

# Service Manual

## MicroSentry™ Refrigeration Monitor

For Models:  
30WCM & 61WCM Wine Cellars  
3BARM & 6BARM Beverage Centers



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Section 1: Introduction

1.1 Unit Specifications

The unit specifications will vary among the models listed in this service manual. Refer to Table A below for unit specifications related to the model that you are servicing.

Table A: Wine Cellar & Beverage Center Unit Specifications

	Cabinet Dimensions (in)			Weight (lbs)	Electrical Requirements	Power Cord Length (ft)	Compressor	Refrigerant Charge (oz)	System Refrigerant Control	Temperature Control	Condenser Fan Motor	Evaporator Fan Motor
	Height	Width	Depth									
30WCM	34 1/4	14 7/8	21 1/4	100	115VAC/ 60 Hz	7	Piston type	2.8	Capillary tube	Electronic Control with LED display, thermistor input, and MicroSentry™ System	2.3 W/ 1300 RPM	12VDC
3BARM								3.6				
61WCM	34	23 7/8	22	130	115VAC/ 60 Hz	7	Piston type	2.8	Capillary tube	Electronic Control with LED display, thermistor input, and MicroSentry™ System	2.3 W/ 1300 RPM	12VDC
6BARM								3.6				

1.2 Serial Nameplate

The serial nameplate is located inside of the unit on the upper left hand wall. The serial number will need to be given when inquiring about the unit or ordering parts. See Figure 1.1 below for a sample serial tag with manufacturing date code logic.

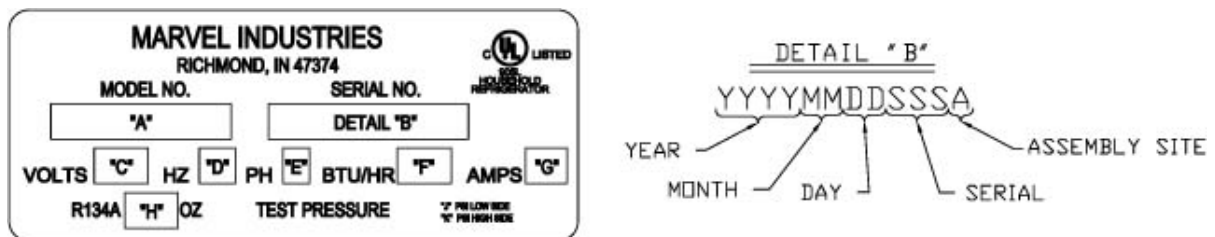


Figure 1.1

1.3 Before Servicing

- Always disconnect power to any Marvel product before attempting to service it. Always verify that power has been disconnected.
- If the unit has been running, use caution around the condenser and copper tubing. These areas may be very hot.
- Use caution around the condenser fins and baseplate edges. These areas are sharp.
- Refrigerant is under high pressure. Always evacuate any system before attempting to open it.
- Reasonable care and safe work methods should be practiced when working on any Marvel product. Never work with energized electrical equipment in wet or damp areas.
- Use an appropriate work area and location when performing repairs. You will find that it is easier to repair undercounter units if they are set on a raised platform or workbench.
- Always wear protective safety glasses and gloves when working on any Marvel product.
- Any refrigerant, whether CFC, HCFC, or HFC (R-12, R-22, or R-134a), must be recovered. Federal regulations prohibit the intentional venting or release of refrigerants during the service repair or disposal of an appliance.

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## 1.4 Basic Refrigeration Tools


The following list contains some of the tools required for basic refrigeration repairs:

1. Hoses with R-134a couplers (must meet standards for handling R-134a refrigerant)
2. Approved and certified recovery system for R-134a
3. Manifold gage set for R-134a
4. Charging cylinder with R-134a
5. Weight scale (preferably in ounces to the nearest tenth of an ounce)
6. Access valves
7. Small and large tubing cutter
8. Brazing torch
9. Swaging tools
10. Multimeter
11. Leak detection equipment for detection of R-134a
12. Standard hand tools (assorted Phillips and standard screwdrivers, sockets, allen wrenches, adjustable wrenches, etc.)
13. Rivet gun and assorted rivets
14. Drill motor and assorted metal drills

## 1.5 Installation

- Unit can be installed freestanding or built-in. The front of the unit must be unobstructed for proper air circulation and operation at all times.
- Area should be ventilated and without extreme temperatures.
- Unit must be installed indoors and away from the elements of nature. The unit is not U.L. approved for outdoor use and doing so may void any warranties.
- Unit must be on a LEVEL surface capable of supporting the loaded weight of the unit.

## 1.6 Electrical Requirements



**WARNING**  
**ELECTRICAL SHOCK HAZARD**  
Failure to follow these requirements could result in personal injury, electrical shock, or fire.

- 115 VAC, 60 Hz., single phase power is needed
- Use an outlet with a 15 amp delayed action fuse or circuit breaker. **DO NOT PUT A FUSE ON THE NEUTRAL OR GROUND OF THE CIRCUIT.**
- Properly grounded outlet is required for this unit.
- It is recommended that a single circuit receptacle be used for this unit only. **DO NOT USE AN EXTENSION CORD.**

## Section 2: Sealed System

### 2.1 Introduction

The following should always be practiced with any sealed system that has been opened. **ONLY OPEN THE SEALED SYSTEM AS A LAST RESORT AND AS A FINAL DIAGNOSIS.** Always check other areas of operation such as wiring, airflow, thermostat, etc. before opening up the sealed system. Many times these areas can resemble sealed system problems. The diagnosis of a sealed system can be determined by accurate pressure and temperature measurements. Also, checking the evaporator frost pattern is a great way to tell if a charge is adequate within a system.

1. Use a leak detection system that will detect R-134a refrigerant. Leaks need to be found on any leaking system **BEFORE** the repair takes place.
2. The drier must be replaced anytime the sealed system is opened. Always use a MARVEL drier. Failure to do so may cause repeated system failure in the future.
3. Limit time the system is opened. **DO NOT EXPOSE THE OPEN SYSTEM FOR MORE THAN 15 MINUTES.** This will result in sealed system failure. Leave replacement parts sealed and/or pressurized until ready to install.
4. The compressor must be replaced if there is a low side leak. Moisture has been drawn into the system if the unit has been running for an extended period of time. Be sure to flush the system with dry nitrogen gas and evacuate to 50 microns before re-charging (see Section 2.2, Low Side Leaks).
5. A new evaporator assembly must be ordered if the capillary tube is found to be plugged or severely restricted. Restrictions cannot be flushed out.
6. Be sure to purge the system after final brazing. This will flush out any air or moisture that may have entered the system before being absorbed into the ester oil.

### 2.2 Low Side leaks

Low side leaks consist of a break in the system at the evaporator, low side (suction) return line, or accumulator. If a leak is found in any of these areas, moisture has probably entered the system. The compressor and drier will have to be replaced and the system will need to be flushed thoroughly with nitrogen gas and evacuated to 50 microns before re-charging.

### 2.3 High Side Leaks

High side leaks consist of a break in the system at the condenser, high side tubing, drier, or capillary tube. If a leak is found in any of these areas, the system can be flushed with nitrogen gas, evacuated to 50 microns, and re-charged.

### 2.4 Restricted Capillary Tube

Moisture or other contaminants that enter the system can cause deposits in the system. These deposits will usually collect in the capillary tube and form a restriction that cannot be completely removed by flushing. If the capillary tube is found to be restricted, the evaporator, compressor, condenser, and drier should all be replaced.

### 2.5 Access Valves

A temporary access valve can be used to service or evaluate the system. From these access valves, you can evacuate, charge, and recover the system. The access valve can be installed on the compressor's process tube (this will also be a low pressure side). Be sure to cap off access valve while servicing. This will prevent contamination of the system and/or refrigerant from leaking. After servicing, the access valve should be removed. A pinch-off tool can be used to close the system to remove the access valve and then braze the hole for the access valve to seal the system. Be sure to leak check after brazing.

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## 2.6 Evaporator Frost Pattern

Checking the evaporator frost pattern is a good way to quickly diagnose simple sealed system problems. This can be done by allowing the unit to run (at least 10 minutes) with the door open for at least 5 minutes. This will help speed up the normal frosting of the evaporator plate. By visually inspecting the evaporator and feeling it with your hands, you will see and feel frost across the plate. It is absolutely necessary for the frost to cover the entire evaporator plate. This will ensure the system has been charged to its specified amount or does not have a leak. A partial frost pattern may lead to excessive run times or even 100% run mode. This is because the frost does not reach the area of the evaporator thermistor thus it does not sense the temperature required to cycle the unit off.

## 2.7 Pressure and Temperature

There are a couple of ways to measure temperature of the evaporator plate:

1. Use a thermocouple to measure the temperature of the evaporator plate. The thermocouple must be secured to the evaporator when taking the measurement.
2. If it has been determined that there is proper contact between the sensor and evaporator plate, the sensor resistance value can be corresponded to the temperature (see Table C in Section 4.2, Sensors for values).

NOTE: The temperature and pressure reading must be taken while the unit is on and running. Use gage pressure readings from the compressor's process tube (low side) access valve.

Table B: Refrigeration Temperature-Pressure Chart for R-134a

Degrees F	Pressure (psi) R-134a	Degrees F	Pressure (psi) R-134a
-12	1.1	36	31.3
-8	2.8	38	33.2
-4	4.5	40	35.1
0	6.5	42	37.0
2	7.5	44	39.1
4	8.5	46	41.1
6	9.6	48	43.3
8	10.8	50	45.5
10	12.0	52	47.7
12	13.1	56	52.3
14	14.4	60	57.5
16	15.7	64	62.7
18	17.0	68	68.3
20	18.4	72	74.2
22	19.9	76	80.3
24	21.4	80	86.8
26	22.9	84	93.6
28	24.5	88	100.7
30	26.1	92	108.2
32	27.8	96	116.1
34	29.5	100	124.3

Pressure will vary depending upon the ambient temperature and current stage of operation for the unit. For example, the unit will have pressure between 0 and 5 psi just before entering the off cycle. Normal running pressures on the low side will average 5 to 10 lbs.

If low side pressure is below pressure in Table B, check for the following:

1. A system leak
2. Capillary tube is restricted
3. Insufficient compressor (does not pump properly)

If low side pressure is above pressure in Table B, check for the following:

1. Restricted air flow
2. Dirty condenser coil
3. Overcharged system
4. Low side leak

### 2.8 Re-charging

Re-charging of the unit should be done only after diagnosing and repairing the system. Be sure to flush the system with dry nitrogen gas and evacuate to 50 microns before re-charging.

The method for re-charging the unit is by weight using vapor refrigerant. Using manifold gage set-up, hook up charge hoses to the access valve on the compressor's process tube. If any access valve is attached to the high side process tube, remove it and then seal the tube by brazing before charging. Charge the unit to specified amount (see Section 1.1, Unit Specifications for charge specifications per model).

After re-charging the system, check pressures and refer to Table B for corresponding temperatures and pressures. If pressures are incorrect, check the sealed system, recover the charge, repair, evacuate, and then re-charge.

It is normal to have some condensation or slight frost on the suction line. Typically this will occur towards the end of a run cycle. If the frost continues down the suction line to the compressor, the system is overcharged. It is important that the insulation remains on the suction line and the capillary tube together after any repair and that it is sealed on both ends. Be sure to replace the refrigeration putty in the hole of the foam where the refrigerant lines go through the back of the unit. Spread the putty out evenly filling in the cracks to prevent air from leaking in and out.

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## Section 3: Sealed System Components

### 3.1 Gaining Access to Mechanical Baseplate

The mechanical baseplate is located in the rear of the unit. Most major mechanical and electrical components on the unit mount directly to the baseplate. This creates easy access for servicing of the sealed system and mechanical/electrical components. To gain access to the mechanical baseplate, remove the screws that hold the lower shroud in place and then remove the shroud (see Figure 3.1). To facilitate working on any component mounted to the mechanical base, remove the screws that hold the baseplate to the chair frame and slide out the baseplate enough to allow working room required (see Figures 3.2 and 3.3).

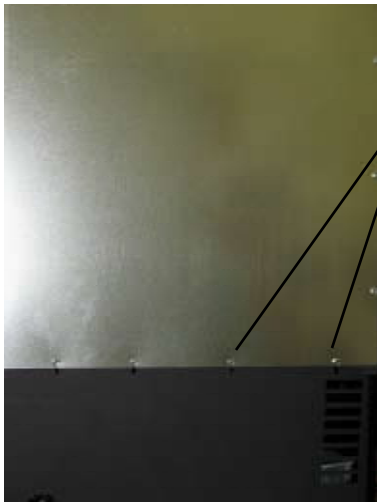


Figure 3.1



Figure 3.2



Figure 3.3

### 3.2 Compressor

The compressor is the heart of the refrigeration system (see Figure 3.4). However, it relies on other parts of the system to function. Make certain that the other parts of the system are functioning correctly before determining that the compressor is faulty.

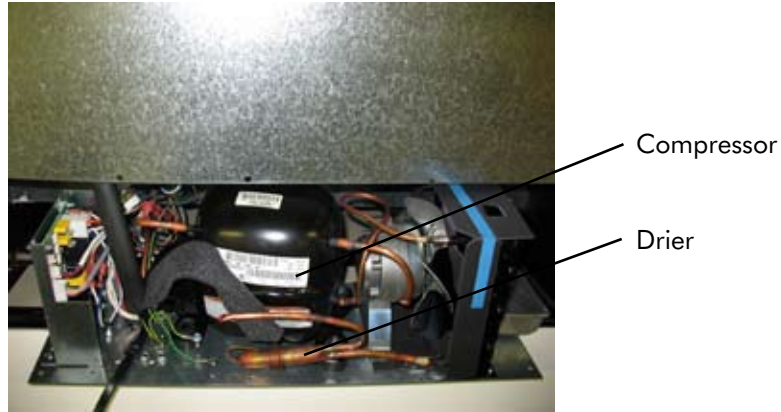


Figure 3.4

The following should be observed before concluding the compressor is faulty:

1. Low high side pressures, warm evaporator plate, cool condenser coil, or little or very low current draw from the unit will indicate a faulty compressor.
2. Check for continuity between the compressor terminals and the shell of the compressor. If continuity is found, the compressor is faulty and will need to be replaced.
3. Check for resistance between all compressor terminals. The resistance will vary from terminal to terminal and from compressor to compressor due to age and use. If no resistance is found, the compressor is faulty and will need to be replaced.

Removing the Compressor:

1. Disconnect power to the unit.
2. Remove the back panel and lower shroud (see Figure 3.1).
3. Remove the screws that hold the baseplate to the chair frame of the unit and slide out the mechanical baseplate (see Figures 3.2 and 3.3).
4. Install sealed system access valve(s) and recover refrigerant. After recovering, be sure to cap off the access valve(s) to prevent contamination of the system.
5. Remove the cap from the rear of the compressor to expose the starter and overload (see Figures 3.5 and 3.6).
6. Disconnect the PTC starter and overload from the compressor by pulling off. Disconnect the wires from the starter and overload.
7. Un-braze and remove capillary tube from drier assembly (see Figure 3.4).
8. Un-braze and remove suction line at compressor (see Figure 3.7).
9. Un-braze high side line from the compressor going to the condenser (see Figure 3.7).
10. Remove compressor by removing the three lock nuts on the mounting plate of the compressor (see Figure 3.7). Lift the compressor off of the carriage bolts.

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## Installing the Compressor:

1. Install the four rubber grommets in the bottom of the new compressor and install the three sleeves where the carriage bolts will be located. Mount the new compressor and install the three washers and lock nuts and tighten to 45 in-lbs. **DO NOT REMOVE THE RUBBER PLUGS AT THE TUBE STUBS ON THE COMPRESSOR AT THIS TIME.**
2. Install and braze new drier assembly to condenser. Then install and braze capillary tube to drier. Remove the plug for the high side line to condenser. Install and braze the line to the compressor.
3. Remove the plug for the process tube on the compressor. Install and braze process tube. Be sure to cap off end to prevent any contamination.
4. Remove the plug for the suction line on the compressor. Install and braze the suction line from the evaporator. **BE SURE TO ALSO REINSTALL THE SUCTION LINE AND TUBING HARNESS INSULATION TUBES.**
5. Reinstall the PTC starter and overload and wire according to the wiring diagram (see Section 7, Wiring).
6. Reinstall the compressor cap.
7. Reinstall the screws that secure the baseplate to the chair frame of the unit. Be sure to fasten down the ground wire to the baseplate.
8. Charge the unit (see Section 2.8, Re-charging).
9. Reinstall back panel and lower shroud to complete installation.



Figure 3.5



Figure 3.6



Figure 3.7

### 3.3 Condenser

The condenser is a steel tube serpentine with copper alloy fins that removes heat from hot, high pressure vapor from the compressor (see Figure 3.8). The most common trouble is lack of airflow from either a restricted intake or exhaust opening in the front of the unit. Lint, dust, hair, and dirt build-up needs to be removed from the condenser periodically to allow the unit to perform properly.



Figure 3.8

It is possible that the condenser might need replaced because of an unrepairable leak or a restriction that cannot be flushed out. System high side pressures and temperatures will verify if this is the case.

#### Removing the Condenser:

1. Disconnect power to the unit.
2. Remove back panel and lower shroud (see Figure 3.1).
3. Remove the screws that hold the baseplate to the chair frame of the unit and slide out the mechanical baseplate (see Figures 3.2 and 3.3).
4. Install sealed system access valve(s) and recover refrigerant. After recovering, be sure to cap off the access valve(s) to prevent contamination of the system.
5. Remove the condenser fan by removing the four screws on the fan mounting bracket at the baseplate. The fan wire leads can be left connected. Set the fan assembly to the side out of the mechanical.
6. Remove the condenser fan shroud.
7. Un-braze capillary tube from drier assembly.
8. Un-braze high side tubing from the compressor.
9. Remove the condenser and drier assembly.

#### Installing the Condenser:

Reverse the removal procedure for installation (see above). Always install a new drier after opening the sealed system. Be sure to flush the system and evacuate to 50 microns before weight charging. If contamination was found or determined, the evaporator should also be replaced at this time.

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### 3.4 Evaporator

The evaporator uses evaporating refrigerant to remove heat from the inside of the unit ultimately making the interior cold. The shape and size of the evaporator may vary among the models covered by this service manual but the fundamentals are the same (see Figures 3.9, and 3.10). The 3SWCE and 3SBARE use a vertical right angle evaporator plate. The 61WCM and 6BARM use a U-shaped plate.

It is normal for the evaporator to frost up during its run cycle. This frost will dissipate once the unit reaches its "cut out" temperature and the compressor and fan stop. This condensate water will flow to the rear of the machine in a condensate pan where it will be evaporated from compressor and fan heat. It is very important that the evaporator frosts in a uniform pattern across the plate (see Section 2.6, Evaporator Frost Pattern). A partial frost pattern can lead to excessive run times and cooling issues.



Figure 3.9:  
Vertical right angle evaporator plate used in the  
30WCM & 3BARM



Figure 3.10:  
U-shaped evaporator plate used in the 61WCM and  
6BARM  
Typical low charge or system leak on this evaporator  
style will have a frost pattern that is only on the left  
hand side of the plate, not full across the plate.

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## Section 4: System Components

### 4.1 Condenser Fan

The condenser fan is used to force air over the condenser coil. The fan will cycle on and off with the compressor which means that when the compressor is running so is the fan and when the compressor is not running neither is the fan (see Figure 4.1).



Figure 4.1

To check the condenser fan:

- Make sure the motor shaft turns freely. This can be done by rotating the fan blade by hand and observing any excessive resistance.
- Check for resistance between terminals. If no resistance is found, replace the condenser fan.
- Check for continuity between terminals and fan casing. If continuity is found, replace the condenser fan.
- Check current draw. Typical current draw will be 0.15 amp without fan resistance. If current draw is 0.19 amp or more, check for resistance in air movement or objects touching the fan blade. If this is not found, replace the condenser fan.

Removing the Condenser Fan:

1. Disconnect power to the unit.
2. Remove access panel and rear panel.
3. Remove the grille by removing the screws and disconnecting the wires to the rocker switch. Be sure to mark where these wires go for reassembly.
4. Remove the screws that secure the baseplate to the cabinet on the bottom of the unit.
5. Gently slide the mechanical out the back of the unit to gain access to the condenser fan.
6. Disconnect the neutral white wire lead (black ribbed wire) and hot wire lead (black smooth wire) from the wire harness.
7. Remove the condenser fan.

Installing the Condenser Fan:

Reverse the removal procedure for installation (see above).

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### 4.2 Sensors

The wine cellars and beverage centers utilize one (1) sensor, known as the control sensor. The control sensor (part number 41050117) senses the interior temperature allowing the control to adjust and properly display the interior temperature.

The following will happen in the event the sensor fails:

1. The display panel will flash "E1" for a sensor fault, indicating a problem with the sensor.

The sensor can be checked by use of a multimeter with the ability to read resistance. To check the sensor:

1. Disconnect and remove sensor from unit.
2. Use a reference temperature point that is know (such as an ice bath) and measure the resistance across the wire leads.
3. Compare the recorded resistance with Table C.

If measured resistance falls outside the resistance given in Table C within 4% of the value, the sensor is bad and will need to be replaced.

Table C: Resistance versus Temperature Chart

Temperature (C)	Temperature (F)	Resistance (K-OHMS)
-40	-40	19.565
-35	-31	14.817
-30	-22	11.335
-25	-13	8.756
-20	-4	6.824
-15	5	5.365
-10	14	4.251
-5	23	3.389
0	32	2.722
5	41	2.202
10	50	1.793
15	59	1.467
20	68	1.208
25	77	1.000
30	86	.8315
35	95	.6948
40	104	.5834
45	113	.4917
50	122	.4161

If the sensor has been tested and is found to be good, check the temperature of the evaporator plate and the resistance of the sensor. If the temperature of the evaporator plate does not correspond to a proper resistance from the sensor, check for a proper and secure connection of the sensor to the evaporator plate bracket.

### Removing the Sensor:

1. Disconnect power to the unit.
2. Loosen the screws to the display housing and pull it forward. It will hang down in front of the unit.
3. Open the wire conduit.
4. Loosen the "p" clamp that holds the sensor to the wall.
5. Unhook the sensor at the electronic controller. The controller is found in the display housing.
6. Pull the sensor out of the unit.

### Installing the Sensor:

Reverse the removal procedure for installation (see above).

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## Section 5: MicroSentry™ Refrigeration Monitor and User Panel

### 5.1 Introduction

Marvel's **MicroSentry™** refrigeration monitor oversees the refrigeration system's performance to help maintain a selected temperature. An audible alarm is sounded if the temperature goes 10 degrees F above or below the set point for more than one hour or if the door is left ajar for more than five minutes. A discreet amber LED display shows cabinet temperature. The digital touch controls are easy to set for a temperature of 40 to 65 degrees F. See Figure 5.1 below for an example user panel.

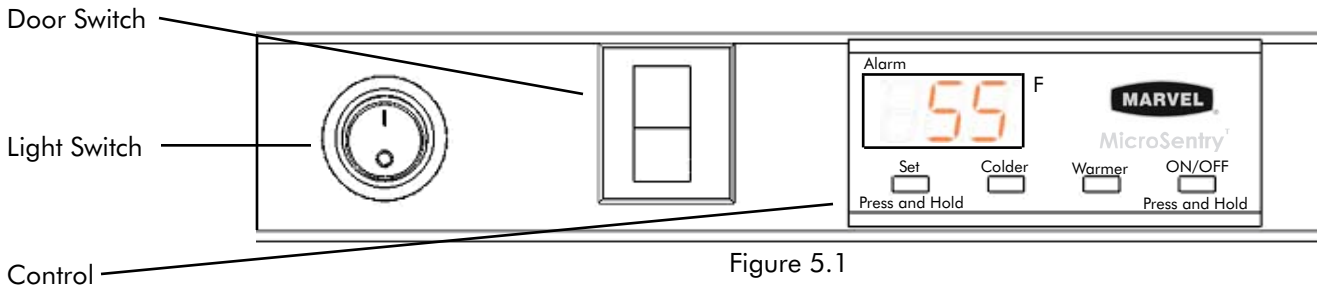


Figure 5.1

### 5.2 Starting the Unit

To start the unit, plug it into a power supply. The unit should start automatically as the factory default should be on. If the unit does not start, push and hold for three (3) seconds the "ON/OFF" button located on the display panel.

### 5.3 Adjusting the Temperature Control

The temperature control is fully adjustable from the low 40s to the mid 60s in the wine cellars and beverage centers. The setpoint out of the factory is approximately 55 degrees F. The temperature range, whether it be for wine cellars or beverage centers, allows flexibility of temperature preferences and provides the ideal wine aging or food storing temperatures. The temperature can be lowered or raised by pressing and holding the "SET" button on the display panel until the set point temperature is displayed. While continuing to hold the "SET" key, push either the "WARMER" or "COLDER" key to raise or lower the set temperature by one (1) degree F. NOTE: As with any refrigeration product, there is a slight temperature variance at different locations within the cabinet.

### 5.4 Interior Light and Switch

The light will automatically turn on when the door is opened and off when the door is closed. To engage the display light feature, press the round light switch on the user panel. The display light will remain on regardless of door position until the light switch is turned off.

### 5.5 Information/Lockout Key

Each momentary press of the "SET" key activates the Information and Lockout selection menu. Additional presses sequentially scroll through the Information selection menu and allow the enabling and disabling of the Lockout feature.

1. Display "Current" Sensor Temperature (tl): Press and hold the "SET" key to display the current sensor temp.
2. Maximum Stored Temperature (thL): Press and hold the "SET" key to display the maximum temperature stored. The data can be cleared by pressing the "SET" and "ON/OFF" keys simultaneously while the value is displayed.
3. Minimum Stored Temperature (tLo): Press and hold the "SET" key to display the minimum temperature stored. The date can be cleared by pressing the "SET" and "ON/OFF" keys simultaneously while the value is displayed.
4. Total Operating Time of the Condenser Since the Last Cleaning (cnd): Press and hold the "SET" key to display

the total operating hours of the compressor since the last cleaning. This number is displayed in weeks. A reminder is displayed when a cleaning is recommended (see Alarm/Error Codes). The data can be cleared by pressing the "SET" and "ON/OFF" keys simultaneously while the value is displayed.

5. Keypad Lockout Feature (Loc): This feature is useful in preventing changes in the temperature set point or accidentally turning the unit off. Press and hold the "SET" key to display the current "Loc" setting. If "No" is displayed, Lockout is OFF and all keys are enabled. If "Yes" is displayed, Lockout is ON and the "ON/OFF", "WARMER", and "COLDER" keys are disabled. However, the key tones remain enabled. While holding the "SET" key, press the "WARMER" or "COLDER" key to select the desired state. Release the "SET" key to confirm the selection. NOTE: The Information/Lockout Key, "SET", remains enabled regardless of the "Loc" setting.

### 5.6 Warning Alarms

The MicroSentry™ refrigeration monitor will inform you if the unit is not functioning properly. It provides both visual and audible alerts if the door is left ajar or the temperature rises above or falls below the set temperature.

- Door Ajar: If the door is left open for more than five (5) minutes, an audible alarm will sound in one (1) second intervals and the LED light will be a steady amber color. This will stop as soon as the door is closed.
- High and Low Temperature: If the unit reaches a temperature either 10 degrees F above or below the set point temperature for more than one (1) hour, an audible alarm will sound in one (1) second intervals and the LED will be a steady amber color. This will continue until the condition is corrected. NOTE: The alarm may occur during initial start-up, when changing set-points in excess of 10 degrees F, and/or high usage which is normal.

### 5.7 Audible Alarm Mute

Press any key to mute the audible portion of an alarm condition. Alarm sound is only muted, not disabled. If the condition(s) that caused the alarm(s) continue, visual indication will continue and alarm sound will periodically continue for 20 seconds every 60 minutes.

### 5.8 Error Code Detection

The microprocessor in the control continually monitors critical refrigeration system components for proper operation. If component parameters exceed normal operating specifications, an audible alarm will sound six times every minute and the display will automatically flash the respective error code. If multiple errors are noted with the unit, the error codes will be displayed sequentially. See Table D: Error Code Detection Reference for respective error codes descriptions and the potential solutions.

Table D: Error Code Detection Reference

Error Code	Error Code Description	Possible Solution / Comment
do	Door Ajar	Close the door.
hi	High Temp	The temperature of the unit exceeded the set point by 10 degrees F for more than one hour. The error code and alarm will remain active until the condition is corrected.
Lo	Low Temp	The temperature of the unit fell 10 degrees F below the set point for more than one hour. The error code and alarm will remain active until the condition is corrected.
E1	Sensor Fault	The monitor detected a sensor fault. Call Marvel Customer Service or your dealer if this code is displayed.
cL	Condenser Needs Cleaning	Vacuum the condenser.

NOTE: The alarm and error code will remain active until the condition is corrected. The display will continue to flash even after alarm correction until manually acknowledged by pressing any key.

# MICROSENTRY™ REFRIGERATION MONITOR

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## Section 6: Interior Components

### 6.1 Lights

The wine cellars and beverage centers are equipped with one (1) light, which is located behind the display housing on the inside top of the cabinet.

Replacing the Light Bulb:

1. Disconnect power to the unit.
2. Unscrew the old light bulb located behind the display housing at the top of the unit.
3. Set the old light bulb aside.
4. Screw the new light bulb into place.
5. Reconnect power to the unit.
6. Check to see if the light bulb operates properly to complete installation.

### 6.2 Racks

The units utilize peg supports to hold the sliding racks. The sliding racks can be removed from the unit without removing the support pegs. To remove the sliding racks, line up the support pegs with the notches in the retainer wire. Then lift the racks up over the pegs and remove.

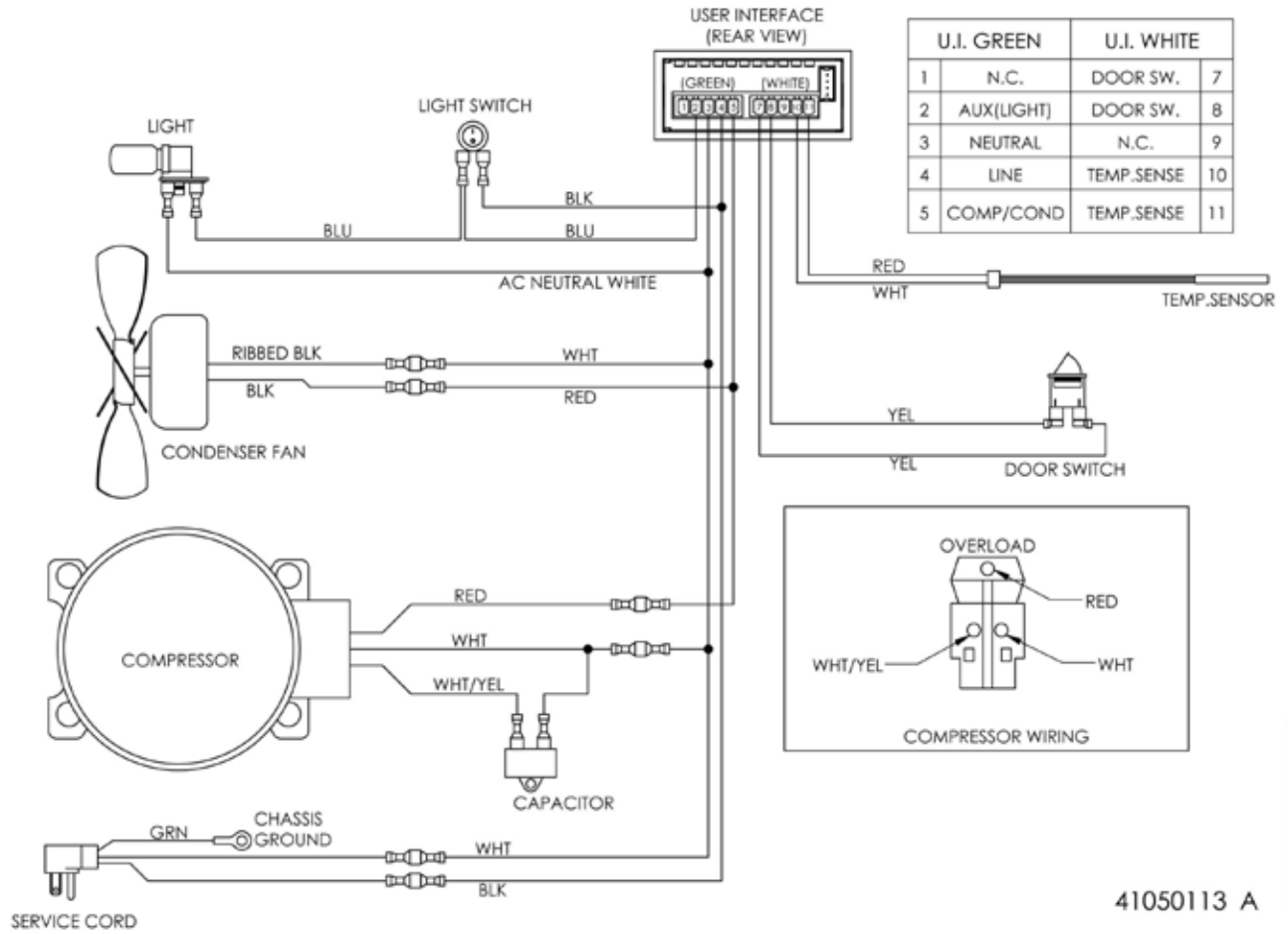
The fixed top rack can be removed from the unit by removing the four (4) screws holding the rack in place.

The glass shelves can be removed by simply pulling the shelves forward out of the unit.

- **DO NOT LEAN ON OR PRESS DOWN HEAVILY ON THE WINE SHELVES.** Doing so may damage the shelves and the wine bottles stored on them.
- Pull the wine racks out gently and carefully to minimize unsettling of the wine collection.
- Avoid pulling out more than one rack at any time to maintain stability.

Section 7: Wiring

Figure 7.1: Wiring Diagram for 30WCM, 61WCM, 3BARM & 6BARM



## MICROSENTRY™ REFRIGERATION MONITOR

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### Section 8: Ordering Parts

The following information will need to be given when inquiring about service parts:

1. Model and serial number located on the serial nameplate (see Section 1.2, Serial Nameplate)
2. Color of the model
3. Metal or plastic grille
4. Type of door

To order parts, call or write:

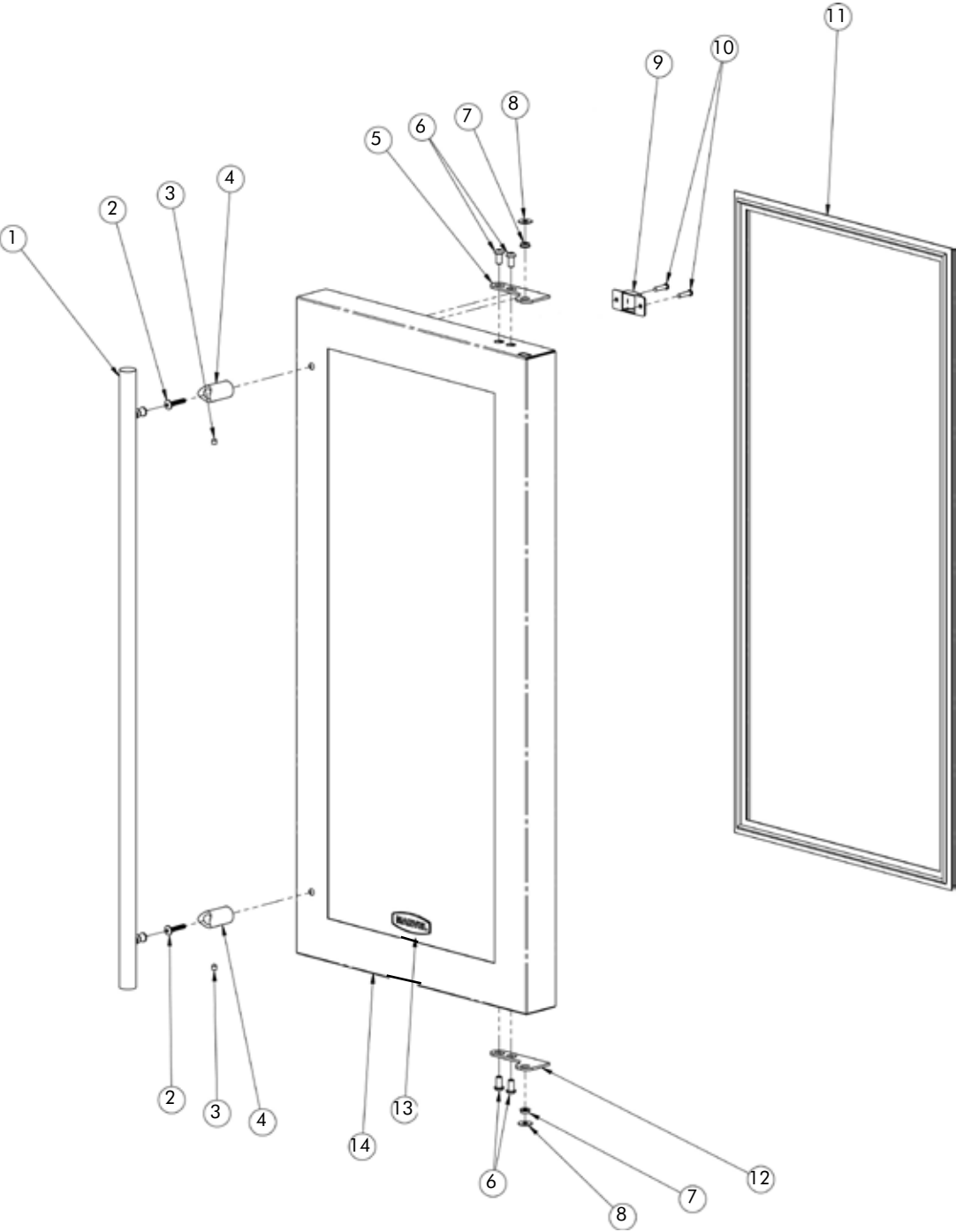
Marvel Industries  
Customer Service  
P.O. Box 997  
Richmond, IN 47375  
Phone: 800.428.6644  
Fax: 765.962.2493  
Website: [www.lifeluxurymarvel.com](http://www.lifeluxurymarvel.com)  
E-mail: [marvel@marvelindustries.com](mailto:marvel@marvelindustries.com)

Section 9: Service Parts

<b><u>Model</u></b>	<b><u>Page</u></b>
30WCM	
• Door	20
• Cabinet	22
• Mechanical	24
3BARM	
• Door	26
• Cabinet	28
• Mechanical	30
61WCM	
• Door	32
• Cabinet	34
• Mechanical	36
6BARM	
• Door	38
• Cabinet	40
• Mechanical	42

MICROSENTRY™ REFRIGERATION MONITOR

Service Parts Diagram One: 30WCM Door



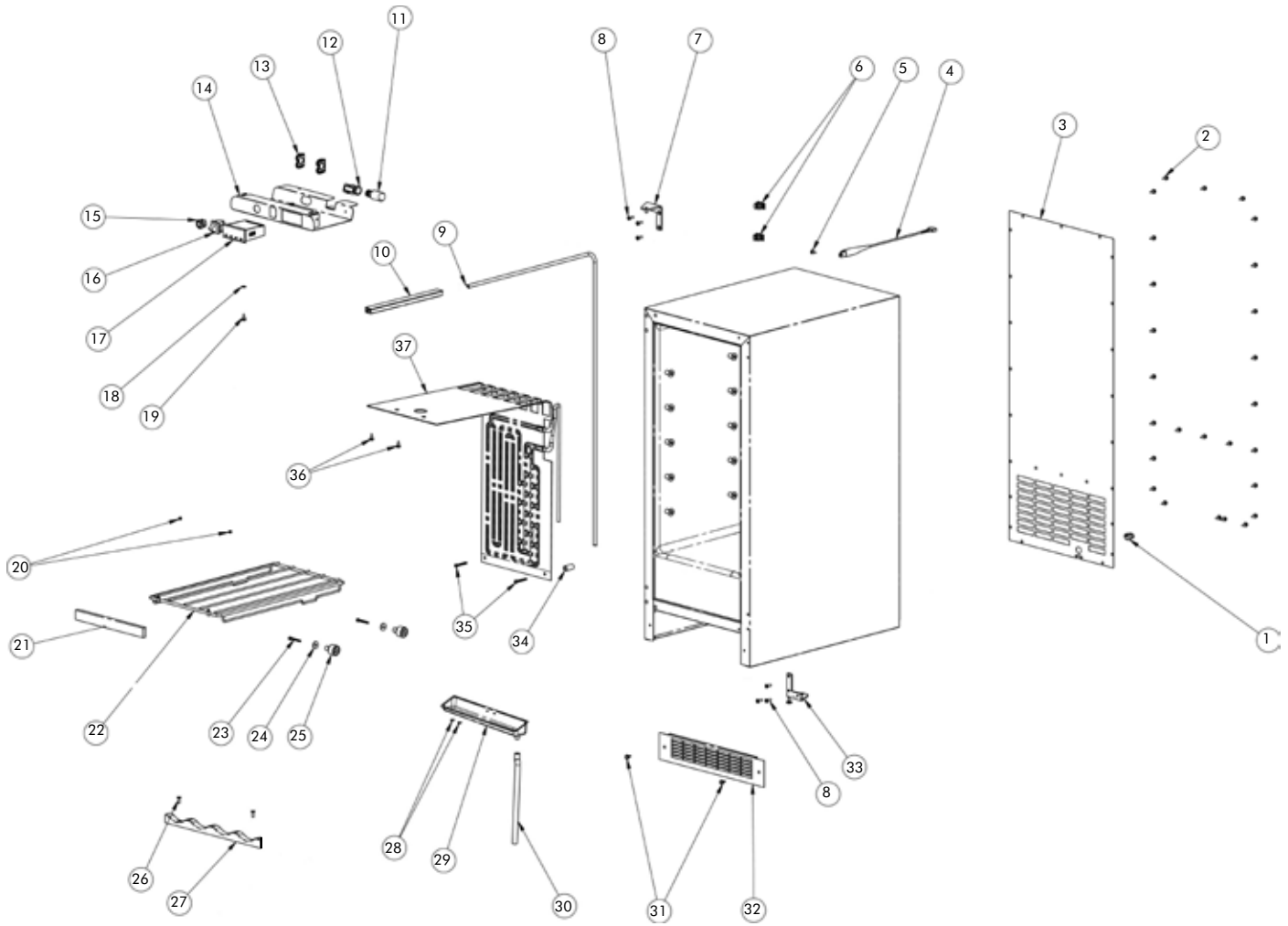
MICROSENTRY™ REFRIGERATION MONITOR

Service Parts List One: 30WCM Door

<b>Illus. No.</b>	<b>Description</b>	<b>Qty. Req.</b>	<b>Part No.</b>	<b>Service Assembly</b>
1A	Door Handle, SS	1	41005803	42242939
1B	Door Handle, Black	1	41007392	42245084
2	# 10-32 x 1.00 Pan HD Phil Screw, SS	2	08204920	
3	# 10-32 x 1/4 Cone Point Set Screw	2	41006026	
4A	Door Handle Standoff, SS	2	41005804	42245358
4B	Door Handle Standoff, Black	2	41007390	42245356
5A	Hinge Adapter, SS, Right, Top	1	41007800	42244915
5B	Hinge Adapter, Black, Right, Top	1	41008152	42244914
6	Hinge Adapter Screw, SS	4	41009054	42244915
7	Bushing - Hinge	2	41007005	42244914 & 42244915
8	Nylon Washer, .62 dia x .083 thk	2	41007003	42244915
9	Door Switch Retainer	1	44000562	42246541
10	# 8 x 3/4 PPH TEK, SS, Black Screw	2	41009947	
11	Door Gasket	1	41006834	42243908
12A	Hinge Adapter, SS, Right, Bottom	1	41007517	42244915
12B	Hinge Adapter, Black, Right, Bottom	1	41007006	42244914
13	Household Nameplate, Black	1	41004477	42243063
14A	Door Assembly, Complete, SS	1	42036296	
14B	Door Assembly, Complete, Black	1	42036332	

# MICROSENTRY™ REFRIGERATION MONITOR

## Service Parts Diagram Two: 30WCM Cabinet



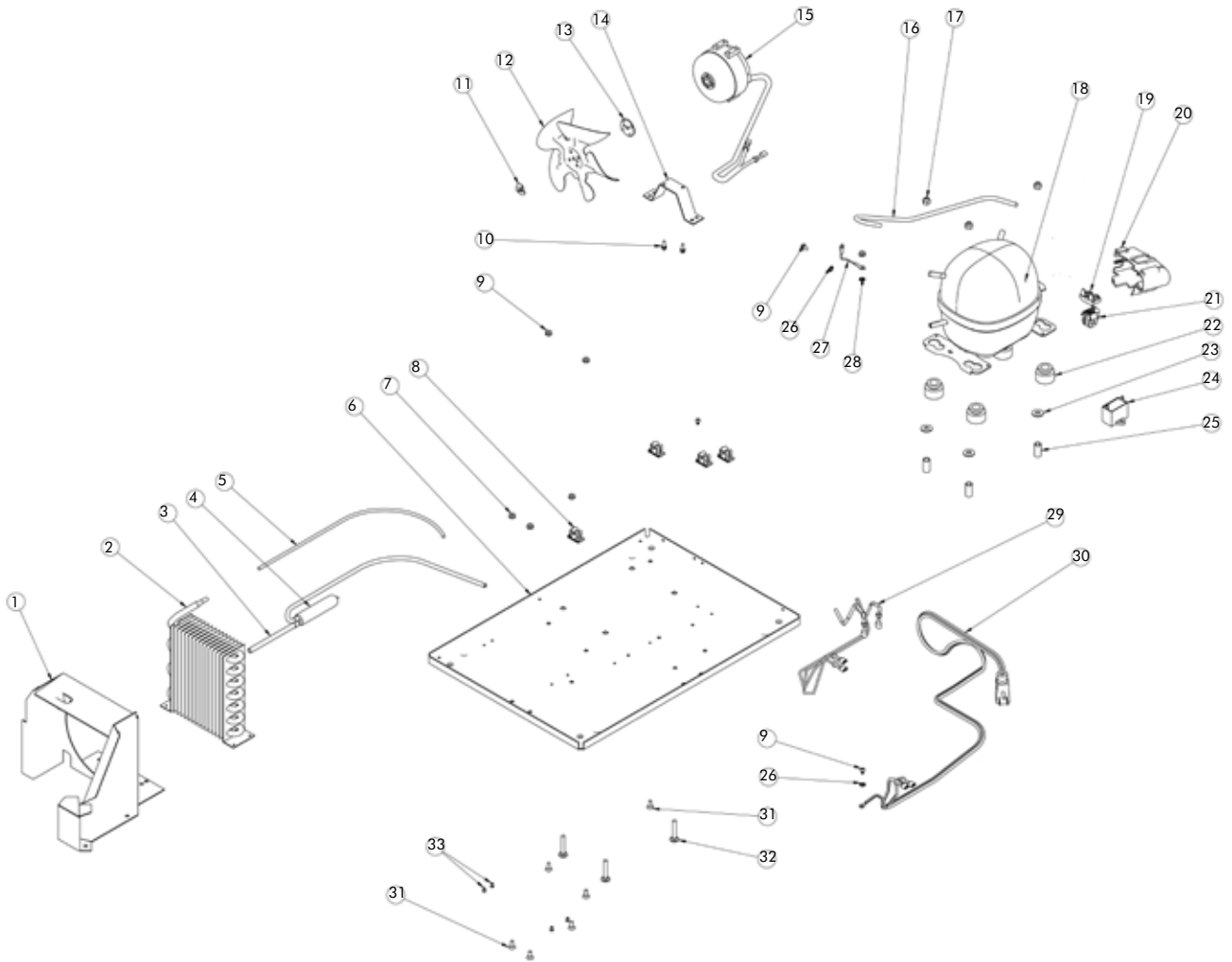
**MICROSENTRY™ REFRIGERATION MONITOR**

Service Parts List Two: 30WCM Cabinet

<b>Illus. No.</b>	<b>Description</b>	<b>Qty. Req.</b>	<b>Part No.</b>	<b>Service Assembly</b>
1	Strain Relief	1	32175-000	
2	# 10 x .5 Type AB Hex Washer HD Screw	26	08204928	
3	Back Panel	1	41006763	
4	Sensor	1	41050117	
5	Screw	1	08204928	
6	Fastex Clamp #8511-33-00, White	2	41003685	
7	Hinge, Chrome, Right, Top	1	41007433	
8	10-32 x 3/4 PH Screw, Taptite, Zinc	6	41007598	
9	Main Wire Harness	1	41050106	
10	Wire Conduit	1	41010758	
11	Light Bulb 15T7N - 130V	1	41003558	
12	Light Socket	1	41006862	
13	Mounting Clip (supplied with Electronic Controller)	2		
14	Display Housing	1	41010680	
15	Light Switch, Black	1	41050101	
16	Door Switch, Black	1	41050103	
17	Electronic Controller	1	41050100	
18	Lock Washer, SS	2	41010640	
19	Screw	2	08204928	
20	Screw	2	41010354	
21	Maplewood Shelf Front	5	41010792	
22	Sliding Shelf, Black	5	41010821-001	
23	# 8 x 2 Type AB Hex Washer HD Screw, SS	20	41010764	
24	Support Peg Washer, Black	20	41010790-001	
25	Shelf Mounting Peg, Black	20	41010789-001	
26	Screw	2	41007598	
27	Bottle Cradle	1	41010795	
28	Pop Rivet # AD43ABS Aluminum	2	08204930	
29	Drip Tray, Black	1	41006858	
30	Drain Tube, Black	1	41007166	
31	# 12 x 3/4 Type AB, PH Black	2	41008206	
32	Toe Grille, Black	1	41010317	
33	Hinge, Chrome, Right, Bottom	1	41007434	
34	1" Spacer, Black	2	41007165	
35	Screw	2	44000264	
36	Screw	2	08204928	
37	Evaporator Assembly, Black	1	42053667	

# MICROSENTRY™ REFRIGERATION MONITOR

## Service Parts Diagram Three: 30WCM Mechanical



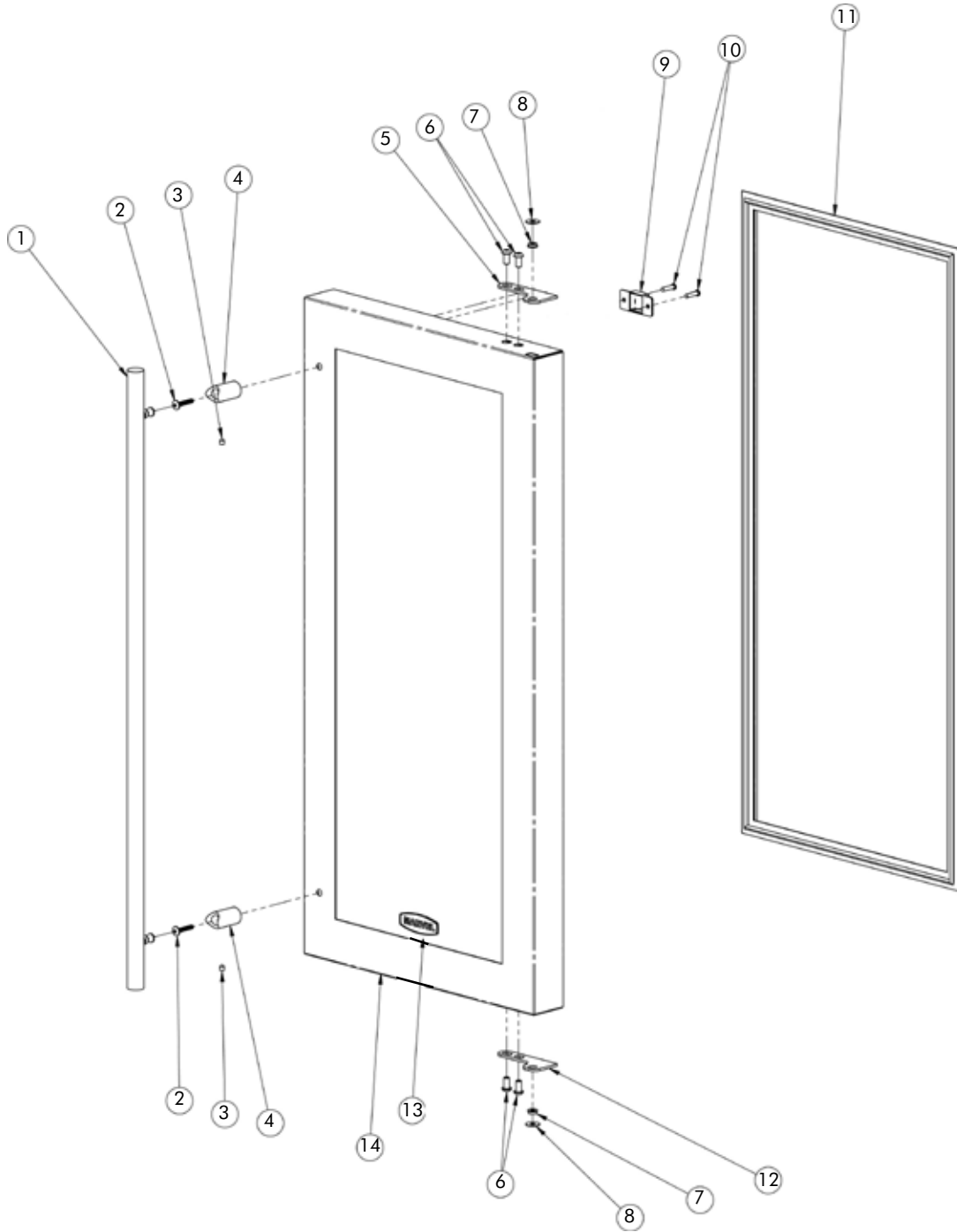
**MICROSENTRY™ REFRIGERATION MONITOR**

Service Parts List Three: 30WCM Mechanical

<b>Illus. No.</b>	<b>Description</b>	<b>Qty. Req.</b>	<b>Part No.</b>	<b>Service Assembly</b>
1	Fan Shroud	1	41005500	42242902
2	Condenser, R-134a	1	41003609	42242082
3	Copper Tube, .312 OD x 4.50 LG	1	41003637	
4	Dryer, 1/4 x 5/16 x 3/32	1	41001460	42243394
5	Discharge Tube, .187 OD x 19 LG	1	41003636	42244850
6	Baseplate, R-134a Mechanical	1	41006681	
7	Hex Nuts	6	41006874	
8	Fastex Clamps	4	41003685	
9	Screw	4	41005086	
10	Mounting Screws	2	41003221	
11	Tinnerman Nut	1	41000153	
12	Fan Blade, Morrill	1	41003616	42242015
13	Silencer	1	M000101A	
14	Fan Motor Bracket	1	1010002B	
15	Fan Motor	1	41006539	
16	Process Tube	1	41005794	42242896
17	Lock Nut	3	08205051	
18	Tecumseh Compressor, R-134a	1	41007131	42242388
19	Overload	1	41007220	42245133
20	Terminal Cover	1	41007221	42245132
21	PTC Relay	1	41007219	42245131
22	Mounting Grommet	4	32014-000	
23	Flat Washer	3	08204877	
24	Run Capacitor	1	41007222	42245134
25	Mounting Sleeve	3	32015-000	
26	Lock Washer	1	08205115	
27	Ground Wire, Green	1	41001401	
28	Lock Washer	1	41005417	
29	Wiring Harness	1	41010392	
30	Power Cord, 6RFI	1	1180006B	42241948
31	10-24 x .5 UNC 2 Carriage Bolts	6	1130006A	
32	1/4-20 x 1.5 Carriage Bolts Z/P	3	44000227	
33	Pop Rivet	4	41003962	

# MICROSENTRY™ REFRIGERATION MONITOR

## Service Parts Diagram One: 3BARM Door



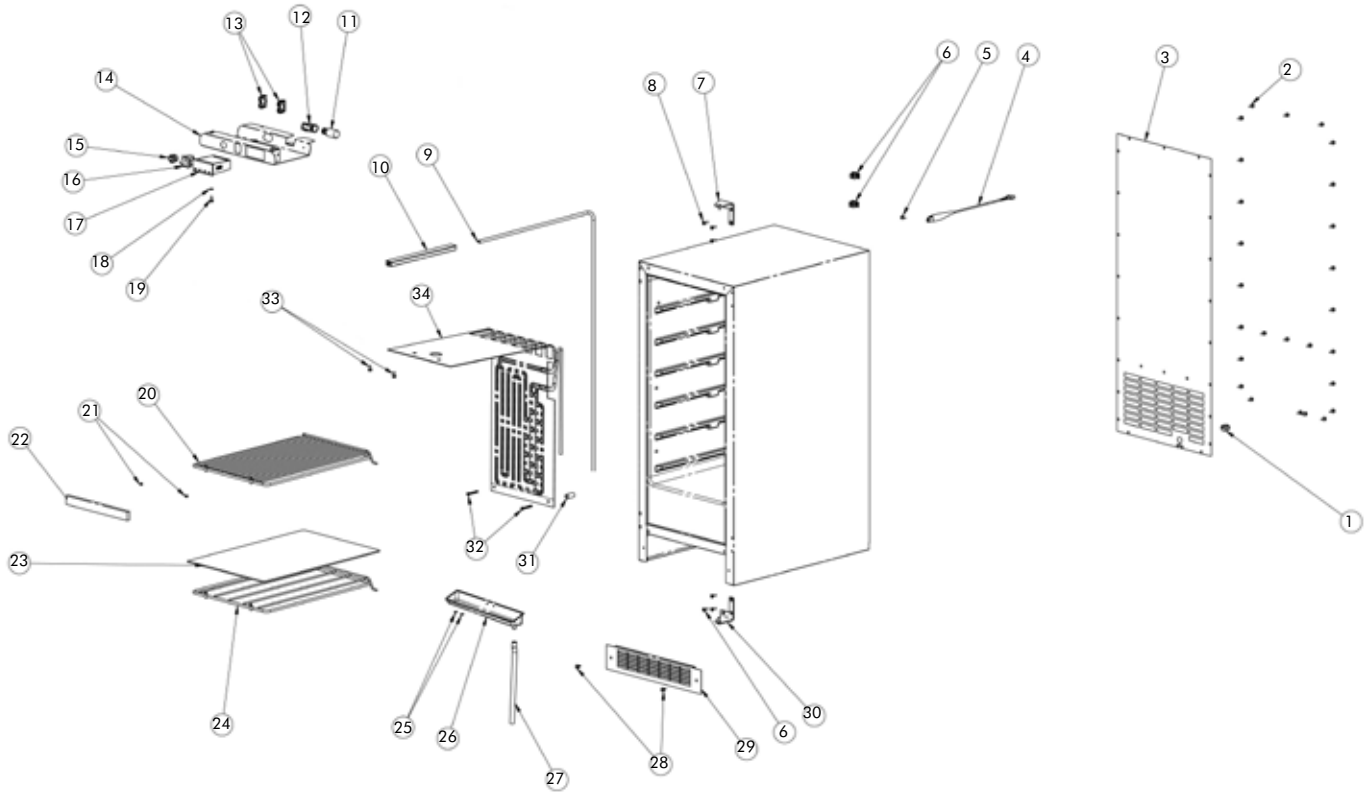
**MICROSENTRY™ REFRIGERATION MONITOR**

Service Parts List One: 3BARM Door

<b>Illus. No.</b>	<b>Description</b>	<b>Qty. Req.</b>	<b>Part No.</b>	<b>Service Assembly</b>
1A	Door Handle, SS	1	41005803	42242939
1B	Door Handle, Black	1	41007392	42245084
2	# 10-32 x 1.00 Pan HD Phil Screw, SS	2	08204920	
3	# 10-32 x 1/4 Cone Point Set Screw	2	41006026	
4A	Door Handle Standoff, SS	2	41005804	42245358
4B	Door Handle Standoff, Black	2	41007390	42245356
5A	Hinge Adapter, SS, Right, Top	1	41007800	42244915
5B	Hinge Adapter, Black, Right, Top	1	41008152	42244914
6	Hinge Adapter Screw, SS	4	41009054	42244915
7	Bushing - Hinge	2	41007005	42244914 & 42244915
8	Nylon Washer, .62 dia x .083 thk	2	41007003	42244915
9	Door Switch Retainer	1	44000562	42246541
10	# 8 x 3/4 PPH TEK, SS, Black Screw	2	41009947	
11	Door Gasket	1	41006834	42243908
12A	Hinge Adapter, SS, Right, Bottom	1	41007517	42244915
12B	Hinge Adapter, Black, Right, Bottom	1	41007006	42244914
13	Household Nameplate, Black	1	41004477	42243063
14A	Door Assembly, Complete, SS	1	42036296	
14B	Door Assembly, Complete, Black	1	42036332	

# MICROSENTRY™ REFRIGERATION MONITOR

## Service Parts Diagram Two: 3BARM Cabinet



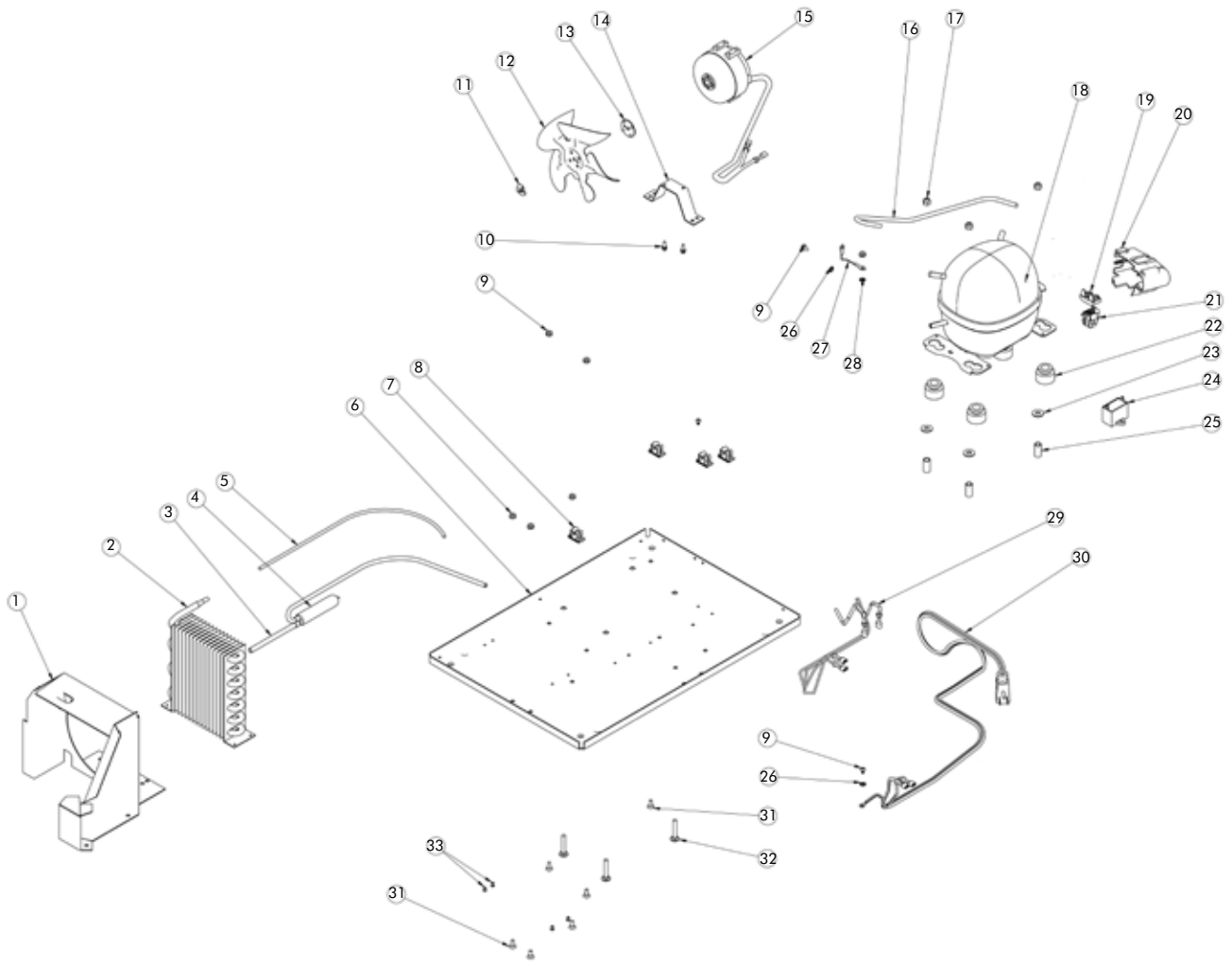
MICROSENTRY™ REFRIGERATION MONITOR

Service Parts List Two: 3BARM Cabinet

<b>Illus. No.</b>	<b>Description</b>	<b>Qty. Req.</b>	<b>Part No.</b>	<b>Service Assembly</b>
1	Strain Relief	1	32175-000	
2	# 10 x .5 Type AB Hex Washer HD Screw	26	08204928	
3	Back Panel	1	41006763	
4	Sensor	1	41050117	
5	Screw	1	08204928	
6	Fastex Clamp #8511-33-00, White	1	41003685	
7	Hinge, Chrome, Right, Top	1	41007433	
8	10-32 x 3/4 PH Screw, Taptite, Zinc	6	41007598	
9	Main Wire Harness	1	41050106	
10	Wire Conduit	1	41010758	
11	Light Bulb 15T7N - 130V	1	41003558	
12	Lampholder	1	13787-000	
13	Mounting Clip (supplied with Electronic Controller)	2		
14	Display Housing	1	41010680	
15	Light Switch	1	41050101	
16	Rocker Switch	1	41050103	
17	Electronic Controller	1	41050100	
18	Lock Washer	2	41010640	
19	Screw	2	08204928	
20	Wire Shelf Assembly	2	42136602-001	
21	# 6 AB Screw	6	41010354	
22	Maplewood Shelf Front	3	41010792	
23	Glass Shelf	1	41006795	
24	Sliding Shelf Assembly, Black	1	42136603-001	
25	Pop Rivets # AD43ABS Aluminum	2	08204930	
26	Drip Tray, Black	1	41006858	
27	Drain Tube, Black	1	41007166	
28	# 12 x 3/4 Type AB, PH Black	2	41008206	
29	Toe Grille, Black	1	41010317	
30	Hinge, Chrome, Right, Bottom	1	41007434	
31	1" Spacer, Black	2	41007165	
32	Evaporator Screws	2	44000264	
33	Evaporator Screws	2	08204928	
34	Evaporator Assembly, Black	1	42053667	

# MICROSENTRY™ REFRIGERATION MONITOR

## Service Parts Diagram Three: 3BARM Mechanical



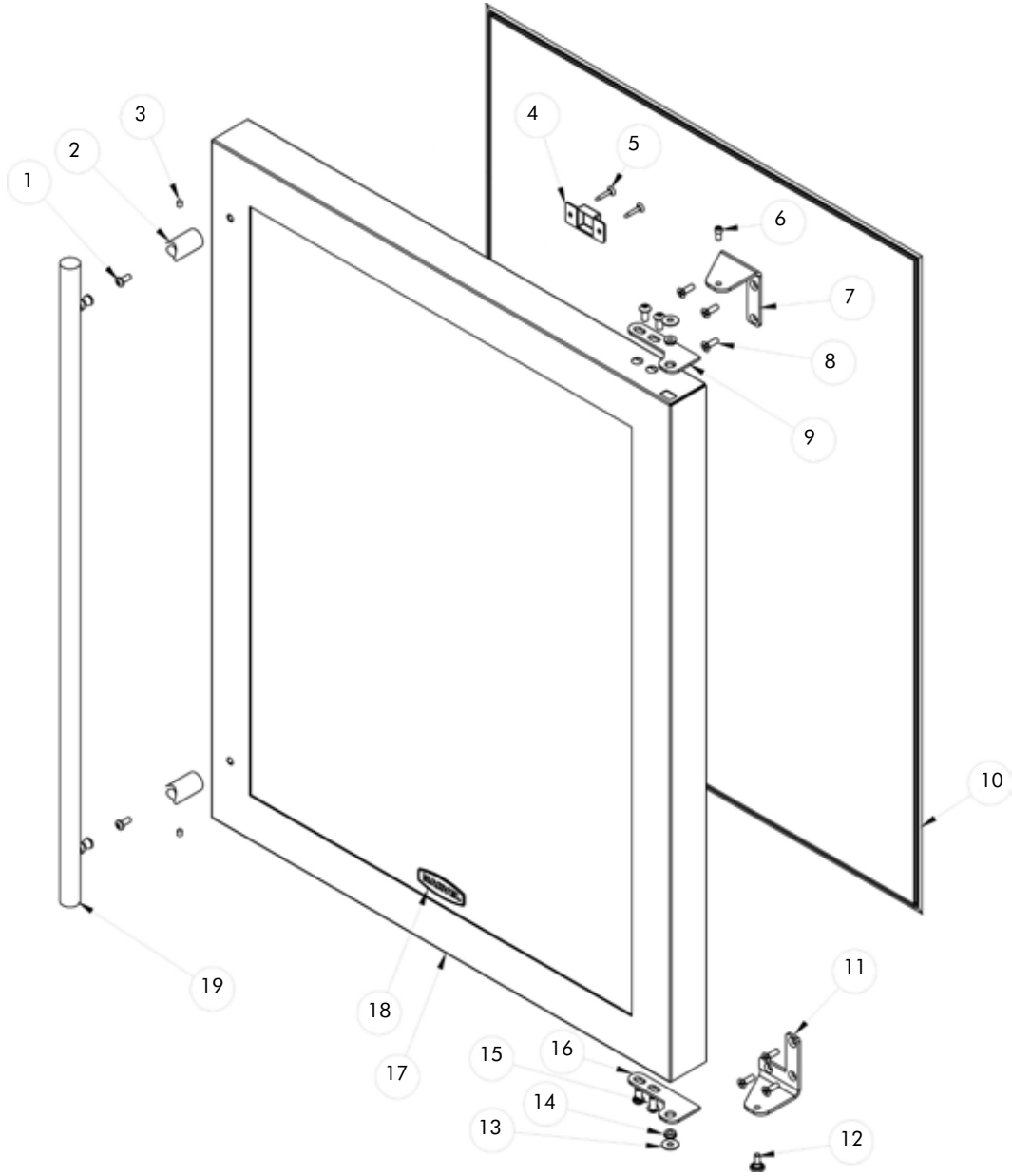
## MICROSENTRY™ REFRIGERATION MONITOR

### Service Parts List Three: 3BARM Mechanical

<b>Illus. No.</b>	<b>Description</b>	<b>Qty. Req.</b>	<b>Part No.</b>	<b>Service Assembly</b>
1	Fan Shroud	1	41005500	42242902
2	Condenser, R-134a	1	41003609	42242082
3	Copper Tube, .312 OD x 4.50 LG	1	41003637	
4	Dryer, 1/4 x 5/16 x 3/32	1	41001460	42243394
5	Discharge Tube, .187 OD x 19 LG	1	41003636	42244850
6	Baseplate, R-134a Mechanical	1	41006681	
7	Hex Nuts	6	41006874	
8	Fastex Clamps	4	41003685	
9	Screw	4	41005086	
10	Mounting Screws	2	41003221	
11	Tinnerman Nut	1	41000153	
12	Fan Blade, Morrill	1	41003616	42242015
13	Silencer	1	M000101A	
14	Fan Motor Bracket	1	1010002B	
15	Fan Motor	1	41006539	
16	Process Tube	1	41005794	42242896
17	Lock Nut	3	08205051	
18	Tecumseh Compressor, R-134a	1	41007131	42242388
19	Overload	1	41007220	42245133
20	Terminal Cover	1	41007221	42245132
21	PTC Relay	1	41007219	42245131
22	Mounting Grommet	4	32014-000	
23	Flat Washer	3	08204877	
24	Run Capacitor	1	41007222	42245134
25	Mounting Sleeve	3	32015-000	
26	Lock Washer	1	08205115	
27	Ground Wire, Green	1	41001401	
28	Lock Washer	1	41005417	
29	Wiring Harness	1	41010392	
30	Power Cord, 6RFI	1	1180006B	42241948
31	10-24 x .5 UNC 2 Carriage Bolts	6	1130006A	
32	1/4-20 x 1.5 Carriage Bolts Z/P	3	44000227	
33	Pop Rivet	4	41003962	

MICROSENTRY™ REFRIGERATION MONITOR

Service Parts Diagram One: 61WCM Door



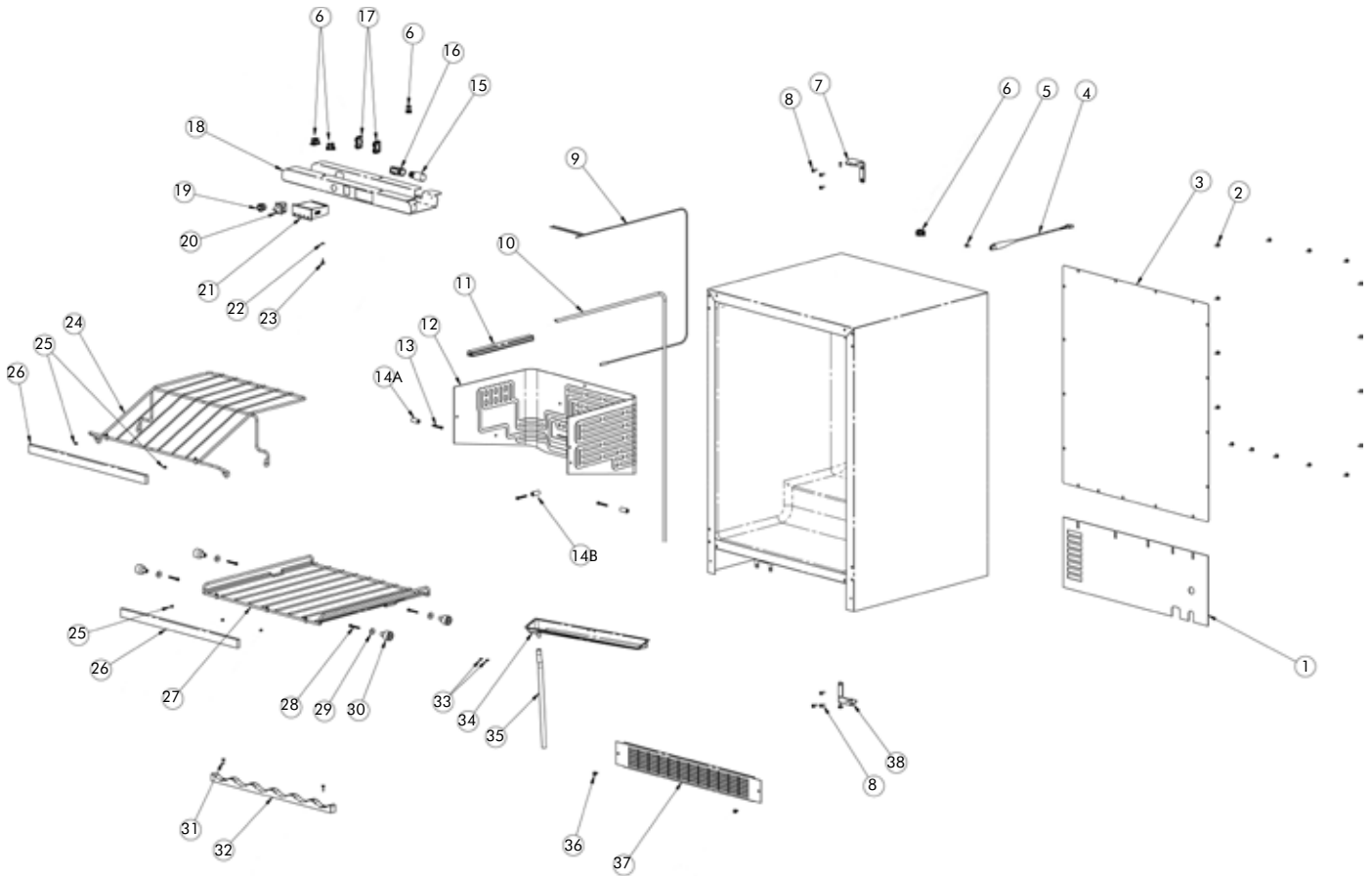
MICROSENTRY™ REFRIGERATION MONITOR

Service Parts List One: 61WCM Door

<b>Illus. No.</b>	<b>Description</b>	<b>Qty. Req.</b>	<b>Part No.</b>	<b>Service Assembly</b>
1	Screw	2	08204920	
2A	Door Standoff, Black	2	41007390	42245084
2B	Door Standoff, SS	2	41005804	42242939
3	Set Screw	2	41006026	
4	Door Switch Retainer, Black	1	44000562	42246541
5	Screw, Black	2	41007520	
6	Hinge Pin, Top	1	41004106	
7A	Hinge, Black, Right, Top	1	41007481	
7B	Hinge, Chrome, Right, Top	1	41007433	
7C	Hinge, SS, Right, Top	1	1010045C	
8A	Hinge Screw, Black	6	41007599	
8B	Hinge Screw, Zinc	6	41007598	
8C	Hinge Screw, SS	6	41010417	
9A	Hinge Adapter, Black, Right, Top	1	41008152	42244914
9B	Hinge Adapter, SS, Right, Top	1	41007800	42244915
10	Door Gasket, Black	1	41006386	42243906
11A	Hinge, Black, Right, Bottom	1	41007482	
11B	Hinge, Chrome, Right, Bottom	1	41007434	
11C	Hinge, SS, Right, Bottom	1	1010046C	
12A	Hinge Pin, Black, Bottom	1	41007376	42245093
12B	Hinge Pin, Zinc, Bottom	1	41001355	42245708
13	Nylon Spacer	2	41007003	
14	Hinge Bushing	2	41007005	
15A	Hinge Adapter Screw, Black	4	41009053	42244914
15B	Hinge Adapter Screw, SS	4	41009054	42244915
16A	Hinge Adapter, Black, Right, Bottom	1	41007006	42244914
16B	Hinge Adapter, SS, Right, Bottom	1	41007517	42244915
17A	Door Assembly, Black	1	42036760	
17B	Door Assembly, SS	1	42036759	
18	Household Nameplate, Black	1	41004477	42243063
19A	Door Handle, Black	1	41007392	42245084
19B	Door Handle, SS	1	41005803	42242939

# MICROSENTRY™ REFRIGERATION MONITOR

## Service Parts Diagram Two: 61WCM Cabinet



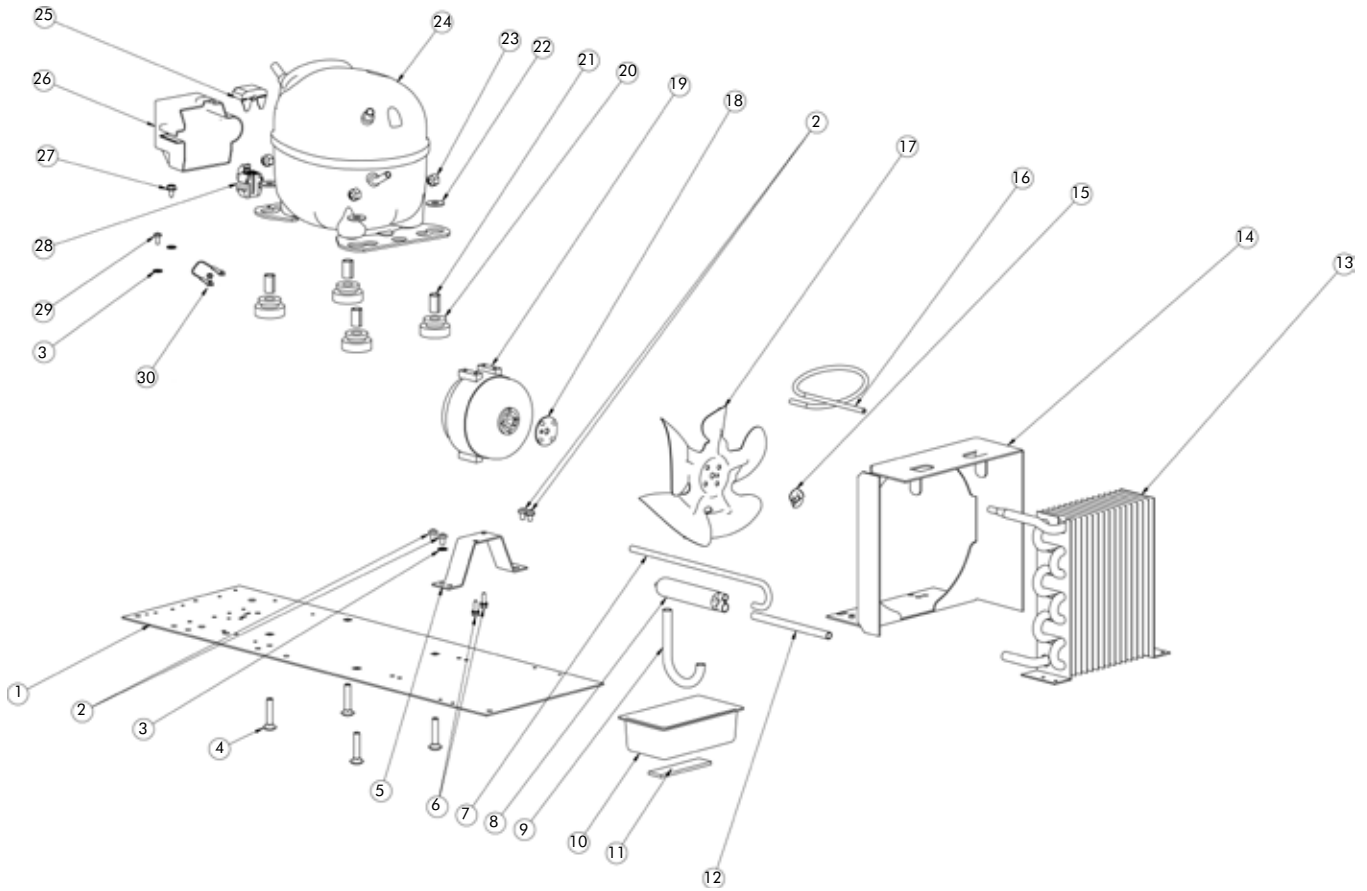
MICROSENTRY™ REFRIGERATION MONITOR

Service Parts List Two: 61WCM Cabinet

<b>Illus. No.</b>	<b>Description</b>	<b>Qty. Req.</b>	<b>Part No.</b>	<b>Service Assembly</b>
1	Back Shroud	1	41003617	
2	# 10 x .5 AB Hex Washer HD Screw, Zinc	17	08204928	
3	Back Panel	1	41000396	42241648
4	Sensor	1	41050117	
5	# 10 x .5 AB Hex Washer HD Screw, Zinc	1	08204928	
6	Fastex Clamp #8511-33-00, White	4	41003685	
7	Hinge, Chrome, Right, Top	1	41007433	
8	Hinge Screw, Zinc	6	41007598	
9	Wire Harness	1	41050112	
10	Wire Harness	1	41050106	
11	Wire Conduit	1	41010757	
12	Evaporator Assembly, Black	1	42056609	
13	# 8 x 2 Type AB Hex Washer HD Screw, SS	3	41010764	
14A	Evaporator Spacer	2	41006404	
14B	Evaporator Spacer	1	41006403	
15	Light Bulb 15T7N - 130V	1	41003558	
16	Light Socket	1	41006862	
17	Mounting Clip (supplied with Electronic Controller)	2		
18	Display Housing	1	41010777-001	
19	Light Switch	1	41050101	
20	Door Switch	1	41050103	
21	Electronic Controller	1	41050100	
22	Lock Washer	2	41010640	
23	Screw	6	08205079	
24A	Display Shelf, Black	1	41010698-001	
24B	Display Shelf Assembly, Black	1	42136570-001	
25	Screw	14	41010354	
26	Maplewood Shelf Front	5	41010793	
27A	Sliding Shelf, Black	4	41010788-001	
27B	Sliding Shelf Assembly, Black	4	42136569-001	
28	# 8 x 2 Type AB Hex Washer HD Screw, SS	4	41010764	
29	Support Peg Washer, Black	4	41010790-001	
30	Shelf Mounting Peg, Black	4	41010789-001	
31	Screw	2	41007598	
32	Bottle Cradle	1	41007590	42244618
33	Pop Rivet # AD43ABS Aluminum	2	08204930	
34	Drip Tray, Black	1	41006402	
35	Drain Tube, Black	1	41006401	
36	# 12 x 3/4 Type AB, PH Screw, Black	2	41008206	
37	Grille, Black	1	41005059	42242366
38	Hinge, Chrome, Right, Bottom	1	41007434	
Not Shown	P-Clamp	1	41010736	

# MICROSENTRY™ REFRIGERATION MONITOR

## Service Parts Diagram Three: 61WCM Mechanical



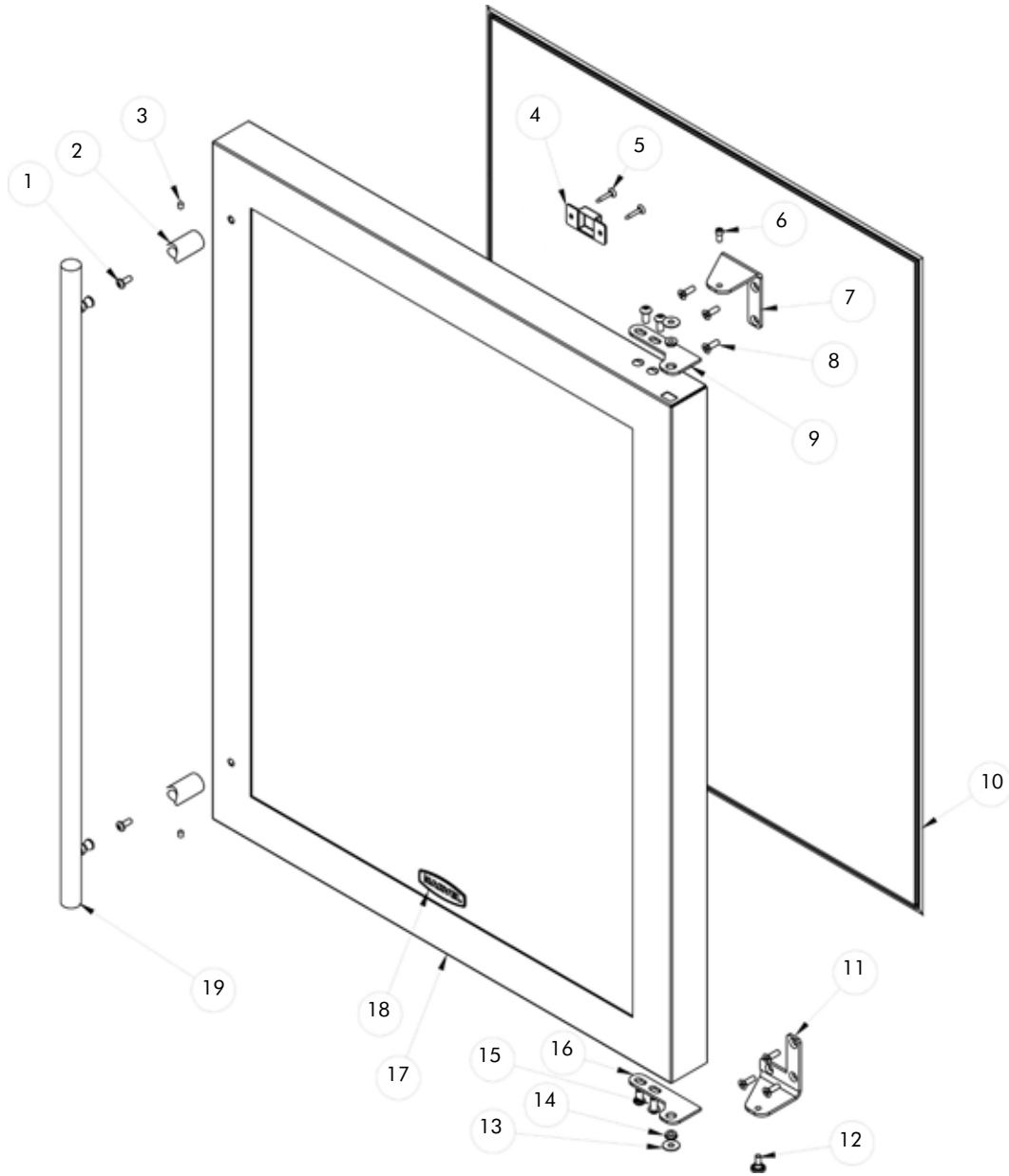
MICROSENTRY™ REFRIGERATION MONITOR

Service Parts List Three: 61WCM Mechanical

<b>Illus. No.</b>	<b>Description</b>	<b>Qty. Req.</b>	<b>Part No.</b>	<b>Service Assembly</b>
1	Baseplate, R-134a Mechanical	1	41005085	42242579
2	Screw	4	41005089	
3	Washer		08205115	
4	# 1/4-20 Carriage Bolts	4	08205050	42242388
5	Fan Motor Bracket	1	1010002B	
6	Screw	2	41003221	
7	Tubing Evacuation	1	41001466	
8	Dryer, 1/4 x 5/16 x 3/32	1	41001460	42243394
9	"J" Trap	1	41003857	42244921
10	Drip Pan	1	41003667	
11	Tape	1	41003693	
12	Copper Tube, .312OD x 4.50	1	41003637	
13	Condenser, R-134a	1	41003609	42242082
14	Fan Shroud	1	41003626	42241349
15	Tinnerman Nut	1	41000130	
16	Tubing - 14 Long	1	41000445	
17	Fan Blade #FV600CW30S38	1	41003616	42242015
18	Silencer	1	M000101A	
19	Fan Motor, 115V/60Hz	1	41006539	
20	Grommet	4	41007224	
21	Sleeve	3	41007225	
22	Flat Washer	3	08204877	
23	Lock Nut	3	08205051	
24	Tecumseh Compressor	1	41007131	42242388
25	Overload	1	41007220	42245133
26	Compressor Cover	1	41007221	42245132
27	Screw	1	41005022	
28	PTC Relay	1	41007219	42245131
29	Screw	1	41005086	
30	Ground Wire	1	41001401	

# MICROSENTRY™ REFRIGERATION MONITOR

Service Parts Diagram One: 6BARM Door



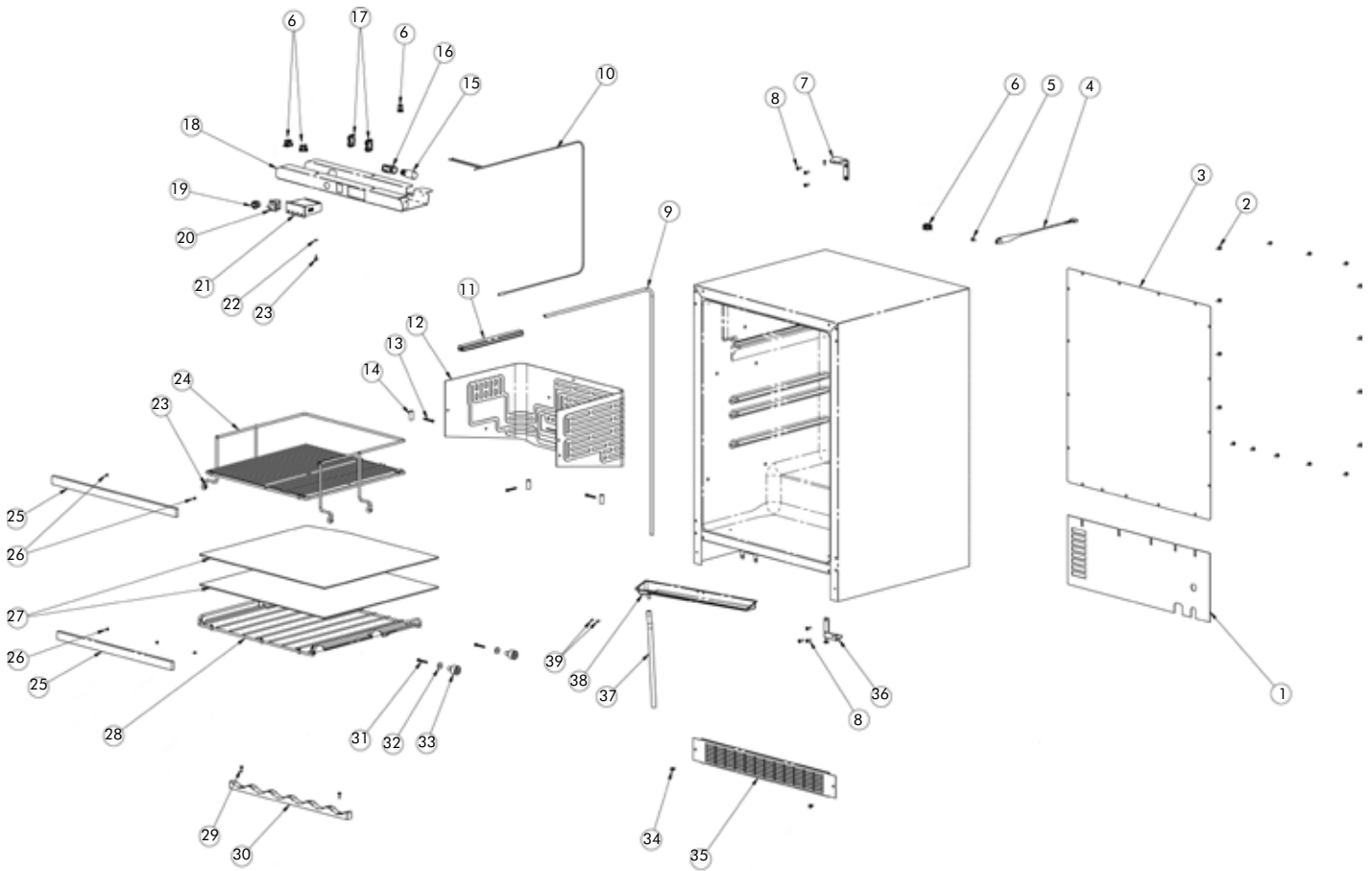
MICROSENTRY™ REFRIGERATION MONITOR

Service Parts List One: 6BARM Door

<b>Illus. No.</b>	<b>Description</b>	<b>Qty. Req.</b>	<b>Part No.</b>	<b>Service Assembly</b>
1	Screw	2	08204920	
2A	Door Standoff, Black	2	41007390	42245084
2B	Door Standoff, SS	2	41005804	42242939
3	Set Screw	2	41006026	
4	Door Switch Retainer, Black	1	44000562	42246541
5	Screw, Black	2	41007520	
6	Hinge Pin, Top	1	41004106	
7A	Hinge, Black, Right, Top	1	41007481	
7B	Hinge, Chrome, Right, Top	1	41007433	
7C	Hinge, SS, Right, Top	1	1010045C	
8A	Hinge Screw, Black	6	41007599	
8B	Hinge Screw, Zinc	6	41007598	
8C	Hinge Screw, SS	6	41010417	
9A	Hinge Adapter, Black, Right, Top	1	41008152	42244914
9B	Hinge Adapter, SS, Right, Top	1	41007800	42244915
10	Door Gasket, Black	1	41006386	42243906
11A	Hinge, Black, Right, Bottom	1	41007482	
11B	Hinge, Chrome, Right, Bottom	1	41007434	
11C	Hinge, SS, Right, Bottom	1	1010046C	
12A	Hinge Pin, Black, Bottom	1	41007376	42245093
12B	Hinge Pin, Zinc, Bottom	1	41001355	42245708
13	Nylon Spacer	2	41007003	
14	Hinge Bushing	2	41007005	
15A	Hinge Adapter Screw, Black	4	41009053	42244914
15B	Hinge Adapter Screw, SS	4	41009054	42244915
16A	Hinge Adapter, Black, Right, Bottom	1	41007006	42244914
16B	Hinge Adapter, SS, Right, Bottom	1	41007517	42244915
17A	Door Assembly, Black	1	42036760	
17B	Door Assembly, SS	1	42036759	
18	Household Nameplate, Black	1	41004477	42243063
19A	Door Handle, Black	1	41007392	42245084
19B	Door Handle, SS	1	41005803	42242939

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## Service Parts Diagram Two: 6BARM Cabinet



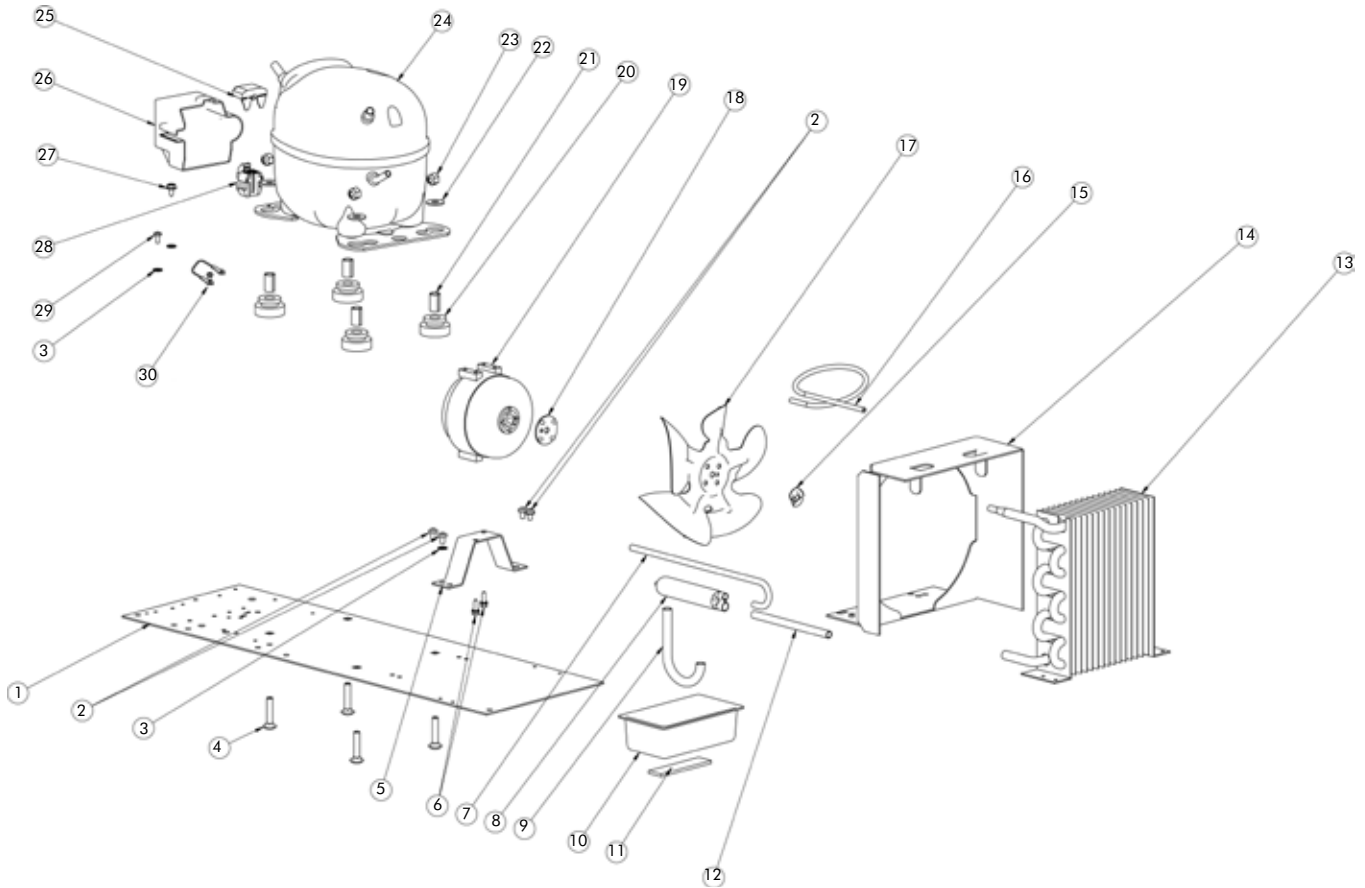
MICROSENTRY™ REFRIGERATION MONITOR

Service Parts List Two: 6BARM Cabinet

Illus. No.	Description	Qty. Req.	Part No.	Service Assembly
1	Back Shroud	1	41003617	
2	Screws	17	08204928	
3	Back Panel	1	41000396	42241648
4	Sensor	1	41050117	
5	Screw	1	08204928	
6	Fastex Clamp #8511-33-00, White	4	41003685	
7	Hinge, Chrome, Right, Top	1	41007433	
8	Hinge Screw, Zinc	6	41007598	
9	Wire Harness	1	41050112	
10	Wire Harness	1	41050106	
11	Wire Conduit	1	41010757	
12	Evaporator Assembly, Black	1	42056608	
13	# 8 x 2 Type AB Hex Washer HD Screw, SS	3	41010764	
14	Evaporator Spacer, Black	3	41006404	
15	Light Bulb 15T7N - 130V	1	41003558	
16	Light Socket	1	41006862	
17	Mounting Clip (supplied with Electronic Controller)	2		
18	Display Housing	1	41010777-001	
19	Light Switch	1	41050101	
20	Door Switch	1	41050103	
21	Electronic Controller	1	41050100	
22	Lockwasher	2	41010640	
23	Screw	6	08205079	
24A	French Door Shelf, Black	1	41010729-001	
24B	French Door Shelf Assembly, Black	1	42136591-001	
25	Maplewood Shelf Front	2	41010793	
26	Screw	5	41010354	
27	Glass Shelf	2	41005466	
28A	Sliding Shelf, Black	1	41010788-001	
28B	Sliding Shelf Assembly, Black	1	42136569-001	
29	# 8 x 2 Type AB Hex Washer HD Screw, SS	4	41010764	
30	Support Peg Washer, Black	4	41010790-001	
31	Shelf Mounting Peg, Black	4	41010789-001	
32	Screws	2	41007598	
33	Bottle Cradle	1	41007590	42244618
34	# 12 x 2/4 Type AB, PH Screw, Black	2	41008206	
35	Grille, Black	1	41005059	42242366
36	Hinge, Chrome, Right, Bottom	1	41007434	
37	Drain Tube, Black	1	41006401	
38	Drip Tray, Black	1	41006402	
39	Pop Rivet # AD43ABS Aluminum	2	08204930	
Not Shown	P-Clamp	1	41010736	

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## Service Parts Diagram Three: 6BARM Mechanical



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Service Parts List Three: 6BARM Mechanical

<b>Illus. No.</b>	<b>Description</b>	<b>Qty. Req.</b>	<b>Part No.</b>	<b>Service Assembly</b>
1	Baseplate, R-134a Mechanical	1	41005085	42242579
2	Screw	4	41005089	
3	Washer		08205115	
4	# 1/4-20 Carriage Bolts	4	08205050	42242388
5	Fan Motor Bracket	1	1010002B	
6	Screw	2	41003221	
7	Tubing Evacuation	1	41001466	
8	Dryer, 1/4 x 5/16 x 3/32	1	41001460	42243394
9	"J" Trap	1	41003857	42244921
10	Drip Pan	1	41003667	
11	Tape	1	41003693	
12	Copper Tube, .312OD x 4.50	1	41003637	
13	Condenser, R-134a	1	41003609	42242082
14	Fan Shroud	1	41003626	42241349
15	Tinnerman Nut	1	41000130	
16	Tubing - 14 Long	1	41000445	
17	Fan Blade #FV600CW30S38	1	41003616	42242015
18	Silencer	1	M000101A	
19	Fan Motor, 115V/60Hz	1	41006539	
20	Grommet	4	41007224	
21	Sleeve	3	41007225	
22	Flat Washer	3	08204877	
23	Lock Nut	3	08205051	
24	Tecumseh Compressor	1	41007131	42242388
25	Overload	1	41007220	42245133
26	Compressor Cover	1	41007221	42245132
27	Screw	1	41005022	
28	PTC Relay	1	41007219	42245131
29	Screw	1	41005086	
30	Ground Wire	1	41001401	

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## Section 10: Troubleshooting Guide

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>CORRECTION</b>
Unit does not operate.	1. The unit is unplugged.	Plug in the unit.
	2. Did not hold the "ON/OFF" button long enough on the display panel.	Press and hold the "ON/OFF" button for three (3) seconds.
Temperature controls are not raising or lowering the set temperature on the unit.	1. Did not press and hold the "SET" button on the display panel while pressing either the "WARMER" or "COLDER" button.	Press and hold the "SET" key until the set point temperature is displayed. While continuing to hold the "SET" key, press either the "WARMER" or "COLDER" button. This will raise or lower the set temperature by one (1) degree F.
Display light feature is not engaged.	1. Did not press the "LIGHT" switch on the display panel.	Press the round "LIGHT" switch located on the left hand side of the user panel. The light will come on and stay on with the door closed until the "LIGHT" switch is pressed again.
	2. The light bulb is burned out.	Replace the light bulb and then press "LIGHT" switch.
Door is closed but the light is still on inside of the unit.	1. Display light feature is engaged.	Press "LIGHT" switch to disengage light.
"E1" error code on display panel	1. Sensor Fault.	Call your dealer or Marvel Customer Service.
"Do" error code on display panel	1. The door is open.	Close the door.
"Hi" error code on display panel	1. Temperature of unit is 10 degrees greater than your set-point.	Call your dealer or Marvel Customer Service.
"Lo" error code on display panel	1. Temperature of unit is 10 degrees less than your set-point.	Call your dealer or Marvel Customer Service.
"cL" error code on display panel	1. Condenser coil cleaning is recommended.	Vacuum the condenser.

NOTES



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