V519

OBD-II/EOBD Code Reader

Drove West

Professional Diagnostic Tools

Product Specification

v1.0 • HW: V1.1 • 2026-02-06

Document Information

Model	V519	**Product Type**	Handheld OBD-II/EOBD Code Reader
Document Version	v1.0	**Last Updated**	2026-02-06
Hardware Version	V1.1	**Release Date (spec)**	2022-12-21

Overview

V519 is a handheld OBD-II/EOBD code reader for passenger vehicles. It connects to the vehicle through the standard 16-pin DLC/OBD port and provides essential engine/emissions diagnostic functions.

Purpose of Document

V519 supports nine standard OBD-II/EOBD protocols, provides OBD functions such as fault code diagnosis and real-time data stream, and supports data waveform display, data storage and playback. A color LCD is used for clear display.

OBD Diagnosis

Read/Clear DTC, Freeze Frame, I/M Readiness, VIN/CALID/CVN

Live Data & Waveform

Live Data Stream with list display and optional waveform/curve view

Mode 6 / O2 / Mode 8

On-board monitoring, O2 Sensor Test, Component Test (vehicle-dependent)

DTC Library & Review

Built-in DTC Lookup; Review/Playback for saved DTC/data records

Battery & Settings

Battery voltage reading, language, units, contrast and system settings

USB Type-C / PC Tool

Firmware update and data print/export via V519ProductTool

Physical Specifications

155 × 87 × 24 mm
Weight: 246 g
2.8" Color LCD (240 × 320)

Key Functions (Complete List)

- Read DTCs / Clear DTCs / turn off MIL
- Vehicle Information (VIN / CALID / CVN)
- O2 Sensor Test (vehicle-dependent)
- Review/Playback saved DTC/data records
- Firmware update via USB Type-C
- Freeze Frame Data
- Live Data Stream & Waveform/Curve
- Component Test / Mode 8 (vehicle-dependent)
- Battery voltage reading
- Data print/export via V519ProductTool
- I/M Readiness Check
- On-board Monitoring Test (Mode 6)
- Built-in DTC Library (lookup)
- System settings (language/units/contrast)

Supported OBD-II Protocols (9 Protocols)

- SAE J1850 PWM (41.6 Kbaud)
- ISO 14230-4 KWP (5 baud init, 10.4 Kbaud)
- ISO 15765-4 CAN (29-bit ID, 500 Kbaud)
- SAE J1850 VPW (10.4 Kbaud)
- ISO 14230-4 KWP (fast init, 10.4 Kbaud)
- ISO 15765-4 CAN (11-bit ID, 250 Kbaud)
- ISO 9141-2 (5 baud init, 10.4 Kbaud)
- ISO 15765-4 CAN (11-bit ID, 500 Kbaud)
- ISO 15765-4 CAN (29-bit ID, 250 Kbaud)

Supported Vehicle Data (examples)

- Read Diagnostic Trouble Codes (DTCs)
- Calculated load value
- Vehicle speed
- Intake manifold pressure
- Mass air flow rate (MAF)
- Fuel pressure (vehicle-dependent)
- Clear DTCs / turn off MIL
- Coolant temperature
- Short-term fuel trim (STFT)
- Ignition timing advance
- Throttle position (absolute)
- Fuel consumption monitoring (vehicle-dependent)
- Engine speed (RPM)
- Fuel system status
- Long-term fuel trim (LTFT)
- Intake air temperature
- O2 sensor voltage / data (vehicle-dependent)

Note: Supported items vary by vehicle model year/ECU; actual availability prevails.

Interface Definition (OBD-II 16-pin)

Pin	Signal	Pin	Signal
1	Reserved	**9**	Reserved
2	J1850+	**10**	J1850−
3	Reserved	**11**	Reserved
4	Chassis Ground	**12**	Reserved
5	Signal Ground	**13**	Reserved
6	CAN High (CANH)	**14**	CAN Low (CANL)
7	K-Line	**15**	L-Line
8	Reserved	**16**	Power (+12V)

Note: Actual signals used depend on the vehicle protocol. Pins not used by the vehicle may be inactive.

Technical Specifications

Model	V519
Product type	Handheld OBD-II/EOBD code reader
Hardware version (spec)	V1.1
Release date (spec)	2022-12-21
Main control chip (MCU)	APM32E103VET6
Display	2.8" color LCD, 240 × 320
Operating voltage	DC 12–16 V (spec.)
Operating current	48–72 mA
Operating temperature	−20 °C to 65 °C
Storage temperature	−30 °C to 70 °C
Dimensions	155 × 87 × 24 mm
Weight	246 g
Protocols	9 OBD-II/EOBD standard protocols
UI languages	10 languages (EN/DE/FR/ES/IT/RU/NL/ZH/JA/PT)
OBD connector	Standard 16-pin OBD-II male connector
USB	USB Type-C (firmware update / data print via PC tool)

Notes: Some manuals list DC 9–16 V; confirm on the actual unit label.

Packaging Information

Inner box: *200*130*43mm*

Outer carton: *54*42*23.5cm*

Qty per carton: *40PCs*

Unit weight: 246 g

Transportation & Storage

Storage: Clean, ventilated, cool and dry place; protect from moisture.

Transport: Handle with care; avoid vibration, shock, squeezing, contamination or packaging damage.

Protect from: Rain and direct sunlight during transport and storage.

UI Languages (10)

- English
- Deutsch
- Fran\u00E7ais
- Espa\u00F1ol
- Italiano
- Russian
- Nederlands
- Chinese
- Japanese
- Portugu\u00EAs

Safety & Precautions

- Do not clean with abrasive or corrosive detergents.
- Avoid extended direct sunlight exposure.
- Do not use in rain or under excessive moisture.
- Do not expose to heat sources or open flames.
- Do not disassemble, modify, or repair; no user-serviceable parts.
- Store in dry environment; avoid extreme temperatures and dust.

Notes & Disclaimer

• This product is intended for OBD-II/EOBD engine/emissions diagnostics. Coverage of functions and data depends on the vehicle ECU and protocol.

• Not compatible with new energy vehicles, hybrid vehicles, or vehicles that do not conform to OBD2.

• Operating voltage specifications may differ between documents or production lots. For critical applications, refer to the label on the actual unit and the approved specification for that lot.

DROVE WEST
No. 206 Gaoxin South 7th Rd
Shenzhen 518000, China
Email: info@drovewest.com