

# SERVICE BULLETIN



M-1206

April 9, 2007

## 2007 SPORTSTER ELECTRICAL DIAGNOSTIC MANUAL UPDATE

### Purpose

The purpose of this service bulletin is to inform you of updates and corrections to the 2007 Sportster Electrical Diagnostic Manual (Part No. 99495-07).

### Motorcycles Affected

All 2007 Sportster models.

### Required Dealer Action

#### NOTES

- Figure, table and page number references in the following steps are for the English version of the 2007 Sportster Electrical Diagnostic Manual (Part No. 99495-07). For translated versions, figure, table and page numbers listed in this bulletin may differ.
- For the figures, tables and flow charts in this bulletin, you may wish to photocopy each page of this bulletin separately, cut out the items and paste them into the appropriate locations in your Electrical Diagnostic Manual.

Make the following corrections/changes to your 2007 Sportster Electrical Diagnostic Manual (Part No. 99495-07):

1. See Table 1-1, page 1-1. Change third item in left column from "Handlebar start switch" to "Handlebar start switch, clutch switch or neutral switch".
2. See Table 1-4, page 1-20. Add a row in the table and insert the following: under "ITEM", insert "ECM". Under "DRAW IN MILLIAMPS", insert "1.0".
3. See 3.7 SERVICE/EMERGENCY FUNCTIONS on page 3-14. Step 3 under TRANSPORT MODE should read as follows: "With an assigned fob within range, turn the ignition/headlamp key switch from IGNITION to ACCESS."
4. Rename "Turn Signal Error 2A" on page 3-41 to read, "Turn Signal Error 3A".
5. Replace page 3-42 (Turn Signal Error 3A (Part 1 of 4)) with "Turn Signal Error 2A" and its flow chart on page 5 of this document.
6. Replace page 3-43 (Turn Signal Error 3A (Part 2 of 4)) with "Turn Signal Error 2B (Part 1 of 3) through (Part 3 of 3)" and their flow charts on pages 6 through 8 of this document.

7. Rename "Turn Signal Error 3A (Part 3 of 4)" on page 3-44 to read, "Turn Signal Error 2C".
8. Rename "Turn Signal Error 3A (Part 4 of 4)" on page 3-45 to read, "Turn Signal Error 2D".
9. Replace page 3-47 (Turn Signal Error 5A) with "Turn Signal Error 5A" and its flow chart on page 9 of this document.
10. Replace page 3-48 (Turn Signal Error 6A) with "Turn Signal Error 6A" and its flow chart on page 10 of this document.
11. Replace Table 4-22 on page 4-69 with the table below:

Table 4-22. ET Sensor Table

TEMP °C	RESISTANCE	COLD VOLTAGE	HOT VOLTAGE	TEMP °F
-20	98936	4.9		-4
-10	56102	4.8		14
0	32957	4.5		32
10	20000	4.3		50
20	12511	3.9		68
25	10000	3.6		77
30	8045	3.4		86
40	5304	2.9		104
50	3577	2.4		122
60	2470	1.9		140
70	1739	1.5		158
80	1246	1.2	4.0	176
90	907.7	0.9	3.7	194
100	671.2		3.4	212
Scaling changes between 80°C and 90°C.				

#### IMPORTANT NOTE

In the interest of preserving customer safety and satisfaction, always check for outstanding recalls whenever any motorcycle is brought into your dealership for either maintenance or service.

ROUTING	SERVICE MANAGER	SALES MANAGER	PARTS MANAGER	LEAD TECHNICIAN	TECHNICIAN NO. 1	TECHNICIAN NO. 2	TECHNICIAN NO. 3	TECHNICIAN NO. 4	RETURN THIS TO
INITIAL HERE									

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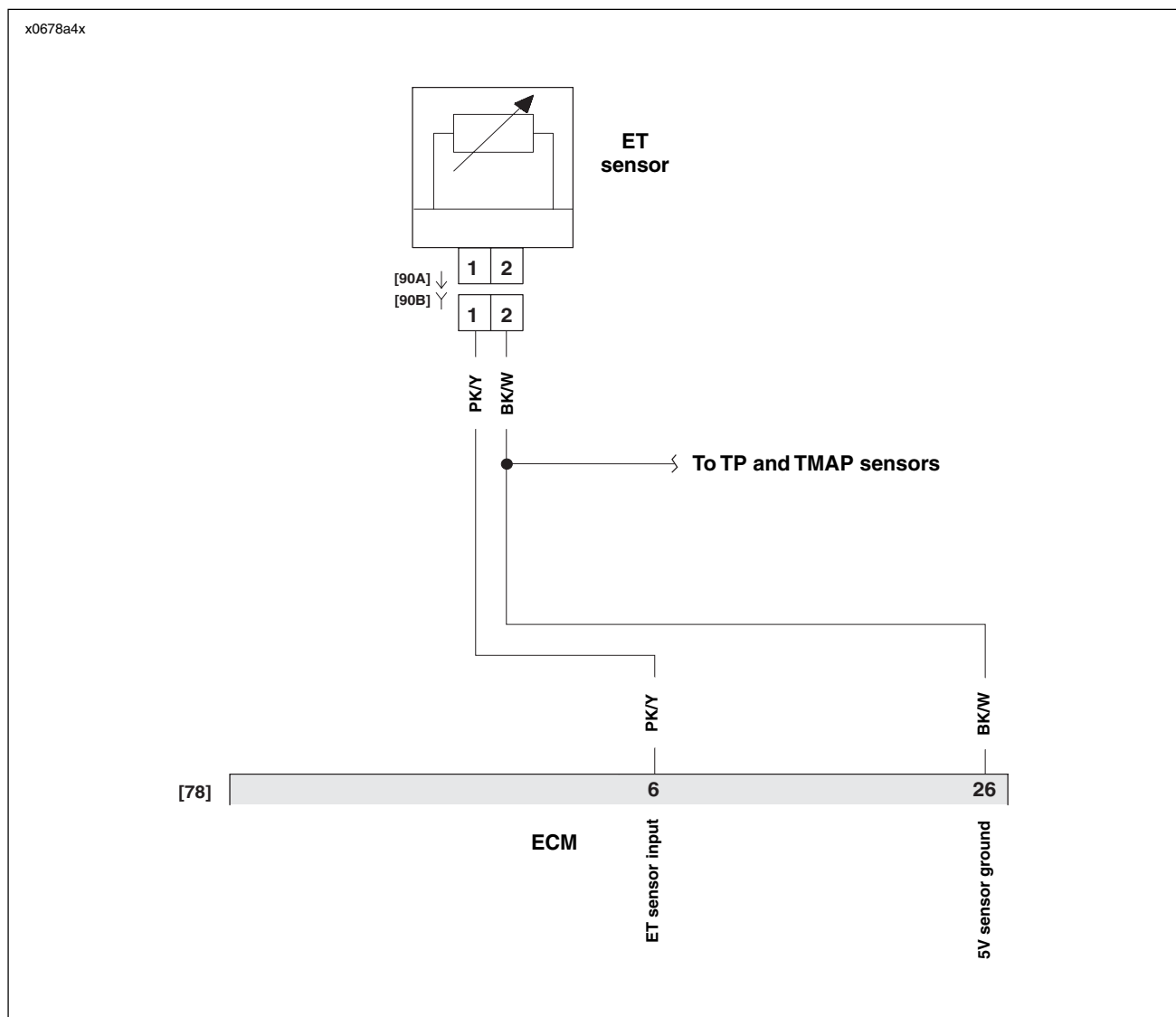
# **NOTE**

Several running changes were made to the electrical system of 2007 XL models produced on or after 1/31/2007 (see service bulletin M-1203 for a detailed list of changes). One of the changes moved the Engine Temperature (ET) sensor connector [90] from the engine sub-harness to the main harness. The changes listed in the next step apply **only** to vehicles produced on or after 1/31/2007.

12. Make the following changes on page 4-70:

- Replace Figure 4-40 with the figure below.
- Delete the last row ([145] Engine Harness) from Table 4-23.

13. See Test 4.19 (Part 1 of 2) on page 4-71. Correct the last sentence in the top flow chart box to read, "Resistance between 8.0K and 20K ohms?"
14. See Test 4.19 (Part 2 of 2) on page 4-72. Correct the last sentence in the next to bottom flow chart box on the left side to read, "Again, with sensor at room temperature (60-90°F or 16-32°C), is resistance between 8.0K and 20K ohms?"

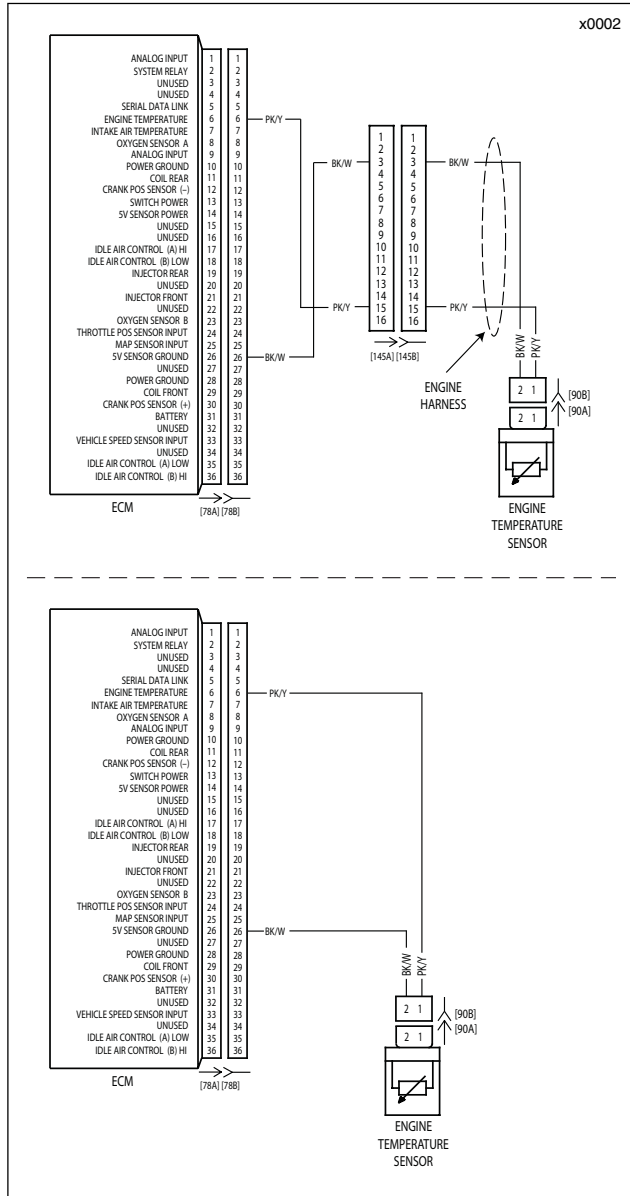


**Figure 4-40.ET Sensor Circuit**

# NOTE

The change listed in the next step applies **only** to vehicles produced on or after 1/31/2007.

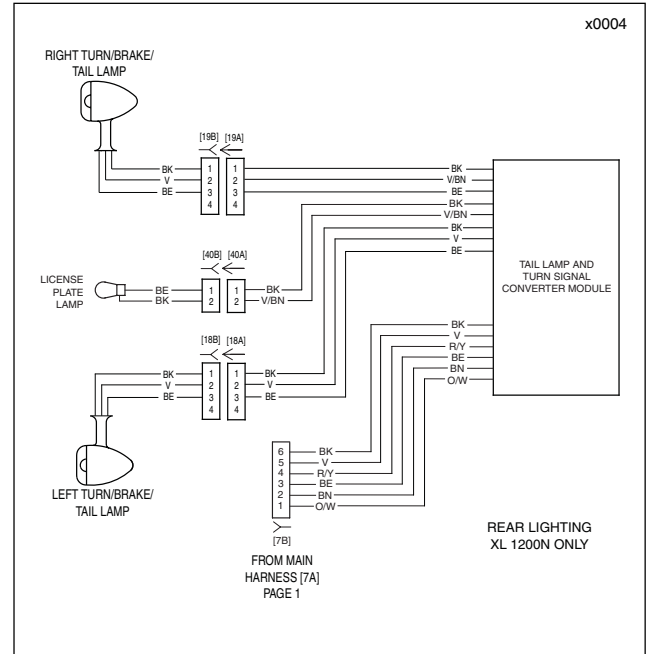
- Change the Engine Management schematic on page 5-41 to reflect the change shown in Figure 1 below.



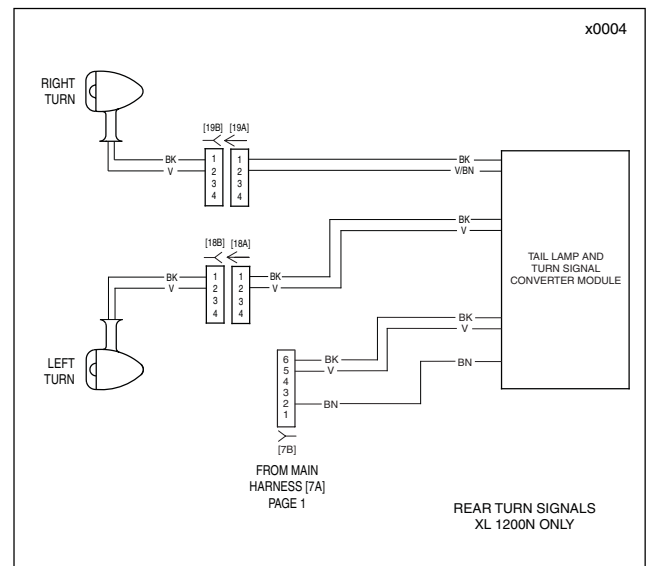
**Figure 1. Engine Temperature (ET) Sensor Circuit:  
Old (top) and New (bottom)**

- Make the following changes to the schematics in chapter 5:

- Change the description of the schematic in the bottom right corner of page 5-47 from "REAR LIGHTING" to "REAR LIGHTING, ALL EXCEPT XL 1200N".
- Add the schematic in Figure 2 below to the schematics on page 5-47.
- Change the description of the schematic in the bottom right corner of page 5-53 from "REAR TURN SIGNALS" to "REAR TURN SIGNALS, ALL EXCEPT XL 1200N".
- Add the schematic in Figure 3 below to the schematics on page 5-53.



**Figure 2. XL 1200N Rear Lighting (add to page 5-47,  
2007 Sportster Electrical Diagnostic Manual)**



**Figure 3. XL 1200N Rear Turn Signals (add to page 5-53,  
2007 Sportster Electrical Diagnostic Manual)**

17. Replace Figure 2-17 on page 2-22 with Figure 2-17 below.

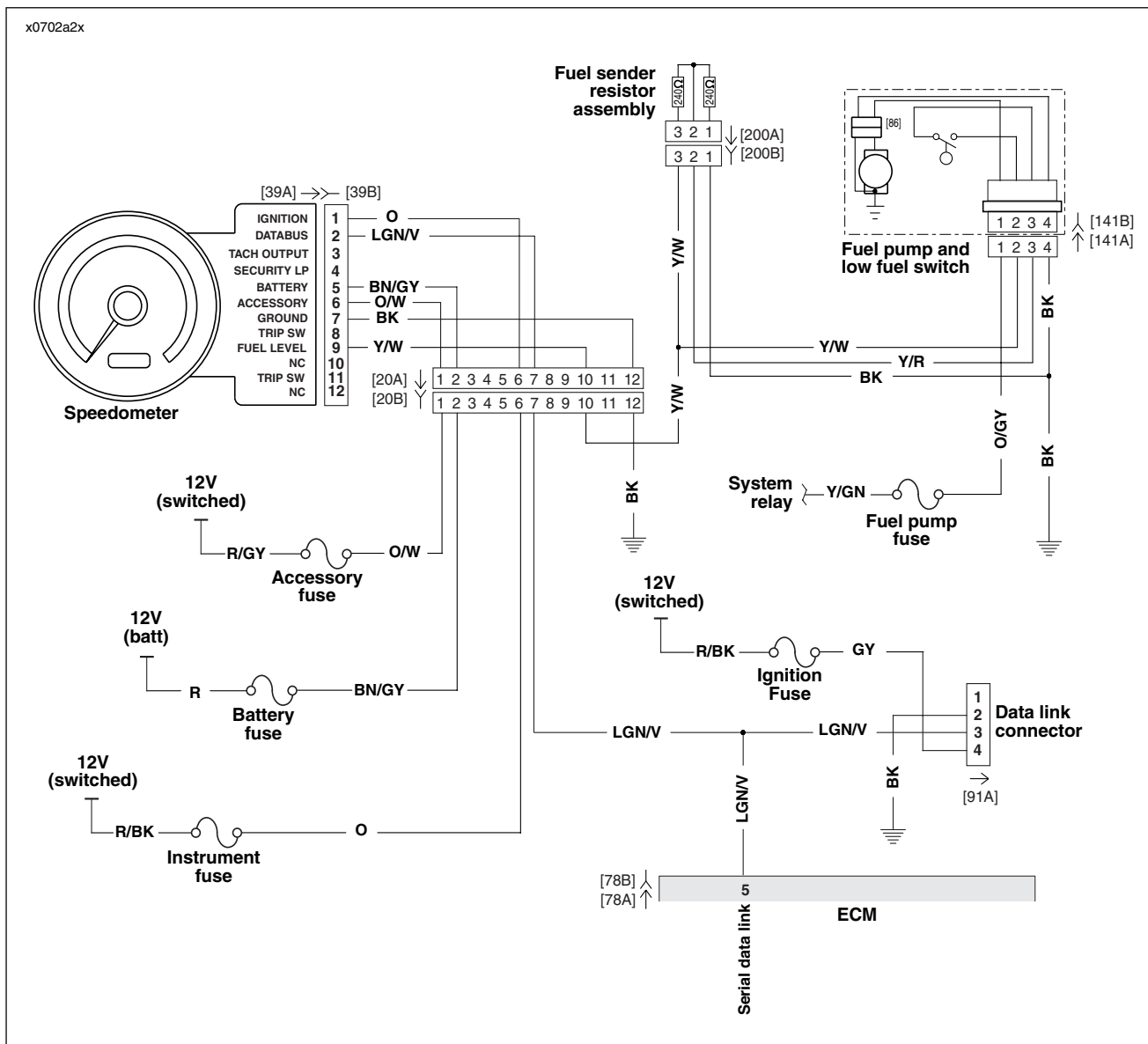
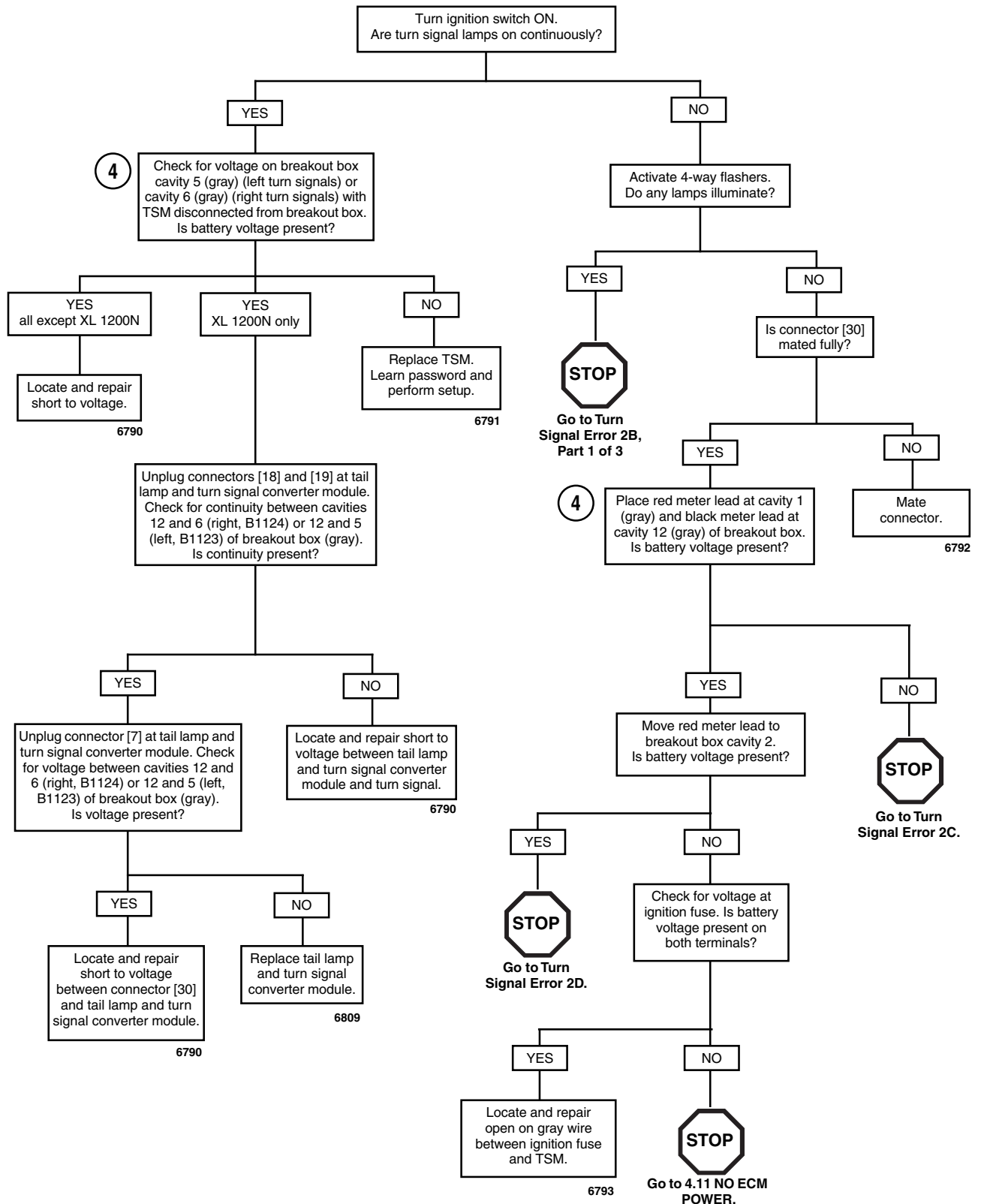


Figure 2-17.Fuel Sender Circuit

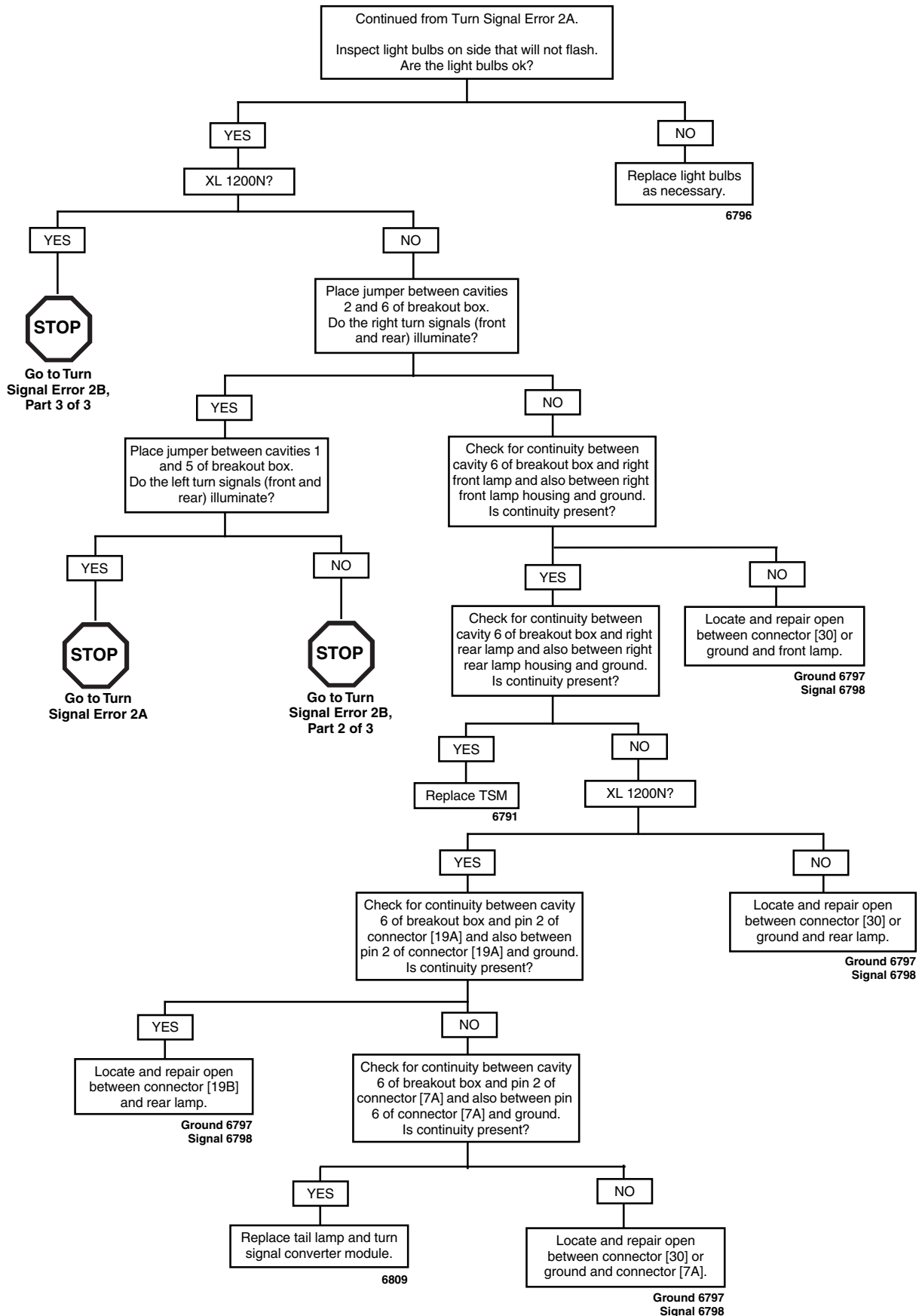
## Turn Signal Error 2A

**WILL NOT FLASH, 4-WAY FLASHERS INOPERABLE: DTC: B1121, B1122, B1141**



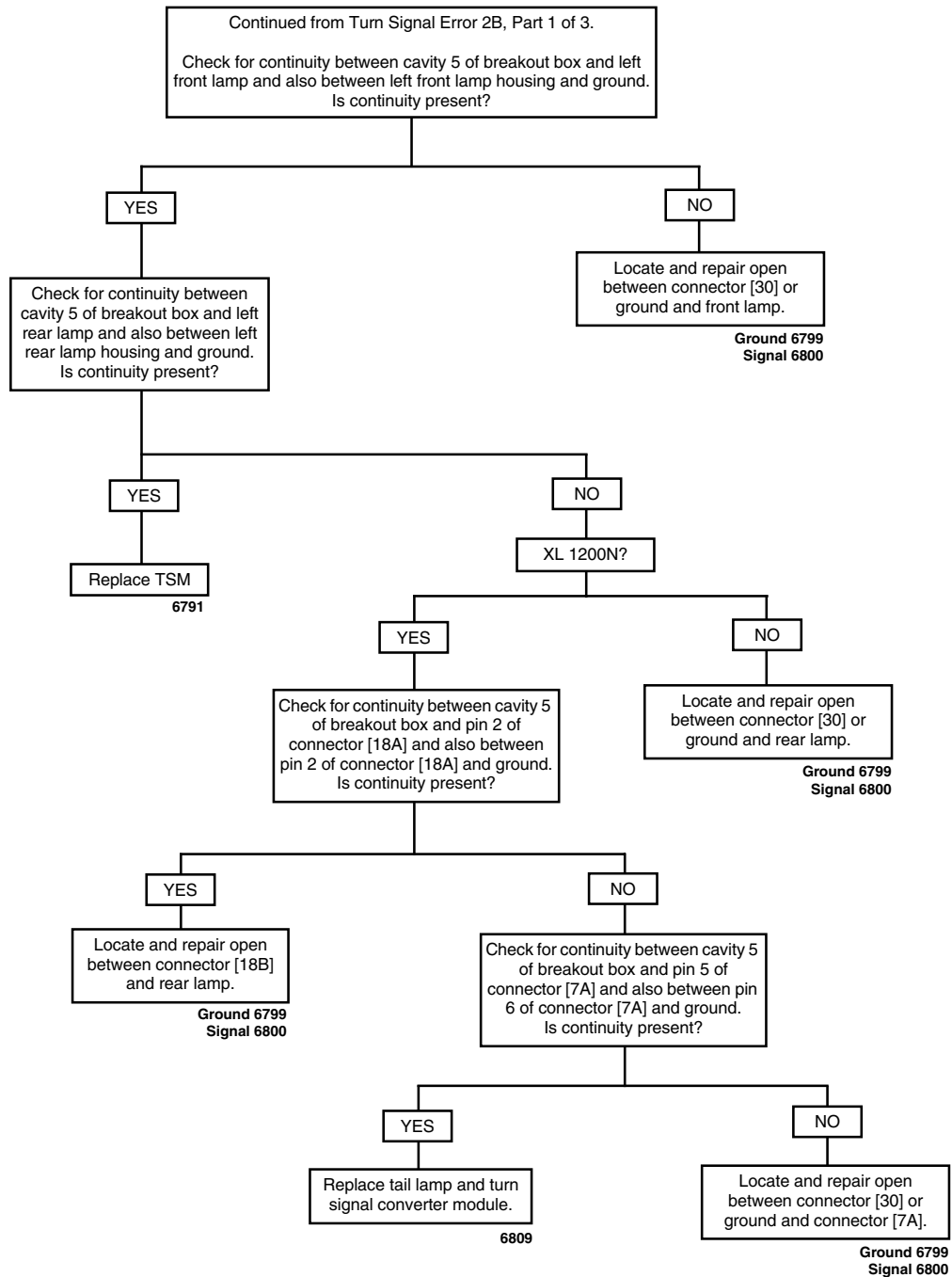
## Turn Signal Error 2B, Part 1 of 3

WILL NOT FLASH, 4-WAY FLASHERS INOPERABLE: DTC: B1121, B1122, B1141



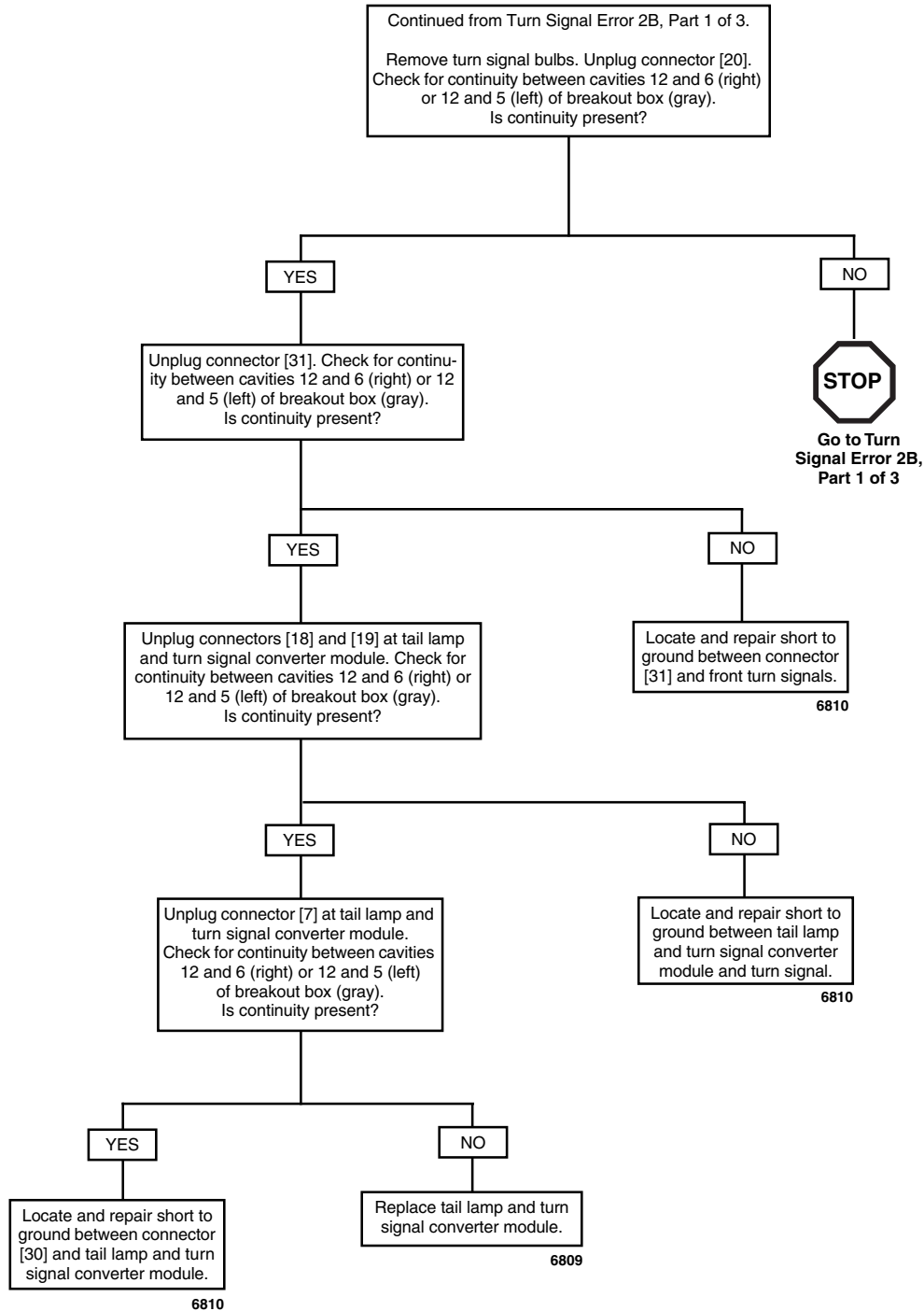
## Turn Signal Error 2B, Part 2 of 3

**WILL NOT FLASH, 4-WAY FLASHERS INOPERABLE: DTC: B1121, B1122, B1141**



## Turn Signal Error 2B, Part 3 of 3

**WILL NOT FLASH, 4-WAY FLASHERS INOPERABLE: DTC: B1121, B1122, B1141**

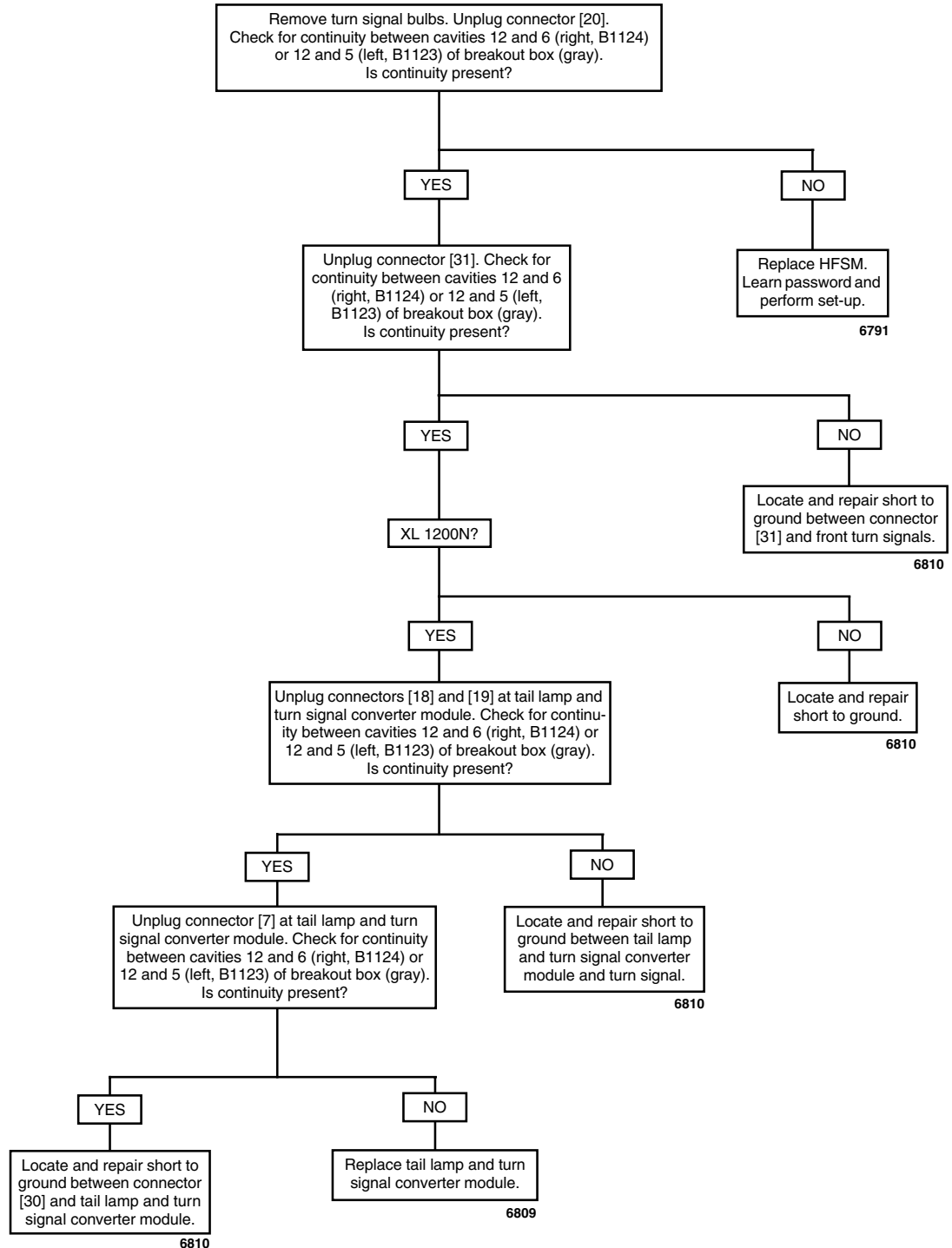




## Turn Signal Error 5A

DTC: B1123 LEFT TURN SIGNAL LAMP SHORT-TO-GROUND

DTC: B1124 RIGHT TURN SIGNAL LAMP SHORT-TO-GROUND



## Turn Signal Error 6A

DTC: B1125 LEFT TURN SIGNAL LAMP SHORT-TO-VOLTAGE

DTC: B1126 RIGHT TURN SIGNAL LAMP SHORT-TO-VOLTAGE

