

TAXiTRONiC

INSTALLATION MANUAL

TAXITRONIC TX80 SKYGLASS

GENERAL INDEX

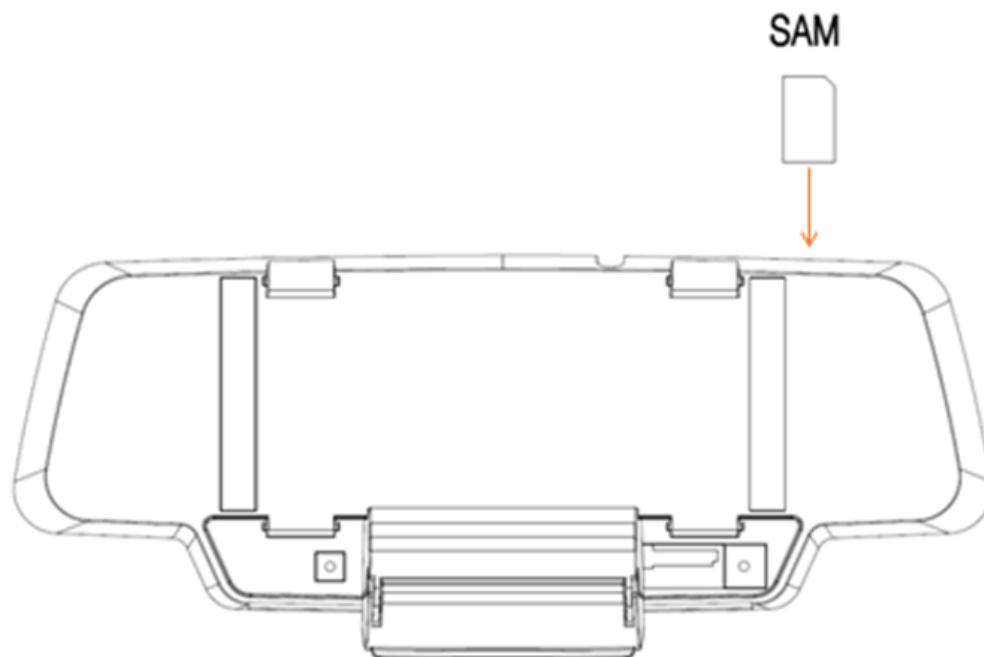
1. INTRODUCTION	3
2. INSTALACIÓN SAM	3
3. MOUNTING	3
3.1. MOUNTING AND LOCATION OF TX80.....	3
3.2. MOUNTING AND LOCATION OF SKYGLASS.....	4
4. ELECTRICAL INSTALLATION	5
5. SEALING	11
5.1. TX80 SEALING	11
5.2. SKYGLASS SEALING	12
6. TECHNICAL CHARACTERISTICS.....	12
7. IMPULSE GENERATOR	14
7.1. INTRODUCTION.....	14
7.2. INSTALLATION	14
7.2.1. ASSEMBLY OF THE SPEEDOMETER CABLE AND PULSE GENERATOR	14
7.2.2. CABLE CONNECTION, COVER CLOSING AND PULSE GENERATOR SUPPORT	16
7.3. SEALING (Drawing 11)	17
7.4. TECHNICAL CHARACTERISTICS	17
8. VEHICLES WITH ELECTRONIC IMPULSE SIGNAL.....	17

1. INTRODUCTION

This document describes the installation and parameterization of the taximeter TAXITRONIC TX80 SKYGLASS.

2. INSTALACIÓN SAM

To introduce SAM card the device must be opened, then introduce SAM card in the skyglass groove as there is shown on the plane



Rear view

To configure the SAM card, the toolkit manual (SIM/SAM configuration section) indications must be followed. This process must be done after the installation has been completed in the vehicle.

3. MOUNTING

3.1. MOUNTING AND LOCATION OF TX80

The device will arrive sealed. It is necessary to open it to proceed to the connection. All TC60 connectors are inside the unit, covered by a sealable cover.

The tools necessary for the installation are:

- Screwdriver with head format Z1

All other devices are interconnected with TX80. So it can't be sealed until the whole installation process is finished.

TX80 must be installed so that passengers can't see or access it. Seals and serial numbers must be easily visible and accessible upon verification at a verification office. For this reason it is necessary to take care of the orientation, with the stickers looking to the outside.

Standard positions are inside the glovebox or under the vehicle board. Some vehicle brands have standardised the TX80 position.

It is necessary that the identification sticker and the seals are easy to inspect. Cables can't cover neither the identification sticker nor the seals.

3.2. MOUNTING AND LOCATION OF SKYGLASS

SKYGLASS must be tied to the interior rear view mirror of the vehicle by two Velcro strips. The connection of the device is done through their cable into the TX80 internal connector.

4. ELECTRICAL INSTALLATION

To access the TX80 connectors it is necessary to open the Connector cover

- Take out the screw that seals the cover
- Connect each cable into its connector
- Pass each cable through its retention
- Break the holes in the top cover in order the cables can pass
- Clos the device
- Screw the cover

The TX80 has the following connectors:

- **(1) CAN Vehicle**

Contact number	Function
1	+ 12V
2	+ 5V
3	CAN H
4	CAN L
5	1
6	Ground

- **(2) Power Supply**

Contact number	Color	Function
1	-	-
2	Green / White	Distance pulses
3	-	L4
4	-	L3
5	-	L2
6	Brown	Emergency signal
7	Violet	Passenger sensor
8	Blue	Contact Key
9	Yellow	Position lights
10	Green	Rooflight (L1)
12	Red	Battery 12V
12	Red	Battery 12V
13	Black	Ground
14	Black	Ground

* If the emergency signal is not used, Brown cable must be connected to ground.

- **(3) Impulse Generator**

Contact number	Color	Function
1	Mesh	Ground
2	Red	+ 5V
3	Green	Signal
4	-	-

- **(4) Serial Port**

Contact number	Function	
1	+ 12 V	
2	+ 5 V	
3	TXD	RS232 levels +- 12V
4	TXD	TTTL levels 0 - 5 V
5	RXD	
6	Ground	

- **(5) CAN Accessories**

Contact number	Color	Function
1	Red	+ 12V
2	-	+ 5V
3	Yellow	CAN H
4	Green	CAN L
5	Blue	ON
6	Black	Ground

- **(6) SKYGLASS Connector**

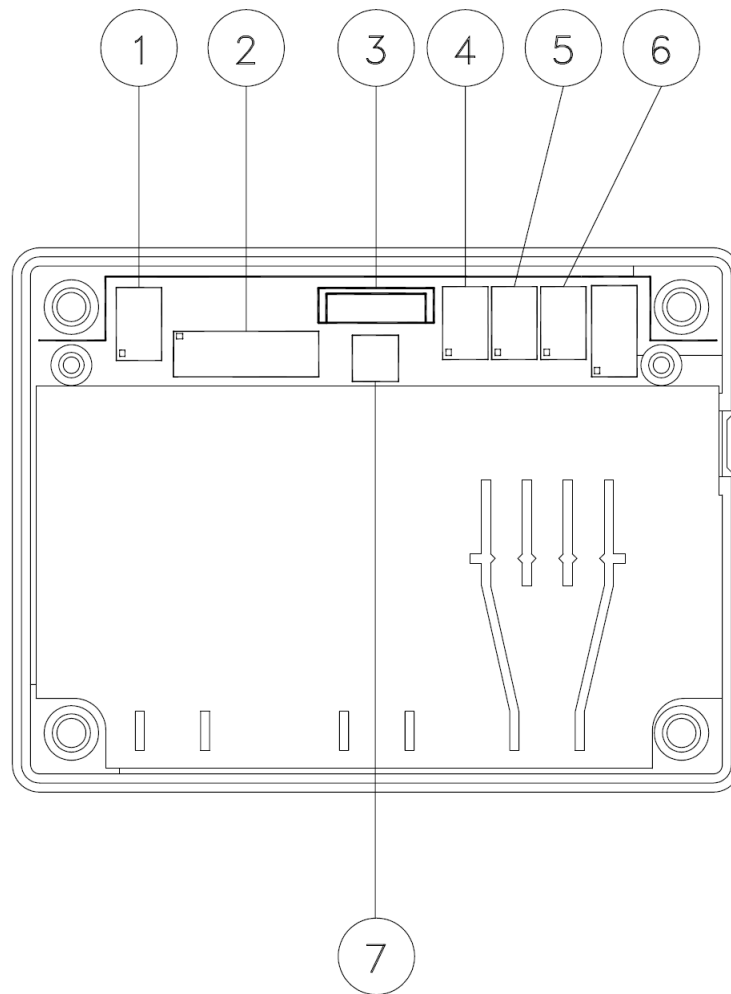
Contact number	Color	Function
1	Red	+ 12V
2	-	+ 5V
3	Yellow	CAN H
4	Green	CAN L
5	Blue	ON
6	Black	Ground

- **(7) Serial Rooflight**

The connector on the cable has a white mark, which has to be oriented to the pulses connector

Contact number	Function	
1	Ground	
2	+ 12V	
3	TXD	TTL 0 – 5 V
4	RXD	TTL 0-5 V

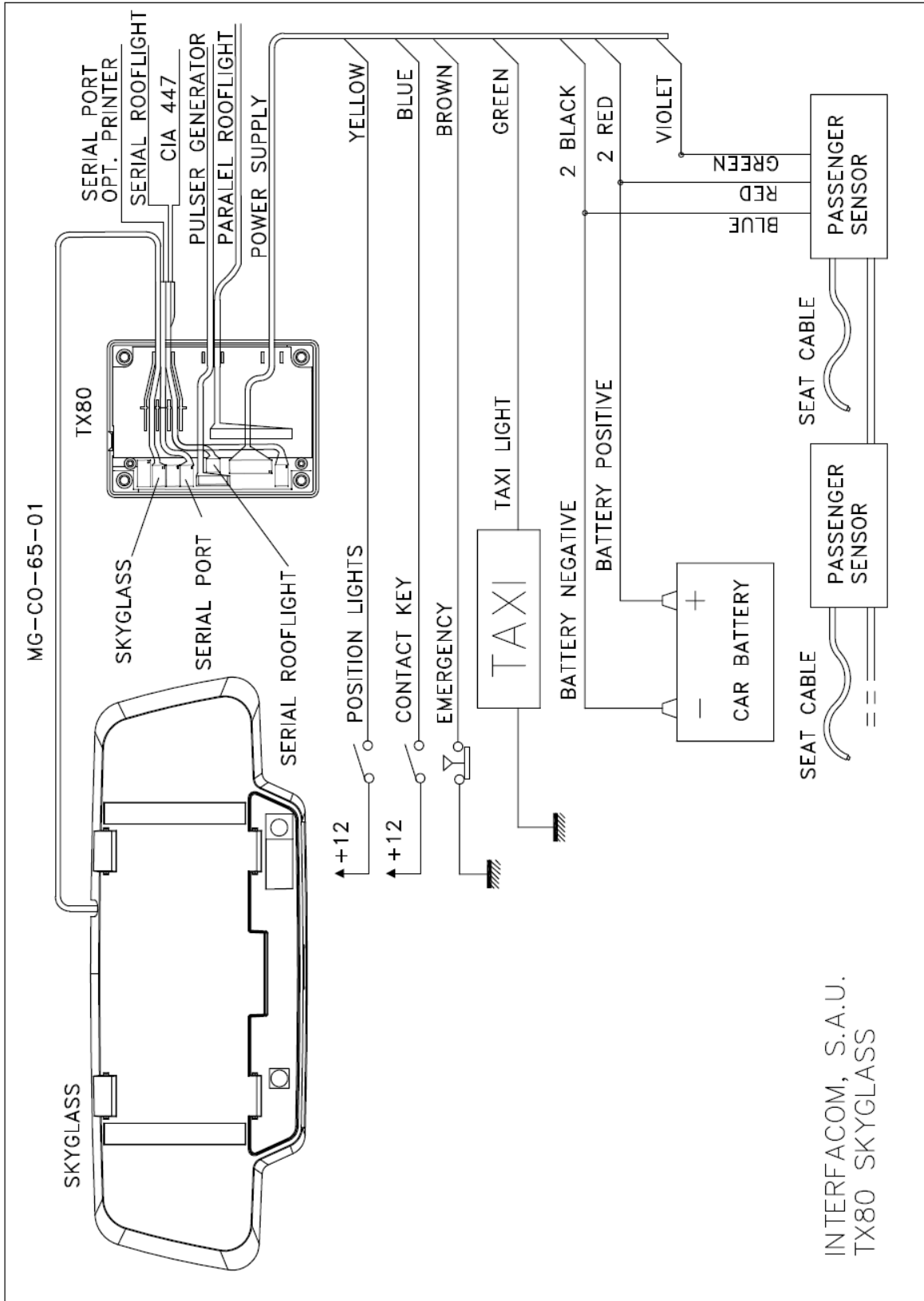
TX80 CONNECTORS



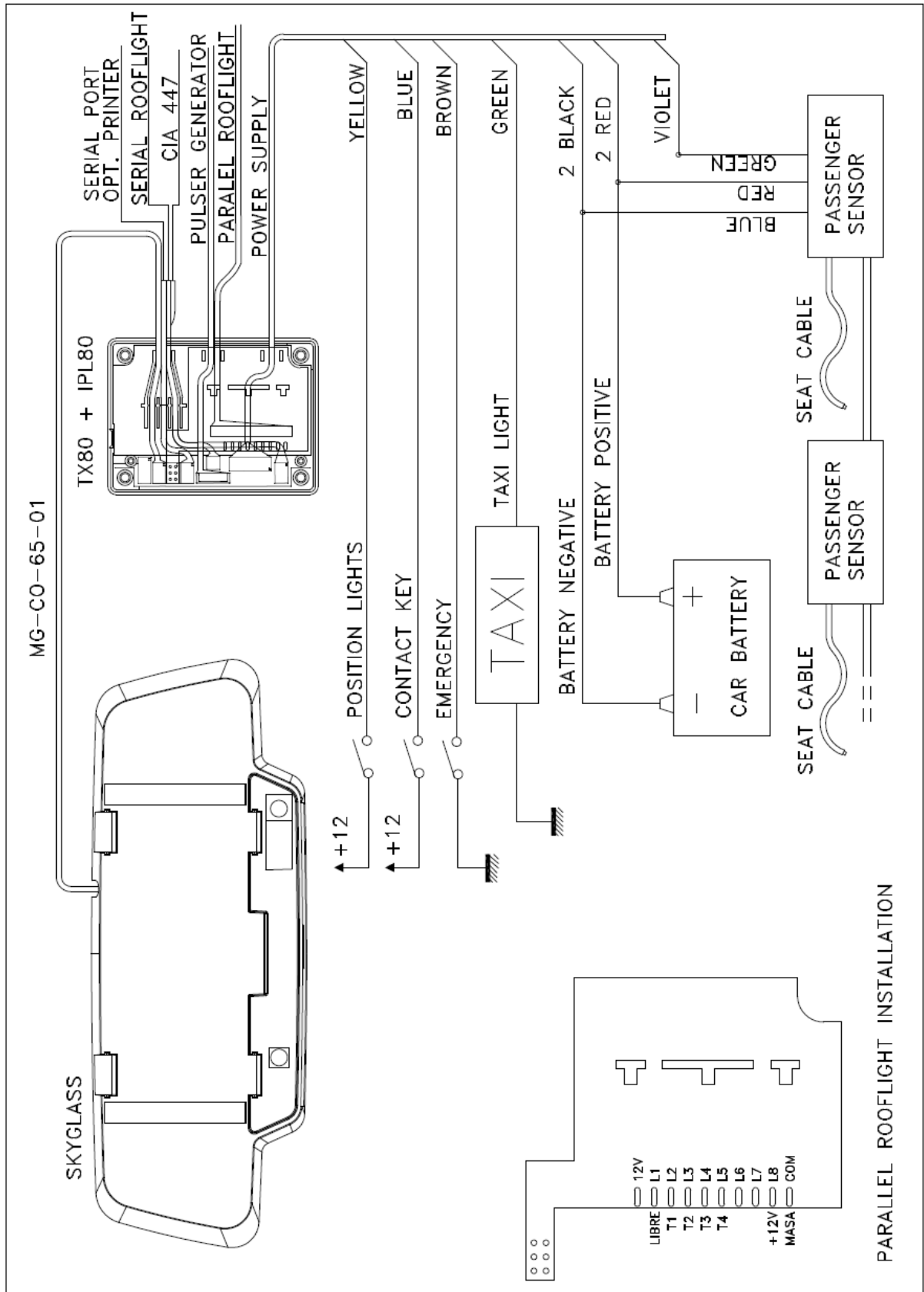
IPL80 connection

IPL80 must be connected to CAN accessories (5) connector. The rooflight cables must be connected to IPL80 as the rooflight installation diagram shows.

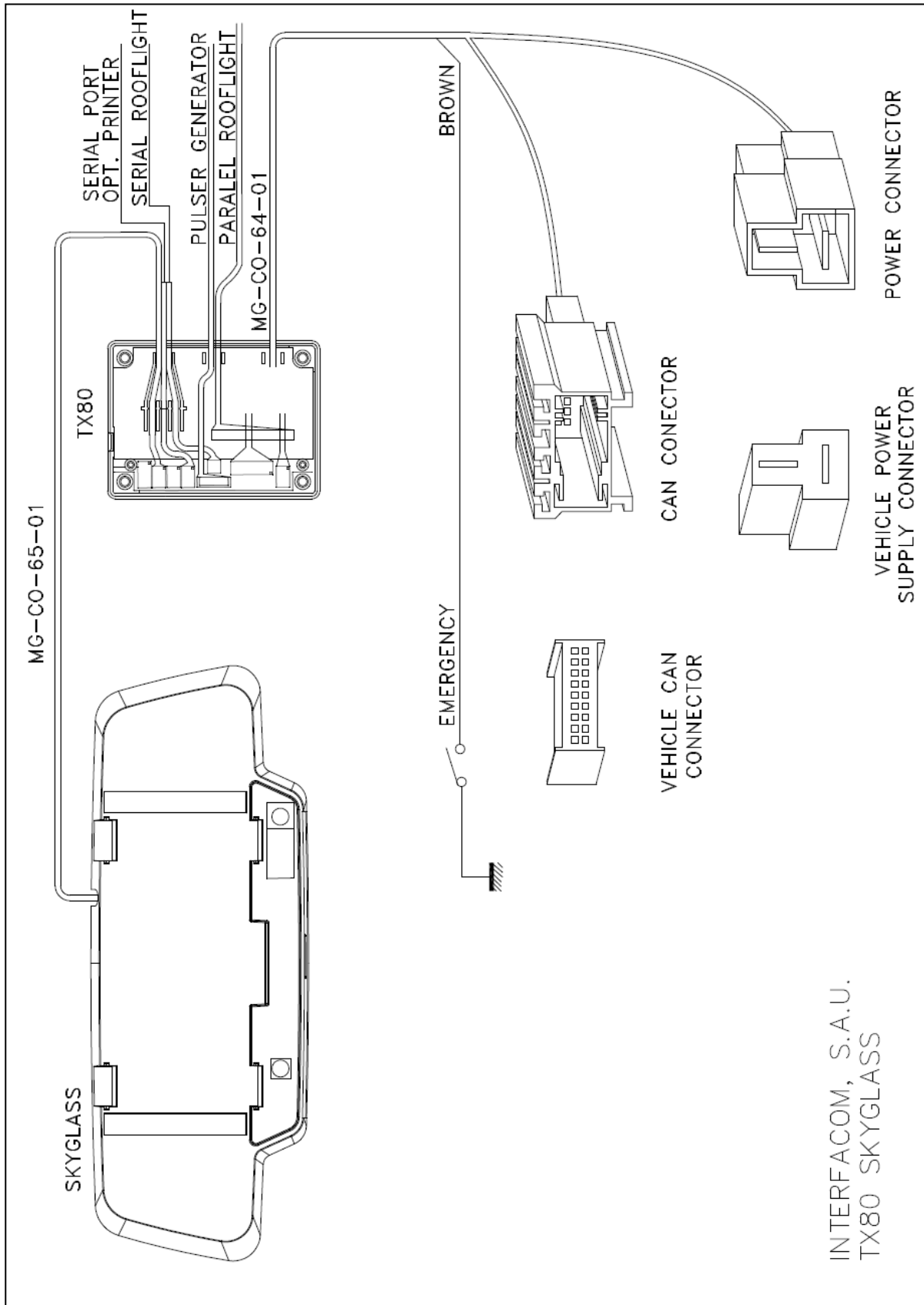
COMPLETE INSTALLATION



Parallel rooflight installation



INSTALLATION IN A VEHICLE WITH CIA447 PROTOCOL



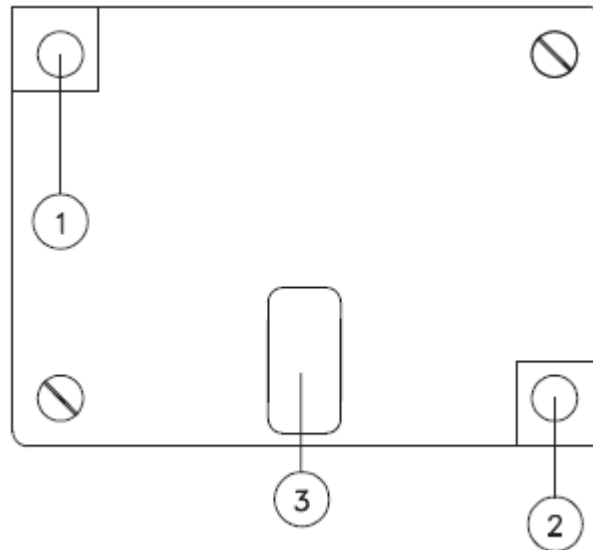
RECOMMENDATIONS FOR THE ELECTRICAL INSTALLATION

- Disconnect the positive terminal on the battery until the whole electrical installation is completed.
- Any manipulation of the taximeter or of the external lights must be done while the taximeter is disconnected from the power supply
- Always take the positive and negative directly from the battery in order to avoid false contacts and to obtain a more filtered power supply.
- Always connect the cables to the battery by means of a terminal, never by winding the wires onto the contact.
- If the cables cross a plate to reach the taximeter they should go through a protective rubber casing.
- If the cables are too long they should be cut to the required length and not rolled up under any circumstances.
- If the vehicle has a radio transmitter, separate its installation from that of the taximeter as far as this is possible.
- If it is possible no element that is connected to the taximeter should be fixed to the same support as the aerial of the radio.
- If there is enough length on the connection cable between the TX80 and the SKYGLASS, the excess should be collected by making an eight and tie that with a flange, never making a spiral.

5. SEALING

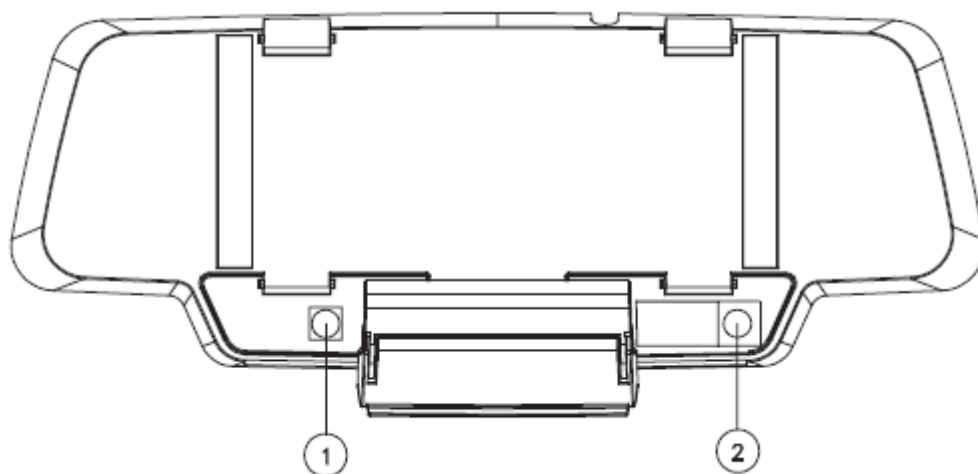
5.1. TX80 SEALING

- Seal N°1 and 2: Seals the taximeter box, so it seals the electrical installation.
- Seal N°3: Is the manufacturer sealing, preventing access to the electronic board.



5.2. SKYGLASS SEALING

- Seal N°1: Seals the taximeter box, preventing access to the electronic board..
- Seal N°2: seals the cover of the tariff charger connector



The taximeter kit is normally ready for sealing with a sticker seal. In some regions it is necessary to have a cable seal. If you need this kind of seal, the taximeter kit should include an antiturn angle and screws with a hole for the cables

6. TECHNICAL CHARACTERISTICS

The general technical characteristics of TX80 SKYGLASS are as follows:

- Power supply voltage Nominal = 12 V
 Max = 30 V
 Min = 10 V
- Maximum consumption without external lights = 1500 mA

- Maximum consumption taximeter off = 6 mA
- Maximum consumption inside battery = 2.5 μ A

- Maximum power 36 W for each external light of 60 W in case that 3 outputs are connected in parallel.

- Impulse generator power supply = 5 V
 Impulse generator input signal: level 0 = -1 to 2,5 V
 level 1 = from 4 to 25 V

- Maintenance of the information disconnected from the vehicle's battery = 5 years
- 40 V surges of 10 ms.
- Resistance to electrostatic shocks of 6 kv (Contact), 8 kV (Air).

- Protection against inverse connection
- TX80:
 - Internal connector protective fuse of 1.85 A.
 - External fuse of 4 A.

- Operational temperature:
 - TX80: -25 to +70°C
 - SKYGLASS: -25 to +70°C

- Storage temperature for keeping the information - 40 to + 85° C

	Wide	High	Deep	Weight
TX80	80	33	60	76
SKYGLASS	286	105	27	476
SKYGLASS PRO	286	105	90	610

- "K" constant of the device from 500 until 80000 pulses per Km/ml.
- Mechanical environment M3
- Climatic environment E3

7. IMPULSE GENERATOR

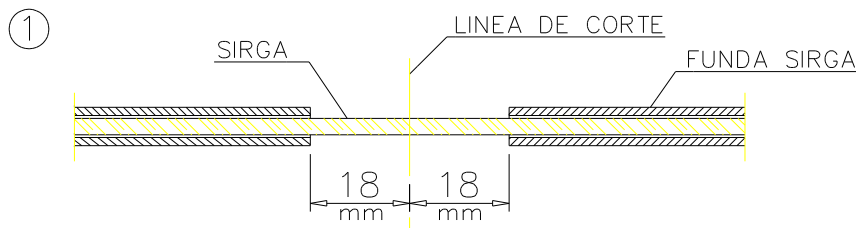
7.1. INTRODUCTION

- For the vehicles with mechanical speedometer, you have to use a pulse generator that is managed by the taximeter.
- The pulse generator is inserted in the cable of the speedometer and converts the mechanical movement of this cable in an electrical signal, which is amplified and filtered by the taximeter.

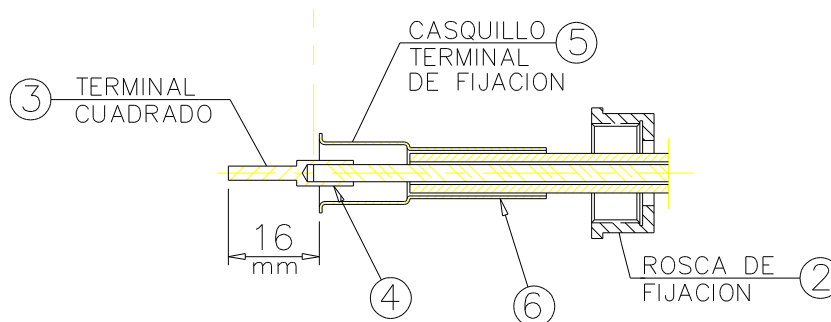
7.2. INSTALLATION

7.2.1. ASSEMBLY OF THE SPEEDOMETER CABLE AND PULSE GENERATOR

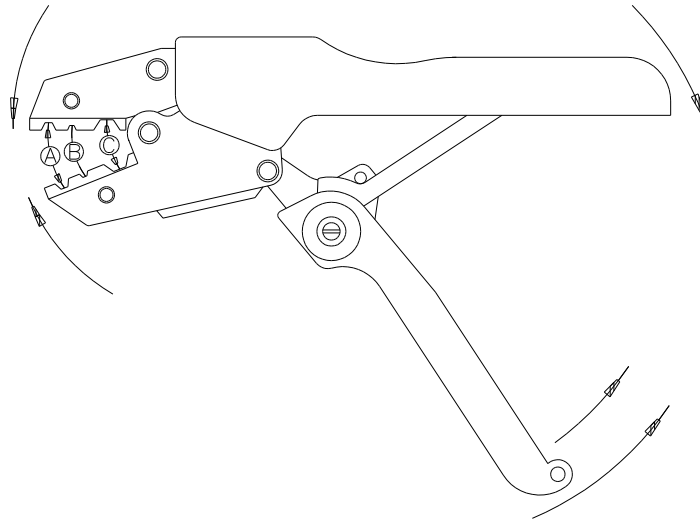
- First of all part of the protecting cover of this cable must be removed and the cable must be cut (item 1)



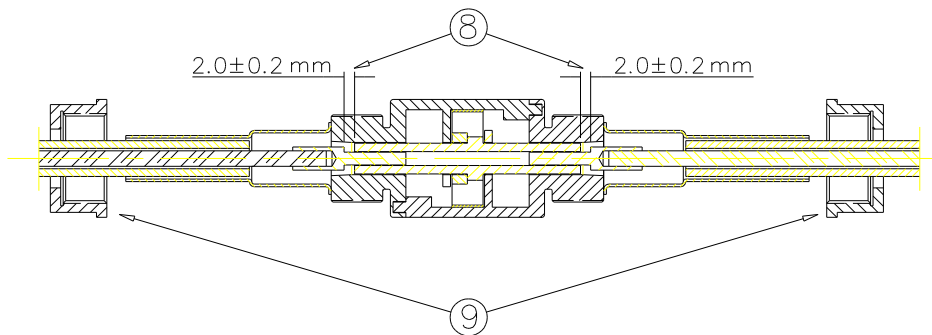
- A fixing ring (item 2) must be put in each of the two edges of the cable. The square terminals (item 3) are placed on the cable, and are fixed by pressing on the zone indicated with (4). This is done in position "A" or "B" of the pliers depending on the diameter of the square terminal.
- Afterwards put the cover ends (item 5) and press them on the part indicated in item 6 in the position "C" of the pliers.



⑦ ALICATES

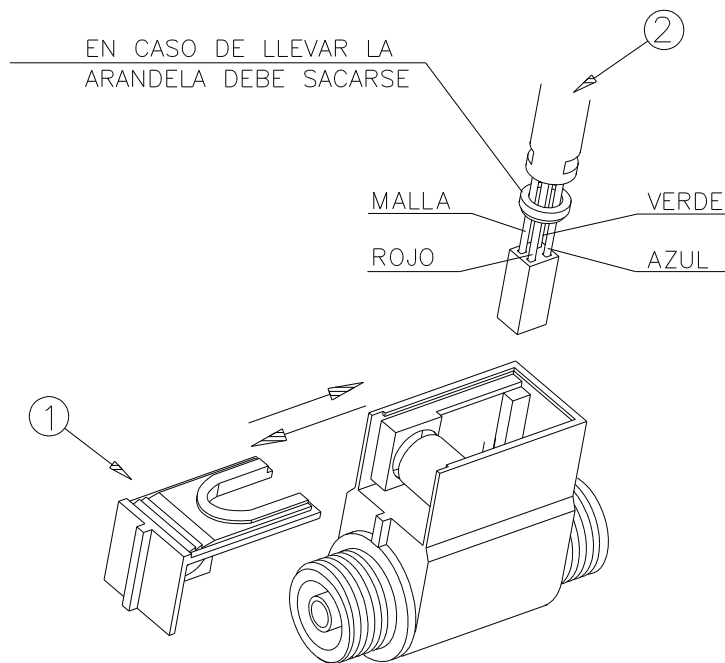


- Finally all pieces are assembled by screwing together the two fixing rings taking into account that the separating space indicated by (8) must be sufficient.

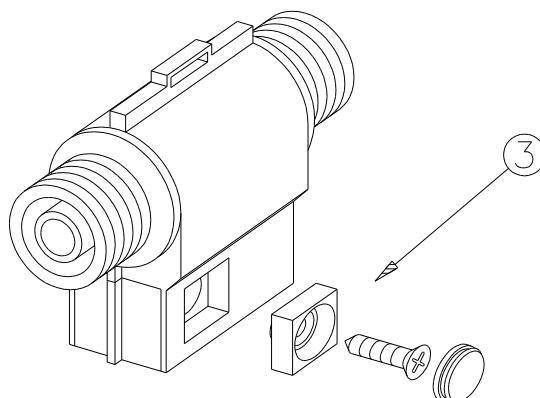


7.2.2. CABLE CONNECTION, COVER CLOSING AND PULSE GENERATOR SUPPORT

- To connect the pulse generator cable it is necessary to open the pulse generator cover (item 1) after taking the closing screw out and moving the cover in the right direction indicated by the arrow. Connect the cable as indicated on item 2 taking into account the polarity of the connector.

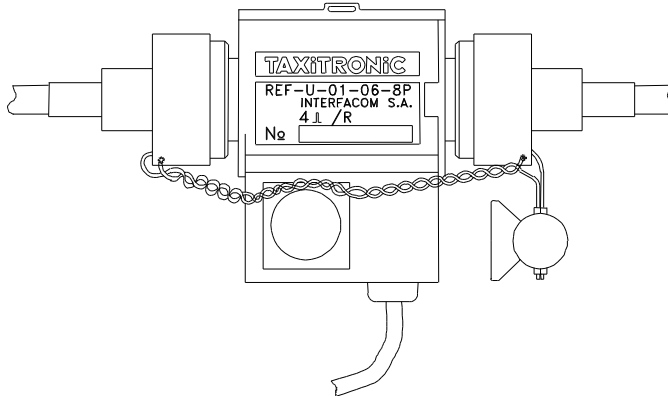


- Finally put the pulse generator cover back, fix it or seal it, if it is necessary (item 3) and place the pulse generator in the corresponding holder.



7.3. SEALING (Drawing 11)

- The pulse generator installation can also be sealed, as shown in the image.



7.4. TECHNICAL CHARACTERISTICS

- The main technical characteristics of the pulse generator are:
 - Sensor type: Hall effect cell
 - Number of pulses / revolution: 4 with double impulses train
 - Feeding voltage: 4 to 18 V
 - Consumption at 5 V: 10 mA

8. VEHICLES WITH ELECTRONIC IMPULSE SIGNAL

- The distance signal supplied by the car can be connected in two possible ways:
 - By connecting this signal to the Green/White wire on the Power Supply cable
 - By using the dedicated impulse generator connector, with a shielded cable, or even mechanical shield, according to local regulations.
- The adaptation of the signals of the different vehicles is done by an internal electronic circuit with the following characteristics:
 - Hysteresis of the input is configurable
 - It adapts to different levels
 - Optional Pull-up
 - Optional Pull-down
 - Constante K is adjustable between 500 and 80000 km-1.
- All these adjustments are done from the tariff changer. It is necessary to unseal the device.