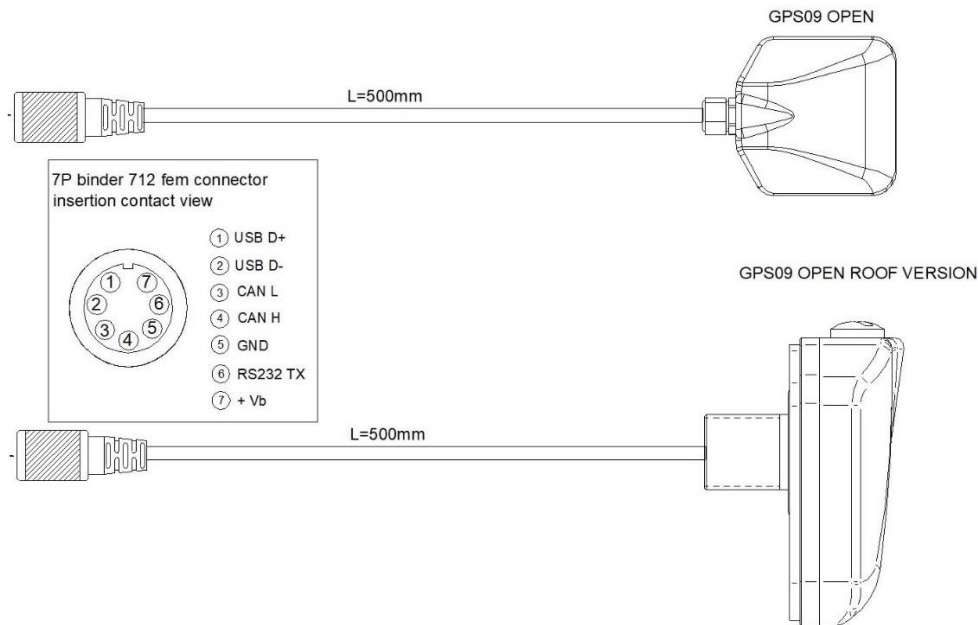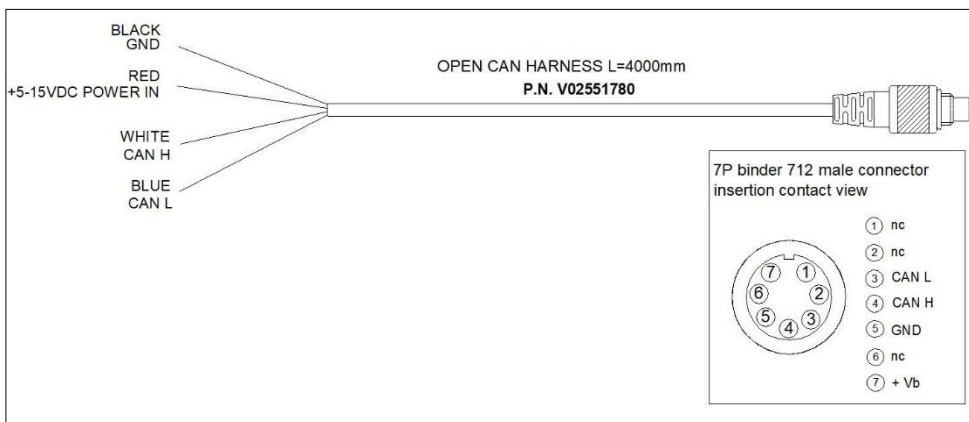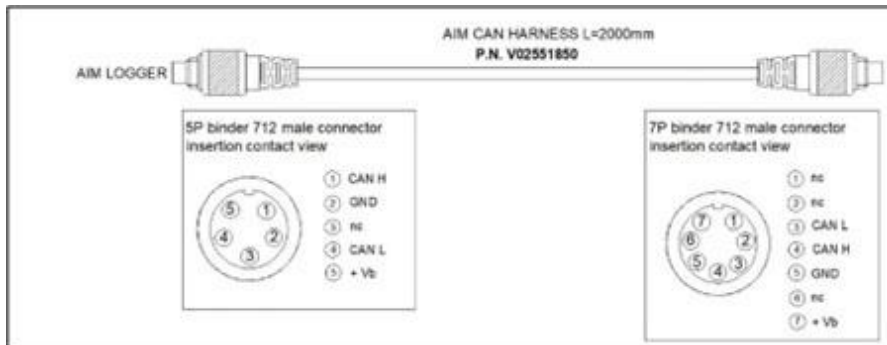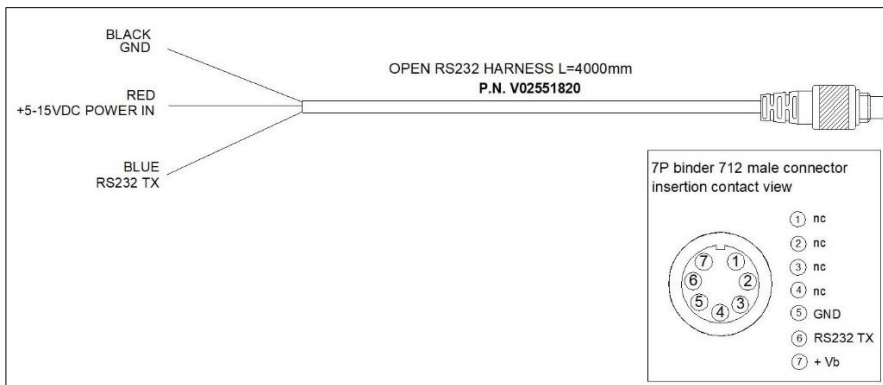# GPS09 C Open

The system

The GPS09C Open features three output streams:

- Open CAN connection. Freely user configurable
- Open RS232 connection. Freely user configurable
- AiM CAN connection. To be connected as expansion in the AiM CAN network

The module comes with a 7-pin connector, as shown in fig 1, to which you may connect the proper cable, in dependance upon the connection you need to manage:

BLACK
GND

OPEN RS232 HARNESS L=4000mm
P.N. V02551820

RED
+5-15VDC POWER IN

BLUE
RS232 TX

7P binder 712 male connector
insertion contact view

① nc
② nc
③ nc
④ nc
⑤ GND
⑥ RS232 TX
⑦ + Vb

AIM CAN HARNESS L=2000mm
P.N. V02551850

AIM LOGGER

5P binder 712 male connector
insertion contact view

① CAN H
② GND
③ nc
④ CAN L
⑤ + Vb

7P binder 712 male connector
insertion contact view

① nc
② nc
③ CAN L
④ CAN H
⑤ GND
⑥ nc
⑦ + Vb

Configuration

In order to configure the GPS09C Open, you need to connect it to your PC using the proper cable:

OPEN USB HARNESS (L=0.5 m)
P. N. V02551690

7P binder 712 male connector
insertion contact view

① USB D+
② USB D-
③ nc
④ nc
⑤ GND
⑥ nc
⑦ + Vb

After having connected the GPS09C to your PC USB cable, you have to run our software RaceStudio3 and use the configuration manager for configuring it.
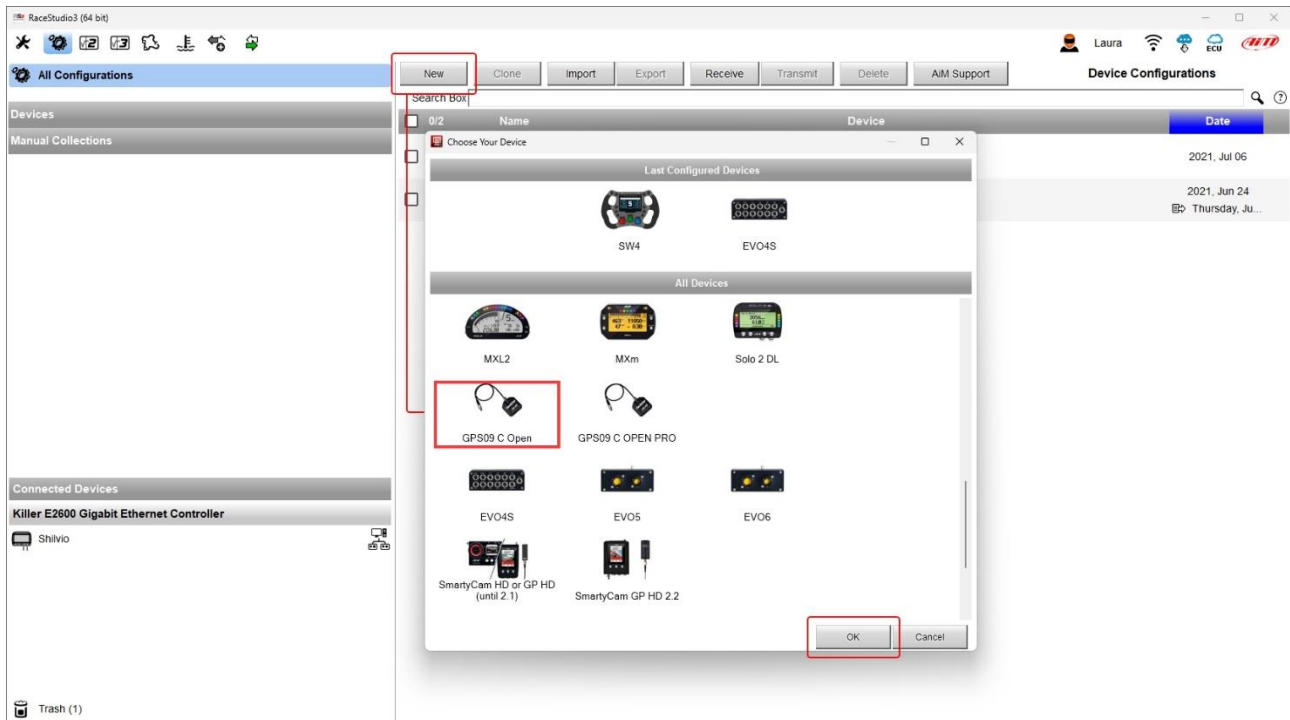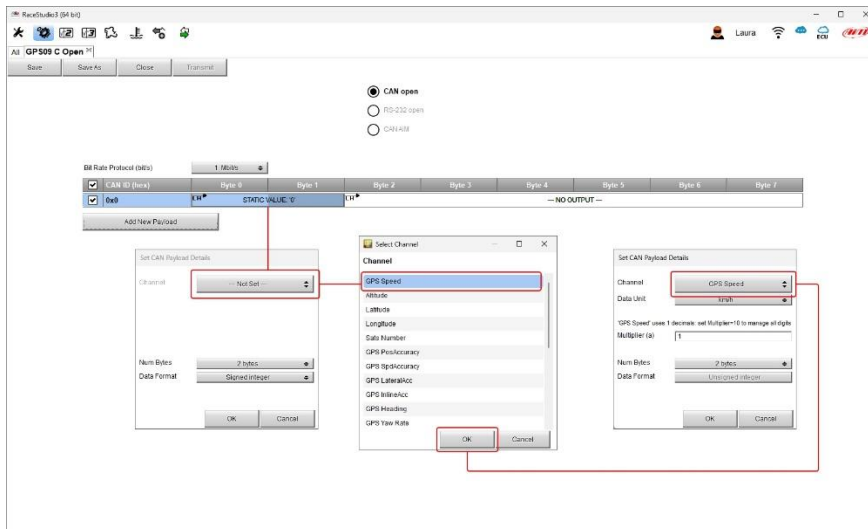
CAN Bus connection
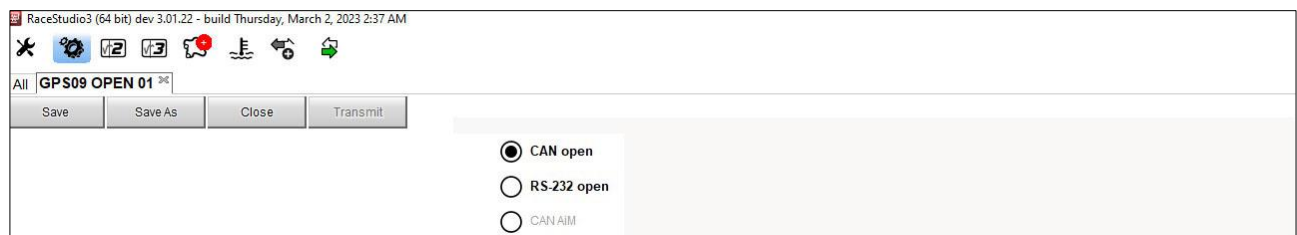
If you select the CAN Open stream, you may configure the CAN messages you need.

It is possible to set the baud rate for the CAN bus and, for every message:

- ID
- DLC (1- 8 bytes)
- Bye order (little endian, big endian)
- Message frequency (1-5-10-25 Hz)

The information the GPS09C Open may transmit in CAN are:

- Altitude
- Latitude
- Longitude
- Sats number
- Pos Accuracy
- Speed Accuracy
- GPS Lateral acceleration
- GPS Linear acceleration
- GPS Heading
- GPS Yaw rate

- GPS Hour
- GPS Min
- GPS Sec
- GPS Millisec
- Year
- Month
- Day
- Week number
- ITOW
- Unix Time

RS232 Messages

If you set the GPS09c in order to transmit the data through the RS232, it will transmit the standard NMEA messages.
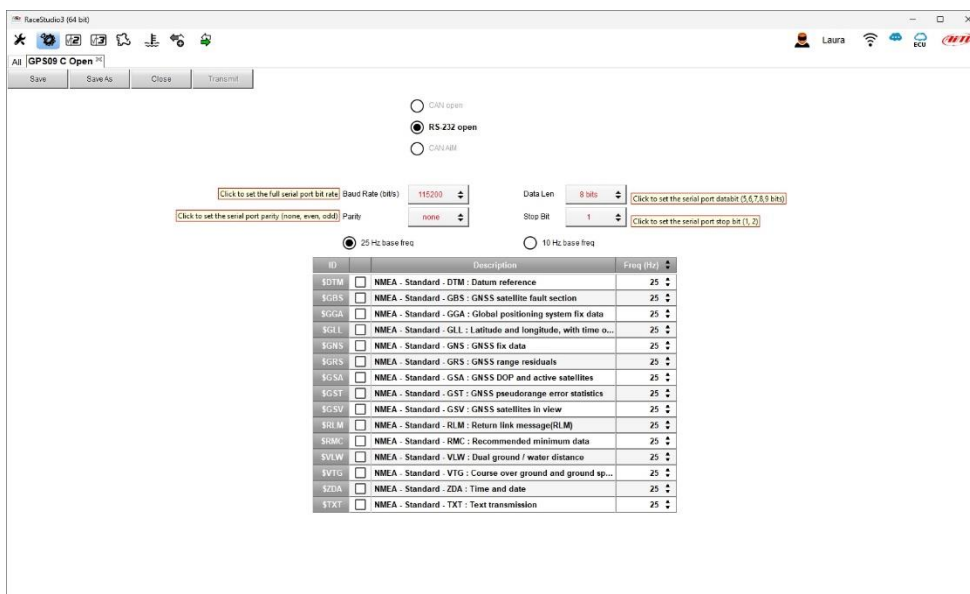
It is of course possible to set all the parameters related to the RS232 protocol, and the frequency at which every message is transmitted.

The messages the system may transmit are:

- NMEA DTM
- NMEA GBS
- NMEA GGA
- NMEA GLL
- NMEA GNS
- NMEA GRS
- NMEA GSA
- NMEA GST
- NMEA GSV
- NMEA RLM
- NMEA RMC
- NMEA VLW
- NMEA VTG
- NMEA ZDA
- NMEA TXT

The meaning of all these NMEA messages is described in www.nmea.org

AiM CAN connection.

In case you need to connect the device in an AiM CAN Network, you have to select AiM CAN Connection: the device is automatically managed by the AiM dash or Logger, so you don't need to configure anything else.