iCarsoft CR PRO

iCarsoft CR Pro Diagnostic Scan Tool User Manual

Model: CR PRO | Brand: iCarsoft

1. INTRODUCTION

The iCarsoft CR Pro is a professional multi-brand, multi-system car diagnostic tool designed to provide comprehensive diagnostic capabilities for a wide range of vehicles. It allows users to read and clear trouble codes, perform various service resets, and access live data streams, making vehicle maintenance and troubleshooting more accessible.
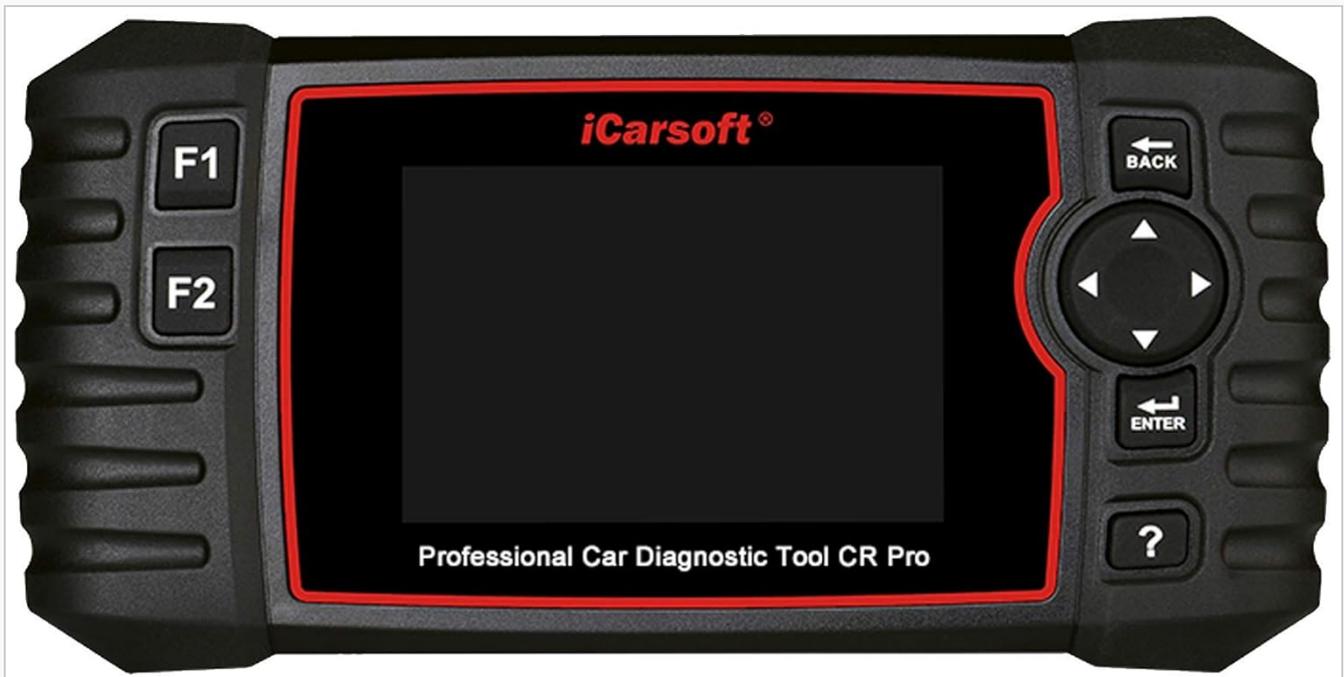

Figure 1.1: iCarsoft CR Pro Diagnostic Scan Tool

2. PACKAGE CONTENTS

Upon opening the package, please verify that all the following items are included:

- Main Unit (iCarsoft CR Pro)

- Hardcopy User's Manual

- Main Cable (OBDII Diagnostic Cable)

- Data Cable (USB Cable for PC connection)

- TF Card (pre-installed within the main unit)

- Nylon Carry Case

Figure 2.1: Included items in the iCarsoft CR Pro package

3. DEVICE OVERVIEW AND BUTTON FUNCTIONS

Familiarize yourself with the layout and functions of the iCarsoft CR Pro device:

Figure 3.1: Front and rear view of the iCarsoft CR Pro with key components labeled.

- **BACK BUTTON:** Returns to the previous menu.
- **UP BUTTON:** Moves cursor up for selection.
- **LEFT BUTTON:** Moves cursor left for selection.
- **RIGHT BUTTON:** Moves cursor right for selection.
- **DOWN BUTTON:** Moves cursor down for selection.
- **ENTER BUTTON:** Confirms a selection or action from a menu list.
- **HELP BUTTON (?):** Shows help information for test results or user operation.
- **F1 FUNCTION BUTTON:** Used for special functions.
- **F2 FUNCTION BUTTON:** Used for special functions.
- **OBDII CONNECTOR:** Connects the scan tool to the vehicle's Data Link Connector via the OBDII Cable.
- **STORAGE CARD SLOT:** Holds the system's TF card.
- **DATA CABLE CONNECTOR:** Connects the scan tool for power supply and software updates.

4. SETUP AND INITIAL USE

Follow these steps to set up and begin using your iCarsoft CR Pro diagnostic tool:

1. **Locate the OBDII Port:** In most vehicles, the 16-pin Data Link Connector (DLC) is located under the dashboard on the driver's side. Refer to your vehicle's owner's manual if you cannot locate it.
2. **Connect the Tool:** Plug the OBDII diagnostic cable into the vehicle's DLC. Ensure a secure connection.
3. **Power On:** The iCarsoft CR Pro will automatically power on once connected to the vehicle's OBDII port.

4. **Language Selection:** Upon first use, you may be prompted to select your preferred language. Use the navigation buttons to select and the ENTER button to confirm. The device supports multiple languages including English, German, Dutch, Spanish, and French.

5. **System Initialization:** Allow the tool a few moments to initialize and establish communication with the vehicle's onboard computer.

Figure 4.1: Connecting the iCarsoft CR Pro to the vehicle's OBDII port.

5. OPERATING THE DIAGNOSTIC TOOL

The iCarsoft CR Pro offers a wide range of diagnostic functions. Navigate through the menus using the UP/DOWN/LEFT/RIGHT buttons and confirm selections with the ENTER button.

5.1. OBDII/EOBD Functions

These are standard diagnostic functions applicable to all OBDII/EOBD compliant vehicles (most vehicles from 1996 onwards in the US, and newer vehicles in other regions).

- **Read Codes:** Displays Diagnostic Trouble Codes (DTCs) stored in the vehicle's computer.
- **Erase Codes:** Clears DTCs from the vehicle's computer. This will also turn off the Check Engine Light (MIL).
- **I/M Readiness:** Indicates whether or not the various emissions-related systems on the vehicle are operating properly and are ready for Inspection and Maintenance testing.
- **DataStream:** Displays live data parameters from the vehicle's sensors in real-time. This can be viewed graphically for better analysis.
- **Freeze Frame:** When an emission-related fault occurs, certain vehicle conditions are recorded by the on-board computer. This information is referred to as freeze frame data.
- **O2 Sensor Test:** Retrieves and views O2 sensor test results for most recently performed tests from the vehicle's on-board computer.
- **On-Board Monitoring:** This function can be utilized to read the results of on-board diagnostic monitoring tests for specific components/systems.
- **Evap System Test:** Initiates a leak test for the vehicle's EVAP system.
- **Vehicle Information:** Displays the Vehicle Identification Number (VIN), Calibration Verification Number (CVN), and other information.

- **Retrieve Generic (P0, P2, P3, and U0), manufacturer specific (P1, P3, and U1) codes and pending codes.**

OBDII FUNCTION

1. Read Codes
2. Erase Codes
3. I/M Readiness -- I/M Readiness indicate whether or not the various emissions-related systems on the vehicle are operating properly and are ready for Inspection and Maintenance testing.
4. DataStream
5. Freeze Frame -- When an emission-related fault occurs, certain vehicle conditions are recorded by the on-board computer. This information is referred to as freeze frame data. Freeze Data is a snapshot of the operating conditions at the time of an emission-related fault.
6. O2 Sensor Test -- This option allows retrieval and viewing of O2 sensor test results for most recently performed tests from the vehicle's on-board computer.
7. On-Board Monitoring -- This function can be utilized to read the results of on-board diagnostic monitoring tests for specific components/systems.

8. Evap System Test -- The EVAP test function lets you initiate a leak test for the vehicle's EVAP system. Before using the system test function, refer to the vehicle's service repair manual to determine the procedures necessary to stop the test.
9. Vehicle Information -- The option displays the vehicle identification number (VIN),the calibration verification number (CVN), and other information of the test vehicle.
10. Retrieve generic (P0, P2, P3, and U0), manufacturer specific (P1, P3, and U1) codes and pending codes

11.Turn off Check Engine Light (MIL), clear codes and reset monitors
12. Read live PCM DataStream
13. Support CAN (Controller Area Network) and all other
14.Multilingual menu and DTC definitions-English, Spanish, and German, etc.
15.Read pending DTCs
16.Read permanent DTCs
17. DTCs search

18. Supports most of the OBDII/EOBD test modes include: CAN, ISO9141, KWP2000, J1850 VPW and J1850 PWM.
19. Works on most of 2001 and later OBDII compliant PETROL European vehicles
20. Works on most of 2004 and later OBDII compliant DIESEL European vehicles
21. Works on most of 1996 and later OBDII compliant US and Asian vehicles
22. View & Graph Live Data in Color Graphing and blazing fast refresh rate for better graphing and live data readings.
23. Comprehensive Help, Including OBD Parameter, Mode Explanations & More

Figure 5.1: Overview of OBDII functions and the diagnostic cable connection.

118 Graphic Live Datastream

Intuitively Track Data Changes in Real Time

- Better understanding of car performance to increase driving safety
- Print and share data with dealers to help you quickly repair your car
- Only for dynamic data

Figure 5.2: Real-time graphical display of live data streams for intuitive tracking of performance changes.

5.2. Full System Diagnosis

Beyond standard OBDII, the CR Pro can diagnose most systems on supported vehicle brands, including:

- Engine System
- Transmission System
- Anti-lock Braking System (ABS)
- Airbag System (SRS)
- And many more vehicle-specific systems.

This allows for comprehensive fault detection and code clearing across various electronic control units (ECUs).
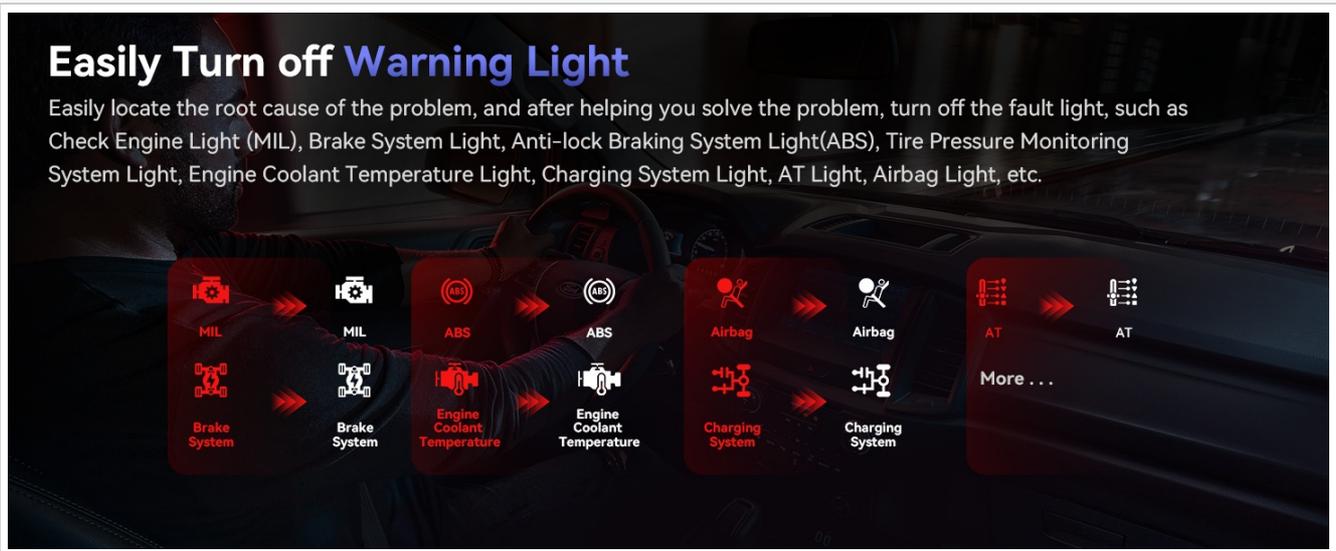

Figure 5.3: The tool assists in easily locating the root cause of problems and turning off various warning lights.
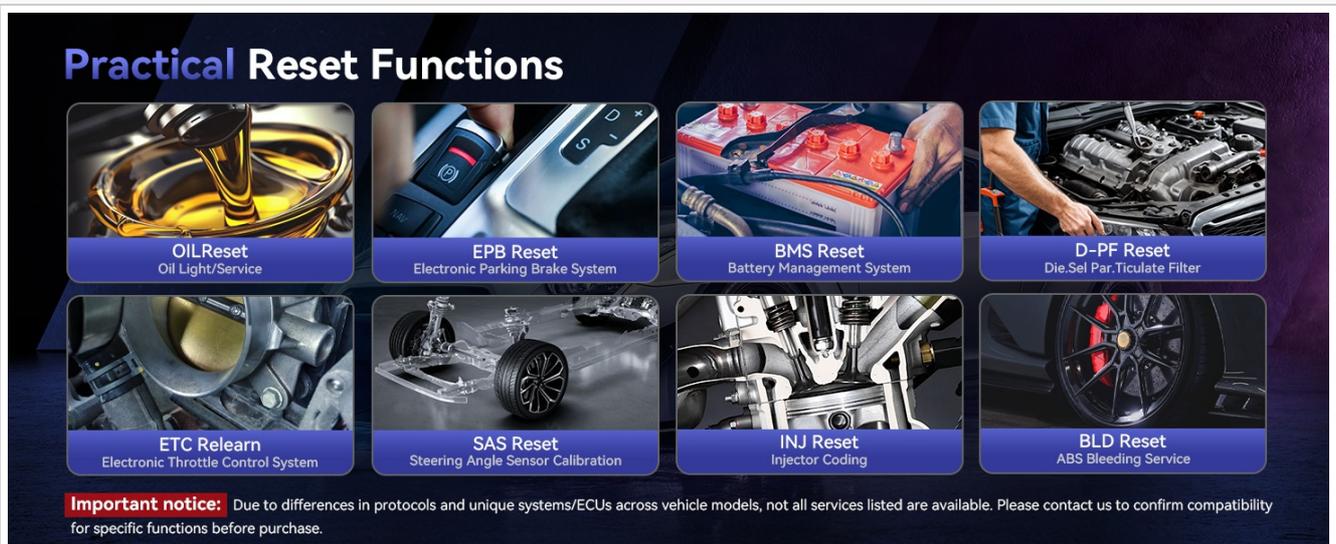
5.3. Practical Reset Functions

The CR Pro supports several common service reset functions:

- **Oil Light/Service Reset:** Resets the oil service light after an oil change.
- **Electronic Parking Brake (EPB) System Maintenance:** Deactivates and reactivates the EPB system for replacement and initialization of brake pads.
- **Battery Management System (BMS) Reset:** Registers new battery to the BMS while battery replacement.
- **Diesel Particulate Filter (DPF) Regeneration Control System:** Requests the DPF regeneration process when DPF blockage is detected.
- **Electronic Throttle Control (ETC) System:** Relearns the throttle valve control value after cleaning or replacement.
- **Steering Angle Sensor (SAS) Calibration:** Calibrates the steering wheel to straight ahead, or recalibrates SAS while steering part replacement.
- **Injector Coding (INJ Reset):** Codes new injector numbers to replace the previous one when fitting new injectors or after replacement.
- **ABS Bleeding Service (BLD Reset):** Bleeds the brake system when the ABS contains air.

Important Notice:

Due to differences in protocols and unique systems/ECUs across vehicle models, not all services listed are available for every vehicle. Please contact iCarsoft support to confirm compatibility for specific functions before purchase or use.

6. Maintenance and Updates

6.1. Software Updates

The iCarsoft CR Pro offers lifetime free software updates to ensure compatibility with new vehicle models and to add new features. To update the software:

1. Visit the official iCarsoft website.
2. Download the update tool and the latest software package for your CR Pro model.
3. Connect the CR Pro to your computer using the provided data cable.
4. Follow the on-screen instructions of the update tool to complete the process.

Regular updates are crucial for optimal performance and expanded vehicle coverage.

6.2. Device Care

- Keep the device clean and free from dust and moisture.
- Store the device in its nylon carry case when not in use to protect it from damage.
- Avoid exposing the device to extreme temperatures.
- Do not attempt to disassemble the unit, as this will void the warranty.

7. Troubleshooting

If you encounter issues while using your iCarsoft CR Pro, consider the following common solutions:

- **No Power:** Ensure the OBDII cable is securely connected to both the tool and the vehicle's DLC. Check the vehicle's battery voltage.
- **Communication Error:** Verify that the vehicle's ignition is in the ON position (engine off or running, depending on the test). Ensure the OBDII cable is not damaged. Try connecting to a different vehicle to rule out a vehicle-specific issue.
- **Tool Freezes:** Disconnect the tool from the vehicle, restart it, and try again. Ensure the software is up to date.
- **Specific Function Not Working:** Some functions are vehicle-specific. Confirm compatibility for your vehicle's make, model, and year. Ensure the vehicle's system is in a state that allows the function to be performed (e.g., engine off for some resets).
- **Screen Issues:** If the screen is unresponsive or displays incorrectly, try restarting the device. If the issue persists, contact technical support.

For persistent issues, refer to the support section for contact information.

8. Technical Specifications

SPECIFICATIONS

- Display: 4.0" TFT LCD, 480*320 Pixels
- Operation Temperature: 0°C ~ 50°C
- Storage Temperature: -20°C ~ 70°C
- Operating Voltage: 9 ~ 18V
- Operating Current: 150mA@12V (Typical)
- Power Consumption: 1.8W (Typical)
- Dimension: 206*104.1*32.6 mm (L x W x H)

Contents:
- Main Unit
- Hardcopy User's Manual
- Main cable
- Data cable
- TF Card (Within the main unit)
- Nylon carry case

Figure 8.1: Detailed technical specifications and physical dimensions of the iCarsoft CR Pro.

Feature	Detail
Display	4.0" TFT LCD, 480x320 Pixels
Operating Temperature	0°C ~ 50°C (32°F ~ 122°F)
Storage Temperature	-20°C ~ 70°C (-4°F ~ 158°F)
Operating Voltage	9 ~ 18V
Operating Current	150mA@12V (Typical)
Power Consumption	1.8W (Typical)
Dimensions (L x W x H)	206mm x 104.1mm x 32.6mm (8.11 x 4.10 x 1.28 inches)
Item Weight	1.69 pounds
Operating System	WIN PE (Professional Automotive Inspection OS)

9. VEHICLE COMPATIBILITY

The iCarsoft CR Pro supports most OBDII/EOBD test modes, including CAN, ISO9141, KWP2000, J1850 VPW, and J1850 PWM. It is designed to work with over 40 vehicle brands across various regions.

Figure 9.1: Partial list of compatible vehicle brands supported by the iCarsoft CR Pro.

Important Notice:

The car manufacturer may restrict access to certain car ECUs and systems, leading to compatibility issues for specific functions. For specific or newer models (e.g., from 2022 to 2024), please contact iCarsoft to confirm compatibility before purchase or use.

10. WARRANTY AND SUPPORT

10.1. Warranty Information

The iCarsoft CR Pro comes with a **1-year warranty** from the date of purchase. This warranty covers manufacturing defects and malfunctions under normal use. Please retain your proof of purchase for warranty claims.
Additionally, iCarsoft offers **lifetime free hardware repair**, demonstrating their commitment to product longevity and customer satisfaction.

10.2. Technical Support

For technical assistance, troubleshooting, or inquiries regarding product compatibility and functions, iCarsoft provides:

- **24/7 Prompt Reply from Professional Engineer:** Contact iCarsoft's support team for expert assistance.
- **Online Resources:** Visit the official iCarsoft website for FAQs, software downloads, and additional support materials.

For the most up-to-date contact information, please refer to the official iCarsoft website or the contact details provided in your product packaging.