



**DGE Inc.**

## CAN-B/C J1850 Gateway



### Overview

The CAN-B/C J1850 Gateway is designed for use in vehicles with hybrid communication bus systems. An expansion board option can be added to allow a multitude of customer-specific features to be implemented.

### Benefits

The Gateway makes developing modules for vehicles with hybrid CAN/J1850 bus systems easier. The Gateway can be used for testing both CAN modules in J1850-based vehicles and J1850 modules in CAN-based vehicles. It can even be used to translate either CAN or J1850 data to RS232 signals for viewing on a PC or PDA.

While the first CAN-C port is connected to the main CAN-C bus, a second CAN-C port can be used as an interface to the vehicle diagnostic connector or for translation between differing CAN-C buses. The CAN-B bus can be used as new CAN interior modules are integrated into the vehicle.

Flash re-programmability allows the user to easily implement software updates supplied by DGE. The user can also enable or disable bus transmit messages by using the J2190 protocol.

### Software

DGE will customize the Gateway software to meet customer requirements for specific applications. Updates and custom enhancements can be loaded via a RS-232 serial port and HyperTerminal on a PC.

Possible software customizations could allow:

- Periodic message generation based on switch inputs or analog inputs
- Ability to control outputs based on message content
- Translation of CAN messages to single or multiple J1850 messages or vice versa

### Available Features

- Two 500KHz CAN-C buses\*
- One 83.3KHz CAN-B bus\*
- One J1850 bus (single wire, 10.4KHz, VPW)
- RS-232 interface for flash re-programmability
- DBC-file based CAN messages
- Ability to enable or disable transmit messages via J2190 protocol
- Expansion board (optional)

\* Note: other bus speeds possible

### Possible Expansions

- Pulse capture for high frequency inputs (e.g. vehicle speed)
- PWM output (e.g. for servo controllers)
- Analog inputs (e.g. for sensors)
- Serial peripheral interface (SPI/I2C) output and input
- Memory buffer for message logging
- Interrupt driven I/O (e.g. keyboards, switches, etc.)
- General purpose I/O (for indicator lamps, switches, digital I/O, etc.)

### Specifications

- -40 °C to +85 °C Operation
- 9V to 16V Operation (200mA typical)
- 3.3" x 1.1" x 2.7" Metal Housing (stand-alone version)

**DGE INC.**

2870 Technology Drive Rochester Hills, MI 48309

Email: sales@dgeinc.com Phone: 248.293.1300 Fax: 248.293.1309