

RCI-86-22-001-5: Driver+ Calibration Requirements and Best Practices, R1T and R1S

Rivian Automotive, LLC Position Statement

Document Type	Collision Repair Information Document
Date	April 1, 2024
Affected Region(s)	USA
Affected Model(s)	R1T, R1S
Model Year(s)	2022-Present
Vehicle System	86 - Driver Assistance

Rivian has established important guidelines regarding collision repair and interaction with parts on Rivian vehicles to help ensure the vehicle is repaired to Rivian standards. Certified Collision Centers and the collision industry must follow these guidelines to uphold Rivian's standards of safety and quality.

Repair guidelines, position statements, and repair procedures published by Rivian are engineered and tested to help ensure Rivian vehicles are repaired to provide quality, performance, safety, and durability. To meet [Rivian Repair standards](#), repairs should be performed by Rivian Certified Technicians using Rivian approved repair procedures, tools, and Rivian Original Equipment Parts.

Driver+ Overview

Driver+ is Rivian's suite of Advanced Driver-Assistance Systems (ADAS). The system is comprised of cameras, radar sensors, antennas, and ultrasonic sensors that aid with vehicle operation. To meet Rivian Standards, all repairs and calibrations involving Driver+ components should be performed by a Rivian Certified Technician at either a Rivian Service Center or Rivian Certified Collision Center. After repair, the Driver+ system will need to be calibrated before the vehicle can be returned to the customer. Refer to the appropriate service procedure(s) for detailed and vehicle-specific calibration instructions.

Always refer to the appropriate Rivian Service Manual for information on removal, installation, fault tracing, and calibration.

Warning:

Improper maintenance and calibration of Driver+ components may result in catastrophic failure of the system, which can cause severe injury or death.

Note:

Third-party external vehicle films such as vinyl wrap or Paint Protection Film (PPF) that are not manufactured by XPEL may affect the performance of Driver+ components.

Important:

The modification of Rivian approved tools or resizing of calibration targets is strictly prohibited. Modifications and resizing can result in improper calibrations that may compromise the safe operation of the vehicle.

Camera Calibration Requirements

Camera Calibration Requirements

Camera	Calibration Style	Calibrate When:
Camera, Long Range, Front	Static	<ul style="list-style-type: none"> Camera, Long Range, Front is replaced or removed and installed Windshield is replaced or removed and installed
Camera, Driver Assistance, Front	Static or Dynamic	<ul style="list-style-type: none"> Camera, Driver Assistance, Front is replaced or removed and installed Windshield is replaced or removed and installed

Camera	Calibration Style	Calibrate When:
Camera, Forward Facing, Mirrors	Static	<ul style="list-style-type: none"> • Camera, Forward Facing, Mirrors is replaced or removed and installed • Side mirror is replaced or removed and installed
Camera, Fender Flares, Front	Static	<ul style="list-style-type: none"> • Fender flare is replaced or removed and installed <div style="border: 1px solid black; border-radius: 10px; padding: 5px; margin-top: 10px;"> <p>Note: Calibration is not required when the forward portion of the fender flare is partially removed for front fascia removal</p> </div>

Surround View System

Camera	Calibration Style	Calibrate When:
Camera, Bumper, Front	Static	<ul style="list-style-type: none"> • Camera, Bumper, Front is removed and replaced • Camera, Liftgate Upper, Rear is removed and replaced (R1S) • Camera, Surround, Mirrors is replaced or removed and installed • Side mirror is replaced or removed and installed <p>R1T Only:</p> <ul style="list-style-type: none"> • Camera, Bumper, Rear is removed and replaced • Camera, Bumper, Rear mounting bracket is replaced or removed and installed <p>R1S Only:</p> <ul style="list-style-type: none"> • Camera, Liftgate, Rear is removed and replaced (R1S)
Camera, Bumper, Rear		
Camera, Surround, Mirror		

Radar Calibration Requirements

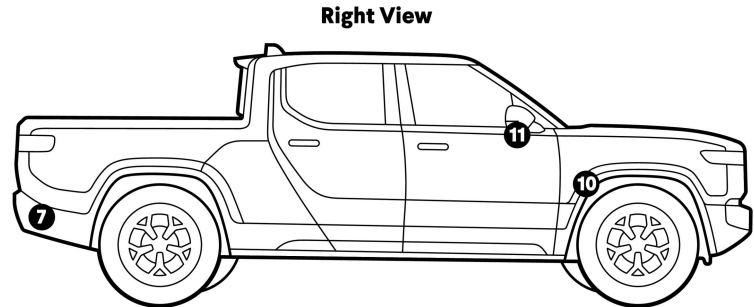
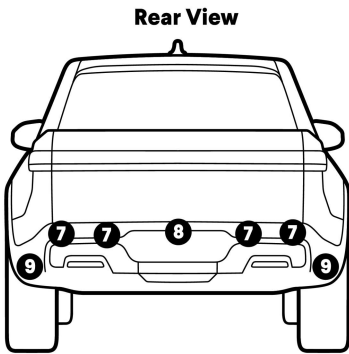
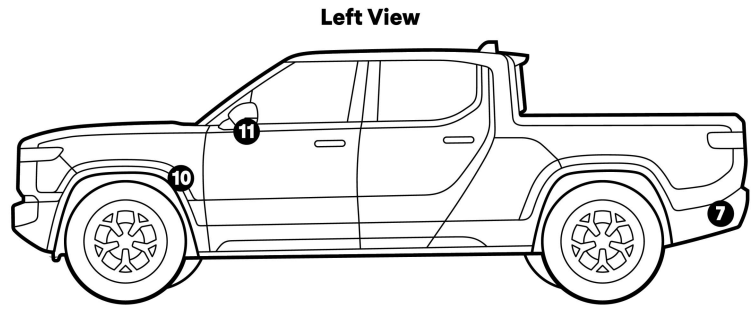
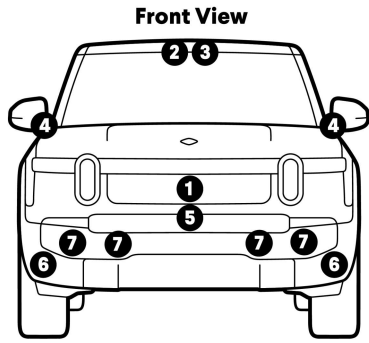
Radar Calibration Requirements

Camera	Calibration Style	Calibrate When:
Sensor, Radar, Front, Center	Static or Dynamic	<ul style="list-style-type: none"> • Sensor, Radar, Front, Center is replaced or removed and installed • For front upper fascia removal and install, no calibration is necessary if you confirm radar angle is the same before and after the repair is performed

Important:

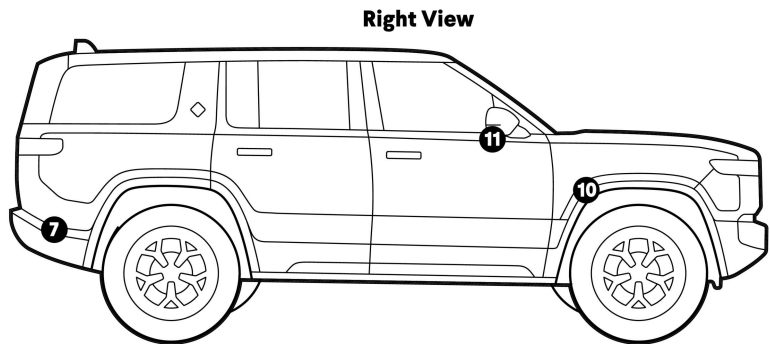
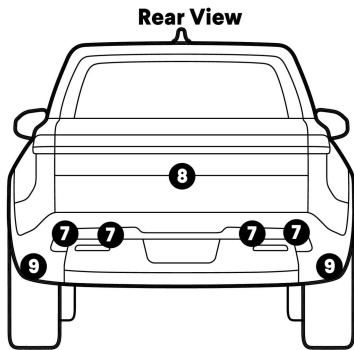
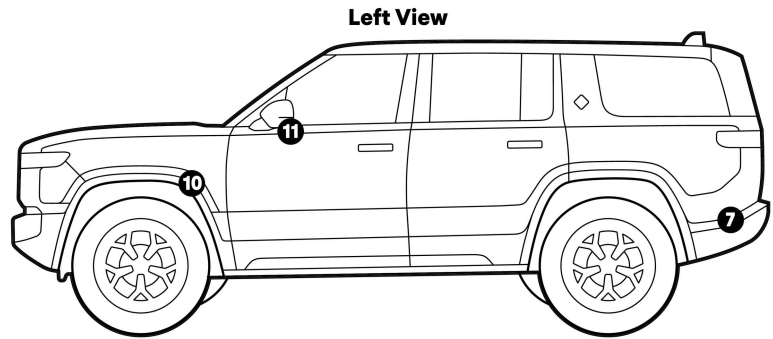
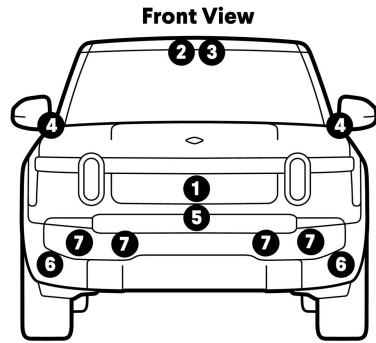
All new radar components must be variant coded when installed. Variant coding is not needed if the radar is removed and re-installed. Refer to the appropriate RiDE procedure.

R1T Driver+ Component Locations



Number	Component Type
1	Sensor, Radar, Front, Center
2	Camera, Long Range, Front
3	Camera, Driver Assistance, Front
4	Camera, Forward Facing, Mirrors
5	Camera, Bumper, Front
6	Sensor, Corner Radar, Front
7	Ultrasonic Sensor(s) (Park Assist)
8	Camera, Bumper, Rear
9	Sensor, Corner Radar, Rear
10	Camera, Fender Flares, Front
11	Camera, Surround, Mirror

R1S Driver+ Component Locations



Number	Component Type
1	Sensor, Radar, Front, Center
2	Camera, Long Range, Front
3	Camera, Driver Assistance, Front
4	Camera, Forward Facing, Mirrors
5	Camera, Bumper, Front
6	Sensor, Corner Radar, Front
7	Ultrasonic Sensor(s) (Park Assist)
8	Camera, Liftgate Upper, Rear
9	Sensor, Corner Radar, Rear
10	Camera, Fender Flares, Front
11	Camera, Surround, Mirror

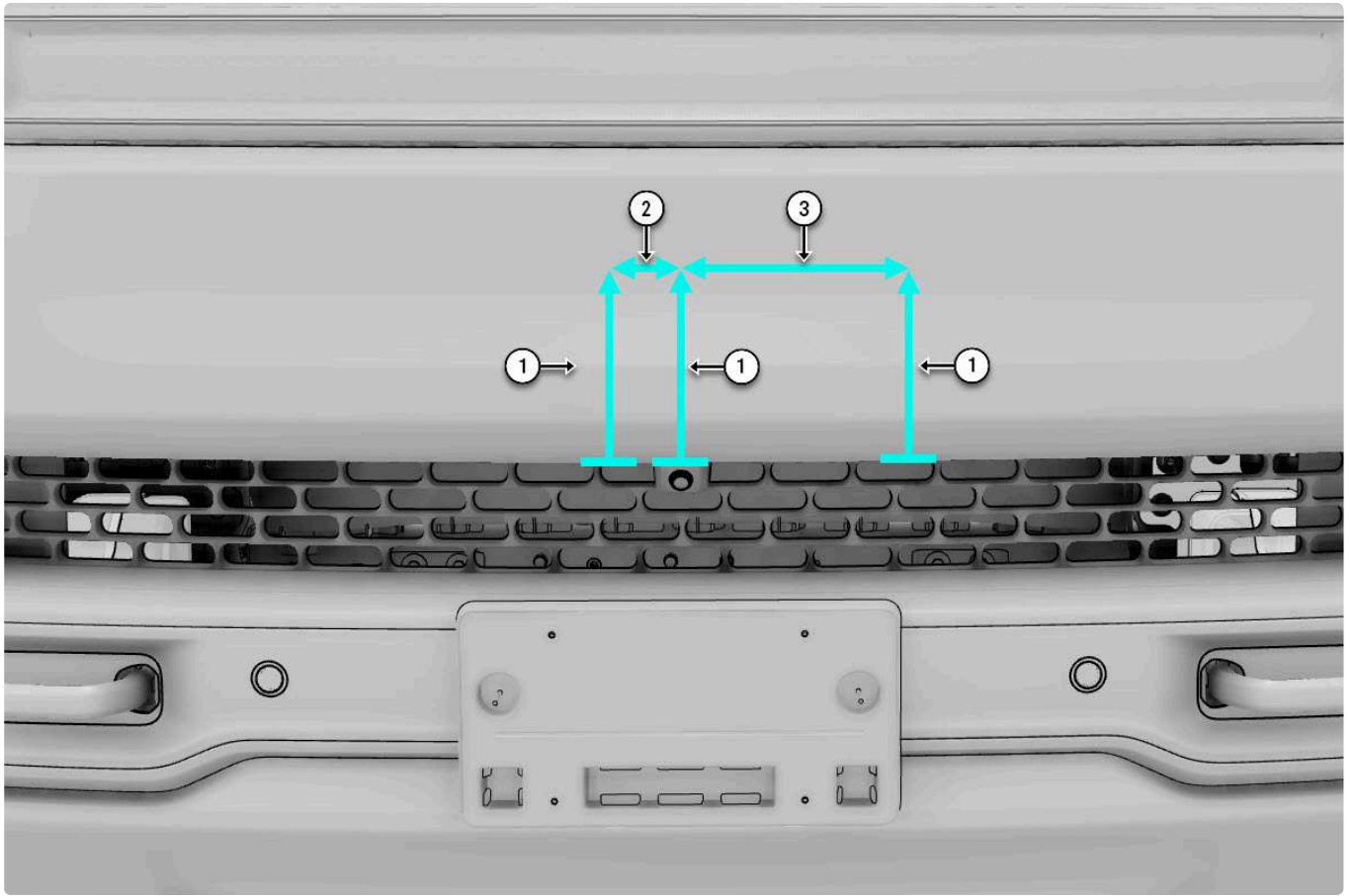
No-Repair Zone

To avoid interference with the Sensor, Radar, Front, Center and the integrated safety systems, repair is not allowed to the Fascia, Front, Upper in front of the component.

In addition to repairs, repainting (primers, sealers, and base coats) is not allowed in the No-Repair Zone. Only clearcoat can be applied in the No-Repair Zone. If any repair beyond clearcoat application is required in the radar transmission area, the bumper must be replaced. Repairs outside the No-Repair Zone area are allowed.

To locate the Sensor, Radar, Front, Center under the Fascia, Front, Upper, measure up from the Camera, Bumper, Front. Then, measure left and right to create a rectangle; the rectangle represents the radar transmission area and No-Repair Zone.

No-Repair Zone:



Callout	Measurement (mm)
1	110
2	40
3	140

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