



**Therma-Stor** LLC

4201 LIEN RD. • MADISON, WI 53704



**PHOENIX**

# D850 | DESICCANT DEHUMIDIFIER

## OWNER'S MANUAL

### Installation, Operation & Service Instructions – READ AND SAVE THESE INSTRUCTIONS –

The Phoenix D850 provides the perfect blend of portability, versatility, and performance the restoration industry has been seeking in a medium-capacity desiccant dehumidifier. It combines the wide operating range and ultra-low grains of the Phoenix 1200 with the portability of an LGR like our Phoenix 250 Max. The included remote humidistat and process blower speed control allow you to tailor the drying to the task at hand.

The D850 delivers 425-850 CFM of ultra-low grain process air and removes a stunning 370 pints per day (175 liters per day) (at 850 CFM process airflow on the high power setting, 240VAC) at AHAM conditions. The true four-hole design\* allows for positive, neutral, or negative pressurization of the affected area. Three-hole desiccants\*\* inherently pull unaffected and/or outside air into the drying chamber.

The D850 allows you to connect a remote humidistat (included), thermostat, or other low-voltage control allow you to achieve precise conditions anywhere within the affected area. When the job calls for even deeper drying, the process blower speed control reduces the process airflow for maximum grain depression.

The D850 operates vertically or horizontally and will fit inside most crawlspaces. The lower carrying handle makes moving the unit into and out of the crawlspace a breeze. Having the D850 securely inside the crawlspace deters the possibility of tampering with the dehumidifier or the setup. The 425-850 CFM process air stream will provide 3 ACH on an affected area up to 16,000 cubic feet.

The Phoenix D850 is easy to transport and set up. It will fit on your truck in the areas designed for your LGRs and will move around the jobsite with the same portability. Stairs are a snap thanks to the lower carrying handle. Power to the unit is provided by either a 30- or 50-amp 230-volt grounded power cord (both are included). Stow the cords in the on-board storage compartment for transport. The reactivation air stream is ducted through 6" flex duct provided with the unit.

\*Having completely separate process and regeneration airstreams.

\*\*Where regeneration airstream is pulled from the process airstream.

### The Phoenix D850 Desiccant Dehumidifier

- 370 pints per day @ AHAM (80°F, 60%RH)  
175 liters per day
- 425-850 CFM process airflow
- Wide operating range
- Operates vertically or horizontally
- True four-hole configuration
- High or low power (50A or 30A)
- Two 8' Power Cords (1 dryer, 1 range) included with unit
- Power cords can be stored on-board
- Remote humidistat (with 25' connecting cable) included with unit
- Multiple ducting options
- Rugged stainless steel cabinet



Phoenix D850  
PN 4034000  
Patent Pending



SCAN ME

Specifications subject to change without notice.



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TS-1149  
12/19 Rev. A



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Serial No. \_\_\_\_\_

Purchase Date \_\_\_\_/\_\_\_\_/\_\_\_\_

Dealer's Name \_\_\_\_\_

Read the operation and maintenance instructions carefully before using this unit.

Proper adherence to these instructions is essential to obtain maximum benefit from your Phoenix D850 dehumidifier.

## 1 Safety Precautions

- Unit Intended for INDOOR USE ONLY; DO NOT USE OUTDOORS.
- Device is HOT when in use. To prevent burns, avoid skin contact with hot surfaces.
- Use handle when moving device.

- Maintain 36" minimum clearance between device outlet and any combustible materials such as furniture, pillows, bedding, papers, clothes and curtains. Keep such items away from sides and rear of device.
- Extreme caution is necessary when device is used by or near children and whenever device is left operating unattended.
- Always unplug unit when not in use.
- DO NOT OPERATE with damaged cord, plug, or after unit malfunctions, has been dropped or damaged in any manner. Return to authorized service facility for adjustment or repair.
- Device not intended for use directly in an area where it may fall into a bathtub or other water container.
- DO NOT run cord under carpeting or other floor covering. Arrange cord away from traffic area and where it will not be tripped over.
- To disconnect device, turn controls off, then remove plug from outlet.
- Connect ONLY to properly grounded outlets.
- DO NOT insert or allow foreign objects to enter any ventilation or exhaust openings as this may cause an ELECTRIC SHOCK or FIRE, or damage the heater.
- To prevent a possible fire, do not block air intakes or exhaust in any manner. Do not use on soft surfaces, like a bed, where openings may become blocked.
- Device has hot and arcing or sparking parts inside. Do not use in areas where gasoline, paint, or flammable liquids are used or stored.
- Use device only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock, or injury to persons.
- Avoid use of an extension cord because the extension cord may overheat and cause a risk of fire. However, if you have to use an extension cord, the cord shall be No. 6 AWG minimum size and rated not less than 9600 Watts.

## 2 Specifications

<b>Part No.</b>	4034000
<b>Power</b>	208-240VAC, 50/60Hz, Single Phase 30A or 50A branch circuit protection (24A or 40A actual amp draw)
<b>Water Removal</b>	370 pints per day at 80 °F, 60%RH (at 850 CFM process airflow on the high power setting, 240VAC) 175 liters per day
<b>Blower</b>	850 CFM (1444 m <sup>3</sup> /hr) Process Airflow 225 CFM (50Hz 320 m <sup>3</sup> /hr - 188 CFM) Reactivation Airflow
<b>Cord Length</b>	2ea. 8ft power cords (1 dryer, 1 range)
<b>Operating Range</b>	-10 °F to 120 °F -23 °C to 49 °C



**Filters** Process filter size: 20" x 20" x 2"  
Reactivation filter size: 9" x 11 3/8" x 1/4"

**Duct Connections** Process Inlet: 18" Flex Duct or 12" Flex Duct with on-board adapter (optional)  
Process Outlet: 10" Layflat with included collar (optional)  
Reactivation Inlet: 6" Flex Duct (optional)  
Reactivation Outlet: 6" Flex Duct (required)

**Warranty** One year 100% Parts and Labor

**Dimensions:**

	Machine	Shipping
Width	20"	24"
Height	41"	47"
Depth	23.25"	26"
Weight	155 Lbs.	173 Lbs.

**Popular Accessories**

4026859	6" Metalized Polyester Flex Duct 25' (Standard)
4020128	6" Insulated Flex Duct 25'
4024750	12" Metalized Polyester Flex Duct 25'
4023643	18" Metalized Polyester Flex Duct 25'
4022537	10" Layflat Duct 500'
4024935	10" Layflat Duct 250'
4024440	Kestrel 3000 Multi-Function Air Meter
4030115	Reed LM 8000 Multi-Function Meter
4027326	25' 240V Cord Kit
4031045	50' 240V Cord Kit
4031046	75' 240V Cord Kit
4031047	100' 240V Cord Kit
4036662	Remote Humidistat

**Process Air Filter Replacement**

4022636 20" x 20" x 2" MERV 8 Filter (Standard)

**Reactivation Air Filter Replacement**

4027168 9" x 11-3/8" x 1/4" Pre-Filter (Standard)

# 3 Operation

## 3.1 How the Phoenix D850 works

Your Phoenix D850 uses two separate air streams – Process (Fig. 1) and Reactivation (Fig. 2). Moisture is transferred from the incoming process air to the outgoing reactivation air. It is exhausted from the structure as water vapor, so there is no drain hose or condensate pump.

Note: Check for airflow at all inlets and outlets. DO NOT run unit if no airflow is detected.

**Process Air Stream (Fig. 1):**

P1 – 425-850 CFM of air enters (18" or 12" flex) the machine and...

P2 – ...water vapor from incoming air is deposited on the desiccant wheel.

P3 – 425-850 CFM of warm, dry air exits (10" layflat) the machine.

**Reactivation Air Stream:**

R1 – 225 CFM (50Hz 188 CFM) of air enters (6"flex) the machine and...

R2 – passes over the heater coils.

R3 – Water vapor is picked up from the desiccant wheel by the hot air and...

R4 – ...225 CFM (50Hz 188 CFM) of warm, wet air exits (6"flex) the machine.

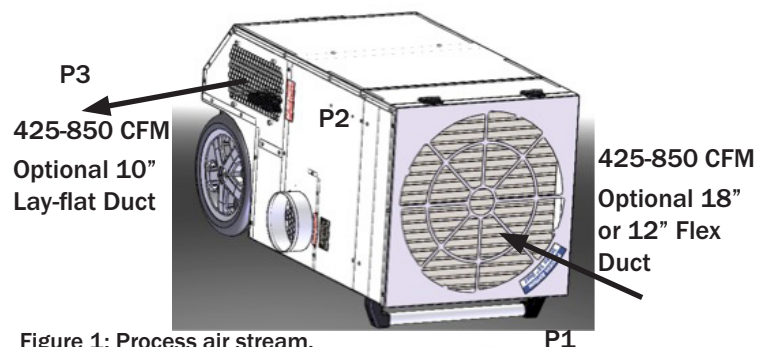


Figure 1: Process air stream.

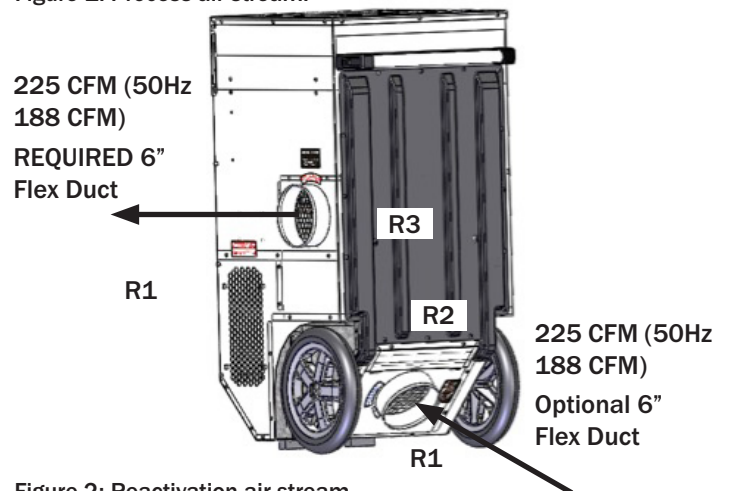


Figure 2: Reactivation air stream.

## 3.2 Avoiding Secondary Damages

Care must be taken to avoid damage caused by unexpected condensation, over-drying, or overheating.

### **CAUTION**

Take care to prevent the reactivation exhaust air stream from causing secondary damage due to condensation.

The reactivation exhaust air is warm and moist. If it cools below its dewpoint, it will condense inside the ducting, creating puddles. Minimize this effect by using the shortest, straightest duct run possible and insulating the duct if



necessary. Slope the duct away from the D850 to prevent internal damage from condensation running back into the machine. If the reactivation exhaust air stream is not exhausted completely, perhaps due to leaks in the ducting, it can also cause damage to the structure if it condenses on cool surfaces.

## CAUTION

Take care to avoid secondary damages to the affected area caused by over-drying or overheating.

The D850 will continue to remove water from air that is already dry. It will also continue to heat the process outlet air. Consider using an external humidistat and/or thermostat (see Section 3.8.5) to control the conditions in the affected area.

### 3.3 Transporting

The Phoenix D850 can be transported and stored either upright or horizontally as shown in Figures 1 and 2 (on page 3). There is a storage compartment under the process air filter, which is large enough to store the power cords and additional small items that you may require on your job site.



Figure 3: Small Storage Compartment.

### 3.4 Electrical Requirements

The Phoenix D850 requires 208-240VAC, single phase power. When properly installed, it provides a ground connection through the cord to the unit to protect the operator from electric shock. The D850 comes equipped with two 8' long cords for connection to grounded residential range and dryer receptacles. Accessory extension cord kits are also available (see Accessories).

### 3.5 Location

Note the following precautions when locating the Phoenix D850:

- It is designed to be used **INDOORS ONLY**.
- If used on a water loss work site, plug it into **GROUND FAULT CIRCUIT INTERRUPT (GFCI) OUTLETS**

- Maintain a minimum of 36" clearance around the D850
- DO NOT** use the Phoenix D850 as a bench or table.

### 3.6 Ducting Connections

Air flow and performance are reduced as the length of the duct increases. Bends and other restrictions will also hurt air flow and performance. Use the shortest, straightest duct runs possible for best results.

Four different duct sizes can be used with the D850. All ducting materials are available from Therma-Stor LLC (see accessories list section 2).

#### Process in: 18" or 12" flex duct.

To attach 18" flex duct to the process air intake, push the wire of the first couple of loops down below the four tabs in the top cover. An adapter is included that allows 12" flexible ducting to be connected to the inlet. It is stored inside the process filter



compartment. Push the 12" flex duct through the adapter center with the adapter hooking tabs facing away from duct; (see figure 4). The spiral wire passes from one side of the adapter to the other via the notch on the edge of the hole; (see figure 5). The adapter and duct are positioned on the unit top with the four tabs placed into the slots. The adapter is then twisted counterclockwise to lock it in place; see figures 6 and 7.



Figure 4:



Figure 5:



Figure 6:



Figure 7:



### Process out: 10"-diameter layflat plastic duct.

When inflated, this ducting forms a 10"-diameter tube. It attaches to the D850 by means of a 12"x 6" wire rectangle. To attach layflat ducting to the process exhaust opening (Fig. 1, P3), feed the duct end through the collar and roll the end outward so that it overlaps the outside of the collar. Snap the collar inside the screw posts, then slide the collar down against the center post. See Figure 8



Figure 8:

### Reactivation in & out: 6" flex duct.

Ducting is connected to either reactivation air stream on the D850 using a detachable starting collar. Slide 6"-diameter flex ducting over the collar and fasten it with a hose clamp, zip-tie, or duct tape. To attach the collar to the D850, align the three tabs with their slots in the cabinet and the small, round hole with the snap button, then push the collar into the unit, and twist it counter-clockwise until the button snaps into the hole in the collar. To remove the collar and attached ducting, depress the snap button while rotating the duct collar 15° clockwise. Pull the duct collar straight out



Figure 9:

from the cabinet.

## 3.7 Ducting Options

The Phoenix D850 can be ducted as shown in Figures 3, 4, and 5 to create negative, neutral, or positive pressure in the affected area. Determine the appropriate ducting scheme based on the conditions inside and outside the affected area. The options shown can be adapted as needed if the D850 is located outside the affected area. If the affected area is very large, dehumidification can be improved by

## NEGATIVE PRESSURE

### The Standard Setup

#### REACTIVATION OUTLET

Must always be ducted out of the affected area

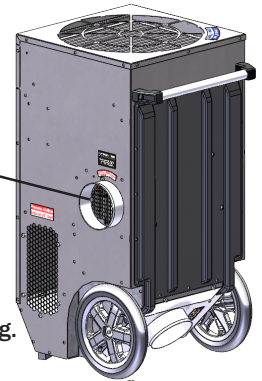


Figure 3: Negative Pressure Ducting.

## NEUTRAL PRESSURE

#### REACTIVATION OUTLET

Must always be ducted out of the affected area

#### REACTIVATION INLET

Duct in from outside the affected area

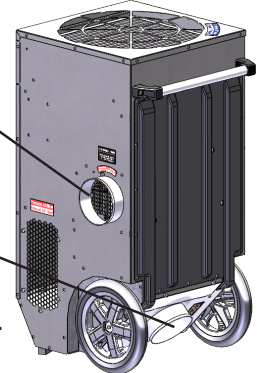


Figure 4: Neutral Pressure Ducting.

## POSITIVE PRESSURE

#### PROCESS INLET

Duct in from outside the affected area

#### REACTIVATION OUTLET

Must always be ducted out of the affected area

#### REACTIVATION INLET

Duct in from outside the affected area

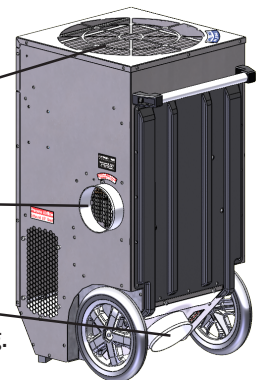


Figure 5: Positive Pressure Ducting.

adding an outlet duct to circulate process air to stagnant areas.

## 3.8 Control Panel

### 3.8.1 POWER SETTING Switch

This switch selects either high or low power operation.

### 3.8.2 CONTROL MODE Switch

The CONTROL MODE switch can be used to turn the unit ALWAYS ON, OFF, or set the unit to be controlled by an external low-voltage control (humidistat, thermostat, etc.).

When set to ALWAYS ON, the blowers and rotor motor run continuously. In this mode, the heaters are limited to 120°F incoming air temperature with automatically-resetting thermal switches. Do not operate when ambient air is 120°F or higher.



When set to EXTERNAL CONTROL, the blowers and rotor motor run continuously. The heater will run when the low-voltage control terminals are connected by a switch, remote thermostat, timer, etc. The heaters are also limited to 120°F incoming air temperature with automatically-resetting thermal switches.

### 3.8.3 BALANCE Knob

The BALANCE Knob modulates the airflow through the process plenum. To reduce the process airflow volume and lower the humidity of the outlet air, turn the knob counter-clockwise. To increase the process airflow and increase the water removal rate, turn the knob clockwise.

### 3.8.4 Indicator Lamps

Three indicator lamps show at a glance whether the D850 is functioning properly. The REGEN AIR OK lamp illuminates when there is sufficient airflow through the heaters. The HEATER 1 lamp illuminates when the first heater bank is energized. The HEATER 2 lamp illuminates when the second heater bank becomes energized.

### 3.8.5 TOTAL RUN TIME Meter

The digital hour meter measures the cumulative time that the unit is turned on to tenths of an hour. It stores and displays the total when the unit is unplugged. It resets to zero after 99,999.9 hours of operation.

### 3.8.6 Low-Voltage Remote Thermostat Connection

The included thermostat can be connected here. Connect one wire to each spring-loaded terminal. If the D850 is placed inside the affected area, place the humidistat on top of the unit. If the D850 is located outside the space to be dried (e.g. ducting dry air into a tented chamber), the 25' cord allows you to place the humidistat inside the affected area.

In addition to the included humidistat, any dry-contact switch or other type of control that electrically connects the terminals will cause the heating elements to run. The remote control circuit is low voltage (24VAC). **DO NOT CONNECT POWER TO THE TERMINALS.**

## 4 Maintenance

### 4.1 Air Filter Replacement

The Phoenix D850 is equipped with two air filters that must be checked regularly.

#### Process air stream filter:

This 20" x 20" x 2" filter is located in the top of your D850 inside the upper access door. Depress the snap buttons on the sides to open the access door. The included filter carries a MERV-8 filtration efficiency rating. This filter prevents loading the desiccant wheel with foreign matter.



Figure 10:

#### Reactivation air stream filter:

This 9" x 11 3/8" x 1/4" filter is located in the bottom of your D850. To remove it, release the thumb screws and open the access panel. Pull the filter out through the slot. To clean the filter, run water through the aluminum mesh side and allow it to dry completely before reinstalling. To reinstall, orient the filter with the aluminum mesh side facing toward the unit, then slide into the slot with the wide edge horizontal.

Operating the unit with dirty filters will reduce the dehumidifier's capacity and efficiency and may cause the heater elements to cut out on thermal overload. Replacement filters can be ordered from the factory. **DO NOT** operate the unit without the filters or with less effective filters as the desiccant wheel inside the unit will become



Figure 11:

clogged and require disassembly to clean.

### 4.2 Blower Motors and Rotor Drive Motor

All motors on the D850 are permanently lubricated and do not require maintenance.

### 4.3 Desiccant Rotor Cassette Assembly

The cassette can be easily removed to inspect and/or clean the seals and rotor. Reverse these steps to reinstall the cassette.

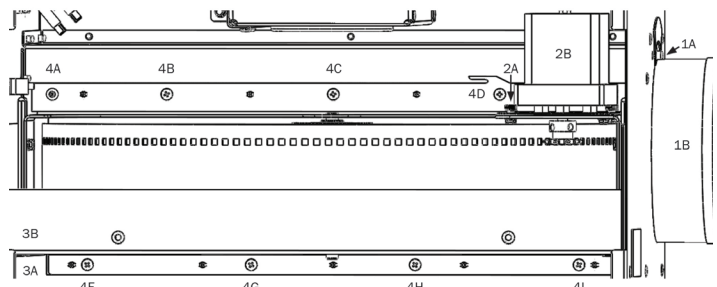


Figure 12: Removing the Desiccant Rotor Cassette.

**Step 1:** Depress button (1A) and twist reactivation outlet duct collar (1B) 15° counter-clockwise to remove.

**Step 2:** Unplug rotor drive motor wire connector (not shown). Unhook spring (not shown), unscrew shoulder bolt (2A, using 1/8" allen key), then remove motor assembly (2B).

**Step 3:** Unplug 9-wire connector below cassette (3A). Twist remaining 9-wire connector (3B) 1/8-turn counterclockwise to remove.

**Step 4:** Using a T25 driver, remove 5 screws above cassette (4A-4E), four screws below (4F-4I), and two at back of cabinet (not shown).

**Step 5:** Slide cassette forward while holding wires out of the way to remove.



**Step 6:** Installation is reverse of removal. Note that spring attachment differs depending on sprocket orientation on motor:

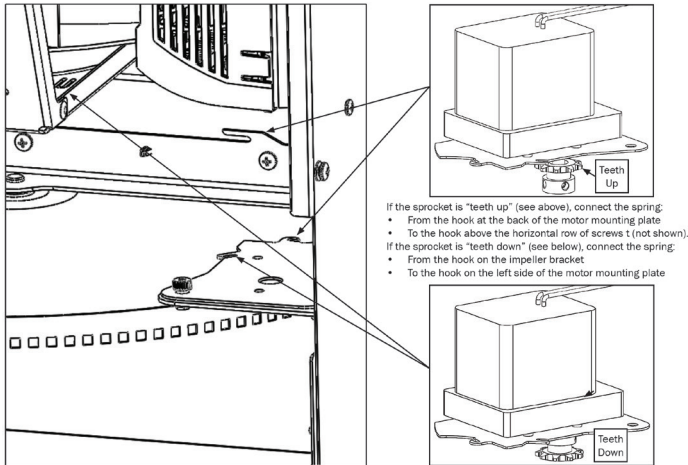


Figure 13: Attaching the Motor Tension Spring.

#### 4.3.1 Seals

Visually inspect for gaps between the desiccant media and the seals. If significant gaps, wear, or damage are observed, replace the seal.

#### 4.3.2 Desiccant Rotor

The silica gel desiccant media supplied with the dehumidifier will last indefinitely under ideal conditions, but the life of the rotor is directly related to the airborne contaminants passed through it. Atmospheric contaminants, exposure to acidic gases or contact with petroleum-based airborne particles can reduce the efficiency of the desiccant media.

Proper filtration and preventing contact with chemicals will greatly improve the life of the desiccant. Although the desiccant media is considered a cleanable/washable media, the preferred method of cleaning is to blow dust out with compressed air. Washing the media is not recommended as wash water impurities may contaminate the desiccant.

Periodically inspect the exposed surfaces of the rotor for damage. Contact Phoenix for assistance if your rotor is damaged. The rotor should turn smoothly upon the shaft, if not check the support bearings.

## 5 Service

### CAUTION

**CAUTION:** Servicing the Phoenix D850 with its high voltage circuitry presents a health hazard which could result in death, serious bodily injury, and/or property damage. Only qualified service people should service this unit.

**CAUTION-ELECTRICAL SHOCK HAZARD:** Electrical power must be present to perform some tests; these tests should be performed only by a qualified service person.

**Note:** Check for airflow at all inlets and outlets. Do not run unit if no airflow is detected

## 5.1 Technical Description

The D850 produces airflow using a three-phase process blower motor and a permanent split capacitor blower reactivation motor. The process blower speed is modulated by a variable frequency drive (VFD) controlled by a potentiometer. A shaded-pole gear motor rotates the desiccant rotor by means of a sprocket which bears directly on the rotor circumference. Heat for reactivation is generated by a two-stage wound nichrome heating element providing two heat settings depending on application requirements or available power. One element provides low power operation and both elements together provide high power operation.

The heating elements, blowers, and rotor motor are operated by a 24VAC control circuit, two contactors, and a relay. The blowers and rotor motor are energized as long as the unit is turned on. For safety, a thermal overload switch located within the heater core will de-energize the left heating element during excessive temperatures. Two additional thermal switches cut out both banks of heaters if the process or regen inlet air temperatures exceed 120 °F. A pressure-sensing switch de-energizes both heaters if there is insufficient airflow through the reactivation side. A relay contact in the VFD de-energizes both heaters if the VFD is in a fault condition. The switches will reset when the inlet air temperatures drop below 100 °F, when airflow is restored to the reactivation side, and when the fault condition in the VFD is cleared.. Both heater banks will delay 2 seconds before energizing after the safeties close again.

## 5.2 Normal Operation

1. The D850 is connected to 208-240V, single phase power
2. The Control Mode switch is switched to Always On or External Control
3. The rotor motor and regen blower are energized. There is a short delay (about 3 seconds) before the process blower is energized
4. On Always On mode or if the external control contacts are closed on External Control mode, the "Regen Air OK" light illuminates once there is sufficient airflow through heaters.
5. A two-second delay occurs
6. The 4680W light illuminates and the right heater bank is energized. In 30A mode, only one heater bank is utilized.
7. If the Power Setting switch is set to High/50A, another two-second delay occurs
8. The 8640W light illuminates and the left heater bank is energized. In 50A mode, both heater banks are utilized.



## 5.3 Troubleshooting

- A 50A circuit is required to use the High Power setting. Connecting the D850 to a 30A circuit with the power setting switch set to High will eventually cause the branch circuit protector to trip.
- Powering the D850 with over 240VAC may trip the internal fuse (intended to protect the control transformer from excess current). Check the fuse if this is suspected.
- There is a short delay (a few seconds) after powering on the D850 before the process blower will energize. This is normal. If the blower does not start after about 10 seconds, try powering down the D850 for 30 seconds before restarting. This will clear any fault conditions present on the VFD (variable frequency drive).

### Blowers and rotor motor not running

1. Unit unplugged, no power to outlet
2. Unit not turned to ALWAYS ON or EXTERNAL CONTROL mode
3. Wiring fault inside device
4. Defective blower or blower capacitor
5. Relay not operating

### Regen blower and rotor motor running. Process blower not running

1. Fault condition on VFD. Power unit off for 30 seconds and restart. If problem persists, contact service department.
2. Wiring fault inside device

### Blowers and rotor motor running, REGEN AIR OK lamp does not illuminate. No heat.

1. Regeneration airflow is obstructed. Use shorter ducting or fewer bends
2. Pressure tube disconnected. Check connections at pressure switch then connections behind skidplate.
3. Wiring fault inside device
4. Defective blower or blower capacitor

### Blowers and rotor motor running REGEN AIR OK lamp illuminates, but no other lamps illuminate. No heat.

1. High process inlet or regen inlet temperature limit reached (120 °F)
2. Heating contactors not operating
3. Wiring fault inside device
4. Defective heating element or temperature limit switch

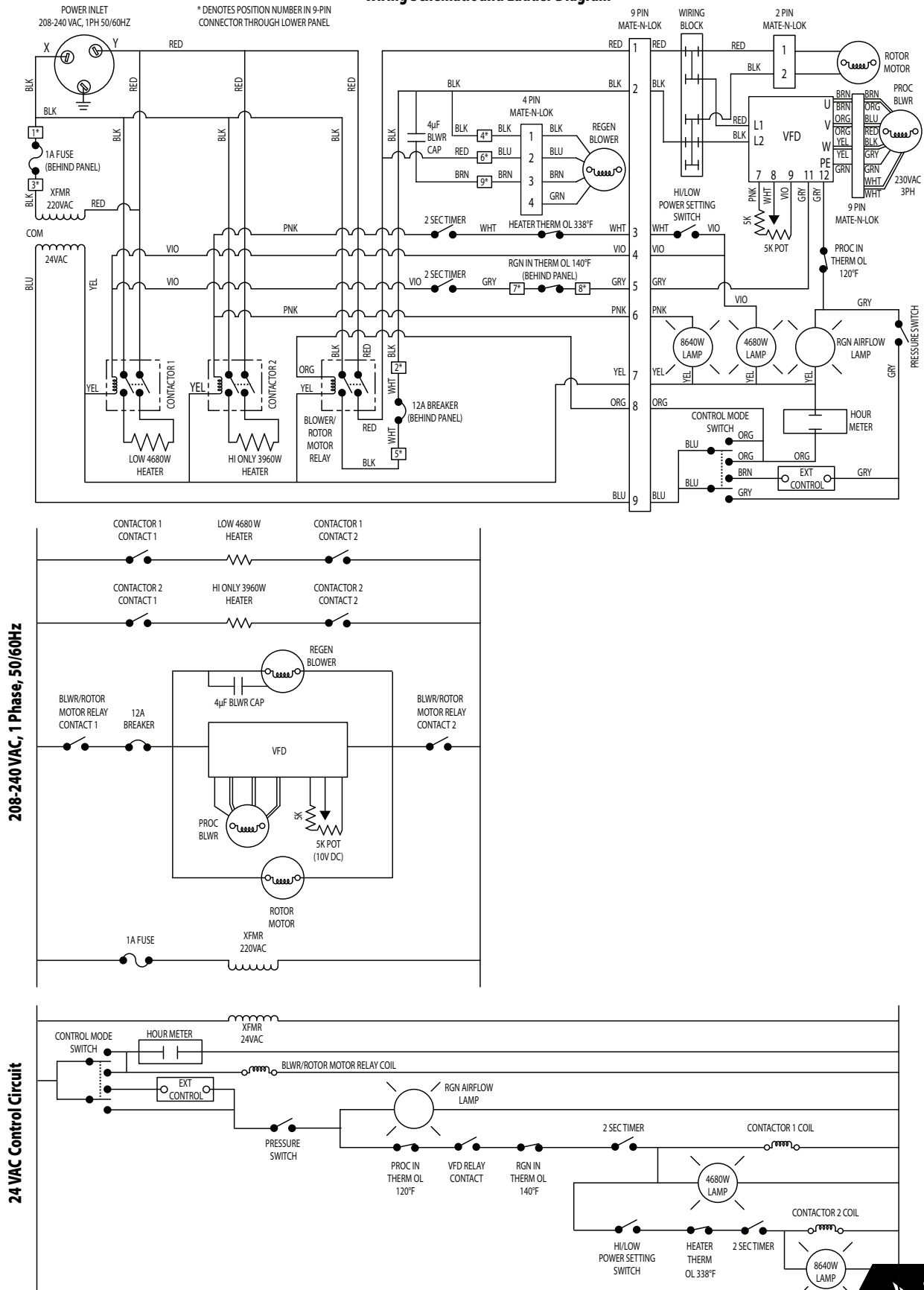
### Blowers and rotor motor running, REGEN AIR OK and HEATER 1 lamps illuminate, but HEATER 2 lamp does not illuminate

1. Heater thermal overload tripped – reactivation airflow too low or reactivation air temperature too high



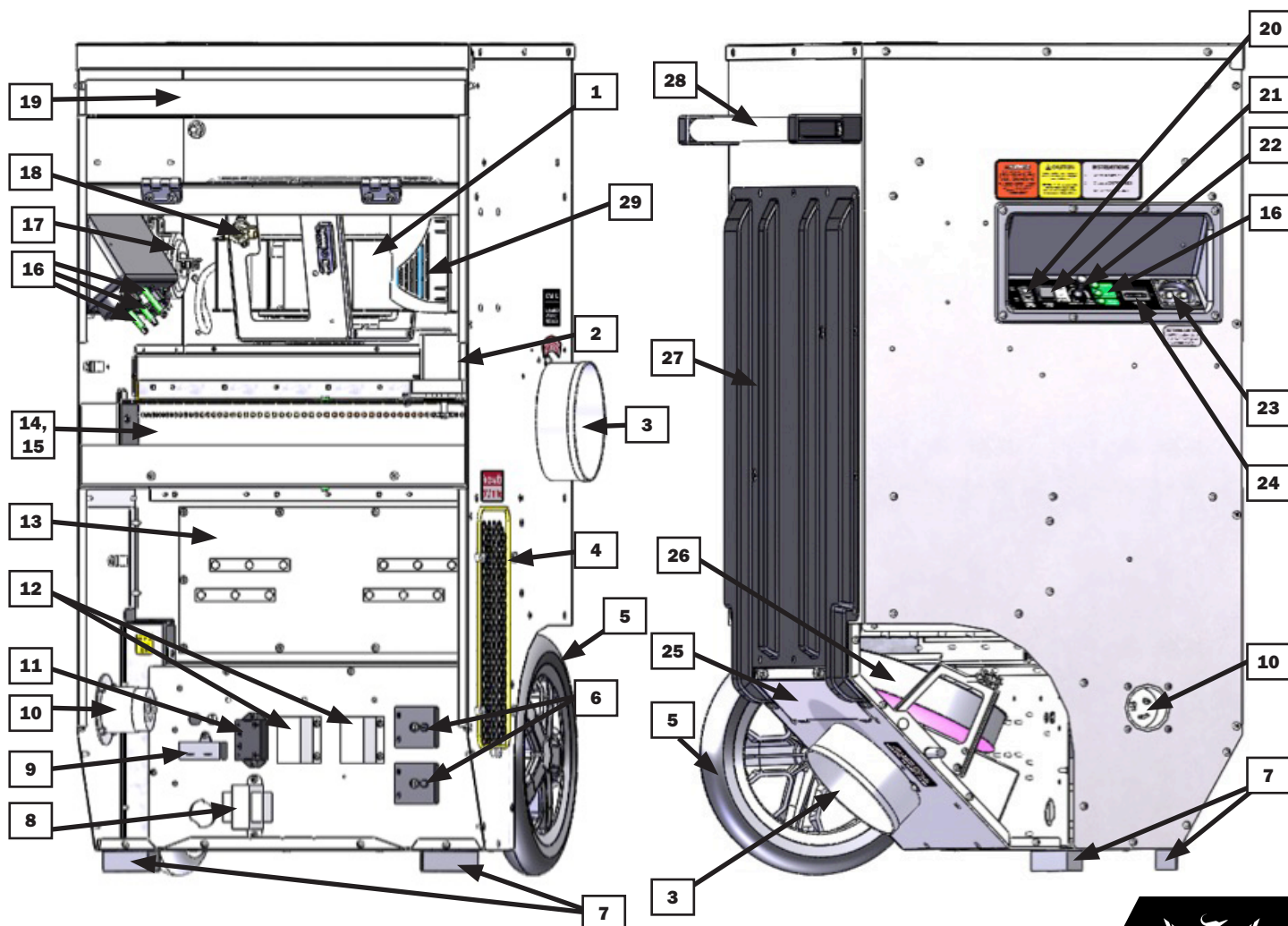
# 6 Wiring Diagram

Wiring Schematic and Ladder Diagram



## 7 Service Parts List

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	4036541	PROCESS BLOWER	1	17	4036842	PRESSURE SWITCH	1
2	4036123	MOTOR KIT, DESICCANT WHEEL	1	18	4036118	THERMAL OVERLOAD, PROCESS INLET	1
3	4026784	DUCT COLLAR, 6"	2	19	4022636	AIR FILTER, PROCESS	1
4	4024078	COLLAR, DUCT WIRE	1	20	4027330	ROCKER SWITCH, HIGH/LOW	1
5	4037236	WHEEL, 12"	2	21	4030941	ROCKER SWITCH, MASTER POWER	1
6	4036115	TIMER, DELAY	2	22	4025606	KNOB, SPEED CONTROL	1
7	4027272	BUMPER, RUBBER	2	23	4036122	LOW-VOLTAGE CONTROL TERMINAL	1
8	4031406	TRANSFORMER	1	24	4028795	HOUR METER	1
9	4035235-01	REGEN CAPACITOR	1	25	4035669	REGEN FILTER DOOR	1
10	4027308	50A INLET RECEPTACLE	1	26	4028254	REGEN BLOWER	1
11	4028306	RELAY	1	27	4035681	SKID PLATE	1
12	4036485	CONTACTOR	2	28	4026094	HANDLE, 18.5"	1
13	4035482	HEATER CORE	1	29	4036841	VARIABLE FREQUENCY DRIVE	1
14	4036125	ROTOR ASSEMBLY, DESICCANT WHEEL	1	NS	4036114	THERMAL OVERLOAD, REGEN INLET	1
15	4036124	SEAL KIT, DESICCANT WHEEL	1	NS	4033033	FUSE (BOX OF 5)	1
16	4034878	INDICATOR LAMP	3	NS	4025733	FUSE HOLDER	1
				NS	4027168	AIR FILTER, REGEN	1
				NS	4024076	DUCT ADAPTER, 18" TO 12"	1





**Therma-Stor** LLC  
4201 LIEN RD. • MADISON, WI 53704



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## **D850 | DESICCANT DEHUMIDIFIER**

### **LIMITED WARRANTY**

**Warrantor:**

Therma-Stor LLC  
4201 Lien Rd  
Madison, WI 53704  
Telephone: 1-800-533-7533

**Who Is Covered:** This warranty extends only to the original end-user of the Phoenix D850 dehumidifier, and may not be assigned or transferred.

**One Year Warranty:** Therma-Stor LLC warrants that, for one (1) year the Phoenix D850 dehumidifier will operate free from any defects in materials and workmanship, or Therma-Stor LLC will, at its option, repair or replace the defective part(s), free of any charge.

**End-User Responsibilities:** Warranty service must be performed by a Servicer authorized by Therma-Stor LLC. If the end-user is unable to locate or obtain warranty service from an authorized Servicer, the end-user should call Therma-Stor LLC at the above number and ask for the Therma-Stor Service Department., which will then arrange for covered warranty service. Warranty service will be performed during normal working hours.

The end-user must present proof of purchase (lease) upon request, by use of the warranty card or other reasonable and reliable means. The end-user is responsible for normal care. This warranty does not cover any defect, malfunction, etc. resulting from misuse, abuse, lack of normal care, corrosion, freezing, tampering, modification, unauthorized or improper repair or installation, accident, acts of nature or any other cause beyond Therma-Stor LLC' reasonable control.

**Limitations and Exclusions:** If any Phoenix D850 Dehumidifier part is repaired or replaced, the new part shall be warranted for only the remainder of the original warranty period applicable thereto (but all warranty periods will be extended by the period of time, if any, that the Phoenix D850 Dehumidifier is out of service while awaiting covered warranty service).

UPON THE EXPIRATION OF THE WRITTEN WARRANTY APPLICABLE TO THE Phoenix D850 DEHUMIDIFIER OR ANY PART THEREOF, ALL OTHER WARRANTIES IMPLIED BY LAW, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL ALSO EXPIRE. ALL WARRANTIES MADE BY THERMA-STOR LLC ARE SET FORTH HEREIN, AND NO CLAIM MAY BE MADE AGAINST THERMA-STOR LLC BASED ON ANY ORAL WARRANTY. IN NO EVENT SHALL THERMA-STOR LLC, IN CONNECTION WITH THE SALE, INSTALLATION, USE, REPAIR OR REPLACEMENT OF ANY Phoenix D850 DEHUMIDIFIER OR PART THEREOF BE LIABLE UNDER ANY LEGAL THEORY FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES INCLUDING WITHOUT LIMITATION WATER DAMAGE (THE END-USER SHOULD TAKE PRECAUTIONS AGAINST SAME), LOST PROFITS, DELAY, OR LOSS OF USE OR DAMAGE TO ANY REAL OR PERSONAL PROPERTY.

Some states do not allow limitations on how long an implied warranty lasts, and some do not allow the exclusion or limitation of incidental or consequential damages, so one or both of these limitation may not apply to you.

**Legal Rights:** This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

