1 7 01-14

Service Information Bulletin

SUBJECT	DATE
SPN 168/FMI 0 and 1 (IPPC)(GHG14)	July 2014

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0084	DD Platform	SPN 168/FMI 0 - GHG14	These are new diagnostics for a new section.
		SPN 168/FMI 1 - GHG14	

13400 Outer Drive, West, Detroit, Michigan 48239-4001
Telephone: 313-592-5000
www.demanddetroit.com

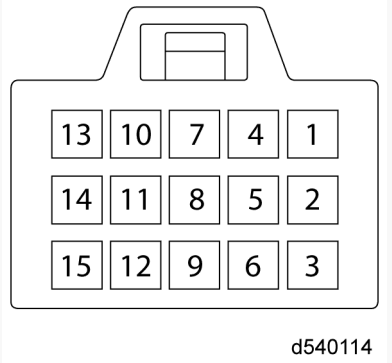
2 SPN 168/FMI 0 - GHG14

Battery Plus Terminal 30 Voltage too high

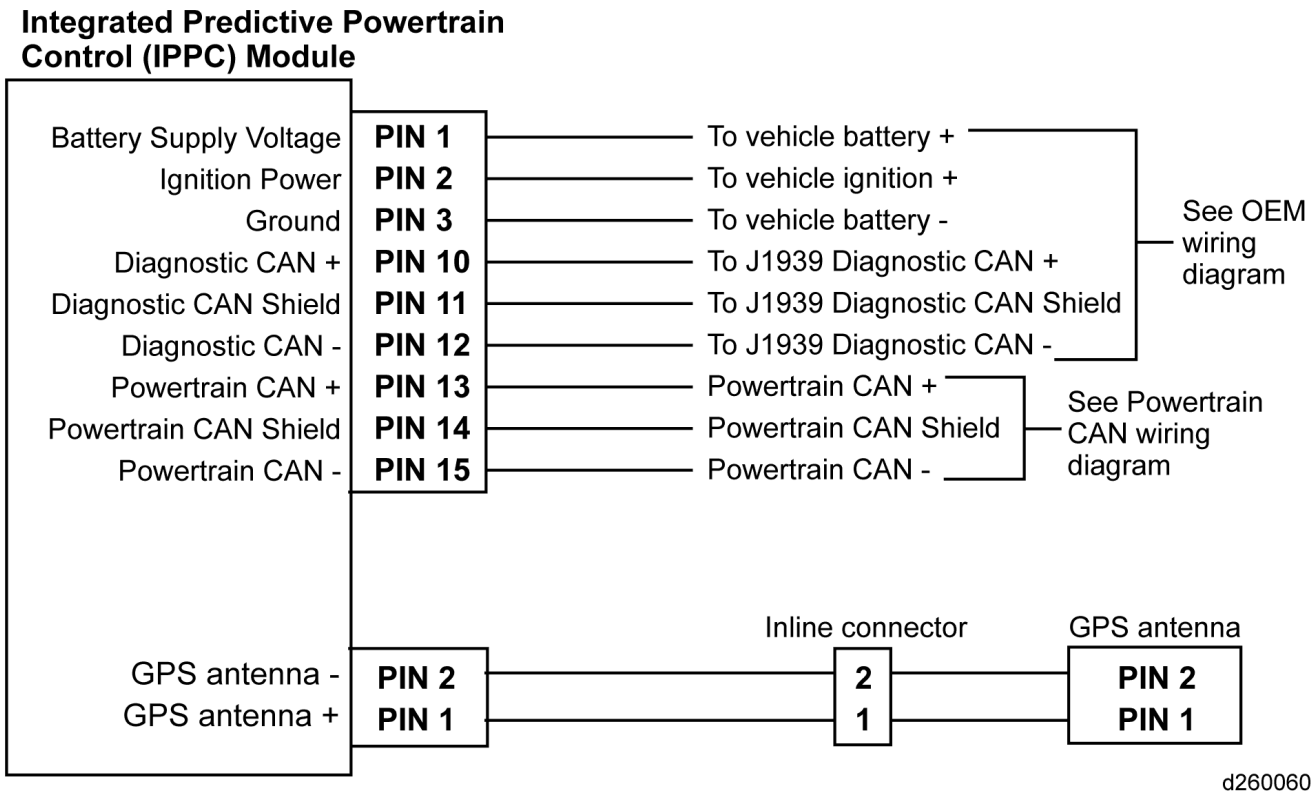
Table 1.

SPN 168/FMI 0	
Description	This fault code sets when the Integrated Predictive Powertrain Control (IPPC) module detects that the voltage on pin 1 is too high.
Monitored Parameter	Battery voltage
Typical Enabling Conditions	Ignition on
Monitor Sequence	Always
Execution Frequency	Always
Typical Duration	2 seconds
Dash Lamps	None
Engine Reaction	None
Verification	Start and idle the engine

Table 2.



Front Looking into the Pins on the Harness



Check as follows:

1. Connect DiagnosticLink ®.
2. Turn the ignition ON (key ON, engine OFF).
3. Check for the high voltage code in other modules. Is code SPN 168/FMI 0 present in the other modules?
   a. Yes; refer to OEM literature and diagnose the high battery voltage concern.
   b. No; refer to OEM literature and replace the IPPC module. Verify repair.

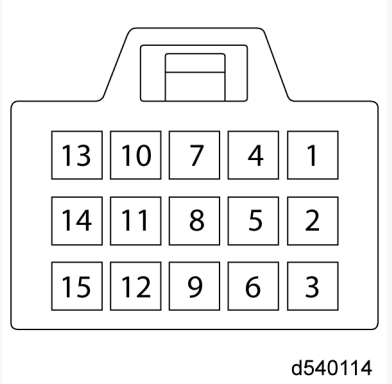
3 SPN 168/FMI 1 - GHG14

Battery Plus terminal 30 Voltage too low

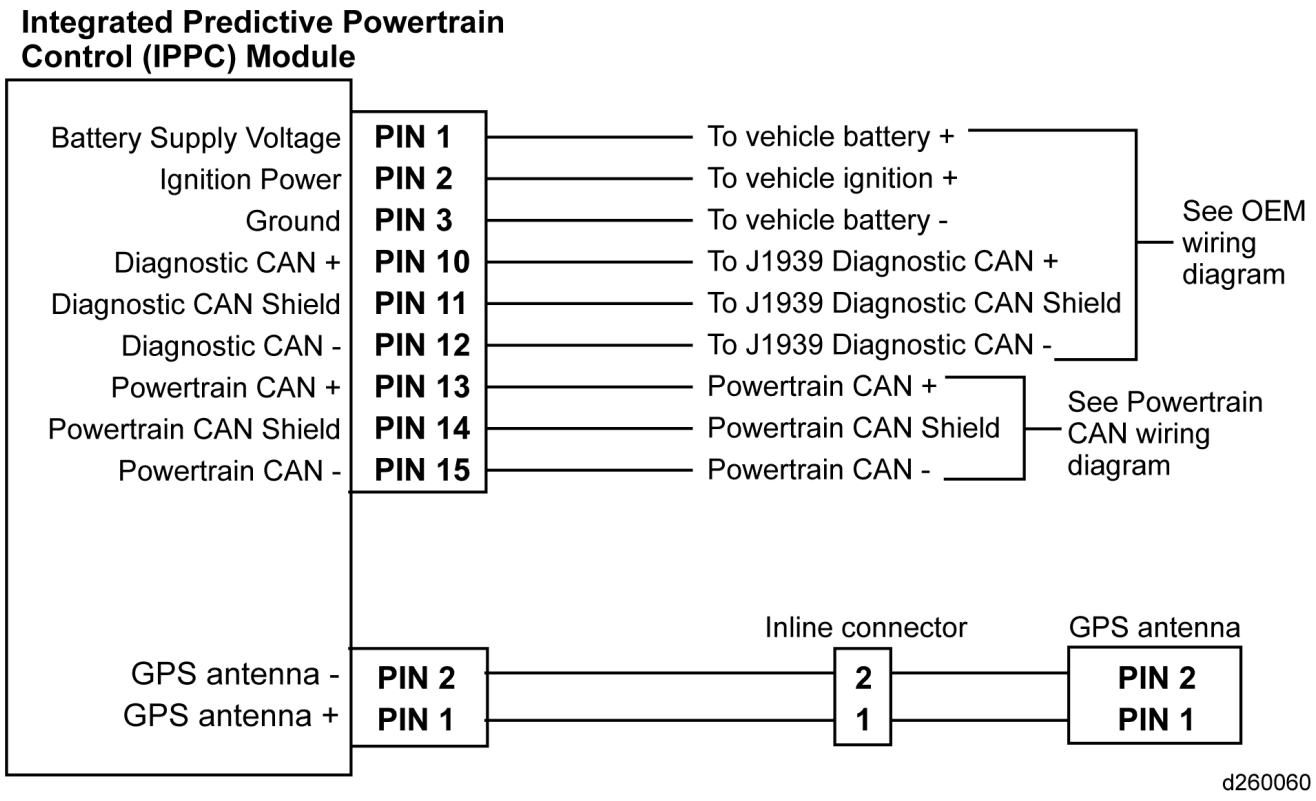
Table 3.

SPN 168/FMI 1	
Description	This fault code sets when the Integrated Predictive Powertrain Control (IPPC) module detects that the battery voltage is too low.
Monitored Parameter	Battery voltage
Typical Enabling Conditions	Ignition on
Monitor Sequence	Always
Execution Frequency	Always
Typical Duration	2 seconds
Dash Lamps	None
Engine Reaction	None
Verification	Start and idle the engine

Table 4.



Front Looking into the Pins on the Harness



Check as follows:

1. Check for code SPN 168/FMI 1 in other modules. Is code SPN 168/FMI 1 also set in any other modules?
   a. Yes; refer to OEM literature and diagnose the low battery voltage concern.
   b. No; Go to step 2.
2. Turn the ignition OFF.
3. With the ignition off, disconnect the IPPC electrical connector.

WARNING: PERSONAL INJURY

To avoid injury before starting and running the engine, ensure the vehicle is parked on a level surface, parking brake is set, and the wheels are blocked.

WARNING: ENGINE EXHAUST

To avoid injury from inhaling engine exhaust, always operate the engine in a well-ventilated area. Engine exhaust is toxic.

4. Start the engine.
5. Measure the voltage between pin 1 and pin 3 of the IPPC electrical connector. Is the voltage lower than 10.5 volts?
   a. Yes; Go to step 6.
   b. No; replace the IPPC module. Verify repair.
6. Measure the voltage between pin 1 of the IPPC electrical connector harness side and ground. Is the voltage greater than 10.5 volts?
   a. Yes; refer to OEM literature and repair the IPPC ground circuit to Pin 3 of the IPPC electrical connector.
   b. No; refer to OEM literature and repair the IPPC battery power circuit to pin 1 of the IPPC electrical connector.

