

 HYUNDAI Technical Service Bulletin	GROUP AUTOMATIC TRANSMISSION	NUMBER 26-AT-005H
	DATE JUNE 2026	MODEL(S) SEE BELOW
SUBJECT: DRIVABILITY & JUDDER IMPROVEMENT - 8WDCT TCU UPDATE FOR VEHICLES WITH 2.5T ENGINES		

This bulletin supersedes TSB 23-AT-012H to include an updated title and description, indicating this service procedure should be performed prior to replacing the dual-clutch transmission for a drivability concern.

Description: This bulletin provides information related to a Transmission Control Unit (TCU) software update for some vehicles equipped with an 8-speed wet dual clutch transmission (8WDCT). The software update revises the touch point learning variation, improving drivability and judder symptoms. Some 8WDCTs (indicated by a new part number) received an updated clutch spring. The correct TCU software update must be matched with the correct corresponding 8WDCT hardware, otherwise, drivability concerns may occur. This service procedure should be performed prior to any 8WDCT replacements done for drivability/judder concerns.

Applicable Vehicles:

Model Year	Model	VINs Start with	Engine
2022 & Later	Santa Cruz (NXT)	5NT	Theta 2.5T
2021 – 2023	Santa Fe (TMA)	5NM	
2021 – 2022	Sonata (DN8A) w/N-Line Trim	5NP	
2021 & Later	Sonata (DN8) w/N-Line Trim	KMH	

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Parts Information –**BEFORE Improvement 8WDCT:**

Model	Event No.	Drive Type	Trans Type	8WDCT Assembly Part Number		Remarks	TCU Calibration ID
				T/M Assembly	Reman		
Santa Cruz (NXT)	897	4WD	SBC	430F0-2N081	N/A	w/ TCU	WNX4T25X4X900NS9
				43000-2N022	43000-2N022RM	w/o TCU	
Santa Fe (TMA)	895	2WD	SBW	430F0-2N085	N/A	w/ TCU	VTMPT25XXX900NSA
				43000-2N034	43000-2N034RM	w/o TCU	
		4WD		430F0-2N086	N/A	w/ TCU	
				43000-2N035	43000-2N035RM	w/o TCU	
Sonata (DN8, DN8A) N-Line Trim	896	2WD	SBW	430F0-2N034	N/A	w/ TCU	VDN8T25XXX900NSC
				43000-2N050	43000-2N050RM	w/o TCU	

NOTE: SBC = Shift By Cable, SBW = Shift By Wire

Parts Information –**AFTER Improvement 8WDCT:**

Model	Event No.	Drive Type	Trans Type	8WDCT Assembly Part Number		Remarks	TCU Calibration ID
				T/M Assembly	Reman		
Santa Cruz (NXT)	922	4WD	SBC	43000-2N029	N/A	w/o TCU	WNX4T25X4W900NS1
Santa Fe (TMA)	920	2WD	SBW	43000-2N036	43000-2N036RM		VTMPT25XXW900NS1
		4WD		43000-2N037	43000-2N037RM		
Sonata (DN8, DN8A) N-Line Trim	921	2WD	SBW	43000-2N052	43000-2N052RM		VDN8T25XXW900NS1

NOTE: SBC = Shift By Cable, SBW = Shift By Wire

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Tool Name	Tool Number	Figure	Ordering Information
VCI 3	G0VHNNN06		Website: https://hyundaessentialtools.com/ Email: Hyundaitools@snapon.com Phone: 1-855-763-9199 Hours: 7 AM – 7 PM CST
VCI 2	G1XDDMN001		

NOTE: VCI 2 can **NO** longer be ordered but can be used for the updates in this TSB.

GDS Information:

Model	System	Event Number*	Description
Santa Cruz (NXT)	AT	897	NX4AT THETA 2.5T SOL. VALVE OPERATING FREQUENCY LOGIC IMPROVEMENT(TCU)
Santa Fe (TMA)		895	TM PE THETA 2.5T SOL. VALVE OPERATING FREQUENCY LOGIC IMPROVEMENT(TCU)
Sonata (DN8, DN8A) N-Line Trim		896	DN8 N THETA 2.5T SOL. VALVE OPERATING FREQUENCY LOGIC IMPROVEMENT(TCU)

(*or use a later available event listed in the GDS **DCT** Update screen if one is available.)

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Warranty Information:

Model	Op. Code	Operation	Op. Time	Causal Part	Nature Code	Cause Code
Santa Fe (TMA)	954A0F02	TCU Software Update (BEFORE improved 8WDCT) + Vehicle Calibration	0.7 M/H	954A1-2N250	S21	ZZ3
Sonata (DN8, DN8A) N-Line Trim				954A1-2N060		
Santa Cruz (NXT)				954A1-2N460		
Santa Fe (TMA)	954A1F03	TCU Software Update (AFTER improved 8WDCT) + Vehicle Calibration	0.7 M/H	954A1-2N251		
Sonata (DN8, DN8A) N-Line Trim				954A1-2N060		
Santa Cruz (NXT)				954A1-2N460		

NOTE 1: Normal warranty applies.

NOTE 2: Submit claim on Claim Entry Screen as “Warranty” type.

NOTE 3: This TSB includes repair validation photo(s). Op times include VIN, mileage, and photo capture of the ECU Update “Success” result screen as outlined in the Digital Documentation Policy.

NOTE 4: If any part(s) not subject to this TSB are found in need of replacement while performing the repair procedure, and the affected part(s) are still under warranty, the dealer may submit a separate claim using the same repair order. If the part(s) not subject to this TSB are out of warranty coverage, the dealer has the option to submit a PA Request for goodwill consideration on a case-by-case basis.

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ROM ID Information**(BEFORE Improvement 8WDCT):**

Model	Event	System	TCU Part Number	ROM ID	
				Current	Latest
Santa Fe (TMA)	895	AT	954A0-2N250 (SBW)	VTMPT25XXX720NS0 VTMPT25XXX720NS1 VTMPT25XXX730NS2 VTMPT25XXX800NS3 VTMPT25XXX800NS4 VTMPT25XXX800NS5 VTMPT25XXX832NS6 VTMPT25XXX900NS8	VTMPT25XXX900NSA
Sonata (DN8, DN8A) N-Line Trim	896		954A0-2N060 (SBW)	VDN8T25XXX700NS0 VDN8T25XXX700NS1 VDN8T25XXX720NS2 VDN8T25XXX720NS3 VDN8T25XXX720NS4 VDN8T25XXX730NS5 VDN8T25XXX800NS6 VDN8T25XXX832NS7 VDN8T25XXX832NS8 VDN8T25XXX900NSA	VDN8T25XXX900NSC
Santa Cruz (NXT)	897		954A0-2N460 (SBC)	WNX4T25X4X730NS0 WNX4T25X4X800NS1 WNX4T25X4X800NS2 WNX4T25X4X800NS3 WNX4T25X4X800NS4 WNX4T25X4X832NS5 WNX4T25X4X900NS7	WNX4T25X4X900NS9

NOTE: SBC = Shift By Cable, SBW = Shift By Wire

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FOR VEHICLES WITH 2.5T ENGINES****ROM ID Information****(AFTER Improvement 8WDCT) – Manual Mode ONLY:**

Model	Event	System	TCU Part Number	ROM ID	
				Current	Latest
Santa Fe (TMA)	920	AT	954A0-2N251 (SBW)	VTMPT25XXX720NS9 VTMPT25XXXW720NS0 VTMPT25XXX730NSA	VTMPT25XXXW900NS1
Sonata (DN8, DN8A) N-Line Trim	921		954A0-2N061 (SBW)	VDN8T25XXX900NSB VDN8T25XXW900NS0 VDN8T25XXX900NSC	VDN8T25XXW900NS1
Santa Cruz (NXT)	922		954A0-2N461 (SBC)	WNX4T25X4X900NS8 WNX4T25X4W900NS0 WNX4T25X4X900NS9	WNX4T25X4W900NS1

NOTE: SBC = Shift By Cable, SBW = Shift By Wire**NOTICE****You must initially perform TCU Updates #920-922 in Manual Mode.**Updates meant for after-improvement 8WDCT (Event # 920, 921, & 922) will **ONLY** work in manual mode.

Service Procedure:

DIGITAL DOCUMENTATION



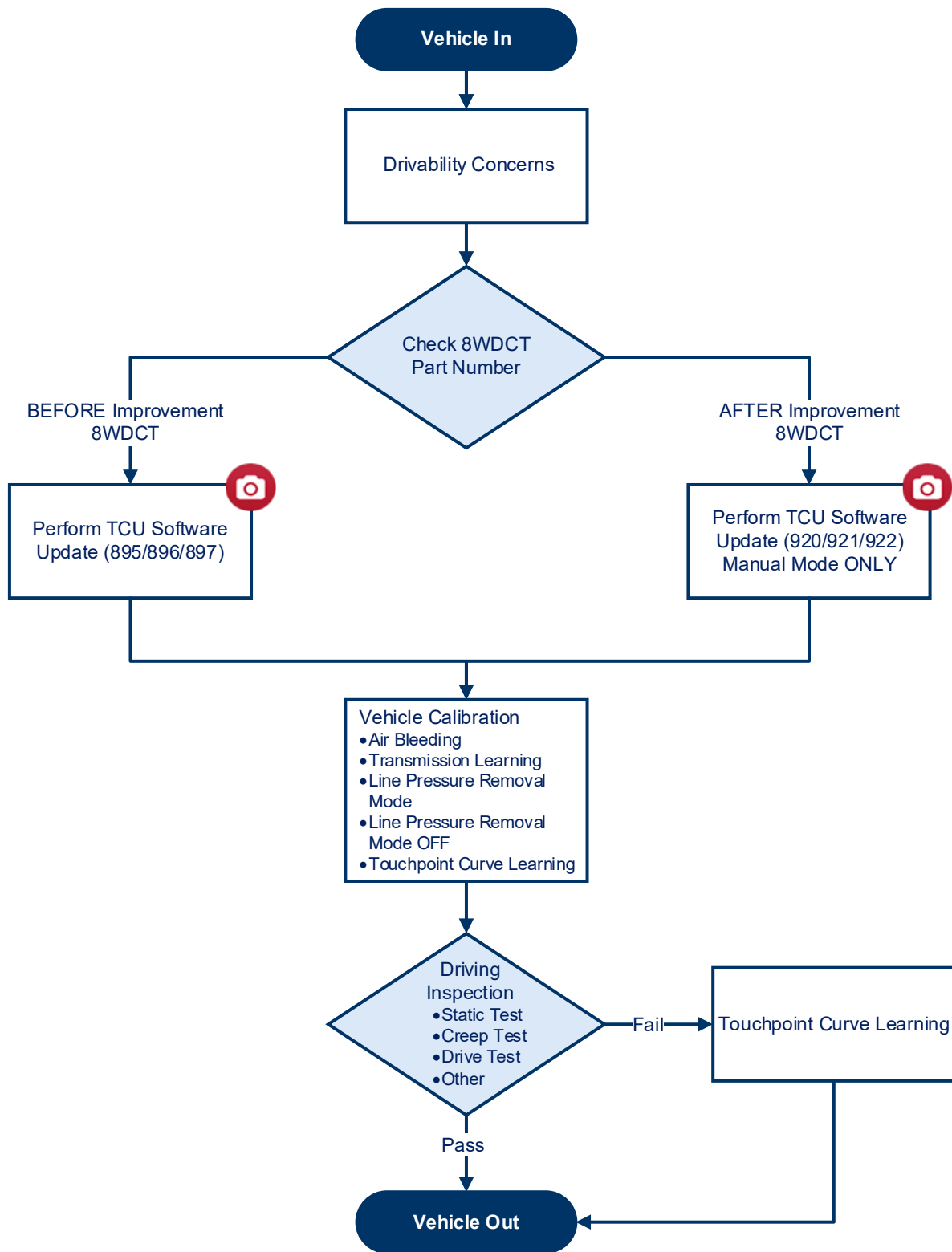
This TSB includes repair validation photos. Refer to the latest Warranty Digital Documentation Policy for requirements.

NOTICE

Applying the recommended torque to all fasteners is essential to reduce potential issues from occurring after the service procedure.

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FOR VEHICLES WITH 2.5T ENGINES****Flowchart**

TCU Update Procedure

NOTICE

- **You must initially perform TCU updates #895, 896, & 897 in Auto Mode.**
If the ECU update starts but then fails in Auto Mode, perform the update in Manual Mode to recover.
- **You must initially perform TCU Updates #920, 921, & 922 in Manual Mode.**
Updates meant for an **AFTER** improvement 8WDCT (Event # 920, 921, & 922) will **ONLY** work in manual mode.

NOTICE

Ensure the vehicle's battery charge is **≥12.3 Volts** and the tablet's battery charge is **above 30%** before performing a software update, to avoid update failure. Hyundai recommends connecting a battery maintainer/charger when performing **all ECU updates**.

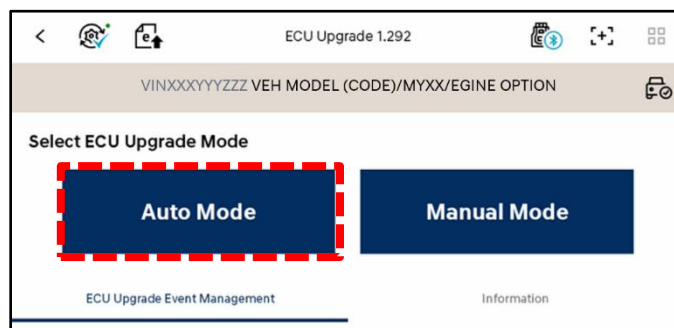
 Information

- Turn **OFF** all lamps (do **NOT** leave head lamp switch in auto mode) and all accessories.
- Perform update with the ignition switch in the **ON** position.
- Do **NOT** disconnect any cables connected to the vehicle or scan tool during the update.
- Do **NOT** start the engine during the update.
- Do **NOT** turn **OFF** the ignition switch during the update.

1. **Updates #895, 896, & 897:**
Perform the TCU update in **Auto Mode**.

 Information

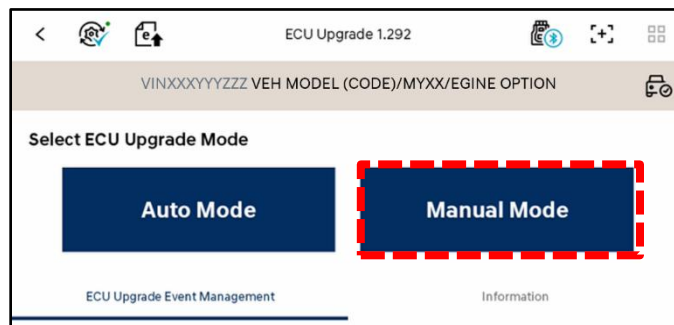
Refer to **TSB # 25-GI-011H**, "ECU Update Procedure for Tablet-Based GDS-Smart", for additional information.



- Updates #920, 921, & 922:**
Perform the TCU update in **Manual Mode**.

 Information

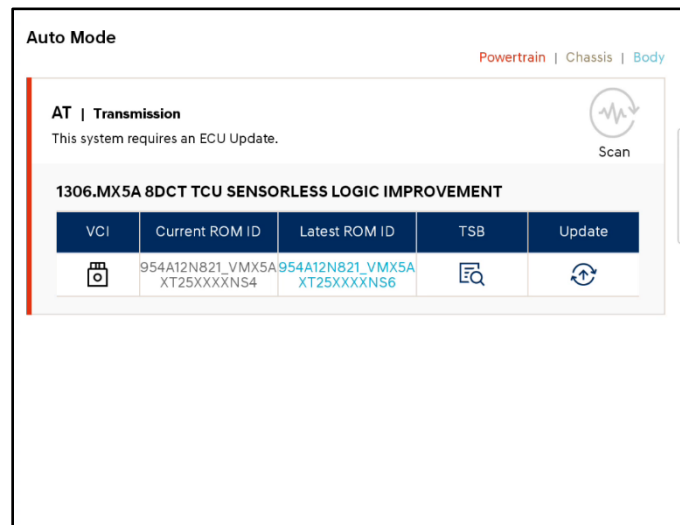
Refer to **TSB # 25-GI-011H**, "ECU Update Procedure for Tablet-Based GDS-Smart", for additional information.



2. Verify the ROM ID by selecting the **AT / Transmission** system to scan the vehicle's current ROM ID.

NOTICE

- Check the current ROM ID version and compare it to the **ROM ID Information** table before attempting to perform the software update.
- If the update fails, remove the power connector from the in-cabin fuse box for at least **5 seconds**. Alternatively, disconnect the negative (–) **12V** battery terminal and wait at least **5 seconds**. Reassemble and retry the update.

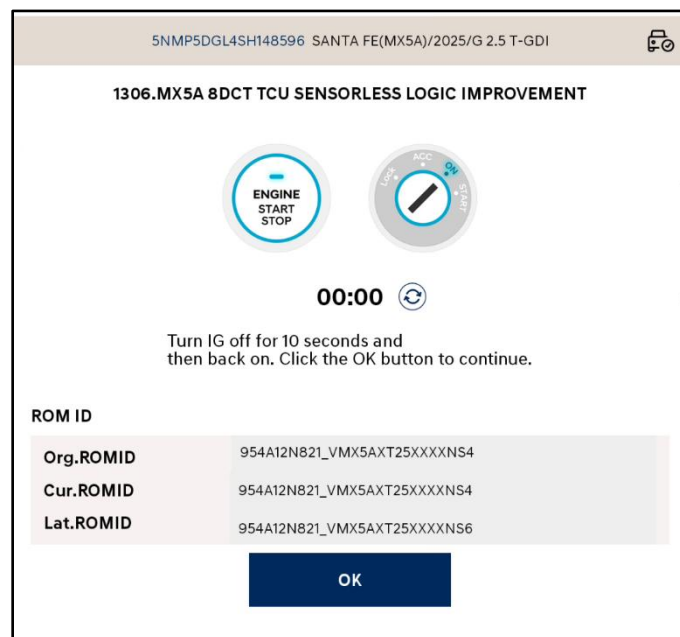


3. After the ECU update process shows 100% complete, follow the prompts on the screen to cycle the ignition **OFF** for at least **10 seconds** to reset the control unit (certain models may take up to **30 seconds**).



Information

Use the **Refresh** button to reset the timer.



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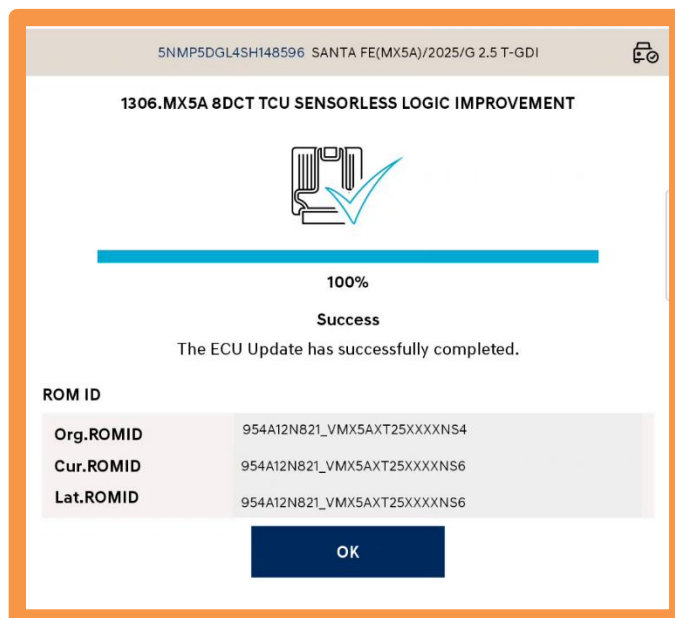
4.

**DIGITAL
DOCUMENTATION**

Using the tablet or GDS screen capture function, take a screenshot of the ECU Update "Success" result screen.

Upload the photo to STUI.

NOTE: The VIN/Date/Time/Mileage photo imprint is **NOT** required for GDS screenshots.



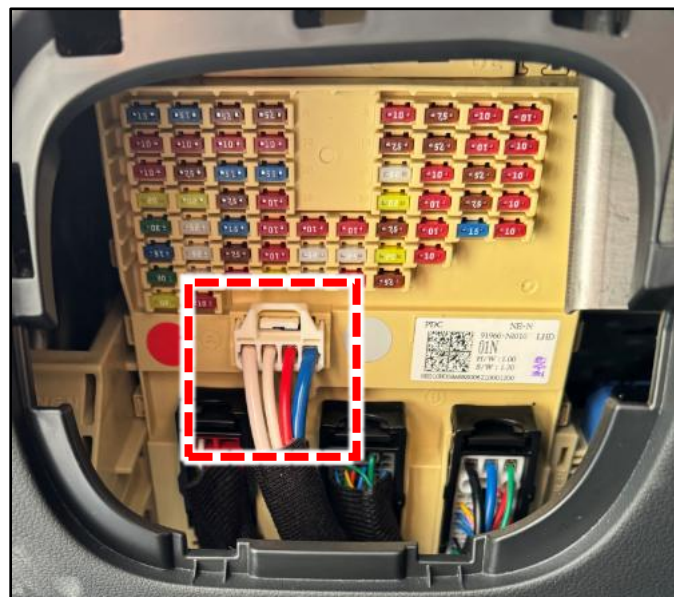
6. Perform an **All Systems Fault Code** search and erase DTC history that had incidentally occurred from the ECU update.



7. Remove the power connector from the in-cabin fuse box for at least **5 seconds**, then reconnect it.

i Information

Alternatively, disconnect the negative (–) **12V** battery terminal, wait at least **5 seconds**, then reconnect it.



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8. Start the engine to confirm proper operation of the vehicle.
9. Proceed to the [Vehicle Calibration Procedures](#).

NOTICE

If update 895, 896, or 897 fails in Auto Mode, perform the update in Manual Mode using the password(s) below.

Manual Mode Password:

Event	Menu	Password
895	TM PE THETA 2.5T SOL. VALVE OPERATING FREQUENCY LOGIC IMPROVEMENT(TCU)	2250
896	DN8 N THETA 2.5T SOL. VALVE OPERATING FREQUENCY LOGIC IMPROVEMENT(TCU)	2060
897	NX4AT THETA 2.5T SOL. VALVE OPERATING FREQUENCY LOGIC IMPROVEMENT(TCU)	2460

NOTICE

The following updates **MUST** be performed in Manual Mode using the password(s) below (**NO** Auto Mode available).

Manual Mode Password:

Event	Menu	Password
920	TM PE THETA 2.5T SOL. VALVE OPERATING FREQUENCY LOGIC IMPROVEMENT(TCU)	0291
921	DN8 N THETA 2.5T SOL. VALVE OPERATING FREQUENCY LOGIC IMPROVEMENT(TCU)	1291
922	NX4AT THETA 2.5T SOL. VALVE OPERATING FREQUENCY LOGIC IMPROVEMENT(TCU)	2291

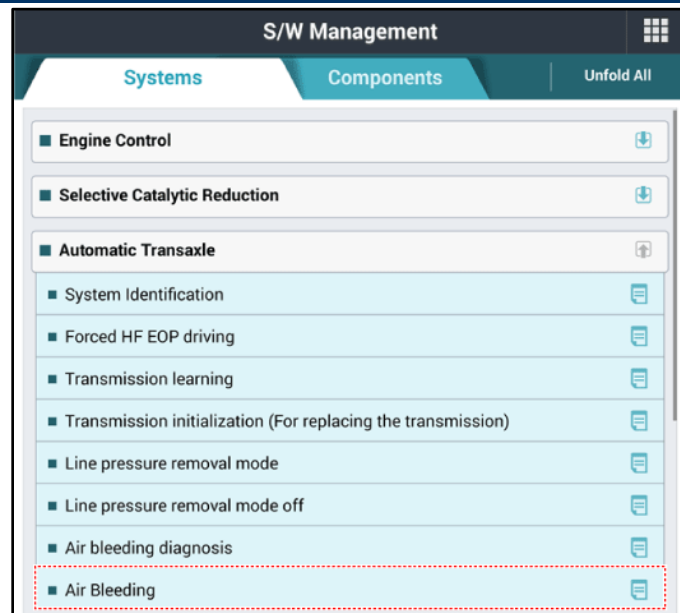
Vehicle Calibration Procedures

- Using GDS, perform the following procedures in this order:

- **Air bleeding**
- **Transmission learning**
- **Line pressure removal mode**
- **Line pressure removal mode off**
- **Touchpoint curve learning**

Refer to the shop manual:

- **Dual Clutch Transmission System (Dual Clutch Transmission) > Dual Clutch Transmission System > Repair procedures > Installation**



Vehicle Driving Inspection

- Perform a Static test:
 - Vehicle ignition **ON**.
 - With brake pedal depressed, shift the gears as follows:
N > D/N > R/P > D/P > R
 - Confirm vehicle does **NOT** exhibit abnormal shock.
 - Repeat steps b and c above **3 times**.
- Perform a Creep test:
 - Vehicle ignition **ON**.
 - With brake pedal depressed, shift gear from **P** to **D**.
 - With brake pedal depressed, shift gear from **P** to **R**.
 - Confirm that vehicle starts moving within **1-2 seconds**, without engine hesitation or juddering.
 - Repeat steps **b**, **c**, and **d** above **3 times**.
- Check for DTCs and any concerns during the tests in steps 1 and 2, such as brake signal, gear tightening, hydraulic pressure, etc.

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4. If the vehicle exhibits delayed acceleration, jerking, or shift shock after the inspections above, then re-perform the **Touchpoint curve learning** procedure.
5. If issues are found, follow the normal diagnostic process.

If issues remain after a detailed diagnostic process, then replace the 8WDCT assembly referring to **TSB 22-AT-011H, 8-Speed Wet DCT Replacement Instructions**.

**Information**

The transmission assembly should **ONLY** be replaced after the TCU update and all other diagnostic procedures have been completed. Refer to standard HMA warranty policy and procedures for DCT replacement.