



## Hale Products, Inc. Service Bulletins

Bulletin#:  Revision#:  Date:

Product Type Covered:

<input type="checkbox"/> Vehicle Mounted Pump	<input type="checkbox"/> Valve
<input type="checkbox"/> Portable Pump	<input type="checkbox"/> Refueler Pump
<input type="checkbox"/> Pump End	<input type="checkbox"/> CAFS
<input type="checkbox"/> Foam Proportioners	<input checked="" type="checkbox"/> Parts and/or Accessory

Keywords:

### Product Covered:

### Problem Statement:

Written by:  Date:

Approved by:

Customer Service Designee:

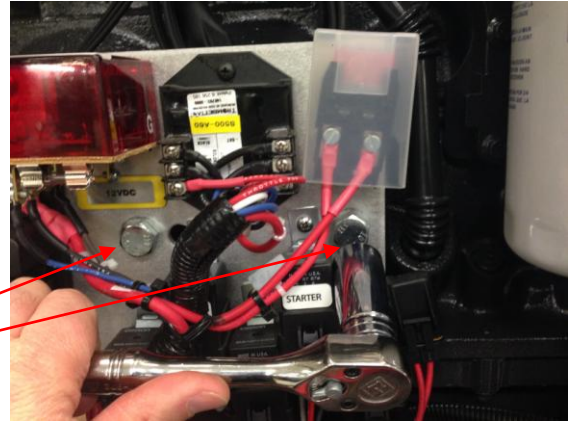
### Body of the Bulletin

A translucent red timer relay is mounted to the relay panel of the RIV pump. The purpose of this safety device is to shut the engine down if the pump does not see pressure for a specified amount of time. It can be subject to cracking near the mounting holes on the face mounted to the panel. This can be observed from either the outside or by shining a flashlight through the housing onto the mounting face. If a cracked housing is not addressed, moisture could enter the housing and cause a malfunction. The cracked housing is also not as strong and can be knocked off easily. Without this timer relay operating properly, the pump could inadvertently run dry, causing the seals to overheat and fail. The automatic shut down is a contract requirement. A replacement timer relay kit can be ordered from Hale as part number 200-1800-10-0. Use only Loctite 425 threadlocker for plastics upon replacement. See below for replacement instructions.

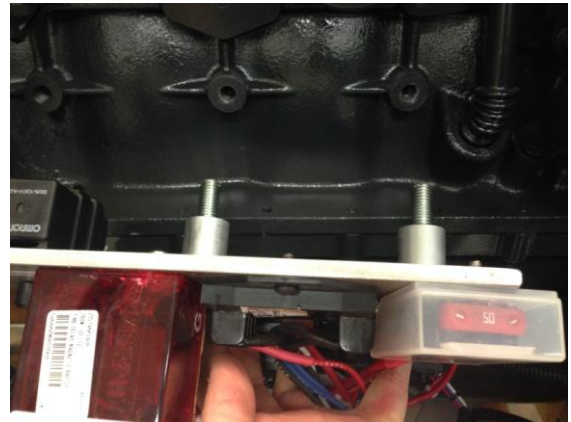


1. REMOVE POWER FROM UNIT BEFORE BEGINNING.
2. Use 19mm wrench to remove two bolts from relay panel. Be careful to keep spacers behind panel from falling out of reach.

Bolts

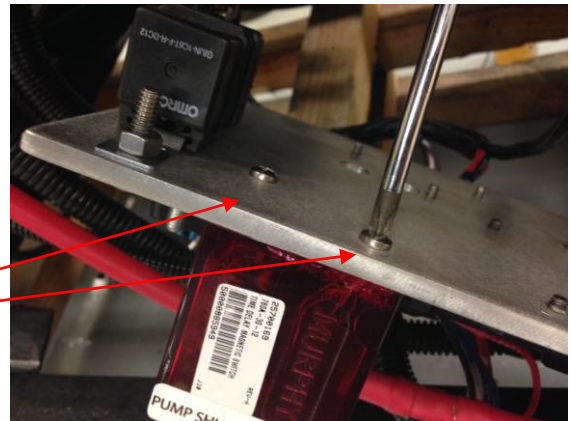


3. Remove panel from engine to access relay housing mounting screws.



4. Use Phillips head screwdriver to remove two mounting screws from relay housing.

Mounting screws



5. Use flat head screwdriver to remove wire leads from relay.



6. Replace wire leads onto new relay.

NO = Brown

NC = (Blank)

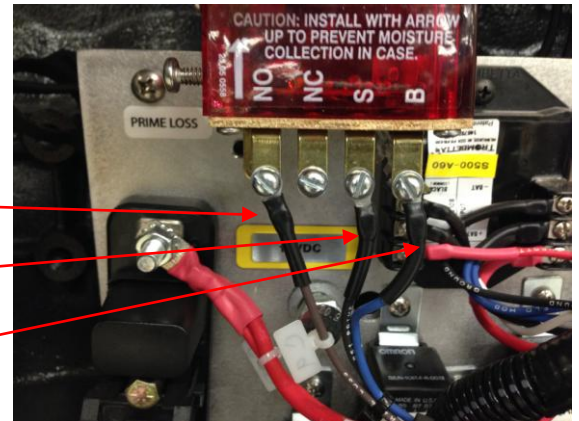
S = Black

B = Blue

Brown

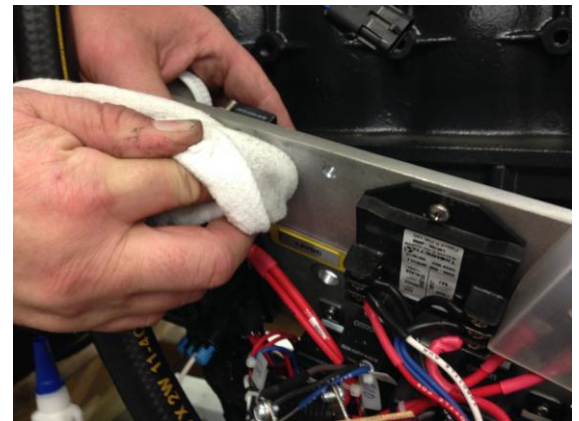
Black

Blue



7. Clean panel mounting surface thoroughly with alcohol.

Wipe mounting surface of relay housing with a clean rag.



8. Apply 1.5" long strip of VHB double sided tape to relay between mounting holes as shown. Press on firmly.

Remove protective paper to expose second adhesive side.



9. Apply Loctite 425 onto threads of 10-24 x 1/2" plastic screw.





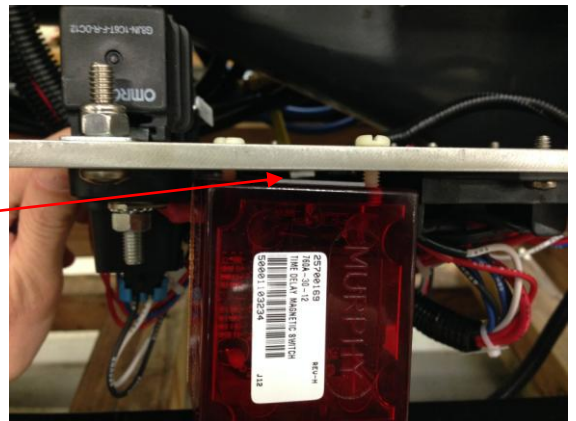
10. Insert screw from rear of panel into bottom mounting hole as shown, and thread into relay housing 1-2 threads.

Take care not to allow double sided tape to contact panel.



11. Apply Loctite 425 onto second plastic screw, and thread into top relay mounting hole 1-2 threads keeping relay housing offset from panel as shown.

Gap



12. Firmly press relay housing onto panel.



13. Relay housing should be fixed to panel.

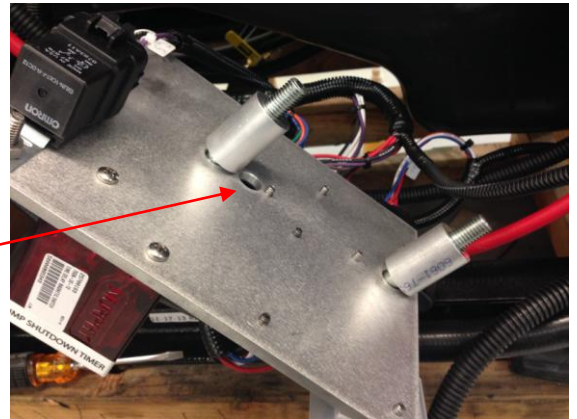


14. Tighten screws alternately until both are snug. Do not fully tighten one screw before starting to tighten the other. Do not over tighten beyond hand tight.



15. Reinsert bolts into panel, and reposition spacers onto bolts.

Middle hole is skipped



16. Thread bolts into engine block, and tighten securely.

