Vgate vLinker-frod

Vgate vLinker FD OBD2 Bluetooth Scanner User Manual

Model: vLinker-frod

1. Introduction

The Vgate vLinker FD is an advanced OBD2 Bluetooth diagnostic adapter designed to transform your Android or Windows device into a powerful vehicle diagnostic tool. It offers enhanced speed and functionality compared to standard OBD2 scanners, particularly excelling with FORScan software for Ford, Mazda, Lincoln, and Mercury vehicles. This manual provides essential information for setting up, operating, maintaining, and troubleshooting your vLinker FD device.

The vLinker FD utilizes a proprietary instruction set, offering superior performance with a baud rate up to 230.4 Kbps and a response time between 6-10 ms. It supports all OBD-II standard networks and is compatible with ELM327, ELM329, and STN instruction sets.

2. Setup

2.1 Hardware Connection

1. Locate your vehicle's OBD-II diagnostic port. This port is typically found under the dashboard on the driver's side.
2. Ensure your vehicle's ignition is in the OFF position.
3. Firmly plug the Vgate vLinker FD adapter into the OBD-II port. The device's indicator lights should illuminate, indicating it is receiving power.

The Vgate vLinker FD diagnostic adapter, designed for vehicle OBD-II ports. Ensure it is securely plugged in.

2.2 Software Installation

The vLinker FD requires a compatible application to function. It supports various OBD-II scanner software for Android and Windows. Recommended applications include:

- **FORScan Lite** (for Android)
- **FORScan** (for Windows)
- **Torque Pro** (for Android)
- **OBD Fusion** (for Android)
- **Car Scanner ELM OBD2** (for Android and Windows)

Download your preferred application from the respective app store (Google Play Store for Android) or official website (for Windows).

2.3 Bluetooth Pairing

After installing the software and plugging in the device:

1. Turn your vehicle's ignition to the ON position (engine can be off).
2. On your Android or Windows device, enable Bluetooth.

3. Search for available Bluetooth devices. The vLinker FD should appear as "vLinker FD" or a similar name.
4. Select the vLinker FD to pair. You may be prompted for a PIN; typically, this is **1234** or **0000**.
5. Once paired, open your chosen diagnostic application and select the vLinker FD as your OBD-II adapter in the app's settings.

This image highlights the easy Bluetooth connection, automatic switching, and wide compatibility with Android and Windows applications like OBD Fusion, Torque Pro, and FORScan.

3. Operating Instructions

3.1 Basic OBD-II Functions

With a compatible OBD-II app, the vLinker FD allows you to perform standard diagnostic functions:

- **Read Diagnostic Trouble Codes (DTCs):** Identify why your check engine light is on.
- **Clear DTCs:** Turn off the check engine light after resolving an issue.
- **View Live Sensor Data:** Monitor various vehicle parameters in real-time (e.g., engine RPM, coolant temperature, fuel system status).
- **Perform Smog Checks:** Check readiness monitors to ensure your vehicle is ready for emissions testing.
- **Customize Dashboard:** Many apps allow you to personalize the display of live data.

3.2 FORScan Specific Functions

The vLinker FD is optimized for use with FORScan, providing advanced capabilities for Ford, Mazda, Lincoln, and Mercury vehicles:

- **Access All Modules:** Detect and communicate with modules not visible to generic OBD-II scanners.
- **Read and Reset DTCs from All Modules:** Gain comprehensive diagnostic coverage beyond the powertrain.
- **Unlock Hidden Functions:** Enable or disable certain vehicle features (e.g., auto-lock, daytime running lights, tire size correction) as supported by FORScan and your vehicle model.
- **Automatic Network Switching:** The vLinker FD automatically switches between HS-CAN (High-speed CAN) and MS-CAN (Medium-speed CAN) networks, eliminating the need for a manual toggle switch.

MADE FOR FORScan

Windows & Lite Android

Main features of FORScan

Diagnostics

Read and reset Diagnostic Trouble Codes from all modules.
Reading of modules' sensors' data

OEM-level functions

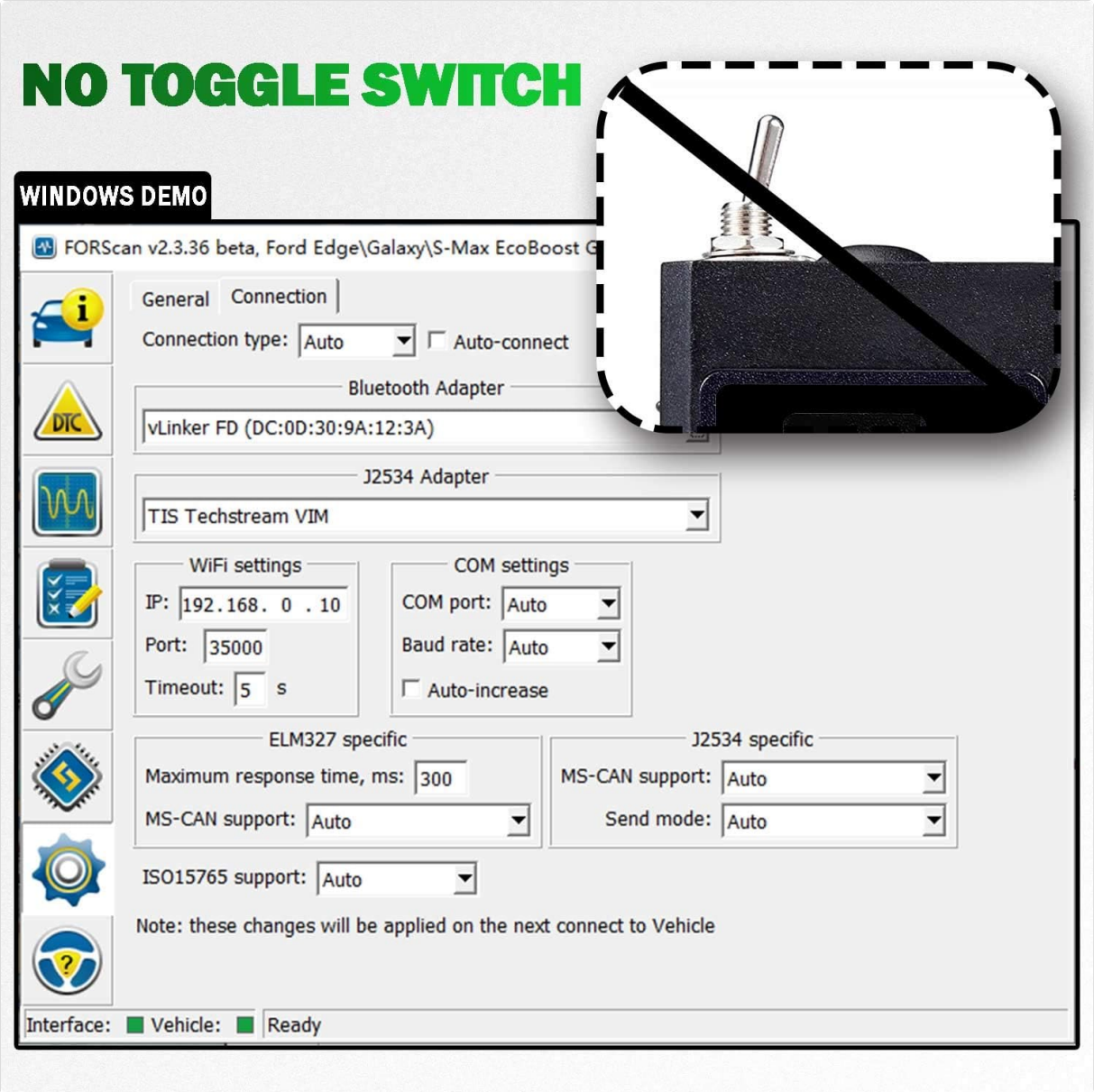
Running manufacturer-specific functions, including tests and service functions.

Support Cars

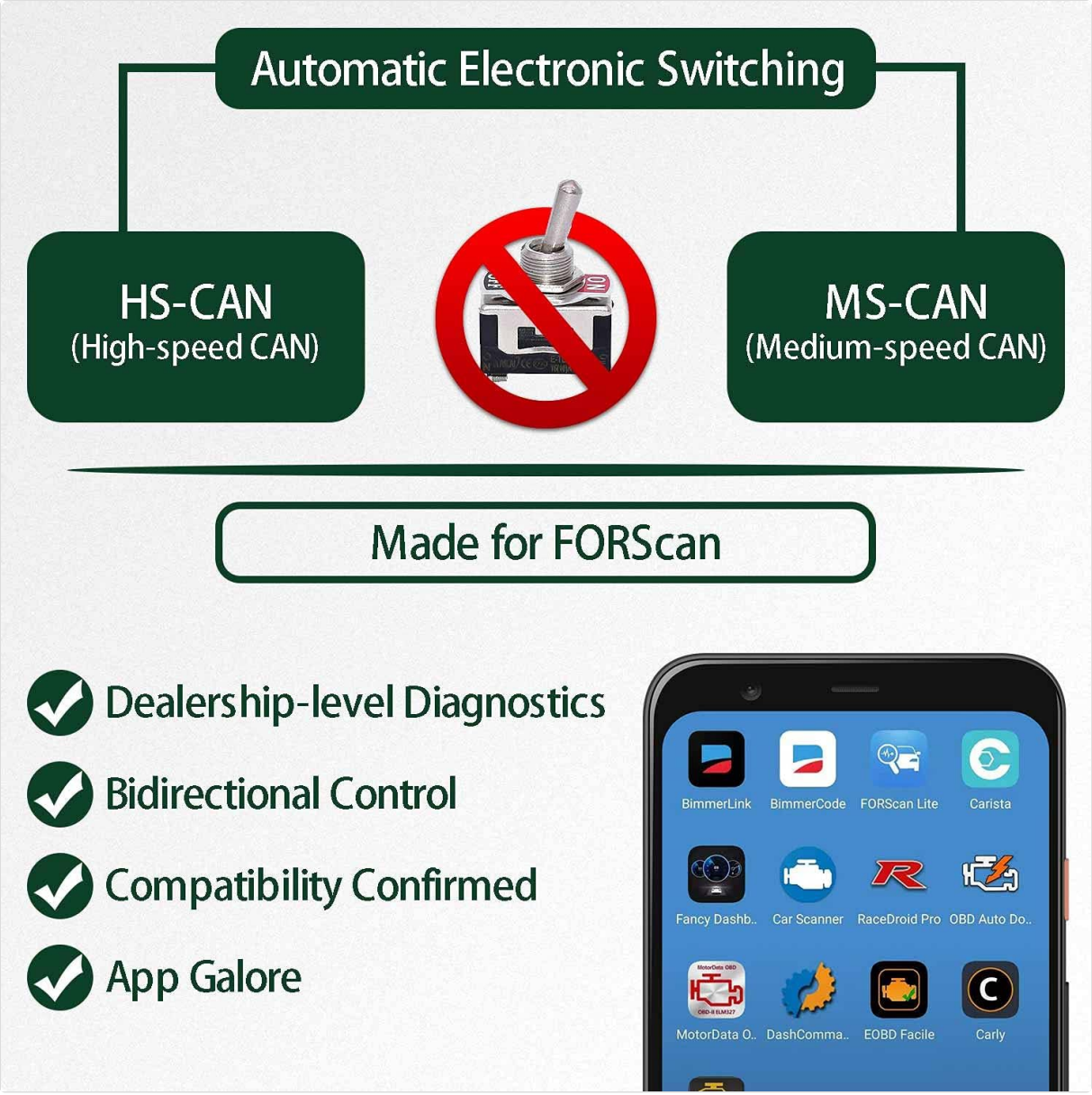
Supports most Ford, Mazda, Lincoln and Mercury vehicles manufactured after 1996

> "We cooperate with the App team to develop vLinker, and we have been serving some App teams for a year."
>
> vLinker Development Engineer

Details FORScan's main features including diagnostics, OEM-level functions, and support for Ford, Mazda, Lincoln, and Mercury vehicles.



A screenshot of the FORScan Windows interface demonstrating the automatic network switching feature, eliminating the need for a physical toggle switch.



Illustrates the automatic electronic switching between High-speed CAN (HS-CAN) and Medium-speed CAN (MS-CAN) networks, a key feature for FORScan compatibility.

4. Maintenance

The Vgate vLinker FD is designed for minimal maintenance. It is safe to leave the device plugged into your vehicle's OBD-II port when not in use, as it features an automatic sleep mode. The operating current is 51 mA, and the sleep mode current is a low 3mA (minimum), preventing significant battery drain.

- Keep the device clean and free from dust and moisture.
- Store in a cool, dry place when not in use for extended periods.

5. Troubleshooting

If you encounter issues with your vLinker FD, consider the following troubleshooting steps:

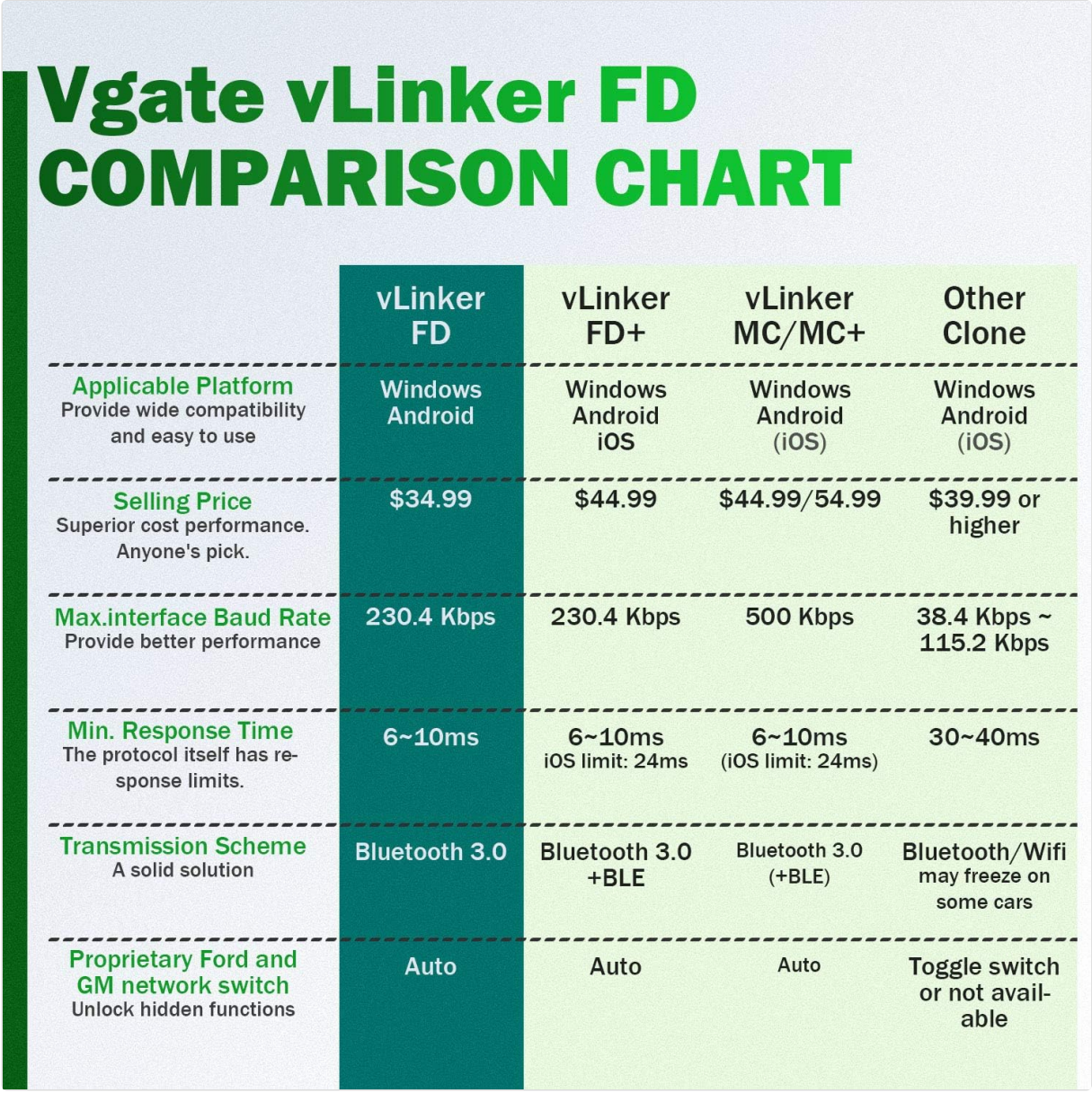
- **Device Not Powering On:** Ensure the vLinker FD is firmly seated in the OBD-II port. Check your vehicle's fuse for the OBD-II port if no lights illuminate.
- **Bluetooth Connection Issues:**
  - Verify Bluetooth is enabled on your Android/Windows device.

- Ensure the vLinker FD is discoverable and not already paired with another device.
- Try unpairing and re-pairing the device.
- Restart your phone/computer and the vehicle's ignition.
- Confirm the correct PIN (1234 or 0000) if prompted.

- **App Not Connecting to vLinker FD:**
  - In your diagnostic app's settings, ensure the vLinker FD (or a generic Bluetooth ELM327 adapter) is selected as the communication interface.
  - Close and reopen the application.
  - Ensure the app has necessary permissions (e.g., Bluetooth, location).
- **No Data or Incorrect Readings:**
  - Verify your vehicle's ignition is in the ON position (engine can be running for live data).
  - Ensure your vehicle is OBD-II compliant (most vehicles made in the USA after 1996).
  - Check the app's settings for correct vehicle profile or protocol selection.
- **Device Not Waking Up (as reported by some users):** If the device does not automatically wake from sleep mode when the car powers up, try unplugging and re-plugging the vLinker FD into the OBD-II port.

6. Specifications

Feature	Specification
Model Number	vLinker-frod
Item Weight	3.2 ounces
Package Dimensions	4.84 x 2.72 x 1.38 inches
Power Source	OBD-II
Operating System Compatibility	Android and Windows
Max. Interface Baud Rate	230.4 Kbps
Min. Response Time	6~10 ms
OBD Request Byte	Up to 1024 bytes
USART Data Buffer	Up to 2K bytes
Operating Current	51 mA
Sleep Mode Current	3mA (min.)
Supported Protocols	KWP2000 (ISO 14230-4), SAE J1850, ISO 15765-4, SAE J1939
Instruction Set Compatibility	ELM327, ELM329, STN



A comparison chart highlighting the Vgate vLinker FD's superior performance metrics, including baud rate and response time, against other diagnostic adapters.

7. Warranty and Support

The Vgate vLinker FD comes with a manufacturer's guarantee. For any technical questions, support, or warranty claims, please contact Vgate customer service. Refer to the product packaging or the official Vgate website for specific contact information.