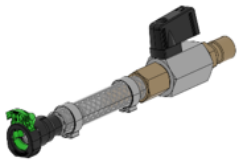
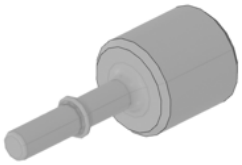
TSN01025-300-B: AXM Pre-Fill Kit

PURPOSE:

To aide with pre-filling the AXM/ AXM 2 when installed into vehicle prior to powering it up and running the coolant bleed procedure. This is to be used on:

- R1 (T/S) with AXM 1 (2021-2024)
- R1 (T/S) with AXM 2 (2025- Present)
- EDV (500/700) with AXM 1 (2022- Present)

NAME	QTY.	IMAGE
TSN01325-300-A: STRAIGHT **NW8** FEMALE COOLANT PLUG/ADAPTER • R1 (T/S) with AXM 1 (2021-2024) • EDV (500/700) with AXM 1 (2022- Present)	2	
TSN01434-300-A: STRAIGHT **NW10** FEMALE COOLANT PLUG/ADAPTER • R1 (T/S) with AXM 2 (2025- Present)	2	
TSN00853-300-A: SAE J2044 MALE PLUG - **8MM** • R1 (T/S) with AXM 1 (2021-2024) • EDV (500/700) with AXM 1 (2022- Present)	2	
TSN01433-300-A: SAE J2044 MALE PLUG - **10MM** • R1 (T/S) with AXM 2 (2025- Present)	2	

TSN01435-300-A: COOLANT BLEED BOTTLE ASSY	1	
TSN01436-300-A: COOLANT EXTRACTOR ASSY	1	

LABOR CODE:

782230010, Module, Driver Assistance/Audio/Display (Remove and Replace)

OTHER TOOLS REQUIRED:

- RiDE Diagnostic tool to perform coolant bleed

PRIOR TO USAGE:

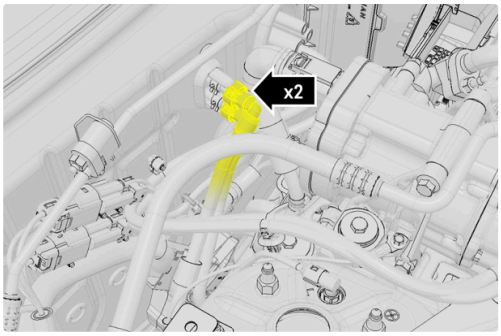
- Inspect tooling for any missing components
- Inspect tooling for any damage that may affect tooling performance
  EX: cracked lines, broken valves, etc.
- Remove necessary panels on vehicle to gain access to AXM coolant lines

⚠ **CAUTION: Do not perform procedure if any equipment is missing or damaged. Contact tooling team with any questions or requests for replacement parts. ServiceToolEngineering@rivian.com**

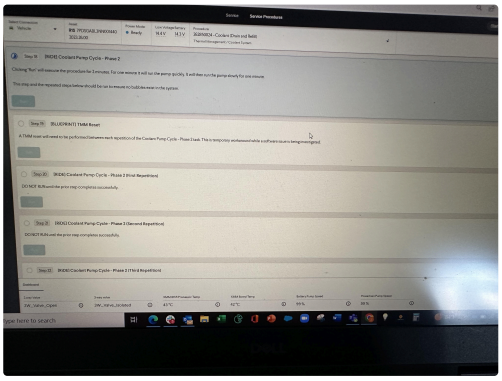
TOOL USAGE:

Images used in TUI are of R1 (T/S) vehicle setup. EDV is the same in terms of step by step process.

STEP	DIRECTIONS	VISUAL AID
1	Remove both upper and lower AXM coolant line connectors at Firewall.	

	NOTE: Remember coolant line orientation (what line belongs to which fitting on the AXM). This is crucial when re-installing the lines onto the AXM. Some of the lines may have a color coded clips to designate a difference between them.	 R1 coolant lines to AXM  EDV Coolant lines to AXM
2	Use **QTY. 2** SAE J2044 Male Plugs to plug AXM coolant lines on the vehicle side to prevent excess coolant loss. • R1 (T/S) with AXM 1 (2021-2024) **8MM SAE J2044 MALE PLUG (TSN00853-300-A)** • R1 (T/S) with AXM 2 (2025- Present) **10MM SAE J2044 MALE PLUG (TSN01433-300-A)** • EDV (500/700) with AXM 1 (2022- Present) **8MM SAE J2044 MALE PLUG (TSN00853-300-A)**	 Connect vehicle applicable (see note) 8MM or 10MM SAE J2044 Male Plug into vehicle side AXM coolant lines to prevent further leaks
3	Connect **QTY. 2** Straight NW8 or NW10 Adapters to AXM coolant ports on firewall. Keep the shut off valves on the adaptors closed. • R1 (T/S) with AXM 1 (2021-2024) **STRAIGHT NW8 FEMALE COOLANT PLUG/ADAPTER (TSN01325-300-A)** • R1 (T/S) with AXM 2 (2025- Present) **STRAIGHT NW10 FEMALE COOLANT PLUG/ADAPTER (TSN01434-300-A)**	 NW8 or NW10 SAE J2044 Straight adaptors (x2) attached to lines on AXM (firewall side)

	• EDV (500/700) with AXM 1 (2022- Present) **STRAIGHT NW8 FEMALE COOLANT PLUG/ADAPTER (TSN01325-300-A)**	
3.	Fill the Coolant Extractor Assembly bottle with new coolant. Keep the shut off valve closed.	
4	Connect the Coolant Extractor Assembly to the Straight NW8/NW10 Adapter in the top position (Inlet) of the AXM. Connect the Coolant Bleed Bottle Assembly to the Straight NW8/NW10 Adapter in the lower position (Outlet) on the AXM.	 Transfer fluid hard line connected to top NW8/NW10 SAE J2044 Adaptor (blue coolant in line) and Transfer fluid hard line connected to lower NW8/NW10 SAE J2044 Adaptor (no coolant in line)  Upper transfer fluid hard line connected to Fluid Fill bottle assembly (bottle filled with coolant)  Lower transfer fluid hard line connected to Bleed Fluid assembly bottle
5	**Open** all shut off valves to allow coolant to pass.	
6	Using the plunger on the Coolant Fill Extractor, fill the AXM with coolant through the inlet. Continue to fill through the AXM until coolant begins to flow through the outlet and into the Coolant Bleed Bottle Assembly.	

	Once both Fill and Bleed coolant lines are full and there are no air pockets, close the shut off valves (**QTY. 4**) to keep coolant in the AXM unit.	
7	Disconnect both the Coolant Extractor Assembly and Coolant Bleed Bottle Assembly from the Straight **NW8/NW10** Adapters.	
8	Disconnect the **8MM/10MM** SAE J2044 Male Plug from the vehicle coolant line before disconnecting the Straight **NW8/NW10** Adapter from the AXM inlet. Immediately reconnect the vehicle coolant line to the AXM. ⚠ **NOTE: Minimize coolant loss as much as possible by preparing the vehicle coolant line in the correct position/orientation prior to removal of the plugs (refer to STEP 1).** Repeat the process with the AXM outlet coolant hose plug and Straight **NW8/NW10** Adapter.	 AXM coolant lines re-installed in correct orientation
9	Run the Coolant (Drain and Fill) routine on **RiDE : 262850024** • Run all necessary coolant pump cycle phases and repetitions to ensure that all air is purged in the system • Make sure to top off the coolant reservoir when it goes low during the coolant bleed cycle and after the coolant bleed cycle is complete. ⚠ **CAUTION: Monitor the XMM board temperature through RiDE and ensure it does not exceed 60° C. If the board temp exceeds the limit, immediately shut off the vehicle to prevent damage. High temperatures could mean air pockets in the coolant system or a non-functional coolant pump.**	 Run RiDE procedure to bleed the coolant system of any remainder air in the system. Monitor the Dashboard signals (at the bottom of the page) to ensure that everything works as intended.