

## TECHNICAL SPECIFICATIONS

Power voltage	: 12 V DC (rated)
Current absorption	: 1.2 mA (with system engaged)
Engagement delay	: 15 seconds
Positioning	: horizontal, maximum tilt $\pm 10^\circ$
Tilt alarm activation	: $1^\circ \pm 0.5^\circ$ for at least 3 seconds
Temperature range	: from - 40° C to + 85° C
Insulation standard	: IP 64 (IEC 529 1989) - DIN 40050 - EN 60529

## IMPORTANT

- Carry out electrical connections with battery clamps disconnected.
- Position the anti-lifting sensor **SEN 077-02** inside the driver and passenger compartment or in the boot, KEEPING IT HORIZONTAL, in an area where it is not exposed to accidental knocks or the infiltration of liquids or condensation.
- The **SEN 077-02** should be powered by an optional key positive relay. If powered directly it could become blocked in which case it must be reset by disconnecting it from the power source for a few minutes.
- When used with **med 2000.K** and **med 3000** alarm units, the **SEN 077-02** can be powered using the negative "status" output of the alarm unit in "fixed" mode and a direct positive (+ 30) with fuse protection.

## PLEASE NOTE:

- # Installation must be carried out by trained staff.
- # The installer must provide the owner of the vehicle with a certificate of installation supplied with the combined alarm system and to which the bar code label of the **SEN 077-02** must be applied.
- # **Med s.p.a** declines all responsibility and will forfeit the WARRANTY if improper use is made of the product or any of its parts, or if the product is tampered with or combined with devices for which NO provision has been made.

## INSTRUCTIONS FOR USE

Activate and deactivate the combined system following the relative instructions.

- The **SEN 077-02** sends an alarm signal to the combined alarm unit if it and the vehicle are tilted by at least  $1^\circ \pm 0.5^\circ$  for at least 3 seconds.
- The **SEN 077-02** is enabled approx. 30 seconds after the system is turned on.

## MAINTENANCE

The anti-lifting sensor **SEN 077-02** requires no maintenance whatsoever.

## TERMS OF WARRANTY

The technical warranty is valid for one year from the date of installation, ex works, for those parts considered defective by the unquestionable judgement of **med**.

This form of cover EXCLUDES external labour costs and all other burdens by whatever right.

The **WARRANTY** will only be acknowledged for appliances for which the duly compiled **INSTALLATION CARD** has been received.

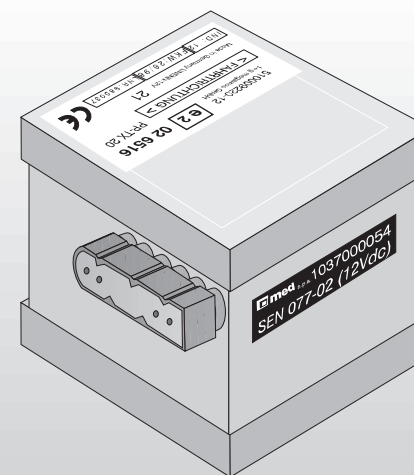
For the **SEN 077-02**, use the **INSTALLATION CARD** supplied with the combined alarm unit.



**med** s.p.a.  
Via Raffaello, 33  
24100 - Reggio Emilia (Italy)



Cod. 082.316.291 - 05/99



# SEN 077-02

Anti-lifting sensor with internal **DSP** microprocessor for combined use with **med** alarm units or **med GLOBAL** satellite security systems - 12 Volt.

Package contents:

- Anti-lifting sensor **SEN 077-02**
- Personalised cable **CAV 077-02**
- Instructions for assembly and use
- Assembly accessories

instructions for assembly and use



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## Legend

- |  |   |
|--|---|
| 1. Anti-lifting sensor <b>SEN 077-02</b>       | 8. <b>BLACK</b> wire for <b>negative</b> input  |
| 2. Clamping bracket                            | 9. Safety fuse with fuse box                    |
| 3. Tapping screws                              | 10. <b>BROWN</b> extension lead                 |
| 4. Clamping orifices                           | 11. <b>BROWN</b> extension lead                 |
| 5. Connection cable                            | 12. <b>BLACK</b> wire for <b>positive</b> input |
| 6. <b>BROWN</b> wire for <b>positive</b> input | 13. alarm unit <b>med</b>                       |
| 7. <b>GREEN</b> wire for alarm signals         | 14. Satellite security system <b>med GLOBAL</b> |

## ASSEMBLY INSTRUCTIONS

- Find a suitable position inside the vehicle in which to install the **SEN 077-02** keeping it horizontal. (Diag. A).

### IMPORTANT:

The anti-lifting sensor **1** must be firmly screwed onto the chassis of the vehicle using the clamping bracket **2** and the screws **3**, keeping the sensor **HORIZONTAL**. If the sensor is installed in a tilted or perpendicular position its precision and sensitivity are greatly reduced and it can become "blocked".

- Lay the cable **5** for connection to the **med 13** alarm unit or to the **med GLOBAL** satellite security system **14** and the power points; avoid hot areas or areas where it could be damaged.
- For **med 2000.K**, **med 2000.KB**, **med 3000**, **med 3000.B** alarm units: connect the **BLACK** wire **8** to the "STATUS" output programmed as "FIXED" for the control unit, the **GREEN** wire **7** to the **LIGHT BLUE NAR** and the **BROWN** wire **6** to a **+30** positive always present, using a **5A** fuse: (Diag. B).

### For all other alarm units:

Connect the **BROWN** wire to a positive input **6** using an optional relay **11** with **N/C** contact controlled by the ignition key **[+15]** in order to cut off the supply to the module when the engine is running. Place a **5 A** fuse **9** on the positive input. (Diag. A).

### IMPORTANT:

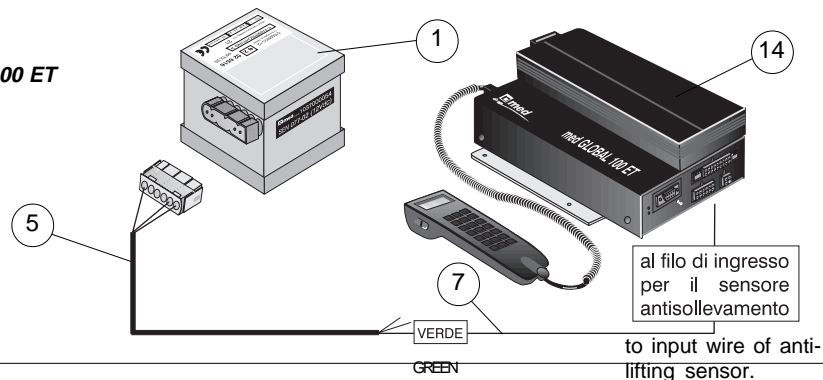
Use of relay **11** is **COMPULSORY**.

Connect the **BLACK** negative input wire **8** to an earth point on the vehicle foreseen by the manufacturer of the vehicle together with other earth points, or to the negative battery terminal.

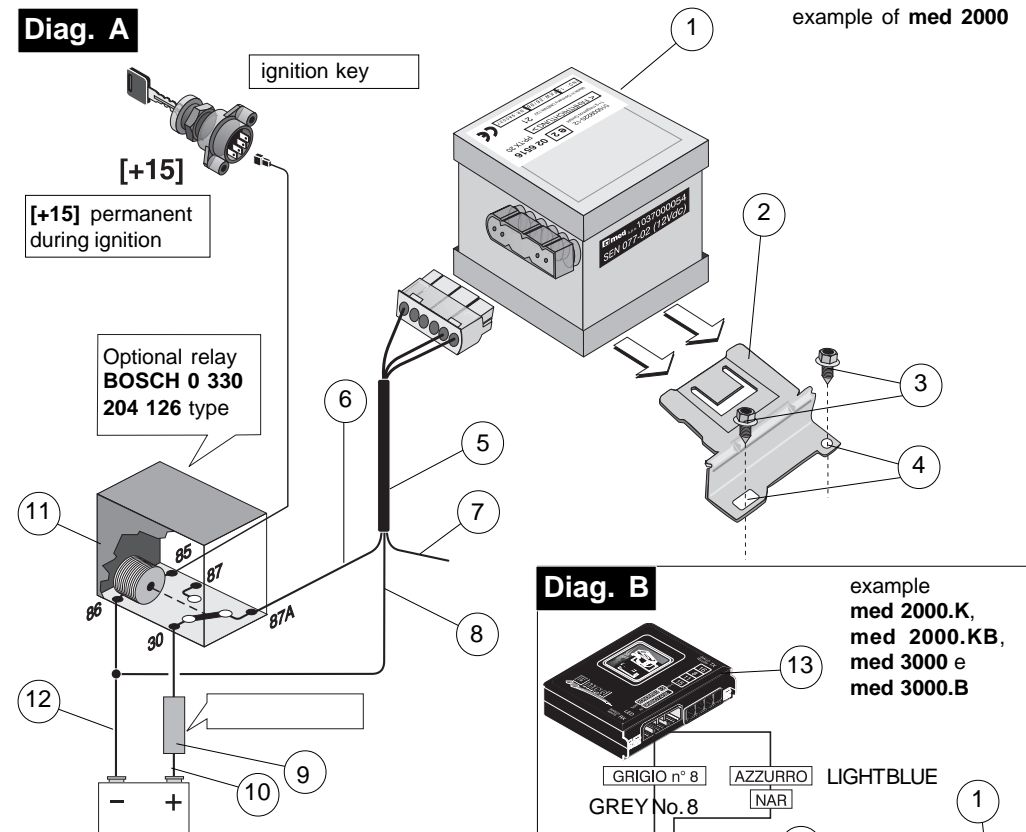
Connect the **GREEN** alarm indicator wire (this wire is **earthed** when the sensor **1** detects an alarm) to the wire marked **NAR** (N/O push-button input towards earth for Delayed activation) of the **med 13** alarm unit or to the specific input of the **med GLOBAL** satellite security system **14** (Diags. B-C-D).

## Diag. D

example with  
**med GLOBAL 100 ET**

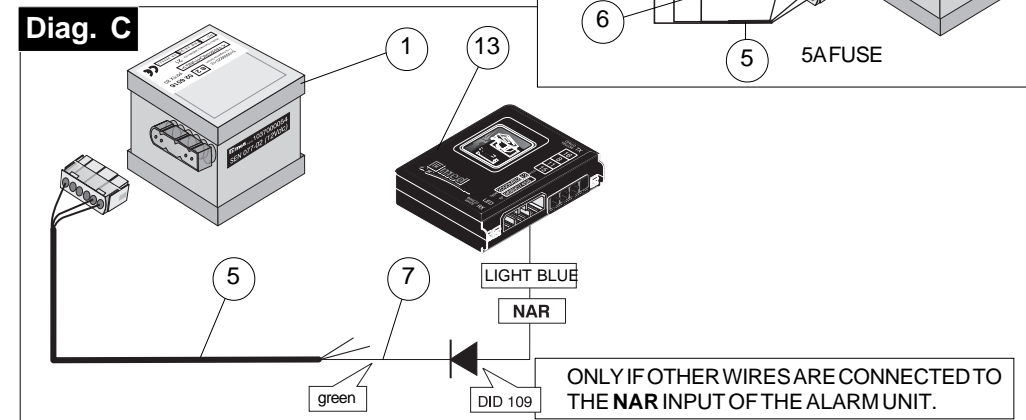


## Diag. A



**N.B.:** When the **GREEN** wire of the **SEN 077-02** is connected to the alarm unit with other wires, place a **diode (DID 109)** or equivalent between the two.

## Diag. C



example of **med 2000**

## Diag. B

example  
**med 2000.K**,  
**med 2000.KB**,  
**med 3000 e**  
**med 3000.B**

