



P/N 817407450
Revision A

FuelOmat Gold

μ DataPass Installation Manual

FCC Compliance Statement

The FCC Wants You to Know:

This equipment has been tested and found to comply with the limits for a Class A & B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures :

- a) Reorient or relocate the receiving antenna.
- b) Increase the separation between the equipment and receiver.
- c) Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- d) Consult the dealer or an experienced radio/TV technician.

Warning

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with FCC Rules Part 15 and with Industry Canada licence-exempt RSS standard(s). Operation is subject to two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference that may be received or that may cause undesired operation.

Le present appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisee aux deux conditions suivantes :(1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioelectrique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement.

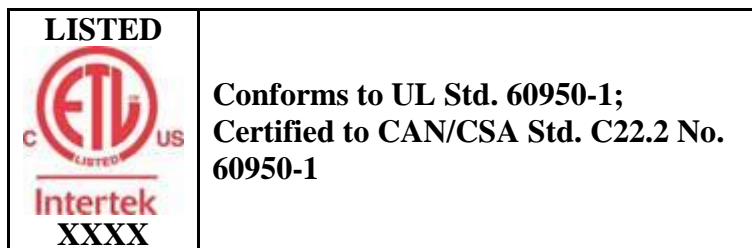


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1. SCOPE

This document describes the the mechanical installation of Orpak's μ DataPass, part of the FuelOmat Gold Wireless Vehicle Identification System.

2. GENERAL DESCRIPTION

The μ DataPass (see Figure 1) unit collects accurate data from the vehicle on-board computer bus (OBDII) and transmits it to Orpak's Wireless Gateway Terminals (WGT) while refueling, or whenever the vehicle passes next to the WGT installed at the fleet facilities.

μ DP implements OBDII-CAN, KLINE and M-OBD while reading vehicle bus

μ DP implements IEEE802.15.4 for transmitting vehicle data to WGT

Wireless IEEE802.15.4 uses the ISM 2.4GHz global license free band

The unit is powered by vehicle battery.



Figure 1 – μ DP, General View

3. AVAILABLE CONFIGURATIONS

(See Table 1)

Table 1. Available Configurations

<i>Unit</i>	<i>P/N</i>
μ DataPass	800907450
μ DataPass Plus	800907451

4. SPECIFICATIONS

(See Table 2)

Table 2. μ DataPass Specifications

	Parameter	Value
Physical	Height	22.1 mm
	Width	41.3 mm
	Depth	16.8 mm
	Weight	8g
	Connectors	OBDII compatible (male)
Electrical	Supply voltage	Normal operation: 12VDC (Nominal) Minimum: 9 VDC Maximum: 16 VDC
	Current consumption (typical)	Sleep mode: 4mA Active mode: 55mA
Environmental Conditions	Temperature Range	Operating: -40 to +70 °C
		Storage: -40 to +85 °C
Communication	Wireless Interfaces	Single IEEE802.15.4 wireless channel Operating Frequency: ISM 2.405 to 2.480 GHz (Global license free band) Implements proprietary Mesh network
	IEEE802.15.4 Modem	DSSS/FA – Direct Sequence Spread Spectrum with Frequency Agility Supported network topologies: Propriety Mesh network Channel capacity: 16 frequency channels / 5MHz channel spacing Transmit power output: 2mW (3dbm) Receive sensitivity: -101dbm
	Wireless Antenna	Built in PCB Antenna
	Wired Interfaces	OBDII – J2284/ISO15765 (CAN BUS) Data rate: 250Kbps / 500Kbps
OBDII – ISO14230/ISO9141 (KLINE) Data rate: 10400bps		

5. μ DATA PASS PINOUT

Table 3 details the μ DataPass connector pinout

Table 3. μ DataPass Pinout

Pin #	Pin Name	Description
16	VIN+	Supplied voltage (+)
4	VIN-	Supplied voltage (-)
7	K-line (ISO)	Utilized for K- line protocol
6	CAN H	For Can Bus protocol, connect to 'CAN H' in the vehicle bus
14	CAN L	For Can Bus protocol, connect to 'CAN L' in the vehicle bus

6. INSTALLATION PROCEDURE

μ DataPass installation is a very simple process. However, since μ DataPass is a very small device, it is recommended to fasten the unit to the vehicle using a nylon thread or a similar fastener to prevent loss if removed from the OBD II connector during vehicle servicing.

Proceed as follows:

1. Locate the standard On Board Diagnostics OBD-II connector (see Figure 2). This connector is normally located under the dash on the left side of the steering column. Remove the panel that covers the Diagnostics connector

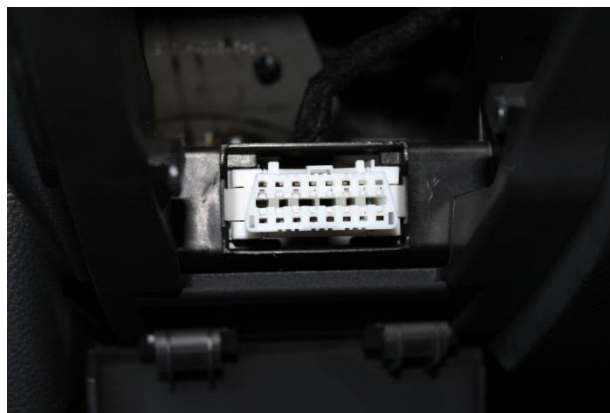


Figure 2. Diagnostics Connector

2. Gently plug the μ DataPass into the Diagnostics connector being careful not to bend the μ DataPass pins (see Figure 3)



Figure 3. Plugging the μ DataPass

3. Reassemble the panel that covers the Diagnostics connector.