



HDV “Heavy Duty Vehicle” Streamer

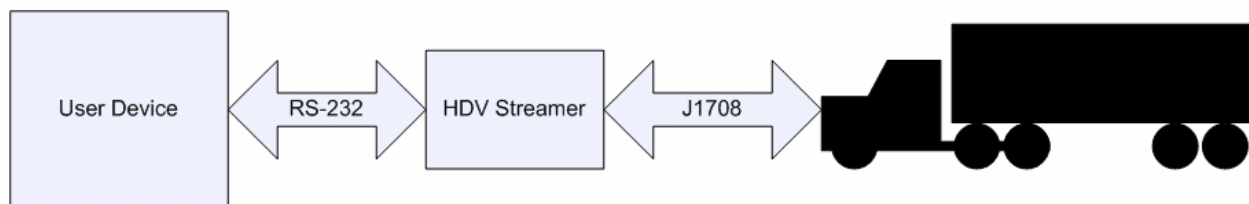
J1708/J1587 to RS-232 Data Streamer

Model HDVDS-S

The B&B Electronics AutoTap™ Heavy Duty Vehicle Data Streamer Model HDVDS-S connects your PC, driver terminal, Java-enabled phone, or other device to the J1708/J1587 bus found on most heavy-duty vehicles.

The HDVDS-S follows a simple operational protocol to communicate to the J1708/J1587 bus. The complete Command and Response protocol is published on B&B Electronics' website at: www.AutoTap.com.

The HDV Streamer will save the connected device CPU overhead by filtering the data on the J1708 bus and only transmitting the PIDs that the connected device specifies.



General Description

Each controller on a J1708 bus is given a Module Identifier (MID). Each MID can broadcast the value of Parameter Identifiers (PIDs) on the J1708 bus using the J1587 protocol. In addition, the MID may communicate the value of a PID in response to a request for that specific MID/PID combination on the bus. Refer to the J1708 and J1587 specifications for a more detailed explanation.

The Streamer holds a record of the most recent value of up to 20 Parameter Identifiers (PIDs) available on the vehicle. The most recent value stored is sent to the RS-232 device when a request command is received from the RS-232 device. In addition, the RS-232 device can specify whether each individual PID value should be forwarded as soon as it is received from the J1708 bus.

J1708 Broadcast Messages

When the Streamer first receives data from the J1708 bus, it examines the data for each PID in the desired PID list. Any PID that is received on the bus that is part of the desired PID list has its value stored in the current value table. If the PID has been designated to send immediately upon receipt, it is placed in the RS-232 TX buffer and sent in turn.

J1708 Non-Broadcast Messages

The HDV Streamer includes a command to start requesting PIDs that are in the desired PID list but are not broadcast on the J1708 bus. The command includes a timeout value. If any PID in the desired PID list has not been received within the timeout value it is requested automatically from the bus.

PID 194 Diagnostic Codes

Any J1708 Message containing PID 194 is saved in its own space along with the 20 configurable PIDs. A PID 194 message from ANY MID is saved in the PID 194 slot. Any new reception of a PID 194 message is saved over the old message. PID 194 messages are able to be configured to be sent immediately to the RS-232 device upon receipt from the J1708 bus. The stored PID 194 message is also able to be retrieved by the RS-232 device using the same command/response interaction as a standard MID/PID.

Firmware Updates

The firmware program stored in flash is able to be updated through the serial port.



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Accessory Cables

Accessory cabling is available for the HDVDS-S(see the following B&B Electronics cable models) to make connections to the PC or laptop as well as the J1708/J1587 bus.

Model D6D15MDB15 male to Deutsch 6-pin cable, 40 in (1.0 m)

Model D9D15MDB15 male to Deutsch 9-pin cable, 40 in (1.0 m)

Model D66YDB15 male to 2 Deutsch 6-pin Y-cable

Used for permanent installations to allow connection of the technician's scan tool

Model D99YDB15 male to 2 Deutsch 9-pin Y-cable

Used for permanent installations to allow connection of the technician's scan tool

Model 9PAMF6BDB9 male to DB9 female cable, 6 ft (1.8 m)

Specifications

Dimensions: 4.1 x 1.7 x 0.8 in (104.1 x 43.2 x 20.3 mm)

RS-232 Connection: DB9 female, DCE

Bus Connection: DB15 female

Pins 6, 7: Ground

Pin 8: Power

Pins 12, 13: CAN low, CAN high

Pins 14, 15: J1708-, J1708+

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 max.

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, 40g'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.



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