



ISO 9001:2000 Certified

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**AIR-VAC ENGINEERING  
COMPANY, INC.**

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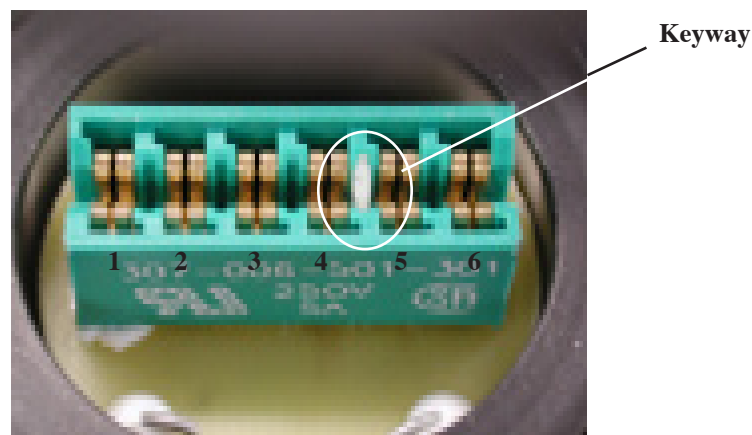
## Nozzle Heater Installation for DRS Units

Tools Needed: Metric Allen Wrenches, Multi-Meter

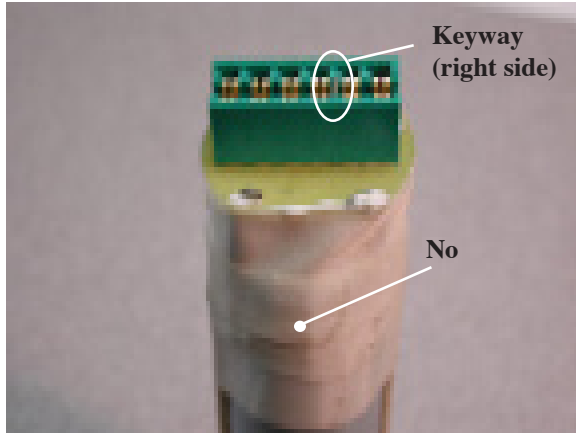
**Perform these quick steps to ensure the new heater will not fail prematurely.  
Please note that a burned out heater could possibly cause other parts of the system to fail.**

**NOTE:** To determine whether a heater is good or not, check with a multimeter:  
Terminal 2 and 6 →  $53.0 \Omega \pm 5.0$  (coil). Terminal 3 and 4 should have continuity (thermocouple).

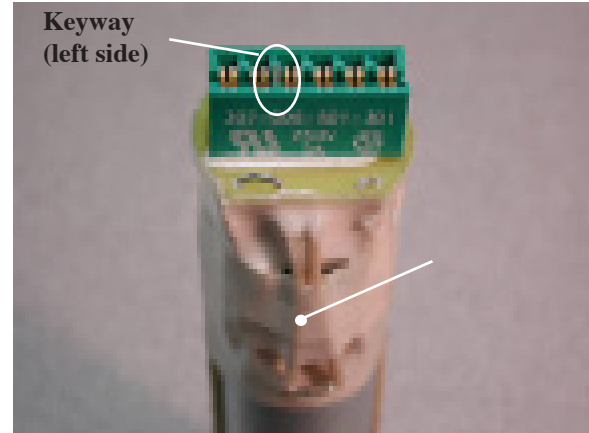
- 1) Check heater for keyway and location of keyway at the connector



- 2) **Note orientation of heater before seating into nozzle housing.**
- 3) Place heater into nozzle housing with keyway to the right side (viewed from operator position), wiggle side to side to be certain heater is seated.



**Correct Orientation**



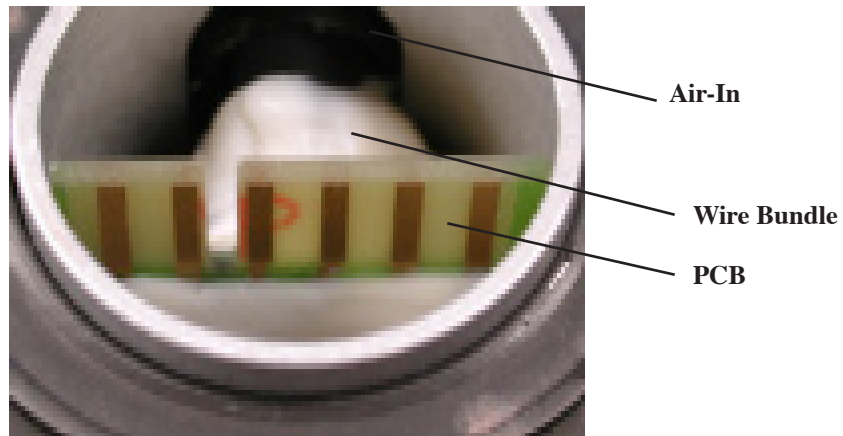
**Incorrect Orientation**

- 4) Place gasket over heater.



**Nozzle Housing**

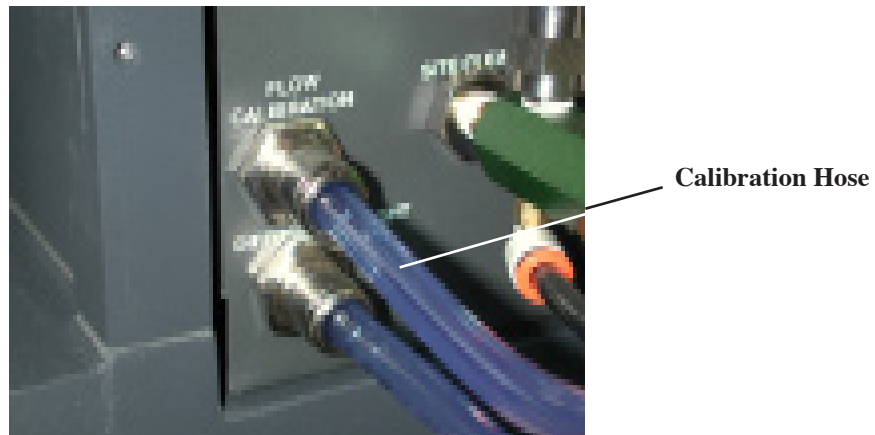
- 5) Before attaching Heater Head Harness to heater, turn heater cap over and inspect heater wires for breaks, air lines for leaks and condition of the PCB that interfaces with heater.  
**If damage is present, do not attempt to use. Call Air-Vac Technical Support.**



- 6) Once harness passes inspection, attach to heater. Snug only the screws in place, alternating bolt pattern. Overtightening the screws will damage cap.

**NOTE: For 24CXX and 25XLT modules the stack up will be, gasket, spacer, gasket.**

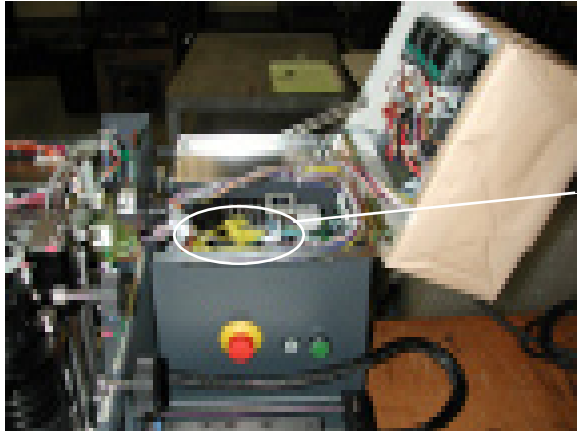
- 7) Be certain the calibration hose is securely attached in the rear of the machine before applying power to the heater. If hose is not in place or secure, the heater will burn out.



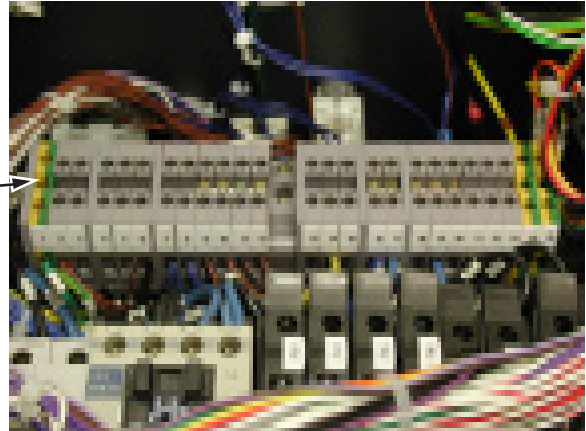
**Temperature Verification of Nozzle Heater - to be performed when heater is replaced.**

- 1 - At the Main Screen, right click on the Air-Vac logo.
- 2 - Go to Set-Up, Communications Screen.
- 3 - Zero out all of the Temperature Offset Numbers. Exit Screen.
- 4 - Perform a Heater Burn-In Test to break in the heater.
- 5 - Perform a Temperature Scale Test to set up the heater. Refer to Temperature Verification section of the Operators Manuals.

- 8) Locate the terminal bar in the right side power panel. Power up machine and immediately check TB18 with 23 (for 24CXX models TB25 with 26) with volt meter. For DRS25, check TB19 with TB20.

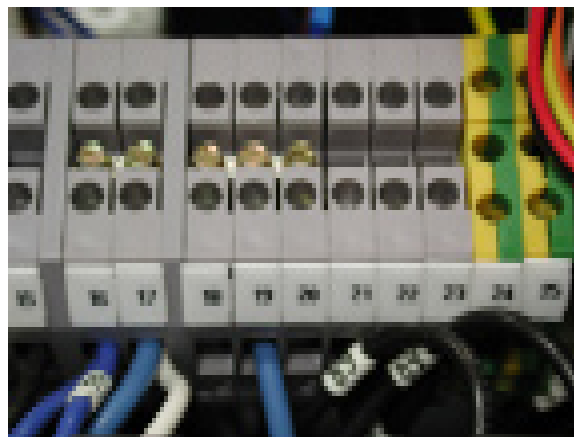


Facing Machine



Terminal Bar

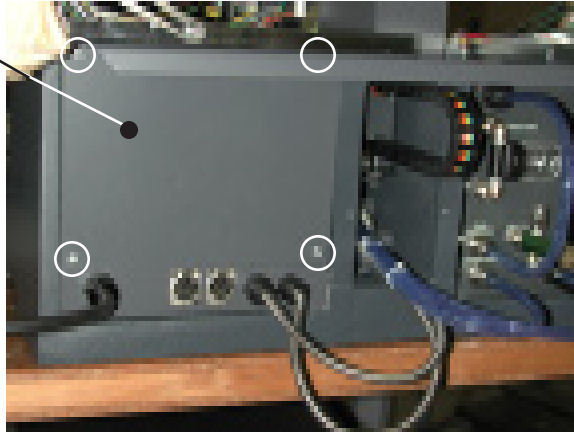
- 9) If 1/2 volt or greater is present, immediately turn off unit and replace the Solid State Relay controlling that heater.



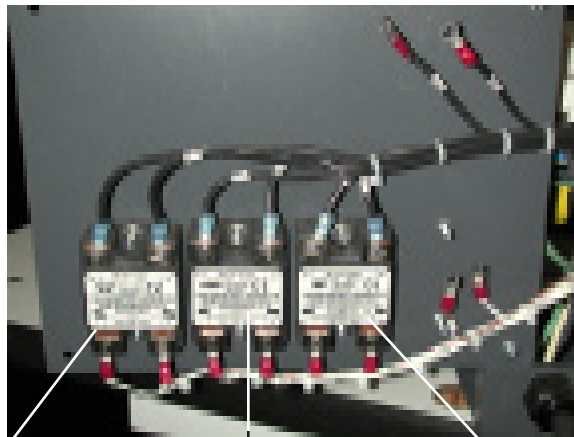
Terminal Bar is Numbered

### **Relay Replacement for DRS24C & DRS25 Models**

- 1) Solid State Relays are located in the right side of unit (power module).
- 2) Remove panel via four (4) screws.



- 3) Open panel to the power module right to left. Locate bad nozzle relay and replace.



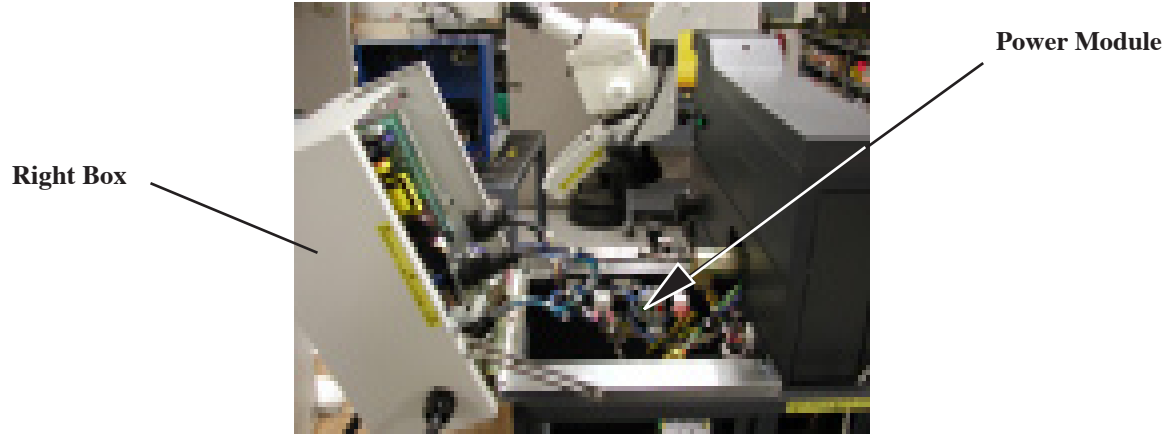
Nozzle Relay

Left Diffuser Relay

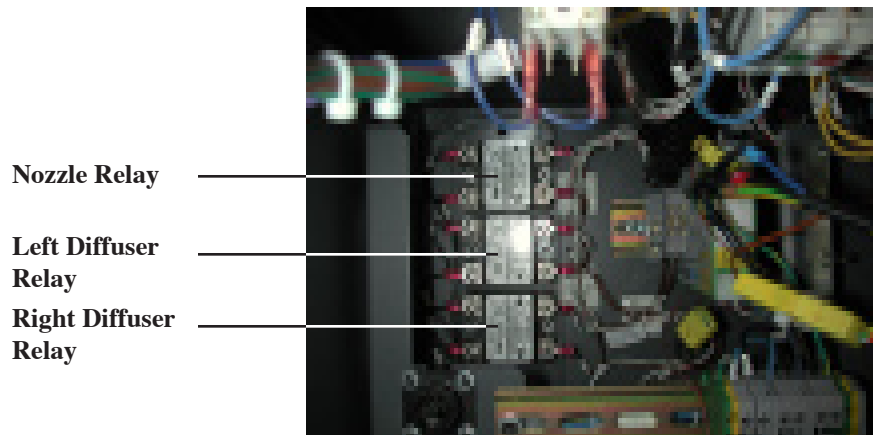
Right Diffuser Relay

### Relay Replacement for DRS24NC Models

- 1) Solid State Relays are located in the right side of unit (power module).
- 2) Open right box.



- 3) Located inside are the relays. Remove the protective plexiglass cover, and the bad nozzle relay.



## **Warranty**

Air-Vac Engineering Company warrants its equipment for a period of one (1) year from date of shipment on all parts, materials and labor costs required to repair the system except for component parts that are considered “wear and tear” items which are warranted for ninety (90) days. These include, but are not limited to, heaters, belts, lights, vacuum cups and tubing.

Air-Vac agrees to repair or replace any or all such equipment that may prove to be defective within the warranty period, without expense, excluding shipping to the owner.

This warranty shall not apply to any products that have been repaired or altered except by Air-Vac Engineering.

Services under warranty shall not affect an extension of the warranty period, nor will a new warranty period be granted for the parts, which were replaced/repaired. The title of the replaced parts will automatically pass to Air-Vac.

Air-Vac reserves the right to reject replacement under this warranty where, in the sole opinion of Air-Vac, the defect is due to obvious misuse and/or improper maintenance of the module or any part thereof.

The express and/or implied warranty of Air-Vac is limited to the replacement and/or repair of any item defective in material and/or workmanship. Other damages, if any, direct or consequential are expressly excluded from this warranty.

Air-Vac shall be liable under this warranty only if 1) Air-Vac receives notice during the appropriate warranty period (90 days or 1 year as applicable); 2) The products are operated in accordance with the supplied documentation; and 3) Such products are, to Air-Vac’s satisfaction, determined to be defective.

When contacting Air-Vac for warranty inquiries, please provide the following information:

- Order number which the parts were shipped
- Model and serial number of the product
- Reason for warranty

Products cannot be returned to Air-Vac without authorization – please call for an RMA #.

## **Heater Limited Life Warranty**

Air-Vac Engineering Company warrants the heaters for a period of ninety (90) days from date of shipment.

Air-Vac agrees to repair or replace any or all such equipment that may prove to be defective within the warranty period, without expense, excluding shipping to the owner.

This warranty shall not apply to any products that have been repaired or altered except by Air-Vac Engineering.

Air-Vac reserves the right to reject replacement under this warranty where, in the sole opinion of Air-Vac, the defect is due to obvious misuse and/or improper maintenance of the module or any part thereof.

Services under warranty shall not affect an extension of the warranty period, nor will a new warranty period be granted for the parts, which were replaced/repaired. The title of the replaced parts will automatically pass to Air-Vac.

Heating element life is affected by several factors, temperature, airflow, condition of incoming air (water and oil contamination) and overall process cycle. These products are considered a “consumable” item. The length of useful service will vary based on the conditions under which they are run. Higher temperatures and/or lower flows will cause shortened life.

The express and/or implied warranty of Air-Vac is limited to the replacement and/or repair of any item defective in material and/or workmanship. Other damages, if any, direct or consequential are expressly excluded from this warranty.

Air-Vac shall be liable under this warranty only if 1) Air-Vac receives notice during the warranty period; 2) The products are operated in accordance with the supplied documentation; and 3) Such products are, to Air-Vac’s satisfaction, determined to be defective.

When contacting Air-Vac for warranty inquiries, please provide the following information:

- Order number under which the parts were shipped
- Model and serial number of the product
- Reason for warranty

Products cannot be returned to Air-Vac without authorization – please call for an RMA #

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