

#### TECHNICAL SPECIFICATIONS of med 300 CENTRAL UNIT

Power source voltage rating	: nominal 12 V
Power draw	: 6 mA (typical value)
Maximum capacity of contact	: 35 A (for 10 seconds)
Temperature range	: from - 40° C to + 85° C
Protection	: IP 42 (IEC 529 1989) - DIN 40050 - EN 60529
Positioning	: INSIDE the PASSENGER COMPARTMENT

#### TECHNICAL SPECIFICATIONS of the ELECTRONIC DIGITAL KEY

Temperature range	: from - 40° C to + 85° C
Protection	: IP 67 (IEC 529 1989) - DIN 40050 - EN 60529

#### IMPORTANT!

med s.p.a. declines all responsibility and voids the WARRANTY if the product is improperly used, tampered with or utilized in combination with unauthorized devices.  
The device must only be installed by qualified personnel.

#### MAINTENANCE

med 300 requires NO maintenance.

#### WARRANTY

The TECHNICAL WARRANTY lasts one year from the date of installation, ex works, and covers those parts recognized as being defective by med, their decision about such matters being final.  
Costs of external labour and all other charges shall be ESCLUDED from this form of coverage.

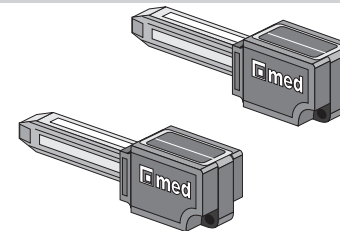
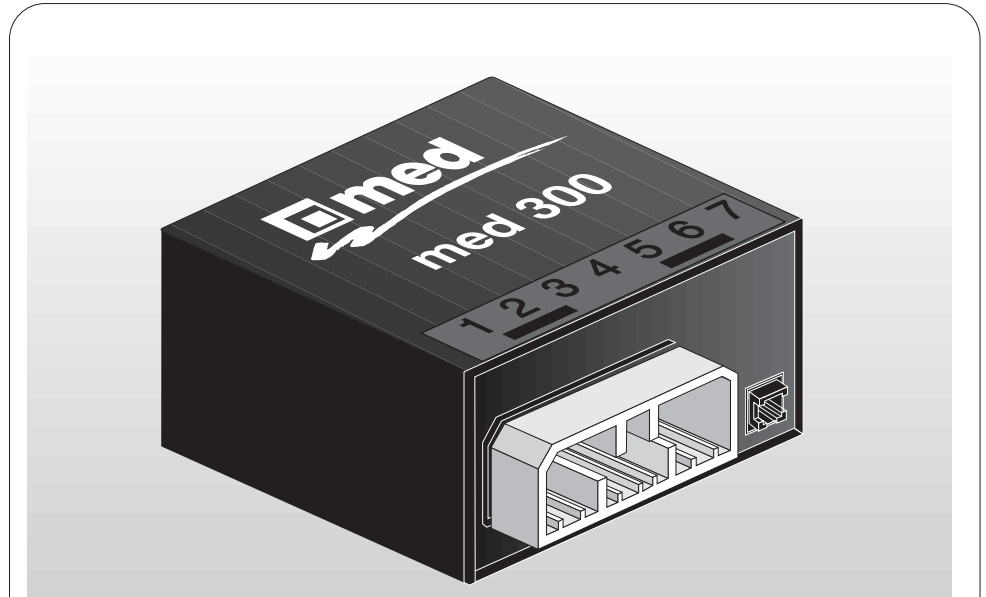
The WARRANTY shall only be recognized for appliances for which the (duly filled out) INSTALLATION CARD has been received.



med s.p.a.  
Via Raffaello, 33  
42100 Reggio Emilia (Italy)



Cod. 030.316.249



central unit

# med 300

ELECTRONIC CENTRAL UNIT WITH ROLLING-CODE DIGITAL KEY  
FOR IMMOBILIZER med 30.1 AND med 30.2 - 12 V

#### List of parts in the pack:

- Two digital keys CHD 300
- med 300 central unit
- CAV 300 customized harness
- CAV 1001 LED wire
- Key-holder PTC 421
- Key socket PCH 421
- Assembly instructions
- Assembly accessories

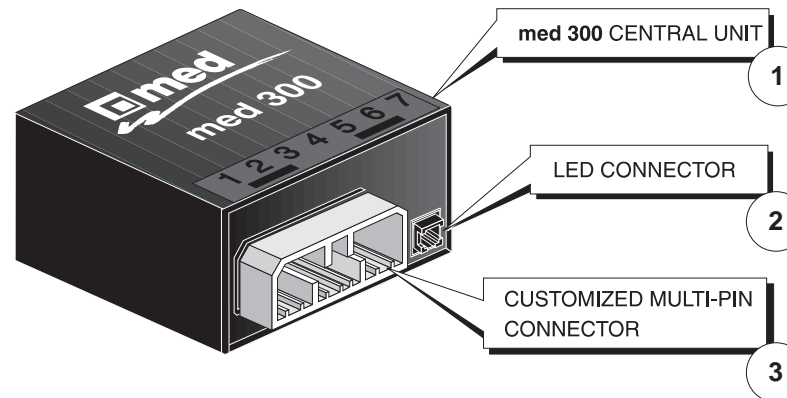
assembly instructions

Legend	
1. med 300 central unit	6. Washer
2. LED connector	7. med digital electronic key
3. Multi-pin customized connector	8. med key identification plate
4. LED wire	9. med key socket
5. Self-threading screw	10. med four-pin connector

#### ASSEMBLY INSTRUCTIONS WITH IMMOBILIZER med 30.1 or med 30.2

- Detach both the battery terminals and install the **med 30** immobilizer, using the DARK BLUE wire marked "**MUX**", as indicated in the specific instructions of the immobilizer: figure **a**.
- Connect the power harness of the **med 300** central unit: figure **b**.
  - # The **BLACK** ground wire marked **GND** should be connected to the negative terminal of the battery or to another grounding point of the chassis provided by the vehicle manufacturer, together with the other ground wires.
  - # The **RED** positive live wire should be connected to a **[+30]** harness (positive permanently supplied), e.g. on the positive terminal of the battery or in the fuse box.
  - # The **ORANGE** lead should be connected to a harness supplying permanent **[+15]** (positive under ignition key) during the starting phase.
- Connect the LIGHT BLUE wire marked **NA** to the button on the front on the driver's side. Comply with the following layouts:
  - figure **c**: if the roof light has no ground return;
  - figure **d**: if there is a ground return, installing a diode (e.g. **DID 109**) on the wire leading to the roof light.

**NOTE:** The connection MUST be made to obtain AUTOMATIC ACTIVATION of the immobilizer (see OPERATION).
- Interrupt the **[+50]** harness of the starter motor by means of the two WHITE wires marked **F V** ("GREEN WIRE" output). The output is able to withstand a power draw of **35 A** for 10 seconds: figure **e**.
- Fit the multi-pin connector with customized harness into connector **3** of central unit **1**.
- Mount key socket **9** on the dashboard leaving identification plate **8** visible, then insert four-pin connector **10** from the rear.
- Make a Ø 10 mm. hole in the dashboard in a visible position and use it to mount the LED: figure **f**.
- Securely fix the **med 300** central unit in place using self-threading screw **5** and washer **6**: figure **g**.
- ATTENTION:** Position the **med 300** central unit under the dashboard in a protected place, making sure that the harness leads in from below in order to prevent liquids or condensation from infiltrating.
- Re-connect the battery terminals and test th system (see TESTING and INSTRUCTIONS FOR USE depending on the selected type of operation).



#### MULTI-PIN CUSTOMIZED CONNECTOR:

COLOUR	MARKING	FUNCTION	MAXIMUM CURRENT
BLACK	GND	GROUND - POWER SUPPLY	-
RED	[+30]	PERMANENT POSITIVE POWER SUPPLY	-
ORANGE	[+15]	[+15] PERMANENT DURING STARTING	-
BLUE	MUX	IMMOBILIZER CONTROL SERIES <b>med 30</b>	-
LIGHT BLUE	NA	INSTANTANEOUS NO INPUT FOR DOOR BUTTONS	-
WHITE	F V	COMMON CONTACT OF "GREEN WIRE" RELAY OUTPUT	35 A
WHITE	F V	NO CONTACT OF "GREEN WIRE" RELAY OUTPUT	35 A

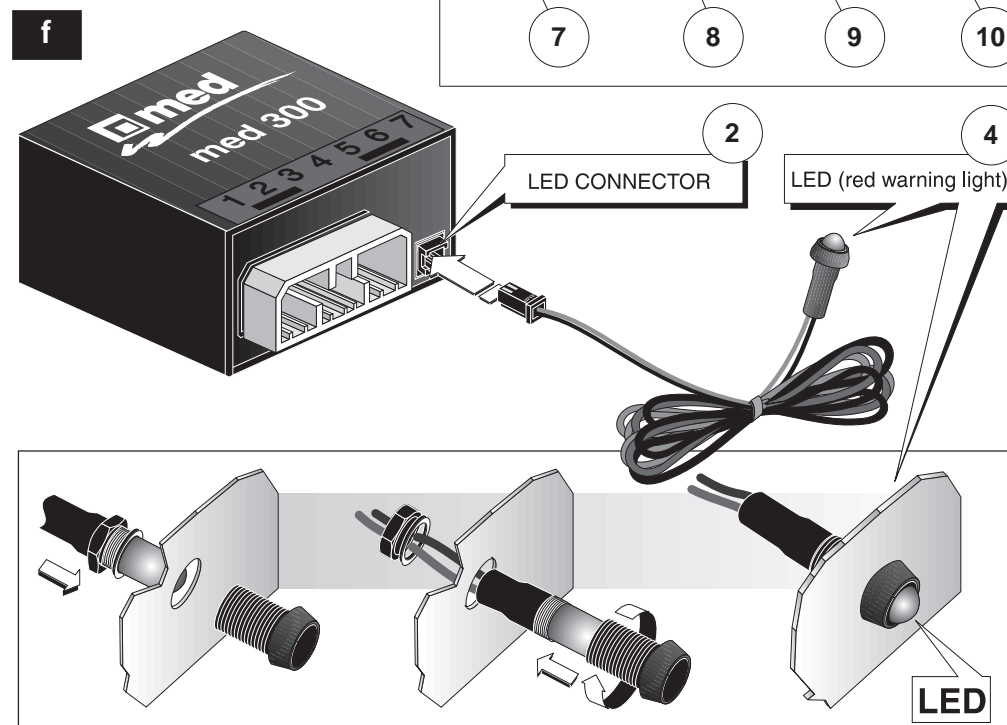
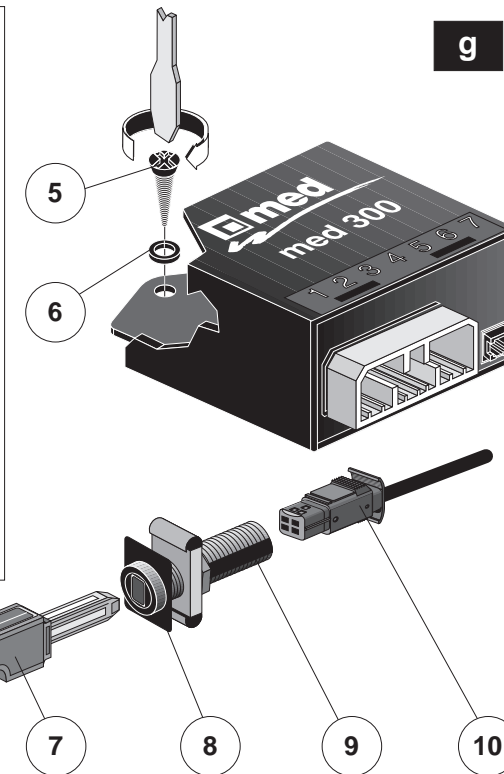
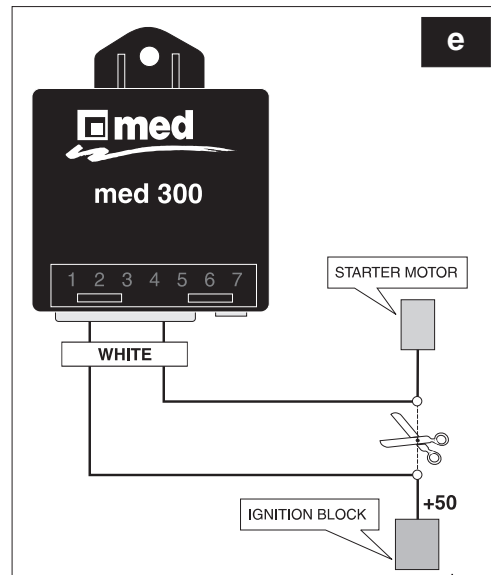
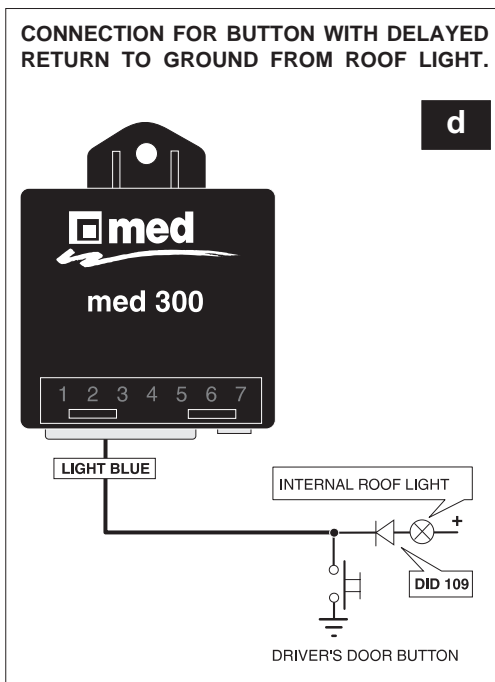
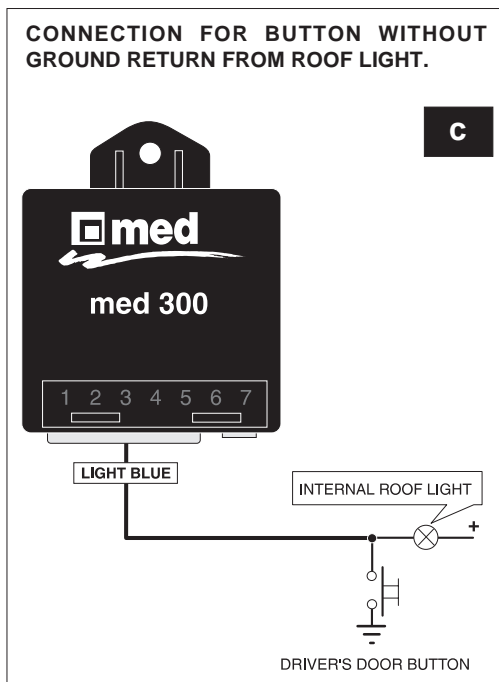
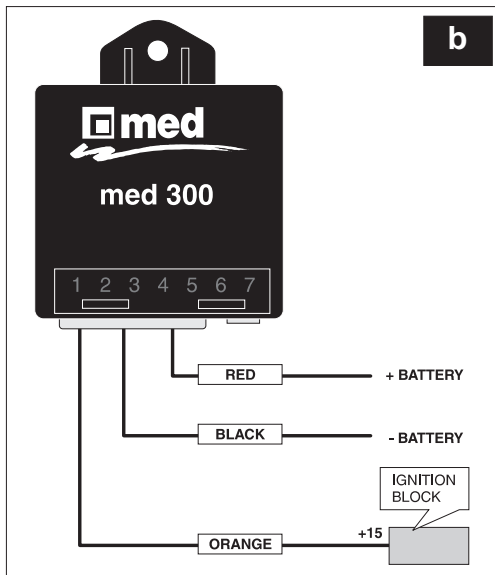
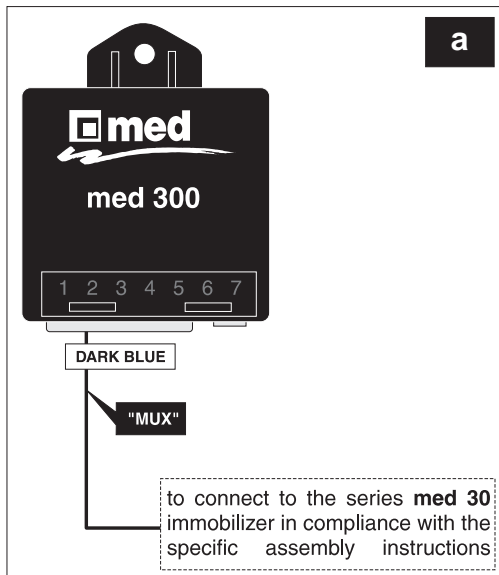
WIRE WITH FOUR-PIN CONNECTOR FOR **med** KEY SOCKET

#### OPERATION

To ensure the system operates correctly, the button of the front door on the driver's side must be connected to the **med 300** central unit.

TWO different operating modes can be selected by a simple programming operation:

- STANDARD** mode:
  - To start the engine, fit the **med** electronic key into its housing, leave it in whilst the engine is running and remove it to arm the immobilizer.
- CMI** mode (recommended):
  - To start the engine, insert the **med** electronic key into its housing, remove it and then start the engine within 30 seconds.
  - The immobilizer should activate 30 seconds after the ignition key has been turned off **[+15 OFF]** if the door is opened, or with a 10 minute delay if the door is NOT opened. This mode has been required for several years now by French and German Insurance Companies.



## PROGRAMMING

The **med 300** CENTRAL UNIT is consigned with the STANDARD operating mode already set.

To change the type of operation, disconnect the system by inserting and removing the electronic key (LED **OFF**), turn the ignition key to the **ON** (dashboard on) and **OFF** position (dashboard off) for a total of 10 times (ON-OFF, ON-OFF, ON-OFF, ON-OFF, ON-OFF, ON-OFF, ON-OFF, ON-OFF, ON-OFF, ON-OFF, ON-OFF) terminating with the key **OFF** (dashboard off).

At the end of this operation, the LED must be **continuously on**;

Failing this, wait a few seconds, then repeat the sequence.

- # To activate the **med STANDARD** mode:  
Insert and remove the electronic key 5 times, terminating with the key out.
- # To activate the **CMI** mode:  
Insert and remove the electronic key 10 times, terminating with the key out.

At the end of this operation, a sequence of slow blinks of the LED will indicate that programming has been successful, while a sequence of **fast blinks** indicates that the procedure must be repeated from the beginning. Turn the ignition key to the **ON** (dashboard on) and **OFF** position (dashboard off) to confirm the preprogramming operation.

**NOTE:** The LED will come on for an instant each time the ignition key **[+15 ON]** is inserted. During the programming phase, the LED **goes out** for an instant to confirm that the electronic key has been inserted.

### INSTRUCTIONS FOR USE IN med STANDARD MODE

1. The LED **blinks slowly** to indicate that the **med** immobilizer has been activated.
2. The **med** electronic key must be inserted in order to start the engine.
3. When the engine has started (LED **off**), the **med** electronic key can be even permanently removed WITHOUT the engine stopping (it is inadvisable to do this as normal practice).
4. If the electronic key is not inserted and the ignition key is turned off **[+15 OFF]** the immobilizer will activate after about 30 seconds or immediately a door connected to the **med 300** central unit is opened (**slowly blinking** LED).

**NOTE:** If the LED **blinks fast** when the door is opened, "REMEMBER" to remove the electronic key to activate the immobilizer.

### TESTING IN med STANDARD MODE

1. Make sure that the engine does not start or stops within a few seconds when the LED **blinks slowly** (the LED will remain **continuously on** when the ignition key is turned to the ON position).
2. Make sure that the engine starts and remains regularly running when the LED is **off** (electronic key inserted).
3. Make sure that when running, the engine DOES NOT stop when the electronic key is removed (LED **off**).
4. Make sure that when the doors are closed, the engine starts without the electronic key within 30 seconds after the ignition key has been turned off **[+15 OFF]** (LED **off**).
5. Make sure that the LED starts **blink slowly** when 30 seconds have elapsed after the ignition key has been turned off **[+15 OFF]** with the doors closed and without the electronic key.

### INSTRUCTIONS FOR USE IN CMI MODE

1. The LED **blinks slowly** to indicate that the **med** immobilizer has been activated.
2. When the **med** electronic key is fitted into its housing, the LED will remain **continuously on** to indicate that the code has been recognized.
3. When the electronic key is removed, the LED will **go out**. If the ignition key is turned to the ON position (dashboard on) within 30 seconds the engine can be started. Once 30 seconds have elapsed without the ignition key having been inserted **[+15 ON]** the LED will continue to **slowly blink** to indicate that the immobilizer has been re-activated.
4. If the ignition key **[+15 OFF]** is turned off without the **med** electronic key having been inserted:
  - # The engine can be restarted within 10 minutes, if the door connected to the **med 300** central unit is NOT opened (LED **off**).
  - # The engine can be started within 30 seconds, if the door connected to the **med 300** central unit is opened within 30 seconds after the ignition key **[+15 OFF]** has been turned off (**fast blinking** LED).
  - # Once 30 seconds have elapsed after the ignition key **[+15 OFF]** has been turned off, the immobilizer will immediately activate if a door connected to the **med 300** central unit is opened (**slowly blinking** LED).

Repeat the indicated procedure to start the engine.

**NOTE: The engine cannot be started when the med electronic key is inserted.**

### TESTING IN CMI MODE

1. Make sure that when the LED **blinks slowly**, the engine CANNOT start or stops within a few seconds (the LED will remain **continuously on** when the ignition key is turned **ON**).
2. Make sure that the engine starts and remains regularly on when the LED is **off**.
3. Make sure that the engine starts and remains regularly on when the LED **blinks fast**.
4. Make sure that the engine does not start within a few seconds if the **med** electronic key is inserted.