

Features

- Right angle SAE-J1962 OBD connector
- Automatic bus detection
- Handle bus timing requirements
- Deutsch waterproof connectors
- Resistant to oil, fuel etc.

Description

The CANOBD connects to the SAE J1962 connector of the vehicle allowing the recorder to gather the information on OBD II networks.

The CANOBD automatically detects the vehicle data bus compatible with SAE-J1979 standard. The CANOBD is compatible with the following vehicle data bus.

- SAE J1850 PWM (41.6 Kbaud)
- SAE J1850 VPW (10.4 Kbaud)
- ISO 9141-2 (5 baud init)
- ISO 14230-4 KWP (5 baud init)
- ISO 14230-4 KWP (fast init)
- ISO 15765-4 CAN (11 bit ID, 500 Kbaud)
- ISO 15765-4 CAN (29 bit ID, 500 Kbaud)
- ISO 15765-4 CAN (11 bit ID, 250 Kbaud)
- ISO 15765-4 CAN (29 bit ID, 250 Kbaud)

The CANOBD is powered from the vehicle diagnostic connector. A connection is also available to provide power to ISAAC Instruments Recorder.

Description of the LED status:

Status	Description
OFF	The CANOBD is not powered
ON	The CANOBD is powered
Blinking	The CANOBD is connected to the vehicle data bus, collects the parameters and sends them to a specific CANID on the HS-CAN

The CANOBD can be used to collect all the parameters listed in Table 1. By default, the CANOBD broadcasts the highlighted parameters.

Two models:

Part Number	Length	Description
CANOBD	5'	1x power, 1x CAN
CANOBD-Y01	5'	1x power, 1x CAN, 1x OBD plug (extension)

The CANOBD-Y01 allows connecting the Recorder to the CAN bus while leaving one OBD plug available to other diagnostic tools.



Installation

Setup:

- Connect the OBD receptacle to the vehicle OBD plug (usually mounted under the dashboard – at the driver's side)

Or

In the case of CANOBD-Y01, detach the OBD plug on the vehicle and replace it with OBD plug of the CANOBD-Y01. Connect the OBD receptacle of the CANOBD-Y01 to the plug that was originally on the vehicle. Hide the new connection under the dashboard

- Do not bend cable with curvature radius smaller than 40mm (1.60")
- Route the cables at least 20cm (8") away from high interference electrical devices, such as: ignition coils, plug leads, high-current leads, high emission electronic modules or antennas
- Verify that the cable is not pinched or stretched by moving parts
- Connect the connector labelled CAN to the Recorder CANx port. (in the case of J1708, connect to the J1708 of the Recorder)
- Connect the connector labelled PWS to the Recorder PWS port.

Software configuration:

CAN Port Activity: Single Frame Broadcast

CAN Bit Rate: 500 kbps

SFB Messages: Click on the link to import the file CANOBD.XML, provided by ISAAC Instruments

Refer to the Analyzer User Guide for more details on *Single Frame Broadcast*.

Table 1 – CANOBD parameters list

A/C System Refrigerant Monitoring Status	MAP¹
Auxiliary Input Status	Misfire Monitoring Status
Catalyst Monitoring Status	O2 Sensor Lambda ratio - B1S1
Comprehensive Component Monitoring Status	O2 Sensor Lambda ratio – B1S2
Engine Coolant Temperature¹	O2 Sensor Lambda ratio – B1S3
EGR System Monitoring Status	O2 Sensor Lambda ratio – B1S4
Engine Load¹	O2 Sensor Lambda ratio – B2S1
Engine Load absolute	O2 Sensor Lambda ratio – B2S2
Engine Speed¹	O2 Sensor Lambda ratio – B2S3
EVAP Vent Solenoid Command	O2 Sensor Lambda ratio – B2S4
Evaporative System Monitoring Status	
Fuel Pressure	
Fuel System Monitoring Status	OBD Requirements
Fuel System Status Bank 1	Oxygen Sensor Heater Monitoring Status
Heated Catalyst Monitoring Status	Oxygen Sensor Monitoring Status
Inlet Air Temperature	Secondary Air System Monitoring Status
Ignition Timing	Status of oxygen sensor bank 1
Location of oxygen sensor Bank 1	Status of oxygen sensor bank 2
Location of oxygen sensor Bank 2	Throttle Position¹
Airflow from MAF¹	Vehicle Speed¹

¹Highlighted parameters are broadcasted under the factory default configuration

Specifications

Description	Symbol	Min	Typ	Max	Unit
Power requirements					
Power supply voltage	V _{in}	7		30	V
Current			40	125	mA
Searching for a connection					mA
Connected to SAE J1850PWM	I _{SAEJ1850PWM}				mA
Connected to SAE J1850VPW	I _{SAEJ1850VPW}				mA
Connected to ISO 9141-2	I _{ISO9141-2}		65		mA
Connected to ISO 14230-4 KWP	I _{ISO14230-4KWP}				mA
Connected to ISO 15765-4 CAN	I _{ISO15765-4CAN}				mA
CAN output					
Transceiver bit rate			500		kbps
Environment					
Operating temperature	T _{Oper}	-40 (-40)		85 (185)	C (F)
Storage temperature	T _S	-40 (-40)		85 (185)	C (F)
Mechanical properties					
Height	H		19 (0.75)		mm (in)
Depth	D		48 (1.89)		mm (in)
Width	W		59 (2.32)		mm (in)
Weight	Wt		91 (3.21)		g (oz)