

## Super Plug - Replacement Instructions



### **CAUTION : SERVICING**

- DISCONNECT MAIN POWER SOURCE BEFORE ACCESSING INTERNAL COMPARTMENTS.
- THE PLUMBING AND ELECTRICAL COMPARTMENTS CONTAIN HIGH VOLTAGE COMPONENTS AND WIRING. ACCESS SHOULD BE LIMITED TO AUTHORIZED PERSONNEL ONLY.
- DURING AND FOLLOWING OPERATION OF THE HUMIDIFIER, THE STEAM COMPONENTS IN CONTACT WITH THE STEAM SUCH AS THE CYLINDER, BLOWER PACK, STEAM LINES, STEAM DISTRIBUTORS, AND CONDENSATE LINES CAN BECOME HOT AND BURN IF TOUCHED.
- CONDAIR DOES NOT ACCEPT ANY LIABILITY FOR EQUIPMENT INSTALLED BY UNQUALIFIED PERSONNEL OR THE USE OF PARTS/ COMPONENTS/ EQUIPMENT THAT ARE NOT AUTHORIZED OR APPROVED BY CONDAIR.

### **Step 1 : Preparation**

1. Disconnect power to the humidifier by following the Extended procedure as detailed in the installation and operations manual for your unit.
2. Super plugs are in the plumbing cabinet and wire into the electrical compartment.
3. Open plumbing and electrical service panels and locate the contactor(s).
4. If working on a double cylinder humidifier, work on one set of super plugs at a time to simplify the process.

### **STEP 2 : Remove old Super Plugs**

1. With a flat screwdriver, loosen screws holding wires from the old super plugs to the contactor.

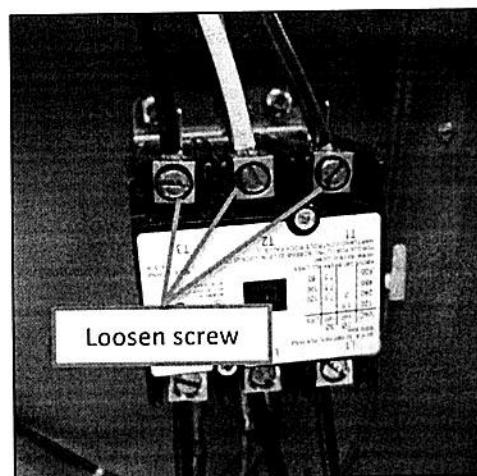


Figure 1 : Contactor Terminals



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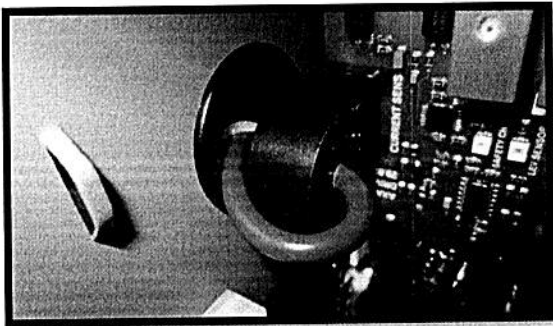


Figure 2a : Sensor loop for Nortec NHTC

2. Remove any tie wraps that retaining the red super plug wire to the driver board(s) and carefully remove the wire from the current sensors.

(See Figure 2a and 2b)

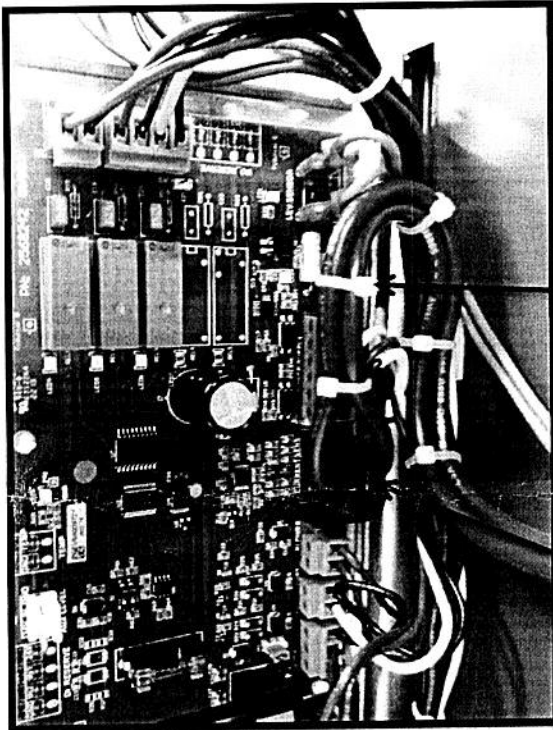


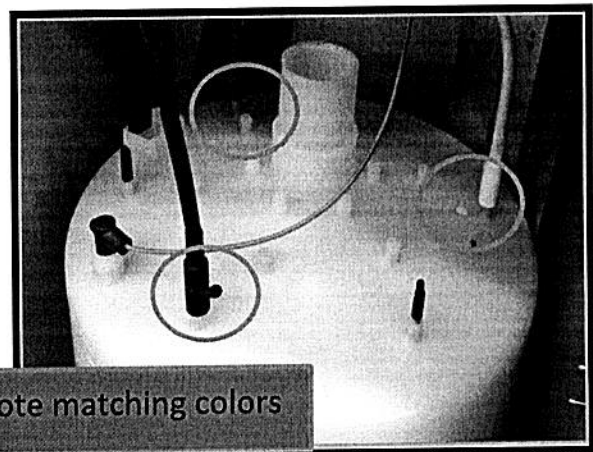
Figure 2b : Sensor loop for Nortec NHEL

Remove the Red wire passing through the driver board(s) current sensing loop by severing the ties that secure it and pulling the wire through.

Ensure the wire to the current sensor is not strained when opening/closing the swing panel.

3. The super plugs are color coded to correspond with labels on cylinder(s). Note the positions before removing.
4. Remove super plugs from cylinder(s) by pulling vertically.

Figure 3 : Cylinder plugs



Note matching colors

#### STEP 4 : Installing new Super Plugs

1. Trace the new black and (if applicable) yellow wires along the path of the previous wires of the same color. Start from the cylinder (figure 3), through the grommets (figure 4) to the contactor(s)(figure 1).
2. Trace the new Red wire along the path of the previous Red wire(s). Start from the cylinder (figure 3), through the grommet (figure 4), loop through the current sensor on the driver board (figure 2), to the contactor(s) (figure 1).

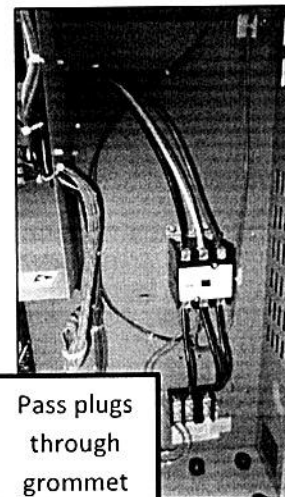


Figure 4 : Grommets



#### CAUTION : SERVICING

Double humidifiers will have two driver boards, two contactors, and two cylinders. Component matching is critical for all wires. The red super plug/wire connected to cylinder **A** must loop through the current sensor on driver board **A**, and connect to the contactor **A**. The red super plug/wire connected to cylinder **B** must loop through the current sensor on driver board **B**, and connect to the contactor **B**.

3. If super plug wire is too long, cut the excess wire off and strip insulation off the end, revealing only enough bare wire to securely connect to the contactor.
4. Insert bare wire end into contactor. (Order : Black, Yellow, Red, See Figure 1)
5. Tighten contactor screws onto the super plugs' bare ends to the rated torque settings detailed on the contactors.



Failure to properly secure the contactor connections and follow the contactors torque ratings may result in overheating and failure of high voltage components.

[Max Torque = 50 in • lbs Please read contactor screws' torque ratings]

#### **Step 4 : Completing the installation**

1. Once all wires and connectors are replaced and secured, review the humidifiers wiring diagram to ensure the installation matches the correct factory default wiring.
2. The service access doors can be reinstalled and secured.
3. Follow the procedure for "Starting after Extended Shutdown" as detailed in the Installation and Operations manual for your humidifier.
4. Observe unit operation to ensure steam is being produced. If no steam is produced after 10 minutes, disconnect power and verify super plug wiring through sensor and proper contact with contactor screws.

**FOR MORE INFORMATION ON MAINTENANCE AND REPLACEMENT, PLEASE CONTACT  
YOUR CONDAIR REPRESENTATIVE.**



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