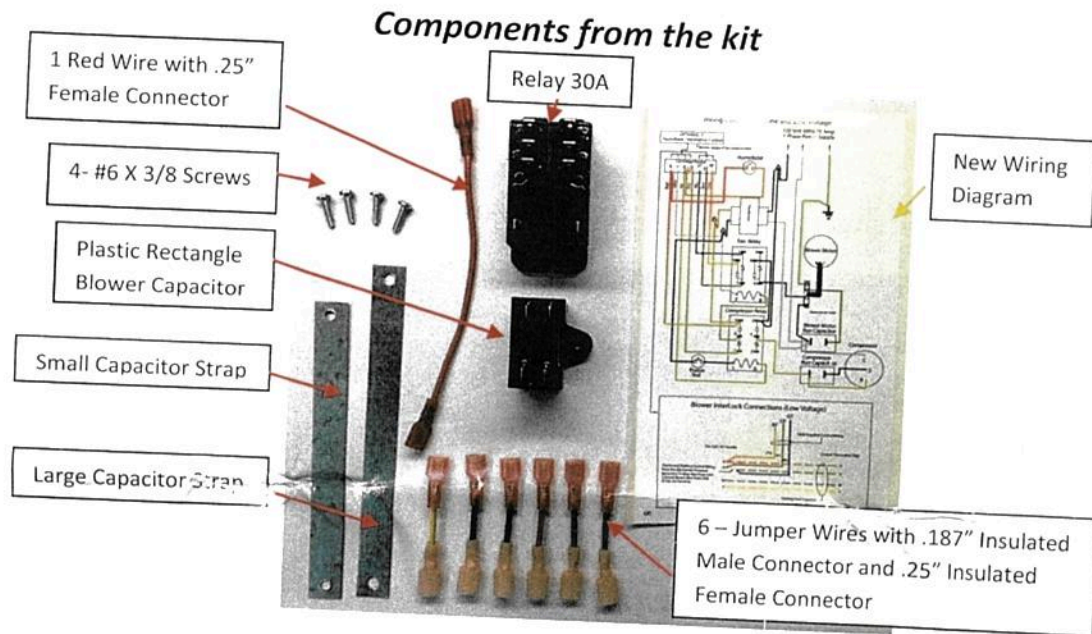


CS/DH 70 Relay Replacement Kit Instructions

⚠ WARNING: INSTALLATION OR MAINTENANCE OF THE DEHUMIDIFIER MUST BE PERFORMED BY A QUALIFIED SERVICE TECHNICIAN. THE SERVICE TECHNICIAN MUST USE THE PROPER TOOLS AND EQUIPMENT AND BE LICENSED BY THE PROPER AUTHORITY WHERE APPLICABLE. INSTALLATION OR SERVICE WORK PERFORMED BY AN UNQUALIFIED PERSON COULD RESULT IN HAZARDS TO THAT PERSON, OTHER PEOPLE AND PROPERTY. THESE HAZARDS COULD INCLUDE, BUT ARE NOT LIMITED TO, ELECTRIC SHOCK, FIRE, SEVERE BURNS, DAMAGE TO DEHUMIDIFIER COMPONENTS AND OTHER HAZARDS.

⚠ WARNING: Read all safety warnings and all instructions before beginning the procedure. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.



Tools needed: #2 Philips screw driver, 5/16 socket and needle nose pliers.

⚠ Before starting to replace the relay, please shut off the unit and make sure the dehumidifier power cord is unplugged.

Step 1 – Open the side panel by removing the three screws at the top side of the unit with a 5/16" socket (Figure 1).

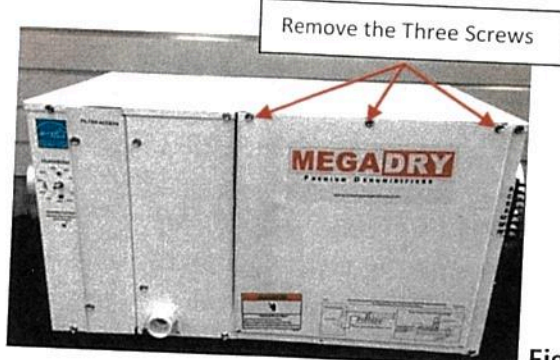


Figure 1

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Step 2 – Remove the two electrical box cover screws (Figure 2a) and then remove the electrical cover (Figure 2b).

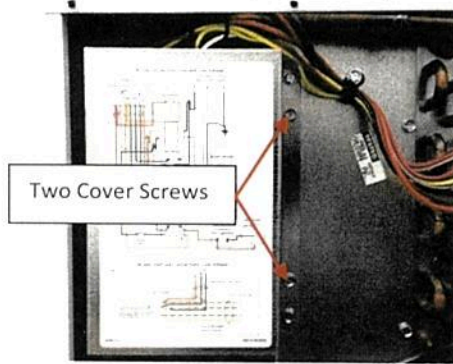


Figure 2a

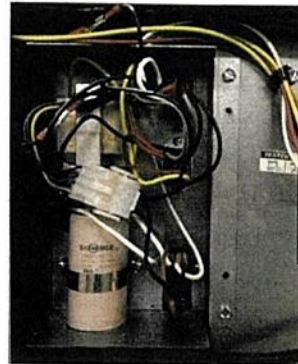
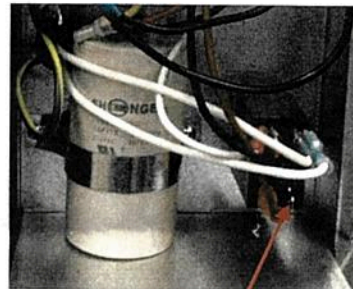


Figure 2b

Step 3 – Check the shape of the blower capacitor (Figure 3). If the blower capacitor is an oval cylindrical shape, go to **Step 4**. If it is a plastic rectangle shape, go to **Step 9**.



Oval Blower Capacitor



Rectangle Blower Capacitor

Figure 3

Step 4 – Remove the oval shaped blower capacitor and metal strap by removing the two screws (Figure 4). Disconnect all the wires on the oval shaped blower capacitor.

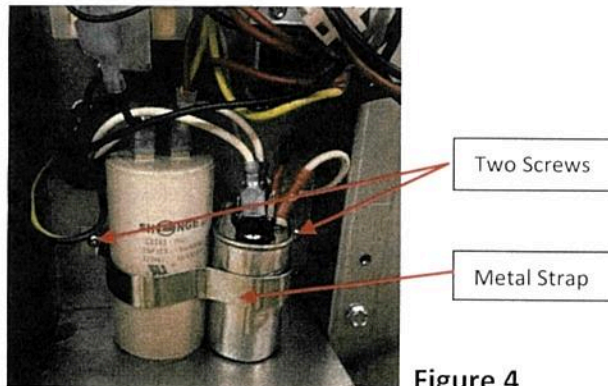


Figure 4

Step 5 – Install the small metal strap provided from the kit (If the compressor capacitor is plastic cased) into the far left mounting hole in the electrical box by using one #6 screw (Figure 5). If the compressor capacitor is metal cased, install the large metal strap (Figure 6).

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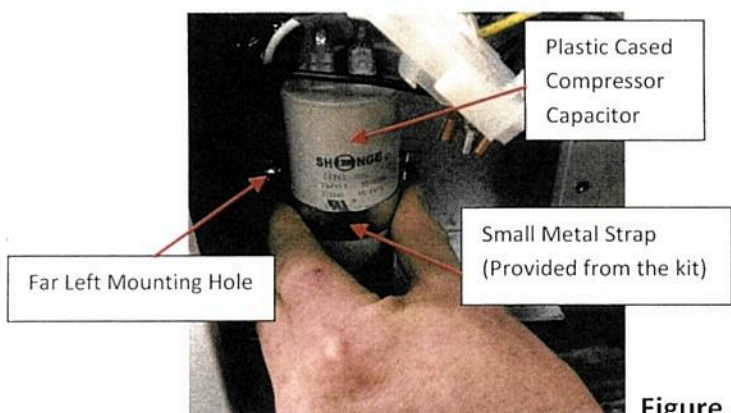


Figure 5



Figure 6

Step 6 – Secure the compressor capacitor by wrapping the metal strap around the capacitor and using one #6 screw to secure the capacitor into the electrical box (Figure 5 is shown with the small metal strap wrapped around the plastic cased compressor capacitor).

Step 7 – Install the provided rectangle blower capacitor with one #6 screw into the far right mounting hole in the electrical box (Figure 7).

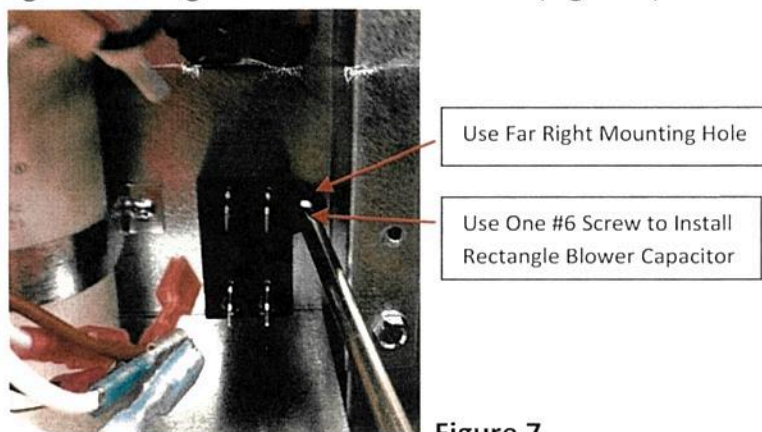


Figure 7

Step 8 – Connect the wires which were disconnected from the oval capacitor to the rectangle capacitor.

Two piggybacked white wires connect to the top left terminal;

Two piggybacked white and black wires connect to the top right terminal;

One brown wire connects to the bottom left terminal. (Figure 8).

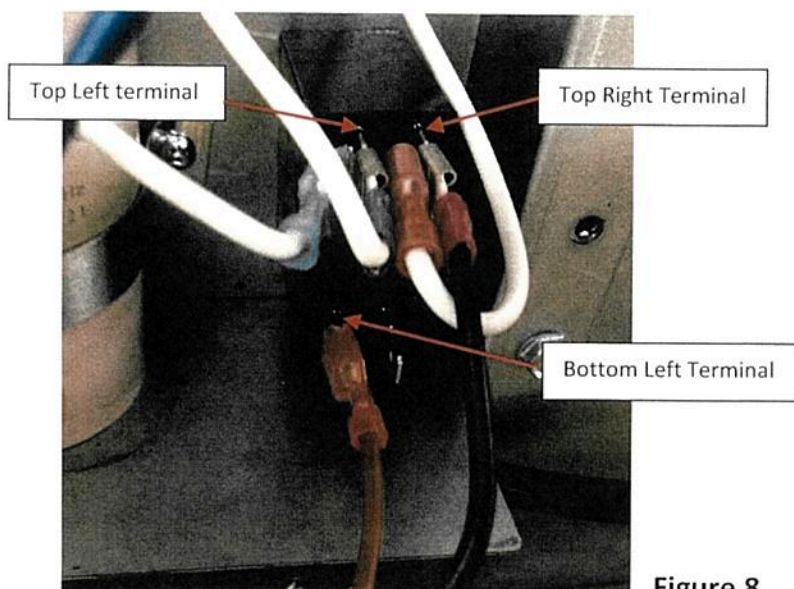


Figure 8

Step 9 – Remove the compressor relay (the bottom one) by removing the bottom screw and loosening the top screw. You need the top screw for the new relay (Figure 9). **Do not remove the wires from the relay yet.**

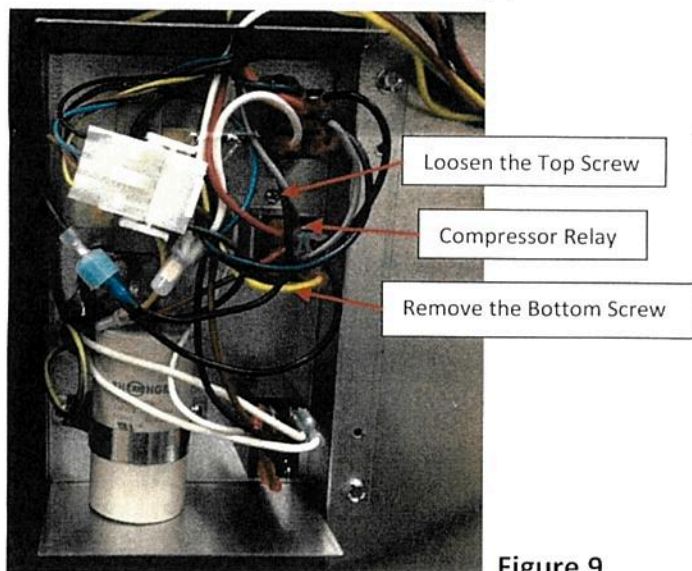


Figure 9

Step 10 – Get the new relay, peel off the backing from the double sided tape on the back side of the relay (Figure 10a), then carefully install the relay onto the same location by aligning the loosened screw on the top mounting hole to the mounting tab of the relay (Figure 10b). Slide the slot under the screw, align the relay, and then press the relay into position. Tighten the screw and secure the relay in the position.

CS/DH 70 Relay Replacement Kit Instructions



Figure 10a

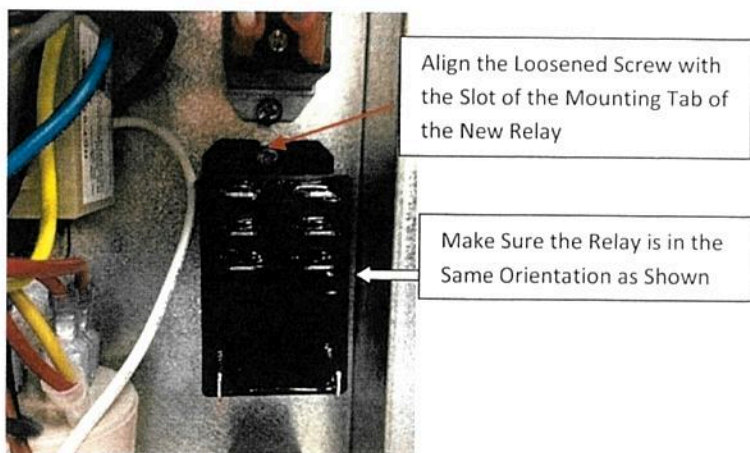


Figure 10b

Step 11 – Disconnect the red wire on the cylindrical compressor capacitor and replace it with the long red wire from the kit (Figure 11).

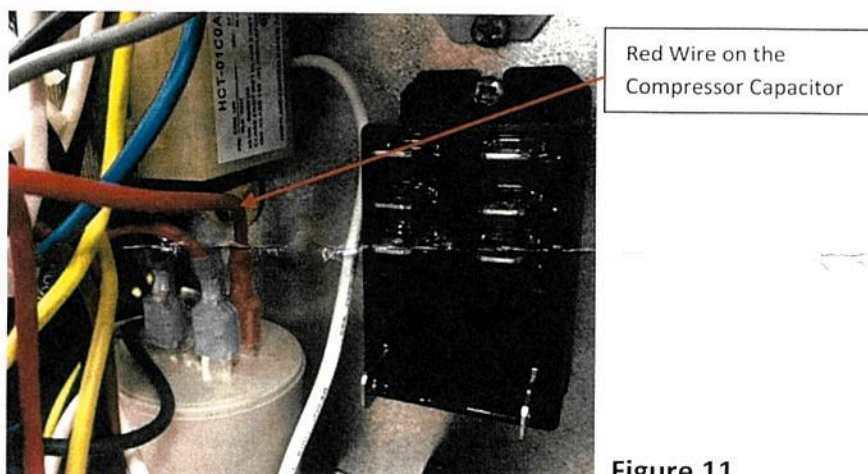


Figure 11

Step 12 – Carefully disconnect all the wires from the old relay by using needle nose pliers (Figure 12a) and connect to the insulated male end of the jumper wires provided from the kit (2 black, 2 gray, 1 red and 1 yellow). Make sure the color between the wires and jumper wires matches and each connection is fully engaged (Figure 12b) before moving to the next step.

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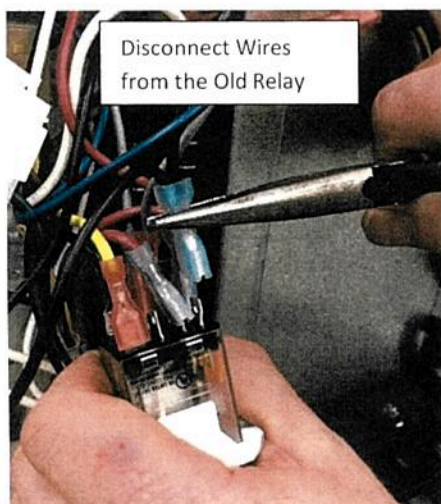


Figure 12a

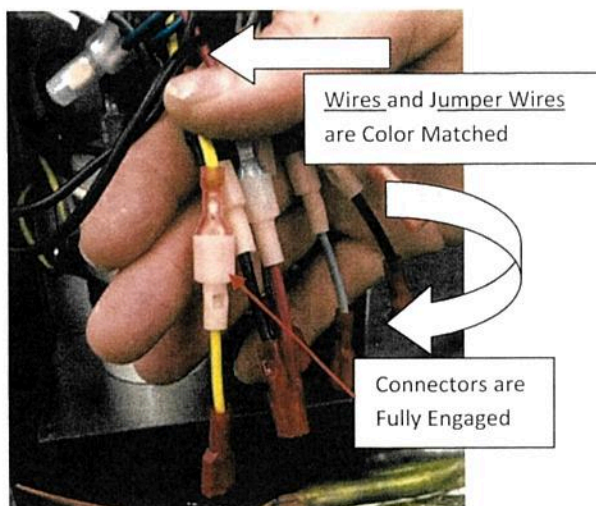


Figure 12b

Step 13 – Wire the new jumper wires to the new relay. The new diagram can be used for reference (Figure 13).

Connect the double red wire (from the transformer) with red jumper wire to the top left terminal #6 of the new relay

Connect the single gray wire (from the upper relay) with gray jumper wire to the second left terminal #8 of the new relay

Connect the single gray wire (from the low voltage terminal) with gray jumper wire to the third left terminal #7 of the new relay

Connect the single black wire (from freeze stat) with black jumper wire to the bottom left terminal #1 of the new relay

Connect the double black wire (from the power supply) with black jumper wire to the top right terminal #2 of the new relay

Connect the single yellow wire (from the humidistat) with yellow jumper wire to the bottom right terminal #0 of the new relay

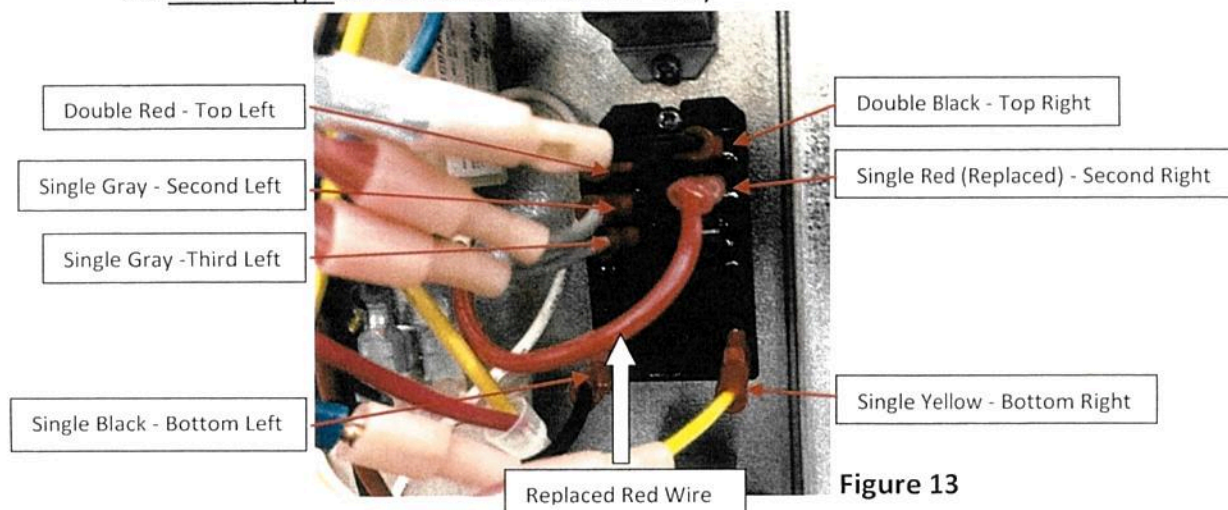


Figure 13

CS/DH 70 Relay Replacement Kit Instructions

Step 14 – Connect the replaced red wire from the compressor capacitor to the second right terminal #4 of the new relay (Figure 13).

Step 15 – Remove the old electrical diagram on the cover by peeling it off; replace it with the new diagram from the kit. Use the new diagram to make sure the wiring is correct (Figure 14).

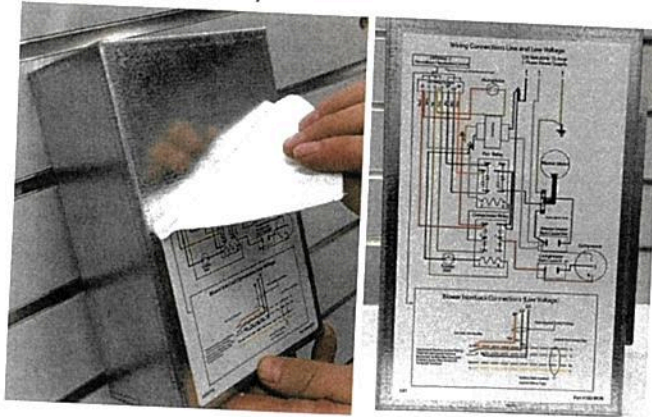


Figure 14

Step 16 – Carefully replace the electrical box cover with the two screws (Figure 15a). Make sure all wires are inside the electrical box and the cover goes over the enclosure on all sides (Figure 15b).

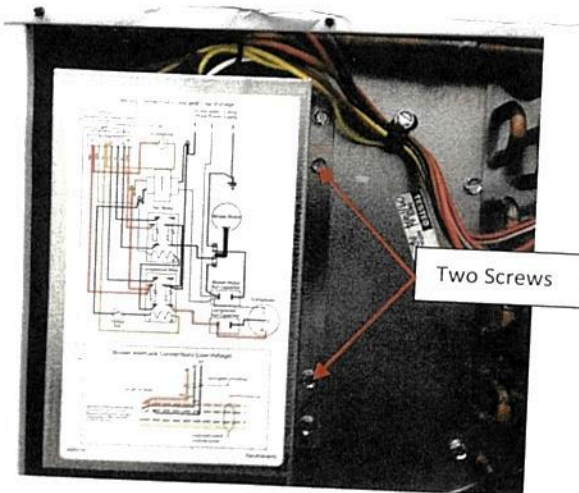


Figure 15a

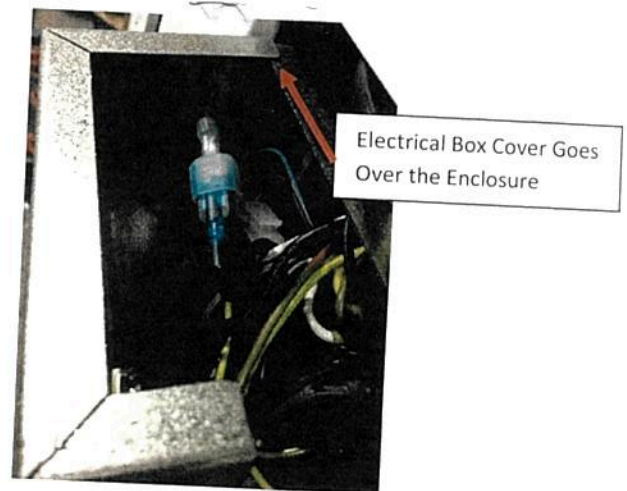


Figure 15b

CS/DH 70 Relay Replacement Kit Instructions

Step 17 – Replace the side panel by first seating the bottom edge of the side panel on top of the bottom edge and insulation strip of the unit (Figure 16a). Secure the side panel by the three screws (Figure 16b) (There will be extra components left over after completion of installation).

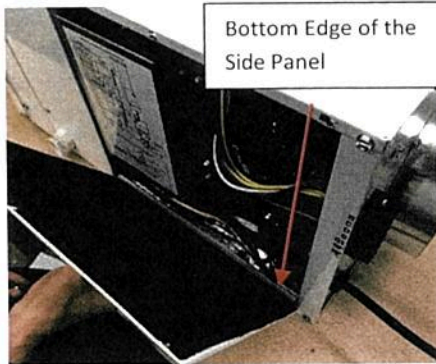


Figure 16a

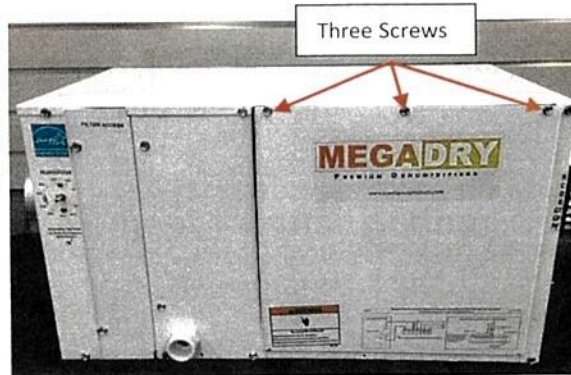


Figure 16b

Step 18 – Test procedure/Function test

- Plug in the unit and turn humidistat on (clockwise).
- Listen in inlet side for compressor hum.
- Place hand by the outlet to feel air movement and check for fan operation.
- If both compressor and fan are on, leave the unit operating for five minutes. After that turn down (counter-clockwise) humidity control, the unit should shut off on its own.
 - If it does, the testing is completed and the unit is operating correctly
 - If the unit does not shut off on its own, produce unusual heat or produce unusual smells, unplug the unit and immediately call tech support at 866-476-5101.