TECHNICAL MANUAL

MD4GI

LTE module with internal antenna

Addressee for this information: Ⓤ User | Ⓘ Installer

1 DESCRIPTION

MD4GI is a LTE module that allows connecting to the control unit through mobile network.

The module provides 2G, 3G and 4G connectivity for remote control, connection to e-Connect and voice/SMS alarm message sending.
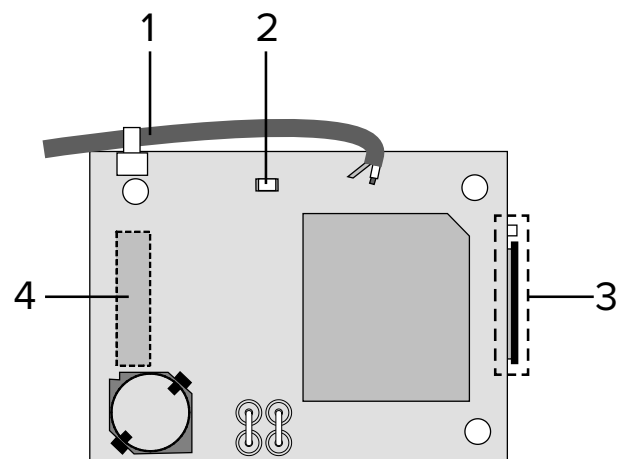
Voice calls are supported over 2G and 3G connection.

Over 3G connectivity, it is possible to keep a voice call and the communication through the e-Connect data channel both active at the same time.

MD4GI is equipped with antenna for installation inside control unit case.

MD4GI is compatible with Villeggio NG-TRX and PREGIO500 control units.

Compatible control unit	Firmware version
VILLEGGIO NG-TRX series	8.5.0 or above
PREGIO500	2.7.0 or above

2 PCB   Ⓘ

1 Antenna cable (with fastening tie)
2 Operation LED
3 SIM slot (with ejection button)
4 Connector for insertion on control unit board

Model		MD4GI	
General features			
Operating voltage	Power supply	12	V
Consumption at power voltage	Idle mode	20	mA
	Voice call operating (max)	110	mA
	LTE operating (max)	259	mA
Operative frequencies	GSM/GPRS/EDGE (1)	900, 1800	MHz
	UMTS/HSPA+ (1)	900 (Bd8), 2100 (Bd1)	MHz
	LTE (2)	700 (Bd28), 800 (Bd20), 900 (Bd9), 1800 (Bd3), 2100 (Bd1)	MHz
Transmission power	EGSM 900 MHz	class 4 (2 W)	
	GSM 1800 MHz	class 1 (1 W)	
	GSM 900 8-PSK	class E2 (0,5 W)	
	GSM 1800 9-PSK	class E2 (0,4 W)	
	UMTS 900 MHz	class 3 (224 mW)	
	UMTS 2100 MHz	class 3 (224 mW)	
	LTE 700 MHz	class 3 (200 mW)	
	LTE 800 MHz	class 3 (200 mW)	
	LTE 900 MHz	class 3 (200 mW)	
	LTE 1800 MHz	class 3 (200 mW)	
	LTE 2100 MHz	class 3 (200 mW)	
Conformity		EN50136-2-2013: grade 2	
Environmental class		2	
Working temperature		-5 / +40	°C
ATS category		SP4	
Dimensions		W63 × H48 × D13	mm
Weight		34	g

(1) dual band
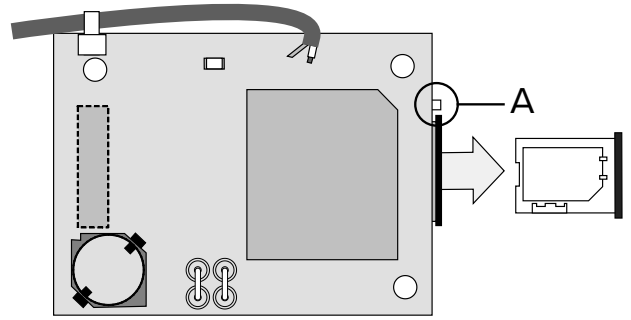(2) penta band

Parts supplied

• nylon spacers
• kit including screws, hex nuts and spacers for use on means of transport
• technical manual
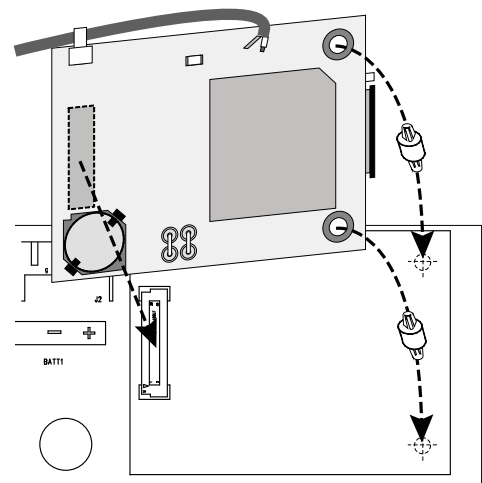
4   DEVICE MOUNTING   I

Inserting the SIM card

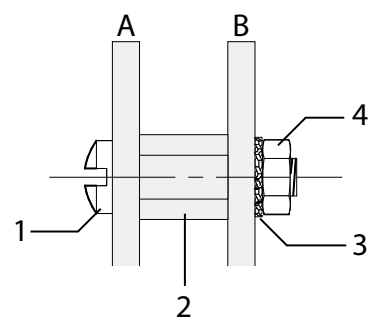– get a SIM card and disable its PIN code using a mobile phone

– press on the indicated area (A) with a pencil tip
– remove the tray and position the SIM on it
– reinsert the SIM tray inside the slot until it clicks in
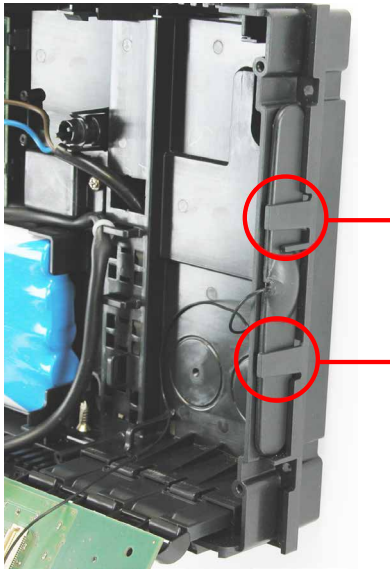
Installing the module

– insert the spacers (supplied) in the holes on proper area on control unit board
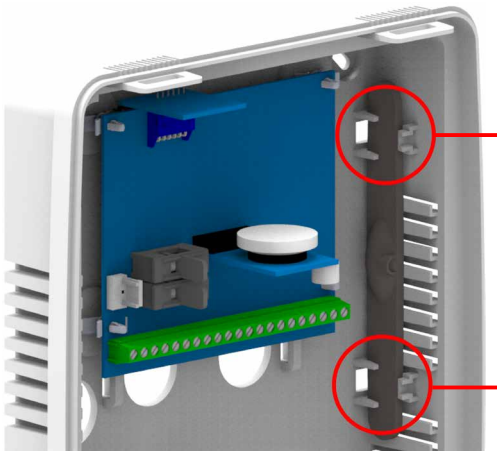

A   Control unit board
B   Module
1   3MA screw
2   Hex nut
3   Lock washer
4   3MA nut

⚠ *If you are using a VILLEGGIO control unit on means of transport, use the kit including screws, hex nuts and spacers instead of the standard nylon spacers. Tighten the nut firmly.*

- align the spacer holes and the module connector with the corresponding components on the control unit board
- plug the module to the control unit board
- arrange the antenna between the brackets indicated in the pictures below

VIDOMO2K, VICOMPACT2K: antenna position

PREGIO500: antenna position

- use ties to fasten the antenna cable to the control unit back

5 STARTING THE DEVICE

Module registration

- enter installer menu (installer code + OK) on keypad
- use arrow keys ↑ or ↓ to go to **REGISTER MODULES** option
- press **OK** to enter the menu
- use arrow keys ↑ or ↓ to reach the module to register
- press **OK** to register the module: the unit will beep for confirmation
- press **STOP** to exit the menu

6 OPERATING MODE

To manage MD4GI via BrowserOne:
- install BrowserOne 3.9.25 or above
- load one of the following modules, according to control unit:

> Villeggio 8.9.13 module (or higher)
> Pregio500 2.7.4 module (or higher)

⚠ *Remote assistance via GSM modem is not supported.*

LED indicators

Fast blinking	Module on but not registered
Slow blinking	Module on and registered
ON	Module on, transmission in progress

7 MAINTENANCE

Periodically check signal strength using the specific menu on keypad.
Periodically check SIM balance.

EU DECLARATION OF CONFORMITY

Hereby, EL.MO. Spa declares that the radio equipment MD4GI is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: www.elmospa.com – registration is quick and easy

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GENERAL WARNINGS

This device has been designed, built and tested with the utmost care and attention, adopting test and inspection procedures in compliance with current legislation. Full compliance of the working specifications is only achieved in the event the device is used solely for its intended purpose, namely:

LTE module with internal antenna.

The device is not intended for any use other than the above and hence its correct functioning in such cases cannot be assured. Consequently, any use of the manual in your possession for any purpose other than those for which it was compiled - namely for the purpose of explaining the product's technical features and operating procedures - is strictly prohibited.

Production processes are closely monitored in order to prevent faults and malfunctions. However, the components adopted are subject to an extremely modest percentage of faults, which is nonetheless the case with any electronic or mechanical product.

Given the intended use of this item (protection of property and people), we invite you to adapt the level of protection offered by the system to suit the actual situation of risk (allowing for the possibility of impaired system operation due to faults or other problems), while reminding you that there are specific standards for the design and production of systems intended for this kind of application.

We hereby advise you (the system's operator) to see that the system receives regular routine maintenance, at least in accordance with the provisions of current legislation, and also check on as regular a basis as the risk involved requires that the system in question is operating properly, with particular reference to the control unit, sensors, sounders, dialler(s) and any other device connected. You must let the installer know how well the system seems to be operating, based on the results of periodic checks, without delay.

Work involved in the design, installation and maintenance of systems incorporating this product should be performed only by personnel with suitable skills and knowledge required to work safely so as to prevent any accidents. It is vital that systems be installed in accordance with current legislation. The internal parts of certain equipment are connected to the mains and therefore there is a risk of electrocution when maintenance work is performed inside without first disconnecting the primary and emergency power supplies. Certain products include batteries, rechargeable or otherwise, as an emergency backup power supply.

If connected incorrectly, they may cause damage to the product or property, and may endanger the operator (explosion and fire).

INSTALLER WARNINGS

Comply strictly with current standards governing the installation of electrical systems and security systems, and with the manufacturer's directions given in the manuals supplied with the products.

Provide the user with full information on using the system installed and

on its limitations, pointing out that there are different levels of security performance that will need to suit the user's requirements within the constraints of the specific applicable standards. See that the user looks through the warnings given herein.

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USER WARNINGS

Check the system's operation thoroughly at regular intervals, making sure the equipment can be armed and disarmed properly.

Make sure the system receives proper routine maintenance, employing the services of specialist personnel who meet the requirements prescribed by current regulations.

Ask your installer to check that the system suits changing operating conditions (e.g. changes in the extent of the areas to be protected, change in access methods, etc...)
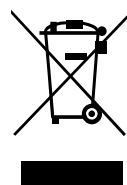
MAIN SAFETY RULES

The use of the device is forbidden for children and unassisted disabled individuals.

Do not touch the device when bare footed, or with wet body parts. Do not directly spray or throw water on the device.

Do not pull, remove or twist the electric cables protruding from the device even if the same is disconnected from the power source.

DISPOSAL WARNINGS

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In accordance with Directive 2012/19/EU on waste electrical and electronic equipment (WEEE), please be advised that the EEE was placed on the market after 13 August 2005 and must be disposed of separately from normal household waste.