

# Installation and Operation Instructions Recessable Undercounter Refrigerators & Freezers

For Models: RURS-1D-S7 & RUFS-1D-S7



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### T H A N K Y O U

Thank you for purchasing a Victory Refrigeration Undercounter Refrigerator or Freezer!

This unit has passed our strict Quality Control Inspection and meets the high standards set by Victory Refrigeration. You have made a quality investment that with proper maintenance will give you years of service.

Please read the following installation and maintenance instructions before installing or using your unit. If you have any questions, please call our Customer Service Department at (856) 428-4200.

### IMPORTANT INFORMATION - PLEASE READ

- Please read these instructions carefully before installing or using. If recommended procedures are not followed, warranty claims will be denied.
- Your Warranty Registration information is located on the next page of this manual. Please complete the card and submit it to Victory Refrigeration within 10 days of installation. Failure to properly register equipment can void the warranty.
- Victory Refrigeration reserves the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, improvements, additions or replacements for previously purchased equipment.

## Warranty

(Continental USA Only)

The Seller warrants to the original purchaser, equipment manufactured by Seller to be free from defects in material and workmanship for which it is responsible. The Seller's obligation under this warranty shall be limited to replacing or repairing at Seller's option, without charge, F.O.B. Sellers factory, any part found to be defective and any labor and material expense incurred by Seller in repairing or replacing such part, such warranty to be limited to a period of one year from date of purchase or thirteen months from date of shipment from Seller's factory, whichever is earlier, provided terms of payment have been fully met. All labor shall be performed during regular working hours. Overtime premium charges will be at Buyer's expense.

Proof of purchase must be supplied to Seller to validate warranty. This warranty is valid only if equipment is properly installed, started-up and inspected by the dealer or authorized Victory Service agent.

Removal or alteration of the serial/data plate from any equipment shall be deemed to release Seller from all warranty obligations or any other obligations, expressed or implied.

This warranty does not cover Thermostat or Defrost Timer calibration and/or adjustment, freight damage, normal maintenance items outlined in Owner's Manual, adjustment of door mechanisms or replacement of light bulbs, fuses or batteries.

Any repairs or replacement of defective parts shall be performed by Seller's authorized service personnel. Seller shall not be responsible for any costs incurred if the work is performed by other than Seller's authorized service personnel. Reimbursement claims for part(s) or labor service costs must be made in writing. Model, cabinet serial numbers and installation location must be shown on the claim. A receipted bill from the servicing agency must accompany the claim, together with full details of the service problems, diagnosis and work performed. Victory reserves sole discretion whether further documentation on a claim is to be submitted.

Seller shall not be liable for consequential damages of any kind which occur during the course of installation of equipment, or which result from the use or misuse by Buyer, its employees or others of the equipment supplied hereunder, and Buyer's sole and exclusive remedy against Seller for any breach of the foregoing warranty or otherwise shall be for the repair or replacement of the equipment or parts thereof affected by such breach.

The foregoing warranty shall be valid and binding upon Seller if and only if Buyer loads, operates and maintains the equipment supplied hereunder in accordance with the instruction manual provided to Buyer. Seller does not guarantee the process of manufacture by Buyer or the quality of product to be produced by the equipment supplied hereunder and Seller shall not be liable for any prospective or lost product or profits of Buyer.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES WHATSOEVER. SPECIFICALLY THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE.

The foregoing shall be Seller's sole and exclusive obligation and Buyer's sole and exclusive remedy for any action, whether in breach of contract or negligence. In no event shall Seller be liable for a sum in excess of the purchase price of the item.

You may register online at *www.victory-refrig.com*, fax this completed page to *(856) 428-7299*, or copy and mail form below to Victory.

\*NOTE: The following mail-in form or online registration must be filled out and forwarded to Victory by the installer or customer within 10 days after start-up. Failure to do this will invalidate the warranties. Retain this information for your records.



110 WOODCREST ROAD CHERRY HILL, NJ 08003-3648

**TEL**: (856) 428-4200 • **FAX**: (856) 428-7299

## WARRANTIES NOT VALID UNLESS REGISTERED AT FACTORY WITHIN 10 DAYS AFTER START-UP DATE.

Cabinet Model No
Cabinet Serial No.
(Data plate information located inside cooler on

the upper left wall)

ORIGINAL DATE OF INSTALLATION $\_$				
INSTALLATION COMPANY NAME				
STREET	CITY	STATE	ZIP CODE	
DISTRIBUTOR'S NAME_			_	
STREET	CITY	STATE	ZIP CODE	

### **INSTALLATION INSTRUCTIONS**

Proper installation is the first step to operation. We recommend that your Refrigerator or Freezer be installed by an authorized Victory Certified Installer.

#### **Receiving Shipment**

All units are performance tested and thoroughly inspected prior to shipment. Upon leaving the factory, all units are in perfect condition. Upon receipt, examine the exterior of the shipment packaging for any signs of rough handling. If the cabinet is damaged, it should be noted on the delivery slip or bill of lading and signed. A claim must be filed immediately against the carrier indicating the extent and estimated cost of damage incurred.

#### Uncrating

<u>Tools Needed</u>: 3/4" Box Wrench • Adjustable Wrench • Level

**WARNING:** Never lay your refrigerator or freezer down on either its back, front or sides. This allows compressor oil into the refrigerant lines which can damage the compressor at start-up. If the unit is laid down, it must be set upright for a minimum of 12 hours before starting the compressor. Failure to adhere to the above recommendation will void the warranty.

- 1. Remove and discard all cardboard crating, packaging material, tape and interior components.
- 2. Move cabinet as close to final location as possible before removing skid.
- **3.** Remove the shipping skid by tipping the cabinet forward. Remove the shipping bolts with 3/4" box wrench while the cabinet is held in one direction. Repeat this procedure while the cabinet is held in the opposite direction.
- **4.** Use extreme caution when removing the wooden skid, especially when the last bolt is removed. If not properly blocked, the skid will fall to the floor.

#### Locating Your New Undercounter Refrigerator or Freezer

Consider the following when selecting a location cabinet:

- 1. Clearance Undercounter refrigerator or freezer cabinets do not require a clearance between the back of the cabinet and neighboring wall. The front grill is designed to guarantee sufficient air circulation to the condensing unit. However, it will greatly improve the cabinet's ability to be consistently energy efficient if there is air flowing through the slates of the rear grill that conceals the condensing unit.
- 2. Floor Load The floor on which the cabinet will rest must be free of vibration and suitably strong enough to support the combined weights of the cabinet plus the maximum product load.
- **3. Ventilation** The air cooled, self-contained refrigeration system requires a sufficient amount of cool, clean air. Avoid placing the refrigerator or freezer cabinet near heat generating equipment such as ovens, ranges, heaters, fryers, steam kettles, etc., and out of direct sunlight. Avoid locating the self-contained refrigerator cabinet in an unheated room, or where the room temperature may be below 55 °F.

#### Installing Casters

Undercounter refrigerator or freezer cabinets are shipped with single stud mounted casters. Refer to installation instructions that are packed with casters.

#### Leveling

Cabinets must be leveled when installed. Failure to level your cabinet may result in doors not sealing, closing properly or condensate water not draining properly. Refer to leveling instructions that are packed with casters.

#### **Cabinet Cleaning**

Prior to placing your new refrigerator or freezer and all shelves, pan dividers and food storage pans into operation, it is advisable that the interior be washed thoroughly with a mild detergent and water solution. Rinse with clear water and a sanitizing solution. Allow cabinet to air dry.

#### **Installing Shelves**

All cabinets with shelves are supplied with pilasters and shelf clip supports. Shelves are easily installed by inserting the shelf support clips into the pilasters so they fit tightly. Align the shelf so the smaller fill wires run from front to rear and rest the shelf on the clips.

#### **Electric Supply**

Wiring should be done by a qualified electrician in accordance with local electrical codes. A properly wired refrigerator or freezer will assure proper operation. Electrical supply requirements are on the cabinet serial/data plate located on the upper left interior tank wall inside the cabinet. It is recommended that a direct, properly protected line of the proper size wire be installed from the main supply to your refrigerator or freezer. To assure that the correct voltage is being supplied, while the refrigerator or freezer is in operation take a voltage reading at the compressor-motor electrical connections, or as close to the compressor-motor as possible.

All refrigerator or freezer electrical systems are internally grounded.

#### **Temperature Control**

Temperature control should be set to maintain a temperature of  $36^{\circ}F$  (2.2°C) to  $38^{\circ}F$  (3.3°C) for refrigerators and  $0^{\circ}F$  (-17°C) to -5°F (-20.5°C) for freezers.

#### **Installation Checklist**

- ✓ After the cabinet has been installed, leveled and cleaned as described, refer to the following checklist prior to start-up.
- ✓ Check for proper electrical hook-up.
- ✓ Check exposed refrigeration line connections for leaks. Make sure refrigeration lines are not dented, kinked or rubbing.
- ✓ Check condenser fan for freedom to rotate without striking any stationary members.

Check that cabinet is level.

#### **Product Load**

After the refrigerator or freezer has been started and reaches the proper storage temperatures, food may be loaded. For optimum energy efficiency, we recommend allowing a 1-1/2" clearance between the interior cabinet wall and product load.

### PERIODIC MAINTENANCE

#### **Cabinet Cleaning**

Victory Refrigeration recommends periodic internal and exterior cleaning as outlined below.

#### **Daily Exterior Cleaning**

- 1. Clean surface with a sponge and cleaning solution. Use a non-abrasive cleaner that does not contain chlorine.
- 2. Polish with a soft cloth, wiping with the grain of the metal.
- 3. Once a week wipe with a film cutting agent to maintain shine.

#### **Weekly Interior Cleaning**

- 1. Remove all food, food related items and shelves.
- 2. Discontinue power to refrigeration system by turning temperature control switch (or dial knob) all the way to the right.
- 3. Remove loose food particles from interior floors, walls and ceiling.
- 4. Scrub all interior surfaces with warm detergent solution 100°F 120°F (38°C 39°C) and a nylon bristled brush.
- 5. Rinse with clear water and allow to air dry.
- 6. Reinstall shelves.
- 7. Restore power to refrigeration system by turning temperature control switch (or dial knob) to the right.
- 8. Return food to cabinet when temperature indicator reaches safety zone.

#### **Condenser Maintenance**

To keep your cabinet running efficiently, it is recommended that you clean the condenser once every three months. However, once a month is recommended if the unit is located near cooking equipment which produces grease laden vapors, i.e. fryers, grills, steam kettles, etc.

- 1. Discontinue power to refrigeration system by turning temperature control switch all the way to the left.
- 2. Make sure all doors and food storage lids are closed.
- 3. Pull cabinet forward and remove power cord from receptacle.
- 4. For condensing unit access, remove front and rear grill.
- 5. Use a vacuum cleaner with proper brush attachments or compressed air to clean the condenser, compressor-motor and related parts.
- 6. After cleaning, reassemble cabinet and properly restore power.



Figure 1 "Condenser Coil"

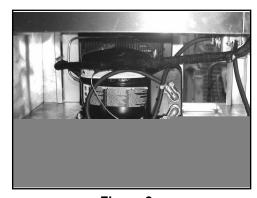


Figure 2 "Compressor"

WARNING: Failure to keep condenser clean may cause premature failure of motor-compressor which will NOT be covered by warranty.

#### Lubrication

Unless otherwise specified, all Victory refrigerators or freezers are equipped with oilless type motors. The motor-compressor is a sealed unit and is constantly lubricated when in operation. The condenser and the evaporator motors are equipped with lifetime oiled bearings which never need to be oiled.

#### TROUBLESHOOTING & SERVICING REFRIGERATION SYSTEM

PROBLEM	POSSIBLE CAUSE	REMEDY
1. Condensing unit fails to start - no hum.	<ol> <li>Line disconnect switch open.</li> <li>Fuse removed or blown.</li> <li>Overload protector tripped.</li> <li>Control stuck in open position.</li> <li>Wiring improper or loose.</li> </ol>	<ol> <li>Close start or disconnect switch.</li> <li>Replace fuse.</li> <li>Determine reason and correct/replace control.</li> <li>Repair or replace control.</li> <li>Check wiring against diagram.</li> </ol>
2. Condensing unit fails to start - hums, but trips on overload protector.	<ol> <li>Improperly wired.</li> <li>Low voltage to unit.</li> <li>Starting capacitor defective.</li> <li>Relay failing to close.</li> <li>Compressor motor has a winding open or shorted.</li> <li>Internal mechanical trouble in compressor.</li> </ol>	<ol> <li>Check wiring against diagram.</li> <li>Determine reason and correct.</li> <li>Determine reason and replace.</li> <li>Determine reason and correct/replace if necessary.</li> <li>Replace compressor.</li> <li>Replace compressor.</li> </ol>
3. Condensing unit starts, but fails to switch off of "start" winding.	Improperly wired.     Low voltage to unit.     Relay failing to open.      Run capacitor defective.     Excessively high discharge pressure.      Compressor motor has a winding open or shorted.      Internal mechanical trouble in compressor.	1. Check wiring against diagram. 2. Determine reason and correct. 3. Determine reason and correct/replace if necessary. 4. Determine reason and replace. 5. Check discharge shut-off valve, possible overcharge, or insufficient cooling on condenser. 6. Replace compressor. 7. Replace compressor.
4. Condensing unit starts and runs, but short cycles on overload protector.	1. Additional current passing through overload protector. 2. Low voltage to unit (or unbalanced if three phase.) 3. Overload protector defective. 4. Run capacitor defective. 5. Excessive discharge pressure. 6. Suction pressure too high. 7. Compressor too hot - return gas. 8. Compressor motor has a winding shorted.	1. Check wiring diagram. Check for added fan motors, pumps, etc. connected to wrong side of protector.  2. Determine reason and correct.  3. Check current, replace protector.  4. Determine reason and replace.  5. Check ventilation, restrictions in cooling medium, restrictions in refrigeration system.  6. For salad models, temperature control differential set to closeincrease differential.  7. Check refrigerant charge (fix leak) add if necessary.  8. Replace compressor.
5. Condensing unit runs but short cycles on	1. Overload protector. 2. Thermostat. 3. High pressure cut-out due to: a. Insufficient air or water supply. b. Overcharge. c. Air in system. 4. Low pressure cut-out due to: a. Liquid line solenoid leaking. b. Compressor valve leak. c. Undercharge. d. Restriction in expansion device.	1. See (4) above. 2. Differential set too close - widen. 3.  a. Check air or water supply to condenser-correct. b. Reduce refrigerant charge. c. Purge.  4.  a. Replace. b. Replace. c. Fix leak, add refrigerant. d. Replace device.
6. Condensing unit operates for prolonged periods or continuously.	<ol> <li>Shortage of refrigerant.</li> <li>Control contacts stuck or frozen closed.</li> <li>Excessive heat load placed into cabinet.</li> <li>Prolonged or too frequent door openings.</li> <li>Evaporator coil iced.</li> <li>Restriction in refrigeration system.</li> <li>Dirty condenser.</li> <li>Filter dirty.</li> </ol>	<ol> <li>Fix leak, add charge.</li> <li>Clean contacts or replace control.</li> <li>Allow unit sufficient time for removal of latent heat.</li> <li>Plan or organize schedule to correct condition.</li> <li>Defrost.</li> <li>Determine location and remove.</li> <li>Clean condenser.</li> <li>Clean or replace.</li> </ol>

#### TROUBLESHOOTING & SERVICING REFRIGERATION SYSTEM

PROBLEM	POSSIBLE CAUSE	REMEDY
7. Start capacitor open or shorted blown.	1. Relay contacts not opening properly. 2. Prolonged operation on start cycle due to: a. Low voltage to unit. b. Improper relay. c. Starting load too high. 3. Excessive short cycling. 4. Improper capacitor.	<ol> <li>Clean contacts or replace relay if necessary.</li> <li>a. Determine reason and correct. b. Replace.</li></ol>
8. Run capacitor open, shorted or blown.	Improper capacitor.     Excessively high line voltage     (110% of rated-max.)	<ol> <li>Determine correct size and replace.</li> <li>Determine reason and correct.</li> </ol>
9. Relay defective or burned out.	<ol> <li>Incorrect relay.</li> <li>Incorrect mounting angle.</li> <li>Line voltage too high or too low.</li> <li>Excessive short cycling.</li> <li>Relay being influenced by loose vibrating mounting.</li> <li>Incorrect run capacitor.</li> </ol>	<ol> <li>Check and replace.</li> <li>Remount relay in correct position.</li> <li>Determine reason and correct.</li> <li>Determine reason (see 5 above) and correct.</li> <li>Remount rigidly.</li> <li>Replace with proper capacitor.</li> </ol>
10. Product zone temperature too high.	Control setting too high.     Inadequate air circulation.	Reset control.     Rearrange product load to improve air circulation.
11. Suction line frosted or sweating.	<ol> <li>Overcharge of refrigerant.</li> <li>Evaporator fan not running.</li> <li>If remote model, expansion valve stuck open.</li> <li>If remote model expansion valve is passing excess refrigerant or is oversized.</li> </ol>	<ol> <li>Correct charge.</li> <li>Determine reason and correct.</li> <li>Clean valve of foreign particles.         Replace if necessary.</li> <li>Readjust valve or replace with smaller valve.</li> </ol>
12. Liquid line frosted or sweating.	Restriction in dehydrator or strainer.     Liquid shut-off (king valve) partially closed.	<ol> <li>Replace part.</li> <li>Open valve fully.</li> </ol>
13. Noisy condensing unit.	<ol> <li>Loose parts or mounting.</li> <li>Tubing rattle.</li> <li>Bent fan blade causing vibration.</li> <li>Fan motor bearings worn.</li> </ol>	<ol> <li>Find and tighten.</li> <li>Reform to be free of contact.</li> <li>Replace blade.</li> <li>Replace motor.</li> </ol>

# RURS / RUFS Series 7 Replacment Parts List

#### REFRIGERATION COMPONENTS:

50399901	COIL, Evaporator finned, (46F25)
50180701	ACCUMULATOR, Suction Line 1/2" X 3/8"
50198901	CAPILLARY TUBES, (10' X .036 I.D.)
50183801	DRYER, Refrigerant
50552201	CONDENSING UNIT, 1/5 HP (Refrig)
50552301	CONDENSING UNIT, 1/4 HP (Frz)
44126701	COIL & HEAT EXCHANGER ASSY, (Refrig & Frz)

#### THERMOSTATS:

50186301	REFRIGERATOR, TEMPERATURE CONTROL
50317501	FREEZER, TEMPERATURE CONTROL
50599501	DEFROST TERMINATOR, FAN DELAY (combination)
50599401	SAFETY, Defrost Limiter

#### THERMOMETERS:

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50395201 REFRIGERATOR & FREEZER, Dial-type, Front mounting, Optional 50569501 REFRIGERATOR & FREEZER, Hanging-type, Cabinet Interior
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#### ELECTRICAL COMPONENTS:

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50601201 HEATER, Defrost
50602102 MOTOR, Evaporator fan 115V
50602701 MOTOR, Evaporator fan 220V
50602601 BLADE, Evaporator fan 6"
44126601 FAN PANEL ASSY
04060301 BRACKET FAN MOUNTING
50266001 FAN GUARD
50572801 DRAIN LINE PVC
50612001 TIMER, Defrost 115V, #B78.
50197301 TIMER, Defrost optional 115V, #8141
50612002 TIMER, Defrost 220V
50019301 TIMER, Defrost optional 220V
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#### ELECTRICAL COMPONENTS CONTINUED:

50601001 HEATER WIRE, Refrigerator door frame 50601002 HEATER WIRE, Freezer door frame 04342301 VAPORIZER PAN, Forced Connection 50584101 CORD & PLUG 15 AMP WD658 WIRING DIAGRAM (Frz) WD657 WIRING DIAGRAM (Refrig)

#### CABINET HARDWARE:

50273101 HINGE, Door piece
50273201 HINGE, Facia piece
50273401 HINGE, Cover
50273501 HINGE, Cap
50343401 HINGE, Shim (facia)
50551801 HINGE, Pin
50574701 HANDLE
50590101 LEG, Adjustable, stud mount
50602801 CASTER, Swivel, stud mount, (4 required per cabinet)
50022501 CLIP, Shelf support, (sold individually-4 required per shelf)
03091201 PILASTER

50600001 SHELF, Wire type, zinc plated, (17 1/8" X 21 7/8")

#### DOORS AND COMPONENTS:

55111107 DOOR, Assembly left hand hinged, (17 3/4" X 25") 55111108 DOOR, Assembly right hand hinged, (17 3/4" X 25")

50596905 GASKET, Half Door, grey (17 3/4" X 25" O.D.)

05082701 LINER, Inner door

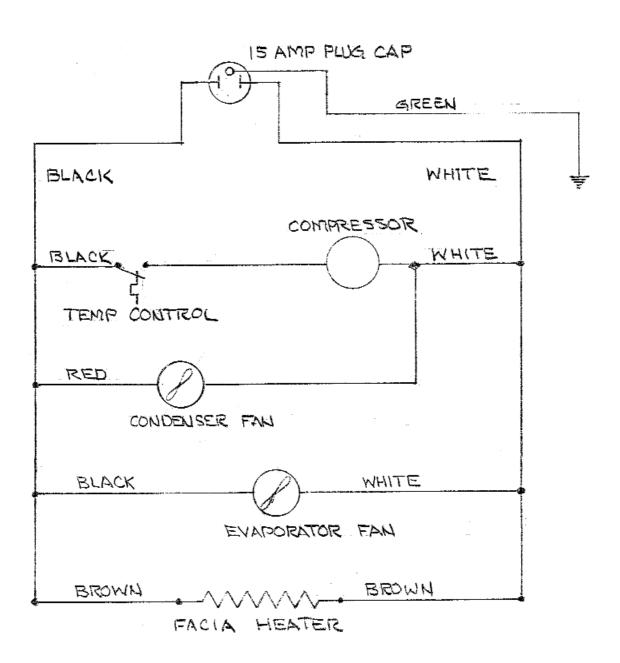
50264603 RETAINER, Gasket, Door, side 50244602 RETAINER, Gasket, Top & Bottom

#### CABINET, MISC:

02015001 TRIM, Jam, Top & Bottom 02014901 TRIM, Jam, side

09325001 .GRILLE, Assembly, Front Air (1 section refrigerator & freezer)

# Self Contained Undercounter Refrigerator 115V/60HZ/1Ph



# Self Contained Undercounter Freezer 115V/60HZ/1Ph

