

JLR DOIP Enet Wifi Adapter

User Manual

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1. Introduction

Thank you for choosing the JLR DOIP Enet Wifi Adapter from Autosvs Technology. This manual provides all necessary information for the safe installation, configuration, and operation of the adapter. Please read this document thoroughly before using the device and retain it for future reference.

The JLR DOIP Enet Wifi Adapter is a specialized vehicle communication interface designed to perform diagnostic and coding functions on compatible Jaguar Land Rover (JLR) vehicles via an Ethernet-capable OBD port. It enables seamless wired Ethernet connectivity and wireless Wi-Fi communication, allowing technicians and enthusiasts to use professional diagnostic software on a laptop, tablet, or PC without being tethered by a cable.

2. Product Overview

The JLR DOIP Enet Wifi Adapter combines a physical OBDII connector, a standard RJ45 Ethernet port, and an embedded Wi-Fi module into a single compact unit. It is engineered around the universal serial interface network standard and incorporates a complete TCP/IP protocol stack. This design enables transparent conversion between serial data, Ethernet, and wireless (Wi-Fi) interfaces without requiring any changes to existing serial devices or their configurations.

With the adapter, traditional serial diagnostic tools and software can transmit and receive vehicle data over a local Internet network. The adapter operates in multiple wireless modes, supports a wide range of baud rates, and provides robust security mechanisms, making it a flexible and secure bridge for DoIP (Diagnostics over Internet Protocol) applications. Use in conjunction with compatible diagnostic software is mandatory.

3. Features

- Wireless connectivity: 2.4 GHz IEEE 802.11b/g/n, fully compatible.
- Wired Ethernet standards: IEEE 802.3 and IEEE 802.3u.
- Wi-Fi operating modes: Client, Access Point (AP), and Router mode.
- Supports WPS (Wi-Fi Protected Setup) and WDS (Wireless Distribution System).
- Baud rate range: 1200 bps to 500,000 bps (500 kbps).
- Transparent transmission (serial pass-through) mode.
- Multiple security and authentication mechanisms:
 - Encryption: WEP64, WEP128, TKIP, AES.
 - Authentication: WEP, WPA-PSK, WPA2-PSK.

- Wireless roaming capability.
- Network protocols supported: PPPoE, TCP, UDP, DDNS, DHCP, DNS, HTTP, firmware upgrade.
- AT+ command set interface for advanced configuration.
- Two configuration methods: Serial (AT commands) and Web interface.
- Compact dimensions: 88 mm × 46.5 mm × 23 mm.

4. Applications

The JLR DOIP Enet Wifi Adapter is intended for use as an OBDII diagnostic interface on Jaguar Land Rover vehicles equipped with an Ethernet diagnostic connector. Typical applications include:

- Reading and clearing diagnostic trouble codes (DTCs).
- Live data streaming and sensor monitoring.
- ECU (Electronic Control Unit) programming and coding.
- Vehicle network testing and development.

5. Hardware Description

5.1 Device Layout

The adapter is a single, sealed unit with the following external features:

- OBDII connector: Male 16-pin J1962 plug that directly mates with the vehicle's diagnostic port.
- RJ45 Ethernet port: Standard female connector for a wired network cable (located on the side or rear).
- Reset/configuration button (optional, if present): A small push button accessible with a paperclip, used to restore factory settings.

5.2 Interface Ports

- OBDII Port: Connect directly to the vehicle diagnostic socket. This port supplies power and handles the communication signals (DoIP over Ethernet-capable pins).

- Ethernet Port (RJ45): Use a standard Ethernet patch cable to connect a laptop or a local network device. This provides a wired alternative when Wi-Fi is unavailable or a more stable link is desired.
- Internal Wi-Fi Antenna: An internal antenna provides wireless connectivity. Keep the adapter clear of large metal obstructions for optimal range.

6. Installation and Operation

6.1 Connecting to the Vehicle

1. Ensure the vehicle ignition is turned to the ****ON**** position (engine may be off or running, depending on the software requirements).
2. Locate the vehicle's OBDII diagnostic port (usually under the dashboard on the driver's side).
3. Firmly plug the JLR DOIP Enet Wifi Adapter into the port until it is fully seated. The Power LED should illuminate, confirming the device is receiving power.

Warning: Do not force the connector. If it does not fit easily, verify you are using the correct adapter variant and that the vehicle's OBDII port is unobstructed.

6.2 Establishing a Wireless Connection

The adapter broadcasts its own Wi-Fi network in Access Point mode by default.

1. On your laptop or mobile device, open the Wi-Fi network list.
2. Search for a network name (SSID) that begins with ****JLR_ENET**** (e.g., **`JLR\_ENET\_XXXX`**, where **`XXXX`** is a unique identifier).
3. Select this network and click ****Connect****.
4. When prompted for a password, enter the ****Wi-Fi password printed on the label on the back side of the adapter****.
 - The default password is typically unique for each device. Ensure you type it exactly, respecting uppercase and lowercase letters.
5. After a successful connection, the Wi-Fi LED will change to a steady or slowly blinking state, and your device will obtain an IP address automatically via DHCP.

If you wish to connect the adapter to an existing Wi-Fi network (Station mode) or use the Ethernet port, please refer to the configuration section for instructions on changing the wireless mode.

6.3 Using with Diagnostic Software

The adapter transparently forwards data between the diagnostic software and the vehicle's DoIP network. No special driver installation is required for the network interface.

1. Launch the compatible JLR diagnostic software on your device (e.g., manufacturer-specific engineering tools, DoIP-compatible scan tools).
2. In the software, select the appropriate communication interface (DoIP or JLR Ethernet). The software should automatically discover the vehicle through the network adapter.
3. If the software requires manual configuration, enter the IP address of the adapter or the vehicle ECU. The default setup uses DHCP, so the IP addresses are assigned automatically. Consult the diagnostic software's user documentation for specific settings.
4. Start performing diagnostics, coding, or other permitted operations as instructed by the software.

Important: This adapter must be used in conjunction with authorized diagnostic software. It does not function as a standalone scan tool.

7. Configuration Methods

The adapter can be configured through two independent interfaces.

7.1 Serial AT Commands

When connected to a host computer via a serial terminal (the physical serial interface is available through the OBDII pins or, in some models, a dedicated service port; for advanced users only), you can issue the AT+ command set. Commands allow modification of network settings, Wi-Fi credentials, baud rate, and operating modes. A full AT command reference is available upon request from Autosvs Technology technical support.

Example: To change the Wi-Fi SSID, you might send:

```
`AT+WSSSID=MyWorkshop`
```

*Use serial configuration only if you are familiar with terminal operations. Incorrect commands can render the device temporarily unreachable.

7.2 Web Interface

A user-friendly web configuration page is accessible once your computer is connected to the adapter's network (wireless or wired):

1. Ensure a stable connection and obtain an IP address (default gateway is typically the adapter itself).
2. Open a web browser and enter the default IP address ****192.168.4.1**** (or the address shown on the adapter label) in the address bar.
3. Log in with the default credentials (printed on the device label or supplied documentation).
4. From the browser-based interface you can:
 - Switch Wi-Fi mode (AP, Client, Router).
 - Change SSID and security password.
 - Configure Ethernet settings (static IP, DHCP client).
 - Update firmware.
 - Reset to factory defaults.

After saving changes, the adapter will reboot automatically. Reconnect using the new settings if necessary.

8. Safety and Handling

- Operate the device only within the specified temperature range and keep it away from liquids, excessive dust, and direct sunlight.
- Unplug the adapter when not in use for extended periods to avoid unnecessary battery drain.
- Use only the OBDII port to power the device; do not connect external power supplies.
- Do not open the housing. There are no user-serviceable parts inside. Unauthorized modifications void the warranty.
- For wireless configuration, always change the default password to prevent unauthorized access to the vehicle interface.

9. Warranty and Support

Autosvs Technology warrants the hardware product against defects in materials and workmanship for a period of ****12 months**** from the date of purchase, under normal use and in accordance with the specifications applicable at the time of sale. For warranty claims

or technical support, please contact your original retailer or Autosvs Technology directly with proof of purchase.

10. Appendix: Legal Disclaimers

The contents of this document are subject to change without notice. Autosvs Technology reserves the right to make changes, without notice, in the products, including circuits and/or software, described or contained therein. Information contained in this document regarding device applications and the like is intended through suggestion only and may be superseded by updates. It is your responsibility to ensure that your application meets your specifications.

Autosvs Technology warrants performance of its hardware products to the specifications applicable at the time of sale in accordance with Autosvs Technology's standard warranty. Testing and other quality control techniques are used to the extent Autosvs Technology deems necessary to support this warranty. Except where mandatory by government requirements, testing of all parameters of each product is not necessarily performed.

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FCC Regulatory Conformance

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help. This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference. (2) This device must accept any interference received, including interference that may cause undesired operation.

FCC RF exposure statement:

The equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance between 20cm the radiator your body.