Advanced OBDII Data Streamer

Models LDVDSV2-1587 & QCLDVSV2-KIT

B+B SmartWorx
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www.advantech-bb.com

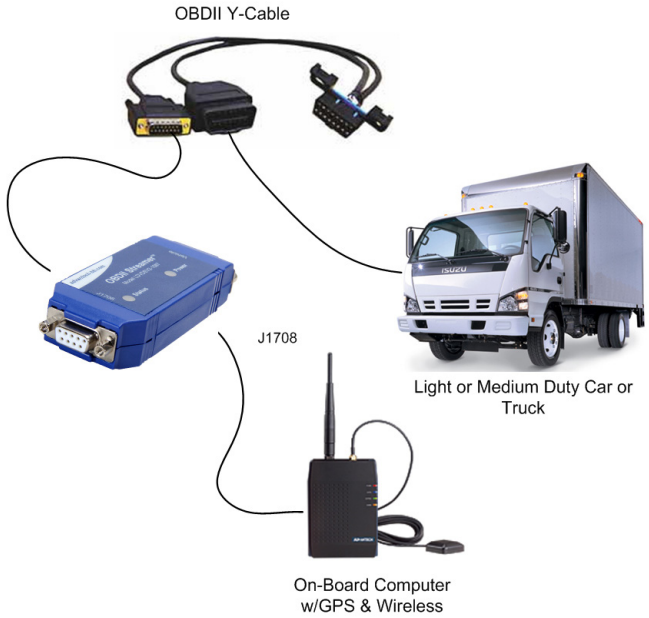


- Outputs OBDII data in J1708 data format
- Ignition-On signal output
- Status LEDs for vehicle connection and power
- Automatic low power mode senses when vehicle speed and engine speed is zero
- Automatic disconnect when technician scan tool is connected (requires separate OBDII Y-cable)
- Proprietary vehicle detection algorithm and embedded database permits same hardware to work on all compliant vehicles
- Wide Operating Temperature: -40 to 85 ºC (-40 to 185 ºF)
- Low Power Consumption: 2W in Operating Mode; 0.15W in Automatic Sleep Mode (Key Off)

Model LDVDSV2-1587, OBDII Data Streamer, connects your PC, driver terminal, Java-enabled phone, or other on-board computing device to the OBDII diagnostic bus of light-duty and medium-duty vehicles. It enables the retrieval of the most commonly used parameters of value in telematics and fleet management applications. The OBDII Streamer supports any 1996 or newer vehicles that comply with the SAE's J1979 OBDII specification.

Model LDVDSV2-1587 provides a simple operational protocol to communicate to the OBDII bus. It provides a common interface and deterministic response time for all vehicles. The complete Command and Response Protocol is available on the company website.

Model QCLDVDSV2-KIT conveniently bundles the converter with accompanying cables and an installation kit.



ORDERING INFORMATION

MODEL NO.	DESCRIPTION
LDVDSV2-1587	OBDII Data Streamer/Converter
QCLDVDSV2-KIT	**Bundled Kit, includes:** Model LDVSV2-1587 Streamer/Converter, Y cable, host cable, installation kit

ACCESSORIES / REPLACEMENT PARTS

LDVYCBL - Y Cable

45-JB723 - Host Cable

65-J9545-1 - Installation Kit, includes: 4 tie wraps, 1 alcohol wipe pad, 2 mounting tape strips

PROTOCOLS & PARAMETERS

SUPPORTED PROTOCOLS

SAE J1850 VPW
SAE J1850 PWM
SAE J2284/ISO 15765 (CAN)
ISO 9141-2
ISO 14230-4 (KWP2000)

SUPPORTED PARAMETERS

Vehicle Identification Number
Vehicle Speed - monitor aggressive driving
Engine Speed - monitor idle time and engine abuse
Throttle Position
Odometer/Distance Traveled - monitor trip distance and HOS
Instantaneous Fuel Rate in Gallons per Hour
Total Fuel - Monitor MPG & protect against theft
Ignition status – track idle time
Battery Voltage – watch for charging system failures
PTO Status - automatically figure fuel tax savings
Diagnostic Trouble Codes
MIL Status
Emissions Readiness Monitors - check remotely if vehicles are ready for emissions certification
Brake Switch Status and Seatbelt Fastened - available on most Ford & GM trucks and vans
Other parameters available on a custom basis

All product specifications are subject to change without notice.

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QCLDVDSV2-KIT

SPECIFICATIONS

LED STATE DESCRIPTIONS
- On (LED_ON): lit, solid - Off (LED_OFF): unlit - FB (LED_FAST): Alternating on-off; 125ms on, 125ms off - SB (LED_SLOW): Alternating on-off; .5 sec on, 0.5 sec off - VSB (LED_VERY_SLOW): Alternating on-off; 0.25 sec on, 2 sec off

LEDS					
	Red LED (Power)	**Green LED (Activity)**	**Red LED (Debug)**	**Actual State**	**Description**
1	On	On	Off	Normal operation	Normal operation
2	On	SB	Off	Detecting vehicle	Detecting vehicle
3	Off	FB	Off	Database version mismatch	Database needs to be updated
4	Off	SB	Off	Update in progress	Update in progress
5	Off	VSB	VSB	Device asleep	Device asleep
6	Off	Off	Off	Device unpowered	Device unpowered
7	Off	On	FB	Error FPGA image invalid	Firmware needs to be updated
8	Off	Off	FB	Error with EMM code	Update system manager
9	Off	Off	FB	EMM checking CRC of images	Wait 10 seconds. If state does not change, see #8.
10	Off	SB	FB	Error writing/reading to/from flash during update.	Restart update of current component.

VEHICLE BUS CONNECTION - DB15 FEMALE	
Pin 1	ISO9141 K/
Pins 4, 5	J1850-, J1850+
Pins 6, 7	Ground
Pin 9	Vehicle unswitched Vbat
Pin 10	ISO9141L
Pin 11	Vehicle Vbat to external scan tool
Pin 12	CAN Low
Pin 13	CAN High
RS-232 CONNECTION - DB9 FEMALE (DCE)	
Pin 1	Optional Vbat Power In or Vbat Power Out (2 separate build options)
Pin 3	J1708-
Pin 7	Ground
Pin 8	J1708+
ADDITIONAL SPECIFICATIONS	
Dimensions	104.1 x 43.2 x 20.3 mm (4.1 x 1.7 x 0.8 in)
Operating Voltage Range	8 to 30 VDC
MTBF, Calculated	111440 Hours

APPROVALS, DIERECTIVES, STANDARDS	
EMC TESTING	
Radiated Interference	SAE J1113/41
Load Dump and Transient Protection	SAE J1113/11
ESD Immunity	SAE J113/13
ENVIRONMENTAL TESTING	
Temperature Test	Ten (10) temperature cycles as follows, with unit operating normally: 1. Room (25ºC) to Tmin in 15 minutes. 2. Soak at Tmin 1 Hour with power removed from unit 3. Start unit at Tmin, confirm successful start by executing a command/response. Power-down unit. Maintain unit un-powered for one minute between power-ups. 4. Repeat Step 3 three times 5. Start unit at Tmin and ramp Tmin to Tmax in 30 minutes 6. Operate at Tmax for 1 hour 7. Ramp Tmax to Tmin in 15 minutes 8. Repeat steps 1 through 7 nine times for a total of 10 cycles: a. 5 cycles at Vmin input b. 5 cycles at Vmax input
Vibration Test: IEC 60068-2-6	10 sweeps of 10 to 500 to 10Hz at rate 0.5 oct/min. each axis. Level to be 10 to 36Hz, 0.06 in DA 36 to 500Hz, 4g's Unit must remain operational during and after the test.
Shock Test: IEC 60068-2-27	18 to 50g's, 11ms, ½ sine pulses, 3 each direction each axis Unit must remain operational during and after the test.
Drop Test: IEC 60068-2-32	10 Freefall drops from 1 meter onto concrete surface. Drop 1 time one each face (6), 1 on a corner and the 3 edges of this corner. The drop unit shall return to normal operation without physical damage.