SERVICE BULLETIN

MITSUBISHI MOTORS

GLOBAL AFTER SALES OFFICE, MITSUBISHI MOTORS CORPORATION

PURPOSE : INFORMATION	ISSUE NO. : MSB-12E11_13_16_23-001D	DATE : 2012-04-05
SUBJECT : INFORMATION ON 2012.5MY 4B1-N/A,4J1,4N1 ENGINE and CVT (RUNNING CHANGE OF 12MY)		<MODEL> (EU) <M/Y> 12.5MY
GROUP : ENGINE / FUEL / ENGINE ELECTRICAL / CVT		Outlander(CW0W),Lancer(CY0A) Lancer Sportback(CX0A),ASX(GA0W))

1. Description:

This Service Bulletin contains the following information about 2012.5MY 4B1-N/A,4J1,4N1 ENGINE and CVT.

1) 4B1-N/A, 4J1 Engine : Abolishment of One way Clutch (Drive Belt Auto-Tensioner)
Rationalization of Alternator Bracket
2) 4N1 Engine : Addition of DTC-P244A
Diesel Particulate Filter Differential Pressure Too Low

3) CVT : Abolishment of Thermo Valve

2. Applicable Manuals:

See Attached sheet 2.

3. Details:

See Attached sheet 3.

FOR EU

Applicable manual	Pub. No.	Applicable title (INFO ID)	Content
2012 ASX Workshop Manual CD-ROM	CGWE12E2-CD (ENGLISH), CGWS12E2-CD (SPANISH), CGWF12E2-CD (FRENCH), CGWG12E2-CD (GERMAN), CGWI12E2-CD (ITALIAN)	G.11A: AUTO-TENSIONER CHECK (M111-00-303-40900-01)	Attached sheet 3(1/18)
		G.11B: ALTERNATOR AND IGNITION SYSTEM (M113-00-102-63300-01)	Attached sheet 3 (2/18,4/18)
		G13B: DIAGNOSIS FUNCTION (M133-00-380-96500-01)	Attached sheet 3 (17/18.18/18)
		G13B: INSPECTION CHART FOR DIAGNOSIS (M133-00-400-97300-01)	
		G13B: P244A: Diesel Paticulate Filter Differential Pressure Too Low (M133-56-230-01000-01)新規	
		G.16: ALTERNATOR ASSEMBLY DISASSEMBLY AND REASSEMBLY (M161-00-160-92800-01)	Attached sheet 3 (5/18,6/18)
		G.23A: CVT FLUID COOLER AND COOLER LINE (M231-21-080-13300-01)	Attached sheet 3 (9/18,10/18)
2012 LANCER/LANCER SPORTBACK Workshop Manual CD-ROM	CG1E12E1-CD (ENGLISH), CG1S12E1-CD (SPANISH), CG1F12E1-CD (FRENCH), CG1G12E1-CD (GERMAN), CG1I12E1-CD (ITALIAN)	G.11C: AUTO-TENSIONER CHECK D (M111-00-303-32400-01)	Attached sheet 3(1/18)
		G.11D: ALTERNATOR AND IGNITION SYSTEM D (M113-00-102-63300-01)	Attached sheet 3 (3/18,4/18)
		G13C: DIAGNOSIS FUNCTION (M133-00-380-97600-01)	Attached sheet 3 (17/18.18/18)
		G13C: DIAGNOSIS CODE PROCEDURES (M133-00-400-99500-01)	
		G13C: P244A: Diesel Paticulate Filter Differential Pressure Too Low (M133-56-230-01000-01)新規	
		G.16: ALTERNATOR ASSEMBLY DISASSEMBLY AND REASSEMBLY (M161-00-161-05100-01)	Attached sheet 3 (7/18,8/18)
		G.23A: CVT FLUID COOLER AND COOLER LINE (M231-21-250-30900-01)	Attached sheet 3 (11/18,12/18)
2012 OUTLANDER Workshop Manual CD-ROM	CGXE12E1-CD (ENGLISH) CGXS12E1-CD (SPANISH) CGXF12E1-CD (FRENCH) CGXG12E1-CD (GERMAN) CGXI12E1-CD (ITALIAN)	G13F: DIAGNOSIS FUNCTION (M133-00-380-93200-01)	Attached sheet 3 (17/18.18/18)
		G13F: DIAGNOSIS CODE PROCEDURES (M133-00-400-94000-01)	
		G13F: P244A: Diesel Paticulate Filter Differential Pressure Too Low D (M133-56-230-01000-01)新規	
		G.23A: CVT FLUID COOLER AND COOLER LINE (M231-21-250-28000-01)	Attached sheet 3 (15/18)

Attached sheet 3(1/18)

Standard value (Reference): ~~125 - 161 Hz~~ <Old>

NOTE: To take the measurement repeatedly, fillip the drive belt again.

10. After the completion of the measurement, press and hold the "POWER" button to turn off the power supply.
11. If not within the standard value, replace the drive belt auto-tensioner (Refer to).

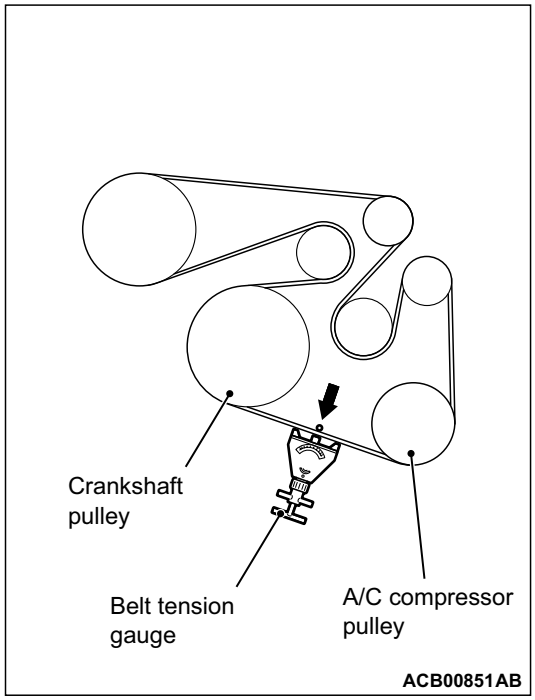
<New>
115 156 Hz

<When tension is measured>

1. Check the tension of the drive belt (Refer to).

⚠ CAUTION

- **When measuring, make sure that the engine is cold.**
- **Measure after turning the crankshaft clockwise one turn or more.**



2. Use a belt tension gauge in the middle of the drive belt between the pulleys shown in the figure (at the place indicated by the arrow) to check that the drive belt tension is within the standard value.

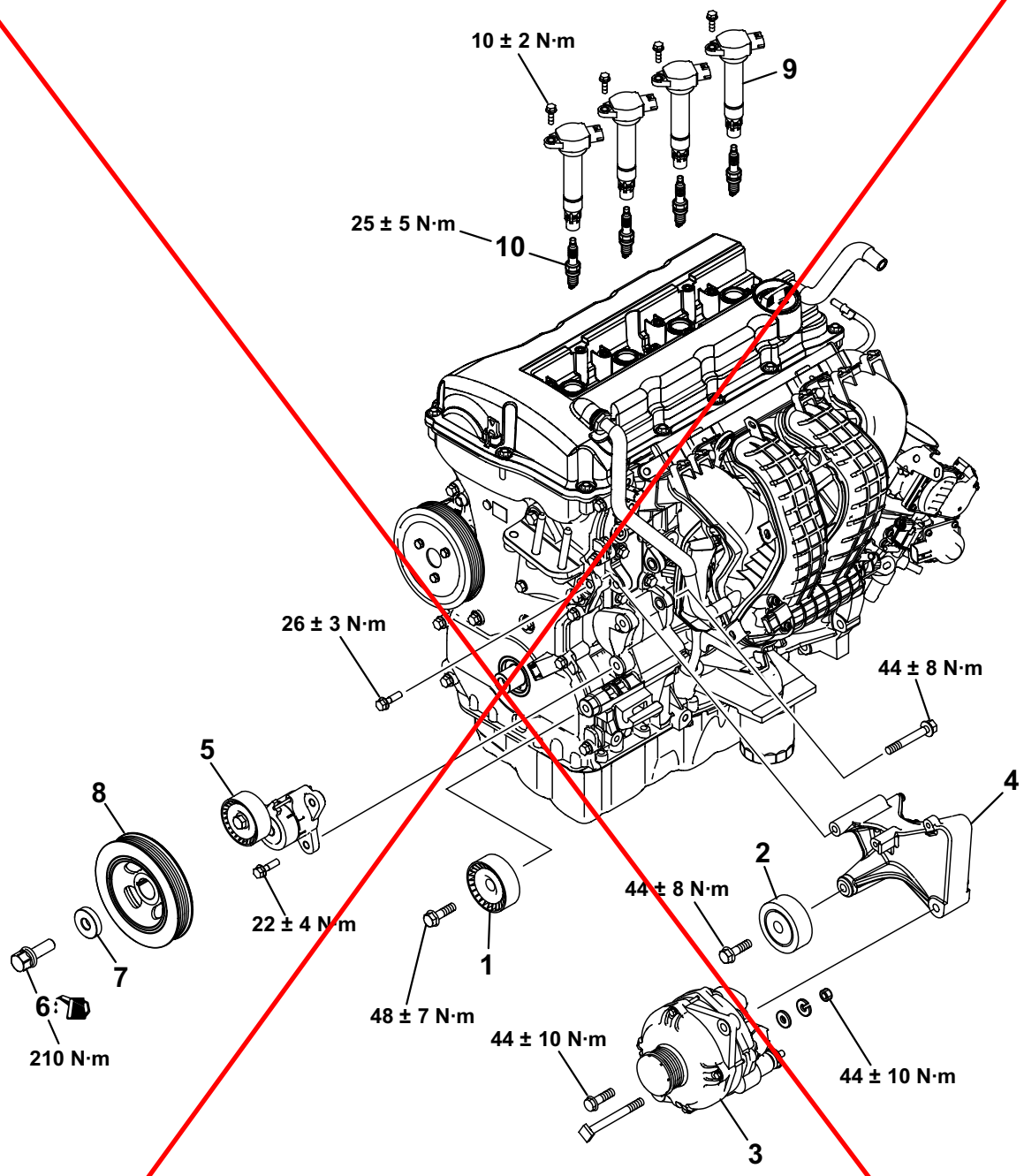
Standard value (Reference): ~~265 - 440 N~~ <Old>

3. If not within the standard value, replace the drive belt auto-tensioner (Refer to).

<New>
234 -421 N

REMOVAL AND INSTALLATION

M1113001002633



AKB00208AB

Removal sequence

- 1. Idler pulley
- 2. Idler pulley
- >>C<< 3. Alternator
- >>C<< 4. Alternator upper bracket
- 5. Auto tensioner

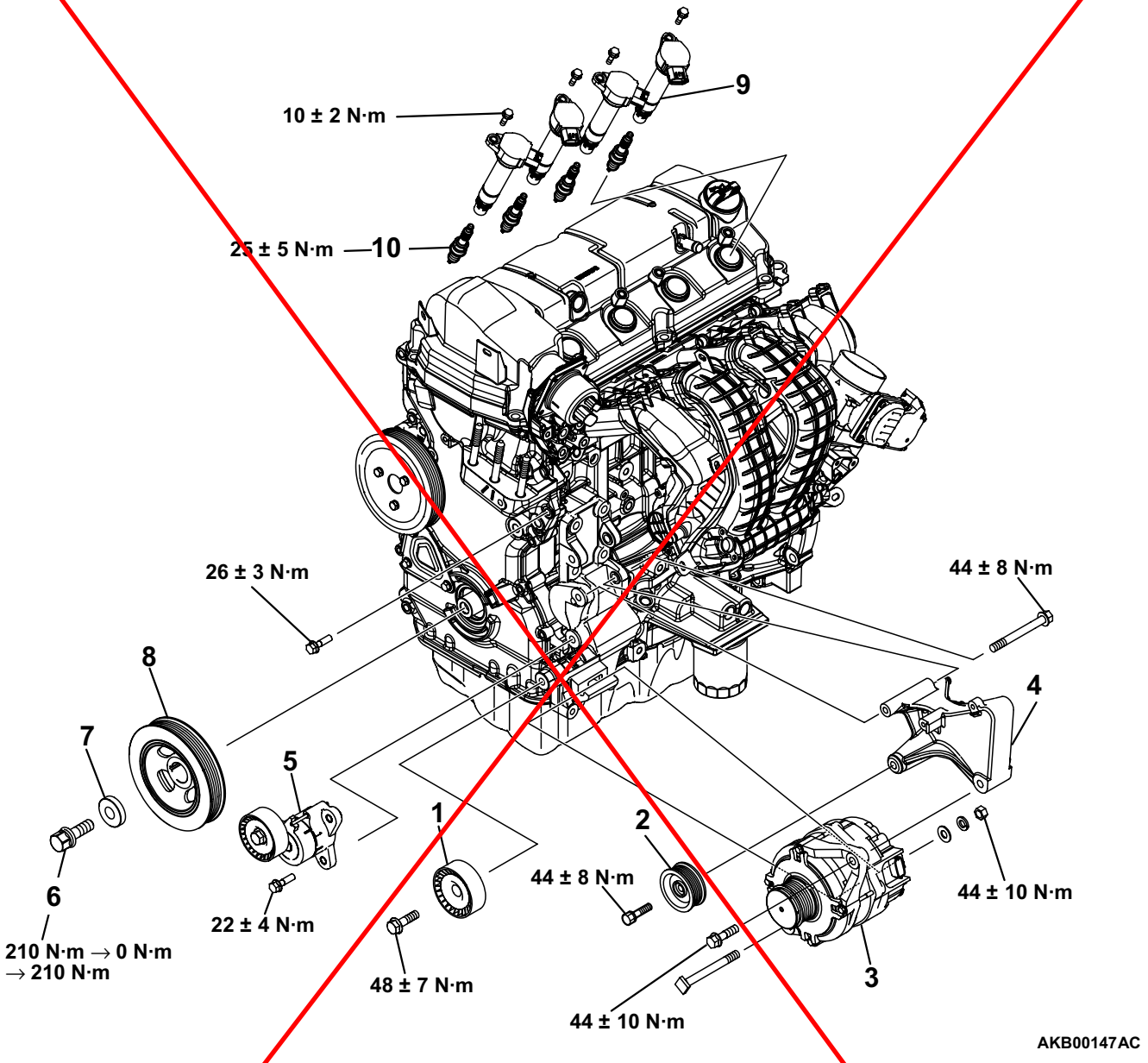
Removal sequence (Continued)

- <<A>> >>B<< 6. Crankshaft pulley centre bolt
- >>B<< 7. Crankshaft pulley washer
- >>B<< 8. Crankshaft pulley
- 9. Ignition coil
- <<B>> >>A<< 10. Spark plug

Insert the attached sheet 3 (4/18)

REMOVAL AND INSTALLATION

M1113001002677



AKB00147AC

Removal sequence

	1.	Idler pulley
	2.	Idler pulley
>>C<<	3.	Alternator
>>C<<	4.	Alternator upper bracket
	5.	Auto tensioner

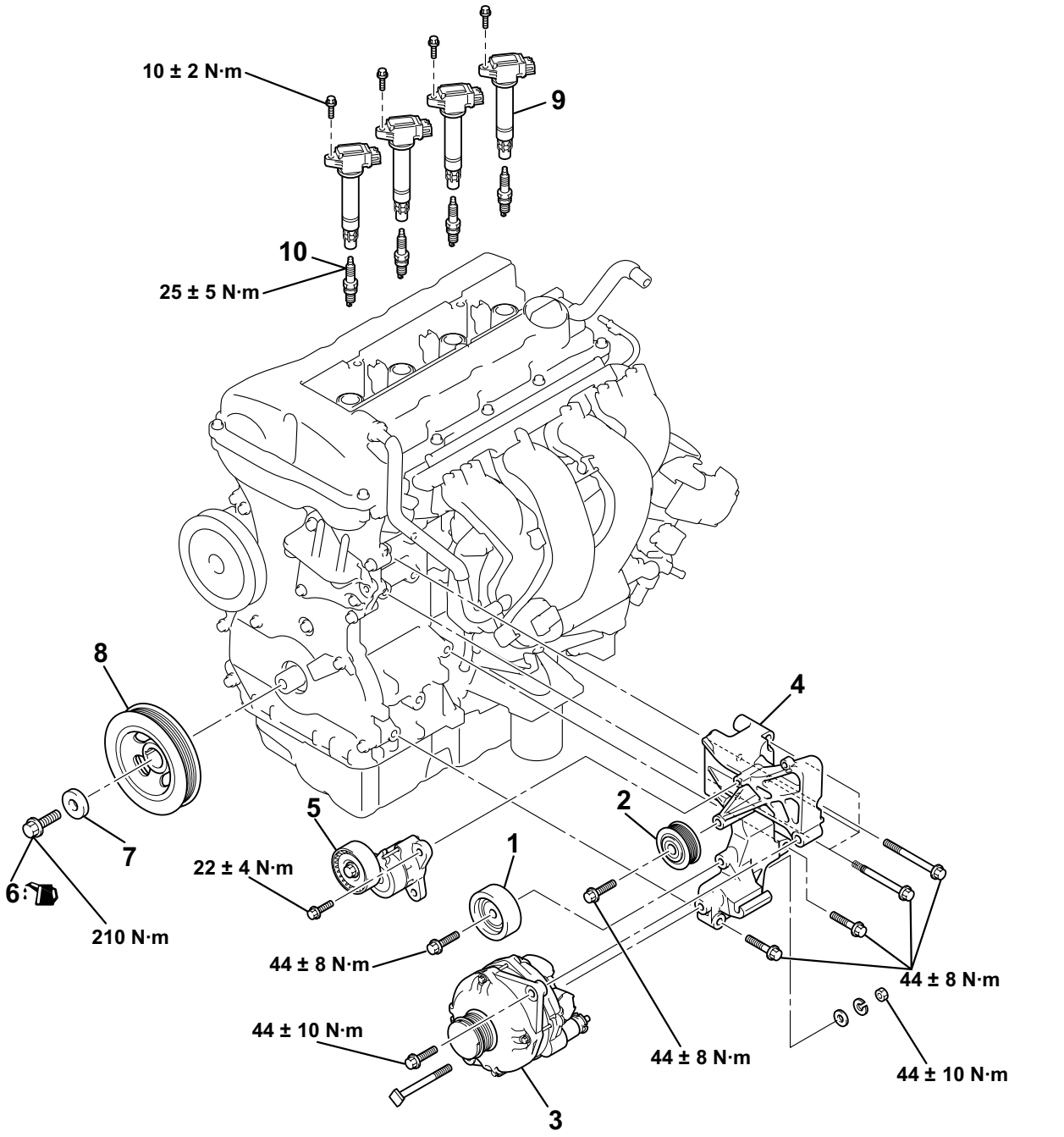
Removal sequence (Continued)

<<A>> >>B<<	6.	Crankshaft pulley centre bolt
>>B<<	7.	Crankshaft pulley washer
>>B<<	8.	Crankshaft pulley
	9.	Ignition coil
<<B>> >>A<<	10.	Spark plug

Insert the attached sheet 3 (4/18)

REMOVAL AND INSTALLATION

M1113001002729



AKB00725AB

Removal sequence

1. Idler pulley
2. Idler pulley
3. Alternator
4. Accessory bracket
5. Auto tensioner

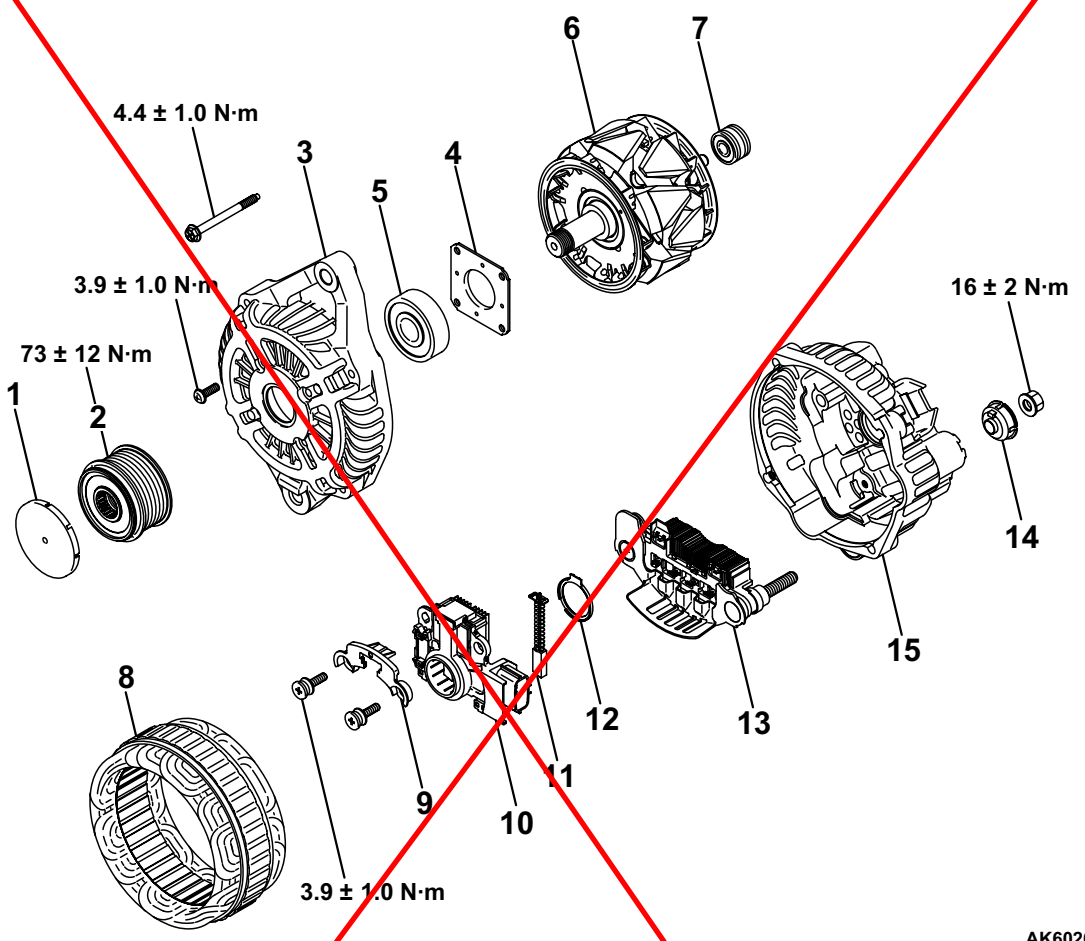
Removal sequence (Continued)

6. Crankshaft pulley centre bolt
7. Crankshaft pulley washer
8. Crankshaft pulley
9. Ignition coil
10. Spark plug

DISASSEMBLY AND REASSEMBLY

M1161001300928

<4B1>



AK602621AC

Disassembly steps

		1. Cap
<<A>>	>>C<<	2. Pulley
<<B>>	>>B<<	3. Front bracket
		4. Retainer
		5. Front bearing
		6. Rotor
		7. Rear bearing
<<C>>		8. Stator

Disassembly steps (Continued)

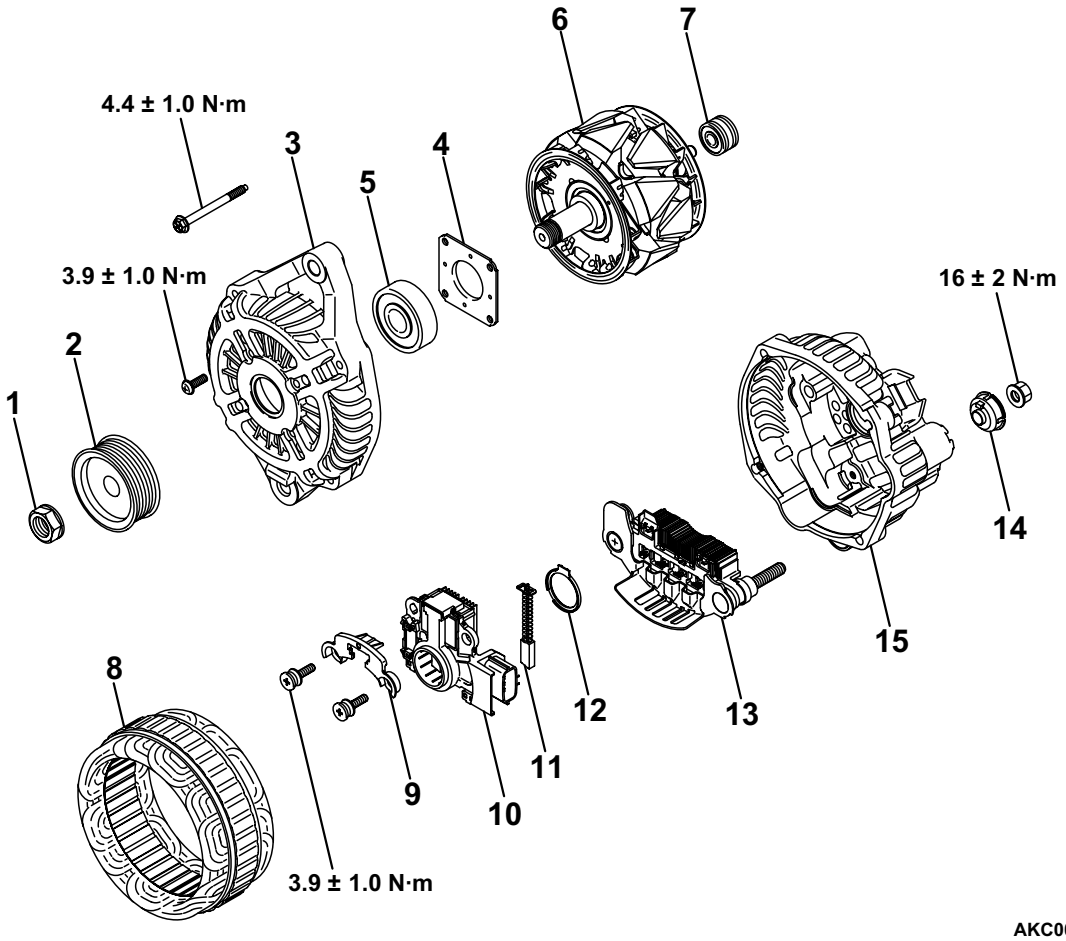
		9. Plate
<<C>>	>>A<<	10. Regulator assembly
		11. Brush
		12. Rubber packing
		13. Rectifier
		14. Insulator
		15. Rear bracket

Insert the attached sheet 3 (6/18)

DISASSEMBLY AND REASSEMBLY

M1161001601084

<4B1>

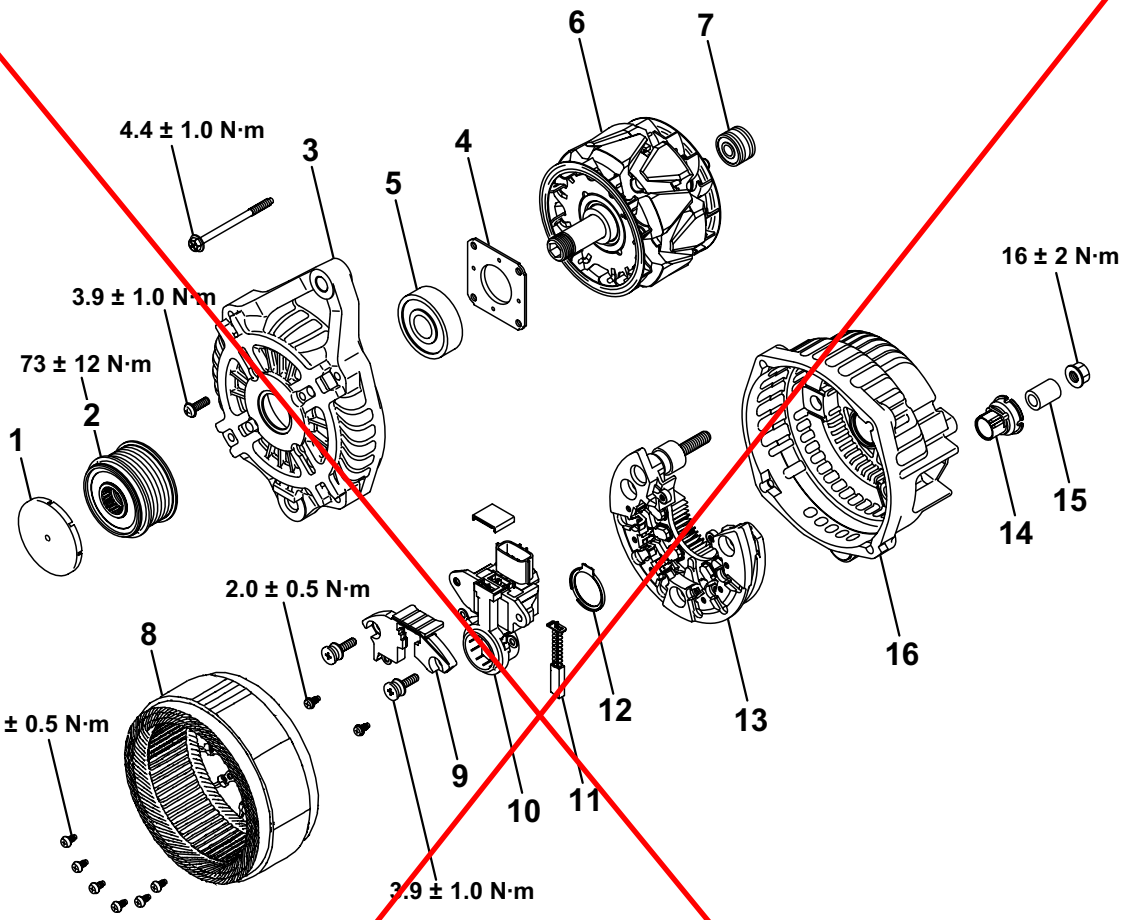


AKC00032AC

		Disassembly steps
		1. Nut
<<A>>	>>C<<	2. Pulley
<<B>>	>>B<<	3. Front bracket
		4. Retainer
		5. Front bearing
		6. Rotor
		7. Rear bearing
<<C>>		8. Stator

		Disassembly steps (Continued)
		9. Plate
<<C>>	>>A<<	10. Regulator assembly
		11. Brush
		12. Rubber packing
		13. Rectifier
		14. Insulator
		15. Rear bracket

<4J1>



disassembly steps

1. Cap
2. Pulley
3. Front bracket
4. Plate
5. Front bearing
6. Rotor
7. Rear bearing
8. Stator

disassembly steps (Continued)

9. Condenser assembly
10. Regulator assembly
11. Brush
12. Rubber packing
13. Rectifier
14. Insulator
15. Bushing
16. Rear bracket

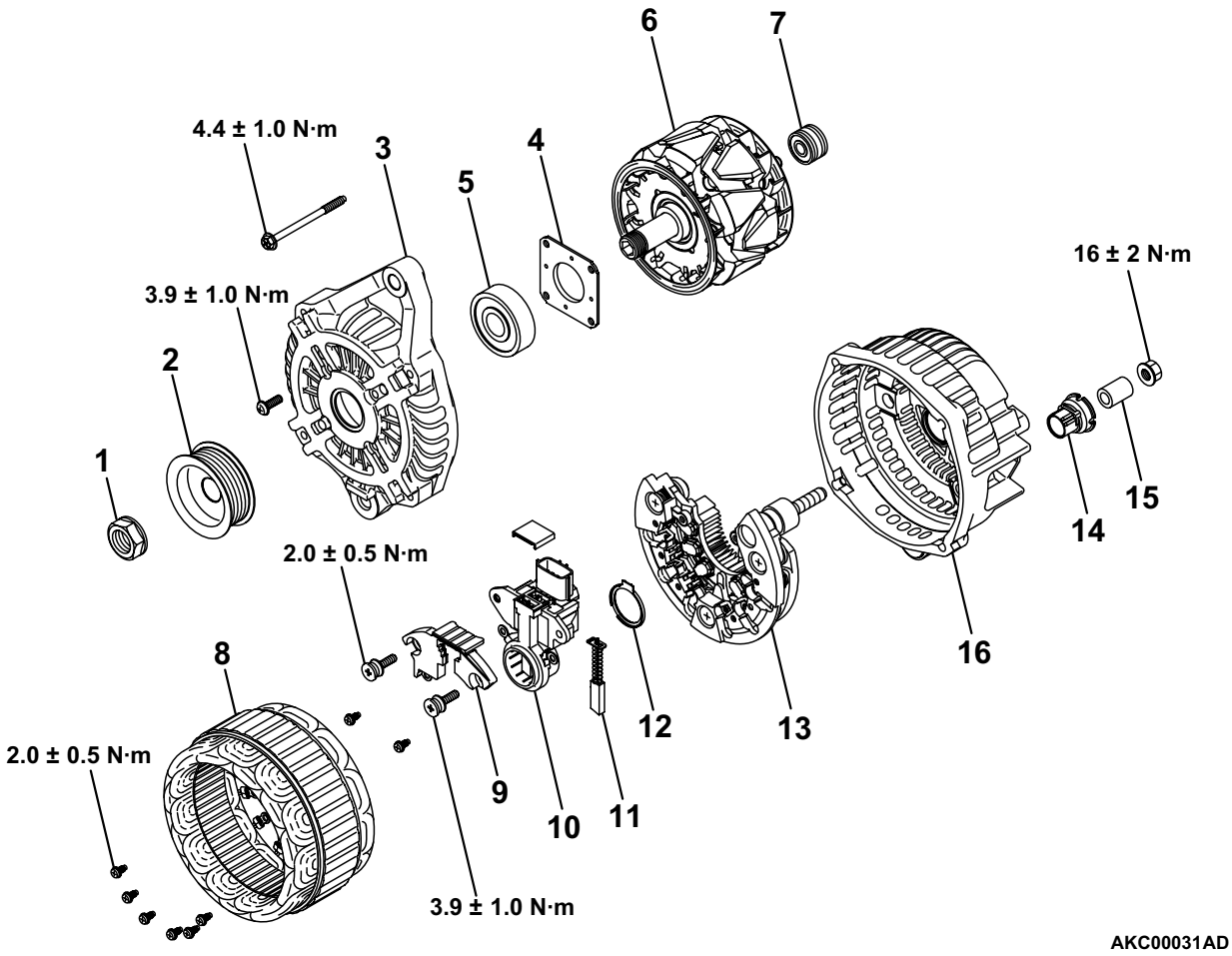
<<C>> >>D<< <<D>> >>C<< <<F>> <<F>> >>A<<

Insert the attached sheet 3 (8/18)

DISASSEMBLY AND REASSEMBLY

M1161001601125

<4J1>



disassembly steps

1. Nut
<<C>> >>D<< 2. Pulley
<<D>> >>C<< 3. Front bracket
4. Plate
5. Front bearing
6. Rotor
7. Rear bearing
<<F>> 8. Stator

disassembly steps (Continued)

9. Condenser assembly
<<F>> >>A<< 10. Regulator assembly
11. Brush
12. Rubber packing
13. Rectifier
14. Insulator
15. Bushing
16. Rear bracket

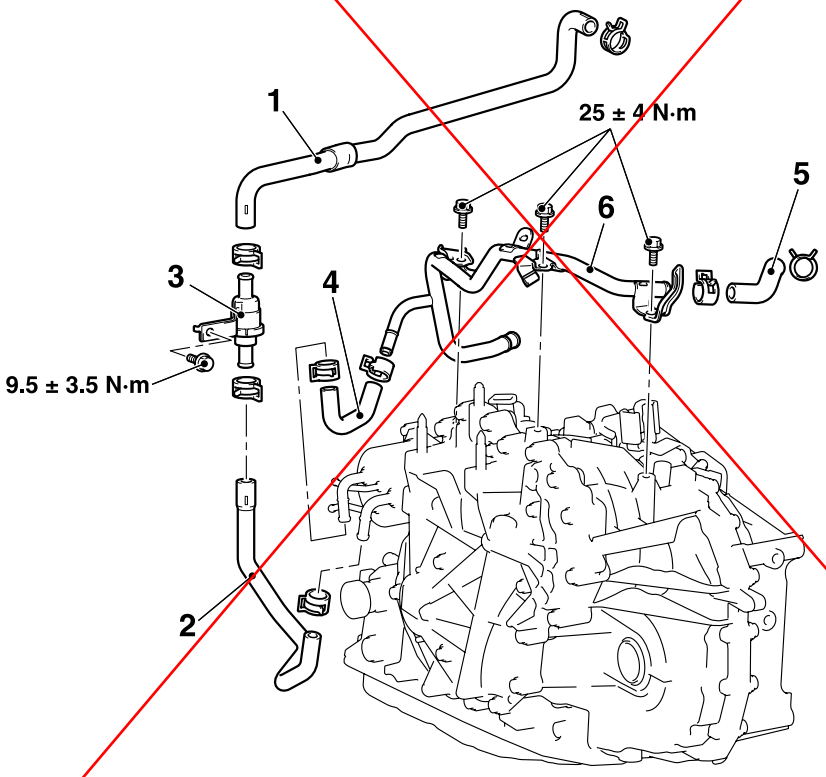
CVT FLUID COOLER AND COOLER LINE

REMOVAL AND INSTALLATION

M1231210800133

Pre-removal and post-installation operation
- Engine Room Under Cover Front A, B, Engine Room Side Cover (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 Intake Duct (Refer to GROUP 15 - Air Cleaner .)
- Battery and Battery Tray Removal (Refer to GROUP 54A - Battery .)

<Vehicles without air cooled CVT fluid cooler>



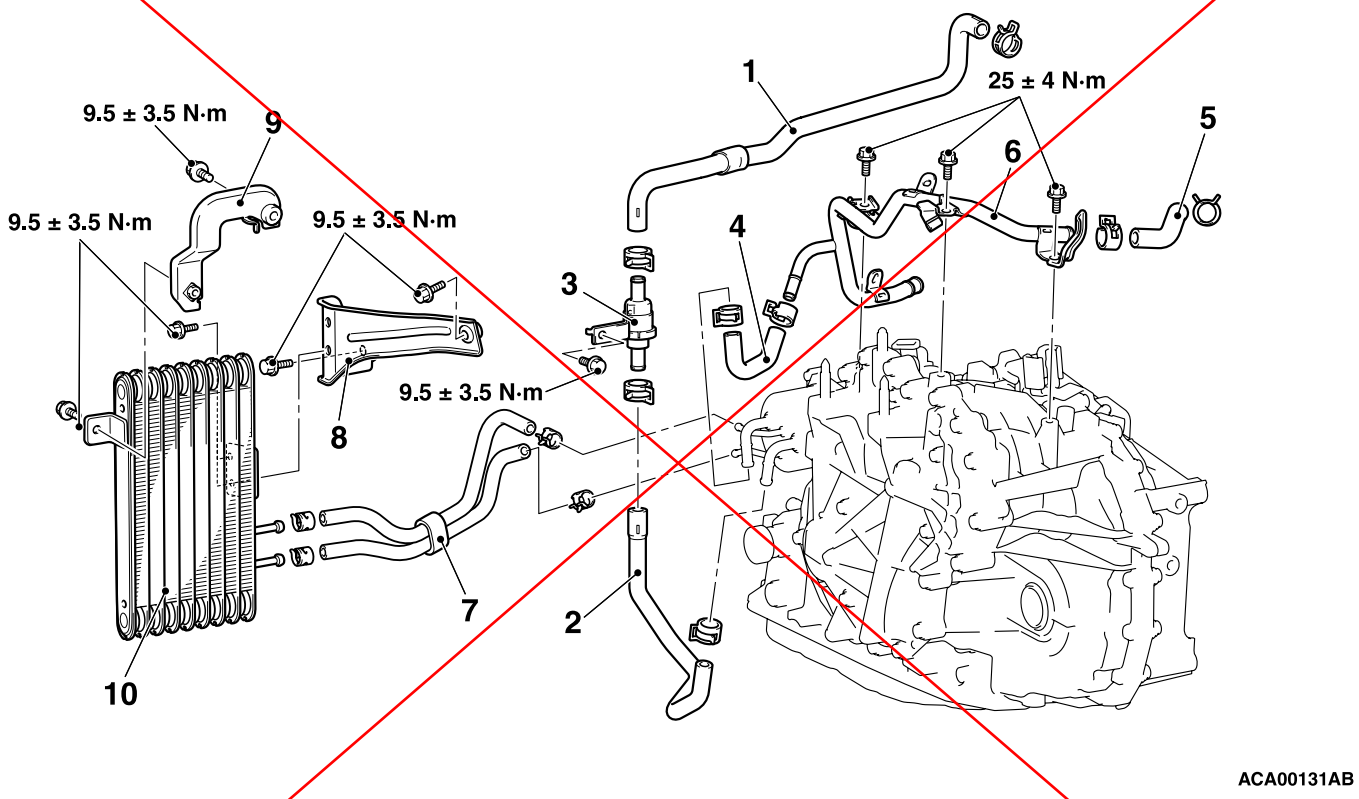
AC904248AB

Removal steps
1. Water feed hose B
2. Water feed hose A
3. Thermo valve assembly

Removal steps (Continued)
4. Water return hose A
5. Water return hose B
6. Water tube assembly

Insert the attached sheet 3 (13/18)

<Vehicles with air cooled CVT fluid cooler>



ACA00131AB

Removal steps

1. Water feed hose B
2. Water feed hose A
3. Thermo valve assembly
4. Water return hose A
5. Water return hose B

Removal steps (Continued)

6. CVT fluid cooler hose assembly
7. CVT fluid cooler hose assembly
8. CVT fluid cooler bracket A
9. CVT fluid cooler bracket B
10. CVT fluid cooler assembly

Insert the attached sheet 3 (14/18)

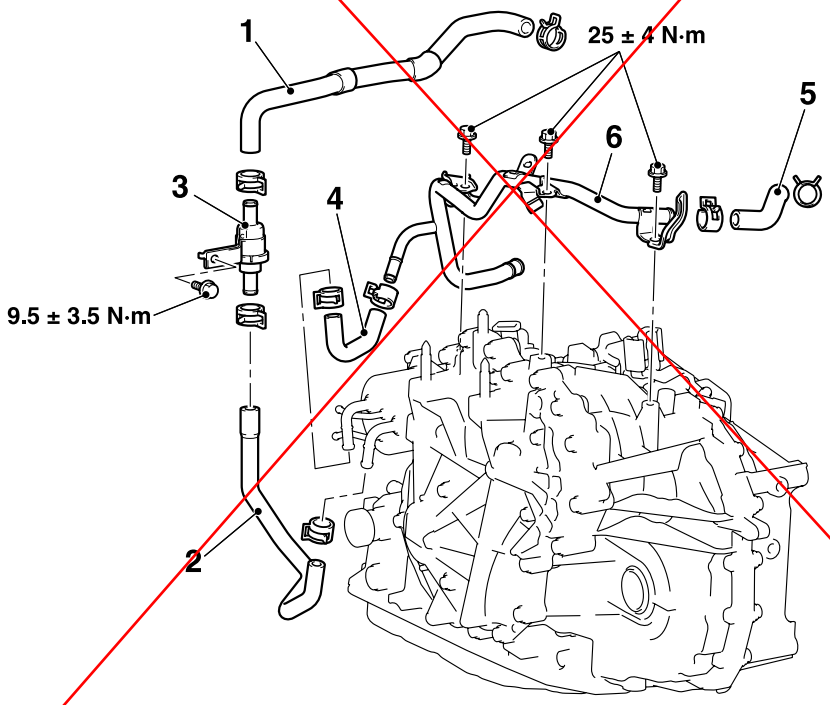
CVT FLUID COOLER AND COOLER LINE

REMOVAL AND INSTALLATION

M1231212500309

Pre-removal and post-installation operation
- Engine room under cover front and engine room side cover (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 intake duct (Refer to GROUP 15 - Air Cleaner .)
- Battery and Battery Tray Removal (Refer to GROUP 54A, Battery).

<Vehicles without air cooled CVT fluid cooler>



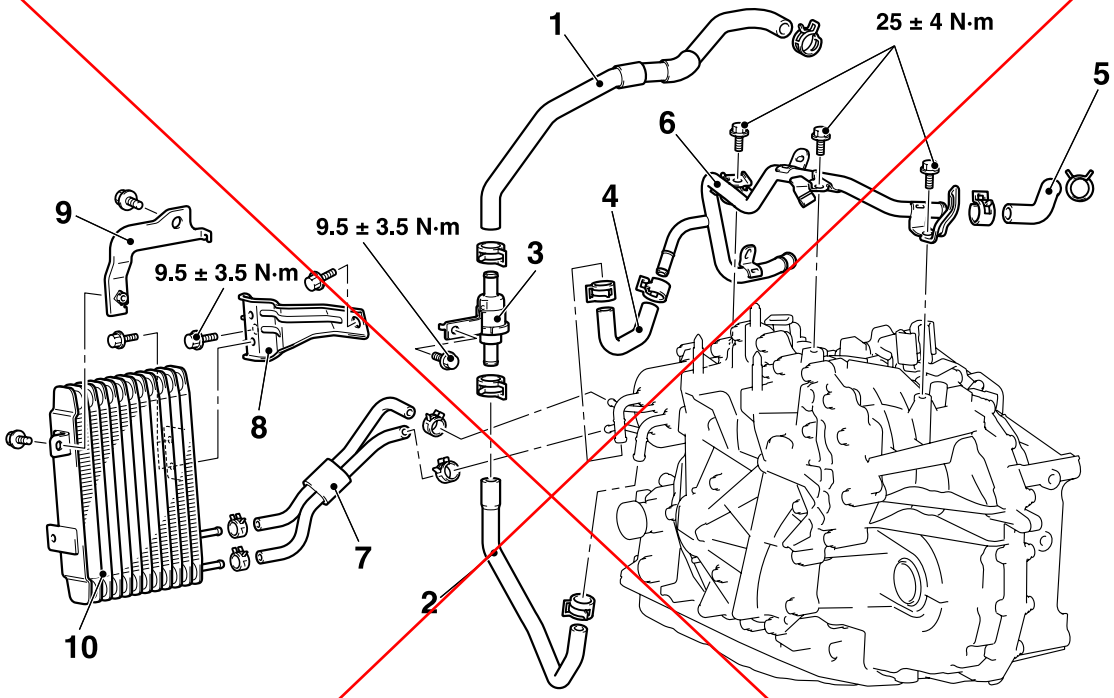
AC705664AC

Removal steps
1. Water feed hose B
2. Water feed hose A
3. Thermo valve assembly

Removal steps (Continued)
4. Water return hose A
5. Water return hose B
6. Water tube assembly

Insert the attached sheet 3 (13/18)

<Vehicles with air cooled CVT fluid cooler>



AC606747AH

CVT fluid cooler line removal steps

1. Water feed hose B
2. Water feed hose A
3. Thermo valve assembly
4. Water return hose A
5. Water return hose B
6. Water tube assembly

CVT fluid cooler removal steps

7. CVT fluid cooler hose assembly
8. CVT fluid cooler bracket A
9. CVT fluid cooler bracket B
10. CVT fluid cooler assembly

Insert the attached sheet 3 (14/18)

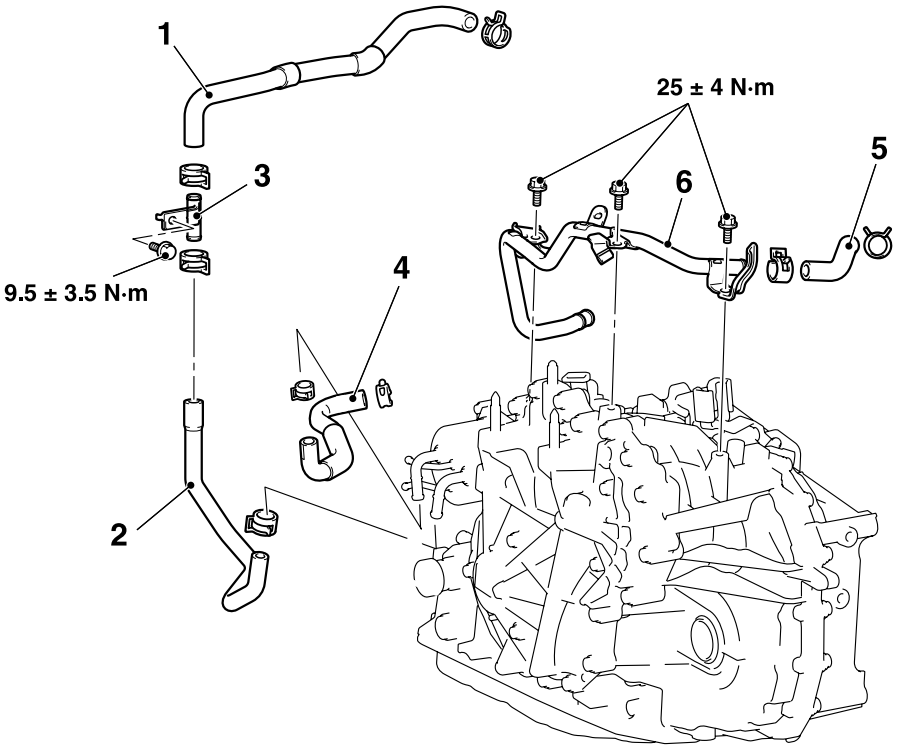
CVT FLUID COOLER AND COOLER LINE

REMOVAL AND INSTALLATION

M1231212500365

Pre-removal and post-installation operation
- Engine room under cover front and engine room side cover (Refer to GROUP 51 - Under Cover .)
- Engine coolant draining and refilling (Refer to GROUP 14 - On-vehicle Service - Engine Coolant Replacement .)
- Air cleaner intake duct (Refer to GROUP 15 - Air Cleaner .)
- Battery and Battery Tray Removal (Refer to GROUP 54A, Battery).

<Vehicles without air cooled CVT fluid cooler>

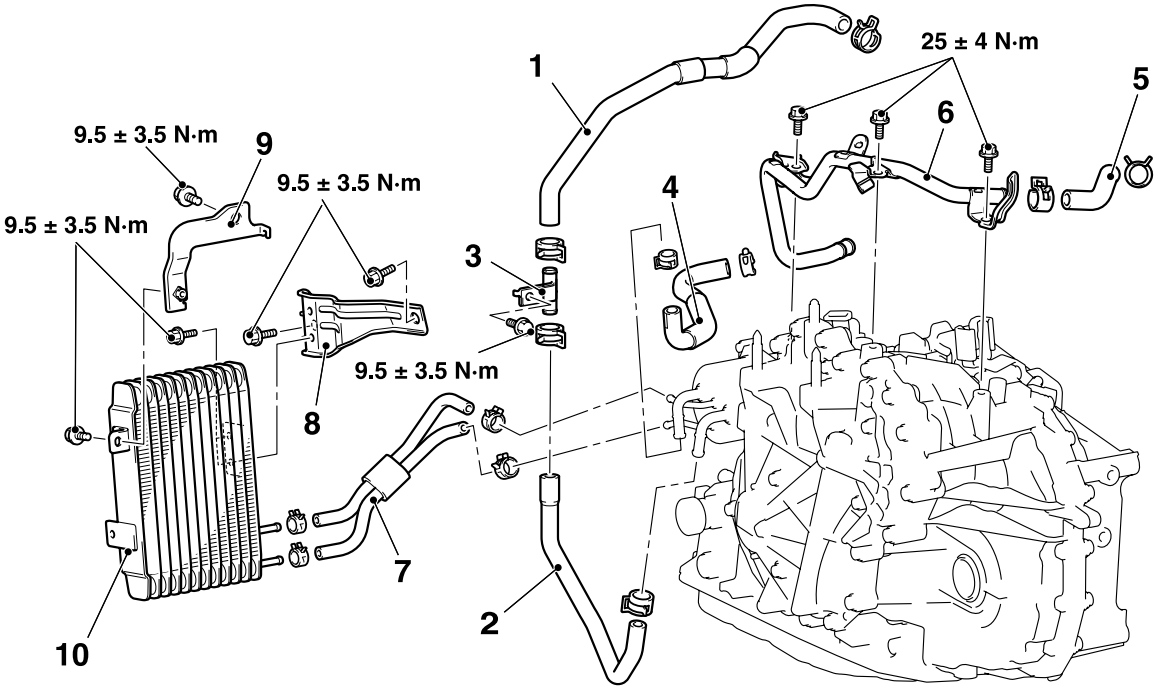


ACC00238AB

Removal steps
1. Water feed hose B
2. Water feed hose A
3. Hose joint assembly

Removal steps (Continued)
4. Water return hose A
5. Water return hose B
6. Water tube assembly

<Vehicles with air cooled CVT fluid cooler>



ACC00227AF

Removal steps

1. Water feed hose B
2. Water feed hose A
3. Hose joint assembly
4. Water return hose A
5. Water return hose B
6. Water tube assembly

Removal steps

7. CVT fluid cooler hose assembly
8. CVT fluid cooler bracket A
9. CVT fluid cooler bracket B
10. CVT fluid cooler assembly

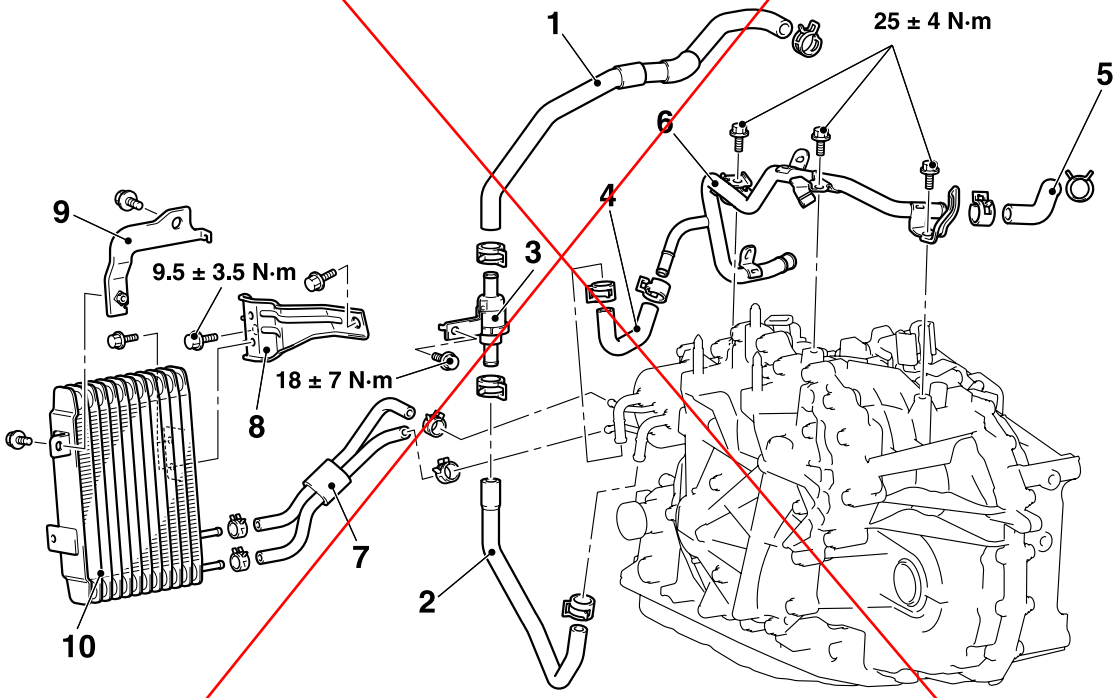
CVT FLUID COOLER AND COOLER LINE

REMOVAL AND INSTALLATION

M1231212500280

Pre-removal and post-installation operation

- Engine room under cover front, engine room side cover (Refer to GROUP 51 - Under Cover .)
- Front bumper extension A, B, transmission fluid cooler duct (Refer to GROUP 51- Front bumper assembly .)
- Engine coolant draining and refilling (Refer to GROUP 14 - On-vehicle Service - Engine Coolant Replacement .)
- Air cleaner intake duct (Refer to GROUP 15 - Air Cleaner <4B11>, <4B12>.)
- Engine coolant draining and refilling (Refer to GROUP 14 - On-vehicle Service - Engine Coolant Replacement .)
- Battery and Battery Tray Removal (Refer to GROUP 54A - Battery .)



AC606747AF

CVT fluid cooler line removal steps

1. Water feed hose B
2. Water feed hose A
3. Thermo valve assembly
4. Water return hose A
5. Water return hose B
6. Water tube assembly

CVT fluid cooler removal steps

7. CVT fluid cooler hose assembly
8. CVT fluid cooler bracket A
9. CVT fluid cooler bracket B
10. CVT fluid cooler assembly

Insert the attached sheet 3 (16/18)

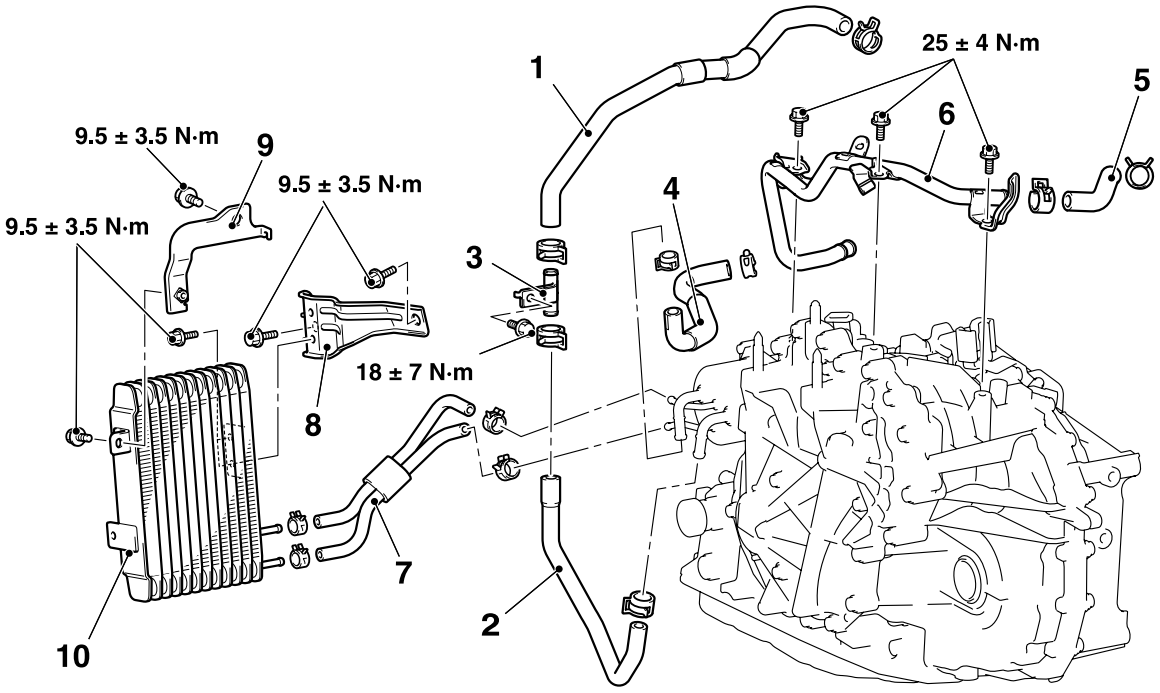
CVT FLUID COOLER AND COOLER LINE

REMOVAL AND INSTALLATION

M1231212500376

Pre-removal and post-installation operation

- Engine room under cover front, engine room side cover (Refer to GROUP 51 - Under Cover .)
- Front bumper extension A, B, transmission fluid cooler duct (Refer to GROUP 51 - Front bumper assembly .)
- Engine coolant draining and refilling (Refer to GROUP 14 - On-vehicle Service - Engine Coolant Replacement .)
- Air cleaner intake duct (Refer to GROUP 15 - Air Cleaner <4B11>, <4B12>.)
- Battery and Battery Tray Removal (Refer to GROUP 54A - Battery .)



ACC00227AD

CVT fluid cooler line removal steps

1. Water feed hose B
2. Water feed hose A
3. Hose joint assembly
4. Water return hose A
5. Water return hose B
6. Water tube assembly

CVT fluid cooler removal steps

7. CVT fluid cooler hose assembly
8. CVT fluid cooler bracket A
9. CVT fluid cooler bracket B
10. CVT fluid cooler assembly

TROUBLESHOOTING

DIAGNOSIS FUNCTION

M1133003800987

ENGINE WARNING LAMP (CHECK ENGINE LAMP)

ENGINE WARNING LAMP INSPECTION ITEM

Code No.	Diagnosis item
P244A	Diesel particulate filter differential pressure too low

FAIL-SAFE AND BACKUP FUNCTION

List of fail-safe and backup function item

Code No.	Diagnosis item	Control contents during malfunction
P244A	Diesel particulate filter differential pressure too low	• The DPF regeneration is prohibited.

INSPECTION CHART FOR DIAGNOSIS CODE

M1133004001006

Diagnosis code No.	Diagnosis item
P244A	Diesel particulate filter differential pressure too low

DIAGNOSIS CODE PROCEDURES

Code No. P244A: Diesel Paticulate Filter Differential Pressure Too Low

FUNCTION

- The engine-ECU monitors the difference between exhaust gas pressures at the inlet and outlet of the DPF by using the exhaust differential pressure sensor.
- If the difference is abnormally low, the engine-ECU will determine that the DPF is melted down or missing.

TROUBLE JUDGMENT

Check Condition

- The engine is stable (various factors such as engine speed, fuel injection amount, intake air flow, exhaust gas temperate are within a predetermined range).
- Exhaust gas flow exceeds a predetermined value.
- Estimated PM accumulated deposit, which is calculated from a current estimated engine exhaust PM amount, exceeds a predetermined value.
- The distance travelled since the last DPF regeneration exceeds a predetermined value.

Judgement Criterion

- The difference between exhaust gas pressures at the inlet and outlet of the DPF remains smaller than the pressure difference which is estimated during no PM accumulation in the DPF for a predetermined duration.

FAIL-SAFE AND BACKUP FUNCTION

- The DPF regeneration is prohibited.

PROBABLE CAUSE

- The exhaust pressure hose or the exhaust pressure pipe is disconnected or damaged.
- The DPF in the exhaust centre pipe melted down
- The DPF missing.

DIAGNOSIS PROCEDURE

STEP 1. Check exhaust presure hose and esxhaust presure pipe.

- Check the lines between the exhaust differential pressure sensor and the exhaust centre pipe (DPF) (i.e, exhaust pressure hose and exhaust pressure pipe) for disconnection or damage.

Q: Are the check results normal?

YES : Replace the exhaust centre pipe.
NO : Repair or replace the exhaust pressure hose or exhaust pressure pipe.