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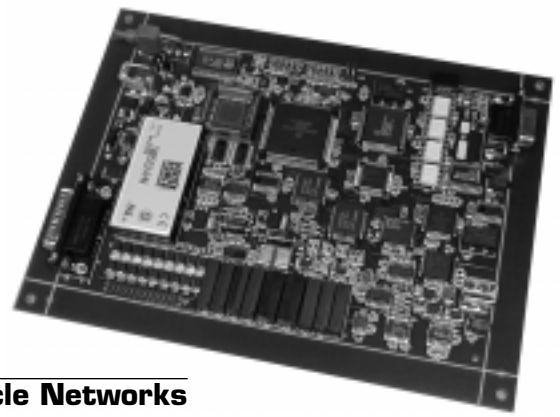
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Find the *Advanced Vehicle Technologies AVT-718* at our website: *Click HERE*

Advanced Vehicle Technologies, Inc.

AVT-718 - Multiple Interface for Automotive Networks



Vehicle Networks

The number of communications networks in motor vehicles, between various on-board computers, has increased dramatically in recent years. Many different network protocols are in widespread use and others are gaining in popularity. Nearly all these protocols are incompatible with the others.

The AVT Solution

The AVT-718 Multiple Interface is a single unit solution for communicating with all of the most popular network protocols found in-use today or destined to be found in tomorrow's vehicles. It is a complete solution, with no additional boards or modules to buy.

The AVT-718 supports the following automotive network protocols:

- CAN (2-wire and GM single-wire).
- J1850 VPW (GM Class 2 and Chrysler).
- J1850 PWM (Ford SCP).
- Keyword Protocol 2000 (and ISO 9141).
- UBP (Ford).

The AVT-718 Hardware

The AVT-718 Multiple Interface provides an isolated electrical interface between a host computer and the vehicle network. It performs the necessary protocol conversions and all required communication translations allowing a user with a PC (or similar) to communicate with a vehicle or module.

SAE standard J1850 specifies a Variable Pulse Width (VPW) version with a bit rate of 10.4 kbits/sec. and a Pulse Width Modulation (PWM) version with a bit rate of 41.6 kbits/sec.

The AVT-718 supports transmit and receive operations in VPW mode at 4 times the normal rate (4x operations may be required for some GM Class 2 modes).

The AVT-718 is Ford SCP compliant (J1850 PWM).

Keyword Protocol 2000 [ISO 14230] and ISO 9141 specify a maximum bit rate of 10.4 kbits/sec (special modes permit operations at 56.7 kbaud). Keyword Protocol 2000 also requires one of three 'Initialization modes' to be used to establish communications between on-board computers and off-vehicle test equipment. The AVT-718 supports all these modes of operations.

CAN (Controller Area Network) support is provided for any baud rate up to 1 Mbaud. The AVT-718 provides both a 2-wire physical layer and the new GM Single Wire CAN (SWC) physical layer. Communication speed (baud rate) and other network operational parameters are fully user programmable. Additionally, the AVT-718 supports both CAN 1.0 and 2.0B versions on the same network, at the same time.

Ford's UBP (UART Based Protocol) has a physical layer that is similar to ISO 9141 but operates at 9600 baud and has several electrical, format, and timing requirements that are unique.

All of these protocols are different and most are not compatible.

Switching the AVT-718 between any of these protocols is easily accomplished via simple software commands.

The AVT-718 was designed to be connected directly to the subject vehicle and the host computer. Power for the AVT-718 is provided by the vehicle through the OBD-II connector. Communications between the AVT-718 and the host computer is via an RS-232 serial interface. The desired baud rate is selected by configuring two jumpers. Optical isolation used on the AVT-718 electrically isolates the host computer from the subject vehicle at the RS-232 serial interface.

The AVT-718 utilizes FLASH technology. Field upgrades to firmware are permitted through the RS-232 interface to the host computer. The latest version of firmware is always available for downloading from our web site.

The AVT-718 is available housed in a rugged enclosure or as an OEM module (circuit board only). An OBD-II compatible cable (permitting direct vehicle connection) is also available. A hardware User's Manual containing technical information is included with the AVT-718.

All AVT equipment is warranted for one year from date of purchase. Prompt technical support is always available by telephone or e-mail.

Specifications

Size:	*7.3 x 6.1 x 2.0 in. (Enclosure/Overall)* *7.6 x 5.7 x 0.7 in. (OEM board)*
Weight:	*18 ounces (8 oz. OEM only)*
Voltage:	*+9 to +30 VDC (from vehicle)*
Power:	*3 watts (nominal)*
Host interface:	*RS-232*
Host baud rate:	*19.2, 38.4, 57.6, 115.2 kbaud (jumper selectable)*
Connectors:	*DE-9S and DA-15P*
Microcontroller:	*MC68332 @ 16 MHz (Motorola)*
CAN device:	*AS82527*

Information

Refer to our Web Site for the most up-to-date information including technical manuals, application notes, unit Commands and Responses, hardware and firmware revision status, and more.

http://www.avt-hq.com
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Ordering Information

The AVT-718 Multiple Interface housed in a rugged enclosure, serial cable, and documentation.
Order # 718-002

The AVT-718 interface board only, with documentation.
Order # 718-003

Accessories

9-pin serial cable.
Order # 101-001

OBD-II cable.
Order # 101-002

Enclosure, complete unit
Order # 101-008

Engineering Support Services

We provide engineering support services and custom engineering. These services are also available at your site (travel and related expenses are billed at actual costs).

Ordering Information

Engineering Support
Order # 101-007

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