


RCA-38-23-003-2: Replace Drive Unit Plugs, R1T and R1S

Rivian is initiating a customer satisfaction campaign for some model year 2022 R1T and R1S vehicles that may have been built with drive units that have fastener threads on a plug sealing surface which may result in damage to the plug o-ring and an inadequate sealing surface. This condition could allow drive unit fluid to leak from the drive unit. Fluid leaking from the drive unit may be noticeable to the customer (though any potential leak would be a very small amount that would not impact other road users). If the leaking occurs over an extended period of time, it may lead to a decreased life for the drive unit and eventual failure of the drive unit. A failure of a drive unit will result in a reduced performance safe-state mode and a corresponding indicator light will illuminate on the driver display. Rivian will inspect each drive unit on all affected vehicles and will either install a new drive unit plug with an enlarged washer to ensure proper sealing or replace the drive unit. Rivian is launching this campaign for customer satisfaction and to ensure the quality of Rivian vehicles.



Note: This document supersedes RCA-38-23-003-1. Revision 2 updates the minimum volume of drained fluid required to replace the front drive unit.

Document Type	Customer Satisfaction Campaign Bulletin
Date	July 19, 2023
Affected Region(s)	USA
Affected Model(s)	R1T, R1S
Model Year(s)	2022
Approximate Build Dates	August 2021 - February 2022
 Refer to Open Containments in ServiceOS to determine if this document applies to a specific vehicle.	
Vehicle System	38 - Front Drive Unit
Minimum Service Location	Service Center

Potentially Required Parts

Part Number	Quantity	Engineering Name	Service Name/Notes
PT00576928-A	2	PLUG M22X1.5	
PT00576929-A	2	WASHER FLAT M22	
SC00006385-A	2	NUT - M12X1.75 HX FL PTM CL10 R107G	Prevailing torque fastener. Potentially reusable. Refer to Fastener Reuse.
Refer to the parts catalog for part number and inventory information.	1		Drive Unit, Front
Refer to the parts catalog for part number and inventory information.	1		Drive Unit, Rear

! **Attention:** The parts listed in this table are only for unique steps that are called out in this bulletin. Some sections of this bulletin might refer to Service Manual procedures which require additional parts. Always review the bulletin and all potentially related Service Manual procedures before ordering parts and beginning work.

Potentially Required Special Tools:

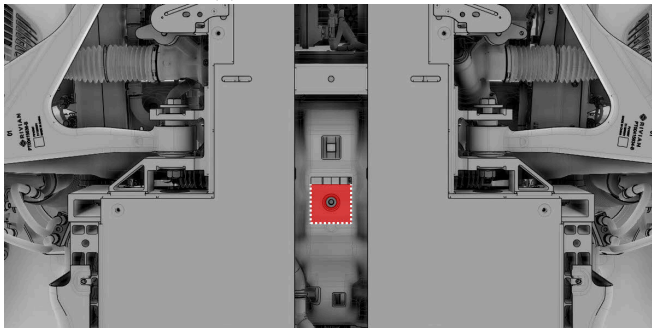
Tool Number	Tool Name
TSN01123	Origin drive unit fill plug torque kit

! **Attention:** The special tools listed in this table are only for unique steps that are called out in this bulletin. Some sections of this bulletin might refer to Service Manual procedures which require additional special tools. Always review the bulletin and all potentially related Service Manual procedures before beginning work.

Drain and Measure Front Drive Unit Fluid

! **Important:** This section requires measuring the amount of drive unit fluid after draining.

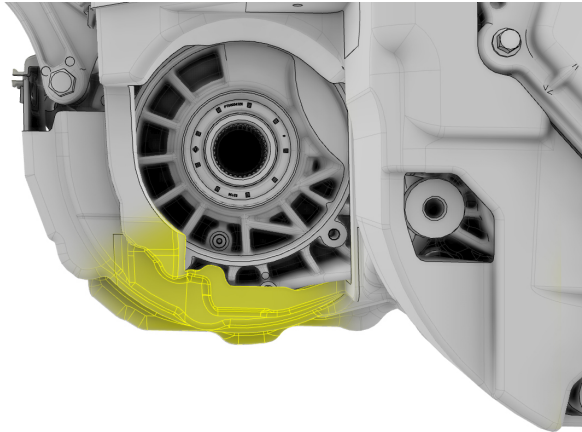
1. Remove: Panel, Underbody, Front Subframe (refer to service manual procedure 606515010).
2. Cut in the location(s) shown. Remove and discard:




3. Drain the front drive unit fluid into a measured container (refer to service manual procedure 381030024).
4. Measure the amount of fluid:
 - If the amount of fluid is 1.1 L (1.16 qt) or less: Replace: Drive Unit, Front (refer to service manual procedure 381010010), then skip to the [Drain and Measure Rear Drive Unit Fluid and Replace Plug](#) section.
 - If the amount of fluid is greater than 1.1 L (1.16 qt), continue to the [Remove Front Drive Unit Plug](#) section.

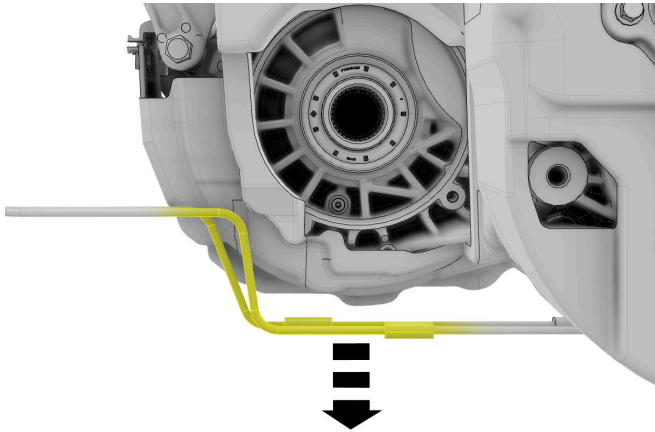
Remove Front Drive Unit Plug


1. On the LH side: Remove: Halfshaft, Front, LH (refer to service manual procedure 386410010).
2. On the LH side: Pull back for access:



 **Note:** Shown with components removed for clarity.

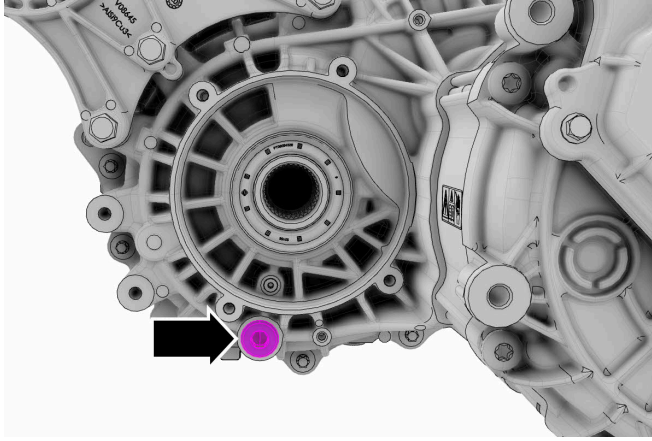
 **Tip:** If necessary:



 **Important:** Attempt to remove the plug as described in the next step:

- If successful, skip to the [Install New Front Drive Unit Plug](#) section.
- If clearance is not adequate, continue to the [Remove Front Drive Unit Plug \(With Drive Unit Raised\)](#) section.

3. On the LH side: Using a ball-end hex bit: Remove and discard:



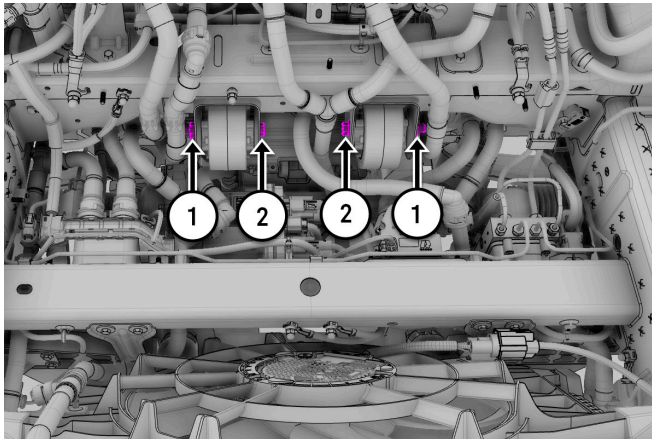
Note: Shown with components removed for clarity.


Remove Front Drive Unit Plug (With Drive Unit Raised)



Important: Perform this section only if the [Remove Front Drive Unit Plug](#) was unsuccessful.

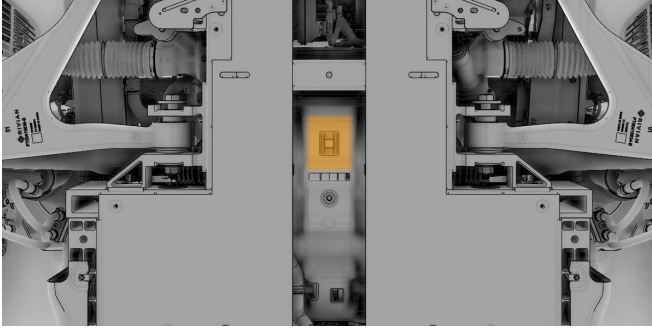
1. Lower the vehicle.
2. Remove: Bin, Underhood Storage (refer to service manual procedure 647930010).
- 3.



1	Nut
	 CAUTION: Potentially non-reusable component(s).
2	Bolt

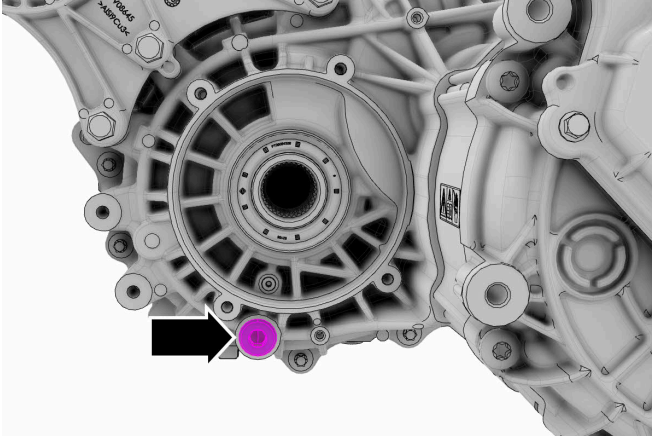
4. Raise the vehicle.

5. Using an under-hoist jack stand: Support the highlighted area.



6. Slowly raise the under-hoist jack stand to provide adequate clearance for the next step.

7. On the LH side: Using a ball-end hex bit: Remove and discard:



Note: Shown with components removed for clarity.

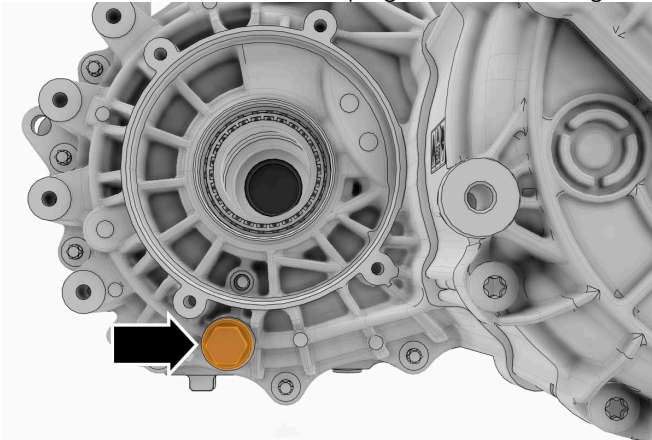
8. Continue to the [Install New Front Drive Unit Plug](#) section.

Torque specifications in this section

Step Number	Torque (Nm)
3	90

Install New Front Drive Unit Plug

1. On the LH side: Install the new plug and washer. Using the special tool: Tighten:



Note: Shown with components removed for clarity.

2. Fill the front drive unit with new fluid (refer to service manual procedure 381030024).
3. Continue to the [Drain and Measure Rear Drive Unit Fluid and Replace Plug](#) section.

Torque specifications in this section

Step Number	Torque (Nm)
1	73.5



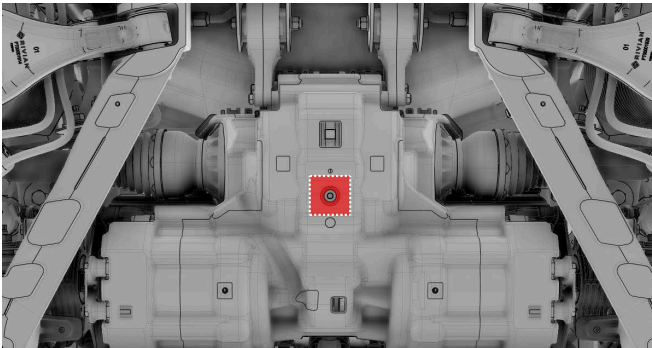
CAUTION: This torque specification is only valid when using the special tool.

Drain and Measure Rear Drive Unit Fluid and Replace Plug



Important: This section requires measuring the amount of drive unit fluid after draining.

1. Remove: Panel, Underbody, Rear Subframe (refer to service manual procedure 606516010).
2. Cut in the location(s) shown. Remove and discard:

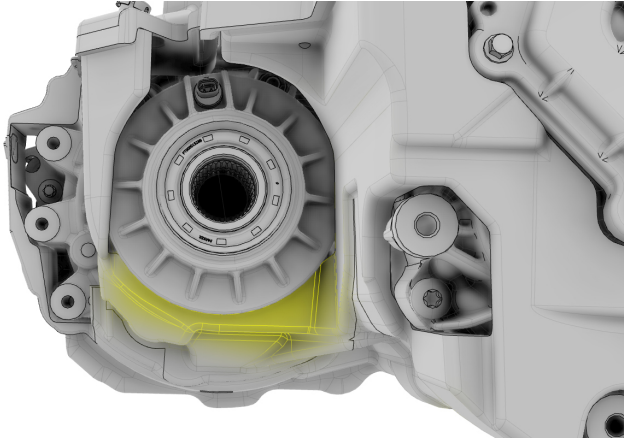


3. Drain the rear drive unit fluid into a measured container (refer to service manual procedure 421030024).

4. Measure the amount of fluid:

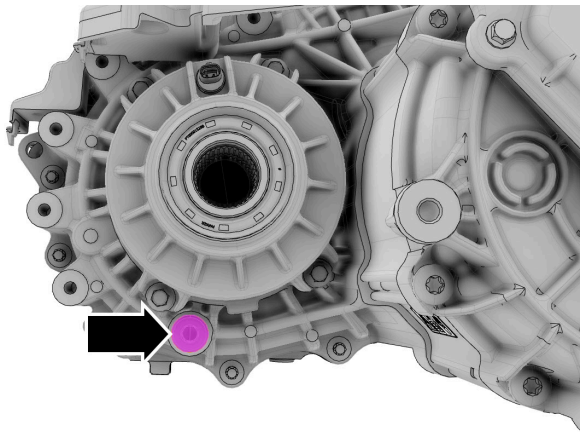
- If the amount of fluid is 1.3 L (1.37 qt) or less: Replace: Drive Unit, Rear (refer to service manual procedure 421010010). No additional work is required. Reinstall all components that were removed for access and replace all non-reusable components. Refer to the service manual procedures referenced in this document for additional component reusability information and torque specifications.
- If the amount of fluid is greater than 1.3 L (1.37 qt), continue to the next step.

5. On the RH side: Pull back for access:

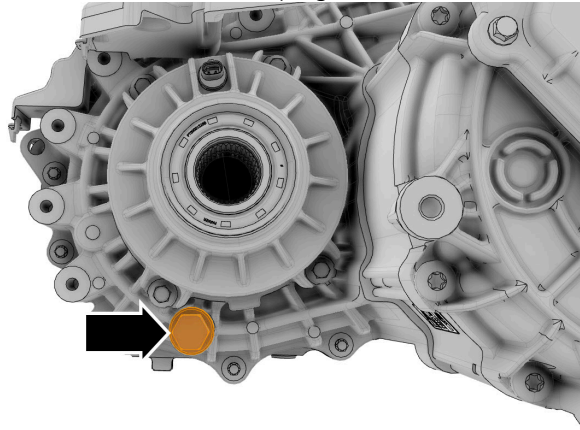


Note: Shown with components removed for clarity.

6. On the RH side: Remove and discard:



7. On the RH side: Install the new plug and washer.



Note: Shown with components removed for clarity.

8. Fill the rear drive unit with new fluid (refer to service manual procedure 421030024).

9. Reinstall all components that were removed for access and replace all non-reusable components. Refer to the service manual procedures referenced in this document for additional component reusability information and torque specifications.

Torque specifications in this section

Step Number	Torque (Nm)
7	55

Labor Codes

Labor Code	Description
RCA382300300	RCA-38-23-003 not applicable
RCA382300301	Drain and measure fluid from front and rear drive units; replace front plug; replace rear plug
RCA382300302	Drain and measure fluid from front and rear drive units; raise front drive unit; replace front plug; replace rear plug
RCA382300303	Drain and measure fluid from front and rear drive units; replace front drive unit; replace rear plug
RCA382300304	Drain and measure fluid from front and rear drive units; replace front plug; replace rear drive unit
RCA382300305	Drain and measure fluid from front and rear drive units; raise front drive unit; replace front plug; replace rear drive unit
RCA382300306	Drain and measure fluid from front and rear drive units; replace front and rear drive units
Contact ServiceDocumentFeedback@rivian.com regarding labor codes and document content.	