Shipboard Refrigerator with Removable Refrigeration Module

Technical Manual

Installation, Operation, and Maintenance Instructions

Models:

BMR2-2M-SNL

Cospolich, Inc. - PO Box 1206, Destrehan, LA 70047, (800) 423-7761 — www.cospolich.com

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Chapter 1—General Information

1.1 Introduction

This technical manual provides information on the installation, operation, maintenance, and inspection of this unit manufactured by **Cospolich Inc.**, Destrehan, Louisiana. A complete parts breakdown is provided in Chapter 7.

1.2 Scope of the Manual

This technical manual provides information for installation, operating, preventative maintenance, and service instructions, including applicable drawings and figures of the equipment.

1.3 Equipment Description

The unit consists of the following parts:

A. *Storage Compartment* - The storage compartment is clear storage area. Included in this area are the adjustable shelves.

B. *Door(s)* – Access to the storage compartment is through hinge mounted door(s).

C. *Modular Refrigeration Package-* All refrigeration components (with the exception of the electronic controller) are contained within the removable refrigeration cartridge/package assembly located in the rear of the cabinet.

D. *Electronic Controller–* The electronic controller is located along the lower front face of the cabinet, below the door, and is responsible for controlling the refrigeration system.

E. *Cabinet -* The cabinet is the enclosure in which all of the above items are housed.

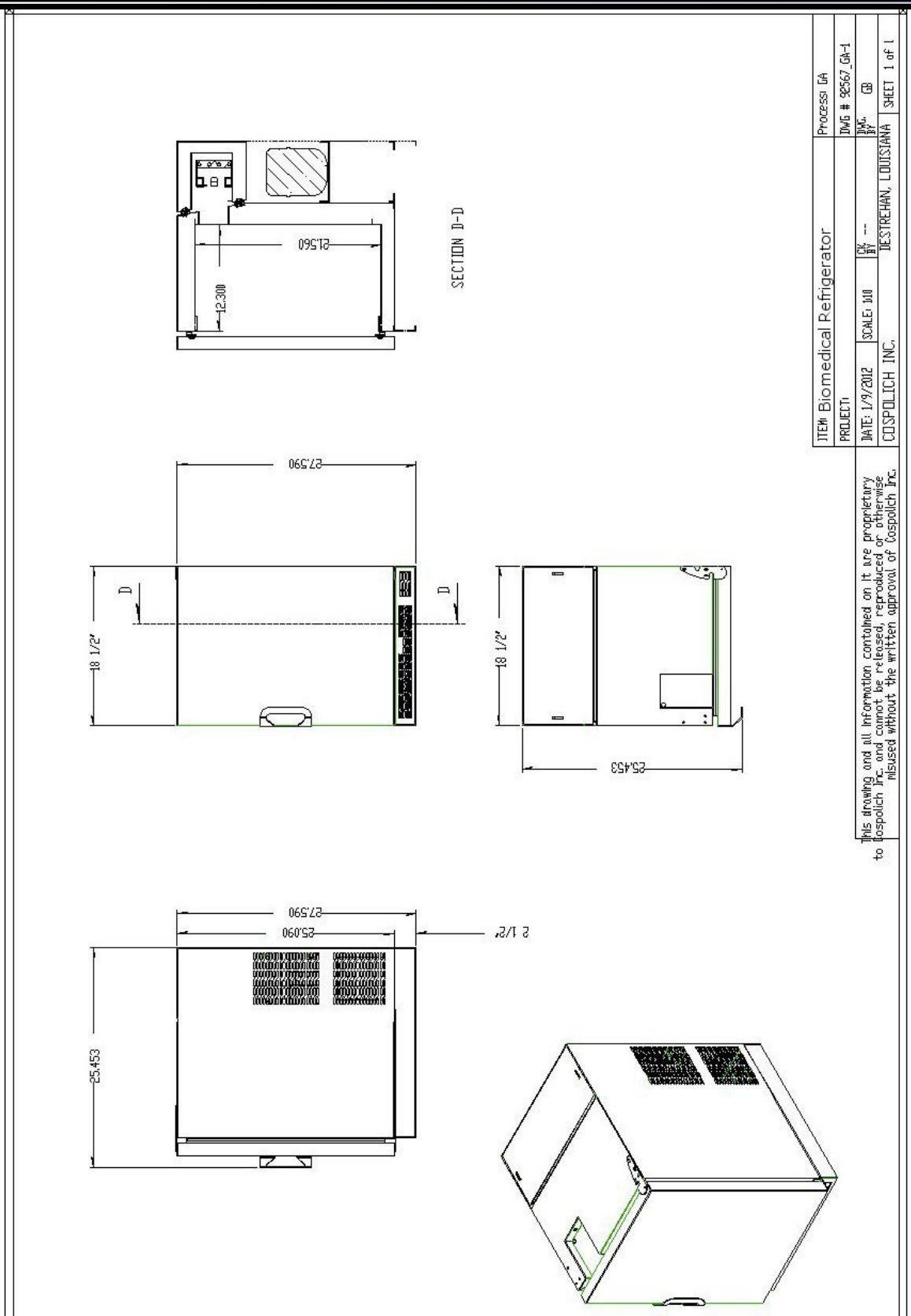
1.4 Equipment Supplied

The unit is shipped from the factory fully assembled, palletized and crated to minimize the possibility of damage in shipping and storage.

Table A—Leading Particulars

MANUFACTURER:	**Cospolich Inc.** **Destrehan, Louisiana 70047**
TYPE: **MODEL:**	**Marine Shipboard** **Refrigerator Unit with Removable Refrigeration Module** **BMR2-2M-SNL**
PURPOSE:	**Storage of Refrigerated Items/Perishables**
ELECTRICAL REQUIREMENTS:	**Power Supply - 115 Volt AC, 60 Hz, 1 Phase** **Amp draw - Operating Current: 1.48 Amps**
REFRIGERANT:	**134A**
DRAIN:	**Not Required**
DIMENSIONS:	**18.5" WIDE X 24.1" ACTUAL CABINET DEPTH X 27.6" HIGH**

Illustration 1.A—General Arrangement Drawing



Chapter 2—Operation

2.1 Introduction

These models are heavy-duty pieces of food service equipment designed for intermittent use. They incorporate electronic controls to regulate the cycling and temperature of the refrigeration system.

2.2 Table B—Controls and Indicators

Name	Type	Function
Electronic Controller	Push Button Electronic, L.E.D. Display	Cycles refrigeration system (automatic)

Note: 134A Refrigerant: *Normal operating pressures in 85°F ambient for environments for refrigerator applications (37°F cabinet temperature) are suction pressure at 15-17 and head pressure of 125.*

Illustrations 2.A, 2.B —
Main Unit Front View & Refrigeration Module Assembly

Illustration 2.A

Illustration 2.B

2.3 Start-Up Procedures

The refrigeration system is completely factory assembled, pre-charged, and ready for operation. To energize the unit, it is only necessary to find the power supply cord and connect it to a proper 115V power source. Once the supply cord has been connected to a power source, the unit can be started by initializing the unit via the electronic controller on the lower front face of the cabinet.

Table C—Start-Up Procedure

	Operation	Results
1.	Activate system by connecting electrical service cord to power supply.	This brings power to the control. The compressor should immediately come on line along with the condenser fan and the evaporator fan(s)
2.	Turn unit on via the electronic controller	This brings power to the controls.
3.	Wait 15 minutes	The temperature in the storage area should begin to drop.
4.	Wait 12 hours	Once the operating temperature has been reached, stocking of the cabinet can begin.

2.4 Shut Down Procedure for Short Term

To shut down, turn the unit off via the electronic controller.

Table D—Shut-Down Procedure for Short Term

	Operation	Results
1.	De-energize the system by turning the unit off via the electronic controller.	Once the system is de-energized the cabinet has no power.

WARNING: PRIOR TO CLEANING ANY OF THE UNIT, THE SYSTEM SHOULD BE DEACTIVATED BY DISCONNECTING FROM THE 115V POWER SUPPLY.

2.5 Cleaning Instructions

1. It is necessary that the power source be turned off.

2. Remove all shelves.

3. Wipe entire unit using a clean cloth or sponge with a mild detergent.

WARNING: DO NOT SPLASH OR POUR WATER ONTO THE EVAPORATOR ASSEMBLY, CONTROL PANEL, CONDENSING UNIT AND/OR WIRING.

CAUTION: POSSIBLE SHOCK HAZARD MAY RESULT AND UNIT MAY BE DAMAGED SHOULD ELECTRICAL COMPONENTS BECOME WET.

4. A plastic scouring pad may be used in the storage area to remove any hardened food particles.

5. When cleaning is finished, wipe the inside thoroughly with a solution of vinegar and water to neutralize all detergent/cleaner residue.

Important: It is not recommended to use any strong or caustic cleaners on the Refrigerator. Do not allow ammonia to stand in the interior of the unit. Make certain to rinse thoroughly to remove all residue. Failing to do so may cause damage or corrosion to the unit.

2.6 Preparation for an Extended Period of Inactivity

This unit is designed for periodic use. For extended shut down the electrical should be disconnected and the interior cleaned.

Table E—Shut-Down Procedures for Extended Period

	Operation	Results
1.	De-energize the system by turning the unit off via the electronic controller and disconnecting the electrical supply cord.	De-energizes system. The condenser fan and evaporator fan(s) will cease operation.
2.	Clean and wipe dry the food storage compart-ment	This will reduce the odor buildup during shut down period.

Chapter 3—Functional Description

3.1 System Description

The unit is a self-contained, automatically controlled, continuous duty perishable food storage system. It is designed with the intent and purpose of storing perishable food items.

The operating temperature is automatically monitored by the electronic controls that are factory set to maintain a predetermined adequate storage condition.

The equipment is comprised of the following two basic compartment assemblies:

1. Refrigeration Module Assembly—This assembly contains the compressor along with the evaporator assembly.

2. Storage Compartment—The insulated food storage area is a temperature controlled refrigerated area. Included in this compartment is the adjustable shelving.

3.2 System Operation

The design of the refrigerated cabinet focuses primarily on the safe storage of food products requiring refrigeration. In engineering, considerable attention was placed on not only its functionality, but also serviceability.

The refrigeration system is a closed loop system. Barring a leak in the system, the addition of refrigerant will not be necessary. A periodic check of the refrigerant level, however, is recommended to insure that the system operates at the optimum level at which it was designed.

The chilled food compartment is designed for the storage of perishable food items that require a temperature range of 37 to 40ºF on refrigerators and –5 to 0ºF on freezers. It is a general rule that adequate spacing is allowed between the stored items to allow for proper air circulation.

Chapter 4—Scheduled Maintenance

4.1 Introduction

To insure the longest and most trouble free operation, a thorough periodic maintenance schedule is required. The maintenance system should be aimed at maximizing the efficient utilization of maintenance personnel, minimizing down time, and providing the orderly acquisition of spare parts support.

The Cospolich refrigerator cabinet will generally be in operation in a facility or onboard a vessel where scheduled maintenance is performed according to Maintenance Index Plans. This unit requires regular maintenance. This chapter is intended as an alternative to any standard maintenance program that may pre-exist. The preventative maintenance schedule is based upon similar maintenance requirements for commercial refrigeration equipment.

4.2 Preventive Maintenance Action Index

If there is not a maintenance index plan, we have formulated our schedule for periodic maintenance in Table G.

4.3 Preparation for Maintenance

Since many areas affected in the maintenance schedule are electrically supplied, it may be necessary to de-energize the system when making these inspections.

4.4 Maintenance

A. Monthly Maintenance

1. The unit should first be de-energized by turning the unit off via the electronic controller. The unit should then be unplugged from the power supply.

2. Remove rear access cover plate and disconnect polarized wiring harness. Install T-handles in the top of the refrigeration module and remove it from the top of the cabinet.

2. Using a vacuum or soft brush/broom, brush/clean the condenser fins.

B. Bi-Monthly Maintenance

1. Check the drain line at both the inlet and outlet ends to make certain that there are no obstructions (forced air evaporator models only). It is not recommended to use any chemicals in clearing a clogged drain. The preferred method is to use compressed air, with approximately 60 psi being sufficient to free most clogs or obstructions. To do so, simply remove the drain line at the evaporator coil and attach an air line to it.

2. Remove the refrigeration module by first removing the rear access cover and disconnecting the polarized wiring harness housed inside the rear of the cabinet. Using the special T-handle tools provided, gently lift the refrigeration module out of the top of the unit. Sit the module on a clean, clear, flat surface for inspection and/or service work.

3. To inspect the evaporator motor, de-energize the unit. Remove the refrigeration module from the top of the unit.

4. Using a mild detergent and water, wipe the vinyl gasket. Make certain to clean under the gasket to remove any mildew or resi due that may have accumulated.

5. Using a mild, non-abrasive detergent and water, wipe the cabinet exterior, paying careful attention to wipe the cabinet in the direction of the stainless steel grain texture.

C. Annual Maintenance

1. Slide the refrigeration module up and out, and check all refrigerant lines for leaks or fatigue, making sure no copper lines are in direct contact with any other metal surfaces. If contact exists, place an insulated material between the two surfaces.

2. Inspect electrical connections to make certain that there is a good contact and that wires are neither weakened or frayed.

3. Inspect the integrity of the cabinet.

4. Check all bolts and screws to make sure they are tight and secure.

D. Three Year Frequency Maintenance

1. Replace all door gaskets.

2. Inspect all motors and shafts for noise & wear, replace if necessary.

3. With the unit de-energized, remove the refrigeration module from its compartment and inspect all wiring for signs of fatigue or wear.

Table F—Preventive Maintenance Action Index

	Frequency	Description
1.	Monthly	A. Inspect condenser coil to make certain air flow is not obstructed and that it is clear of dust and debris.
2.	Bi-Monthly	A. Inspect and clear drain line. B. Clean interior and exterior of cabinet with mild detergent and water, dry thoroughly C. Check both condenser fan motor and evaporator motor(s) for proper function and that they are mounted securely D. Clean door gaskets and breaker strips with a damp cloth
3.	Annually	A. Slide out refrigeration module, check all joints and fittings for signs of wear, leaks, or fatigue B. Inspect electrical connections to make certain that there is a good contact and that wires are neither weakened or frayed. C. Check the integrity of the cabinet
4.	Three Year	A. Replace all door gaskets B. Inspect motor shafts for noise or wear C. Inspect electrical controls and wiring D. Inspect door latch (when applicable) and hinges.

Chapter 5—Troubleshooting

This chapter will assist in a systematic check of components in determining any cause of equipment failure.

It will be necessary that the individual involved in the troubleshooting operation be familiar with the function of the equipment as described in Chapter 3.

The following table lists the most common symptoms that may be experienced and the recommended corrective action. The tables are separated into electrical maintenance, mechanical maintenance, and operators' actions.

Table G—Mechanical and Electrical Troubleshooting Guide

Symptom	Possible Failure	Remedy
Unit does not operate	A. Control failure B. Incorrect voltage C. Failed compressor	A. Adjust control or replace B. Correct C. Replace
Unit runs continuously	A. Control failure B. Restricted air flow C. Bad condenser fan motor D. Ineffective door seal E. Restricted air flow in storage compartment	A. Adjust control or replace B. Clear obstruction and clean condenser C. Check and replace D. Adjust door latch and hinges E. Redistribute food for even air flow
Low Head Pressure	A. Defective Compressor B. Low refrigerant C. Ambient temp too low	A. Replace B. Leak check & recharge C. Raise room temperature
High Head Pressure	A. Dirty compressor B. System contains air C. Refrigerant overcharge D. Condenser fan bad	A. Clean compressor B. Evacuate, change filter dryer, recharge C. Reduce qty of refrigerant D. Replace
Short Cycling	A. Maladjusted control	A. Adjust control

Chapter 6—Corrective Maintenance

6.1 Introduction

This chapter focuses on the instruction needed in the removal and replacement of certain components. We will also address the repair of components not listed under the schedule maintenance index covered in Chapter 4.

The components that we address are considered acceptable for repair using standard procedures that we will detail. The level of skills required to perform the service or repair will vary. Some may require specific training. It is up to the individual and /or his supervisor to determine their capability to undertake the particular task of service or repair. The service or repair items are limited to those listed in Chapter 7.

6.2 Repair Procedure

****WARNING****

PRIOR TO PERFORMING ANY WORK ON THE SYSTEM, IT IS REQUIRED THAT THE UNIT BE DE-ENERGIZED.

Note: It is the preference of the manufacturer that if service is needed on the refrigeration module that it be returned to Cospolich for maintenance. If service in the field becomes necessary, the following should only be done by a trained refrigeration technician.

6.2.1 Replacement of Compressor (Part #: RUD001)

1. Disconnect power supply to the unit.

2. Utilizing the special T-handle service tools provided, remove the refrigeration module from the top rear of the cabinet.

3. Evacuate the refrigerant from the system using a recovery system in compliance with all Federal regulations.

4. Find electrical terminal box on side of compressor and remove cover. Disconnect the wires from the compressor. Remove the screws that attach terminal box to the compressor. The compressor is now electrically detached.

5. Install new compressor. Check system for leaks.

6. If no leaks are present, recover the test charge using a vacuum recovery pump.

7. With the system pressure at zero, connect the vacuum pump and evacuate the system. Run pump for 1 hour. Pump should pull system down to 30".

8. Reattach electrical terminal box and secure all wiring.

9. Check refrigeration tag on the unit for the number of ounces of refrigerant to place into the system for start-up. Monitor the pressure on both the suction and discharge sides of the manifold gauges.

Warning: *Overcharging a refrigeration system can be dangerous. If assistance is required, call Cospolich (800) 423-7761 to speak to a service technician.*

6.2.2 Replacing Condenser Fan Motor— (Part #: RWCM26)

1. Disconnect all electrical power to the unit.

2. Remove the refrigeration module from its compartment.

3. Disconnect faulty condenser fan motor and replace with new one.

6.2.3 Replacing Door Handle —(Part #: HXHL22)

1. Remove two side mounting screws in the handle.

2. Replace handle.

3. Replace in reverse order.

6.2.4 Removing Door and Replacing Door Hinge(s)—(Part #: HXHE66)

NOTE: This procedure is best accomplished with two people—one to hold the door while the other removes the attachment screws.

1. Using a Philips head screwdriver, remove both screws located on bottom hinge. **NOTE: Make sure the door is held in place while the screws are being removed. Failure to do so may result in the door falling off the unit and getting damaged during the replacement process.**

2. With the lower screws removed, the door will now slide off of the top hinge pin.

3. To replace the bottom door hinge, the hinge spring should first be set. To do so, first flip the door over, with the gasket-side facing upward.

4. Using the stainless steel hinge bracket with square hole cut out, place the square over the square hinge pin and rotate the pin from the 6 o'clock position around to the 3 o'clock position until the tension releases. Replace the stainless steel bracket back to the 6 o'clock position. Now the tension has been reset and the hinge is ready for reinstallation.

5. Remove the stainless steel bracket and place the plastic O-ring washer on the top of the hinge pin, then place the stainless steel bracket on top of the O-ring.

6. With the stainless steel bracket at the 6 o'clock position, place the Philips head screw and stainless steel washer on top of the pin to secure the stainless steel bracket to the hinge pin.

7. The door is now ready to be re-installed onto the cabinet.

6.2.5 Replacing Door Gasket—(Part #s: MERGKT08)

NOTE: It is suggested that the door be removed from the cabinet and placed gasket side up on a table during the replacement process. Pay careful attention not to cut the new gasket when installing.

1. Pull back gasket and remove from the retainer channel.

2. Clean the area under the gasket.

3. Place new gasket on door by pressing into the retainer channel.

4. Reinstall door onto cabinet.

Cospolich Inc. urges that all individuals responsible for training, teaching or advising, installation mechanics and service personnel emphasize proper techniques and strict adherence to recommended practices for electrical maintenance.

6.2.6 Electronic Controller Instructions (Part #: RWTT65)

(Your display will be in blue)

Changing the Set Point (Fahrenheit)

1. Press and hold ▲ or ▼ button for 5 seconds. (the set point temp should be displayed) (Note: if the temp is at the current set point the display will not change, so be sure to hold for 5 seconds to make sure you can do step 2)
2. Release the button and then use the ▲ or ▼ buttons until your desired set point is reached (Min is 36 and max is 42)

(NOTE: the set point is the temperature that the compressor stops running. By default the unit will cycle between the set point you choose and 1 degree higher than the set point. So if you choose 40 degrees as your set point, the compressor will turn off at 40 and will turn on when the temperature reaches 41.)

The min and max referred to on line 1 just means that you cannot choose a set point below 36 or above 42 degrees. It is ***NOT the temperatures the refrigerators will cycle between)***

Converting from Fahrenheit to Celsius (Display and Settings)

1. Press and hold ▲ and ▼ buttons together for 5 seconds until the display shows PAS
2. When the display shows 000, press the ▲ button until the display shows 010
3. Press the SC button and the display will show tHE
4. Press the ▼ button 9 times unit the display shows diS
5. Press the SC button once and the display will show CFu
6. Press the SC button once and the display will show -F
7. Press the ▼ button to change display from -F to -C and convert all existing settings to C (Note: use the ▲ button if you are converting from -C to -F)
8. Press the SC button once and the display will show CFU
9. Press the ECO button twice to get back to the current temperature display

(Note: The controller will automatically re-lock when you exit the programming)

Chapter 7—Parts List

7.1 Introduction

This section of the manual contains lists of replaceable parts. Each of the tables contain a list of removable parts associated with an assembly of the cabinet .
No part identification has been provided for details of permanently assembled items or those items that are not suitable for field repair.

7.2 Source Codes

The sources for some items are shown in the part tabulation. Where no individual source code is listed, the part is available through Cospolich Inc. , PO Box 1206, Destrehan, LA 70047 (Fed. Mfg. Code #66682).

Table H—Source Codes

Code Number	Name	Address
14852	Bohn Heat Transfer	Danville, IL 61834
32761	Kason Industries	Newnan, GA 30265
50992	Ranco Controls	Plain City, OH 43064
78462	Sporlan Valve	Washington, MO 63090
14569	Copeland Corporation	Sidney, OH 45365
17529	Oasis	Vacaville, CA 95687
59431	Tecumseh Products	Ann Arbor, MI 48108
49048	Miljoco Corporation	Mt. Clemens, MI 48043
42020	Nashville Wire Products	White Bluff, TN 37187
79264	Jean's Extrusions, Inc.	Salem, IN 47167
2K223	Refrigeration Hardware	Grand Junction, CO 81505
09966	Instrument Systems Corp.	Jericho, NY 11753
60886	Idec Corporation	Sunnyvale, CA 94089
19220	Eberhard, Inc.	Strongsville, OH 44149
66682	Cospolich, Inc.	Destrehan, LA 70047

Table I—Parts List for BMR2-2M-SNL

	ITEM	COSP#	MFG#	Vendor	QTY	U/M
1	HINGE PIVOT PIN	HXHE55	HXHE55	KASON	1	EA
2	HINGE LOCK WASHER	HXHE66	HXHE66	KASON	1	EA
3	DOOR GASKET	MERGKT08	10-516	JEANS	1	EA
4	SPRING CARTRIDGE	HXHE66	11216000001	KASON	1	EA
5	S/S DOOR HANDLE	HXHL22	HXHL22	COSPOLICH	1	EA
6	SHELF PIN	HXCS05	60-040	RHS	12	EA
7	STAINLESS STEEL SHELF	SSW14CX10	SSW14CX10	NASHVILLE WIRE	3	EA
8	ELECTRONIC CONTROLLER	RWTT65	ERC102C	DANFOSS	1	EA
9	NYLON HINGE WASHER	HXHE66-WASHER	91556002560117	KASON	1	EA
10	DOOR MAGNET/SWITCH	QCSWM1	MA-3739	TAYLOR INDUSTRIES	1	EA
11	T-HANDLE TOOL	BMRTHT01	BMRTHT01	COSPOLICH	2	EA
12	ADJUSTABLE LEG	LHBOLT02**	92670A781	MCMASTER-CARR	4	EA
13	BLACK POWER CORD	PWCORD01	70132872 (312007-01)	ALLIED	1	EA
14	SIDE S/S ACCESS COVER	BMR2AC01	BMR2AC01	COSPOLICH	1	EA
15	S/S HORIZONTAL BREAKER STRIP	BRBMR2H	BRBMR2H	COSPOLICH	2	EA
16	S/S VERTICAL BREAKER STRIP	BRBMR2V	BRBMR2V	COSPOLICH	2	EA
17	SECURITY LOCK	SECLCK01	10100SL0000277	KASON	1	EA
18	REFRIGERATION MODULE GASKET	MERGKT09	1283	TRG	1	EA
19	1/2” DRAIN LINE TUBING	CVT12	CVT12	BARNETT	1	FT
20	REFRIGERATION MODULE, 115V, 134A	BMR-RM-1	BMR-RM-1	COSPOLICH	1	EA
21	DOOR ASSEMBLY	DBMR02	DBMR02	COSPOLICH	1	EA
22	ELECTRONIC HIGH-LOW TEMPERATURE ALARM	HLTA01R-EC (BMR)*	HLTA01R-EC(BMR)	COSPOLICH	1	EA

*For additional information and component BOM, refer to separate HLTA01R-EC(BMR) technical manual
**Not shown in illustrations

Illustrations 7.A & 7.B — (BMR-RM-1) Refrigeration Module (20)

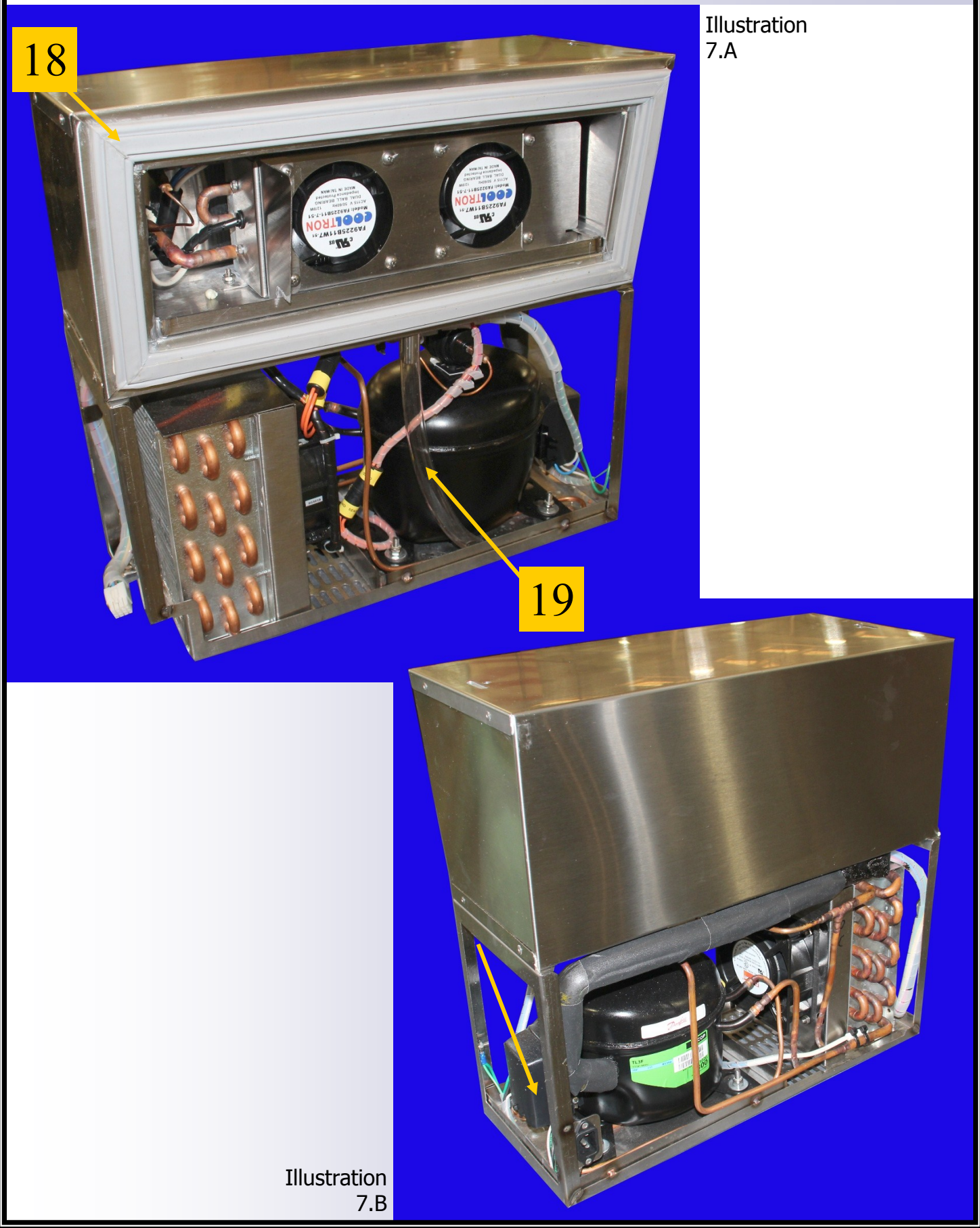


Illustration
7.A

Illustration
7.B

Illustrations 7.C & 7.D—Refrigeration Module Detail

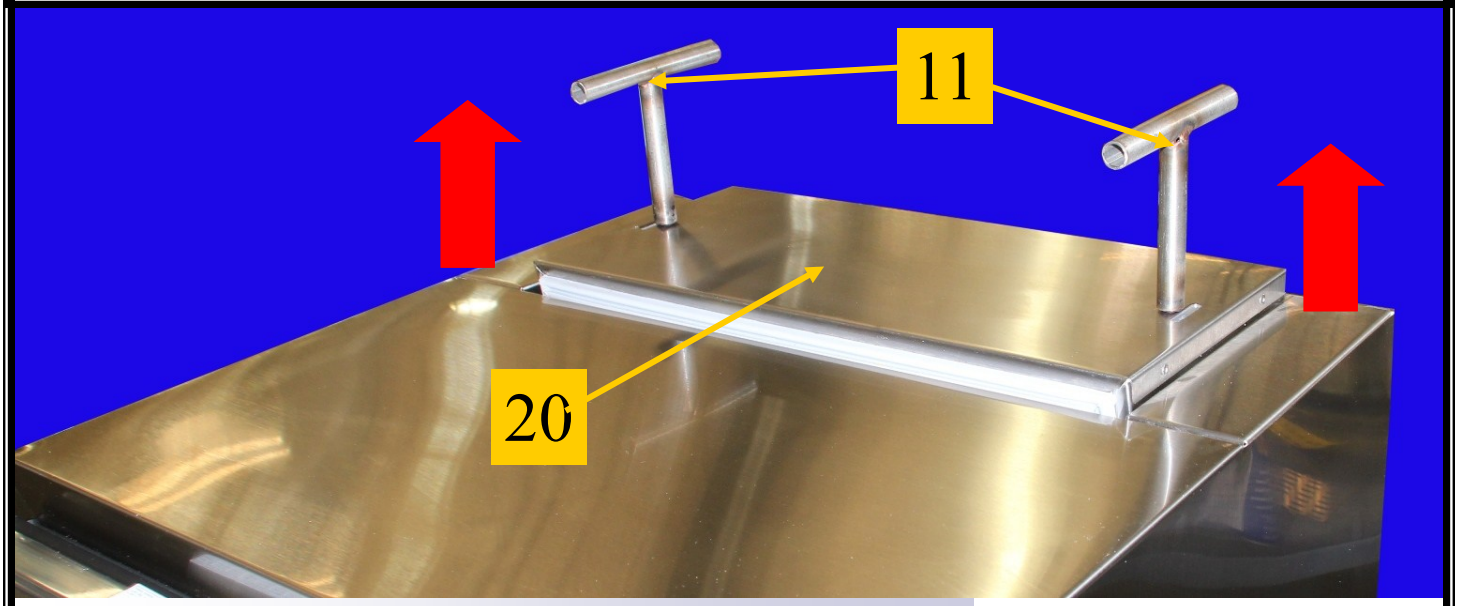


Illustration 7.C

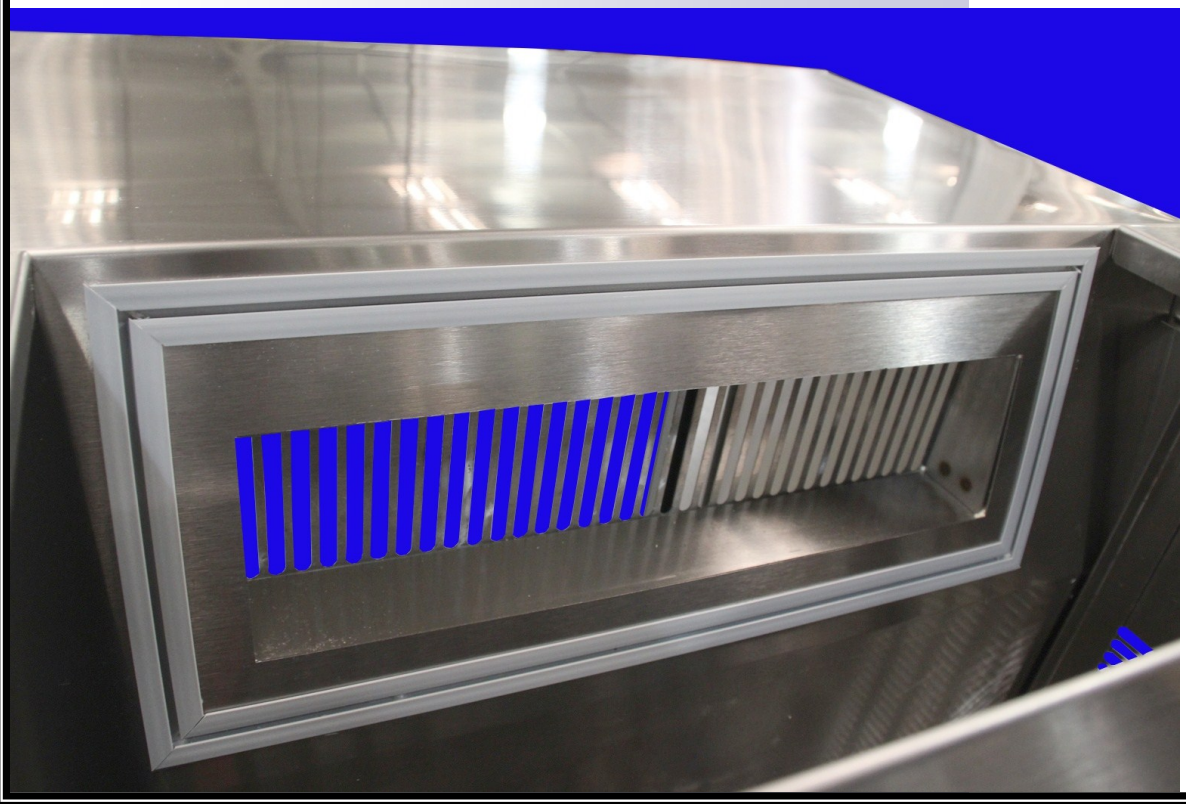


Illustration 7.D

Illustrations 7.E & 7.F — (BMR2AC01) Side Access Cover Detail

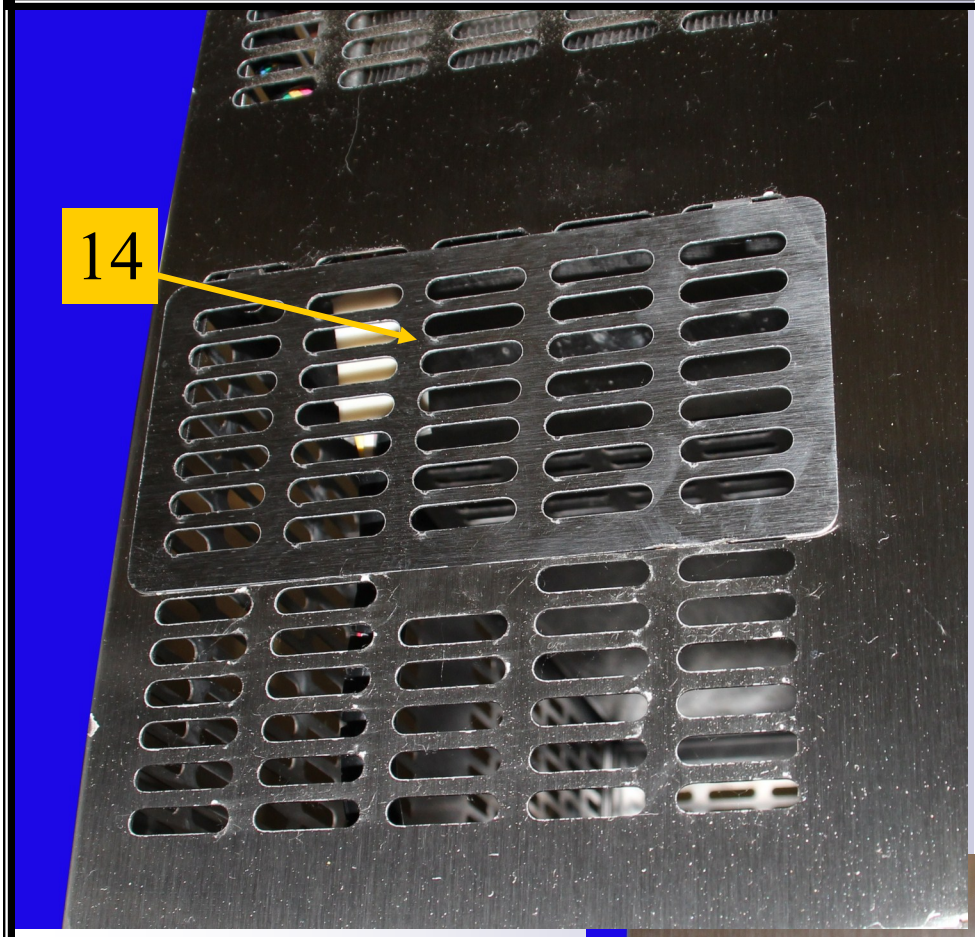


Illustration 7.E

Illustration 7.F

Illustration 7.G—Door Detail

Illustration 7.G

Illustrations 7.H & 7.I—Door Detail

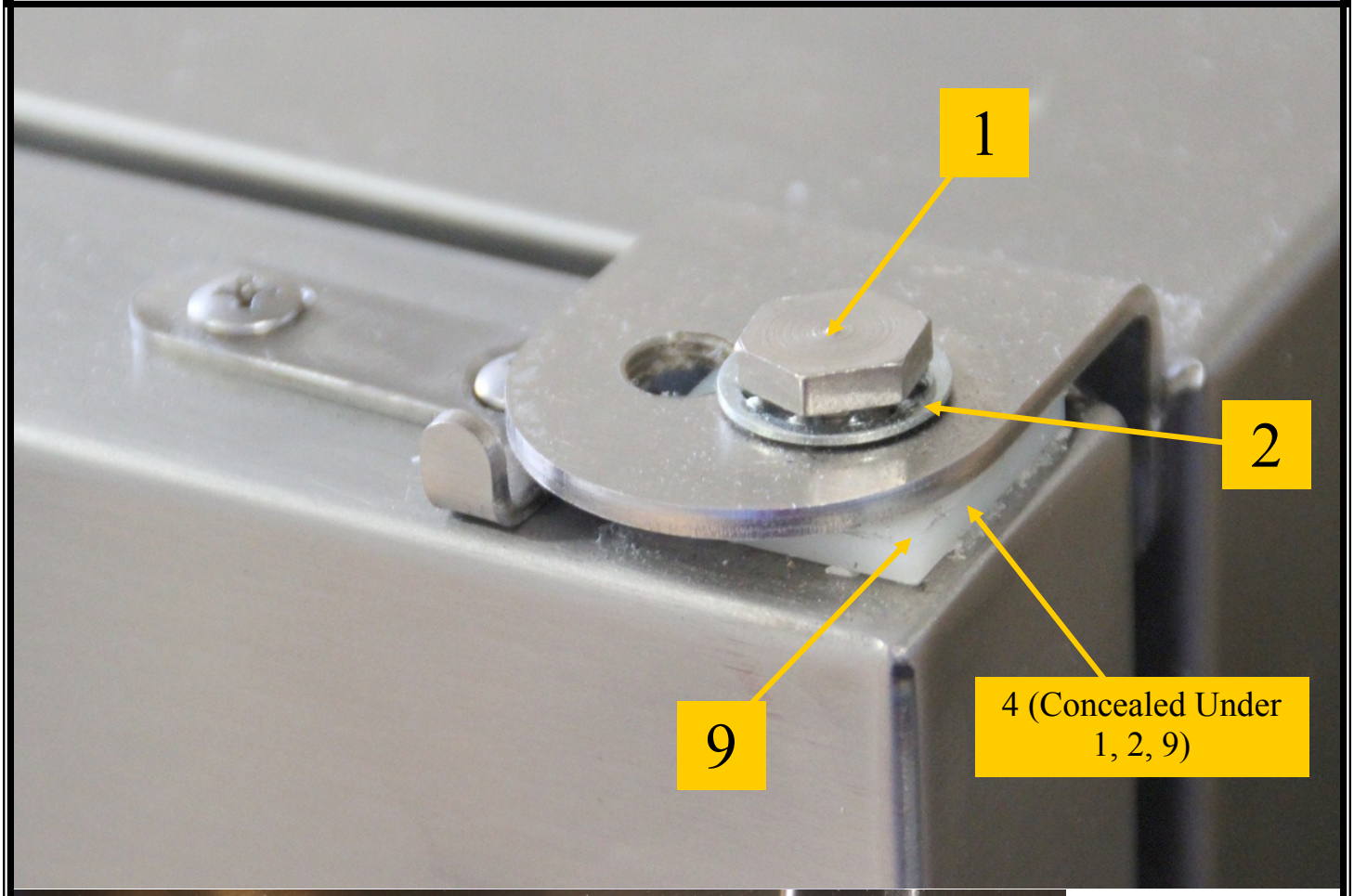


Illustration 7.H

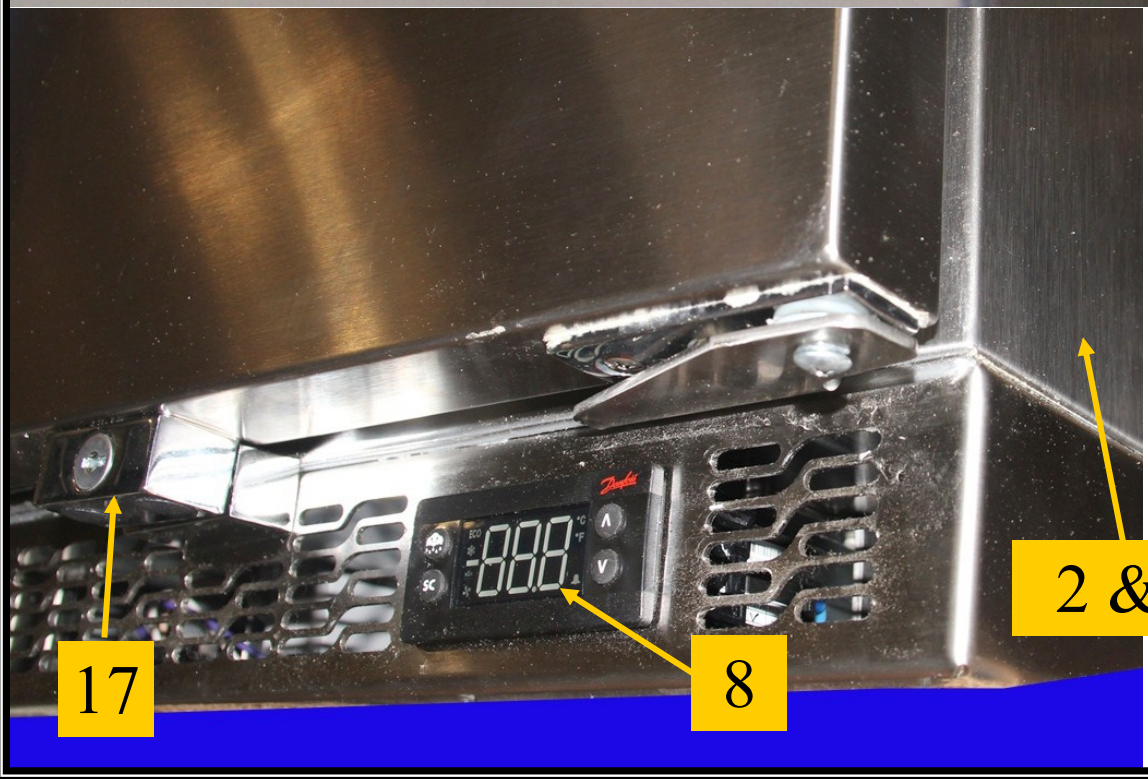


Illustration 7.I

Illustrations 7.J, 7.K, 7.L, 7.M—Main Unit Front/Rear Detail

Illustration 7.J

Illustration 7.L

Illustration 7.K

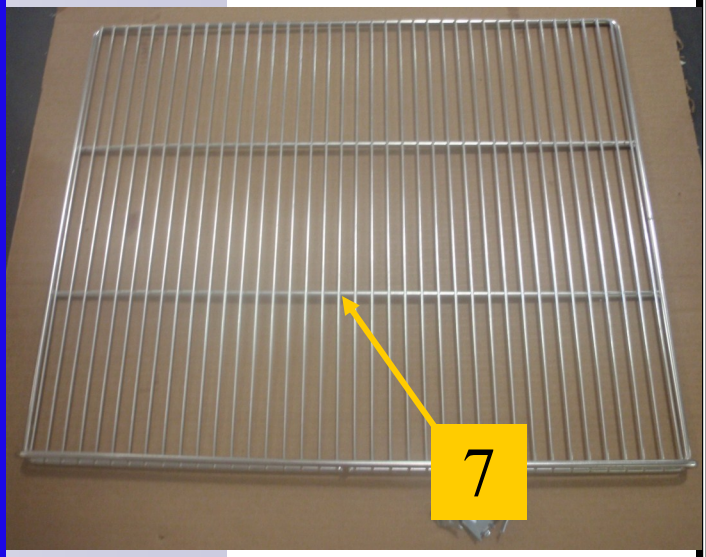


Illustration 7.M

Illustration 7.N—Electronic Alarm Detail (22)

Illustration
7.N

Chapter 8—Installation

8.1 Unpacking

Note: Before unpacking unit, note any crating markings and check for damage to crating and notify the carrier if there should appear to be damage to the equipment.

The unit is shipped from the factory securely fastened to a single shipping pallet protected by an external wrapping.

1. Carefully remove all external wrappings and other protective coverings.

2. Review the installation section of the manual completely prior to installing.

3. Discard crating materials.

8.2 Installation

1. Before moving the unit to the installation site, double-check passageways to make certain that it will move through without modifications.

   Note: in certain instances, it may be necessary to remove the doors and hardware to negotiate tight spaces.

2. On most shipboard applications, a permanent base is fabricated by the ship builder to accommodate the base frame of the unit. If required Cospolich can furnish a foundation which can be attached to the deck. ***Note:*** *Not required on units with legs*

3. Once the cabinet has been attached to the ship's foundation, it is necessary to apply a silicone sealant around the complete perimeter at the point that the cabinet base contacts the foundation. ***Note:*** *Not required on units with legs*

4. Position the unit to allow sufficient ventilation, usually leave a 1" clearance from adjacent bulkheads and other equipment.

5. Level the cabinet from front to back and from side to side. This is important so that when securing to the deck base, the cabinet will not be pulled out of square.

6. Before applying electrical power to the unit, you should first check the electrical characteristics of the appliance and make certain that they agree with those of the electrical supply source. **CAUTION: LOW OR EXCESSIVE VOLTAGE CAN SEVERELY DAMAGE THE ELECTRICAL SYSTEM.**

Chapter 9—Electrical and Mechanical

9.1 Introduction

This section of the manual contains drawings and schematics of the electrical and piping systems.

Illustration 9.A—Mechanical Piping Diagram

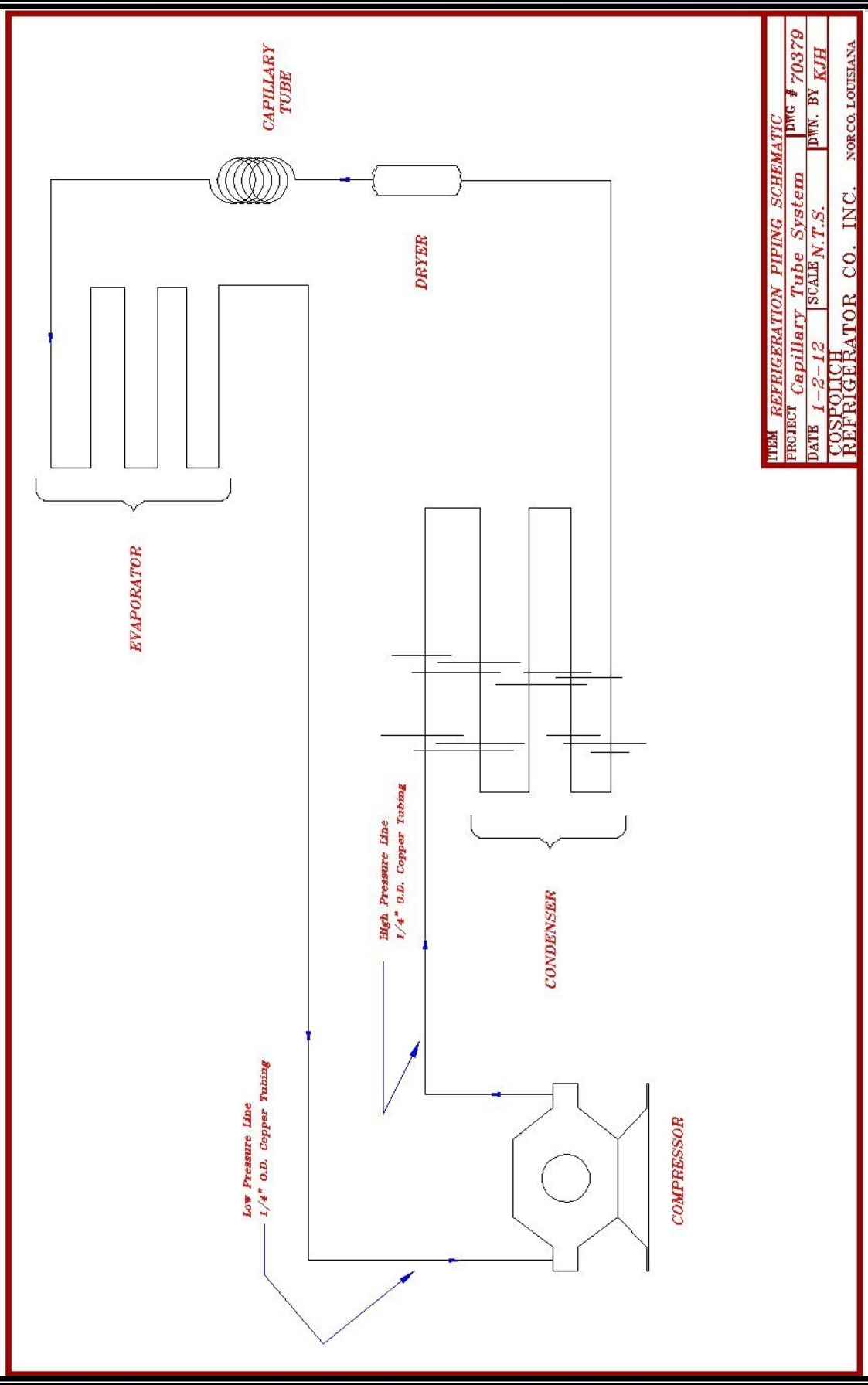
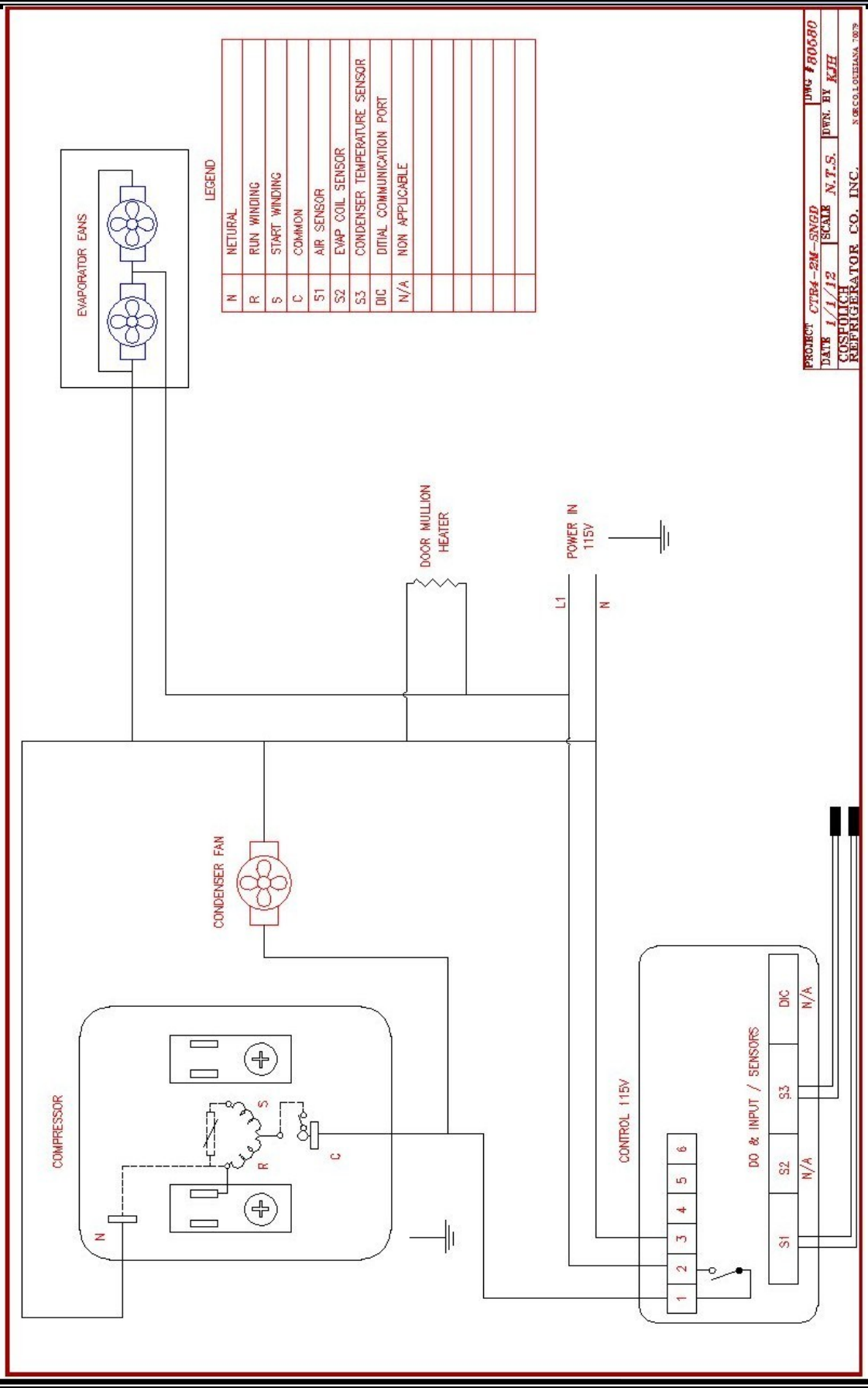


Illustration 9.B—Electrical Schematic



Chapter 10—Limited Warranty

Cospolich Inc. warrants their cabinets to consumers against defects in material or workmanship under normal use and service for a period of one year from the date of the shipment. We will repair or replace at our option, any part, assembly or portion thereof which Cospolich's examination discloses to be defective. Cospolich will pay the labor costs for the repair up to twelve (12) months from date of shipment.

In instances where the purchaser is not the owner in possession and the acceptance of Cospolich equipment is closely tied to the completion and delivery of the project, our warranty will begin on the acceptance date and will extend for one year.

Terms

Exclusions

Cospolich's obligations under this warranty shall not extend to any malfunction or other problem caused by unreasonable use, such as but not limited to, improper setting of controls, improper installation, improper voltage supply, loose electrical connections or blown fuses, and damage not attributable to a defect in workmanship. This warranty shall not apply to any cabinet or component part that has been suspect to any accident, alteration , abuse, misuse to any damage caused in fire, flood, or other acts of God and to any product that has been serviced by an unauthorized service person or company.

To secure Warranty Service

If you claim a defect under this warranty, direct your claim to whom you purchased the product, giving model, serial and code numbers with a description of the problem. Telephone calls should be directed to the service department at (800) 423-7761 or (985)725-0222 with fax request going to (985) 725-1564.

If the above procedure fails to satisfy your claim, you may write directly to the following address including the above identifying information.

DIRECTOR of CUSTOMER RELATIONS
COSPOLICH INC.
P.O. BOX 1206
DESTREHAN, LA 70047

There is not other express warranty on the Cospolich units except the terms stated herein. Any implied warrants of fitness and merchantability are limited in duration to the duration of this Warranty. The liabilities of Cospolich are limited solely and exclusively to replacement as stated herein and do not include any liability for any incidental, consequential or other damages of any kind whatsoever, whether any claim is based upon theories of contract negligence or tort. Some states do not allow limitations on how long an implied warranty lasts, or the exclusion of limitations of incidental or consequential damages. So the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights that vary from state to state.

Appendix 1—Revision History

CHG NO.	DATE	DESCRIPTION OF CHANGE	CHG. BY	APP BY