

Quick Guide
GPS09c Open
Release 1.01

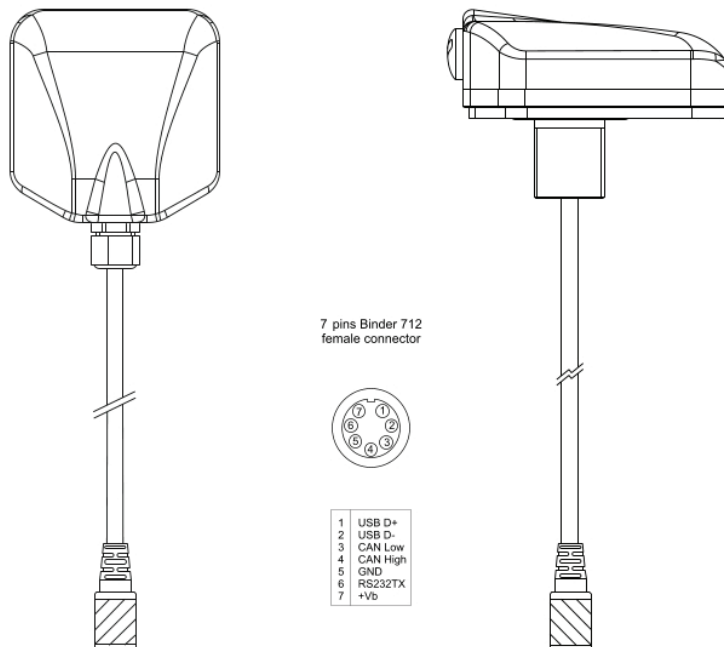


1 – The system

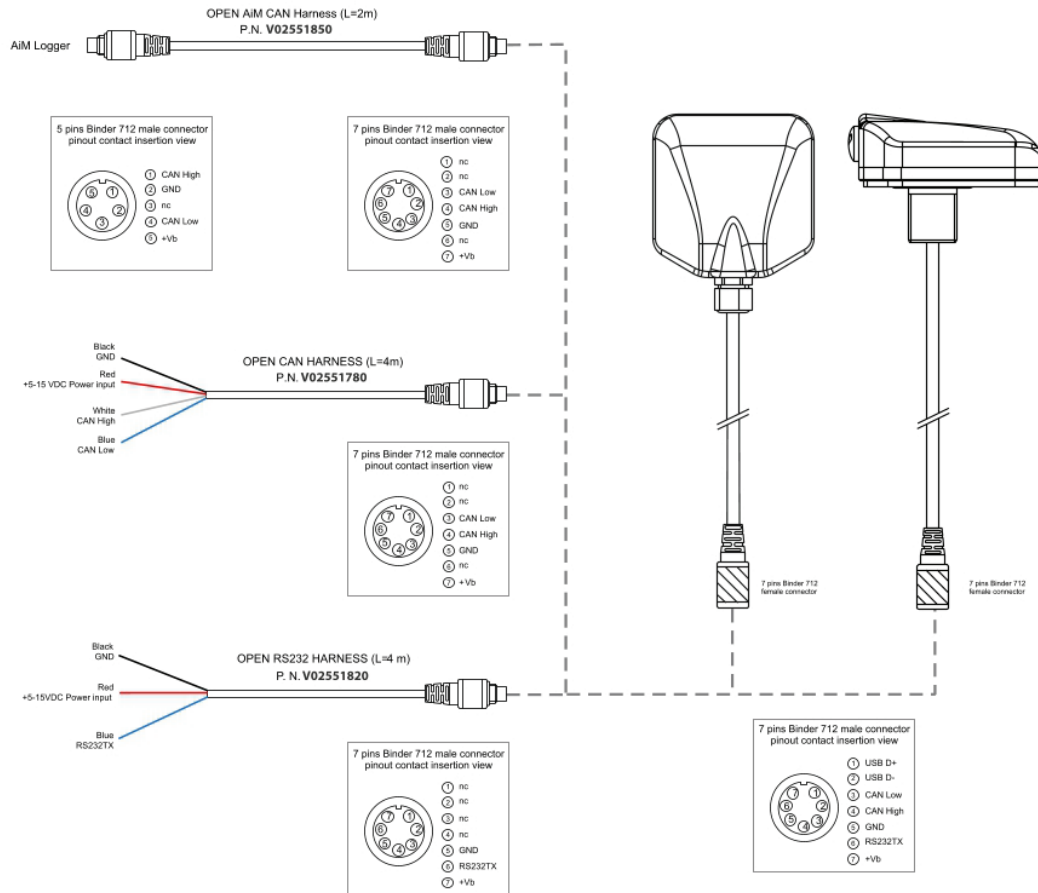
The GPS09c Open features three output streams:

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

The Module comes with a 7 pins Binder 712 male connector whose pinout is shown here below.

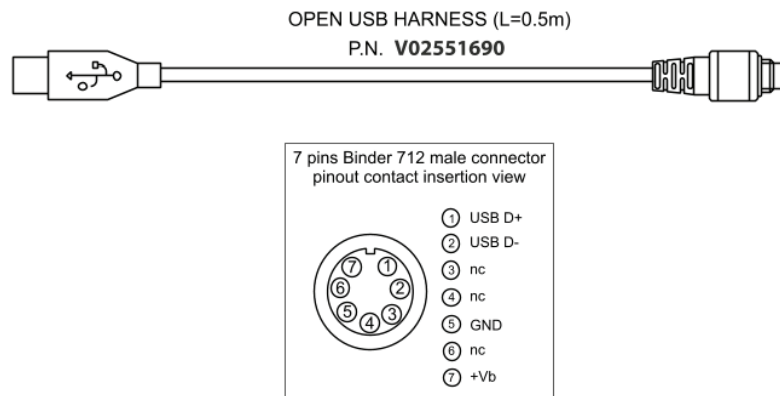


The module comes with a 7-pin connector, as shown in fig 1, to which you may connect the proper cable, in dependance upon the connection you need to manage:

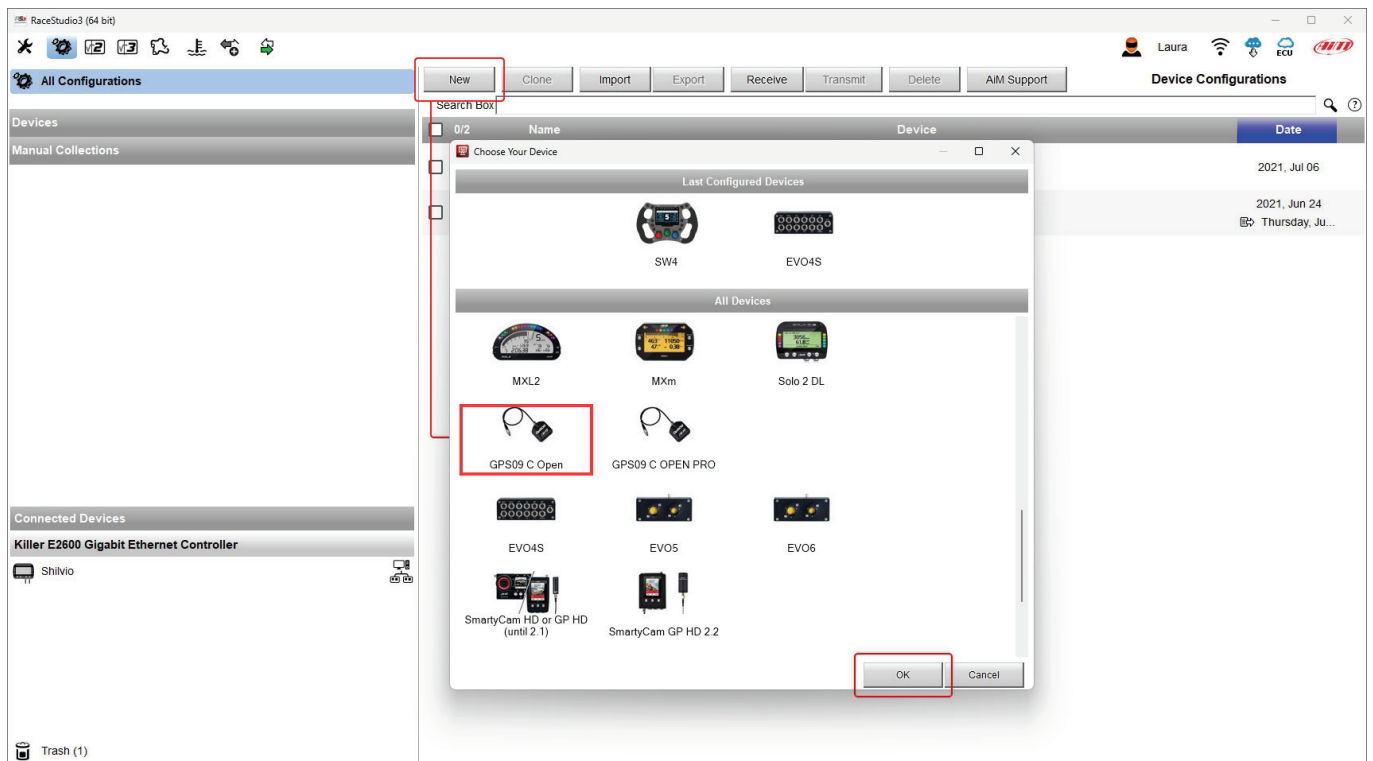


2 – Configuration

In order to configure GPS09c Open you need to connect it to your PC using the proper cable shown:



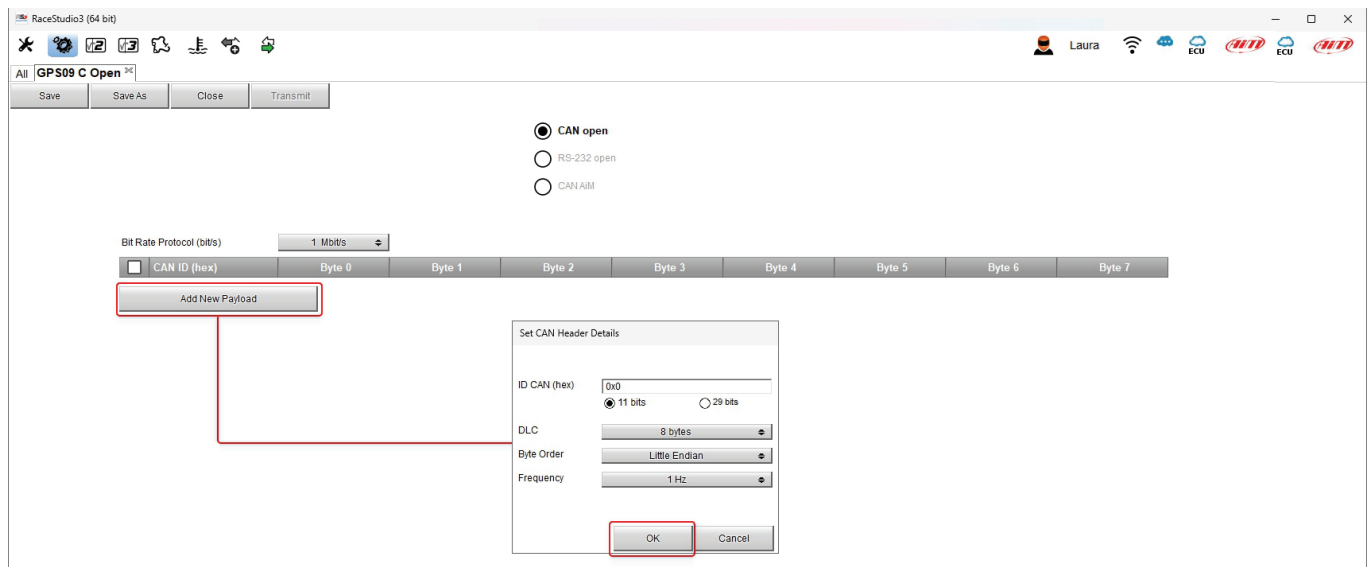
After having connected the GPS09C to your PC USB cable, you have to run our software Race Studio3 and use the configuration manager for configuring it.



2.1 – CAN Bus connection (default)

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)
- Byte order (little endian, big endian)
- Message frequency (1-5-10-25 Hz)

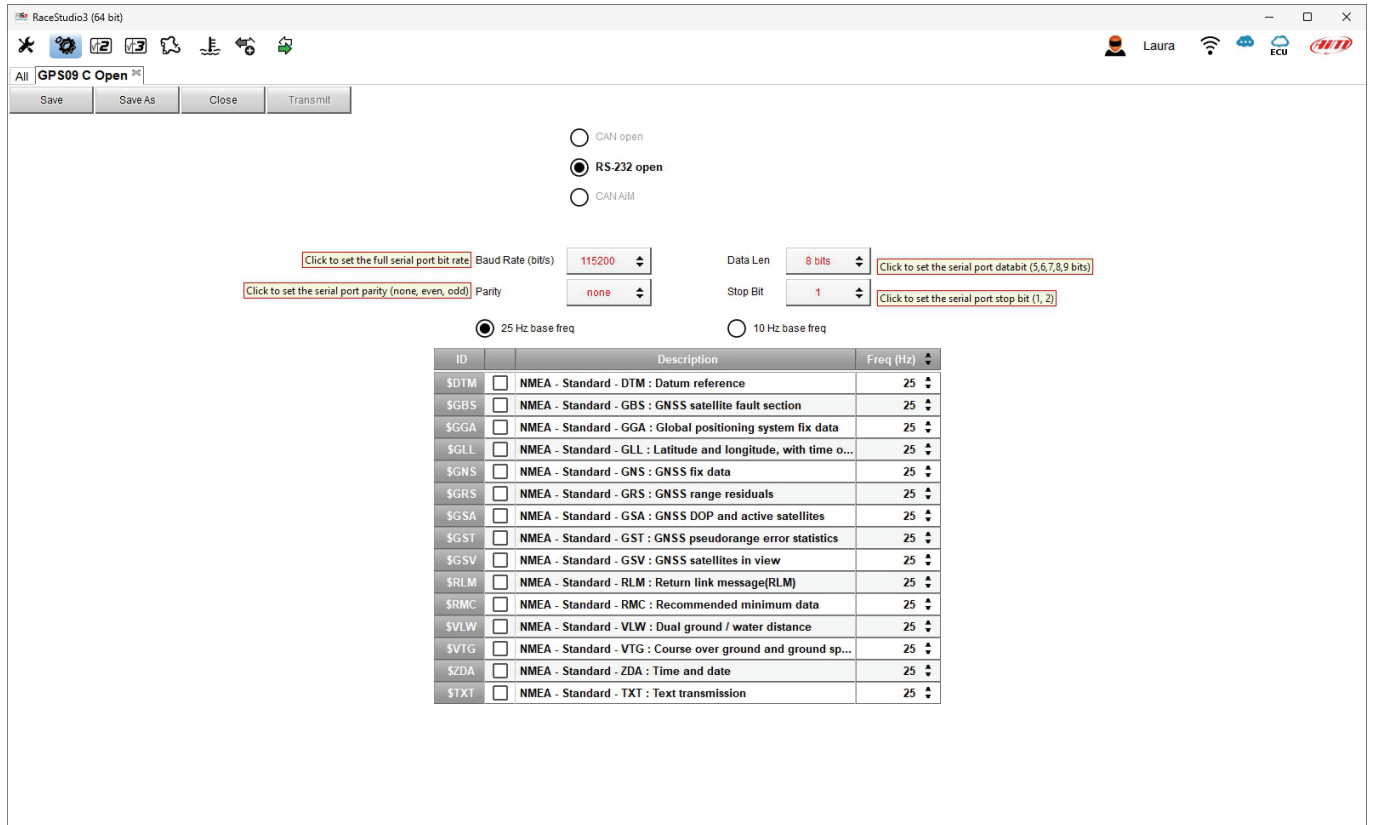


The information the GPS09c Open may transmit in CAN are:

- 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

2.2 – RS232 Messages

If you set GPS09c Open in order to transmit an RS232 stream, it will transmit the standard NMEA messages.



Click to set the full serial port bit rate Baud Rate (bit/s) 115200

Click to set the serial port databit (5,6,7,8,9 bits) Data Len 8 bits

Click to set the serial port parity (none, even, odd) Parity none

Click to set the serial port stop bit (1, 2) Stop Bit 1

☒ 25 Hz base freq ☐ 10 Hz base freq

ID	Description	Freq (Hz)
\$DTM	NMEA - Standard - DTM : Datum reference	25
\$GBS	NMEA - Standard - GBS : GNSS satellite fault section	25
\$GGA	NMEA - Standard - GGA : Global positioning system fix data	25
\$GLL	NMEA - Standard - GLL : Latitude and longitude, with time o...	25
\$GNS	NMEA - Standard - GNS : GNSS fix data	25
\$GRS	NMEA - Standard - GRS : GNSS range residuals	25
\$GSA	NMEA - Standard - GSA : GNSS DOP and active satellites	25
\$GST	NMEA - Standard - GST : GNSS pseudorange error statistics	25
\$GSV	NMEA - Standard - GSV : GNSS satellites in view	25
\$RLM	NMEA - Standard - RLM : Return link message(RLM)	25
\$RMC	NMEA - Standard - RMC : Recommended minimum data	25
\$VLW	NMEA - Standard - VLW : Dual ground / water distance	25
\$VTG	NMEA - Standard - VTG : Course over ground and ground sp...	25
\$ZDA	NMEA - Standard - ZDA : Time and date	25
\$TXT	NMEA - Standard - TXT : Text transmission	25

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



2.3 – AiM CAN connection

In case you need to connect the device to 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.

