

Document Information

Model	V310	Release Date	2024-01-05
Document Version	Rev 1.0	Last Updated	2026-02-06
Hardware Version	V1.1	Software Version	V310_FLASH_V01.01 / V310_MCU_V06.01

Scope

This specification applies to the V310 handheld OBD-II code reader. It can be used for design customization, outgoing inspection, production inspection and quality consistency inspection.

Purpose of Document

This document provides technical specifications and reference information for design reference, shipment inspection, and OBD2/EOBD diagnostic functionality overview.



Key Features

- Read and clear DTCs
- Live data stream
- Freeze frame data
- DTC lookup (P/C/B/U)
- 9 OBD2 protocols
- I/M readiness status
- Vehicle information (VIN)
- Real-time curve view
- Multi-language support
- Contrast adjustment

Physical Specifications

- Size: 155×85×25mm
- Power: DC 9-16V
- Display: Mono 128×64
- Current: 80mA

Main Functions

- 1 Read DTCs (Diagnostic Trouble Codes)
- 2 Erase/Clear DTCs
- 3 Freeze frame data view
- 4 I/M Readiness status check
- 5 Vehicle info (VIN/CALID/CVN)
- 6 Live data stream
- 7 Real-time curve for selected PIDs
- 8 DTC lookup (code library)
- 9 Settings (language/units/contrast)

Important Notes

- Compatibility and available functions vary by vehicle make/model/year/region and ECU configuration.
- OBD2 functions mainly cover emissions-related engine diagnostics.
- Some data items may display N/A when not supported by the vehicle ECU.

Technical Specifications

Product Type	OBD2 code reader	Display Type	Monochrome LCD 128×64 (FSTN reflective)
Display Driver	ST7565 or C compatible IC	Dimensions (L×W×H)	155 × 85 × 25 mm
Power Supply	DC 9-16 V (vehicle powered)	Working Current	80 mA (typical)
Operating Temperature	-20°C to 60°C	Storage Temperature	-30°C to 65°C
OBD Connector	16-pin OBD-II / EOBD DLC	Menu Languages	English, German, French, Italian, Spanish
Settings	Language, Units (Metric/Imperial), Contrast, Help		

Supported OBD2 Protocols (9 Standard Protocols)

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

OBD-II 16-Pin Interface Definition

Pin	Signal Name	Description	Pin	Signal Name	Description
1	–	Reserved / Manufacturer	9	–	Reserved / Manufacturer
2	J1850 BUS+	SAE J1850 PWM+ (VPW+)	10	J1850 BUS-	SAE J1850 PWM- only
3	–	Reserved / Manufacturer	11	–	Reserved / Manufacturer
4	CGND	Chassis Ground	12	–	Reserved / Manufacturer
5	SGND	Signal Ground	13	–	Reserved / Manufacturer
6	CAN_H	CAN High (ISO 15765-4)	14	CAN_L	CAN Low (ISO 15765-4)
7	K-Line	ISO 9141-2, ISO 14230-4	15	L-Line	ISO 9141-2, ISO 14230-4 (optional)
8	–	Reserved / Manufacturer	16	VBATT	Vehicle Battery Power (+12V)

Package Contents

- V310 main unit × 1
- OBD2 cable (vehicle DLC cable) × 1
- User manual × 1

Packaging Information

Retail Box Dimensions	200 × 130 × 45 mm (approx.)	Unit Net Weight	Approx. 180 g
Carton Dimensions	52 × 42 × 24 cm (approx.)	Quantity per Carton	40 pcs
Carton Gross Weight	Approx. 8.5 kg	Packing Material	Corrugated carton, foam insert

Transportation

- Ship the product in carton packaging
- Avoid strong vibration, shock, compression
- Keep away from rain and direct sunlight

Storage

- Keep in a clean, dry environment
- Avoid extreme temperatures and moisture
- Protect from dust accumulation

Warnings and Precautions

- Use only when the vehicle is safely parked. Do not operate the device while driving.
- Do not force the connector into the vehicle DLC. Ensure proper alignment before insertion.
- Do not disassemble or modify the product. No user-serviceable parts inside.
- If the device will not be used for an extended period, store in a dry place at recommended temperature.

Revision History

Date	Version	Change Description
2026-02-06	Rev 1.0	Initial release. Created/refreshed document based on official specs and user manual.