

BB-LD3IC-S

Intelligent OBDII Data Interface – with integrated Y-cable



Features

- Retrieve, translate and analyze data from vehicle's onboard diagnostics (OBDII) bus
- Enhance fleet efficiencies, monitor driver behavior and cut operating costs
- Used in fleet management systems from Telematics Service Providers (TSPs)
- Available form-factors: device, embedded software

Overview

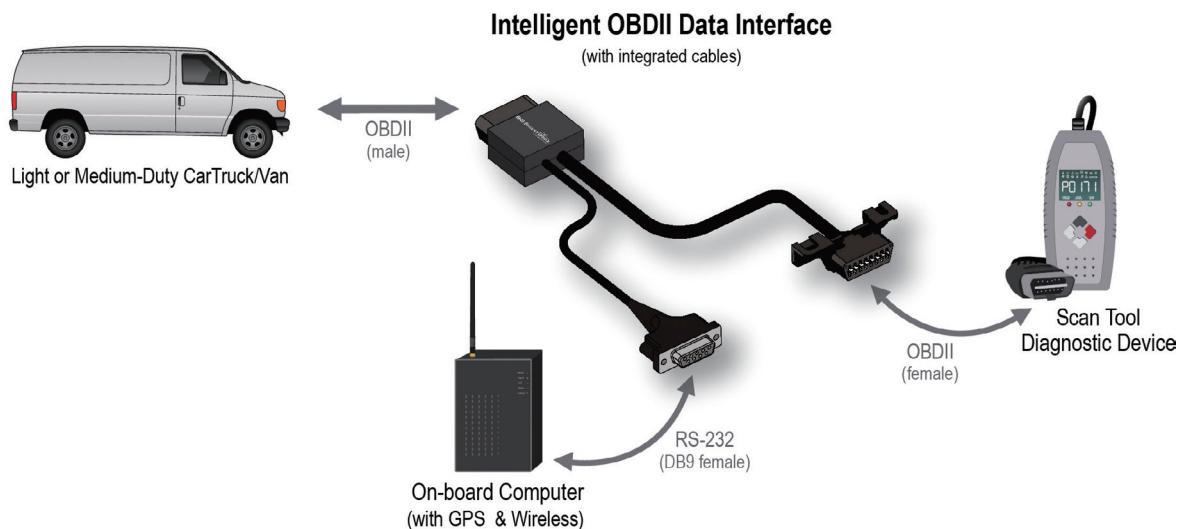
Model BB-LD3IC-S, Intelligent OBDII Data Interface, from Advantech B+B SmartWorx connects your PC, driver terminal, Java-enabled phone or other on-board computing device to the OBDII diagnostic bus of light-duty and medium-duty vehicles. It enables the retrieval of the most commonly used parameters in telematics and fleet management applications. With an integrated Y-cable, Model BB-LD3IC-S greatly simplifies installation by plugging directly into the OBDII port.

With over 20 years of OBD development and over 500,000 units deployed, Advantech B+B SmartWorx has engineered the product's software subsystem to support select OEM generic and the most desired enhanced parameters in one single platform.

The vehicle information platform is comprised of needed parameters, vehicle specific communication requirements and Advantech B+B SmartWorx unique algorithms that provide parameter data in a consistent unit of measure across numerous manufacturers. The API or communications protocol is simple and easy to integrate into your fleet management system.

With proprietary database and algorithms, Model BB-LD3IC-S provides a simple operational protocol to communicate to the OBDII bus.

A Command and Response Protocol Manual is available on the Advantech website.



Specifications

Supported Vehicles

- OBDII Streamer supports any 2008 or newer light-duty vehicles that comply with the SAE J1979 OBDII specification

Supported Vehicle Interfaces

- ISO 15765, LSGMLAN, Ford Secondary CAN

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 Usage per Hour**
- **Total Fuel** Monitor MPG and protect against theft
- **Ignition Status** Track idle time
- **Battery Voltage** Watch for charging system failures
- **PTO Status** Automatically calculate fuel tax savings
- **Diagnostic Trouble Codes**
- **MIL Status**
- **Emissions Readiness Monitors** Check remotely if vehicles are ready for emissions certification
- **Brake Switch Status & Seatbelt Fastened** Available on most Ford & GM trucks/vans

Other parameters available on a custom basis.

Additional Features

- **Ignition-On Signal Output** RS-232 CTS/DB9 Pin 6
- **Automatic low-power mode senses** When vehicle speed & engine speed is zero
- **Automatic disconnect** When technician scan tool is connected
- **Proprietary vehicle detection algorithm and embedded database** lets the same hardware work on all compliant vehicles
- **Configurable parameter reporting** By polling, at a fixed rate, or when a threshold is exceeded
- **Wide Operating Temperature** -40 to +85 °C (-40 to +185 °F)
- **Low Power Consumption** 0.20W in Operating Mode
0.15W in Automatic Sleep Mode (Key Off)
- **Enclosure Dimensions** 68.6 x 48.3 x 25.4 mm
- **Integrated Y-Cable** J1962/ISO 15031 Type B
- **Operating Voltage Range** 8 to 30 V DC
- **Form Factors Available** Device, embedded software

Compliances

- **Radiated RF Interference** SAE J1113/41
- **Load Dump and Transient Protection** SAE J1113/11
- **ESD Immunity** SAE J1113/13

Environmental Testing

- **Temperature Test** Ten (10) temperature cycles as follows with unit operating normally
 1. Room (+25 °C) to T_{min} in 15 minutes.
 2. Soak at T_{min} 1 Hour with power removed from unit.
 3. Start unit at T_{min}, confirm successful start by executing a command/response. Power-down unit. Maintain unit unpowered for one minute between power-ups.
 4. Repeat Step 3 three times.
 5. Start unit at T_{min} and ramp T_{min} to T_{max} in 30 minutes.
 6. Operate at T_{max} for 1 hour.
 7. Ramp T_{max} to T_{min} in 15 minutes.
 8. Repeat Steps 1 through 7 nine times for a total of 10 cycles:
 - a. 5 cycles at V_{min} input
 - b. 5 cycles at V_{max} input

Vibration Testing

- **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 Testing

- **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 Testing

- **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.

Ordering Information

- **BB-LD3IC-S** Telematics OBDII Data Converter