



EIA Electronics

Integrated Electronic Solutions for OEMs

Installation manual TRC810-4CG





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Conventions

1.1 *Mounting holes*

The mounting holes are predestined to be used with a Metric8 bolt.

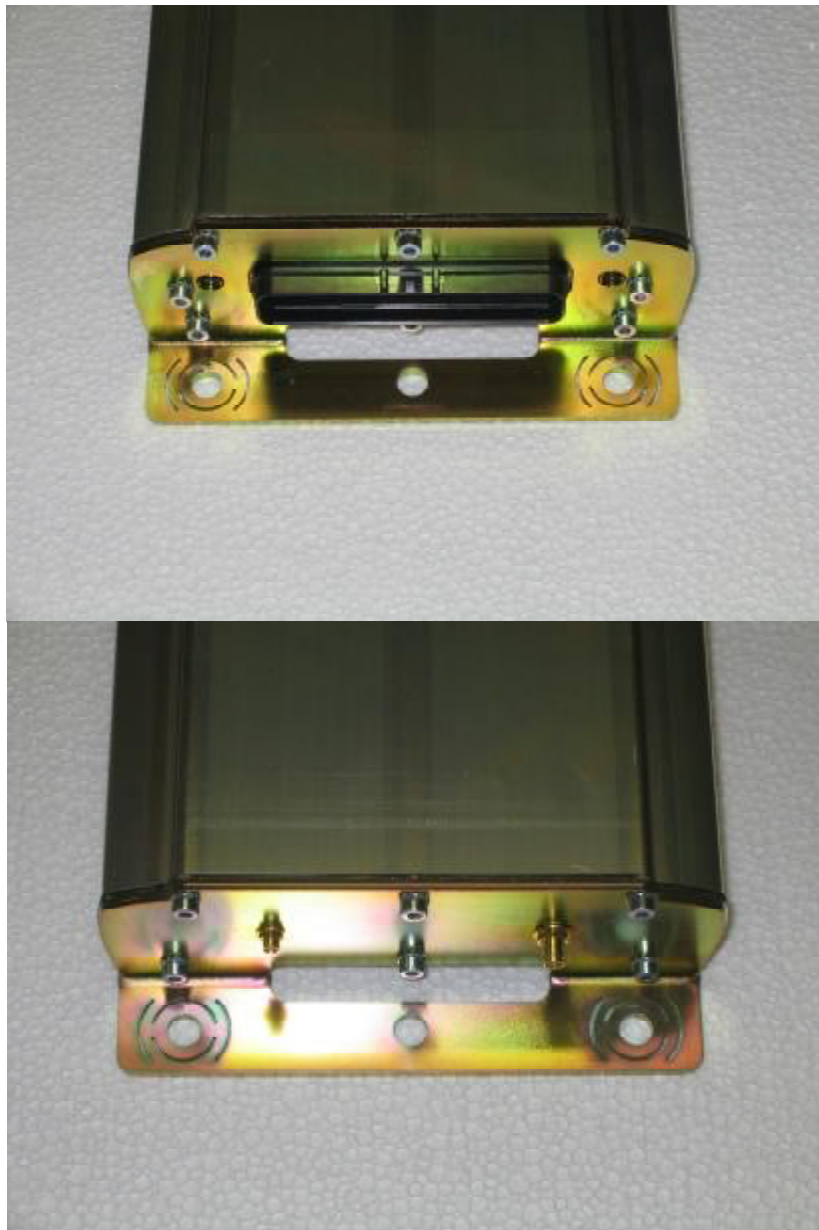


Figure 1: Mounting holes



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1.2 Main Connector

The main connector is an AMP-Tyco Superseal 5-1447223-7
Mating part is AMP-Tyco Superseal 2-1447232-6

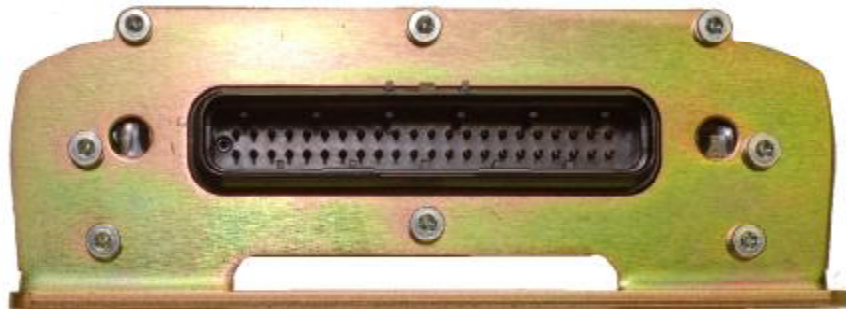


Figure 2: Main connector

1.3 Wireless modem and GPS antenna.

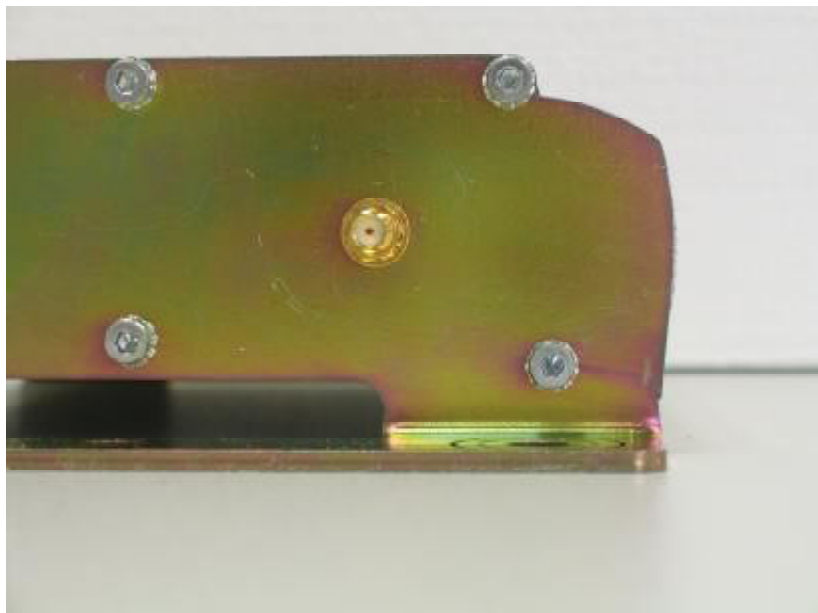


Figure 3: Wireless modem antenna connector



Figure 4: GPS antenna connector

2 Connectors

2.1 Main Connector

Frontal view of connector with indication of pin 1 etc

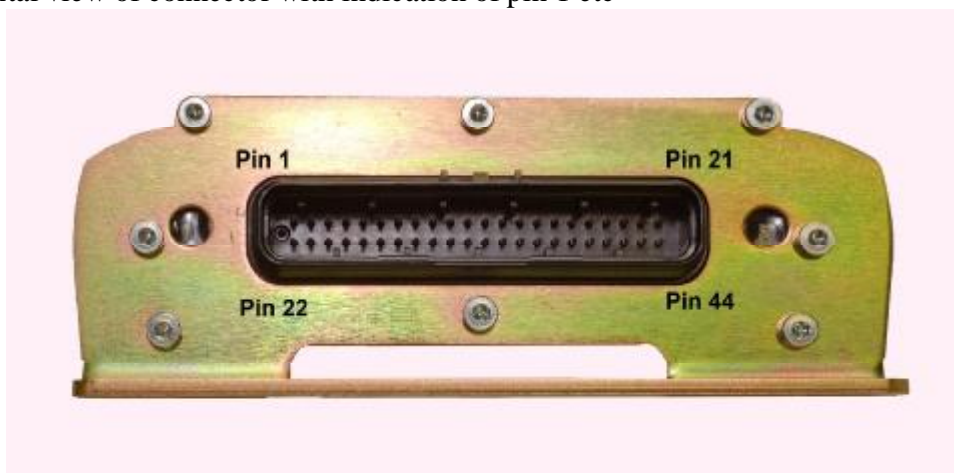


Figure 5: Frontal view of main connector with indication of pin 1



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pin number	name	description
1	PBAT	continuous power supply(+battery)
2	Pkey	after contact input(ignition)
3	output1	high side output
4	output2	high side output
5	output3	high side output
6	output4	high side output
7	multi_in1	configurable input
8	multi_in3	configurable input
9	multi_in5	configurable input
10	multi_in7	configurable input
11	multi_in9	configurable input
12	tx1	RS232 tx signal channel 1
13	cts1	RS232 cts signal channel 1
14	dtr1	RS232 dtr signal channel 1
15	ri1	RS232 ri signal channel 1
16	tx2	RS232 tx signal channel 2
17	cts2	RS232 cts signal channel 2
18	dtr2	RS232 dtr signal channel 2
19	ri2	RS232 ri signal channel 2
20	rs232-rx	RS232 rx signal proprietary channel
21	canl-1	Can low channel 1
22	canl-2	Can low channel 2
23	output_power	power supply for high side outputs
24	output_power	power supply for high side outputs
25	output_power	power supply for high side outputs
26	ground	ground connection
27	ground	ground connection
28	ground	ground connection
29	multi_in2	configurable input
30	multi_in4	configurable input
31	multi_in6	configurable input
32	multi_in8	configurable input
33	multi_in10	configurable input
34	rx1	RS232 rx signal channel 1
35	rts1	RS232 rts signal channel 1
36	dsrc1	RS232 dsr signal channel 1
37	cd1	RS232 cd signal channel 1
38	rx2	RS232 rx signal channel 2
39	rts2	RS232 rts signal channel 2
40	dsrc2	RS232 dsr signal channel 2
41	cd2	RS232 cd signal channel 2
42	rs232-tx	RS232 rx signal proprietary channel
43	canh-1	Can high channel 1
44	canh-2	Can high channel 2

Table 1 : Pin names and their descriptions

2.2 Wireless modem antenna connector SMA-type

See Figure 3 for the positioning on the back plane of the SMA connector. When facing the back panel the SMA connector is situated on the right. The antenna cable must be locked by screwing the ring on the antenna cable to the connector. No tools are needed, hand fastening can be applied.

2.3 Gps antenna connector MCX-type

See Figure 4 for the positioning on the back plane of the MCX connector. When facing the back panel the SMA connector is situated on the left. The antenna cable is locked by inserting the connector on the antenna cable in the connector on the module. When inserted far enough the connector automatically locks.

3 Replacing the Li-ion battery

Remove the back panel by unscrewing the six screws.

The battery is mounted on the inside by means of Velcro against the upper side of the housing.

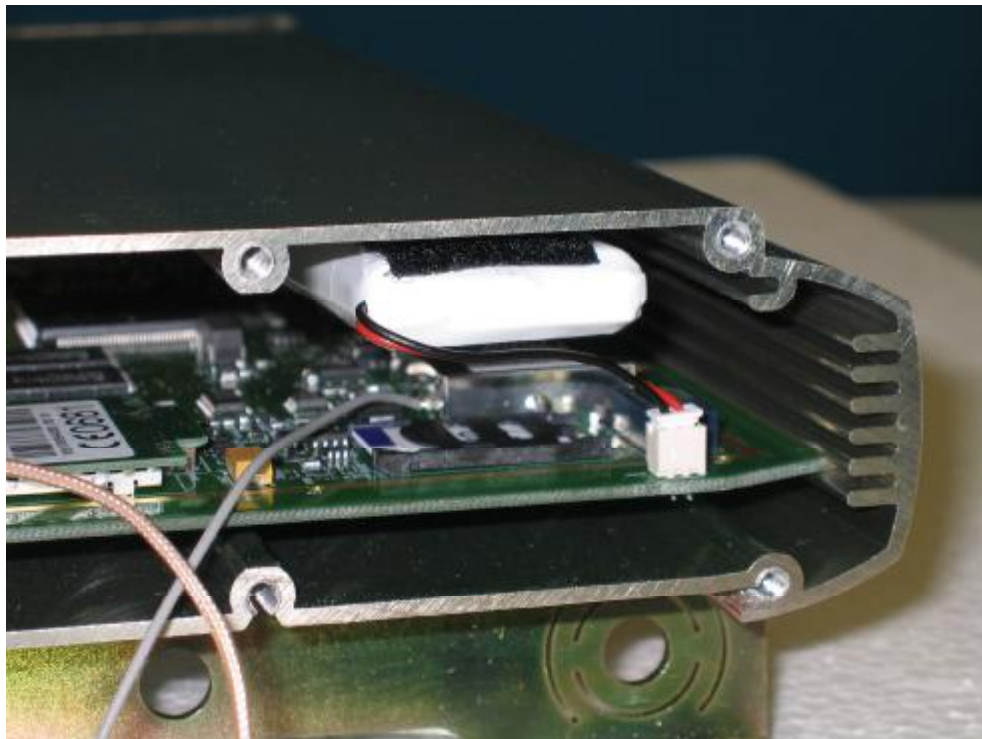


Figure 6: Position of the battery inside the housing



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Disconnect the wiring harness which connects the li-ion battery with the printed circuit board.

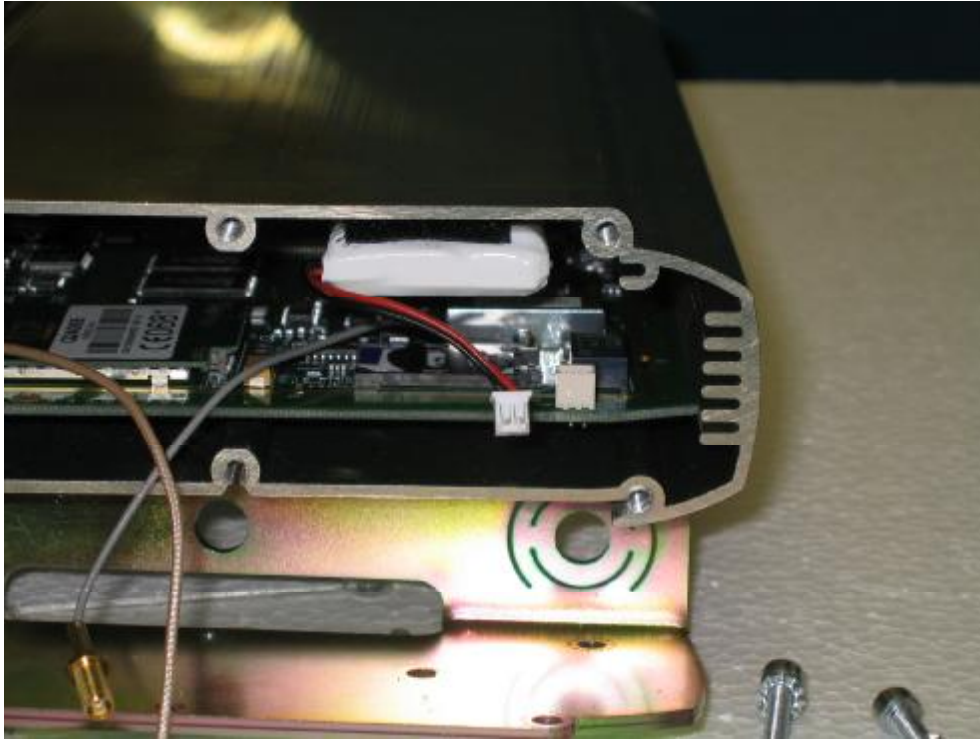


Figure 7: Disconnecting the li-ion battery

Remove the old battery,
Make sure that the Velcro part of the new battery is properly mated with its complementary part in the housing.
Connect the wiring harness of the battery pack with the printed circuit board.
Go to section 5 for mounting the back panel

4 Mounting the back panel

Make sure that the sealing is properly placed between the housing and the back panel: match the holes in the sealing and the back panel, and that the antenna cables are not squeezed between the housing and the back panel. Fasten the screws with a torque of 1,5Nm.

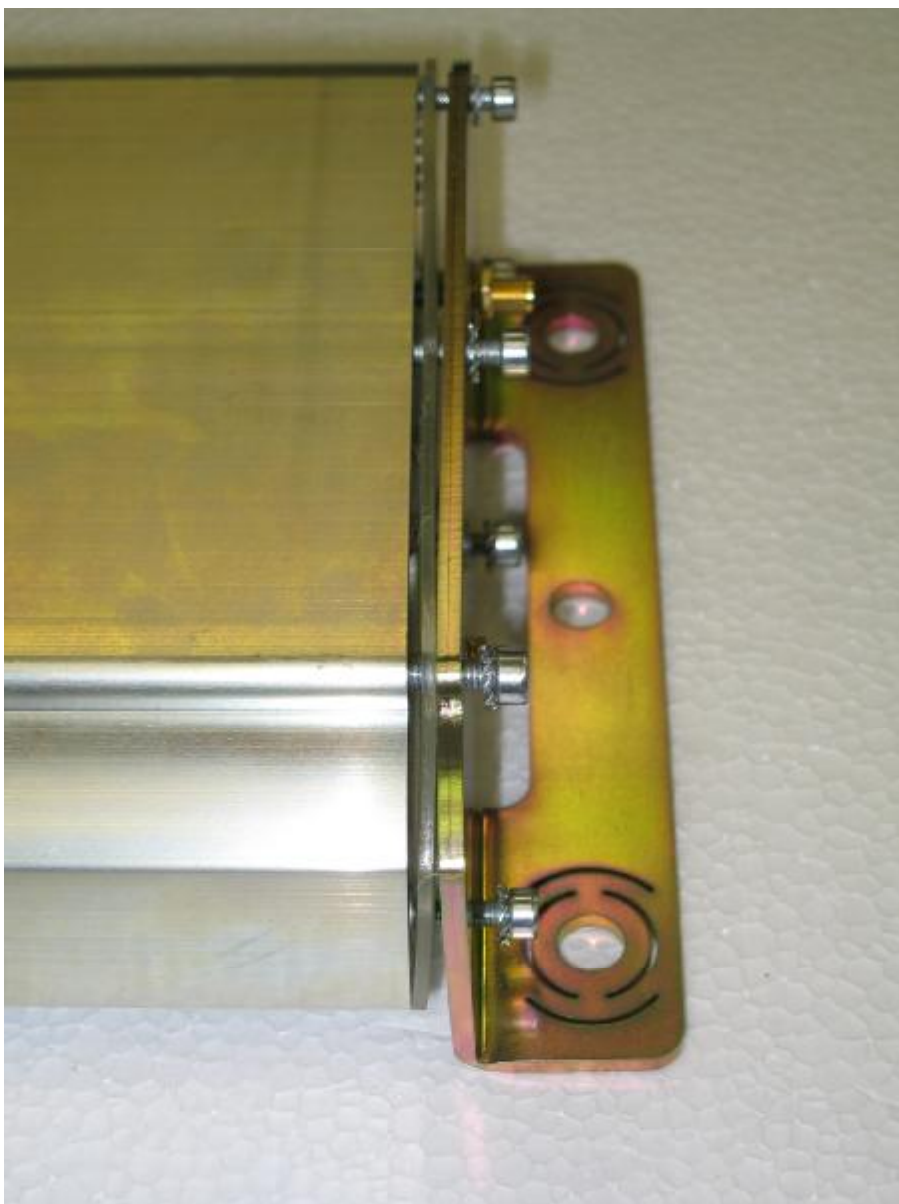


Figure 8: Mounting the back panel



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5 Additional installation hints

5.1 *Mounting on a frame*

If the module is mounted in an outside or a harsh environment we strongly advise you to mount the module horizontally. The wiring harness and antenna cables are to be gently bended and routed downwards. This is a common technique, even with ip-rated connectors, used to avoid humidity from entering the module.

5.2 *Fusing*

It is advisable to protect the module's connection to the main battery with a fuse of 3A.

5.3 *Antenna*

It is mandatory to use the module with the prescribed antenna or with an antenna that matches very closely to the specifications of the prescribed one.

Prescribed antenna: Hirschmann GPS 18 90 LP/S ordering code 920 062-001.

5.4 *Wiring harness*

Wiring harnesses to the module shall not exceed 3 meters in length



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6 Warnings and Statements

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

WARNING:

Changes or modifications made to this equipment not expressly approved by *EIA Electronics NV* may void the FCC authorization to operate this equipment.

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada.

Operation is subject to the following two conditions:

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