



P20KW / P30KW Air Dryer Installation Guide

This guide covers basic air dryer installation and setup only. Once installation is complete, please refer to the P20KW / P30KW User's Guide for more advanced setup and configuration options.

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 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. Puregas air dryers are meant to be installed in an unattended area and are intended for network telecommunication facilities (non-customer premises) only.



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 PUREGAS is NOT RECOMMENDED AND MAY VOID THE WARRANTY.

Before You Begin

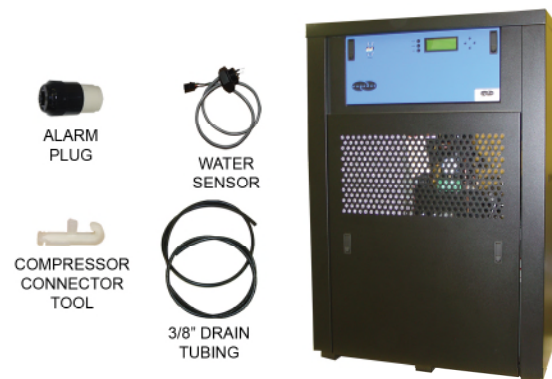
- Carefully inspect the unit, including the shipping box as well as the air dryer, for ANY DAMAGE CAUSED BY SHIPPING. If any shipping damage is detected, it is important to file a claim with the shipping company prior to continuing the installation procedures.**
- Read the entire Installation Guide to familiarize yourself with the components and procedures before performing the air dryer installation.
- Verify the installation location of the air dryer:
 - Well ventilated and free from abrasive dust or chemicals.
 - Unobstructed drain or bucket for water dump.
 - Ambient temperature is between 40° F and 85° F (optimal).
NOTE: Higher temperatures will decrease component lifespan.
 - Meets the following power requirements:
 - 208 - 230 VAC, 1 Phase for P20KW
 - 208 - 230 VAC, 3 phase for P30KW
 - Minimum 30 amp service with a 20 amp slow blow fuse
 - If hard-wiring directly, minimum of 10 AWG wire must be used.
- Notify the alarm center of the installation and potential for alarms during the process (if applicable).

Included Contents

- (1) P20KW / P30KW Air Dryer
- (2) 10' sections of 3/8" Drain Tubing
- (1) Installation Guide (not shown)

Package located inside the dryer:

- (1) Alarm Plug
- (1) Water Sensor
- (1) Compressor Connector Tool
- (1) User's Guide - Paper copy or digital file on CD (not shown)



Required Tools and Materials

- Large adjustable wrench
- Medium adjustable wrench
- Band cutters or snips
- 3/8" wrench
- 7/16" wrench
- 1/2" wrench
- Small flat head screwdriver
- Medium flat head screwdriver
- Medium phillips head screwdriver
- 1+ gallon of clean tap water
(DO NOT USE DISTILLED WATER)
- Pipe dope or pipe thread tape
- Shop towels
- Cup of soapy water
- 1-inch paint brush (recommended)

Installation Steps

1

- Remove all shipping materials.
- Place the dryer at the operating location.

2

- Remove the Lower Front and Side Panels.

3

- 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.

4

- Remove the ship-loose contents package.

5 Remove the shipping blocks:

- Using a 1/2" wrench, loosen the nuts on the RRU Compressor.
- Remove and discard the shipping blocks from under the RRU Compressor.
- Retighten the RRU Compressor nuts.
- Using a 7/16" wrench, remove bolt and block from under the compressor plate.
- Discard block and bolt.

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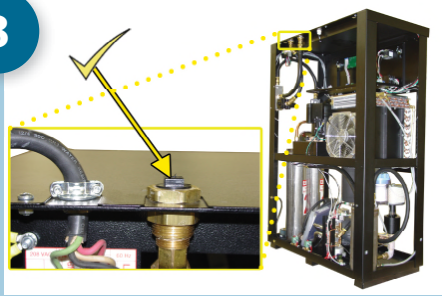
- Install 3/8" drain tubing to primary and secondary fittings and route to an unobstructed drain or bucket.
- NOTE:** DO NOT PLUMB DRYERS TOGETHER.

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

Installation Steps cont.

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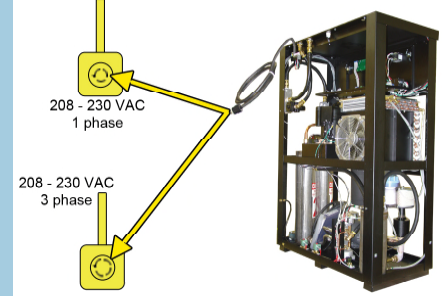
On TOP of dryer:

- Verify that the orifice plug is installed where shown.

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- Wire directly or plug the power cord into a power outlet:
- 208 - 230 VAC, 1 phase for the P20KW
- 208 - 230 VAC, 3 phase for the P30KW

NOTE: PUREGAS recommends using a 20 amp, 250 VAC plug (not provided).

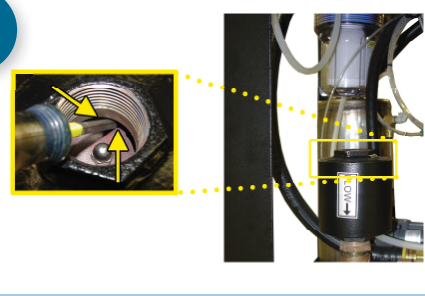


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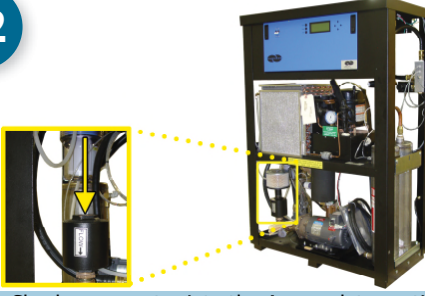
- Remove the Inlet Air Filter Assembly from the Accumulator.

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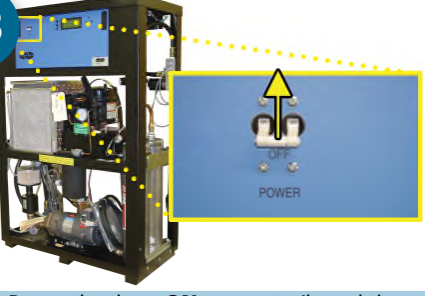
- Push the Accumulator's diaphragm down by inserting a screwdriver as shown.

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- Slowly pour water into the Accumulator until water comes out of the Compressor Petcock.

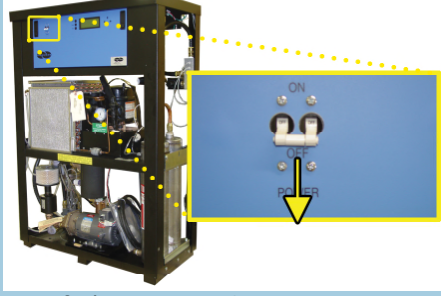
13



NOTE:
If water IS being drawn into the Accumulator, Skip to Step #15.
If water IS NOT being drawn into the Accumulator, Continue to the Next Step #14

- Power the dryer **ON** momentarily and then power **OFF**.
- Verify that water is being drawn into the Accumulator.

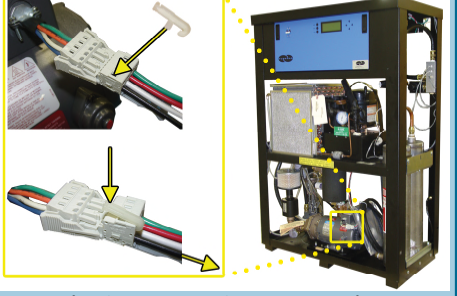
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- Interchange the compressor Red & Black wire leads:

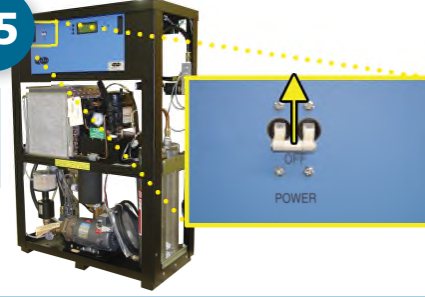
NOTE: Skip these steps if water is being drawn into the Accumulator correctly.

- Verify dryer Power is **OFF**.



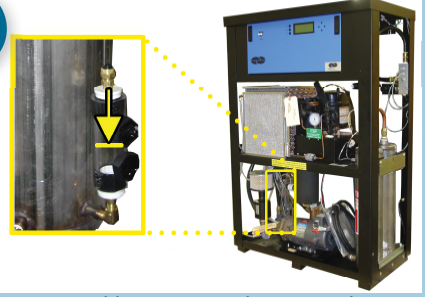
- Use the Compressor Connector Tool to remove the Red & Black wires from the dryer side connector.
- Switch the Red & Black wires and re-insert.

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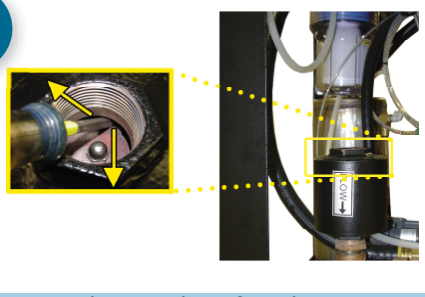
- Power the dryer **ON**.

16




- Continue adding water in the Accumulator until the water level stabilizes below the Dump Water Sensor.

17



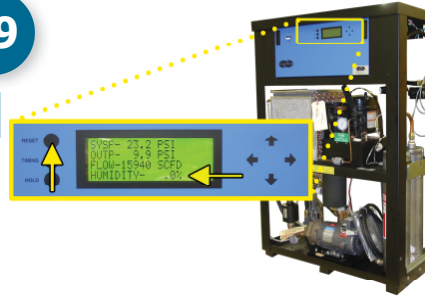
- Remove the screwdriver from the Accumulator.

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- Reinstall the Inlet Air Filter Assembly onto the Accumulator.

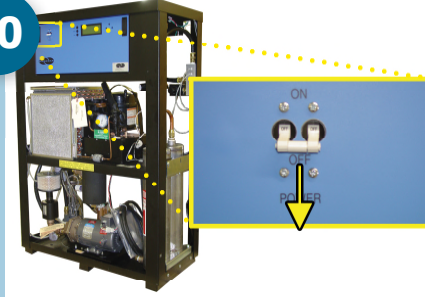
19



- Let the dryer run until the Humidity drops below 2% (may take up to 15 minutes).

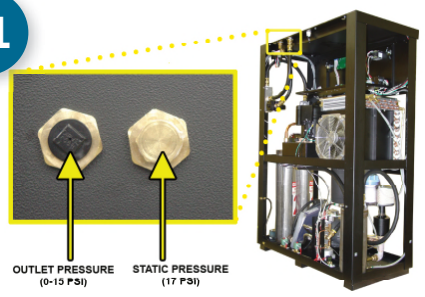
NOTE: Press **RESET** if the System goes into **SHUTDOWN**.

20



- Power the dryer **OFF**.

21

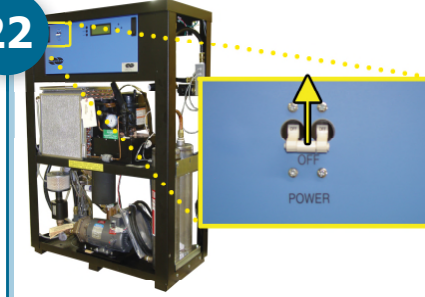


OUTLET PRESSURE (0-15 PSI) STATIC PRESSURE (17 PSI)

- Connect the air supply line(s) to the dryer Outlet Pressure and/or Static Pressure port(s).

⚠ CAUTION: System may be pressurized.

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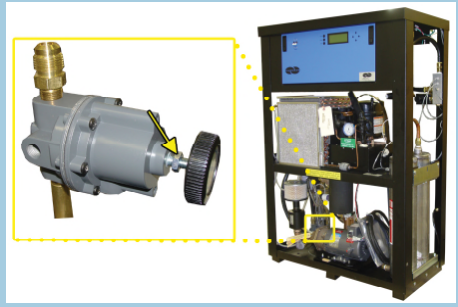


- Power the dryer **ON**.

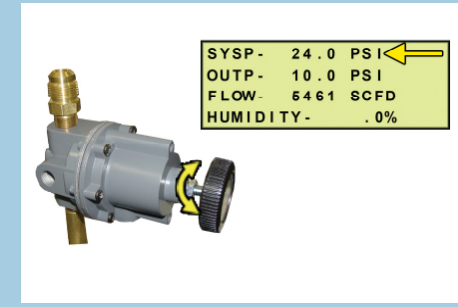
Installation Steps cont.

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- Set the System Pressure:

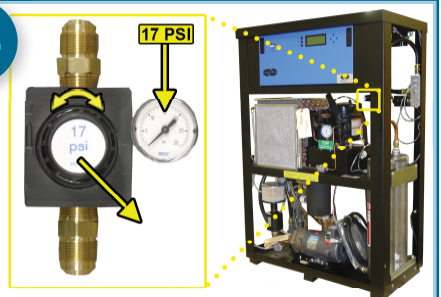


- Unlock the knob on the System Pressure Regulator by loosening the retaining nut with a 1/2" wrench.



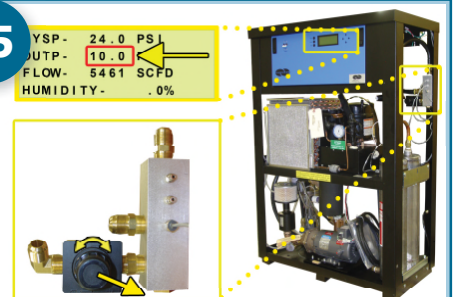
- Adjust the System Pressure Regulator until the **SYSP** reading on the Front Panel Display is **24 PSI**.
- Lock the retaining nut on the Regulator.

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- Pull the Static Pressure Regulator knob out.
- Adjust the knob until the reading on the pressure gauge is **17 PSI**.
- Push knob in to lock.

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- Pull the Outlet Pressure Regulator knob out.
- Adjust the knob until the Outlet Pressure (**OUTP**) reading is the desired setting.
- Push knob in to lock.

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- Visually inspect for water leaks.
- Check for air leaks.

CAUTION: DO NOT SOAP TEST THE HUMIDITY SENSOR FITTING. DAMAGE TO THE SENSOR MAY OCCUR.

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

Use a 1-inch brush to dab soapy water on all air fittings and hose connections.



If air bubbles appear, this is an indication that air is leaking.

Take steps to seal the leak:

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

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- Re-install the Lower Front and Side Panels.

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- Connect alarm hookups (if applicable).

Please refer to the **P20KW / P30KW User's Guide** section on **Operating Your Dryer**.

Specifically, sub-sections:
Connecting to Common Alarm Terminals
Rewiring the Common Alarm Socket

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- REGISTER YOUR DRYER.**

Installation Checklist

- No shipping damage was detected.
- Dryer location meets the following requirements:
 - o Well ventilated
 - o Free from abrasive dust or chemicals
 - o Drain tubing routed to unobstructed drain or bucket.
 - o Ambient temperature is between 40° F and 85° F (optimal)
- Shipping blocks removed.
- System Pressure is set to 24 PSI.
- Static Pressure is set to 17 PSI.
- No leaks are present in the system.
- No alarms are present on the Display Panel.

Registering Your Dryer

Please take a moment to register your PUREGAS P550W Series 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 PUREGAS products.

Register Online at: www.puregas.com/registration

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

Have the following information available:

Model #: _____

Serial #: _____

Company Name: _____

Location Name: _____

Shipping Address: _____

City: _____ State: _____

Zip Code: _____

Contact Name: _____

Phone #: () - ext.

Email: _____