



**Dual Temperature Serving Module**  
**Technical Manual**

Installation, Operation, and Maintenance Instructions

Models:

DFM-N



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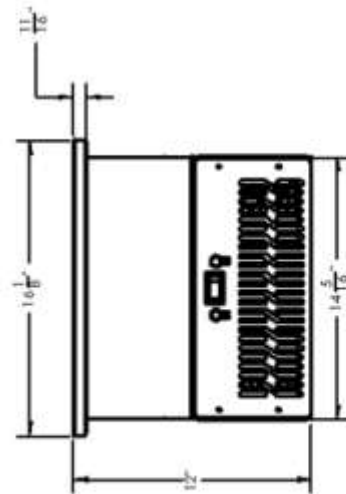
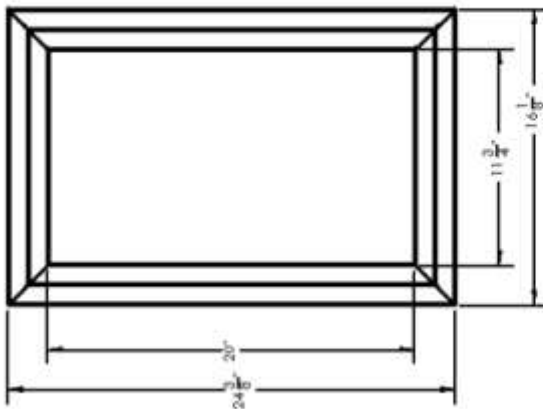
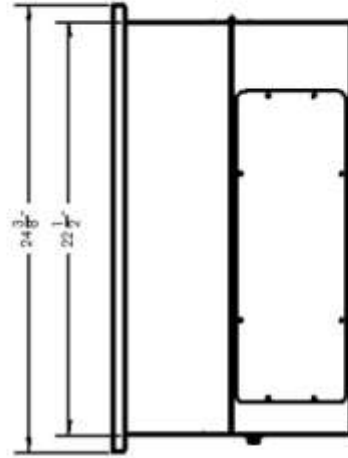
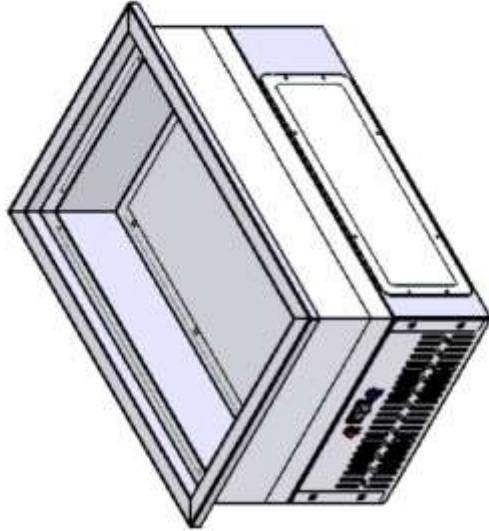
# Revision History

| CHG NO. | DATE       | DESCRIPTION OF CHANGE   | CHG. BY | APP BY |
|---------|------------|---|---------|--------|
| 1       | 2/17/2011  | Pictures updated to reflect new REV. 2 location of ON/OFF Mode Switch       | CLH     | EL     |
| 2       | 2/23/2011  | Electrical Schematic Added  | CLH     | EL     |
| 3       | 2/23/2011  | Table of Contents & List of Illustrations Updated                           | CLH     | EL     |
| 4       | 3/15/2011  | Revised Table of Contents, List of Figures                                  | CLH     | EL     |
| 5       | 3/16/2011  | Revised list of tables, revised BOM and added axial fan motor line item #39 | CLH     | EL     |
| 6       | 9/29/2011  | Revised BOM   | CLH     | EL     |
| 7       | 10/19/2011 | Revised BOM, pgs 14-15, items 7 & 39  | CLH     | EL     |
| 8       | 10/19/2011 | Illustrations 5.A & 5.B updated, pg 17                                      | CLH     | EL     |
| 9       | 3/14/2012  | Changed operational verbiage on pg 9.                                       | BMW     | CH     |
| 10      | 4/24/2012  | Changed volume of water, pg 9   | CLH     | KH     |
| 11      | 6/18/2012  | Added Section 4.3: Troubleshooting  | CLH     | JA     |
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## Table A – Leading Particulars

|                                 |  |
|---------------------------------|--|
| <b>MANUFACTURER:</b>            | <b>Cospolich Inc.<br/>Destrehan, Louisiana 70047</b>   |
| <b>TYPE:</b>                    | Dual Temperature Serving Module  |
| <b>MODEL:</b>                   | <div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 0 auto;">DFM-N</div>                 |
| <b>PURPOSE:</b>                 | Hot/Cold Holding/Serving of Food Items/<br>Perishables   |
| <b>ELECTRICAL REQUIREMENTS:</b> | Breaker Required: 15 Amp   |
| <b>CHILL MODE:</b>              | Power Supply - 115 Volt AC, 60 Hz, 1 Phase<br><br>Amp draw - Maximum Power Demand: 2 Amps<br><br>Watts - 230 Watts   |
| <b>HEAT MODE:</b>               | Power Supply - 115 Volt AC, 60 Hz, 1 Phase<br><br>Amp draw - Maximum Power Demand: 7.2 Amps<br><br>Watts - 900 Watts |
| <b>REFRIGERANT:</b>             | 134A   |
| <b>DRAIN:</b>                   | Not Required   |
| <b>DIMENSIONS:</b>              | <b>16 1/8" WIDE X 24 3/8" LONG X 12" HIGH</b>  |

# General Arrangement/Dimensional Drawing



|                                   |                       |
|-----------------------------------|-----------------------|
| ITEM: DGFN 02                     | Process: Presentation |
| PROJECT: Dual Service Food Mobile | DWG # DGFN.FP.01      |
| DATE: 2/20/11                     | SCALE: 1:6            |
| BY: JLS                           | BY: JLS               |
| HORCO, LOUISIANA   SHEET 1 of 1   |                       |

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# Chapter 1 – General Information

## *1.1 Features*

The temperature of the Dual Temperature Serving Module is pre-set at the factory and does not require adjustment.

The ON/OFF mode switch is located on the same end panel as the electrical power cord.



Illustration 1.A: ON/OFF Mode Switch

Two function lights, on the opposite end from the ON/OFF mode switch, indicate the mode that has been selected. **RED** denotes **Heat Mode** and **WHITE** represents **Chill Mode**.

## *1.2 Operating Instructions*

Depressing the left-hand portion of the ON/OFF mode switch causes the unit to operate in the heat mode, and depressing the right-hand portion of the switch causes the unit to operate in the chill mode. The middle position turns the unit off.



# Chapter 1 – General Information

For ideal operation of the unit, a 15 minute delay should be allowed when switching between Heat and Chill modes.

The Heating Mode is designed to function properly with water in the well and it is recommended water be used for optimum performance. When in Heat Mode, it is advised that 32 ounces of water be placed in the well. This increases the reaction time and more evenly distributes the heat to the serving pan.

NOTE: It is suggested that the unit be turned off whenever out of service or if it is to be left unattended for an extended period of time.

# Chapter 2 – Safety Precautions

## *2.1 Safety Precautions*

- The Dual Temperature Module unit is an electronic device and thus possesses all hazards that accompany any electrical appliance. NOTE: Extreme caution should be used when connecting and disconnecting the Dual Temperature Module to its power source.
- All Dual Temperature Module users should be fully trained on its operation and use and cautioned about its associated hazards.
- When in the Heat Mode, the surface of the pan can reach very high temperatures. NOTE: Caution should be used when adding water and inserting or removing food/product pans.
- Avoid splashing or excessively wetting the control panel. Doing so may create an electrical short or can cause the controls to malfunction.
- The Dual Temperature Module is designed and manufactured to maintain product at a specified temperature suitable for human consumption.
- Opening the lower portion of the Dual Temperature Module should only be done by properly trained maintenance staff. Tampering with the components of the unit will void the manufacturers warranty.

# Chapter 3 – Installation Instructions

## *3.1 Unpacking and Inspection*

All Cospolich products are fully tested, inspected, and packaged by qualified individuals to ensure that the end user receives the highest quality product possible.

Unpack the module from its packaging by using a razor knife to cut the packing tape. NOTE: Use caution when cutting the tape securing the carton. Be **mindful not to cut deeper than 1/8" into the cardboard carton to avoid** damaging the stainless steel surface of the unit.

Carefully inspect all outer surfaces of the Dual Temperature Module for any dents or other visible damage. If there is damage sustained to the product, however, please contact Cospolich Customer Service or an authorized Cospolich dealer to report the damage. A shipping damage claim may have to be filed with the original product carrier.

## *3.2 Installation*

The DFM-N Dual Temperature Module is a free-standing, self-contained unit which must be placed on a flat, sturdy surface and plugged into a power source meeting the requirements set forth in the Leading Particulars on page 6 of this manual.

DFM-N modules intake air from the front (end with the red/white indicator lights) and discharge from the rear (end with ON/OFF mode switch). During operation of either mode, the ventilation area should not be blocked nor should air flow be restricted in any way.

Modules should never be installed or set up end to end, in close proximity to one another. NOTE: For proper operation and maximum unit lifespan, DFM-N modules should be placed or installed side by side only.

## *3.3 Unit Storage*

The DFM-N module contains a refrigeration unit with oils and refrigerant gas and thus should be stored in a flat, horizontal position only.

# Chapter 4 – Maintenance & Cleaning

## *4.1 Maintenance*

The DFM-N Dual Temperature Module requires very little maintenance. A periodic check of the structural integrity of the pan, ON/OFF mode switch, and power supply cord is all that is necessary to ensure optimal operation of the unit.

Any further maintenance questions can be referred to the Cospolich Customer Service Department at (985) 725-0222.

## *4.2 Cleaning*

The stainless steel surfaces of the DFM-N should be properly cleaned using an approved cleaner after every use.

A solution of warm, soapy water should be a sufficient cleaning solution for routine spills and daily surface maintenance. A mixture of warm water and bleach, however, can be used to clean and disinfect stubborn stains or heavy spills.

The controls should be free of moisture, dust, and debris at all times.

A can of compressed air may be used to blow out the lower compartment containing the refrigeration and mechanical components.

## *4.3 Troubleshooting*

To troubleshoot the DFM-N module, first verify that the unit is plugged in properly and that the power source is the proper voltage and electrically active.

Next, move the front toggle switch to the **HEAT** position and verify that the mode/power indicator light comes on. If so, move the front toggle switch to the **Chill Mode** and verify that the mode/power indicator light comes on.

If all of the above function properly but the unit still does not function properly, then it will need to be returned to Cospolich for evaluation and repair.

Any further troubleshooting questions can be referred to the Cospolich Customer Service Department at (985) 725-0222.

# Chapter 5 – Parts List

## 5.1 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 parts identification has been provided for details of permanently assembled items or those items that are not suitable for field repair.

## 5.2 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., P.O. Box 1206, Destrehan, LA 70047 (Fed. Mfg. Code #66682).

### Table A – Source Codes

| Code Number | Name                           | Address              |
|-------------|--------------------------------|----------------------|
| 14852       | Bohn Heat Transfer             | Danville, IL 61932   |
| 32761       | Kason Industries               | Shenandoah, GA 30265 |
| 50992       | Ranco Controls                 | St. Louis, MO 63143  |
| 78462       | Sporlan Valve                  | St. Louis, MO 63143  |
| 14569       | Copeland Corporation           | Sidney, OH 45365     |
| 17529       | Watsco                         | Hialeah, FL 33010    |
| 59431       | Tecumseh Products              | Tecumseh, MI 49286   |
| 49048       | Miljoco Corporation            | Eastpointe, MI 48021 |
| 45020       | Nashville Wire Products        | Nashville, TN 37202  |
| 79264       | <b>Jean's Extrusions, Inc.</b> | Salem, IN 47167      |
| 2K223       | Refrigeration Hardware         | Sun Valley, CA 91353 |
| 87518       | Standard Keil, Inc.            | Allenwood, NJ 08720  |
| 60886       | Idec Corporation               | Sunnyvale, CA 94089  |
| 19220       | Eberhard, Inc.                 | Cleveland, OH 44136  |
| 66682       | Cospolich, Inc.                | Norco, LA 70079      |

## Table B—Parts List for DFM-N

|    | ITEM                              | COSP#    | MFG#                | Vendor             | QTY | U/M             |
|----|-----------------------------------|----------|---------------------|--------------------|-----|-----------------|
| 1  | S/S CONTROL MOUNTING BRACKET      | DFMCMB01 | DFMCMB01            | COSPOLICH          | 1   | EA              |
| 2  | RUBBER MOUNTING FEET              | HXDB02   | 9540K14             | MCMaster-CARR      | 4   | EA              |
| 3  | 1/4" GRAY PVC BASE                | HXPG03   | HXPG03              | COSPOLICH          | 1   | EA              |
| 4  | ON/OFF, HEAT & CHILL MODE SWITCH  | LRLS09   | 683-0468            | ALLIED ELECTRONICS | 1   | EA              |
| 5  | CONDENSER COIL                    | MERCC01  | MERCC01             | BOIS D'ARC         | 1   | EA              |
| 6  | MALE POWER CORD                   | LLTC14   | 216316              | WALTHER            | 1   | EA              |
| 7  | LIQUID TIGHT CONNECTOR            | LLTC06   | 22534               | MOTORS & CONTROLS  | 1   | EA              |
| 8  | S/S FAN COVER/HOUSING             | DFMFCH01 | DFMFCH01            | COSPOLICH          | 1   | EA              |
| 9  | S/S FRONT END ACCESS PANEL        | DFMEAP01 | DFMEAP01            | COSPOLICH          | 1   | EA              |
| 10 | POWER SUPPLY, 24V DC, 12.5 AMP    | PSB04    | (LGA240A-24-H)      | ALLIED ELECTRONICS | 1   | EA              |
| 11 | POTENTIOMETER                     | PTGU2031 | GU2031S26-ND        | DIGI-KEY           | 1   | EA              |
| 12 | COMPRESSOR, 134A                  | RWC999   | RWC999              | COSPOLICH          | 1   | EA              |
| 13 | AXIAL FAN MOTOR, 24V DC           | RWEM39   | 3414NHH             | EBM PAPST          | 2   | EA              |
| 14 | EXPANSION VALVE, 134A             | RWEV50   | EFJ-1/8-C           | SPORLAN            | 1   | EA              |
| 15 | FILTER DRYER                      | RWFD01   | C-032-S             | SPORLAN            | 1   | EA              |
| 16 | ENCAPSULATED LOW PRESSURE SWITCH  | RWPL16   | SLP0520             | SUPCO              | 1   | EA              |
| 17 | WHITE INDICATOR LIGHT             | RWPL50   | 679-5070            | ALLIED ELECTRONICS | 1   | EA              |
| 18 | RED INDICATOR LIGHT               | RWPL52   | 679-5050            | ALLIED ELECTRONICS | 1   | EA              |
| 19 | RECEIVER TANK, HORIZONTAL         | RWRT33   | SPECIAL             | SPORLAN            | 1   | EA              |
| 20 | SIGHT GLASS                       | RWSG03   | SA-12S              | SPORLAN            | 1   | EA              |
| 21 | TEMPERATURE SENSOR LEAD           | RWTS08   | SN8T6H1502          | ELIWELL            | 1   | EA              |
| 22 | TEMPERATURE CONTROLLER—CHILL MODE | RWTT48   | ID1ADB0TCJ601       | ELIWELL            | 1   | EA              |
| 23 | TEMPERATURE CONTROLLER—HEAT MODE  | RWTT53   | CV-CCHH-0000-0300-4 | WATLOW             | 1   | EA              |
| 24 | PORCELAIN HEATER PLATE            | UNHTR05  | (Q001077-6B)        | ROESCH INC.        | 1   | EA              |
| 25 | SILICONE HEATER, 900 WATT         | UNHTR07  | SHS80287            | TEMPCO             | 1   | EA              |
| 26 | RIGHT & LEFT S/S SIDE COVER PANEL | DFMSCP01 | DFMSCP01            | COSPOLICH          | 2   | EA              |
| 27 | FIBER BOARD INSULATION            | CF010    | BDFIJ2024814F       | BRANTON            | 2   | FT <sup>2</sup> |

**Table B—Parts List for DFM-N**

|    | <b>ITEM</b>                    | <b>COSP#</b>  | <b>MFG#</b>  | <b>Vendor</b>    | <b>QTY</b> | <b>U/M</b> |
|----|--------------------------------|---------------|--------------|------------------|------------|------------|
| 28 | HIGH PRESSURE ACCESS FITTING   | RWSF02        | WGVAX-4      | A/C SUPPLY       | 1          | EA         |
| 29 | LOW PRESSURE ACCESS FITTING    | RWSF02        | WGVAX-4      | A/C SUPPLY       | 1          | EA         |
| 30 | HOT/COLD S/S PAN INTERIOR ONLY | DFM-INTERIOR* | DFM-INTERIOR | KSI              | 1          | EA         |
| 31 | STATIC EVAPORATOR COIL         | STATICCOIL*   | STATICCOIL   | COSPOLICH        | 1          | EA         |
| 32 | S/S LOWER REMOVABLE HEAT COVER | DFMRHC01*     | DFMRHC01     | COSPOLICH        | 1          | EA         |
| 33 | URETHANE INSULATION RING       | DFMUIR01*     | DFMUIR01     | COSPOLICH        | 1          | EA         |
| 34 | EXTERIOR S/S COVER/SHELL       | DFMEC01       | DFMEC01      | COSPOLICH        | 1          | EA         |
| 35 | S/S 10/24 CAGE NUT             | CCCN01        | CCCN01       | LIGHTNING SUPPLY | 4          | EA         |

\*Not a field replaceable part

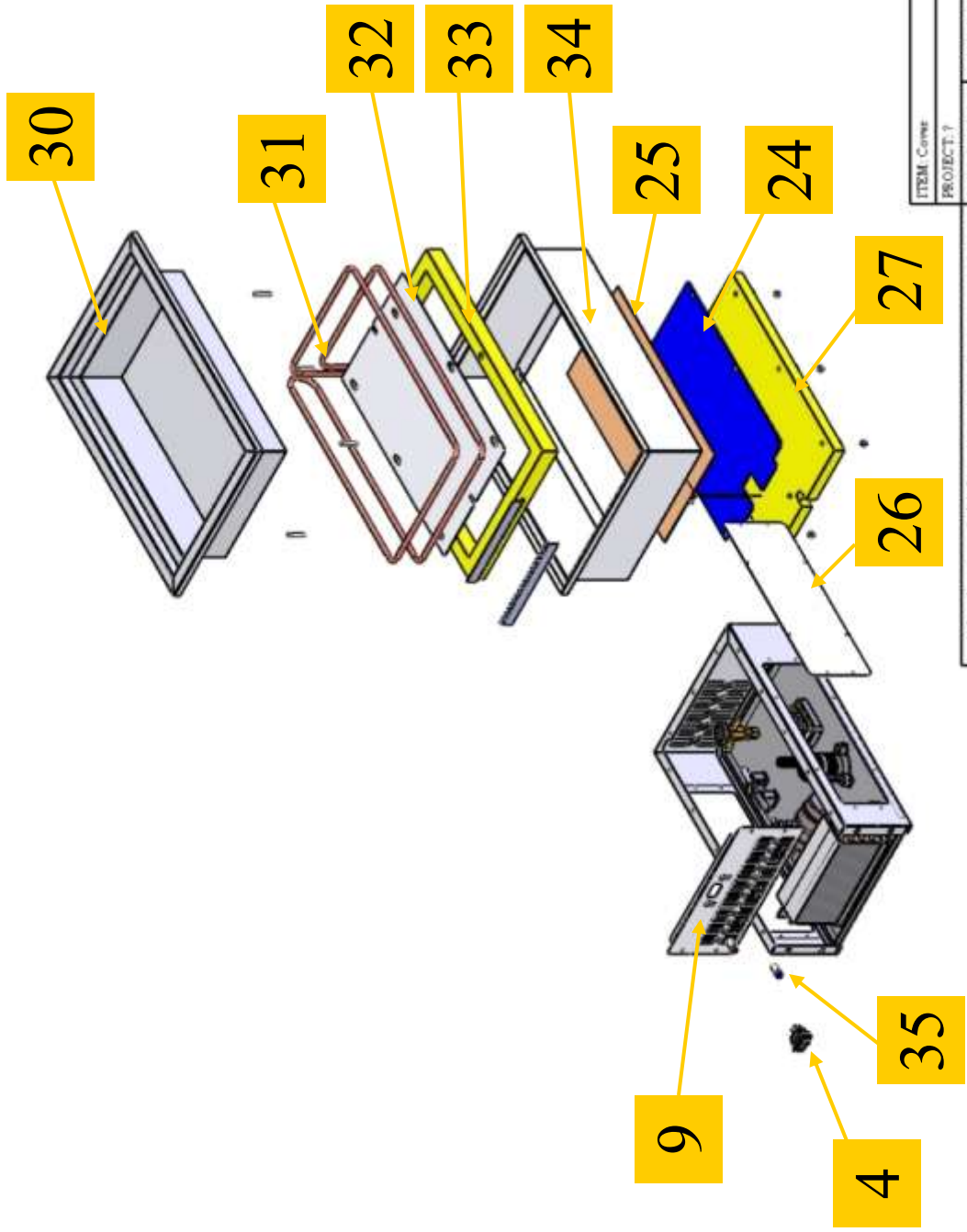
**Table C—Common Accessory Parts**

|    | <b>ITEM</b>             | <b>COSP#</b> | <b>MFG#</b>    | <b>Vendor</b> | <b>QTY</b> | <b>U/M</b> |
|----|-------------------------|--------------|----------------|---------------|------------|------------|
| 38 | 15 AMP, 2 POLE, BREAKER | PCCC55       | S202-B16       | MG            | 1          | EA         |
| 39 | AXIAL FAN MOTOR         | RWEM26**     | FA1238S11T7-52 | COOLTRON      | TBD        | EA         |

**NOTE:** When mounted into a serving line or cabinet, 1 ea PCCC55 15 Amp breaker is required per DFM-N serving module

\*\*Axial fan motors are commonly installed within the cabinet that the DFM-N dual serving modules are housed within and are used for ventilation. They are NOT part of the DFM-N module itself.

# Exploded-View Drawing



|  |          |         |        |        |
|--|----------|---------|--------|--------|
| ITEM CODE:   | PROJECT: | DATE:   | SCALE: | SHEET: |
| Process: P   | DWO # 1  | 29/2011 | 1:8    | 1 of 1 |
| PROJECT: ?<br>DATE: 29/2011<br>SCALE: 1:8<br>SHEET: 1 of 1<br>COSPOLICH INC., DESTREHAN, LOUISIANA |          |         |        |        |

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Illustrations 5.A, 5.B – DFM-N Dual Flex Module



Illustration  
5.A

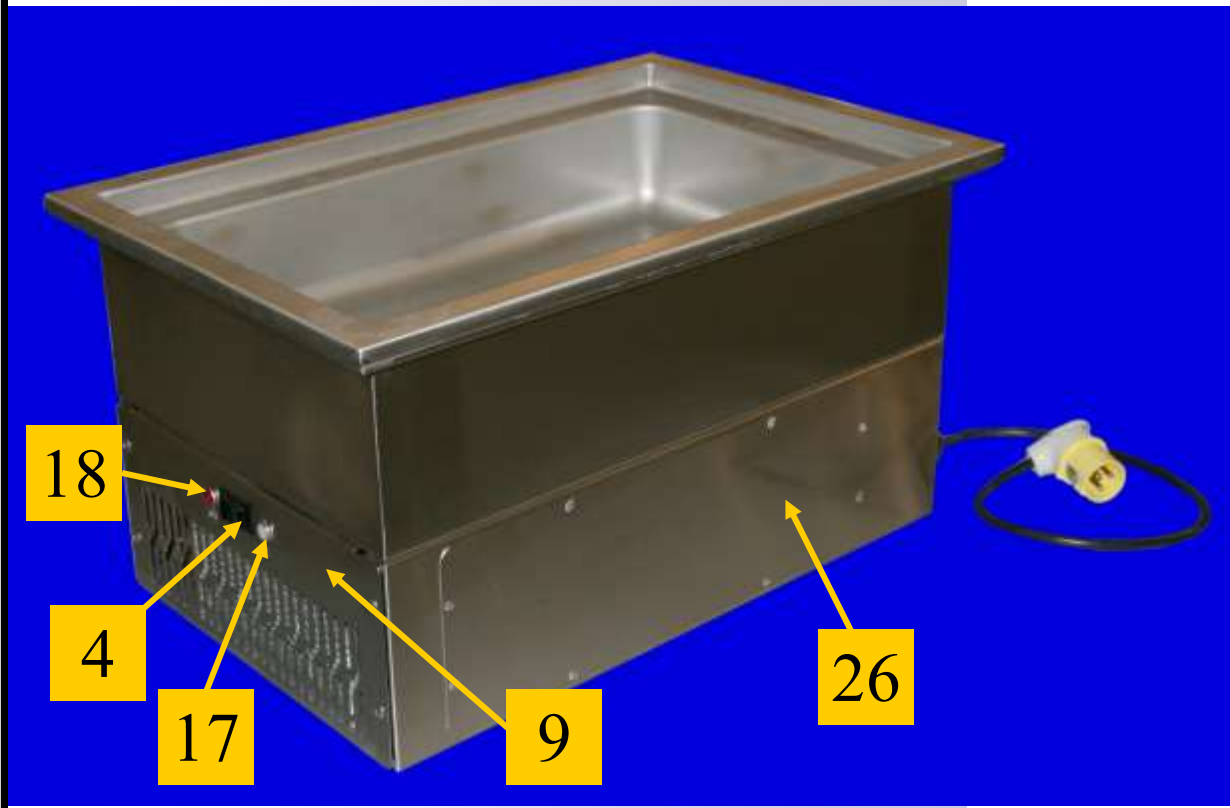


Illustration  
5.B

# Illustration 5.C – DFM-N Interior Component Detail, Right

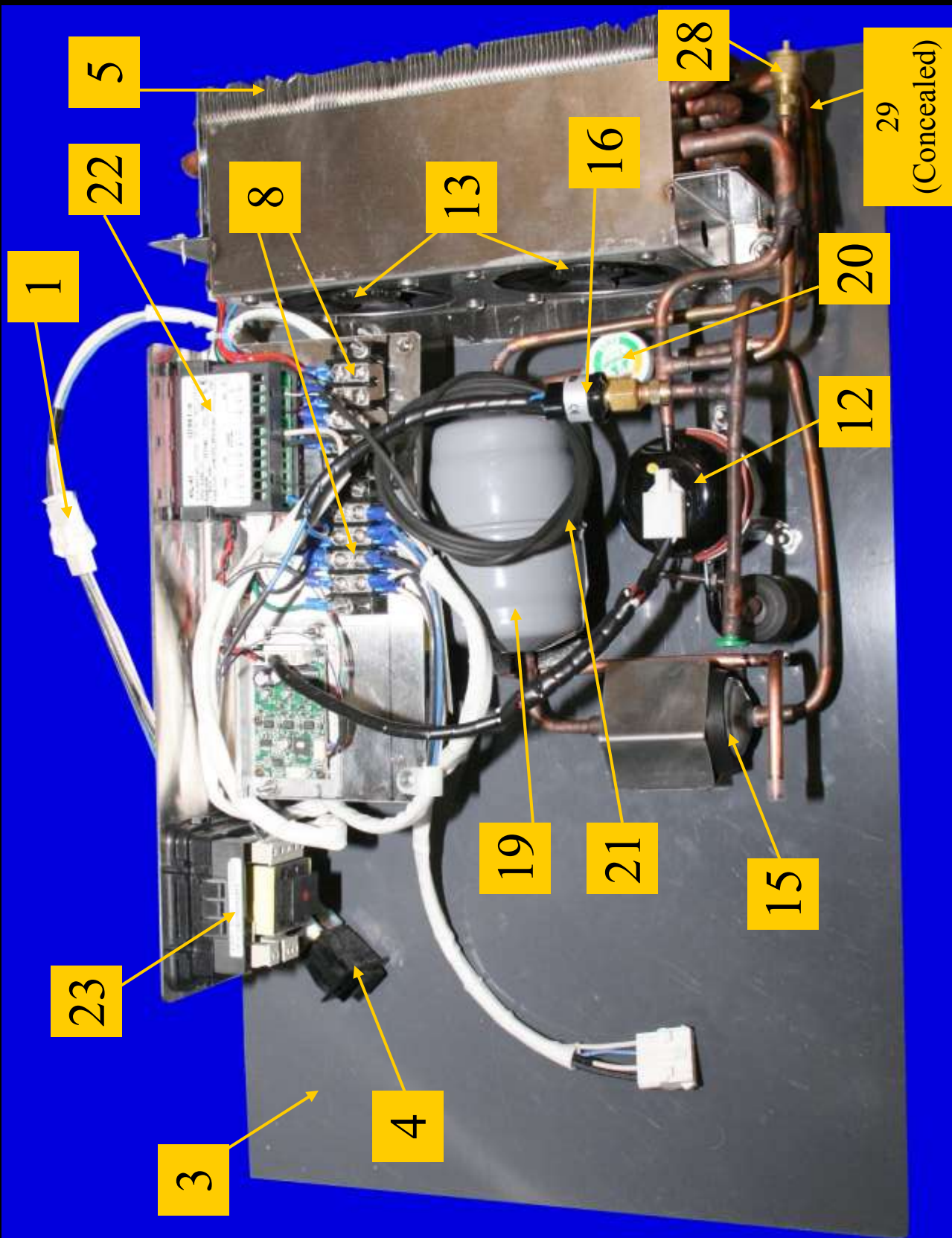


Illustration 5.C

# Illustration 5.D – DFM-N Interior Component Detail, Left

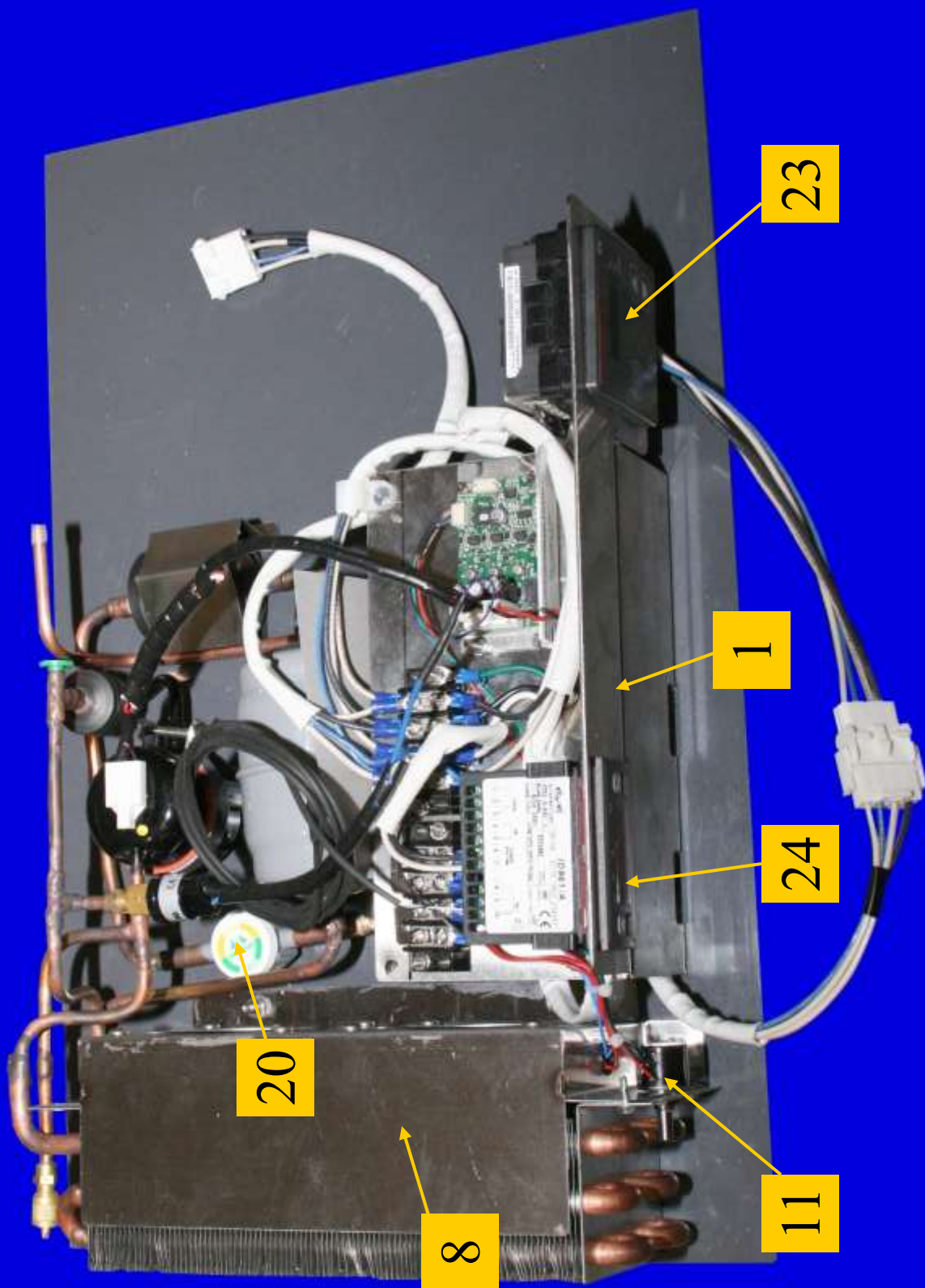


Illustration 5.D

Illustrations 5.E, 5.F & 5.G – Interior Components & Lower Detail

Illustration 5.E

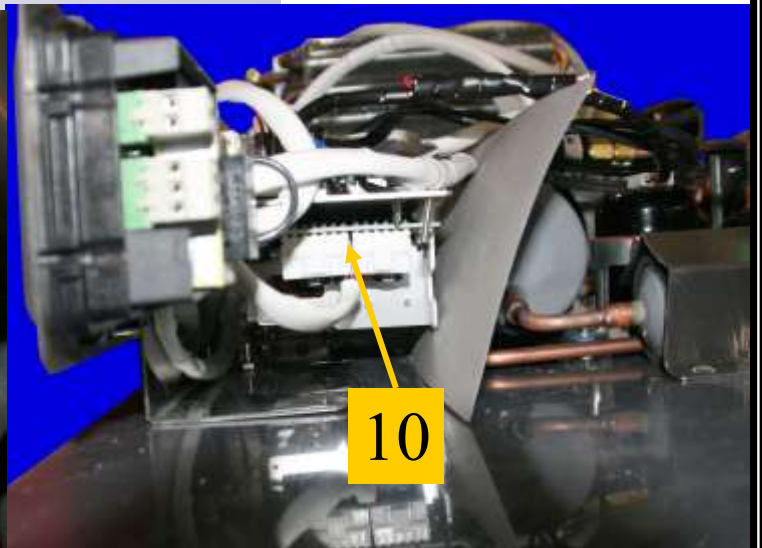
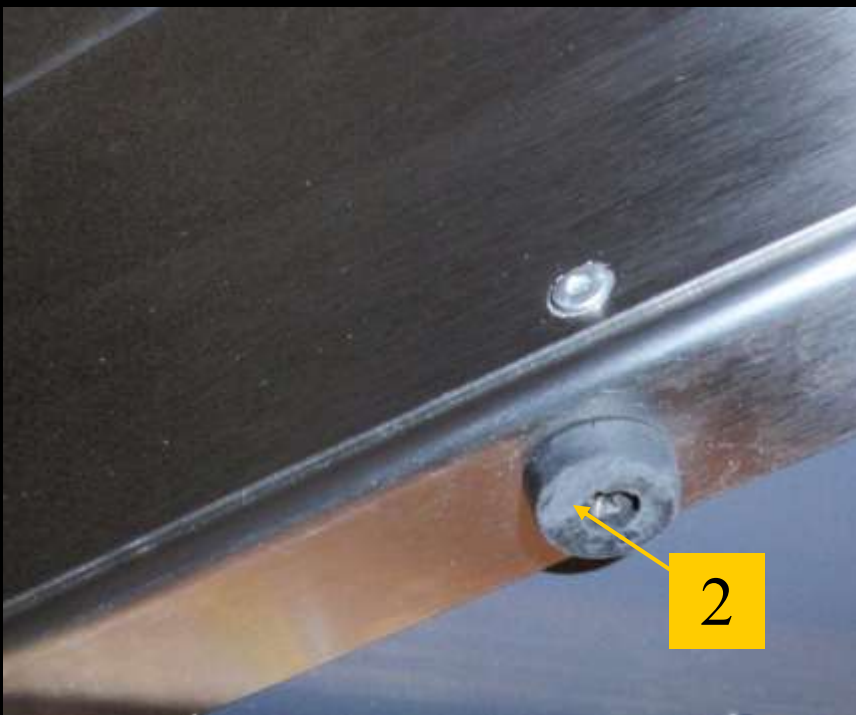
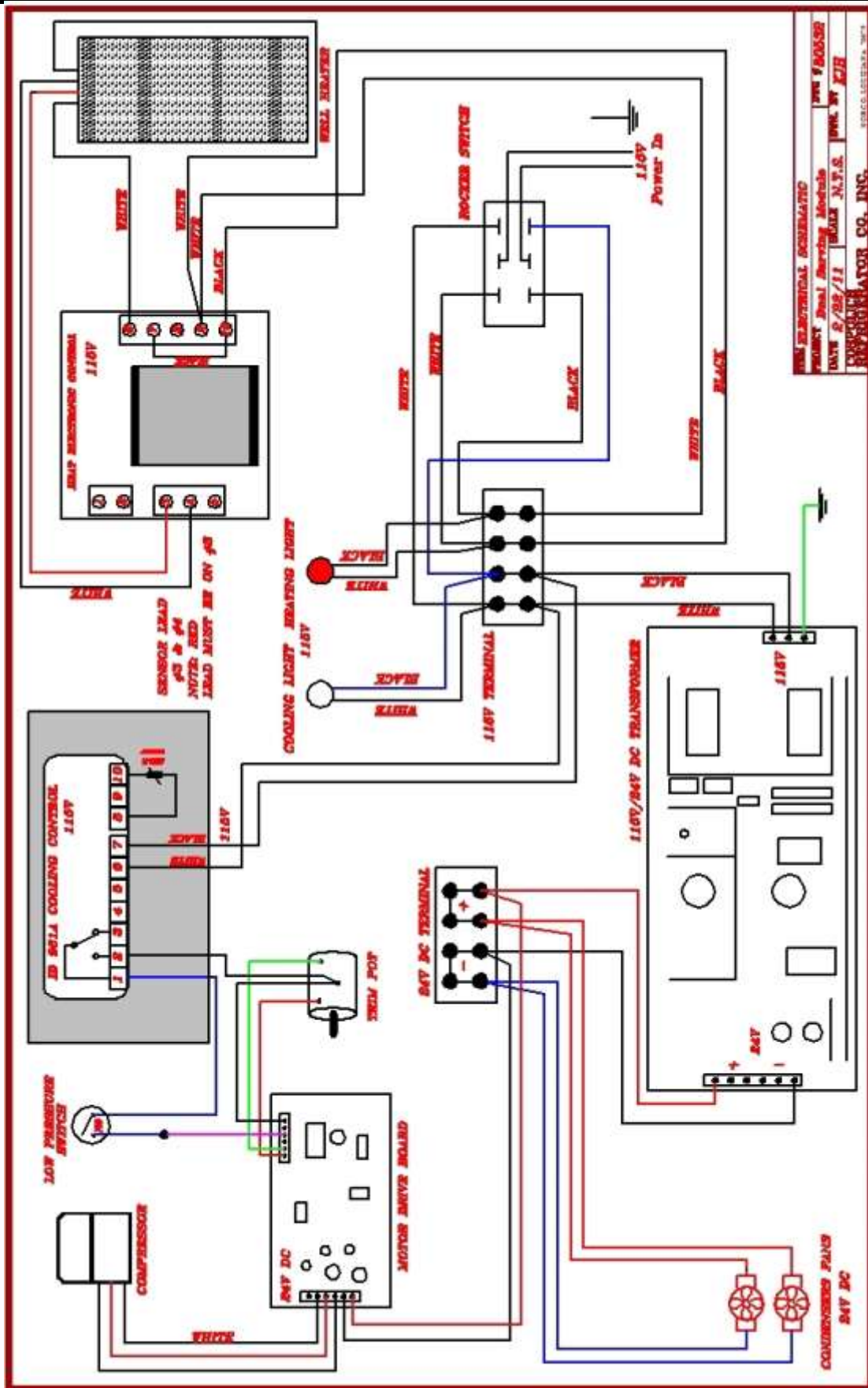


Illustration 5.G

Illustration 5.F

Figure 5.2 – Electrical Schematic



## Chapter 6 – 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 housing 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.