CERTAIN 2007 MODEL YEAR FIVE HUNDRED AND MONTEGO VEHICLES — FUEL TANK REPLACEMENT

OVERVIEW

In some of the affected vehicles, the fuel tank may have an improper weld between the plastic fuel tank and the plastic fuel filler inlet device. In the event of a severe rear impact to the vehicle, the weld may not provide the expected strength and could result in a fuel leak. A sufficient fuel leak in the presence of an ignition source may result in a fire. Dealers are to replace the fuel tank in the affected vehicles.

NEW! ***NOTE:*** *At the time of this supplement, the fuel tank kit includes duplicate parts (O-rings and nuts) that are not required to complete this repair.*

NEW! SERVICE PROCEDURE

WARNING: Do not carry lighted tobacco or open flame of any type when working on or near any fuel-related components. Highly flammable vapors are always present and can ignite. Failure to follow these instructions can result in personal injury.

WARNING: Do not carry personal electronic devices such as cell phones, pagers or audio equipment of any type when working on or near any fuel-related components. Highly flammable mixtures are always present and may be ignited. Failure to follow these instructions can result in personal injury.

WARNING: Fuel in the fuel system remains under high pressure even when the engine is not running. Before servicing or disconnecting any of the fuel system components, the fuel system pressure must be relieved to prevent accidental spraying of fuel, causing personal injury or a fire hazard.

WARNING: This procedure involves fuel handling. Be prepared for spillage at all times and always observe fuel handling precautions. Failure to follow these instructions can result in personal injury.

All Vehicles

1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to WSM Section 100-02.

2. Release the fuel system pressure. For additional information, refer to WSM Section 310-00.

3. Drain the fuel tank. For additional information, refer to WSM Section 310-00.

4. **NOTE:** Do not discard the exhaust system Torca® clamp, it may be reused during reassembly.

   Remove the muffler and tailpipe. For additional information, refer to WSM Section 309-00.

All Wheel Drive Vehicles

5. **NOTE:** Do not discard the driveshaft flange bolts, they may be reused during reassembly.

   Remove the driveshaft. For additional information, refer to WSM Section 205-01.

All Vehicles

6. Disconnect the fuel vapor control tube assembly valve-to-fuel vapor tube quick connect coupling. For additional information, refer to WSM Section 310-00.

NOTICE: The fuel tubes and fuel filter may have some fuel remaining after the fuel system pressure is released. Upon disconnecting the fuel supply tubes or removing the fuel filter, carefully drain the residual fuel into a suitable container.

7. Disconnect the fuel supply tube-to-fuel filter quick connect coupling. For additional information, refer to WSM Section 310-00.

8. **NOTICE: The fuel tank filler pipe may have some residual fuel remaining after draining. Upon disconnecting the fuel tank filler pipe hose, carefully drain the residual fuel into a suitable container**.

Release the fuel tank filler pipe hose clamp and disconnect it from the fuel tank. See Figure 1.

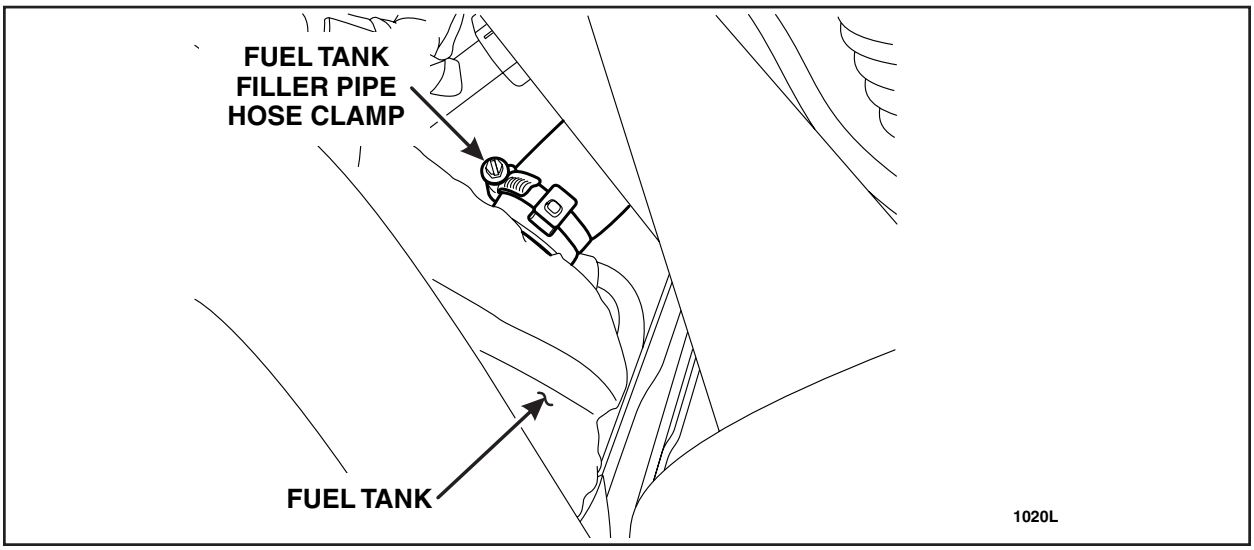

FIGURE 1

9. Place a suitable lifting device under the fuel tank.

10. Remove the 4 fuel tank strap bolts and discard.

11. Lower the fuel tank slightly and detach the push pin retainer for the electrical connector and the rear fuel vapor tube-to-fuel vapor control tube assembly.

12. Lower the fuel tank and position it forward.

13. Disconnect the fuel vapor tube-to-fuel vapor control tube assembly valve quick connect coupling. For additional information, refer to WSM Section 310-00.

14. Disconnect the fuel tank wiring harness electrical connector at the rear of the fuel tank.

15. Remove the fuel tank.

16. Remove the stone shield from the fuel vapor tube. See Figure 2.

    - Do not discard.

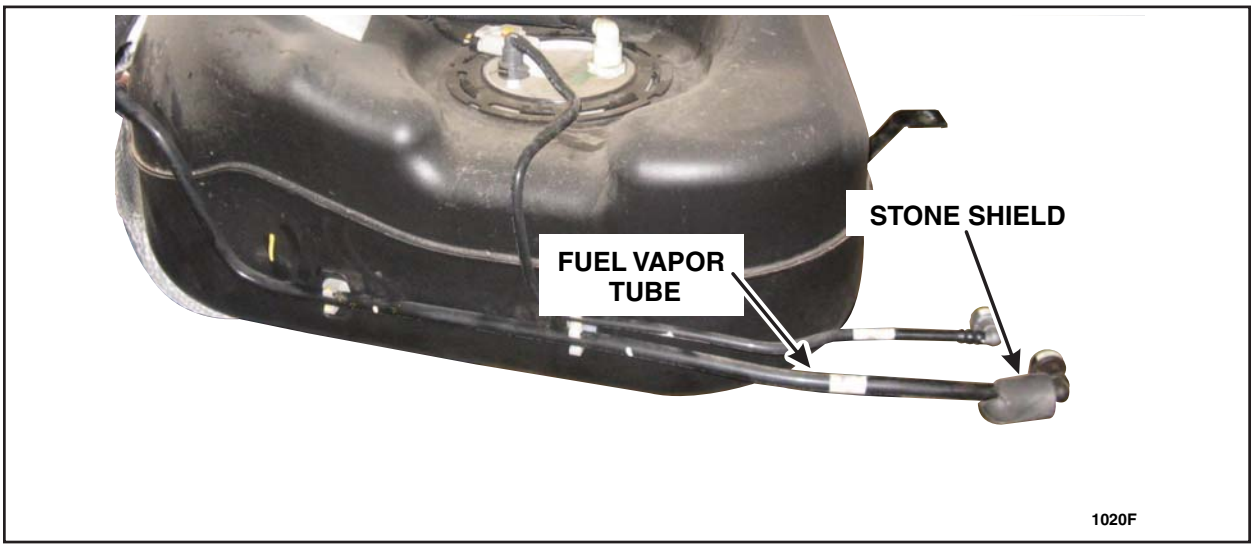

FIGURE 2

17. Using a suitable cutting tool, remove the fuel tank filler pipe hose crimp ring and the filler pipe hose. See Figure 3.

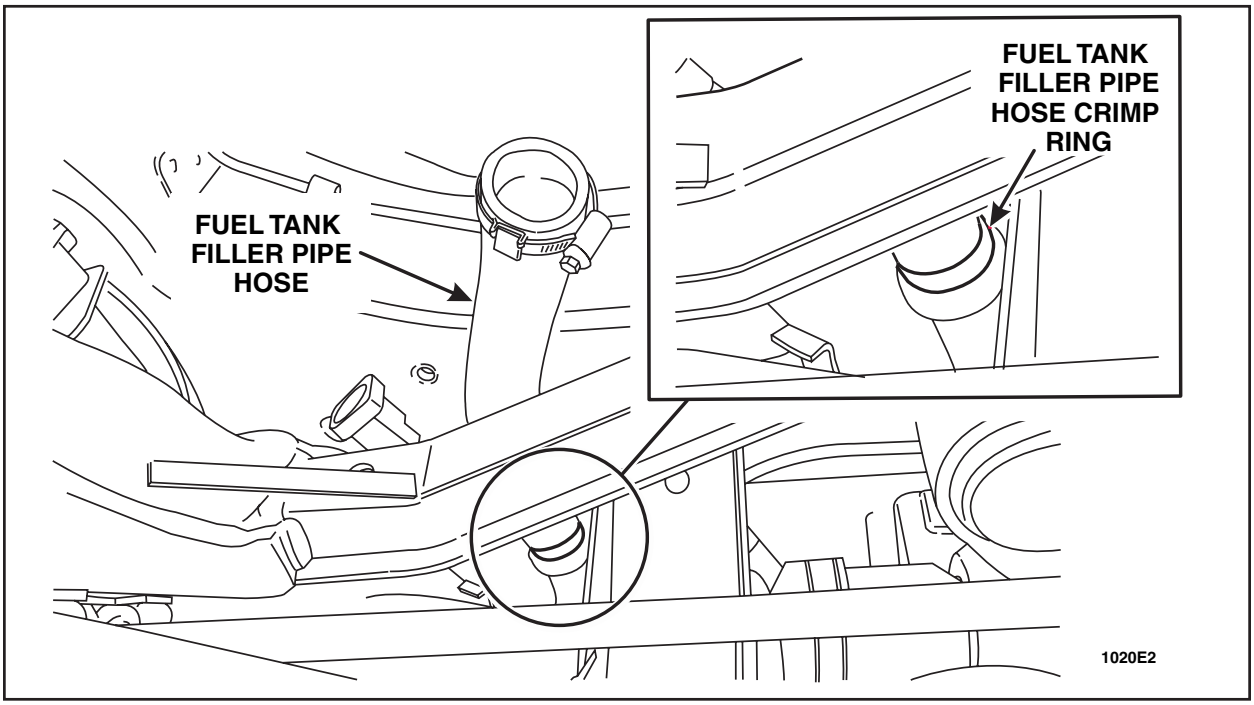

FIGURE 3

18. Disconnect the 2 quick connect coupling fittings from the fuel pump module. See Figure 4. For additional information, refer to WSM Section 310-00.

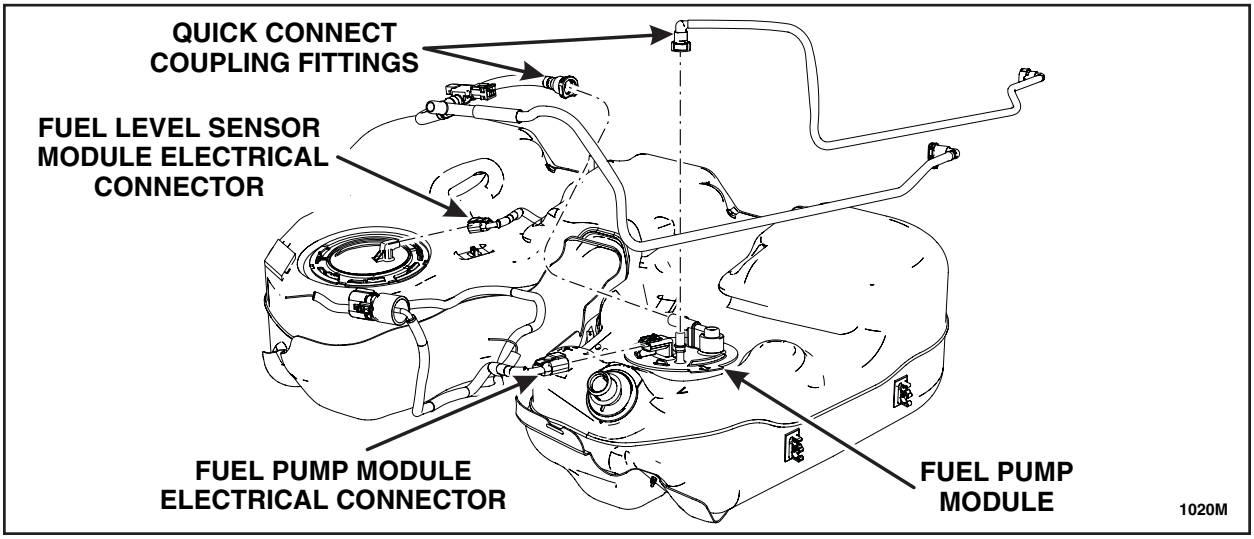

FIGURE 4

19. Disconnect the electrical connectors from the fuel pump module and the fuel level sensor module. See Figure 4.

20. Using special tool 310-123. Remove the fuel pump module and the fuel level sensor module lock rings. See Figure 5.

NOTE: Fuel pump module shown, fuel level sensor module similar.

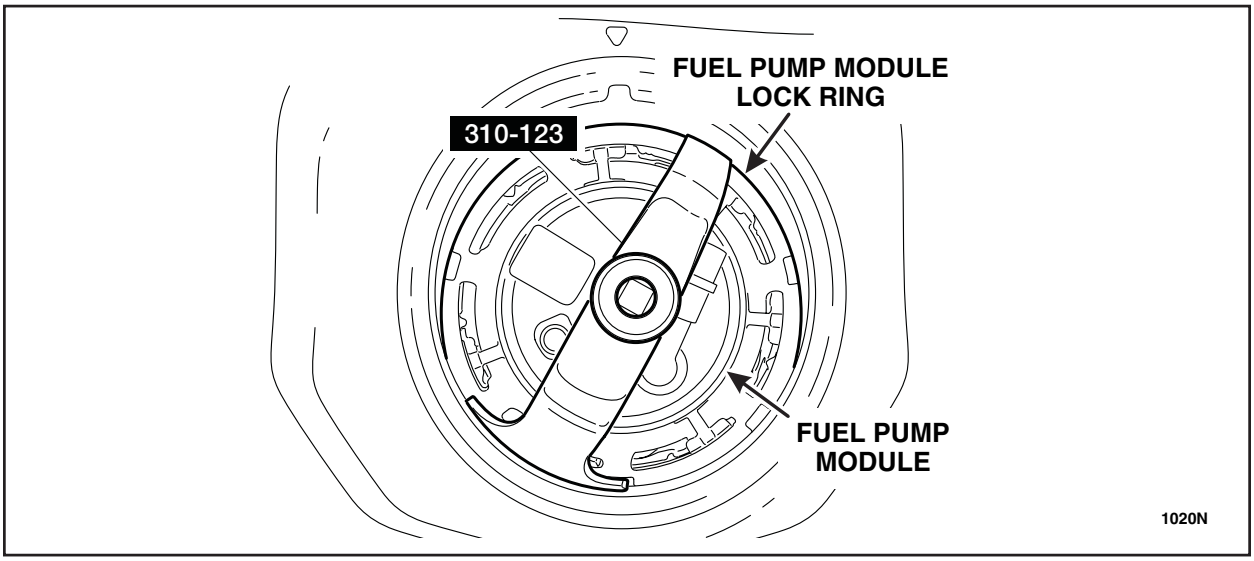

FIGURE 5

21. Lift the fuel pump module slightly out of the tank and disconnect both quick connect fittings from the fuel pump module. See Figure 6. For additional information, refer to WSM Section 310-00.

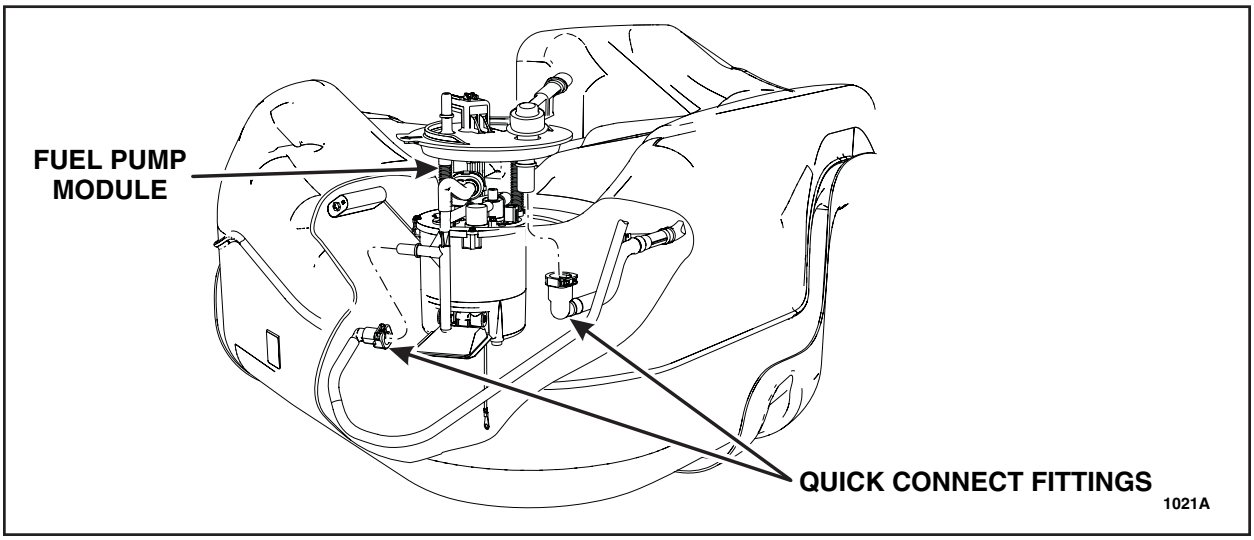

FIGURE 6

22. Remove the fuel pump module.

23. Lift the fuel level sensor module slightly out of the tank and disconnect the fuel transfer tube quick connect fitting from the fuel level sensor module. See Figure 7. For additional information, refer to WSM Section 310-00.

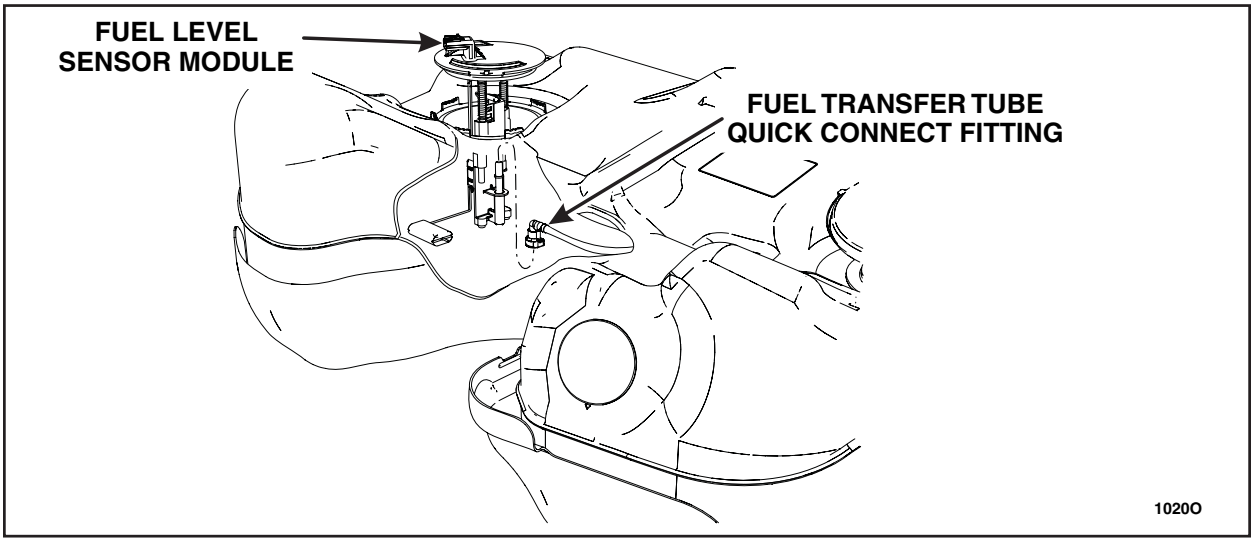

FIGURE 7

24. Remove the fuel level sensor module.

FUEL LEVEL SENDER REPLACEMENT

NOTE: Review the fuel level sender wire routing prior to disassembly. This fuel level sender replacement service procedure applies to the fuel pump and fuel level sensor modules. See Figures 8 and 9.

25. Remove one of the fuel level sender retention screws. See Figures 8 and 9.

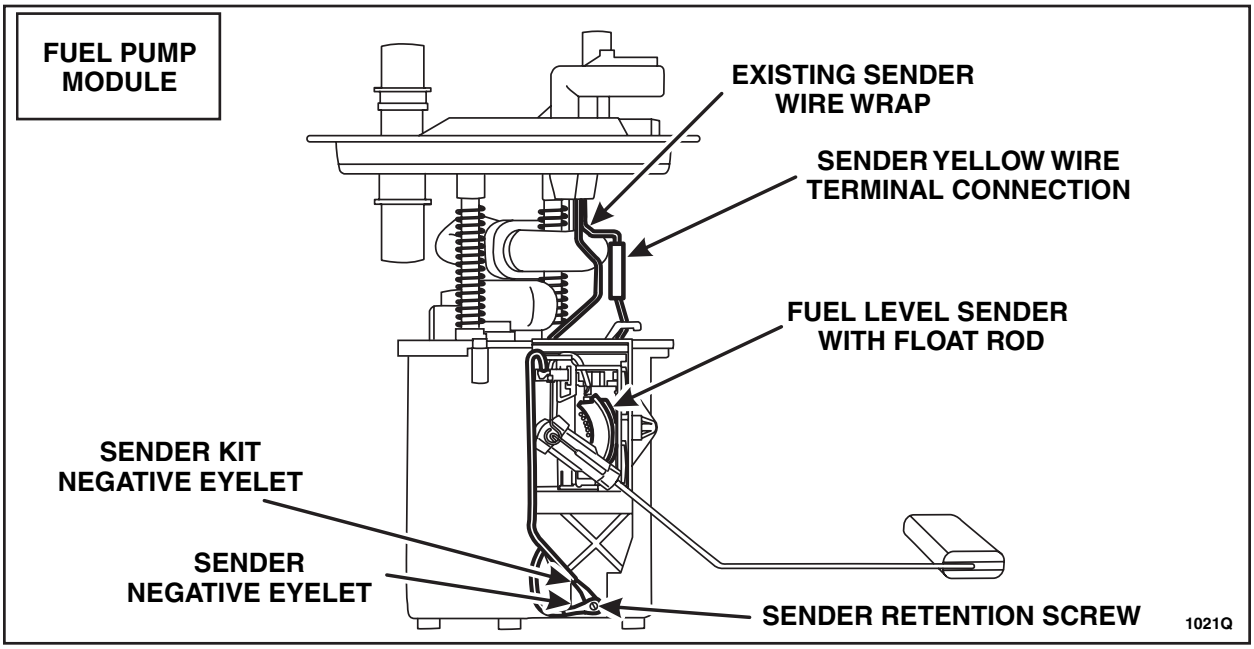

FIGURE 8

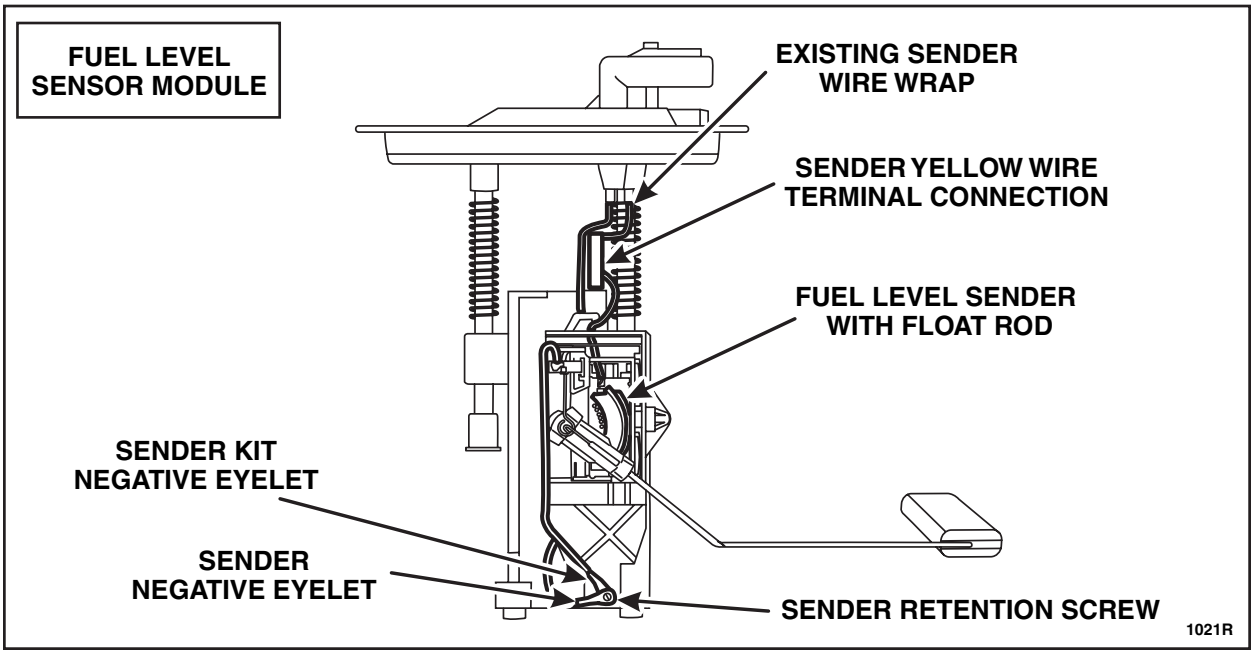

FIGURE 9

26. Cut the existing yellow wire between the shrink wrap and sender to allow better access to the terminal connection. See Figure 10.

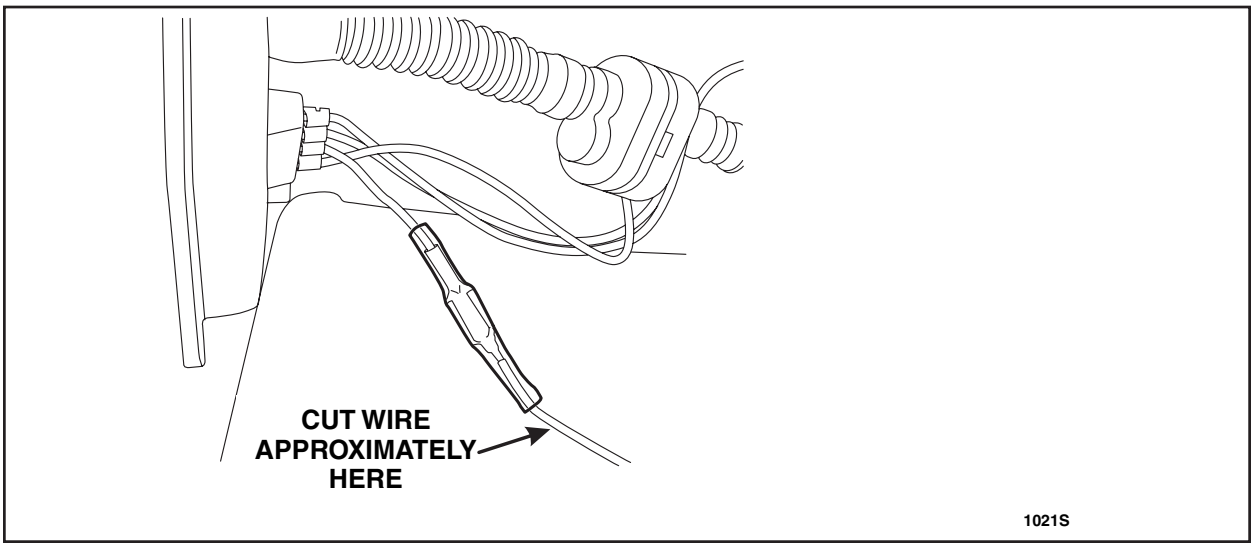

FIGURE 10

27. Remove old fuel level sender.

28. Using a utility knife or razor blade, carefully cut the shrink wrap tubing that surrounds the terminal connection lengthwise starting slightly more than half way to access the terminal lock above the yellow wire. See Figure 11.

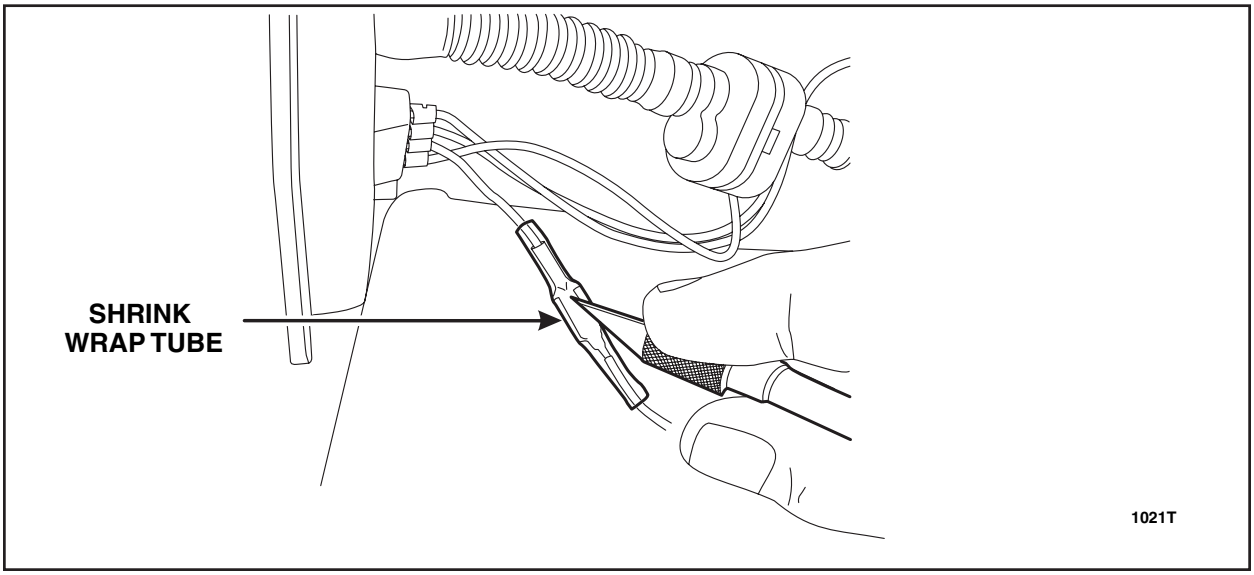

FIGURE 11

29. Disengage the fuel level sender terminal locking tab from the yellow wire and separate the connection. See Figure 12.

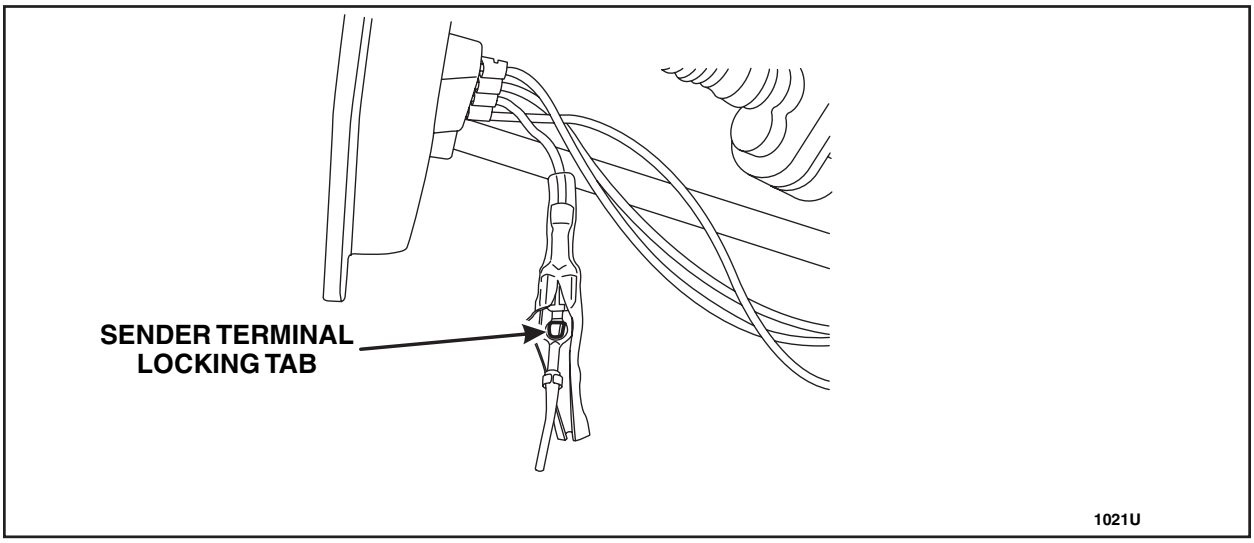

FIGURE 12

30. Slide *new* shrink wrap tube over the *new* fuel level sender yellow wire.

31. Reconnect the *new* fuel level sender yellow wire terminal connection. Check that the locking tab is engaged by lightly pulling on the wire.

32. Slide *new* shrink wrap tube over the *new* fuel level sender yellow wire connection. Secure the *new* shrink wrap tube with 2 zip-ties, 1 above and 1 below the fuel level sender yellow wire connection, close to the wire crimp area. Pull the zip-ties tightly to ensure the connection will stay insulated and trim the tail end of the zip-ties. See Figure 13.

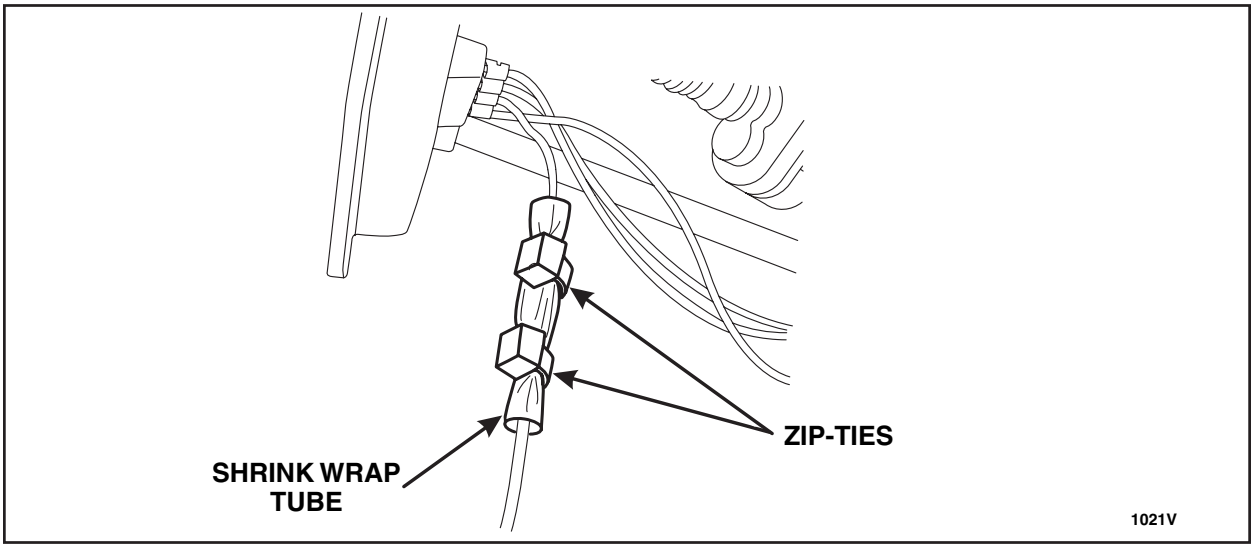

FIGURE 13

33. **NOTE:** The fuel level sender ground circuit will have an extra eyelet connection under the fuel level sender retention screw. Check the routing of the fuel level sender wiring to ensure it is away from the float arm travel.

    Install the *new* fuel level sender to the fuel pump module or the fuel level sensor module and install the fuel level sender retention screw. See Figure 8 and 9.

34. Ensure float rod moves freely through full float travel.

35. Repeat steps 25-34 for the remaining module.

36. Position the fuel level sensor module into the *new* fuel tank and connect the fuel transfer tube quick connect fitting inside the fuel tank. See Figure 7. For additional information, refer to WSM Section 310-00.

37. Position the fuel pump module into the *new* fuel tank and connect both quick connect fittings. See Figure 6. For additional information, refer to WSM Section 310-00.

38. Align the fuel level sensor and fuel pump module arrows to the *new* fuel tank alignment arrows. See Figure 14.

NOTE: Fuel pump module shown, fuel level sensor module similar.

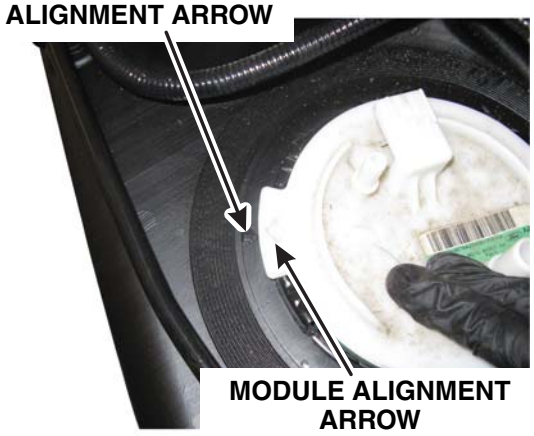

FIGURE 14

39. Using special tool 310-123, install the fuel pump module and the fuel level sensor module lock rings. See Figure 5.

    - The *new* "studded" lock ring must be used for the fuel pump module.
    - Ensure that the fuel pump module lock ring aligns with the fuel tank arrow when fully installed. See Figure 15.

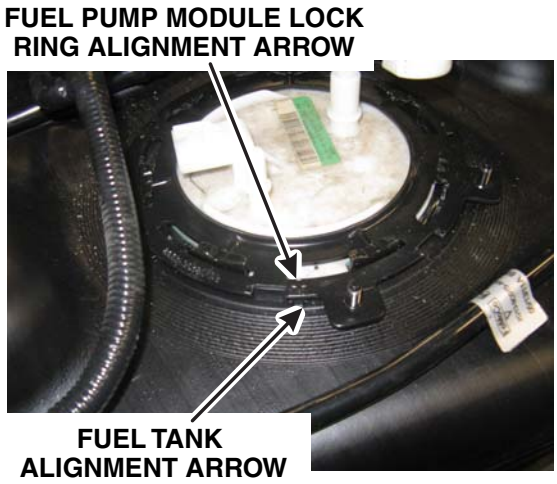

FIGURE 15

40. Connect the electrical connector to the fuel pump and the fuel level sensor modules. See Figure 4.

41. Connect the 2 quick connect coupling fittings to the fuel pump module. See Figure 4. For additional information, refer to WSM Section 310-00.

42. Install the stone shield to the fuel vapor tube. See Figure 2.

43. Install the *new* fuel pump module shield and the 3 nuts. See Figure 16.

    - Tighten to 9 Nm (80 lb-in).

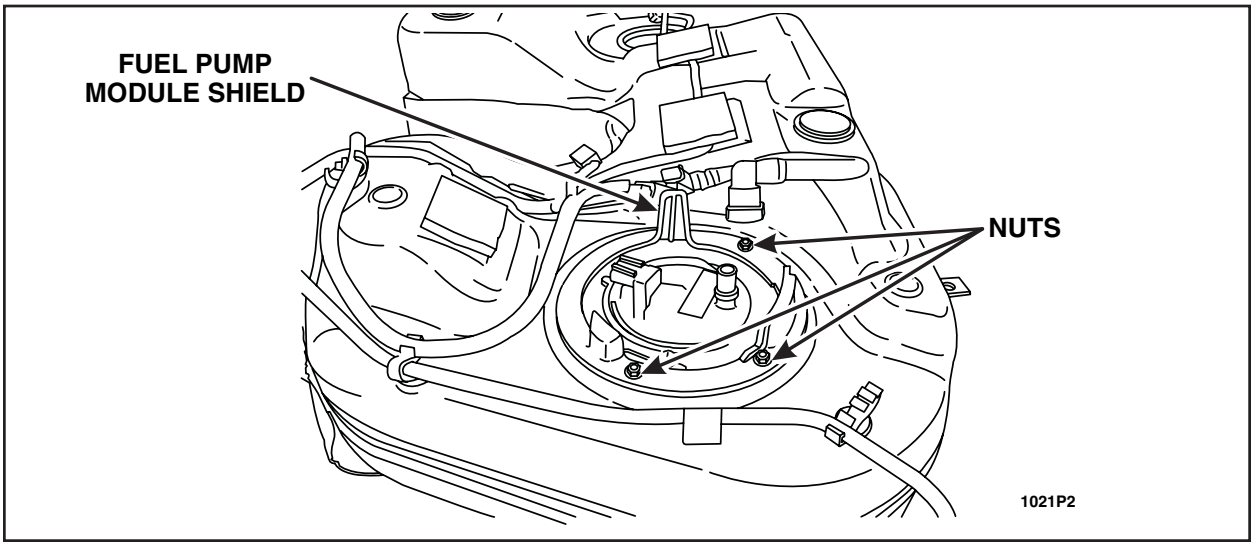

FIGURE 16

44. Raise the *new* fuel tank up to the vehicle and connect the fuel tank wiring harness.

45. Connect the fuel vapor tube-to-fuel vapor control tube assembly valve quick connect coupling. For additional information, refer to WSM Section 310-00.

46. Attach the push pin retainer for the electrical connector and the rear fuel vapor tube-to-fuel vapor control tube assembly.

47. Install the 4 *new* fuel tank strap bolts.

    - Tighten to 35 Nm (26 lb-ft).

48. Remove the jack from under the fuel tank.

49. Connect the fuel tank filler hose to the fuel tank filler pipe and tighten the hose clamp. See Figure 1.

50. Connect the fuel supply tube-to-fuel filter quick connect coupling. For additional information, refer to WSM Section 310-00.

51. Connect the fuel vapor control tube assembly valve-to-fuel vapor tube quick connect coupling. For additional information, refer to WSM Section 310-00.

All Wheel Drive Vehicles

52. **NOTE:** Clean the driveshaft flange bolts and apply threadlock and sealer prior to installing the driveshaft.

    Install the driveshaft. For additional information, refer to WSM Section 205-01.

All Vehicles

53. Install the muffler and tailpipe. For additional information, refer to WSM Section 309-00.

54. Lower the vehicle.

55. Refill the fuel tank with the fuel that was previously drained.

56. Return the vehicle to the customer.