

# DAVINA 2534

## J2534 Compliant Vehicle Interface Network Communications Adaptor



### OVERVIEW

The DAVINA 2534 is a low-cost multi-protocol vehicle interface communications adaptor that will allow the user to communicate concurrently on vehicle communication networks, which include CAN, ISO9141, and SAE J1850.

The adaptor is compliant to the current SAE J2534 standard allowing 'pass-thru' communications support for all J2534 related applications.

Connection to the adaptor is straightforward, with only two physical connections required, one to the vehicle via a fully populated J1962 connector and the other to a PC or mobile device, via a standard USB (A/B) cable.

The adaptor comes with a J2534 compliant development API to allow rapid and generic production of diagnostic services to support your vehicle development programmes.

### FEATURES

DAVINA has a fully populated J1962 interface in which eight of the pins are multiplexed to allow for software configuration of these pins, leaving the remainder fixed as defined by the J1962 standard.

The multiplexed pins can be software configured as follows:

- Programmable voltages can be switched to pins 9, 11, 12, & 13
- Vehicle ground can be switched to pins 9, 12 & 15
- J1941 K-Line can be switched to pins 3 & 7
- J1941 L-Line can be switched to pin 15 or tri-state
- 2nd CAN device can be switched to pins 1, 3, 9 & 11

### Features at a Glance

- General purpose vehicle network interface (CAN, ISO SCP)
- SAE J2534 compliant
- Industry standard API
- PC connection via USB
- Multiplexed 'manufacturer discretionary' J1962 pins
- 8MB on-board memory
- Rugged compact enclosure
- All cables supplied

The adaptor complies with the SAE J2534 standard and is supplied with a compliant J2534 API for the supported platforms.

An on-board Freescale X-Gate processor takes care of all local processing on the adaptor rather than leave it for the host machine to deal with, freeing up the connection between host and client to maximise data acquisition.

8MB of on-board serial flash memory allows buffering of data for transmission or reception, and to allow data to be stored locally on the device (i.e. flight recording or software download into ECU's).

The adaptor has an optically isolated 'client' USB 2.0 compatible connection allowing connection to a 'host' controlling device such as a desktop, laptop or PDA, using the relevant operating system drivers and cables.

All adaptor firmware upgrades can be undertaken via the host USB connection. Firmware upgrades are published and available on the Diagnostic Associates firmware update website.

The adaptor is equipped with various visual LED aids to indicate network activity, vehicle power and USB PC power.

### TYPICAL APPLICATION USAGE

- In-shop vehicle programming
- Flight recorder
- Network monitoring
- OBD conformance testing (J1699-3)
- Custom diagnostic applications
- End-of-line testing
- ECU development
- ECU diagnostic compliance testing

## SOFTWARE PLATFORM SUPPORT

- 2000 / XP / Vista
- Windows CE / CE.Net
- Pocket PC 2002 and 2003
- Linux (on request)

## THE DELIVERED PACKAGE

When you purchase a DAVINA 2534 you will receive the following:

- DAVINA 2534 communications adaptor
- USB cable
- Fully populated J1962 cable
- Ruggedised plastic carry-case
- A CD containing the J2534 API installation and Firmware updater PC applications
- Access to the firmware upgrade website
- User documentation
- 12 months on-line Technical Support



## ADDITIONAL ACCESSORIES / SERVICES

- Advanced network monitor software
- Proprietary low level communications API
- Development of diagnostic communication services
- Development of diagnostic and configuration application software

## FUTURE DEVELOPMENTS

Future upgrades of the adaptor will also allow communication on the LIN and FLEXRAY networks  
In addition, an 802.11 b/g WiFi version of the adaptor is currently under development.

## TECHNICAL DATA

Dimensions (LxWxH)	125 x 80 x 30 (mm) 4.9 x 3.1 x 1.1 (in)
Weight (without cables)	226g / 0.5 lbs
Power Supply	9 to 36 VDC Supplied through J1962
Current Consumption	70 to 130 mA
Operating Temperature	-25°C to +85 °C
PC / PDA Interface	Client USB 2.0 (full speed) Opto-Isolated
SAE J2534 Compliant	J2534 (with exceptions)
Current Supported Networks	SAE J1850 PWM SAE J1850 VPW ISO 15765-2 CAN ISO 15765-4 CAN ISO 9141 ISO 14230 (KWP2000)
S/W controlled J1962 Interface	S/W programmable voltages on pins 9, 11, 12 & 13 Vehicle ground on pins 9, 12 & 15 K-Line to pins 3 & 7 L-Line to pin 15 or tri-state 2 <sup>nd</sup> CAN to pins 1, 3, 9 & 11 All other pins as defined by SAE J1962
Cables	Fully populated J1962 cable (2m long) USB-A to USB-B cable (0.5m long)
Miscellaneous	High resolution time stamp of messages Firmware upgrade via USB Robust, small form factor aluminium case

## Contact Information

**UK Office**  
Diagnostic Associates Ltd,  
Hyde Park House,  
Cartwright Street, Hyde,  
Cheshire, SK14 4EH.

**Information:** [info@diagnostic-associates.com](mailto:info@diagnostic-associates.com)  
**Sales:** [sales@diagnostic-associates.com](mailto:sales@diagnostic-associates.com)  
**Website:** [www.diagnostic-associates.com](http://www.diagnostic-associates.com)

T: (UK) 0161 367 1253