

TECHNICAL SPECIFICATIONS

Power source voltage rating	: 12 V (nominal value)
Power draw	: Null (with engine off) 90 mA (with engine running)
Temperature range	: from - 40° C to + 85° C
Max. capacity of contact	: 15 A
Positioning	: OUTSIDE the FUEL TANK, protected against splashes of water or other fluids
Protection	: IP 54 (IEC 529 1989) - DIN 40050 - EN 60529

MED 30.1 has been released according to the following standards:

- European standard 95/56/EC on the working and safety of immobilizers with n° e24 I-00 0114
- European standard 2006/28/EC on the electromagnetic interference.

IMPORTANT

- # The INSTALLATION should be done by QUALIFIED PERSONNEL who must take care of any electric cuts and use any unscrewing-proof device.
- # It is advisable to use the "green wire", followed specific instructions.
- # The INSTALLER is to provide the vehicle owner with the attached INSTALLATION CERTIFICATE properly filled in and undersigned, as well as with these operating instructions.
- # A.E.B. S.p.A. is NOT RESPONSIBLE and the GUARANTEE is void in the event of inappropriate use of the equipment or parts there of, tampering with or connected to unsuitable equipment.


MAINTENANCE

The MED 30.1 do not need any maintenance.

GUARANTEE TERMS AND CONDITIONS

The TECHNICAL GUARANTEE is for 24 month from the date of installation with ex-works terms for those defective parts, but subject to the incontestable decision of A.E.B. S.p.A. Under this form of cover the guarantee DOES NOT INCLUDE costs for labour and any other type of obligation. The guarantee is only applicable for equipment for which we have received the appropriate "INSTALLATION CARD" properly filled in.

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COMPANY WITH QUALITY SYSTEM CERTIFIED BY BUREAU VERITAS ISO 9001:2008	A.E.B. S.p.A. a socio unico / a single member Company - Via dell'Industria, 20 42025 - Corte Tegge - Cavriago (RE) - Italy med è una divisione di / a division of A.E.B. S.p.A. www.medautomotive.it Ph.+39 0522 494486 - Fax +39 0522 494410 - e-mail: service@medautomotive.it	
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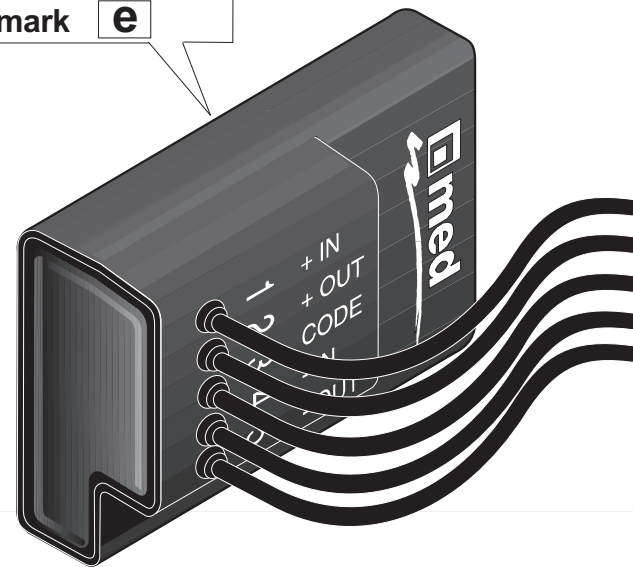
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AUTOMOTIVE SOLUTIONS



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immobilizer

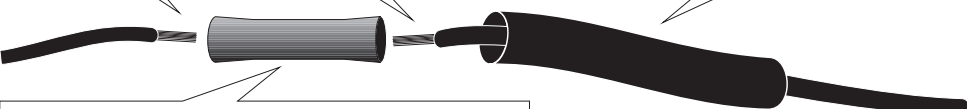
MED 30.1

IMMOBILIZER FOR INJECTION VEHICLES WITH ELECTRIC FUEL PUMP - 12 V

Fitting and operation instructions

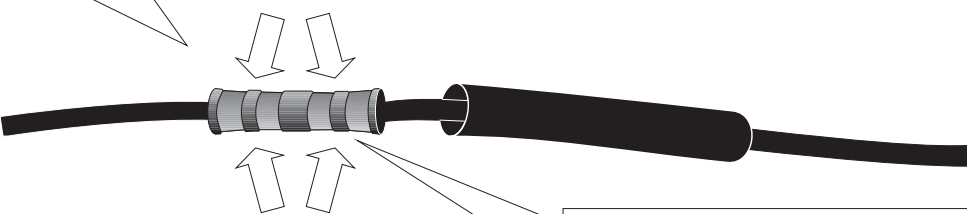
1. STRIP THE WIRES

HEAT-SHRINK SHEATHING N° 19



"CRIMPED" TERMINAL N° 18

2. INSERT THEM INTO THE TERMINAL AND "CRIMP" AS INDICATED



3. AFTER TESTING, FIT THE HEAT-SHRINK SHEATHING OVER THE TERMINAL



4. BLOCK THE HEAT-SHRINK SHEATHING ON THE TERMINAL BY HEATING THE SURFACE WITH AN INDUSTRIAL HAIR DRYER



OPERATION

The **BLACK** wire marked "OUT2/MUX" (MED 311.1) or **PURPLE** wire (MED 2200, MED 3200, MedSKY MS10 CAN) transmits the control code to the immobilizer central unit.

Connections can be made directly, using a specific wire connected to the [3 "CODE"] input of MED 30.1 or, more simply the original wiring of the vehicle and installing the KIT 30 module in between.

- If the system is **DISARMED** (the immobilizer receives its code), the fuel pump will be normally powered, thus allowing the vehicle to operate correctly.
- If the system is **ARMED** (the immobilizer DOES NOT receive its code), the engine will fail to start or will stop almost immediately if an attempt is made to start it.

The IMMOBILIZER MED 30.1 has new technical facilities able to guarantee the utmost reliability ("FAIL SAFE" operation) and protection for the vehicle.

These have been perfected by MED during over ten years of experience in the sector.

INSTALLATION WITH CENTRAL UNITS

MED 311.1, series MED 2200, MED 3200 and MedSky MS10 CAN

The IMMOBILIZER MED 30.1 leaves the factory in a "virgin" state with no opening code. This is why it can initially be opened by all new generation MED central unit equipped with ROLLING-CODE: MED 311.1 with digital key access; MED 2200, MED 3200 and MedSky MS10 CAN with remote control access.

On the other hand, the codes of the central units are always different from each other.

The IMMOBILIZER will remain in its "virgin" state for the first 20 activations [+15] ON but, on the 21st. activation, it will be IRREVERSIBLY COUPLED to the code of the central unit and from then onwards, will only accept that code.

During the installation phase, it is advisable to keep within the 20 activations if you are not certain that assembly is correct.

Within this limit of 20 activations, both the central unit and the IMMOBILIZER can be substitute for others of a similar type without any particular operation being required.

STATUS MEMORY

The MED 30.1 immobilizer has a STATUS MEMORY, i.e. when it is disarmed it remembers and retains its "engine running with ignition key inserted" [+ 15] ON condition.

The IMMOBILIZER arms when the ignition key has been turned off [+ 15] OFF for at least 3 / 6 seconds.

Legenda

- | | |
|------------------------------------|--|
| 1. KIT 30 module | 11. "CODE" immobilizer control wire |
| 2. Fuel pump relay | 12. MED 30.1 negative output |
| 3. KIT 30 - output wire | 13. Negative live wire of fuel pump |
| 4. KIT 30 - input wire | 14. Fuel pump unit |
| 5. Positive live wire of fuel pump | 15. Original fuel pump connector |
| 6. Vehicle panel | 16. MED immobilizer/ alarm central unit |
| 7. MED 30.1 immobilizer | 17. "MUX" immobilizer / alarm control wire |
| 8. MED 30.1 positive input | 18. "CRIMPED" terminal |
| 9. MED 30.1 positive output | 19. Heat-shrink sheathing |
| 10. MED 30.1 negative input | |

ASSEMBLY INSTRUCTIONS

WARNING!! THE DESCRIBED OPERATION MUST BE CARRIED OUT OUTSIDE THE FUEL TANK. FOR SAFETY REASONS, THE FUEL PUMP MUST NEVER BE DEMOUNTED FROM THE TANK.

1. Identify fuel pump unit **14**:

WITH SUBMERSED PUMP UNITS:

- A. through the relative inspection trap under the rear seats or in the luggage compartment.
- B. if there is no inspection trap, slacken off the fuel tank after having lifted the vehicle in a safe way (comply with the manufacturer's instructions);

WITH THE PUMP UNIT INSTALLED UNDER THE VEHICLE PANEL:

- A. by removing the relative protective casing.

2. Identify the wires that power pump unit **14** in connector **15**: **positive 5** and **negative 13**: figure **A**.

WARNING!! in the case of submersed pump units, the wires of the fuel level gauge may also be in connector **15**. These can easily be recognized thanks to their small section.

3. Cut the **5 positive** and **negative** wires, connecting them to the wires of immobilizer **7** as indicated.

Use the supplied CRIMPED terminals **18** and fit on the pieces of heat-shrink sheathing **19** for the **MED 30.1** connections alone: figure **C**.

Use a CLAMP for INSULATED CABLE LUGS of the suitable type for CRIMPING.

4. Connect the **BLACK** wire marked "OUT2/MUX" (**MED 311.1**), **PURPLE** wire (**MED 2200**, **MED 3200**, **MedSky MS10 CAN**) of the **MED** central unit **16**:

- I. With **KIT 30**, to wire **3** together with wire **5** leading to **MED 30.1**. In this case, wire of immobilizer **7** must be INSULATED: figure **A**.

WARNING: KIT 30 allows the control code to be transmitted for a **med** immobilizer "CODE" line **7** by means of the original wiring, in series with which it must be connected. This PREVENTS the code from being transmitted to the entire electrical system of the vehicle.

- II. Without **KIT 30**, connect to wire **11** of the immobilizer **7**, routing in the most appropriate way to prevent it from being damaged: figure **B**.

In this configuration, the **med** central unit **16** can pilot more than one **MED 30.1** immobilizer, e.g. in vehicles with separate fuel pumps.

5. Conduct a preliminary central unit operating test (see TESTING and INSTRUCTIONS FOR USE).

6. When a positive result has been obtained to the previous test, fix the immobilizer **7** in a stable position near connector **15** using the Velcro supplied in the pack.

7. Fit the heat-shrink sheathing tubes **19** on the terminals **18** and lock them in place by heating them with an industrial hair dryer: figure **C**.

8. Restore the original vehicle system to its initial conditions.

WITH A SUBMERSED PUMP UNIT:

- A. close the cover that accesses the pump compartment. If there are screws, replace them with the shear bolts of adequate size (\varnothing 2,5 - 3 - 3,5 mm.) supplied in the pack to guarantee a greater safety level.

- B. remount the protective casing.

TEST RUN

1. **ARM the SYSTEM** and make sure that the engine does not start or stops of its own accord a few seconds after an attempt to start.

WARNING:

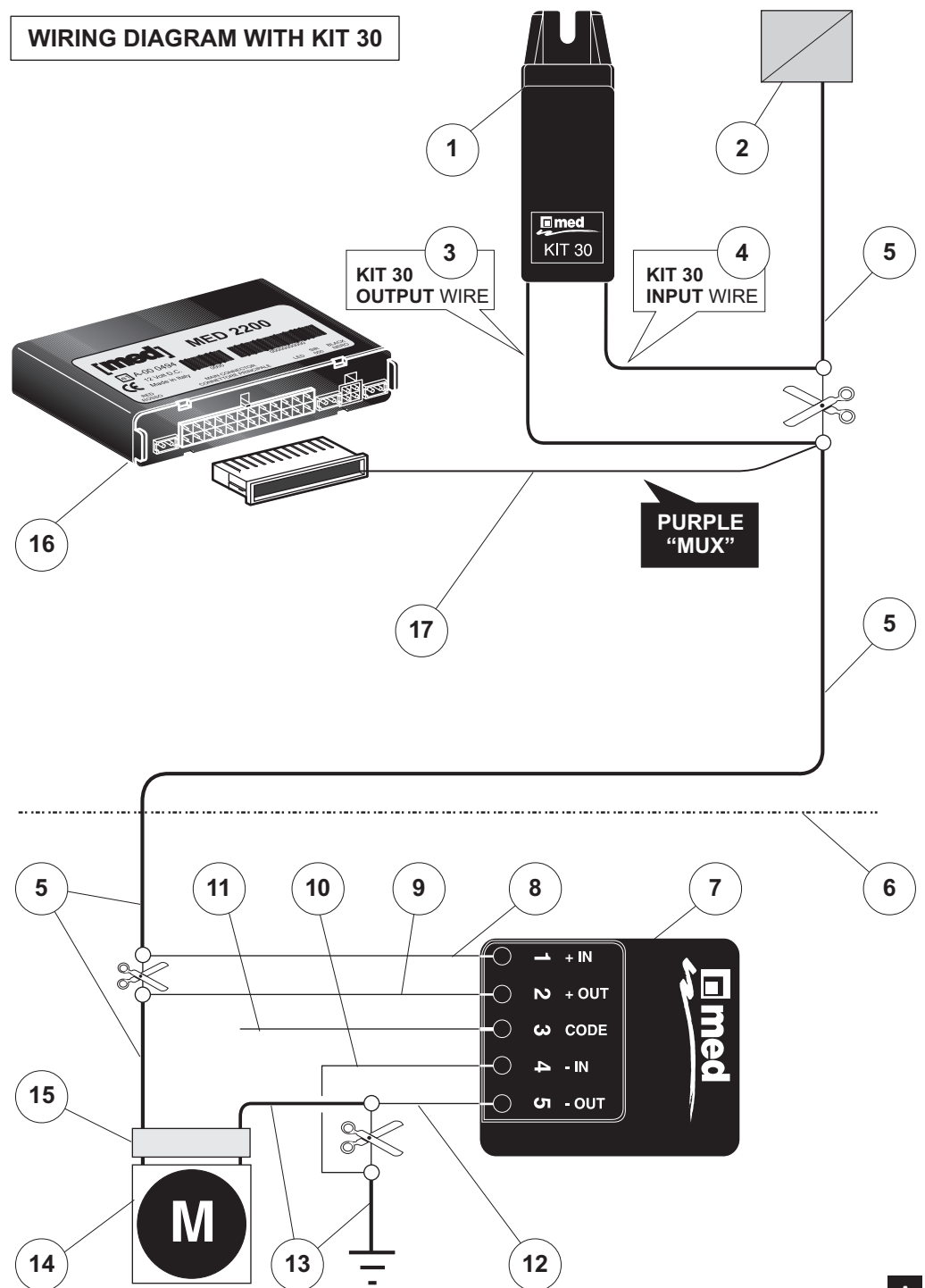
further attempts to start could cause the engine to start for a few seconds, for 10 attempts at most.

2. **DISARM the SYSTEM** and make sure that the engine remains regularly on.

USAGE

Arm and disarm the system in compliance with the specific instructions supplied with the **MED** central unit.

WIRING DIAGRAM WITH KIT 30



WIRING DIAGRAM WITH DIRECT CONNECTION BETWEEN THE "MUX" LINE AND MED 30.1

