# VCD Series CO2 Adsorber / Dryer



# **User's Guide**

Models covered:

VCD3 VCD4



P012549 REV C

# WARNING:



This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer/birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

# 1. Welcome & Congratulations

Congratulations on your purchase of a new ALTEC AIR VCD SERIES CO2 ABSORBER / 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 unit and would like to thank you for choosing ALTEC AIR for your CO2 adsorber / dryer requirements. We also hope that you will continue to choose us for your future Compressed Air Treatment and related products 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 VCD SERIES CO2 ADSORBER / DRYER. It will cover topics including: safety, specifications, installation, testing, maintenance, and troubleshooting issues. Observation and compliance with this User's Guide will ensure the maximum life and efficiency of your CO2 adsorber / dryer.

This User's Guide should be read thoroughly prior to installing, operating, or servicing the CO2 adsorber / dryer in order to become familiar with the recommended procedures. This will minimize the possibility of personal injury or damage to the CO2 adsorber / dryer due to improper operation or handling.

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# 4. Safety & Warning Information

This section contains general information about safety and warning points to consider and adhere to during installation and maintenance of your CO2 adsorber / dryer. PLEASE READ THIS SECTION BEFORE PERFORMING ANY OPERATION OR PROCEDURE ON YOUR CO 2ADSORBER / 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 "<u>WARNING!</u>", "<u>CAUTION!</u>", or "<u>IMPORTANT!</u>". Please be sure to pay close attention for these warnings and read them as you encounter them.



# **IMPORTANT!**

Performing procedures not described in this User's Guide MAY VOID THE WARRANTY.



# **IMPORTANT!**

Appropriate inlet filtration is **MANDATORY** and outlet filtration is recommended for all application.



# **IMPORTANT!**

Each CO2 adsorber / dryer is sized for specific operating conditions. For **OPTIMUM** performance, the maximum available operating pressure should be maintained across the unit. Any pressure reduction or flow control should be done downstream of the unit. Depending on the magnitude of the change, the size of the desiccant chambers or orifice may need to be changed.

# 5. Overview & Specifications

### **5.1 Product Description**

The VCD SERIES CO2 ADSORBER / DRYER from ALTEC AIR is designed to remove CO2 and moisture from compressed air. This CO2 adsorber / dryer uses dual towers with media beds featuring 13X molecular sieve in a pressure swing adsorption process. Adsorbed moisture and CO2 are purged to the atmosphere while dry CO2free air is provided at the outlet port.

### **5.2 Key Features**

- Continuous, ultra-dry, CO2-free air to less than 1 PPM
- Reduces water vapor to less than 1 PPM
- Continuous self-regenerative operation
- Outlet flow capacities of 23 to 60 L/Min at 100 PSIG
- Operating pressures of 50 to 150 PSIG
- Compact, lightweight aluminum construction
- Low power requirements (20 watts)
- Ideal for OEM and point-of-use applications

### **5.3 VCD Series Adsorber / Dryer Models**

Model	<b>Inlet Flow</b>	<b>Purge Flow</b>	<b>Outlet Flow</b>
VCD3	40	17	23
VCD4	95	35	60

Notes:

- 1. Flow capacities in L/Min shown are for standard units operated at 100 PSIG.
- 2. Inlet and outlet flow capacities will be greater at higher pressures and lower at lower pressures. Consult factory for other conditions.
- 3. Standard inlet conditions are 70  $^{\circ}$  F saturated.

# **5.4 Technical Specifications**

Dimensions	
VCD3	16.1" H x 8" W x 4.8" D
VCD4	24.1" H x 8" W x 4.8" D
Voltage Requirements	115 VAC, 1 Phase, 50/60 Hz
(one of the following)	230 VAC, 1 Phase, 50/60 Hz
Power	20 Watts
Electrical Rating	NEMA 1
Solenoid Valve Coil Voltage	53 VDC (115 VAC unit)
	106 VDC (230 VAC unit)
<b>Operating Ambient</b>	33° to 120° F (5° to 49° C)
Temperature Range	
Inlet Temperature	≤100°F Recommended
	120°F Maximum
Maximum Inlet Pressure	150 PSIG
Cycle Timer	Solid State with memory
Purge Cycle	30 seconds per side continuous
Separation Media	13X Molecular Sieve
Noise Level	<90 dBA
Inlet / Outlet Connections	1/4" NPT Female

# 6. Installing Your CO2 Adsorber / Dryer

## 6.1 Safety & Warning Information



# WARNING!

Extreme care should be exercised to avoid contact with live electrical circuits. Many procedures performed during installation, and testing of this CO2 adsorber / 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!**

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!**

Incoming power to dryer must be:

- 115 VAC, 1Phase, 50/60 Hz
- 230 VAC, 1 Phase, 50/60 Hz



# **CAUTION!**

Do **NOT** exceed the SCFM outlet flow capacity of the CO2 adsorber / dryer. Be aware of what your unit is rated for before installation.

### 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 CO2 Adsorber / Dryer* section to familiarize yourself with the components and procedures before performing the installation.
- **6.2.3** Verify the installation location of the CO2 adsorber / dryer:
  - Ambient temperature is between 33° and 100°F
     NOTE: Temperatures above 120°F will decrease component lifespan.
  - Meets one of the following power requirements:
    - 115 VAC, 1 Phase, 50/60 Hz
    - 230 VAC, 1 Phase, 50/60 Hz

### **6.3 Included Contents**

(1) VCD Series CO2 Adsorber /

Dryer

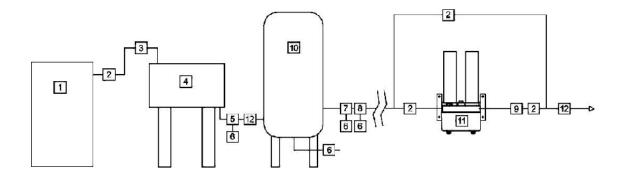
(1) User's Guide (not shown)



### 6.4 Required Tools and Materials

- 1/4" nut driver
- Needle nose pliers
- 1/4" hex head wrench
- Mounting hardware
- Drill
- Drill bit (varies on mounting hardware)
- Medium adjustable wrench (used only when installing a Complete System)
- Cup of soapy water
- 1-inch paint brush (recommended)

# 6.5 Recommended Installation



Ref.#	Description	Ref.#	Description
1	Compressor	7	Pre-Filter, 5 Micron Particulate
2	Shut-off Valve	8	Pre-Filter, 0.01 Micron Coalescing
3	Flex Connector	9	After-Filter Regulator Assembly
4	Aftercooler	10	Storage Tank
5	Liquid Separator	11	VCD Series CO2 Adsorber / Dryer
6	Drain Valve	12	Check Valve

### 6.6 Installation Steps

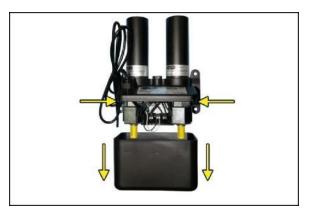


# **IMPORTANT!**

To properly operate the unit, ALTEC AIR recommends that all air filtration and options be installed. **SEE SECTION 10.2** 

**6.6.1** Remove the unit from packaging.

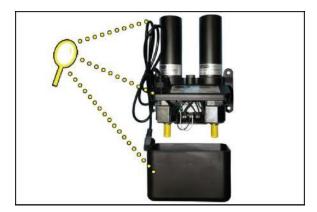
**6.6.2** With a 1/4" nut driver loosen screws and remove Manifold Cover.

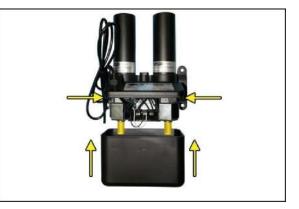


**6.6.3** Check for loose parts or wiring.

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

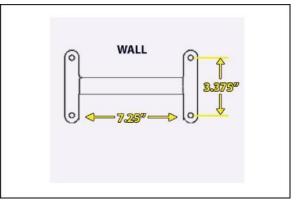
6.6.4 Re-install Manifold Cover.





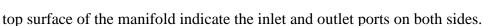
- **6.6.5** Place the unit at the operating location.
- **6.6.6** Pre-drill holes in wall, and install wall mount hardware.

**NOTE:** Wall mounting hardware installation instructions may vary.



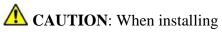
- **6.6.7** With needle nose pliers, remove and discard plugs.
- **6.6.8** With hex head wrench, arrange port plugs for desired flow direction. (As required)

**NOTE:** The arrows on the



**6.6.9** Install inlet and outlet fittings, filters and assemblies to the unit.





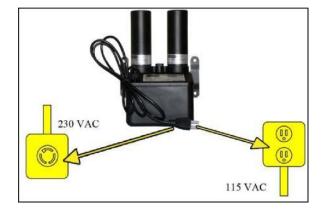
a typical Complete CO2 adsorber / dryer, or Point-of-Use System, Altec AIR recommends assembling ALL components before mounting the unit.

**6.6.10** Mount unit to wall using secure wall mounting hardware.



**6.6.11** Connect the air lines to the inlet and outlet ports.

- **6.6.12** Plug in the power cord to an outlet:
  - 115 VAC power outlet, 1 Phase.
  - 230 VAC power outlet, 1 Phase.



**NOTE:** Customer must supply a 230 VAC plug to match their receptacle.

### **6.6.13** 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.

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

### 6.6.14 REGISTER YOUR CO2 ADSORBER / DRYER.

See section 7. for details.

### 6.7 Installation Checklist

- □ No shipping damage was detected.
- □ Wall mounted properly.
- $\Box$  No air leaks are present.

# 7. Registering Your CO2 Adsorber / Dryer

Please take a moment to register your ALTEC AIR VCD SERIES CO2 ADSORBER / 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 #:	Serial #:		
Company Name:	Location Name:		
Shipping Address:			
City:	State:	Zip Code:	
Contact Name:	Phone	#: () - <b>ext</b> .	
Email:			

# 8. Testing Your CO2 Adsorber / Dryer

### 8.1 Safety & Warning Information



# WARNING!

Extreme care should be exercised to avoid contact with live electrical circuits. Many procedures performed during installation, testing, and maintenance of this adsorber/dryer requires 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.

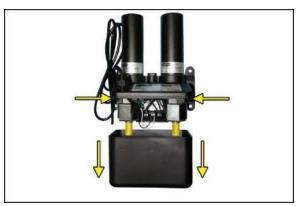


# **CAUTION!**

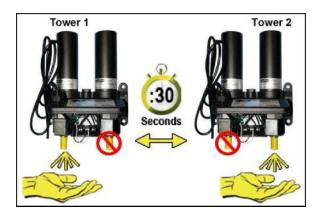
Observe precautions for handling Electrostatic Sensitive Devices.

## 8.2 Testing Consistent Cycling

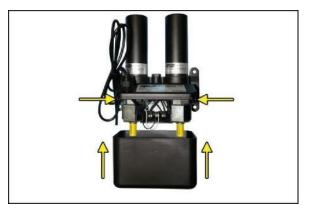
**8.2.1** With a 1/4" nut driver loosen screws and remove the Manifold Cover.



- **8.2.2** Place your hand beneath the purge fittings to feel for purging air. Air should:
  - Tower 1 will purge for **30 seconds...**
  - Tower 2 will purge for **30 seconds...**
  - Tower 1 will purge for **30 seconds**...
  - ...and so on.

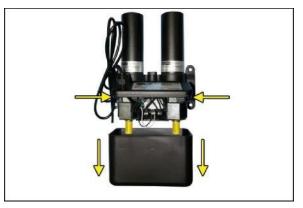


**8.2.3** With a 1/4" nut driver, reinstall the Manifold Cover.



### 8.3 Measuring Incoming Voltage

**8.3.1** With a 1/4" nut driver loosen screws and remove the Manifold Cover.



**8.3.2** Locate the Solid State Cycle Timer.

The timer has three (3) sets of terminals (from left-toright):

"VALVE" – Left solenoid "IN" – Incoming power

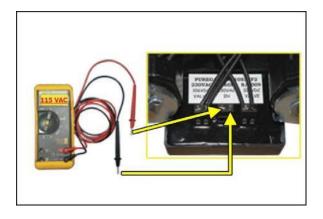
"VALVE" – Right solenoid

8.3.3 Use a Voltmeter to measure the AC voltage across the "IN" terminals.

The voltage should measure  $\pm 10\%$ :

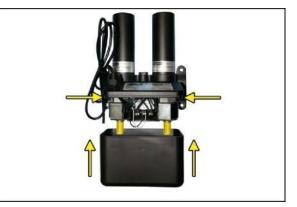
- 115 VAC
- 230 VAC





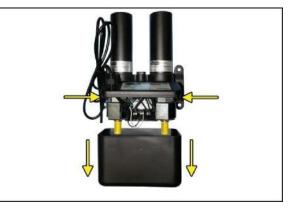
If the incoming voltage measures

less than indicated above, it is recommended that steps be taken at your facility to increase the incoming power to the recommended levels. **8.3.4** With a 1/4" nut driver, reinstall the Manifold Cover.



# 8.4 Measuring Solenoid Voltage

**8.4.1** With a 1/4" nut driver loosen screws and remove the Manifold Cover.



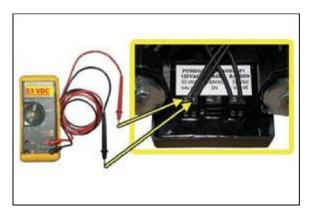
**8.4.2** Locate the Solid State Cycle Timer.

The timer has three (3) sets of terminals (from left-toright): "VALVE" – Left solenoid "IN" – Incoming power "VALVE" – Right solenoid



**8.4.3** Use a Voltmeter to measure the DC voltage across each set of "VALVE" terminals.

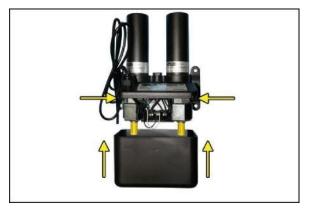
Continue to measure for up to 45 seconds if no voltage is initially measured.



The voltage should measure  $\pm 10\%$ :

- **53 VDC** for the 115 VAC models.
- **106 VDC** for the 230 VAC models.

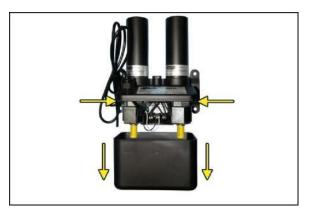
**8.4.4** With a 1/4" nut driver, reinstall the Manifold Cover.



If the voltage does not measure as indicated above, verify incoming power section 8.3 or is an indication that the Solid State Cycle Timer is defective and should be replaced. See sections 10.1 for part detail and 10.4 for ordering information.

### 8.5 Test for Purge Muffler Restriction

**8.5.1** With a 1/4" nut driver loosen screws and remove the Manifold Cover.



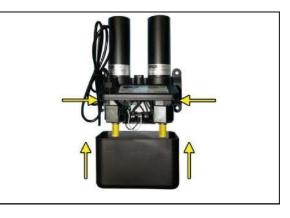
**8.5.2** With your hand, unscrew and remove the Purge Mufflers.



**8.5.3** Verify if the humidity in the unit has improved after 4 minutes of cycling.

- If so, install new Purge Mufflers.
- If not, reinstall old Purge Mufflers.

**8.5.4** With a 1/4" nut driver reinstall the Manifold Cover.



If the Purge Mufflers have black dust covering themselves or are excessively dirty you should replace them. See Section 10.1 for parts and Section 10.4 for ordering information.

### 8.6 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.

- **8.6.1** Listen for any 'hissing' sounds which may indicate a fitting or hose air leak.
- **8.6.2** 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*

# 9. Maintaining Your Adsorber / Dryer

In order to ensure that your VCD Series CO2 Adsorber / Dryer continues to operate efficiently and reliably, ALTEC AIR recommends performing the following maintenance procedures at the specified Six Month and Two Year intervals.

It is also recommended that you print out the included *Maintenance* log sheet (*section 16*) and record all completed maintenance for historical tracking and reference purposes.

The log sheet includes 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.

### 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 adsorber/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!**

SHUT DOWN IMMEDIATELY FOR REPAIRS if the

CO2 adsorber / dryer shows any evidence of excessive noise.



# **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.

# 9.2 Maintenance Log Sheet

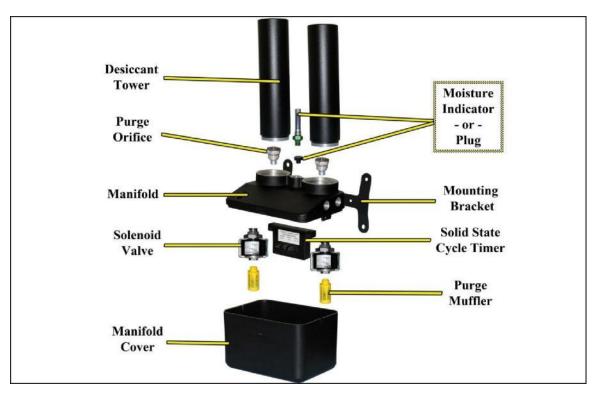
MODEL:	LOCATION NAME:
SERIAL NUMBER:	ADDRESS:
DATE INSTALLED:	

			lamuna	ince miter ve	ii (intointiis)	
Procedure	Section	6	12	18	24	30
Visually Inspect for Loose Wiring or Hardware	6.6.3	0	0	0	0	0
Test Consistent Cycling	8.2	0	0	0	0	0
Measure & Record Incoming Voltage	8.3					
Test Solid State Cycle Timer Voltage	8.4	0	0	0	0	0
Install New Desiccant Towers	10.1				0	
Install Maintenance Kit	10.2				0	
Maintenance	Performed					
by: Date of M	aintenance:					
			•	•	•	•

Maintenance Interval (Months)

# 10. Replacement Parts & Accessories

### 10.1 Parts



Description	Part Number		Quantity	Recommend				
Description	115VAC	230VAC	Quantity	Spare				
Desiccant Tower								
VCD3 – 12"	51253		2	□ (2)				
VCD4 – 20"	51254							
*Purge Orifice (specify #)	51315-XX		51315-XX		2			
Manifold	P300495P		P300495P		1			
Solenoid Valve	P400589DC1 P400589DC2		2	□ (2)				
Manifold Cover	P3005052		1					
Plug (standard)	P07559		1					
Moisture Indicator (optional)	51308		1					
Mounting Bracket	P010437		P010437		1			
Solid State Cycle Timer	P010530F1 P010530F2		P010530F1 P010530F2		P010530F1 P010530F2		1	□ (1)
Purge Muffler	10040		10040		10040		2	□ (2)

\*NOTE: The orifice number is located on the serial decal and stamped on the top of the purge orifice.

# **10.2 Accessories**

	Description	Part Number
<b>*:</b>	Dryer Maintenance Kit Includes solenoids, check ball, check springs, and o-rings.	51325
	Filter Kit with Regulator Keeps all impurities from contaminating the towers and allows you to regulate your outlet pressure. Includes 5 micron pre- filter, 0.01 coalescing pre-filter, .5 micron after filter, gauge, and regulator.	51355-R
	Filter Kit Keeps all impurities from contaminating the desiccant towers. Includes 5 micron pre-filter, 0.01 coalescing pre-filter, and .5 micron after-filter.	51355
	Filter Element Kit Replacement elements for a 5 micron pre- filter, 0.01 coalescing pre-filter, and 0.5 micron after filter.	51507
	Outlet Regulator Adjustable outlet regulator. Comes with gauge.	R18-03-F0G0
	Moisture Indicator Blue to pink indicator that includes an o-ring.	51308
	Surge Tank Includes air tank, pipe plugs, and pressure gauge.	P07994

### **10.3 Accessories Continued**

Description	Part Number
Sound Suppression Kit Includes fittings and hardware to connect to the VCD.	P08084
 VCD Enclosure Kit A sleek box that suppresses sound while protecting your VCD in a NEMA 4 rated bud box.	51934

# **10.4 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:

(303) 427-3700 option 2 Fax – (303) 657-2205 <u>sales@AltecAIR.com</u>

# 11. Service & Repair

### **11.1 Services Offered by the Altec AIR Facility**

- 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
- Complete Dryer Repair

### **11.2 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.

# 12. Troubleshooting Your Adsorber / Dryer

### 12.1 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 CO2 adsorber / 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 adsorber/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.

### 12.2 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!

Extreme care should be exercised to avoid contact with live electrical circuits. Many procedures performed during installation and testing of this adsorber/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.



# **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.

# 12.3 Low Pressure

Possible Cause	Check	<b>Corrective Action</b>
No power to unit	Verify power is supplied	Troubleshoot
	to the unit (section	facility power
	6.6.12)	supply to air dryer
Dirty or obstructed inlet	Verify inlet air filter	Replace filter elements
filter	elements are clean	(section 10.2)
Inlet and outlet ports	Verify ports for proper	Reconnect properly
reversed	orientation (see section	
	6.6.7)	
Excessive purge		Test for Excessive
		Purge (section 12.4)

### **12.4 Excessive Purge**

Possible Cause	Check	<b>Corrective Action</b>
Defective Solenoid	Test for consistent cycle,	Replace valve (section
Valve	and verify voltage (see	10.1)
	section 8.2)	
Defective Solid State	Test for consistent	Replace timer (section
Cycle timer	voltage to the solenoid	10.1)
	valves (section 8.2)	

# 12.5 Delivers Wet Air

Possible Cause	Check	<b>Corrective Action</b>
High inlet temperature	Verify inlet temperature	Reduce inlet air
	is below 100°F.	temperature.
Air flow through unit in	Verify outlet flow does	Reduce air usage
excess of rated capacity	not exceed the units	downstream.
	rated flow	
Low inlet pressure	Verify inlet pressure	Increase pressure, or
	meets air dryer's rated	replace filter elements
	pressure, or is not	(section 10.2)
	restricted.	
	(section 12.3)	
Purge orifice plugged	Verify the orifice is free	Clean and/or replace
	from debris and is in	orifice (section 10.1)
	good working condition.	
Defective Solenoid	Test for proper purge	Replace valve (section
valve	cycle, and verify voltage	10.1)
	(see section 8.2)	
Contamination of	Remove tower and	If white powder is
desiccant	depress perforated disc.	present replace towers
		(section 10.1)
Defective Solid State	Verify timing cycle	Replace timer (section
Cycle Timer	(section 8.4)	10.1)
Purge flow restricted	\//////////////////////////////////////	Replace mufflers
	<u> </u>	(section 10.1)

### **12.6 Contacting ALTEC AIR Technical Support**

### Please read the *Before You Call ALTEC AIR* section (12.1)

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

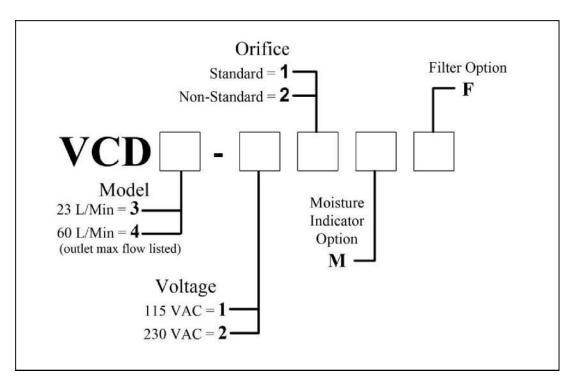
(800) 521-5351 (option 1)

Have the following information available:

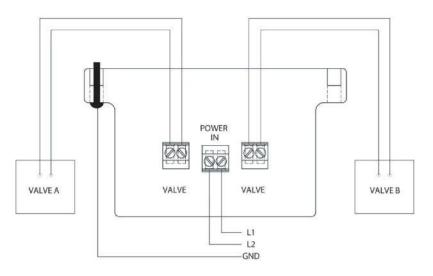
Trouble Ticket # (if following-u)	p on a previous call):
Technician Name:	Phone #:
Model #:	Serial #:
Company Name:	Location Name:
City:	State:

# 13. Appendix

## **13.1 Model Number Coding**



# 13.2 Wiring Diagram



# 14. 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 VCD SERIES CO2 ADSORBER/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 Adsorber/Dryer.

# 15. Contacting ALTEC AIR 15.1 General ALTEC AIR, LLC 226A Commerce Street Broomfield, Colorado 80020 (800) 521-5351 (303) 427-3700 Fax – (303) 657-2205 sales@AltecAIR.com www.airdryers.com 15.2 Sales (800) 700-8537

Fax – (303) 465-9294

sales@airdryers.com

15.3 Service

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

# **15.4 Technical Support**

(800) 521-5351 (option 1)

# DON'T FORGET TO REGISTER YOUR VCD CO2 SERIES ADSORBER / DRYER!

See Section 7. for details on Registering Your CO2 Adsorber / Dryer.

# 16. Maintenance Log Sheet

MODEL:	LOCATION NAME:							
SERIAL NUMBER:	ADDRESS:							
DATE INSTALLED:								
		Maintenance Interval (Months)						
Procedure	Section	6	12	18	24	30		
Visually Inspect for Loose Wiring or Hardware	6.6.3	0	0	0	0	0		
Test Consistent Cycling	8.2	0	0	0	0	0		
Measure & Record Incoming Voltage	8.3							
Test Solid State Cycle Timer Voltage	8.4	0	0	0	0	0		
Install New Desiccant Towers	10.1				0			
Install Maintenance Kit	10.2				0			
Maintenance Performed								
by: Date of M	aintenance:							

### NOTE: COPY OR PRINT THIS PAGE AND KEEP IT WITH THE ADSORBER /

<u>DRYER</u>

# 17. Notes