

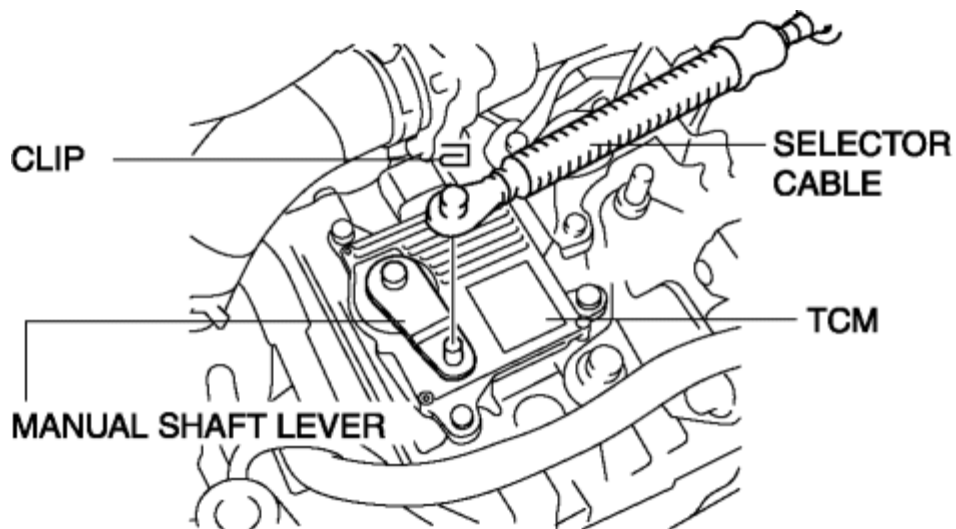
2012 - Mazda6 - Transmission/ Transaxle

TCM REMOVAL/ INSTALLATION [AY6A-EL]

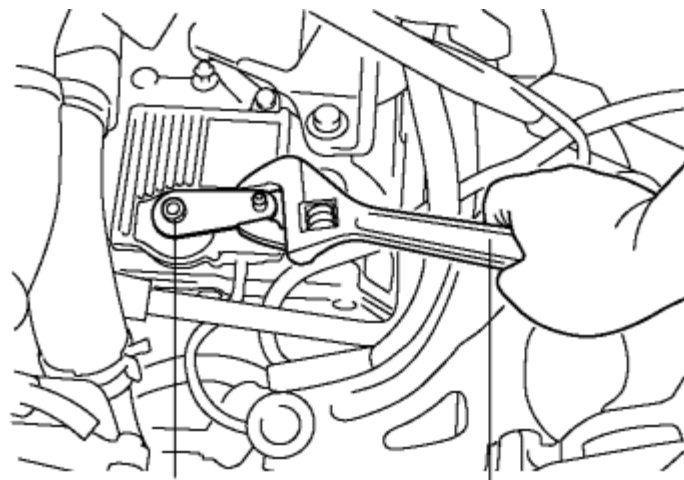
CAUTION:

- 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. Disconnect the TCM connector.
4. Remove the clip from the selector cable and disconnect the selector cable from manual shaft lever.



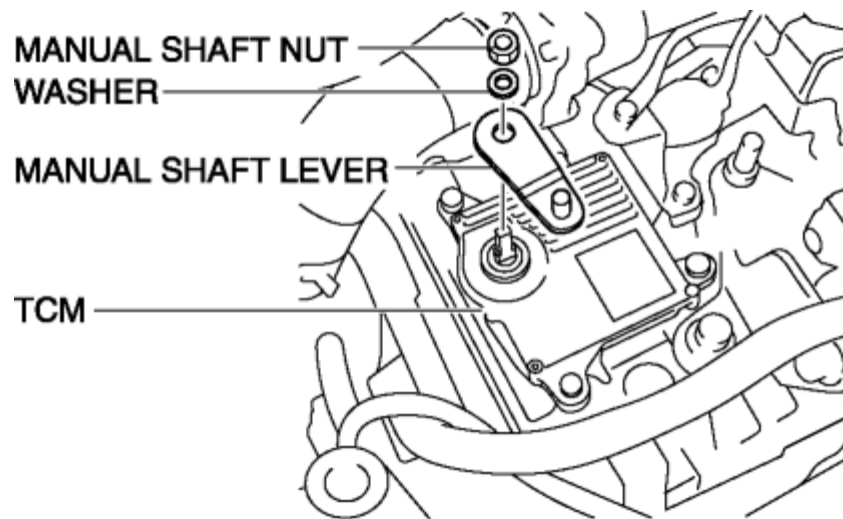
5. Set the adjustable wrench as shown in the figure to hold the manual shaft lever.



MANUAL SHAFT LEVER

ADJUSTABLE WRENCH

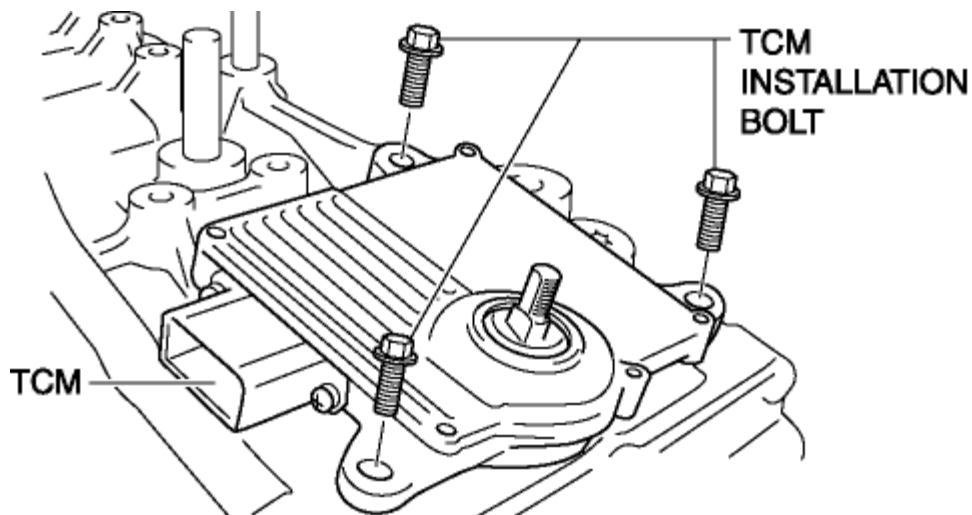
6. Remove the manual shaft nut, washer and manual shaft lever.



CAUTION:

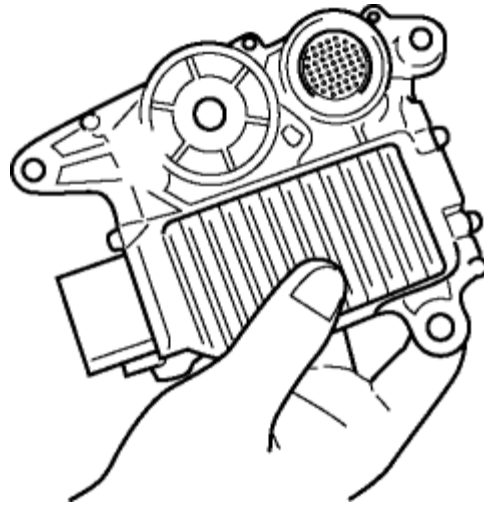
- Do not use an impact wrench. Hold the manual shaft lever when removing the manual shaft nut, or the transaxle may be damaged.

7. Remove the TCM.

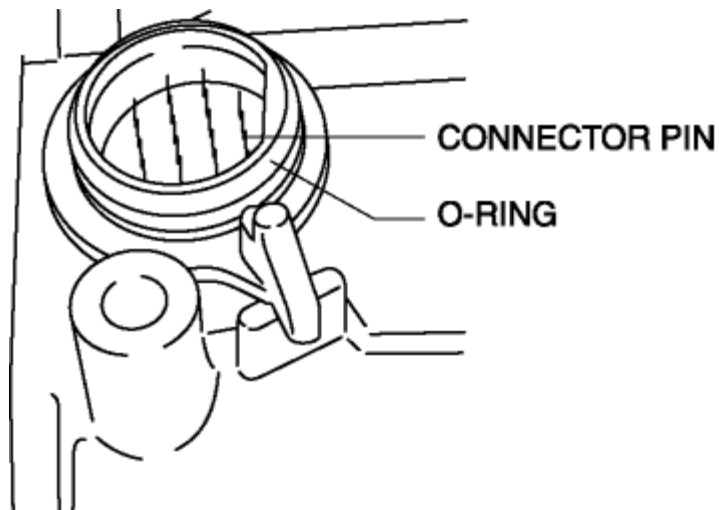


CAUTION:

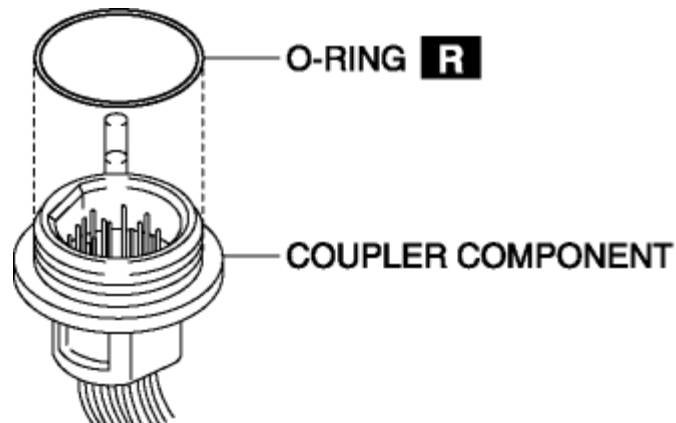
- Do not touch the terminals.



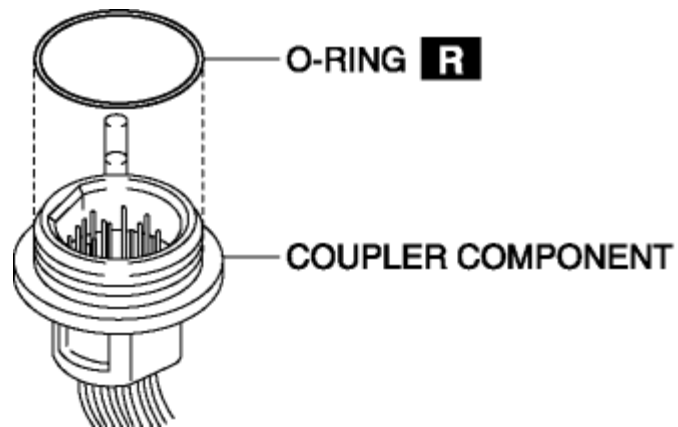
8. Inspect the condition of the connector pin of the coupler component (foreign material, bent pins, broken pins) and O-ring after the TCM is removed.



9. Remove the O-ring from the coupler component.



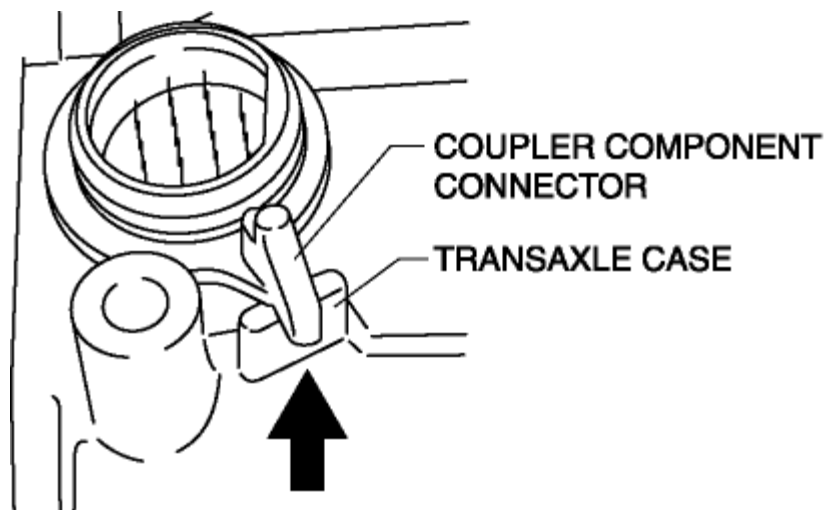
10. Install a new O-ring to the coupler component.



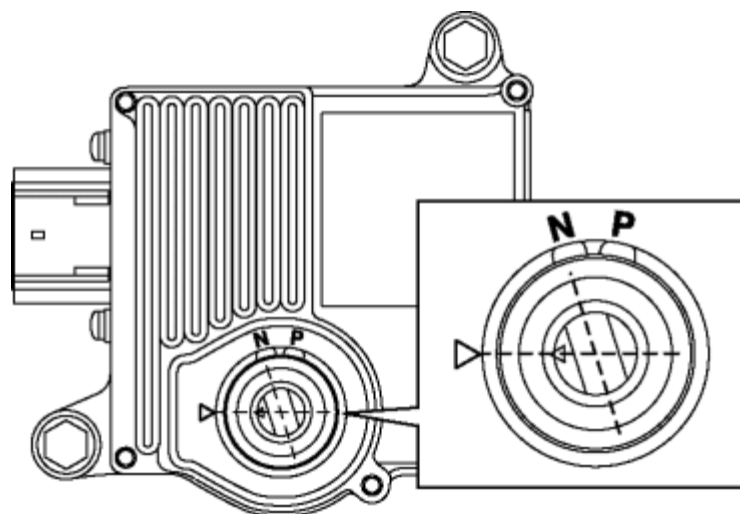
CAUTION:

- Do not apply ATF to the O-ring.

11. Align the transaxle case and coupler component connector.



12. Be sure to match the position of the TCM marking.

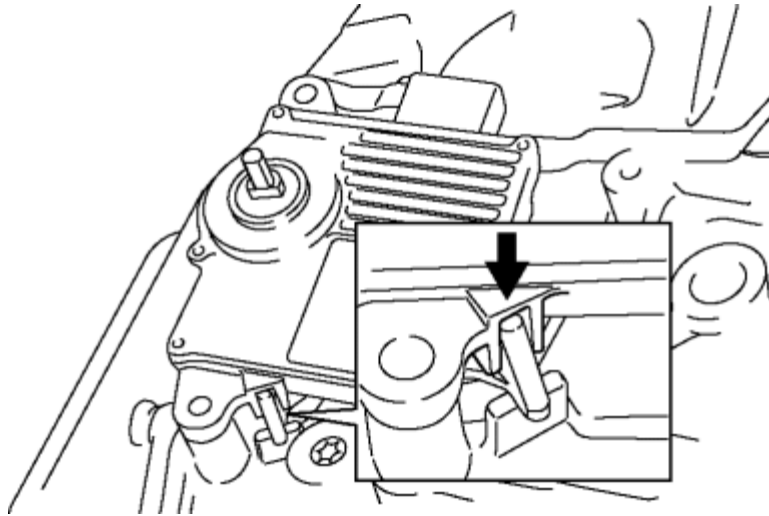


CAUTION:

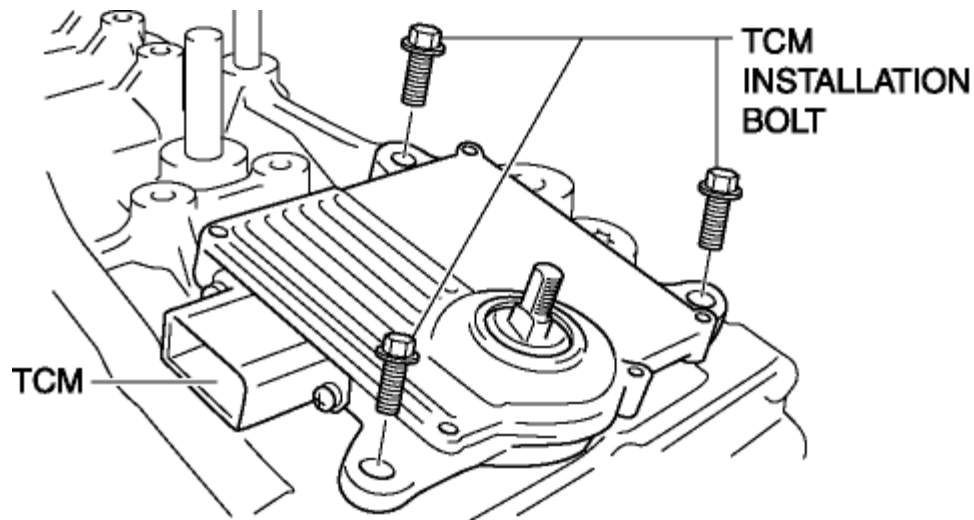
- Do not turn more than 60° from the marking.

13. Install the TCM.

14. Verify the correct positioning of the TCM and coupler component.



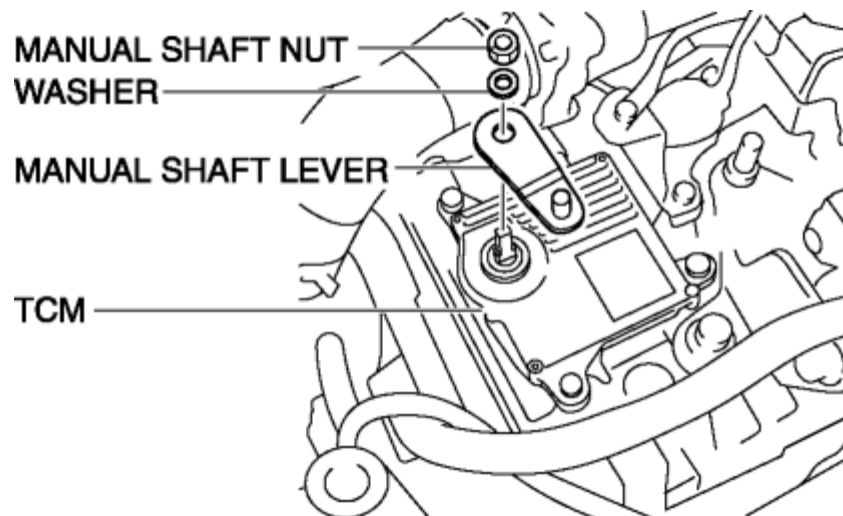
15. Tighten the TCM installation bolts.



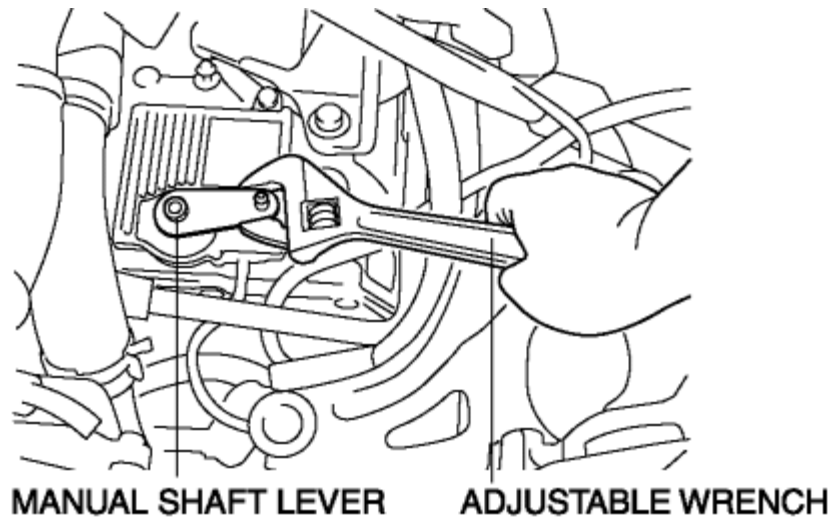
Tightening torque

- 20—29 N·m {2.1—2.9 kgf·m, 15—21 ft·lbf}

16. Install the manual shaft lever, washer and manual shaft nut.



17. Set the adjustable wrench as shown in the figure to hold the manual shaft lever.



CAUTION:

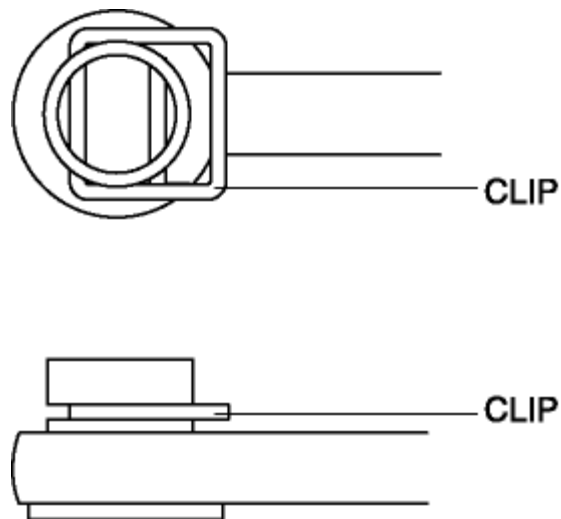
- Do not use an impact wrench. Hold the manual shaft lever when installing the manual shaft nut, or the transaxle may be damaged.

18. Tighten the manual shaft nut.

Tightening torque

- 10—14 N·m {102—142 kgf·cm, 89—123 in·lbf}

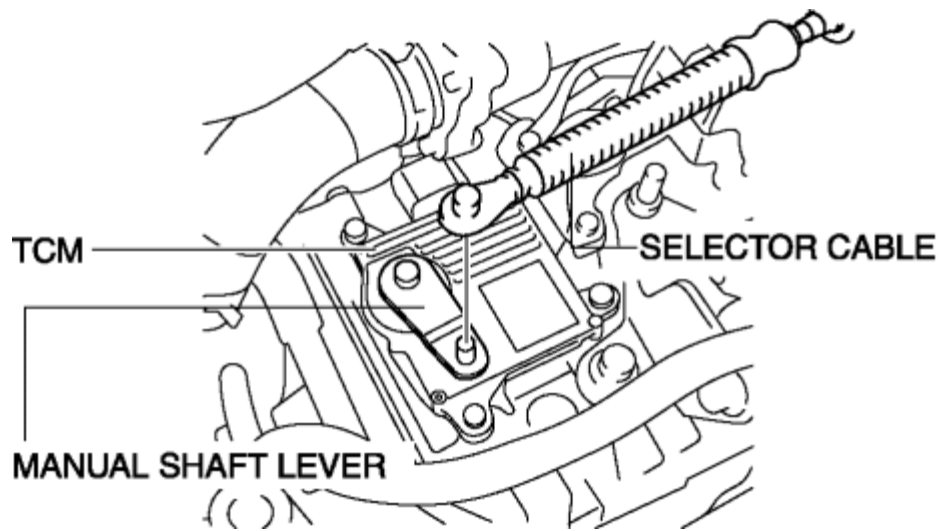
19. Install the clip to the selector cable as shown in the figure.



20. Shift the selector lever to P position.

21. Turn the manual shaft lever to P position.

22. Install the selector cable to the manual shaft lever.



23. Connect the TCM connector.
24. Install the fresh-air duct and air cleaner component as a single unit. (See [INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION \[MZI 3.7 V6\]](#).)
25. Connect the negative battery cable.
26. Perform the "Neutral Position Learning". (See [TCM NEUTRAL POSITION LEARNING \[AY6A-EL\]](#).)

[< Previous](#) [Next >](#)

[Back to Top](#)

© 2012 Mazda North American Operations, U.S.A.

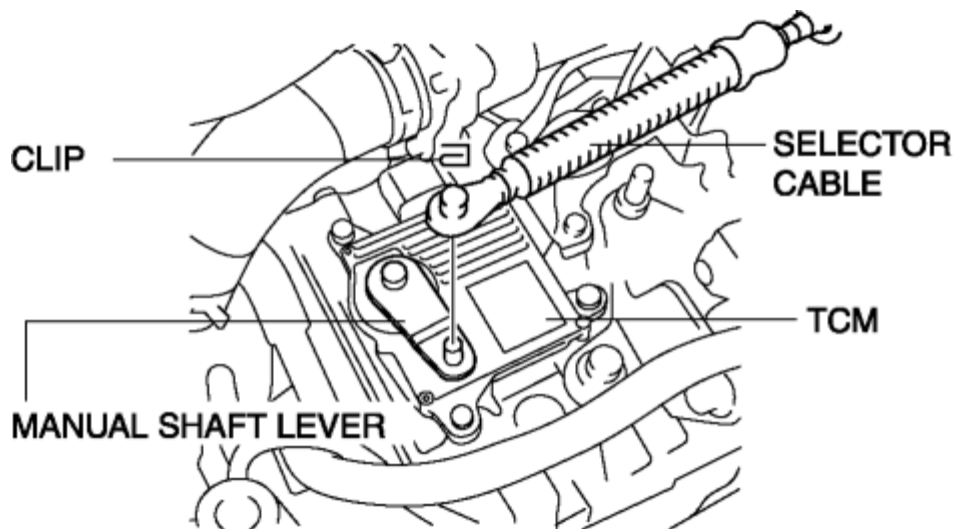
2012 - Mazda6 - Transmission/ Transaxle

TCM REMOVAL/ INSTALLATION [AY6A-EL]

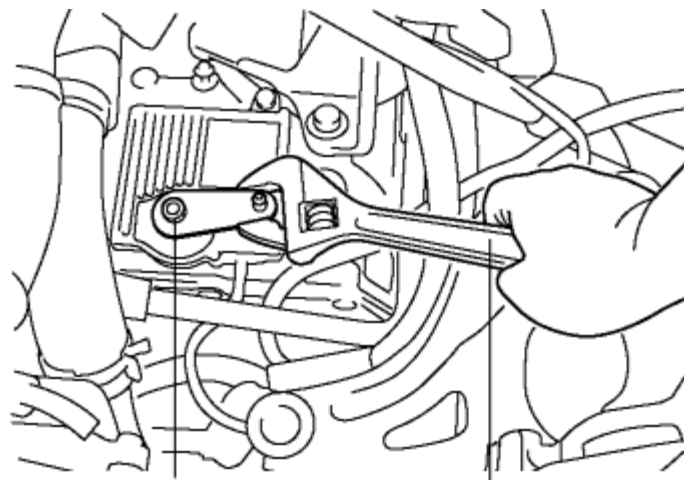
CAUTION:

- 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. Disconnect the TCM connector.
4. Remove the clip from the selector cable and disconnect the selector cable from manual shaft lever.



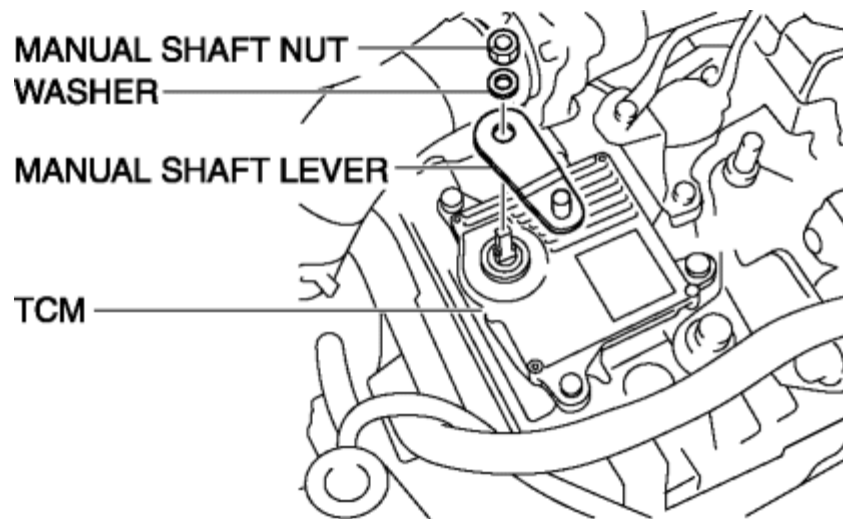
5. Set the adjustable wrench as shown in the figure to hold the manual shaft lever.



MANUAL SHAFT LEVER

ADJUSTABLE WRENCH

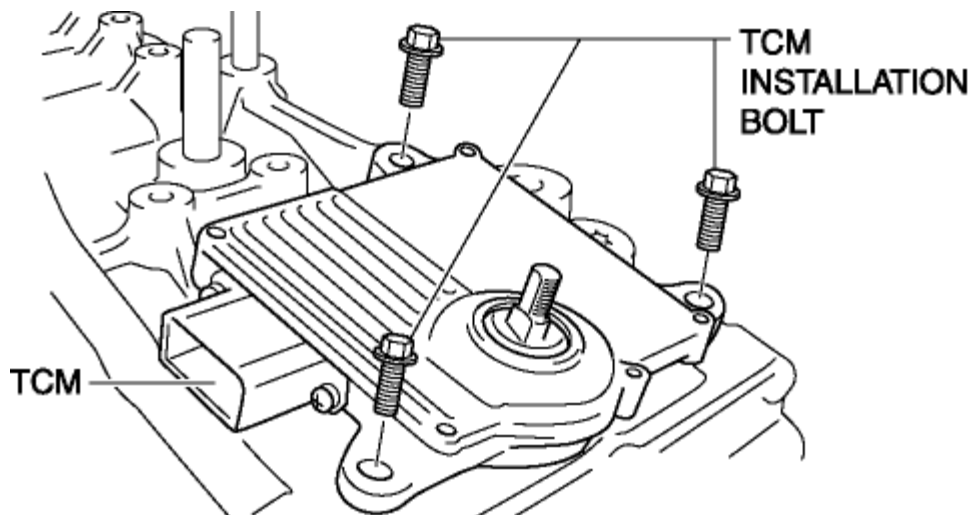
6. Remove the manual shaft nut, washer and manual shaft lever.



CAUTION:

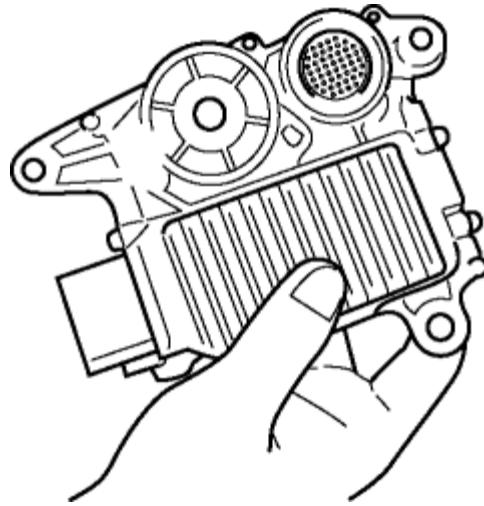
- Do not use an impact wrench. Hold the manual shaft lever when removing the manual shaft nut, or the transaxle may be damaged.

7. Remove the TCM.

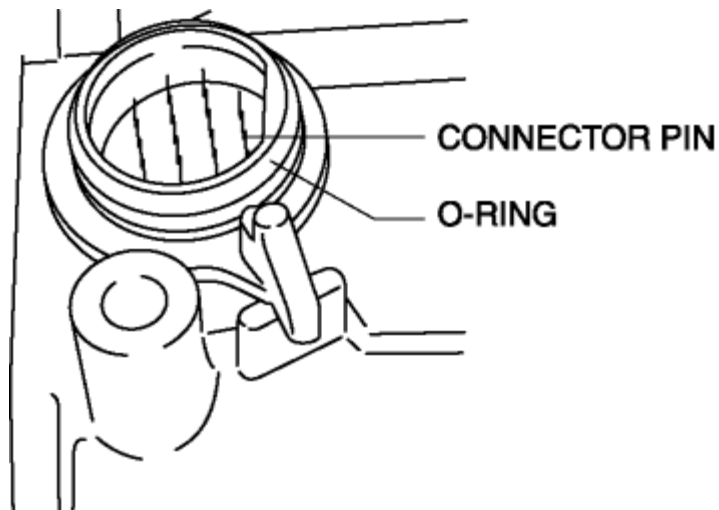


CAUTION:

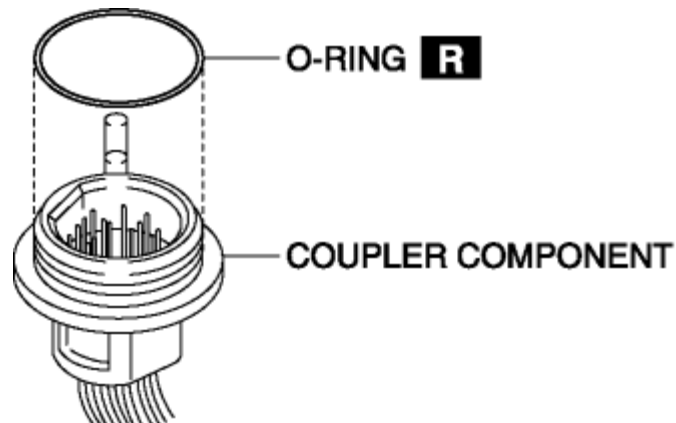
- Do not touch the terminals.



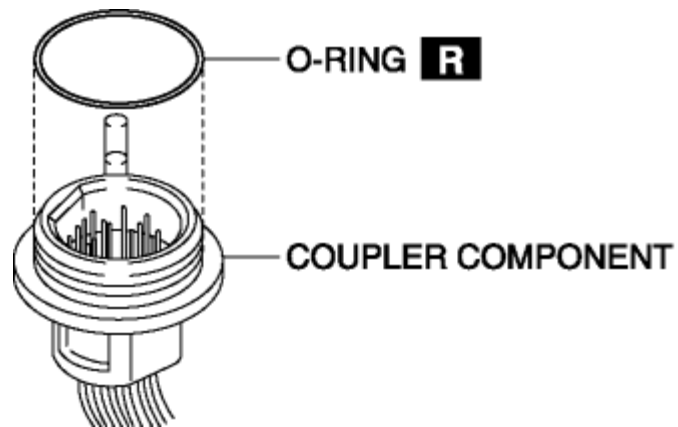
8. Inspect the condition of the connector pin of the coupler component (foreign material, bent pins, broken pins) and O-ring after the TCM is removed.



9. Remove the O-ring from the coupler component.



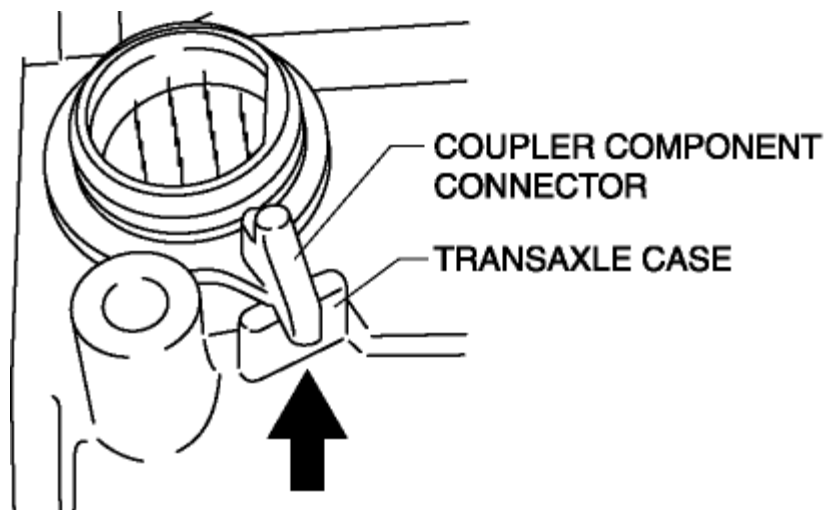
10. Install a new O-ring to the coupler component.



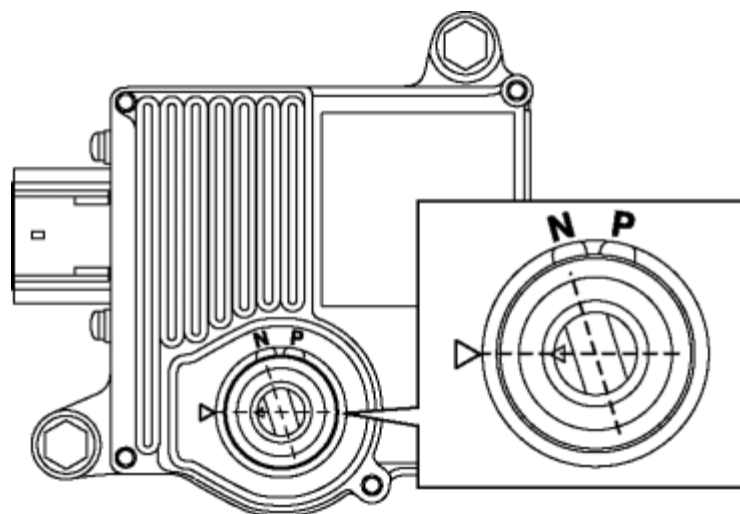
CAUTION:

- Do not apply ATF to the O-ring.

11. Align the transaxle case and coupler component connector.



12. Be sure to match the position of the TCM marking.

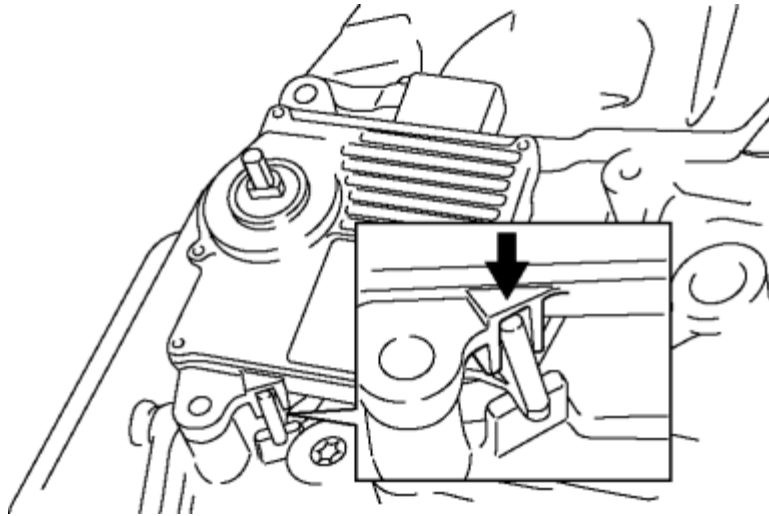


CAUTION:

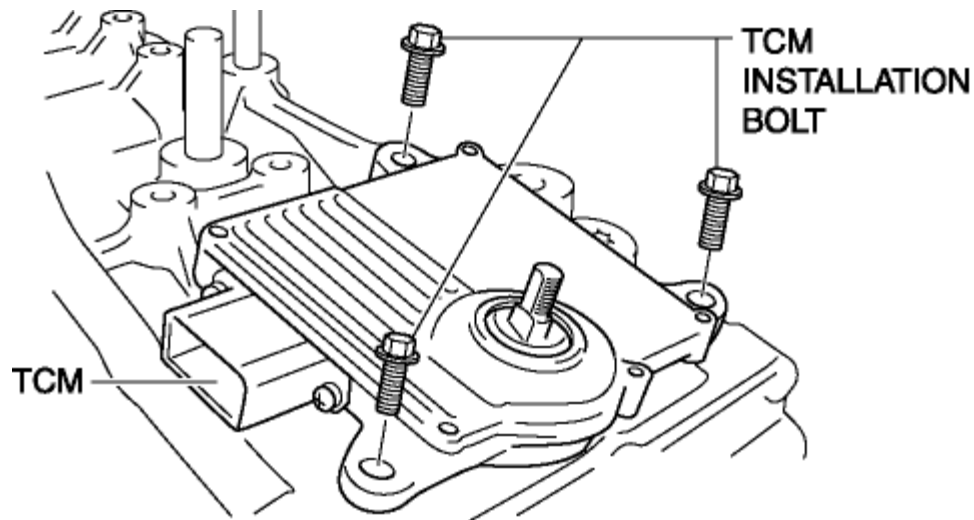
- Do not turn more than 60° from the marking.

13. Install the TCM.

14. Verify the correct positioning of the TCM and coupler component.



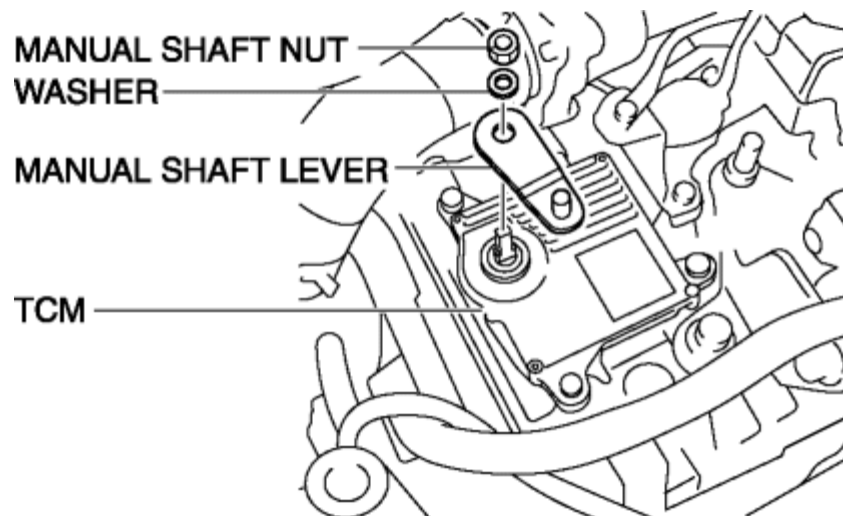
15. Tighten the TCM installation bolts.



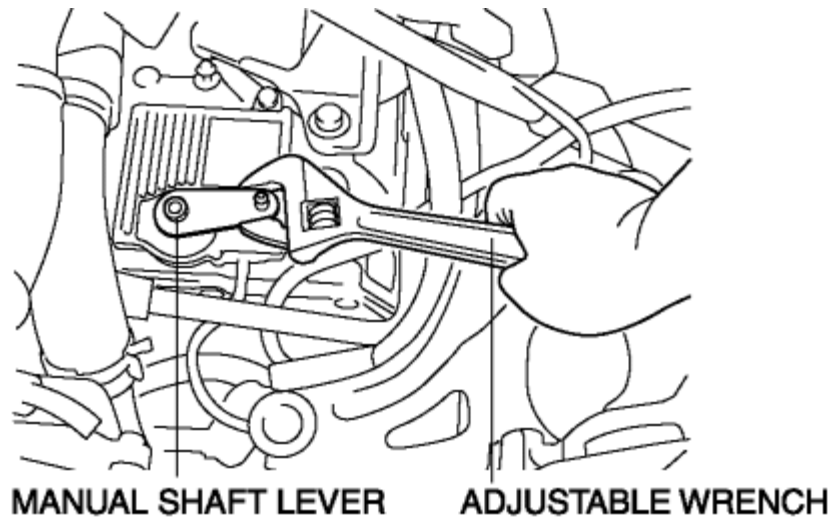
Tightening torque

- 20—29 N·m {2.1—2.9 kgf·m, 15—21 ft·lbf}

16. Install the manual shaft lever, washer and manual shaft nut.



17. Set the adjustable wrench as shown in the figure to hold the manual shaft lever.



CAUTION:

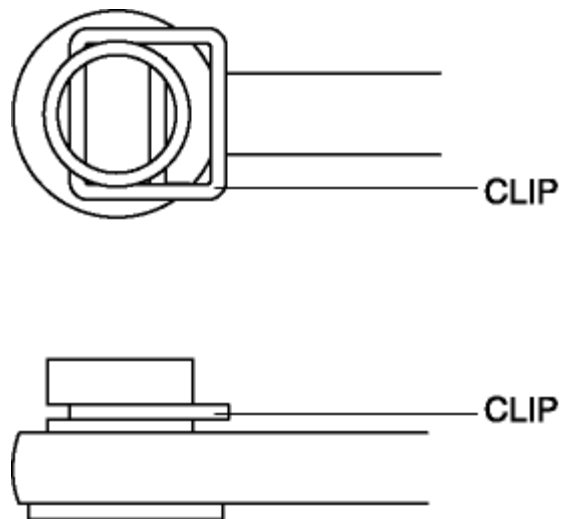
- Do not use an impact wrench. Hold the manual shaft lever when installing the manual shaft nut, or the transaxle may be damaged.

18. Tighten the manual shaft nut.

Tightening torque

- 10—14 N·m {102—142 kgf·cm, 89—123 in·lbf}

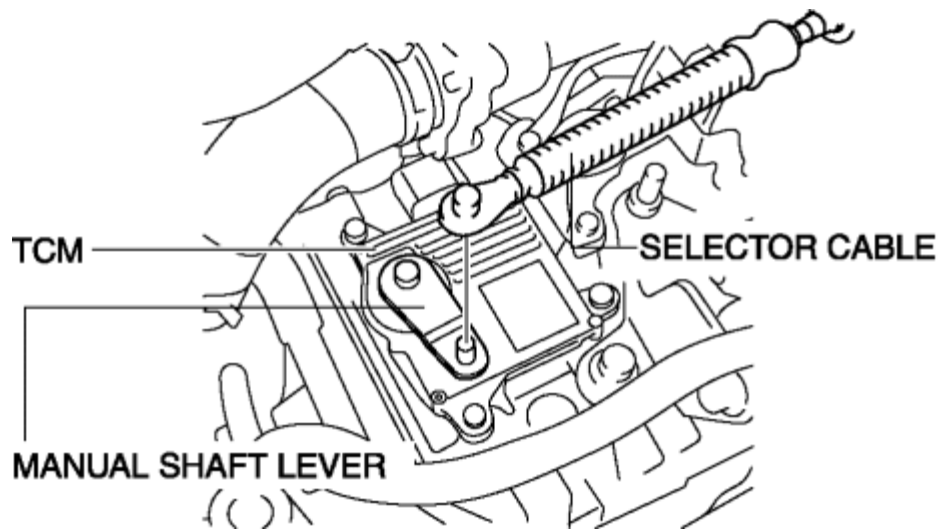
19. Install the clip to the selector cable as shown in the figure.



20. Shift the selector lever to P position.

21. Turn the manual shaft lever to P position.

22. Install the selector cable to the manual shaft lever.



23. Connect the TCM connector.
24. Install the fresh-air duct and air cleaner component as a single unit. (See [INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION \[MZI 3.7 V6\]](#).)
25. Connect the negative battery cable.
26. Perform the "Neutral Position Learning". (See [TCM NEUTRAL POSITION LEARNING \[AY6A-EL\]](#).)

[< Previous](#) [Next >](#)

[Back to Top](#)

© 2012 Mazda North American Operations, U.S.A.