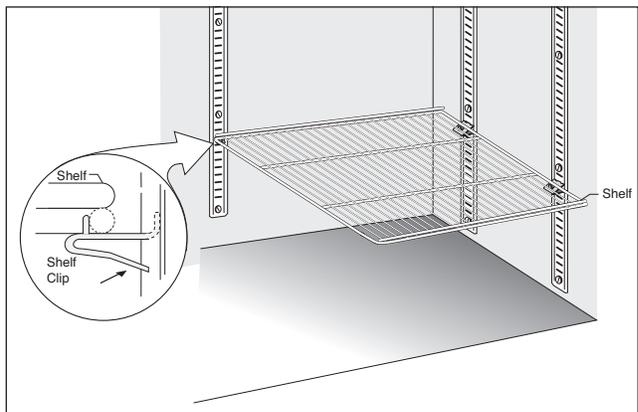
B. Position all four shelf clips equal in distance from the floor for flat shelves.

WIRE SHELVES:

Wire shelves are oriented so that cross support bars are facing down.

Step 2

Place shelves on shelf clips making sure all corners are seated properly.



LIGHT SWITCH LOCATION:

Light switch location depends upon the TUC & TWT freezer glass door models. Most models will have the light switch located inside the unit above the door. Most instances the switch is located next to the light on the ceiling.

MAINTENANCE, CARE & CLEANING

MAINTENANCE, CARE & CLEANING

CLEANING THE CONDENSER COIL

When using electrical appliances, basic safety precautions should be followed, including the following:

REQUIRED TOOLS:

- Phillips Screwdriver
- Stiff Bristle Brush
- Adjustable Wrench
- Vacuum Cleaner

Step 1

Disconnect power to unit.

Step 2

Remove the rear grill by backing out two screws.

(See image 3).

Step 3

Remove bolts anchoring compressor assembly to frame rails and carefully slide out. (tube connections are flexible)

Step 4

Clean off accumulated dirt from the condenser coil and the fan with a stiff bristle brush. (See image 1).

Step 5

Lift cardboard cover above fan at plastic plugs and carefully clean condenser coil and fan blades.

Step 6

After brushing condenser coil vacuum dirt from coil, and interior floor. (See image 2)

Step 7

Replace cardboard cover. Carefully slide compressor assembly back into position and replace bolts.

Step 8

Reinstall rear grill assembly onto unit. Tighten all screws.

Step 9

Connect unit to power and check to see if compressor is running.

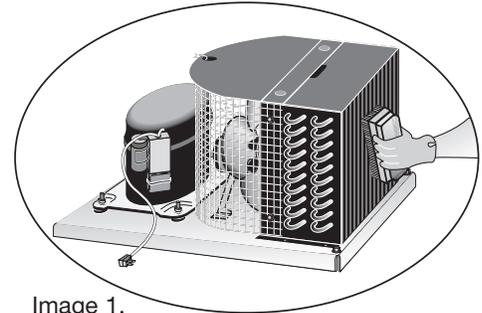


Image 1.

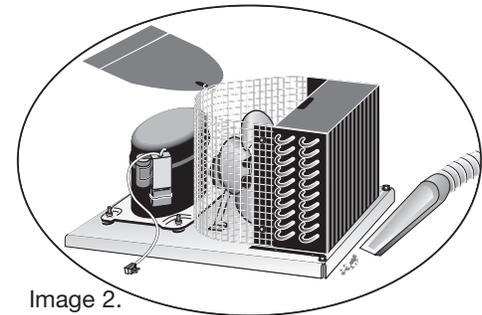


Image 2.

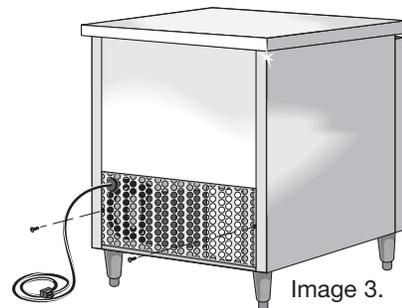


Image 3.

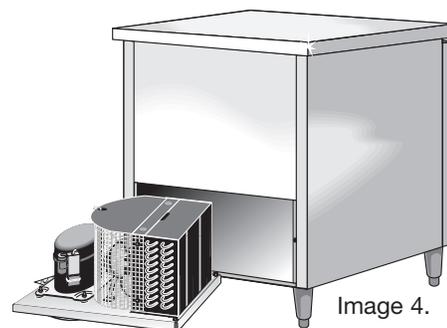


Image 4.

IMPORTANT WARRANTY INFORMATION

Condensers accumulate dirt and require cleaning every 30 days. Dirty condensers result in compressor failure, product loss, and lost sales... which are not covered by warranty.

If you keep the Condenser clean you will minimize your service expense and lower your electrical costs. The Condenser requires scheduled cleaning every thirty days or as needed.

Air is pulled through the Condenser continuously, along with dust, lint, grease, etc.

A dirty Condenser can result in NON-WARRANTEED part & Compressor Failures, Product Loss, and Lost Sales.

Proper cleaning involves removing dust from the Condenser. By using a soft brush, or vacuuming the Condenser with a shop vac, or using CO2, nitrogen, or pressurized air.

If you cannot remove the dirt adequately, please call your refrigeration service company.

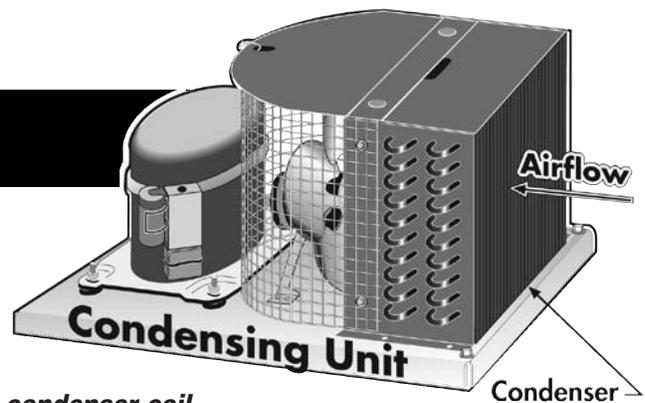
The Condenser looks like a group of vertical fins. You need to be able to see through the condenser for the unit to function at maximum capacity. Do not place filter material in front of condensing coil. This material blocks air-flow to the coil similar to having a dirty coil.

THE CLEANING OF THE CONDENSER IS NOT COVERED BY THE WARRANTY!

HOW TO CLEAN THE CONDENSER:

1. Disconnect the electrical power to the unit.
2. Remove the louvered grill.
3. Vacuum or brush the dirt, lint, or debris from the finned condenser coil.
4. If you have a significant dirt build up you can blow out the condenser with compressed air. (CAUTION MUST BE USED to avoid eye injury. Eye protection is recommended.)
5. When finished be sure to replace the louvered grill. The grill protects the condenser.
6. Reconnect the electrical power to the unit.

If you have any questions, please call TRUE Manufacturing at 636-240-2400 or 800-325-6152 and ask for the Service Department. Service Department Availability Monday-Friday 7:30 a.m. to 6:00p.m. and Saturday 8:00 a.m. to 12:00 p.m. CST.



Stainless Steel Equipment Care and Cleaning

CAUTION: Do not use any steel wool, abrasive or chlorine based products to clean stainless steel surfaces.

Stainless Steel Opponents

There are three basic things which can break down your stainless steel's passivity layer and allow corrosion to rear its ugly head.

- 1) Scratches from wire brushes, scrapers, and steel pads are just a few examples of items that can be abrasive to stainless steel's surface.
- 2) Deposits left on your stainless steel can leave spots. You may have hard or soft water depending on what part of the country you live in. Hard water can leave spots. Hard water that is heated can leave deposits if left to sit too long. These deposits can cause the passive layer to break down and rust your stainless steel. All deposits left from food prep or service should be removed as soon as possible.
- 3) Chlorides are present in table salt, food, and water. Household and industrial cleaners are the worst type of chlorides to use.

8 steps that can help prevent rust on stainless steel:

1. Using the correct cleaning tools

Use non-abrasive tools when cleaning your stainless steel products. The stainless steel's passive layer will not be harmed by soft cloths and plastic scouring pads. Step 2 tells you how to find the polishing marks.

2. Cleaning along the polish lines

Polishing lines or "grain" are visible on some stainless steels. Always scrub parallel to visible lines on some stainless steels. Use a plastic scouring pad or soft cloth when you cannot see the grain.

3. Use alkaline, alkaline chlorinated or non-chloride containing cleaners

While many traditional cleaners are loaded with chlorides, the industry is providing an ever increasing choice of non-chloride cleaners. If you are not sure of your cleaner's chloride content contact your cleaner supplier. If they tell you that your present cleaner contains chlorides, ask if they have an alternative. Avoid cleaners containing quaternary salts as they can attack stainless steel, causing pitting and rusting.

4. Water Treatment

To reduce deposits, soften the hard water when possible. Installation of certain filters can remove corrosive and distasteful elements. Salts in a properly maintained water softener can be to your advantage. Contact a treatment specialist if you are not sure of the proper water treatment.

5. Maintaining the cleanliness of your food equipment

Use cleaners at recommended strength (alkaline, alkaline chlorinated or non-chloride). Avoid build-up of hard stains by cleaning frequently. When boiling water with your stainless steel equipment, the single most likely cause of damage is chlorides in the water. Heating any cleaners containing chlorides will have the same damaging effects.

6. Rinse

When using chlorinated cleaners you must rinse and wipe dry immediately. It is better to wipe standing cleaning agents and water as soon as possible. Allow the stainless steel equipment to air dry. Oxygen helps maintain the passivity film on stainless steel.

7. Hydrochloric acid (muriatic acid) should never be used on stainless steel

8. Regularly restore/passivate stainless steel

Stainless Steel Equipment Care and Cleaning

Recommended cleaners for certain situations / environments of stainless steel

- A) Soap, ammonia and detergent medallion applied with a cloth or sponge can be used for routine cleaning.
- B) Arcal 20, Lac-O-Nu Ecoshine applied provides barrier film for fingerprints and smears.
- C) Cameo, Talc, Zud First Impression is applied by rubbing in the direction of the polished lines for stubborn stains and discoloring.
- D) Easy-off and De-Grease It oven aid are excellent for removals on all finishes for grease-fatty acids, blood and burnt-on foods.
- E) Any good commercial detergent can be applied with a sponge or cloth to remove grease and oil.
- F) Benefit, Super Sheen, Sheila Shine are good for restoration / passivation.

NOTE:

The use of stainless steel cleaners or other such solvents is not recommended on plastic parts. Warm soap and water will suffice.

WARRANTY INFORMATION (U.S.A & CANADA ONLY!)

**THIS WARRANTY ONLY APPLIES TO UNITS SHIPPED FROM TRUE'S MANUFACTURING FACILITIES AFTER JANUARY 1, 2013.
PRODUCT MUST BE PURCHASED IN THE COUNTRY WHERE SERVICE IS REQUESTED.**

THREE YEAR PARTS & LABOR WARRANTY

TRUE warrants to the original purchaser of every new TRUE refrigerated unit, the cabinet and all parts thereof, to be free from defects in material or workmanship, under normal and proper use and maintenance service as specified by TRUE and upon proper installation and start-up in accordance with the instruction packet supplied with each TRUE unit. TRUE's obligation under this warranty is limited to a period of three (3) years from the date of original installation or 39 months after shipment date from TRUE, whichever occurs first.

Any part covered under this warranty that are determined by TRUE to have been defective within three (3) years of original installation or thirty-nine (39) months after shipment date from manufacturer, whichever occurs first, is limited to the repair or replacement, including labor charges, of defective parts or assemblies. The labor warranty shall include standard straight time labor charges only and reasonable travel time, as determined by TRUE.

Warranty does not cover standard wear parts which include door gaskets, incandescent bulbs or fluorescent bulbs. Warranty also does not cover issues caused by improper installation or lack of basic preventative maintenance which includes regular cleaning of condenser coils.

ADDITIONAL TWO YEAR COMPRESSOR WARRANTY

In addition to the Three (3) year warranty stated above, TRUE warrants its hermetically and semi-hermetically sealed compressor to be free from defects in both material and workmanship under normal and proper use and maintenance service for a period of two (2) additional years from the date of original installation but not to exceed five (5) years and three (3) months after shipment from the manufacturer.

Compressors determined by TRUE to have been defective within this extended time period will, at TRUE's option, be either repaired or replaced with a compressor or compressor parts of similar design and capacity.

The two (2) year extended compressor warranty applies only to hermetically and semi-hermetically sealed parts of the compressor and does not apply to any other parts or components, including, but not limited to: cabinet, paint finish, temperature control, refrigerant, metering device, driers, motor starting equipment, fan assembly or any other electrical component, etcetera.

404A/134A COMPRESSOR WARRANTY

The two year compressor warranty detailed above will be voided if the following procedure is not carefully adhered to:

1. This system contains R404A or R134A refrigerant and polyol ester lubricant. The polyol ester lubricant has rapid moisture absorbing qualities. If long exposure to the ambient conditions occur, the lubricant must be removed and replaced with new. For oil amounts and specifications please call TRUE technical service department (800-325-6152). Failure to comply with recommended lubricant specification will void the compressor warranty.

2. Drier replacement is very important and must be changed when a system is opened for servicing. A drier using XH-7 desiccant or an exact replacement solid core drier must be used. The new drier must also be the same capacity as the drier being replaced.

3. Micron level vacuums must be achieved to insure low moisture levels in the system. 500 microns or lower must be obtained.

WARRANTY CLAIMS

All claims for labor or parts must be made directly through TRUE. All claims should include: model number of the unit, the serial number of the cabinet, proof of purchase, date of installation, and all pertinent information supporting the existence of the alleged defect.

In case of warranty compressor, the compressor model tag must be returned to TRUE along with above listed information.

Any action or breach of these warranty provisions must be commenced within one (1) year after that cause of action has occurred.

WHAT IS NOT COVERED BY THIS WARRANTY

TRUE's sole obligation under this warranty is limited to either repair or replacement of parts, subject to the additional limitations below. This warranty neither assumes nor authorizes any person to assume obligations other than those expressly covered by this warranty.

NO CONSEQUENTIAL DAMAGES. TRUE IS NOT RESPONSIBLE FOR ECONOMIC LOSS; PROFIT LOSS; OR SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOSSES OR DAMAGES ARISING FROM FOOD OR PRODUCT SPOILAGE CLAIMS WHETHER OR NOT ON ACCOUNT OF REFRIGERATION FAILURE.

WARRANTY IS NOT TRANSFERABLE. This warranty is not assignable and applies only in favor of the original purchaser/user to whom delivered. ANY SUCH ASSIGNMENT OR TRANSFER SHALL VOID THE WARRANTIES HEREIN MADE AND SHALL VOID ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

IMPROPER USAGE. TRUE ASSUMES NO LIABILITY FOR PARTS OR LABOR COVERAGE FOR COMPONENT FAILURE OR OTHER DAMAGES RESULTING FROM IMPROPER USAGE OR INSTALLATION OR FAILURE TO CLEAN AND/OR MAINTAIN PRODUCT AS SET FORTH IN THE WARRANTY PACKET PROVIDED WITH THE UNIT.

RESIDENTIAL APPLICATIONS: TRUE assumes no liability for parts or labor coverage for component failure or other damages resulting from installation in non-commercial or residential applications.

ALTERATION, NEGLIGENCE, ABUSE, MISUSE, ACCIDENT, DAMAGE DURING TRANSIT OR INSTALLATION, FIRE, FLOOD, ACTS OF GOD. TRUE is not responsible for the repair or replacement of any parts that TRUE determines have been subjected after the date of manufacture to alteration, neglect, abuse, misuse, accident, damage during transit or installation, fire, flood, or act of God.

IMPROPER ELECTRICAL CONNECTIONS. TRUE IS NOT RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF FAILED OR DAMAGED COMPONENTS RESULTING FROM INCORRECT SUPPLY VOLTAGE, THE USE OF EXTENSION CORDS, LOW VOLTAGE, OR UNSTABLE SUPPLY VOLTAGE.

NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE: THERE ARE NO OTHER WARRANTIES, EXPRESSED, IMPLIED OR STATUTORY, EXCEPT THE THREE (3) YEAR PARTS & LABOR WARRANTY AND THE ADDITIONAL TWO (2) YEAR COMPRESSOR WARRANTY AS DESCRIBED ABOVE. THESE WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, INCLUDING IMPLIED WARRANTY AND MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

OUTSIDE U.S./CANADA: This warranty does not apply to, and TRUE is not responsible for, any warranty claims made on products sold or used outside the United States or Canada.