V320

OBD-II/EOBD Code Reader

Drove West

Professional Diagnostic Tools

Product Specification

v1.0 • HW: V1.0 • 2026-02-06

Document Information

Model	V320	**Product Type**	Handheld OBD-II/EOBD Code Reader
Document Version	v1.0	**Last Updated**	2026-02-06
Hardware Version	V1.0	**Release Date (spec)**	2024-04-07

Overview

V320 is a handheld OBD-II/EOBD code reader designed for passenger vehicles. It supports nine standard OBD-II/EOBD protocols and provides essential emissions/engine diagnostic functions through the vehicle's standard 16-pin DLC/OBD port.

Purpose of Document

This document summarizes key technical parameters and supported functions for product listings, integration reference and incoming inspection.

OBD Diagnosis

Read/Clear DTC, turn off MIL, Freeze Frame, I/M Readiness, VIN/CID/CVN

Live Data & Waveform

Live Data Stream and Real Time Curve (waveform) display

O2 & EVAP Tests

O2 Sensor test and EVAP test (Mode 8) when supported

Voltage Test

Battery/DLC voltage test (real-time monitoring)

DTC Library

Built-in DTC Lib for fault code lookup/description

Performance Tests

Acceleration, braking, distance, meter data (load %, coolant, fuel)

Physical Specifications

195 × 100 × 30 mm
Weight: 250 g (364 g packaged)
2.8″ TFT Color Display (240×320)

Key Functions (Complete List)

- Read Diagnostic Trouble Codes (DTC)
- I/M Readiness Check
- O2 Sensor Test
- Built-in DTC Library (DTC Lib)
- Tri-color LED (Red=power, Yellow=DTC, Green=connected)
- Clear DTC and turn off MIL (when conditions allow)
- Vehicle Information (VIN / CID / CVN where supported)
- EVAP Test (Mode 8, vehicle-dependent)
- Data stream playback and record management
- Over-current and over-voltage protection
- Freeze Frame Data
- Live Data Stream & Real Time Curve (waveform)
- Battery / DLC Voltage Test (real-time)
- Performance tests (accel, braking, distance, meter)

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)

- DTC read
- Calculated load value
- Vehicle speed
- Intake manifold pressure
- Air flow rate (MAF)
- Fuel pressure (if supported)
- Clear DTC / turn off MIL
- Coolant temperature
- Short-term fuel trim (STFT)
- Ignition timing advance
- Throttle absolute position
- Fuel consumption monitoring (if supported)
- Engine RPM
- Fuel system status
- Long-term fuel trim (LTFT)
- Intake air temperature
- O2 sensor voltage (if supported)

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	CANH	14	CANL
7	K-Line	15	L-Line
8	Reserved	16	Power

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

Technical Specifications

Model	V320
Product type	Handheld OBD-II/EOBD code reader
Hardware version	V1.0
Release date (spec)	2024-04-07
Main control MCU	BAT32G137GH48FA (LQFP48)
Display	2.8" TFT color screen
Resolution	240 x 320
Power supply	DC 9-16 V (vehicle DLC)
Working current	46-69 mA
Standby current	53 mA
Operating environment	-20 to 60°C
Storage temperature	-20 to 60°C
Dimensions (L x W x H)	195 x 100 x 30 mm
Weight	250 g (tool only); 364 g (with packaging)
Vehicle interface	16-pin OBD-II male connector
UI languages	English, Deutsch, Italiano, Dutch, Français, Español, Chinese, Russian

Packaging Information

Inner box: 220 x 125 x 45 mm

Outer carton: 52.3 x 45.8 x 24.5 cm

Qty per carton: 40 pcs

Unit weight: 250 g

Packaged weight: 364 g

Transportation & Storage

Transport: In packaging carton. Prevent severe vibration, shock, squeezing, direct sunlight and rain.

Storage: Store in a dry environment; avoid extreme temperatures and dust if not in use for a long time.

UI Languages (8)

- English
- Deutsch
- Italiano
- Dutch
- Français
- Español
- Chinese
- Russian

Safety & Precautions

- Do not use abrasive cleaners to clean the product.
- Avoid long-term direct sunlight exposure.
- Do not use in rain or wet/high-humidity environments.
- Operate only within DC 9-16 V (vehicle DLC power).
- Keep away from heat sources and open flames.
- Do not disassemble or modify; no user-serviceable parts.
- Store in dry environment; avoid extreme temperatures and dust.

Notes & Disclaimer

- This product is not compatible with new energy vehicles, hybrid vehicles, or models that do not comply with the OBD2 protocol.
- Available functions and data items depend on the vehicle ECU, model year and region; some items may display N/A or may not be available.
- Information in this document is provided for reference and may be updated without notice.

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