ADAS Calibration Requirements Cheat Sheet For Collision Centers | Lightning Auto Service



What is ADAS?

Advanced Driver Assistance Systems (ADAS) include technologies designed to increase vehicle safety and assist the driver, such as:

- Forward Collision Warning (FCW)
- Lane Departure Warning (LDW)
- Automatic Emergency Braking (AEB)
- Adaptive Cruise Control (ACC)
- Blind Spot Monitoring (BSM)
- Rear Cross Traffic Alert (RCTA)
- 360° Cameras & Parking Sensors

Common Triggers Requiring Calibration

Repair Type / Condition	Calibration Required?	Why / Comments
Windshield Replacement	Yes	Impacts front camera used for LDW, AEB, ACC.
Front or Rear Bumper Repair/Replacement	Yes	Radar sensors & parking sensors mounted behind bumpers.
Grille or Emblem Replacement	Yes	Radar is often mounted behind grille emblem.
Side Mirror Replacement	Yes	Impacts Blind Spot Monitoring system.
Suspension / Ride Height Change	Yes	Alters vehicle geometry, affecting camera/radar angles.
Structural Repair / Frame Pull	Yes	Changes vehicle alignment and sensor positioning.
Airbag Deployment / Impact	Yes	Often triggers need for recalibration of sensors.
Camera or Radar Replacement	Yes	Direct component replacement—OEMs require calibration.
Rocker Panel or Quarter Panel Work	Yes (BSM)	Affects Blind Spot Monitoring radar in rear quarter panel.
Roof Work / Headliner R&I	Sometimes	Check OEM – affects forward/rear cameras, rain sensors.
R&I Bumper Covers	Yes	Affects sensors and radars mounted behind bumper.

Structural Repairs	Yes	Impacts alignment and sensor angles; OEMs mandate it.
Module Replacement (with Coding)	Yes	Requires reprogramming and recalibration.

OEM Position Statements & Calibration Requirements

Honda / Acura

"Any time a camera, radar sensor, or related component is removed, replaced, or impacted, calibration is required. Failure to perform calibration could cause improper function without warning to the driver." — American Honda Position Statement on ADAS (2021)

Component / Scenario	Calibration Required?
Windshield Replacement	Yes
Front Camera R&I	Yes
Radar Replacement	Yes
Bumper or Grille Repairs	Yes
Structural Repairs	Yes
Alignment or Suspension Work	Yes

Toyota / Lexus

"Do not assume a system is functioning properly after repair unless it has been properly calibrated per Toyota specifications." — Toyota ADAS Calibration Position Statement (2021)

Component / Scenario	Calibration Required?
Windshield Replacement	Yes
Millimeter-Wave Radar Replacement	Yes
Bumper, Grille, or Radar Bracket Repairs	Yes
Lane Camera or Sensor R&I	Yes
Structural / Frame Work	Yes
Suspension/Height Alteration	Yes

Subaru

"Subaru vehicles equipped with EyeSight require specific conditions to recalibrate systems."

Component / Scenario	Calibration Required?
Windshield Replacement	Yes (Only Subaru Glass)
EyeSight Camera R&I	Yes
Suspension / Ride Height Changes	Yes
Frame/Structural Repairs	Yes
Alignment	Yes

Ford / Lincoln

"Not calibrating ADAS systems may result in malfunctions with no warning light."

Component / Scenario	Calibration Required?
Windshield / Camera Replacement	Yes
Bumper, Grille, Radar Repairs	Yes
Blind Spot Module Replacement	Yes
Rear Camera Replacement	Yes
Structural Work / Suspension	Yes

General Motors (GM)

"ADAS components must be recalibrated when disrupted. There are no exceptions."

Component / Scenario	Calibration Required?
Windshield / Camera / Sensor R&I	Yes
Radar / LIDAR / Ultrasonic Sensor Replacement	Yes
Panel or Bumper Replacement	Yes
Frame or Structural Repairs	Yes
Suspension or Alignment	Yes

Nissan / INFINITI

"ADAS calibration is not optional. Improper setup can affect system performance and driver safety."

Component / Scenario	Calibration Required?
Radar Sensor Replacement	Yes
Windshield / Camera Replacement	Yes
Front/Rear Bumper Work	Yes
Quarter Panel Repairs (BSM)	Yes
Frame or Structural Work	Yes

BMW / MINI

"Advanced Driver Assistance Systems must be recalibrated per ISTA software following repairs."

Component / Scenario	Calibration Required?
Camera or Radar Removal	Yes
Suspension Work	Yes
Windshield Replacement	Yes
Bumper / Radar Mounting Surface Repairs	Yes

Mercedes-Benz

"ADAS systems are part of safety certification. Improper calibration can compromise system integrity."

Component / Scenario	Calibration Required?
Windshield / Sensor Replacement	Yes
Structural or Frame Work	Yes
Radar, LIDAR, or Ultrasonic Sensor R&I	Yes
Suspension or Ride Height Adjustments	Yes

Documentation Best Practices

• Take pre- and post-repair photos of sensor zones

- Save and share scan tool calibration reports
- Include calibration line items on final estimate/invoice
- Record calibration type (static, dynamic, or both)

Insurance Billing & Legal Notes

- ADAS calibration is non-negotiable and federally protected under:
 - o 49 U.S. Code § 30122
 - o 49 CFR Part 566
 - o FMVSS 111 (49 CFR § 571.111)
- Carriers cannot deny, omit, or delete calibration charges.
- Provide OEM statements and scan logs with supplements.
- It is the repair facility's responsibility to educate the vehicle owner on what ADAS features are present and what calibration or coding is required post-repair.
- Pricing may be higher than standard mobile services or dealerships; however, we specialize in postcollision operations that fully comply with OEM requirements. With this pricing comes unmatched service, documentation, transparency, and full static calibration center operations.

Calibration Type Reference

Type Description

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Dynamic Requires test driving under specific conditions, often for lane or radar systems.

Dual Some systems require both static and dynamic calibration procedures.

Liability Reminder for Collision Centers

Failure to calibrate ADAS systems post-repair may result in:

- System malfunction with no warning
- Voided OEM warranties
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Vehicle Owner Name: Vehicle Year/Make/Model: **Checklist for ADAS-Related Repairs** Required Performed Notes Task / Component Windshield Replacement Front Camera Calibration Rear Camera Calibration Radar Sensor Calibration (Front/Rear/Corner) Blind Spot Monitoring (BSM) Sensor Calibration LIDAR/Ultrasonic Sensor Calibration Suspension / Ride Height Adjustment Structural / Frame Repair R&I Bumper Covers Emblem/Grille Radar Mounting Alignment Camera or Sensor Replacement Static Calibration Performed Dynamic Calibration Performed OEM Scan Tool / Post-Scan Report Saved Photos Documented (Pre/Post Sensor Zones) Customer Notified of System Status & Requirements Technician Signature: Date: _____ Supervisor Review: Date: _____

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Suspension / Ride Height Changes	Yes
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Rear Camera Replacement	Yes
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Component / Scenario	Calibration Required?
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Radar / LIDAR / Ultrasonic Sensor Replacement	Yes
Panel or Bumper Replacement	Yes
Frame or Structural Repairs	Yes
Suspension or Alignment	Yes

Nissan / INFINITI

"ADAS calibration is not optional. Improper setup can affect system performance and driver safety."

Component / Scenario	Calibration Required?
Radar Sensor Replacement	Yes
Windshield / Camera Replacement	Yes
Front/Rear Bumper Work	Yes
Quarter Panel Repairs (BSM)	Yes
Frame or Structural Work	Yes

BMW / MINI

"Advanced Driver Assistance Systems must be recalibrated per ISTA software following repairs."

Component / Scenario	Calibration Required?
Camera or Radar Removal	Yes
Suspension Work	Yes
Windshield Replacement	Yes
Bumper / Radar Mounting Surface Repairs	Yes

Mercedes-Benz

"ADAS systems are part of safety certification. Improper calibration can compromise system integrity."

Component / Scenario A U T	Calibration Required?
Windshield / Sensor Replacement	Yes
Structural or Frame Work	Yes
Radar, LIDAR, or Ultrasonic Sensor R&I	Yes
Suspension or Ride Height Adjustments	Yes

Documentation Best Practices

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Vehicle Owner Name: Vehicle Year/Make/Model: **Checklist for ADAS-Related Repairs** Required Performed Notes Task / Component Windshield Replacement Front Camera Calibration Rear Camera Calibration Radar Sensor Calibration (Front/Rear/Corner) Blind Spot Monitoring (BSM) Sensor Calibration LIDAR/Ultrasonic Sensor Calibration Suspension / Ride Height Adjustment Structural / Frame Repair R&I Bumper Covers Emblem/Grille Radar Mounting Alignment Camera or Sensor Replacement Static Calibration Performed Dynamic Calibration Performed OEM Scan Tool / Post-Scan Report Saved Photos Documented (Pre/Post Sensor Zones) Customer Notified of System Status & Requirements Technician Signature: Date: _____ Supervisor Review:

Vehicle ADAS Calibration Check Sheet

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Common Triggers Requiring Calibration

Repair Type / Condition	Calibration Required?	Why / Comments
Windshield Replacement	Yes	Impacts front camera used for LDW, AEB, ACC.
Front or Rear Bumper Repair/Replacement	Yes	Radar sensors & parking sensors mounted behind bumpers.
Grille or Emblem Replacement	Yes	Radar is often mounted behind grille emblem.
Side Mirror Replacement	Yes	Impacts Blind Spot Monitoring system.
Suspension / Ride Height Change	Yes	Alters vehicle geometry, affecting camera/radar angles.
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Rocker Panel or Quarter Panel Work	Yes (BSM)	Affects Blind Spot Monitoring radar in rear quarter panel.
Roof Work / Headliner R&I	Sometimes	Check OEM – affects forward/rear cameras, rain sensors.
R&I Bumper Covers	Yes	Affects sensors and radars mounted behind bumper.

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Module Replacement (with Coding)	Yes	Requires reprogramming and recalibration.

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Alignment or Suspension Work	Yes

Toyota / Lexus

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Component / Scenario	Calibration Required?
Windshield Replacement	Yes
Millimeter-Wave Radar Replacement	Yes
Bumper, Grille, or Radar Bracket Repairs	Yes
Lane Camera or Sensor R&I	Yes
Structural / Frame Work	Yes
Suspension/Height Alteration	Yes

Subaru

"Subaru vehicles equipped with EyeSight require specific conditions to recalibrate systems."

Component / Scenario	Calibration Required?
Windshield Replacement	Yes (Only Subaru Glass)
EyeSight Camera R&I	Yes
Suspension / Ride Height Changes	Yes
Frame/Structural Repairs	Yes
Alignment	Yes

Ford / Lincoln

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Rear Camera Replacement	Yes
Structural Work / Suspension	Yes

General Motors (GM)

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Component / Scenario	Calibration Required?
Windshield / Camera / Sensor R&I	Yes
Radar / LIDAR / Ultrasonic Sensor Replacement	Yes
Panel or Bumper Replacement	Yes
Frame or Structural Repairs	Yes
Suspension or Alignment	Yes

Nissan / INFINITI

"ADAS calibration is not optional. Improper setup can affect system performance and driver safety."

Component / Scenario	Calibration Required?
Radar Sensor Replacement	Yes
Windshield / Camera Replacement	Yes
Front/Rear Bumper Work	Yes
Quarter Panel Repairs (BSM)	Yes
Frame or Structural Work	Yes

BMW / MINI

"Advanced Driver Assistance Systems must be recalibrated per ISTA software following repairs."

Component / Scenario	Calibration Required?
Camera or Radar Removal	Yes
Suspension Work	Yes
Windshield Replacement	Yes
Bumper / Radar Mounting Surface Repairs	Yes

Mercedes-Benz

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Component / Scenario	Calibration Required?
Windshield / Sensor Replacement	Yes
Structural or Frame Work	Yes
Radar, LIDAR, or Ultrasonic Sensor R&I	Yes
Suspension or Ride Height Adjustments	Yes

Documentation Best Practices

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Component / Scenario	Calibration Required?
Windshield / Camera Replacement	Yes
Bumper, Grille, Radar Repairs	Yes
Blind Spot Module Replacement	Yes
Rear Camera Replacement	Yes
Structural Work / Suspension	Yes

General Motors (GM)

"ADAS components must be recalibrated when disrupted. There are no exceptions."

Component / Scenario	Calibration Required?
Windshield / Camera / Sensor R&I	Yes
Radar / LIDAR / Ultrasonic Sensor Replacement	Yes
Panel or Bumper Replacement	Yes
Frame or Structural Repairs	Yes
Suspension or Alignment	Yes

Nissan / INFINITI

"ADAS calibration is not optional. Improper setup can affect system performance and driver safety."

Component / Scenario	Calibration Required?
Radar Sensor Replacement	Yes
Windshield / Camera Replacement	Yes
Front/Rear Bumper Work	Yes
Quarter Panel Repairs (BSM)	Yes
Frame or Structural Work	Yes

BMW / MINI

"Advanced Driver Assistance Systems must be recalibrated per ISTA software following repairs."

Component / Scenario	Calibration Required?
Camera or Radar Removal	Yes
Suspension Work	Yes
Windshield Replacement	Yes
Bumper / Radar Mounting Surface Repairs	Yes

Mercedes-Benz

"ADAS systems are part of safety certification. Improper calibration can compromise system integrity."

Component / Scenario	Calibration Required?
Windshield / Sensor Replacement	Yes
Structural or Frame Work	Yes
Radar, LIDAR, or Ultrasonic Sensor R&I	Yes
Suspension or Ride Height Adjustments	Yes

Documentation Best Practices

• Take pre- and post-repair photos of sensor zones

- Save and share scan tool calibration reports
- Include calibration line items on final estimate/invoice
- Record calibration type (static, dynamic, or both)

Insurance Billing & Legal Notes

- ADAS calibration is non-negotiable and federally protected under:
 - o 49 U.S. Code § 30122
 - o 49 CFR Part 566
 - o FMVSS 111 (49 CFR § 571.111)
- Carriers cannot deny, omit, or delete calibration charges.
- Provide OEM statements and scan logs with supplements.
- It is the repair facility's responsibility to educate the vehicle owner on what ADAS features are present and what calibration or coding is required post-repair.
- Pricing may be higher than standard mobile services or dealerships; however, we specialize in postcollision operations that fully comply with OEM requirements. With this pricing comes unmatched service, documentation, transparency, and full static calibration center operations.

Calibration Type Reference

Type Description

Static Performed in-shop using OEM targets, level floor, and proper lighting.

Dynamic Requires test driving under specific conditions, often for lane or radar systems.

Dual Some systems require both static and dynamic calibration procedures.

Liability Reminder for Collision Centers

Failure to calibrate ADAS systems post-repair may result in:

- System malfunction with no warning
- Voided OEM warranties
- Insurance claim denials
- Legal liability under federal law

Contact Lightning Auto Service for ADAS Calibration Support:

support@lightningautoservice.com www.lightningautoservice.com



Vehicle Owner Name: Vehicle Year/Make/Model: **Checklist for ADAS-Related Repairs** Required Performed Notes Task / Component Windshield Replacement Front Camera Calibration Rear Camera Calibration Radar Sensor Calibration (Front/Rear/Corner) Blind Spot Monitoring (BSM) Sensor Calibration LIDAR/Ultrasonic Sensor Calibration Suspension / Ride Height Adjustment Structural / Frame Repair R&I Bumper Covers Emblem/Grille Radar Mounting Alignment Camera or Sensor Replacement Static Calibration Performed Dynamic Calibration Performed OEM Scan Tool / Post-Scan Report Saved Photos Documented (Pre/Post Sensor Zones) Customer Notified of System Status & Requirements Technician Signature: Date: _____ Supervisor Review: Date: _____

Vehicle ADAS Calibration Check Sheet

ADAS Calibration Requirements Cheat Sheet For Collision Centers | Lightning Auto Service



What is ADAS?

Advanced Driver Assistance Systems (ADAS) include technologies designed to increase vehicle safety and assist the driver, such as:

- Forward Collision Warning (FCW)
- Lane Departure Warning (LDW)
- Automatic Emergency Braking (AEB)
- Adaptive Cruise Control (ACC)
- Blind Spot Monitoring (BSM)
- Rear Cross Traffic Alert (RCTA)
- 360° Cameras & Parking Sensors

Common Triggers Requiring Calibration

Repair Type / Condition	Calibration Required?	Why / Comments
Windshield Replacement	Yes	Impacts front camera used for LDW, AEB, ACC.
Front or Rear Bumper Repair/Replacement	Yes	Radar sensors & parking sensors mounted behind bumpers.
Grille or Emblem Replacement	Yes	Radar is often mounted behind grille emblem.
Side Mirror Replacement	Yes	Impacts Blind Spot Monitoring system.
Suspension / Ride Height Change	Yes	Alters vehicle geometry, affecting camera/radar angles.
Structural Repair / Frame Pull	Yes	Changes vehicle alignment and sensor positioning.
Airbag Deployment / Impact	Yes	Often triggers need for recalibration of sensors.
Camera or Radar Replacement	Yes	Direct component replacement—OEMs require calibration.
Rocker Panel or Quarter Panel Work	Yes (BSM)	Affects Blind Spot Monitoring radar in rear quarter panel.
Roof Work / Headliner R&I	Sometimes	Check OEM – affects forward/rear cameras, rain sensors.
R&I Bumper Covers	Yes	Affects sensors and radars mounted behind bumper.

Structural Repairs	Yes	Impacts alignment and sensor angles; OEMs mandate it.
Module Replacement (with Coding)	Yes	Requires reprogramming and recalibration.

OEM Position Statements & Calibration Requirements

Honda / Acura

"Any time a camera, radar sensor, or related component is removed, replaced, or impacted, calibration is required. Failure to perform calibration could cause improper function without warning to the driver." — American Honda Position Statement on ADAS (2021)

Component / Scenario	Calibration Required?
Windshield Replacement	Yes
Front Camera R&I	Yes
Radar Replacement	Yes
Bumper or Grille Repairs	Yes
Structural Repairs	Yes
Alignment or Suspension Work	Yes

Toyota / Lexus

"Do not assume a system is functioning properly after repair unless it has been properly calibrated per Toyota specifications." — Toyota ADAS Calibration Position Statement (2021)

Component / Scenario	Calibration Required?
Windshield Replacement	Yes
Millimeter-Wave Radar Replacement	Yes
Bumper, Grille, or Radar Bracket Repairs	Yes
Lane Camera or Sensor R&I	Yes
Structural / Frame Work	Yes
Suspension/Height Alteration	Yes

Subaru

"Subaru vehicles equipped with EyeSight require specific conditions to recalibrate systems."

Component / Scenario	Calibration Required?
Windshield Replacement	Yes (Only Subaru Glass)
EyeSight Camera R&I	Yes
Suspension / Ride Height Changes	Yes
Frame/Structural Repairs	Yes
Alignment	Yes

Ford / Lincoln

"Not calibrating ADAS systems may result in malfunctions with no warning light."

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Windshield / Camera Replacement	Yes
Bumper, Grille, Radar Repairs	Yes
Blind Spot Module Replacement	Yes
Rear Camera Replacement	Yes
Structural Work / Suspension	Yes

General Motors (GM)

"ADAS components must be recalibrated when disrupted. There are no exceptions."

Component / Scenario	Calibration Required?
Windshield / Camera / Sensor R&I	Yes
Radar / LIDAR / Ultrasonic Sensor Replacement	Yes
Panel or Bumper Replacement	Yes
Frame or Structural Repairs	Yes
Suspension or Alignment	Yes

Nissan / INFINITI

"ADAS calibration is not optional. Improper setup can affect system performance and driver safety."

Component / Scenario	Calibration Required?
Radar Sensor Replacement	Yes
Windshield / Camera Replacement	Yes
Front/Rear Bumper Work	Yes
Quarter Panel Repairs (BSM)	Yes
Frame or Structural Work	Yes

BMW / MINI

"Advanced Driver Assistance Systems must be recalibrated per ISTA software following repairs."

Component / Scenario	Calibration Required?
Camera or Radar Removal	Yes
Suspension Work	Yes
Windshield Replacement	Yes
Bumper / Radar Mounting Surface Repairs	Yes

Mercedes-Benz

"ADAS systems are part of safety certification. Improper calibration can compromise system integrity."

Component / Scenario	Calibration Required?
Windshield / Sensor Replacement	Yes
Structural or Frame Work	Yes
Radar, LIDAR, or Ultrasonic Sensor R&I	Yes
Suspension or Ride Height Adjustments	Yes

Documentation Best Practices

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Vehicle ADAS Calibration Check Sheet

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- Blind Spot Monitoring (BSM)
- Rear Cross Traffic Alert (RCTA)
- 360° Cameras & Parking Sensors

Common Triggers Requiring Calibration

Repair Type / Condition	Calibration Required?	Why / Comments
Windshield Replacement	Yes	Impacts front camera used for LDW, AEB, ACC.
Front or Rear Bumper Repair/Replacement	Yes	Radar sensors & parking sensors mounted behind bumpers.
Grille or Emblem Replacement	Yes	Radar is often mounted behind grille emblem.
Side Mirror Replacement	Yes	Impacts Blind Spot Monitoring system.
Suspension / Ride Height Change	Yes	Alters vehicle geometry, affecting camera/radar angles.
Structural Repair / Frame Pull	Yes	Changes vehicle alignment and sensor positioning.
Airbag Deployment / Impact	Yes	Often triggers need for recalibration of sensors.
Camera or Radar Replacement	Yes	Direct component replacement—OEMs require calibration.
Rocker Panel or Quarter Panel Work	Yes (BSM)	Affects Blind Spot Monitoring radar in rear quarter panel.
Roof Work / Headliner R&I	Sometimes	Check OEM – affects forward/rear cameras, rain sensors.
R&I Bumper Covers	Yes	Affects sensors and radars mounted behind bumper.

Structural Repairs	Yes	Impacts alignment and sensor angles; OEMs mandate it.
Module Replacement (with Coding)	Yes	Requires reprogramming and recalibration.

OEM Position Statements & Calibration Requirements

Honda / Acura

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Component / Scenario	Calibration Required?
Windshield Replacement	Yes
Front Camera R&I	Yes
Radar Replacement	Yes
Bumper or Grille Repairs	Yes
Structural Repairs	Yes
Alignment or Suspension Work	Yes

Toyota / Lexus

"Do not assume a system is functioning properly after repair unless it has been properly calibrated per Toyota specifications." — Toyota ADAS Calibration Position Statement (2021)

Component / Scenario	Calibration Required?
Windshield Replacement	Yes
Millimeter-Wave Radar Replacement	Yes
Bumper, Grille, or Radar Bracket Repairs	Yes
Lane Camera or Sensor R&I	Yes
Structural / Frame Work	Yes
Suspension/Height Alteration	Yes

Subaru

"Subaru vehicles equipped with EyeSight require specific conditions to recalibrate systems."

Component / Scenario	Calibration Required?
Windshield Replacement	Yes (Only Subaru Glass)
EyeSight Camera R&I	Yes
Suspension / Ride Height Changes	Yes
Frame/Structural Repairs	Yes
Alignment	Yes

Ford / Lincoln

"Not calibrating ADAS systems may result in malfunctions with no warning light."

Component / Scenario	Calibration Required?
Windshield / Camera Replacement	Yes
Bumper, Grille, Radar Repairs	Yes
Blind Spot Module Replacement	Yes
Rear Camera Replacement	Yes
Structural Work / Suspension	Yes

General Motors (GM)

"ADAS components must be recalibrated when disrupted. There are no exceptions."

Component / Scenario	Calibration Required?
Windshield / Camera / Sensor R&I	Yes
Radar / LIDAR / Ultrasonic Sensor Replacement	Yes
Panel or Bumper Replacement	Yes
Frame or Structural Repairs	Yes
Suspension or Alignment	Yes

Nissan / INFINITI

"ADAS calibration is not optional. Improper setup can affect system performance and driver safety."

Component / Scenario	Calibration Required?
Radar Sensor Replacement	Yes
Windshield / Camera Replacement	Yes
Front/Rear Bumper Work	Yes
Quarter Panel Repairs (BSM)	Yes
Frame or Structural Work	Yes

BMW / MINI

"Advanced Driver Assistance Systems must be recalibrated per ISTA software following repairs."

Component / Scenario	Calibration Required?
Camera or Radar Removal	Yes
Suspension Work	Yes
Windshield Replacement	Yes
Bumper / Radar Mounting Surface Repairs	Yes

Mercedes-Benz

"ADAS systems are part of safety certification. Improper calibration can compromise system integrity."

Component / Scenario	Calibration Required?
Windshield / Sensor Replacement	Yes
Structural or Frame Work	Yes
Radar, LIDAR, or Ultrasonic Sensor R&I	Yes
Suspension or Ride Height Adjustments	Yes

Documentation Best Practices

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Type Description

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Vehicle Owner Name: Vehicle Year/Make/Model: **Checklist for ADAS-Related Repairs** Required Performed Notes Task / Component Windshield Replacement Front Camera Calibration Rear Camera Calibration Radar Sensor Calibration (Front/Rear/Corner) Blind Spot Monitoring (BSM) Sensor Calibration LIDAR/Ultrasonic Sensor Calibration Suspension / Ride Height Adjustment Structural / Frame Repair R&I Bumper Covers Emblem/Grille Radar Mounting Alignment Camera or Sensor Replacement Static Calibration Performed Dynamic Calibration Performed OEM Scan Tool / Post-Scan Report Saved Photos Documented (Pre/Post Sensor Zones) Customer Notified of System Status & Requirements Technician Signature: Date: _____ Supervisor Review: Date: _____

Vehicle ADAS Calibration Check Sheet

ADAS Calibration Requirements Cheat Sheet For Collision Centers | Lightning Auto Service



What is ADAS?

Advanced Driver Assistance Systems (ADAS) include technologies designed to increase vehicle safety and assist the driver, such as:

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- Automatic Emergency Braking (AEB)
- Adaptive Cruise Control (ACC)
- Blind Spot Monitoring (BSM)
- Rear Cross Traffic Alert (RCTA)
- 360° Cameras & Parking Sensors

Common Triggers Requiring Calibration

Repair Type / Condition	Calibration Required?	Why / Comments
Windshield Replacement	Yes	Impacts front camera used for LDW, AEB, ACC.
Front or Rear Bumper Repair/Replacement	Yes	Radar sensors & parking sensors mounted behind bumpers.
Grille or Emblem Replacement	Yes	Radar is often mounted behind grille emblem.
Side Mirror Replacement	Yes	Impacts Blind Spot Monitoring system.
Suspension / Ride Height Change	Yes	Alters vehicle geometry, affecting camera/radar angles.
Structural Repair / Frame Pull	Yes	Changes vehicle alignment and sensor positioning.
Airbag Deployment / Impact	Yes	Often triggers need for recalibration of sensors.
Camera or Radar Replacement	Yes	Direct component replacement—OEMs require calibration.
Rocker Panel or Quarter Panel Work	Yes (BSM)	Affects Blind Spot Monitoring radar in rear quarter panel.
Roof Work / Headliner R&I	Sometimes	Check OEM – affects forward/rear cameras, rain sensors.
R&I Bumper Covers	Yes	Affects sensors and radars mounted behind bumper.

Structural Repairs	Yes	Impacts alignment and sensor angles; OEMs mandate it.
Module Replacement (with Coding)	Yes	Requires reprogramming and recalibration.

OEM Position Statements & Calibration Requirements

Honda / Acura

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Component / Scenario	Calibration Required?
Windshield Replacement	Yes
Front Camera R&I	Yes
Radar Replacement	Yes
Bumper or Grille Repairs	Yes
Structural Repairs	Yes
Alignment or Suspension Work	Yes

Toyota / Lexus

"Do not assume a system is functioning properly after repair unless it has been properly calibrated per Toyota specifications." — Toyota ADAS Calibration Position Statement (2021)

Component / Scenario	Calibration Required?
Windshield Replacement	Yes
Millimeter-Wave Radar Replacement	Yes
Bumper, Grille, or Radar Bracket Repairs	Yes
Lane Camera or Sensor R&I	Yes
Structural / Frame Work	Yes
Suspension/Height Alteration	Yes

Subaru

"Subaru vehicles equipped with EyeSight require specific conditions to recalibrate systems."

Component / Scenario	Calibration Required?
Windshield Replacement	Yes (Only Subaru Glass)
EyeSight Camera R&I	Yes
Suspension / Ride Height Changes	Yes
Frame/Structural Repairs	Yes
Alignment	Yes

Ford / Lincoln

"Not calibrating ADAS systems may result in malfunctions with no warning light."

Component / Scenario	Calibration Required?
Windshield / Camera Replacement	Yes
Bumper, Grille, Radar Repairs	Yes
Blind Spot Module Replacement	Yes
Rear Camera Replacement	Yes
Structural Work / Suspension	Yes

General Motors (GM)

"ADAS components must be recalibrated when disrupted. There are no exceptions."

Component / Scenario	Calibration Required?
Windshield / Camera / Sensor R&I	Yes
Radar / LIDAR / Ultrasonic Sensor Replacement	Yes
Panel or Bumper Replacement	Yes
Frame or Structural Repairs	Yes
Suspension or Alignment	Yes

Nissan / INFINITI

"ADAS calibration is not optional. Improper setup can affect system performance and driver safety."

Component / Scenario	Calibration Required?
Radar Sensor Replacement	Yes
Windshield / Camera Replacement	Yes
Front/Rear Bumper Work	Yes
Quarter Panel Repairs (BSM)	Yes
Frame or Structural Work	Yes

BMW / MINI

"Advanced Driver Assistance Systems must be recalibrated per ISTA software following repairs."

Component / Scenario	Calibration Required?
Camera or Radar Removal	Yes
Suspension Work	Yes
Windshield Replacement	Yes
Bumper / Radar Mounting Surface Repairs	Yes

Mercedes-Benz

"ADAS systems are part of safety certification. Improper calibration can compromise system integrity."

Component / Scenario A U T	Calibration Required?
Windshield / Sensor Replacement	Yes
Structural or Frame Work	Yes
Radar, LIDAR, or Ultrasonic Sensor R&I	Yes
Suspension or Ride Height Adjustments	Yes

Documentation Best Practices

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Repair Type / Condition	Calibration Required?	Why / Comments
Windshield Replacement	Yes	Impacts front camera used for LDW, AEB, ACC.
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Suspension / Ride Height Change	Yes	Alters vehicle geometry, affecting camera/radar angles.
Structural Repair / Frame Pull	Yes	Changes vehicle alignment and sensor positioning.
Airbag Deployment / Impact	Yes	Often triggers need for recalibration of sensors.
Camera or Radar Replacement	Yes	Direct component replacement—OEMs require calibration.
Rocker Panel or Quarter Panel Work	Yes (BSM)	Affects Blind Spot Monitoring radar in rear quarter panel.
Roof Work / Headliner R&I	Sometimes	Check OEM – affects forward/rear cameras, rain sensors.
R&I Bumper Covers	Yes	Affects sensors and radars mounted behind bumper.

Structural Repairs	Yes	Impacts alignment and sensor angles; OEMs mandate it.
Module Replacement (with Coding)	Yes	Requires reprogramming and recalibration.

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Vehicle Owner Name: Vehicle Year/Make/Model: **Checklist for ADAS-Related Repairs** Required Performed Notes Task / Component Windshield Replacement Front Camera Calibration Rear Camera Calibration Radar Sensor Calibration (Front/Rear/Corner) Blind Spot Monitoring (BSM) Sensor Calibration LIDAR/Ultrasonic Sensor Calibration Suspension / Ride Height Adjustment Structural / Frame Repair R&I Bumper Covers Emblem/Grille Radar Mounting Alignment Camera or Sensor Replacement Static Calibration Performed Dynamic Calibration Performed OEM Scan Tool / Post-Scan Report Saved Photos Documented (Pre/Post Sensor Zones) Customer Notified of System Status & Requirements Technician Signature: Date: _____ Supervisor Review: Date: _____

Vehicle ADAS Calibration Check Sheet

ADAS Calibration Requirements Cheat Sheet For Collision Centers | Lightning Auto Service



What is ADAS?

Advanced Driver Assistance Systems (ADAS) include technologies designed to increase vehicle safety and assist the driver, such as:

- Forward Collision Warning (FCW)
- Lane Departure Warning (LDW)
- Automatic Emergency Braking (AEB)
- Adaptive Cruise Control (ACC)
- Blind Spot Monitoring (BSM)
- Rear Cross Traffic Alert (RCTA)
- 360° Cameras & Parking Sensors

Common Triggers Requiring Calibration

Repair Type / Condition	Calibration Required?	Why / Comments
Windshield Replacement	Yes	Impacts front camera used for LDW, AEB, ACC.
Front or Rear Bumper Repair/Replacement	Yes	Radar sensors & parking sensors mounted behind bumpers.
Grille or Emblem Replacement	Yes	Radar is often mounted behind grille emblem.
Side Mirror Replacement	Yes	Impacts Blind Spot Monitoring system.
Suspension / Ride Height Change	Yes	Alters vehicle geometry, affecting camera/radar angles.
Structural Repair / Frame Pull	Yes	Changes vehicle alignment and sensor positioning.
Airbag Deployment / Impact	Yes	Often triggers need for recalibration of sensors.
Camera or Radar Replacement	Yes	Direct component replacement—OEMs require calibration.
Rocker Panel or Quarter Panel Work	Yes (BSM)	Affects Blind Spot Monitoring radar in rear quarter panel.
Roof Work / Headliner R&I	Sometimes	Check OEM – affects forward/rear cameras, rain sensors.
R&I Bumper Covers	Yes	Affects sensors and radars mounted behind bumper.

Structural Repairs	Yes	Impacts alignment and sensor angles; OEMs mandate it.
Module Replacement (with Coding)	Yes	Requires reprogramming and recalibration.

OEM Position Statements & Calibration Requirements

Honda / Acura

"Any time a camera, radar sensor, or related component is removed, replaced, or impacted, calibration is required. Failure to perform calibration could cause improper function without warning to the driver." — American Honda Position Statement on ADAS (2021)

Component / Scenario	Calibration Required?
Windshield Replacement	Yes
Front Camera R&I	Yes
Radar Replacement	Yes
Bumper or Grille Repairs	Yes
Structural Repairs	Yes
Alignment or Suspension Work	Yes

Toyota / Lexus

"Do not assume a system is functioning properly after repair unless it has been properly calibrated per Toyota specifications." — Toyota ADAS Calibration Position Statement (2021)

Component / Scenario	Calibration Required?
Windshield Replacement	Yes
Millimeter-Wave Radar Replacement	Yes
Bumper, Grille, or Radar Bracket Repairs	Yes
Lane Camera or Sensor R&I	Yes
Structural / Frame Work	Yes
Suspension/Height Alteration	Yes

Subaru

"Subaru vehicles equipped with EyeSight require specific conditions to recalibrate systems."

Component / Scenario	Calibration Required?
Windshield Replacement	Yes (Only Subaru Glass)
EyeSight Camera R&I	Yes
Suspension / Ride Height Changes	Yes
Frame/Structural Repairs	Yes
Alignment	Yes

Ford / Lincoln

"Not calibrating ADAS systems may result in malfunctions with no warning light."

Component / Scenario	Calibration Required?
Windshield / Camera Replacement	Yes
Bumper, Grille, Radar Repairs	Yes
Blind Spot Module Replacement	Yes
Rear Camera Replacement	Yes
Structural Work / Suspension	Yes

General Motors (GM)

"ADAS components must be recalibrated when disrupted. There are no exceptions."

Component / Scenario	Calibration Required?
Windshield / Camera / Sensor R&I	Yes
Radar / LIDAR / Ultrasonic Sensor Replacement	Yes
Panel or Bumper Replacement	Yes
Frame or Structural Repairs	Yes
Suspension or Alignment	Yes

Nissan / INFINITI

"ADAS calibration is not optional. Improper setup can affect system performance and driver safety."

Component / Scenario	Calibration Required?
Radar Sensor Replacement	Yes
Windshield / Camera Replacement	Yes
Front/Rear Bumper Work	Yes
Quarter Panel Repairs (BSM)	Yes
Frame or Structural Work	Yes

BMW / MINI

"Advanced Driver Assistance Systems must be recalibrated per ISTA software following repairs."

Component / Scenario	Calibration Required?
Camera or Radar Removal	Yes
Suspension Work	Yes
Windshield Replacement	Yes
Bumper / Radar Mounting Surface Repairs	Yes

Mercedes-Benz

"ADAS systems are part of safety certification. Improper calibration can compromise system integrity."

Component / Scenario	Calibration Required?
Windshield / Sensor Replacement	Yes
Structural or Frame Work	Yes
Radar, LIDAR, or Ultrasonic Sensor R&I	Yes
Suspension or Ride Height Adjustments	Yes

Documentation Best Practices

• Take pre- and post-repair photos of sensor zones

- Save and share scan tool calibration reports
- Include calibration line items on final estimate/invoice
- Record calibration type (static, dynamic, or both)

Insurance Billing & Legal Notes

- ADAS calibration is non-negotiable and federally protected under:
 - o 49 U.S. Code § 30122
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- Carriers cannot deny, omit, or delete calibration charges.
- Provide OEM statements and scan logs with supplements.
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- Pricing may be higher than standard mobile services or dealerships; however, we specialize in postcollision operations that fully comply with OEM requirements. With this pricing comes unmatched service, documentation, transparency, and full static calibration center operations.

Calibration Type Reference

Type Description

Static Performed in-shop using OEM targets, level floor, and proper lighting.

Dynamic Requires test driving under specific conditions, often for lane or radar systems.

Dual Some systems require both static and dynamic calibration procedures.

Liability Reminder for Collision Centers

Failure to calibrate ADAS systems post-repair may result in:

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Common Triggers Requiring Calibration

Repair Type / Condition	Calibration Required?	Why / Comments
Windshield Replacement	Yes	Impacts front camera used for LDW, AEB, ACC.
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Grille or Emblem Replacement	Yes	Radar is often mounted behind grille emblem.
Side Mirror Replacement	Yes	Impacts Blind Spot Monitoring system.
Suspension / Ride Height Change	Yes	Alters vehicle geometry, affecting camera/radar angles.
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Structural Repairs	Yes
Alignment or Suspension Work	Yes

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Component / Scenario	Calibration Required?
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Structural / Frame Work	Yes
Suspension/Height Alteration	Yes

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"Subaru vehicles equipped with EyeSight require specific conditions to recalibrate systems."

Component / Scenario	Calibration Required?
Windshield Replacement	Yes (Only Subaru Glass)
EyeSight Camera R&I	Yes
Suspension / Ride Height Changes	Yes
Frame/Structural Repairs	Yes
Alignment	Yes

Ford / Lincoln

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Component / Scenario	Calibration Required?
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Rear Camera Replacement	Yes
Structural Work / Suspension	Yes

General Motors (GM)

"ADAS components must be recalibrated when disrupted. There are no exceptions."

Component / Scenario	Calibration Required?
Windshield / Camera / Sensor R&I	Yes
Radar / LIDAR / Ultrasonic Sensor Replacement	Yes
Panel or Bumper Replacement	Yes
Frame or Structural Repairs	Yes
Suspension or Alignment	Yes

Nissan / INFINITI

"ADAS calibration is not optional. Improper setup can affect system performance and driver safety."

Component / Scenario	Calibration Required?
Radar Sensor Replacement	Yes
Windshield / Camera Replacement	Yes
Front/Rear Bumper Work	Yes
Quarter Panel Repairs (BSM)	Yes
Frame or Structural Work	Yes

BMW / MINI

"Advanced Driver Assistance Systems must be recalibrated per ISTA software following repairs."

Component / Scenario	Calibration Required?
Camera or Radar Removal	Yes
Suspension Work	Yes
Windshield Replacement	Yes
Bumper / Radar Mounting Surface Repairs	Yes

Mercedes-Benz

"ADAS systems are part of safety certification. Improper calibration can compromise system integrity."

Component / Scenario	Calibration Required?
Windshield / Sensor Replacement	Yes
Structural or Frame Work	Yes
Radar, LIDAR, or Ultrasonic Sensor R&I	Yes
Suspension or Ride Height Adjustments	Yes

Documentation Best Practices

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- Rear Cross Traffic Alert (RCTA)
- 360° Cameras & Parking Sensors

Common Triggers Requiring Calibration

Repair Type / Condition	Calibration Required?	Why / Comments
Windshield Replacement	Yes	Impacts front camera used for LDW, AEB, ACC.
Front or Rear Bumper Repair/Replacement	Yes	Radar sensors & parking sensors mounted behind bumpers.
Grille or Emblem Replacement	Yes	Radar is often mounted behind grille emblem.
Side Mirror Replacement	Yes	Impacts Blind Spot Monitoring system.
Suspension / Ride Height Change	Yes	Alters vehicle geometry, affecting camera/radar angles.
Structural Repair / Frame Pull	Yes	Changes vehicle alignment and sensor positioning.
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Roof Work / Headliner R&I	Sometimes	Check OEM – affects forward/rear cameras, rain sensors.
R&I Bumper Covers	Yes	Affects sensors and radars mounted behind bumper.

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Module Replacement (with Coding)	Yes	Requires reprogramming and recalibration.

OEM Position Statements & Calibration Requirements

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Component / Scenario	Calibration Required?
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Front Camera R&I	Yes
Radar Replacement	Yes
Bumper or Grille Repairs	Yes
Structural Repairs	Yes
Alignment or Suspension Work	Yes

Toyota / Lexus

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Component / Scenario	Calibration Required?
Windshield Replacement	Yes
Millimeter-Wave Radar Replacement	Yes
Bumper, Grille, or Radar Bracket Repairs	Yes
Lane Camera or Sensor R&I	Yes
Structural / Frame Work	Yes
Suspension/Height Alteration	Yes

Subaru

"Subaru vehicles equipped with EyeSight require specific conditions to recalibrate systems."

Component / Scenario	Calibration Required?
Windshield Replacement	Yes (Only Subaru Glass)
EyeSight Camera R&I	Yes
Suspension / Ride Height Changes	Yes
Frame/Structural Repairs	Yes
Alignment	Yes

Ford / Lincoln

"Not calibrating ADAS systems may result in malfunctions with no warning light."

Component / Scenario	Calibration Required?
Windshield / Camera Replacement	Yes
Bumper, Grille, Radar Repairs	Yes
Blind Spot Module Replacement	Yes
Rear Camera Replacement	Yes
Structural Work / Suspension	Yes

General Motors (GM)

"ADAS components must be recalibrated when disrupted. There are no exceptions."

Component / Scenario	Calibration Required?
Windshield / Camera / Sensor R&I	Yes
Radar / LIDAR / Ultrasonic Sensor Replacement	Yes
Panel or Bumper Replacement	Yes
Frame or Structural Repairs	Yes
Suspension or Alignment	Yes

Nissan / INFINITI

"ADAS calibration is not optional. Improper setup can affect system performance and driver safety."

Component / Scenario	Calibration Required?
Radar Sensor Replacement	Yes
Windshield / Camera Replacement	Yes
Front/Rear Bumper Work	Yes
Quarter Panel Repairs (BSM)	Yes
Frame or Structural Work	Yes

BMW / MINI

"Advanced Driver Assistance Systems must be recalibrated per ISTA software following repairs."

Component / Scenario	Calibration Required?
Camera or Radar Removal	Yes
Suspension Work	Yes
Windshield Replacement	Yes
Bumper / Radar Mounting Surface Repairs	Yes

Mercedes-Benz

"ADAS systems are part of safety certification. Improper calibration can compromise system integrity."

Component / Scenario A U T	Calibration Required?
Windshield / Sensor Replacement	Yes
Structural or Frame Work	Yes
Radar, LIDAR, or Ultrasonic Sensor R&I	Yes
Suspension or Ride Height Adjustments	Yes

Documentation Best Practices

• Take pre- and post-repair photos of sensor zones

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Insurance Billing & Legal Notes

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Type Description

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Vehicle Owner Name: Vehicle Year/Make/Model: **Checklist for ADAS-Related Repairs** Required Performed Notes Task / Component Windshield Replacement Front Camera Calibration Rear Camera Calibration Radar Sensor Calibration (Front/Rear/Corner) Blind Spot Monitoring (BSM) Sensor Calibration LIDAR/Ultrasonic Sensor Calibration Suspension / Ride Height Adjustment Structural / Frame Repair R&I Bumper Covers Emblem/Grille Radar Mounting Alignment Camera or Sensor Replacement Static Calibration Performed Dynamic Calibration Performed OEM Scan Tool / Post-Scan Report Saved Photos Documented (Pre/Post Sensor Zones) Customer Notified of System Status & Requirements Technician Signature: Date: _____ Supervisor Review:

Vehicle ADAS Calibration Check Sheet

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Common Triggers Requiring Calibration

Repair Type / Condition	Calibration Required?	Why / Comments
Windshield Replacement	Yes	Impacts front camera used for LDW, AEB, ACC.
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Grille or Emblem Replacement	Yes	Radar is often mounted behind grille emblem.
Side Mirror Replacement	Yes	Impacts Blind Spot Monitoring system.
Suspension / Ride Height Change	Yes	Alters vehicle geometry, affecting camera/radar angles.
Structural Repair / Frame Pull	Yes	Changes vehicle alignment and sensor positioning.
Airbag Deployment / Impact	Yes	Often triggers need for recalibration of sensors.
Camera or Radar Replacement	Yes	Direct component replacement—OEMs require calibration.
Rocker Panel or Quarter Panel Work	Yes (BSM)	Affects Blind Spot Monitoring radar in rear quarter panel.
Roof Work / Headliner R&I	Sometimes	Check OEM – affects forward/rear cameras, rain sensors.
R&I Bumper Covers	Yes	Affects sensors and radars mounted behind bumper.

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Toyota / Lexus

"Do not assume a system is functioning properly after repair unless it has been properly calibrated per Toyota specifications." — Toyota ADAS Calibration Position Statement (2021)

Component / Scenario	Calibration Required?
Windshield Replacement	Yes
Millimeter-Wave Radar Replacement	Yes
Bumper, Grille, or Radar Bracket Repairs	Yes
Lane Camera or Sensor R&I	Yes
Structural / Frame Work	Yes
Suspension/Height Alteration	Yes

Subaru

"Subaru vehicles equipped with EyeSight require specific conditions to recalibrate systems."

Component / Scenario	Calibration Required?
Windshield Replacement	Yes (Only Subaru Glass)
EyeSight Camera R&I	Yes
Suspension / Ride Height Changes	Yes
Frame/Structural Repairs	Yes
Alignment	Yes

Ford / Lincoln

"Not calibrating ADAS systems may result in malfunctions with no warning light."

Component / Scenario	Calibration Required?
Windshield / Camera Replacement	Yes
Bumper, Grille, Radar Repairs	Yes
Blind Spot Module Replacement	Yes
Rear Camera Replacement	Yes
Structural Work / Suspension	Yes

General Motors (GM)

"ADAS components must be recalibrated when disrupted. There are no exceptions."

Component / Scenario	Calibration Required?
Windshield / Camera / Sensor R&I	Yes
Radar / LIDAR / Ultrasonic Sensor Replacement	Yes
Panel or Bumper Replacement	Yes
Frame or Structural Repairs	Yes
Suspension or Alignment	Yes

Nissan / INFINITI

"ADAS calibration is not optional. Improper setup can affect system performance and driver safety."

Component / Scenario	Calibration Required?
Radar Sensor Replacement	Yes
Windshield / Camera Replacement	Yes
Front/Rear Bumper Work	Yes
Quarter Panel Repairs (BSM)	Yes
Frame or Structural Work	Yes

BMW / MINI

"Advanced Driver Assistance Systems must be recalibrated per ISTA software following repairs."

Component / Scenario	Calibration Required?
Camera or Radar Removal	Yes
Suspension Work	Yes
Windshield Replacement	Yes
Bumper / Radar Mounting Surface Repairs	Yes

Mercedes-Benz

"ADAS systems are part of safety certification. Improper calibration can compromise system integrity."

Component / Scenario	Calibration Required?
Windshield / Sensor Replacement	Yes
Structural or Frame Work	Yes
Radar, LIDAR, or Ultrasonic Sensor R&I	Yes
Suspension or Ride Height Adjustments	Yes

Documentation Best Practices

• Take pre- and post-repair photos of sensor zones

- Save and share scan tool calibration reports
- Include calibration line items on final estimate/invoice
- Record calibration type (static, dynamic, or both)

Insurance Billing & Legal Notes

- ADAS calibration is non-negotiable and federally protected under:
 - o 49 U.S. Code § 30122
 - o 49 CFR Part 566
 - o FMVSS 111 (49 CFR § 571.111)
- Carriers cannot deny, omit, or delete calibration charges.
- Provide OEM statements and scan logs with supplements.
- It is the repair facility's responsibility to educate the vehicle owner on what ADAS features are present and what calibration or coding is required post-repair.
- Pricing may be higher than standard mobile services or dealerships; however, we specialize in postcollision operations that fully comply with OEM requirements. With this pricing comes unmatched service, documentation, transparency, and full static calibration center operations.

Calibration Type Reference

Type Description

Static Performed in-shop using OEM targets, level floor, and proper lighting.

Dynamic Requires test driving under specific conditions, often for lane or radar systems.

Dual Some systems require both static and dynamic calibration procedures.

Liability Reminder for Collision Centers

Failure to calibrate ADAS systems post-repair may result in:

- System malfunction with no warning
- Voided OEM warranties
- Insurance claim denials
- Legal liability under federal law

Contact Lightning Auto Service for ADAS Calibration Support:

support@lightningautoservice.com www.lightningautoservice.com



Vehicle Owner Name: Vehicle Year/Make/Model: **Checklist for ADAS-Related Repairs** Required Performed Notes Task / Component Windshield Replacement Front Camera Calibration Rear Camera Calibration Radar Sensor Calibration (Front/Rear/Corner) Blind Spot Monitoring (BSM) Sensor Calibration LIDAR/Ultrasonic Sensor Calibration Suspension / Ride Height Adjustment Structural / Frame Repair R&I Bumper Covers Emblem/Grille Radar Mounting Alignment Camera or Sensor Replacement Static Calibration Performed Dynamic Calibration Performed OEM Scan Tool / Post-Scan Report Saved Photos Documented (Pre/Post Sensor Zones) Customer Notified of System Status & Requirements Technician Signature: Date: _____ Supervisor Review:

Vehicle ADAS Calibration Check Sheet

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ADAS Calibration Requirements Cheat Sheet For Collision Centers | Lightning Auto Service



What is ADAS?

Advanced Driver Assistance Systems (ADAS) include technologies designed to increase vehicle safety and assist the driver, such as:

- Forward Collision Warning (FCW)
- Lane Departure Warning (LDW)
- Automatic Emergency Braking (AEB)
- Adaptive Cruise Control (ACC)
- Blind Spot Monitoring (BSM)
- Rear Cross Traffic Alert (RCTA)
- 360° Cameras & Parking Sensors

Common Triggers Requiring Calibration

Repair Type / Condition	Calibration Required?	Why / Comments
Windshield Replacement	Yes	Impacts front camera used for LDW, AEB, ACC.
Front or Rear Bumper Repair/Replacement	Yes	Radar sensors & parking sensors mounted behind bumpers.
Grille or Emblem Replacement	Yes	Radar is often mounted behind grille emblem.
Side Mirror Replacement	Yes	Impacts Blind Spot Monitoring system.
Suspension / Ride Height Change	Yes	Alters vehicle geometry, affecting camera/radar angles.
Structural Repair / Frame Pull	Yes	Changes vehicle alignment and sensor positioning.
Airbag Deployment / Impact	Yes	Often triggers need for recalibration of sensors.
Camera or Radar Replacement	Yes	Direct component replacement—OEMs require calibration.
Rocker Panel or Quarter Panel Work	Yes (BSM)	Affects Blind Spot Monitoring radar in rear quarter panel.
Roof Work / Headliner R&I	Sometimes	Check OEM – affects forward/rear cameras, rain sensors.
R&I Bumper Covers	Yes	Affects sensors and radars mounted behind bumper.

Structural Repairs	Yes	Impacts alignment and sensor angles; OEMs mandate it.
Module Replacement (with Coding)	Yes	Requires reprogramming and recalibration.

OEM Position Statements & Calibration Requirements

Honda / Acura

"Any time a camera, radar sensor, or related component is removed, replaced, or impacted, calibration is required. Failure to perform calibration could cause improper function without warning to the driver." — American Honda Position Statement on ADAS (2021)

Component / Scenario	Calibration Required?
Windshield Replacement	Yes
Front Camera R&I	Yes
Radar Replacement	Yes
Bumper or Grille Repairs	Yes
Structural Repairs	Yes
Alignment or Suspension Work	Yes

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Millimeter-Wave Radar Replacement	Yes
Bumper, Grille, or Radar Bracket Repairs	Yes
Lane Camera or Sensor R&I	Yes
Structural / Frame Work	Yes
Suspension/Height Alteration	Yes

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"Subaru vehicles equipped with EyeSight require specific conditions to recalibrate systems."

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Windshield Replacement	Yes (Only Subaru Glass)
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Suspension / Ride Height Changes	Yes
Frame/Structural Repairs	Yes
Alignment	Yes

Ford / Lincoln

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Blind Spot Module Replacement	Yes
Rear Camera Replacement	Yes
Structural Work / Suspension	Yes

General Motors (GM)

"ADAS components must be recalibrated when disrupted. There are no exceptions."

Component / Scenario	Calibration Required?
Windshield / Camera / Sensor R&I	Yes
Radar / LIDAR / Ultrasonic Sensor Replacement	Yes
Panel or Bumper Replacement	Yes
Frame or Structural Repairs	Yes
Suspension or Alignment	Yes

Nissan / INFINITI

"ADAS calibration is not optional. Improper setup can affect system performance and driver safety."

Component / Scenario	Calibration Required?
Radar Sensor Replacement	Yes
Windshield / Camera Replacement	Yes
Front/Rear Bumper Work	Yes
Quarter Panel Repairs (BSM)	Yes
Frame or Structural Work	Yes

BMW / MINI

"Advanced Driver Assistance Systems must be recalibrated per ISTA software following repairs."

Component / Scenario	Calibration Required?
Camera or Radar Removal	Yes
Suspension Work	Yes
Windshield Replacement	Yes
Bumper / Radar Mounting Surface Repairs	Yes

Mercedes-Benz

"ADAS systems are part of safety certification. Improper calibration can compromise system integrity."

Component / Scenario	Calibration Required?
Windshield / Sensor Replacement	Yes
Structural or Frame Work	Yes
Radar, LIDAR, or Ultrasonic Sensor R&I	Yes
Suspension or Ride Height Adjustments	Yes

Documentation Best Practices

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Vehicle ADAS Calibration Check Sheet

ADAS Calibration Requirements Cheat Sheet For Collision Centers | Lightning Auto Service



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- Adaptive Cruise Control (ACC)
- Blind Spot Monitoring (BSM)
- Rear Cross Traffic Alert (RCTA)
- 360° Cameras & Parking Sensors

Common Triggers Requiring Calibration

Repair Type / Condition	Calibration Required?	Why / Comments
Windshield Replacement	Yes	Impacts front camera used for LDW, AEB, ACC.
Front or Rear Bumper Repair/Replacement	Yes	Radar sensors & parking sensors mounted behind bumpers.
Grille or Emblem Replacement	Yes	Radar is often mounted behind grille emblem.
Side Mirror Replacement	Yes	Impacts Blind Spot Monitoring system.
Suspension / Ride Height Change	Yes	Alters vehicle geometry, affecting camera/radar angles.
Structural Repair / Frame Pull	Yes	Changes vehicle alignment and sensor positioning.
Airbag Deployment / Impact	Yes	Often triggers need for recalibration of sensors.
Camera or Radar Replacement	Yes	Direct component replacement—OEMs require calibration.
Rocker Panel or Quarter Panel Work	Yes (BSM)	Affects Blind Spot Monitoring radar in rear quarter panel.
Roof Work / Headliner R&I	Sometimes	Check OEM – affects forward/rear cameras, rain sensors.
R&I Bumper Covers	Yes	Affects sensors and radars mounted behind bumper.

Structural Repairs	Yes	Impacts alignment and sensor angles; OEMs mandate it.
Module Replacement (with Coding)	Yes	Requires reprogramming and recalibration.

OEM Position Statements & Calibration Requirements

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Component / Scenario	Calibration Required?
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Front Camera R&I	Yes
Radar Replacement	Yes
Bumper or Grille Repairs	Yes
Structural Repairs	Yes
Alignment or Suspension Work	Yes

Toyota / Lexus

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Component / Scenario	Calibration Required?
Windshield Replacement	Yes
Millimeter-Wave Radar Replacement	Yes
Bumper, Grille, or Radar Bracket Repairs	Yes
Lane Camera or Sensor R&I	Yes
Structural / Frame Work	Yes
Suspension/Height Alteration	Yes

Subaru

"Subaru vehicles equipped with EyeSight require specific conditions to recalibrate systems."

Component / Scenario	Calibration Required?
Windshield Replacement	Yes (Only Subaru Glass)
EyeSight Camera R&I	Yes
Suspension / Ride Height Changes	Yes
Frame/Structural Repairs	Yes
Alignment	Yes

Ford / Lincoln

"Not calibrating ADAS systems may result in malfunctions with no warning light."

Component / Scenario	Calibration Required?
Windshield / Camera Replacement	Yes
Bumper, Grille, Radar Repairs	Yes
Blind Spot Module Replacement	Yes
Rear Camera Replacement	Yes
Structural Work / Suspension	Yes

General Motors (GM)

"ADAS components must be recalibrated when disrupted. There are no exceptions."

Component / Scenario	Calibration Required?
Windshield / Camera / Sensor R&I	Yes
Radar / LIDAR / Ultrasonic Sensor Replacement	Yes
Panel or Bumper Replacement	Yes
Frame or Structural Repairs	Yes
Suspension or Alignment	Yes

Nissan / INFINITI

"ADAS calibration is not optional. Improper setup can affect system performance and driver safety."

Component / Scenario	Calibration Required?
Radar Sensor Replacement	Yes
Windshield / Camera Replacement	Yes
Front/Rear Bumper Work	Yes
Quarter Panel Repairs (BSM)	Yes
Frame or Structural Work	Yes

BMW / MINI

"Advanced Driver Assistance Systems must be recalibrated per ISTA software following repairs."

Component / Scenario	Calibration Required?
Camera or Radar Removal	Yes
Suspension Work	Yes
Windshield Replacement	Yes
Bumper / Radar Mounting Surface Repairs	Yes

Mercedes-Benz

"ADAS systems are part of safety certification. Improper calibration can compromise system integrity."

Component / Scenario A U T	Calibration Required?
Windshield / Sensor Replacement	Yes
Structural or Frame Work	Yes
Radar, LIDAR, or Ultrasonic Sensor R&I	Yes
Suspension or Ride Height Adjustments	Yes

Documentation Best Practices

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Vehicle Owner Name: Vehicle Year/Make/Model: **Checklist for ADAS-Related Repairs** Required Performed Notes Task / Component Windshield Replacement Front Camera Calibration Rear Camera Calibration Radar Sensor Calibration (Front/Rear/Corner) Blind Spot Monitoring (BSM) Sensor Calibration LIDAR/Ultrasonic Sensor Calibration Suspension / Ride Height Adjustment Structural / Frame Repair R&I Bumper Covers Emblem/Grille Radar Mounting Alignment Camera or Sensor Replacement Static Calibration Performed Dynamic Calibration Performed OEM Scan Tool / Post-Scan Report Saved Photos Documented (Pre/Post Sensor Zones) Customer Notified of System Status & Requirements Technician Signature: Date: _____ Supervisor Review:

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ADAS Calibration Requirements Cheat Sheet For Collision Centers | Lightning Auto Service



What is ADAS?

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- Adaptive Cruise Control (ACC)
- Blind Spot Monitoring (BSM)
- Rear Cross Traffic Alert (RCTA)
- 360° Cameras & Parking Sensors

Common Triggers Requiring Calibration

Repair Type / Condition	Calibration Required?	Why / Comments
Windshield Replacement	Yes	Impacts front camera used for LDW, AEB, ACC.
Front or Rear Bumper Repair/Replacement	Yes	Radar sensors & parking sensors mounted behind bumpers.
Grille or Emblem Replacement	Yes	Radar is often mounted behind grille emblem.
Side Mirror Replacement	Yes	Impacts Blind Spot Monitoring system.
Suspension / Ride Height Change	Yes	Alters vehicle geometry, affecting camera/radar angles.
Structural Repair / Frame Pull	Yes	Changes vehicle alignment and sensor positioning.
Airbag Deployment / Impact	Yes	Often triggers need for recalibration of sensors.
Camera or Radar Replacement	Yes	Direct component replacement—OEMs require calibration.
Rocker Panel or Quarter Panel Work	Yes (BSM)	Affects Blind Spot Monitoring radar in rear quarter panel.
Roof Work / Headliner R&I	Sometimes	Check OEM – affects forward/rear cameras, rain sensors.
R&I Bumper Covers	Yes	Affects sensors and radars mounted behind bumper.

Structural Repairs	Yes	Impacts alignment and sensor angles; OEMs mandate it.
Module Replacement (with Coding)	Yes	Requires reprogramming and recalibration.

OEM Position Statements & Calibration Requirements

Honda / Acura

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Toyota / Lexus

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Lane Camera or Sensor R&I	Yes
Structural / Frame Work	Yes
Suspension/Height Alteration	Yes

Subaru

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Component / Scenario	Calibration Required?
Windshield Replacement	Yes (Only Subaru Glass)
EyeSight Camera R&I	Yes
Suspension / Ride Height Changes	Yes
Frame/Structural Repairs	Yes
Alignment	Yes

Ford / Lincoln

"Not calibrating ADAS systems may result in malfunctions with no warning light."

Component / Scenario	Calibration Required?
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Rear Camera Replacement	Yes
Structural Work / Suspension	Yes

General Motors (GM)

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Component / Scenario	Calibration Required?
Windshield / Camera / Sensor R&I	Yes
Radar / LIDAR / Ultrasonic Sensor Replacement	Yes
Panel or Bumper Replacement	Yes
Frame or Structural Repairs	Yes
Suspension or Alignment	Yes

Nissan / INFINITI

"ADAS calibration is not optional. Improper setup can affect system performance and driver safety."

Component / Scenario	Calibration Required?
Radar Sensor Replacement	Yes
Windshield / Camera Replacement	Yes
Front/Rear Bumper Work	Yes
Quarter Panel Repairs (BSM)	Yes
Frame or Structural Work	Yes

BMW / MINI

"Advanced Driver Assistance Systems must be recalibrated per ISTA software following repairs."

Component / Scenario	Calibration Required?
Camera or Radar Removal	Yes
Suspension Work	Yes
Windshield Replacement	Yes
Bumper / Radar Mounting Surface Repairs	Yes

Mercedes-Benz

"ADAS systems are part of safety certification. Improper calibration can compromise system integrity."

Component / Scenario	Calibration Required?
Windshield / Sensor Replacement	Yes
Structural or Frame Work	Yes
Radar, LIDAR, or Ultrasonic Sensor R&I	Yes
Suspension or Ride Height Adjustments	Yes

Documentation Best Practices

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- Pricing may be higher than standard mobile services or dealerships; however, we specialize in postcollision operations that fully comply with OEM requirements. With this pricing comes unmatched service, documentation, transparency, and full static calibration center operations.

Calibration Type Reference

Type Description

Static Performed in-shop using OEM targets, level floor, and proper lighting.

Dynamic Requires test driving under specific conditions, often for lane or radar systems.

Dual Some systems require both static and dynamic calibration procedures.

Liability Reminder for Collision Centers

Failure to calibrate ADAS systems post-repair may result in:

- System malfunction with no warning
- Voided OEM warranties
- Insurance claim denials
- Legal liability under federal law

Contact Lightning Auto Service for ADAS Calibration Support:

support@lightningautoservice.com www.lightningautoservice.com



Vehicle Owner Name: Vehicle Year/Make/Model: **Checklist for ADAS-Related Repairs** Required Performed Notes Task / Component Windshield Replacement Front Camera Calibration Rear Camera Calibration Radar Sensor Calibration (Front/Rear/Corner) Blind Spot Monitoring (BSM) Sensor Calibration LIDAR/Ultrasonic Sensor Calibration Suspension / Ride Height Adjustment Structural / Frame Repair R&I Bumper Covers Emblem/Grille Radar Mounting Alignment Camera or Sensor Replacement Static Calibration Performed Dynamic Calibration Performed OEM Scan Tool / Post-Scan Report Saved Photos Documented (Pre/Post Sensor Zones) Customer Notified of System Status & Requirements Technician Signature: Date: _____ Supervisor Review:

Vehicle ADAS Calibration Check Sheet

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ADAS Calibration Requirements Cheat Sheet For Collision Centers | Lightning Auto Service



What is ADAS?

Advanced Driver Assistance Systems (ADAS) include technologies designed to increase vehicle safety and assist the driver, such as:

- Forward Collision Warning (FCW)
- Lane Departure Warning (LDW)
- Automatic Emergency Braking (AEB)
- Adaptive Cruise Control (ACC)
- Blind Spot Monitoring (BSM)
- Rear Cross Traffic Alert (RCTA)
- 360° Cameras & Parking Sensors

Common Triggers Requiring Calibration

Repair Type / Condition	Calibration Required?	Why / Comments
Windshield Replacement	Yes	Impacts front camera used for LDW, AEB, ACC.
Front or Rear Bumper Repair/Replacement	Yes	Radar sensors & parking sensors mounted behind bumpers.
Grille or Emblem Replacement	Yes	Radar is often mounted behind grille emblem.
Side Mirror Replacement	Yes	Impacts Blind Spot Monitoring system.
Suspension / Ride Height Change	Yes	Alters vehicle geometry, affecting camera/radar angles.
Structural Repair / Frame Pull	Yes	Changes vehicle alignment and sensor positioning.
Airbag Deployment / Impact	Yes	Often triggers need for recalibration of sensors.
Camera or Radar Replacement	Yes	Direct component replacement—OEMs require calibration.
Rocker Panel or Quarter Panel Work	Yes (BSM)	Affects Blind Spot Monitoring radar in rear quarter panel.
Roof Work / Headliner R&I	Sometimes	Check OEM – affects forward/rear cameras, rain sensors.
R&I Bumper Covers	Yes	Affects sensors and radars mounted behind bumper.

Structural Repairs	Yes	Impacts alignment and sensor angles; OEMs mandate it.
Module Replacement (with Coding)	Yes	Requires reprogramming and recalibration.

OEM Position Statements & Calibration Requirements

Honda / Acura

"Any time a camera, radar sensor, or related component is removed, replaced, or impacted, calibration is required. Failure to perform calibration could cause improper function without warning to the driver." — American Honda Position Statement on ADAS (2021)

Component / Scenario	Calibration Required?
Windshield Replacement	Yes
Front Camera R&I	Yes
Radar Replacement	Yes
Bumper or Grille Repairs	Yes
Structural Repairs	Yes
Alignment or Suspension Work	Yes

Toyota / Lexus

"Do not assume a system is functioning properly after repair unless it has been properly calibrated per Toyota specifications." — Toyota ADAS Calibration Position Statement (2021)

Component / Scenario	Calibration Required?
Windshield Replacement	Yes
Millimeter-Wave Radar Replacement	Yes
Bumper, Grille, or Radar Bracket Repairs	Yes
Lane Camera or Sensor R&I	Yes
Structural / Frame Work	Yes
Suspension/Height Alteration	Yes

Subaru

"Subaru vehicles equipped with EyeSight require specific conditions to recalibrate systems."

Component / Scenario	Calibration Required?
Windshield Replacement	Yes (Only Subaru Glass)
EyeSight Camera R&I	Yes
Suspension / Ride Height Changes	Yes
Frame/Structural Repairs	Yes
Alignment	Yes

Ford / Lincoln

"Not calibrating ADAS systems may result in malfunctions with no warning light."

Component / Scenario	Calibration Required?
Windshield / Camera Replacement	Yes
Bumper, Grille, Radar Repairs	Yes
Blind Spot Module Replacement	Yes
Rear Camera Replacement	Yes
Structural Work / Suspension	Yes

General Motors (GM)

"ADAS components must be recalibrated when disrupted. There are no exceptions."

Component / Scenario	Calibration Required?
Windshield / Camera / Sensor R&I	Yes
Radar / LIDAR / Ultrasonic Sensor Replacement	Yes
Panel or Bumper Replacement	Yes
Frame or Structural Repairs	Yes
Suspension or Alignment	Yes

Nissan / INFINITI

"ADAS calibration is not optional. Improper setup can affect system performance and driver safety."

Component / Scenario	Calibration Required?
Radar Sensor Replacement	Yes
Windshield / Camera Replacement	Yes
Front/Rear Bumper Work	Yes
Quarter Panel Repairs (BSM)	Yes
Frame or Structural Work	Yes

BMW / MINI

"Advanced Driver Assistance Systems must be recalibrated per ISTA software following repairs."

Component / Scenario	Calibration Required?
Camera or Radar Removal	Yes
Suspension Work	Yes
Windshield Replacement	Yes
Bumper / Radar Mounting Surface Repairs	Yes

Mercedes-Benz

"ADAS systems are part of safety certification. Improper calibration can compromise system integrity."

Component / Scenario	Calibration Required?
Windshield / Sensor Replacement	Yes
Structural or Frame Work	Yes
Radar, LIDAR, or Ultrasonic Sensor R&I	Yes
Suspension or Ride Height Adjustments	Yes

Documentation Best Practices

• Take pre- and post-repair photos of sensor zones

- Save and share scan tool calibration reports
- Include calibration line items on final estimate/invoice
- Record calibration type (static, dynamic, or both)

Insurance Billing & Legal Notes

- ADAS calibration is non-negotiable and federally protected under:
 - o 49 U.S. Code § 30122
 - o 49 CFR Part 566
 - o FMVSS 111 (49 CFR § 571.111)
- Carriers cannot deny, omit, or delete calibration charges.
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Vehicle ADAS Calibration Check Sheet

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