> Constellation
> Heritage
> 4700 Models

4800 Models
> 4900 Models

5900 Models
> 6900 Models

Western Star Service Bulletin

Description of Revisions: *This bulletin replaces the version dated June 2013. 4700 vehicles are added to the model list.*

General Information

When ServiceLink or other diagnostic tools are used to monitor fault codes, there may be active faults with MID 37 that are nuisance faults. The RX module measures resistance or voltage of nine different vehicle sensors. It then converts this data into SAE J1708/J1587 format, and broadcasts it over the vehicle J1708/J1587 databus.

The following sensor inputs may be connected to the RX module:

- pyrometer thermocouple;
- ammeter shunt;
- fuel level sensor;
- up to six other temperature sensors.

The RX module can sense an open circuit or a disconnected sensor for each input *except the ammeter shunt*. The RX module reports these fault conditions on the J1587 databus. See **Table 1**.

NOTE: Some vehicles do not use all nine sensors. For sensor inputs that are not used on the vehicle, open-circuit fault codes for those inputs should be treated as nuisance faults. For sensor inputs that are used on the vehicle, open-circuit fault codes for those inputs should be treated as actual faults to be repaired as necessary.

IMPORTANT: In 2010, MID 37 replaced MID 41 to transmit RX module fault codes.

Use **Table 1** to identify J1587 fault codes reported by the RX module for EPA 2007 vehicles, and earlier.

Use **Table 2** to identify J1587 fault codes reported by the RX module for EPA 2010 vehicles, and later.

RX Module Fault Codes, EPA 2007 and Earlier			
J1587 Fault Code			Fault Code Description
MID	PID	FMI	
41	077	05	Forward-Rear Axle Temperature Sensor — Open Circuit
41	078	05	Rear-Rear Axle Temperature Sensor — Open Circuit
41	096	05	Fuel Level Sensor — Open Circuit
41	120	05	Brake Saver Temperature Sensor — Open Circuit
41	173	05	Pyrometer Thermocouple — Open Circuit*
41	177	05	Transmission #1 Oil Temperature Sensor — Open Circuit
41	373	05	Center-Rear Axle Temperature Sensor — Open Circuit
41	418	05	Transmission #2 Temperature Sensor — Open Circuit

* This fault will only occur after the pyrometer voltage is below the minimum (or open circuit) for 4 minutes after the ignition is turned on. This is to avoid faults when the exhaust temperature is low right after the engine is started.

Table 1, RX Module Fault Codes, EPA 2007 and Earlier

RX Module Fault Codes, EPA 2010 and Later			
J1587 Fault Code			Fault Code Description
MID	PID	FMI	
37	077	05	Forward-Rear Axle Temperature Sensor — Open Circuit
37	078	05	Rear-Rear Axle Temperature Sensor — Open Circuit

RX Module Fault Codes, EPA 2010 and Later			
J1587 Fault Code			Fault Code Description
MID	PID	FMI	
37	096	05	Fuel Level Sensor — Open Circuit
37	114	05	Ammeter — Open Circuit
37	120	05	Brake Saver Temperature Sensor — Open Circuit
37	171	05	Outside Air Temperature — Open Circuit
37	173	05	Pyrometer Thermocouple — Open Circuit*
37	177	05	Transmission #1 Oil Temperature Sensor — Open Circuit
37	373	05	Center-Rear Axle Temperature Sensor — Open Circuit
37	418	05	Transmission #2 Temperature Sensor — Open Circuit

* This fault will only occur after the pyrometer voltage is below the minimum (or open circuit) for 4 minutes after the ignition is turned on. This is to avoid faults when the exhaust temperature is low right after the engine is started.

Table 2, RX Module Fault Codes, EPA 2010 and Later

Warranty

This is an information bulletin only; warranty does not apply.