

# INSTRUCTION

## XL heater Thermal Cut Out device (TCO) retrofit

**Read all instructions prior to performing work. If you are unqualified or unable to complete these tasks, or do not understand the instructions, stop and contact your heater provider for assistance**

This XL heater does not include a Thermal Cut Out (TCO), however, your heaters may have a removable and reusable TCO located within the box. Confirm a TCO is present in your existing heater by locating 2 additional control wires extending from the heater box (ref dia. #2)

\*If your existing heater has a TCO but is not a removable type like shown, contact your heater provider for alternate instructions

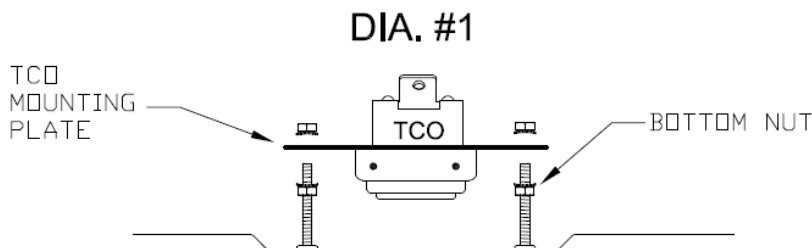
This XL heater is designed to accommodate the reusable TCO when needed. The following steps show how to correctly install a reclaimed TCO

**Step #1** Disconnect the control wires from the external connections and remove the TCO with the wires attached from the existing heater.

**\*DO NOT reuse these parts if they appear bad or damaged**

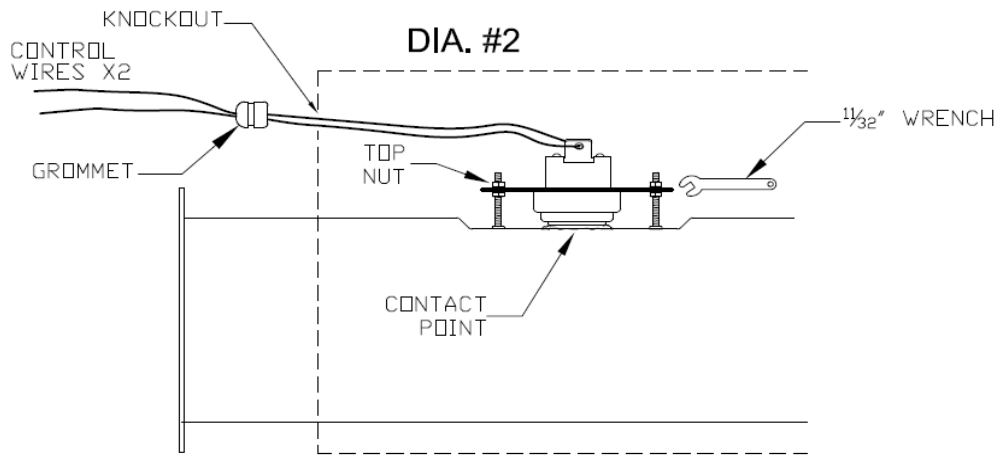
**Step #2** Place TCO over threaded studs on the new heater and allow the mounting plate to rest on the bottom nuts (dia. #1)

Adjust bottom nut height until the TCO contacts the heater's stainless steel manifold at the "contact point" (dia #1 and #2)



**DO NOT allow an air gap between TCO and manifold at the contact point (dia. #2)**

**DO NOT place glue, silicone or dielectric grease between TCO base and heater manifold at the contact point. Only "conductive grease" may be used between these parts (optional)**

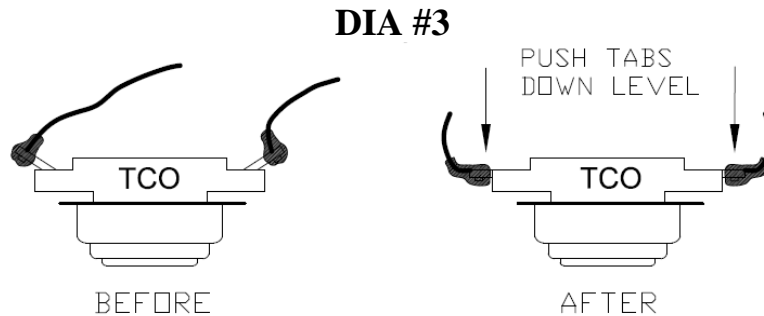


**Step #3** Install top nuts and run down until TCO mounting plate is tightly captured between both top and bottom nuts as shown in diagram #2

Tighten top nut on each stud using 11/32" socket or wrench while holding bottom nut with 11/32" open end wrench. A correct placement will have the TCO firmly placed against the heater manifold at the contact point and will not allow TCO to move

**Step #4** Route wires thru hole or knockout provided in box sidewall. Protect wires by using existing heater grommet as shown in dia. #2.

**Step #5** **IMPORTANT!** Once the TCO has been mounted to the new heater, the wiring connection tabs must be bent downward to be even height with the TCO switch. This keeps wiring and tabs from coming in contact with the box sidewall after assembly (dia #3)



**Step #6** Assemble box and reconnect TCO control wires. Failure to connect the TCO wiring will cause a system error and stop heater operation.



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85-0164\_Rev0.1\_7/16