



SERVICE BULLETIN

Classification: AT16-002	Reference: NTB16-038	Date: April 8, 2016
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2016 TITAN XD; 6AT TRANSMISSION CALIBRATION

APPLIED VEHICLES: 2016 Titan XD (A61)
APPLIED TRANSMISSION: 6AT: RE6R01A
APPLIED ENGINE: Cummins 5.0L V8 Diesel

SERVICE INFORMATION

Anytime the 6AT (RE6R01A) transmission or its Transmission Control Module (TCM) is replaced an adjustment procedure **must be performed** using CONSULT-III plus.

IMPORTANT:

If the transmission adjustment is **not** performed, the transmission may have the following conditions:

- Poor shift quality
- Improper shift timing
- Engine RPM flares between shifts

IMPORTANT: Do Not perform the transmission adjustment procedure on vehicles with more than 500 miles on the odometer, **unless** the transmission or the Transmission Control Module (TCM) is replaced.

Nissan Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. NOTE: If you believe that a described condition may apply to a particular vehicle, DO NOT assume that it does. See your Nissan dealer to determine if this applies to your vehicle.

SERVICE PROCEDURE

1. Make sure the transmission is warm.
 - It may be helpful to take the vehicle for a drive (approximately 10 minutes) to warm the transmission.
2. Confirm the transmission fluid level is correct.
 - Follow the procedure for Checking the AT Fluid Level in the Electronic Service Manual (ESM), section TM-Transaxle & Transmission.
3. Set the parking brake.
4. Chock the wheels.
5. Connect the CONSULT PC to the vehicle with the plus VI.
6. Start the engine.
7. Turn the A/C system OFF.
8. Start CONSULT-III plus (C-III plus).

9. When the VI is recognized, select **Diagnosis (One System)**.

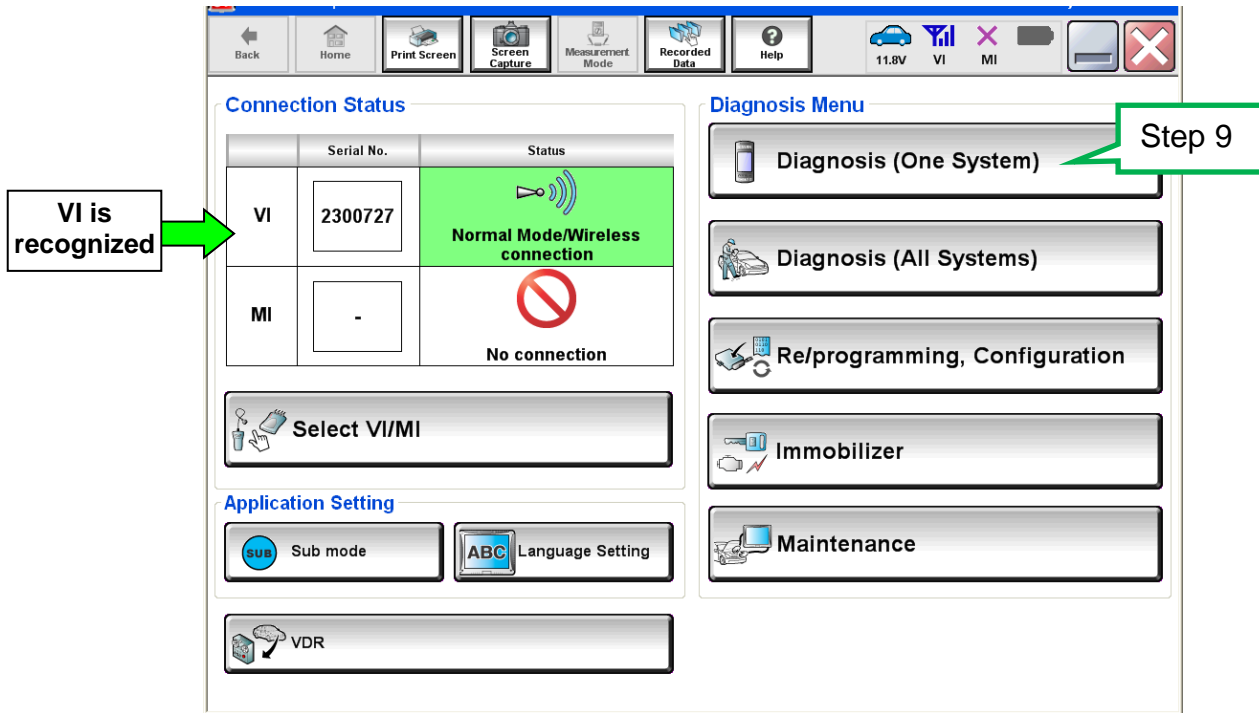


Figure 1

10. Navigate C-III plus to Transmission > Work support (see Figure 2).

11. Select **Transmission adjustment**.

12. Select **Start**.

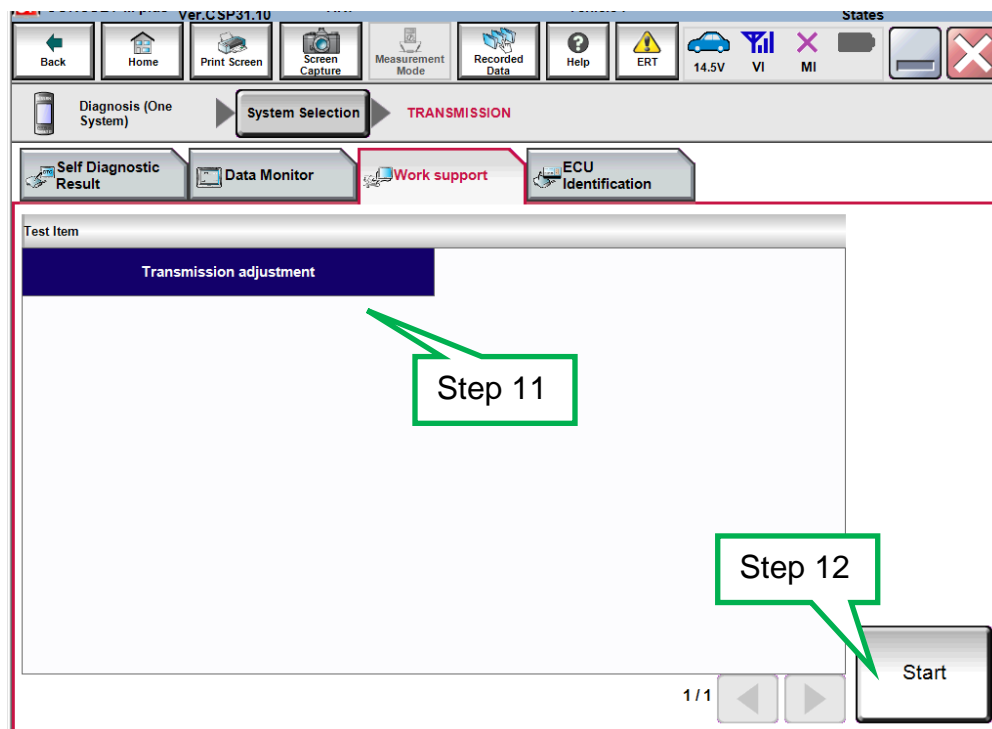


Figure 2

NOTE:

- While performing the Transmission Adjustment procedure, a screen like the one in Figure 3 will display.
- Review the call outs in Figure 3 explaining the information on this screen.
- This information will be helpful as you perform the Transmission Adjustment procedure.
- While C-III plus is performing automatic adjustments, you will hear and feel the transmission changing gear position.

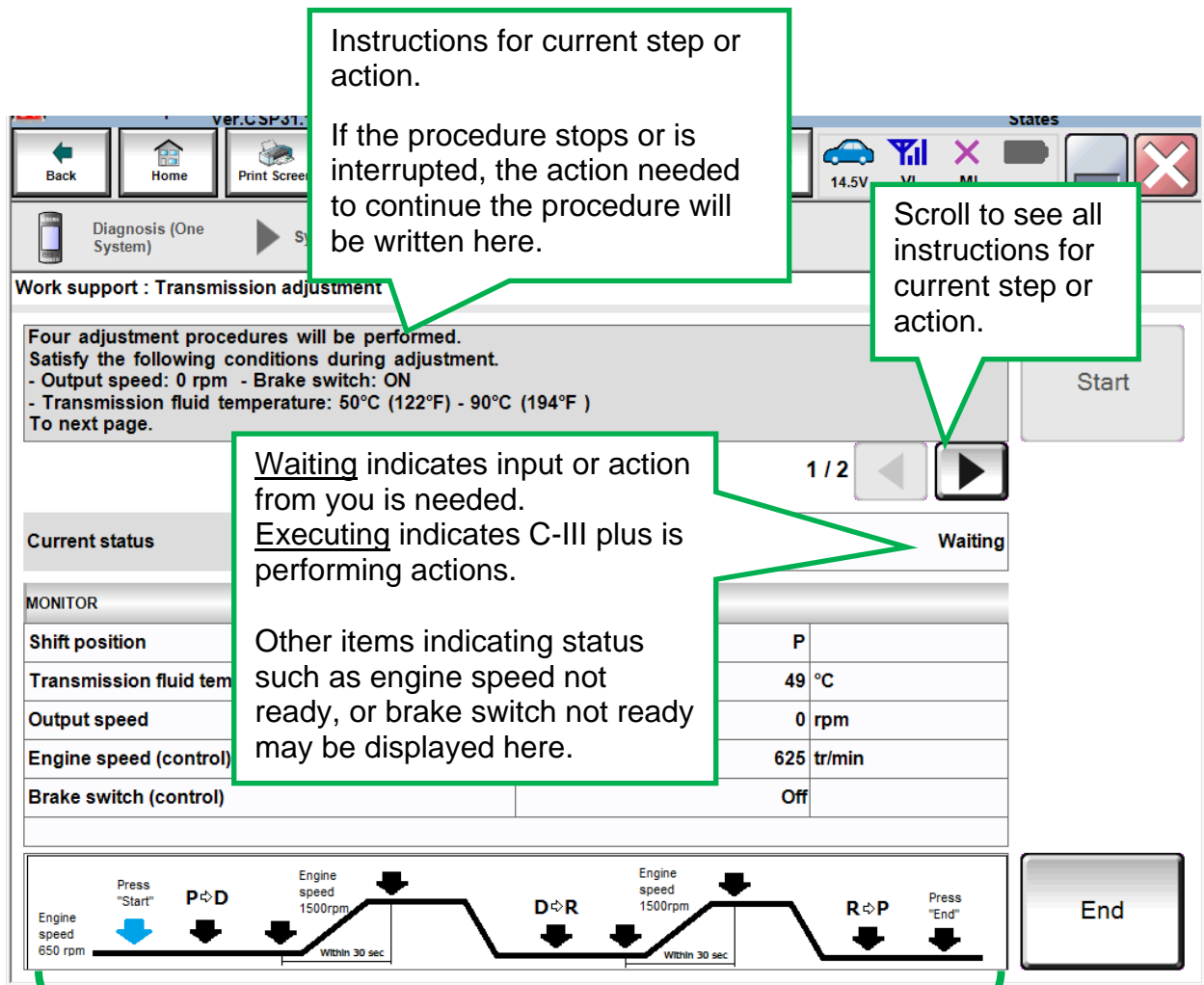


Figure 3

Arrow will turn blue indicating procedure progress.

NOTE: There are 4 adjustment procedures within the Transmission Adjustment.

First Adjustment Procedure

13. Confirm the following conditions (refer to the C-III plus screen):

- Shift position: D
- Transmission fluid temperature: 50°C (122°F) – 90°C (194°F)
- Output speed: 0 rpm
- Engine speed (control): 600 tr/min (rpm) or more
- Brake switch (control): On

14. When the above conditions are met, select **Start**.

- Current status will change from Waiting to **EXECUTING**.

NOTE: If current status indicates EXECUTING, wait (about 3 minutes) for the first adjustment procedure to complete.

15. Wait for the first adjustment procedure to complete (about 3 minutes).

- When complete, current status will change to **Waiting**.

Work support : Transmission adjustment

For the first adjustment procedure, satisfy the following condition as well as the above listed conditions.

- Engine speed: 600 rpm or more
- Shift position: D

Start

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Current status: EXECUTING

MONITOR	
Shift position	D
Transmission fluid temperature	72 °C
Output speed	0 rpm
Engine speed (control)	624 tr/min
Brake switch (control)	On

End

Sequence diagram: Press "Start" (650 rpm) → P ⇄ D → Engine speed 1500rpm (Within 30 sec) → D ⇄ R → Engine speed 1500rpm (Within 30 sec) → R ⇄ P → Press "End"

Figure 4

Second Adjustment Procedure

16. Confirm the following conditions (refer to the C-III plus screen):

- Shift position: D
- Transmission fluid temperature: 50°C (122°F) – 90°C (194°F)
- Output speed: 0 rpm
- Engine speed (control): 1,250 – 1,750 tr/min (rpm)
- Brake switch (control): On

17. When the above conditions are met:

- Current status will change from Waiting to **EXECUTING**.
- **Keep the rpm about 1,600** so that when the rpm drops, caused by transmission shifts, it will not interrupt the procedure.
- If the procedure is interrupted; follow the on screen instructions (which includes turning the ignition OFF and back ON) and then start from the beginning (step 13).

NOTE: Keeping the rpm in the correct range is a bit challenging, and may take a few tries (practice) to get it right.

18. Wait for the second adjustment procedure to complete.

- When complete, current status will change to **Waiting**.

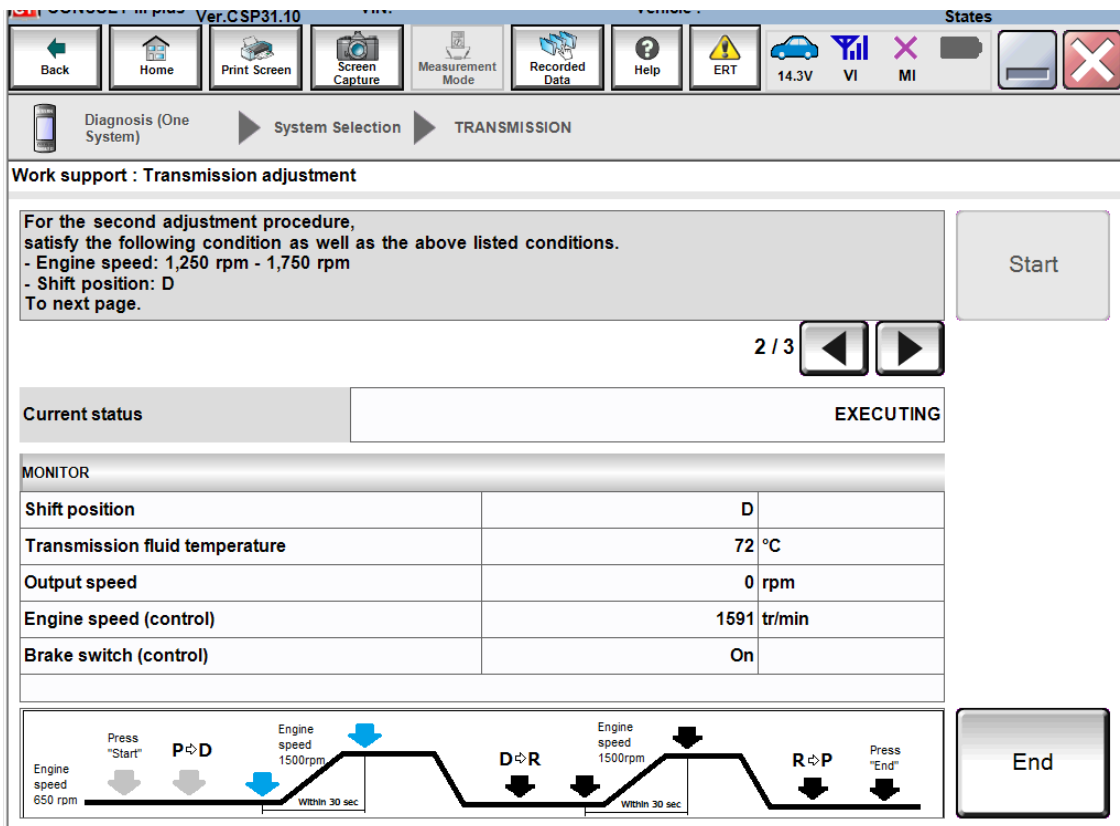


Figure 5

Third Adjustment Procedure

19. Confirm the following conditions (refer to the C-III plus screen):

- Shift position: **R**
- Transmission fluid temperature: 50°C (122°F) – 90°C (194°F)
- Output speed: 0 rpm
- Engine speed (control): 600 tr/min (rpm) or more
- Brake switch (control): On

20. When the above conditions are met:

- Current status will change from Waiting to **EXECUTING**.

21. Wait for the third adjustment procedure to complete.

- When complete, current status will change to **Waiting**.

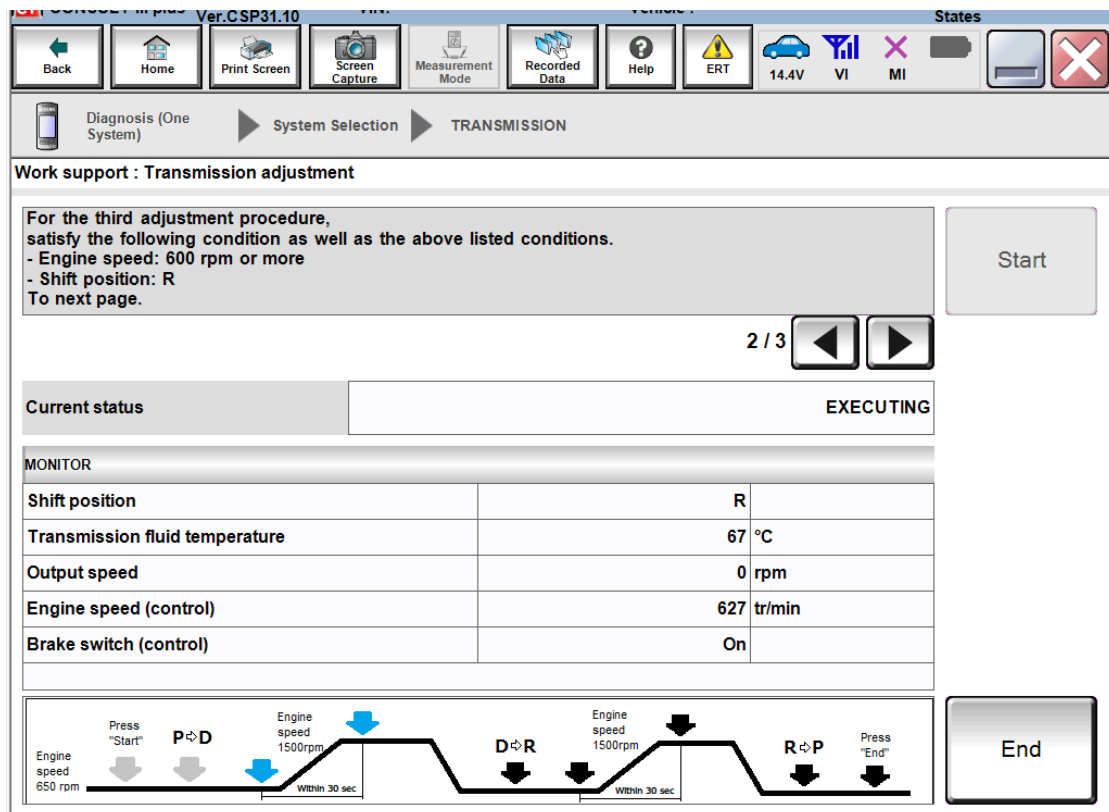


Figure 6

Fourth Adjustment Procedure

22. Confirm the following conditions (refer to the C-III plus screen):

- Shift position: R
- Transmission fluid temperature: 50°C (122°F) – 90°C (194°F)
- Output speed: 0 rpm
- Engine speed (control): 1,250 – 1,750 tr/min (rpm)
- Brake switch (control): On

23. When the above conditions are met:

- Current status will change from Waiting to **EXECUTING**.
- **Keep the rpm about 1,600** so that when the rpm drops, caused by transmission shifts, it will not interrupt the procedure.
- If the procedure is interrupted, follow the on screen instructions and start from the beginning (step 13).

24. Wait for the fourth adjustment procedure to complete.

- When complete the screen in Figure 8 (next page) will display.

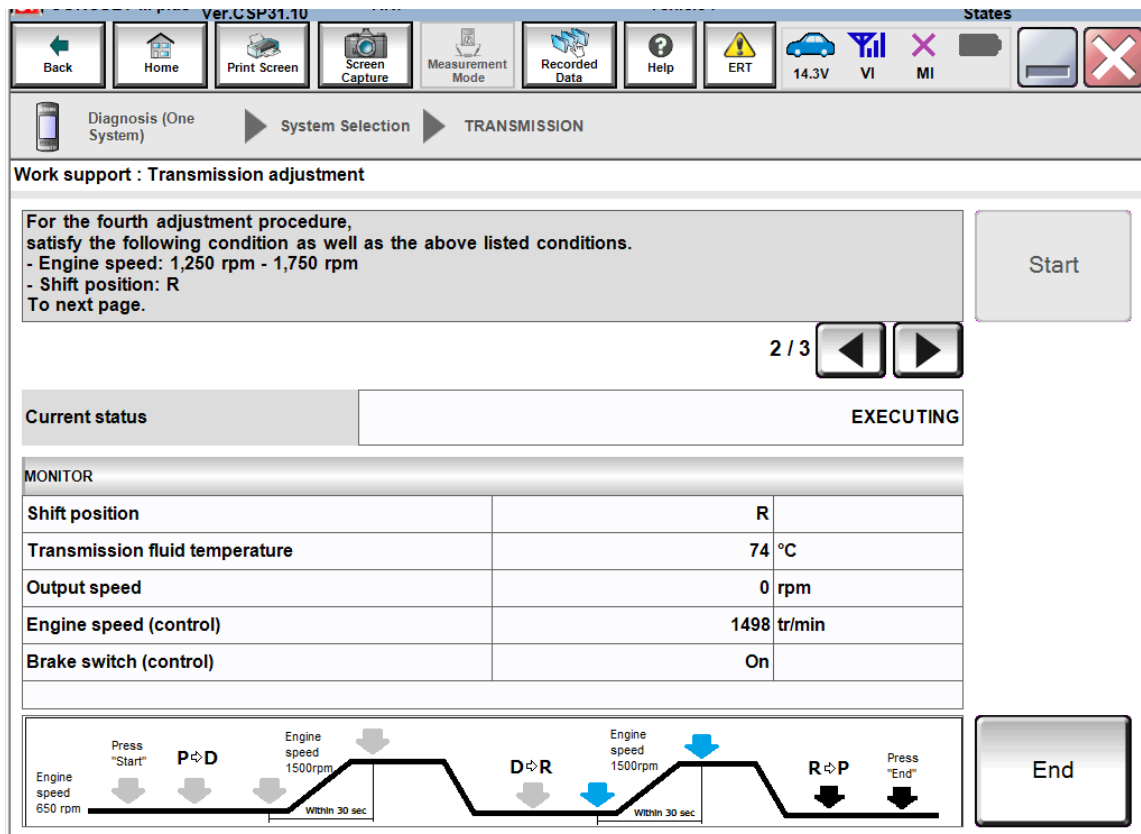


Figure 7

25. When the Transmission Adjustment has completed (see Figure 8), shift the transmission to Park.

26. Turn the ignition OFF.

27. Select **End**.

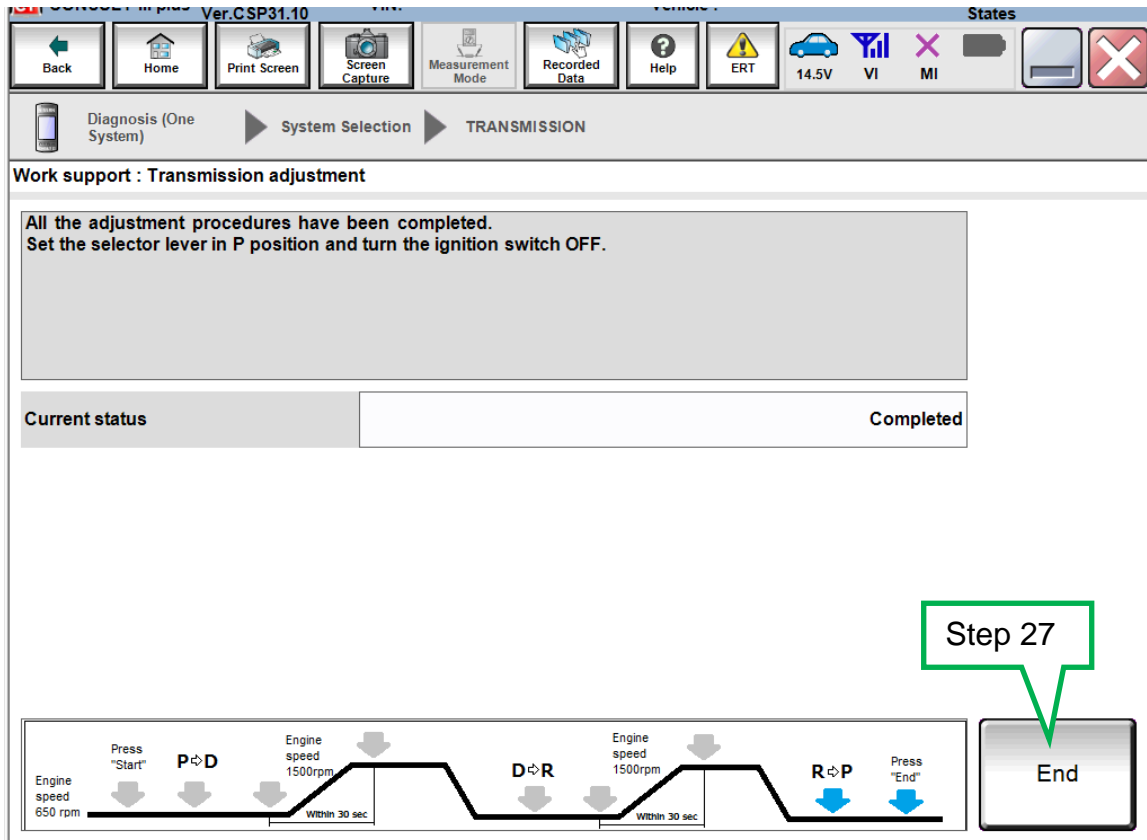


Figure 8