



# Field Service Bulletin – FSB # 170302

## P4 Thermal Protectors

Product(s) Applied To: P4 Thermal Protectors sold as replacements or as parts of immersion heaters shipped between January 1, 2016 and October 11, 2016

Serial Numbers: SN386188 to SN430711

Submitted By: Raj Sandhu

Date: 4/21/17

### **Reason:**

Due to a materials issue, any immersion heaters shipped with P4 protectors between January 1, 2016 and October 11, 2016 have lost their UL listing. In addition, the replacement P4 protectors shipped during this time have also lost their UL listings. This does not impact safety for neither these heaters nor these protectors. However some customers may need this UL rating for compliance.

### **Affected Products:**

The affected heaters were shipped between January 1, 2016 and October 11, 2016, have a model number that includes “-P4”, and fall between serial numbers SN390271 and SN430711. You can find this info on the model number badge and serial number badge (examples shown on next page). If you have any issues finding these numbers or have any other questions, please do not hesitate to contact us.

The affected P4 replacement protectors were shipped between January 1, 2016 and October 11, 2016, have a serial number between SN386188 and SN430334, and have one of the following item numbers: 6022-18-R, 6022-85-R, 6033-26-R, or 6033-48-R. The affected replacement protectors were shipped with serial number labels (see example on last page), but these may or may not have been removed during installation. Therefore, if the label has been removed, the best way to determine whether your replacement protector is affected is to reference the ship date.

### **Instruction for Field Repair:**

If your products are affected, at your request, we will send you a replacement UL-listed P4 protector free of charge that will fix this issue. Please call Process Technology (+1)440-974-1300 or contact your inside sales representative at your earliest convenience to initiate the exchange process.

Estimated Time: 15 Minutes

## Field Service Bulletin – FSB cont.

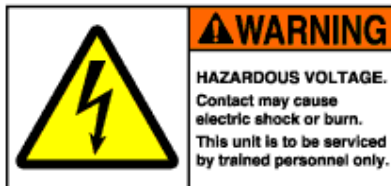
1. Locate the heater's or the replacement thermal protector's serial number tag and confirm it meets the criteria listed at the top of the bulletin

### Note:

- On HX-Series heaters noted to the left, the serial number tag is located inside the heater's electrical junction box (Ref: Figure 1).
- On Metal heaters, the serial number tag is located on the exterior side of the junction box.
- On replacement thermal protectors, the serial # tag is located on the Warning label at the end of the protector's wire lead.



2. Remove power to the heater.



***Before servicing any electrical equipment, be sure you have followed standard safety procedures for your facility. Make sure power is off and the electrical service disconnect is secured in the off position.***

3. Remove the heater's junction box cover and retain for reuse.
4. Mark the insulation of the thermal protector leads at the point they exit the protector-well within the Heater Head. This mark will be used as a reference later to ensure proper reinsertion depth.



**Failure to follow this procedure may result in a fire or heater burn-out.**

5. Remove wire nuts secured to the thermal protector leads, noting where the wires are to be reconnected. Retain Wire Nuts for reuse.
6. Remove the electrical insulation putty from the thermal protector and retain for reuse.

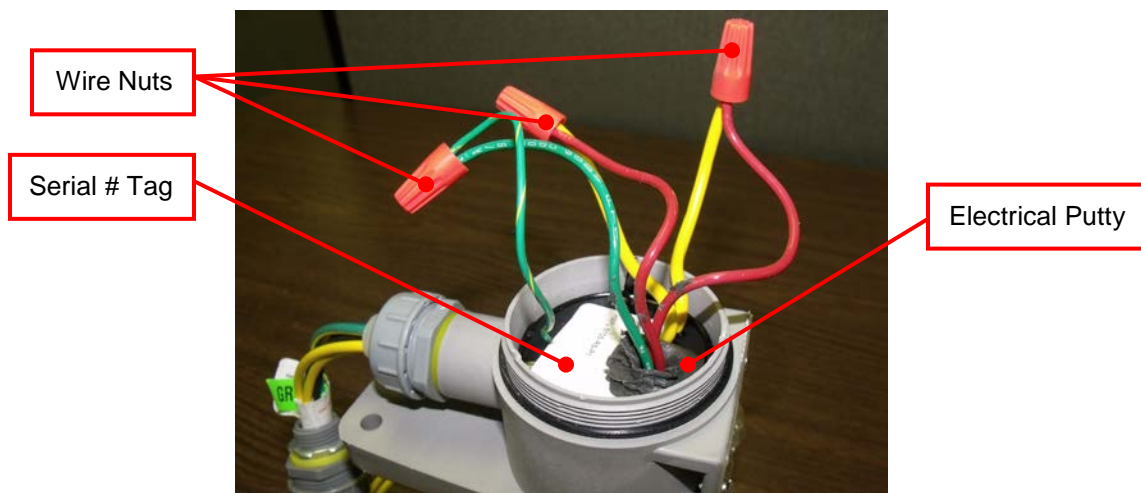


Figure 1: Typical Junction Box  
(actual box and thermal protector wire  
colors may vary)

## **Field Service Bulletin – FSB cont.**

7. Gently remove the thermal protector by pulling the wires straight up and out of the protector-well.  
Note: On Fluoropolymer (PTFE) series heaters, special care may be needed as to not damage the protector-well. **If you encounter difficulty removing the thermal protector, please contact the Process Technology Technical Service Department for assistance.**
8. Before reinstalling the new thermal protector, check that the heater's protector-well is dry by inserting a long wooden dowel or similar suitable device. If moist, thoroughly dry the protector-well using cloth swabs or other similar means. Ensure no material is left in the well. Once dry, ensure that no further moisture is seeping into the protector-well. If moisture reoccurs, **DO NOT RETURN THE HEATER TO SERVICE.** Contact the PROCESS TECHNOLOGY Customer Service Department for more information.
9. Insert the replacement thermal protector into the dry, empty protector-well until it "bottoms out". Verify by feeling it through the protector tube or by using a push rod to ensure it is at the bottom of the well. The marks taken in Step 4, lined up with the top of the protector-well, will also indicate proper placement. If replacing a bad thermal protector, transfer the marks to the new protector. If the marks line up above the top of the protector-well, there is a possibility it has not been fully inserted.  
  
**Note: Using the heater without the thermal protector in the proper position will result in an unsafe operating condition. The Protector MUST be located at the bottom of the protector-well.**
10. Reinstall the connecting wires using the saved wire nuts.
11. Reapply the electrical insulation putty. Seal the opening of the protector-well to prevent moisture from entering.
12. Examine and, if necessary, replace the Heater Head Cover, Head Gasket and, if provided, cover hold-down screws to ensure a moisture tight seal when reinstalled.
13. Reinstall the above assembly.
14. Examine conduit connection at heater head and repair, if necessary, to provide a liquid tight connection.
15. Return heater to normal operating service (reconnect power).

**If you encounter difficulty performing this repair, please contact the Technical Sales Department at Process Technology for assistance.**

**Field Service Bulletin – FSB cont.**

Approval of Field Service Bulletin		FSB 170302	
Signature		Date	Approval
Field Service Manager:			<input type="checkbox"/> Yes / <input type="checkbox"/> No
Engineering:			<input type="checkbox"/> Yes / <input type="checkbox"/> No
Quality:			<input type="checkbox"/> Yes / <input type="checkbox"/> No
Production:			<input type="checkbox"/> Yes / <input type="checkbox"/> No
<b>Comments:</b>			