

SERVICE BULLETIN

Classification: AT15-007h Reference: ITB15-012h COPYRIGHT© NISSAN NORTH AMERICA, INC. Date:

October 22, 2019

2013 JX35 AND 2014 – 2018 QX60; CVT JUDDER AND DTC P17F0 OR P17F1 STORED

This bulletin has been amended. See AMENDMENT HISTORY on the last page. Discard all previous versions of this bulletin.

 APPLIED VEHICLES:
 2013 JX35 (L50) 2014-2018 QX60 (L50) V6 engine only

 APPLIED VIN / DATE:
 2013 JX35 - built after 5N1AL0M(*)(*)DC 343902 / March 26, 2013 2014-2018 QX60 – All with V6 engine

 APPLIED TRANSMISSION:
 CVT

IF YOU CONFIRM:

The customer reports a transmission judder (shake, shudder, single or multiple bumps or vibration)

AND

One of these DTCs is stored.

- P17F0 (CVT_JUDDER (T/M INSPECTION))
- P17F1 (CVT_JUDDER (C/U INSPECTION))

NOTE:

- > If a transmission judder (as described above) is <u>not reported</u>, this bulletin <u>does not apply</u>.
- > If either P17F0 or P17F1 are not stored, this bulletin does not apply.

ACTIONS:

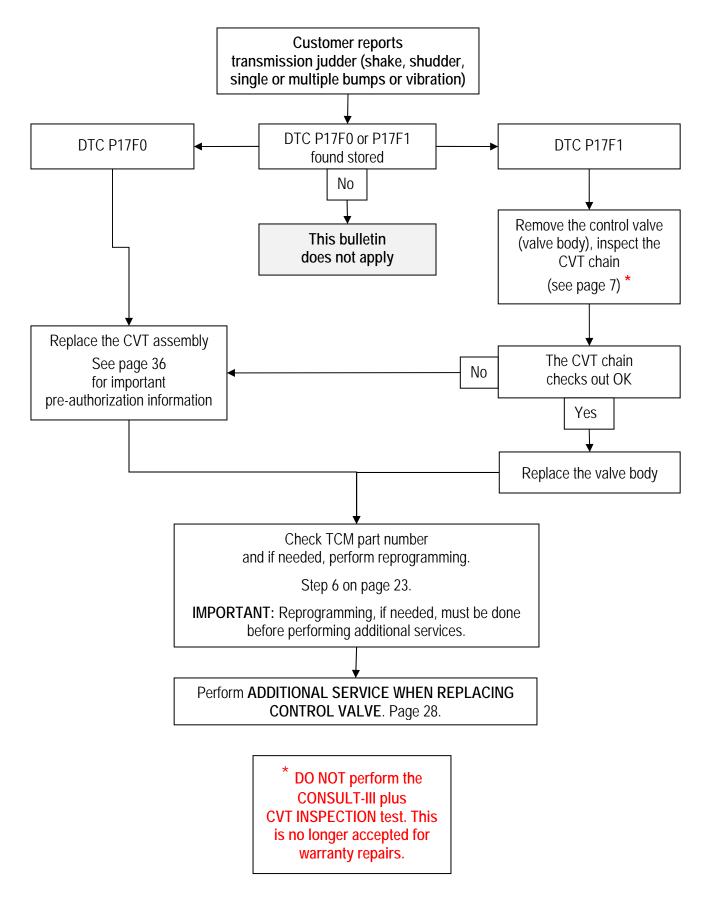
Perform the SERVICE PROCEDURE, starting on page 3.

• Review the **Repair Flow Chart** on the next page.

NOTE: Essential Tool Tech Cam (borescope) J-51951 has been sent to dealers. This tool's attachments make CVT inspection possible.

IMPORTANT: The purpose of "ACTIONS" (above) is to give you a quick idea of the work you will be performing. You MUST closely follow the <u>entire</u> Service Procedure as it contains information that is essential to successfully completing this repair.

Infiniti 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 Infiniti retailer to determine if this applies to your vehicle.



SERVICE PROCEDURE

Check for Stored DTCs

- 1. Before starting, it is **IMPORTANT** to make sure:
 - ASIST on the CONSULT PC has been freshly synchronized (updated).
 - All CONSULT related software updates (if any) have been installed.
- 2. Once all ASIST and CONSULT related updates have been performed, attach the CONSULT PC to the vehicle.
 - Connect the plus VI to the vehicle.
 - Connect the AC adapter to the CONSULT PC.
- Turn ON the CONSULT PC, and then open CONSULT III plus (C-III plus).
 NOTE: Make sure all applications other than C-III plus are closed.
- 4. Press the ignition switch twice <u>without</u> depressing the brake pedal.
 - The meter and gauges will illuminate.
 - Do Not start the engine.
 - Make sure <u>ALL</u> accessories are turned OFF.
- 5. Wait for the plus VI to be recognized / connected.
 - The serial number will display when the plus VI is recognized / connected.
- 6. Go to Diagnosis (All Systems).

	Back Home Print	Screen Screen Messurement Ro Capture Mode Ro	Diagnosis Menu
Chan E	Serial No.	Status	Diagnosis (One System)
Step 5: blus VI is ecognized	VI 2300182	Normal Mode/USB	Diagnosis (All Systems)
	MI -	No connection	Re/programming, Configuration
	Select VI/MI	1	Immobilizer
	Application Setting	ABC Language Setting	Maintenance
	VDR		

Figure 1

7. Select TRANSMISSION.

All DTC	CAN Dia		CAN DIAG	RT & P-DTC		
Result		Detailed Infor			_	
ENGINE	NO DTC					
ABS	NO DTC					
METER/M&A	NO DTC					
всм	NO DTC					
AIR BAG	NO DTC					Prin
TRANSMISSION	NO DTC					for Custo
EPS/DAST 3	NO DTC					Prin

Figure 2

8. Select the **Self Diagnostic Result** tab, print the screen showing the VIN and DTC, and then attach the printout to the repair order.

IMPORTANT: The screen printout <u>MUST</u> clearly show the VIN and DTC.

- a. If P17F0 is stored, replace the CVT assembly.
 - For CVT assembly pre-approval, refer to page 36, CVT Assembly Replacement Approval Procedures.
 - Refer to the appropriate Electronic Service Manual (ESM), section TM-Transaxle & Transmission, for CVT assembly replacement procedure.
 - After replacing the CVT, reprogram the TCM (page 22) and perform additional service when replacing a control valve (page 28).
- b. If P17F1 is stored, go to page 7, Control Valve (Valve Body) Removal and CVT Chain Inspection for DTC P17F1 ONLY after completing steps 9-12.
- c. If neither P17F0 nor P17F1 are found stored, <u>this bulletin does not apply</u>. Close C-III plus, and then refer to ASIST and the ESM for further diagnosis.

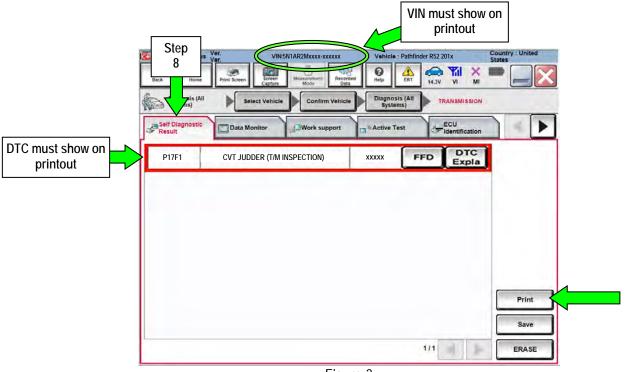


Figure 3

- 9. Close C-III plus.
- 10. Turn the ignition OFF.
- 11. Disconnect the plus VI from the vehicle.

For vehicles with P17F1, go to page 7, Control Valve (Valve Body) Removal and CVT Chain Inspection – for DTC P17F1 ONLY after completing steps 8-11.

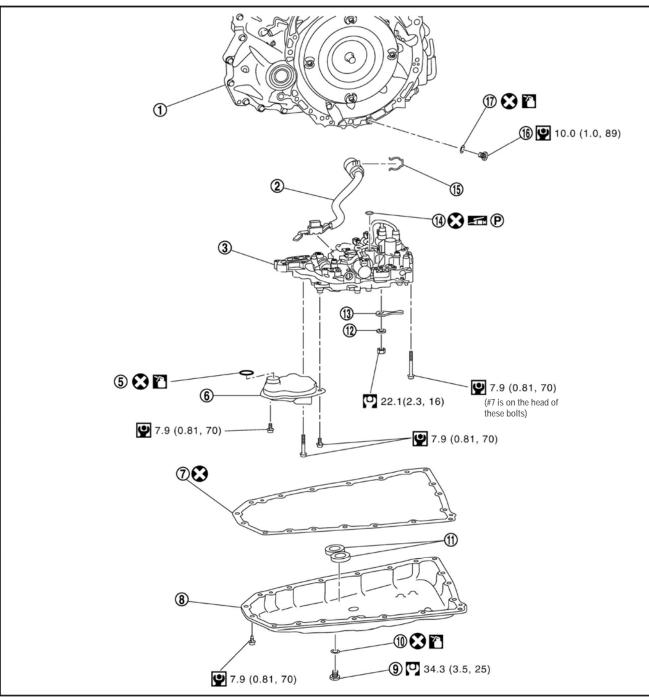


Figure 4

Terminal cord assembly

1. Transaxle (CVT) assembly

- 7. Oil pan gasket
- Drain plug gasket 10.
- 13. Manual plate
- Overflow plug 16.

: Always replace after every disassembly.

2.

5.

8.

11.

14.

17.

O-ring

Oil pan

Lip seal

O-ring

Two magnets



- : N·m (kg-m, ft-lb)
- : N·m (kg-m, in-lb)

- Control valve (valve body) Oil strainer assembly 3.
- 6.
- 9. Drain plug
- 12. Spring washer
- 15. Snap ring

- 1. Remove the valve body.
 - Before lifting the vehicle:
 - > Place the transmission gear selector in Neutral.
 - > Leave the driver door unlatched. A step further in the procedure may require it.
 - Refer to the Electronic Service Manual (ESM), section TM Transaxle & Transmission, for valve body removal.

NOTE:

- The number '7' is on the head of all bolts that need to be removed for valve body removal. Do not remove any bolt that does not have the number '7'.
- Due to multiple model vehicles, pictures throughout the service procedure are examples and may not exactly match your vehicle.

CAUTION: Never allow any chemicals or fluids other than NS-3 CVT fluid or equivalent to enter the CVT assembly. Never allow any foreign debris, dust, dirt, etc. to enter the CVT assembly.

NOTE: For additional information, see video # 546: "CVT Chain Inspection". This video is located under the TECH TRAINING GARAGE VIDEOS tab in Virtual Academy.

- 2. Secure the <u>right front</u> tire with a suitable strap.
 - This will assist in making the chain turn.
- 3. Mark the <u>left front</u> tire with a suitable marking.
 - This will assure all 360° of the chain is inspected.



Figure 5

- 4. Using borescope J-51951 with mirror attachment, visually inspect the side of the chain <u>that comes in</u> <u>contact with the pulley</u>:
 - a. First inspect the entirety (360°) of the driver side of the chain that comes in contact with the pulley (see page 10, Figure 9 and 10, and page 12, Figure 13).
 - b. If the inspection result is OK on all 360°, inspect all 360° of the passenger side of the chain.

NOTE: Reference the pictures on page 13-15 for comparison.

- Insert the camera lens <u>behind</u> the pulley between the guide rail and pulley where shown in Figure 6 (also see page 9-10, Figure 7-10).
- Insert the lens approximately 8-9 inches, and then view the side of the chain that contacts the pulley.

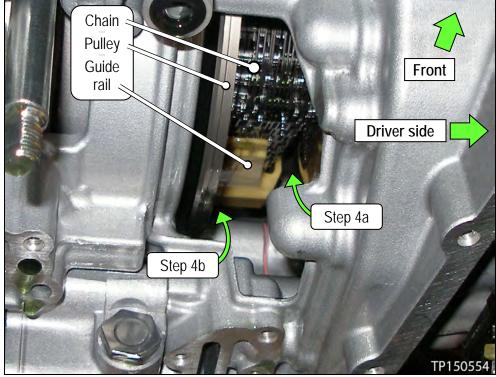


Figure 6

• Figure 7 shows where to insert the camera lens on the <u>driver side</u> of the chain.

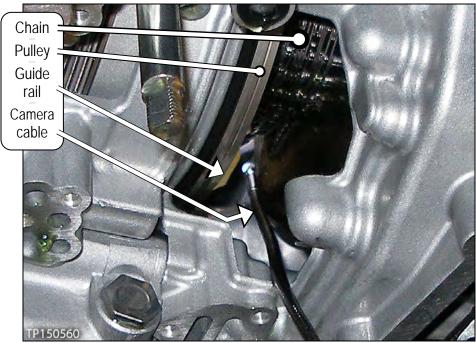


Figure 7

• Figure 8 shows where to insert the camera lens on the <u>passenger side</u> of the chain.

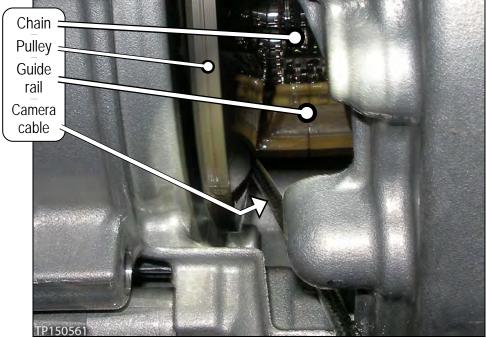


Figure 8

• Figures 9 and 10 show the routing and location of the camera.

NOTE: The CVT's side cover was removed for easier viewing of camera location. The side cover is not to be removed at any time during this procedure.

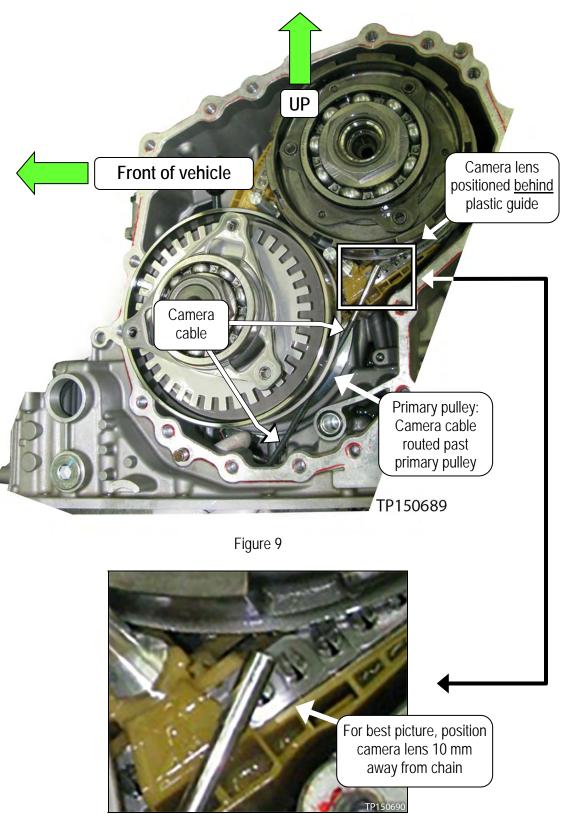


Figure 10

- Slowly and carefully turn the left front tire one full turn <u>in the forward rotation</u> to view all of the chain.
 - Holding the borescope with one hand allows for turning the tire with the other hand (see Figure 11).

CAUTION: If the tire is rotated in the rearward rotation, the camera lens may get caught between the chain and pulley.

- d. If the inspection result is OK on all 360° on both sides of the chain, skip to step 5 on the next page.
 - If any evidence of chain slippage is found, go to step 4e, and then skip to step 6.
 - Refer to Garage Video 546 if needed (see bottom of page 7).
- e. Once CVT replacement is determined as required, use borescope J-51951 to record a 15 second or less continuous video of the most severe evidence of chain slip and the VIN on the F.M.V.S.S. certification label (VIN label). See example in Figure 12.
 - For best picture, the camera lens should be about 10 mm away from the object being recorded.



Figure 11

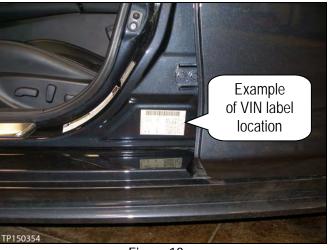


Figure 12

NOTE: This required video must be attached to the Powertrain Call Center CVT Preauthorization Form (in ASIST) prior to calling for authorization. Failure to submit a continuous video will cause immediate denial of request for replacement.

- Before starting to record, make sure the camera handle's AA batteries are fresh and the LCD monitor's battery is charged.
- The whole video will show as backward, or reversed mirror image. This is okay.
- The required video must show clear evidence of chain slippage and be 15 seconds or less.

5. Flush the CVT cooler(s).

IMPORTANT: <u>A CVT Cooler flush is required</u> after a valve body or CVT assembly replacement. Refer to bulletin ITB15-010 to perform CVT Cooler flush.

- 6. If the chain inspection result is OK, replace the valve body.
 - There is no need for pictures or video showing "OK" chain surfaces.
 - For valve body replacement, go to page 16, Control Valve (Valve Body) Installation.
- 7. If the chain inspection result is NG, replace the CVT assembly.
 - Get authorization to replace the CVT assembly (see page 36).
 - Make sure to perform step 4d on page 11.
 - Refer to the ESM, section TM Transaxle & Transmission / BASIC INSPECTION, for CVT assembly replacement.

IMPORTANT: Perform "ADDITIONAL SERVICE WHEN REPLACING TRANSAXLE ASSEMBLY".

- o Check for fluid leakage.
- o Install Write IP Characteristics to the TCM; see ITB13-055.
- The CVT unit requiring replacement will need to be reassembled for Nissan parts return/collection.

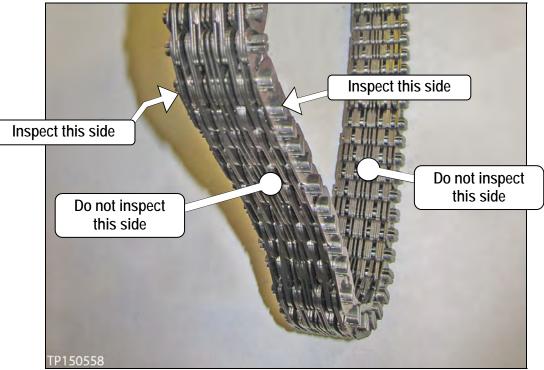


Figure 13



Figure 14 CVT chain

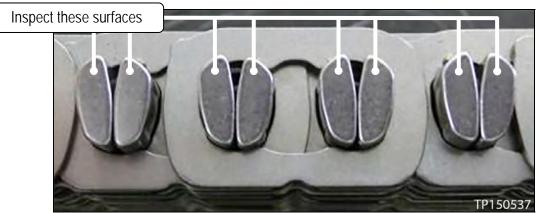


Figure 15 Close-up of area to be inspected

Pictures in Figure 16 and 17 were taken with borescope J-51951.



Figure 16

Figure 17



Figure 18



Figure 19



Figure 20

Figure 21



Figure 22



Figure 23



Figure 24

IMPORTANT: This section may contain different style parts than what were originally installed in the CVT. Pay careful attention, REASSEMBLY MAY NOT BE IDENTICAL TO DISASSEMBLY.

Confirm that the QR label, control valve and CD part numbers <u>all match</u> before installing the control valve.

CAUTION: Handle the valve body carefully.

1. Discard the oil strainer bracket (Figure 25).



Figure 25

2. Install a new lip seal. Do <u>NOT</u> reuse the old lip seal (Figure 26).

NOTE: Apply a small amount of petroleum jelly to the lip seal to keep it in place on the CVT.

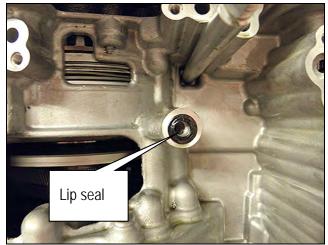


Figure 26

3. Install the Control Valve with eleven (11) mounting bolts (Figure 27).

IMPORTANT: Leave Four (4) toles blank at this step.

CAUTION: Make sure the wiring harness does not get pinched (see Figures 28 and 29 for correct routing).

- 54 mm long bolt 7 pieces
- 44 mm long bolt **O** 2 piece
- 25 mm long bolt O 2 piece

CAUTION: The two 25 mm bolts are installed <u>WITHOUT</u> the strainer bracket.

> Bolt torque: 7.9 N•m (0.81 kg-m, 70 in-lb.)

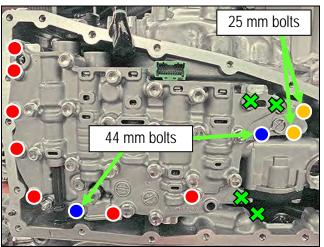


Figure 27

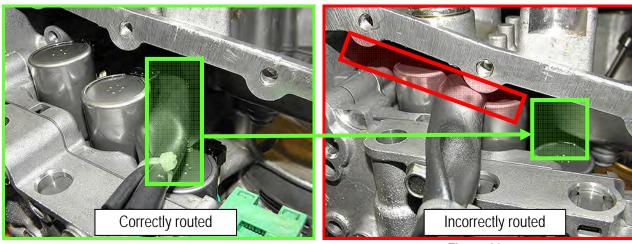


Figure 28

Figure 29

4. Replace the metal bracket of the temperature sensor as follows:

NOTE: The new bracket will be oriented the same way the old bracket was.

a. Cut the plastic zip tie with an appropriate tool to remove the temperature sensor bracket from the terminal harness assembly. (Figure 30).

CAUTION: Cut the plastic zip tie over the metal bracket to avoid damage to the temperature sensor.

- b. Discard the removed bracket and plastic zip tie.
- c. Use the plastic zip tie from Parts Information to attach the new temperature sensor bracket to the temperature sensor of the terminal connector harness.

IMPORTANT: Locate the plastic zip tie at the <u>center notch</u> of three notches on the temperature sensor.

d. Cut off plastic zip tie excess.

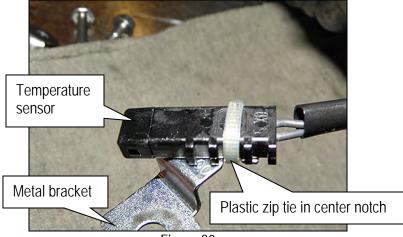


Figure 30

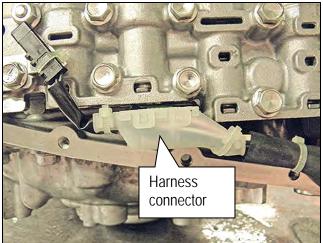


Figure 31

6. Install the CVT fluid temperature sensor bracket to the valve body with one (1) bolt (Figure 32).

5. Connect the electrical harness connector

(Figure 31).

NOTE: Leave one (1) bolt hole blank as it will be used to secure the oil strainer at a later step.

- Bolt torque: 7.9 N•m (0.81 kg-m, 70 in-lb.)
- Bolt length: 54 mm

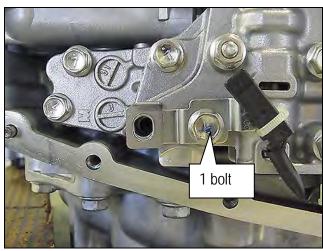


Figure 32

7. Install the new oil strainer with its new O-ring seal with two (2) bolts (Figure 33).

NOTE: replacement strainer maybe a different shape.

- Bolt torque: 7.9 N•m (0.81 kg-m, 70 in-lb.)
- 54 mm long bolt 2 pieces.

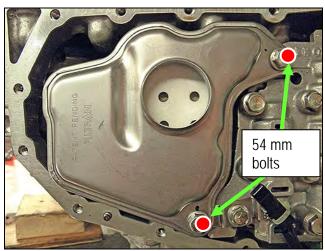


Figure 33

8. Install the manual plate, lock washer, and nut (Figure 34).

NOTE: Make sure the manual plate fits into the slot of the manual valve before applying torque to the nut.

- Reuse the existing manual plate, lock washer, and nut.
- Nut torque: 22.1 N•m (2.39 Kg-m, 16 ft-lb.)

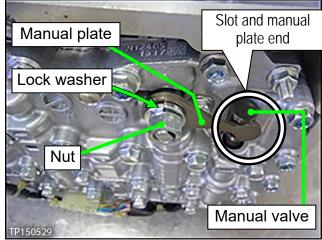
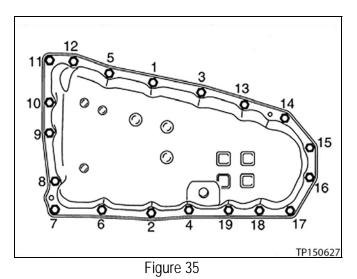


Figure 34

- 9. Clean the original oil pan and magnets with a suitable cleaner. Visible debris should not be present at re-assembly.
- Reassemble the original magnets to the pan.
 NOTE: Return the magnets to their original locations.
- 11. Install a new oil pan gasket to the pan.

- 12. Install the oil pan bolts (see Figure 35).
 - Reuse the existing pan bolts.
 - Oil pan bolt torque: 7.9 N•m (0.81 kg-m, 70 inlb.)
- 13. Install a new drain washer to the drain plug on the oil pan.



14. Fill the CVT assembly with NS-3 CVT fluid or equivalent.

• Refer to the ESM, section TM – Transaxle & Transmission for CVT fluid filling.

15. IMPORTANT: Install Write IP Characteristics to the TCM; see ITB13-055.

- Refer to TM Transaxle & Transmission / BASIC INSPECTION, and perform ADDITIONAL SERVICE WHEN REPLACING TRANSAXLE ASSEMBLY.
 - ➢ Check for fluid leakage.
 - Attach the QR label with the new calibration data onto the transmission range switch (inhibitor switch).
 - o See Figure 36 and 37 below.
 - o A QR Label and CD-R are included with the replacement valve body.
- 16. Erase the DTC.

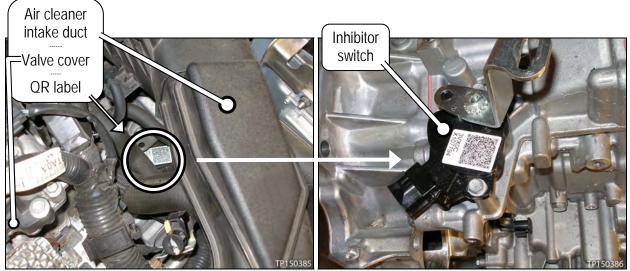


Figure 36

Figure 37

TCM Reprogramming

IMPORTANT: Before starting, make sure:

- ASIST on the CONSULT PC has been synchronized (updated) to the current date.
- All CONSULT-III plus (C-III plus) software updates (if any) have been installed.

NOTE:

- Most instructions for reprogramming with C-III plus are displayed on the CONSULT PC screen.
- If you are not familiar with the reprogramming procedure, click here. This will link you to the "CONSULT- III plus (C-III plus) Reprogramming" general procedure.

CAUTION:

- Connect a battery maintainer or smart charger to the vehicle battery, set to "power supply" mode. If the vehicle battery voltage drops below <u>12.0V or rises above 15.5V</u> during reprogramming, <u>the TCM may be damaged</u>.
- Be sure to turn OFF all vehicle electrical loads.
 If a vehicle electrical load remains ON, <u>the TCM may be damaged</u>.
- Be sure to connect the AC Adapter. If the CONSULT PC battery voltage drops during reprogramming, the process will be interrupted and <u>the TCM may be damaged</u>.
- Turn OFF all external Bluetooth[®] devices (e.g., cell phones, printers, etc.) within range of the CONSULT PC and the VI. If Bluetooth[®] signal waves are within range of the CONSULT PC during reprogramming, reprogramming may be interrupted and <u>the TCM may be damaged</u>.
- 1. Connect the CONSULT PC to the vehicle to begin the reprogramming procedure.
- 2. Start C-III plus.
- 3. Wait for the plus VI to be recognized.
 - The serial number will display when the plus VI is recognized.
- 4. Select Re/programming, Configuration.

	Image Image <th< th=""><th>Diagnosis Menu</th></th<>	Diagnosis Menu
	Serial No. Status	Diagnosis (One System)
Plus VI is ecognized	VI 2300727 Normal Mode/Wireless connection	Diagnosis (All Systems)
	MI - No connection	Re/programming, Configuration
	Select VI/MI	Immobilizer
	Application Setting Sub mode Language Setting	Maintenance
	NOR VOR]

Figure 38

- 5. Follow the on-screen instructions and navigate the C-III plus to the screen shown in Figure 39.
- 6. When you get to the screen shown in Figure 39, confirm reprogramming applies as follows:
 - A. Find the TCM Part Number and write it on the repair order.NOTE: This is the <u>current</u> TCM Part Number (P/N).

Re/programming.	Disertation Selection Save ECU Data
ave ECU Data	111
Touch "Save" to save operation log Operation log helps to restart next o after operation has completely finish	and the current part number as listed below to CONSULT. eration by selecting suitable operation log. Operation log is erased d.
ile Label	300000000000000
peration	REPROGRAMMING
Potosta	
yetem	
ystem art Number	TRANSMISSION Current TCM I
Operation System Part Number /ehicle	TRANSMISSION Current TCM I

Figure 39

- B. Compare the P/N you wrote down to the numbers in the Current TCM Part Number column in Table A below.
 - If there is a <u>match</u>, continue with the reprogramming procedure; step 7.
 - If there is <u>not a match</u>, reprogramming is <u>not needed</u>; skip to step 16 on page 28, **Perform ADDITIONAL SERVICE WHEN REPLACING CONTROL VALVE**.

Table .

Model	Model Year	Current TCM Part Number Before Reprogramming: 31036 -
JX35	2013	3JUOA, 3JUOB, 3JUOC, 3JUOD, 3JUOE 3JU1A 9NA5A 9NA6A, 9NA6B, 9NA6C, 9NA6D, 9NA6E 9NA7A 9NA9C, 9NA9D
	2014	3JU3A, 3JU3B, 3JU3C, 3JU3D 9NA5B 9NA7A, 9NA7B, 9NA7C, 9NA7D 9NA8E 9NA9E
QX60	2015	9NB0A, 9NB0B, 9NB0C, 9NB0E 9NB3A 9NB9A
	2016	9NG0A, 9NG0B 9NG9A
	2017	9NJOC, 9NJOD 9NJ9A
	2018	9NP0A, 9NP0B 9NP9A

7. Follow the on-screen instructions to navigate C-III plus and reprogram the TCM.

NOTE:

- In some cases, more than one new P/N for reprogramming is available.
 - > If more than one new P/N is available, the screen in Figure 40 displays.
 - Select and use the reprogramming option that does <u>not</u> have the message "Caution! Use ONLY with NTBXX-XXX".
- If you get this screen and it is <u>blank</u> (no reprogramming listed), it means there is no reprogramming available for this vehicle. Close C-III plus and refer back to ASIST for further diagnosis.

Re/programming, Configuration	Preçavilari Sel	ect Program Data	
uch and select the repro	g/programming data listed below. ning data is listed below, confirm the v CONSULT.	rehicle selection, VIN and	4
System	TRANSMISSION		0
Current Part Number	Part Number After Repro/program	nming Other Information	
X000000-X00000X X000000-X00000X	3000006-300000C	200000000000000000000000000000000000000	
			Ne:

Figure 40

- Before reprogramming will start, you will be required to enter your User Name and Password.
 - > The CONSULT PC must be connected to the Internet (Wi-Fi or cable).
 - ▶ If you do not know your User Name and Password, contact your Service Manager.

Back Anne Print Screen	Screen Capture Mode	Recorded Help	12.6V VI MI	-
Configuration	Confirm Vehicle Condition	User Authentication	Transfer Data	11/12
User Authentication				
S CONTRACTOR				
Daimler WS				
	Please enter your Usent Username: Password Submit	D Below.		
Restant Logar			-	S Prosent lay
	Calence (13) (5 Se	anekan Dira, Alirang terumuti		

Figure 41

8. When the screen in Figure 42 displays, reprogramming is complete.

NOTE: If the screen in Figure 42 does <u>not</u> display (indicating that reprogramming did <u>not</u> complete), refer to the information on the next page.

- 9. Disconnect the battery charger from the vehicle.
- 10. Select Next.

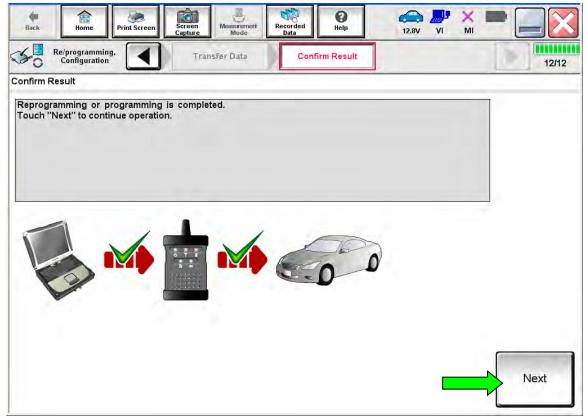


Figure 42

NOTE:

- In the next step (page 27) you will perform **Erase All DTCs**.
- DTC erase is required before C-III plus will provide the final reprogramming confirmation report.

TCM Recovery:

Do not disconnect plus VI or shut down C-III plus if reprogramming does not complete.

If reprogramming does <u>not</u> complete and the "!?" icon displays as shown in Figure 43:

- Check battery voltage (12.0–15.5 V).
- Ignition is ON, engine OFF.
- External Bluetooth[®] devices are OFF.
- All electrical loads are OFF.
- Select <u>retry</u> and follow the on screen instructions.
- <u>"Retry" may not go through on first</u> attempt and can be selected more than once.

CONSULT-IL plus - Ner	WN.	Unicipie		Country Jacon
Base Hone Print Scorer	Street Mate	Ber Hote	12.TV VI MI	
So senigiator	Time and	Continu Resol		13/13
Confirm Result				
Replogramming or programming is a operation on this ECU. Touch "Reny" to retry reprogrammin		ou can retry reprogriprogr	amming	R
Part number after Reprogramming		NEAREN-JIKUKA		
		#3680-30CBCE		
Part number sefore Reprog/programming Vehicle		1048HQA		
Reprogiprogramming Vehicle				
Reprogiprogramming Vehicle		8/8HQA		
Reprogramming Vehicle VIN		SJNFDNJ10U100000		Betry
Roprog/programming Vehicle VIN System		5/5H2A SJNFDNJ16U100000		Rety

Figure 43

If reprogramming does <u>not</u> complete and the "X" icon displays as shown in Figure 44:

- Check battery voltage (12.0 15.5 V).
- CONSULT A/C adapter is plugged in.
- Ignition is ON, engine OFF.
- Transmission is in Park.
- All C-III plus / VI cables are securely connected.
- All C-III plus updates are installed.
- Select <u>Home</u>, and restart the reprogram procedure from the beginning.

B Fane Phit Screet Sch	Alle Mettinenter Recorded Hele Comp	· · ·
Condition	Currill Resul	949
onfirm Rosult		
with procedure.	h NGULT version, IGN/Power owich position, shift position a Lonce, and start the reprogramming again	red ate
Part number after Reprog/programming	1254EB-34CHCB	
Cunent part number	RARE-ACEC	
100 A		
Webscle		
	SUNFDINU100000	
vin	SUNFDRU 190 100000	
viN System		
Velscle VIN System Inters Intomation		

Figure 44

- 11. Follow the on-screen instructions to Erase All DTCs.
- 12. When the entire reprogramming process is complete, the screen in Figure 45 will display.
- 13. Verify the before and after part numbers are different.
- 14. Print a copy of this screen (Figure 45) and attach it to the repair order for warranty documentation.
- 15. Select Confirm.

Back Home Print Screen	Screen Capture Measurement Mode Recorded Data Help 14.3V VI Erase All DTCs Print Result / 14.3V VI 14.3V VI	
Configuration	Operation Complete	18/18
int Result / Operation Complete		
n case CONSULT can NOT immedi temporally storage of this page. To	AN access, touch "Print" to print out this page. [ately access to LAN or printer, Screen Capture function is available uch "Screen Capture", and save it. Screen capture data is in "Cill p the folder named "ScreenImages".	
Part number after Reprog/programming	31036	
Part number before	31036	
Vehicle	******	
VIN	******	
System	TRANSMISSION	Print
Date	11/3/201X 2:10:21 AM	
		Confirm

Figure 45

- 16. Perform ADDITIONAL SERVICE WHEN REPLACING CONTROL VALVE.
 - Refer to TM Transaxle & Transmission / RE0F10E / BASIC INSPECTION, and perform ADDITIONAL SERVICE WHEN REPLACING CONTROL VALVE.

IMPORTANT: Check off these additional services as they are completed and attach this to the repair order when finished.

17. Verify the CVT operates normally and no abnormal noises are heard during a test drive.

CHECK OFF	ADDITIONAL SERVICE PROCEDURE
	PRINT CURRENT CALIBRATION DATA
	CHECK THE SERIAL NUMBER
	WRITE THE DATA
	PRINT NEW CALIBRATION DATA
	FWD CLUTCH POINT LEARNING (Using procedure starting below)
	PERFORM SELECT LEARNING (DRIVE/REVERSE LEARNING)
	ERASE CVT FLUID DEGRADATION LEVEL DATA

FWD CLUTCH POINT LEARNING (using CONSULT-III plus)

- 18. Apply the vehicle's parking brake.
- 19. Start the engine and warm up to operating temperature (50-100° C [122-212° F]).
- 20. Connect the CONSULT PC to the vehicle.
- 21. Start CONSULT-III plus (C-III plus).

- 22. Wait for the plus VI to be recognized.
 - The serial number will display when the plus VI is recognized.
- 23. Select Diagnosis (One System).

Serial No.	Status	Diagnosis (One System)
→ VI 2314367	Normal Mode/Wireless	Diagnosis (All Systems)
MI -	No connection	Re/programming, Configuration
supplication Setting	ABC Language Setting	Maintenance

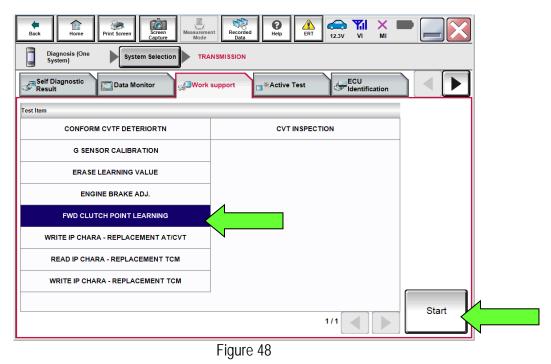
24. Select Work Support under TRANSMISSION.

Back Home Diagnosis (One System)	Print Screen Capture	Mode	oorded Help	ERT 12.3V		
Self Diagnostic Result	Data Monitor	Work support	Active	Test	ECU Identification	
- No DTC is d Further testi	etected. ng may be required.		-	-	-	
						Print
						Save
				1/1		ERASE

Figure 47

IMPORTANT: The following **FWD CLUTCH POINT LEARNING** will be performed <u>twice</u>. Once in drive (**D**) and once in reverse (**R**).

25. Select FWD CLUTCH POINT LEARNING and then Start.



- 26. With the engine still running and at idle, depress the brake pedal and shift the CVT into neutral (N).
 - Confirm that all of the required conditions indicated in Figure 49 are being met.
- 27. Select Start.

Image: Back Image: Back	
Work support : FWD CLUTCH POINT LEARNING Perform clutch point learning. Maintain the following conditions and touch START: -Vehicle: Stop -Engine speed: Idle -Selector lever: N position -Brake pedal: Depressed -Fluid temp.: 50 - 100°C (122 - 212°F)	Start
Current status Waiting for your operation Required conditions	
	End

Figure 49

28. While maintaining <u>all conditions</u> shown in Figure 49 and the "Current status" indicates "EXECUTING", shift the CVT into **D** and then wait until the Current status indicates "COMPLETED".

NOTE: This may take up to three (3) minutes to complete.

Image: Second Log Control Im	ERT 14.3V VI	
Diagnosis (One System) System Selection TRANSMISSION		
Work support : FWD CLUTCH POINT LEARNING		
During execution		
During execution, depress the brake pedal and shift the select lever to D po After the completion in D position, perform in R position	sition.	Start
To stop the learning, set the selector lever in P position.		
Current status	EXEC	JTING
		End

Figure 50

- 29. When the screen in Figure 51 is displayed, select End.
- 30. Turn the engine OFF and then back ON.

rk support : FWD CLUTCH POIN	em Selection TRANSMISSION IT LEARNING n to turn OFF the ignition switch.
	Retry
Current status	COMPLETED

Figure 51

31. Select FWD CLUTCH POINT LEARNING and then Start.

Image: System Image: S	
Test Item	
CONFORM CVTF DETERIOR TN	CVT INSPECTION
G SENSOR CALIBRATION	
ERASE LEARNING VALUE	
ENGINE BRAKE ADJ.	
FWD CLUTCH POINT LEARNING	
WRITE IP CHARA - REPLACEMENT AT/CVT	
READ IP CHARA - REPLACEMENT TCM	
WRITE IP CHARA - REPLACEMENT TCM	
	1/1 Start
	Figure 52

- 32. With the engine still running and at idle, depress the brake pedal and shift the CVT into neutral (N).
 - Confirm that all of the conditions indicated in Figure 53 are being met.
- 33. Select Start.

Image: Back Image: Displayed signal (One System) System (Signal (Signa (Signal (Signal (Signa (Signal (Signat (Si	
Work support : FWD CLUTCH POINT LEARNING	
Perform clutch point learning. Maintain the following conditions and touch START: -Vehicle: Stop -Engine speed: Idle -Selector lever: N position -Brake pedal: Depressed -Fluid temp.: 50 - 100°C (122 - 212°F)	۲ <u>ـــــ</u>
Current status Waiting for your operation Required conditions	
End	

Figure 53

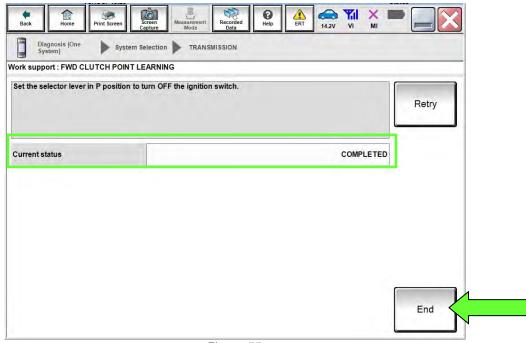
34. While maintaining <u>all conditions</u> shown in Figure 53 and the Current status indicates EXECUTING, shift the CVT into **R** and then wait until the Current status indicates COMPLETED.

NOTE: This may take up to 3 minutes to complete.

Back Home Print Screen SC	reen pture Mode		14.3V VI MI	
Diagnosis (One System) System Se	lection TRANSMISSION			
Work support : FWD CLUTCH POINT LE	ARNING			
During execution During execution, depress the brake p After the completion in D position, per	form in R position	ver to D position.		Start
To stop the learning, set the selector le	ver in P position.			
Current status			EXECUTING	
				End

Figure 54

35. When the screen in Figure 55 is displayed, select End.



PARTS INFORMATION

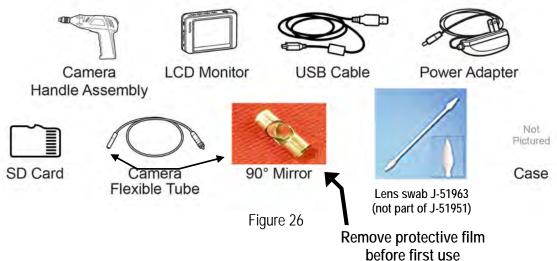
DESCRIPTION	PART NUMBER	QUANTITY
CVT ASSEMBLY (1)	(2)	1
VALVE ASSY KIT-CONTROL (3)	3170E-29X9C	1
WASHER-DRAIN	11026-JA00A	1
O-RING EXTERNAL OIL COOLER O-RING	22180-9NB0A	2
NS-3 CVT Fluid (4) (5)	999MP-NS300P	As needed
Lens Swab (6) (7)	J-51963	As needed

(1) If the CVT assembly is being replaced, no other parts in the table above, except NS-3 CVT fluid or equivalent, is needed.

- (2) Refer to the electronic parts catalog (EPC) for the correct part number.
- (3) Includes QR Label, CD-R, and Control Valve Assembly.
- (4) For warranty repairs, Nissan NS-3 CVT Fluid must be used.
- (5) NS-3 CVT Fluid can be ordered through the Infiniti Maintenance Advantage program: Phone: 877-INF-IMA1 (877-463-4621) or Website: Order via link on dealer portal <u>www.NNAnet.com</u> and click on the "Maintenance Advantage" link.
- (6) Lens swabs are available from Tech-Mate online: <u>www.infinititechmate.com</u>. Or by phone: 1-800-662-2001.

(7) Shop supply.

Tech Cam J-51951



Additional kits and individual components of Tech Cam J-51951 are available from Tech•Mate online: www.nissantechmate.com. Or by phone: 1-800-662-2001.

CLAIMS INFORMATION

NOTE: Refer to CVT Assembly Replacement Approval Procedures before submitting a claim.

Submit a Primary Part (PP) type line claim using the following claims coding:

If DTC P17F0 is stored

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
CVT R&R	(1)	JD01AA JD023A	(2)	20	(3)
CVT TROUBLE DIAGNOSIS	(1)	JX22AA	(2)	32	0.5
Reprogram TCM		JE99AA			(3)

(1) Reference the electronic Parts Catalog (EPC) and use the CVT assembly part number for the vehicle being repaired as the Primary Failed Part.

(2) Use the Symptom and Diagnostic codes that apply to the repair actually performed.

(3) Reference the current Infiniti Warranty Flat Rate Manual and use the indicated Flat Rate Time. NOTE: FRT allows adequate time to access DTC codes. No other diagnostic procedures subsequently required. Do NOT claim any diagnostic OP Codes with this claim.

OR

If DTC P17F1 is stored and Control Valve is replaced (chain inspection shows no signs of chain slip, OK)

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT	
RPL CVT CONTROL VALVE ASSY	21705 20100	JD48AA	75	22	(1)	
Reprogram TCM	31705-29X0C	JE99AA	ΖE	32	32	(1)

 Reference the current Infiniti Warranty Flat Rate Manual and use the indicated Flat Rate Time. NOTE: FRT allows adequate time to access DTC codes. No other diagnostic procedures subsequently required. Do NOT claim any diagnostic OP Codes with this claim.

and

DESCRIPTION	OP CODE	FRT
Inspect CVT Chain, Chain = OK	JX37AA	0.3

OR (see next page)

If DTC P17F1 is stored and chain inspection shows signs of Chain slip (NG) CVT is replaced

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT		
CVT R&R		JD01AA JD023A	ZE	32	(2)		
CVT TROUBLE DIAGNOSIS	(1)	JX22AA			0.5		
Reprogram TCM		JE99AA			(2)		

(1) Reference the electronic Parts Catalog (EPC) and use the CVT assembly part number for the vehicle being repaired as the Primary Failed Part.

(2) Reference the current Infiniti Warranty Flat Rate Manual and use the indicated Flat Rate Time. NOTE: FRT allows adequate time to access DTC codes. No other diagnostic procedures subsequently required. Do NOT claim any diagnostic OP Codes with this claim.

and

DESCRIPTION	OP CODE	FRT
Inspect CVT Chain, Chain = NG (includes control valve R&I)	JX36AA	2.3

CVT Assembly Replacement Approval Procedures

- If P17F0 is stored for CVT replacement:
 - a. Complete the Powertrain Call Center (PCC) CVT Preauthorization Form in ASIST.
 - b. Attach the C-III plus screen printouts showing the VIN and DTC to the Preauthorization Form.
 - c. Call the PCC for authorization at **800-973-9992 (opt 2)**.
- If P17F1 is stored and CVT chain inspection indicates CVT assembly replacement is required:
 - a. Complete the PCC CVT Preauthorization Form in ASIST.
 - b. Attach the C-III plus screen printouts showing the VIN and DTC to the Preauthorization Form.
 - c. Attach the required video (15 seconds or less) to the CVT Preauthorization Form.
 - Failure to submit a continuous video showing evidence of chain slip and the VIN will cause immediate denial of request for CVT unit replacement.
 - d. Call the PCC for authorization at 800-973-9992 (opt 2).

IMPORTANT: Make sure the video has a clear image of the VIN on the F.M.V.S.S. certification label (VIN label).

AMENDMENT HISTORY

PUBLISHED DATE	REFERENCE	DESCRIPTION
March 13, 2015	ITB15-012	Original bulletin published
March 30, 2015	ITB15-012a	Added additional approval information
November 2, 2015	ITB15-012b	Amended applied vehicles
November 6, 2015	ITB15-012c	Amended Action, Service Procedure, Parts Information and Claims Information
January 28, 2016	ITB15-012d	Amended Applied Vehicles, If You Confirm, Flow Chart, Service Procedure
March 31, 2016	ITB15-012e	Changed installation procedure for valve body
April 29, 2016	ITB15-012f	Amended to remove strainer O-ring part and part number
March 31, 2017	ITB15-012g	Added model years and part numbers
October 22, 2019	ITB15-012h	Added TCM reprogramming