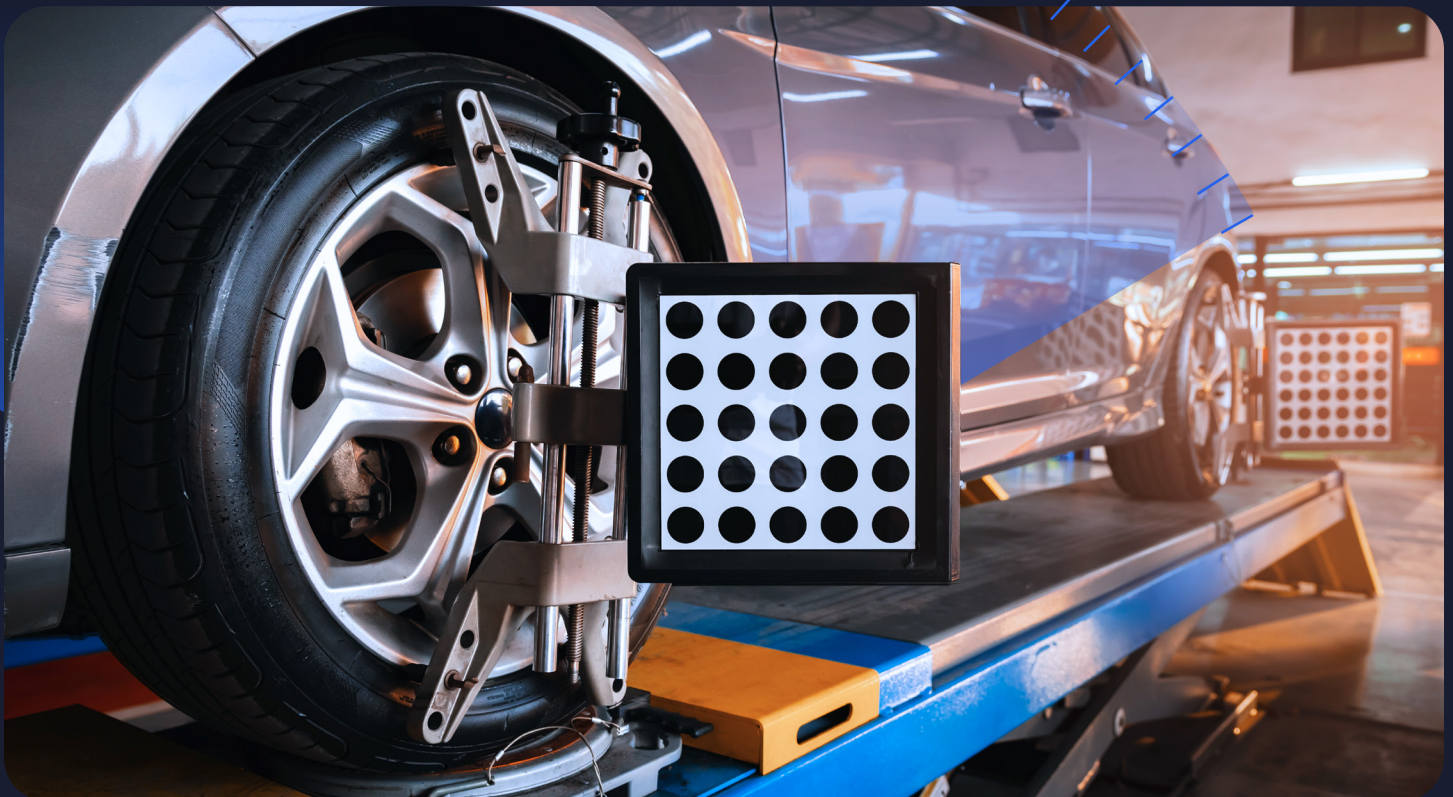# ADAS
Identification and Calibration Checklist

REVV

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ADAS Identification and Calibration
Checklist

Introduction

Let's say you've got a customer bringing in their 2023 Honda CR-V after a minor fender bender.

Simple enough, you might think, it's just a bumper replacement. And 10 years ago you might have been correct.

But here's what is now complicating that seemingly simple task: That repair just triggered the need for to calibrate the Millimeter Wave Radar behind the front bumper cover. Miss this step, and you've not only left money on the table—you've potentially put your customer at risk and opened your shop to possible liability.

This is the new reality of running an auto repair business.

As of 2024, [90%+ of new vehicles](#) rolling off the production line come equipped with at least one ADAS feature. Those forward-facing cameras in that example are just the tip of the iceberg. Today's vehicles have about as much tech packed into them as the Starship Enterprise. These safety and convenience features comprise a huge market which industry experts project to [reach $66.56 billion](#) by 2030.

Offering ADAS then, seems like straightforward way to generate another revenue stream.

This ever-expanding market also means more and more variety amongst possible ADAS systems you need to identify and calibrate according to the correct OEM specifications.

These aren't just different between makes and models — they can vary between trim levels of the exact same vehicle. Without the right tools, you're left digging through dense OEM documentation, playing a time-consuming game of guess-and-check with scan tools, or making countless calls to dealerships. What worked on yesterday's CR-V might be completely different on today's, even though they look identical from the outside.

In the following sections, we'll break down exactly how to identify which ADAS systems your customers' vehicles have, what they need, and how to turn this knowledge into a profitable service offering.

What are ADAS systems?

Advanced Driver Assistance Systems (ADAS) are sophisticated safety features that help drivers navigate and avoid accidents. Some examples include:

01.   Forward collision warning systems

02.   Lane departure alerts

03.   Blind spot monitoring

04.   Adaptive cruise control

05.   Automatic emergency braking

ADAS repairs by the numbers

Curious what offering ADAS calibration in-house could mean for your revenue? Let's break it down:

- Average ADAS calibration service: $300 to $400

- Average ADAS calibrations per vehicle: 1.84

- Potential additional revenue per repair: $550-$750

How to Identify which ADAS System is Being Used

Calibrating any given ADAS system requires specific knowledge from the part's manufacturer. These procedures are often highly detailed, ensuring that each part aligns with OEM standards for proper operation. Following the calibration process precisely is critical, as even slight deviations can impact a system's accuracy and performance.

But you can't calibrate what you can't identify so the first step in any calibration is getting the exact procedures you need to ensure the parts are set up properly. What this usually means is piecing together the puzzle using:

- What you find during a pre-repair scan (which likely won't be complete)

- VIN data (which isn't always complete)

- OEM information (if you can find it)

- Manual inspections (time-consuming but necessary)

- I-Car database searches (when available)

- And in desperate times, the wild west of Google searches

Sounds frustrating, right? It is.

But here's the good news: there are better ways to identify these systems and get the exact calibration procedures you need.

Option 1: Use a factory scan tool

Factory scan tools are specifically designed by Original Equipment Manufacturers (OEMs) to interact with their own vehicle systems. They can come in several different types including:

- **Dealer-Level Tool:** Full access to diagnostics and calibrations from the OEM, but costly.

- **OEM Software:** Loaded onto third-party devices, providing multi-brand support but lacking some advanced features.

- **OEM-Endorsed Third-Party Tool:** Certified for diagnostics but limited in ADAS functions.

- **OEM Remote Access:** Subscription-based access to OEM tools for occasional advanced use without heavy investment.

PROS	CONS
Precise Compatibility ✅ Factory tools are tailored to the manufacturer's specifications, ensuring the highest level of compatibility with ADAS systems.	**Higher Cost** 🛑 Factory scan tools are generally more expensive, especially when factoring in subscription fees for software updates.
Comprehensive Access ✅ They provide access to detailed diagnostics, calibration procedures, and system information unavailable to aftermarket tools.	**Limited to Specific Makes** 🛑 Typically, they only work for one manufacturer, so shops may need multiple tools for different vehicle brands.
Software Updates ✅ OEM tools receive regular updates directly from manufacturers, keeping them current with the latest vehicle technology.	

Revv's Take:

Using factory scan tools is our preferred method. While the upfront costs can be high, it's the only way to guarantee accuracy, compatibility, and access to the latest manufacturer data. The result of using these tools avoids potential lost revenue and liability.

Option 2: Aftermarket scan tools

Aftermarket scan tools are versatile, designed to work across multiple makes and models rather than a single OEM.

These are like having a really good translator who speaks Spanish but you need to understand Portuguese—they'll get you most of the way there, but sometimes nuance gets lost. Here's what else you need to know:

PROS	CONS
Cost-Effective ✅ Generally, aftermarket tools are less expensive than factory tools, making them a budget-friendly option.	**Limited Information** 🛑 Aftermarket tools may not have access to the most detailed diagnostics or calibration data, especially for newer ADAS technologies.
Multi-Brand Compatibility ✅ They can scan and diagnose various makes, providing greater flexibility in shops that service a wide range of vehicles.	**Inconsistent Results** 🛑 Since they're not tailor-made, compatibility and effectiveness may vary across different vehicle models.

Revv's Take:

These aren't the ideal tools to use but are better than trying to figure out based on OEM Repair info which we'll touch on in another section.

Option 3: OEM repair info and VIN data

> This method is like trying to read tea leaves while standing outside in the rain—possible, but not exactly ideal circumstances.
>
> The process of identifying which parts you're dealing with and subsequently tracking down the calibration process. This involves sifting through part numbers and diagrams to locate necessary details, requiring a detective-like approach. Unlike scan tools, which streamline calibration with real-time diagnostics, OEM info and VIN data often slow down the process.

PROS	CONS
VIN-Specific Detail ✅ Provides exact specifications for each vehicle, crucial for ADAS calibration accuracy.	**Limited Accessibility** 🛑 Some OEMs restrict access to certain data outside dealerships.
Adherence to OEM Standards ✅ Helps ensure repairs meet original safety and performance standards.	**Complicated Terminology** 🛑 System names often differ in repair documents, requiring interpretation.
	Time-Intensive 🛑 Searching through part numbers and diagrams takes significant time, slowing down repairs.

Revv's Take:

Trying to piece together what ADAS systems you're working with manually is not advised. Instead, consider investing in some kind of tool as you will be able to make up the upfront costs over time.

The bottom line: choose your weapon wisely

Your choice of identification method should be about more than just convenience and efficiency. Liability and revenue are also a concern. Should you miss an ADAS system, you're not just leaving money on the table but potentially putting your customer at risk.

Step One: Getting Started with a Pre-repair Scan

With the right tools at hand, your first step in properly calibrating any ADAS systems affected by a collision is a pre-repair scan. Modern vehicles are complex networks, where each ADAS component interacts across the car's systems. Scanning first can help uncover hidden damages that visual inspection alone might miss.

There are two major buckets that you start looking for in your scan, Diagnostic Trouble Codes (DTCs) and system status checks.

DIAGNOSTIC TROUBLE CODES (DTCs)	SYSTEM STATUS CHECKS
☐ Are there any active codes showing current issues?	☐ Do any modules show as present but unresponsive?
☐ Are there any historic codes revealing intermittent problems?	☐ Are there communication errors between systems?
☐ Does the system spot any network communication errors?	☐ Any voltage irregularities? Signal strength anomalies?
☐ Are there any calibration status indicators?	

Beyond the Codes

Once you've identified any codes, you should also be looking for:

- Physical damage to mounting areas that could affect sensor alignment

- Wire harness routing that might have been disturbed

- Structural shifts that could impact sensor positioning

- Component brackets that might look fine but are slightly bent

- Modules that appear on your vehicle lookup but don't respond to scans

- Multiple related DTCs across different systems

- Intermittent communication errors

- Sensors reporting unusual values

- Systems that were calibrated recently (might indicate previous unreported damage)

Revv Tip: Create a damage map.

Link physical damage to potential ADAS impacts. That minor
quarter panel dent? It might have shifted your blind spot sensor's
mounting point.

Revv Tip: Document everything.

When you identify an ADAS system, record it. When you can't
communicate with a module, record it. These notes are both good
practice to make accurate estimates as well as a shield against
potential liability.

Step Two: Identifying Calibration Requirements

With all the ADAS systems identified and scan results in hand, it's time to turn to exactly what needs to be calibrated.

The Calibration Trigger Points

Not every repair triggers the need for calibration, but you might be surprised by what does. Here are the common culprits:

DIRECT IMPACTS	INDIRECT TRIGGERS:
• Replacement of ADAS components	• Four-wheel alignment
• Removal and reinstallation of sensors	• Suspension work
• Windshield replacement	• Frame repair
• Bumper cover R&I or R&R	• Wheel base adjustments
• Front Grill R&R or R&I	• Battery disconnection (on some models)
	• Vehicle in a collision (on some makes or models)

Finding the Right Procedures

Once you know what needs calibration, you need the exact procedures. Every calibration procedure needs specific conditions:

- Precise environmental requirements

- Exact tool and target specifications

- Vehicle loading conditions

- Surface requirements

- Lighting conditions

- Space requirements

As you're looking to find these requirements, here's your hierarchy of reliable sources:

Step Two: Identifying Calibration
Requirements

01. OEM Repair Information

- Exact specifications

- Required tools and targets

- Environmental conditions

- Space requirements

02. Calibration Requirements Database

- Consolidated procedures

- Cross-referenced specifications

- Updated requirements

03. Technical Service Bulletins

- Updated procedures

- Known issues

- Model-specific variations

Accurate ADAS identification and calibrations every time

Revv's comprehensive decoding system can make finding the right ADAS systems and calibrations as easy as typing in a VIN. By leveraging industry-leading as-built data, Revv helps you instantly:

- Map complete ADAS feature configurations — both standard and optional

- Generate OEM-specific calibration requirements and procedures

- Verify alignment specifications and tooling needs

- Find detailed procedure categorization for precise insurance documentation

Check out Revv ADAS today →

Step Three: Complete Calibrations as Specified

Once you've identified the correct procedures, the only thing left for your team to do is complete the calibration processes for any affected systems identified during your scan. This step demands precision and attention to detail as even the most minute aspects of the calibration setup (positioning targets, environmental controls, etc) will affect final results.

These calibrations aren't guidelines or suggestions. Follow each OEM procedure exactly to the letter.

Revv Tip:

Create a pre-calibration checklist for each manufacturer you commonly service. The time spent making these lists will save you hours of frustration later.

Step Four: Post Repair Calibration and Scan

You've made the repairs. You've performed the calibrations. But when it comes to ADAS repairs, trust but verify. Here's a post-repair checklist to ensure you've followed every step to the letter.

Complete System Scan

☐ Clear all DTCs

☐ Verify no new codes appear

☐ Check communication with all modules

☐ Confirm calibration status of each system

Dynamic Testing

☐ Verify system functionality in real-world conditions

☐ Test all calibrated systems

☐ Document system responses

☐ Confirm normal operation

Red Flags That Demand Attention

☐ Systems that won't complete calibration

☐ Persistent DTCs after clearing

☐ Unusual system behavior during testing

☐ Failed dynamic tests

☐ Inconsistent calibration results

Document results

Accurate, detailed records of the work done are vital to make sure you're adhering to service requirements and defend against any potential issues.

Step Four: Post Repair Calibration
and Scan

MUST-HAVE	NICE-TO-HAVE
• Before and after scan results	• Photos of the calibration setup
• Calibration completion confirmations	• Calibration verification logs (including troubleshooting notes)
• Test drive results	• OEM references or procedure IDs used in calibration
• Environmental conditions during calibration	
• Tools and equipment used	
• Technician certifications	
• Date and time stamps for each calibration step	
• VIN and vehicle identification details	

Complete ADAS Calibration Checklist

Pre-Calibration Phase

- ☐ Complete vehicle scan performed
- ☐ All ADAS systems identified
- ☐ OEM procedures obtained
- ☐ Required tools/targets verified
- ☐ Workspace requirements confirmed
- ☐ Environmental conditions checked:
  - • Temperature within spec
  - • Lighting conditions appropriate
  - • Level surface verified
  - • Required space available
- ☐ Battery voltage confirmed adequate
- ☐ Vehicle at proper ride height
- ☐ Fuel tank level meets requirements
- ☐ Tire pressures set to spec

Calibration Process

- ☐ Vehicle positioned correctly
- ☐ Targets set up per specs
- ☐ Measurements verified
- ☐ Procedure steps documented
- ☐ Environmental conditions maintained
- ☐ No interruptions to process
- ☐ All steps completed in sequence
- ☐ Results recorded

System Preparation

- ☐ All DTCs documented
- ☐ Related repairs completed
- ☐ Mounting areas inspected
- ☐ Sensors cleaned
- ☐ Brackets verified straight
- ☐ Connectivity confirmed
- ☐ Software updates checked
- ☐ Required tools calibrated

Pre-Calibration Phase

- ☐ Post-calibration scan performed
- ☐ All DTCs cleared
- ☐ Systems retested
- ☐ Dynamic testing completed:
  - • Lane departure warning
  - • Forward collision warning
  - • Blind spot detection
  - • Parking sensors
  - • Camera systems
  - • Radar systems
- ☐ Normal operation confirmed
- ☐ Road test for final verification

Documentation & Delivery

- ☐ Before/after scans printed
- ☐ Calibration results documented
- ☐ Photos of setup saved
- ☐ Customer notification prepared
- ☐ Invoice detailed with procedures
- ☐ Test drive results recorded
- ☐ Customer briefed on:
  - • Work performed
  - • Systems calibrated
  - • Normal operation
  - • Potential warnings/alerts

Identify ADAS Systems and Calibration Requirements in a Single Click

The biggest hurdle for handling ADAS calibration is more than just mastering the technical complexity. It's also the endless hours lost hunting down accurate information.

That can mean countless hours spent searching for calibration procedures, double-checking specifications, and wondering if you've identified every system that needs attention. Miss one system or use outdated procedures, and you're at risk of putting your customer's safety and your shop's reputation on the line.

For shops looking to calibrate ADAS with confidence, Revv ADAS can make sure your operation isn't overwhelmed but overwhelmingly efficient.
Here's how Revv ADAS can streamline each phase of the calibration process.

Fast-track your pre-repair scans with VIN decoding (that actually works.)

VIN decoders RevvADAS changes that narrative. Our platform leverages industry-leading as-built data to not just read VINs, but truly understand them.

When you decode a VIN or scrub an estimate, you'll know exactly which ADAS features are equipped, which are optional, and precisely what calibrations are required. No more guesswork, no more missed opportunities.

No more scouring databases. Get all the calibration processes instantly.

Instead of hunting through multiple systems and manually piecing together documentation, you simply click once. Revv ADAS will then generate a comprehensive report covering every aspect of your calibration work, from ADAS systems and safety operations to specific functional procedures.

Our platform supports vehicles from 2000 to present, with regular updates as new models hit the market. This comprehensive coverage means you're never caught off guard by an unfamiliar system or procedure.

Generate comprehensive documentation that protects your business and your customers.

Once your work is complete, Revv ADAS can generate detailed calibration reports and customizable templates, allowing technicians to document every aspect of ADAS calibration efficiently.

With one-click reporting, users can quickly create comprehensive reports that include before and after scan results, verification logs, and environmental conditions. This documentation ensures transparency with customers through clear briefings on work performed and potential warnings.

Additionally, Revv ADAS integrates seamlessly with estimating software, linking detailed documentation to invoicing, thereby enhancing operational efficiency and protecting shops against liability claims.

Turn your ADAS operations from a challenge into a profit center

Schedule a demo today and discover why leading shops across the country are making the switch to RevvADAS.

We've taken the complexity of ADAS calibration and transformed it into a streamlined process that protects your business while growing your revenue. From that first VIN scan to the final invoice, every step is optimized for efficiency and accuracy.

Schedule your demo today   →