



Technical Service Bulletin

Technical Service Bulletin: TSB190135	Released Date: 26-Feb-2020
HGJAA, HGJAD Relay Kit Solution for Fuel Pump Losing B+	

HGJAA, HGJAD Relay Kit Solution for Fuel Pump Losing B+

Warranty Statement

The information in this document has no effect on present warranty coverage or repair practices, nor does it authorize TRP or Campaign actions.

Contents

Product Affected

- HGJAA Spec A-M
- HGJAD Spec A-M

Issue

Symptom:

- Fault Code 36 – “Generator Set Stopped Without Fault Condition” and/or crank but no start
- B+ to the fuel pump is not present

Root Cause:

- Elevated temperatures within the generator set enclosure can cause a positive temperature coefficient (PTC) device within the control board to trip and cut off voltage to the fuel pump.
- The fuel pump will fail to operate once it loses voltage, thus resulting in a fault code 36 shutdown. Attempts to immediately restart the generator set will likely result in a crank but no start if voltage to the fuel pump has not been restored.
- The PTC device is functioning properly and is intended to cut off voltage at elevated temperatures. The device will reset, and voltage to the fuel pump will be restored once the generator set cools back down.
- In the situation described above, replacing the fuel pump and/or the control board will not solve the root cause of the issue. The customer will likely experience the same failure mode again in the future.

Verification/Confirmation

Before following the resolution given in this bulletin, it is important to perform the steps below:

- Follow all fault code 36 troubleshooting steps given in the service manual.
- Perform a hot air recirculation test and make the necessary adjustments to eliminate the recirculation of hot air.
 - If hot air recirculation is not corrected, the installation of this relay kit will not be effective, and the customer will likely experience generator set shutdowns again.
- If the generator set is still shutting down on fault code 36, check to see if voltage is being sent to the fuel pump.
 - If B+ to the fuel pump is not present, proceed to the resolution section of this bulletin.
 - If the fuel pump is receiving B+, the relay kit will likely not be helpful, and the root cause of the shutdowns is probably not the PTC device. Further troubleshooting will be required.

Resolution

If proper troubleshooting has been completed and it has been determined that the PTC device is tripping, it will be necessary to install the plug-n-play relay kit shown below in Figure 1. The relay kit will help alleviate the load from the fuel pump off the control board and will reduce the chance of the PTC device cutting off voltage to the fuel pump. Refer to Figure 2 below for the wiring diagram with the relay kit installed.



Figure 1, Relay Kit

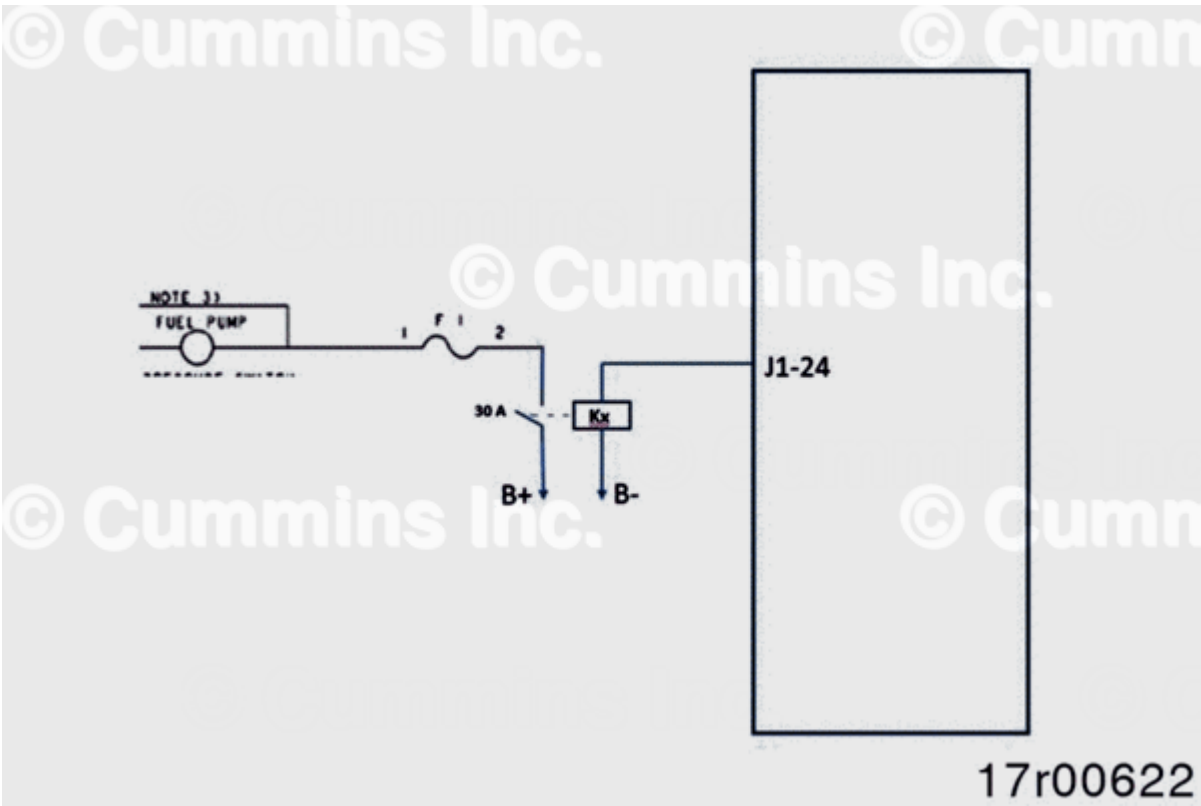


Figure 2, Wiring Diagram with Relay Kit Installed

Service Instructions

- Order the relay kit, part number A060U906, through the aftermarket channel and follow the included installation instructions. The installation instructions can also be found on QSOL under the literature number A061H570.

Service Parts Availability

Service parts are available. See Table 1 for part numbers.

Table 1, Service Parts	
Part Description	Part Number
Relay Kit	A060U906

Document History

Date	Details
2019-7-18	Module Created
2020-2-19	Non-Product Problem Solving (PPS)

Last Modified: 26-Feb-2020
