vLinker vLinker FS USB

vLinker FS USB OBD2 Adapter Instruction Manual

Model: vLinker FS USB | Brand: vLinker

1. INTRODUCTION AND OVERVIEW

The vLinker FS USB OBD2 Adapter is a professional-grade diagnostic tool designed for automotive enthusiasts and professionals. It specializes in working with FORScan software and provides advanced diagnostic and programming capabilities for various vehicle makes, particularly Ford, Lincoln, Mazda, and Mercury vehicles.

This manual provides detailed instructions for setting up, operating, maintaining, and troubleshooting your vLinker FS USB adapter to ensure optimal performance and safe usage.

2. PRODUCT FEATURES

- **FORScan Optimization:** Specifically designed and recommended by the FORScan Team for reliable connection and high-speed data transfer.
- **Fast and Stable Connection:** Achieves 3Mpbs transmission rate and 3Mhz baud rate via USB 2.0/3.0, ensuring smooth data flow without dropped packets or corruption.
- **Automatic Electronic Switching:** Seamlessly switches between HS-CAN, MS-CAN, and Ford Car networks, allowing simultaneous access to all CAN buses.
- **FEPS 18V Programming Voltage Output:** Supports advanced programming functions within FORScan.
- **Battery Saver and Protection:** Features auto sleep/wake-up mode, over-voltage, over-current, over-temperature, and battery drain protection, allowing the device to remain plugged in safely.
- **Wide Vehicle Compatibility:** Supports all 12V/24V OBD2 standard compliant cars (99% of models after 2000, 92% after 1996 in USA; 12V gasoline after 2000, 12V diesel after 2004 in EU).
- **Full OBD2 Functions:** Capable of reading/clearing fault codes, accessing live data, I/M readiness, on-board monitor tests, O2 sensor tests, vehicle information, component tests, and freeze frame data.
- **Support for Third-Party Apps:** Compatible with FORScan, ELMconfig, ELM FF2, FoCCCus, and other OBD2 applications (apps not included).

Figure 2.1: The vLinker FS USB OBD2 Adapter with its integrated USB cable.

Figure 2.2: Diagram illustrating the automatic electronic switching capability between HS-CAN and MS-CAN, along with hacker-proof, battery saver, and overvoltage protection features.

3. SPECIFICATIONS

Attribute	Value
Brand	vLinker
Model	vLinker FS USB
Power Source	Corded Electric
Product Dimensions	3.61"L x 1.76"W x 0.85"H
Operating System Compatibility	Windows
Item Weight	3.88 ounces

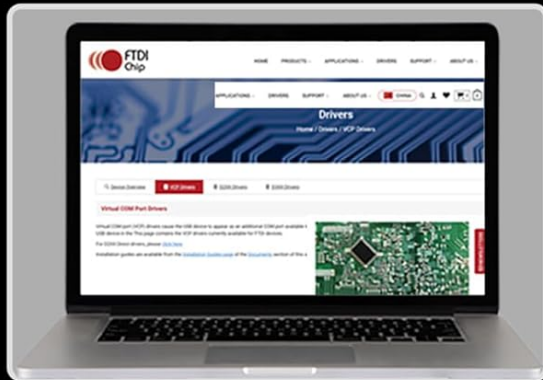| Attribute	Value
Transmission Rate	Up to 3Mpbs
Baud Rate	Up to 3Mhz
Serial Buffer	8192 bytes
OBD Request Byte	Up to 4128 bytes

4. SETUP AND INSTALLATION

4.1 Package Contents

Before proceeding, ensure all items are present in the package:

- 1 x vLinker FS USB Adapter
- 1 x User Manual (this document)
- 1 x Packing Box

4.2 Driver and Software Installation

1. **Download FTDI USB Driver:** Navigate to the official FTDI website (www.ftdichip.com). Go to the "DRIVERS" section and select "VCP Drivers". Download the appropriate USB driver for your Windows operating system.

2. **Install USB Driver:** Follow the on-screen instructions to install the downloaded FTDI USB driver.

3. **Download Diagnostic Application:** Download your preferred OBD2 diagnostic application (e.g., FORScan, ELMconfig, ELM FF2, FoCCCus) compatible with Windows. These applications are not included with the vLinker FS USB adapter and may require separate purchase or download.
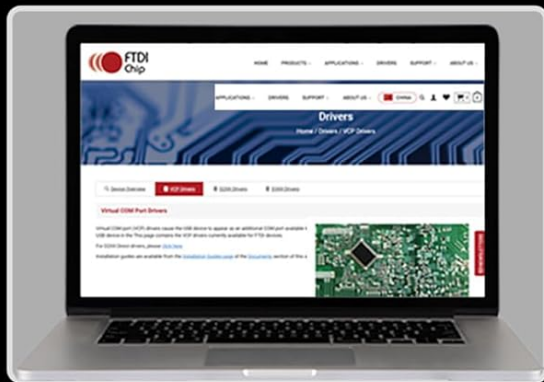
Figure 4.1: Steps for downloading the FTDI driver and a compatible diagnostic application.

4.3 Connecting the Adapter to Your Vehicle and Computer

1. **Locate OBD2 Port:** Identify the OBD2 diagnostic port in your vehicle. This port is typically located under the dashboard on the driver's side.

2. **Connect Adapter to Vehicle:** Firmly plug the vLinker FS USB adapter into your vehicle's OBD2 port.

3. **Connect Adapter to Computer:** Plug the USB end of the vLinker FS USB adapter into an available USB port on your Windows PC.

4. **Turn Ignition On:** Turn your vehicle's ignition to the "ON" position (engine does not need to be running for most diagnostic functions).

Figure 4.2: Illustration of connecting the vLinker FS USB adapter to the vehicle's OBD2 port and a computer, followed by turning the ignition on.

5. OPERATING INSTRUCTIONS

5.1 Basic Diagnostic Functions

Once the vLinker FS USB adapter is connected and recognized by your computer and diagnostic software, you can perform various functions:

- **Read Codes:** Retrieve Diagnostic Trouble Codes (DTCs) from the vehicle's Engine Control Unit (ECU).
- **Erase Codes:** Clear DTCs from the ECU. Note that clearing codes does not fix the underlying issue.
- **Data Stream:** View real-time sensor data and parameters from the vehicle.
- **I/M Readiness:** Check the status of emission-related monitors to determine if the vehicle is ready for an emissions test.
- **On-Board Monitor Test:** Access results of on-board diagnostic monitoring tests for specific components/systems.

- **O2 Sensor Test:** Retrieve O2 sensor monitoring test results.
- **Vehicle Information:** Display vehicle information such as VIN (Vehicle Identification Number), CID (Calibration ID), and CVN (Calibration Verification Number).
- **Component Test:** Perform specific tests on vehicle components as supported by your diagnostic software.
- **Freeze Frame:** View a snapshot of vehicle operating conditions at the moment a fault code was set.

Support All OBD-II Protocols

The general position of OBDII is shown as A/B/C/D/E in the figure

1. SAE J1850 PWM(41. 6kbaud)
2. SAEJ1850 VPW(10. 4kbaud)
3. ISO9141-2(5 baud init, 10. 4kbaud)
4. ISO14230-4 KWP(5 baud init, 10. 4 Kbaud)
5. ISO14230-4 KWP(fast init, 10. 4 Kbaud)
6. ISO15765-4 CAN(11 bit ID, 500 Kbaud)
7. ISO15765-4 CAN(29bit ID, 500 Kbaud)
8. ISO15765-4 CAN(1bit ID 250 Kbaud
9. ISO15765-4 CAN(29bit ID, 250 Kbaud
A. SAEJ1939 CAN (29bit ID, 250* Kbaud)
B. USER1 CAN(11* bit ID, 125* Kbaud)
C. USER2 CAN (11* bit ID, 50* kbaud

Figure 5.1: Overview of the full OBD2 functions supported by the vLinker FS USB adapter.

5.2 Advanced Functions (FORScan Specific)

For users utilizing FORScan, the vLinker FS USB adapter unlocks advanced capabilities:

- **Module Configuration and Programming:** Modify vehicle settings and program new modules.
- **Hidden Function Activation:** Enable or disable various vehicle features (e.g., global window open/close, secure idle, turn signal flash count, disabled door ajar chime, reverse tilt mirrors, Bambi mod, tire size correction, heated steering wheel, disabled double horn honk, perpendicular park assist).
- **Access to All CAN Buses:** Simultaneously access HS-CAN, MS-CAN, and Ford Car networks without manual

switching.

Figure 5.2: Example of FORScan hidden function activation using the vLinker FS USB adapter.
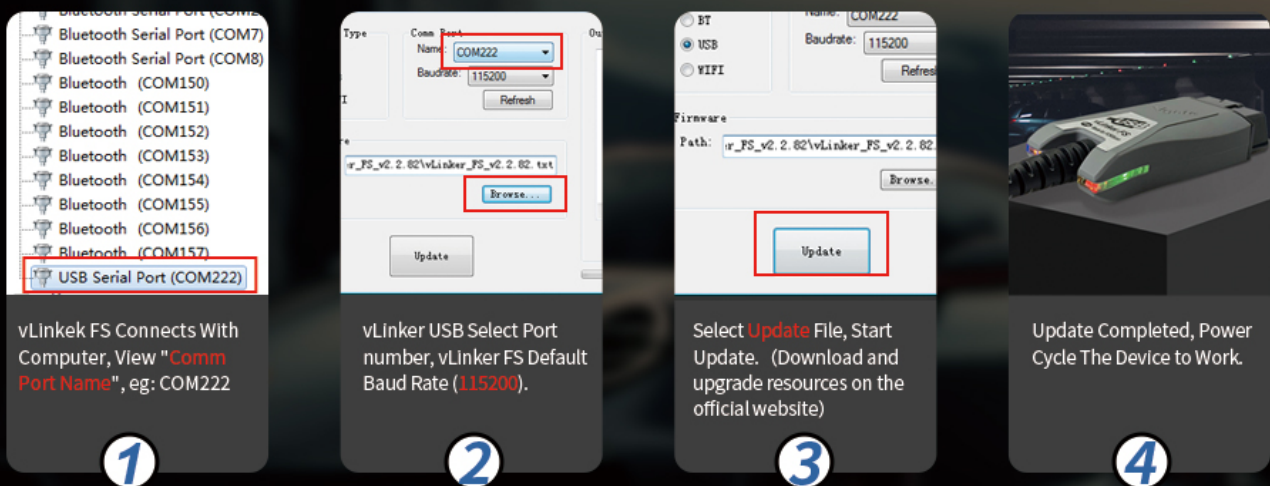
6. MAINTENANCE

6.1 Firmware Updates

To ensure optimal performance and access to the latest features, it is recommended to keep the vLinker FS USB firmware updated. Firmware updates are free for the lifetime of the product.

1. **Connect Adapter:** Connect the vLinker FS USB adapter to your computer via USB.

2. **Identify COM Port:** Open your computer's Device Manager and identify the COM port assigned to the vLinker FS USB.

3. **Launch Update Tool:** Use the official vLinker firmware update tool (downloadable from the official website).

4. **Select COM Port and Baud Rate:** In the update tool, select the identified COM port and set the default baud rate (e.g., 115200).

5. **Browse and Select Firmware File:** Download the latest firmware file from the official vLinker website. In the update tool, browse and select this firmware file.

6. **Start Update:** Click the "Update" button to begin the firmware update process. During the update, the Blue (BT) light and Orange (Host) light on the adapter will remain on.

7. **Completion:** Once the update is complete, the Red (OBD) light and Orange (Host) light will turn off. Power cycle the device (unplug and replug) for changes to take effect.

Important: If the update is interrupted or fails, unplug and replug the device, then re-attempt the update with the latest firmware from the official website. Pirated products cannot be updated.

Figure 6.1: Step-by-step guide for updating the vLinker FS USB firmware.

6.2 Cleaning and Storage

- Keep the adapter clean and free from dust and debris. Use a soft, dry cloth for cleaning.
- Store the adapter in a cool, dry place away from direct sunlight and extreme temperatures.
- Avoid exposing the device to moisture or corrosive substances.

7. TROUBLESHOOTING

7.1 Common Issues and Solutions

Issue: Product does not light up after firmware update.
Cause: The update process was interrupted or failed.

Remedy: Unplug and replug the device. Download the latest firmware from the official website and re-attempt the update.

Issue: "USB not recognized" error message on computer.
Cause: Some laptop models with USB 3.0 controllers may not be fully compatible, or the driver is not correctly installed.

Remedy:

- Connect the vLinker FS USB to a different USB port on your computer.
- Connect the vLinker FS USB via a USB 2.0 hub.
- Manually install the FTDI USB driver: Go to the official FTDI website (www.ftdichip.com), select "DRIVERS", click "VCP Drivers", and download the appropriate USB driver.

Issue: Adapter not connecting to vehicle or software.
Cause: Incorrect connection, ignition not on, or software configuration issues.

Remedy:

- Ensure the adapter is firmly plugged into the vehicle's OBD2 port and the computer's USB port.
- Verify the vehicle's ignition is in the "ON" position.
- Check your diagnostic software settings to ensure the correct COM port is selected for the vLinker FS USB.
- Confirm that the necessary drivers are installed correctly (refer to Section 4.2).

8. WARRANTY AND SUPPORT

The vLinker FS USB car diagnostic scanner comes with a **1-Year Warranty** from the date of purchase.
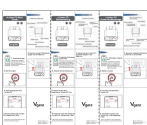
vLinker provides **lifetime Firmware FREE updates** to ensure your device remains up-to-date with the latest features and improvements.

For any technical assistance, troubleshooting, or inquiries, vLinker offers **round-the-clock tech support**. Should you encounter any issues, including failure to connect the device or other operational problems, please contact the vLinker support team. They are available to provide fast responses and technical assistance.

You can typically find contact information for support on the official vLinker website or through the retailer where the product was purchased.

Related Documents - vLinker FS USB

	[vLinker MC+ Quick Start Guide for iOS and Android](#) A quick start guide for the vLinker MC+ device, detailing how to connect it to your vehicle and use it with iOS and Android applications for diagnostics and customization.
	[Vgate vLinker FD OBD Scanner Bluetooth Quick Start Guide](#) Concise guide to setting up and using the Vgate vLinker FD OBD scanner tool with Bluetooth connectivity for Android and Windows devices. Learn how to download the app, connect, and pair the device.
	[Vgate vLinker MC+ Quick Start Guide for iOS and Android](#) A quick start guide for the Vgate vLinker MC+ Bluetooth OBD2 car diagnostic scan tool, covering setup, app compatibility, and connection procedures for iOS and Android devices.

[Vgate vLinker BM+ Bluetooth OBD2 Scanner Quick Start Guide](#)

Step-by-step guide to connect the Vgate vLinker BM+ Bluetooth OBD2 scanner to your vehicle for diagnostics and app integration. Supports Android and iOS devices.

[Vgate vLinker MC+ Quick Start Guide for iOS and Android](#)

A quick start guide for the Vgate vLinker MC+ OBD2 adapter, covering compatibility, app installation, connection procedures for Android and iOS devices, and important notes.