

iCarsoft LR V2.0

iCarsoft LR V2.0 Professional Multi-System Auto Diagnostic Tool User Manual for Land Rover/Jaguar

Model: LR V2.0

1. INTRODUCTION

The iCarsoft LR V2.0 is a professional multi-system auto diagnostic tool designed for Land Rover and Jaguar vehicles. This device is capable of reading and clearing trouble codes across various vehicle systems, providing essential diagnostic and maintenance functionalities.



Figure 1: iCarsoft LR V2.0 Diagnostic Tool

2. PRODUCT FEATURES

The iCarsoft LR V2.0 offers a comprehensive suite of features to assist with vehicle diagnostics and maintenance:

- **Multi-System Diagnosis:** Reads and clears trouble codes on most systems including Engine, Transmission, ABS, and Airbag.
- **OBDII/EOBD Support:** Supports all 10 modes of OBDII/EOBD operation.
- **Live Data:** Displays real-time vehicle data.
- **Full ECU Diagnosis:** Applies to single brand vehicles equipped with OBDII-16 DLC.
- **User-Friendly Interface:** Easy to use with silicone keys and a 4.0" TFT LCD display.
- **Oil Light/Service Reset:** Resets oil service lights.
- **Electronic Parking Brake (EPB) System:** Deactivates and reactivates the EPB system for maintenance.
- **Battery Management System (BMS):** Registers new batteries to the BMS.
- **Diesel Particulate Filter (DPF):** Performs DPF regeneration control system functions.
- **Electronic Throttle Control System (ETC):** Relearns electronic throttle control settings.
- **Steering Angle Sensor (SAS):** Calibrates the steering wheel to straight ahead.
- **ABS Bleeding:** Performs ABS bleeding functions.
- **Print Data Function:** Allows printing out diagnostic data recorded by the scan tool.
- **Battery Test:** Tests the voltage of the battery with the OBD port when the engine starts.
- **DTC Library:** Provides a lookup function for Diagnostic Trouble Codes.
- **PC Upgrade:** Software can be updated via PC.
- **Multi-Language Support:** English, German, Dutch, Spanish, French, and more.

PRODUCT FEATURES

- 1.iCarsoft LR V2.0 can do it all-reads and clears trouble codes on most of the systems such as engine, transmission, ABS and airbag etc.
- 2.Support OBDII/EOBD Ten Modes of Operation
- 3.Read Live Data
- 4.Full ECU Diagnosis
- 5.Applies to the single Brand of most of the Models which equipped with OBDII-16 DLC
- 6.Easy To Use With Silicone Keys
- 7.Oil Light/Service Reset: Support service lamp reset.
- 8.Electronic Parking Brake (EPB) system maintenance deactivates and reactivates the EPB system for replacement and initialization.
- 9.Battery Management System (BMS), registers new battery to the BMS while battery replacement.
- 10.Diesel Particulate Filter (DPF) regeneration control system, requests the DPF regeneration process while DPF blockage and turn off the DPF indicator.
- 11.Electronic Throttle Control system (ETC) relearns the throttle valve while clear or replaces the throttle valve.
- 12.SAS: Steering Angle Sensor (SAS) calibration, calibrates the steering wheel to straight ahead, or recalibrates SAS while steering part replacement.
- 13.The Print Data function allows you printing out diagnostic data recorded by the scan tool or customized test reports.
- 14.Battery test allows you getting the voltage of battery with OBD port by the scan tool when the engine starts.
- 15.DTC Library to lookup when user is operating this tool.
- 16.Upgrade Via PC
- 17.Multi-language: English, German, Dutch, Spanish, French.



Figure 2: Overview of iCarsoft LR V2.0 features

3. TECHNICAL SPECIFICATIONS

- **Display:** 4.0" TFT LCD, 480*320 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:** 206 x 104 x 32.6 mm (L x W x H)
- **Item Weight:** 1.52 pounds
- **Operating System:** Windows XP (for PC updates)



Figure 3: iCarsoft LR V2.0 device dimensions and specifications

4. SETUP AND CONNECTION

To begin using your iCarsoft LR V2.0 diagnostic tool, follow these steps:

1. Locate the OBDII port in your vehicle. This is typically found under the dashboard on the driver's side.
2. Connect the 16-pin male connector of the main cable to the vehicle's OBDII port.
3. Connect the other end of the main cable to the diagnostic tool.
4. The device will power on automatically once connected to the vehicle.



Figure 4: Connecting the iCarsoft LR V2.0 to the vehicle's OBDII port

5. OPERATING THE DIAGNOSTIC TOOL

The iCarsoft LR V2.0 provides various diagnostic functions accessible through its menu. Use the navigation buttons (UP, DOWN, LEFT, RIGHT) and the ENTER button to select options.

5.1. Reading and Clearing Trouble Codes

1. From the main menu, select 'Diagnose' or 'OBDII/EOBD'.
2. Choose 'Read Codes' to view current, pending, or historical Diagnostic Trouble Codes (DTCs).
3. To clear codes, select 'Erase Codes'. Confirm the action when prompted.

5.2. Live Data Stream

Access real-time data from the vehicle's sensors and components.

1. From the diagnostic menu, select 'Read Live Data'.
2. Choose the specific data parameters you wish to monitor.
3. Data can be displayed in text or graphical format for easier analysis.

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. Data stream.
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: OBDII Functionality Overview

Video 1: Demonstration of reading and clearing fault codes for Jaguar and Land Rover vehicles using a similar OBDMATE OM501 scanner.

6. MAINTENANCE AND SPECIAL FUNCTIONS

The LR V2.0 supports various maintenance and reset functions:

- **Oil Light/Service Reset:** Resets the oil service light after an oil change.
- **EPB System Maintenance:** Safely performs maintenance on the Electronic Parking Brake system.
- **BMS Reset:** Resets the Battery Management System after battery replacement.
- **DPF Regeneration:** Initiates Diesel Particulate Filter regeneration.
- **ETC Relearns:** Adapts the Electronic Throttle Control system.
- **SAS Calibration:** Calibrates the Steering Angle Sensor.
- **ABS Bleeding:** Performs ABS brake bleeding procedures.
- **TPMS Reset:** Resets the Tire Pressure Monitoring System.

7. TROUBLESHOOTING AND SUPPORT

If you encounter any issues while using the iCarsoft LR V2.0, please refer to the following:

- **Consult the User Manual:** For detailed instructions and common troubleshooting steps, always check the included instruction manual.
- **Technical Support:** iCarsoft provides responsive customer support from professional engineers. Contact them for assistance with complex issues.

8. VEHICLE COMPATIBILITY

The iCarsoft LR V2.0 is compatible with most Land Rover and Jaguar vehicles manufactured from 1996 onwards. It supports various OBDII/EOBD test modes including CAN, ISO9141, KWP2000, J1850 VPW, and J1850 PWM.

Supported Land Rover Models: Range Rover, Range Rover Sport, Range Rover Evoque, Discovery II, Discovery III, Discovery, Freelander, Defender.

Supported Jaguar Models: XJ, XF, XK, F_TYPE, S_TYPE, X_TYPE.

Important Notice: Due to changes in protocols and unique systems/ECUs across vehicle models, not all services listed are available for all vehicles. For 2022+ models, contact iCarsoft to confirm compatibility before purchasing.

9. UPDATES, WARRANTY, AND SUPPORT

- **Lifetime Free Updates:** Access new features and vehicle coverage with lifetime free software updates.
- **Lifetime Free Hardware Repair:** The product includes lifetime free hardware repair.
- **1-Year Warranty:** The device comes with a 1-year warranty.
- **Responsive Customer Support:** Professional engineers are available to provide technical assistance.

In-depth Diagnosis for Potential Faults

Adjust car performance, extend lifespan



Diagnosis of potential faults like low brake fluid



In-depth diagnosis of potential faults like low brake fluid or excessive brake pad wear to prevent further issues.

Figure 6: Comparison of iCarsoft LR V2.0 features and update policy