

**KS-20183 L1 AND L2 AIR DRYERS
(DIELECTRIC COMMUNICATIONS)
REQUIREMENTS AND ADJUSTING PROCEDURES**

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	DESICCANT TOWERS	17	1.01	These dryers, through refrigeration and absorption, provide dry air to pressurized waveguide runs and a maximum of four horn reflector antennas in microwave radio systems. They are designed to operate satisfactorily within the ambient temperature range of +35° to +105°F.	
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NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

SECTION 161-309-701

1.02 This section is reissued to:

- (a) Change the KS-15707 L3, which is rated manufacture discontinued (Mfr Disc.) to the KS-21784 L2 blower.
- (b) Change the Rotron spiral blower to the KS-21784 L2 blower.

Revision arrows are used to emphasize the more significant changes.

1.03 The KS-20183 L1 and L2 air dryers have been rated Mfr Disc. and are replaced by the KS-21403 L1 air dryer. This section is for the requirements and adjusting procedures of those dryers still in service and having the retrofit kit installed.

1.04 Section 161-309-801 covers the maintenance and replacement parts for KS-20183 L1 and L2 air dryers manufactured by Dielectric Communications.

1.05 KS-20183 L2 and L3 air dryers manufactured by Lectrodryer Division (Ajax-Magnethermic) are also rated Mfr Disc. and are covered in Sections 161-309-702 and -802.

EQUIPMENT

1.06 Both air dryer cabinets (Fig. 1) are approximately 60 inches high, 24 inches wide, and 15 inches deep. Each unit weighs approximately 200 pounds.

1.07 The dryer cabinet houses the following major components (L1, Fig. 2 through 6; L2, Fig. 7 through 11):

- (a) ON-OFF power switch

- (b) KS-15707 L3 blower (Mfr. Disc. (L1 dryer original equipment). Replace with KS-21784 L2 blower and the D-26118 installation kit.)

- (c) Rotron spiral blower (L2 dryer original equipment). Replace with KS-21784 L2 blower.

- (d) Refrigeration system consisting of:

- Heat exchanger and heat exchanger temperature gauge
- Refrigeration compressor
- Refrigeration condenser
- Fan and fan motor

- (e) Two desiccant towers with timer-controlled heaters

- (f) Timer-controlled solenoid valves

- (g) Pressure relief valve

- (h) Humidity alarm and alarm light

- (i) Pressure alarm and alarm light

- (j) Blown fuse light

- (k) Alarm reset button (L1 only, see paragraph 1.10)

AIR DELIVERY CAPACITY

1.08 These dryers are designed to continuously supply up to 100 standard cubic feet of dry air per hour (scfh) at pressures between 7 to 9 inches ± 0.25 inch of water at sea level (minimum 5 inches of water at 10,000 feet elevation).

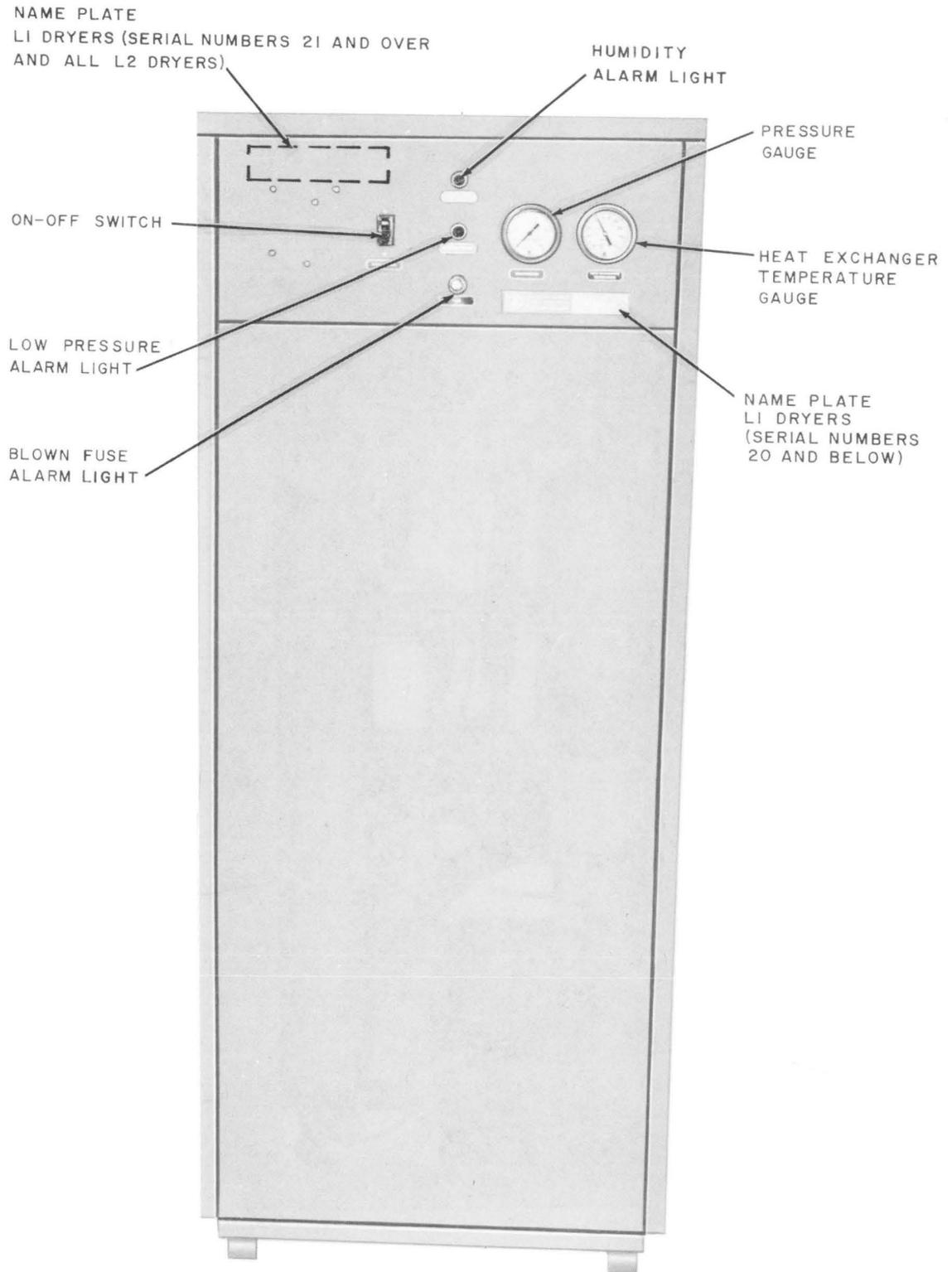
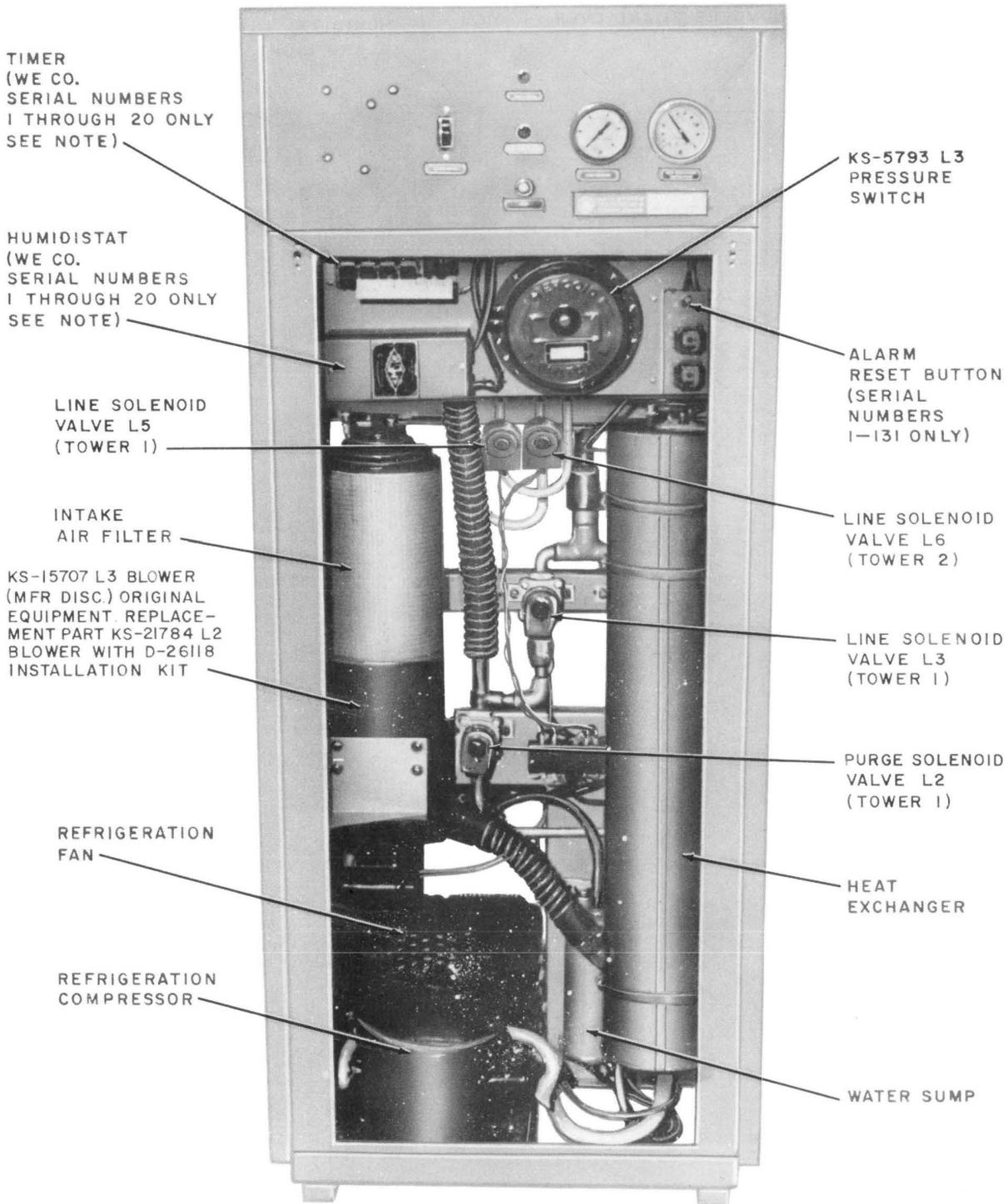


Fig. 1—KS20183 L1 and L2 Air Dryers (Dielectric Communications)



NOTE:

POSITIONS OF TIMER AND HUMIDISTAT ARE INTERCHANGED
ON DRYERS WITH WE CO. SERIAL NUMBERS 21 AND OVER

Fig. 2—♦KS-20183 L1 Air Dryer Equipped With SI-437 Retrofit Kit and KS-15707 L3 Blower (Original Equipment)—Front View—Cover Removed♦

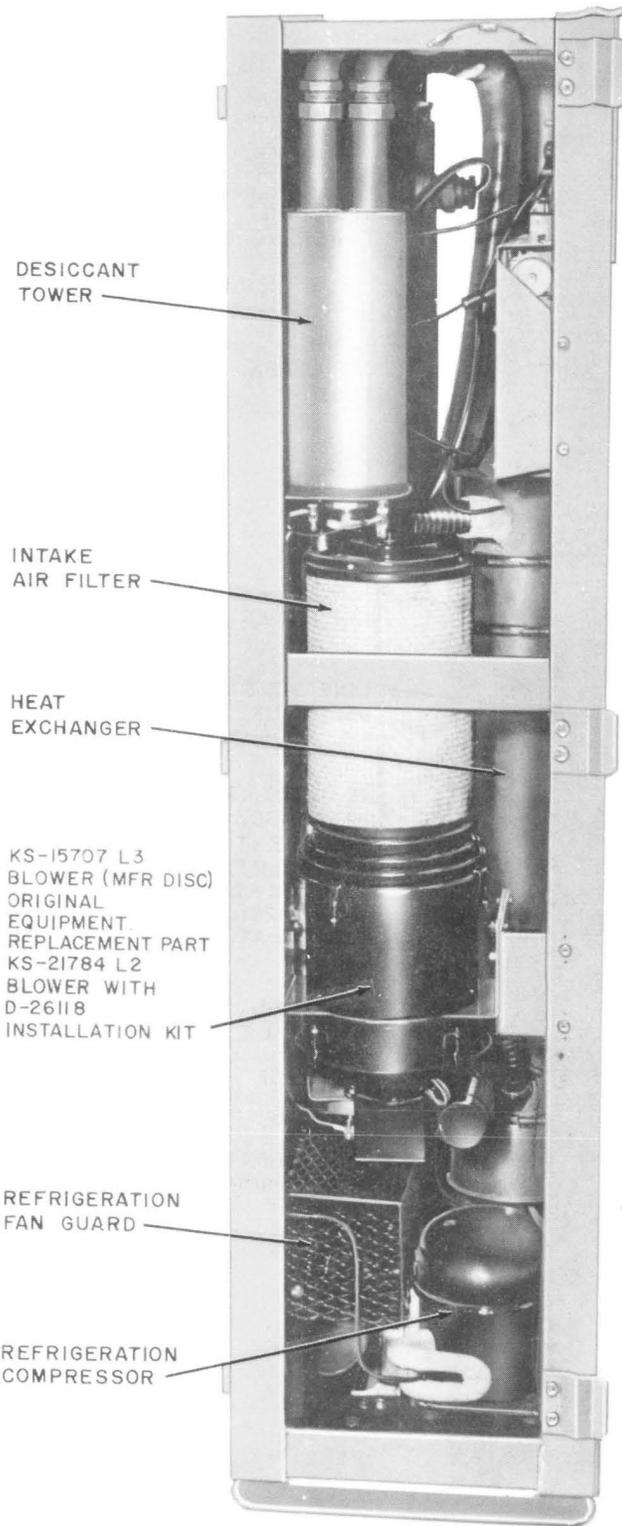


Fig. 3—KS-20183 L1 Air Dryer—Left Side View—Cover Removed

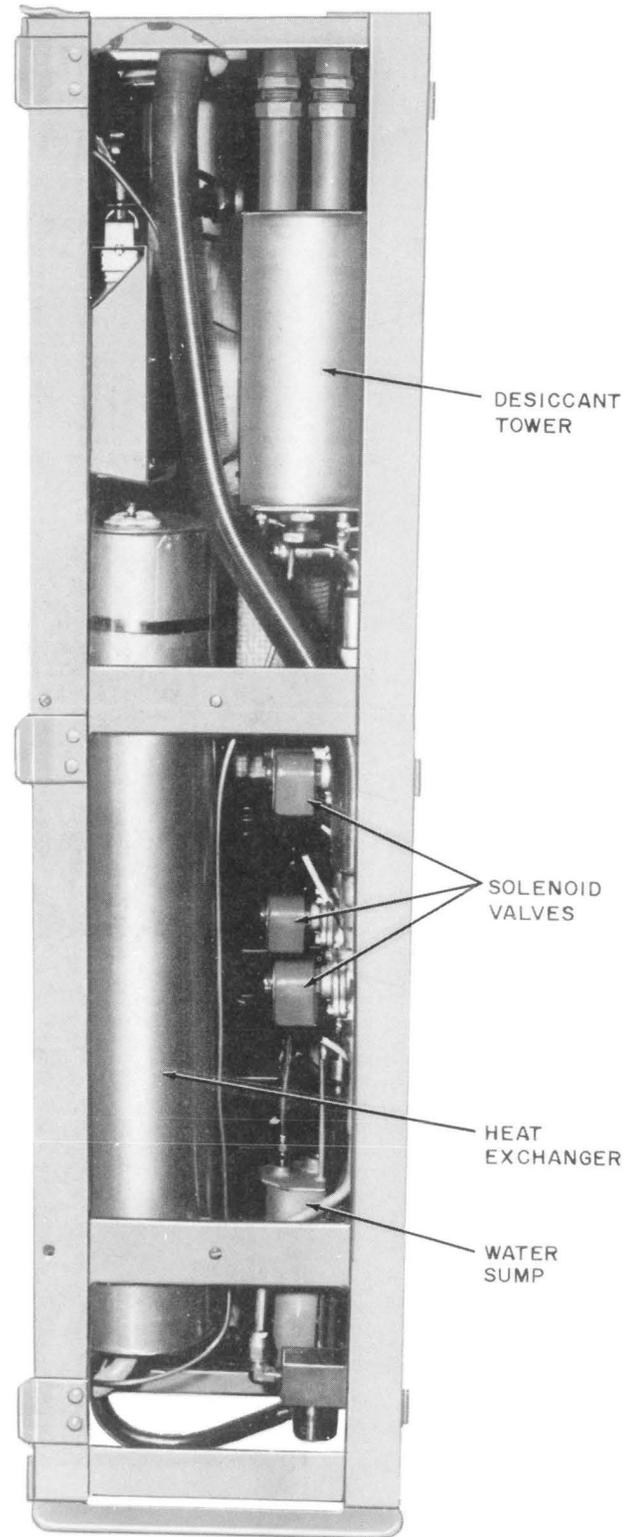


Fig. 4—KS-20183 L1 Air Dryer—Right Side View—Cover Removed

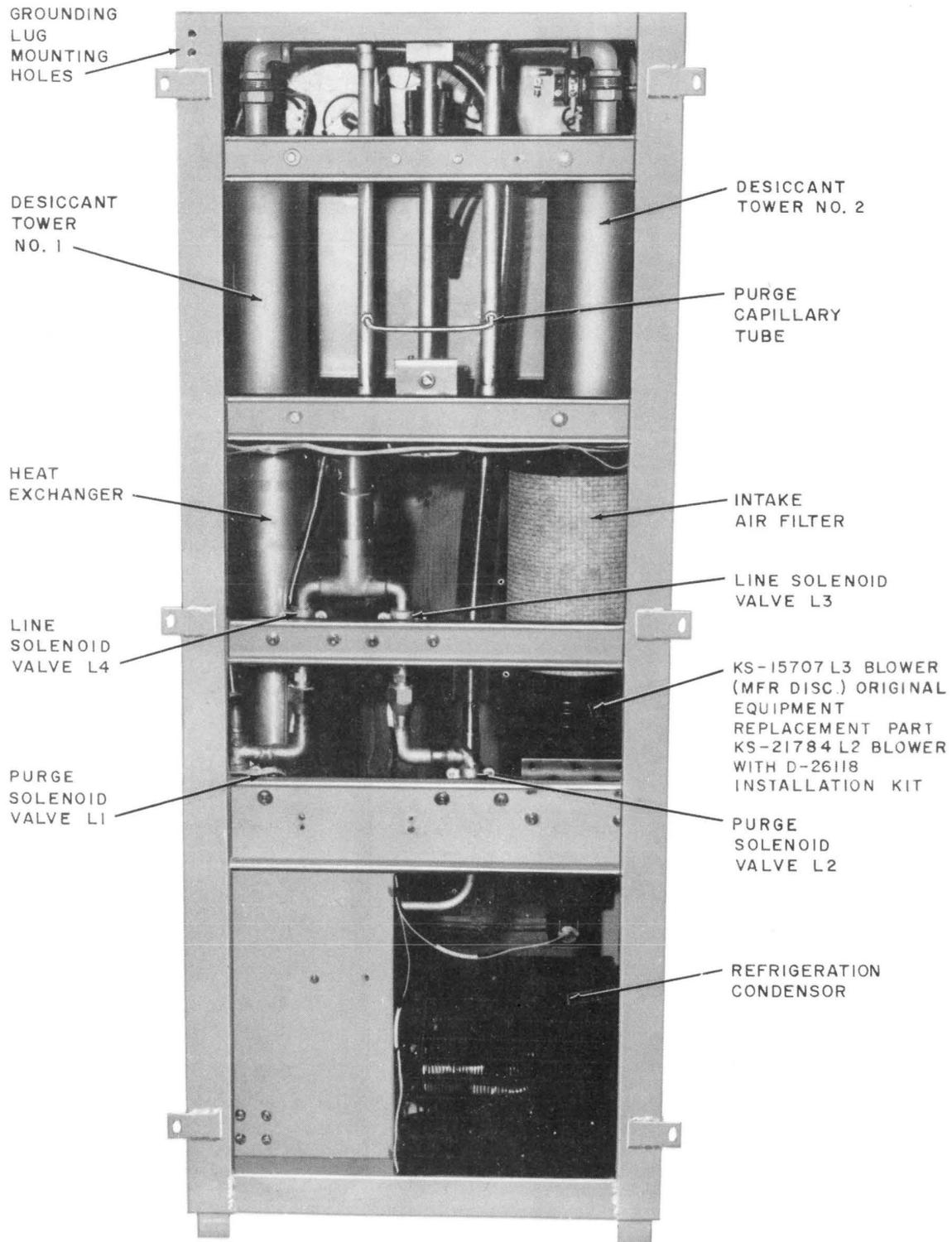


Fig. 5—KS-20183 L1 Air Dryer—Rear View

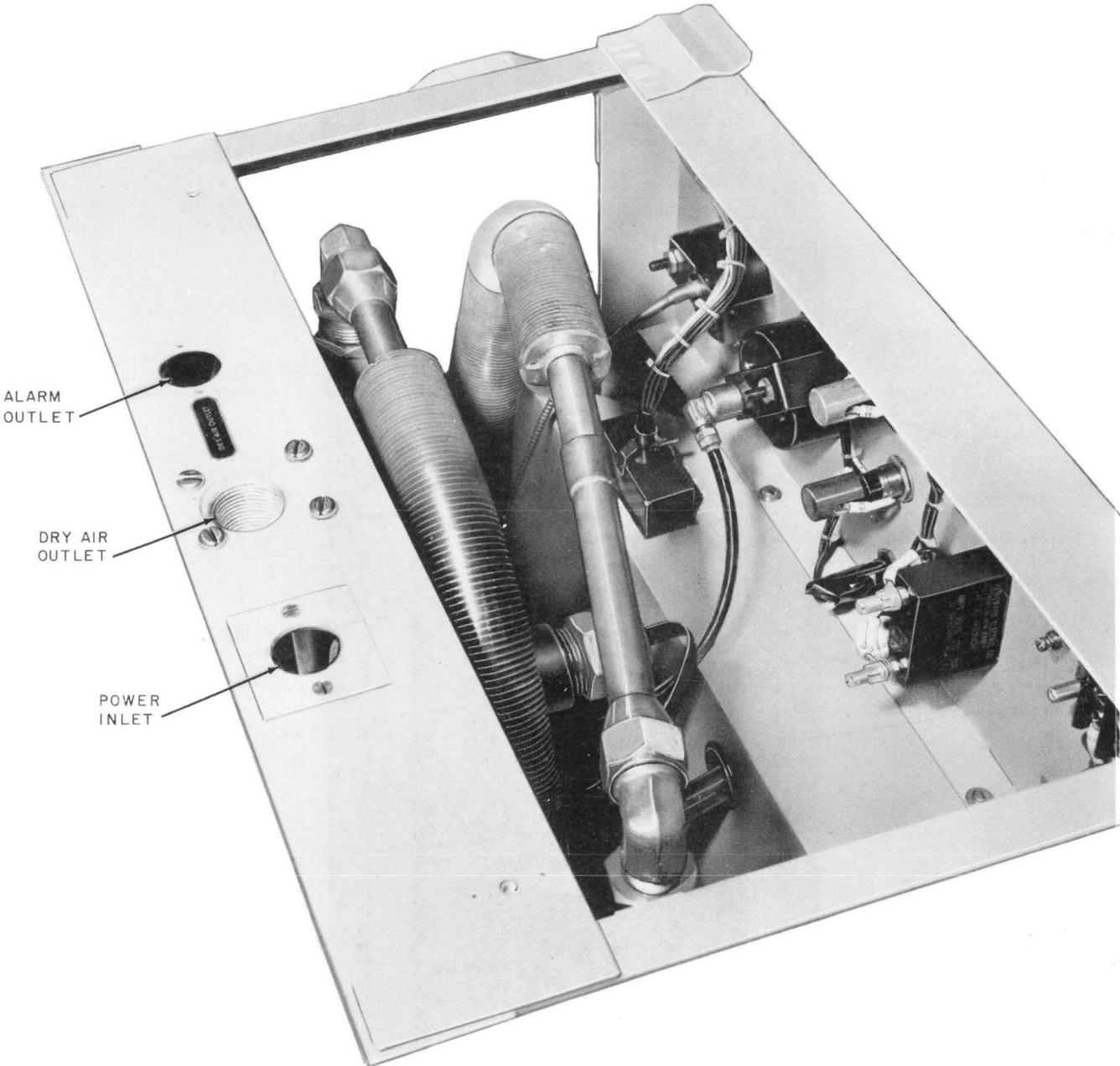


Fig. 6—KS-20183 L1 Air Dryer—Top View—Cover Removed

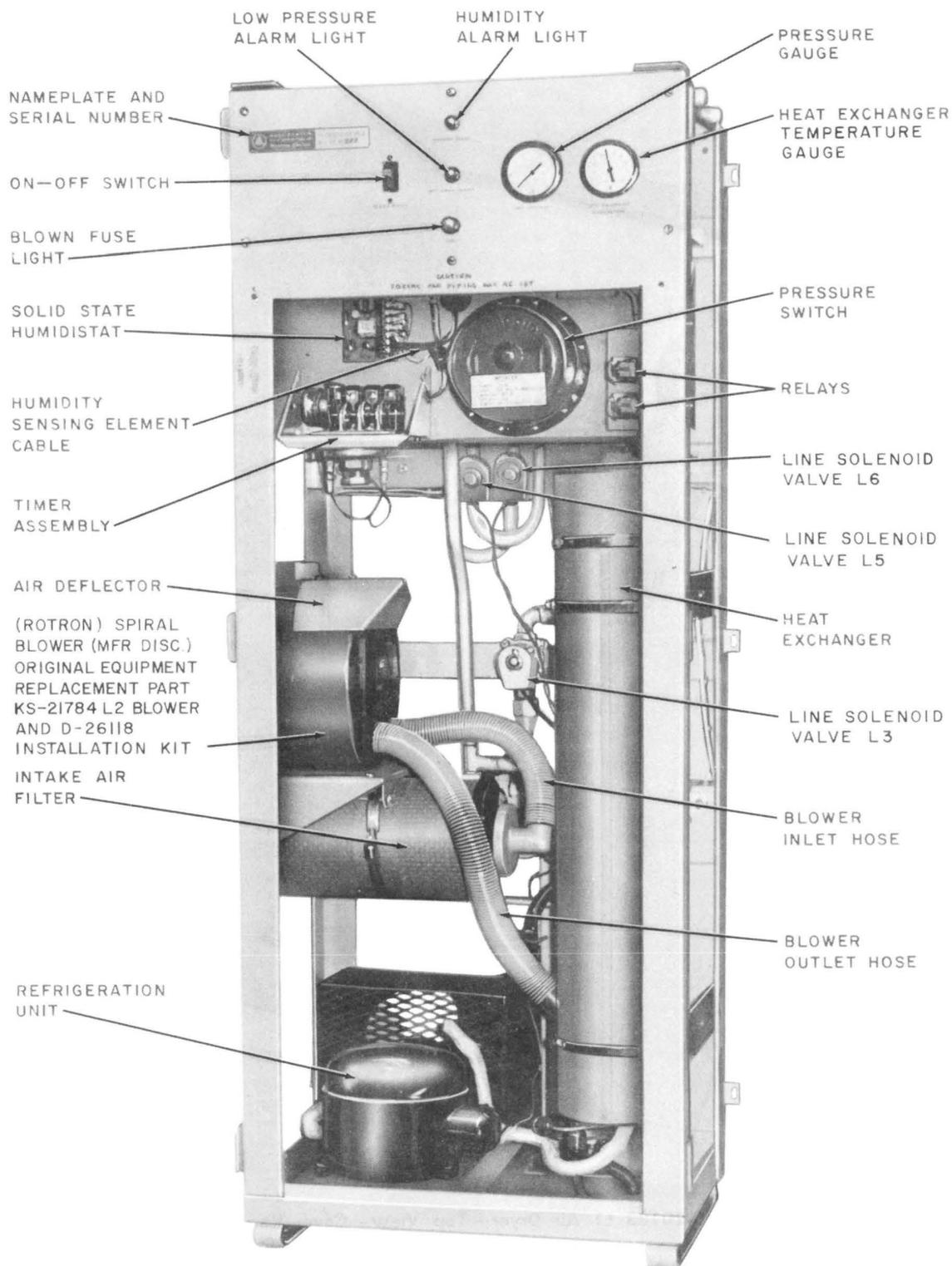


Fig. 7—KS-20183 L2 Air Dryer Equipped With SI-437 Retrofit Kit—Front View—Cover Removed

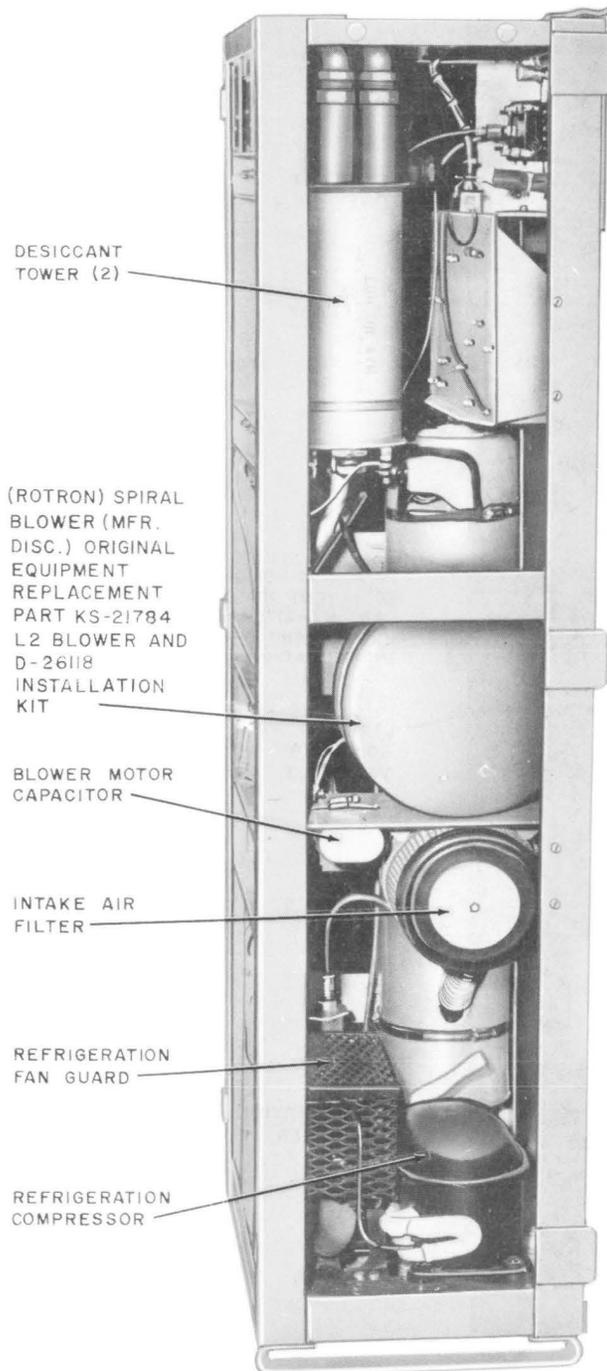


Fig. 8—KS-20183 L2 Air Dryer—Left Side View—Cover Removed

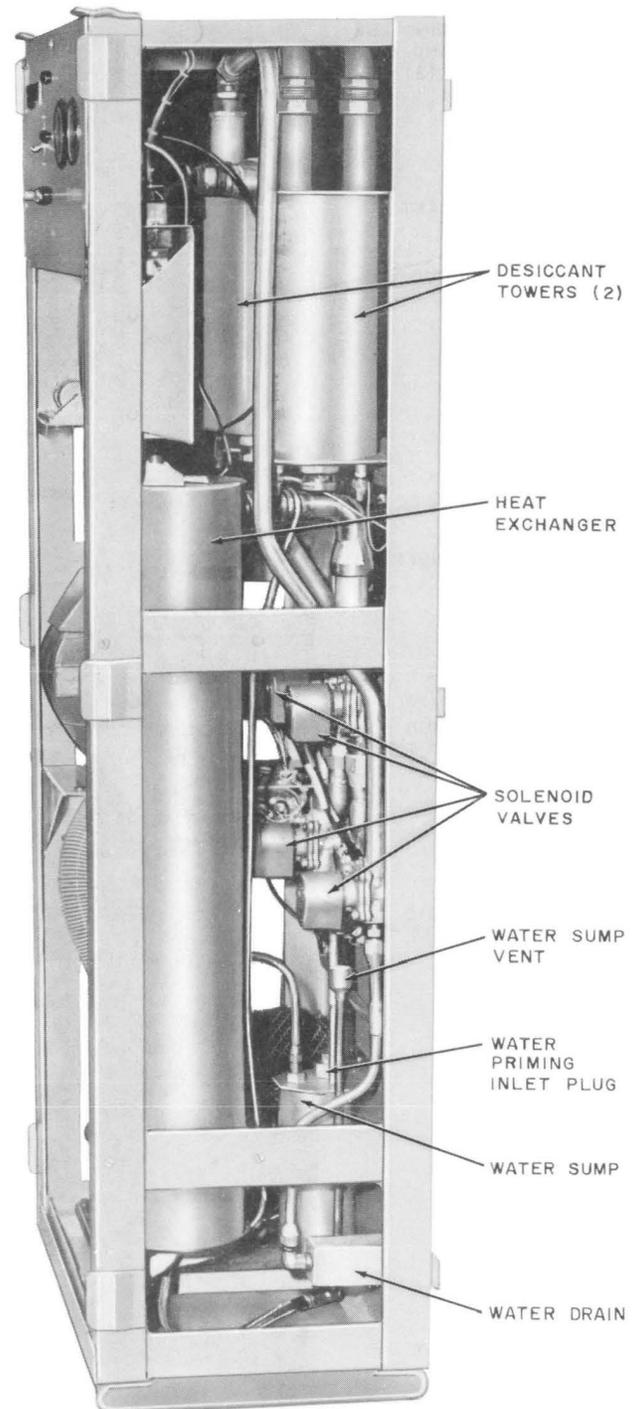


Fig. 9—KS-20183 L2 Air Dryer—Right Side View—Cover Removed

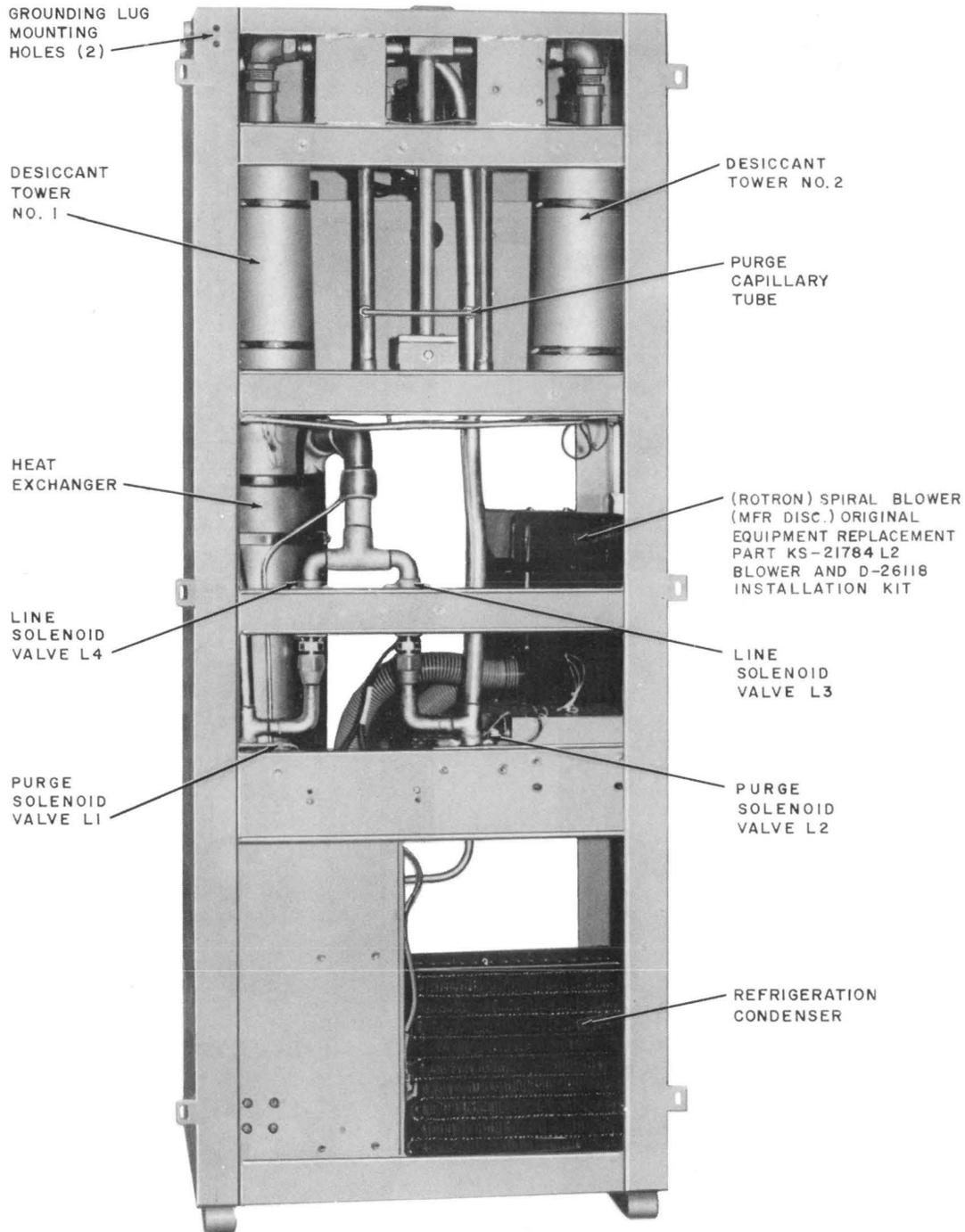


Fig. 10—♦KS-20183 L2 Air Dryer—Rear View♦

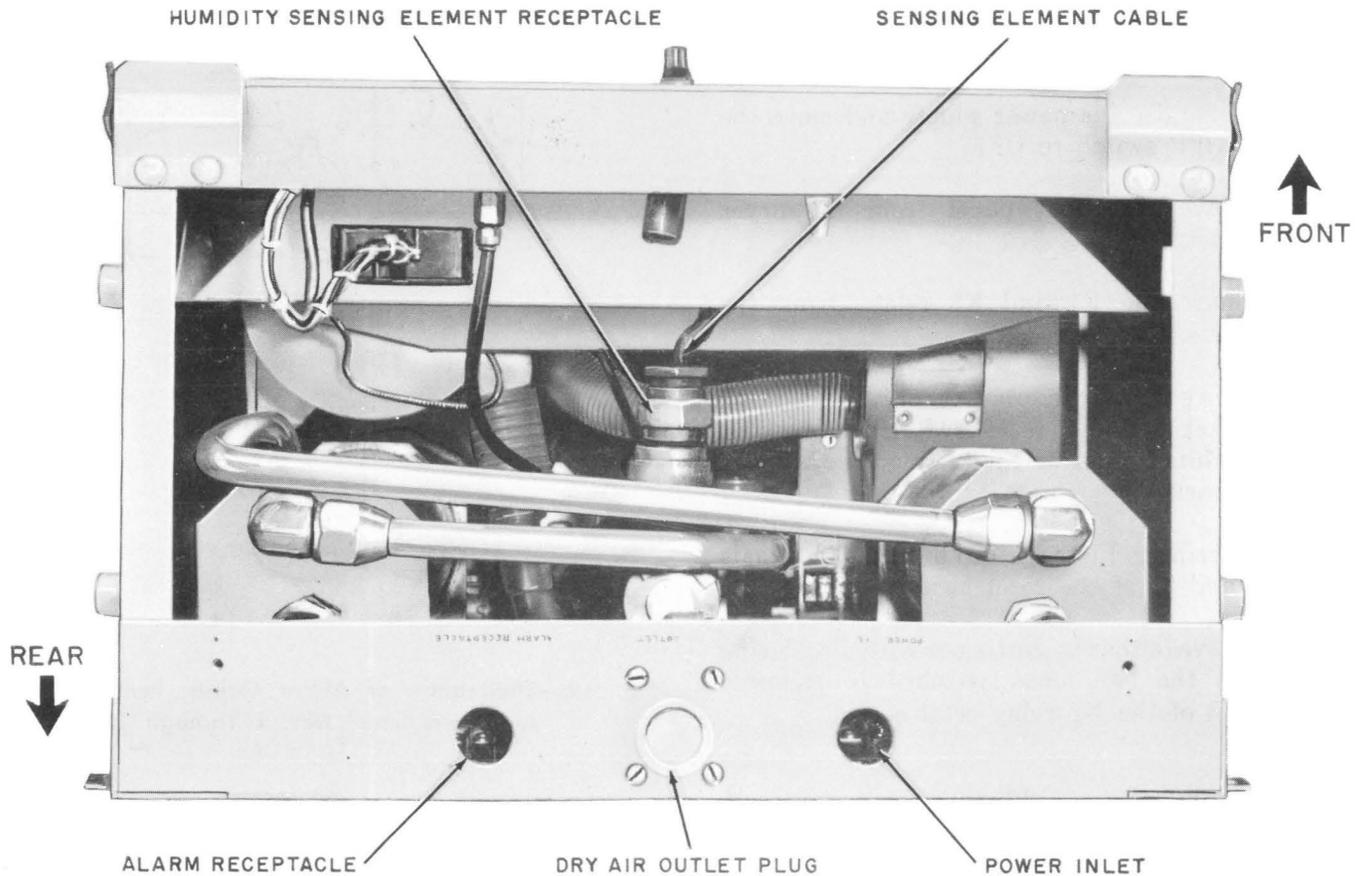


Fig. 11—KS-20183 L2 Air Dryer—Top View—Cover Removed

PROTECTION AND ALARM FEATURES

1.09 Protection and alarm features are provided in the dryer as follows:

- (a) The dryer cabinet and all metallic parts of the assembly are interconnected to a common ground. Holes are provided at the back top left-hand corner of the cabinet to accommodate a KS-5517 L1 grounding lug.
- (b) Fuse (3-ampere) to provide circuit protection for the alarm circuit.
- (c) Refrigeration fan guard.
- (d) Pressure alarm which operates if pressure decreases to 1.4 inches ± 0.5 inch water gauge (wg).
- (e) Humidity alarm which operates if the humidity of the delivered air is in excess of 4 percent ± 1.5 percent at 70°F.

(f) Blown fuse light.

(g) Each alarm condition is identified by a lamp on the front panel of the cabinet.

Note: All air dryer alarms are considered major alarms.

FIELD MODIFICATION OF ALARM RESET SWITCH

1.10 KS-20183 L1 air dryers bearing serial numbers 1 through 130 have an alarm lock-in feature. When an alarm condition exists, the manual alarm reset switch must be operated after each alarm condition is cleared. To avoid unnecessary visits to unattended stations, it is recommended that these dryers (serial numbers 1 through 130) be modified to eliminate the alarm lock-in feature so that the alarm will only register as long as the alarm condition exists.

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1.11 The modification is performed as follows and as shown in Fig. 12:

- (1) De-energize the power supply and move the ON-OFF switch to OFF.
- (2) Remove the front panel from the dryer cabinet.
- (3) Remove the K1 and K2 relays from the sockets.
- (4) Remove the four screws securing the mounting bracket for the reset switch and relays. This permits access to the wiring on the back of the bracket.
- (5) Referring to Fig. 12, strap together terminals 20 and 21 of the reset switch.
- (6) Remove (either by cutting or with a soldering iron) the two leads attached to terminal number 8 of the K2 relay octal socket.

Caution: If a soldering iron is used, make certain the K2 relay has been removed from its socket.

- (7) Splice together the two leads removed in Step (6) and tape the splice.
 - (8) Remount the bracket and place the K1 and K2 relays in their sockets.
 - (9) Replace the front panel and resume supplying air to the system.
- 1.12 KS-20183 L1 air dryers with serial numbers 131 and up have been factory-modified to bypass the reset switch and the switch has been eliminated on all L2 dryers.

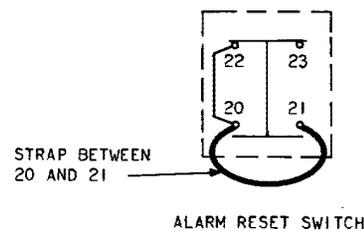
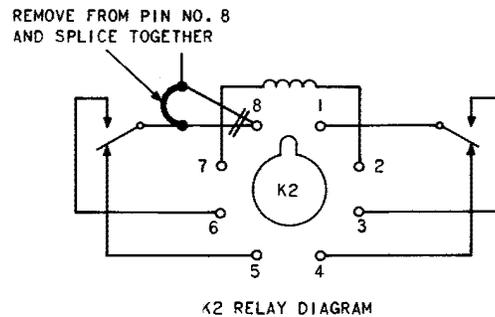


Fig. 12—Elimination of Alarm Lock-In Feature—L1 Air Dryers Serial Nos. 1 Through 130

2. INSTALLATION

- 2.01 Inspect the dryer for any evidence of exterior or interior shipping damage and report any such damage to the carrier.
- 2.02 Locate the dryer in accordance with the station floor plan and, if required, secure the dryer to the floor.
- 2.03 Remove the dust cap from the dry air outlet.
- 2.04 Fill the water sump with approximately one pint of water.
- 2.05 Remove the hold-down device securing the dead-weight relief valve. Make sure the relief valve moves freely.

- 2.06** Remove the cover from the pressure switch and remove the switch tie-down. Make sure the switch moves freely.
- 2.07** Check and comply with all tags and instructions provided by the manufacturer.
- 2.08** Mount a KS-5517 L1 terminal lug in the holes provided at the back top left-hand corner of the dryer cabinet (Fig. 5). Connect the station ground to the terminal lug.
- 2.09** Connect the alarm leads to the local station and C1 alarm panels.
- 2.10** Make certain the dryer ON-OFF switch is in the OFF position. Connect the dryer to the 115-volt 60-Hz 1-phase power supply.
- 2.11** Start the air dryer by moving the ON-OFF switch to the ON position.
- 2.12** Check for operation of the refrigeration fan and a flow of air from the dry air outlet. Block off the dry air outlet with a wadded, lint-free cloth or other suitable plug and check that the pressure gauge indicates 9 inches ± 0.25 inch of water. (See paragraph 1.08.)
- Note:** If the pressure gauge indicates more than 9.25 inches, lift the pressure relief valve weight and check that the hold-down device has been removed.
- 2.13** When the dryer is started, the temperature gauge should indicate approximately room temperature. As the dryer continues to operate, the heat exchanger temperature should rapidly drop to the normal operating temperature of approximately 40°F.
- 2.14** An alarm condition will exist until the dryer reaches normal operating temperature and pressure.
- 2.15** Lift the dead-weight relief valve and observe that the low-pressure alarm operates when the pressure falls to 1.4 inches ± 0.5 inch of water, as indicated on the pressure gauge. Release the weight and observe for automatic reset of the low pressure alarm. If necessary, adjust the alarm as covered in paragraph 4.17.

- 2.16** Note the position of the pointer on the timer dial, then slowly rotate the knurled thumbwheel on the right until the solenoids are heard to operate.
- 2.17** Identify the two energized solenoids by bringing a small metal object (iron or steel) close to each one, in turn, to detect magnetization.
- 2.18** Check for tower heating by bringing the hand near enough to detect radiant heat.

Danger: Do not touch the towers, since the outer surfaces can reach 25°F.

- 2.19** Continue slowly rotating the knurled timer thumbwheel until the solenoids are again heard to operate.
- 2.20** Check again for solenoid operation and tower heating as in paragraphs 2.17 and 2.18. The solenoids which were not energized should now be energized and the tower which was previously cool should now be warm.
- 2.21** Continue rotating the timer thumbwheel until it returns to the original position, as noted in paragraph 2.16.
- 2.22** Move the ON-OFF switch to the OFF position and remove the humidity sensing element from its receptacle. Wait 5 minutes, then move the OFF-ON switch to ON and observe that the humidity alarm operates. Move the switch to OFF and replace the sensing element in its receptacle. (Tighten the packing nut handtight only.) Wait 5 minutes and move the switch to the ON position, observing that the humidity alarm clears shortly.
- 2.23** If any of the previous operations fail, refer to the circuit drawings and make necessary continuity and voltage tests to locate the source of trouble.

Warning: Do not attempt to measure resistance, check continuity, or apply voltage to the humidity sensing element or expose the element to temperatures greater than 160°F.

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2.24 Remove the 1-inch plug in the dry air outlet and restrict the flow until the pressure gauge indicates 7 to 8 inches of water. Flow can be restricted by inserting the plastic shipping plug with a small hole punched in it into the dry air outlet.

2.25 Allow the unit to operate for at least 24 hours; then, if all operations are satisfactory, connect the unit to the waveguide system.

L101 LOW AMBIENT TEMPERATURE MODIFICATION KIT INSTALLATION

2.26 When a dryer is installed in a location where the ambient temperature is expected to be below the minimum operating temperature of +35°F, an L101 low ambient temperature modification kit may be installed. The modification kit allows the dryer to function at temperatures as low as +20°F.

2.27 The L101 modification kit is most suitable for installation on KS-20183 L2 air dryers. It should be installed on L1 dryers only where a low temperature application is absolutely essential. (See paragraph 2.28.)

2.28 All KS-20183 L1 air dryers have finned tubing on the air lines from the desiccant towers to the dry air outlet. To install the L101 modification kit, this tubing must be replaced with 5/8-inch copper tubing. This is a difficult and time-consuming task and should be considered only where a low temperature application is absolutely essential.

2.29 The L101 modification kit is installed as follows (see Fig. 13 and 17):

- (1) De-energize the power supply and move the ON-OFF switch to OFF.
- (2) Mount the thermostat from the kit on a wall adjacent to the dryer, approximately 5 feet from the floor.
- (3) Disconnect lead number 41 from the refrigerator motor and reconnect to terminal "W" on the wall-mounted thermostat.

(4) Connect a new lead from terminal "R" on the thermostat to power lead 41 in the dryer.

(5) Resume dryer operation.

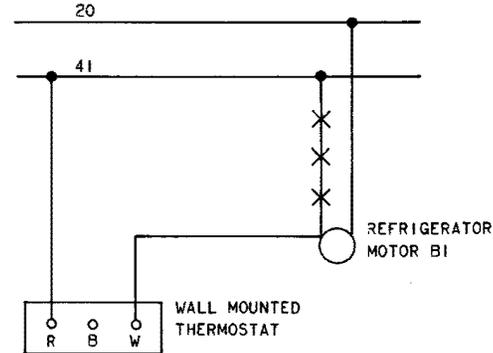


Fig. 13—L101 Low Ambient Temperature Modification Kit Installation

L102 BYPASS BLOCK MODIFICATION KIT (L2 DRYERS ONLY)

2.30 The L102 bypass block modification kit is designed to eliminate the trimmer valve adjustment on the spiral blower used on the L2 dryer. ♦This kit is not required with the KS-21784 L2 blower.♦

2.31 This kit also reduces the noise level of the spiral blower by eliminating the bleeding of excess air through the trimmer valve to the atmosphere.

2.32 The L102 kit is installed on the L2 dryer as follows:

- (1) Shut off power to the air dryer and disconnect ac power supply.
- (2) Disconnect the input and output hoses from the blower (Fig. 7).
- (3) With a Phillip's head screwdriver, remove the four screws holding the blower faceplate.
- (4) Close the trimmer valve with a screwdriver.

- (5) Remove the adjusting screw from the adapter block (furnished with kit).
- (6) Place the adapter block over the ports of the blower faceplate and secure with four set screws provided.

Note: Position the adapter block to allow the surface of the adjustment screw to face top of dryer.

- (7) Replace the blower faceplate in reverse order of removal. Make sure rubber seal is properly located in groove.
- (8) Replace the adjustment screw removed from adapter block in Step (5).
- (9) Place the blower hoses over the pipe nipples on the adapter block and secure.
- (10) Close the air outlet port of the air dryer.
- (11) Tie down the dead-weight relief valve in the air dryer.
- (12) Turn the adjustment screw on the adapter block **clockwise** (facing front of spiral blower) until the bypass valve is completely opened.
- (13) Restore power to the air dryer.
- (14) Turn the adjustment screw on the adapter block **counterclockwise** (facing front of spiral blower) until the pressure gauge reads approximately 10½ to 11 inches water gauge and then lock adjustment screw with hex nut.

Note: Check the water sump to ensure sufficient water in the system by feeling for air leaking from stand pipe at the top of sump tank. If no air is leaking at the "U" bend at the top of the stand pipe, sufficient water is present in the system. If there is a detectable air leak, water must be added and Steps (12) through (14) must be repeated. Any excess water will be expelled to the drain facility.

- (15) Release the dead-weight relief valve. Make sure the valve moves freely.

- (16) Open the air outlet port of the air dryer. This completes the installation for the L102 modification kit.

L103 FREEZE-UP PROTECTION MODIFICATION KIT

2.33 The L103 modification kit is designed to reduce the possibility of freeze-up due to fluctuating ambient temperatures.

2.34 This modification kit is installed on L1 and L2 air dryers as follows (see Fig. 14 and 18):

- (1) Shut off power to the air dryer and disconnect ac power supply.
- (2) Disconnect all leads and copper tubing from the KS-5793 L3 pressure switch (Fig. 2 or 7) and remove switch from unit.
- (3) Install dual pressure switch provided with kit, using the same screws removed in Step (2).
- (4) Wire leads 42 and 24, which were disconnected from the KS-5793 L3 pressure switch in Step (1), should be reconnected to the terminals located in the top right-hand corner of the new switch.
- (5) Using the front mounting bracket provided with the relay as a drilling template, drill four 3/16-inch holes in the left-hand horizontal support bracket.
- (6) Mount the bracket to the relay and the relay assembly to the air dryer horizontal support bracket using screws, nuts, and washers provided with kit.
- (7) Using an adjustable wrench, remove top cover of relay and check time delay setting of 120 seconds (2 minutes).
- (8) Using the 12 feet of wire provided with the kit, wire time delay relay, pressure switch contacts (top left-hand terminals), and lead 41 located at terminal strip as shown in Fig. 14.

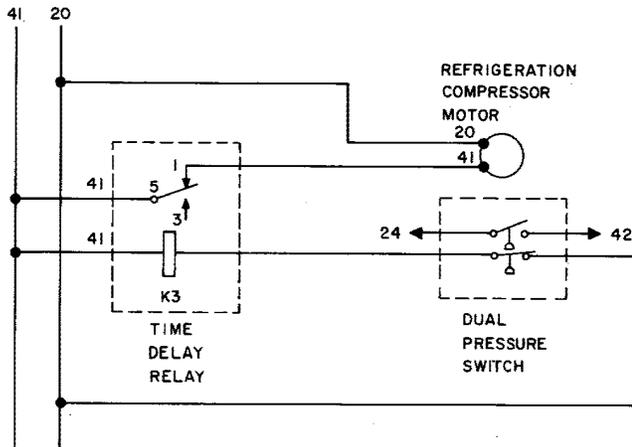


Fig. 14—L103 Freeze-Up Protection Modification Kit Installation

- (9) Resume proper operation of the air dryer and set dual pressure switch as follows:
- (a) Set the front mercury contact switch for closure at 5.5 inches water gauge by turning the knurled screw in the center of the switch (clockwise to raise and counterclockwise to lower) while holding the pressure at 5.5 inches water gauge (by lowering or raising the dead-weight relief valve) and observing the contact closure point (when the refrigeration motor shuts off) on the pressure gauge on the front of the air dryer.
 - (b) The differential or pressure difference between the operation of the high pressure switch (front contact—refrigeration motor shut-off) and the low pressure switch (rear contact—low pressure alarm) can be adjusted to approximately 3 inches water gauge or a low pressure setting of 2 to 2.5 inches water gauge by the knurled screw to the right of the front mercury contact. To widen the

differential, turn screw clockwise (widest differential should be used). To decrease, turn screw counterclockwise. Do not turn this screw too far in either direction; otherwise, the magnetic switch to the left will not operate in the proper sequence.

- (10) The switch operation should then be checked by slowly raising the dead-weight relief valve and observing the refrigeration motor shut-off at approximately 5.5 inches water gauge and the low pressure alarm operating at approximately 2 to 2.5 inches water gauge, as observed on the front panel pressure gauge of the dryer.

3. OPERATION

AIRFLOW

3.01 A flow diagram of the air circuit is shown in Fig. 15. Ambient air is drawn through the intake air filter by the blower which operates continuously. Compressed ambient air from the blower enters the refrigerated heat exchanger, where 75 percent of the moisture content is condensed and removed through the water sump and drain outlet. From the heat exchanger, cooled air is routed through the timer-controlled solenoid valves to one of the two desiccant towers for final drying. Dry air from the desiccant tower is monitored by the humidity and pressure alarms and flows to the dry air outlet.

REFRIGERATION SYSTEM

3.02 The refrigeration compressor and fan motor operate continuously. The refrigeration unit maintains the heat exchanger temperature at approximately 40°F.

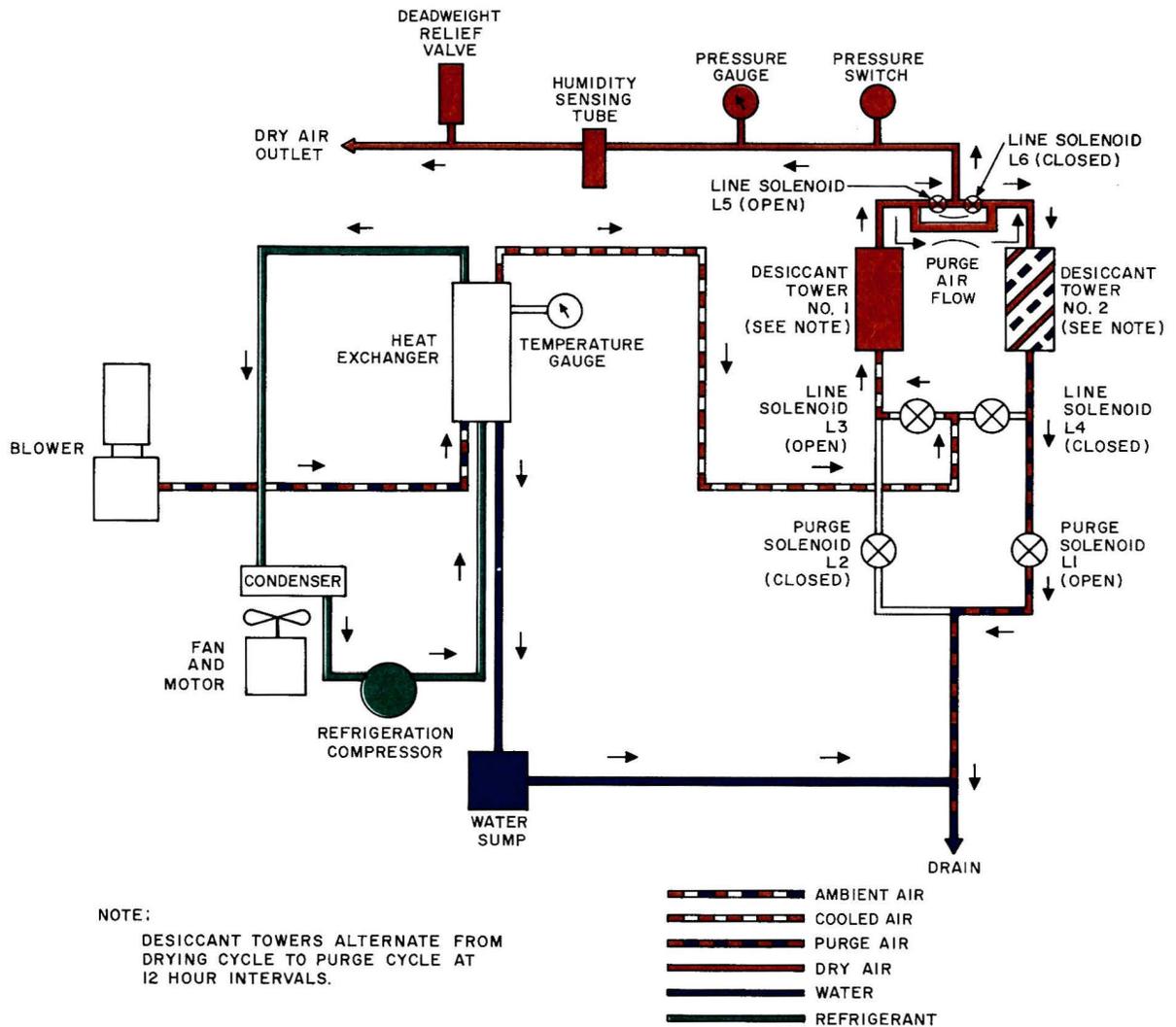


Fig. 15—KS-20183 L1 and L2 Air Dryers Flow Diagram—Equipped With SI-437 Retrofit Kit

ELECTRICAL SYSTEM

3.03 The wiring schematics of the KS-20183 L1 and L2 air dryers (Dielectric) are shown in Fig. 16 through 23.

DESICCANT TOWERS

3.04 Airflow to the desiccant towers is automatically diverted from one tower to the other every 12 hours by the timer-controlled solenoid valves. When the air is rerouted, the timer automatically

energizes the heater in the tower to be reactivated. The desiccant is reactivated by a combination of heating and purging by a portion of the dry air output of the other tower. The heater remains energized for a minimum of 4 hours. The reactivated tower then cools, with the aid of a continuous purge airflow, for the remaining portion of the cycle.

Danger: Avoid contact with the tower during and immediately after the heating period. The outer surface of the tower reaches temperatures of over 250° F during this period.

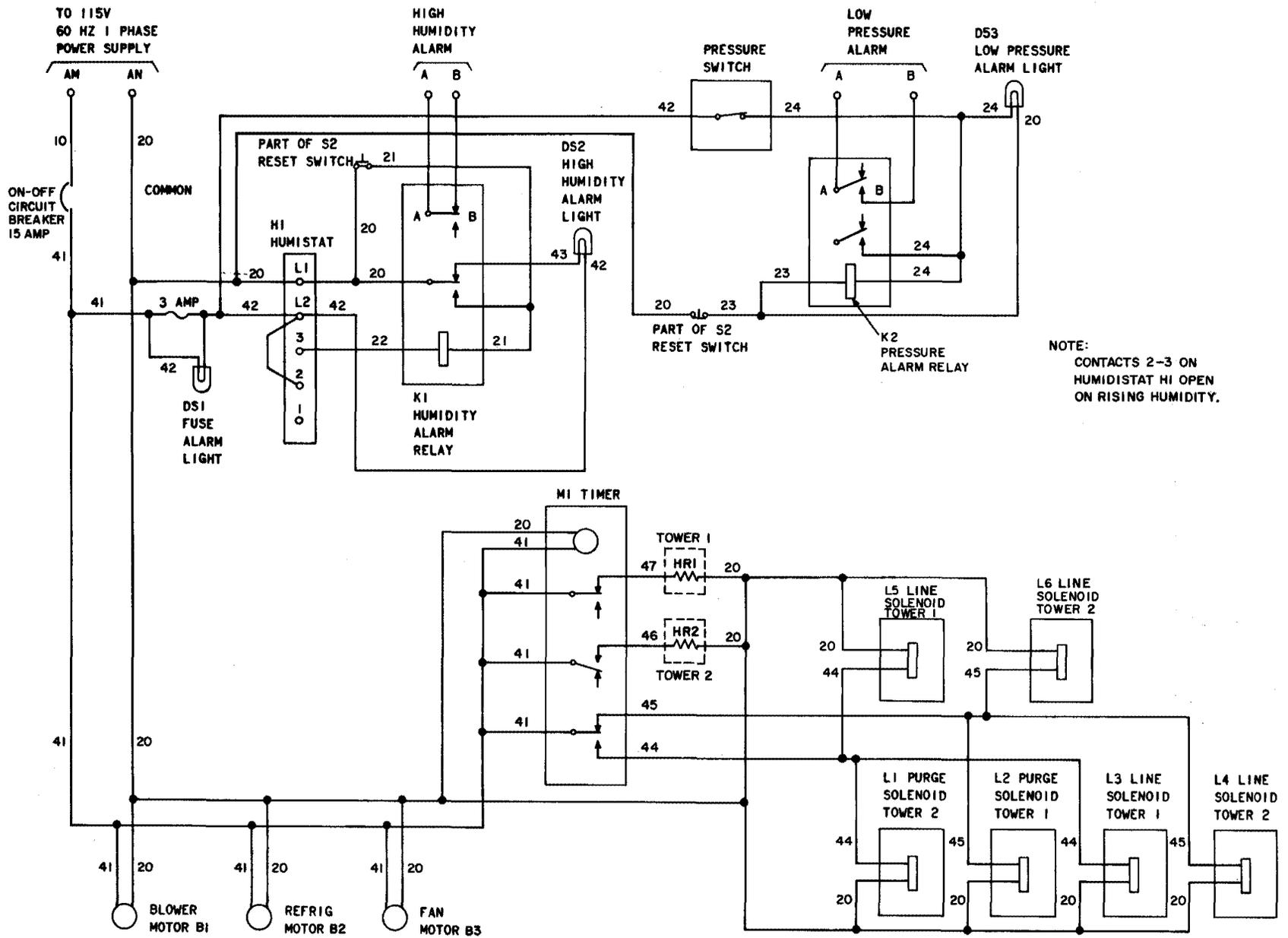


Fig. 16—KS-20183 L1 Air Dryer—Electric Schematic (L101 and L103 Wiring Not Included)

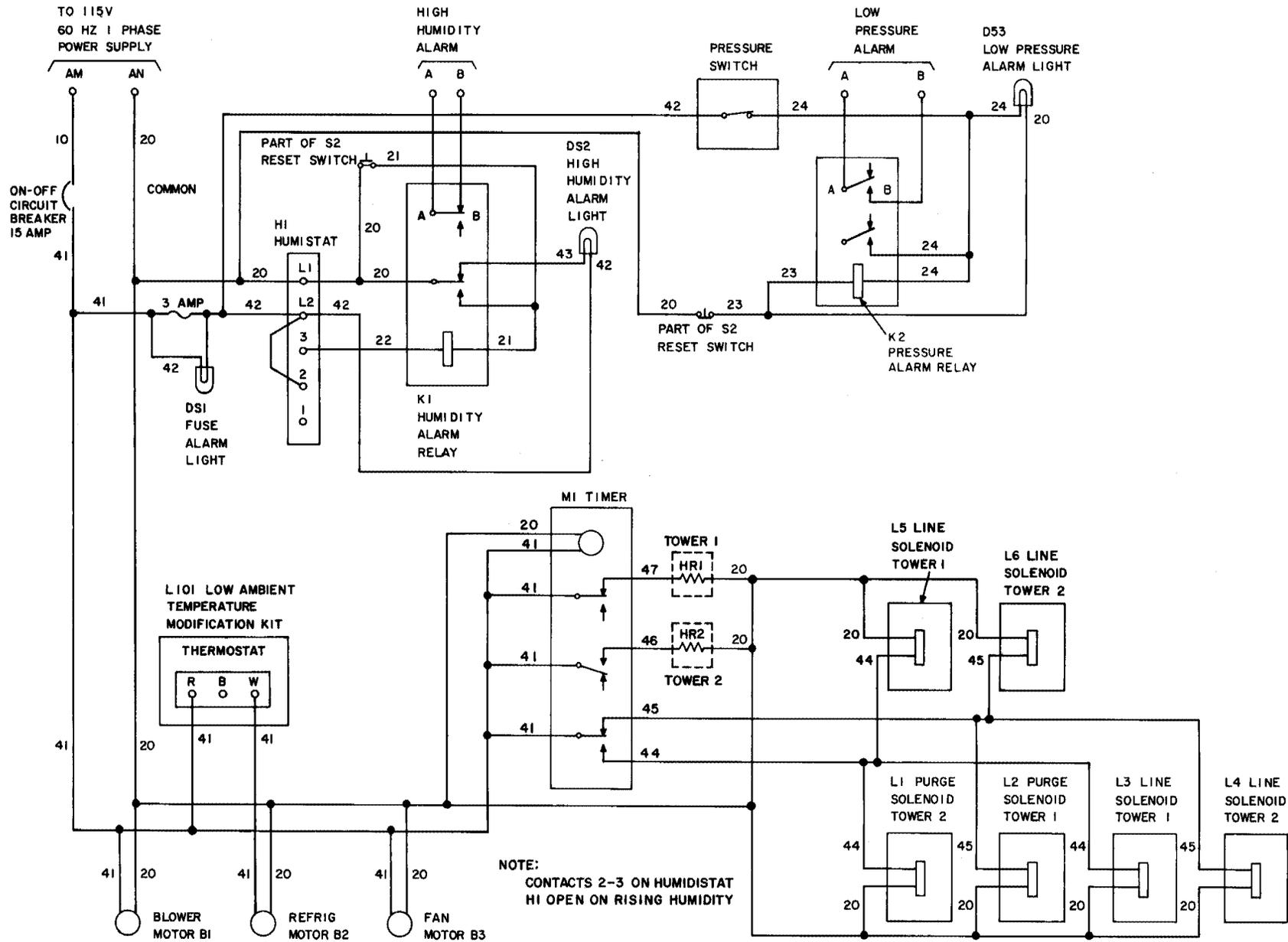


Fig. 17—KS-20183 L1 Air Dryer—Electrical Schematic (L101 Wiring Included)

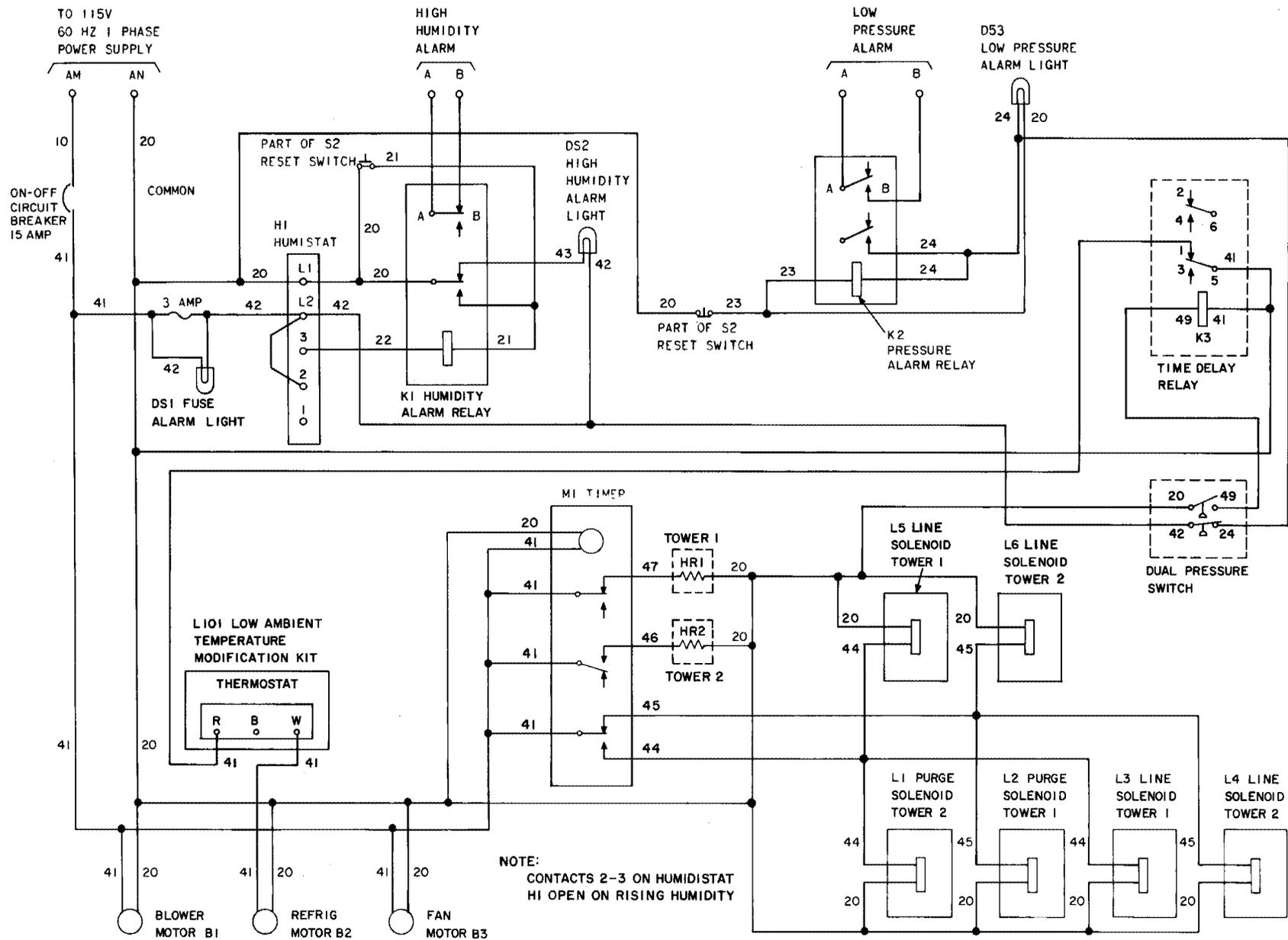


Fig. 19—KS-20183 L1 Air Dryer—Electrical Schematic (L101 and L103 Wiring Included)

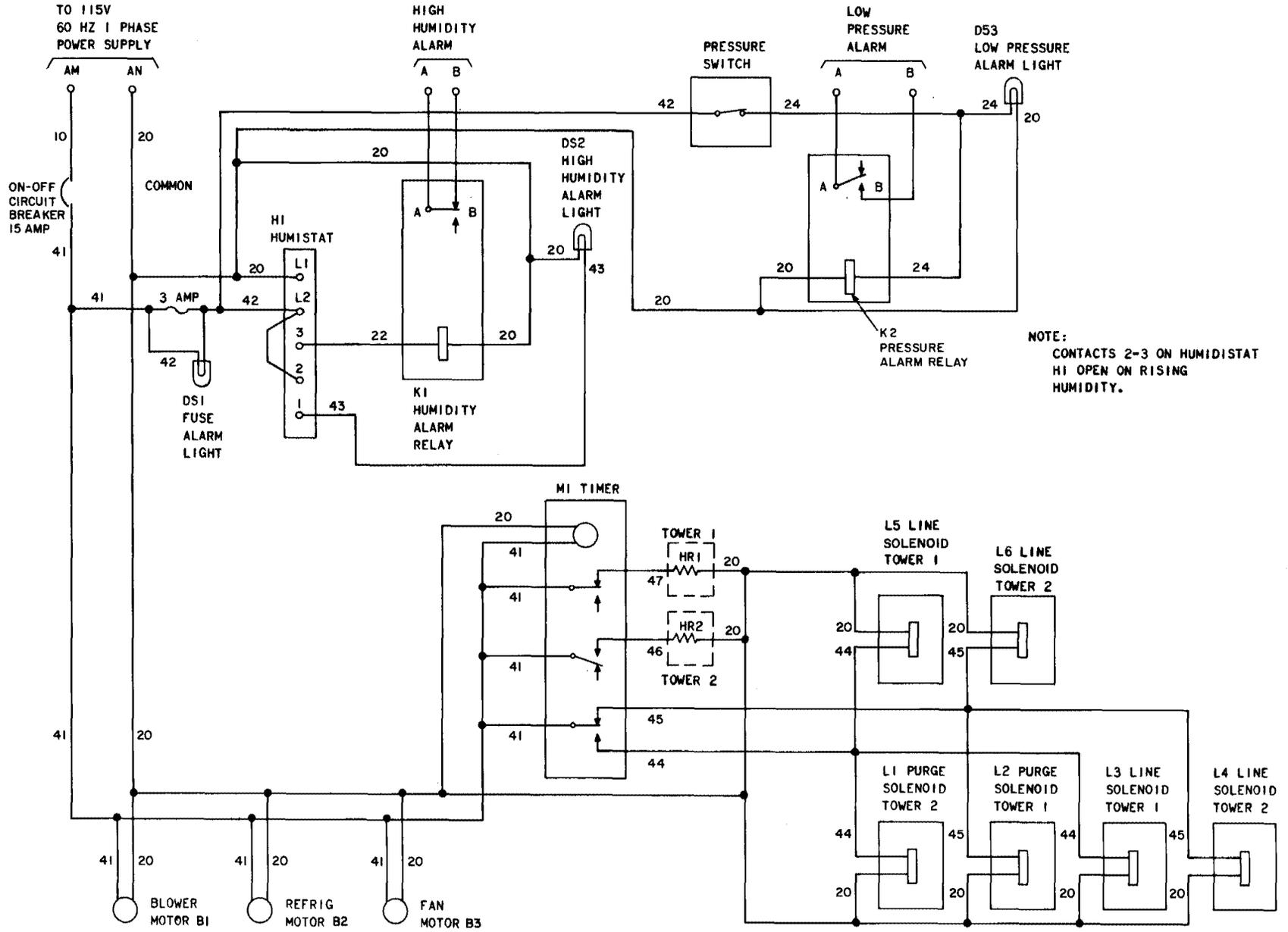


Fig. 20—KS-20183 L2 Air Dryer—Electrical Schematic (L101 and L103 Wiring Not Included)

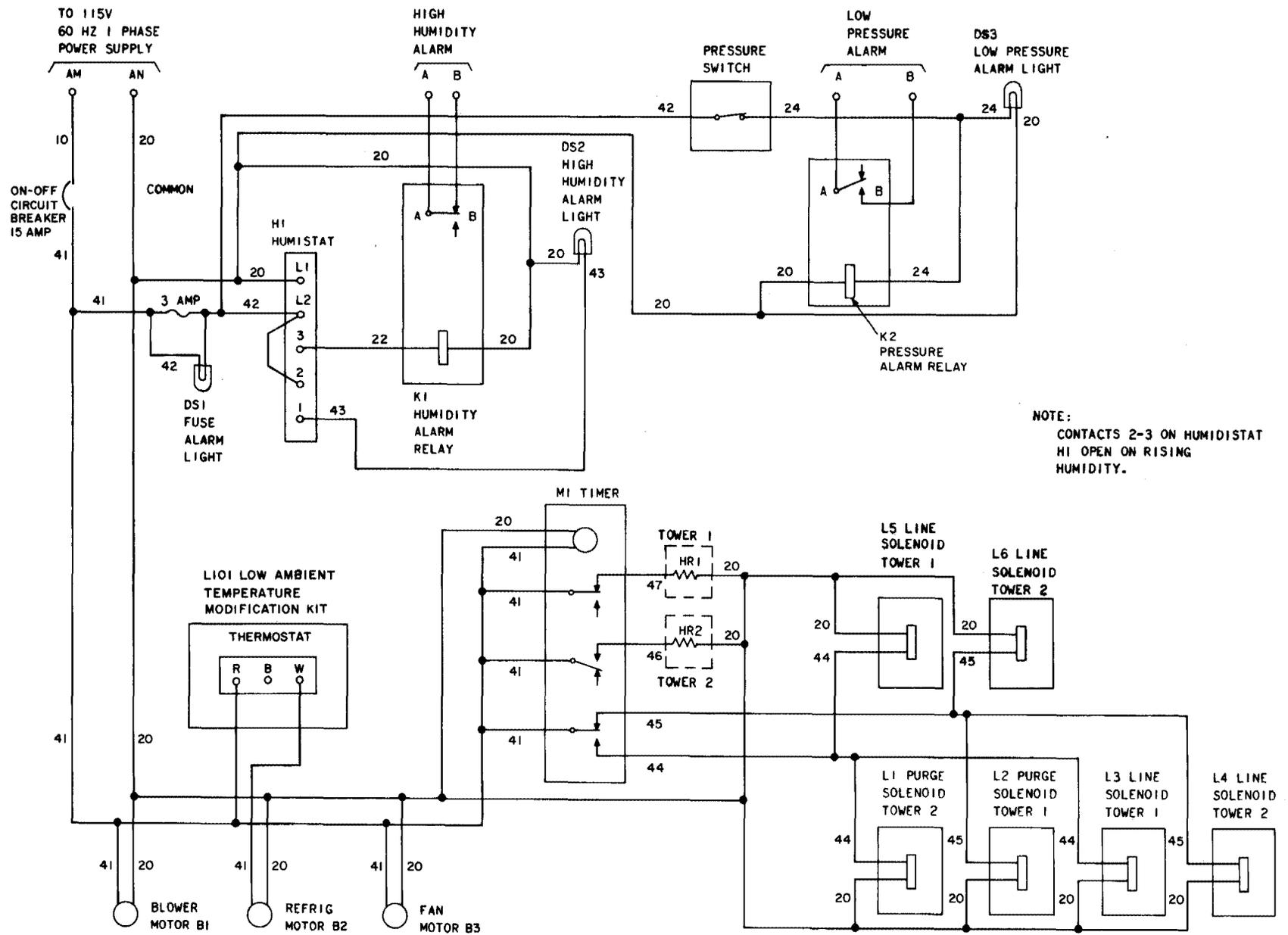


Fig. 21—KS-20183 L2 Air Dryer—Electrical Schematic (L101 Wiring Included)

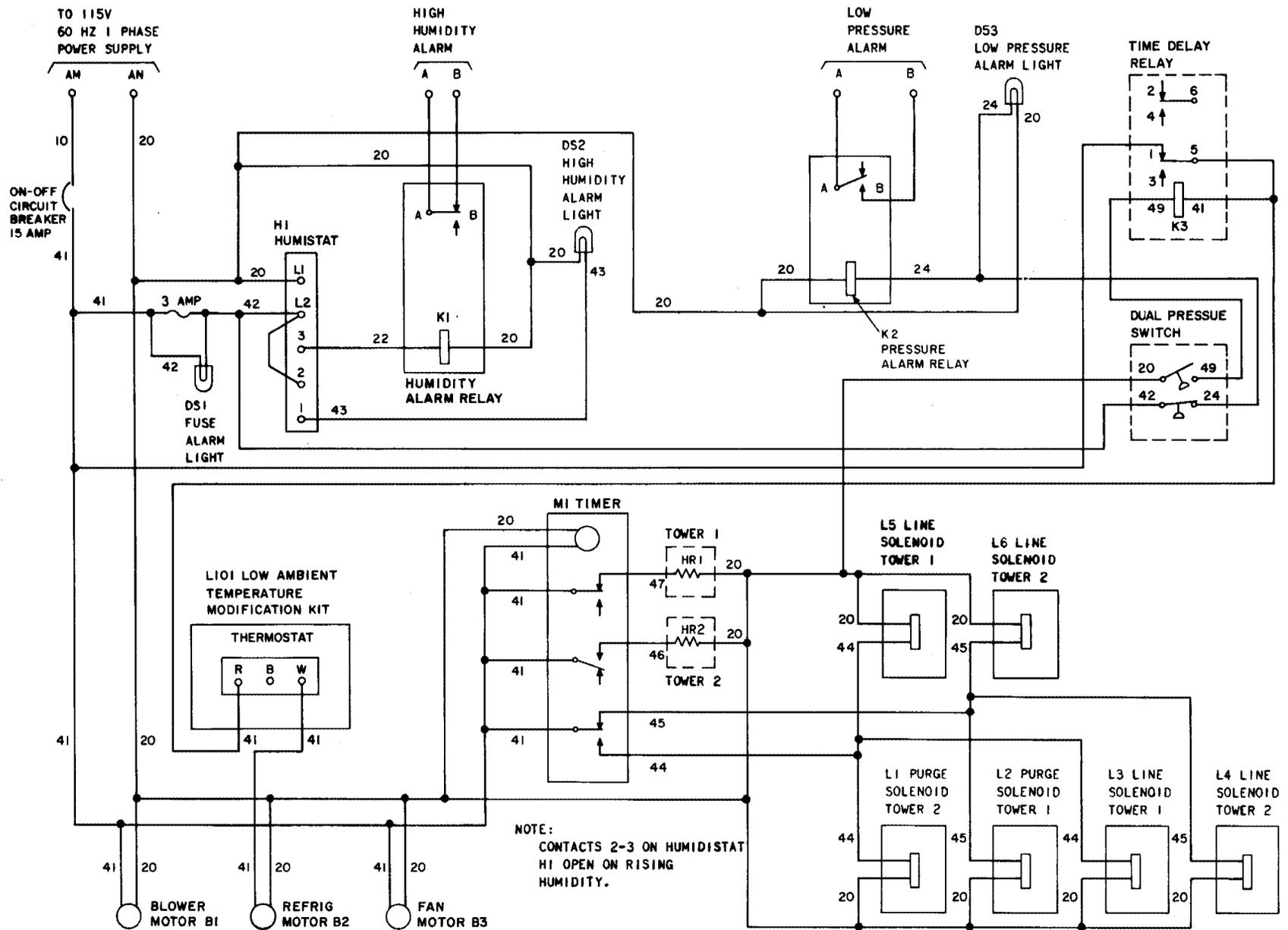


Fig. 23—KS-20183 L2 Air Dryer—Electrical Schematic (L101 and L103 Wiring Included)

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4. REQUIREMENTS AND ADJUSTING PROCEDURES

DRYER SHUTDOWN

4.01 When removing a dryer from service, follow local instructions regarding the need for providing a substitute air source.

DISABLING ALARMS

4.02 Before either moving the ON-OFF switch to the OFF position or making adjustments that might cause an undesired alarm operation, disable the alarm circuit.

CLEANING

4.03 **General:** Failure to keep the equipment clean may result in excessive maintenance.

Danger: Before starting to clean the dryer, de-energize the power supply and move the ON-OFF switch to the OFF position. If either tower is in the heating portion of the reactivation cycle, delay cleaning until the tower has cooled.

4.04 **Cabinet:** Clean the cabinet with a clean, dry KS-14666 cloth. Clean the cabinet louvers with a No. 8 sash brush.

4.05 **Refrigeration Unit:** Remove the protective guard. Clean the condenser with a sash brush and vacuum cleaner. Clean the fan blades, using a cloth moistened with an approved cleaner, and then wipe with a dry cloth.

Warning: If dryer parts are cleaned with petroleum spirits near dc machinery, provide adequate ventilation beforehand. Use the least amount of petroleum spirits necessary and keep the container closed when not in use. These precautions will prevent the fumes from damaging the dc machinery.

4.06 **Equipment:** Clean the external surfaces of the equipment inside the cabinet with a clean, dry cloth.

INTAKE AIR FILTER CANNISTER

4.07 The complete filter cannister shall be replaced when dirty. The intervals between replacement will vary with local atmospheric conditions as follows:

REPLACEMENT INTERVAL	AREA
6 Months	Heavy Industry, Coal Burning, Heavy Air Pollution
9 Months	Light Industry, Populous, Medium Air Pollution
12 Months	Rural, Mild Air Pollution

Note: If a low pressure condition exists as a result of a clogged filter prior to the normal replacement interval, replace the filter cannister as required.

KS-15707 L3 BLOWER (L1 DRYERS ONLY)

4.08 **Lubrication:** The blower is factory-lubricated and sealed. No further lubrication is necessary.

4.09 **Blower Replacement:** The KS-15707 L3 blower, furnished as original equipment on all L1 dryers and having a life expectancy of 4 years, should be replaced with a KS-21784 L2 blower.

ROTRON SPIRAL BLOWER (L2 AIR DRYERS)

4.10 The Rotron spiral blower is furnished as original equipment on all L2 dryers. When replacement is necessary, replace with a KS-21784 L2 blower.

4.11 **Lubrication:** The blower is factory-lubricated and sealed. No further lubrication is necessary.

4.12 Adjustment: The blower is factory-adjusted to deliver the proper amount of air to the dryer. Field adjustment of the spiral blower pressure is as follows:

- (1) Move the ON-OFF switch to the OFF position and disconnect the dryer from the ac power supply.
- (2) Close off air supply at machine outlet.
- (3) Tie down dead-weight relief valve.
- (4) Check the blower for baffle. If baffle is installed, remove so bleed valve can be adjusted.
- (5) Turn bleed valve clockwise (looking at the front of spiral blower) all the way until resistance is met.
- (6) Add approximately 4 ounces (about 1/2 cup) of water to sump reservoir.
- (7) Turn on dryer.
- (8) Adjust bleed valve until pressure gauge reads approximately 10½ to 11 inches water gauge pressure.
- (9) Open up air supply and remove dead-weight tie-down.
- (10) Turn off dryer and reinstall baffle.
- (11) Turn on dryer.

4.13 Requirement: The Rotron spiral blower shall be replaced in about 4 years with a KS-21784 L2 blower.

KS-21784 L2 BLOWER (REPLACEMENT PART FOR KS-15707 L3 AND ROTRON SPIRAL BLOWER)

4.14 The KS-21784 L2 blower is factory-lubricated and sealed. No further lubrication is necessary. It has the same performance curves as the blower it replaces but has a life expectancy of 8 years or approximately twice that of the blowers presently used.

LOW PRESSURE ALARM

4.15 Requirement: The low pressure alarm and alarm lamp shall operate when the outlet pressure drops to 1.4 inches ± 0.5 inch of water, as indicated on the pressure gauge.

4.16 Quarterly Check: Check the operation of the low pressure alarm every 3 months as follows:

- (1) Raise the dead-weight relief valve and observe that when the gauge pressure drops to 1.4 inches ± 0.5 inch, the alarm operates and the alarm lamp lights.
- (2) If the requirement in paragraph 4.15 is not met, adjust the pressure switch as covered in paragraph 4.17.
- (3) If operation is satisfactory, release the valve weight and observe that the alarm resets automatically.

4.17 Low Pressure Alarm Adjustments:

If the switch fails to operate satisfactorily, proceed as follows:

- (1) Loosen the two set screws which hold the switch cover in place and remove the cover.
- (2) If the contacts are open with the pressure at 1.4 inches, the adjusting screw should be rotated clockwise until the "just close" point is reached. If the contacts are closed with pressure at 1.4 inches, rotate the adjusting screw counterclockwise until the "just open" point is reached.
- (3) Repeat paragraph 4.16, Step (1).
- (4) After completing the adjustment, remount the switch cover.

HUMIDITY ALARM

4.18 Requirement: The humidity alarm and alarm lamp are designed to operate if the relative humidity of the delivered air rises to 4 percent at 70°F.

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4.19 Quarterly Check: The humidity alarm shall be checked every 3 months as follows:

- (1) Move the ON-OFF switch to the OFF position.
- (2) Remove the humidity sensing element from its receptacle. Plug the receptacle opening with a wadded, lint-free cloth or other suitable plug so that the low pressure alarm will clear when the ON-OFF switch is moved to the ON position.
- (3) Wait 5 minutes and return the ON-OFF switch to the ON position.
- (4) After the low pressure alarm has cleared, observe that the humidity alarm has operated and the alarm lamp has lighted.
- (5) Move the ON-OFF switch to the OFF position.
- (6) Remove the temporary plug (2) and return the sensing element to its receptacle. Tighten the packing nut handtight only.
- (7) Wait 5 minutes and move the ON-OFF switch to the ON position.
- (8) Observe that the alarm resets automatically.

HUMIDITY SENSING ELEMENT

4.20 Requirement: The humidity sensing element shall be replaced annually.

Warning: Do not use an ohmmeter to measure the resistance of the sensing element or apply any voltage

to it. This will permanently damage the element. Do not expose the sensing element to temperatures greater than 160° F.

BLOWN FUSE LIGHT

4.21 Requirement: The blown fuse light will operate when the 3-ampere fuse operates.

4.22 Quarterly Check: The blown fuse light shall be checked every 3 months as follows:

- (1) Remove the fuse holder from the front panel of the dryer.
- (2) Remove the fuse from the holder and reinsert the holder. Check to see that the lamp lights.
- (3) Remove the fuse holder from the panel and return the fuse to the holder.
- (4) Reinsert the holder.

TIMER

4.23 Requirement: The timer assembly shall be replaced every 5 years.

FINAL CHECK

4.24 Make certain cabinet covers are closed securely and that the ON-OFF switch is in the ON position. Make certain the temperature gauge and pressure gauge indicate proper operating temperature and pressure and alarm lamps have automatically reset.