

# MILK COOLERS

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## Service, Installation and Care Manual



**IMPORTANT INFORMATION  
PLEASE READ CAREFULLY**

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**READ THIS MANUAL COMPLETELY BEFORE ATTEMPTING TO INSTALL OR  
OPERATE THIS EQUIPMENT. SAVE THESE INSTRUCTIONS!  
NOTIFY CARRIER OF DAMAGE! INSPECT ALL COMPONENTS IMMEDIATELY.**

### **SERIAL NUMBER INFORMATION**

The serial number of the milk cooler is located outside the unit near the service panel.

Always have the serial number of your unit available when calling for parts or service. Also, retain proof of purchase including the order date or your warranty will be voided.

This manual covers standard units only. If you have a custom unit, consult the customer service department at the number listed in the back cover.

### **RECEIVING AND INSPECTING THE EQUIPMENT**

Even though most equipment is shipped crated, care should be taken during unloading so the equipment is not damaged while being moved into the building.

1. Visually inspect the exterior of the package and skid or container. Any damage should be noted and reported to the delivering carrier immediately.
2. If damaged, open and inspect the contents with the carrier.
3. In the event that the exterior is not damaged, yet upon opening, there is concealed damage to the equipment notify the carrier. Notification should be made verbally as well as in written form.
4. Request an inspection by the shipping company of the damaged equipment. This should be done within 10 days from receipt of the equipment.
5. Be certain to check the compressor compartment housing and visually inspect the refrigeration package. Be sure lines are secure and base is still intact.
6. Freight carriers can supply the necessary damage forms upon request.
7. Retain all crating material until an inspection has been made or waived.
8. Advise our customer technical support department of any filed damage claims with the carrier.

## **COMMERCIAL REFRIGERATION SAFETY**

**Your safety and the safety of others are very important.**

We will provide important safety messages in this manual and on your appliance.

Always read and obey all safety messages.

**Our product instructions will be uploaded on our company website.**



This is the Safety Alert Symbol. This symbol alerts you to potential hazards that can kill or injury you and others. All safety messages will follow the Safety Alert Symbol and either the words "DANGER", "WARNING" or "CAUTION".



Danger means that failure to heed this safety statement may result in severe personal injury or death.



Warning means that failure to heed this safety statement may result in extensive product damage, serious personal injury, or death.



Caution means that failure to heed this safety statement may result in minor or moderate personal injury, or property or equipment damage.

All safety messages will alert you to what the potential hazard is, tell you how to reduce the chance of injury, and let you know what can happen if the instructions are not followed.

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with this appliance.

This appliance can be used by children aged from 8 years and above and persons with reduced physical sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

Keep the appliance and electrical its cord out of reach of children less than 8 years old.

Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.

## WARNING

The appliance uses flammable insulation blowing gas C5H10, disposal of the appliance must be in accordance with the regulations of local authorities regarding flammable items.

**CAUTION** – Risk of Fire or Explosion due to Flammable Refrigerant Used.

Follow Handling Instructions Carefully in Compliance with U.S. Government Regulations.



**Warning; Risk of fire / flammable materials**

**WARNING:** Do not use mechanical devices or other means to accelerate the defrosting process, just empty contents and let it defrost itself with the access lid open, use a dry soft towel to dry the inner surfaces before returning the unit to operating conditions. Do not reload contents until the interior is at the desired temperature.

**WARNING:** Do not damage the refrigerant circuit.

Operating, moving, and use of the milk coolers must avoid either damaging the refrigerant tubing, or increasing the risk of a leak by impacting other objects or attempting to drill into the unit.

**CAUTION** – Risk Of Fire Or Explosion Due To Puncture Of Refrigerant Tubing; Follow Handling Instructions Carefully. Flammable Refrigerant Used

Component spare parts shall be replaced with like components parts and servicing shall be done by authorized service personnel, as to minimize the risk of ignition due to incorrect parts or improper operation.

**DANGER:** Risk of child entrapment. Before you throw away your old milk cooler:

Take off the door and discard it separately from the appliance body.

## SPECIFICATIONS

MODEL#	V/Hz/Ph	STORAGE CAPACITY Cu-ft	CAPACITY (13"x13"x11" Crates)	CAPACITY (19"x13"x11" Crates)	AMP DRAW	HP	CHARGE OZ	REFRIGERANT	NEMA PLUG
MC08SS	115/60/1	13.2	8	4	3.0	1/4	3.17	R290A	5-15P
MC12SS	115/60/1	19.6	12	8	3.0	1/4	3.17	R290A	5-15P
MC16SS	115/60/1	23.5	16	10	3.0	1/4	3.17	R290A	5-15P
MC08SW	115/60/1	13.2	8	4	3.0	1/4	3.17	R290A	5-15P
MC12SW	115/60/1	19.6	12	8	3.0	1/4	3.17	R290A	5-15P
MC16SW	115/60/1	23.5	16	10	3.0	1/4	3.17	R290A	5-15P
MC08DS	115/60/1	13.2	8	4	3.0	1/4	3.17	R290A	5-15P
MC12DS	115/60/1	19.6	12	8	3.0	1/4	3.17	R290A	5-15P
MC16DS	115/60/1	23.5	16	10	3.0	1/4	3.17	R290A	5-15P
MC08DW	115/60/1	13.2	8	4	3.0	1/4	3.17	R290A	5-15P
MC12DW	115/60/1	19.6	12	8	3.0	1/4	3.17	R290A	5-15P
MC16DW	115/60/1	23.5	16	10	3.0	1/4	3.17	R290A	5-15P

## CONGRATULATIONS ON YOUR NEW COOLER

Note these instructions apply to all milk coolers. Installation of equipment may not exactly correspond to your model.

## INSTALLATION

### 1. AIR CIRCULATION

-The cooler should be placed in a warm, dry room, with suitable ventilation. Please make sure to avoid any partition or objects that may stop the air flow. Please make sure there is enough space for air circulation to the rear of the unit. Recommended space between the vented panel on the unit to the wall is at least 5 inches.

### 2. FOUNDATION

- Please make sure that the floor where the unit will be placed can support the total weight plus any other contents that it may hold.

### 3. DO NOT PLACE NEAR HEAT

- Please make sure to avoid hot corners and locations near stoves.  
- High ambient temperature will significantly reduce cooling efficiency.

### 4. INDOOR USAGE ONLY

- This unit is designed and tested for indoor use only. Never place the cooler in strong sunlight.  
- Outdoor usage will void its warranty.

### 5. LEVELING

- Please make sure that the unit is level from the front to the back and side to side before placing it in service

### 6. STABILITY

-The cooler should always be placed on a stable surface with all casters level and the brakes set when in use or it's being stored in an accessible location

## ELECTRICAL CONNECTION

The cooler must be connected to a NEMA 5-15 or 5-20 receptacle with the correct voltage/frequency, as shown on the nameplate. The standard for U.S is 115V/60Hz. Voltage variations of  $\pm 10\%$  are acceptable. Greater variations can damage the cooler, and in such cases the factory warranty is not valid. In the case of extreme voltage variation, above or below the standard, your local supplier or utility company will be able to advise you, what to do.

All wiring between the electrical panel and the unit must be done in accordance with the National Electric Code and all state and local codes.

## FOOD STORAGE

The cooler is only designed as a serving vehicle and is not suited to store cold food for extended periods of time. In other words, only milk containers must be placed in the cooler. The cooler must not be filled beyond the height limit of the included contents fill level line, or in cases where there is no such line, to within 4 inch below the lid. This is to ensure the product temperature remains less than 40°F.

## OPERATING INSTRUCTIONS

The temperature in the cooler is automatically regulated by a set thermostat.

The position of the cooler, the ambient temperature, the number of times the lid is opened and for how long the lid is opened are all factors affect the temperature in the cooler. To assure proper temperature regulation do not place in the appliance in sunlight or near / adjacent to a heat-radiating surface.

If your cooler is fitted with a lock, the key should be kept out of the reach of children. If your new cooler is to replace an older one, which is not in use any more, you should remove the lock mechanism on the old one, before disposing it.



**Do not throw items into the storage area. Failure to heed these recommendations could result in damage to the interior of the cabinet.**

### CAUTION

The factory setting for the temperature range is 34°F to 38° F which keeps your milk at a safe, cold temperature.

# SOLID STATE THERMOSTAT DESCRIPTIONS

## 1. FRONT PANEL COMMANDS

- SET:** To display target set point; in programming mode it selects a parameter or confirms an operation.
-  **(DEF)** To start a manual defrost
-  **(UP)** To view the latest alarm occurrence; in programming mode it browses the parameter codes or increases the display value
-  **(DOWN)** To view the latest alarm occurrence; in programming mode it browses the parameter codes or decreases the display value

### KEY COMBINATION

-  +  To lock & unlock the keyboard
- SET** +  To enter in programming mode
- SET** +  To return to the room temperature display



### 1.1 Function of LEDS

LED	MODE	SIGNIFICATO
	On	Compressor enabled
	Flashing	Anti-short cycle delay enabled (AC parameter)
	On	Defrost in progress
	Flashing	Dripping in progress
	On	Fans output enabled
	Flashing	Fans delay after defrost
°C	On	Measurement unit
	Flashing	Programming mode
°F	On	Measurement unit
	Flashing	Programming mode

## 2. MAIN FUNCTIONS

### 2.1 HOW TO SEE THE SETPOINT

1. Push and immediately release the **SET** key: the display will show the set point value.
2. Push and immediately release the **SET** key or wait for 60 seconds to display the sensor value again.



### 2.2 HOW TO CHANGE THE SETPOINT

1. Hold the **SET** key for more than 2 seconds to change the set point value.
2. The value of the set point will be displayed and the °F LED starts blinking.
3. To change the set value push the  or  key within 60s.
4. To set a new point value, push the SET key again or wait 60s.

### 2.3 HOW TO START A MANUAL DEFFROST

1. Hold the  key for more than 2 seconds and the manual defrost will start



### 2.4 HOW TO LOCK THE KEYBOARD

1. Hold the  and  keys for more than 3s.
2. The "PF" message will be displayed and the keyboard will be locked. At this point, it will be possible only to see the set point or the MAX or Min temperature stored.
3. If a key is pressed more than 3s the "PF" message will be displayed.



### 2.5 HOW TO UNLOCK THE KEYBOARD

Hold the ▲ and ▼ keys together for more than 3s, till the "PO" message is displayed.

### 3. ALARM SIGNALS

#### HOW TO SEE THE ALARM AND RESET THE RECORDED ALARM

1. Hold the ▲ or ▼ key to display the alarm signals.
2. When the signal is displayed, hold the **SET** key until the "rst" message is displayed, and push the **SET** key again. The "rst" message starts blinking and the normal temperature will be displayed

Message	Cause	Outputs
"P1"	Room probe failure	Compressor output according to par. "Con" and "COF"
"P2"	Evaporator probe failure	Defrost end is timed
"HA"	Maximum temperature alarm	Outputs unchanged.
"LA"	Minimum temperature alarm	Outputs unchanged.
"dA"	Door open	Regulation restarts
"EA"	External alarm	Output unchanged.
"CA"	Serious external alarm (i1F=bAL)	All outputs OFF.
"CA"	Pressure switch alarm (i1F=PAL)	All outputs OFF

### MAINTENANCE



**DANGER**

The unit must be disconnected from the power source whenever performing service, maintenance functions or cleaning the refrigerated area.

#### 1. CLEANING

##### 1.1 CLEANING STAINLESS STEEL INTERIOR AND EXTERIOR

Damage to stainless steel finish due to improper use of cleaning products or non-recommended products is **NOT** covered under this product's warranty.

• **Do**

- Use warm, soapy water and a soft, clean cloth or sponge
- Rinse surfaces with clean, warm water and dry immediately to avoid water spots

• **DO NOT USE**

- Abrasive or harsh cleaners
- Ammonia
- Chlorine bleach
- Concentrated detergents or solvents
- Metal or plastic-textured scouring pads
- Vinegar-based products
- Citrus-based cleaners
- Detergents that contain chlorine

**Note:** It is suggested that the unit be emptied daily after all peak demand periods have passed, and any remaining contents be placed in a storage refrigerator. The unit should be unplugged and opened to allow it to defrost naturally. Let the unit air dry after cleaning and plug the unit in to rebuild the frost layer at least 3 hours prior to loading with product.

##### 1.2 CLEANING THE CONDENSER FINS

- To maintain proper refrigeration performance, the condenser coil must be free of dust, dirt and grease
- This will require periodic cleaning. Condenser fins should be cleaned at least every month or as

needed



**Never use a high-pressure water wash for this cleaning procedure as water can damage the electrical components located near or at the condenser coil.**

**DANGER**

## **MAINTENANCE**

### **1.3 CLEAN THE GASKET**

- The door gasket should be cleaned frequently to maintain proper sealing

### **1.4 CHECK AFTER CLEANING**

- Check the unit again for safety
- Check that the unit is operating properly

**2.** The lid may be cleaned in the same way as the cooler.

**3.** If a condenser and associated fan are fitted at the back bottom of the cooler, they can gather dust and dirt. If cleaning is necessary, they should be vacuumed with a soft brush.

**4.** Please note that the parts behind the protective grill can be hot and rotating.

## **5. POWER CORD**

### **5.1**

- Please make sure that the power cord is connected to the proper voltage  
The power cord must be connected to a protected circuit with the correct voltage and amperage
- Compressor warranties are void if compressor burns out due to improper voltage

### **5.2. RE-STARTING**

- If disconnected, wait for 5 minutes before re-starting

## TROUBLE SHOOTING

SYMPTOMS	CAUSES	SOLUTIONS
<b>The unit is freezing</b>	The temperature is set too low to maintain safe, read to serve product.	Turn the temperature control to a warmer setting – allow 2 hours for unit to reach steady state condition and confirm product temperature is within the 34° to 40°F ideal holding range.
<b>The unit does not refrigerate at all</b>	There is a power connection failure problem.	Check the power cord to make sure the unit is plugged in it correctly.
<b>The unit does not refrigerate properly</b>	The unit is in sunlight or near a heating device. The unit contains hot or too much product. The unit door is opened too frequently or left open to long. The condenser is clogged.	Check the installation place Move away from sunlight or away from heater. Check the condition of the product when the cooler was loaded. Check the temperature control setting.
<b>There is a loud noise</b>	The floor is too weak or the leveling feet are set incorrectly. The back-side of the unit is too close to the wall. The tray is not in the correct position.	Check the installation and adjust the tray position.
<b>There is condensation on the exterior of the unit</b>	High-moisture air can produce condensation on an external surface.	Wipe with a dry cloth.
<b>Ice is covering the interior walls and the unit is to warm</b>	Ice is an insulator; the unit has built up ice and needs to be defrosted.	Empty unit and put the milk cartons in a refrigerator and unplug unit so it can completely defrost with the lid / cover open.
<b>The interior walls are not frosted</b>	Unit has not been on long enough are refrigeration system needs attention	Wait 2 hours for frost to develop, if it doesn't call for service.
<b>Door doesn't close tightly</b>	The door is bent. The unit has a leveling issue. The door gasket has come out.	Level the unit again. Reposition the gasket.

If the cooler is in a place that is very hot or with bad ventilation, make sure to provide adequate ventilation. If the condenser mentioned in Section Maintenance is not clean, make sure to vacuum it.

If the above points have been checked and the cooler is still not working, please call service personnel. Inform them the nature of the problem, the type of cooler, serial number and item number (provided on the nameplate at the back of the cabinet).

## DISPOSAL

When a worn-out cooler is to be disposed of, this must be done properly. Please be aware of any regulations covering the disposal of such items; there may be special local or state requirements or conditions to be followed.

Information about disposal may be obtained from:

- The firm you purchased the cooler from;
- The relevant authorities (the Local Authority, environmental agencies, etc.).
- Your local disposal ,dumpster or local trash company.

## SPECIAL POINTS TO NOTE

The information contained in these instructions for use, was correct at the term of printing. On account of our constant produce development, however, we reserve the right to make changes in the cooler described here. Naturally, we will attempt to keep instructions for use up to date.

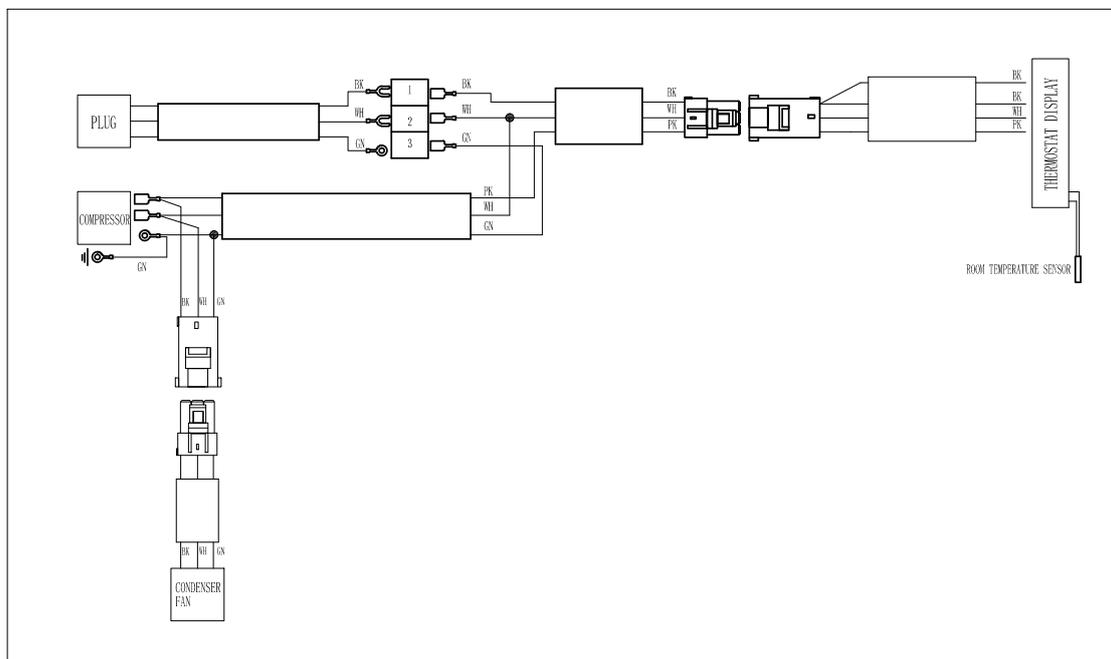
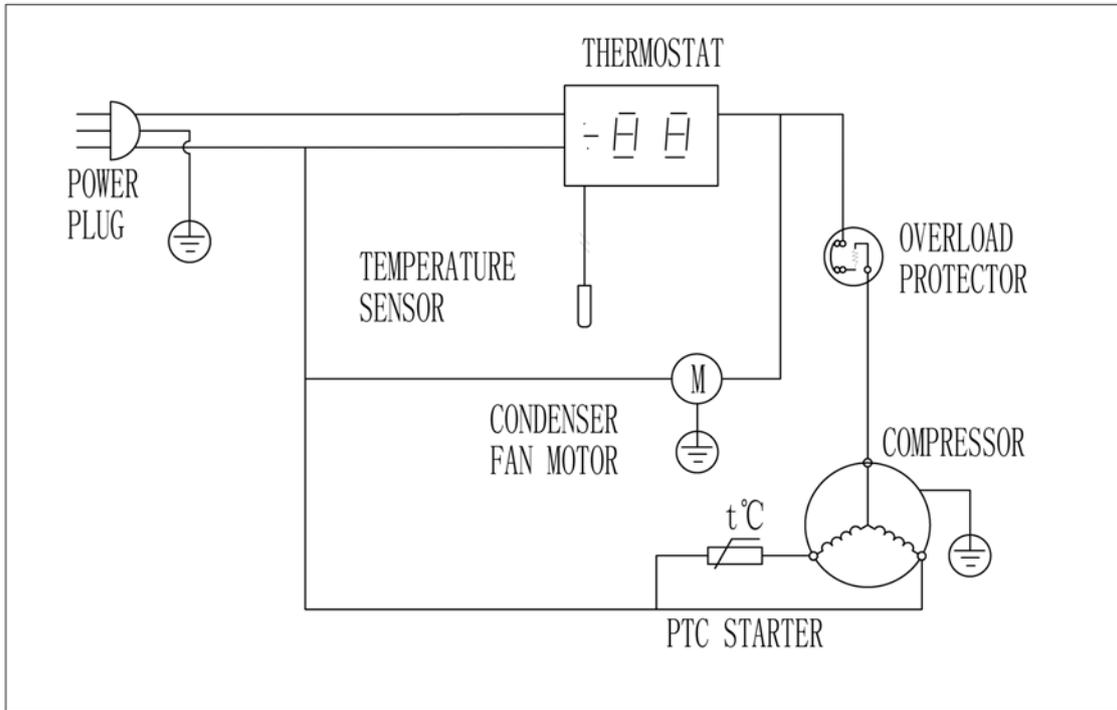
If you are in doubt as to the correct use of the cooler, please contact your supplier, who will be able to advise you.

The manufacture / distributor is not responsible for accident or problems, occurred as a result of wrong connection or improper use of the cooler.

There are no warranty covered liquated damages associated with this appliance, If it is used improperly or in violation of the operational instructions and practices contained in this manual, the warranty coverage is voided.

# WIRING DIAGRAM

MODEL: MC08SS / MC12SS / MC16SS / MC08SW / MC12SW / MC16SW  
 MC08DS / MC12DS / MC16DS / MC08DW / MC12DW / MC16DW



NOTES:

NOTES:

