

2012 - Mazda6 - Transmission/ Transaxle

COUPLER COMPONENT REMOVAL/ INSTALLATION [AY6A-EL]

WARNING:

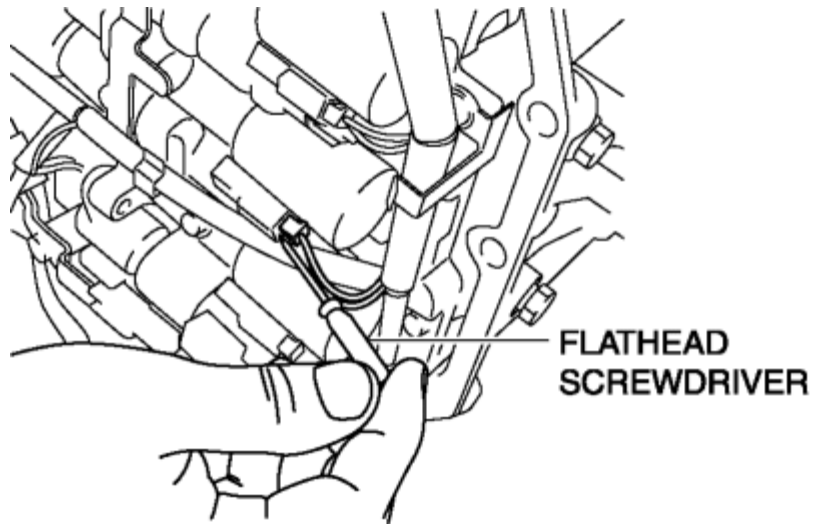
- A hot transaxle and ATF can cause severe burns. Turn off the engine and wait until they are cool.
- Using compressed air can cause dirt and other particles to fly out, causing injury to the eyes. Wear protective eyeglasses whenever using compressed air.

CAUTION:

- Water or foreign objects entering the connector can cause a poor connection or corrosion. Be sure not to drop water or foreign objects on the connector when disconnecting it.
 - Do not damage the terminals.
1. Disconnect the negative battery cable.
 2. Remove the fresh-air duct and air cleaner component as a single unit. (See [INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION \[MZI 3.7 V6\]](#).)
 3. Remove the air cleaner bracket. (See [INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION \[MZI 3.7 V6\]](#).)
 4. Clean the transaxle exterior throughout with a steam cleaner or cleaning solvents.
 5. Drain the ATF. (See [AUTOMATIC TRANSAXLE FLUID \(ATF\) REPLACEMENT \[AY6A-EL\]](#).)
 6. Remove the TCM. (See [TCM REMOVAL/ INSTALLATION \[AY6A-EL\]](#).)
 7. Disconnect the oil hose from the oil pipe component (transaxle side). (See [OIL COOLER REMOVAL/ INSTALLATION \[AY6A-EL\]](#).)
 8. Remove the oil pipe component (transaxle side). (See [OIL COOLER REMOVAL/ INSTALLATION \[AY6A-EL\]](#).)
 9. Remove the control valve body cover. (See [CONTROL VALVE BODY COVER REPLACEMENT \[AY6A-EL\]](#).)

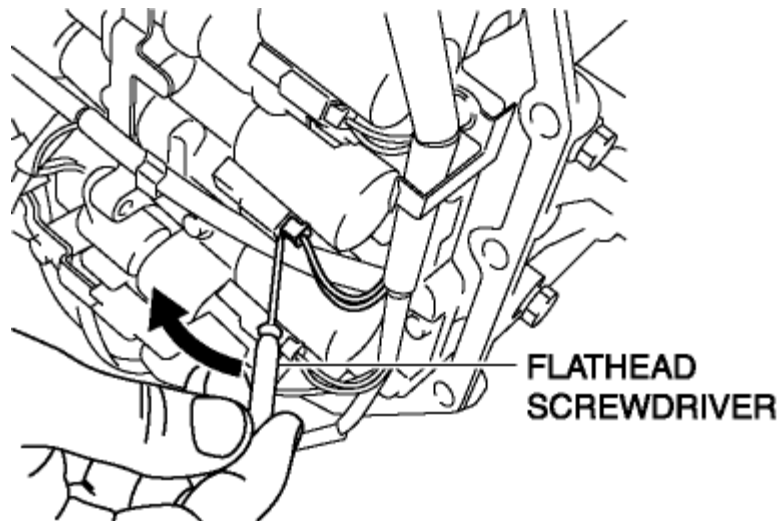
NOTE:

- Disconnect the solenoid connector according to the following procedure:
 - Insert a precision flathead screwdriver from the backside into the connector as shown in the figure.



CAUTION:

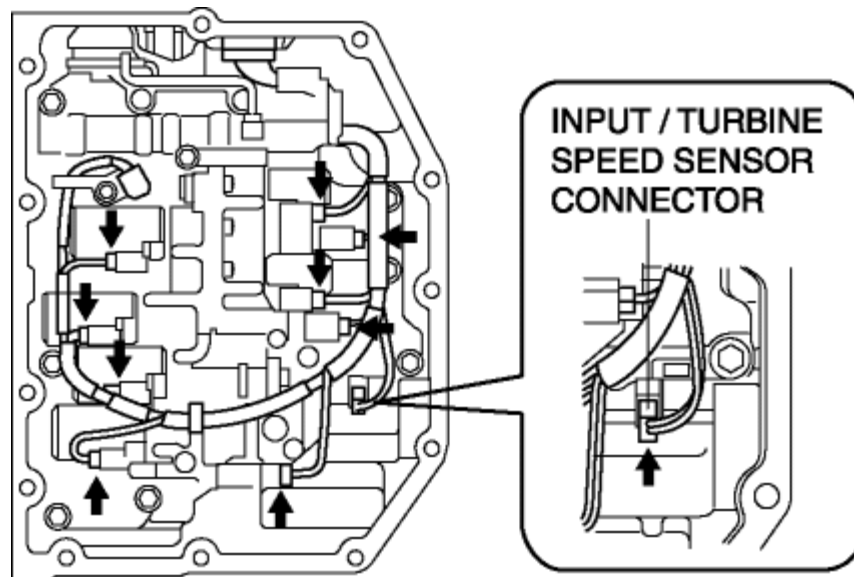
- Do not damage the solenoid valves and connectors with the flathead screwdriver.
- Pry the flathead screwdriver in the direction of the arrow and disconnect the connector.



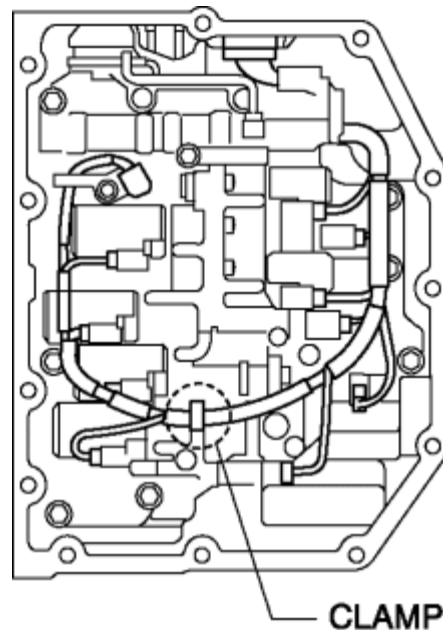
CAUTION:

- When disconnecting connectors, grasp the connectors, not the wiring harnesses. Otherwise, the wiring harnesses may be pulled out of the connector causing poor contact.

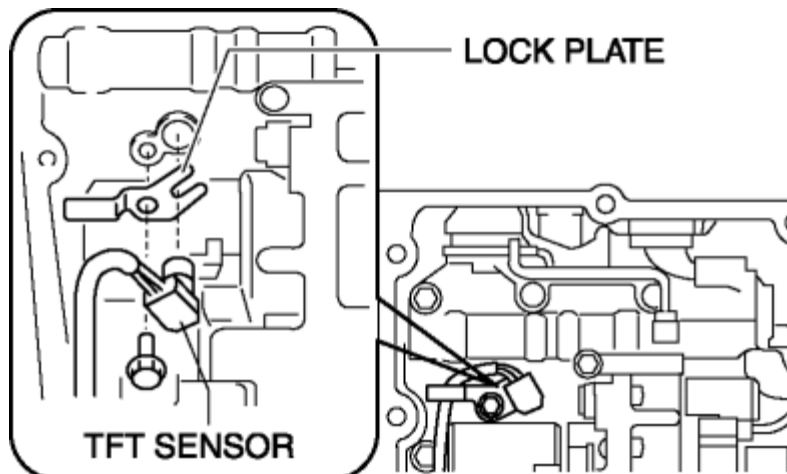
10. Disconnect the solenoid connectors, VSS connector and the input/turbine speed sensor connector.



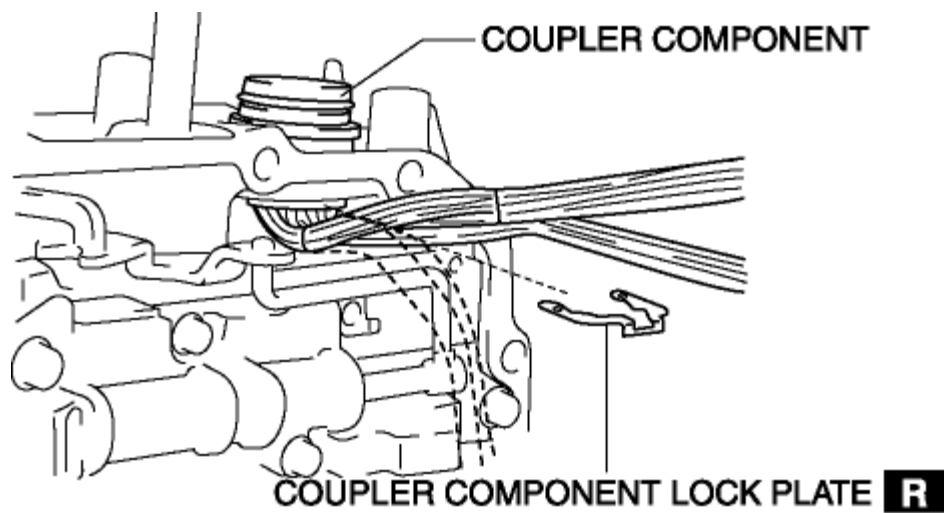
11. Disconnect the coupler component from the clamp.



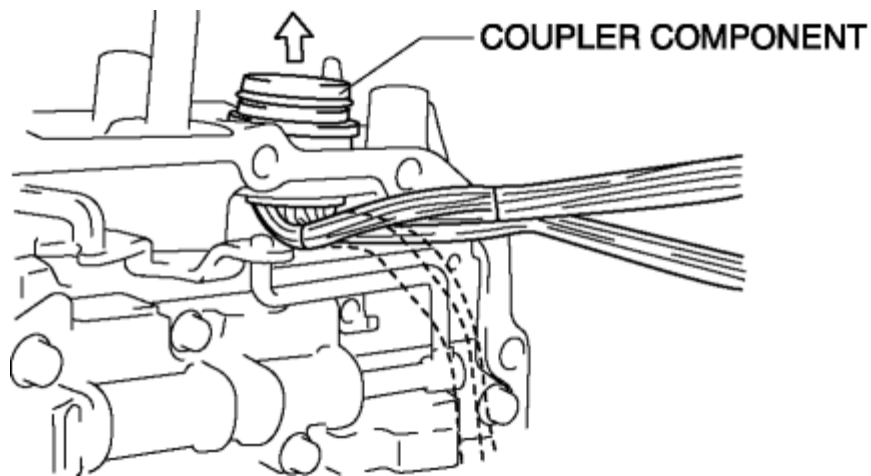
12. Remove the lock plate, and pull out the TFT sensor from the control valve body.



13. Remove the coupler component lock plate.



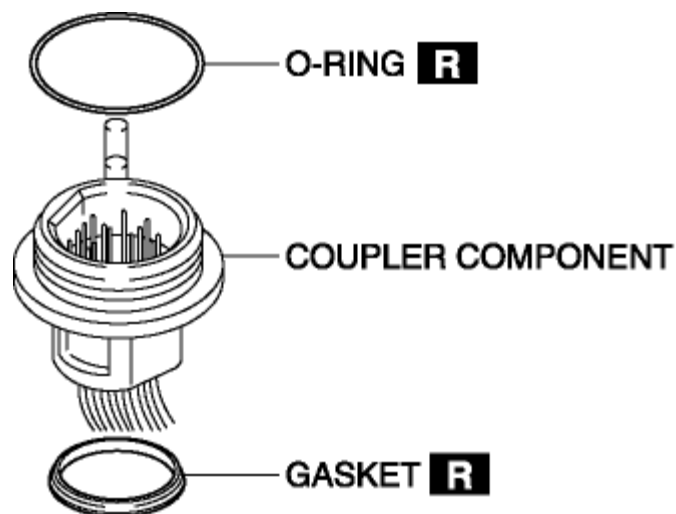
14. Remove the coupler component from the transaxle case.



CAUTION:

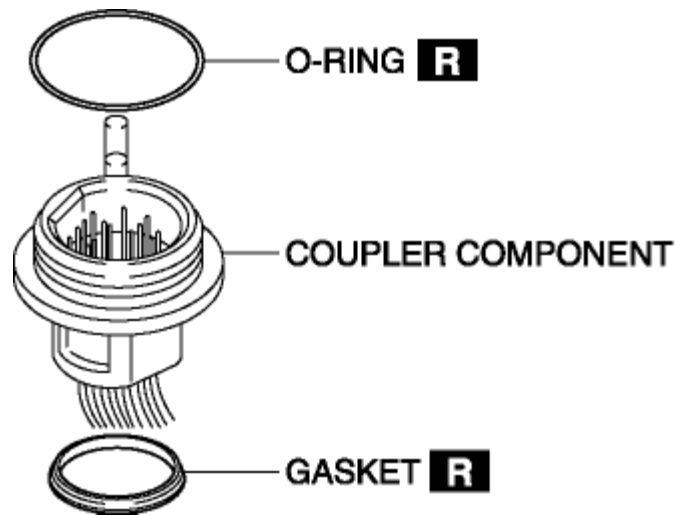
- Do not damage the wiring harness.
- Do not pull hard on the wiring harness.

15. Remove the O-ring and the gasket from the coupler component.



16. Apply ATF to a new gasket.

17. Install the new gasket to the coupler component.

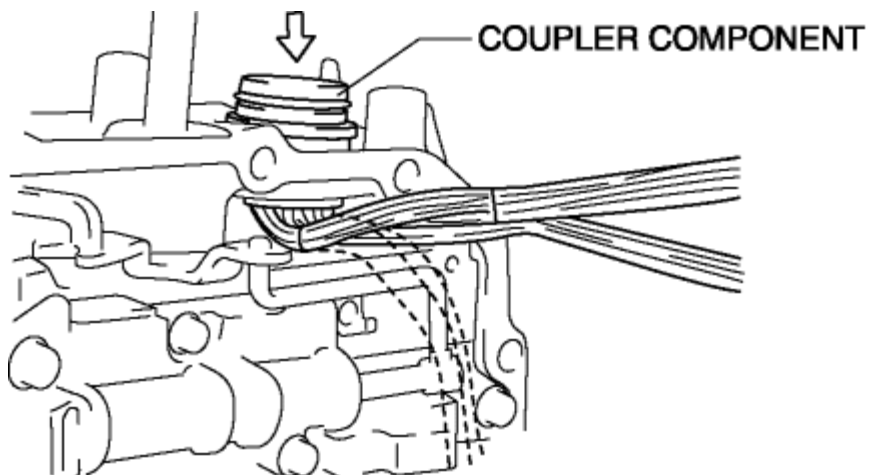


18. Install a new O-ring to the coupler component.

CAUTION:

- Do not apply ATF to the O-ring.

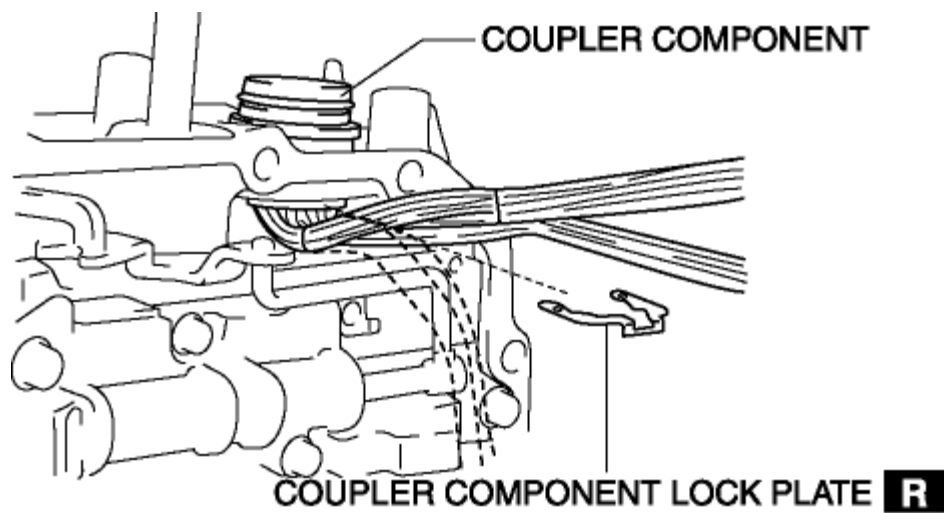
19. Install the coupler component to the transaxle case.



CAUTION:

- Do not apply too much force to the coupler component.
- Do not damage the coupler component.

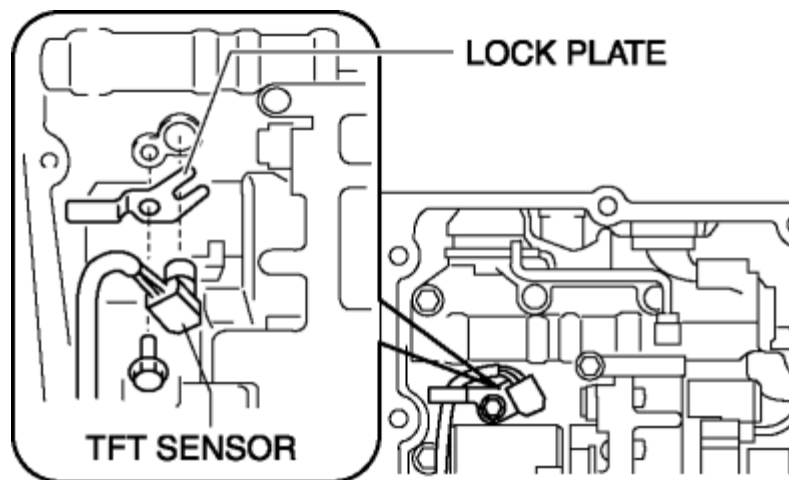
20. Install a new coupler component lock plate.



NOTE:

- Assemble the coupler component to the transaxle case and engage it with the coupler component lock plate.

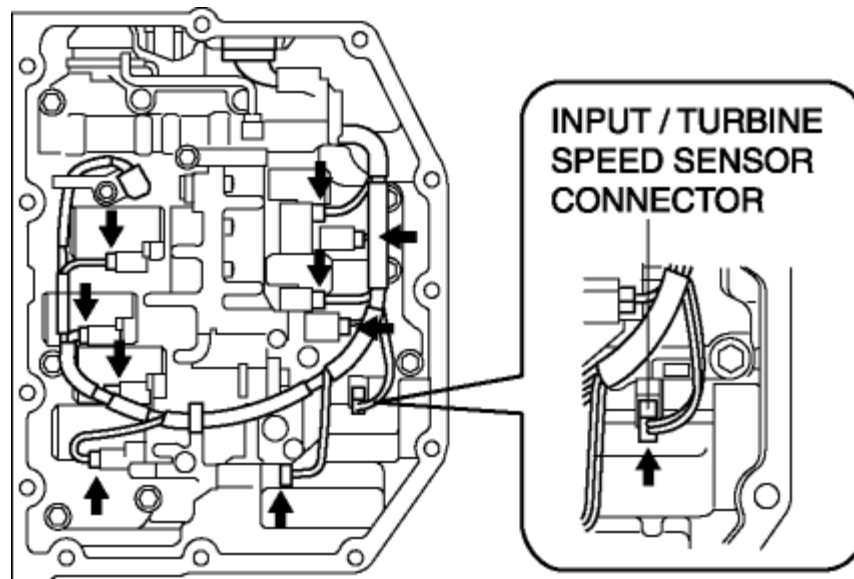
21. Install the TFT sensor with the lock plate and a bolt to the control valve body component as shown in the figure.



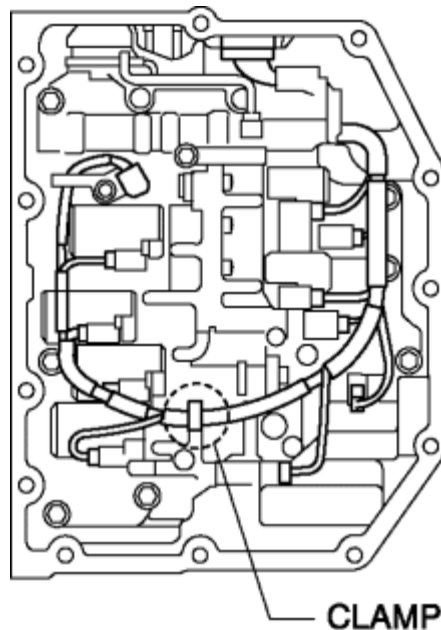
Tightening torque

- 6.0—8.0 N·m {62—81 kgf·cm, 54—70 in·lbf}

22. Connect the solenoid connectors, VSS connector and the input/turbine speed sensor connector.



23. Connect the coupler component to the clamps.



24. Install the new control valve body cover. (See [CONTROL VALVE BODY COVER REPLACEMENT \[AY6A-EL\]](#).)

25. Install the oil pipe component (transaxle side). (See [OIL COOLER REMOVAL/ INSTALLATION \[AY6A-EL\]](#).)

26. Connect the oil hose to the oil pipe component (transaxle side). (See [OIL COOLER REMOVAL/ INSTALLATION \[AY6A-EL\]](#).)

27. Install the TCM. (See [TCM REMOVAL/ INSTALLATION \[AY6A-EL\]](#).)

28. Install the air cleaner bracket. (See [INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION \[MZI 3.7 V6\]](#).)

29. Add ATF. (See [AUTOMATIC TRANSAXLE FLUID \(ATF\) LEVEL ADJUSTMENT \[AY6A-EL\]](#).)

30. Install the fresh-air duct and air cleaner component as a single unit. (See [INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION \[MZI 3.7 V6\]](#).)

31. Connect the negative battery cable.
32. Perform the "Neutral Position Learning". (See [TCM NEUTRAL POSITION LEARNING \[AY6A-EL\]](#).)
33. Adjust the ATF level. (See [AUTOMATIC TRANSAXLE FLUID \(ATF\) LEVEL ADJUSTMENT \[AY6A-EL\]](#).)
34. Perform the "Mechanical System Test". (See [MECHANICAL SYSTEM TEST \[AY6A-EL\]](#).)
35. Perform the "Road Test". (See [ROAD TEST \[AY6A-EL\]](#).)

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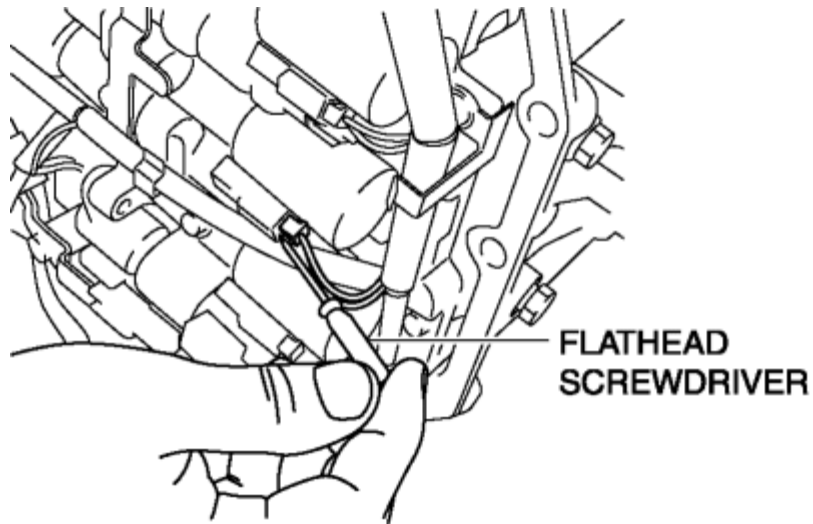
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CAUTION:

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 - Do not damage the terminals.
1. Disconnect the negative battery cable.
 2. Remove the fresh-air duct and air cleaner component as a single unit. (See [INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION \[MZI 3.7 V6\]](#).)
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 9. Remove the control valve body cover. (See [CONTROL VALVE BODY COVER REPLACEMENT \[AY6A-EL\]](#).)

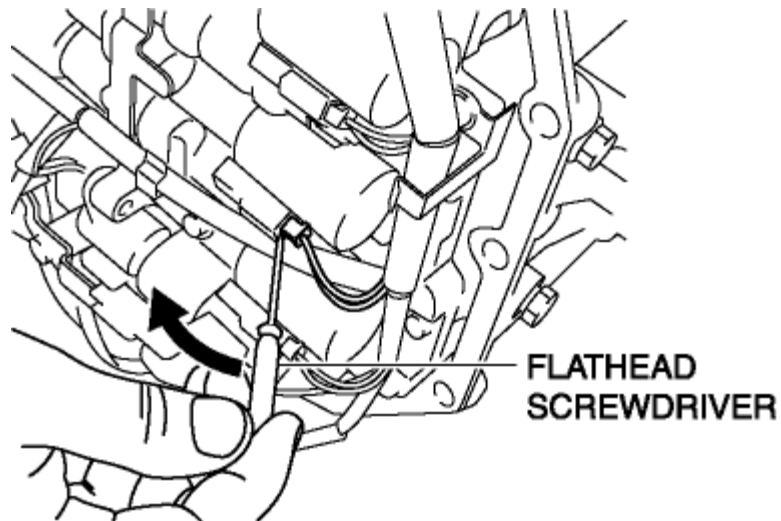
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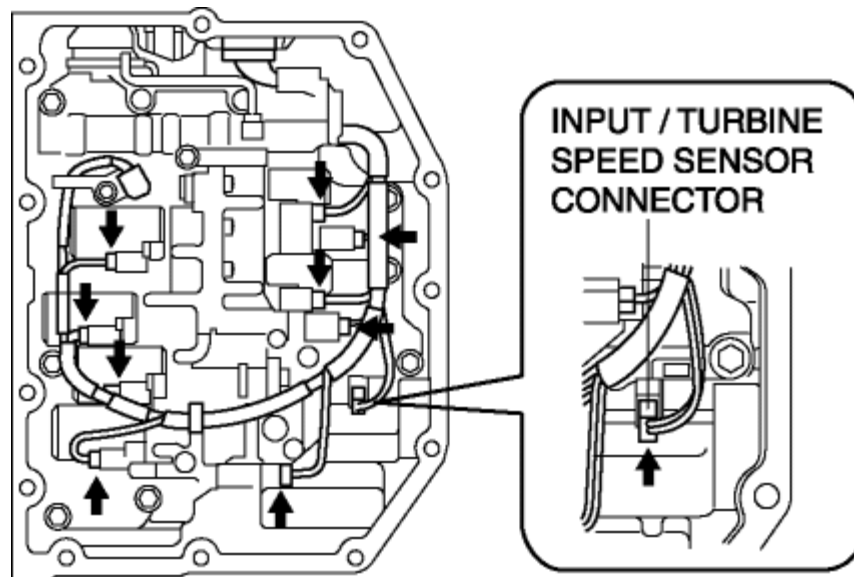
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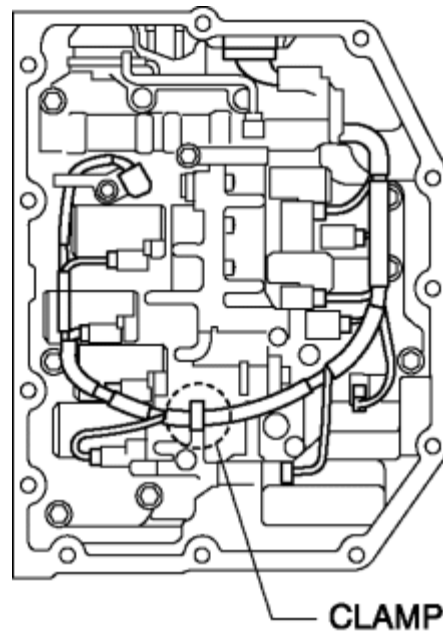
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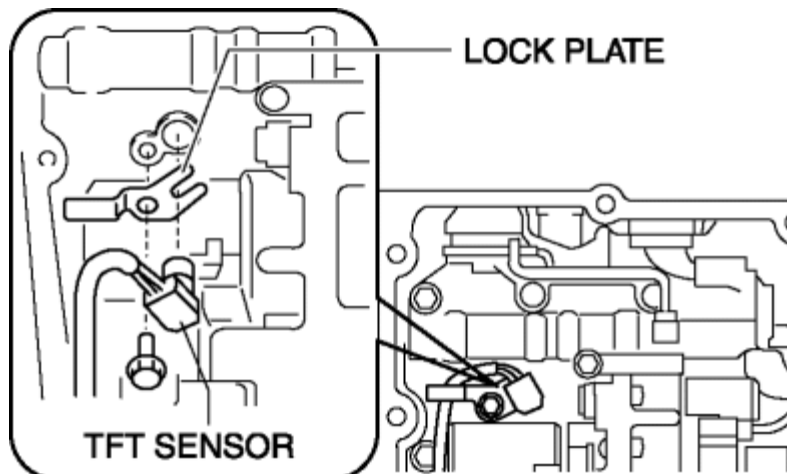
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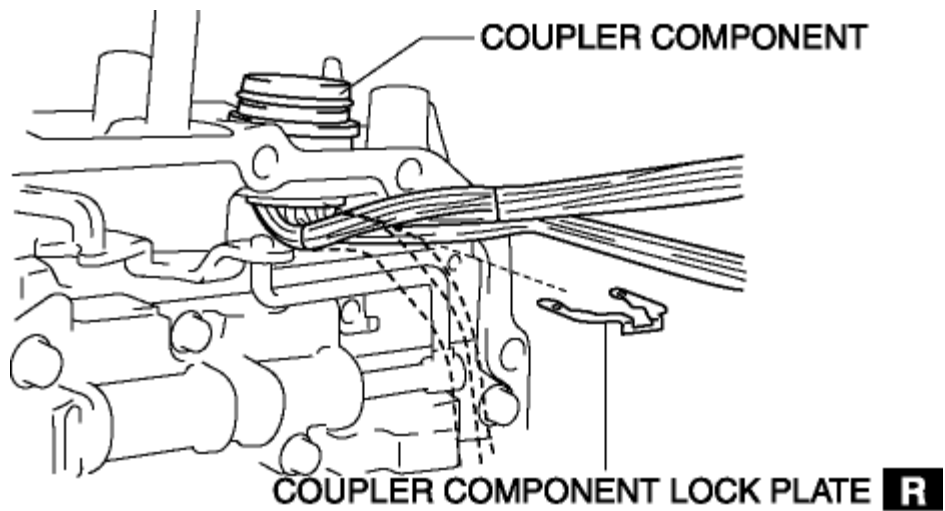
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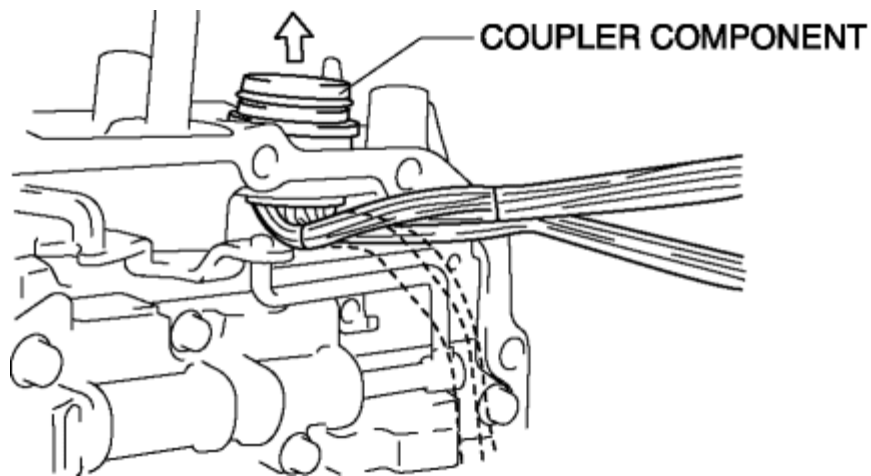
12. Remove the lock plate, and pull out the TFT sensor from the control valve body.



13. Remove the coupler component lock plate.



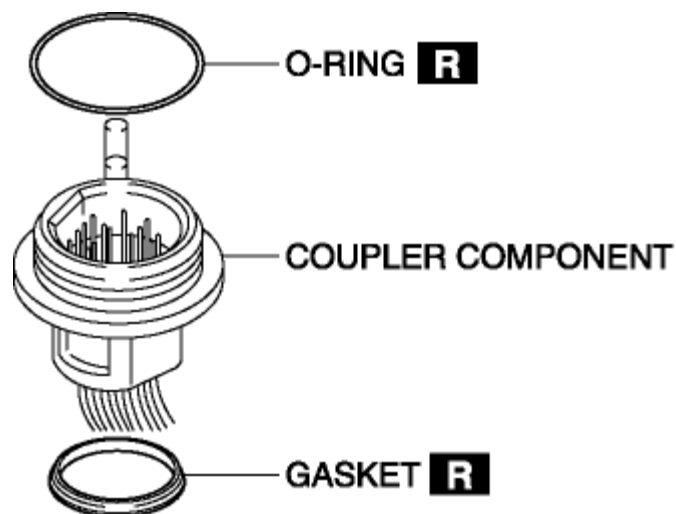
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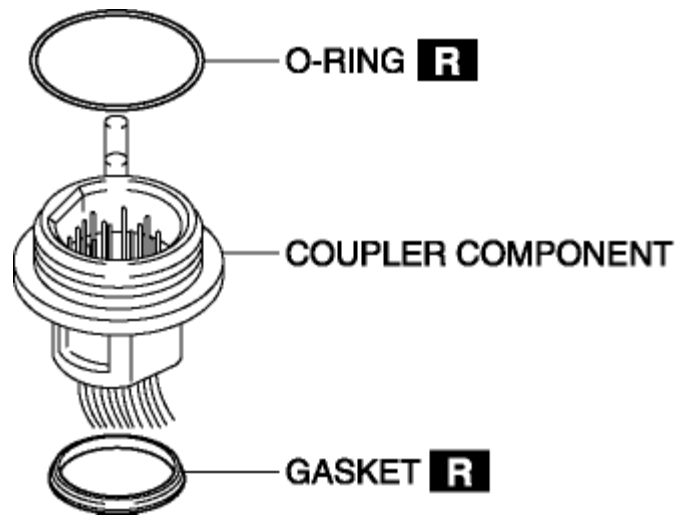
- Do not damage the wiring harness.
- Do not pull hard on the wiring harness.

15. Remove the O-ring and the gasket from the coupler component.



16. Apply ATF to a new gasket.

17. Install the new gasket to the coupler component.

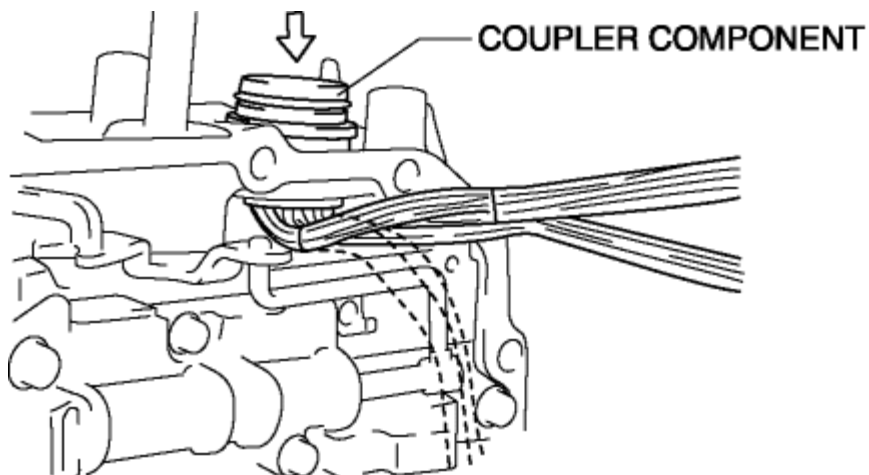


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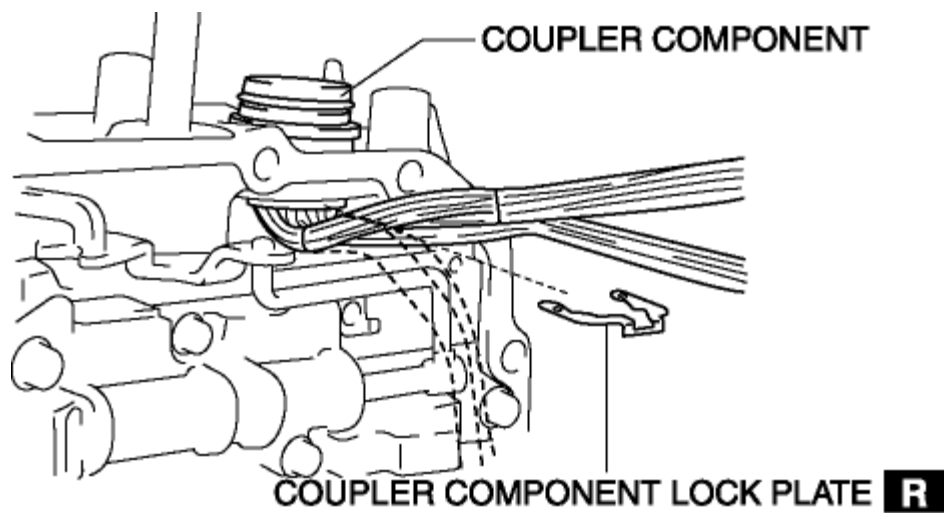
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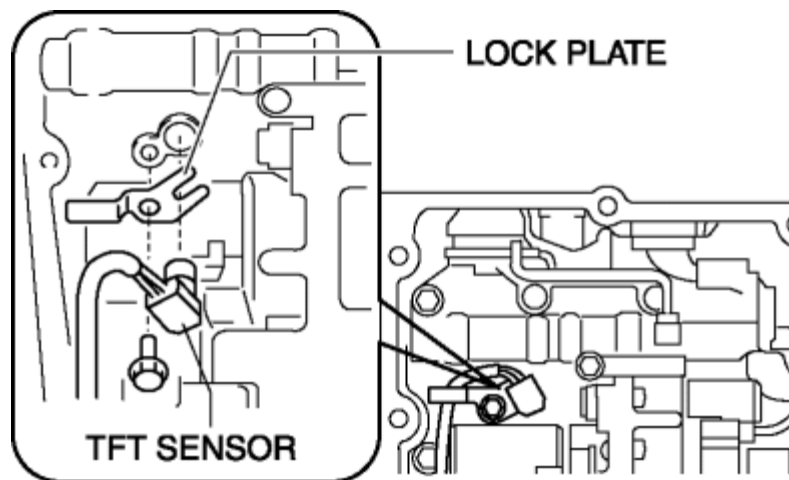
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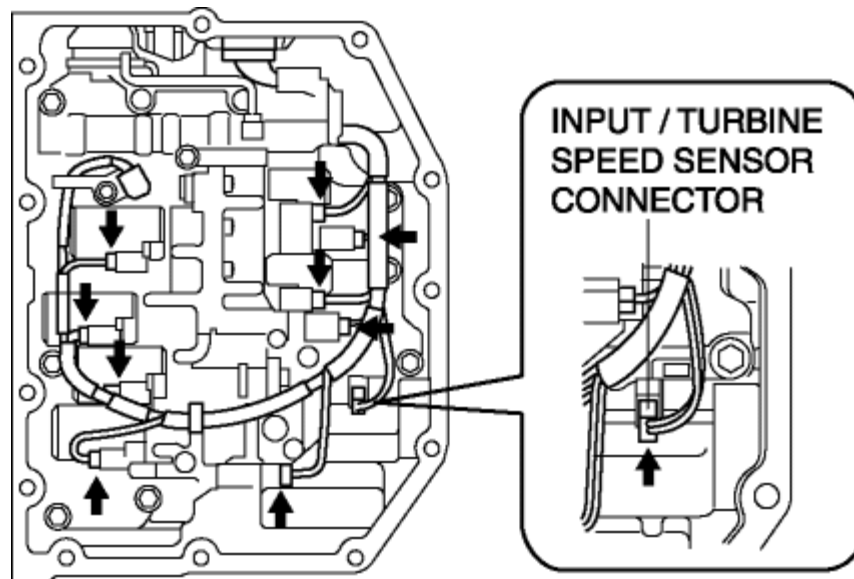
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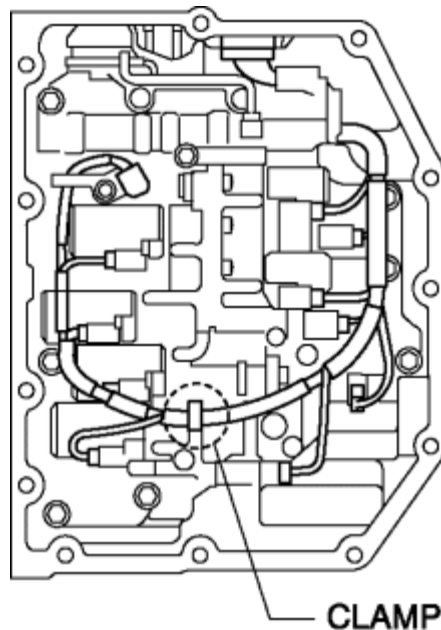
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