

TOOL USE INSTRUCTION

RIVIAN

TOOL NUMBER TSN01755-300

TITLE REAR SUBFRAME LOCATING JIG - R2

REV - DATE REV 1 05/22/26

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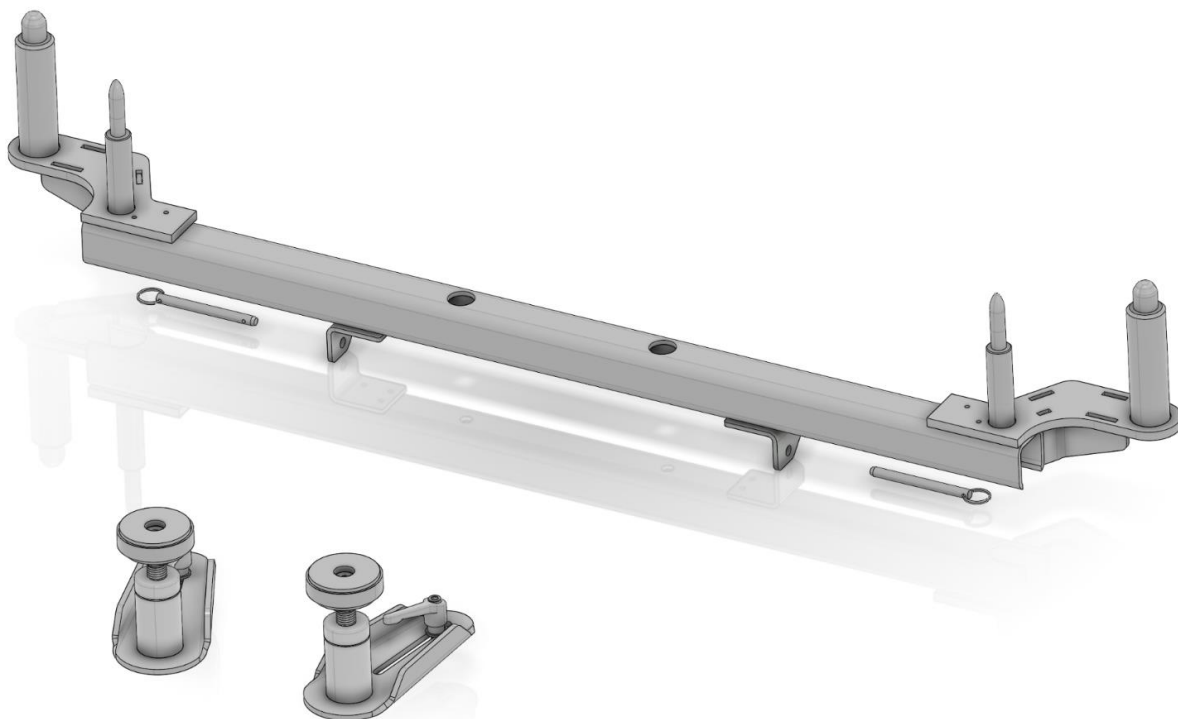
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TOOL FUNCTION

USED FOR FINAL ALIGNMENT OF THE REAR SUBFRAME TO THE BODY DURING INSTALLATION ON R2 VEHICLES



**WARNING**

Do not perform procedure if tool is damaged or missing parts. Consult the Rivian Service Tool Catalog for replacement components.

Failure to follow guidelines outlined in this document could result in injury and/or property damage.

SAFETY GUIDELINES

1	Risk of • damage to vehicle or property	
2	Risk of major injury such as • crushing / maiming • death	
3	Risk of Pinch Point • keep hands and fingers clear of all moving parts.	
4	PPE REQUIRED • eye protection • closed toe shoes • gloves	

SPECIFICATIONS

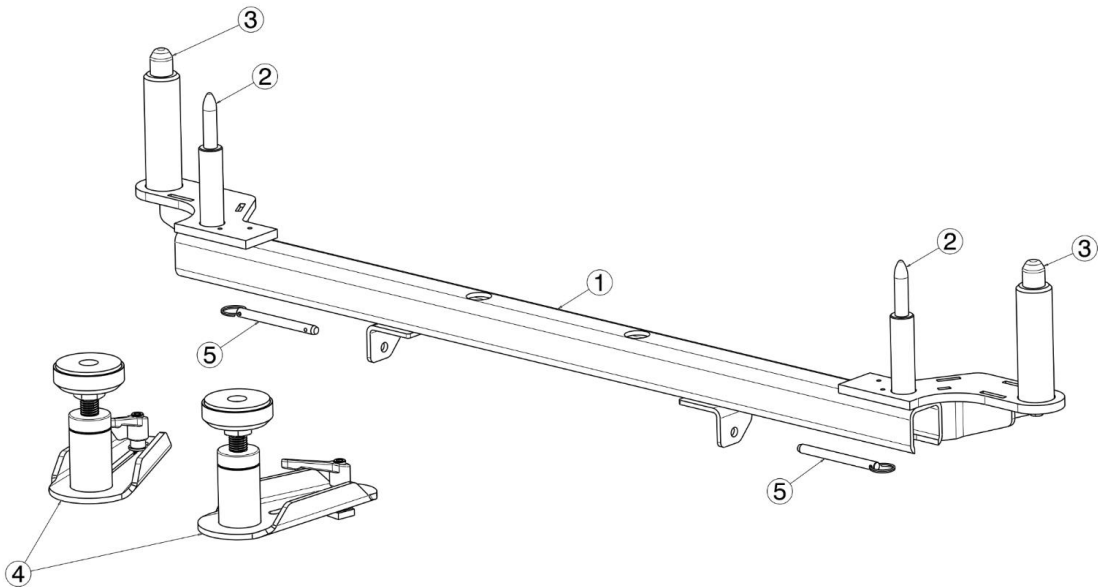
Weight:
Overall Dimensions:

LABOR CODES

465520011, 465525010

OTHER TOOLS REQUIRED

- TSN01474-300-A - SPRING COMPRESSOR
- TSN01692-300-A - REAR SUBFRAME GUIDE PIN - R2
- TSN00542-205-A - ASSY, BASE FRAME
- TSN00483-100-B - POWERTRAIN LIFT, 2500 LB. CAP.
- TSN00141-100-A - Socket, Shallow, 1/2" 6PT. Impact 21MM
- TSN01624-100-A - Torque Wrench, 1/2" 15-300ft-lb (20-407 N·m)
- TSN00333-104-A - Impact Wrench, 1/2" DR, M18 FUEL High Torque



COMPONENT GUIDE

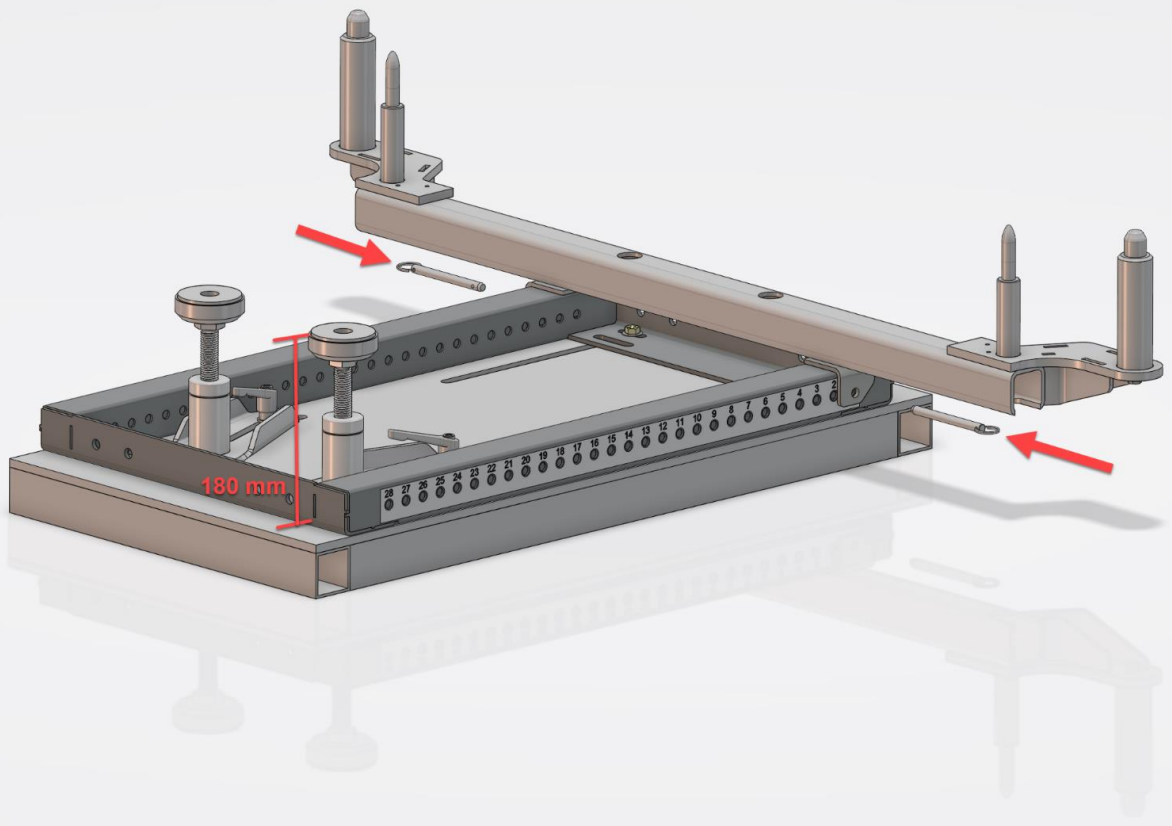
ITEM	QTY	RIVIAN PN	DESCRIPTION
1	1	PT01738152-A	CROSSBAR
2	2	PT01757491-A	SUBFRAME LOCATING PIN
3	2	PT01757492-A	BODY LOCATING PIN
4	2	PT01777502-A	TUBE SUPPORT
5	2	PT01738152-A	QUICK RELEASE PIN

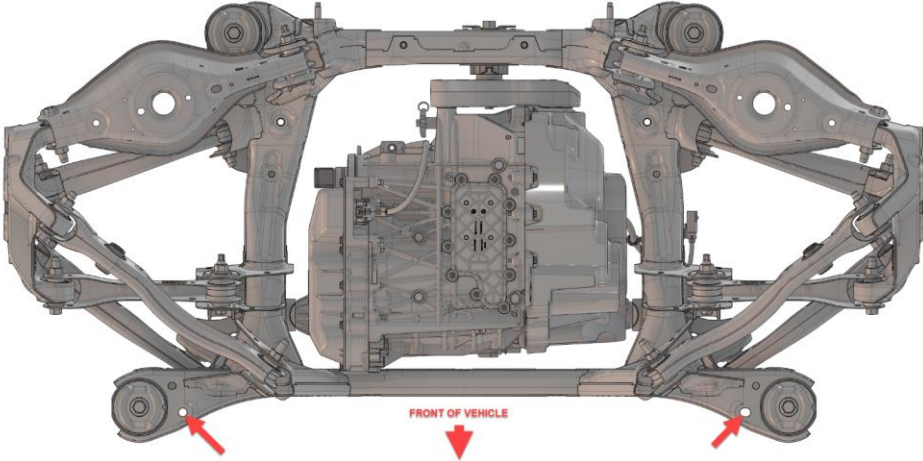
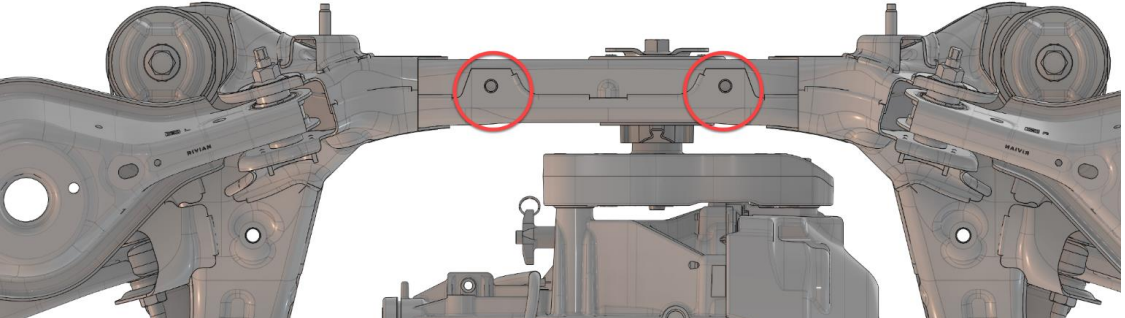


- 1 Follow all service procedure steps to prepare the vehicle for subframe removal.
- Note: This is a 2 person operation.

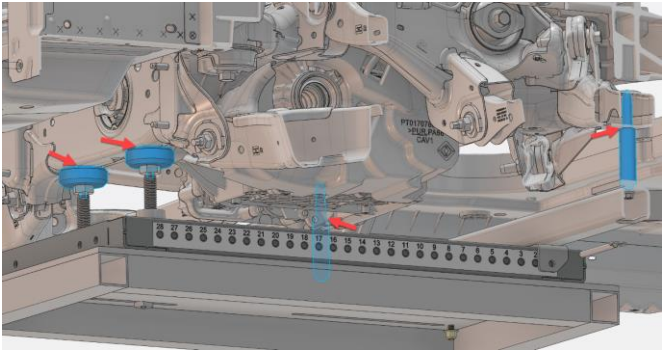
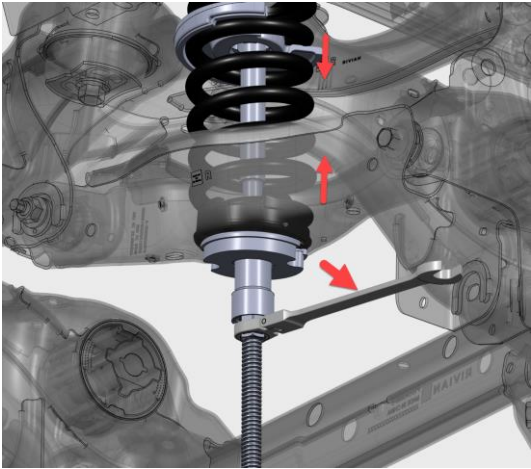
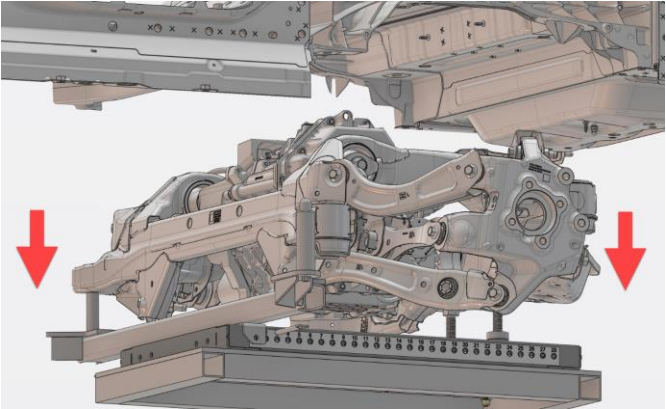
2 Assemble subframe alignment jig as shown with the front crossbar support pinned in the number one position and the tube support pads raised 180mm (7 inches) above the Powertrain Table surface. Keep the slide locks loose to enable adjustment when positioning the table and jig for final contact.

Note the orientation of the crossbar and locating pins to the table.

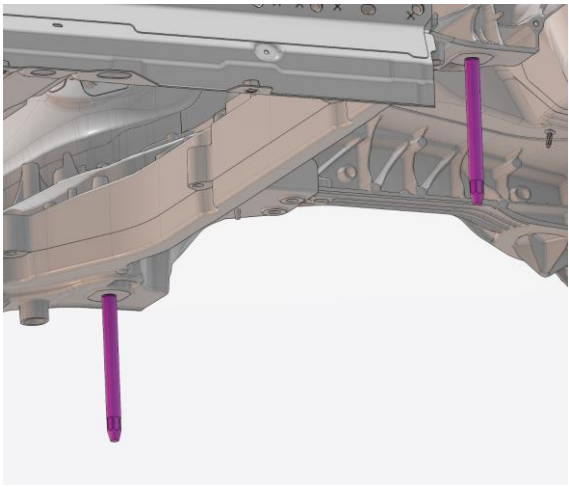
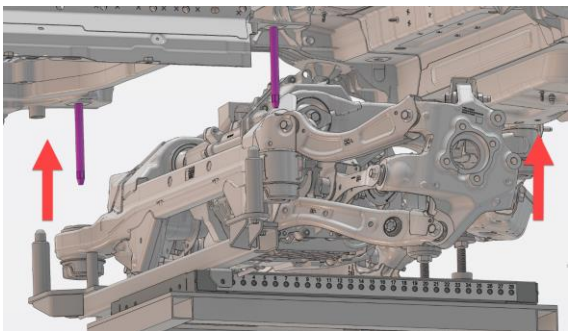


1	Bring the DU table underneath the rear of the vehicle, plug in the air supply and begin to raise it to the subframe.
2	As the table and jig get closer to the vehicle, align the subframe pins with the alignment holes in the subframe. Note: If, for some reason, the subframe is not properly aligned to the body casting, the outer body alignment pins will not go into place and will need to be removed before full installation of the support jig can be completed.  The diagram shows a top-down view of the rear subframe assembly. A central engine-like component is mounted on a horizontal beam. Two large, curved side arms extend from the beam, each with a wheel hub at the end. Three red arrows point to specific locations: one at the bottom center of the central beam labeled 'FRONT OF VEHICLE', and two on the lower outer edges of the side arms.
3	Before the support surface of the subframe alignment pins contact the surface of the subframe, position the support pads to the indicated position on the rear of the subframe and adjust their height to match the distance from the front of the subframe to the locating pin support surface.  The diagram shows a top-down view of the rear subframe assembly, similar to the one in step 2. Two red circles highlight the alignment pins on the central beam, one on each side of the central engine component.

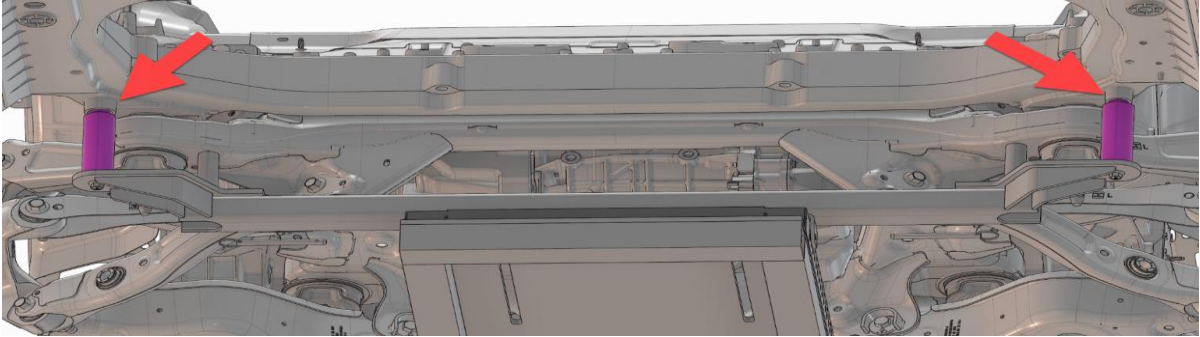
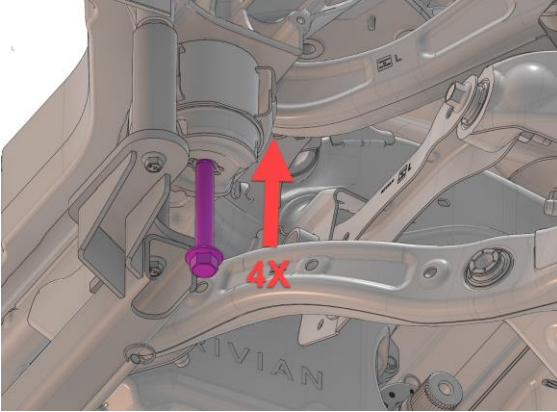
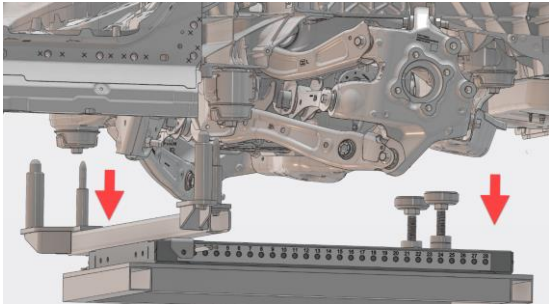


4	Once the jig is fully adjusted, raise the table to contact the subframe. Note: Do not lift the table to the point where it is lifting the vehicle off of the 2 post lift.	 A 3D technical illustration of a vehicle's rear subframe assembly. A locating jig, consisting of a horizontal bar with multiple adjustment points and vertical supports, is positioned below the subframe. Red arrows indicate the upward movement of the jig's supports to make contact with the subframe. A blue vertical line highlights one of the adjustment points on the bar.
5	Use the spring compressors to remove spring tension before unbolting the subframe from the body.	 A 3D technical illustration focusing on a single rear coil spring. Two black spring compressors are shown clamping onto the top and bottom of the spring. Red arrows indicate the inward pressure applied by the compressors to safely remove the spring's tension. The surrounding suspension components are shown in a semi-transparent grey.
6	Once the subframe is unbolted and all wires and hoses are disconnected, the subframe can be lowered away from the vehicle.	 A 3D technical illustration showing the rear subframe assembly being lowered. The subframe is shown in a light tan color, suspended by its mounting points. Two large red arrows point downwards from the subframe, indicating the direction of movement as it is lowered away from the vehicle's chassis, which is shown in a semi-transparent grey.



1	Prior to subframe install, coil springs should be compressed far enough to avoid contacting the body before the subframe is seated	
2	Install the TSN01692-300 Rear Subframe Guide Pins into front two subframe bushing bolt holes to help with initial location of the jig.	
3	Position the DU table under the rear of the vehicle and begin raising the subframe toward the vehicle. Pay attention to the coil spring and compress them further if they make contact with the body before the subframe.	



4	As the subframe gets closer to the body. ensure the body locating pins engage the locating holes in the casting. Note: Once the subframe is contacting the body, the guide pins should be easily removed by hand.	
5	Start all subframe to body bolts by hand and tighten to proper torque spec.	
6	Slowly release the coil springs while guiding them into position before lowering the subframe jig down and out of the way.	



BASIC MAINTENANCE GUIDE

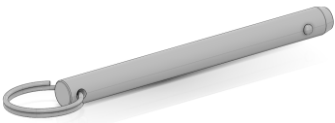
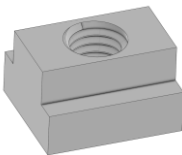
TASK	FREQUENCY
Visually inspect the locating pins, crossbars and supports for any damage to the treads or bends.	Before Each Use
Return all components to the storage location.	After Each Use

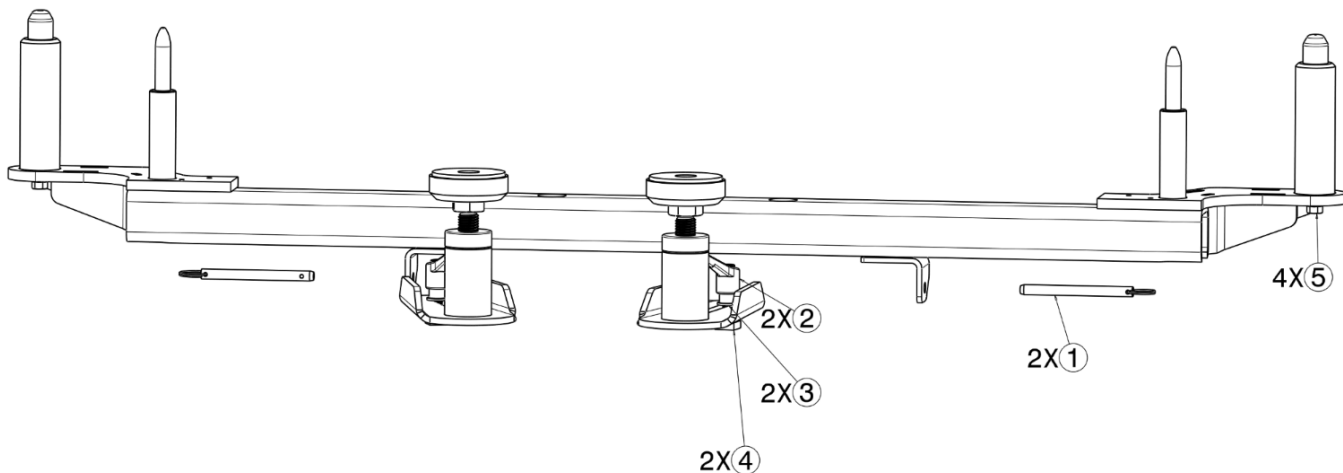


SPARE PARTS

TSN01755-300-A REAR SUBFRAME LOCATING JIG - R2

FOR OTHER ITEMS NOT SHOWN, CONTACT RIVIAN SERVICE TOOL ENGINEERING

ITEM	DESCRIPTION	SUPPLIER + PART NUMBER	PHOTO
1	PIN - 3/8 X 3.5 INCH QUICK RELEASE	MCMaster-CARR PN - 98404A395	
2	QUICK LOCK HANDLE	MCMaster-CARR PN - 60235K881	
3	WASHER - M10X2.0X20	MCMaster-CARR PN - 91455A140	
4	T-NUT - M10X1.5	MCMaster-CARR PN - 90510A214	
5	BOLT - M10X1.5X16 HX FL CL10.9 ZN	MCMaster-CARR PN - 93474A515	



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PROBLEM	SOLUTION
Subframe alignment pins are not able to go through the holes in the subframe.	- double check everything is positioned appropriately - check the subframe for damage - check the subframe for foreign objects obstructing the holes - ensure the subframe alignment jig is not bent or damaged.
body alignment pins do not line up the corresponding holes in the body when first placing jig on an intact vehicle.	- double check everything is positioned appropriately - check the vehicle for damage - ensure subframe alignment jig is not bent or damaged





DANGER

Risk of electrocution or electric shock



WARNING

Risk of minor injury



DANGER

Risk of major injury such as

- fire
- chemical or poison
- crushing / maiming
- death



CAUTION

Risk of

- damage to vehicle or property
- data disruption
- voiding warranty



CAUTION

Risk of Pinch Point

- keep hands and fingers clear of all moving parts.



PPE REQUIRED

IMPORTANT

Instructions to successfully complete a task

NOTE

Useful information

REV	DATE	CHANGE DESCRIPTION
1	05/22/26	Initial release

