

# MERCHANDISER MODELS VM-1, VM-2 & VM-2SL INSTALLATION, OPERATION & SERVICE MANUAL

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- \* DESCRIPTION
- \* INSTALLATION
- \* OPERATION
- \* MAINTENANCE
- \* SERVICE
- \* TROUBLESHOOTING
- \* PARTS LISTS
- \* WIRING DIAGRAMS







### 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	

#### RETAIN THIS MANUAL FOR FUTURE REFERENCE

#### NOTICE

Victory (Manufacturer) reserves the right to change specifications at any time.

#### **IMPORTANT**

Warranty Registration Card Enclosed.
Failure to Properly Register
Equipment Can Void Warranty !!!!

#### **NOTICE**

Please Read The Entire Manual Carefully Before Installation. If Certain Recommended Procedures Are Not Followed, Warranty Claims Will Be Denied!!!!

Machine Serial Number_	
Installation Date	

Victory Refrigeration Service Hotline (800) 523-5008

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## SECTION 1 DESCRIPTION

Victory Merchandiser Refrigerators are Reach-In Models with full length glass swing doors on the front. There is also an optional full length sliding glass door assembly that is available for the two section model only.



Victory Merchandiser One Section Model Figure 1-1

#### A. Control and Component Location

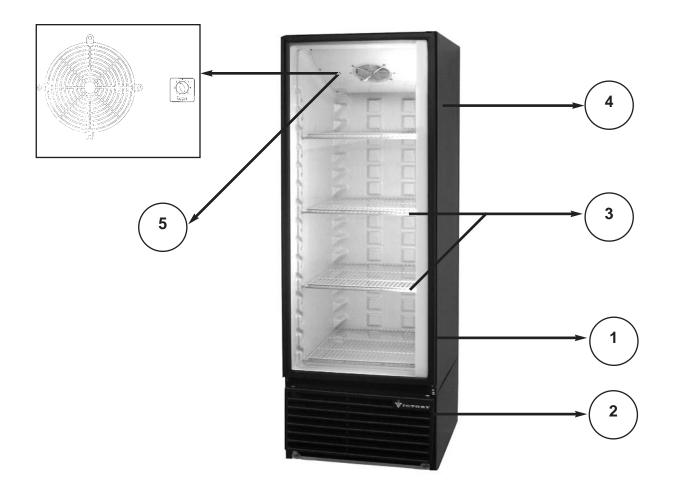


Figure 1-2 Component Location

#### B. Component Function

- 1. **Doors -** Swing doors are reversible for one (1) section only, and have adjustable self-closing features.
  - a. Door Size The doors are full length.
  - **b.** Door Type The doors are sealed glass.
  - c. Door Hinges The doors consist of pin hinges.

- Refrigeration System The refrigeration system is self-contained and slides out for easy service.
- 3. Shelves (Refer to Figure 1-2 and to the Parts List Section of this manual).
  - a. Wire Shelves Heavy-duty epoxy coated wire shelves are adjustable and can be angled downward for gravity-feed merchandising.
- 4. Cabinet The cabinet exterior is painted galvanized steel. Doors are sealed argonfilled glass. Foamed-in-place polyurethane insulation through the cabinet ensures the ultimate in energy efficiency.
- Temperature Control Located inside top of unit.
- **6. Thermometer (not shown) -** The thermometer is a standard feature.

## <u>VM-1</u>

#### Standard Features:

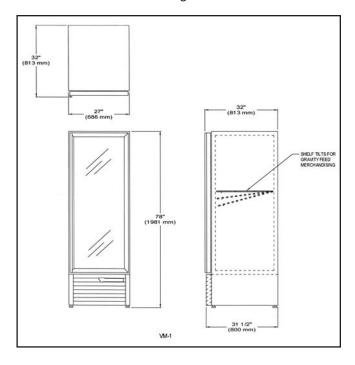
- NSF 7 Listed for Foodservice & Prepackaged Products
- Heavy Gauge Black Powder Coated Zinc Plated Steel Exterior
- High Impact Molded ABS Interior
- Bright White Interior with Vertical Fluorescent Lighting
- Fluorescent Lamp Replaceable without Removing Product or Shelving
- Automatic Condensation Disposal
- CFC Free Refrigerant
- Full Height Self-Closing Glass Door
- Integral Full Length Door Handle
- Door Field Rehingeable
- Bottom Mount Condensing Unit
- Molded-In Shelf Support System Accommodates Standard or Gravity Organizer Shelves without use of Clips or Hooks
- Four (4) Standard Shelves
- Shelves Adjustable on 3" Centers
- 9 ft Cord and Plug Attached
- Each Shelf will Accommodate either
  - One (1) 12" x 20" Pan
  - One (1) 18" x 26" Pan

#### **Optional Features:**

- Heavy Duty Swivel 3" and 5" Casters with Brakes
- Gravity Organizer Shelves
- Door Merchandising Decals
- Price Tag Molding

#### Specifications:

1/5 Horse Power 115V/60Hz/1Ph 7.2 Amperes 21 Cubic Feet (net) 4 Standard Shelves Crated Weight: 310 LBS



We reserve the right to change specifications and product design without notice. Such revisions do not entitle the buyer to correspond changes, improvements, additions or replacements for previously purchased equipment.

### **VM-2 & VM-2SL**

#### **Standard Features:**

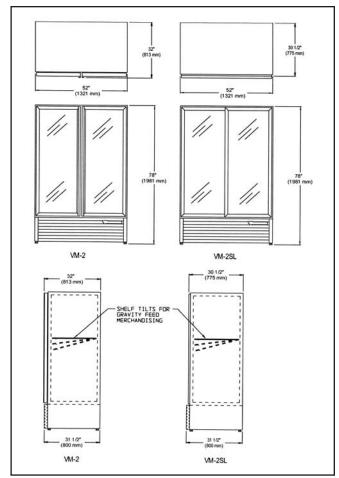
- NSF 7 Listed for Foodservice & Prepackaged Products
- Heavy Gauge Black Powder Coated Zinc Plated Steel Exterior
- High Impact Molded ABS Interior
- Bright White Interior with Vertical Fluorescent Lighting
- Automatic Condensation Disposal
- CFC Free Refrigerant
- Full Height Self-Closing Glass Door
- Integral Full Length Door Handle
- Bottom Mount Condensing Unit
- Molded-In Shelf Support System Accommodates Standard or Gravity Organizer Shelves without use of Clips or Hooks
- Eight (8) Standard Shelves
- Shelves Adjustable on 3" Centers
- 9 ft Cord and Plug Attached
- Each Shelf will Accommodate either
  - One (1) 12" x 20" Pan
  - One (1) 18" x 26" Pan
- Each VM-2SL Shelf will Accommodate
  - One (1) 12" x 20" Pan

#### **Optional Features:**

- Heavy Duty Swivel 3" and 5" Casters with Brakes
- Gravity Organizer Shelves
- Door Merchandising Decals
- Price Tag Molding

#### **Specifications:**

1/3 Horse Power 115V/60Hz/1Ph 8.8 Amperes 122 Cubic Feet (net) 8 Standard Shelves



Crated Weight: 520 LBS

We reserve the right to change specifications and product design without notice. Such revisions do not entitle the buyer to correspond changes, improvements, additions or replacements for previously purchased equipment.

### SECTION 2 INSTALLATION

#### **IMPORTANT:**

It is highly recommended that your merchandiser refrigerator be installed by an authorized Victory Certified Installer.

#### A. Receiving Shipment

Upon arrival, 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 to that effect. A claim must be filed immediately against the carrier indicating extent and estimated cost of damage incurred.

All units are performance tested and thoroughly inspected, prior to shipment. Upon leaving the factory, all units are in perfect condition and the carrier signs to this effect.

#### B. Uncrating Procedure

#### **WARNING!!!!**

DO NOT, Under Any Circumstances, Lay Your New Equipment Down on Either The Back, Front or Sides.

The shipping skid must be removed by tipping the model from side to side. Remove the leveler bolts while the model is held in one direction. Repeat this procedure when the model is held in the opposite direction.

#### ATTENTION!!!!

## DO NOT THROW AWAY THE FOUR (4) LEVELER BOLTS!

\*Note:Once the uncrating process is complete, make sure the leveler bolts are safely and securely placed back on the bottom of the cabinet for proper support and leveling purposes.

#### **CAUTION:**

Exercise extreme caution when removing the wooden skid especially when the last bolt is removed, as the skid, if not properly blocked, will fall to the floor with extreme force.

#### C. Reducing Merchandiser Depth for Narrow Facility Doorway

In order to pass through a narrow doorway or restricted area the door, front grille and hinge brackets may be removed to reduce the overall depth of the cabinet to a minimum or 30" deep.

#### 1. Removing Hinged Doors

- **a.** Loosen the top hinge bracket screws while holding the top bracket down.
- **b.** While holding the door against the cabinet, lift the top bracket until it clears the top hinge pin.
- **c.** Lift the door until the bottom hinge pin clears the bottom hinge bracket.
- d. Remove top and bottom hinge brackets and mount on the other side of the cabinet. Tighten bottom hinge bracket screws. Leave top hinge bracket screws loose.
- **e.** Insert bottom hinge pin into hole in bottom hinge bracket.
- **f.** Lower top hinge bracket onto top hinge pin. Tighten the top hinge bracket.

#### D. Locating Your New Merchandiser

The following conditions should be considered when selecting a location for your merchandiser refrigerator.

 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 which might be placed into it. To estimate the possible product load weight it is generally conceded that a safe figure is 35 pounds for each net cubic foot storage space. For example, a 47 cubic foot cabinet could hold approximately 1645 pounds of product  $(47 \times 35 = 1645)$ .

2. Ventilation - The air cooled, self-contained merchandiser refrigerator requires a sufficient amount of cool, clean air. Avoid placing the refrigerator near heat generating equipment such as ovens, ranges, heaters, fryers, steam kettles, etc., and out of direct sunlight. Avoid locating the self-contained refrigerator in an unheated room, or where the room temperature may be below 55°F.

#### E. Installation of Optional Legs or Casters

Merchandisers are shipped with leveler bolts that can be used to level the cabinet. However, legs and casters can be supplied that are of the 1/2" single stud mount type and requires no tools for installation. Simply remove the leveler bolts and then screw the casters or legs into the threaded holes located on the case bottom. To install low-profile rollers, remove carriage bolts from caster mounting plates and insert stem into bolt hole and tighten nut. Make sure that torque of caster bracket is inserted into 1/2" hole. This will prevent caster from turning.

Tilt the cabinet in one direction approximately eight inches and block it securely to keep it from falling. Use several pieces of 2 x 4 lumber or other suitable material. Screws the two left or right legs in snug. Repeat this procedure to install the other legs with the case bottom.

#### **WARNING**

Never, Under Any Circumstances, Lay Your New Merchandiser Refrigerator Down On Either It's Back, Front or Sides.

#### F. Leveling

Cabinet must be leveled when installed. This is accomplished by rotating the leveler bolt. Failure to level your cabinet may result in

doors not sealing, closing properly or condensate water not draining properly.

#### G. Initial Cabinet Set-Up

Units are shipped with shelves. These items are secured to the rear of the cabinet directly on the wood skid.

#### 1. Cleaning Cabinet

#### **CAUTION:**

#### DO NOT Use Abrasive Cleaning Solvents.

Never scour any part of your new cabinet. Scouring powders or chemicals may cause damage by scratching or dulling the surface finish. Prior to placing your new merchandiser refrigerator and all shelves 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.

For additional cleaning information, refer to the maintenance section of this service manual.

#### 2. Installing Shelves

All merchandiser models include an interior which supports the adjustable and gravity organizing shelving.

Refer to pages 9 to 12 for detailed and illustrated shelf installation instructions for both standard shelving and beverage shelf kits.

#### H. Electric Supply

The wiring should be done by a qualified electrician in accordance with local electrical codes. A separate ground wire must be supplied for all installations. A properly wired merchandiser refrigerator will assure proper operation. Please consult the "Data" plate attached to the compressor to assure the electrical requirements are correct. Supply voltage requirements are on the cabinet serial plate. It is recommended that a direct, properly fused line of the proper size wire be installed

from the main supply to your merchandiser. It is most important that a voltage reading be made at the compressor-motor electrical connections, or as close to the compressor-motor as possible, while the merchandiser is in operation, to assure that the correct voltage required by the compressor is being supplied. Low or high voltage can detrimentally affect the refrigeration unit and thereby void its warranty.

All merchandiser refrigerator electrical systems are internally grounded. It is recommended that a bonding braid be secured to the base of the refrigerator and carried to a water pipe, to complete the ground.

#### I. Installation Checklist

After the cabinet has been installed, leveled and cleaned as described in the preceding paragraphs, refer to the following checklist prior to start-up.

- Full voltage of the correct type, on a line not affected by the operation of other electrical appliances, must be available for proper operation. Condensing units are designed to operate with a voltage fluctuation of plus or minus 10% of the voltage indicated on the cabinet electrical data plate. Burn-out of a condensing unit due to exceeding the high or low voltage limits will void the factory warranty.
- Leak check all exposed refrigeration lines. Make sure refrigeration lines are not dented, kinked or rubbing.
- Check condenser fan for freedom to rotate without striking any stationary members.
- Cabinet must be properly leveled.
- Do Not become alarmed if a trace of freon gas is detected in the internal cabinet air. This may be due to refrigerant used in expanding the foam insulation used in this cabinet.

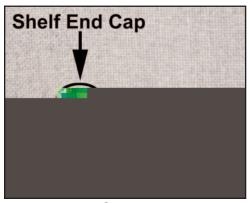
NOTE: All motors are lifetime oiled and sealed. All self-contained models are shipped from the factory with the service valves opened ready for operation.

#### J. Location of Serial Number/Data Plate

The serial data plate is mounted on the upper left interior wall.

**NOTE:** When ordering replacement parts, you must include the complete cabinet model and serial numbers.

#### K. VM Standard Shelf Installation Instructions



Step 1

Make sure *plastic end caps* are on the front left and right sides of the shelf before the installation process.

\*Note: Putting shelving in the cabinet without end caps will cause damage to the interior!



Step 2

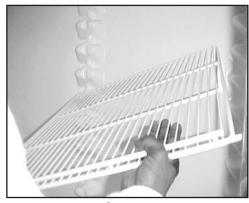
Tilt shelf at an angle and insert into cabinet.



Step 3

Insert the front shelf peg into the support hook on the side of the cabinet interior. Keep opposite shelf peg between front of upright support and door.

\*Note: VM-1's do not have an upright support, place in opposite hook area.



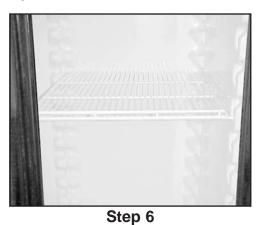
Step 4

Position the rear of the shelf at the desired level using the peg from step 2 as the pivot point. Rest the rear corner of the shelf on the rear side support first, then lift and pivot shelf on to the supporting center of the cabinet interior.

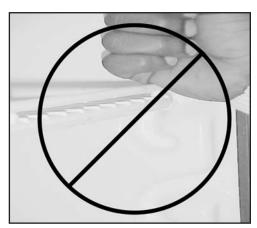
#### K. VM Standard Shelf Installation Instructions (continued)



Step 5
Lift the inside shelf peg into the locking clip.



Shelf is installed.



Attention!!!!

**Do not** force the peg into the place. Doing this will damage the unit as previously stated.

#### L. Assembling and Installing VM-2 & VM-2SL Beverage Organizer Shelf

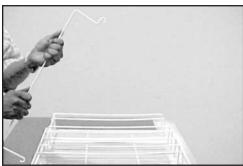
Victory organizer shelves have adjustable product dividers that allow for merchandising a variety of products without the need to purchase multiple unique fixed dividers. Before installing the dividers on the shelf, determine the required spacing for the product that will be displayed.

Each shelf kit includes the following:

- a. One (1) Organizer Shelf with Front Product Stop Part No. 50849601
- b. Eight (8) Adjustable Product Divider Bars Part No. 50849701
- c. Seven (7) Snap-On Product Glides Part No. 50808202

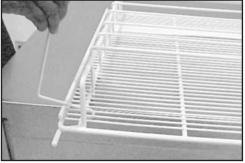
\*Note:Prior to shelf kit installation, make sure **shelf end caps** are on the front right and left sides of the shelves before the installation process. Refer to **step 1** on page 9.

#### Instructions:



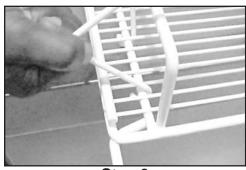
Step 1

Start installing the *dividers* at one end of the shelf and work across to the other side. Prepare the *product divider* for installation by positioning it over the shelf as shown.



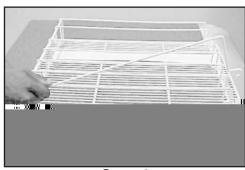
Step 2

Position "J" hook at the front of the shelf so that it can be hooked to the front bar as shown above.



Step 3

Attach the "J" hook to the front bottom bar of the shelf.



Step 4

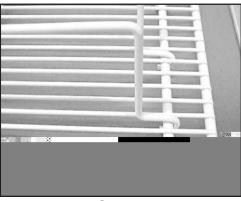
Rotate the **product divider** over the shelf to lock the **back hook** of the **product divider** evenly at the rear of the shelf.

#### L. Assembling and Installing VM-2 & VM-2SL Beverage Organizer Shelf (continued)



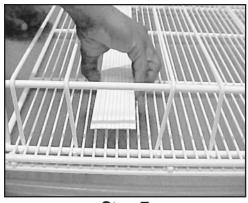
Step 5

Hold the *divider* evenly. Grasp the *divider* above the *back hook* and gently snap the *divider* over the *rear support rod* on the shelf.



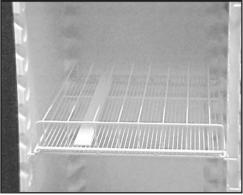
Step 6

Make sure that the *rear bar* is seated within the hook snugly as shown.



Step 7

After installing all **product dividers** to the proper spacing, place the **product glides** in between the **dividers** and snap them gently on to the **shelf rails**.



Step 8

Place completed **beverage organizer shelf** into the **Victory Merchandiser (VM)**. Locate the front support one or two spaces below the **rear gravity feed**.



Step 9

Add the product of choice on to the **beverage organizer shelf**.

"End Of Section, Click Here For Table Of Contents"

### SECTION 3 OPERATION

#### A. Temperature Control

The temperature control should be set to maintain a temperature of 38°F (3.3°C) to 40°F (4.4°C).

**Note:** Continued use of this equipment will allow you to become familiar with its operation and functions.

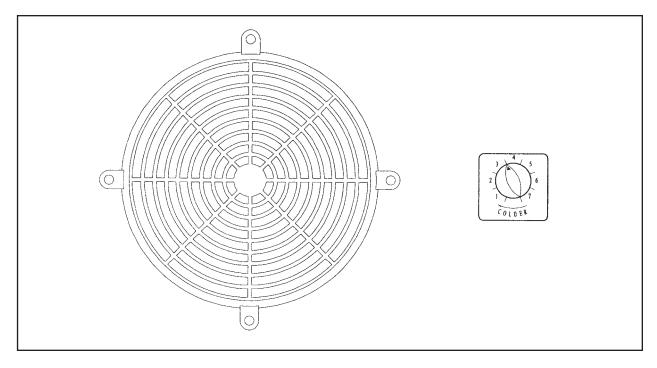


Figure 3-1

## SECTION 4 MAINTENANCE

#### A. Cleaning and Proper Detergent Use

Follow requirements of local health authorities.

1. Use a detergent-sanitizer or a mild detergent (neutral) or mildly alkaline (recommended for metal surfaces) followed by a sanitizing rinse solution. These chemicals are necessary to kill or deactivate the micro-organisms on the surface areas in contact with stored food. Choose these chemicals carefully. Some are toxic and should only be used on non-food surfaces.

#### **CAUTION:**

#### DO NOT USE ABRASIVE CLEANING SOLVENTS!!!!

Never scour any part of your refrigerator. Scouring powders or chemicals may cause damage by scratching or dulling the gleaming surface finish. Use alkaline, alkaline chlorinated or non-chloride cleaners.

- **2.** Avoid cleaners containing quaternary salts! They can also attack stainless steel and cause pitting and rusting.
- **3.** When using these products, it is important to follow label directions exactly to obtain the correct cleaning action.

#### B. Initial Cleaning of Cabinet

#### **CAUTION:**

DO NOT USE ABRASIVE CLEANING SOLVENTS!

DO NOT USE ALCOHOL OR AMMONIA BASED CLEANERS ON PLASTIC PARTS!

Prior to placing your new refrigerator 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.

#### C. Periodic Cleaning

It is more convenient to clean your merchandiser refrigerator when the product load is at its lowest point.

#### 1. Daily Exterior Surface Cleaning

Cleaning and sanitizing agents for stainless steel and aluminum exteriors should be used daily.

#### 1. Daily Exterior Surface Cleaning (continued)

- **a.** Dip sponge in cleaning solution, wipe down surfaces.
- **b.** Polish with clean soft cloth. Always wipe in direction of grain. Once a week a film cutting agent may be used for metal finishes to maintain a shining surface.

#### 2. Weekly Interior Accessory Cleaning

Interior cleaning is recommended a minimum of once a week to maintain good sanitary conditions and to eliminate odors.

- a. Disconnect power by switching circuit breaker "OFF".
- **b.** Remove all food to protective temporary storage.
- **c.** Open doors and allow warm room air to enter cabinet.
- **d.** Remove all accessories (shelves, racks, etc.) from within the cabinet and scrub with a detergent solution and a nylon bristled brush.
- e. Rinse with clear water.
- **f.** Soak in a final rinse of sanitizing solution for recommended period of time.
- g. Remove and air dry.

#### 3. Weekly Interior Surface Cleaning

- **a.** When storage compartment(s) is sufficiently warm, remove all loose food particles.
- **b.** Scrub all interior surfaces with warm detergent solution 100°F 120°F (38°C 39°C) and a nylon bristled brush. Scrub the floor and ceiling surfaces of the interior walls, corners, inner door surface, gaskets, and latches.
- **c.** Rinse with warm clean water using a cellulose sponge.
- **d.** Remove excess rinse water with sponge.
- **e.** Wipe all interior surfaces down with sanitizing solution.
- **f.** Allow to air dry.
- **g.** Return accessories to unit.
- **h.** Return power (electrical) to unit by resetting circuit breaker.
- i. Return food to cabinet when temperature indicator reaches safety zone.

#### 4. Once Every Three Months, Condenser Maintenance

Cleaning is recommended at least once every three (3) months. However, once a month is recommended when unit is located near cooking equipment which produces grease laden vapors, i.e.: fryers, grills, steam kettles, etc.

- a. Disconnect power by switching circuit breaker to "OFF" position.
- **b.** Remove the front grille by lifting up and straight out.
- **c.** Use a vacuum cleaner with proper brush attachments, to clean the condenser, compressor-motor and related parts.
- **d.** In extreme cases of dust and grease build-up, the condenser fins may require blowing out with compressed air.
- e. Turn circuit breaker to "ON" position.

**Note:** The air cooled condensing unit depends upon the amount of air passing through the condenser. Grease, lint and dust accumulation reduces required air flow. The refrigerator will consume less current and operate more efficiently if the condenser is kept clean.

#### **WARNING:**

Failure to keep condenser clean may cause premature failure of motor/compressor which will NOT be covered by warranty!

#### D. Lubrication

Unless otherwise specified, all Victory refrigerators are equipped with oilless type motors. The compressor motor is a sealed unit and is constantly being lubricated when in operation. The condenser and the evaporator motors are equipped with "Life-time" oiled bearings. These bearings are oiled at the factory and need never be oiled again.

## SECTION 5 SERVICE

#### A. Servicing the Refrigeration Condensing Unit

The refrigeration condensing unit is serviceable from the front and rear of the merchandiser.

- 1. **Discontinue power** to merchandiser by turning arrow on temperature control knob to "one" (1) and unplugging power cord from electrical outlet at rear of cabinet.
- 2. Remove front grill by lifting from bottom and pulling forward gently.
- 3. Take off rear grill by removing screws with phillips head screwdriver (\*Note: remove four (4) screws on VM-1; remove six (6) screws on VM-2 & VM-2SL).
- 4. Service required component.

\*Important Note!: It is highly recommended that any service work outside the 3 month condensing coil cleaning be performed by a "Victory" recommended service company or qualified service technician.

**5.** After service work is complete, reverse previous steps and properly restore power.

#### B. Servicing Evaporator Fan Motors and Temperature Control

1. **Discontinue power** to merchandiser by turning arrow on temperature control knob to "one" (1) and unplugging power cord from electrical outlet at rear of cabinet.

#### 2. a. VM-1 Fan Panel/Drain Pan Disconnect

- At the fan panel/drain pan assembly, remove temperature control knob and screws with phillips head screws on both sides.
- Let fan panel/drain pan assembly hang.
- Proceed to "step 3".

#### b. VM-2 & VM-2SL Fan Panel/Drain Pan Disconnect

- Take hinged or sliding glass doors off cabinet.
- Remove fluorescent light bulb and shield. Place in safe area.
- Remove rest of light ballast assembly by unscrewing light rod and light rod reflector.

#### B. Servicing Evaporator Fan Motors and Temperature Control (continued)

- b. VM-2 & VM-2SL Fan Panel/Drain Pan Disconnect (continued)
  - Disconnect wiring one at a time on both sides of remaining ballast assembly.

\*Note: <u>Be cautious!! At the same time individual wires are disconnected,</u> mark wires for correct reinstallation!

- Place remaining ballast assembly in safe location.
- At the fan panel / drain pan assembly, remove temperature control knob and screws on both sides.
- Let fan panel / drain pan assembly hang.
- Proceed to "step 3".
- 3. Service required component.

\*Important Note!: It is highly recommended that any service work outside the 3 month condensing coil cleaning be performed by a "Victory" recommended service company or qualified service technician.

- **4.** After service to component is complete, make sure all area's on fan panel/drain pan assembly with sealant are still in tact by adding more sealant to avoid leakage.
- **5.** Reverse steps for reinstallation and proper restoration of power.

#### C. Servicing Evaporator Coil and/or Heat Exchanger Assembly

- **1.** *Discontinue power* to merchandiser by turning arrow on temperature control knob to "one" (1) and unplugging power cord from electrical outlet at rear of cabinet.
- 2. At back of cabinet, take off rear joint cover by taking out top and bottom phillips head screws.
  - \*Note: For VM-2 & VM-2SL, take off right rear joint cover as you're facing the back of cabinet. This will give access to heat exchanger.
- 3. If needed, perform "Instructions to Service Evaporator Fan Motor(s) and Temperature Control" for access to evaporator coil and accumulator.
- **4.** Service evaporator coil and/or heat exchanger assembly.
- \*Important Note!: It is highly recommended that any service work outside the 3 month condensing coil cleaning be performed by a "Victory" recommended service company or qualified service technician.

#### C. Servicing Evaporator Coil and/or Heat Exchanger Assembly (continued)

**5.** After service to evaporator coil and/or heat exchanger assembly, reverse steps for reinstallation and proper restoration of power.

\*Note: If fan panel/drain pan assembly was disconnected, make sure proper reinstallation procedures were used. Add more sealant to avoid leakage! Proceed to reverse steps for reinstallation of evaporator coil and heat exchanger assembly. Properly restore power.

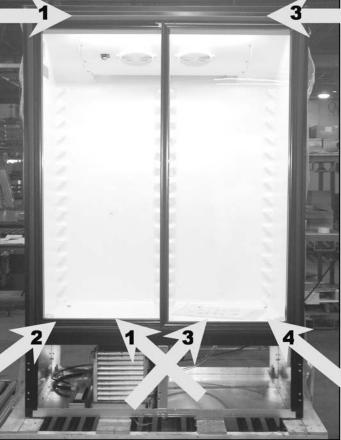
#### D. VM-2SL Sliding Glass Door Shim Insertion Instructions

If VM-2SL cabinet has gap(s) between the sliding glass door and frame, contact factory and request door roller assembly shim(s) under part number 05314501. Following are step by step guidelines that will assist in closing any gap(s).

\*Note: Pay close attention to roller assembly location and numbered arrows!

#### **Instructions:**

If "Gap" is around this area (arrow 1), place shim(s) under roller assembly where the opposite arrow with "1" is located (diagonally across).



If "Gap" is around this area (arrow 3), place shim(s) under roller assembly where the opposite arrow with "3" is located (diagonally across).

If "Gap" is around this area (arrow 2), place shim(s) under roller assembly at the same location.

If "Gap" is around this area (arrow 4), place shim(s) under roller assembly at the same location.

Figure 1

#### D. VM-2SL Sliding Glass Door Shim Insertion Instructions (continued)

- 1. If cabinet has gap(s) between sliding glass door and frame, place shim(s) as shown on page 19.
- 2. Remove door(s) from the frame by grasping firmly on both ends and lifting the door(s) up towards the top frame and pulling out towards you (Fig.2).



Figure 2

3. Turn door(s) over and remove two nuts from the roller assembly with a 1/4" nut driver (Fig.3).



Figure 3

\*Note: Be careful not to lose the nuts when taking out the roller assembly. Extra nuts do not come with the shim(s) when requested.

#### D. VM-2SL Sliding Glass Door Shim Insertion Instructions (continued)

4. Take the roller assembly out of the door (Fig.4).



Figure 4

5. Install necessary amount of shims over stud screws (Fig.5).
Examples: (1) One shim will resolve a 1/4" gap in between the door and frame; (2)
Two shims will resolve a 1/2" gap in between the door and frame.



Figure 5

**6.** Place roller assembly over shim(s) and stud screws (**Fig.6**).



Figure 6

#### D. VM-2SL Sliding Glass Door Shim Insertion Instructions (continued)

7. Insert nuts with 1/4" nut driver (Fig.7).



Figure 7

**8.** Turn door over after roller assembly is properly installed. Place top of door in top rail of frame by pushing tension spring block with door. (**Fig.8 & Fig.8a**). Push bottom of door in for complete installation.



Figure 8



Figure 8a

## SECTION 6 TROUBLESHOOTING

#### TROUBLESHOOTING & SERVICING REFRIGERATION SYSTEM

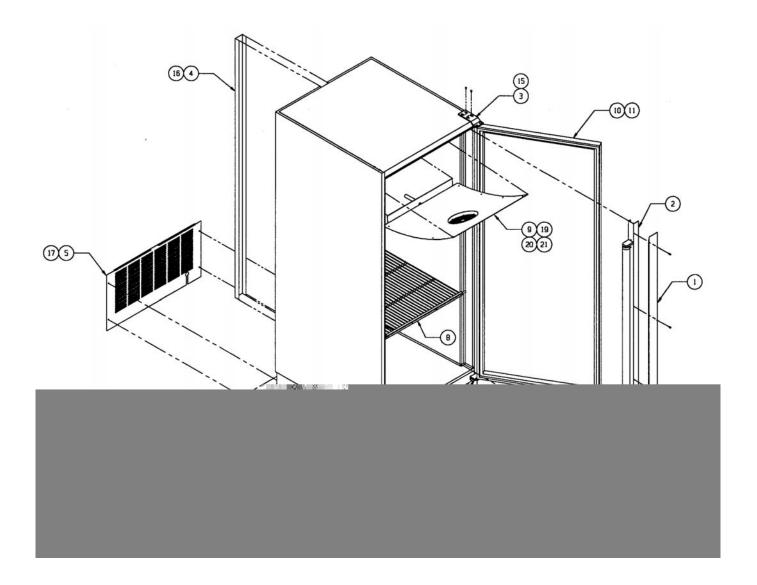
PROBLEM	POSSIBLE CAUSE	REMEDY
Condensing unit fails to start - no hum.	1. Line disconnect switch open. 2. Fuse removed or blown. 3. Overload protector tripped. 4. Control stuck in open position. 5. Wiring improper or loose.	Close start or disconnect switch.     Replace fuse.     Determine reason and correct/replace control.     Repair or replace control.     Check wiring against diagram.
Condensing unit fails to start - hums, but trips on overload protector.	Improperly wired.     Low voltage to unit.     Starting capacitor defective.     Relay failing to close.  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 replace. 4. Determine reason and correct/replace if necessary. 5. Replace compressor. 6. Replace compressor.
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.
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.
Condensing unit runs but short cycles on	Overload protector.     Thermostat.     High pressure cut-out due to:         a. Insufficient air or water supply.         b. Overcharge.         c. Air in system.     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.
Condensing unit operates for prolonged periods or continuously.	1. Shortage of refrigerant. 2. Control contacts stuck or frozen closed. 3. Excessive heat load placed into cabinet. 4. Prolonged or too frequent door openings. 5. Evaporator coil iced. 6. Restriction in refrigeration system. 7. Dirty condenser. 8. Filter dirty.	<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.	1. Clean contacts or replace relay if necessary. 2.  a. Determine reason and correct. b. Replace. c. Correct by using pump down arrangement if necessary. 3. Determine reason for short cycling (see 5 above) and correct. 4. Determine correct size and replace.		
Run capacitor open, shorted or blown.	Improper capacitor.     Excessively high line voltage (110% of rated-max.)	Determine correct size and replace.     Determine reason and correct.		
9. Relay defective or burned out.	Incorrect relay.     Incorrect mounting angle.     Line voltage too high or too low.     Excessive short cycling.      Relay being influenced by loose vibrating mounting.     Incorrect run capacitor.	<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.	Overcharge of refrigerant.     Evaporator fan not running.     If remote model, expansion valve stuck open.     If remote model expansion valve is passing excess refrigerant or is oversized.	Correct charge.     Determine reason and correct.     Clean valve of foreign particles.     Replace if necessary.     Readjust valve or replace with smaller valve.		
12. Liquid line frosted or sweating.	Restriction in dehydrator or strainer.     Liquid shut-off (king valve) partially closed.	Replace part.     Open valve fully.		
13. Noisy condensing unit.	Loose parts or mounting.     Tubing rattle.     Bent fan blade causing vibration.     Fan motor bearings worn.	<ol> <li>Find and tighten.</li> <li>Reform to be free of contact.</li> <li>Replace blade.</li> <li>Replace motor.</li> </ol>		

## SECTION 7 PARTS LIST

## Victory Merchandiser One Section Cabinet & Hinged Glass Door Parts

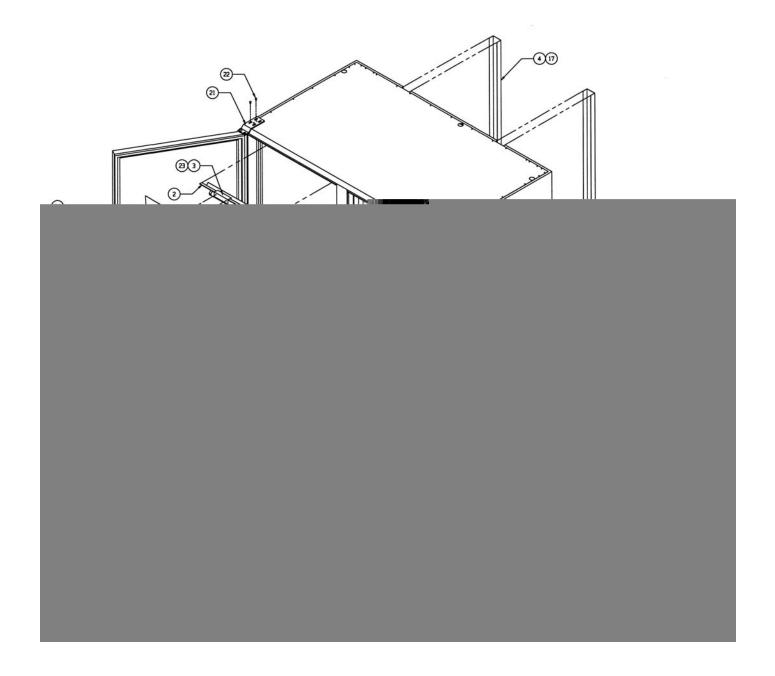


## Victory Merchandiser One Section Cabinet & Hinged Glass Door Parts List (Refer to drawing on page 28)

Item	Description	Part Numbers	Qty
1	Light Rod Reflector	04459801	1
2	Light Rod	04459701	1
3	Upper Hinge Bracket	50841201	1
4	Rear Joint Cover	01375301	1
5	Lower Back Panel	01375701	1
6	Lower Case End	01375801	2
7	Plastic Grille	50798405	1
8	Adjustable Shelf	50842002	4
9	Evaporator Fan Panel Assembly	10798001	1
10	Glass Door	50841901	1
11	Door Gasket	50841902	1
12	Lower Hinge Bracket	50841301	1
13	"Victory" Name Plate	50736401	1
14	Push Pins	50843701	4
15	Hinge Bracket Screw	50844501	4
16	Rear Joint Cover Screw	50314101	2
17	Lower Back Panel Screw	50316701	4
18	Lower Case End Screw	50316701	4
19	Evaporator Fan Guard	50842202	1
20	Evaporator Fan Panel Screw	50738202	6
21	Evaporator Fan Panel (without components)	04459601	1
22	Leveling Bolt	50791801	4
22	Low Profile Caster (optional)	50843501	4
22	Leg (optional, black in color)	50671801	4

\*Note: All field replacement parts may not be stated on this parts list. For additional information or assistance, contact the factory.

## Victory Merchandiser Two Section Cabinet & Hinged Glass Door Parts



## Victory Merchandiser Two Section Cabinet & Hinged Glass Door Parts List (Refer to drawing on page 30)

Item	Description	Part Numbers	Qty
1	Light Rod Reflector	04460301	1
2	Light Rod	04460401	1
3	N/A	-	-
4	Rear Joint Cover	01375301	2
5	Lower Back Panel	01376301	1
6	Lower Case End	01375801	1
7	Lower Case End Screws	50316701	4
8	Plastic Grille	50798406	1
9	"Victory" Name Plate	50736401	1
10	Leveler Bolt	50791801	4
10	Low Profile Caster (optional)	50843501	4
10	Leg (optional, black in color)	50671801	4
11	Lower Hinge Bracket	50841301	2
12	Lower Hinge Bracket Screws	50844501	4
13	Evaporator Fan Panel Assembly	10798801	1
14	Evaporator Fan Guard	50842202	2
15	Evaporator Fan Panel Screw	50738202	8
16	Evaporator Fan Panel (without components)	04460201	1
17	Rear Joint Cover Screw	50314101	4
18	Lower Back Panel Screw	50316701	6
19	Adjustable Shelf	50842402	8
20	Center Shelf Support	50842602	1
21	Upper Hinge Bracket	50841201	2
22	Upper Hinge Bracket Screw	50844501	4
23	N/A	-	-
24	Glass Door	50842501	2
25	Door Gasket	50842502	2

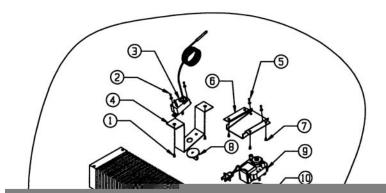
#### Sliding Glass Door Assembly Replacement Parts List for VM-2SL

\*Note: Cabinet parts for the VM-2SL are the same as the VM-2 except the door components. Parts below pertain to cabinets manufactured on or after the date of August 13th, 2001. For cabinets built prior to this date, consult factory.

26	Lower Shim, Sliding Door (for Frame)	05317201	1
27	Upper Shim, Sliding Door (for Frame)	05317301	1
28	Door Assembly, Sliding Glass (complete)	50843021	1
29	Frame, Sliding Glass Door	50843022	1
30	Door, Sliding Glass (inner door or left side door facing cabinet)	50843023	1
31	Door, Sliding Glass (outer door or right side door facing cabinet)	50843024	1
32	Sealer Gasket, Door (on side of door with wiper strip)	50843025	2
33	Bumper Gasket, Door (on side of door & bumps frame during closure)	50843026	2
34	Bumper, Sliding Door (component inside outer door at bottom)	50843027	1
35	Bearing Assembly, Sliding Door	50843028	2
36	Spring Assembly, Sliding Door (located inside top tracks of frame)	50843029	2

\*Note: All field replacement parts may not be stated on this parts list. For additional information or assistance, contact the factory.

## Victory Merchandiser One Section Cabinet Refrigeration Components



## Victory Merchandiser One Section Refrigerator Components Parts List

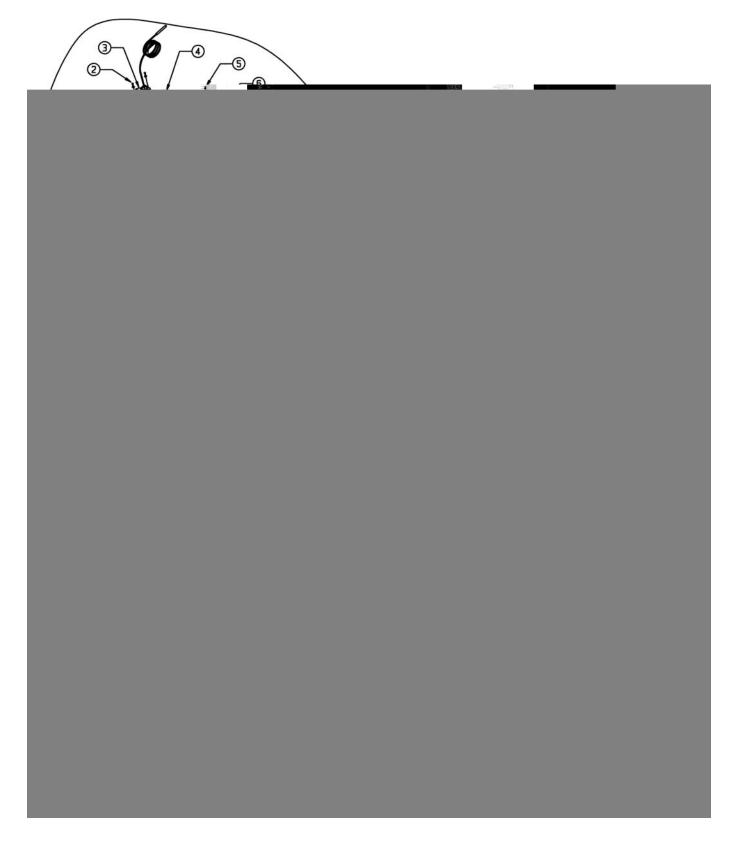
(Refer to drawing on page 32)

\*Note: Electrical wiring harness components within this parts list pertains to cabinets manufactured on or after June 12th, 2001! For cabinets built prior to this date, consult factory.

Item	Description	Part Numbers	Qty
1	Temperature Control Mounting Bracket Screw	50738202	2
2	Temperature Control Screw (accessory to temperature control)	N/A	2
3	Temperature Control	50616201	1
4	Temperature Control Mounting Bracket	04460101	1
5	Evaporator Fan Motor Screw (accessory to fan motor)	N/A	2
6	Evaporator Fan Motor Mounting Bracket	04460001	1
7	Evaporator Fan Motor Mounting Bracket Screw	50738202	4
8	Temperature Control Knob (accessory to item #3)	N/A	-
9	Evaporator Fan Motor	50639801	11
10	Evaporator Fan Motor Blade	50598001	1
11	Evaporator Coil Manifold Mounting Screw (not shown)	50674601	4
12	Evaporator Coil (Fin to Fin Dimensions: 4 x 6 x 13)	50597502	1
13	Condensing Unit Fan Motor Bracket Screw	50316701	4
14	Condenser Fan Motor Mounting Screw (accessory to item #16)	N/A	4
15	Condenser Fan Motor Bracket	04453501	1
16	Condenser Unit Fan Motor	50193101	1
17	Condenser Unit Fan Motor Blade	50618602	1
18	Condenser Unit Fan Shroud	50757301	1
19	Condenser Unit Fan Shroud Screw	50316701	6
20	Condenser Coil (Fin to Fin Dimensions: 10 x 4 x 10)	50757401	1
21	Filter Drier	50730801	1
22	Condenser Coil Mounting Bracket Screw	50316701	6
23	Condenser Coil Mounting Bracket	04447501	1
24	Hot Gas Discharge Line Assembly	50819001	1
25	Condensate Drain Pan	04447401	1
26	Electrical Enclosure Assembly Screw	50316701	10
27	Magnetic Ballast	50840501	1
28	Condenser Unit Base	04459401	1
29	Electrical Enclosure	04463701	1
30	Compressor-Motor Carriage Bolt	50254801	4
31	Compressor-Motor, R-134A	50845901	1
32	Compressor-Motor Flat Washer	50083601	4
33	Compressor-Motor Steel Spring Lock Washer	50082301	4
34	Compressor-Motor Hex Nut	50080801	4
35	Refrigerant Copper Tubing, 3/8" O.D.	50306201	1
36	Heat Exchange Assembly	10797701	1
37	Evaporator Coil Assembly	10797601	1
38	Accumulator	50180701	1
39	Capillary Tubing, Heat Exchanger	50199201	1
40	Evaporator Fan Motor Harness (not shown)	50040801	1
41	Power Harness with Plug (not shown)	50859401	1
42	Electrical Box Receptacle Harness (with 4 Female Connectors)	50858801	1
43	Compressor Harness (not shown)	50859301	1
44	Temperature Control Harness (not shown)	50859201	1
45	Light Harness (not shown)	50858901	1

\*Note: All field replacement parts may not be stated on this parts list. For additional information or assistance, contact the factory.

## Victory Merchandiser Two Section Cabinet Refrigeration Components



## Victory Merchandiser Two Section Refrigerator Components Parts List

(Refer to drawing on page 34)

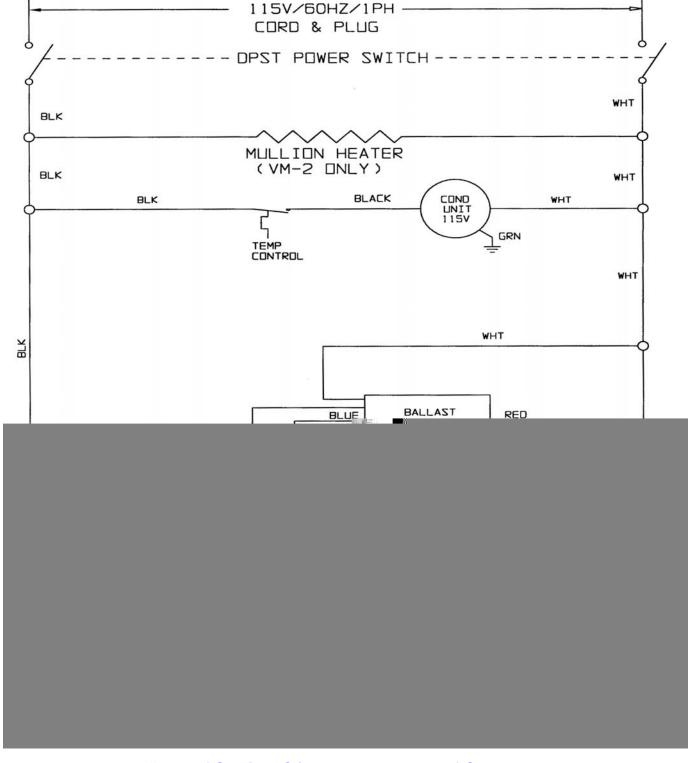
\*Note: Electrical wiring harness components within this parts list pertains to cabinets manufactured on or after June 12th, 2001! For cabinets built prior to this date, consult factory.

Item	Description	Part Numbers	Qty
1	Temperature Control Mounting Bracket Screw	50738202	2
2	Temperature Control Screw (accessory to temperature control)	N/A	2
3	Temperature Control	50616201	1
4	Temperature Control Mounting Bracket	04460102	1
5	Evaporator Fan Motor Screw (accessory to fan motor)	N/A	4
6	Evaporator Fan Motor Mounting Bracket	04460001	2
7	Evaporator Fan Motor Mounting Bracket Screw	50738202	8
8	Temperature Control Knob (accessory to item #3)	N/A	-
9	Evaporator Fan Motor	50639801	2
10	Evaporator Fan Motor Blade	50598001	4
11 12	Evaporator Coil Manifold Mounting Screw (not shown)  Evaporator Coil (Fin to Fin Dimensions: 4 x 6 x 25)	50674101	1
13	Condensing Unit Fan Motor Bracket Screw	50597602 50316701	4
14	Condensing Onit Fail Motor Bracket Screw  Condenser Fan Motor Mounting Screw (accessory to item #16)	N/A	4
15	Condenser Fan Motor Bracket	04453501	1
16	Condenser Unit Fan Motor	50193101	1
17	Condenser Unit Fan Motor Blade	50618602	1
18	Condenser Unit Fan Shroud	50757301	1 1
19	Condenser Unit Fan Shroud Screw	50316701	6
20	Condenser Coil (Fin to Fin Dimensions: 10 x 4 x 10)	50757401	1
21	Filter Drier	50730801	1
22	Condenser Coil Mounting Bracket Screw	50316701	6
23	Condenser Coil Mounting Bracket	04447501	1
24	Hot Gas Discharge Line Assembly	50819001	1
25	Condensate Drain Pan	04447401	1
26	Electrical Enclosure Assembly Screw	50316701	10
27	Magnetic Ballast	50840601	1
28	Condenser Unit Base	04459401	1
29	Electrical Enclosure	04463701	1
30	Compressor-Motor Carriage Bolt	50254801	4
31 32	Compressor-Motor, R-134A Compressor-Motor Flat Washer	50762901 50083601	1 4
33	Compressor-Motor Steel Spring Lock Washer	50082301	4
34	Compressor-Motor Hex Nut	50082301	4
35	Refrigerant Copper Tubing, 3/8" O.D.	50306201	1
36	Heat Exchange Assembly	10798601	1
37	Evaporator Coil Assembly	10798501	1 1
38	Accumulator	50180701	1 1
39	Capillary Tubing, Heat Exchanger	50199101	1 1
40	Evaporator Fan Motor Harness (not shown)	50606101	1
41	Power Harness with Plug (not shown)	50859401	1 1
42	Electrical Box Receptacle Harness (with 4 Female Connectors)	50858801	1
43	Compressor Harness (not shown)	50859301	1
44	Temperature Control Harness (not shown)	50859201	1
45	Light Harness (not shown)	50859001	1

\*Note: All field replacement parts may not be stated on this parts list. For additional information or assistance, contact the factory.

## SECTION 8 WIRING DIAGRAM

## VM-1, VM-2 & VM-2SL (Self-Contained) 115v/60Hz/1ph



"End Of Section, Click Here For Table Of Contents"



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