# P6500W Air Dryer

# User's Guide

Altec AIR

PUREGAS

100507775 – Rev. R

## 1. Welcome & Congratulations

Congratulations on your purchase of a new ALTEC AIR P6500W Air Dryer! We here at ALTEC AIR are very proud of our products and we are committed to providing you with the best value and service possible.

We are sure that you will be satisfied with your new air dryer and would like to thank you for choosing ALTEC AIR for your air dryer requirements. We also hope that you will continue to choose us for your future air pressure and related product purchases.

For information about this and other ALTEC AIR products, please visit us on the web at:

**www.altecair.com**

## 2. Introduction

**PLEASE READ THIS USER'S GUIDE THOROUGHLY AND SAVE FOR FUTURE REFERENCE.**

This User's Guide is provided for the benefit of our customers and contains information and direction specific to the ALTEC AIR P6500W Air Dryer. It will cover topics including: safety, specifications, installation, registration, operation, testing, maintenance, replacement parts, service, and troubleshooting issues. Observation and compliance with this User's Guide will ensure the maximum life and efficiency of your air dryer.

This User's Guide should be read thoroughly prior to installing, operating, or servicing the air dryer in order to become familiar with the recommended procedures. This will minimize the possibility of personal injury or damage to the unit due to improper operation or handling.

# 3. Table of Contents

## 4. Safety & Warning Information

This section contains general information about safety and warning points to consider and adhere to during installation, operation, and maintenance of your air dryer. PLEASE READ THIS SECTION BEFORE PERFORMING ANY OPERATION OR PROCEDURE ON YOUR AIR DRYER.

Additional warnings specific to an operation or procedure will also be presented throughout the following sections. These will include the ⚠ symbol as well as a label of "**WARNING!**", "**CAUTION!**", or "**IMPORTANT!**". Please be sure to pay close attention for these warnings and read them as you encounter them.

**WARNING!**

**For your safety, all the information in this User's Guide must be followed to minimize the risk of electrical shock, and prevent property damage or personal injury.**

**WARNING!**

**Extreme care should be exercised to avoid contact with live electrical circuits.** Many procedures performed during installation, operation, testing, and maintenance of this air dryer require the equipment to be running, creating a situation for potential electrical shock. It is highly recommended that you remove all jewelry before performing any procedures.

**WARNING!**

**Internal surfaces may be hot**. Use care when coming into contact with internal components as there is a potential for some of these components to become hot when in operation or standby.

## WARNING!

**High Noise**. ALTEC AIR air dryers are meant to be installed in an unattended area.

## CAUTION!

Proper Installation & Maintenance as outlined in this User's Guide is extremely important to ensure the reliability and longevity of the equipment as well as prevent damage or personal injury.

## CAUTION!

Depressurizing the air dryer may be necessary before performing certain procedures. **NEVER** remove pressure sensing tubes from the Control Board without depressurizing the air dryer first, or **damage to the Control Board will occur.**

## CAUTION!

Incoming power to dryer must be 190 - 230 VAC, 1 Phase, 50 / 60 Hz with minimum 20 amp service (3-wire, nub-out receptacle) with a 20 amp circuit breaker or slow blow fuse. If hard-wiring directly, minimum of 12 AWG wire must be used.

## IMPORTANT!

Performing routine maintenance as outlined in the *Maintaining Your Dryer* section will ensure optimal performance over the lifecycle of your air dryer.

## IMPORTANT!

Performing procedures not described in this User's Guide or installing components not supplied by ALTEC AIR is NOT RECOMMENDED AND MAY VOID THE WARRANTY.

**CAUTION!**

This Air Dryer does not contain an internal Surge Protection Device (SPD). If an SPD is required it must be supplied by the user.

**CAUTION!**

Observe precautions for handling **Electrostatic Sensitive Devices.**

**IMPORTANT!**

Installation of ALTEC AIR air dryers are intended for network telecommunication facilities (non-customer premises) only.

# 5. Overview & Specifications

## 5.1 Product Description

The P6500W Air Dryer from ALTEC AIR is designed to intake wet ambient air and remove the moisture for delivery to applications requiring a constant, on-demand source of dry, pressurized air. This process is fully automatic and will remain consistent with minimal required periodic maintenance. This dryer is designed specifically for indoor use.

The P6500W Air Dryer employs dual redundant systems that can be run independently, interchangeably, or simultaneously depending on your pressurized air requirement. Other features of the P6500W Air Dryer include a fully digital operating platform offering the most accurate readings of dryer variables, removable access panels allowing easier access for adjustment and maintenance, and ultra quiet compressors with an industry leading maintenance interval of 8,000 hours.

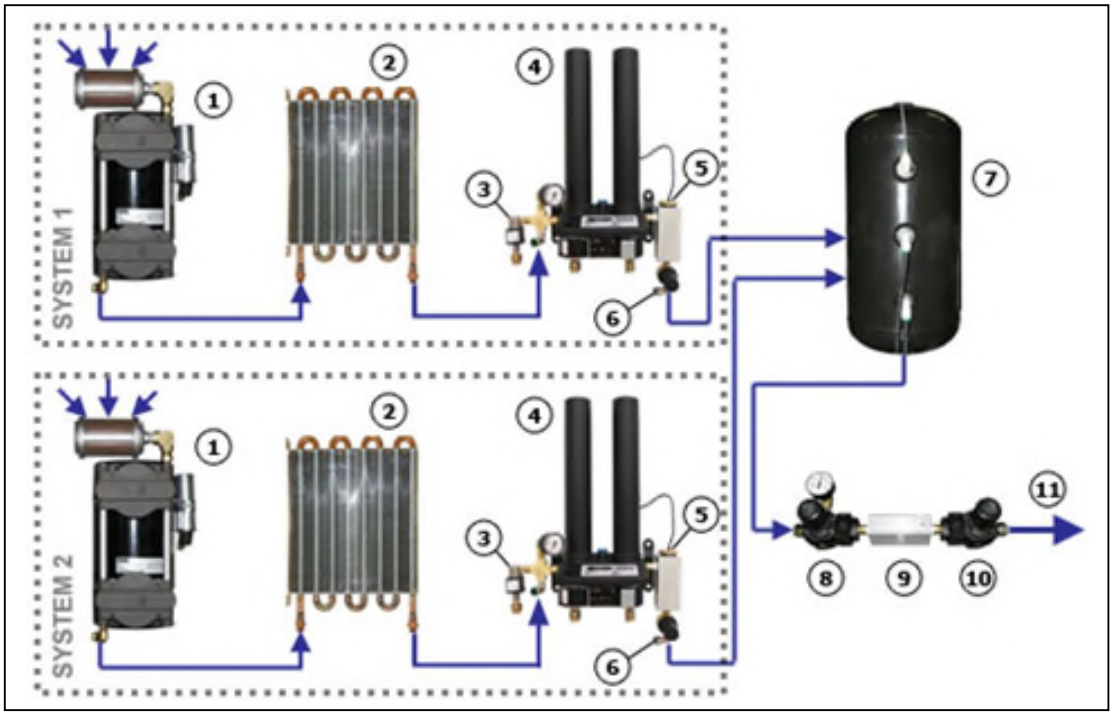
## 5.2 Key Features

- LCD display of all operating parameters
- Accurate humidity sensing within ±0.1% RH
- Redundant system for internal backup from one system to the other
- Quietest dryer on the market
- Removable compressor tray for easy maintenance
- Oil-less compressors with 8,000 hour maintenance interval

## 5.3 Technical Specifications

| | |
|---|---|
| **Output Capacity** | Normal:<br>6,500 SCFD both systems, 3,250 SCFD single system<br>Maximum:<br>8,000 SCFD both systems, 4,000 SCFD single system |
| **Power Requirements** | 190 -230 VAC, 1 Phase, 50 / 60 Hz |
| **Electrical Characteristics** | Running Amps: 15 (20 Amp service recommended) |
| **Outlet Pressure Range** | 0 – 15 PSI (adjustable) |
| **Outlet Air Humidity** | Less than 2% RH |
| **Compressor Type** | 2-cylinder, 3/4 HP, oil-less type compressor |
| **Drying Method** | Heat-less Desiccant |
| **Operating Temperature Range** | 40° to 85° F (5° to 30° C) Optimal |
| **Noise Level** | 78.8 dBA |
| **Heat Dissipation** | 9,200 BTU/hr |
| **Alarms** | Standard alarms – complete readings of all critical measurement points, individual alarm indication display |
| **Outlet Connections** | Pressure Outlet: 1/2" NPT Female |
| **Dimensions** | 21" D x 25.25" W x 49" H<br>(53.3 cm x 64.1 cm x 124.5 cm) |
| **Net / Shipping Weight** | 265 lbs (120 kgs) / 318 lbs (144 kgs) |

## 5.4 Dryer Function Overview




| # | Component | Description |
|---|---|---|
| 1 | Compressor | Compresses drawn in ambient air. |
| 2 | Precooler | Cools compressed air prior to drying function. |
| 3 | Unloader Valve | Relieves excess compressor head pressure. |
| 4 | Heatless Dryer | Removes moisture from compressed air. |
| 5 | Humitter | Measures the humidity of the compressed air. |
| 6 | Capacity Control Valve | Regulates system pressure and prevents air from bleeding back through the heatless dryer. |
| 7 | Air Tank | Stores dry compressed air. |
| 8 | Static Pressure Regulator | Regulates the static pressure (17 PSI). Maintains constant pressure on the flow block for accurate flow measuring. |
| 9 | Flow Block | Measures the flow of compressed air. |
| 10 | Outlet Pressure Regulator | Regulates the outlet pressure. |
| 11 | Pressure Outlet | Outputs the pressure set by the Outlet Pressure Regulator. |

# 6. Installing Your Dryer

## 6.1 Safety & Warning Information

**WARNING!**

**Internal surfaces may be hot**. Use care when coming into contact with internal components as there is a potential for some of these components to become hot when in operation or standby.

**WARNING!**

**Extreme care should be exercised to avoid contact with live electrical circuits.** Many procedures performed during installation, operation, testing, and maintenance of this air dryer require the equipment to be running, creating a situation for potential electrical shock. It is highly recommended that you remove all jewelry before performing any procedures.

**WARNING!**

**High Noise**. ALTEC AIR air dryers are meant to be installed in an unattended area.

**CAUTION!**

Proper Installation & Maintenance as outlined in this User's Guide is extremely important to ensure the reliability and longevity of the equipment as well as prevent damage or personal injury.

**CAUTION!**

This Air Dryer does not contain an internal Surge Protection Device (SPD). If an SPD is required it must be supplied by the user.

**IMPORTANT!**

Performing procedures not described in this User's Guide or installing components not supplied by ALTEC AIR is NOT RECOMMENDED AND MAY VOID THE WARRANTY.

**IMPORTANT!**

Installation of ALTEC AIR air dryers are intended for network telecommunication facilities (non-customer premises) only.

## 6.2 Before You Begin

**6.2.1 Carefully inspect the unit, including the shipping box as well as the air dryer, for ANY DAMAGE CAUSED BY SHIPPING. If any shipping damage is detected, it is important to file a claim with the shipping company prior to continuing the installation procedures.**

**6.2.2** Read the entire *Installing Your Dryer* section to familiarize yourself with the components and procedures before performing the air dryer installation.

**6.2.3** Verify the installation location of the air dryer:

**6.2.3.1** Well ventilated and free from abrasive dust or chemicals.

**6.2.3.2** Ambient temperature is between 40° and 85° F (optimal).

**NOTE:** Higher temperatures will decrease component lifespan.

**6.2.3.3** Meets the following power requirements:

- 190 -230 VAC, 1 Phase, 50 / 60 Hz
- Minimum 20 amp service circuit breaker or slow blow fuse
- Outlet compatible with a HBL9965C plug
- If hard-wiring directly, minimum of 12 AWG wire must be used

**6.2.4** Notify the alarm center of the installation and potential for alarms during the process (as necessary).

## 6.3 Included Contents

(1) P6500W Air Dryer

(1) Installation Guide (not shown)

Package located inside the dryer:

(1) User's Guide (not shown)

(2) Purge Mufflers

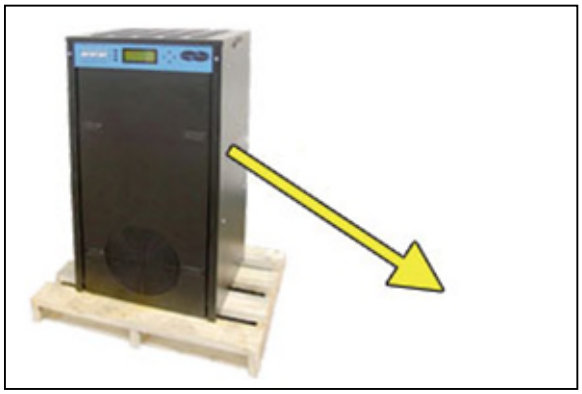
## 6.4 Required Tools and Materials

- Large adjustable wrench
- Medium adjustable wrench
- 7/16" wrench
- Band cutters or snips
- Pipe dope or pipe thread tape
- Cup of soapy water
- 1-inch paint brush (recommended)

## 6.5 Installation Steps

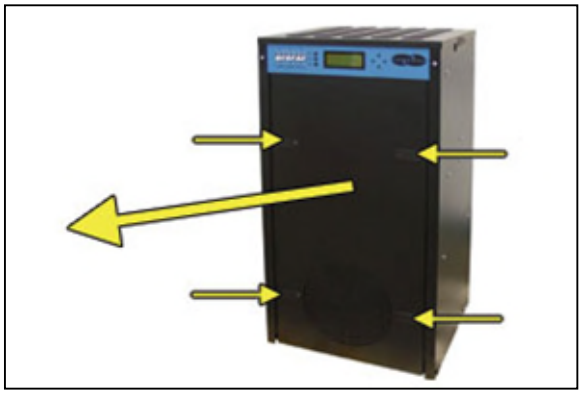
**6.5.1** Remove all shipping materials.

**NOTE:** If ANY SHIPPING DAMAGE is detected, file a claim with the shipping company prior to continuing the installation procedures.



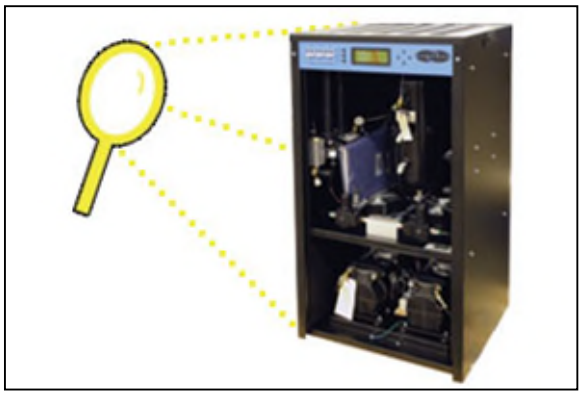
**6.5.2** Place the dryer at the operating location.

**6.5.3** Remove the front panel.



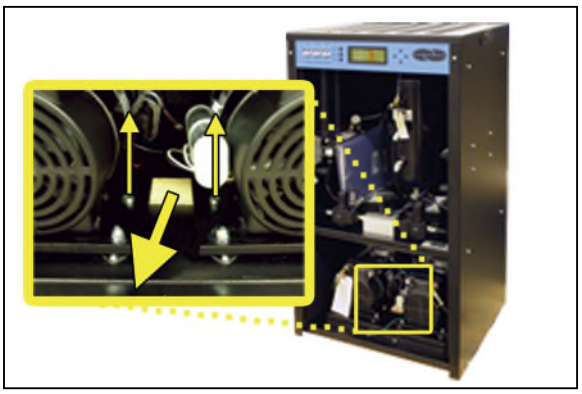
**6.5.4** Check for loose parts, hoses, or wiring.

**NOTE:** If ANY SHIPPING DAMAGE is detected, file a claim with the shipping company prior to continuing the installation procedures.

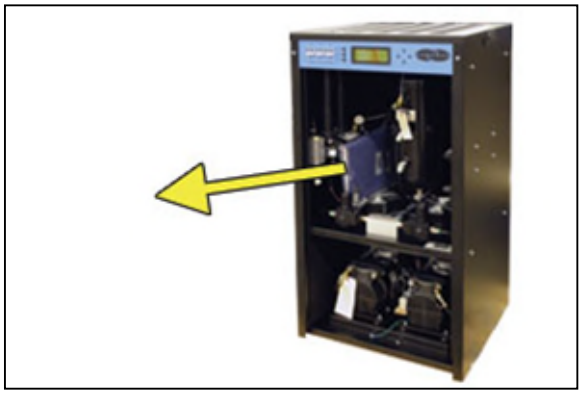


**6.5.5** Remove the shipping block from under the compressor plates.

Discard block and bolts.

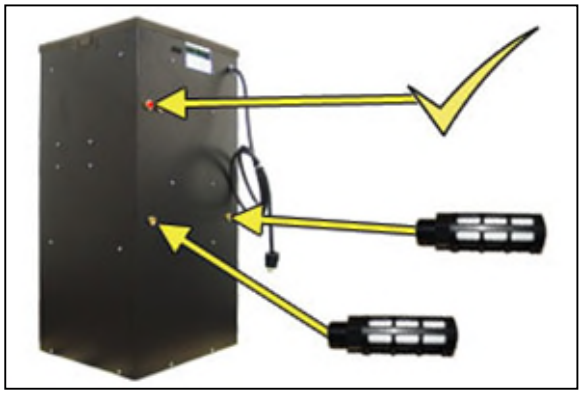


**6.5.6** Remove the ship-loose contents package.



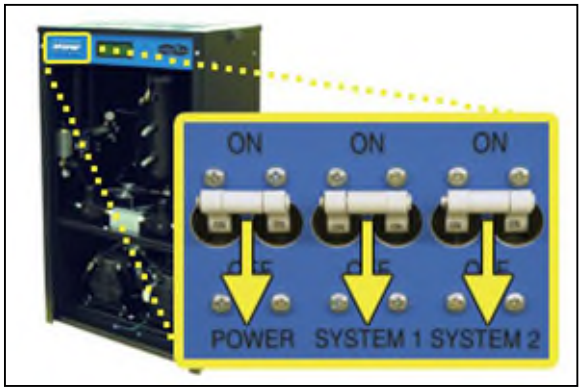
**On BACK of dryer:**

**6.5.7** Verify that the red orifice plug is still installed where shown.



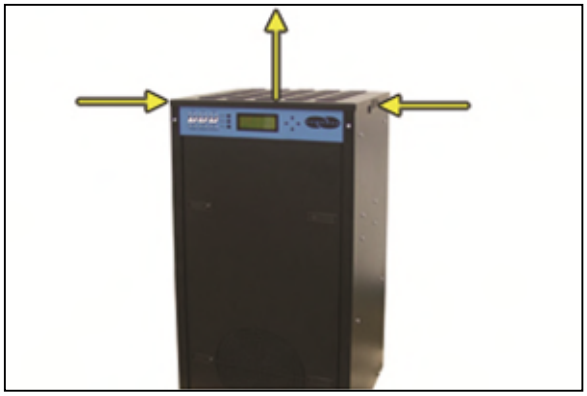
**6.5.8** Install the two (2) purge mufflers (shipped loose).

**6.5.9** Verify that the dryer is powered **OFF**.



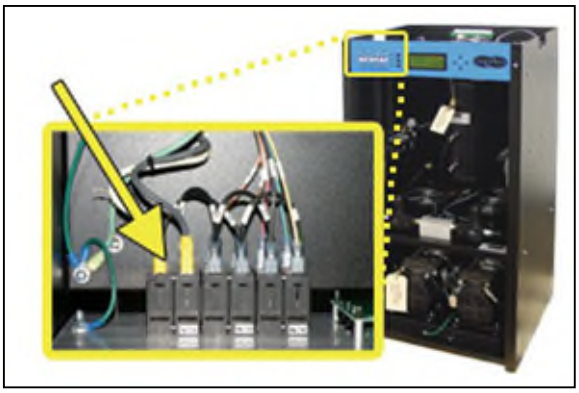

**6.5.10** Plug the power cord into a 190 - 230 VAC, 1 phase, 50 / 60 Hz power outlet. (HBL9965C Compatible)


**6.5.11** Remove the Top Cover from the dryer.

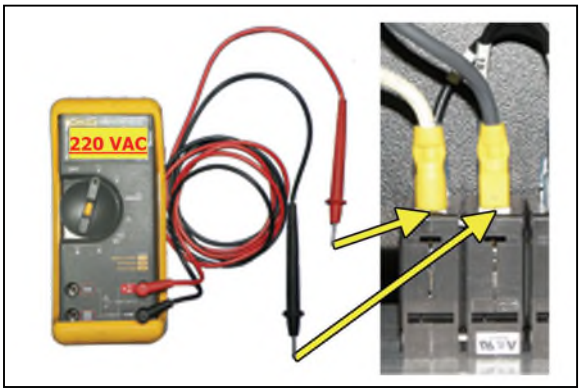


**6.5.12** Verify incoming voltage measurement:

**6.5.12.1** Locate the Main POWER Circuit Breaker.



**6.5.12.2** Use a Voltmeter to measure the voltage by placing the probes between the Circuit Breaker and terminal insulation so that they touch the metal contacts.

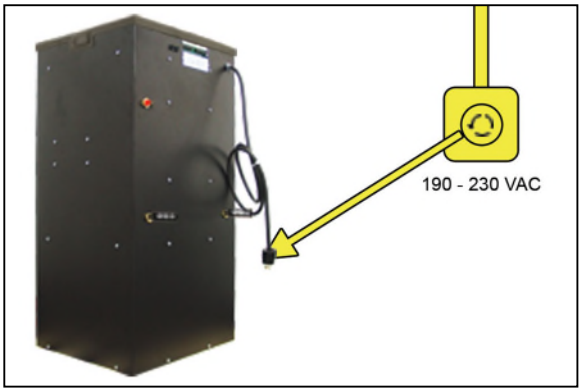



If the voltage measures between 210 – 230 VAC, **skip to step 6.5.14 .**

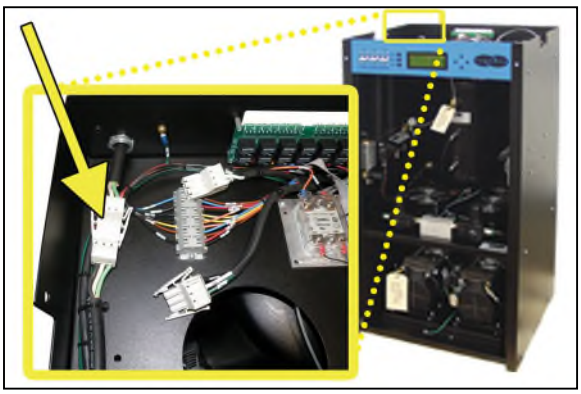
If the voltage measures less than 210 VAC, continue to the next steps to engage the Boost Transformer.

**6.5.13** Engage the Boost Transformer:

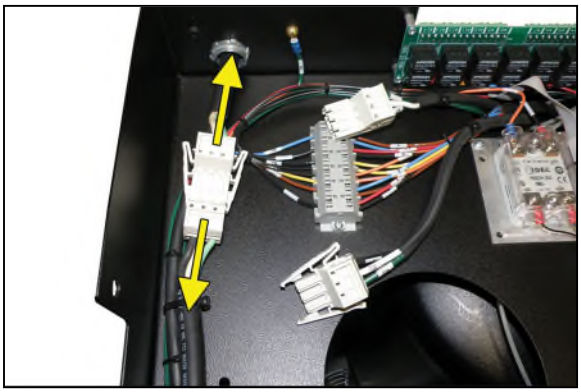
**6.5.13.1** Unplug the power cord from the power outlet.



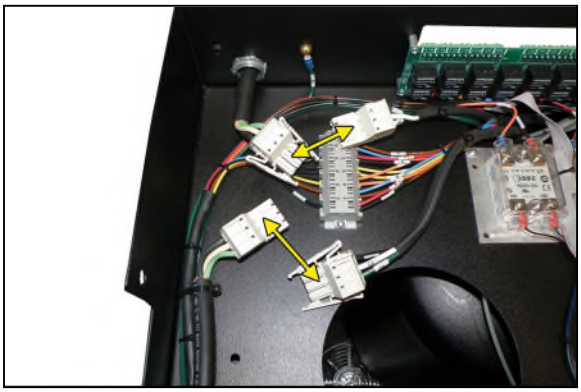
**6.5.13.2** Locate the Main Power Lead quick disconnects in the top section of the dryer.



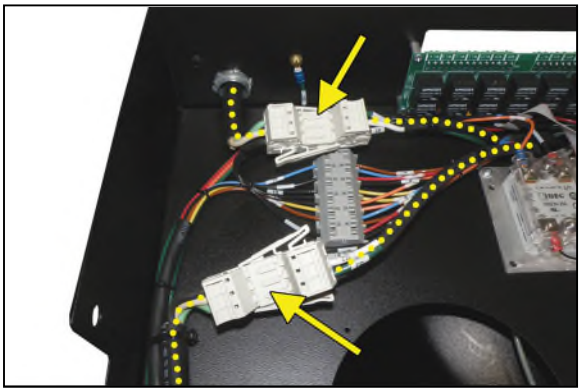
**6.5.13.3** Unplug the Main Power Lead quick disconnects.



**6.5.13.4** Plug both of the Boost Transformer Lead connectors into the Main Power Lead connectors.



The incoming power wiring should now look like this:

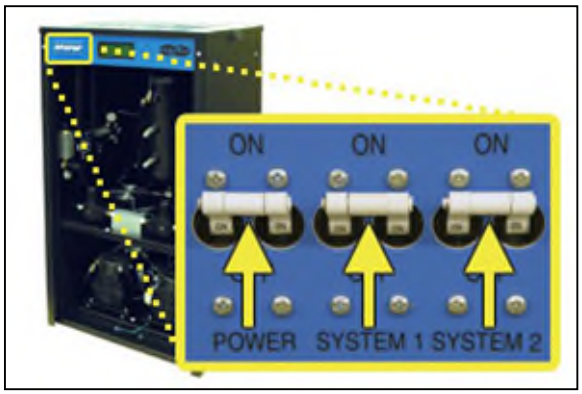


**6.5.13.5** Plug the power cord back into the power outlet.


**6.5.14** Reinstall the Top Cover back onto the dryer.

**6.5.15** Turn the dryer power **ON**.

**NOTE**: Both system compressors and heatless dryers will start, creating air flow through the red outlet pressure orifice.



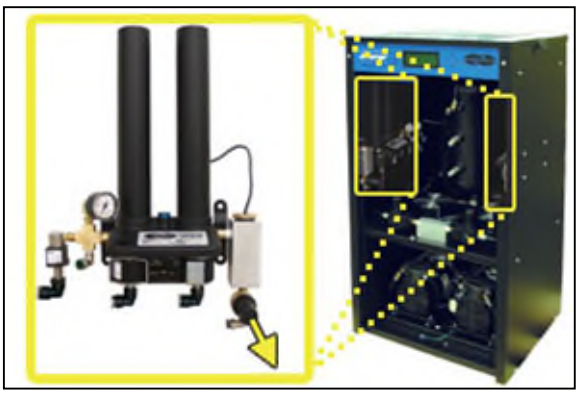

**6.5.16** Set the System Pressures:

System 1 & System 2 are adjusted and set independently.

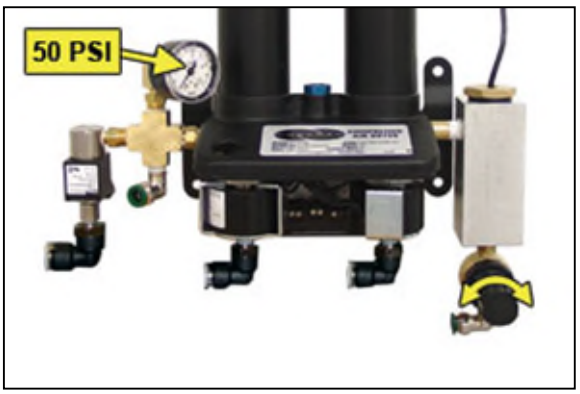
Perform the following steps for System 1 (left) and then repeat the steps for System 2 (right).

**With Compressor running:**

**6.5.16.1** Pull the Capacity Control Valve knob out.



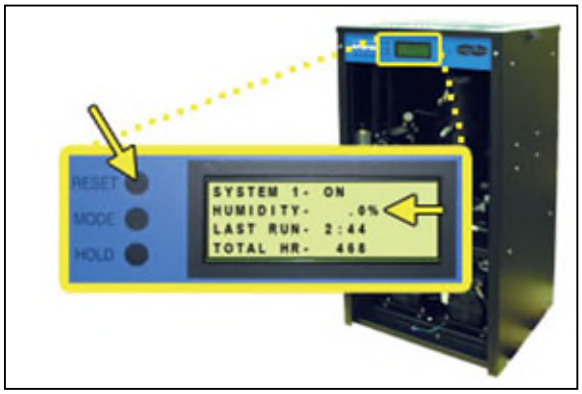
**6.5.16.2** Turn the knob until the reading on the pressure gauge is **50 PSI**.



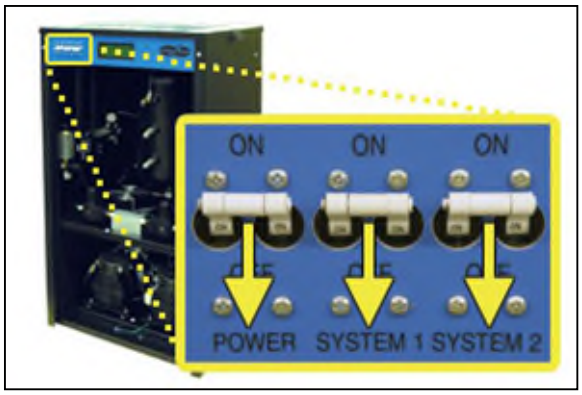

**6.5.16.3** Push the knob in to lock.

**6.5.17** Let the dryer run until the Humidity drops under 2% on both System 1 and System 2 (may take up to 15 minutes).

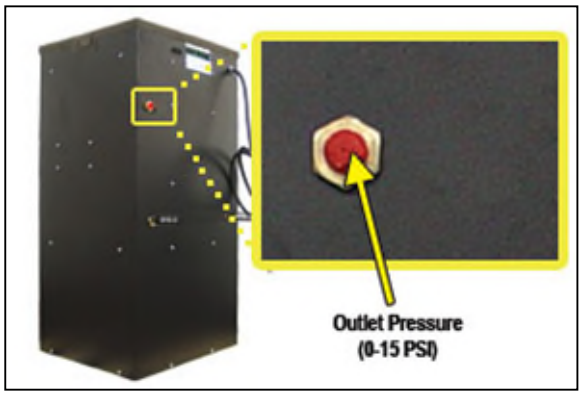
**NOTE**: Press **RESET** if either System goes into **SHUTDOWN**.




**6.5.18** Turn the dryer **OFF**.



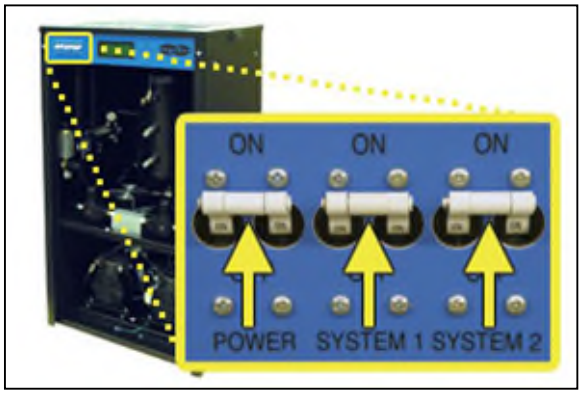
**6.5.19** Connect the air supply line to the dryer.




⚠ **CAUTION**: Be careful when removing outlet plug. System may be pressurized.

*ALTEC AIR recommends using Installation Kit **P011752** to connect your dryer to the air supply line (See section 11.6 for detail).*

**6.5.20** Turn the dryer **ON**.

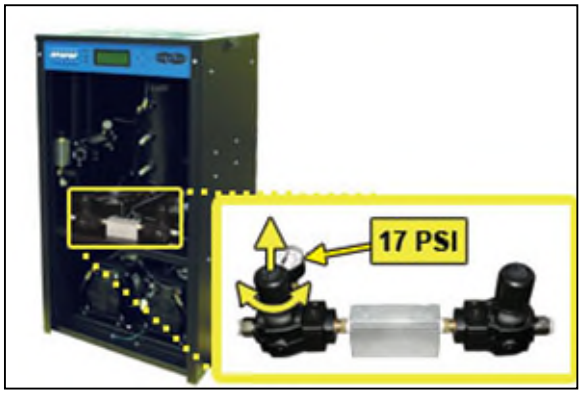



**6.5.21** Set the Static Pressure:

**6.5.21.1** Pull Static Pressure Regulator knob out.

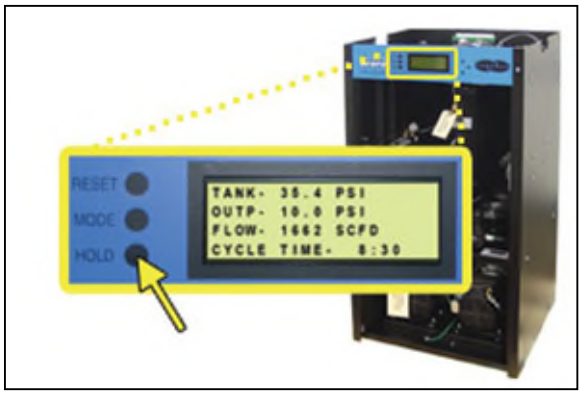
**6.5.21.2** Turn knob until the reading on the pressure gauge is **17 PSI**.

**6.5.21.3** Push knob in to lock.



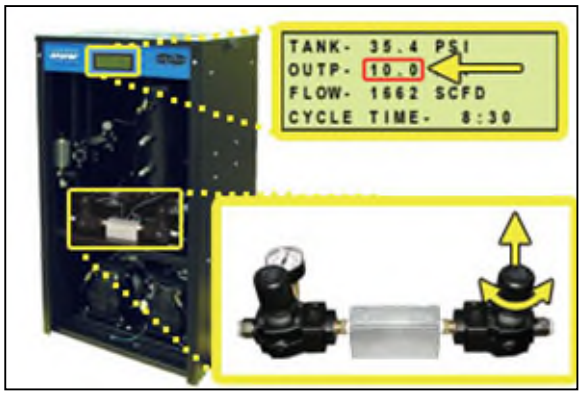
**6.5.22** Set the Outlet Pressure:

**6.5.22.1** When the Unit Screen (8.4.5.1 ) appears on the display, press the **HOLD Button** on the Front Panel to freeze that screen.




**6.5.22.2** Pull the Outlet Pressure Regulator knob out.

**6.5.22.3** Turn knob until Outlet Pressure (**OUTP**) reading is at the desired setting.




**6.5.22.4** Push knob in to lock.

**6.5.23** Check for air leaks:

**NOTE:** This is a general procedure that can be applied to any fitting or hose that has air pressure in it. **DO NOT SOAP TEST THE HUMITTER FITTING. DAMAGE TO THE HUMITTER MAY OCCUR.**

**With Compressor(s) NOT running:**

**6.5.23.1** Listen for any 'hissing' sounds which may indicate a fitting or hose air leak.

**With Compressor(s) running:**

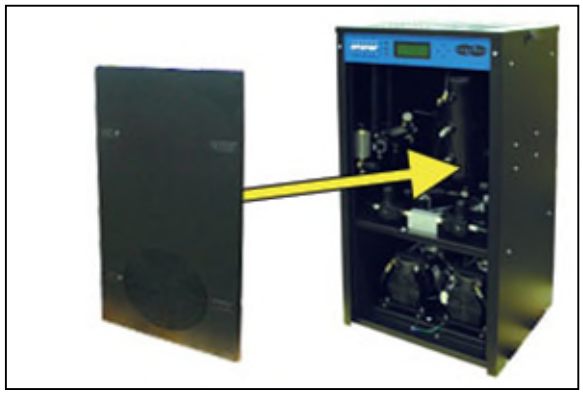
**6.5.23.2** Use a 1-inch paint brush to dab soapy water on the air fitting or hose connection to be tested.


If air bubbles appear at the connection, this indicates that air is leaking from the connection.

*If any leaks are detected, take steps to seal them off (as necessary):*

- *Tighten the fitting*
- *Re-connect the hose end*
- *Replace the fitting / hose / component*

**6.5.24** Re-install the front panel.



**6.5.25 REGISTER YOUR DRYER.** *See section 7. for details.*

## 6.6 Installation Checklist

- ☐ No shipping damage was detected.
- ☐ Dryer location meets the following requirements:
  - Well ventilated
  - Free from abrasive dust or chemicals
  - Ambient temperature is between 40° and 85° F (optimal)
- ☐ Operating Power is between 210 – 230 VAC.
- ☐ Shipping block removed from compressor trays.
- ☐ System Pressures are set to 50 PSI.
- ☐ Static Pressure is set to 17 PSI.
- ☐ No air leaks are present in the system.
- ☐ No alarms are present on the Display Panel.

# 7. Registering Your Dryer

Please take a moment to register your ALTEC AIR P6500W Air Dryer. Registering is necessary to activate the Limited Warranty on your product. Once you register, you are eligible to receive free technical support, as well as updates concerning your ALTEC AIR products.

Register Online at www.altecair.com/registration

Or by Phone 1-800-521-5351 **(option 2)**

Have the following information available:

**Model #:** **P6500W** **Serial #:**_____

**Company Name**:_____ **Location Name**:_____

**Shipping Address**:_____

**City**:_____ **State**:_____ **Zip Code**:_____

**Contact Name**:_____ **Phone #**: (___) ___ - ____ **ext**. ____

**Email**:_____

# 8. Operating Your Dryer

## 8.1 Safety & Warning Information

**WARNING!**

**Extreme care should be exercised to avoid contact with live electrical circuits.** Many procedures performed during installation, operation, testing, and maintenance of this air dryer require the equipment to be running, creating a situation for potential electrical shock. It is highly recommended that you remove all jewelry before performing any procedures.

**WARNING!**

**Internal surfaces may be hot**. Use care when coming into contact with internal components as there is a potential for some of these components to become hot when in operation or standby.

**WARNING!**

**High Noise**. ALTEC AIR air dryers are meant to be installed in an unattended area.

**CAUTION!**

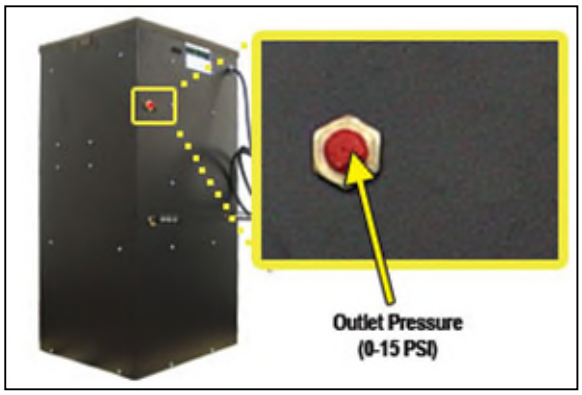
Observe precautions for handling **Electrostatic Sensitive Devices.**

**IMPORTANT!**

Performing procedures not described in this User's Guide or installing components not supplied by ALTEC AIR is NOT RECOMMENDED AND MAY VOID THE WARRANTY.

## 8.2 Connecting Air Lines to the Dryer

**8.2.1** Connect the air supply line to the dryer Outlet Pressure port (adjustable between 0-15 PSI)

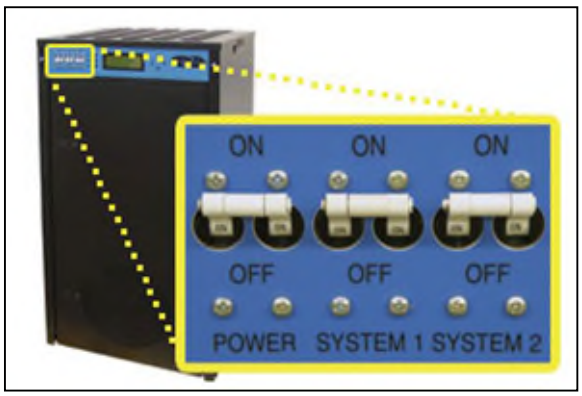



⚠ **CAUTION**: Be careful when removing outlet plugs. System may be pressurized.

*ALTEC AIR recommends using Installation Kit **P011752** to connect your air dryer to the air supply line (See section 11.6 for detail).*

## 8.3 Powering the Dryer ON & OFF

**8.3.1** **POWER** Circuit Breaker - Controls the main power to the dryer. This must be in the **ON** position for either System 1 or System 2 to be powered ON.




**8.3.2** **SYSTEM 1** Circuit Breaker - Turns System 1 ON/OFF.

**8.3.3** **SYSTEM 2** Circuit Breaker - Turns System 2 ON/OFF.

## 8.4 Using the Front Panel Display

**CAUTION!**

The Display Screen is covered by a clear protective layer that guards against Electrostatic Discharge (ESD). DO NOT REMOVE THIS LAYER.


**8.4.1 RESET Button** – Clears an alarm and allows the system to continue operating.

**8.4.2 MODE Button** – Changes the System Cycle Mode:

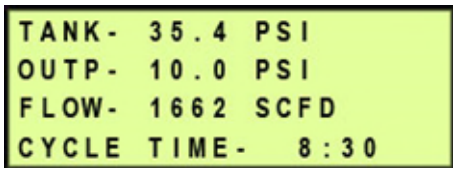
- **24 HOUR CYCLE** – Cycles between System 1 & System 2 every 24 hours (when the CYCLE TIME on the Unit Screen reaches 00:00). One system will be Online (**ON**) and the other in **STANDBY**.
- **BOTH** – Runs both System 1 and System 2 simultaneously.
- **SYSTEM 1 ONLY** – Runs only System 1 and leaves System 2 in Standby.
- **SYSTEM 2 ONLY** - Runs only System 2 and leaves System 1 in Standby.

**8.4.3 HOLD Button** – Freezes the current information screen on the display. When pressed again, it will allow the information screens to begin cycling again.

**8.4.4 Arrow Buttons** – Used to access, navigate, and change values in the Set Point Adjust screens.

**8.4.5 Display Screen** - Shows the current dryer readings. Will cycle between the following information screens (unless the **HOLD** button has been pressed):

#### 8.4.5.1 Tank Screen




**TANK** – Air Tank pressure - fluctuates between 20 – 50 PSI.

**OUTP** –Outlet Pressure regulated by the Outlet Pressure Regulator

**FLOW** – Air Flow Rate

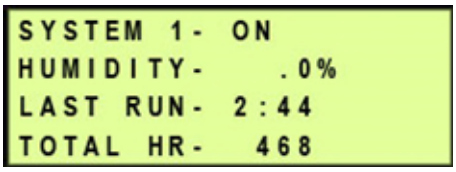
**CYCLE TIME** – Represents the progress of the air dryer through a 24 hour cycle. Range from 00:00 – 23:59

#### 8.4.5.2 Compress Screen


**COMPRESS** – Temperature of the lower compressor compartment.

**CABINET** – Temperature of the upper circuit board compartment.

#### 8.4.5.3 System Screens (*System* = System 1 or System 2)*





**SYSTEM*** - Running Status of System*:

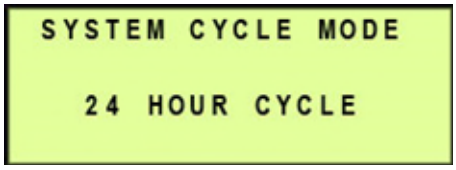
- **ON** – System* is Online in the dryer cycle mode.
- **STANDBY** – System* is not Online in the dryer cycle mode.
- **SHUTDOWN** – System* has been shutdown as a result of either a Humidity, High Compressor Temperature, or High Cabinet Temperature alarm.

**HUMIDITY** – Humidity level of System*.

**LAST RUN** – How many minutes the System* compressor ran during the last Air Tank pressurization cycle.

**TOTAL HR** – How many hours the System* compressor has run since the last Total Hour Reset.

#### 8.4.5.4 System Cycle Mode Screen

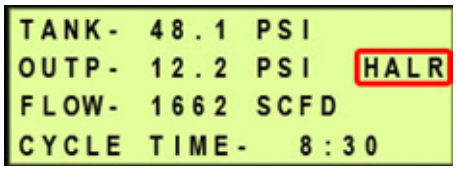



Displays the current System Cycle Mode setting:

- **24 HOUR CYCLE** – Cycles between System 1 & System 2 every 24 hours (when the **CYCLE TIME** on the Unit Screen reaches 00:00). Puts one system Online and the other in Standby.
- **BOTH** – Runs both System 1 and System 2 simultaneously.
- **SYSTEM 1 ONLY** – Runs only System 1 and leaves System 2 in Standby.
- **SYSTEM 2 ONLY** - Runs only System 2 and leaves System 1 in Standby.

## 8.5 Identifying Dryer Alarms

### 8.5.1 High Outlet Pressure Alarm -

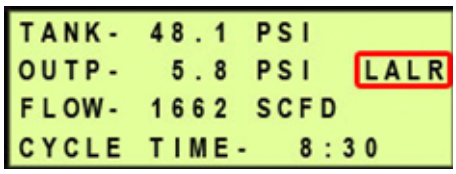



Occurs when the Outlet Pressure (**OUTP**) rises above the alarm set point for more than one (1) minute.

(Default setting is 12.0 PSI)

*See section 13.5 for troubleshooting information.*

### 8.5.2 Low Outlet Pressure Alarm –

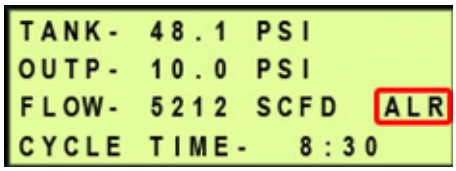



Occurs when the Outlet Pressure (**OUTP**) drops below the alarm set point for more than one (1) minute.

(Default setting is 6.5 PSI)

*See section 13.7 for troubleshooting information.*

### 8.5.3 High Flow Alarm –

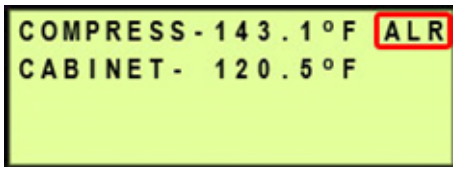



Occurs when the Flow Rate (**FLOW**) rises above the alarm set point for more than one (1) minute.

(Default setting is 4500 SCFD)

*See section 13.9 for troubleshooting information.*

### 8.5.4 High Compressor Temperature Alarm –

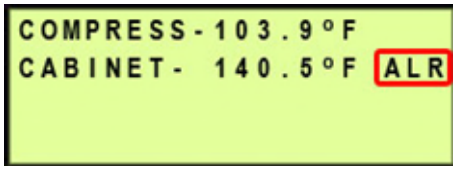



Occurs when the temperature in the lower compressor compartment rises above 140°F for more than one (1) minute.

If this alarm is present for one (1) minute or more, the air dryer will go into **SHUTDOWN** mode to protect against damage due to overheating.

*See section 13.16 for troubleshooting information.*

### 8.5.5 High Cabinet Temperature Alarm -

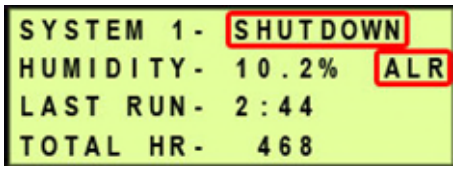



Occurs when the temperature in the upper circuit board compartment rises above 140°F for more than one (1) minute.

If this alarm is present for one (1) minute or more, the air dryer will go into **SHUTDOWN** mode to protect against damage due to overheating.

*See section 13.10 for troubleshooting information.*

### 8.5.6 High Humidity Alarm –



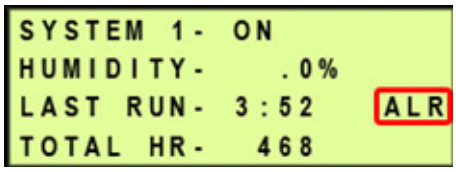

Occurs when the Humidity level rises above the alarm set point for more than one (1) minute.

(Default setting is 10.0%)

If this alarm is present for one (1) minute or more, the air dryer will go into **SHUTDOWN** mode to prevent saturated air from being delivered to the supply line.

*See section 13.11 for troubleshooting information.*

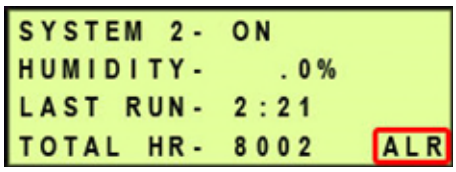
### 8.5.7 Compressor Excessive Run Time Alarm –




Occurs when the compressor takes longer to pressurize the air tank than the set point for the alarm. (Default setting is 3:00 minutes)

*See section 13.17 for troubleshooting information.*

### 8.5.8 Compressor Total Hour Alarm –




Occurs when the compressor has reached an 8,000 hour maintenance interval. Perform the next required maintenance.

*See section 10.3 for maintenance information.*

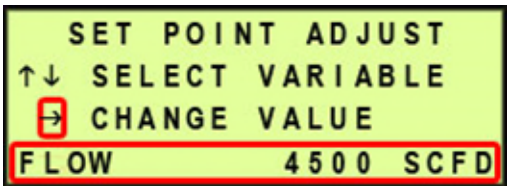
## 8.6 Adjusting & Resetting Dryer Set Points

Dryer Set Points are simply limits programmed for a specific reading. Once this limit is reached (or exceeded) this results in an alarm for that reading. Each of these set points is factory programmed with a default value based on typical usage of the air dryer. Many of the set points for dryer alarms can be modified to levels more closely based upon your specific application. Reference Appendix Section 14.2 for Limits and Defaults.

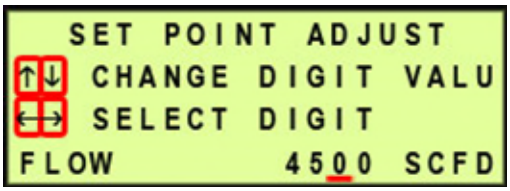
- Press the Up (↑) Arrow Button to access the Set Point Adjust screens.
- Press the Up (↑) & Down (↓) Arrow Buttons to navigate through the available Set Point Adjust screens.
- To change a specific Set Point:

**8.6.1 High Flow Alarm Set Point** (default setting is 4500 SCFD) –

**8.6.1.1** Press the Right (→) Arrow Button to access the Change Value Screen.




**8.6.1.2** Press the Right (→) & Left (←) Arrow Buttons to move the underscore beneath the digit to change.

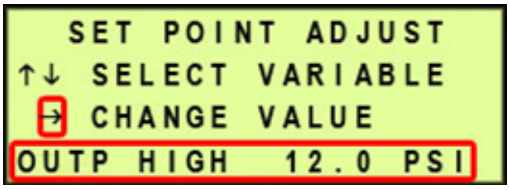



**8.6.1.3** Press the Up (↑) & Down (↓) Arrow Buttons to change the value of the selected digit.

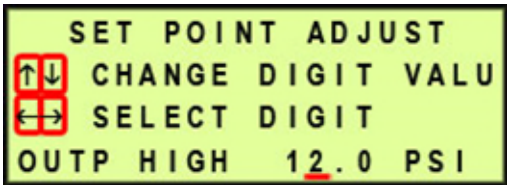
**8.6.1.4** Press the Right (→) Arrow Button until the underscore disappears. This will lock in the new setting value.

**8.6.2 High Outlet Pressure Alarm Set Point** (default setting is 12 PSI) –

**8.6.2.1** Press the Right (→) Arrow Button to access the Change Value Screen.




**8.6.2.2** Press the Right (→) & Left (←) Arrow Buttons to move the underscore beneath the digit to change.

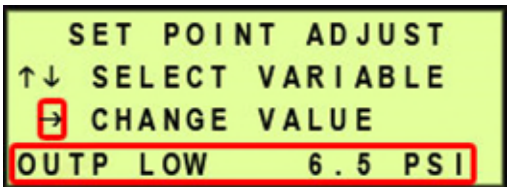



**8.6.2.3** Press the Up (↑) & Down (↓) Arrow Buttons to change the value of the selected digit.

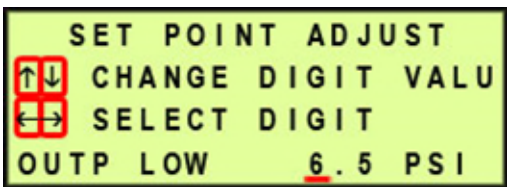
**8.6.2.4** Press the Right (→) Arrow Button until the underscore disappears. This will lock in the new setting value.

**8.6.3 Low Outlet Pressure Alarm Set Point** (default setting is 6.5 PSI) –

**8.6.3.1** Press the Right (→) Arrow Button to access the Change Value Screen.




**8.6.3.2** Press the Right (→) & Left (←) Arrow Buttons to move the underscore beneath the digit to change.

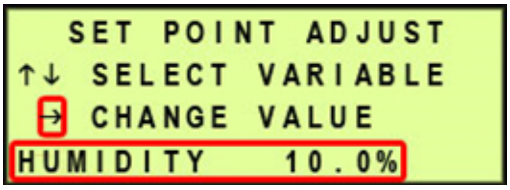



**8.6.3.3** Press the Up (↑) & Down (↓) Arrow Buttons to change the value of the selected digit.

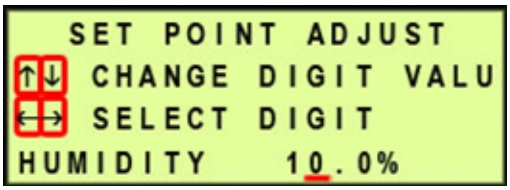
**8.6.3.4** Press the Right (→) Arrow Button until the underscore disappears. This will lock in the new setting value.

**8.6.4 High Humidity Alarm Set Point** (default setting is 10.0%) –

**8.6.4.1** Press the Right (→) Arrow Button to access the Change Value Screen.




**8.6.4.2** Press the Right (→) & Left (←) Arrow Buttons to move the underscore beneath the digit to change.

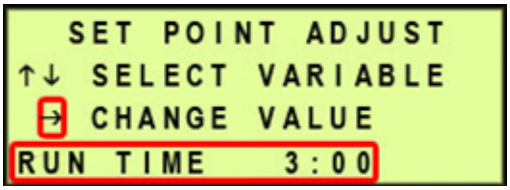



**8.6.4.3** Press the Up (↑) & Down (↓) Arrow Buttons to change the value of the selected digit.

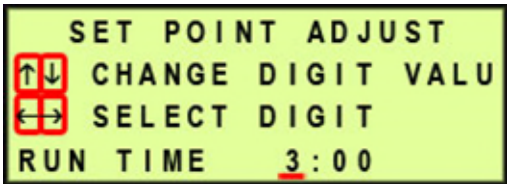
**8.6.4.4** Press the Right (→) Arrow Button until the underscore disappears. This will lock in the new setting value.

**8.6.5 Excessive Compressor Run Time Alarm Set Point** (default setting is 3:00 minutes) –

**8.6.5.1** Press the Right (→) Arrow Button to access the Change Value Screen.




**8.6.5.2** Press the Right (→) & Left (←) Arrow Buttons to move the underscore beneath the digit to change.




**8.6.5.3** Press the Up (↑) & Down (↓) Arrow Buttons to change the value of the selected digit.

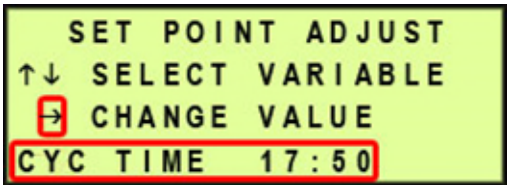
**8.6.5.4** Press the Right (→) Arrow Button until the underscore disappears. This will lock in the new setting value.

**8.6.6 Cycle Time Set Point** –

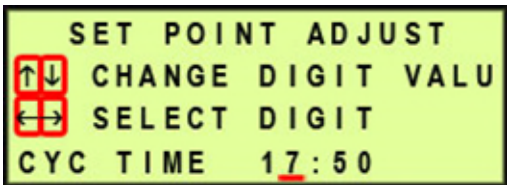
The Cycle Time represents the progress of the air dryer through a 24 hour cycle (00:00 – 23:59). The air dryer will cycle when the timer reaches 00:00.

- Setting the timer to the current clock time will cause the dryer to cycle at midnight each day.
- Setting the timer to 00:00 when the current clock time is 8:00 am will cause the dryer to cycle at exactly 8:00 am each day.

**8.6.6.1** Press the Right (→) Arrow Button to access the Change Value Screen.




**8.6.6.2** Press the Right (→) & Left (←) Arrow Buttons to move the underscore beneath the digit to change.




**8.6.6.3** Press the Up (↑) & Down (↓) Arrow Buttons to change the value of the selected digit.

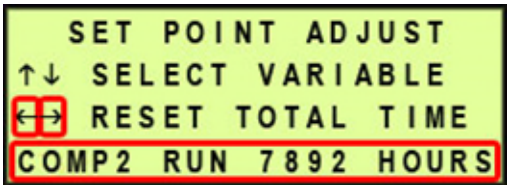
**8.6.6.4** Press the Right (→) Arrow Button until the underscore disappears. This will lock in the new setting value.

**8.6.7 System 1 Compressor Total Hour Reset** –

**8.6.7.1** Press and Hold the Left (←) & Right (→) Arrow Buttons at the same time until the value resets to zero (0).

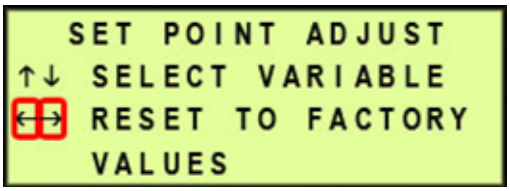
**8.6.8 System 2 Compressor Total Hour Reset** –

**8.6.8.1** Press and Hold the Left (←) & Right (→) Arrow Buttons at the same time until the value resets to zero (0).




**8.6.9 Reset to Factory Values** –

**8.6.9.1** Press and Hold the Left (←) & Right (→) Arrow Buttons at the same time until screen flickers. This will signify the default values have reset.

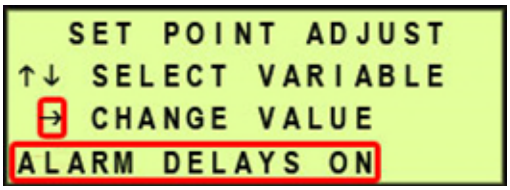



**8.6.10 Alarm Delays Set Point**

The Alarm Delay allows an alarm condition to be present for up to one (1) minute before signaling the alarm. This allows the dryer to come out of the alarm condition on its own without signaling an alarm.

**ON** (default) – waits one (1) minute before signaling alarms

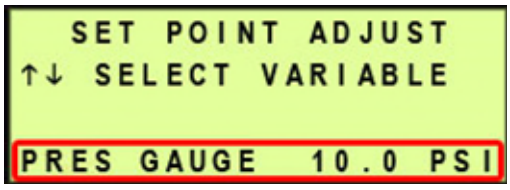
**OFF** – signals alarms immediately




**8.6.10.1** Press the Right (→) Arrow Button to change the value.

**8.6.11 Pressure Gauge** –

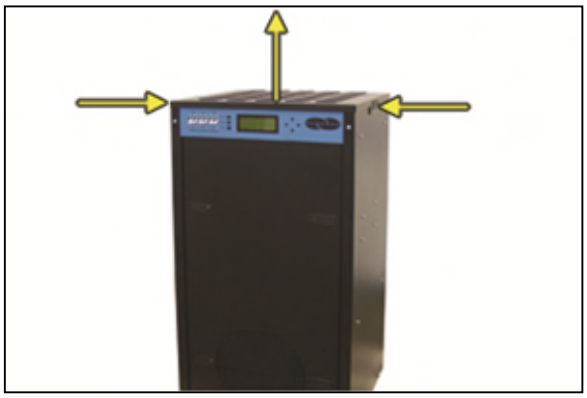
This is an information screen only and will not time-out, returning to the cycling information screens. It also masks air dryer alarms while in use. This screen can be used during air dryer troubleshooting.



## 8.7 Opening Panels

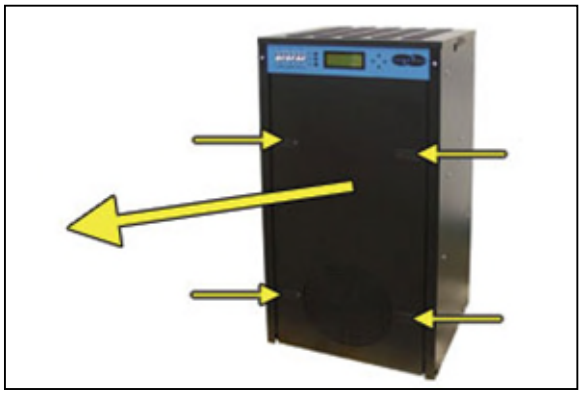
**8.7.1 Removing Top Cover** –

**8.7.1.1** Depress the latches and pull the Top Cover off.



**8.7.2 Removing Front Panel** –

**8.7.2.1** Depress the latches and pull the Front Panel out.

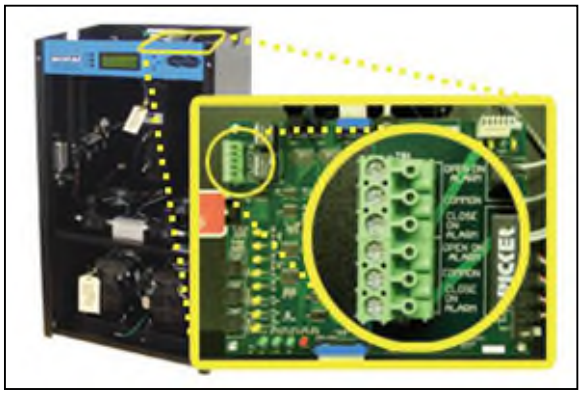


## 8.8 Connecting to Common Alarm Terminals

**8.8.1** Remove Top Cover (see section 8.7.1 )

**8.8.2** Connect the external wire pair to the Common Alarm terminals.

**NOTE**: There are two (2) redundant terminal blocks allowing multiple connections.



**8.8.3** Reinstall Top Cover.

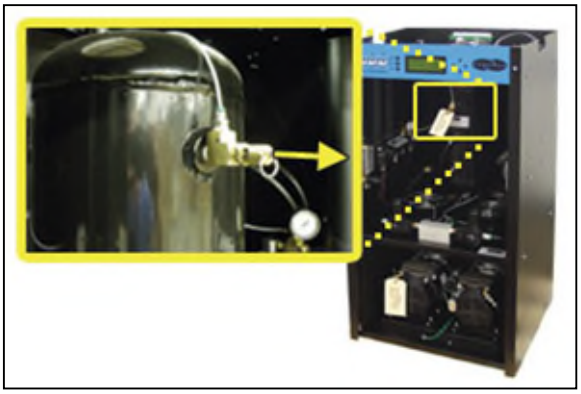
## 8.9 Connecting to Discrete Alarm Terminals

**8.9.1** Connect the external wire pair to the specific alarm terminal.

## 8.10 Depressurizing the Dryer

**8.10.1** Remove Front Panel (see section 8.7.2 )

**8.10.2** Pull the ring handle on the Safety Relief Valve until all air pressure is released.



**8.10.3** To prevent pressure from building back up, power the dryer **OFF** *(See section 8.3 for detail).*

**8.10.4** Reinstall Front Panel.

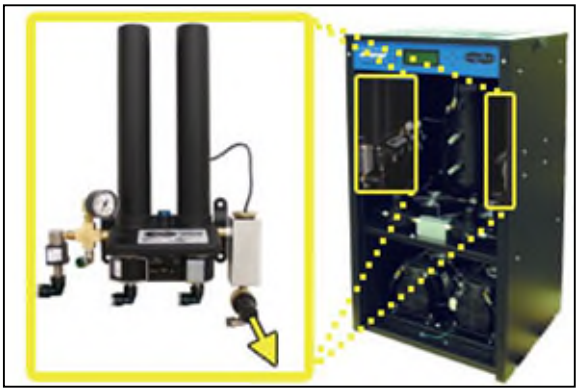
## 8.11 Setting the System Pressure

System 1 & System 2 are adjusted and set independently.

**With Compressor running:**

**8.11.1** Remove Front Panel (see section 8.7.2 )

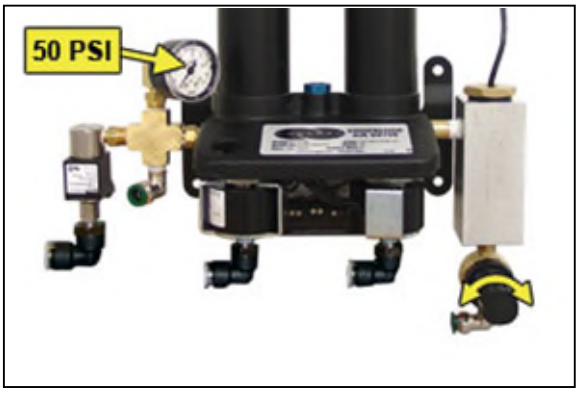
**8.11.2** Pull the Capacity Control Valve knob out.



**8.11.3** Turn the knob until the reading on the Pressure Gauge is **50 PSI**.

**8.11.4** Push the knob in to lock.

**8.11.5** Reinstall Front Panel.

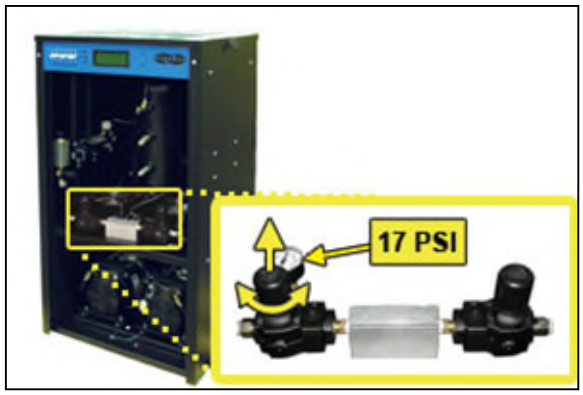


## 8.12 Setting the Static Pressure

**8.12.1** Remove Front Panel (see section 8.7.2 )

**8.12.2** Pull Static Pressure Regulator knob out.

**8.12.3** Turn knob until the reading on the pressure gauge is **17 PSI**.



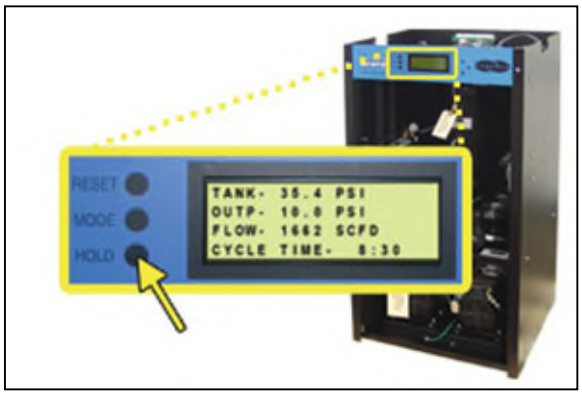

**8.12.4** Push knob in to lock.

**8.12.5** Reinstall Front Panel.

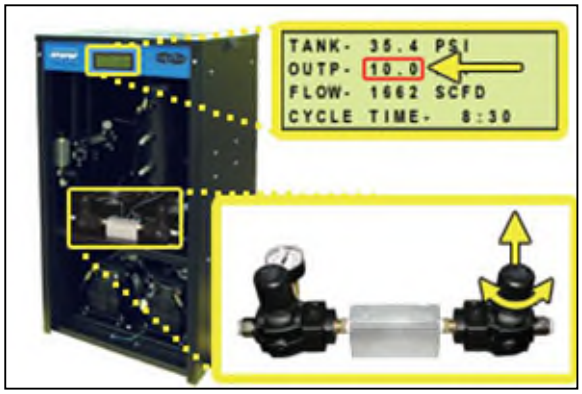
## 8.13 Setting the Outlet Pressure

**8.13.1** Remove Front Panel (see section 8.7.2 )

**8.13.2** When the Unit Screen (8.4.5.1 appears on the display, press the **HOLD Button** on the Front Panel to freeze that screen.



**8.13.3** Pull the Outlet Pressure Regulator knob out.



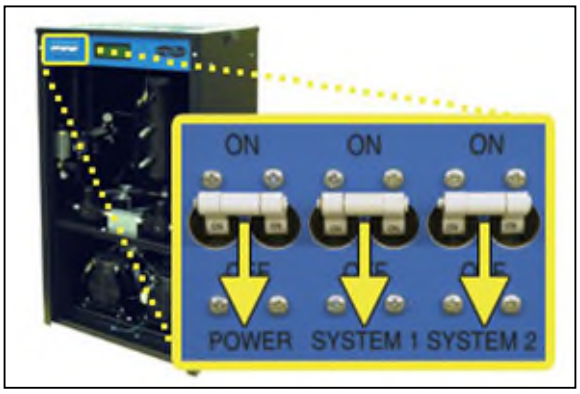

**8.13.4** Turn knob until Outlet Pressure (**OUTP**) reading is at the desired setting.

**8.13.5** Push knob in to lock.

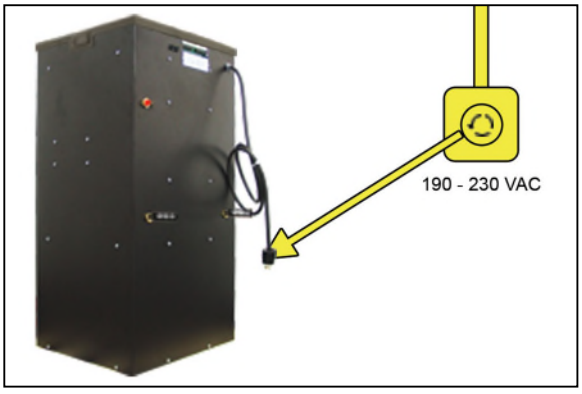
**8.13.6** Reinstall Front Panel.

## 8.14 Engaging the Boost Transformer

**8.14.1** Turn the dryer **OFF**.

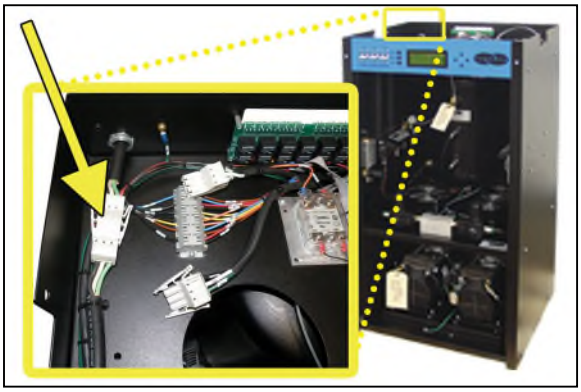



**8.14.2** Unplug the power cord from the power outlet.

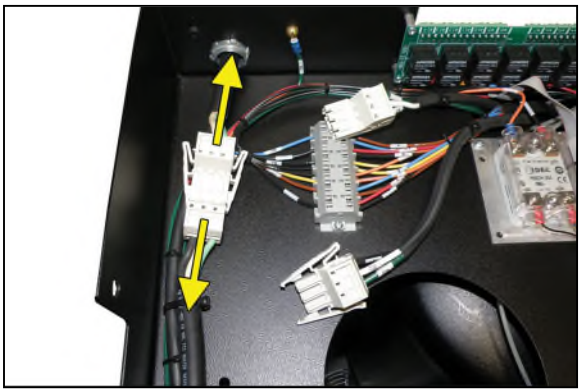



**8.14.3** Remove Top Cover (see section 8.7.1 )

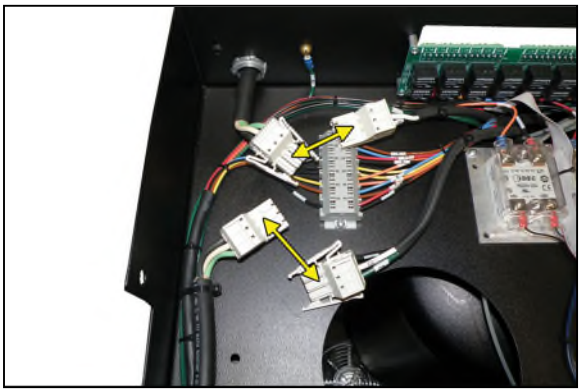
**8.14.4** Locate the Main Power Lead quick disconnects in the top section of the dryer.



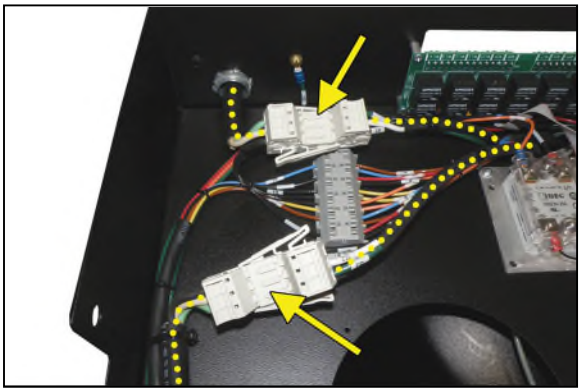
**8.14.5** Unplug the Main Power Lead quick disconnects.



**8.14.6** Plug both of the Boost Transformer Lead connectors into the Main Power Lead connectors.

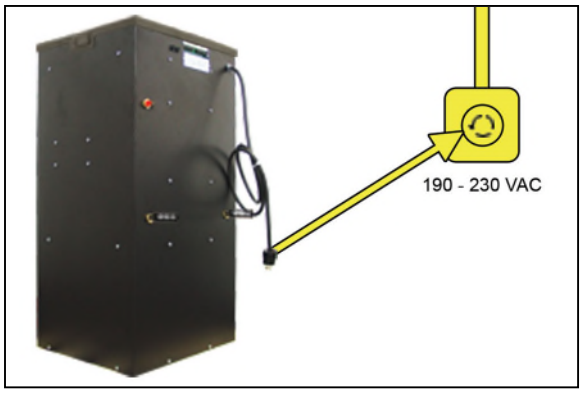


The incoming power wiring should now look like this:

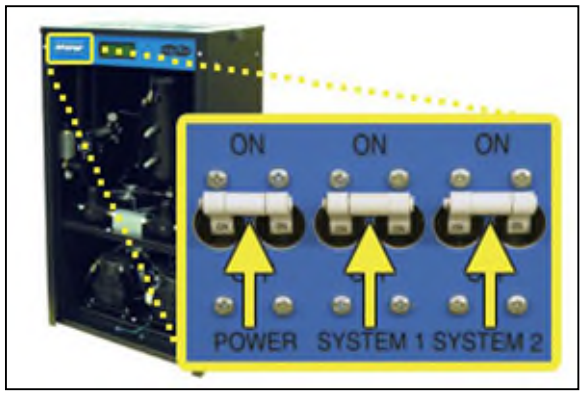


**8.14.7** Reinstall the Top Cover back the dryer.

**8.14.8** Plug the power cord back into the power outlet.




**8.14.9** Turn the dryer **ON**.



# 9. Testing Your Dryer

**NOTE:** Many of the procedures described in this section will be easier with both System 1 and System 2 operating. It is recommended that you change the System Cycle Mode to **BOTH** for the following procedures *(see section 8.4.2 for details on changing modes)*.

## 9.1 Safety & Warning Information

**WARNING!**

**Extreme care should be exercised to avoid contact with live electrical circuits.** Many procedures performed during installation, operation, testing, and maintenance of this air dryer require the equipment to be running, creating a situation for potential electrical shock. It is highly recommended that you remove all jewelry before performing any procedures.

**WARNING!**

**Internal surfaces may be hot**. Use care when coming into contact with internal components as there is a potential for some of these components to become hot when in operation or standby.

**WARNING!**

**High Noise**. ALTEC AIR air dryers are meant to be installed in an unattended area.

**CAUTION!**

Observe precautions for handling **Electrostatic Sensitive Devices.**

**CAUTION!**

Depressurizing the air dryer may be necessary before performing certain procedures. **NEVER** remove pressure sensing tubes from the control board without depressurizing the air dryer first, or **damage to the control board will occur.**

## 9.2 Measuring Compressor Amp Draw

**WARNING!**

**Internal surfaces may be hot**. Use care when coming into contact with internal components as there is a potential for some these components to become hot when in operation or standby.

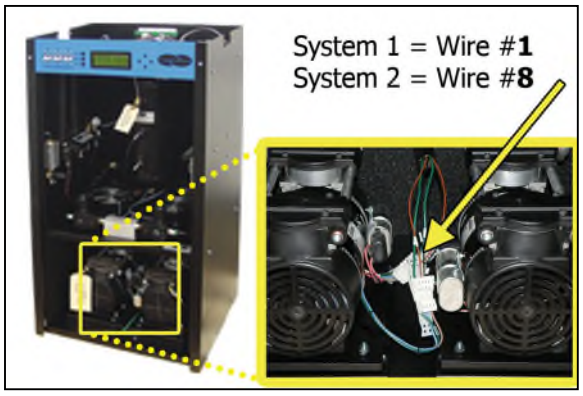
**With the Compressor running:**

**9.2.1** Remove Front Panel (see section 8.7.2 )

**9.2.2** Locate the hot lead wire going to the Compressor you will be measuring:

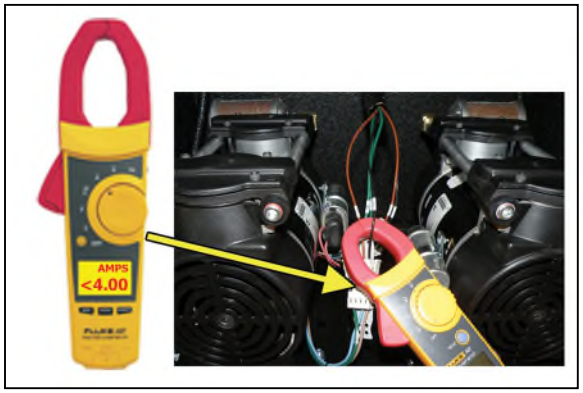
System 1 = **Wire #1**

System 2 = **Wire #8**




**9.2.3** Use an Amp Meter to measure the running amps.

With the compressor running, the running amps should measure **4.0 amps or below**.




**9.2.4** Reinstall Front Panel.

*If the compressor measures over 4.0 running amps, see section 13.15 for troubleshooting information.*

## 9.3 Measuring Voltage to Compressor

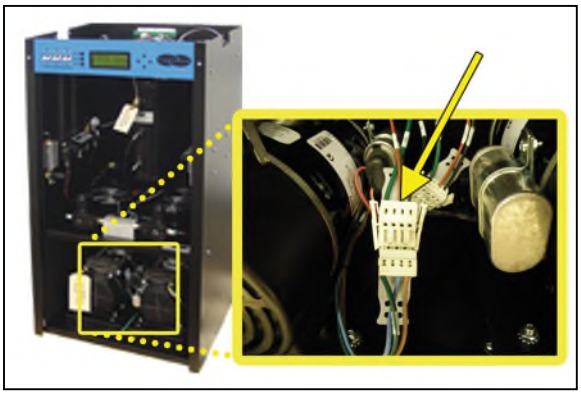
**WARNING!**

**Extreme care should be exercised to avoid contact with live electrical circuits.** It is highly recommended that you remove all jewelry before performing any procedures.

**9.3.1** Remove Front Panel (see section 8.7.2 )

**With the Compressor running:**

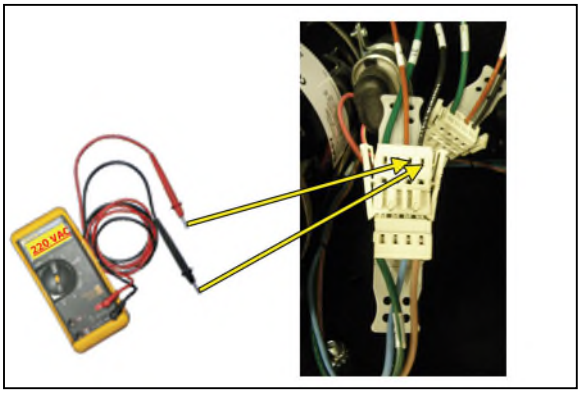
**9.3.2** Locate the power lead wires to the compressor to be measured.



**9.3.3** Use a Voltmeter to measure the voltage between the Hot and Neutral wires by placing the probes in the openings in the power connector:

System 1 = **Wires #1 & #2**

System 2 = **Wires #8 & #7**




The voltage should measure **210 - 230 VAC**.

**9.3.4** Reinstall Front Panel.

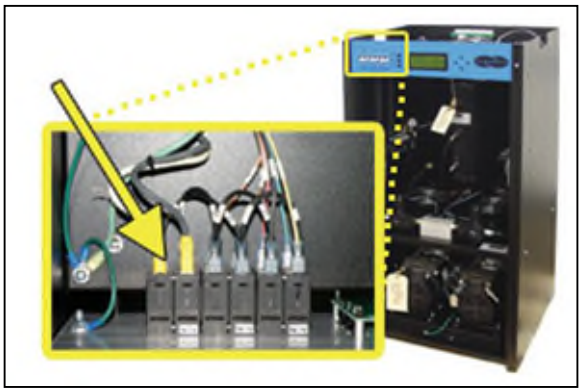
## 9.4 Measuring Incoming Voltage

**WARNING!**

**Extreme care should be exercised to avoid contact with live electrical circuits.** It is highly recommended that you remove all jewelry before performing any procedures.

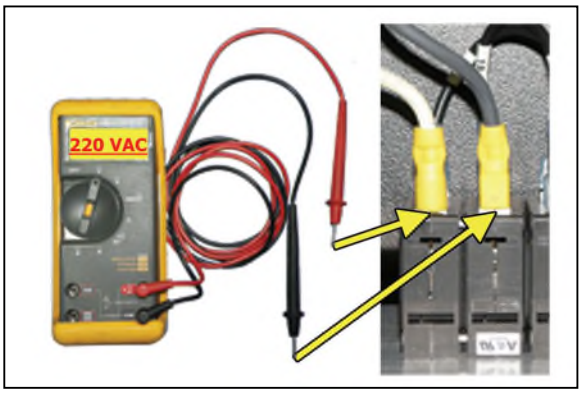
**9.4.1** Remove Top Cover (see section 8.7.1 )

**9.4.2** Locate the Main POWER Circuit Breaker.



**9.4.3** Place Voltmeter probes between the Circuit Breaker and terminal insulation so that they touch the metal contacts.

The voltage should measure **210 - 230 VAC**.




**9.4.4** Reinstall Top Cover.

*If the incoming voltage measures less than 210 VAC, it is necessary to engage the Boost Transformer in order to increase the voltage to the desired range of 210-230 VAC. See section 8.14 for procedure.*

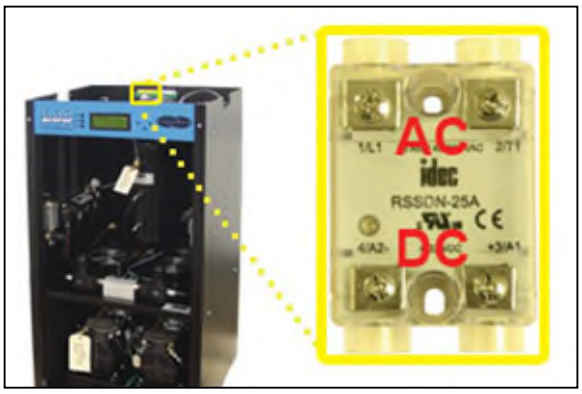
## 9.5 Measuring Voltages at Solid State Relay

**9.5.1** Remove Top Cover (see section 8.7.1 )

**9.5.2** Locate the Solid State Relay for the system you will be testing:

- Left – System 1
- Right – System 2

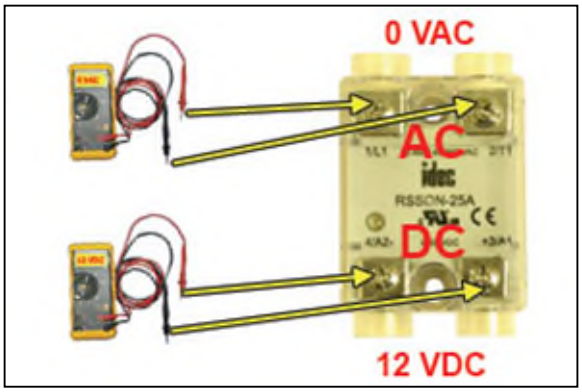
(*System* = System 1 or System 2)*




**With the System* Compressor running**:

**9.5.3** Use a Voltmeter to measure across the AC terminals. Should measure **0 VAC**.

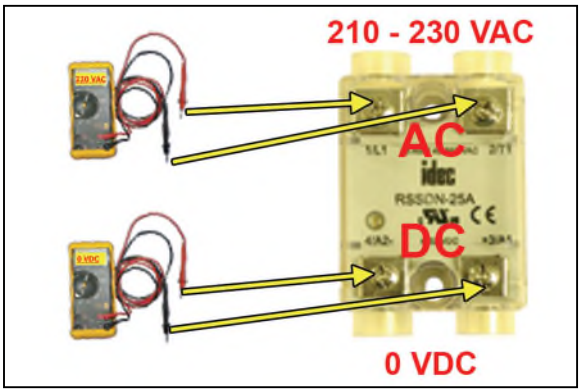
**9.5.4** Use a Voltmeter to measure across the DC terminals. Should measure **12 VDC**.




**With the System* Compressor NOT running**:

**9.5.5** Use a Voltmeter to measure across the AC terminals. Should measure **210 - 230 VAC**.

**9.5.6** Use a Voltmeter to measure across the DC terminals. Should measure **0 VDC**.




**9.5.7** Reinstall Top Cover.

*If any of the voltage measurements are different than indicated above, the Solid State Relay is defective and should be replaced. See sections 11.1 for part detail and 11.7 for ordering information.*

## 9.6 Testing Consistent Heatless Dryer Cycling

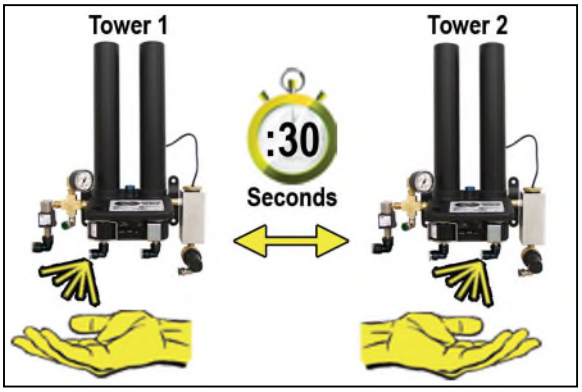
**With the System* Compressor running** (*System* = System 1 or System 2*):

**9.6.1** Remove Front Panel (see section 8.7.2 )

**9.6.2** Disconnect the purge tubes from the System* Heatless Dryer.

**9.6.3** Place your hand beneath the purge fittings to feel for purging air. Air should:

- Purge from Tower 1 side
- Purge from Tower 2 side **30 Seconds** later
- Purge from Tower 1 side **30 Seconds** later
- …and so on.




**9.6.4** Re-connect the purge tubes to the Heatless Dryer.

**9.6.5** Reinstall Front Panel.

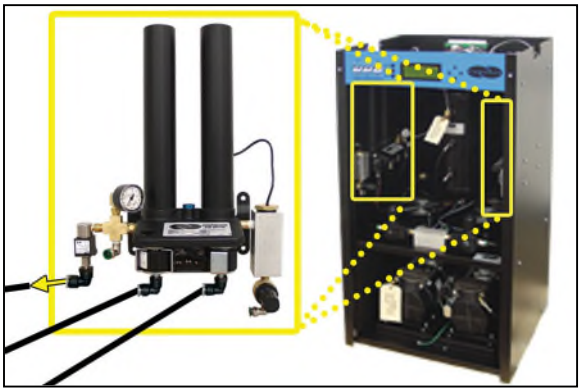
*If the Heatless Dryer is not cycling consistently as described, see section 13.20 for troubleshooting information.*

## 9.7 Testing Unloader Valve

**With the System* Compressor running** (*System* = System 1 or System 2*):

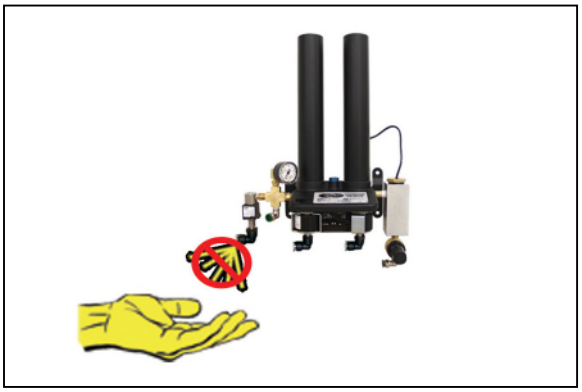
**9.7.1** Remove Front Panel (see section 8.7.2 )

**9.7.2** Disconnect the unloader tube from the System* Unloader Valve.



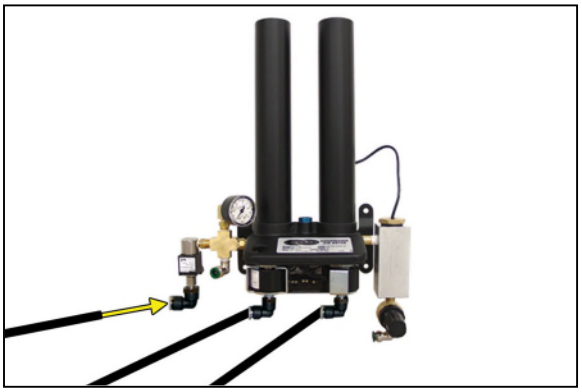
**9.7.3** Place your hand beneath the Unloader Valve fitting to feel for air flow.

Air should **NOT** flow from this fitting continuously. Air should only be released in a short burst when the System* compressor shuts off.



**9.7.4** Re-connect the unloader tube to the Unloader Valve.

**9.7.5** Reinstall Front Panel.



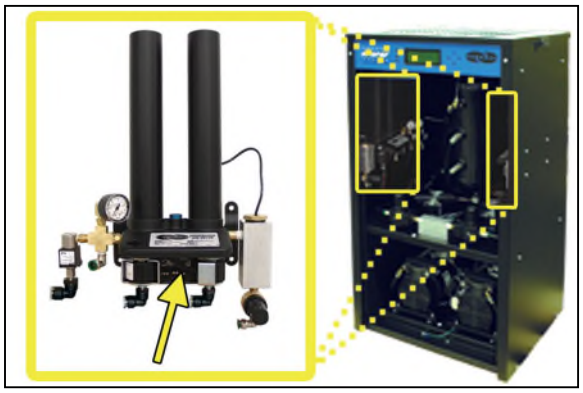
*If air flows from this valve continuously the Unloader Valve is defective and should be replaced. See sections 11.3 for part detail and 11.7 for ordering information.*

## 9.8 Measuring Heatless Dryer Solenoid Voltage

**With the System* Compressor running** (*System* = System 1 or System 2)*:

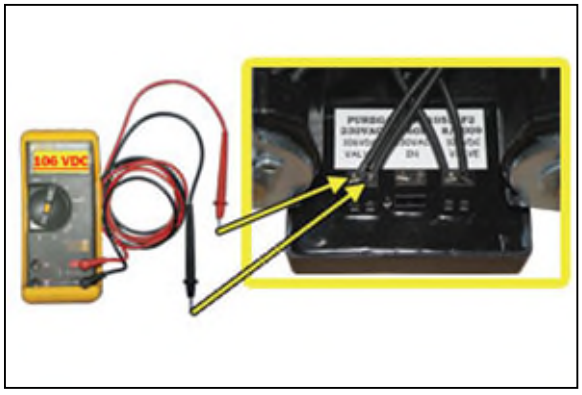
**9.8.1** Remove Front Panel (see section 8.7.2 )

**9.8.2** Locate the Heatless Dryer Cycle Timer.



The timer has three (3) sets of terminals (from left-to-right):
"**106VDC**" – Left solenoid
"**IN**" – Incoming power
"**106VDC**" – Right solenoid

**9.8.3** Use a Voltmeter to measure the DC voltage across each set of "**106VDC**" terminals.




Continue to measure for up to 45 seconds if no voltage is initially measured.

The voltage should measure **106 Volts DC**.

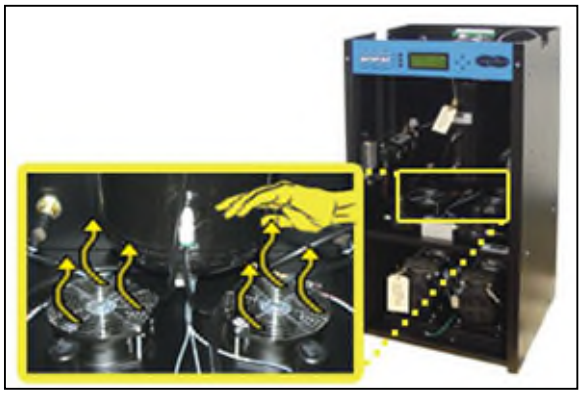
**9.8.4** Reinstall Front Panel.

*If the voltage does not measure 106 Volts DC, this is an indication that the Cycle Timer is defective and should be replaced. See sections 11.3 for part detail and 11.7 for ordering information.*

## 9.9 Testing Precooler Fans

**9.9.1** Remove Front Panel (see section 8.7.2 )

**9.9.2** Place your hand above the Precooler Fan(s) to feel for air being blown upwards.



**9.9.3** Reinstall Front panel.

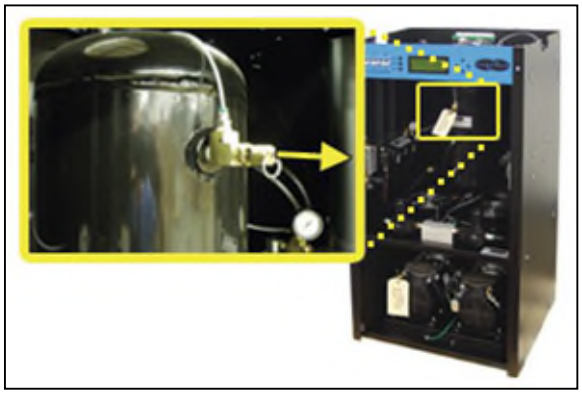
*If either fan is not blowing air upwards as described:*

- *Check for loose wiring. Refer to the Wiring Diagram (section 14.1 )*
- *Replace defective fan (see sections 11.2 for part detail and 11.7 for ordering information).*

## 9.10 Testing Safety Relief Valve

**9.10.1** Remove Front Panel (see section 8.7.2 )

**9.10.2** Pull the ring handle on the Safety Relief Valve to verify air pressure is released.



**9.10.3** Release ring handle and verify that no air is leaking from the valve.

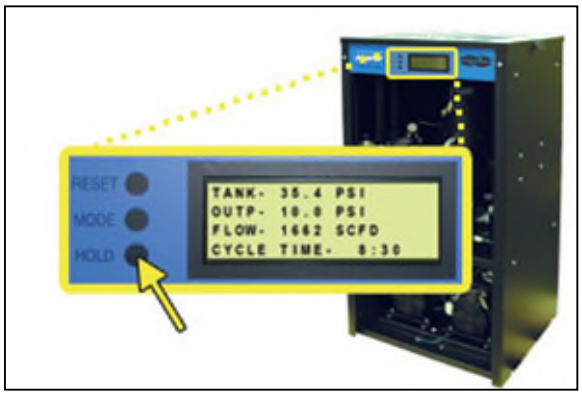
**9.10.4** Reinstall Front Panel.

*If the Safety Relief Valve fails either test described, it must be replaced. See sections 11.2 for part detail and 11.7 for ordering information.*

## 9.11 Testing Compressor ON/OFF Cycling

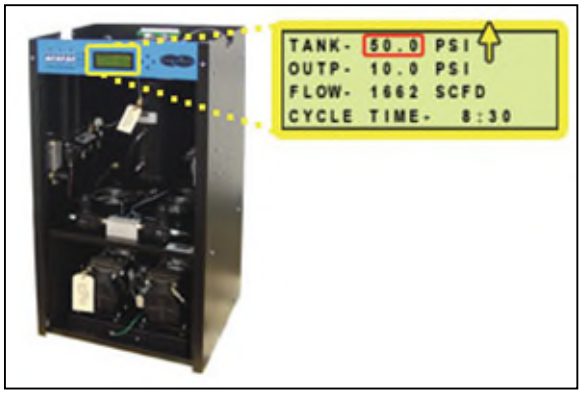
**9.11.1** Remove Front Panel (see section 8.7.2 )

**9.11.2** When the Unit Screen (8.4.5.1 ) appears on the display, press the **HOLD Button** on the Front Panel to freeze that screen.




**With Compressor(s) running:**

**9.11.3** Verify the compressor(s) shuts down when the tank pressure (**TANK**) reaches **50.0 PSI**.

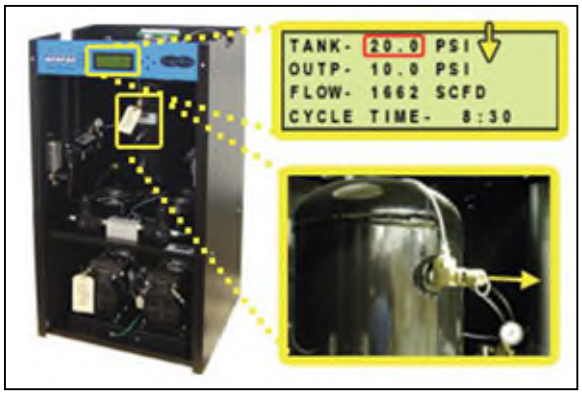



*If the tank pressure (**TANK**) fails to reach 50 PSI, see section 13.14 for troubleshooting information.*

**With Compressor(s) NOT running:**

**9.11.4** Pull the ring handle on the Safety Relief Valve to release air pressure from the air tank.

**9.11.5** Verify the compressor(s) turns on when the tank pressure (**TANK**) falls to **20.0 PSI**.




**9.11.6** Reinstall Front Panel.

*If the Compressor Cycling fails either test described, it indicates a problem with the Control Board which may need to be replaced. See sections 11.1 for part detail and 11.7 for ordering information.*

## 9.12 Testing Compressor Excessive Run Time Alarms

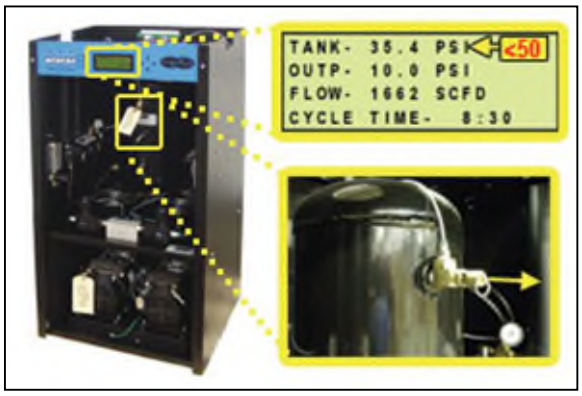
**NOTE:** All testing values are based on default Air Dryer settings, if settings have been changed, adjust testing values accordingly. Reference the Appendix Section 14.2 for Limits and Defaults.

**NOTE:** For this test, allow the Display Screen to cycle through the information screens.

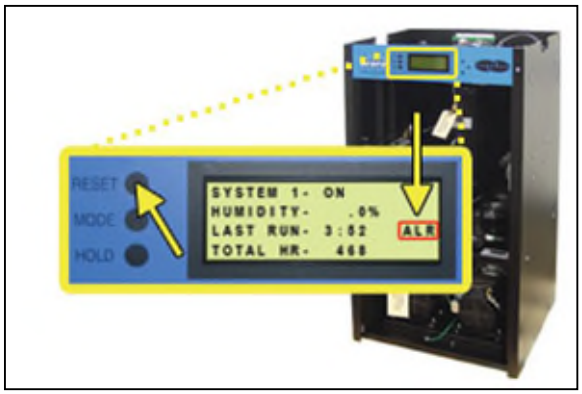
**9.12.1** Remove Front Panel (see section 8.7.2 )

**9.12.2** Start timing when the compressor(s) turns on.

**9.12.3** Pull the ring handle on the Safety Relief Valve (when necessary) to keep the Tank Pressure (**TANK**) from reaching **50 PSI**.
*This prevents the compressor(s) from shutting down.*




When the compressor(s) runs for 3:00 minutes (unless adjusted to a different Set Point by the user), a Compressor Excessive Run Time (**LAST RUN**) alarm should appear on one or both of the System screens.




**9.12.4** Press the **RESET Button** to clear the alarm.

**9.12.5** Reinstall Front Panel.

*If you are unable to create a Compressor Excessive Run Time (**LAST RUN**) alarm as described, see section 13.18 for troubleshooting information.*

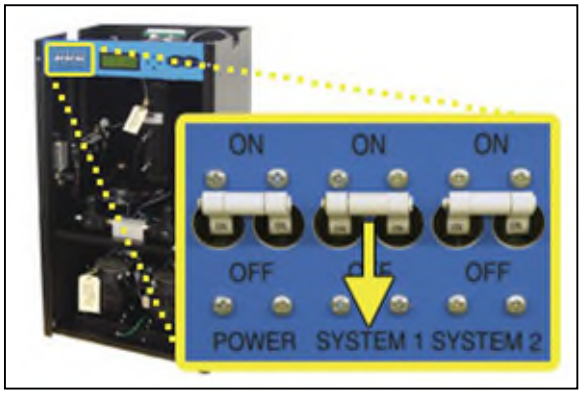
## 9.13 Testing Humidity Alarm and System Shutdown

**NOTE:** For this test, make sure the air dryer is operating in **BOTH** Cycle Mode *(see section 8.4.2 for details on changing Cycle Mode).*

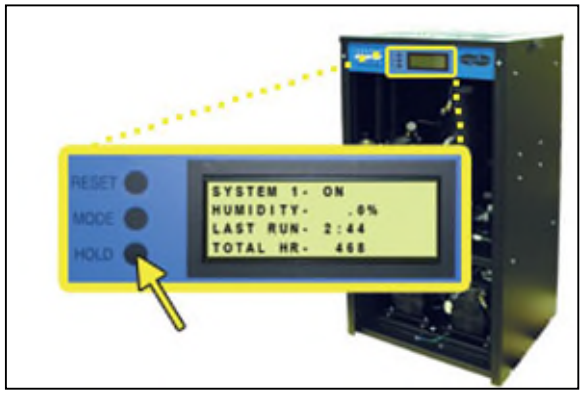
Test one System at a time (*System* = System 1 or System 2).*

**9.13.1** Remove Front Panel (see section 8.7.2 )

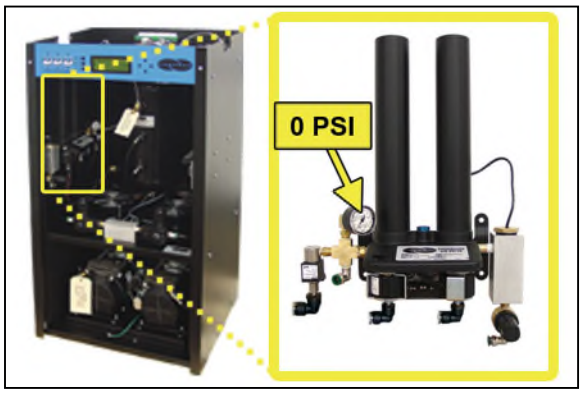
**9.13.2** Turn the System* Circuit Breaker **OFF**.



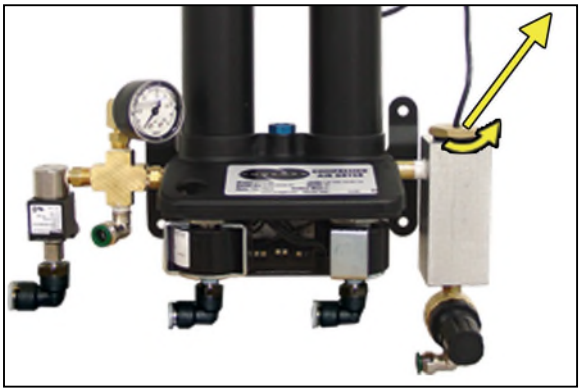

**9.13.3** When the System* Screen (8.4.5.3 ) appears on the display, press the **HOLD Button** on the Front Panel to freeze that screen.




**9.13.4** Verify the System* pressure is zero (0).

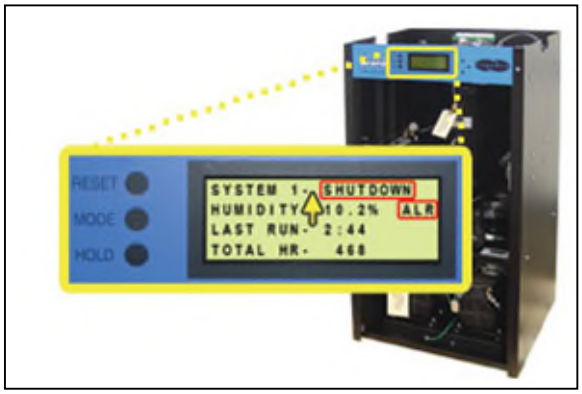


**9.13.5** Unscrew and remove the Humitter from the Humidity Block.



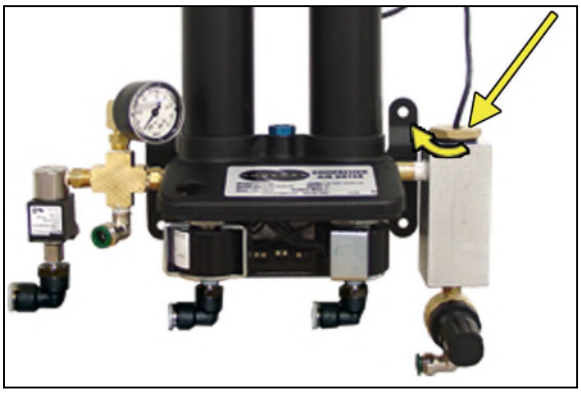
**9.13.6** Allow the Humidity reading to rise over 10.0%.

**9.13.7** After three (3) minutes, verify that a Humidity Alarm appears and System* goes into **SHUTDOWN** mode.



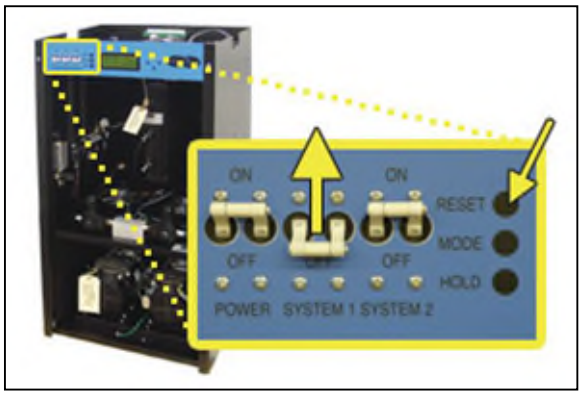

**9.13.8** Replace the Humitter into the Humidity Block.

**9.13.9** Reinstall Front Panel.



**9.13.10** Turn the System* Circuit Breaker **ON**.

**9.13.11** Press the **RESET Button** to clear the alarm.

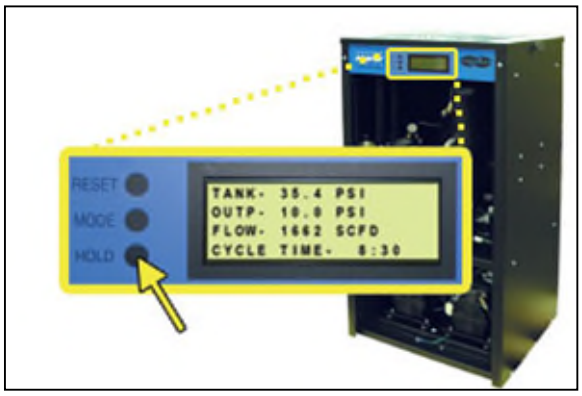



*If you are unable to create a Humidity / Shutdown alarm as described, see section 13.12 for troubleshooting information.*

## 9.14 Testing High Outlet Pressure Alarm

**9.14.1** Remove Front Panel (see section 8.7.2 )

**9.14.2** When the Unit Screen (8.4.5.1 ) appears on the display, press the **HOLD Button** on the Front Panel to freeze that screen.

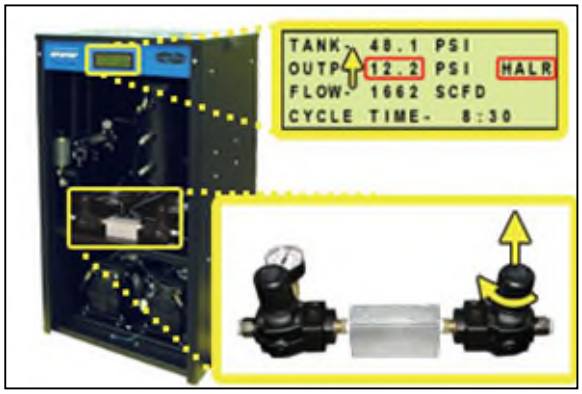



**9.14.3** Make a note of the current Outlet Pressure (**OUTP**) reading.

**With Compressor(s) running:**

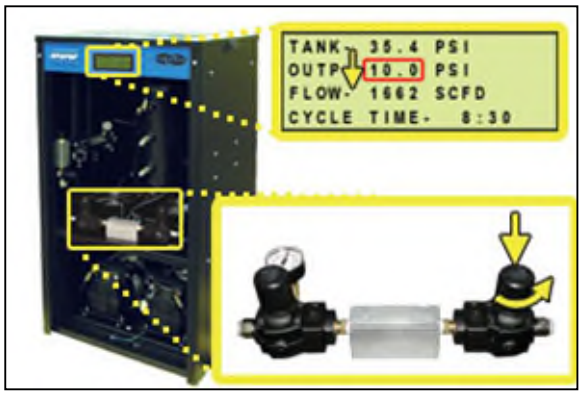
**9.14.4** Pull the Outlet Pressure Regulator knob out.

**9.14.5** Turn knob clockwise until Outlet Pressure (**OUTP**) reading climbs **over 12.0 PSI**.




After one (1) minute, the High Pressure Alarm should appear on the display.

**9.14.6** Turn Outlet Pressure Regulator knob counter-clockwise until Outlet Pressure (**OUTP**) reading lowers to the reading recorded in step 9.14.3




**9.14.7** Push knob in to lock.

**9.14.8** Press the **RESET Button** to clear the alarm.

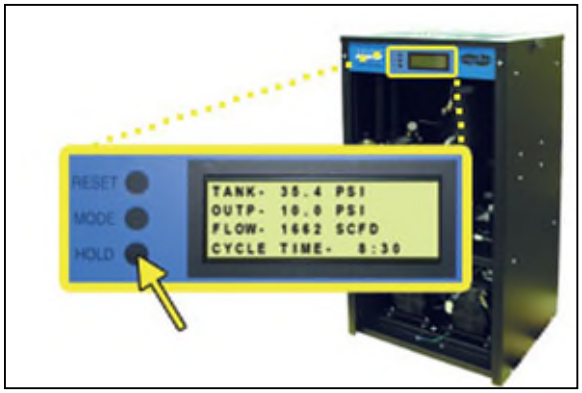
**9.14.9** Reinstall Front Panel.

*If you are unable to create a High Outlet Pressure Alarm as described, see section 13.6 for troubleshooting information.*

## 9.15 Testing Low Outlet Pressure Alarm

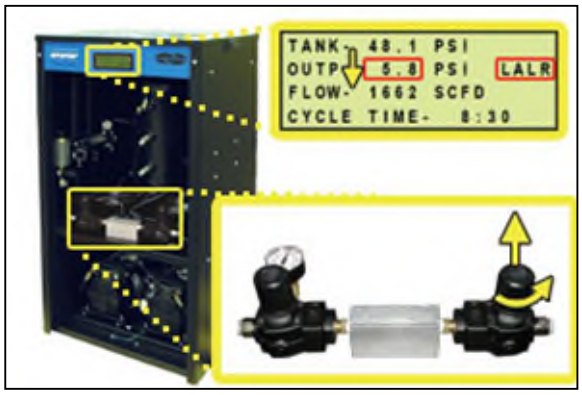
**9.15.1** Remove Front Panel (see section 8.7.2 )

**9.15.2** When the Unit Screen (8.4.5.1 ) appears on the display, press the **HOLD Button** on the Front Panel to freeze that screen.




**9.15.3** Make a note of the current Outlet Pressure (**OUTP**) reading.

**With Compressor(s) running:**




**9.15.4** Pull the Outlet Pressure Regulator knob out.

**9.15.5** Turn knob counter-clockwise until Outlet Pressure (**OUTP**) reading drops **below 6.5 PSI**.

After one (1) minute, the Low Pressure Alarm should appear on the display.


**9.15.6** Turn Outlet Pressure Regulator knob clockwise until Outlet Pressure (**OUTP**) reading raises to the reading recorded in step 9.15.3

**9.15.7** Push knob in to lock.

**9.15.8** Press the **RESET Button** to clear the alarm.

**9.15.9** Reinstall Front Panel.

*If you are unable to create a Low Outlet Pressure Alarm as described, see section 13.8 for troubleshooting information.*

## 9.16 Testing Air Fittings & Hoses for Leaks

**NOTE:** This is a general procedure that can be applied to any fitting or hose that has air pressure in it. **DO NOT SOAP TEST THE HUMITTER FITTING. DAMAGE TO THE HUMITTER MAY OCCUR.**

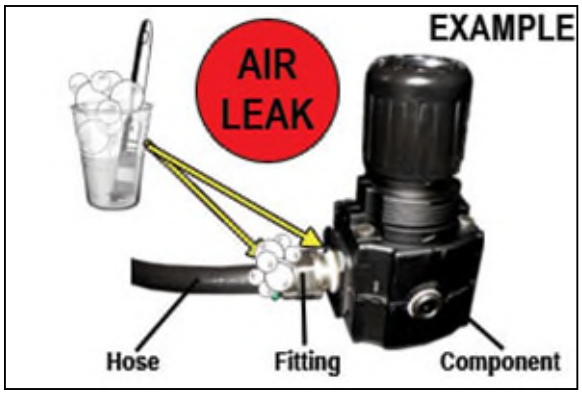
**With Compressor(s) NOT running:**

**9.16.1** Listen for any 'hissing' sounds which may indicate a fitting or hose air leak.

**With Compressor(s) running:**

**9.16.2** Use a 1-inch paint brush to dab soapy water on the air fitting or hose connection to be tested.

If air bubbles appear at the connection, this indicates that air is leaking from the connection.




*If any leaks are detected, take steps to seal them off (as necessary):*

- *Tighten the fitting*
- *Re-connect the hose end*
- *Replace the fitting / hose / component*

# 10. Maintaining Your Dryer

In order to ensure that your P6500W Air Dryer continues to operate efficiently and reliably, ALTEC AIR recommends performing the following maintenance procedures at the specified Six Month / 8,000 Hour / and 16,000 Hour intervals.

It is also recommended that you print out the included *Six Month Maintenance (section 10.2 )* and *8,000 & 16,000 Hour Maintenance (section 10.3 )* log sheets and record all completed maintenance for historical tracking and reference purposes.

The log sheets include a Section reference column which indicates the User's Guide section containing the information about the specific procedure. Please refer to these sections for detailed procedural information.

**NOTE:** When operating at higher ambient temperatures, it is recommended that maintenance be performed more frequently.

**NOTE:** After 16,000 hours of run time, ALTEC AIR recommends sending in your compressors and heatless dryers for a complete and comprehensive rebuild by our Service Department technicians. *See sections 12.1 and 12.2 for information on services and contacting ALTEC AIR.*

## 10.1 Safety & Warning Information

**WARNING!**

**Extreme care should be exercised to avoid contact with live electrical circuits.** Many procedures performed during installation, operation, testing, and maintenance of this air dryer require the equipment to be running, creating a situation for potential electrical shock. It is highly recommended that you remove all jewelry before performing any procedures.

## WARNING!

**Internal surfaces may be hot**. Use care when coming into contact with internal components as there is a potential for some of these components to become hot when in operation or standby.

## CAUTION!

**SHUT DOWN IMMEDIATELY FOR REPAIRS** if the air compressor(s) shows any evidence of overheating or presents excessive noise.

## CAUTION!

Depressurizing the air dryer may be necessary before performing certain procedures. **NEVER** remove pressure sensing tubes from the Control Board without depressurizing the air dryer first, or **damage to the Control Board will occur.**

## WARNING!

**High Noise**. ALTEC AIR air dryers are meant to be installed in an unattended area.

## CAUTION!

Observe precautions for handling **Electrostatic Sensitive Devices.**

## IMPORTANT!

After performing any maintenance, always soap test pressure fittings to check for air leaks. Also, check for any loose or disconnected wiring.

## 10.2 Six Month Maintenance

MODEL: **P6500W** LOCATION NAME: _____

SERIAL NUMBER: _____ ADDRESS: _____

DATE INSTALLED: _____ _____

| Procedure | Section | Maintenance Interval (Months) 6 | 12 | 18 | 24 | 30 |
|---|---|---|---|---|---|---|
| Install Six Month Maintenance Kit **P011766** | 11.6 | ☐ | ☐ | ☐ | ☐ | ☐ |
| Read & Record Flow Rate (**FLOW**) | 8.4.5.1 | | | | | |
| Measure & Record Compressor 1 Amp Draw | 9.2 | | | | | |
| Measure & Record Compressor 2 Amp Draw | 9.2 | | | | | |
| Measure & Record Incoming Voltage (must be 210 - 230 VAC) | 9.4 | | | | | |
| Test High & Low Outlet Pressure Alarms | 9.14 & 9.15 | ☐ | ☐ | ☐ | ☐ | ☐ |
| Set System Pressure (50 PSI) | 8.11 | ☐ | ☐ | ☐ | ☐ | ☐ |
| Set Static Pressure (17 PSI) | 8.12 | ☐ | ☐ | ☐ | ☐ | ☐ |
| Set Outlet Pressure | 8.13 | ☐ | ☐ | ☐ | ☐ | ☐ |
| Test Consistent Heatless Dryer Cycling | 9.6 | ☐ | ☐ | ☐ | ☐ | ☐ |
| Test Precooler Fans | 9.9 | ☐ | ☐ | ☐ | ☐ | ☐ |
| Test Safety Relief Valve | 9.10 | ☐ | ☐ | ☐ | ☐ | ☐ |
| Test Compressor ON/OFF Cycling | 9.11 | ☐ | ☐ | ☐ | ☐ | ☐ |
| Test Compressor Excessive Run Time Alarms | 9.12 | ☐ | ☐ | ☐ | ☐ | ☐ |
| Test Humidity Alarm & System Shutdown | 9.13 | ☐ | ☐ | ☐ | ☐ | ☐ |
| Test Air Fittings for Leaks | 9.16 | ☐ | ☐ | ☐ | ☐ | ☐ |
| Clean Precooler Coils | | ☐ | ☐ | ☐ | ☐ | ☐ |
| Visually Inspect Inside & Outside of Unit for Loose Wiring or Hardware | | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Maintenance Performed by:** | | | | | | |
| **Date of Maintenance:** | | | | | | |

**NOTE:** COPY OR PRINT THIS PAGE AND KEEP IT WITH THE AIR DRYER

## 10.3 8,000 & 16,000 Hour Maintenance

Under typical operating conditions:

8,000 hours of run time will occur between one (1) and two (2) years of use.

16,000 hours of run time will occur between two (2) and three (3) years of use.

This will be identified by a Compressor Total Hour Alarm on the display for either System 1 or System 2 *(section 8.5.8 )*.

MODEL: **P6500W** LOCATION NAME: _____

SERIAL NUMBER: _____ ADDRESS: _____

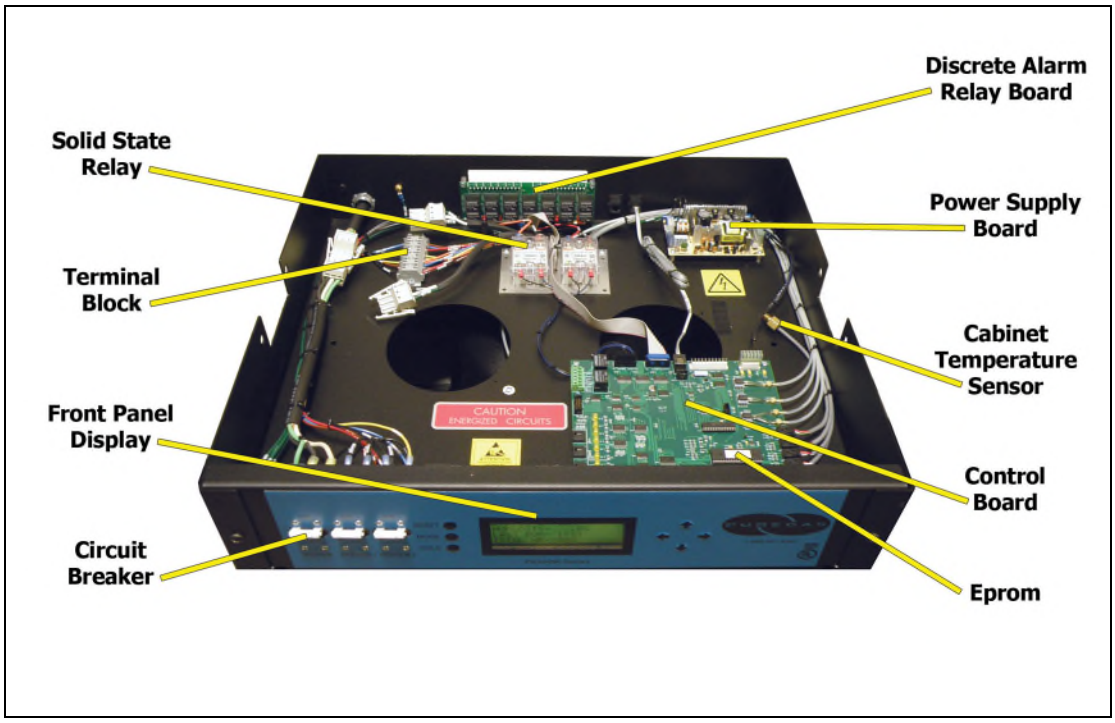
DATE INSTALLED: _____ _____

| | | Maintenance Interval (Hours) | | | | |
|---|---|---|---|---|---|---|
| **Procedure** | **Section** | **8,000** | **16,000** | **24,000** | **32,000** | **40,000** |
| Install 8,000 Hour Maintenance Kit **P011813** | 11.6 | ☐ | | ☐ | | ☐ |
| Install 16,000 Hour Maintenance Kit **P011814** | 11.6 | | ☐ | | ☐ | |
| Read & Record Flow Rate (**FLOW**) | 8.4.5.1 | | | | | |
| Measure & Record Compressor 1 Amp Draw | 9.2 | | | | | |
| Measure & Record Compressor 2 Amp Draw | 9.2 | | | | | |
| Set System Pressure (50 PSI) | 8.11 | ☐ | ☐ | ☐ | ☐ | ☐ |
| Set Static Pressure (17 PSI) | 8.12 | ☐ | ☐ | ☐ | ☐ | ☐ |
| Set Outlet Pressure | 8.13 | ☐ | ☐ | ☐ | ☐ | ☐ |
| Test Consistent Heatless Dryer Cycling | 9.6 | ☐ | ☐ | ☐ | ☐ | ☐ |
| Test Compressor ON/OFF Cycling | 9.11 | ☐ | ☐ | ☐ | ☐ | ☐ |
| Test Air Fittings for Leaks | 9.16 | ☐ | ☐ | ☐ | ☐ | ☐ |
| Reset Total Hour Readings to Zero System 1 & System 2 | 8.6.7 & 8.6.8 | ☐ | ☐ | ☐ | ☐ | ☐ |
| Visually Inspect Inside & Outside of Unit for Loose Wiring or Hardware | | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Maintenance Performed by:** | | | | | | |
| **Date of Maintenance:** | | | | | | |

**NOTE:** COPY OR PRINT THIS PAGE AND KEEP IT WITH THE AIR DRYER

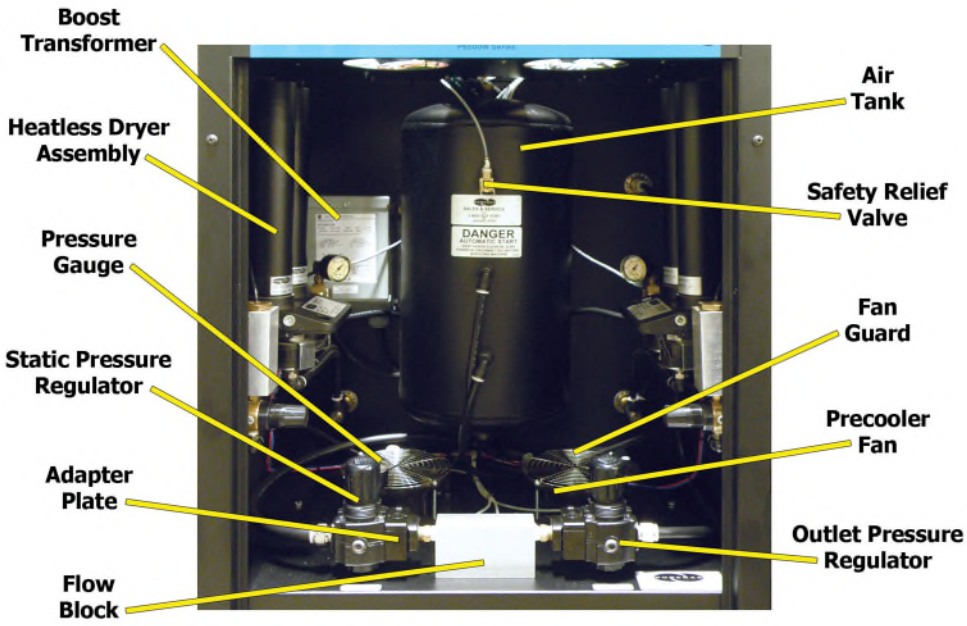
# 11. Replacement Parts & Accessories

## 11.1 Top Section Parts



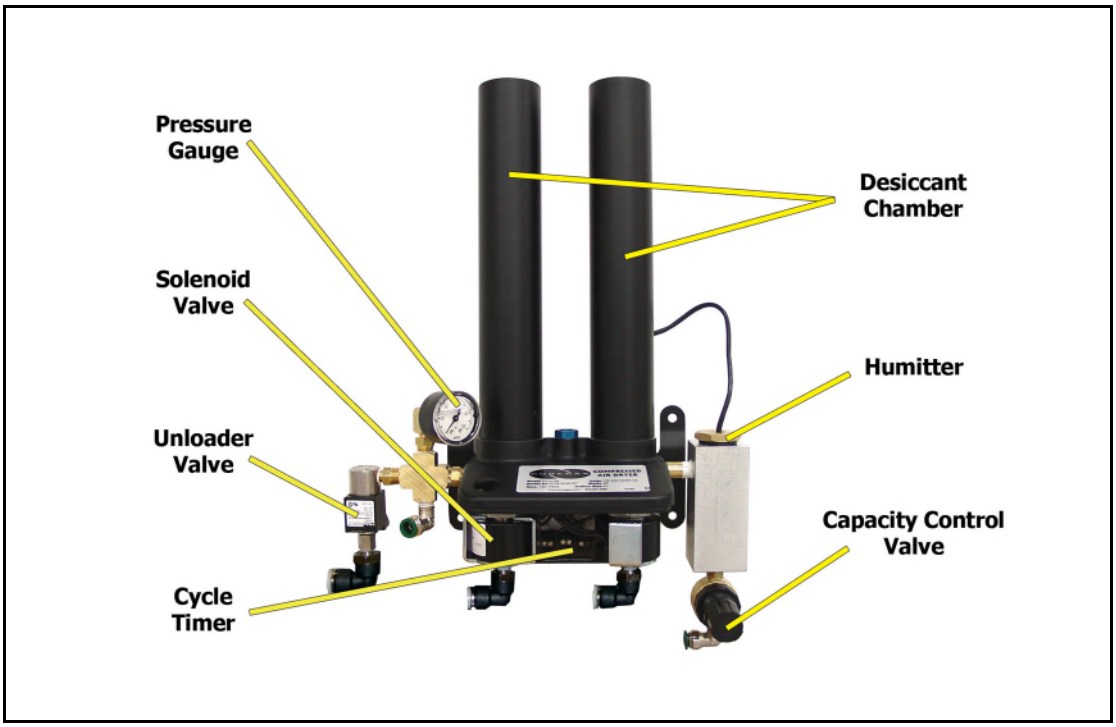

| Description | Part Number | Quantity | Recommend Spare |
|---|---|---|---|
| Solid State Relay | P010562 | 2 | ✓ (1) |
| Terminal Block | P010200 | 1 | |
| Front Panel Display Assembly | P010478 | 1 | |
| LCD Display Only | P012105 | 1 | |
| Circuit Breaker | P010563 | 3 | ✓ (1) |
| Discrete Alarm Relay Board | P010525 | 1 | |
| Power Supply Board | P010199 | 1 | ✓ (1) |
| Cabinet Temperature Sensor | P010507 | 1 | |
| Control Board (w/ Eprom) | P013241 | 1 | ✓ (1) |

## 11.2 Middle Section Parts



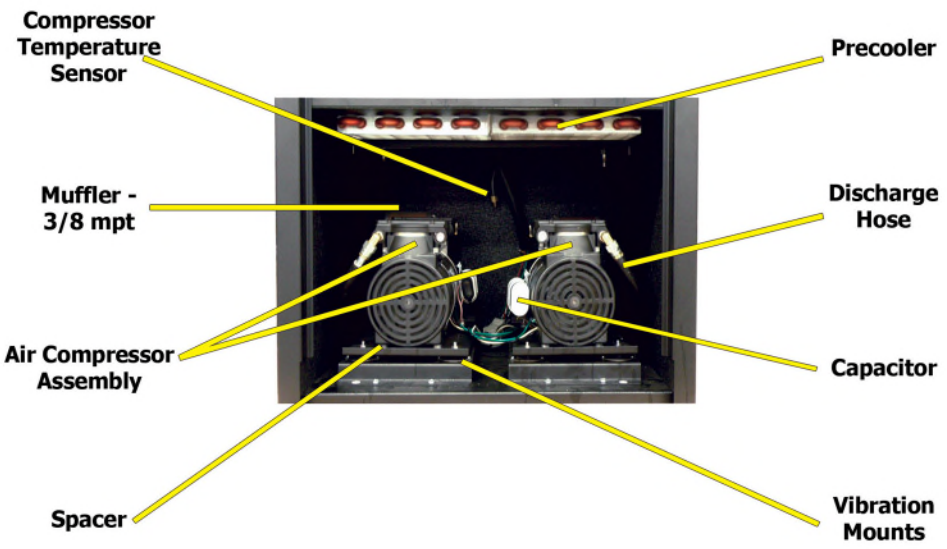

| Description | Part Number | Quantity | Recommend Spare |
|---|---|---|---|
| Boost Transformer | P012772 | 1 | |
| Heatless Dryer Assembly | *See section11.3 for detail.* | | |
| Pressure Gauge (0-30 PSI) | P011339 | 1 | |
| Static Pressure Regulator | P013203 | 1 | ✓ (1) |
| Adapter Plate | | 2 | |
| Flow Block | | 1 | |
| Air Tank | | 1 | |
| Safety Relief Valve | P03646 | 1 | |
| Fan Guard | | 2 | |
| Precooler Fan | P010496 | 2 | ✓ (1) |
| Outlet Pressure Regulator | P013203 | 1 | ✓ (1) |

## 11.3 Heatless Dryer Assembly Parts




| Description | Part Number | Quantity | Recommend Spare |
|---|---|---|---|
| Heatless Dryer | P010196 | 1 | |
| Pressure Gauge | P010695 | 1 | |
| Solenoid Valve | *In Kit P011813. See section 11.6 for detail.* | | |
| Unloader Valve | P010453 | 1 | |
| Cycle Timer | P010490 | 1 | |
| Desiccant Chamber | P20040312 | 2 | |
| Humitter | P011380 | 1 | ✓ (1) |
| Capacity Control Valve | P010492 | 1 | ✓ (1) |

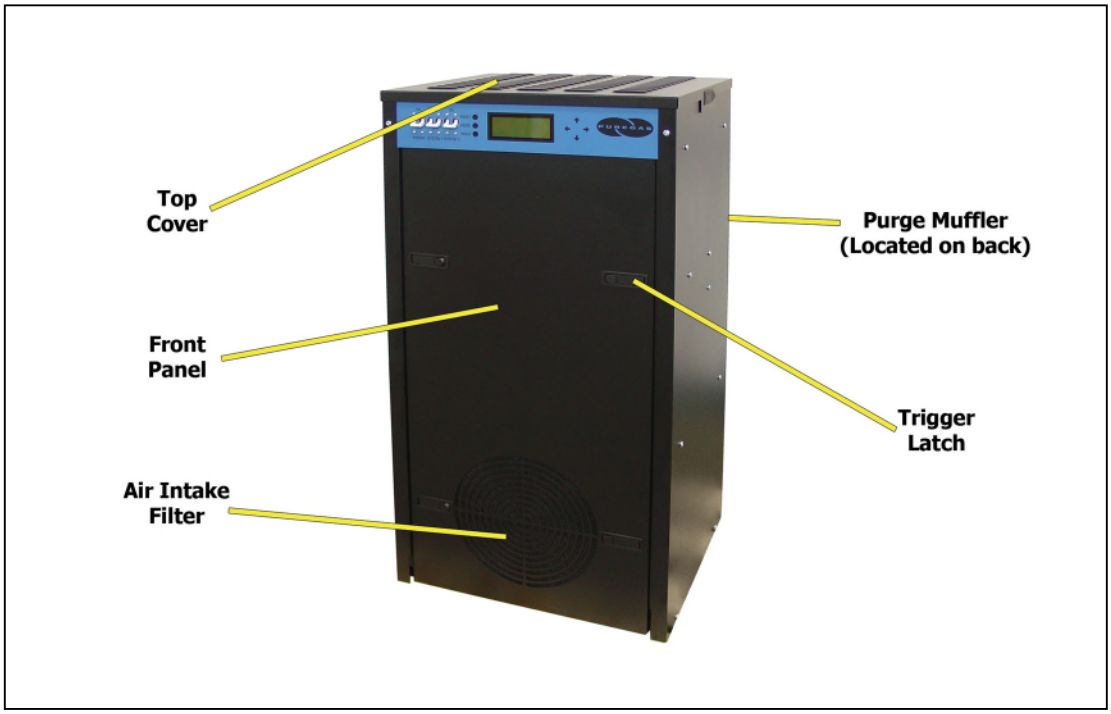
## 11.4 Lower Section Parts




| Description | Part Number | Quantity | Recommend Spare |
|---|---|---|---|
| Compressor Temperature Sensor | P010507 | 1 | |
| Muffler – 3/8 mpt | *In Kit P011766. See section 11.6 for detail.* | | |
| Air Compressor Assembly* | | | |
| Left Side | P013263 | | ✓ (1) |
| Right Side | P013264 | | ✓ (1) |
| Compressor ONLY | P010444 | 1 | ✓ (1) |
| Spacer | | 8 | |
| Precooler | P05663 | 2 | |
| Discharge Hose | P05069 | 2 | |
| Capacitor | | 2 | |
| Vibration Mount | P010494 | 8 | ✓ (8) |

*Assembled for quick, easy installation. Includes: compressor, bracket, mounting plate, vibration mounts, spacers, fittings, electrical connectors, and air intake filter/muffler.

## 11.5 Frame Section Parts




| Description | Part Number | Quantity | Recommend Spare |
|---|---|---|---|
| Top Cover | | 1 | |
| Front Panel | | 1 | |
| Air Intake Filter | *In Kit P011766. See section 11.6 for detail.* | | |
| Purge Muffler | *In Kit P011766. See section 11.6 for detail.* | | |
| Trigger Latch | | 6 | |

## 11.6 Accessories for Your Dryer

| | Description | Part Number | Recommend Spare |
|---|---|---|---|
|  | Installation Kit<br>Includes fittings required to connect to 3/4" flexible hose. | P011752 | |
|  | Six Month Maintenance Kit<br>Includes air intake filter, compressor mufflers, and purge mufflers. | P011766 | ✓ (2) |
|  | 8,000 Hour Maintenance Kit<br>Includes heatless dryer maintenance kits and compressor maintenance kits. | P011813 | ✓ (1) |
|  | 16,000 Hour Maintenance Kit<br>Includes heatless dryer maintenance kits, compressor maintenance kits. | P011814 | ✓ (1) |
|  | Monitoring Interface<br>Allows the dryer to be fully monitored by ALTEC AIR monitoring systems. | PVDW30 | |

## 11.7 Ordering Parts from ALTEC AIR

**IMPORTANT!**

Instruction for the replacement of individual listed components goes beyond the scope of this User's Guide and will not be covered. Please refer to the information included with the specific replacement part for this instruction.

Once you have identified your required parts and accessories, contact the ALTEC AIR Inside Sales / Service department to order:

(800) 521-5351 **(option 2)**

Fax – (303) 657-2205

sales@AltecAIR.com

parts@AltecAIR.com

# 12. Service & Repair

Only ALTEC AIR can offer factory direct rebuilds backed by a 6 month factory warranty.

- 2 week turnaround time
- Estimates available upon request
- Minimum service charge fee applies

## 12.1 Services Offered

- **Piston Compressor Rebuild**
  - Replace motor bearings, piston rod assemblies, and install a complete compressor maintenance kit.
  - Test air flow, air pressure, and electrical performance
- **Heatless Dryer Rebuild**
  - Replace desiccant, o-rings, check valves, springs, and complete solenoid assembly
  - Test proper component operation
- **Desiccant Tower Repack**
  - Clean out tower and replace desiccant, filter, and o-ring
- **Circuit Board Repair** (Limited to current model boards only)
- **Complete Dryer Repair**

## 12.2 Initiating a Service Transaction

- Contact our Parts & Service Department at **1-800-521-5351 (option 3)** to obtain a Return Authorization (RA) number.
- Carefully package the item(s) to be returned.
- Mark the Return Authorization (RA) number on the outside of the shipping container.
- Include the main address and phone number of the individual to contact for related inquiry and follow-up information.
- Include the purchase order number.

# 13. Troubleshooting Your Dryer

## 13.1 Before You Call ALTEC AIR

**PLEASE READ THIS SECTION FIRST.** It is important that you use the following sections in order to diagnose and attempt to fix the problem with your air dryer before placing a call to ALTEC AIR Technical Support.

This troubleshooting guide is intended to simplify the isolation of problems, present possible causes, provide test procedures for verification, and suggest corrective actions to restore the air dryer back to normal operation. Each section begins with the most likely cause(s) of the issue. Otherwise, they start from the simplest possibilities and progress to more complicated ones.

This troubleshooting guide is designed to be easy to follow and very effective when used properly. It is suggested to always start at the beginning of the specific problem section and continue in sequence, following the procedures indicated.

## 13.2 Safety & Warning Information

**WARNING!**

**For your safety, all the information in this User's Guide must be followed to minimize the risk of electrical shock, and prevent property damage or personal injury.**

**WARNING!**

**Internal surfaces may be hot**. Use care when coming into contact with internal components as there is a potential for some of these components to become hot when in operation or standby.

## WARNING!

**Extreme care should be exercised to avoid contact with live electrical circuits.** Many procedures performed during installation, operation, testing, and maintenance of this air dryer require the equipment to be running, creating a situation for potential electrical shock. It is highly recommended that you remove all jewelry before performing any procedures.

## CAUTION!

Depressurizing the air dryer may be necessary before performing certain procedures. **NEVER** remove pressure sensing tubes from the Control Board without depressurizing the air dryer first, or **damage to the Control Board will occur.**

## CAUTION!

**Do not test the Humitter with an ohm meter or apply any DC voltage.** This will render the humitter defective.

## WARNING!

**High Noise**. ALTEC AIR air dryers are meant to be installed in an unattended area.

## CAUTION!

Observe precautions for handling **Electrostatic Sensitive Devices.**

## IMPORTANT!

Performing procedures not described in this User's Guide or installing components not supplied by ALTEC AIR is NOT RECOMMENDED AND MAY VOID THE WARRANTY.

## 13.3 Air Dryer Won't Power ON

| Possible Cause | Check | Corrective Action |
|---|---|---|
| Circuit Breaker(s) in **OFF** position | Verify all three (3) Circuit Breakers are in **ON** position (section 8.3 ) | Move all three (3) Circuit Breakers to **ON** position (section 8.3 ) |
| No incoming voltage to air dryer | Measure incoming voltage (section 9.4 ) | Troubleshoot facility power supply to air dryer |

## 13.4 Display Screen Not Functioning

| Possible Cause | Check | Corrective Action |
|---|---|---|
| Ribbon cable unplugged | Verify that the ribbon cable running from the Control Board to the Display Screen is properly connected at both ends (see section 11.1 for Control Board and Display Screen locations) | Plug in ribbon cable to Control Board and Display Screen (see section 11.1 for Control Board and Display Screen locations) |
| Defective Display Board | Garbled or no readout with ribbon cable properly connected. | Replace Display Board (section 11.1 ) |

## 13.5 High Outlet Pressure Alarm

| Possible Cause | Check | Corrective Action |
|---|---|---|
| Outlet Pressure set too high | Verify Outlet Pressure (**OUTP**) reading (section 8.4.5.1 ) | Adjust Outlet Pressure Regulator (section 8.13 ) |
| High Outlet Pressure Alarm set point too low | Verify High Outlet Pressure Alarm set point (section 8.6.2 ) | Raise High Outlet Pressure Alarm set point (section 8.6.2 ) |

## 13.6 Can't Create a High Pressure Alarm

| Possible Cause | Check | Corrective Action |
|---|---|---|
| Defective Outlet Pressure Regulator | Verify that the Outlet Pressure Regulator can be adjusted (section 8.13 ) | Replace Outlet Pressure Regulator if unable to adjust pressure (section 11.2 ) |
| High Outlet Pressure Alarm set point higher than default setting of 12.0 PSI | Verify High Outlet Pressure Alarm set point (section 8.6.2 ) | Adjust Outlet Pressure Regulator so that Outlet Pressure (**OUTP**) reading climbs over verified set point (section 9.14 ) |
| Defective Control Board | Verify that the Outlet Pressure (**OUTP**) reading is higher than the High Outlet Pressure Alarm set point (above) | Replace Control Board (section 11.1 ) if Outlet Pressure (**OUTP**) reading is over verified High Outlet Pressure Alarm set point for more than 1 minute and fails to create an alarm. |

## 13.7 Low Outlet Pressure Alarm

| Possible Cause | Check | Corrective Action |
|---|---|---|
| Outlet Pressure set too low | Verify Outlet Pressure (**OUTP**) reading (section 8.4.5.1 ) | Adjust Outlet Pressure Regulator (section 8.13 ) |
| High Flow condition | Verify Flow Rate (**FLOW**) reading is not higher than expected (section 8.4.5.1 ) | Troubleshoot High Flow condition (section 13.9 ) |
| Air Leak | Test fittings and hoses for leaks(section 9.16 ) | Reconnect or replace bad fitting / hose |
| Low Outlet Pressure Alarm set point too high | Verify Low Outlet Pressure Alarm set point (section 8.6.3 ) | Lower the Low Outlet Pressure Alarm set point (section 8.6.3 ) |

## 13.8 Can't Create a Low Pressure Alarm

| Possible Cause | Check | Corrective Action |
|---|---|---|
| Defective Outlet Pressure Regulator | Verify that the Outlet Pressure Regulator can be adjusted (section 8.13 ) | Replace Outlet Pressure Regulator if unable to adjust pressure (section 11.2 ) |
| Low Outlet Pressure Alarm set point lower than default setting of 6.5 PSI | Verify Low Outlet Pressure Alarm set point (section 8.6.3 ) | Adjust Outlet Pressure Regulator so that Outlet Pressure (**OUTP**) reading drops below verified set point (section 9.15 ) |
| Defective Control Board | Verify that the Outlet Pressure (**OUTP**) reading is lower than the Low Outlet Pressure Alarm set point (above) | Replace Control Board (section 11.1 ) if Outlet Pressure (**OUTP**) reading is under verified Low Outlet Pressure Alarm set point for more than 1 minute and fails to create an alarm. |

## 13.9 High Flow Rate Alarm

| Possible Cause | Check | Corrective Action |
|---|---|---|
| Air leak in downstream cable outside of dryer | Verify Flow Rate (**FLOW**) reading is not higher than expected (section 8.4.5.1 ) | Fix downstream problem |
| Air leak inside of dryer | Test fittings and hoses for leaks (section 9.16 ) | Reconnect or replace bad fitting / hose |
| High Flow Alarm set point too low | Verify High Flow Alarm set point (section 8.6.1 ) | Raise High Flow Alarm set point (section 8.6.1 ) |

## 13.10 High Cabinet Temperature Alarm

| Possible Cause | Check | Corrective Action |
|---|---|---|
| Fan Failure | Verify both fans are running (section 9.9 ) | Check for loose fan wiring (section 14.1 )<br><br>Replace defective fan (section 11.2 ) |
| High Ambient Temperature | Verify temperature of dryer operating location. Recommended ambient temperature is 40°-85°F. | Lower ambient temperature of dryer operating location |

## 13.11 High Humidity

**CAUTION!**

**Do not test the Humitter with an ohm meter or apply any DC voltage.** This will render the humitter defective.

| Possible Cause | Check | Corrective Action |
|---|---|---|
| Low System Pressure | Verify System Pressure (section 8.11 ) | Adjust System Pressure to 50 PSI (section 8.11 ) |
| Low Flow Rate | Verify Flow Rate (**FLOW**) reading is low (section 8.4.5.1 ) | Increase flow by creating an artificial leak outside of the air dryer |
| High Humidity Alarm set point too low | Verify High Humidity Alarm set point (section 8.6.4 )<br><br>If Flow Rate is low, allowing a higher alarm set point (up to 10%) will allow dryer to run within acceptable levels. | Raise High Humidity Alarm set point (section 8.6.4 )<br><br>Over 10% not recommended |
| Heatless Dryer not cycling between towers | Verify consistent Heatless Dryer cycling (section 9.6 ) | Troubleshoot Inconsistent Heatless Dryer Cycling condition (section 13.20 ) |
| Defective Control Board | Unplug Humitter from Control Board (see section 11.1 for Control Board location)<br><br>Humidity reading should drop to 0% | If Humidity did not drop to 0%, replace Control Board (section 11.1 ) |
| Defective Humitter | Turn Dryer **OFF**.<br><br>Remove and unplug Humitters (section 9.13.4 & 9.13.5 )<br><br>Swap humitters between System 1 and System 2 to see if Humidity condition follows. | If condition followed humitter, replace humitter (section 11.3 ) |

## 13.12 Can't Create a High Humidity Alarm / Shutdown

These troubleshooting steps assume that the Humitter is removed from the Humidity Block during the *Testing Humidity Alarm and System Shutdown* (section 9.13 ) procedures.

| Possible Cause | Check | Corrective Action |
|---|---|---|
| Humitter Cable disconnected | Verify that Humitter cable is connected through to the Control Board | Connect Humitter cable |
| Defective Humitter | Verify that Humidity reading fails to climb higher than 15% or creates sporadic readings | Replace Humitter (section 11.3 ) |
| Defective Control Board | Verify that Humidity reading is over 15% for more than 1 minute | Replace Control Board if no alarm is created and system does not shut down (section 11.1 ) |

## 13.13 Compressor Doesn't Operate

| Possible Cause | Check | Corrective Action |
|---|---|---|
| Defective compressor | Measure voltage to compressor (section 9.3 ) | If voltage is between 210 – 230 VAC, replace compressor (section 11.4 ) or send it in for repair (section 12. ) |
| Insufficient power to compressor | Measure voltage to compressor (section 9.3 ) | If voltage is present, but less than 210 VAC, engage Boost Transformer (section 8.14 ) |
| No power to compressor | Measure voltage to compressor (section 9.3 ) | If voltage is not present or fluctuates, continue to next Possible Cause |
| Defective Solid State Relay | Measure voltages at Solid State Relay (section 9.5 ) | If measurements are bad, replace Solid State Relay (section 11.1 ) |
| System is in Shutdown state | On the Display Panel, verify that neither System is in Shutdown state | Press the **RESET** Button |

## 13.14 Compressor Won't Build Pressure

| Possible Cause | Check | Corrective Action |
|---|---|---|
| Low System Pressure | Verify System Pressure (section 8.11 ) | Adjust System Pressure to 50 PSI (section 8.11 ) |
| Defective Unloader Valve | Test Unloader Valve operation (section 9.7 )<br><br>If this is continuously flowing high amounts of air, the Unloader Valve is defective. | Replace Unloader Valve (section 11.3 ) |
| Leak in air system | Check all hoses and fittings between compressor and Air Tank for air leaks (section 9.16 ) | Connect, tighten, or replace leaking component |

## 13.15 Compressor Excessive AMP Draw

| Possible Cause | Check | Corrective Action |
|---|---|---|
| Restriction in air line | Remove Discharge Hose from compressor (see section 11.4 for location of hose)<br><br>Re-measure Compressor AMP Draw (section 9.2 ) | If measurement is below 4.0 amps, trace hoses from compressor to Unloader Valve looking for restrictions or kinks |
| Compressor failing | Remove Discharge Hose from compressor (see section 11.4 for location of hose)<br><br>Re-measure Compressor AMP Draw (section 9.2 ) | If measurement is still above 4.0 amps, replace compressor (section 11.4 ) or send it in for repair (section 12. ) |

## 13.16 High Compressor Temperature

| Possible Cause | Check | Corrective Action |
|---|---|---|
| Fan Failure | Verify both fans are running (section 9.9 ) | Check for loose fan wiring (section 14.1 )<br><br>Replace defective fan (section 11.2 ) |
| High Ambient Temperature | Verify temperature of dryer operating location. Recommended ambient temperature is 40°-85°F. | Lower ambient temperature of dryer operating location |
| Dirty Air Intake Filter | Remove Air Intake Filter and check to see if Compressor temperature reading returns to normal range | Replace Air Intake Filter included in the Six Month Maintenance Kit (section 11.6 ) |

## 13.17 Compressor Excessive Run Time Alarm

| Possible Cause | Check | Corrective Action |
|---|---|---|
| Low System Pressure | Verify System Pressure (section 8.11 ) | Adjust System Pressure to 50 PSI (section 8.11 ) |
| High Flow condition | Verify Flow Rate (**FLOW**) reading is not higher than expected (section 8.4.5.1 ) | Troubleshoot High Flow condition (section 13.9 ) |
| Defective Unloader Valve | Test Unloader Valve operation (section 9.7 )<br><br>If this is continuously flowing high amounts of air, the Unloader Valve is defective. | Replace Unloader Valve (section 11.3 ) |
| Defective Heatless Dryer Solenoid Valve | Verify consistent Heatless Dryer cycling (section 9.6 )<br><br>If either side is continuously flowing high amounts of air, the Solenoid Valve is defective. | Replace Solenoid Valves included in the 8,000 Hour Maintenance Kit (section 11.6 ) |
| Defective Solid State Relay | Measure voltages at Solid State Relay (section 9.5 ) | If measurements are bad, replace Solid State Relay (section 11.1 ) |

## 13.18 Can't Create a Compressor Excessive Run Time Alarm

| Possible Cause | Check | Corrective Action |
|---|---|---|
| Compressor Excessive Run Time Alarm set point higher that the default of 3:00 minutes | Verify Excessive Compressor Run Time Alarm set point (section 8.6.5 ) | Allow the compressor to run longer than the verified set point (section 9.12 ) |
| Defective Control Board | Verify that the compressor has run longer than the verified Excessive Compressor Run Time Alarm set point (above) | Replace Control Board (section 11.1 ) if the compressor runs longer than the verified Excessive Compressor Run Time Alarm set point by 1 minute or more and fails to create an alarm. |

## 13.19 Compressor Rapid ON/OFF Cycling

| Possible Cause | Check | Corrective Action |
|---|---|---|
| Defective Solid State Relay | Measure voltages at Solid State Relay (section 9.5 ) | If measurements are bad, replace Solid State Relay (section 11.1 ) |
| Defective Control Board | Measure voltages at Solid State Relay (section 9.5 ) | If measurements are good, replace Control Board (section 11.1 ) |

## 13.20 Inconsistent Heatless Dryer Cycling

| Possible Cause | Check | Corrective Action |
|---|---|---|
| Defective Solenoid Valve | Measure voltage going to the Heatless Dryer Solenoid Valves (section 9.8 ) | If 106 VDC **IS** present, replace Solenoid Valves included in the 8,000 Hour Maintenance Kit (section 11.6 ) |
| Defective Cycle Timer | Measure voltage going to the Heatless Dryer Solenoid Valves (section 9.8 ) | If 106 VDC **IS NOT** present, replace the Cycle Timer (section 11.3 ) |

## 13.21 Contacting ALTEC AIR Technical Support

**Please read the *Before You Call ALTEC AIR* (section 13.1 )**

Once you have exhausted all of the potential problems and solutions covered in the *Troubleshooting Your Dryer* section, and you still require further assistance to correct a problem, contact ALTEC AIR Technical Support:

(800) 521-5351 **(option 1)**

Have the following information available:

**Trouble Ticket # (if following-up on a previous call)**:_____

**Technician Name**:_____ **Phone #**:_____

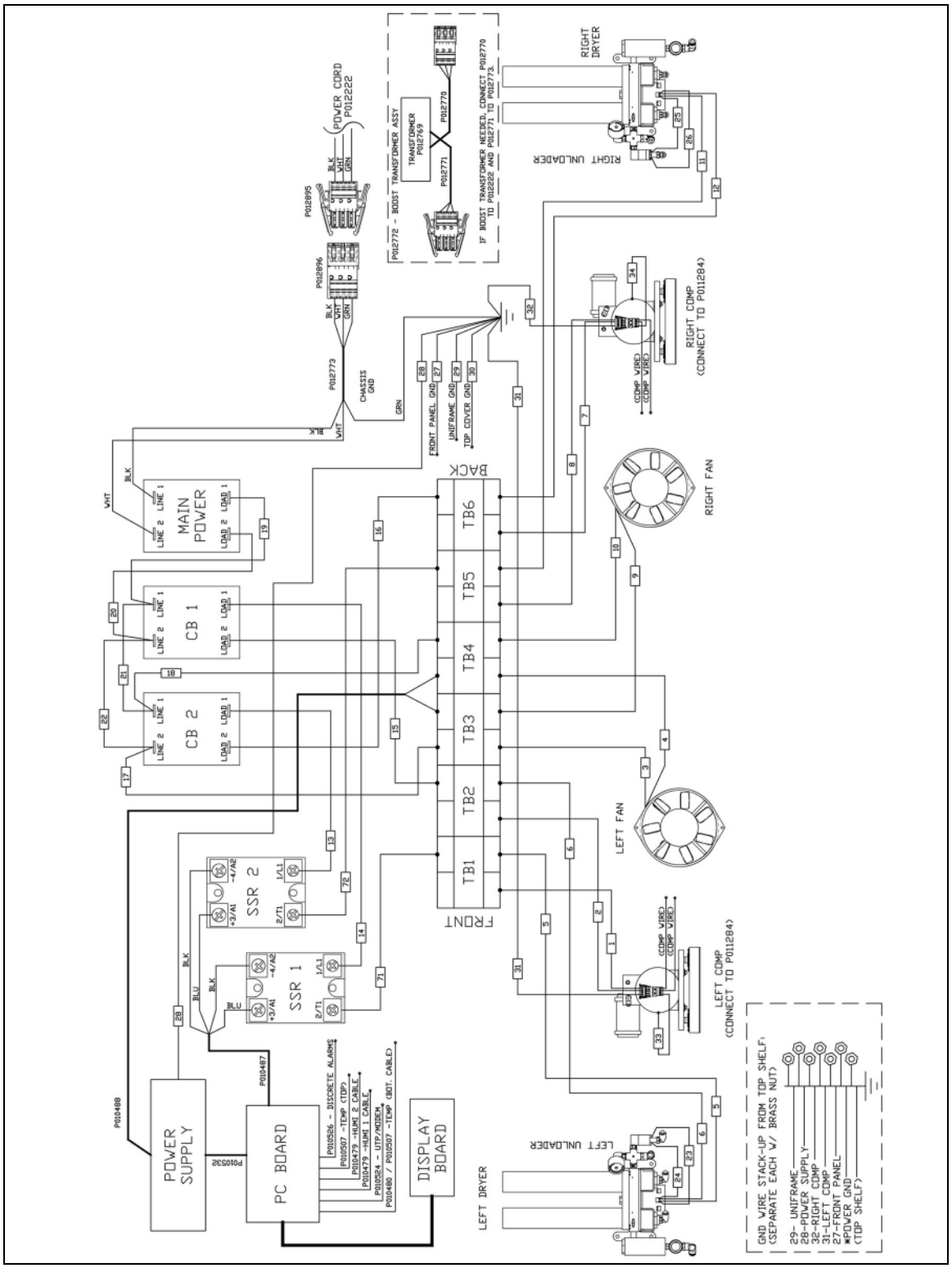
**Model #**: **P6500W** **Serial #**:_____

**Company Name**:_____ **Location Name**:_____

**City**:_____ **State**:_____

# 14. Appendix

## 14.1 Wiring Diagram



## 14.2 Set Point Limits and Defaults

### 14.2.1 System Adjustments

| Description | Minimum Value | Maximum Value | Default Value | Unit of Measurement |
|---|---|---|---|---|
| System Pressures | 48.0 | 52.0 | 50.0 | PSI |
| Static Pressure | 17.0 | 17.0 | 17.0 | PSI |
| Outlet Pressure | 1.0 | 15.0 | 10.0 | PSI |

### 14.2.2 Alarm Set Points

| Description | Minimum Value | Maximum Value | Default Value | Unit of Measurement | Shutdown |
|---|---|---|---|---|---|
| High Flow Alarm | 100 | 40,000 | 4,500 | SCFD | |
| High Outlet Pressure Alarm | 0.2 | 20.0 | 12.0 | PSI | |
| Low Outlet Pressure Alarm | .1 | 19.9 | 6.5 | PSI | |
| High Humidity Alarm | 3.0 | 15.0 | 10.0 | % | YES |
| Excessive Compressor Run Time Alarm | 1:00 | 59:59 | 3:00 | Minutes : Seconds | |

### 14.2.3 System Operations

| Description | ON Value | OFF Value | Default Value | Unit of Measurement |
|---|---|---|---|---|
| Compressor | 20.0 | 50.0 | | PSI |
| High Cabinet Temperature Alarm | | | 140.0 | Deg F |
| High Compressor Temperature Alarm | | | 140.0 | Deg F |
| Compressor Total Run Time Reset | | | 8,000 | Hours |

# 15. Limited Warranty Agreement

ALTEC AIR products carry a one (1) year warranty against defective workmanship and material. This period starts at date of shipment. Not included are the components subject to normal replacement during a year's operating time.
No claims for labor in replacing defective parts or for consequential damages will be allowed. Replacement parts will be invoiced in the regular way, with invoices subject to adjustment after the parts claimed defective are examined at our factory. In addition, no material or parts will be accepted at our factory for in-warranty repairs or credit without previous authorization from ALTEC AIR.

Responsibility for damages incurred in transit will be borne by the user and the user in turn should file any damage claim against the carrier. All warranty items are F.O.B. Broomfield, Colorado. Freight charges are the responsibility of the user.

This warranty shall not apply to any ALTEC AIR product which shall have been repaired or altered in any way by anyone other than ALTEC AIR or authorized personnel so as to affect, in our judgment, its proper functioning or reliability, neither will it apply to any product which has been subject to misuse, negligence, or accident. The installation of unauthorized non ALTEC AIR parts will void the warranty on those ALTEC AIR products.

## Registration Reminder

If you haven't already done so, please take a moment to register your ALTEC AIR P6500W Air Dryer. **Registering is necessary to activate this Limited Warranty on your product.** Once you register, you are eligible to receive free technical support, as well as updates concerning your ALTEC AIR products.

***See Section 7. for details on Registering Your Dryer.***

# 16. Contacting ALTEC AIR

## 16.1 General

ALTEC AIR, LLC
226A Commerce Street
Broomfield, Colorado 80020

(800) 521-5351
(303) 427-3700
Fax – (303) 657-2233

info@AltecAIR.com
www.altecair.com

## 16.2 Sales

(800) 521-5351 **(option 2)**
Fax – (303) 657-2205

sales@AltecAIR.com
parts@AltecAIR.com

## 16.3 Service

(800) 521-5351 **(option 3)**
Fax – (303) 657-2205

## 16.4 Technical Support

(800) 521-5351 **(option 1)**

**DON'T FORGET TO REGISTER YOUR DRYER!**

***See Section 7. for details on Registering Your Dryer.***

## 17. Notes