SERVICE BULLETIN

MITSUBISHI MOTORS

GLOBAL AFTER SALES OFFICE, MITSUBISHI MOTORS CORPORATION

PURPOSE : CORRECTION	ISSUE NO. : MSB-14EXL23-502	DATE : 2014-05-16
SUBJECT : MAINTENANCE PROCEDURES REGARDING CVT(F1CJC/W1CJC)		<DESTINATION/MODEL> (As shown below) <M/Y> 15
GROUP : CVT(Gr:23)		ASX/OUTLANDER SPORT(GA0W)

1. Description :

Please refer to the attached document for the correction of the error in writing existing in the applicable service manual. (There are some corrected portion about the maintenance procedures regarding CVT(F1CJC/W1CJC))

- ・Errors in learning procedures
- ・Omission of cautions regarding removal and installation of CVT-ECU, CVT ASSEMBLY and VALVE BODY ASSEMBLY.

2. Affected service manuals :

EUR/RUSSIA/SOUTH AFRICA

Applicable manual	Pub. No.	Applicable title (INFO ID)	Contents
2015 ASX Workshop Manual	CGA E15E1-CD (English) CGA F15E1-CD (French) CGA G15E1-CD (German) CGA S15E1-CD (Spanish) CGA I15E1-CD (Italian) RUSSIA:N/A	G-23A: LEARNING PROCEDURE (M231-22-440-01900-01)	Refer to attached sheet 1
		G-23A: OIL PAN AND VALVE BODY ASSEMBLY (M231-22-360-02100-01)	Refer to attached sheet 2
		G-23A: TRANSMISSION ASSEMBLY (M231-20-361-18500-01)	Refer to attached sheet 3
		G-23A: CVT-ECU (M231-21-140-44000-01)	Refer to attached sheet 4

G.EXP/GCC/MMAL/NZ

Applicable manual	Pub. No.	Applicable title (INFO ID)	Contents
2015 ASX/OUTLANDER SPORT Workshop Manual	PWPE1412R (English) PWPS1413R (Spanish) MMAL:AU900418 NZ:DRAFT	G-23A: LEARNING PROCEDURE (M231-22-440-01900-01)	Refer to attached sheet 1
		G-23A: OIL PAN AND VALVE BODY ASSEMBLY (M231-22-360-01000-01)	Refer to attached sheet 5
		G-23A: TRANSMISSION ASSEMBLY (M231-20-361-16300-01)	Refer to attached sheet 6
		G-23A: CVT-ECU (M231-21-140-43900-01)	Refer to attached sheet 7

3. About the details :

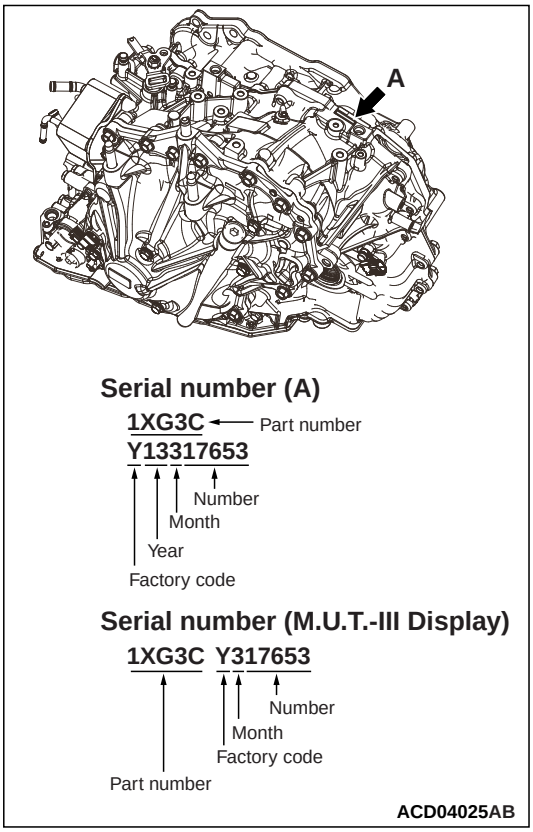
Please refer to the attached document (Attached sheet 1-7)

LEARNING PROCEDURE

When the CVT-ECU, the CVT assembly or the valve body assembly is replaced, adopt the system by using the M.U.T.-III.

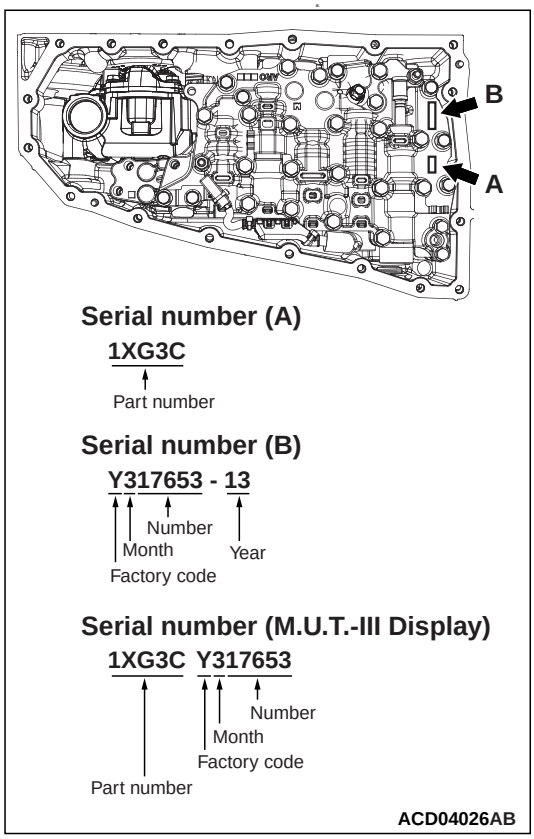
WHEN REPLACING THE CVT-ECU

1. Turn the ignition switch to the "LOCK" (OFF) position. Then, connect M.U.T.-III to the diagnosis connector.
2. Turn the ignition switch to the "ON" position.
3. Execute the special function "Write calibration value (Calibration value Read&save)" on the M.U.T.-III to read a serial number which is stored in the CVT-ECU.



4. Make sure that the read serial number corresponds with the one stamped on the CVT assembly (see illustration).

NOTE: If it does not correspond, observe the following procedure.



Remove the oil pan (refer to), and check the serial number of the valve body assembly shown in the illustration.

b. If no serial number is stamped on the valve body assembly, import data from the server to the M.U.T.-III according to the serial number on the CVT assembly.

c. If a serial number is stamped on the valve body assembly, make sure that the read serial number corresponds with the one stamped on the valve body assembly (see illustration).

YES: Store the serial number in the M.U.T.-III.

NO: Import data from the server to the M.U.T.-III according to the serial number on the valve body assembly.

5. Store the serial number in the M.U.T.-III.

   NOTE: Be sure to write down the serial number. The serial number will be needed to compare it with the number imported into the M.U.T.-III and to select the number.

6. Turn the ignition switch to the "LOCK" (OFF) position.
7. Remove the CVT-ECU and install a new CVT-ECU (Refer to).
8. Turn the ignition switch to the "ON" position.

9. Make sure that the selector lever is in the P or N range and that P or N is not displayed on the combination meter.
10. Execute the special function "Write calibration value (Saved calibration value writing)" on the M.U.T.-III to write the serial number into the ECU.
11. The shift range symbol (P or N) in the combination meter should illuminate.

    NOTE: If the shift range symbol (P or N) in the combination meter does not illuminate, observe the following procedure.

    a. *Move the selector lever to the R range.*
    b. *Depress the accelerator pedal while depressing the brake pedal. (Engine stops.) Use the M.U.T.-III special function to execute "Calibration value reset (item No.1: Calibration value reset)" while holding them in applied position.*
    c. *Set the selector lever to the P range.*
    d. *Turn the ignition switch to the "LOCK" (OFF) position, and then wait for ten seconds.*
    e. *Repeat from Step 2.*
12. Make sure that the serial number on "Saved calibration value writing" completion screen corresponds with the serial number of the CVT assembly (or the valve body assembly) that was written down earlier.

    NOTE: If it does not correspond, observe the following procedure.

    a. *Move the selector lever to the R range.*
    b. *Depress the accelerator pedal while depressing the brake pedal. (Engine stops.) Use the M.U.T.-III special function to execute "Calibration value reset (item No.1: Calibration value reset)" while holding them in applied position.*
    c. *Set the selector lever to the P range.*
    d. *Turn the ignition switch to the "LOCK" (OFF) position, and then wait for ten seconds.*
    e. *Repeat from Step 10.*
13. Turn the ignition switch to the "LOCK" (OFF) position.
14. Check that the slip control does not work when the vehicle starts.

<Incorrect>

<Incorrect>

NOTE: If the slip control works, observe the following procedure.

a. *Start the engine.*
b. *Teach the system a meeting point. All of the following conditions must be satisfied for approximately 90 seconds.*
   - *The vehicle is stationary.*
   - *Engine speed: 500 – 850 r/min (Idling)*
   - *Brake pedal: Depress*
   - *Accelerator pedal: Release*
   - *Selector lever position: D*
   - *CVT fluid temperature: 40 – 100°C*
   - *There is no abnormality in the CVT and its related components.*
c. *Turn the ignition switch to the "LOCK" (OFF) position.*

15. Operation complete.

WHEN REPLACING THE CVT ASSEMBLY

1. Note the serial number, which is stamped on the new CVT assembly.
2. Remove the CVT assembly and install a new CVT assembly.
3. Connect M.U.T.-III to the diagnosis connector.
4. Turn the ignition switch to the "ON" position.
5. Import a serial number from the CD-R*, which is supplied with a new CVT assembly, into the M.U.T.-III.

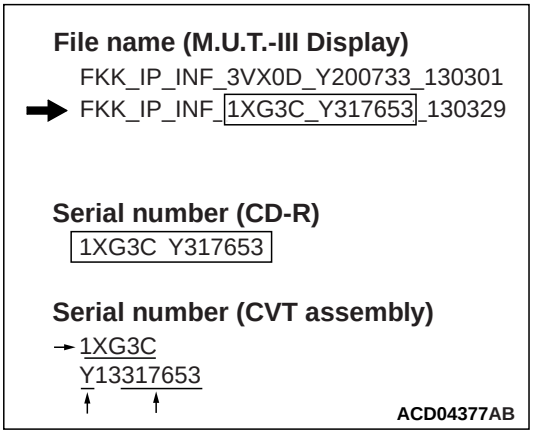
   *NOTE: *: Follow the steps below to import a serial number from the CD-R into the M.U.T.-III.*

   1. *Select "Special function."*
   2. *Select "Write calibration value."*
   3. *Select "Saved calibration value writing."*
   4. *Press the "File import" button.*
   5. *Select an appropriate removable disc.*
   6. *Confirm that "Completed." is displayed.*
6. Move the selector lever to the R range.
7. Depress the accelerator pedal while depressing the brake pedal. (Engine stops.) Use the M.U.T.-III special function to execute "Calibration value reset (item No.1: Calibration value reset)" while holding them in applied position.
8. Set the selector lever to the P range.
9. Turn the ignition switch to the "LOCK" (OFF) position, and then wait for ten seconds.
10. Turn the ignition switch to the "ON" position.

Insert the attached sheet 1 (6/6)

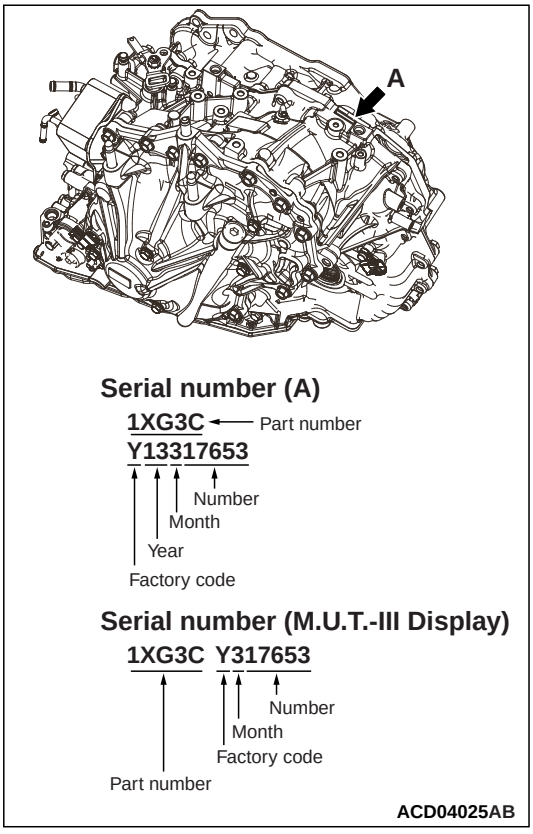
Insert the attached sheet 1 (6/6)

11. Make sure that the selector lever is in the P or N range and that P or N is not displayed on the combination meter.



12. Select the same file name (shown in the illustration) as the serial number of CD-R or CVT assembly on the special function "Write calibration value (Saved calibration value writing)" screen and import the serial number into the M.U.T.-III.
13. The shift range symbol (P or N) in the combination meter should illuminate.

NOTE: If the shift range symbol (P or N) in the combination meter does not illuminate, repeat the operations from step 5.



14. Make sure that the serial number on "Saved calibration value writing" completion screen corresponds with the serial number of the new CVT assembly (see illustration) that was written down earlier.

NOTE: If it does not correspond, repeat the operations from step 5.

15. Turn the ignition switch to the "LOCK" (OFF) position.

<Incorrect>

16. Check that the slip control does not work when the vehicle starts.

NOTE: If the slip control works, observe the following procedure.

a. Start the engine.
b. Teach the system a meeting point. All of the following conditions must be satisfied for approximately 90 seconds.
- *The vehicle is stationary.*
- *Engine speed: 500 – 850 r/min (Idling)*
- *Brake pedal: Depress*
- *Accelerator pedal: Release*
- *Selector lever position: D*
- *CVT fluid temperature: 40 – 100°C*
- *There is no abnormality in the CVT and its related components.*

c. Turn the ignition switch to the "LOCK" (OFF) position.

17. Turn the ignition switch to the "ON" position.
18. Execute the special function "CVT oil degradation level (item No.1: Clear CVT oil degradation level)" on the M.U.T.-III to delete a CVT fluid deterioration level.
19. Operation complete.

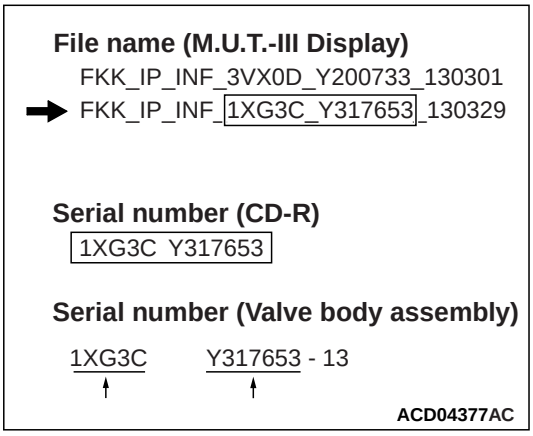
WHEN REPLACING THE VALVE BODY ASSEMBLY

1. Note the serial number, which is stamped on the new valve body assembly.
2. Remove the valve body assembly and install a new valve body assembly.
3. Connect M.U.T.-III to the diagnosis connector.
4. Turn the ignition switch to the "ON" position.
5. Import a serial number from the CD-R*, which is supplied with a new valve body assembly, into the M.U.T.-III.

*NOTE: *: Follow the steps below to import a serial number from the CD-R into the M.U.T.-III.*

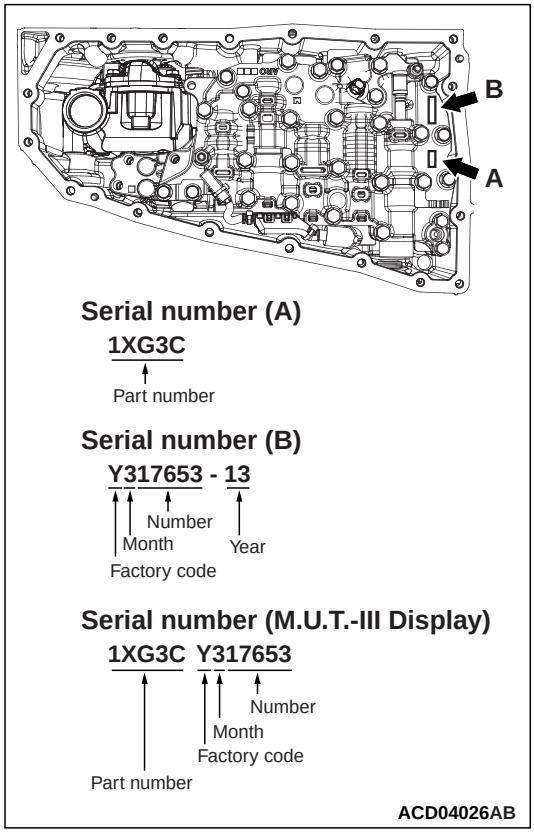
1. *Select "Special function."*
2. *Select "Write calibration value."*
3. *Select "Saved calibration value writing."*
4. *Press the "File import" button.*
5. *Select an appropriate removable disc.*
6. *Confirm that "Completed." is displayed.*

6. Move the selector lever to the R range.
7. Depress the accelerator pedal while depressing the brake pedal. (Engine stops.) Use the M.U.T.-III special function to execute "Calibration value reset (item No.1: Calibration value reset)" while holding them in applied position.
8. Set the selector lever to the P range.
9. Turn the ignition switch to the "LOCK" (OFF) position, and then wait for ten seconds.
10. Turn the ignition switch to the "ON" position.
11. Make sure that the selector lever is in the P or N range and that P or N is not displayed on the combination meter.



12. Select the same file name (shown in the illustration) as the serial number of CD-R or valve body assembly on the special function "Write calibration value (Saved calibration value writing)" screen and import the serial number into the M.U.T.-III.
13. The shift range symbol (P or N) in the combination meter should illuminate.

    NOTE: If the shift range symbol (P or N) in the combination meter does not illuminate, repeat the operations from step 5.



14. Make sure that the serial number on "Saved calibration value writing" completion screen corresponds with the serial number of the new valve body assembly (see illustration) that was written down earlier.

    NOTE: If it does not correspond, repeat the operations from step 5.

15. Turn the ignition switch to the "LOCK" (OFF) position, and then wait for ten seconds.
16. Set the vehicle to the following condition.
    - The vehicle is stationary.
    - Engine speed: 500 – 850 r/min (Idling)
    - Brake pedal: Depress
    - Air conditioner: OFF
    - Accelerator pedal: Release
    - Selector lever position: N
    - CVT fluid temperature: 50 – 100°C
17. Depress and hold the brake pedal fully to secure the vehicle against rolling away, and execute the special function "Control valve learning mode (item No.1: Control valve learning mode)" on the M.U.T.-III.
18. Move the selector lever to the "D" position, and confirm that "Completed." is displayed on the M.U.T.-III screen after 60 seconds.

Insert the attached sheet 1 (6/6)

NOTE: If "Complete" is not displayed on the M.U.T.-III within 60 seconds, move back the selector lever to N range. Then execute the item No.1; Control valve learning mode again.

19. Shift the selector lever to P position.
20. Turn the ignition switch to the "LOCK" (OFF) position, and then wait for ten seconds.
21. Set the vehicle to the following condition.
    - The vehicle is stationary.
    - Engine speed: 500 – 850 r/min (Idling)
    - Brake pedal: Depress
    - Air conditioner: OFF
    - Accelerator pedal: Release
    - Selector lever position: N
    - CVT fluid temperature: 50 – 100°C
22. Depress and hold the brake pedal fully to secure the vehicle against rolling away, and execute the special function "Control valve learning mode (item No.1: Control valve learning mode)" on the M.U.T.-III.
23. Move the selector lever to the "R" position, and confirm that "Completed." is displayed on the M.U.T.-III screen after 60 seconds.

    NOTE: If "Complete" is not displayed on the M.U.T.-III within 60 seconds, move back the selector lever to N range. Then execute the item No.1; Control valve learning mode again.
24. Shift the selector lever to P position.
25. Turn the ignition switch to the "LOCK" (OFF) position, and then wait for ten seconds.
26. Check that the slip control does not work when the vehicle starts.

    NOTE: If the slip control works, observe the following procedure.

<Incorrect>

    a. Start the engine.
    b. Teach the system a meeting point. All of the following conditions must be satisfied for approximately 90 seconds.
        - *The vehicle is stationary.*
        - *Engine speed: 500 – 850 r/min (Idling)*
        - *Brake pedal: Depress*
        - *Accelerator pedal: Release*
        - *Selector lever position: D*
        - *CVT fluid temperature: 40 – 100°C*
        - *There is no abnormality in the CVT and its related components.*
    c. Turn the ignition switch to the "LOCK" (OFF) position.

27. Turn the ignition switch to the "ON" position.
28. Execute the special function "CVT oil degradation level (item No.1: Clear CVT oil degradation level)" on the M.U.T.-III to delete a CVT fluid deterioration level.
29. Operation complete.

<Correct>

Observe the operations below:

a. Wait until the engine is warmed up. Then road test the vehicle for approx. one minute at 40 km/h or more. Consequently, check whether the CVT is in the following conditions.
   - No CVT-related diagnosis code is set.
   - A diagnosis code is set, but you cannot identify any trouble symptoms (e.g. abnormal noise)
   - There is no fluid leak.

b. Start the engine.

c. Teach the system a meeting point. All of the following conditions must be satisfied for approximately 90 seconds.
   - The vehicle is stationary.
   - Engine speed: 500 - 850 r/min (Idling)
   - Brake pedal: Depress
   - Accelerator pedal: Release
   - Selector lever position: D
   - Transmission fluid temperature: 40 - 100°C

d. Turn the ignition switch to the "LOCK" (OFF) position.

Attached sheet 2

<Added>

- **Before replacing the valve body, you should make a note of the serial No. which is stamped on the new valve body assembly.**

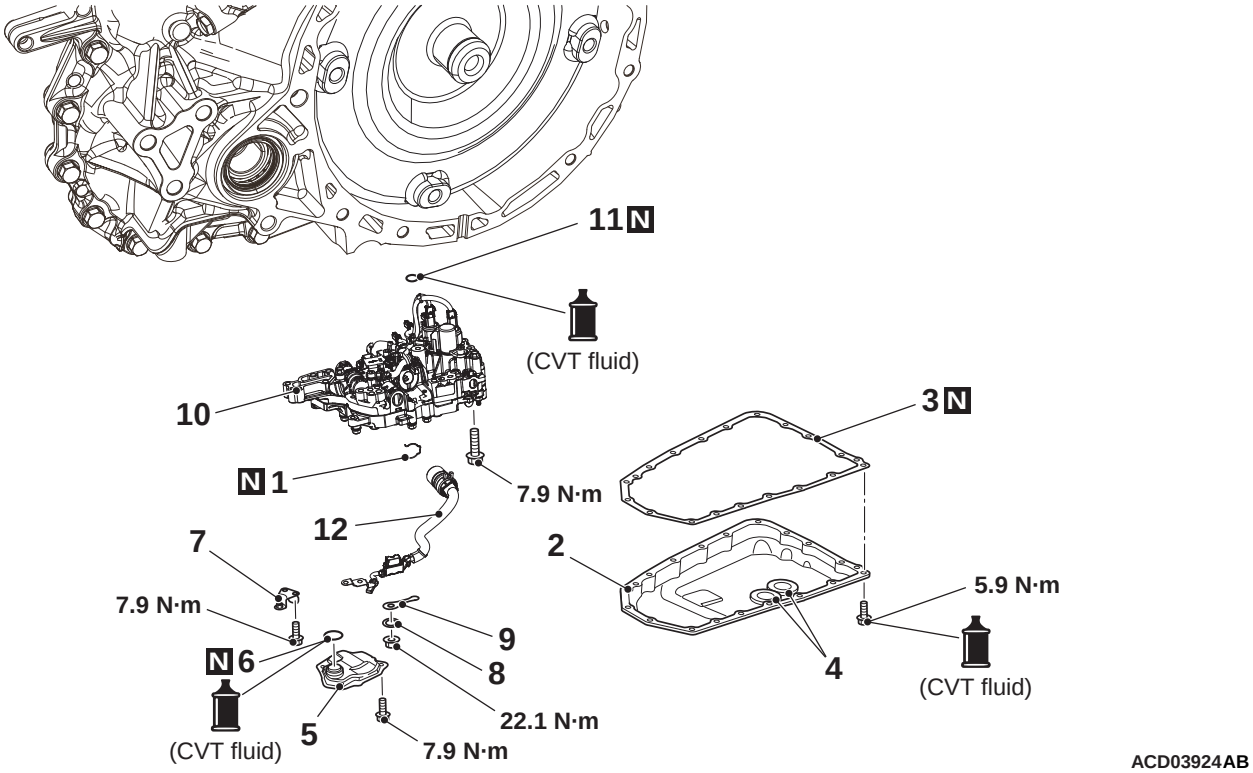
OIL PAN AND VALVE BODY ASSEMBLY

REMOVAL AND INSTALLATION

⚠ CAUTION

- **When the valve body assembly is replaced, carry out the following operations.**
  - **Initialisation Procedure for CVT Learned Value (Refer to .)**
  - **Learning Procedure (Refer to .)**

Pre-removal operation	Post-installation operation
• Engine Room Under Cover Front A, B and Engine Room Side Cover (LH) Removal. (Refer to GROUP 51 – Under Cover) • CVT Assembly Connector Disconnection. • CVT Fluid Draining (Refer to).	• Engine Room Under Cover Front A, B and Engine Room Side Cover (LH) Installation. (Refer to GROUP 51 – Under Cover) • CVT Assembly Connector Connection. • CVT Fluid Refilling (Refer to).



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Removal steps

<<A>>
1. Snap ring
>>E<<
2. Oil pan
>>D<<
3. Oil pan gasket
4. Magnet
>>C<<
5. Oil strainer
6. O-ring
7. Bracket

<<B>>
8. Spring washer
9. Manual lever
>>B<<
10. Valve body assembly
>>A<<
11. Lip seal
12. Valve body harness

Attached sheet 3

<Added>

- **Before replacing the transmission assembly, you should make a note of the serial No. which is stamped on the new transmission assembly.**

TRANSMISSION ASSEMBLY

REMOVAL AND INSTALLATION

⚠ CAUTION

- **When the transmission assembly is replaced, carry out the following operations.**
  - **Initialisation Procedure for CVT Learned Value (Refer to .)**
  - **Learning Procedure (Refer to .)**

Pre-removal and post-installation operation

- EnginE Room Under Cover Front A, B and Engine Room Side Cover Removal and Installation. (Refer to GROUP 51 – Under Cover)
- CVT Fluid Draining and Refilling. (Refer to)
- Engine Coolant Draining and Refilling. (Refer to GROUP 14 – On-vehicle Service, Engine Coolant Replacement)
- Air Cleaner Assembly, Air Cleaner Bracket Removal and Installation. (Refer to GROUP 15 – Air Cleaner)
- Battery and Battery Tray Removal and Installation. (Refer to GROUP 54A – Battery)
- Engine Upper Cover Removal and Installation. (Refer to GROUP 11A – Camshaft)
- Drive Shaft Removal and Installation. (Refer to GROUP 26 – Drive Shaft Assembly)
- Centre Member Removal and Installation. (Refer to GROUP 32 – Engine Roll Stopper and Centre Member)
- Transfer Assembly Removal and Installation. <4WD> (Refer to)
- Rear Roll Stopper Removal and Installation. <4WD> (Refer to GROUP 32 – Engine Roll Stopper and Centre Member)

<Added>

● **Before commencing work, use the M.U.T.-III to read out the serial No. from the old CVT-ECU, which you will replace, and make a note of it.**

CVT-ECU

REMOVAL AND INSTALLATION

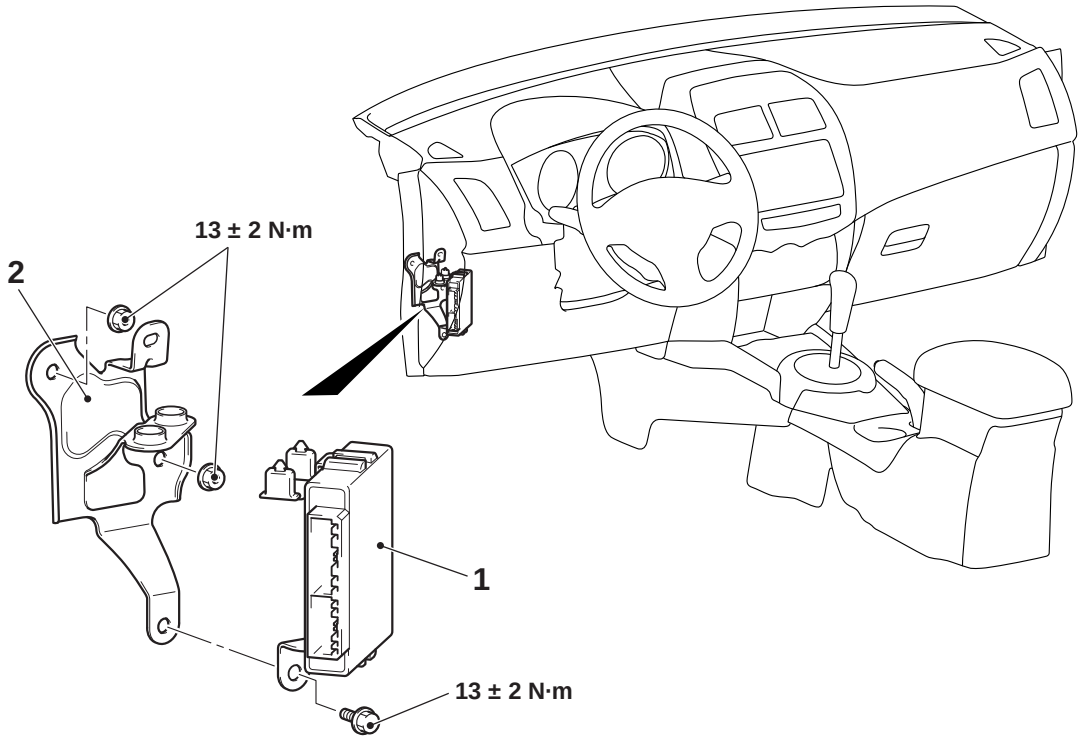
⚠ CAUTION

● **When the CVT-ECU is replaced, carry out the following operation.**

- **Learning Procedure (Refer to .)**

Pre-removal and post-installation operation
- Instrument Panel Under Cover Removal and Installation. (Refer to GROUP 52A – Instrument Panel Assembly) <RHD>

<LHD>



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Attached sheet 5

<Added>

- **Before replacing the valve body, you should make a note of the serial No. which is stamped on the new valve body assembly.**

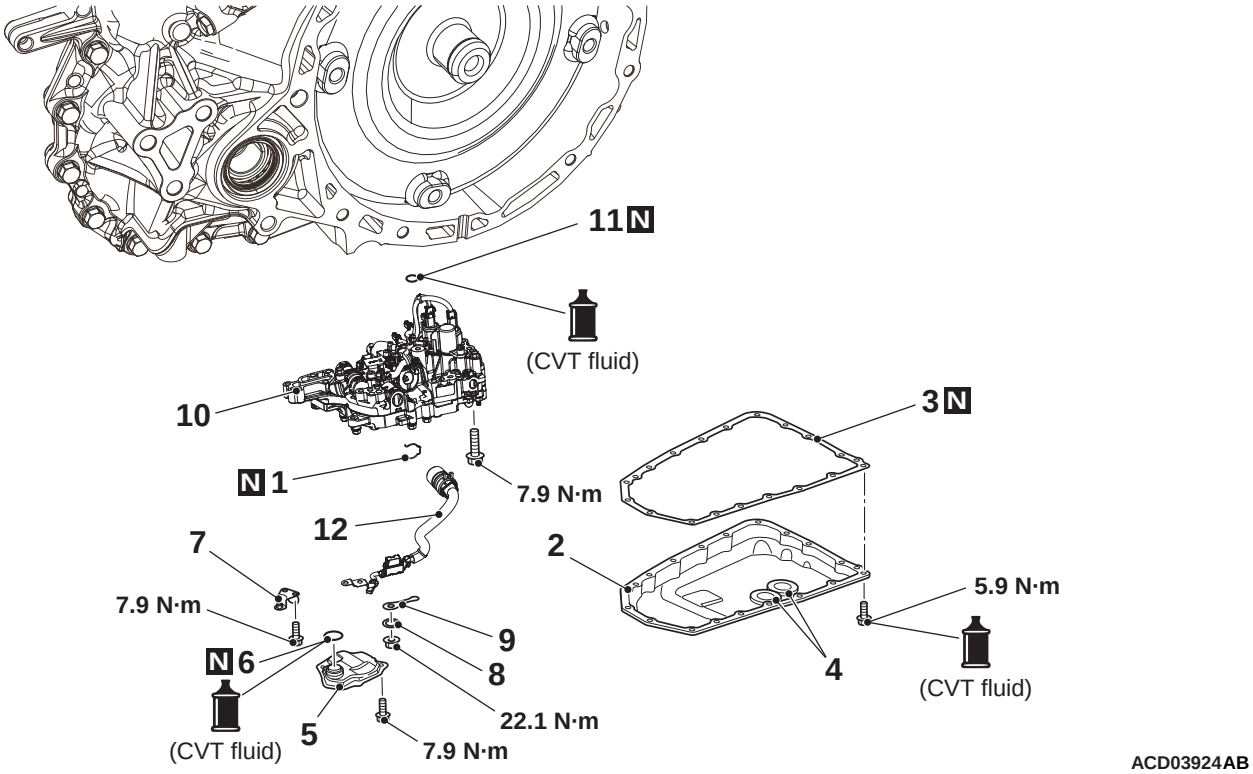
OIL PAN AND VALVE BODY ASSEMBLY

REMOVAL AND INSTALLATION

⚠ CAUTION

- **When the valve body assembly is replaced, carry out the following operations.**
  - **Initialisation Procedure for CVT Learned Value (Refer to .)**
  - **Learning Procedure (Refer to .)**

Pre-removal operation	Post-installation operation
• Engine Room Under Cover Front A, B and Engine Room Side Cover (LH) Removal. • CVT Assembly Connector Disconnection. • CVT Fluid Draining (Refer to).	• Engine Room Under Cover Front A, B and Engine Room Side Cover (LH) Installation. • CVT Assembly Connector Connection. • CVT Fluid Refilling (Refer to).



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Removal steps

<<A>>
1. Snap ring

>>E<<
2. Oil pan

>>D<<
3. Oil pan gasket

4. Magnet

>>C<<
5. Oil strainer

6. O-ring

7. Bracket

<<B>>
8. Spring washer

9. Manual lever

>>B<<
10. Valve body assembly

>>A<<
11. Lip seal

12. Valve body harness

<Added>

● **Before replacing the transmission assembly, you should make a note of the serial No. which is stamped on the new transmission assembly.**

TRANSMISSION ASSEMBLY

REMOVAL AND INSTALLATION

⚠ CAUTION

● **When the transmission assembly is replaced, carry out the following operations.**

- **Initialisation Procedure for CVT Learned Value (Refer to .)**
- **Learning Procedure (Refer to .)**

Pre-removal and post-installation operation

- EnginE Room Under Cover Front A, B and Engine Room Side Cover Removal and Installation.
- CVT Fluid Draining and Refilling. (Refer to)
- Engine Coolant Draining and Refilling.
- Air Cleaner Assembly, Air Cleaner Bracket Removal and Installation.
- Battery and Battery Tray Removal and Installation.
- Engine Upper Cover Removal and Installation.
- Drive Shaft Removal and Installation.
- Centre Member Removal and Installation.
- Transfer Assembly Removal and Installation. <4WD>
- Rear Roll Stopper Removal and Installation. <4WD>

<Added>

● Before commencing work, use the M.U.T.-III to read out the serial No. from the old CVT-ECU, which you will replace, and make a note of it.

CVT-ECU

REMOVAL AND INSTALLATION

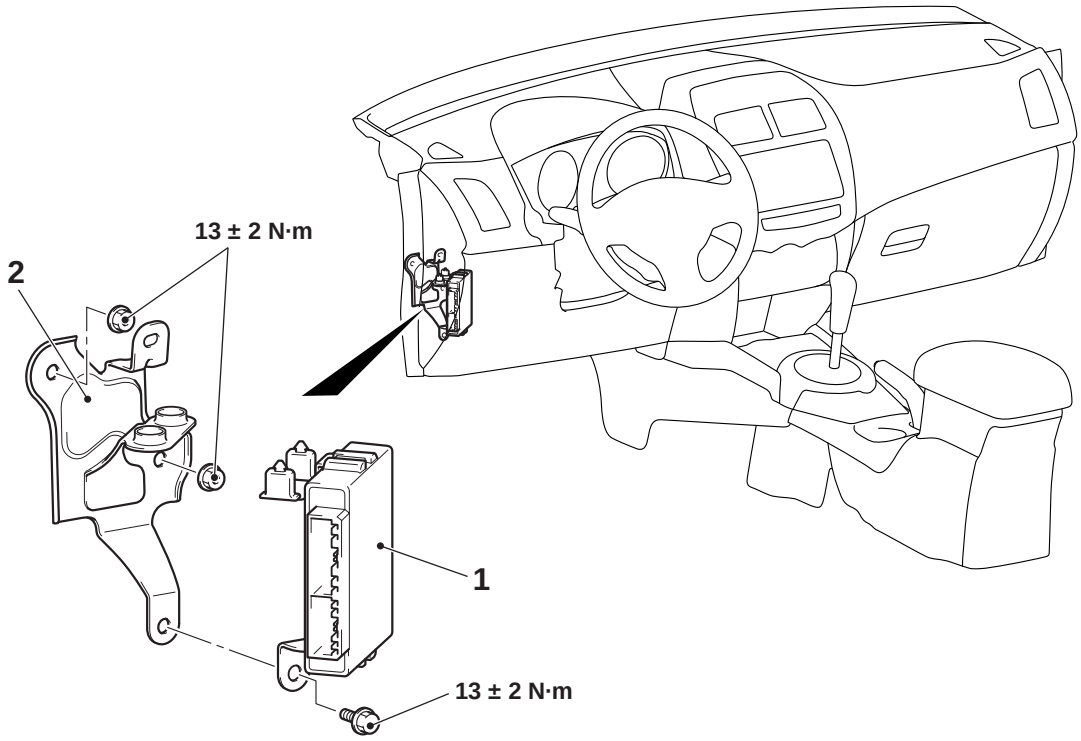
⚠ CAUTION

● When the CVT-ECU is replaced, carry out the following operation.

- **Learning Procedure (Refer to .)**

Pre-removal and post-installation operation
- Instrument Panel Under Cover Removal and Installation. <RHD>

<LHD>



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