

# RCI-86-22-002-1: Driver+ Calibration Requirements and Best Practices, EDV

## Rivian Automotive, LLC Position Statement

<b>Document Type</b>	Collision Repair Information Document
<b>Date</b>	February 3, 2023
<b>Affected Region(s)</b>	USA
<b>Affected Model(s)</b>	EDV
<b>Model Year(s)</b>	2022-Present
<b>Vehicle System</b>	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 EDV uses cameras, radar sensors, antennas, and ultrasonic sensors to aide with driver assistance, parking, obstacle maneuvering, and delivery navigation. Proper cleaning and maintenance of the components are critical to vehicle operation and driver safety. The components are located on the vehicle in areas that may sustain damage. If any Driver+ component needs to be replaced due to damage, only new, Rivian components should be used to make sure Driver + functions and operations meet Rivian standards. Failure to replace a damaged component with a new, Rivian Driver+ component may result in the Driver+ system not working as intended, risking the safety of the occupant and their surroundings.

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.

### Rivian approved Calibration Tools\*

- John Bean Tru-Point ADAS calibration system and applicable targets.



**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.

\*Rivian strongly recommends that all calibrations be performed by a Rivian Certified Technician using Rivian approved tools.

## Calibration best Practices

To help ensure the Driver+ system is repaired to Rivian Standards, the collision industry should adhere to the following:

- Visually inspect the front and rear fascia to make sure it is clean and clear of debris, gashes, or gouges that could cause improper function by obstructing the component's field of view.
- If a Driver+ component is unplugged or removed, the component will need to be re-calibrated when it is re-installed.
-  **Important:** If the Sensor, Radar, Front, Center is removed or replaced, calibration will need to be performed. Calibration of the front radar is not necessary if components in front of the radar sensor (such as the fascia) are removed and the sensor is not disturbed.
- Cameras require recalibration when the side mirror assemblies, front fascia, front grille, rear upper cladding, or any other cameras are repositioned, moved, or removed and installed.

## Camera Calibration Requirements

### Camera Calibration Requirements

Camera	Calibration Style	Calibrate When:
Camera, Long Range, Front	Static	<ul style="list-style-type: none"> <li>• Camera, Long Range, Front is replaced or removed and installed</li> <li>• Windshield is replaced or removed and installed</li> </ul>
Camera, Driver Assistance, Front	Static or Dynamic	<ul style="list-style-type: none"> <li>• Camera, Driver Assistance, Front is replaced or removed and installed</li> <li>• Windshield is replaced or removed and installed</li> </ul>
Camera(s), Stereo Vision	Static	<ul style="list-style-type: none"> <li>• Camera(s), Stereo Vision, Mirrors is replaced or removed and installed</li> <li>• Roof Cap is replaced or removed and installed</li> </ul>
Camera, Lane Change	Static	<ul style="list-style-type: none"> <li>• Camera, Lane Change, Front is replaced or removed and installed</li> <li>• Side Mirror is replaced or removed and installed</li> </ul>
Camera, Bumper, Front	Static	<ul style="list-style-type: none"> <li>• Camera, Bumper, Front is replaced or removed and installed</li> <li>• Upper front fascia or front grille is replaced or removed and installed</li> </ul>
Camera, Bumper, Rear	Static	<ul style="list-style-type: none"> <li>• Camera, Bumper, Rear is replaced or removed and installed</li> <li>• Camera, Bumper, Rear mounting bracket is replaced or removed and installed</li> </ul>



**Note:** The Driver Monitoring System Camera does not require calibration.



**Note:** Surround view system calibration to be performed if any surround view camera is removed or replaced.

## Radar Calibration Requirements

### Radar Calibration Requirements

Camera	Calibration Style	Calibrate When:
Sensor, Radar, Front, Center	Static or Dynamic	<ul style="list-style-type: none"> <li>• Sensor, Radar, Front, Center is replaced or removed and installed</li> <li>• 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</li> </ul>
Sensor, Corner Radar, Front	N/A	<ul style="list-style-type: none"> <li>• Calibration runs automatically when radar is powered on and necessary conditions are met. No manual process.</li> </ul>
Sensor, Corner Radar, Rear	N/A	<ul style="list-style-type: none"> <li>• Calibration runs automatically when radar is powered on and necessary conditions are met. No manual process.</li> </ul>

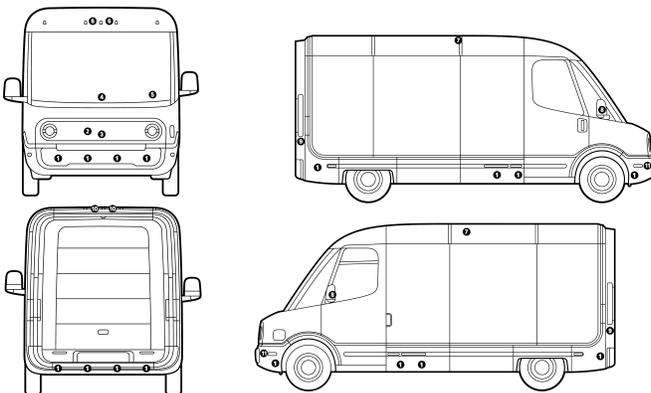


**Note:** Ultrasonic Sensors do not require calibration.



**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.

## Driver+ Component Locations



Number	Component Type
1	Ultrasonic Sensor(s)
2	Sensor, Radar, Front, Center
3	Camera, Bumper, Front
4	Camera, Driver Assistance, Front
5	Camera, Long Range, Front
6	Camera, Stereo Vision, Front
7	Camera, Surround, Side
8	Camera, Lane Change
9	Sensor, Corner Radar, Rear
10	Cameras and Bracket, Rear
11	Sensor, Corner Radar, Front