

**GSF30**  
**Grill Side Freezer**

**Equipment Operating Manual**



**Place this equipment chapter in the Grill  
Side Freezer section of  
the Equipment Manual**

This manual is for the exclusive use of  
licensees and employees of  
McDonald's Systems Inc

*Manufactured by:*

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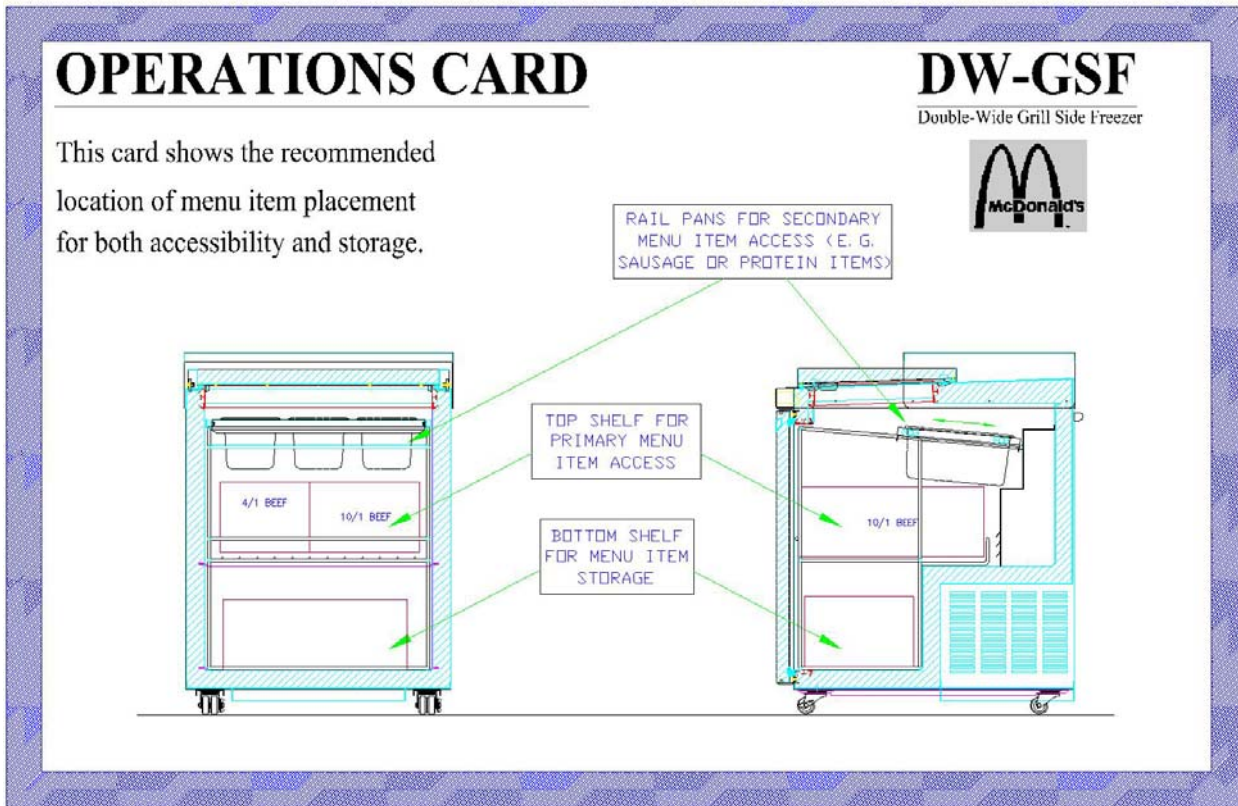
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# 1. Introduction

The Grill Side Freezer is designed to hold 10:1 and 4:1 boxes at the desired temperature during normal and peak sales periods. The sliding rail located in the top of unit is designed to store breakfast and protein items. Extra storage space is also provided at the bottom.



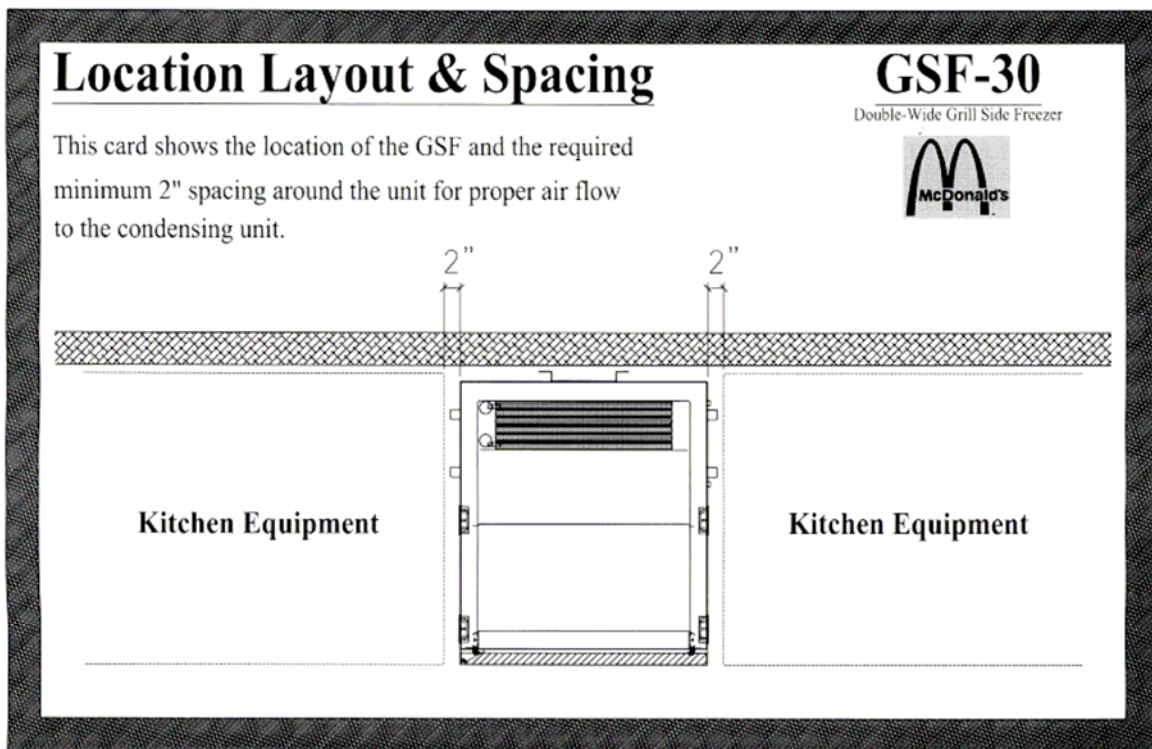
**Note:** Do not pack the unit with excess product as this might lead to improper air flow and operation of the unit.

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## 2. Installation Instructions

**Location:** The location of the meat freezer should be away from extreme heat and cold. A minimum of 2 inches clearance should be allowed around the freezer to facilitate adequate airflow to the compressor.

**Leveling:** In order to provide adequate condensate drainage, it is imperative that the unit be level. The floor where the unit is located should be level.



**Caution:** The refrigeration system is designed to operate in ambient temperatures of no more than 100°F.

**Inspection:** Upon receipt, examine the equipment carefully for any damage. If damage has occurred, notify the carrier and H&K immediately.

**Unpacking:** Remove the unit from the plastic wrap and untie the electrical cord by removing the holding tape. It is recommended that the unit remain crated until it has reached the installation location.

**Plug:** For international markets, the installer must install the plug on the power cord of the unit before the unit can be operated.

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### 3. Instructions for Use

**Power Source:** Insert the plug of the freezer into a standard 120V AC 60 Hz. 15A outlet. The unit consists of one compressor. Other motors and heavy appliances should not be used on the same circuit with the freezer.

**Start-Up:** The freezer is turned “ON” by plugging the cord into the outlet. Check if the thermostat on the front is “ON”. Let the unit run for 1 hour before placing product in the freezer.

**Temperature Setting:** The unit has been tested at the factory and the thermostat has been set to maintain a temperature between -10°F and 0°F.

**Thermostat Adjustment:** If the unit does not hold the desired temperature, the thermostat can be adjusted. To adjust thermostat, press the upper or lower button for 2 seconds and release. The set point will start blinking. Using the upper or lower button, adjust the temperature set point to the desired setting. Once the desired setting has been selected, do not touch any button and the controller will accept the new set point. Wait for 1 hour before readjusting the thermostat. Excessive tampering with the thermostat may lead to service difficulties.

The unit can be forced into a manual defrost by pressing the lower button for more than 5 seconds. When the defrosting is initiated, the display will show DEF. Defrosting can be canceled again by pressing the push-button once more and the thermostat will return back to normal mode. When the defrost cycle is finished, the display will return to normal operation. This feature should be used when the coil freezes up due to excessive door openings and/or high humidity.

**Note:** When the unit comes out of defrost it will display a higher temperature for a short period of time, this is not the actual temperature in the freezer but the temperature inside the evaporator housing.

**Condensate Disposal:** The Grill Side Freezer does not require a floor drain, it has a built in condensate pan in the base of the condensing unit.

**Caution:** Do not leave the self-closing rolling cover open for an extended period of time.

**Caution:** Excessive tampering with the temperature controller may lead to operating difficulties.

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## 4. Cleaning

**Exterior Cleaning:** The exterior of the unit should be cleaned with a soap and water mixture and sanitized. Do not use abrasive cleaners to clean the exterior of the cabinet as this might damage the stainless steel finish. Do not use steel wool or any strong chemicals.

**Interior Cleaning:** The anodized aluminum interior of the refrigerator can be cleaned using a soft sponge and a soap-water mixture.

**Caution:** Use of abrasive pads to clean the unit will result in scratching and spoiling the finish of the unit. Refer to the GSF PM card for cleaning instructions before cleaning the unit.

## 5. Preventative Maintenance

**Condenser:** For proper operation of the condensing unit the condenser fins and fans should be cleaned and vacuumed every 3 months. The back or side grill is designed to be removable for this purpose.

**Caution:** Refer to the GSF PM card for preventative maintenance instructions before cleaning the condenser fins and fans on the unit.

## 6. Warranty

H&K Dallas, Inc. makes the following limited warranties to the original purchaser only for this equipment and replacement parts:

H&K warrants all components to be free of defects in material and workmanship, if properly installed, operated and maintained, for a period of one (1) year from the date of the delivery.

The company's obligation under this warranty is limited to repairing or replacing any part or parts of the freezer determined to be defective by an authorized representative of H&K.

The company reserves the privilege of determining if such repairs are to be made in the field or at the H&K factory.

The company assumes no liability for expenses or repairs made by other parties except by written consent.

Corrections of such defects by repair or replacement shall constitute fulfillment of all company obligations to the purchaser.

H&K shall not be liable for loss, damages or expenses arising from misuse, abuse, alteration, accident or improper installation of the freezer such as:

- Improper or unauthorized repair;
- Failure to follow proper installation instruction;
- Improper maintenance;
- Damage in shipment;
- Abnormal use;
- Improper power supply;
- Natural disaster;

### *Special Conditions*

This warranty also does not cover:



- Transportation or travel over 100 miles (160 Km) or travel time over 2 hours;
- Overtime or holiday charges;
- Consequential damages (the cost of repairing or replacing other property which is damaged), loss of time, profits, use of any other incidental damages of any kind.

## 7. Troubleshooting

PROBLEM	CAUSE	SOLUTION
Compressor will not start	<ol style="list-style-type: none"> <li>1. Cord set not plugged in.</li> <li>2. Thermostat stuck in open position.</li> <li>3. Improperly wired.</li> <li>4. Low voltage to unit.</li> </ol>	<ol style="list-style-type: none"> <li>1. Plug in cord.</li> <li>2. Replace thermostat.</li> <li>3. Check wiring against diagram.</li> <li>4. Correct the voltage.</li> </ol>
Unit runs continuously	<ol style="list-style-type: none"> <li>1. Undercharge.</li> <li>2. Bad thermostat.</li> <li>3. Dirty condenser.</li> <li>4. Evaporator coil frozen.</li> </ol>	<ol style="list-style-type: none"> <li>1. Add refrigerant.</li> <li>2. Replace thermostat.</li> <li>3. Clean condenser fins.</li> <li>4. Put unit into manual defrost. Check current draw (should be 4A).</li> </ol>
Condensation	<ol style="list-style-type: none"> <li>1. Leak in Gasket.</li> <li>2. Wiring to condensate heater faulty.</li> <li>3. Faulty condensate heaters.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reinstall gasket properly.</li> <li>2. Rewire condensate heater.</li> <li>3. Wire spare condensate heater.</li> </ol>
Unit noisy	<ol style="list-style-type: none"> <li>1. Loose parts or mounting.</li> <li>2. Fan motor bearings worn.</li> <li>3. Fan blade bent.</li> <li>4. Compressor assembly rattling.</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten parts.</li> <li>2. Replace motor.</li> <li>3. Replace fan blade.</li> <li>4. Check if mounted correctly and securely.</li> </ol>
Temperature too high.	<ol style="list-style-type: none"> <li>1. Temperature setting too high</li> <li>2. Condenser fins blocked.</li> <li>3. Restricted airflow.</li> <li>4. Door and/or lid open for extended periods.</li> <li>5. Evaporator coil frozen.</li> <li>6. Just finished defrost cycle.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reset temperature</li> <li>2. Clean Fins.</li> <li>3. Ensure air can circulate around the unit.</li> <li>4. Close door and/or lid.</li> <li>5. Put unit into manual defrost.</li> <li>6. Wait for few minutes for temperature to fall within acceptable range.</li> </ol>

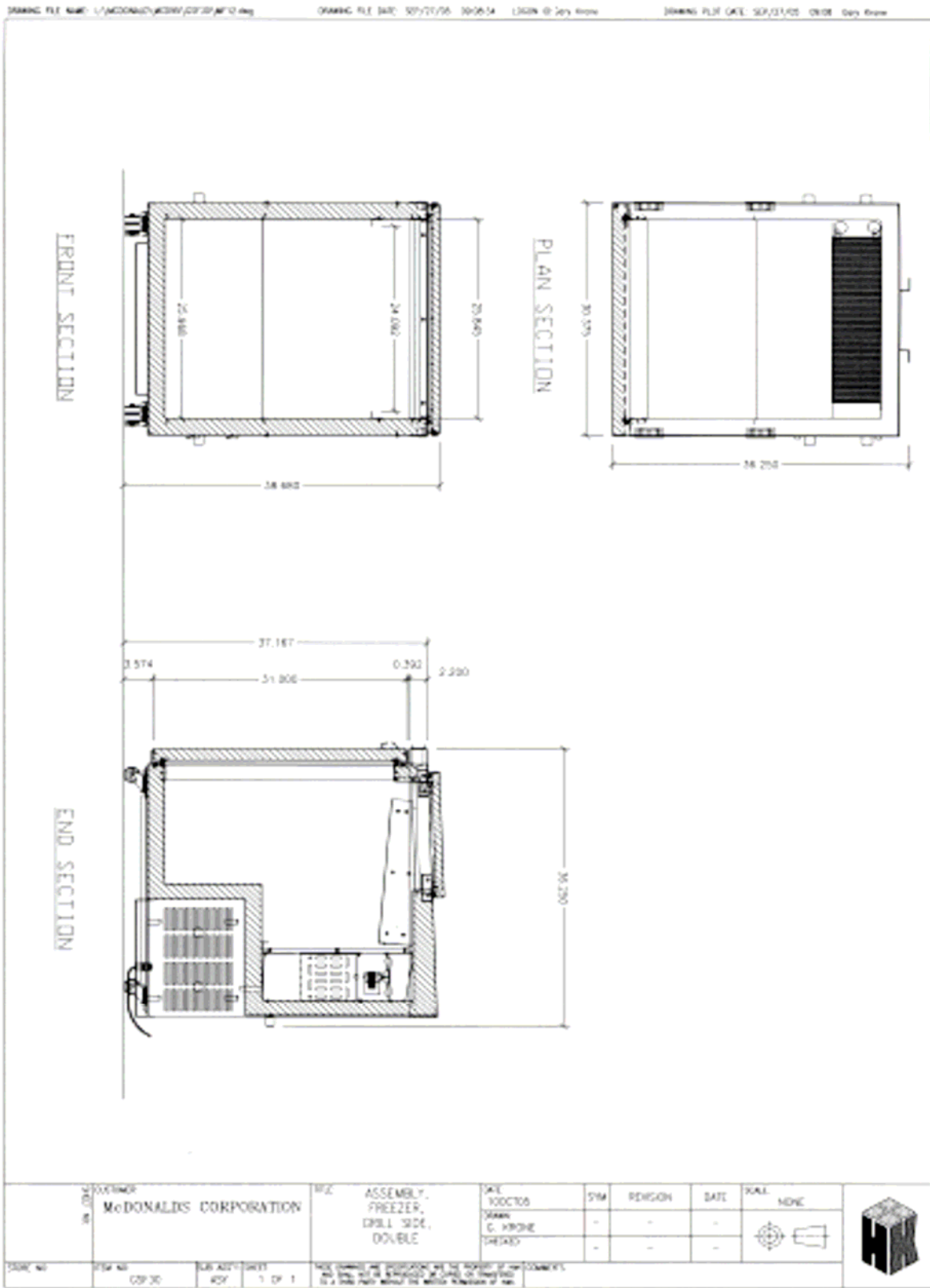
## 8. Unit Specifications - GSF30 Mobile Freezer



SPECIFICATIONS:	ELECTRICAL:												
Description: Mobile Double-Wide Freezer	<table border="1"> <thead> <tr> <th><u>Voltage</u></th> <th><u>Phase</u></th> <th><u>Cycle</u></th> <th><u>Amps</u></th> <th><u>H.P.</u></th> </tr> </thead> <tbody> <tr> <td>120VAC</td> <td>1</td> <td>60Hz</td> <td>12A</td> <td>0.6</td> </tr> </tbody> </table>	<u>Voltage</u>	<u>Phase</u>	<u>Cycle</u>	<u>Amps</u>	<u>H.P.</u>	120VAC	1	60Hz	12A	0.6		
<u>Voltage</u>	<u>Phase</u>	<u>Cycle</u>	<u>Amps</u>	<u>H.P.</u>									
120VAC	1	60Hz	12A	0.6									
Material: Stainless Steel Controller: Digital	DIMENSIONS:												
Temperature range: 0°F to -10°F (-18°C to -23°C)	<table border="1"> <thead> <tr> <th><u>Overall</u></th> <th><u>Inches</u></th> <th><u>Millimeters</u></th> </tr> </thead> <tbody> <tr> <td>Width</td> <td>30.375</td> <td>771.525</td> </tr> <tr> <td>Depth</td> <td>36.250</td> <td>920.750</td> </tr> <tr> <td>Height</td> <td>38.680</td> <td>982.472</td> </tr> </tbody> </table>	<u>Overall</u>	<u>Inches</u>	<u>Millimeters</u>	Width	30.375	771.525	Depth	36.250	920.750	Height	38.680	982.472
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Width	30.375	771.525											
Depth	36.250	920.750											
Height	38.680	982.472											
Refrigerant: R404A 26oz.													
APPROVALS:													
 2003343	ETL Report No: 3084859DAL-001												
													

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# 9. Unit Layout - GSF30 Mobile Freezer



## 10. Parts Description and Identification

DESCRIPTION	H&K PART NO.
ROLLING COVER	GSF30.06A
TOP SLIDING RAIL	GSF30.03A
WIRE SHELVING RACK	GSF30.01A
FRONT DOOR	GSF30.02A

## 11. Parts Ordering and Service Procedure

### *Replacement Parts*

DESCRIPTION	H&K PART NO.
CONDENSING UNIT	P-1-16-3
EXPANSION VALVE	P-1-12-11
SIGHT GLASS	P-1-21
DRYER	P-1-23
THERMOSTAT	E-4-3-160
FAN MOTOR ASSEMBLY	E-6-003
DEFROST HEATER	E-5-26-2

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### Returns

Contact: H&K Dallas, Inc.  
1343 South Henderson Ave.  
Dallas, TX 75223  
(214) 818-3500

### Damages and Shortages

Upon receipt, examine the equipment carefully for any damage. If damage has occurred, notify the carrier and H&K Dallas, Inc. immediately.

### Service

Contact: H&K Dallas, Inc.  
1343 South Henderson Ave.  
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(214) 818-3500



Disconnect all power sources before attempting any service or repair work.

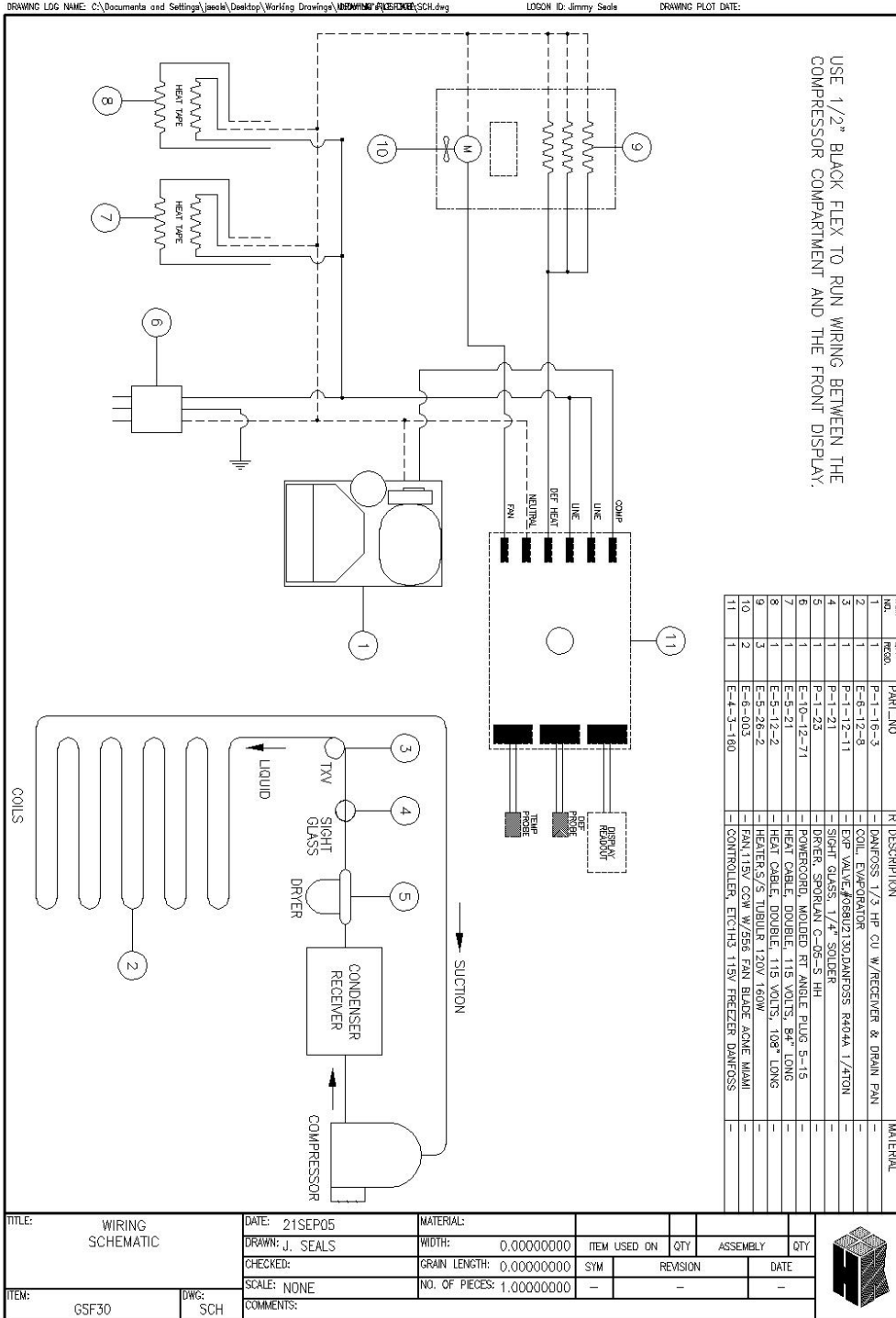
**Caution:** A licensed technician should do all servicing and repair.

### Terms

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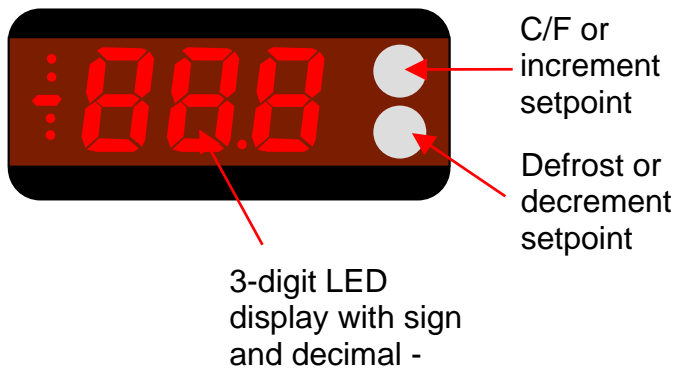
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# 12. Wiring Diagram



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## 13. User Interface



**Change temperature setting:** Pressing one of the buttons, shortly, will show the set-point. While the set-point is shown blinking, you can increment the temperature by pressing the upper button or decrement the temperature by pressing the lower button. The display will return to normal mode 3 seconds after last key-press. The new set-point will be stored in the memory in ETC1H.

**Celsius /Fahrenheit:** The temperature can be shown in either Celsius or Fahrenheit. To switch between Celsius and Fahrenheit, press the upper button for 5 seconds. The display will show C or F. To toggle the value, press the button once more. After 3 seconds, the display will switch to normal operation and store the new setting in memory in ETC1H.

**Force defrost:** The thermostat can be forced to start a defrost cycle by pressing the lower button for more than 5 seconds. When the defrosting is initiated, the display will show DEF. Defrosting can be canceled again by pressing the push-button once more and the thermostat will return back to normal mode. When the defrost cycle is finished, the display will return to normal operation.

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**Alarm handling:** The display shows the alarm code + a value blinking, if applicable. When a value is shown, the display toggles between the error code and the value.

Alarm type	Code	Value
Sensor 1 defect	E1	-
Sensor 2 defect	E2	-
Sensor 3 defect	E3	-
Compressor fault	E4	-
Heater fault	E5	-
Pot fault	E6	-
Supply voltage low	Ulo	-
Supply voltage high	Uhi	-
Condenser hot	E9	-
Condenser warm	E10	-
High temperature alarm	Hi	Temperature
Low temperature alarm	Lo	Temperature
Communication error	E13	-

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