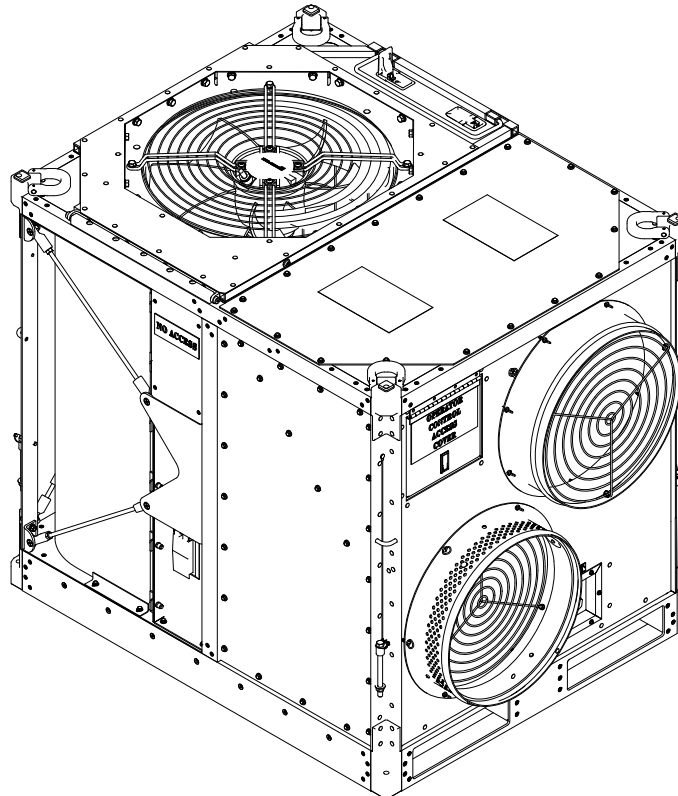


**MODEL F100-60K ECU  
ENVIRONMENTAL CONTROL UNIT**

**PART NUMBER 2003841**

**OPERATIONS AND MAINTENANCE MANUAL**



**Prepared by:**



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**1.0 SCOPE:** This Operations and Maintenance Manual provides for the safe installation, operation and maintenance of the 2003841, F100-60K Environmental Control Unit (ECU).

**NOTE**

The F100-60K uses a digital scroll compressor. The maintainer cannot use the method of observing the sight glass to indicate a low refrigerant charge.

**2.0 EQUIPMENT DESCRIPTION:** The F100-60K ECU provides heating, cooling and ventilation of the enclosed space created by the deployed shelter. It is powered by the 208VAC, three-phase 60 Hz trailer mounted generator set or shore power (208 VAC Only). The ECU is designed to provide heating or cooling over the ambient temperature range of -50°F to +135° Fahrenheit. The ECU is equipped with a local Operator Control Panel with a Mode selector switch to set the operating modes between Off, Vent, Cool, Heat. Temperature is regulated and set by a return-air thermostat. Airflow is directed into the shelter thru insulated supply-air ducts (see Section 6.2). Air is returned to the ECU thru insulated return-air ducts (see Section 6.2).

## 3.0 SAFETY

### 3.1 QUALIFIED PERSONNEL

For the purposes of this Manual, a qualified person is an operator who is familiar with the installation and operation of the specific equipment, and the hazards involved.

### 3.2 SIGNAL WORDS AND LABELS

Signal Words and Labels are used within this Manual. The words and symbols convey the following advice:

**3.2.1 DANGER:** Danger refers to immediate hazards that will result in severe personal injury or possible death. The word **DANGER** is displayed within a box and highlighted in bold text and precedes the instruction in a procedure.

**3.2.2 WARNING:** Warning refers to a hazard or unsafe method or practice that may result in a severe personal injury or possible death. The word **WARNING** is displayed within a box and highlighted in bold text and precedes the instruction in a procedure.

**3.2.3 CAUTION:** Caution refers to a hazard or unsafe method or practice that may result in equipment damage or personal injury. The word **CAUTION** is displayed within a box and highlighted in bold text and precedes the instruction in a procedure.

**3.2.4 IMPORTANT:** Important refers to a hazard or unsafe method or practice that can result in equipment damage or related equipment damage. The word **IMPORTANT** is displayed and highlighted in bold text and precedes the instruction in a procedure.

**3.3 GENERAL PRECAUTIONS:** The following general precautions should be followed when performing any maintenance or service work on the ECU:

**DANGER:** Placing the power switch to the “OFF” position does not completely de-energize the unit.

**DANGER:** Disconnect ECU from power source before performing any maintenance or service work.

**DANGER:** Do not work under a unit suspended by a sling device.

**DANGER:** Do not use a heating torch on any part that contains refrigerant.

**DANGER:** Do not work on ECU in confined spaces. R-410A is an asphyxiant.

**WARNING:** Do not operate ECU without covers, guards and panels in place.

**WARNING:** Do not inhale refrigerant gas.

**WARNING:** The cover is heavy. Be sure the cover-retaining rod is in place and secure. Injury can occur if the cover drops.

**WARNING:** Avoid contact of refrigerant gas to skin and mucous membranes.

**WARNING:** Do not touch heater elements. Severe burns may result.

**WARNING:** Do not operate ECU with return-air ducts blocked, restricted or obstructed. Keep return duct entry clear of any objects that may be drawn into or block the unit.

**CAUTION:** Do not direct compressed air towards skin.

**CAUTION:** Do not use any extreme source of heat to thaw a frozen coil. Use a hair dryer or a 60-watt maximum light bulb to thaw a frozen coil.

**IMPORTANT:** Do not exceed 20 psi when using compressed air for cleaning.

**IMPORTANT:** The ECU is charged with R-410A refrigerant. Compressor oil must be Copeland 3MA-P.O.E. or equivalent.

**IMPORTANT:** Do not block the discharge of the condenser fan. Allow three feet for discharge.

**IMPORTANT:** Do not operate ECU with return-air ducts blocked or restricted.

**IMPORTANT:** Do not operate ECU with supply-air ducts closed.

**IMPORTANT:** Do not exceed 20 psi when using water for cleaning.

## 4.0 OPERATION

### 4.1 MAJOR COMPONENTS:

**a) Compressor:** The compressor is a hermetically sealed unit with thermal overload protection. The compressor is equipped with a soft-start current limiting device with a maximum starting delay of 120 seconds after start of the evaporator fan motor. The hot gas bypass system is replaced with a digital scroll compressor. The digital scroll compressor remains running as long as the selector switch is set for cooling. The compressor scroll will load and unload automatically as needed to adjust capacity based upon outside ambient and indoor return air temperatures.

**b) Supply Fan:** The evaporator fan motor is a 208-Volts AC, 3 Phase 60 Hz, TEFC, NEMA 56 Frame with normally closed overload protection. The two-horse power motor is sealed and is designed for wash down and sand and dust conditions. The supply fan will supply 2000 cfm of air when attached to a shelter air distribution system with a 1” static pressure.

**c) Condenser Fan:** The condenser fan motor is a two (2) speed, 208-Volts AC, 3 Phase 50/60 Hz, Totally Enclosed IP-54 Frame with normally closed overload protection. The fan blades are designed for high efficiency with low noise operation. During low load conditions the condenser fan will operate in low speed automatically adjusting from low to high then to low as required to maintain optimum energy efficient condenser cooling airflow, and is designed to operate in sand and dust conditions.

**d) Air Filter:** The return air-filter is a metalized permanent cleanable type filter. The filter access is located on the right side panel above the power panel.

**e) Refrigerant:** The F100-60K ECU uses R-410a, A1/A1 Safety Group, Class III refrigerant.

**f) Heater:** The heaters are enclosed resistive tube fin type elements located in the evaporator section. The elements are controlled by the operators’ controls and cycled by the operating thermostat. An over temperature cycle switch and a high temperature cutout protects the insulation and heater tubes during reduced or no airflow conditions.

**g) Condenser Coils:** The condenser (outside) coil is a single slab open face micro-channel design. The condenser is an all aluminum construction with a zinc finish. The zinc coating prevents oxidation and abrasion from salt, ozone, sand and dust. The coating also reduces surface adhesion of sand and dust. Wide fin spacing provides more space for sand, dust and organic materials to pass through the coil.

**h) Evaporator Coils:** The evaporator (inside) coil is a copper tube with aluminum fin design.

**i) Power Cord:** The 25 foot power cord is rated for 60 amps and is stowed inside the condenser section.

**j) Condensate drain hose:** The 15 foot clear drain hose drains any water accumulation from the evaporator section and is stowed inside the condenser section.

**k) Flexible Ducts:** The two air ducts are used to supply circulated air when connected between the ECU and shelter. Both ducts are stowed inside the condenser section.

**l) Sight Glass:** The sight glass contains an indicator that changes color depending upon the amount of moisture contained in the refrigerant. The sight glass provides visual inspection of the refrigerant passing through the system but it is not used for charging.

**m) Control Panel:** The control panel provides all the operator controls needed to start, operate, stop and maintain desired shelter air temperature.

**n) Out of Phase Indicator:** This indicator on the control panel reflects the proper phasing of the incoming power to the ECU. On start-up of the unit the indicator will flash and extinguish. If the light remains illuminated there is a problem with the incoming power. The power supply should be checked.

**o) Normal / Override Switch:**

In normal mode cooling: the thermostat (Johnson Controls A350P) provides the control signal that makes the compressor load and unload. In override mode cooling: the thermostat is bypassed and the control signal is provided by the trimming the 24VDC signal to a 5VDC control signal to make the compressor stay loaded at all times.

In normal mode heating: the thermostat (JC S350P) opens and closes based on the A350P set point plus it's own differential and offset. In override mode heating: the thermostat and timer are bypassed so the heater immediately comes on and supplies heat.

## 4.2 INITIAL SET-UP:

### WARNING

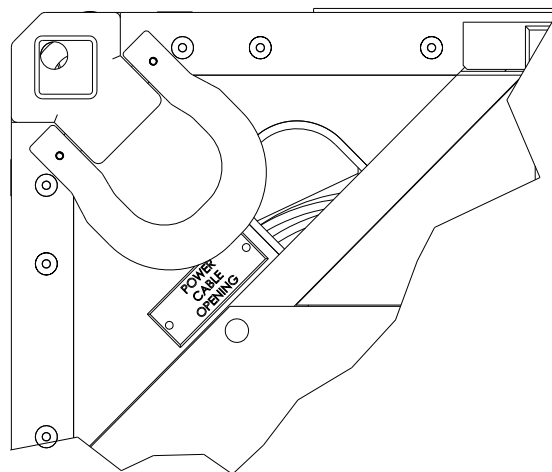
The cover is heavy. Be sure the cover-retaining rod is in place and secured with a locking pin. Injury can occur if the cover drops.

All accessories are stowed under the condenser cover. Open the cover by opening the two latches and pulling the lift handle up. Raise the lid using the handhold. Locate the lid prop rod located on the inside left ledge, and position into the called out receptacle in the cover bottom.

#### NOTE

Care should be taken not to damage the condenser coil face during removal of accessories.

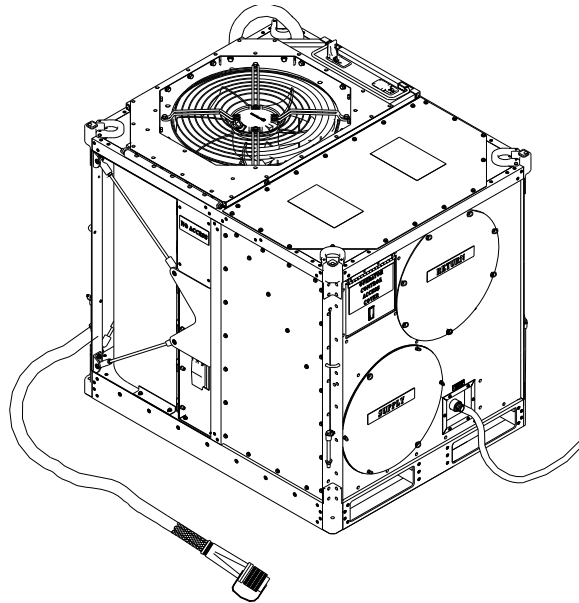
Remove the 25-foot Power Cable by grasping the metal receptacle end and lifting the remaining cord out of the stowage area. Route the power cord through the end panel notch and place remaining cable on the ground.



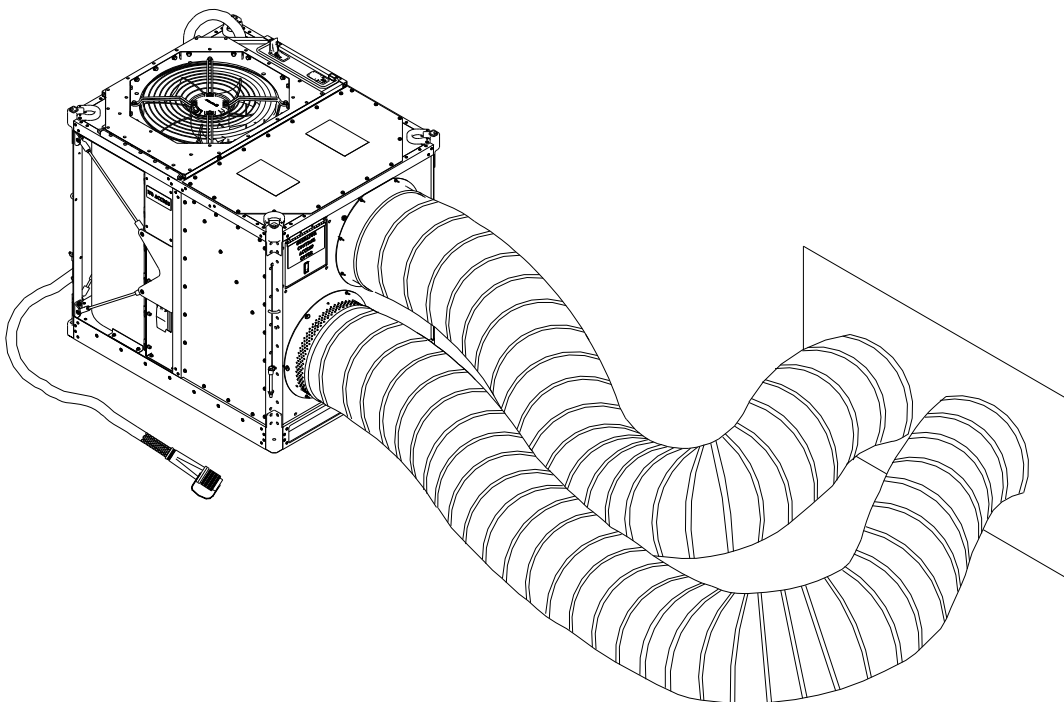
Remove the condensate hose assembly. Attach the condensate hose to the ECU drain located on the bottom of the front panel. Route the hose away from the ECU.

Remove the Return and Supply ducts and duct adapters.

- a) Position the F100 on a level surface, at least 4 feet from any obstructions. Extend the ducts fully, along the ground. There should be no debris at the end of the duct that could be drawn up into the duct and damage the unit or reduce performance.



- b) Remove the supply and return air duct covers from the F100 and stow in the Condenser Fan area.
- c) Connect the supply and return air ducts to the F100 ECU and tighten the strap clamps.
- d) Connect the supply and return air ducts to the shelter. Both ducts should be fully extended without twisting or kinks.





**NOTE:** The safe and efficient operation of the unit depends on good air flow. Always use debris guard (attached at the unit) in the ECU return duct. It is important that the duct not be kinked or objects laid on the duct or plenum as any of these can reduce the airflow causing the ECU to produce less heat or cooling. It is not recommended to dry clothes or in any way restrict the supply or return inlet or outlet.



Inside the shelter make sure during the set-up phase that there are no obstructions near the return air inlet. Also make sure there are no items against the plenum that would constrict it in any way. To get the maximum effect from the ECU heat or cooling the plenum should be fully inflated. Measures should be taken to prevent any loose articles from being drawn into the Return Air Inlet.



Note the position of the equipment near the return duct inlet area. The obstructions can restrict the airflow and reduce the efficiency of the ECU.



The supply air plenum should be open and untwisted. This photo shows the plenum twisted restricting the flow into the unit.



Ensure the tent liner is pulled away from the Return air inlet. There should also be sufficient space to prevent items from being drawn into the return air inlet.

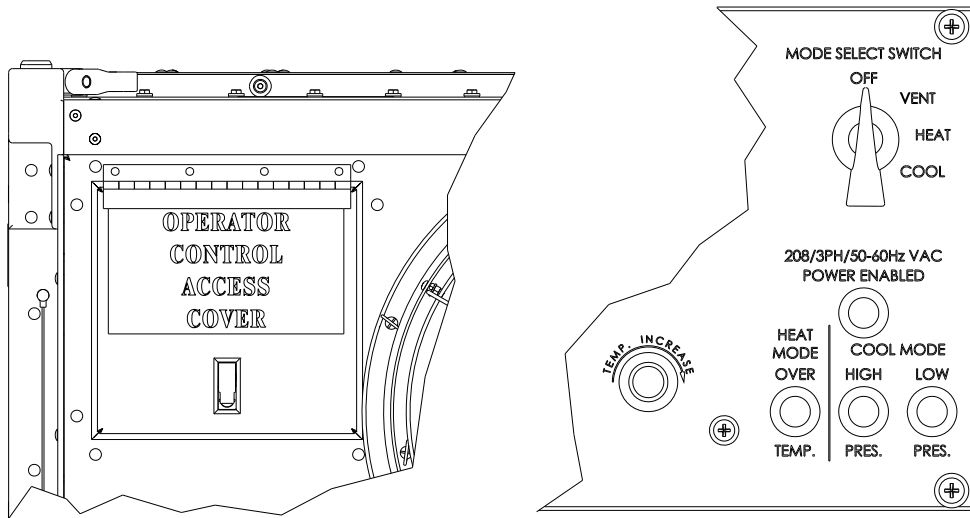


The return air screen seen in the photo should not be used with the ECU. The use of the screen will reduce air flow and cause the ECU to operate less efficiently and could cause equipment damage.



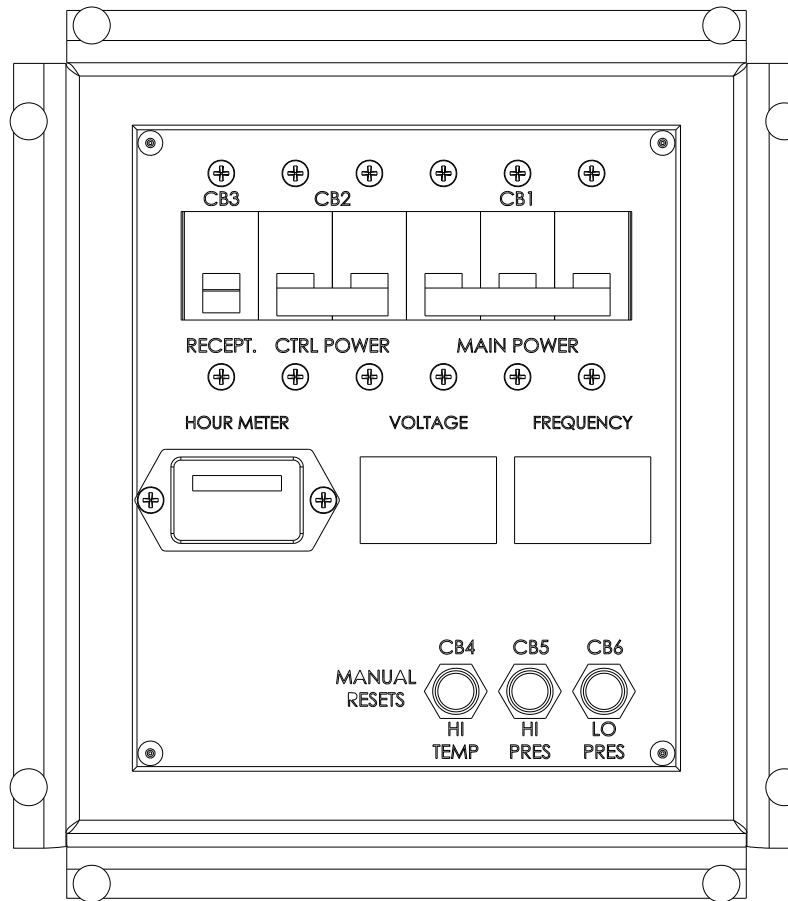
This is the correct set up for the ECU connection. Please note the fully inflated supply air plenum. Also note there are no twists where the plenum attaches to the duct and the return inlet is free from debris. The liner is clear of the return air opening.

- e) Open “Operator Control” Access Cover and check that Mode Selector Switch is in the “OFF” position.



- f) Lower the prop rod on the left edge and secure. Lower the lid using the handhold. Secure using the two latches.

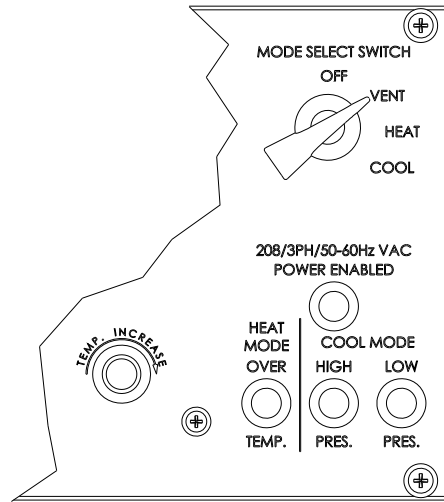
- g) Connect the power cable to a three-phase 208 Volt, 50/60Hz, 60Amp power source with ground.



- h) Place the “MAIN POWER” CB1 to the “ON” position. Place the “CTRL POWER” CB2 in the “ON” position. Ensure proper Voltage (208 Volts) on the Voltmeter and Frequency (60 Hz) on the Frequency Meter.
- i) CB3 is a 120 Volt GFCI Protected convenience receptacle and can be used as necessary for unit repair.
- j) CB4 is a “HI TEMP” High Temperature manual reset Circuit Breaker for the Heat. CB5 is a “HI PRES” High Pressure manual reset for the refrigeration system. CB6 is a “LO PRES” Low Pressure manual reset for the refrigeration system.

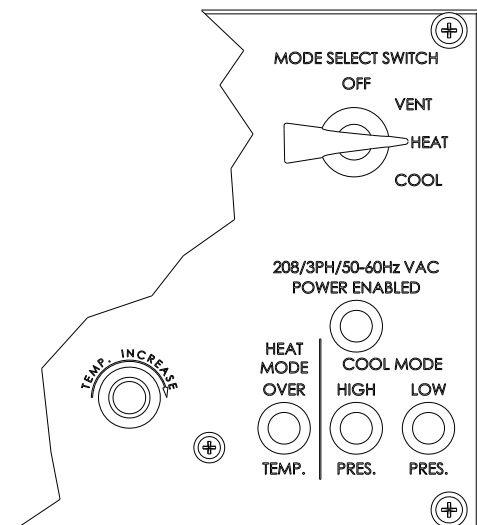
### START UP (VENT MODE)

Turn the Operator Control Mode Selector Switch to the “VENT “mode only. (Yellow Power Enabled Light will be illuminated) The Supply Air Blower will start circulating the enclosure air.



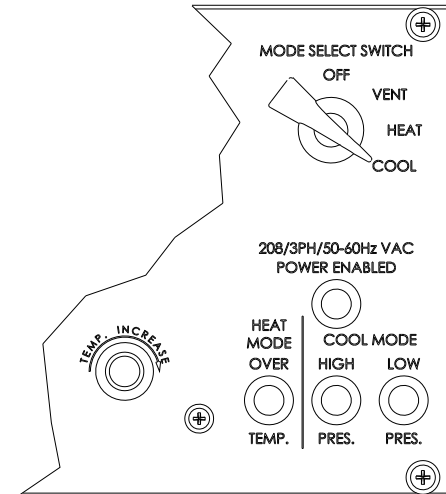
### START UP (HEAT MODE)

Turn the “Mode Selector Switch” to the “HEAT” position. Adjust the “TEMP. INCREASE” to a warmer setting (clockwise direction). There will be a 12 second delay before heating will start. Allow several minutes for the heat to reach operational temperature.



## START UP (COOL MODE)

Turn the “Mode Selector Switch” to the “COOL” position. There will be a 3 second delay before the condenser fan starts and a 2-minute delay before the compressor starts. Adjust the “TEMP. INCREASE” to a cooler setting (counter-clockwise direction). The condenser fan will cycle low to high speed based on system pressure.

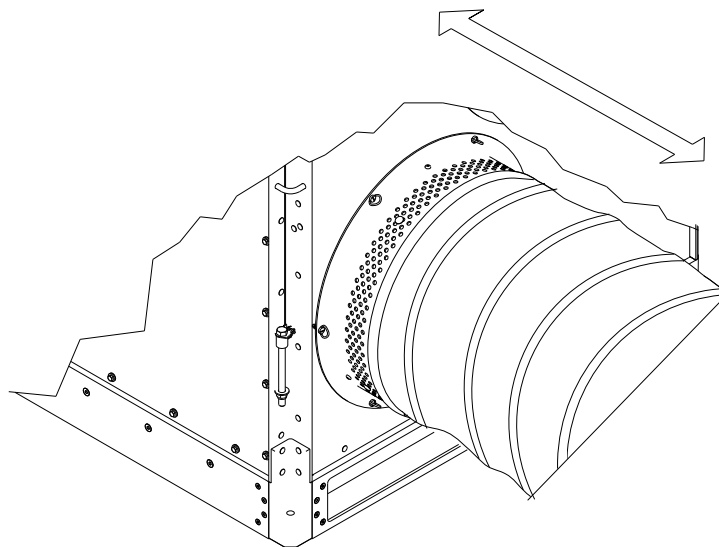


### NOTE

Based on the outside ambient temperature, the condenser fan speed is regulated by a Fan Cycle Pressure Switch which shifts the fan to high speed during operation in high ambient temperature and low speed during operation in low ambient temperatures.

### NOTE

To increase fresh outside air, loosen return-air duct strap (F100 Lower Duct Adapter) and slide back on the duct collar to open more perforated holes. Exposing more holes increases the amount of outside air.





## SHUT DOWN

- a) Place the “Mode Selector Switch” in the “VENT” position for 3 minutes to allow the Air Conditioning System to equalize or heater elements to cool down.
- b) Turn “Mode Selector Switch” to “OFF”.
- c) Disconnect circuit breaker at power source, and remove Power Cable Plug Connection from Power Source.

### IMPORTANT

WAIT 3 MINUTES BEFORE RESTARTING ECU AFTER SHUTDOWN.



The Normal / Override switch should be in the Normal position for automatic operation. The Override position is only used for testing.

**5.0 MAINTENANCE:** All ECUs must be inspected on a regular basis and condenser coils and filters cleaned when needed. Local conditions or severe environment applications may require frequent inspections and cleaning to ensure the ECU operates at peak efficiency. It is important to note that accumulations of dirt and debris may, particularly in desert conditions, cause erratic operation. See Section 8.0 for replacement part numbers.

**WARNING**

**REFER TO SECTION "3.0 SAFETY" PRIOR TO PERFORMING MAINTENANCE WORK**

**IMPORTANT**

**REFER TO SECTION "6.2 DIMENSIONAL DATA AND COMPONENT LOCATION" FOR COMPONENT LOCATIONS**

**5.1 MONTHLY MANITENANCE:** Inspect the condenser coil(s) for dirt and debris. If excessive dirt or debris is present, clean the fins with either steam or a non-corrosive solvent to remove oil, pollen, dust, and soil. Do not use a direct high-pressure blast over 20 psi as damage to the coil may occur.

**IMPORTANT**

**DO NOT USE A DIRECT HIGH PRESSURE BLAST OVER 20 PSI AS COIL DAMAGE MAY OCCUR.**

Check filter. If dirty replace or wash as necessary.

**5.1.1 Return Air Filter Access:** The return air filter is located behind the Return Air Access Panel (see Section 6.2). The Panel is secured to the ECU with 7 quarter-turn bail fasteners. This filter can be removed and cleaned or replaced as necessary. Compressed air or water and detergent may be used to clean the filter media. Note: Do not put a wet filter back into the unit, allow filter to fully dry prior to installation.

**5.1.2 Fresh Air Filter Access:** The Fresh Air Filter is a permanent filter installed in the return air duct connection. Should this need to be cleaned the filter connection should be removed and cleaned as a unit.

**5.2 QUARTERLY MAINTENANCE:** With power off, manually operate the condenser fan to ensure free movement and check the motor bearings for wear. Ensure that all fan mounting hardware and wiring terminations are tight.

Inspect the compressor and condenser fan motor contactors. If the contacts appear severely burned or pitted, replace the contactors.

Check the heater connections. Ensure that all heater element mounting hardware and wiring terminations are tight.

**5.2.1 Electrical Component Access:** The electrical components are located behind access panels. The panels are located on each side of the ECU (see Section 6.2).

**5.3 YEARLY MAINTENANCE:** Apply power to the ECU. With the ECU operating in the cool mode, check and record the ambient temperature and compressor suction and discharge pressures. In addition, if the operating pressures indicate a problem of any kind, determine the system superheat and subcooling, and refer to Section **7.0 TROUBLE SHOOTING**.

**5.3.1 Compressor, Condenser, and Test Port Access:** The Compressor, Condenser, and Test Ports are located behind the Service Valves Access Panel. Pressures can be checked or the ECU can be charged from these ports. The sight glass is also located in this area. Moisture in the refrigeration system can be checked at this location.



## 5.4 REPAIR SERVICE

In the event of a compressor burnout or filter clogging, it is imperative that the ECU piping system be thoroughly cleaned of all refrigerant and oil, and a new filter-drier installed. It is further recommended that the refrigerant not be reused. Whenever the refrigerant side of the ECU's piping has been exposed to atmospheric pressure for a period of time longer than necessary to repair and charge the system, PSI recommends replacing the filter drier(s).

## 6.0 TECHNICAL DATA

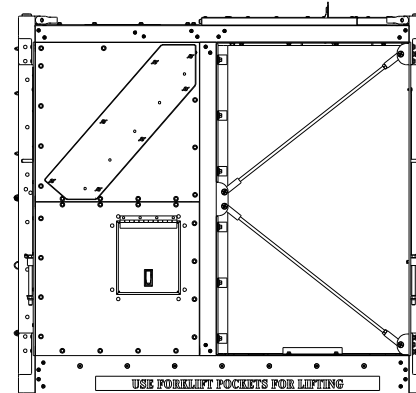
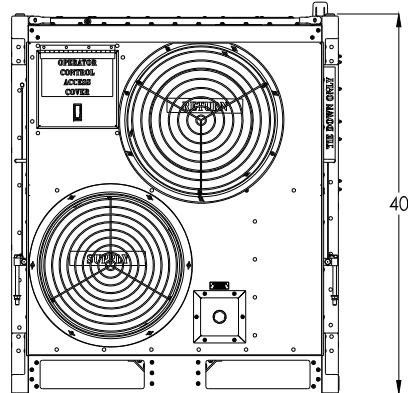
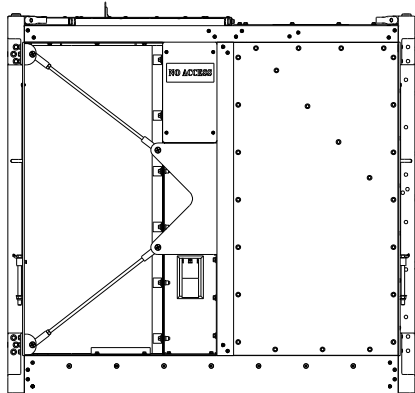
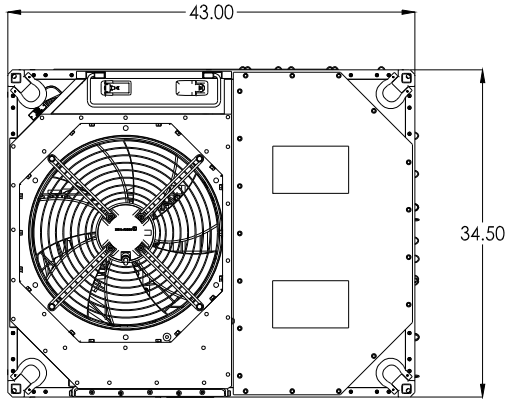
### 6.1 PHYSICAL DATA:

<b>ECU Designation</b>	<b>2003841</b>
Nominal Capacity, BTU/hr	60,000
Operating Charge, lbs. of R-410a	5.5
<u>Compressor Data</u>	
Number of Refrigeration Circuits	1
Quantity	1
Nominal Horsepower	6
<u>Condenser Coil Data</u>	
Quantity	1
<u>Evaporator Coil Data</u>	
Quantity	1

<u>Condenser Fan Data</u>	
Quantity	1
Nominal Horsepower	1.5
<u>Supply Fan Data</u>	
Quantity	1
Nominal Horsepower	2.0

<u>ECU Designation</u>	<u>Total Weight Without Refrigerant, pounds</u>	<u>Length, inches</u>	<u>Width, inches</u>	<u>Height, inches</u>
2003841	500	43	34.50	40

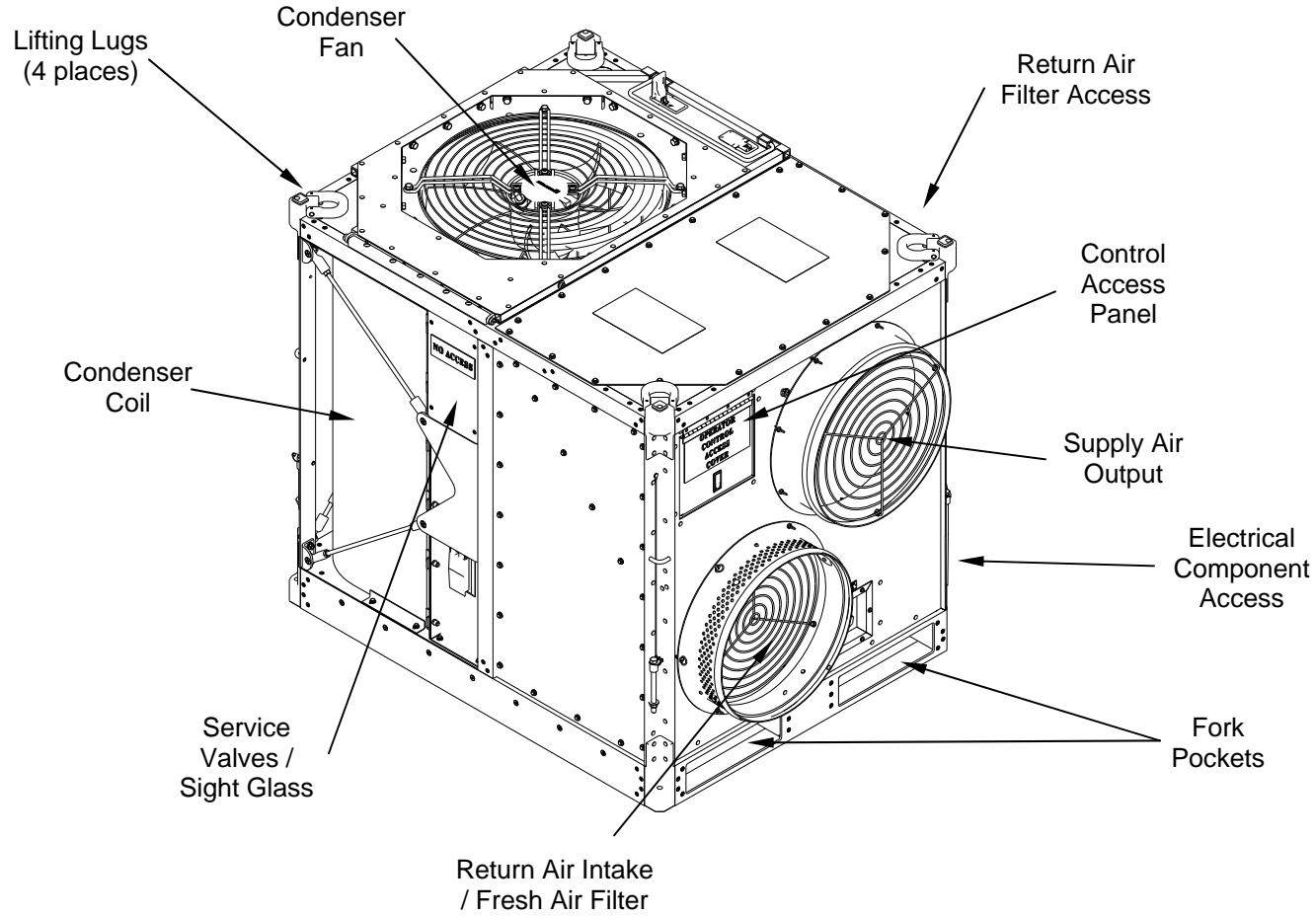
## 6.2 DIMENSIONAL DATA AND COMPONENT LOCATION:



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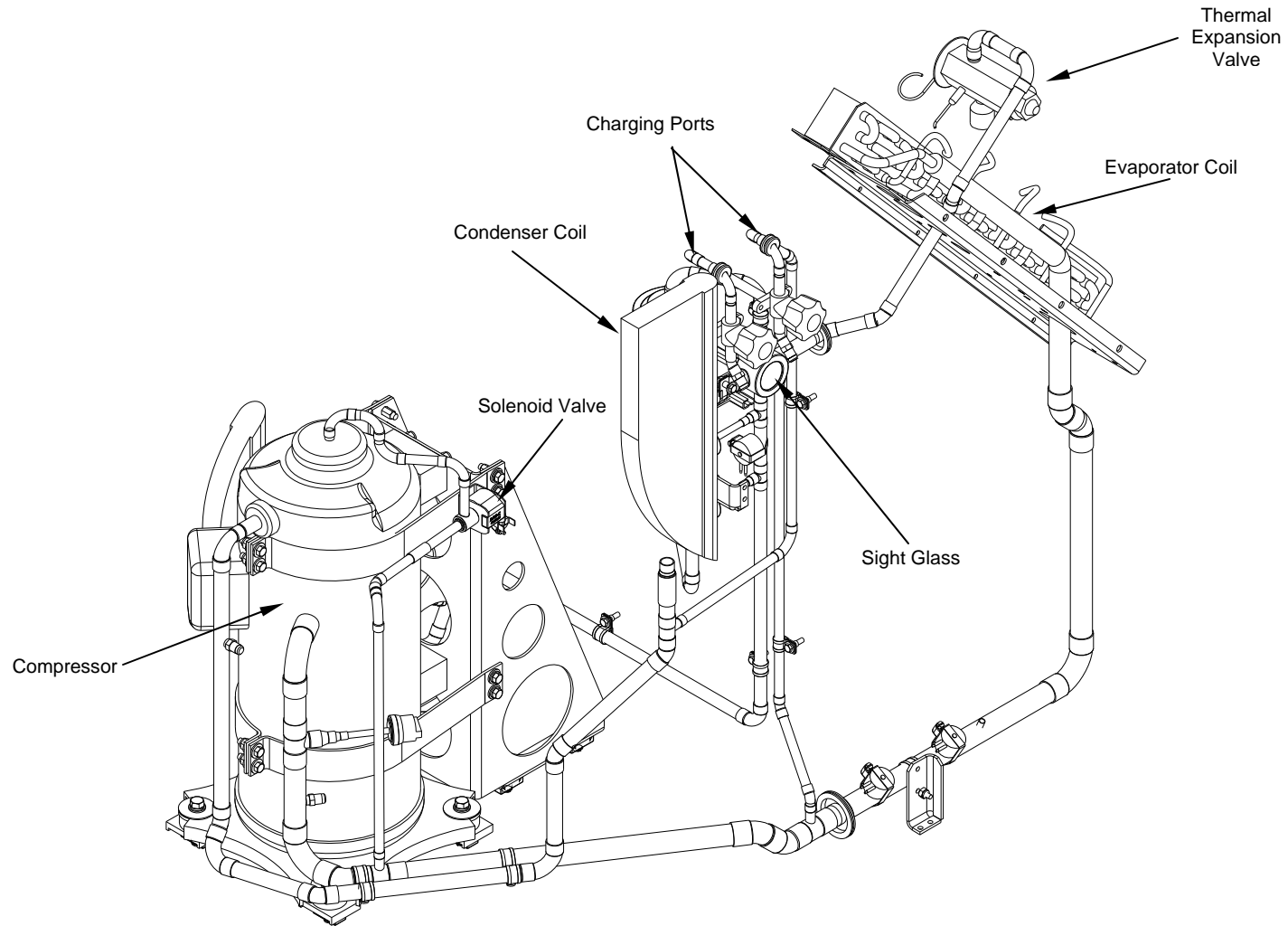
## 6.2 DIMENSIONAL DATA AND COMPONENT LOCATION (CONT):

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## 6.2 DIMENSIONAL DATA AND COMPONENT LOCATION (CONT):

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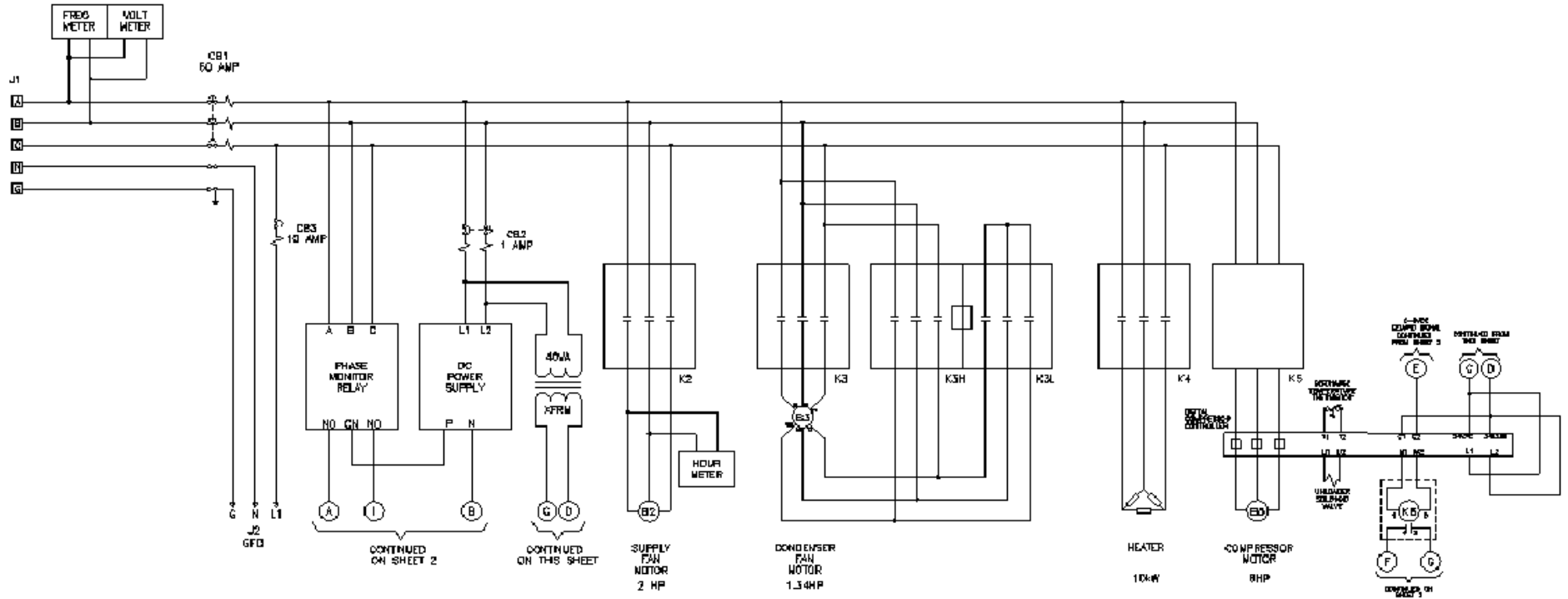


## 6.3 ELECTRICAL DATA

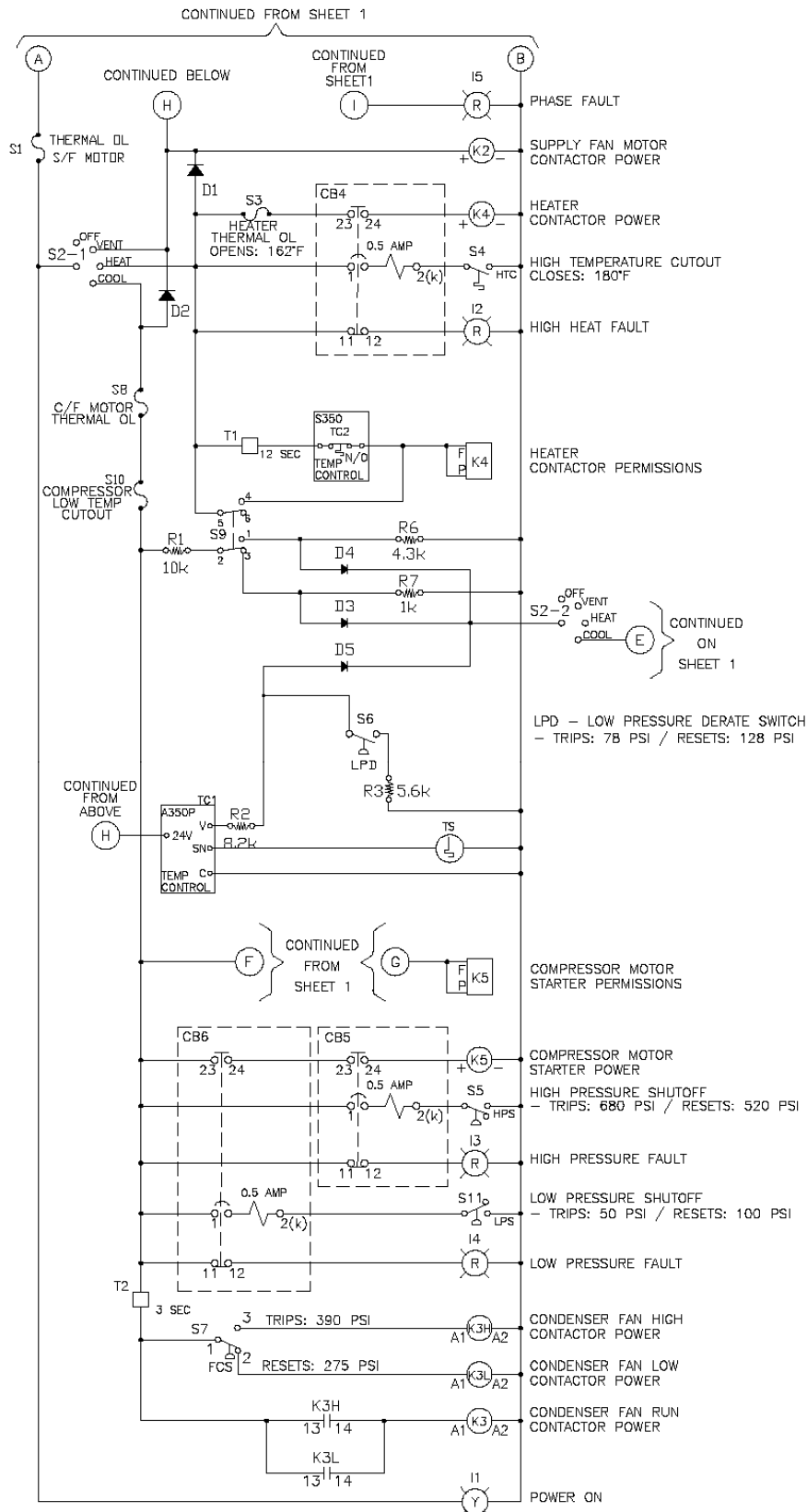
### 6.3.1 Horsepower and Run-Load Amps:

	<u>Qty.</u>	<u>Nominal Horsepower</u>	<u>FLA (each)</u>
<b><u>ECU 2003841</u></b>			
Compressor	1	6	25
Condenser Fan	1	1.5	6.6
Supply Fan	1	2.0	7.5

### 6.3.2 Electrical AC Schematic – Power and Controls Wiring:



### 6.3.3 Electrical DC Schematic – Power and Controls Wiring:



## 7.0 TROUBLE SHOOTING

### WARNING

REFER TO SECTION "3.0 SAFETY" PRIOR TO TROUBLE SHOOTING ECU

### IMPORTANT

ECU IS EQUIPPED WITH A TIME DELAY TO PREVENT COMPRESSOR DAMAGE. IF UNIT IS TURNED OFF AND THEN ON WITHIN A FEW MINUTES THE COMPRESSOR WILL NOT START IMMEDIATELY.

THE CONDENSER FAN IS CONTROLLED BY SYSTEM PRESSURE AND MAY OR MAY NOT TURN CONTINUOUSLY.

Symptom	Cause	Solution
Unit doesn't start	Power source is "OFF". Main CB1 is "OPEN". Control CB2 is "OPEN". Thermal Overload "OPEN" for Supply Fan (S1).  Faulty DC Power Supply.	Check power source. Close CB1. Close CB2. Investigate thermal overload in the Supply Fan. Either the motor has overheated or a problem exists with the switch. Replace DC Power Supply.
Unit doesn't start but voltage and Hertz displayed on the meters	One phase of the supply power has been swapped.	Swap two of the phases of the supply power.
ECU doesn't produce cold air	Selector switch is not in "COOL" position.  Thermostat is not properly set.  Refrigerant charge is low. Unit has a refrigerant leak. High Pressure Switch is tripped. Low Pressure Switch is tripped. Compressor is faulty. Restricted or blocked air supply or return. Evaporator Filter clogged. Return air is already cold.	Set selector switch to the "COOL" Position. Set Thermostat to a setting cooler than ambient air. Investigate the refrigerant leak and repair or top off charge. Reset High Pressure Switch. Reset Low Pressure Switch. See 7.1 prior to replacing compressor. Remove obstruction from ductwork. Clean filter or replace.
Water does not drain from unit.	Drain is clogged.  Drain hose is kinked.	Remove obstruction from hose or replace hose. Remove kink from hose and place end away from the unit.
Coil is icy or frosty	Suction pressure is low. Evaporator coil is dirty. Filter is dirty.  Ducts are closed.	Clean evaporator coil. Clean filter and remove any obstructions in the airflow. Open ducts and extend fully. Ensure there are no obstructions in the ducts. Ensure area around return duct opening is clear of debris that could be drawn into the opening.
Compressor doesn't run	Selector switch is not in "COOL" position.  Contactor/Soft Start is faulty. Condenser Coil is dirty. High Pressure Switch is tripped. Head pressure is high. Compressor is faulty.	Set selector switch to the "COOL" Position. Replace/reset contactor/Soft Start. Clean condenser coil. Reset High Pressure switch.  See 7.1 prior to replacing compressor.

Symptom	Cause	Solution
Heater doesn't work	Selector switch is not in "HEAT" position. Thermostat is not properly set. High temperature reset tripped.  Return air is already hot.	Ensure the selector switch is in the "HEAT" position. Set Thermostat to a setting warmer than ambient air. See 7.1. Reset high temperature reset switch.
Thermostat does not control temperature	S9 in the override position.	If thermostat does not control temperature (tent overheats or cools) check over-ride switch. Place switch in the correct position (Normal).
Supply fan doesn't run	Power source is "OFF". Main CB1 is "OPEN". Control CB2 is "OPEN". Thermal Overload "OPEN" for Supply Fan (S1).ECU Circuit Breaker is tripped.  Supply Fan Motor faulty.	Check power source. Close CB1. Close CB2. Investigate thermal overload in the Supply Fan. Either the motor has overheated or a problem exists with the switch. Replace Supply Fan Motor.
Condensing fan doesn't run	Contactor is faulty. Condensing Fan Motor faulty.	Light load conditions exist and Condensing fan is not required. Replace contactor. Replace Condensing Fan Motor.

## 7.1 F-100 CONTROL DIAGNOSTICS

To determine the operational state of the F100 controls take the following voltage readings:

### Cooling Mode:

- 1) Measure the DC voltage at TB2-point 8 (wire 208A).
  - a. If the voltage is 1.5VDC, the system is running at minimum capacity. This keeps the compressor running at 10%. The return air temperature is below the thermostat set point.
  - b. If the voltage is 5VDC, the system is running at maximum capacity. Reasons for this are:
    - i. The return air temperature is well above the thermostat set point.
    - ii. The Thermostat Over-Ride switch (S9) has been moved to the OVER-RIDE position.
  - c. If the voltage is between 1.5VDC and 5VDC:
    - i. The system is modulating to meet set point.
    - ii. The system is de-rated because of a fault.
      1. To determine if a fault has occurred, measure DC voltage at the following points on TB2:
        - a. Point 3 (wire 130A) - If voltage is measured, the Liquid Line Temperature has risen above the set point.
        - b. Point 4 (wire 131A) – If voltage is measured, the Suction Line Temperature has dropped below the set point.
        - c. Point 5 (wire 132A) – If voltage is measured, the Suction Line Temperature has risen above the set point.
- 2) If the system refrigerant pressure builds above the set point, the high pressure switch will trip and CB5 will have to be reset to restart the cooling cycle.
- 3) If the system refrigerant pressure drops below the set point, the low pressure switch will trip and CB6 will have to be reset to restart the cooling cycle.

### Heating Mode:

- 1) Measure DC voltage at TB1, point 13 (wire 113C)
  - a. If the voltage is 24 VDC the heater elements should be on.
  - b. If there is no voltage, measure DC voltage at TB1, point 14 (wire 114B)
    - i. If the voltage is 24 VDC the heater elements should be on.

- ii. If there is no voltage measured, a high temperature fault has occurred.
  - 1. If the Thermal Overload has been tripped, heating will automatically restart once the unit has cooled below the set point.
  - 2. If the High Temperature Cut-out has been tripped, CB4 will need to be reset to restart the heating cycle.

## 8.0 PARTS LIST

Reference Designator	Description	Part Number
CB1	Circuit Breaker	3003257-009
CB2	Circuit Breaker	3003260-001
CB3	Circuit Breaker	3003259-003
CB4, CB5, CB6	Circuit Breaker	3003261-002
K1	Phase Monitor	3001445-001
K2, K3, K3L, K3H	Contactors 12 A	3003254-002
K4	Contactors 7.5 HP	3001455-001
K5	Soft Start Compressor	3002061-007
K6	Relay	3003422-001
DCC	Compressor Ctrl Module	3002191-001
T1, T2	Timer / Timer Adjust	3003477-001 / 3003478-001
B2	Supply Fan Motor	3003072-003
B3	Condenser fan Motor	3003074-001
B5	Compressor	3003075-001
TC1	Thermostat	3003251-002
TC2	Thermostat	3001469-001
J2	Receptacle	3000059-003
S2	Switch	3002200-001
S5	Pressure Switch	3003247-001
S6	Pressure Switch	3003248-002
S7	Pressure Switch	3003249-001

<b>Reference Designator</b>	<b>Description</b>	<b>Part Number</b>
S9	Switch	3003330-001
S11	Pressure Switch	3003248-001
I1	LED, Yellow	3000260-003
I2, I3, I4	LED, Red	3000260-001
XFRM	Transformer	3003256-001
PS	DC Power Supply	3002114-002
	Solenoid Valve	3002192-001
	Thermal Expansion Valve	3001353-020
	Filter Dryer	3003401-001
	Return Air Filter	3003404-001
	Fresh Air Filter	3003405-001
	Frequency Meter	3003209-001
	Hour meter	3002795-001
	Voltmeter	3003210-001
	Duct	3003345-001