



Technical Service Bulletin

GROUP CAMPAIGN	NUMBER 23-01-019H
DATE MARCH 2023	MODEL(S) VENUE (QX)

SUBJECT: TCU UPDATE AND IVT REPLACEMENT
(SERVICE CAMPAIGN T8X)

★ IMPORTANT

Dealers must perform this service campaign on all affected vehicles prior to customer retail delivery and whenever an affected vehicle is in the shop for any maintenance or repair.

Access the “Vehicle Information” screen via WEBDCS to identify open campaigns.

Description: Certain 2020-22MY Venue (QX) vehicles may experience a check engine light or malfunction indicator light due to Diagnostic Trouble Codes (DTC) listed below. Perform the TCU update, and, if necessary, replace the IVT (Intelligent Variable Transmission) to resolve this condition.

- TCU DTC Codes: **P0730, P0731, P0741, P0867, P1603**

STUI



This TSB includes STUI picture(s) as a requirement. Where indicated, please include the last 6 digits of the VIN and date of repair on a piece of paper. Ensure the VIN and date of repair are clearly visible. Finally, please ensure the captured pictures are completed according to the steps in this TSB and uploaded to STUI. **All claims submitted that have illegible, incomplete, missing, or incorrect picture(s) are subject to debit.**

Applicable Vehicles:
Certain 2020-22MY Venue (QX) equipped with IVT and produced from 9/17/2019 – 10/20/2021.

Parts Information:

MODEL	PART NAME	BEFORE	AFTER	REMARK
Venue (QX)	IVT	48000-2H051	48000-2H051QQH	15 in. tires
			48000-2H051QQHRM	15 in. tires
		48000-2H053	48000-2H053QQH	17 in. tires
			48000-2H053QQHRM	17 in. tires
	Castle Nut	N/A	49551-3X000	2 per vehicle
	Retainer Ring	N/A	14630-02910	
	Transmission Fluid	N/A	00232-19081	7 qts.

Circulate To: General Manager, Service Manager, Parts Manager, Warranty Manager, Service Advisors, Technicians, Body Shop Manager, Fleet Repair

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***Transmissions ending in 'QQHRM' do not come with transmission fluid.**

i Information

Please follow standard HMA Warranty Policy when ordering transmissions. If vehicle is over 500 miles, please use Reman (QQHRM). If Reman is not available, please use QQH.

GDS Information:

System Selection: **TRANSMISSION CONTROL UNIT (TCU)**

Event #	Description
741	741.QX 1.6MPI IVT TCU UPGRADE – IVT Driving Performance Improvement

*or use a later available event as listed in the GDS TCU Update screen if one is available.

Warranty Information:

MODEL	OP CODE	OPERATION	OP TIME	CAUSAL PART	NATURE CODE	CAUSE CODE
Venue (QX)	10D198R0	CHECK TCU DTC & UPGRADE	0.3	39100-2M135	T72	ZZ3
	10D198R1	CHECK TCU DTC & IVT REPLACEMENT (RM) & UPGRADE & IVT TCU PRESSURE LEARNING	3.0	48000-2H051QQHRM		
	10D198R2	CHECK TCU DTC & UPGRADE & IVT REPLACEMENT (RM) & IVT TCU PRESSURE LEARNING	3.1	48000-2H051QQHRM		
	10D198R3	CHECK TCU DTC & IVT REPLACEMENT (OE) & UPGRADE & IVT TCU PRESSURE LEARNING	3.0	48000-2H051QQH		
	10D198R4	CHECK TCU DTC & UPGRADE & IVT REPLACEMENT (OE) & IVT TCU PRESSURE LEARNING	3.1	48000-2H051QQH		

NOTE 1: Submit Claim on Campaign Claim Entry Screen.

NOTE 2: If a part that is not covered by this campaign is found in need of replacement while performing the campaign and the affected part is still under warranty, submit a separate claim using the same repair order. If the affected part is out of warranty, submit a Prior Approval request for goodwill consideration prior to performing the work.

NOTE 3: If TCU is found to already be updated, please submit labor OP code **10D198R0**.

NOTE 4: OP Time includes taking STUI photo and uploading. The STUI photo must include the new transmission installed with a piece of paper displaying the last 6 digits of the VIN and the date of repair.

If not included, claim will be subject to debit.

NOTE 5: The incident parts are subject to callback through the normal Warranty Technical Center (WTC) parts return process. **Claim is subject to debit if the part is not returned.**

NOTE 6: OP codes **10D198R1** and **10D198R2** include reimbursement for 7 quarts of transmission fluid.

i Information

Read and familiarize with **Section C – IVT, TCU Pressure Learning** before starting TCU update process.

i Information

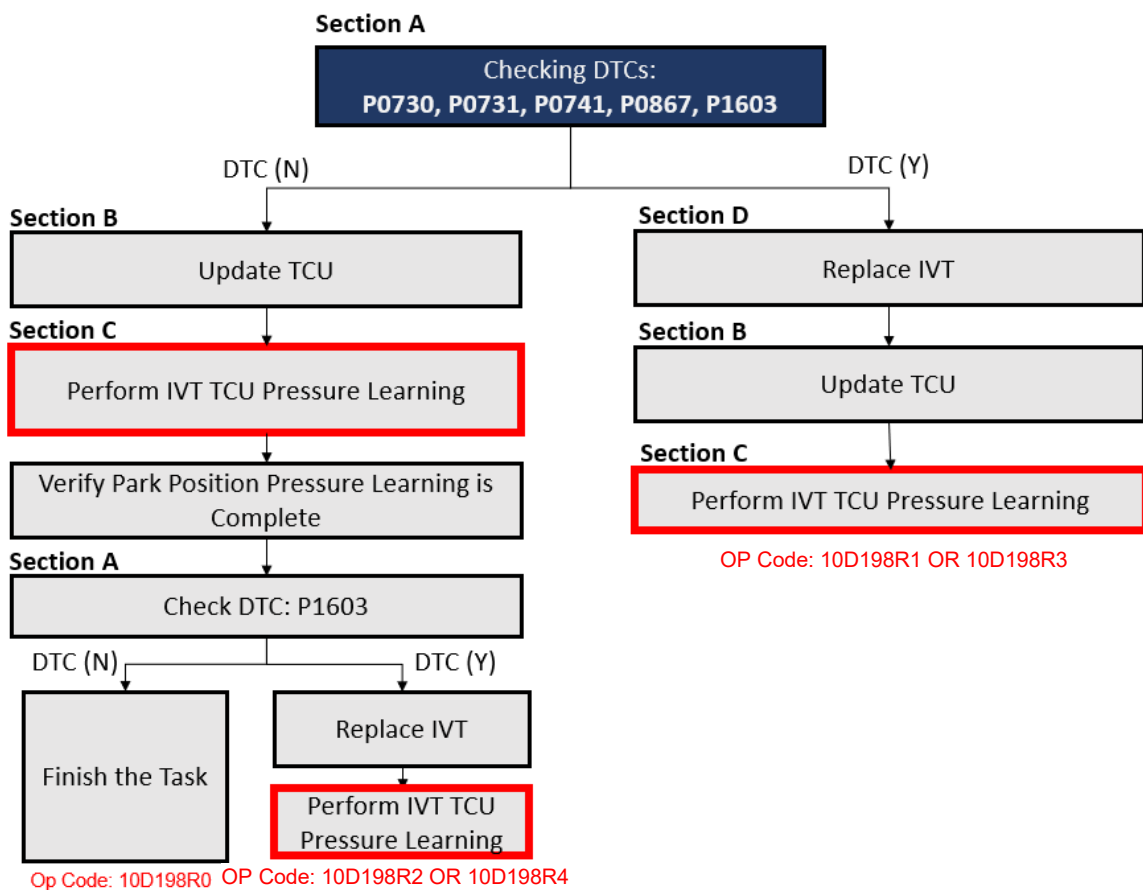
A Prior Approval (PA) request is required for transmission replacement.

NOTICE

Performing Section C – IVT, TCU Pressure Learning (Manual transmission relearn and verification) is a critical step. After updating the IVT TCU software complete the pressure learning and verification (park position learning value) procedure in order insure the IVT has not been damaged.

TCU Update Flow (QX with IVT)

1. Refer to the flowchart below to update the procedure.



i Information

1. Use the GDS-M to check the TCU DTC.
2. If one of the DTC(s) P0730, P0731, P0741, P0867, P1603 applies (History, Current, or Pending), replace the IVT.
3. Replace the IVT according to the applicable vehicle shop manual.
4. After IVT replacement, perform TCU update first, then perform the IVT resetting auto T/A values, oil-pressure characteristics input, TCU adaptive values learning procedure.

NOTICE

Section C is **required** to complete the service procedure. The transmission may fail from not performing IVT, TCU Pressure Learning, and is subject to warranty debit.

i Information

Initially perform GDS TCU Update in Auto Mode.

If the TCU Update starts but then fails in Auto Mode, perform the update in Manual Mode to recover.

i Information

1. Verify the vehicle battery has reasonable charge.
2. Turn off all lamps (Do not leave head lamp switch in auto mode.), and all accessories.
3. Perform update with the ignition switch in the **ON** position.
4. Do not disconnect any cables connected to the vehicle or scan tool during update.
5. Do not start the engine during update.
6. Do not turn off the ignition switch during update.

NOTICE

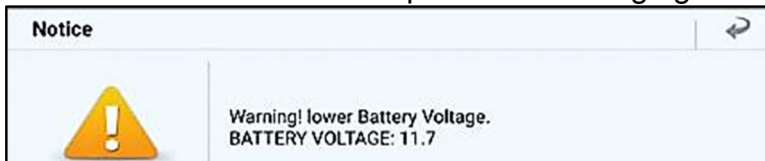
GDS-M Vehicle Battery Low Voltage Warning:

When the vehicle battery is lower than 12 volts, the GDS-M will trigger a Low Battery Voltage Warning. If this Warning occurs,

A. Connect the battery to a fully charged battery jump pack or GR8 charger using “Power Supply Mode” to continue the software update.

OR

B. Select “BACK” to exit the SW update. Then, start the engine and idle with the headlights on for 20 minutes. Return to the SW update after charging the battery.



Failure to do either one of these steps can cause the vehicle battery to die during the update, causing the vehicle to become inoperable.

Service Procedure:

A. Check DTC

1. Scan the vehicle for any of the following DTC Codes:

P0730, P0731, P0741, P0867, P1603

If DTCs are found, replace the IVT (Section D) before performing TCU Update (Section B).

B. Update TCU

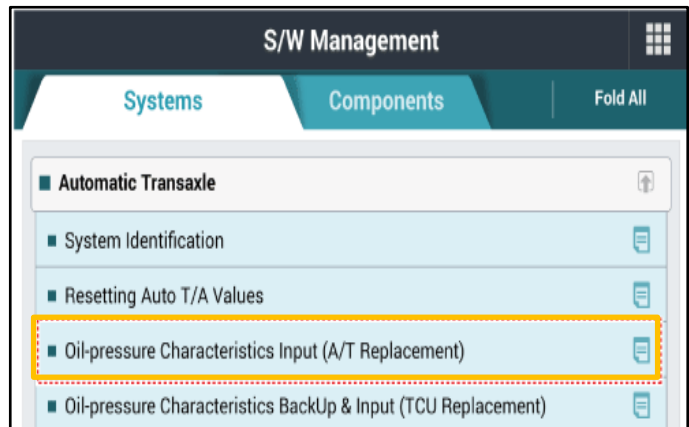
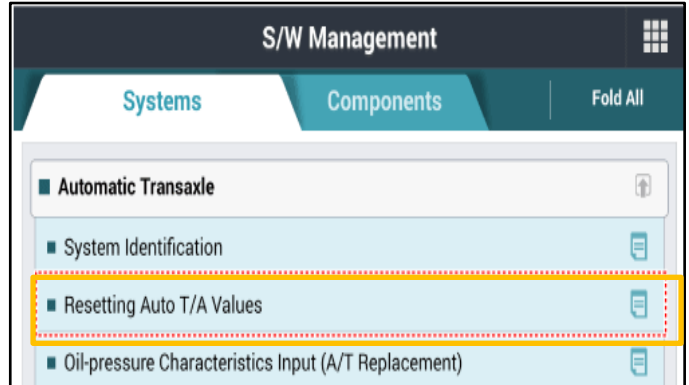
1. Perform GDS Mobile software update per TSB 15-GI-001.

NOTICE

Section C is required to complete the service procedure. The transmission may fail from not performing IVT, TCU Pressure Learning, and is subject to warranty debit.

C. IVT, TCU Pressure Learning

1. Perform IVT Resetting Auto T/A Values and Oil-pressure characteristics input procedures using GDS-M.

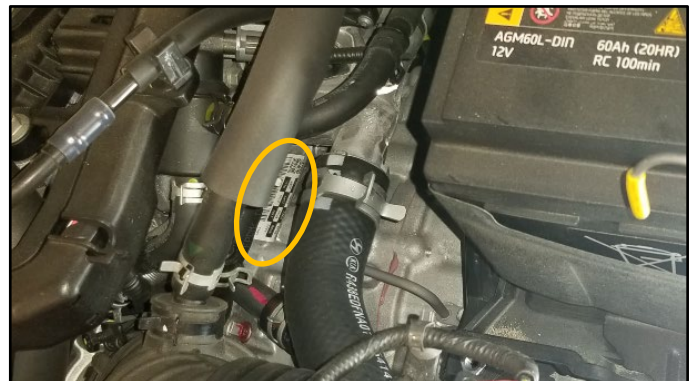


i Information

IVT oil pressure characteristics label is located on the IVT bell housing.

i Information

Perform “**Oil-pressure Characteristics BackUp & Input (TCU Replacement)**” if only the TCU Update was performed and the IVT was not replaced.



2. Perform the TCU adaptive values learning procedure.

i Information
 Learning condition Intelligent Variable Transmission Fluid (IVTF) temperature: 86 - 194°F (30 - 90°C)

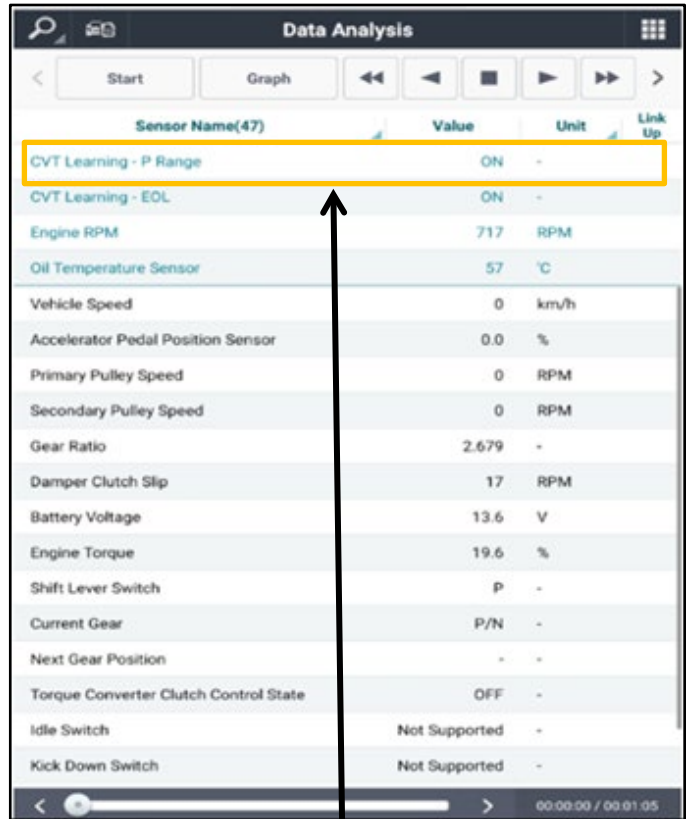
Start the engine after checking the IVTF temperature with the Ignition ON.

Engine RPM will rise to approximately 1000 rpm after starting the engine.

After 30-120 seconds, the learning is completed when the engine RPM reaches the normal IDLE level.

Use the GDS-M to verify the IVT P-Range learning is complete, and check TCU for DTC P1603 (EOL P-Range Pressure Learning Failed).

- (1) If IVT- P Range learning is not complete, and P1603 is present, replace the IVT (Refer to **Section D**).
- (2) If IVT-P Range is not complete, and P1603 is not present, the learning condition has not been met. Re-perform **Section C - IVT, TCU Learning**.



i Information
 Learning completion can be confirmed by using GDS-M to verify the IVT (“CVT”) P-Range learning value is “ON”. (“OFF” learning has not been completed)

i Information
 Do not apply accelerator pedal and brakes, or operate shift levers during P range, learning. (If operated during learning, re-engage after shutting off.)

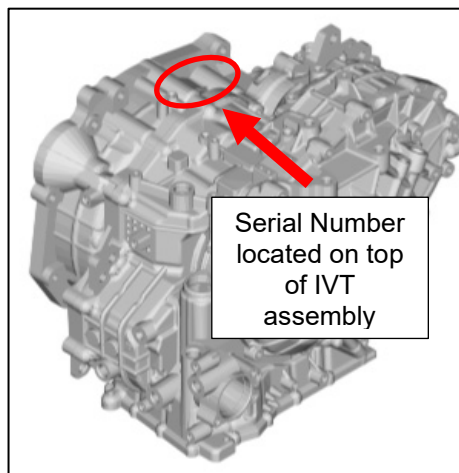
D. IVT Replacement

1. If transmission replacement is needed, follow the applicable shop manual section:



STUI

Using STUI, take a picture of the serial number of the new IVT assembly prior to replacement. Include a piece of paper with the last six digits of the VIN and date of repair in the photo. Ensure the picture is in focus. Upload the photo to STUI.



- If IVT replacement is performed, refer to **Section C** for IVT, TCU Learning.

i Information

You must initially perform GDS TCU Update in Auto Mode.

If the TCU Update starts but then fails in Auto Mode, perform the update in Manual Mode to recover.

TCU Update and ROM Information Table:

VEHICLE	MY	PCU P/No.	ROM ID	
			OLD	NEW
Venue (QX)	20MY	39100-2M135 39100-2M145	CQX0M16NS0 CQX0M16NS1 CQX0M16NS2	CQX0M16NS3
	21MY	39100-2M372 39100-2M373		
	22MY	39100-2M382 39100-2M383		
	20MY	39100-2M185 39100-2M195	CQX0M16NB0 CQX0M16NB1 CQX0M16NB2	CQX0M16NB3
	21MY	39100-2M374 39100-2M375		
	22MY	39100-2M384 39100-2M385		

Manual Mode Password:

1. From the GDS-M home screen, select **ECU Upgrade**.
2. From the ECU Upgrade screen, select **Manual Mode**, then select the **Update Event 741**.

Event #741

Update Event #741	Password
QX 1.6 MPI IVT 39100-2M135/145/372/373/382/383	3832
QX 1.6 MPI IVT 39100-2M185/195/374/375/384/385	5834

3. The update will occur.

Once the update finishes, turn the ignition off for 10 seconds, then turn the ignition back on.
4. Check if any Diagnostic Trouble Codes (DTCs) were created by the update and clear all related DTCs.
5. Follow section “**C**” to perform **TCU Pressure Learning**.
6. Start the engine to confirm the proper operation of the vehicle.