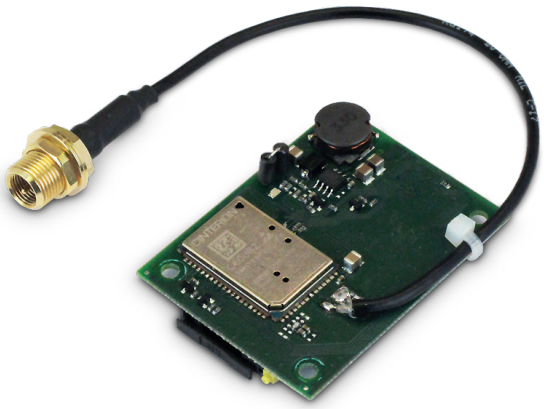
TECHNICAL MANUAL



MDGSME

GSM GPRS dialler module

0900A0872

GSM

CE 13

For installation inside
TA1002, TA1004, TA2000, TA4000:
Declaration of Performance
n° 0051 – CPR – 0405

Standard EN54-21:2006

CE 0682

In reference to the BGS2-E
GSM module used

IMQ-SISTEMI DI SICUREZZA

EL.MO. SPA

FOREWORD

FOR THE INSTALLER:

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.

FOR THE USER:

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...).

This device has been designed, built and tested with the utmost care and attention, adopting test and inspection procedures in accordance 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:

GSM GPRS dialler module

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 componentry adopted is 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).

EU DECLARATION OF CONFORMITY

Hereby, EL.MO. S.p.A., declares that the MDGSME radio equipment is in compliance with Directive 2014/53/EU.
The full text of the EU declaration of conformity is available at the following internet address: elmospa.com – registration is quick and easy.

DISPOSAL INSTRUCTIONS - INFORMATION FOR THE USER

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.

IT08020000001624

1. GENERALS

The MDGSME module is an “alarm transmission and fault warning routing equipment” compatible with the Villeggio and Titania series intrusion detection control units, with the PREGIO2000 intrusion detection control unit and with the Tacóra series fire detection control units.
Other compatible products may be later introduced.

MDGSME...
- works with an **extended power range;**
- **can be useful when the GSM signal is poor and an external antenna is required;**
- **provides a connection to and from the control unit, using the GSM mobile phone network;**
- uses GSM/GPRS Dual-Band technology;
- is compatible with the GSMEXA15 and GSMEXA2 antenna kits, each composed of an external antenna, a fixing bracket and a cable 15 or 2 m long depending on the kit;
- can send voice or SMS messages;
- can be used to command the control unit via landline or mobile phone;
- can be used to connect the control unit to the e-Connect service, used for remote control and remote assistance;
- can be used for remote environmental listening.

2. FEATURES

Model:	MDGSME
IMQ certified:	EN 50136-2
Environmental class:	II
ATS category:	SP4
Security grade:	2
Power supply:	DC 12 V for Villeggio, PREGIO2000 and compatible intrusion detection control units DC 24 V for Tacóra and compatible fire detection control units
Power consumption:	**@ DC 12 V** 11 mA idle 110 mA max for voice transmission 220 mA max for GPRS transmission **@ DC 24 V** 9 mA idle 60 mA max for voice transmission 115 mA max for GPRS transmission
Board connections:	Miniature multipoint connector
Mounting:	Plug with fixing clips
Antenna:	Not supplied. For Villeggio and other compatible control units, use a GSMEXA15 or GSMEXA2 kit. For PREGIO2000 control units, see the technical manual of the control unit. For Tacóra and other compatible fire detection control units, use the GSMACI kit.
Operating frequencies:	GSM Dual-Band 900 / 1800 MHz
Power:	Class 4 (2 W) @ 900 MHz Class 1 (1 W) @ 1800 MHz
Operating temperature:	From −5 to +40 °C
Dimensions:	W 63 × H 48 × D 14 mm
Weight:	50 g
Parts supplied:	Technical manual; nylon fixing clips; kit with 3MA screws, 3MA nuts and spacers; cable tie; protective sleeve.

Note: to install MDGSME on a Tacóra series control unit, a GSMACI antenna kit is required. The kit includes the CPR label, stick it to the housing of the control unit as described below.

Mandatory options: use a GSMAC90 antenna for PREGIO2000 control units;
use a GSMEXA15 or GSMEXA2 kit for Villeggio control units and for antenna remotization.

Certifications: MDGSME is an accessory for expressly compatible systems. When mounted on TA1002, TA1004, TA2000 or TA4000 control units, it is certified in accord with the EN54-21 standard.

MDGSME equips a BGS2-E module that is equipped with the CE0682 marking.

3. INSTALLATION

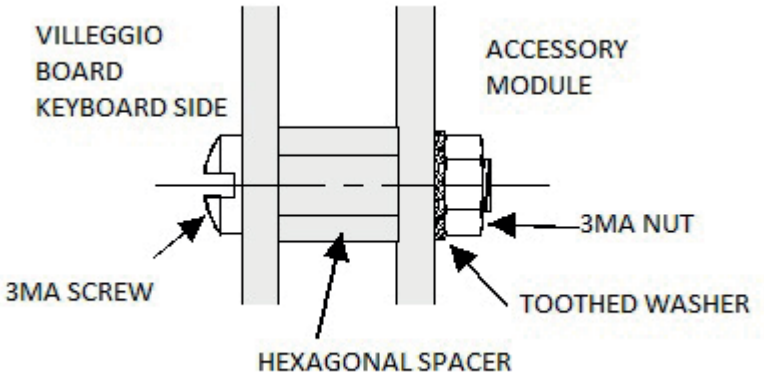
This manual expects the installer to be already familiar with the problems concerning the handling of electronical boards and to have taken all precautions necessary to prevent problems due to electrostatic charges.
Power off every device involved, including batteries, before installing MDGSME.

Be aware that an external antenna can increases the risk of electrical discharges hitting the control unit, it is therefore necessary to treat the dialler as any wireless device equipped with an external antenna, taking the same precautions.

When installing the antenna outdoor:
- wrap the lower connector with self-vulcanizing tape;
- arrange the antenna cable as to prevent rainwater infiltration;
- have the antenna cable access any weatherproof outdoor box from below;
- protect the entrance to any weatherproof outdoor box by using a properly secured cable gland with a suitable diameter and a 50° minimum curvature radius.

While installing the module, also follow the directions and general information found in the manual of the compatible control unit.

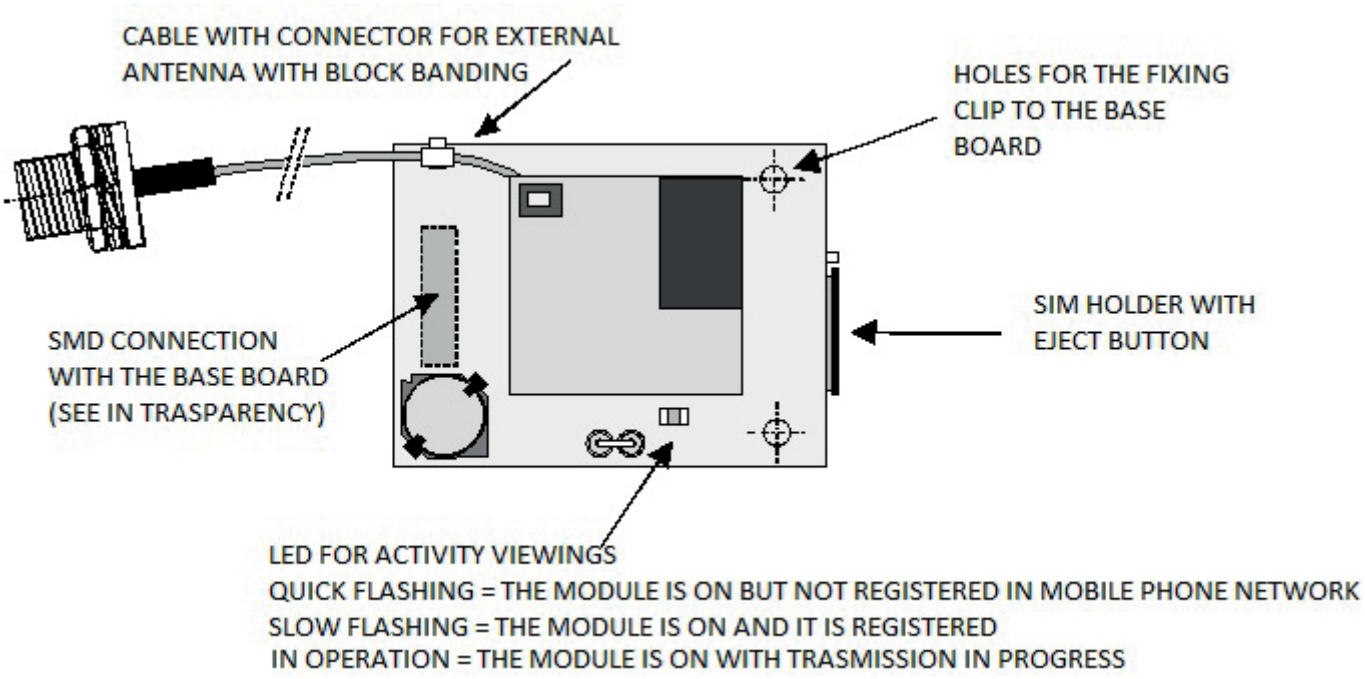
Note: when installing MDGSME in a vehicle, use the screws, spacers and nuts to fix the module to the main board of the control unit, instead of the standard nylon clips.



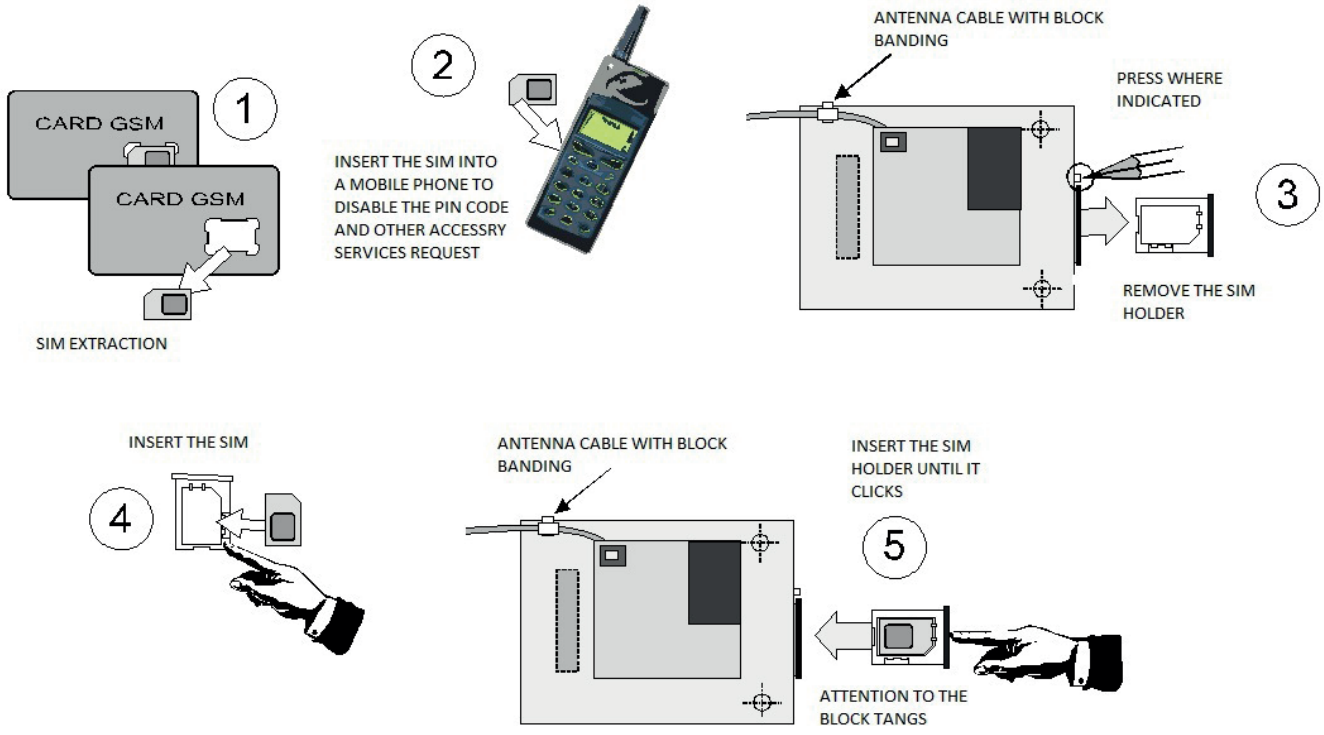
Firmly tighten the nut.

For modules installed in a Villeggio control unit, make sure that the control unit firmware is v.1.X or higher.
For modules intalled in a Tacóra control unit, make sure that the control unit firmware is v.2.X or higher.

3.1 Board view



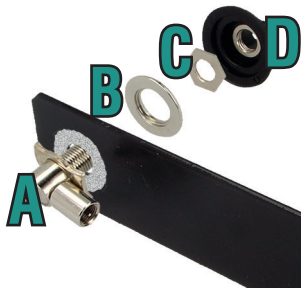
3.2 SIM preliminary operations



international@elmospa.com
elmospa.com

3.3 Antenna installation

1. Pass the threaded pin of the piece marked “A” through the hole in the bracket and keep it in position.
2. Place the ring marked “B” over the bracket, around the threaded pin, with the flat side against the bracket.
3. Force the die marked “C” under the antenna base marked “D”, then screw both to the threaded pin.

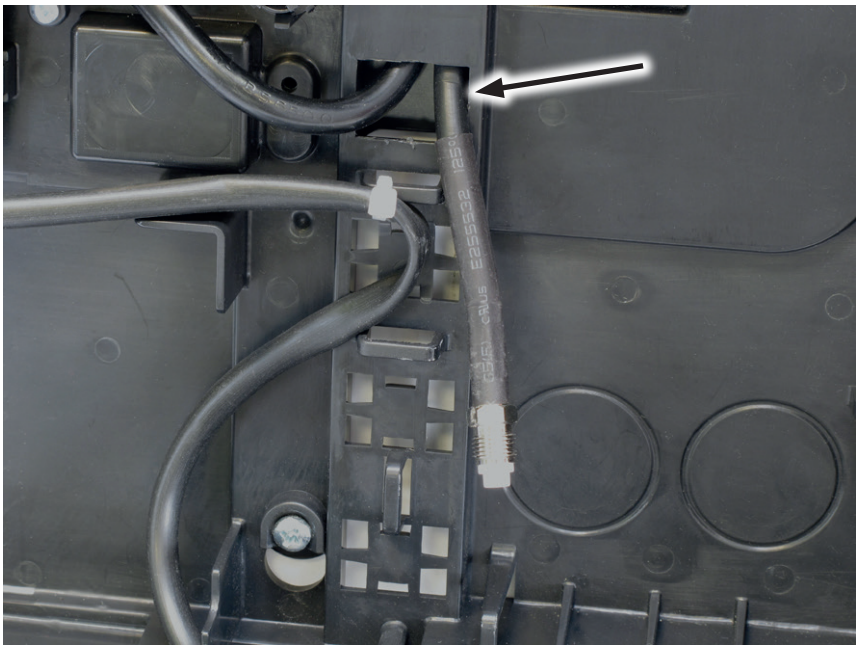


4. Hand-tighten the pieces as much as you can, then help yourself with a plumber wrench and pliers.

5. Screw the bracket to the wall or to any other suitable support. The three holes have a 6 mm diameter and a 20 mm centre to centre distance.
6. Plug the cable connector where shown below, as deeply as it is possible, then use an 8 mm wrench to screw it tightly.

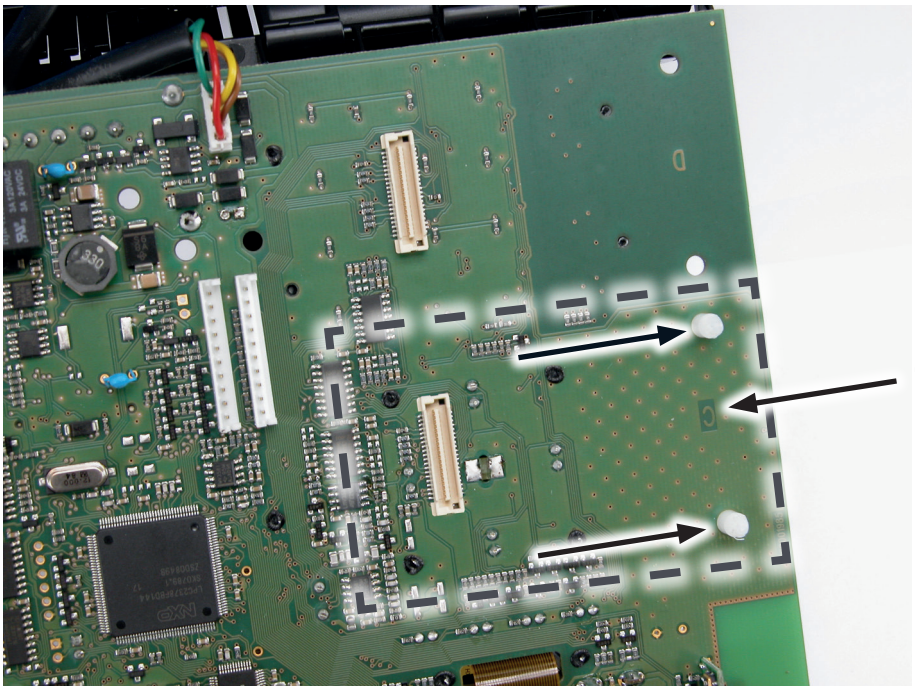
7. Use cable ties to secure the cable to the bracket.
8. Hand-tighten the antenna stylus to its base.

9. Feed the antenna cable through the back channel of the control unit.
   The stiffness of the antenna cable makes it necessary to route it as shown in the image (use the indicated hole, have it run top-down, feed in a similar lenght):



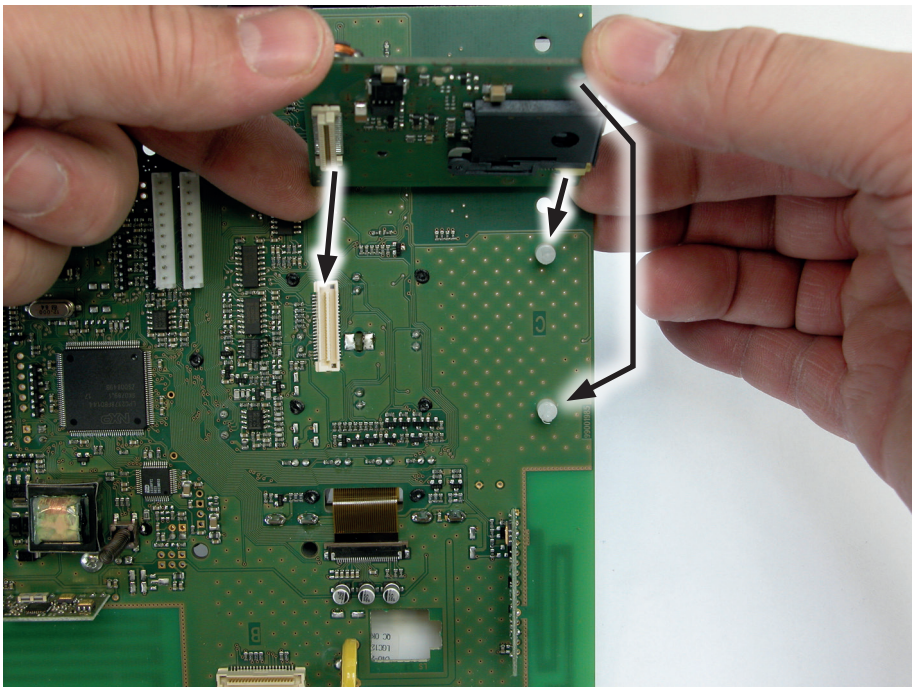
3.4 MDGSME module installation

Use the slot marked “C” on the main board of the control unit:

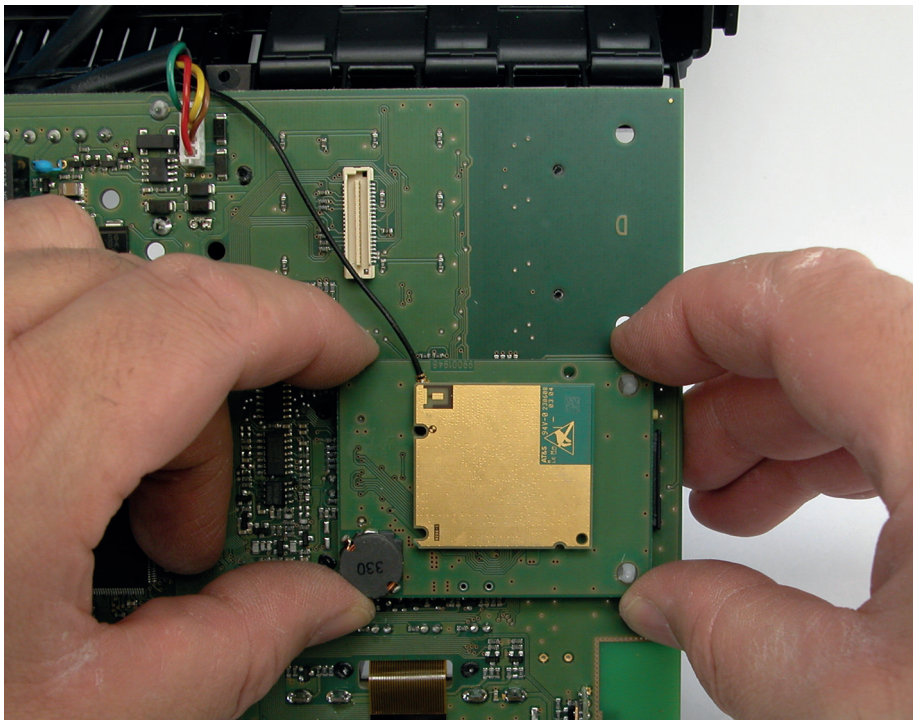


Place the nylon spacers where shown above, clicking them into position.
If encountering any resistance while trying to push the clips on the tip of the spacer past the board, keep them pressed together with thin-nose pliers rather than forcefully pushing the spacer. Do not enlarge the holes.

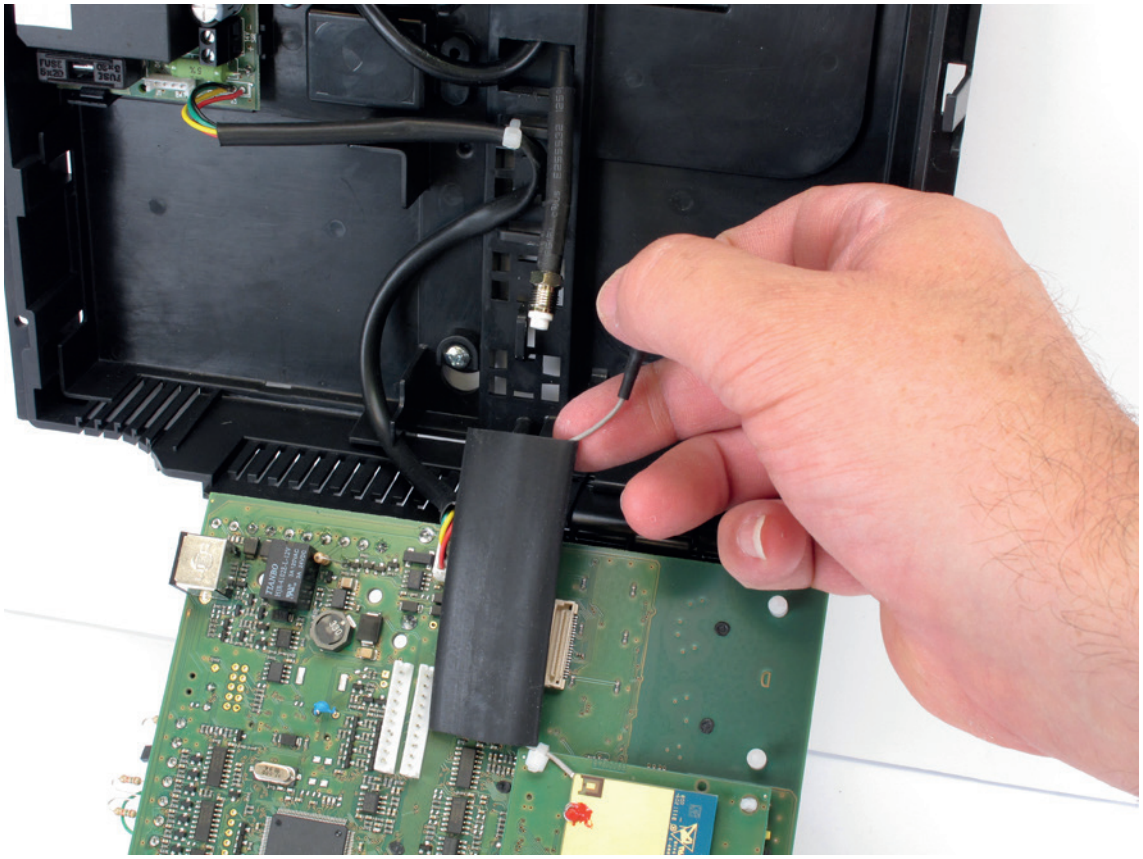
Place the module as shown in the image below, aligning the male and female connector and the holes with the spacers.



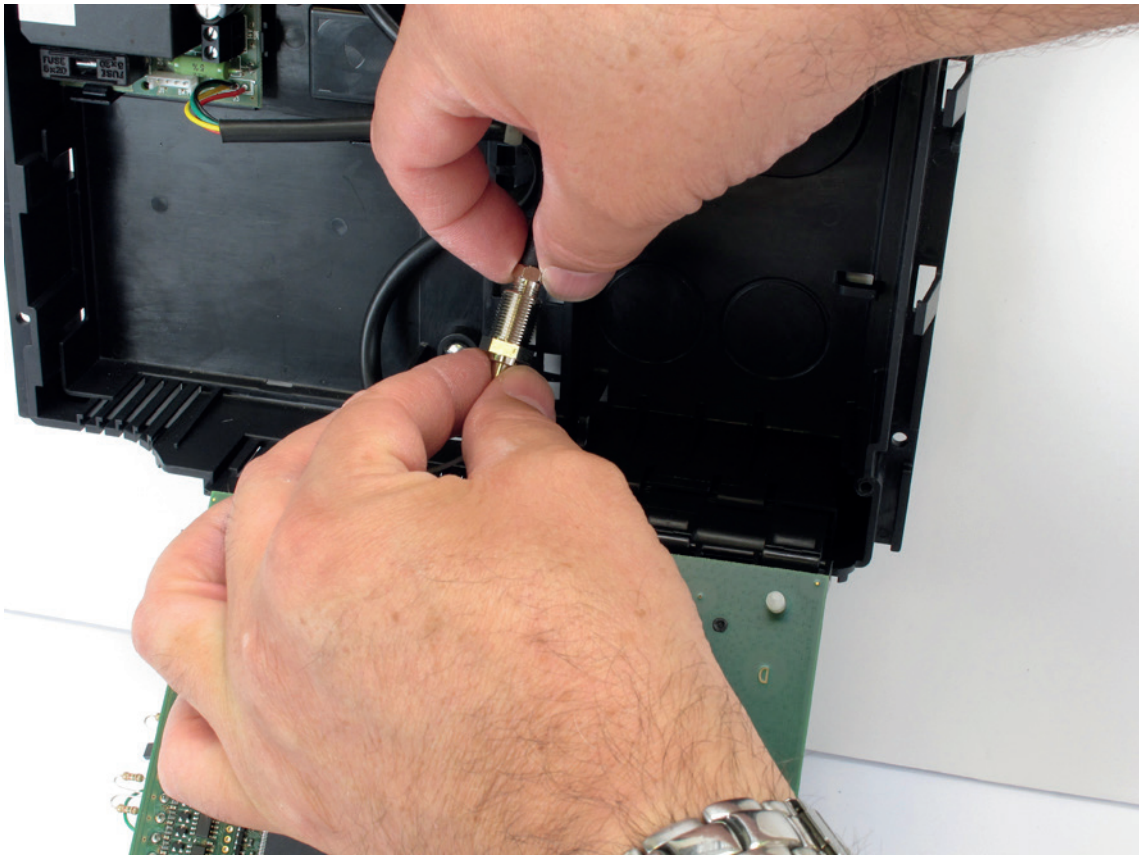
Turn the module parallel to the main board and push it down to have the spacers click (use the pliers again if need be) and to firmly plug the connector:



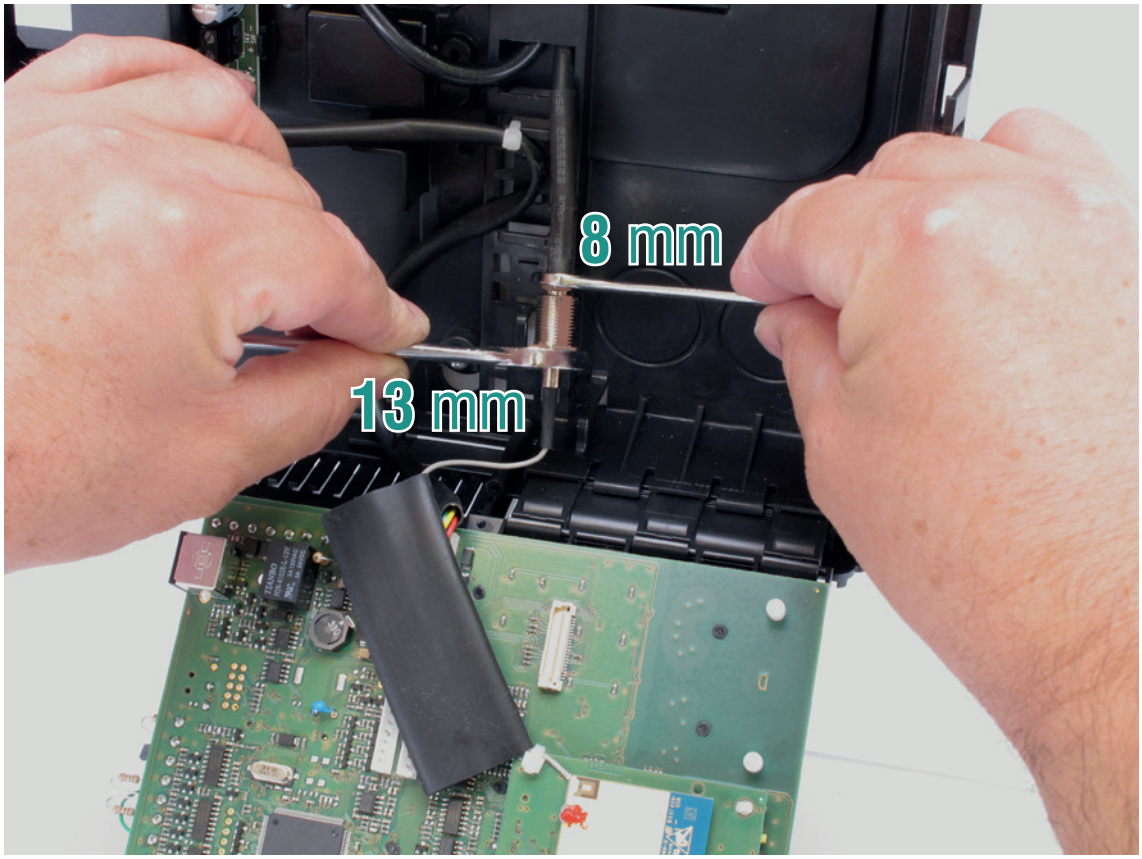
Insert the protective sheath around the module cable, as shown below:



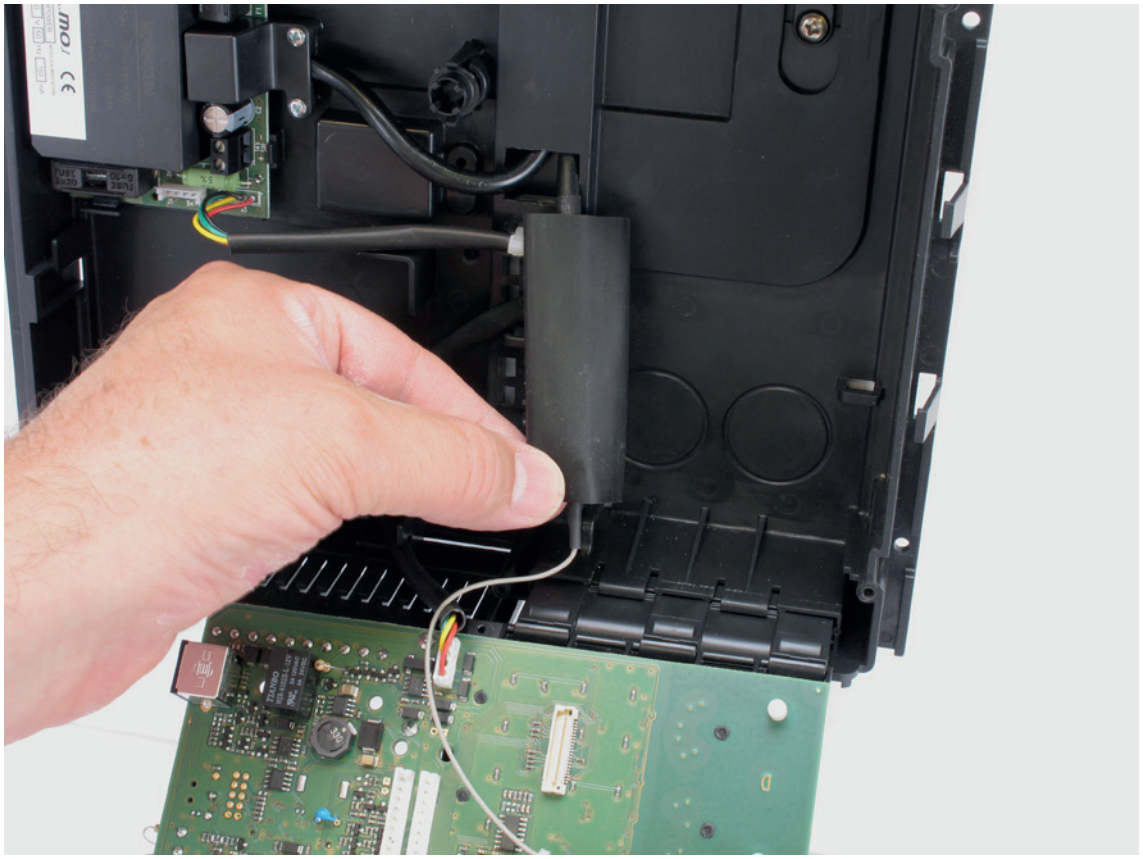
Hand-tighten the module cable and the antenna cable. Hold both by the metallic part (do not twist the cable):



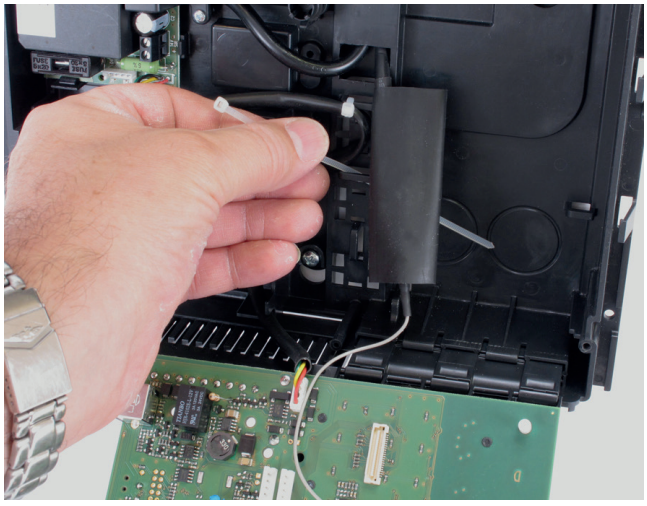
Keep tightening the cables using 8 mm and 13 mm wrenches:



Slide up the sheath, covering the now coupled cable connectors. Align it as shown:



Pass a cable tie inside the plastic hook on the bottom of the control unit and behind the sheath, then close it to keep both the cable and the sheath in position:



Install any other modules, then power up the control unit.

> Do not power up the control unit after the MDGSME module has been installed if the external antenna has not been connected.

Note: to install the module in a Tacóra series control unit, follow the instructions provided with the GSMACI kit.

4. PROGRAMMING

The programming menus are different on each control unit. Follow the instructions in their programming manuals.
When the module is installed on a TITANIACOMPACT control unit, it must be properly initialized:
- enter maintenance menu from control unit keypad
- reach the menu entry GSM MAINTENANCE and press OK
- press * (star) and # (hash) together

Some beep tones will indicate the module has been set up properly.
In any event, see the technical manual of the control unit in use.

5. CPR LABEL ON TACÓRA CONTROL UNITS

See the GSMACI kit manual. The example below depicts a TA2000 control unit.

6. CPR LABEL ON PREGIO CONTROL UNITS

Fill the ckeckbox in the existing CPR label, even if the presence of the module is already evident because of the antenna.
The example below depicts a PREGIO2000 control unit.

7. MAINTENANCE

For Tacóra control units:

- Periodically check the cleanliness of the control unit housing and of the antenna. If proven necessary, clean the outer surface of the housing with a damp cloth, using neutral detergents. Do not spray directly on the case or on the display.
- Periodically check if the antenna is properly attached to the cable connector coming from the MDGSME module.

For all compatible control units:

- Periodically check the cleanliness of the control unit housing. If proven necessary, clean the outer surface of the housing with a damp cloth, using neutral detergents. Do not spray directly on the case or on the display.
- Periodically check the GSM intensity signal by consulting the appropriate keyboard menu.
- Periodically check the remaining credit on the SIM card.

MDGSME - GSM GPRS dialler module with external antenna
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