

Streamer™ InTelematix™
J1708 and J1939 Heavy-duty
Vehicle Interface Adapter
Model HD3-A3

B+B SMARTWORX
Powered by **ADVANTECH**



FEATURES

- Supports both J1939 (250k & 500k) & J1708 HDV interfaces
- Built to withstand harsh environments
- Wide temperature range (-40 to +85 °C)
- Shock and vibration tested
- Over-the-air (OTA) upgradeable

OVERVIEW

B+B SmartWorx Model HD3-A3, heavy-duty vehicle interface adapter, connects your onboard computer, wireless gateway, PC or laptop to the J1708/J1587 and J1939 bus found on most heavy-duty vehicles. The connection is made through a reliable, industry standard, wired, RS-232 interface.

Model HD3-A3 follows a simple operational protocol to communicate with the J1708 and J1939 bus, shielding the user from the complex vehicle interface. The HD3-A3 also solves timing problems often encountered when operating in Windows or other operating system environments. An embedded microprocessor handles buffering and bus timing, reducing data collisions, allowing vehicle data access with much greater precision than a non-intelligent interface adapter.

With the Streamer InTelematix database and algorithms, Model HD3-A3 provides a simple, operational protocol to communicate to the OBDII bus. The Command and Response Protocol Manual is available on B+B SmartWorx website.

ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
HD3-A3	J1708 and J1939 Heavy Duty Vehicle Interface Adapter

ACCESSORIES - sold separately

D66Y	Deutsch 6-Pin Y Cable
D99Y	Deutsch 9-Pin Y Cable
D99TYPE2	Deutsch 9-Pin Y Cable, 500k CAN



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Vehicle Interface Adapter

Model HD3-A3



SPECIFICATIONS

Wide Operating Temperature	-40 to 85 °C (-40 to 185 °F)
Input Voltage	10 to 42 VDC
Input Current @12 VDC	50 mA typical, 134 mA maximum
Enclosure Dimensions	104.1 x 43.2 x 20.3 mm (4.1 x 1.7 x 0.8 in)
Cable Dimensions	533 mm (21 in) integrated Y-cable
Operating Voltage Range	8 to 30 VDC
MTBF (Meantime Before Failure)	174465 hours (19.9 years)
PORT CONNECTIONS	
RS-232	DB9 female, DCE
Bus	DB15 female
Pins 6,7	Ground
Pin 8	Power
Pins 9, 10	CAN low, CAN high (500k)
Pin 12, 13	CAN low, CAN high (250k)
Pins 14,15	J1708-, J1708+

APPROVALS, DIRECTIVES, STANDARDS

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 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 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.

Mouser Electronics

Authorized Distributor

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