iCarsoft CR Eagle-E

iCarsoft CR Eagle Wireless Bidirectional Diagnostic Tool User Manual

Model: CR Eagle-E (2025 Version)

1. INTRODUCTION AND OVERVIEW

The iCarsoft CR Eagle is an advanced wireless bidirectional diagnostic tool designed for comprehensive vehicle maintenance and repair. This 2025 version features significant upgrades from the CR MAX, including an Android 10.0 operating system, a larger 10.1-inch LCD touchscreen, increased memory, and a faster quad-core processor. It offers extensive diagnostic capabilities, including all system scans, bi-directional control, TPMS programming, ECU coding, and a wide array of reset and service functions.

Figure 1: The iCarsoft CR Eagle diagnostic tool, showing the main tablet, wireless VCI connector, TPMS sensors, videoscope, and various OBD connection adapters.

Key features include:

- **Wireless VCI Connector:** Enables faster and more stable diagnosis.
- **High-Performance Hardware:** Android 10.0, 10.1-inch LCD touchscreen (1280x800 resolution), Quad Core 2.0 GHz processor, 128GB memory, 10000mAh battery.
- **Comprehensive Diagnostics:** All System Diagnostics with full OBD2 functions.
- **Bi-directional Control:** Perform active tests on various vehicle components and control modules.
- **TPMS Programming:** Includes 4 TPMS sensors for activation, programming, and learning.
- **ECU Coding:** Advanced coding services for specific vehicle brands (BMW, MINI, RollsRoyce, Audi, VW, Seat, Skoda, Bentley, Bugatti, Lamborghini).
- **Extensive Reset Services:** Over 49 common reset functions and 46 extra sub-services.
- **Built-in Videoscope:** Waterproof HD videoscope for visual inspection of hard-to-reach areas.

2. SETUP AND INITIAL USE

2.1 Unpacking and Charging

Carefully unpack all components from the carrying case. Before first use, ensure the CR Eagle tablet is fully charged using the provided power adapter. The device is equipped with a 10000mAh Lithium Polymer battery for extended operation.

2.2 Connecting the VCI Connector

The Wireless VCI (Vehicle Communication Interface) connector is the primary link between the CR Eagle tablet and your vehicle. Locate your vehicle's OBD2 port, typically found under the dashboard on the driver's side. Plug the VCI connector firmly into the OBD2 port. The VCI will power on automatically.

Figure 2: Illustration of the wireless VCI connection, showing the VCI unit, the tablet, and the wireless communication range of 33-66 feet.

2.3 Pairing the Tablet with VCI

Once the VCI is connected to the vehicle and powered on, turn on the CR Eagle tablet. The tablet will automatically attempt to establish a wireless connection with the VCI. Follow any on-screen prompts to confirm the pairing. The wireless connection distance can range from 33 to 66 feet, allowing for flexible operation around the vehicle.

2.4 Using Specific Adapters

For certain vehicle models, specific connection adapters are required. The CR Eagle package includes:

- 38PIN plug for Mercedes Benz
- 20PIN plug for BMW
- 14 PIN plug for Mercedes Benz/Sprinter
- AI-4 plug for Audi

Ensure the correct adapter is used for your vehicle if it does not utilize the standard OBD2 port.

3. OPERATING INSTRUCTIONS

3.1 All System Diagnostics

The CR Eagle can perform in-depth diagnostics across all available vehicle systems, including engine, transmission, ABS, airbags, and more. This function allows you to read and clear diagnostic trouble codes (DTCs), view live data, check I/M readiness, and perform various system tests.

- **Auto-VIN:** Automatically identifies vehicle information for quick setup.
- **Read/Clear Codes:** Retrieve and erase DTCs from all accessible modules.
- **Live Data:** View real-time sensor data in text or graph format.
- **I/M Readiness:** Check emission system status.
- **Freeze Frame:** View a snapshot of vehicle conditions when a fault code was set.
- **O2 Sensor Test:** Monitor oxygen sensor results.
- **On-Board Monitoring:** Test specific components/systems.
- **EVAP System Test:** Diagnose evaporative emission control system.

Figure 3: Overview of the All System Full OBD2 Diagnosis capabilities, showing various diagnostic icons and a vehicle system diagram.

3.2 Bi-directional Active Test

The bi-directional control function allows the CR Eagle to send commands to vehicle systems and components to test their functionality. This is crucial for verifying repairs and diagnosing issues that cannot be detected by reading codes alone. Examples include testing windows, wipers, fuel pumps, and various control modules.

- **Actuation Tests:** Directly activate components like fuel pumps, solenoids, relays, etc.
- **System Checks:** Perform tests on specific systems to verify proper operation.
- **Component Verification:** Confirm if a unit is working correctly after replacement or software updates.

Figure 4: Examples of bi-directional actuation tests, including idle air control valve, ETC actuator, throttle position actuator, window, and door lock tests.

3.3 TPMS Functions

The CR Eagle provides comprehensive TPMS (Tire Pressure Monitoring System) services, including activation, programming, and learning for the included 4 TPMS sensors. This allows for accurate monitoring of tire pressure and temperature, contributing to driving safety and tire longevity.

- **TPMS Activation:** Activate new or existing TPMS sensors.

- **TPMS Programming:** Program new sensor IDs into the vehicle's ECU.

- **TPMS Relearn:** Perform relearn procedures for TPMS sensors.

- **TPMS Diagnosis:** Read and clear TPMS fault codes.

- **Real-time Monitoring:** View live tire pressure and temperature data.

Figure 5: The CR Eagle tablet displaying TPMS functions, alongside the included TPMS sensors and a tire being serviced.

3.4 Reset and Service Functions

The tool supports over 49 common reset functions and 46 additional sub-services for routine maintenance and repair tasks. These functions help in resetting warning lights, adapting new components, and performing necessary calibrations.

Common reset functions include:

- Oil Reset
- EPB (Electronic Parking Brake) Reset
- SAS (Steering Angle Sensor) Reset
- Throttle Reset
- DPF (Diesel Particulate Filter) Reset
- BMS (Battery Management System) Reset
- ABS (Anti-lock Braking System) Reset
- Injector Coding
- Air Suspension Reset
- Air Conditioner Reset

- Head Lamp Reset
- Body Stability Reset
- Engine Control
- Transmission Relearn
- Airbag Reset
- Seat Reset
- Door-win-roof Reset
- ODO Reset
- Fuel Pump Reset
- Air-Filter Reset
- Engine Idle Reset
- Door Reset
- Immobilizer
- EGR (Exhaust Gas Recirculation)
- Steering Column Adjustment
- Battery Registration

BI-DIRECTIONAL OVER 40000+ ACTUATION TEST

Checking internal/externalcontrol modules/units work well or not

For Benz (Altogether 130000 test item) For Toyota (Altogether 1401297 test item)
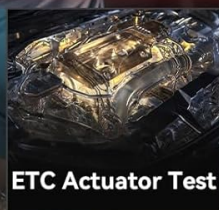For Porsche (Altogether 3744 test item) For Honda (Altogether 313 test item)
For Land Rover (Altogether 4117 test item) For GM (Altogether 136492 test item)
For Audi (Altogether 478994 test item) For Ford (Altogether 178477 test item) MORE...

Some actuation test functions are based on vehicle's itself specific system. Knowing more your vehicle test compatibility, please contact us with vehicle info.

Idle Air Conctrol Valve Test | ETC Actuator Test | Throttle Position Actuator Test | Window Test | Door Lock Test | MORE ......

ALL SYSTEM FULL OBD2 DIAGNOSIS

All Modules Scanning, Detailed System Diagnostic
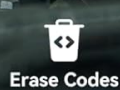
Auto VIN | Auto Scan | Read Codes | Erase Codes
I/M Readiness | Live Data | Freeze Frame | ECU Info
O2 Monitor Test | On-Board Monitor | Evap System

3.5 ECU Coding

The ECU Coding service allows for advanced vehicle customization and optimization. This function is specifically supported for BMW, MINI, RollsRoyce, Audi, VW, Seat, Skoda, Bentley, Bugatti, and Lamborghini vehicles. It can be used to improve engine performance, optimize fuel efficiency, match newly installed hardware, customize driving modes, and fix or update original software bugs.

3.6 Videoscope Function

The integrated waterproof HD videoscope is a valuable tool for inspecting hard-to-reach areas within the vehicle, such as engine compartments, spark plug holes, or undercarriage components. The 3.28ft flexible articulating probe with a 5.5mm diameter and adjustable LED lights provides clear, real-time video (1280P HD) directly on the scanner screen, aiding in accurate diagnosis without extensive disassembly.

Figure 7: A mechanic using the iCarsoft CR Eagle's videoscope to inspect a vehicle engine, highlighting the probe and the tablet display.

4. MAINTENANCE

4.1 Software Updates

iCarsoft provides lifetime free software updates for the CR Eagle. Regularly check for and install updates to ensure your tool has the latest vehicle coverage, diagnostic functions, and bug fixes. Updates can typically be performed directly through the device when connected to Wi-Fi.

4.2 Hardware Care

Keep the device clean and free from dust and moisture. Store it in its protective carrying case when not in use. Avoid dropping the device or exposing it to extreme temperatures. The product is designed with solid hardware materials to withstand typical workshop environments.

5. TROUBLESHOOTING

5.1 Connectivity Issues

- **VCI not connecting:** Ensure the VCI is firmly plugged into the vehicle's OBD2 port and the vehicle's ignition is on. Check the power indicator on the VCI.
- **Tablet not pairing:** Restart both the tablet and the VCI. Ensure they are within the specified wireless range (33-66ft).

5.2 Diagnostic Functionality

- **Function not supported:** Not all functions are available for every vehicle model or year. Refer to the tool's vehicle coverage list or contact iCarsoft support for specific compatibility.
- **Newer vehicle compatibility:** If your car is a new model (after 2023), it is recommended to contact iCarsoft to check compatibility before attempting advanced diagnostics.

5.3 General Performance

- **Slow operation:** Ensure the device has sufficient battery charge. Close unnecessary applications running in the background.
- **Screen issues:** If the touchscreen is unresponsive, perform a soft reset of the device.

6. SPECIFICATIONS

Feature	Specification
Brand	iCarsoft
Model	CR Eagle-E
Operating System	Android 10.0
Display	10.1-inch LCD Touchscreen, 1280x800 resolution
Processor	Quad Core 2.0 GHz
Memory	128GB
Battery	10000mAh Lithium Polymer (included)
Connectivity	Wireless VCI, Wi-Fi (2.4/5 GHz), Bluetooth, USB Host, USB Type C
Videoscope Cable Length	3.28 ft (1 meter)

Videoscope Probe Diameter	5.5mm
Videoscope Resolution	1280P HD
Videoscope Lighting	6 Adjustable LED lights
Item Weight	13.52 pounds
Package Dimensions	18.5 x 14.5 x 6.13 inches
UPC	850030851925

7. WARRANTY AND SUPPORT

iCarsoft is committed to providing comprehensive support for the CR Eagle diagnostic tool:

- **Lifetime Software Free Update Service:** Ensures your device always has the latest features and vehicle coverage.
- **Lifetime Hardware Free Repair Service:** Provides peace of mind regarding the durability and longevity of your investment.
- **Lifetime Remote Technical Support Service:** Access to expert assistance for any operational or diagnostic queries.

For technical assistance or any inquiries, please contact iCarsoft support at support@icarsoft.us. Support is available 7 days a week, 24 hours a day.

Figure 8: An image illustrating the commitment to lifetime free updates, hardware repair, and technical support provided by iCarsoft.