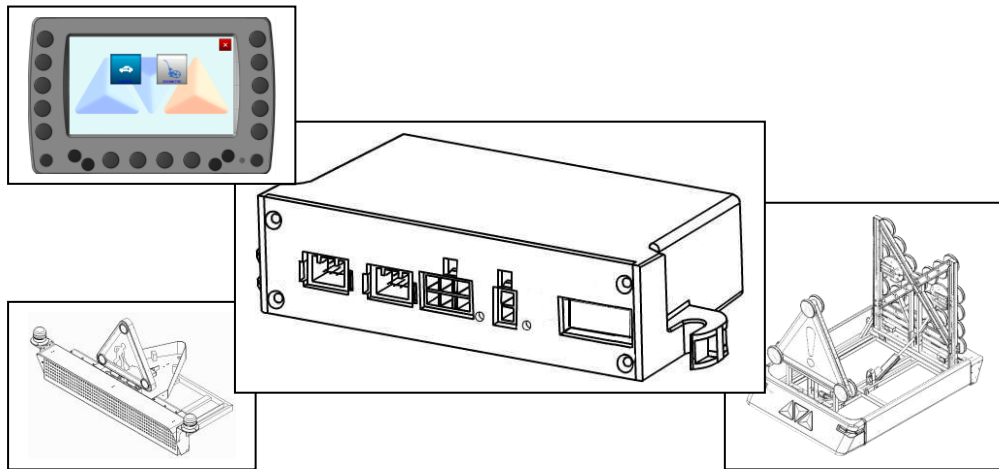


ANTI-THEFT AND TOPOMETER FOR MERCURA ROOF ASSEMBLY



SOMMAIRE

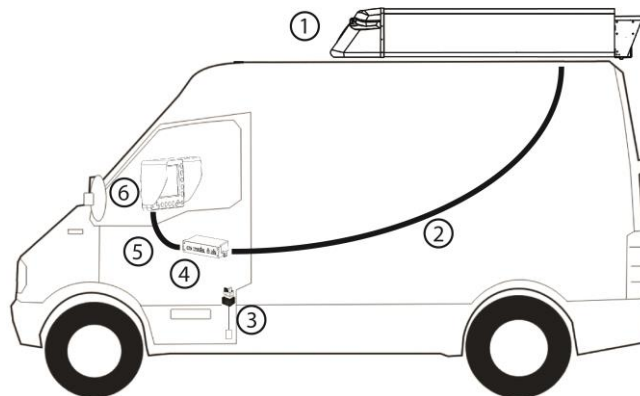
1. GENERALITIES	2
2. ANTI-THEFT FUNCTION	5
3. ANTI-STARTING OPERATION	9
4. TOPOMETER FUNCTION	9
5. CONNECTORS REFERENCES	13

1. GENERALITIES

The BLM-CAN interface is an "Bloc Liaison Moteur" which interfaces to the NEIMAN of a vehicle in order to ensure the anti-theft and anti-starting functions and, depending on the model, the Topometer function. It is an optional system complementary to the MERCURA fairing units. It can be delivered with PRONER or NG1 type connectors from TYCO AMP.

The BLM can retrieve the information necessary for its operation by acquiring wired information, logic inputs (0V or +Battery status) such as the status of the handbrake, the "+" After Contact, the Load Indicator, the Presence of the External Connection, ...

A model with remote control is also available.



1. *MERCURA Roof assembly*
2. *CAN BUS between the fairing assembly and the BLM module*
3. *Handbrake module*
4. *BLM Module*
5. *CAN BUS between BLM module and XXL front panel*
6. *XXL facade*

1.1. CHARACTERISTICS OF THE BLM

Weight of BLM1: 280g

Supply voltage: 6V to 30V

Consumption :

Product switched off (standby consumption)

- 350 μ A for 12V
- 900 μ A for 24V

Product in operation

- 250mA max for 12V
- 200mA max for 24V

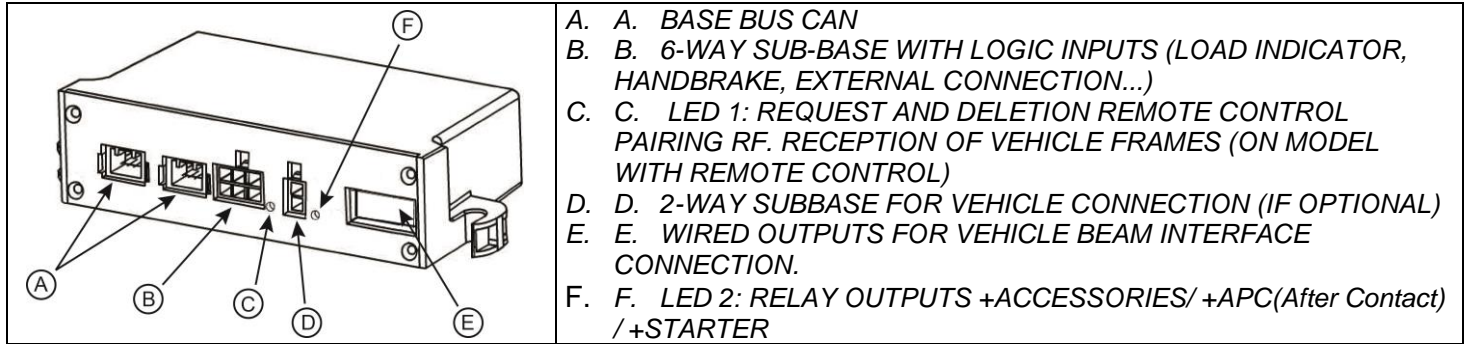
EMC conformity: "E" marking Regulation R10 n°E2*10R05 11026

Non-waterproof product: Mandatory installation inside the vehicle interior.

Model with remote control :

- Frequency: 2.4Ghz
- Range: 100m
- Power supply Remote control: CR2032 3.3V battery

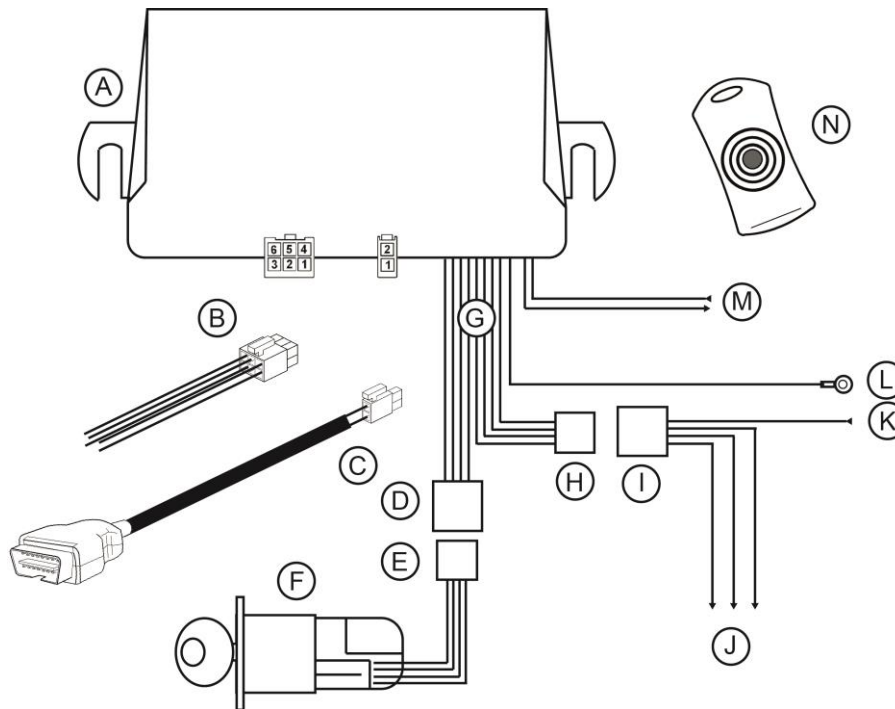
1.2. DESCRIPTION OF BLM CONNECTIONS



The colour and flashing of LED2 differs depending on the state of the relays:

- Green flashing : Relay output +ACCESSORIES ON
- Fixed green: Relay output + APC ON (After Contact)
- Red: Relay output + LAUNCHER ON

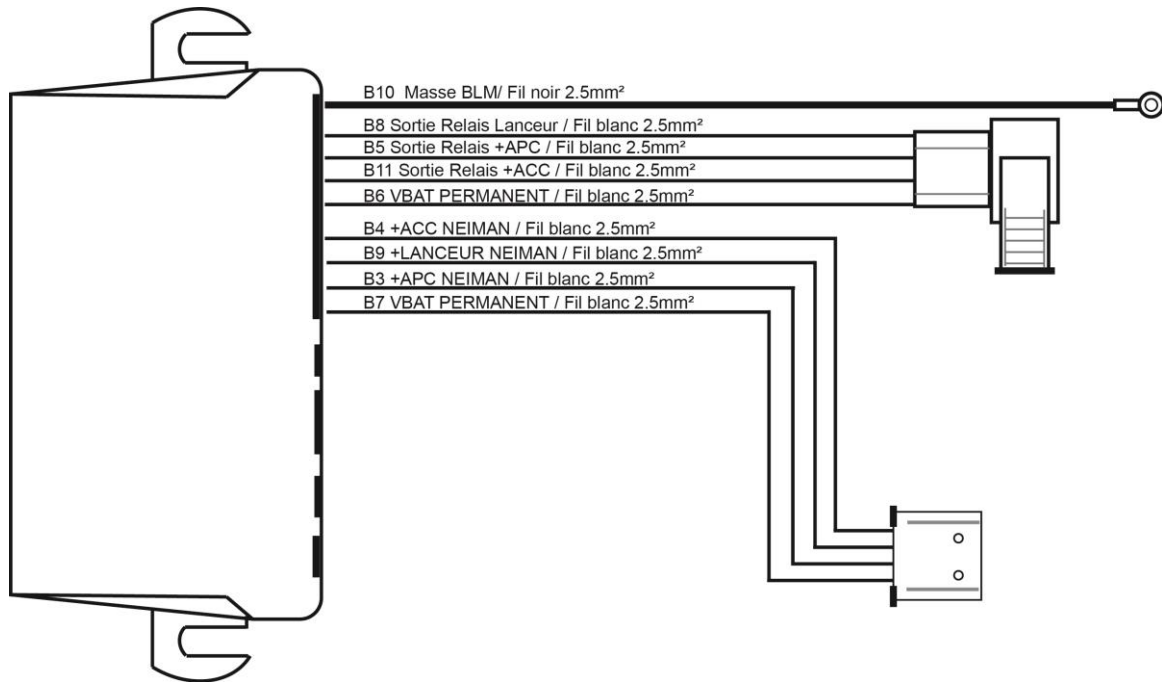
1.3. WIRING DIAGRAM



- A. BOITIER DE LIAISON MOTEUR (BLM)
 B. 6-WAY CONNECTOR FOR LOGICAL INPUT (+APC(After-Contact) ; Hand brake information, etc...)
 C. BLM BEAM TOPOMETER
 D. BLM BEAM TO NEIMAN CONTACTOR
 E. PRONER OR NG1 CONNECTOR OF THE NEIMAN CONTACTOR
 F. NEIMAN CONTACTOR
 G. PRONER OR BLM NG1 CONNECTORS
 H. PRONER OR NG1 CONNECTOR BLM START CIRCUIT
 I. PRONER OR NG1 CONNECTOR VEHICLE START CIRCUIT
 J. BEAM VEHICLE STARTING CIRCUIT
 K. CONNECTION TO " + BATTERY " POWER SUPPLY BLM
 L. EYE TERMINAL FOR BATTERY GROUND CONNECTION
 M. CENTRAL DOOR LOCKING LINK VIA RF REMOTE CONTROL (MODEL WITH REMOTE CONTROL ONLY): SERIGRAPHIC WIRES "B1 RF" & "B2 RF".
 N. RF REMOTE CONTROL FOR CENTRAL LOCKING OF THE VEHICLE DOORS (MODEL WITH REMOTE CONTROL ONLY)

1.4. GENERAL CONNECTION OF THE BLM TO THE NEIMAN BEAM

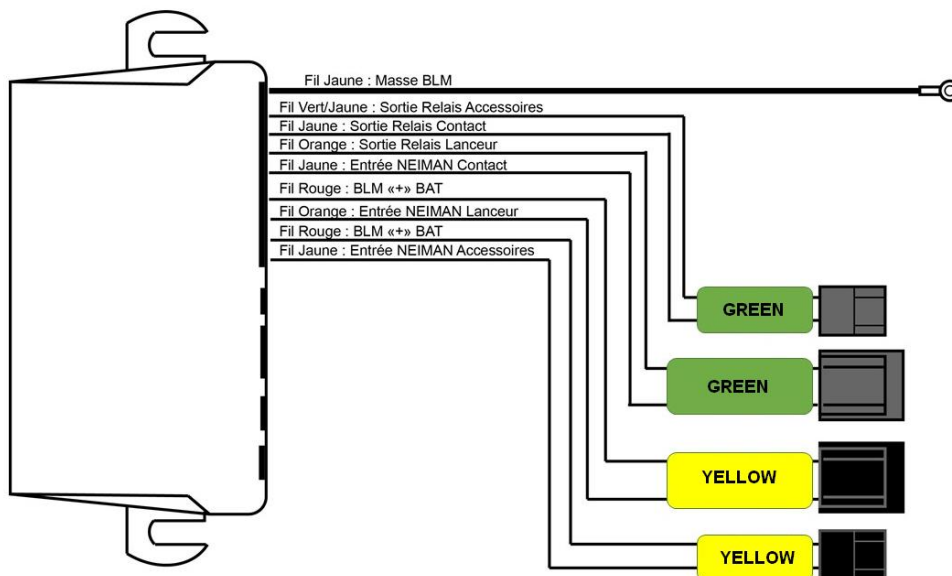
A. NEIMAN wiring harness with TYCO NG1 connectors



ATTENTION!

Launcher relay output 20A maximum

1.5. NEIMAN wiring harness with PRONER connection system



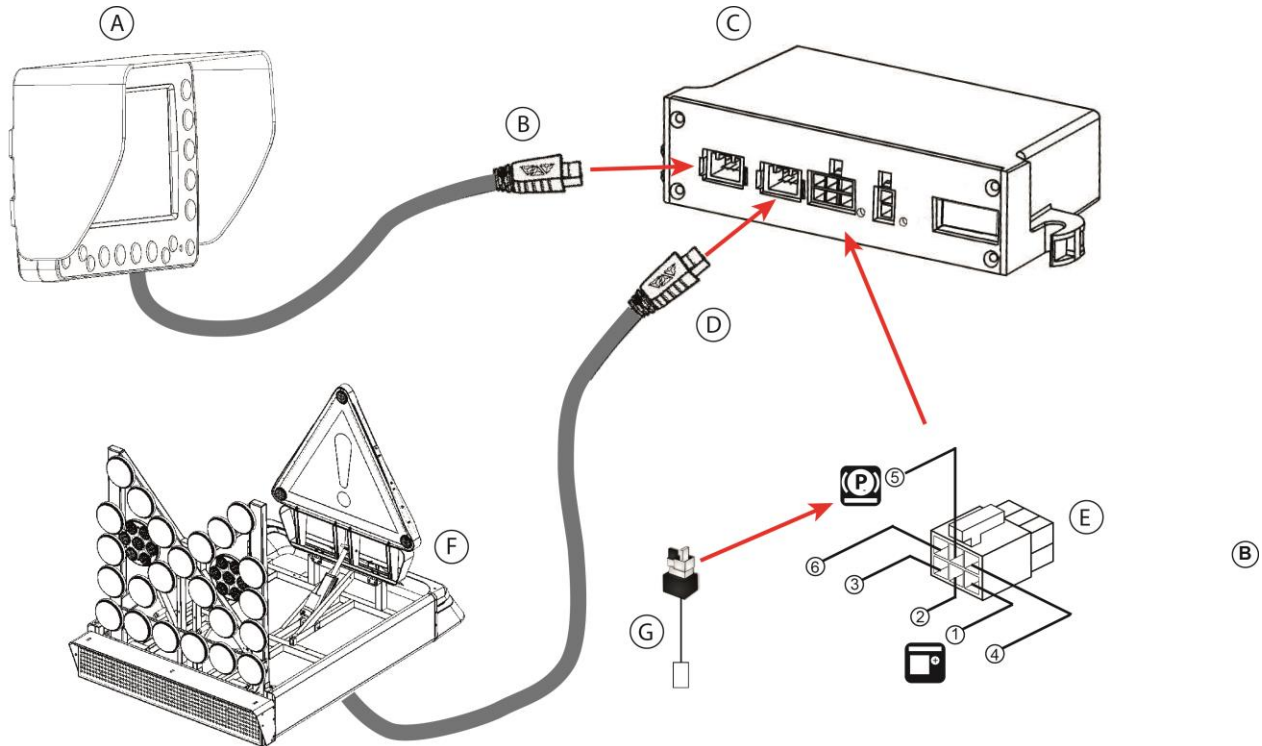
ATTENTION!

Launcher relay output 20A maximum

Other yellow and green sleeves are supplied to identify the vehicle side beams. They must be positioned before crimping the connectors on the vehicle side.

2. ANTI-THEFT FUNCTION

2.1. INTERCONNECTION OF THE BLM TO THE CAN NETWORK



- A. CONTROL BOX XXL
 B. CAN BUS HARNESS BETWEEN THE CONTROL BOX AND THE BLM
 C. BOITIER DE LIAISON MOTEUR (BLM)
 D. BUS CAN BEAM OF THE ROOF ASSEMBLY
 E. INPUTS ON 6-WAY CONNECTOR
 1. PIN 1: MOTOR RUNNING (ACTIVE AT GROUND OR BATTERY "+").
 2. PIN 2: EXTERNAL CONNECTION (ACTIVE ON GROUND OR BATTERY "+").
 3. PIN 3: GROUND. TO BE CONNECTED TEMPORARILY TO PIN 6 DURING THE PAIRING PHASE OF THE REMOTE CONTROL (IF MODEL WITH REMOTE CONTROL).
 4. PIN 4: ANTI-THEFT PUSH-BUTTON INPUT (ACTIVE ON GROUND OR BATTERY "+").
 5. PIN 5: HAND BRAKE INPUT (ACTIVE ON GROUND OR BATTERY "+") FROM THE HAND BRAKE MODULE.
 6. PIN 6: PAIRING PUSH-BUTTON. TO BE CONNECTED TEMPORARILY TO PIN 3 DURING THE PAIRING PHASE OF THE REMOTE CONTROL (IF MODEL WITH REMOTE CONTROL).
 F. ROOF ASSEMBLY
 G. HANDBRAKE MODULE

ATTENTION

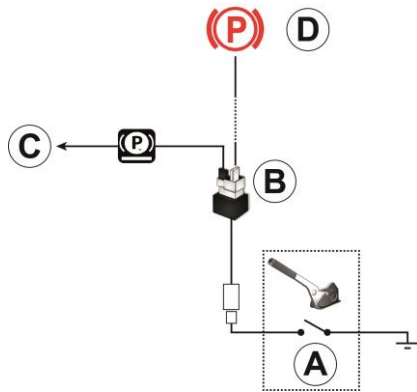
THE ANTI-THEFT FUNCTION REQUIRES THE CONNECTIONS TO BE MADE:

- Pin 1: Rotating motor
- Pin 5: Handbrake input taken from the vehicle via the handbrake module (see chapter below)

The connection of pin 2: External Connection is required on vehicles equipped with an external battery charging connection. This is essential for the **ANTI-START-UP FUNCTION**.

2.2. HANDBRAKE MODULE

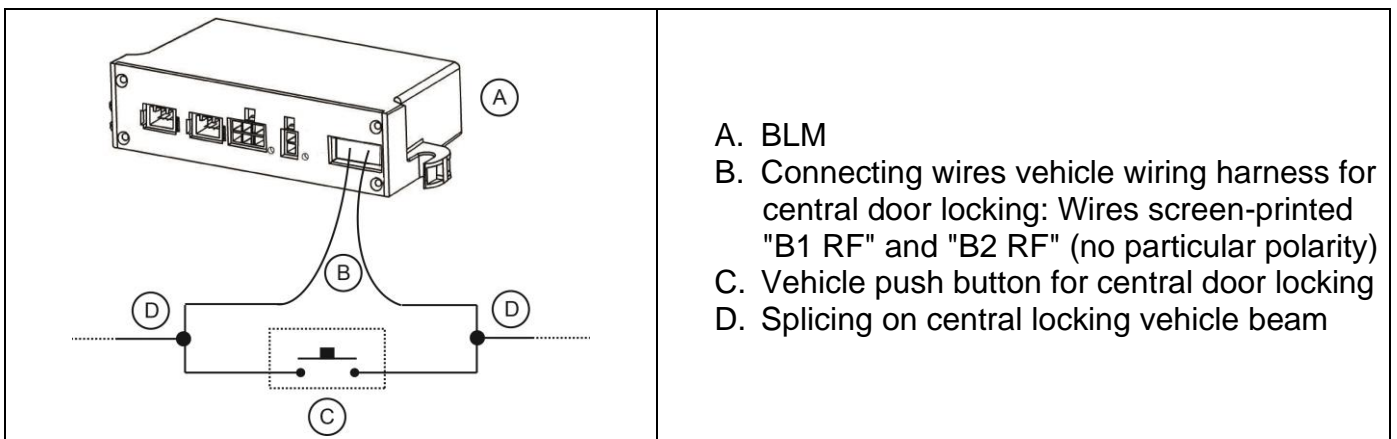
The handbrake module enables the acquisition of the status information of the vehicle's handbrake from the vehicle's switch (Vehicles with mechanical handbrake). This collected information must be connected to the dedicated logic input of the BLM.



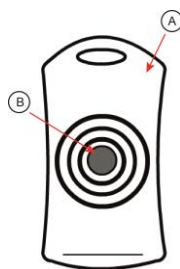
- A. Vehicle handbrake switch
- B. Handbrake module
- C. To BLM Hand Brake logic input
- D. To circuit Dashboard

2.3. SPECIFICITIES MODEL WITH RF REMOTE CONTROL

A. WIRING DIAGRAM CENTRAL LOCKING



- A. BLM
- B. Connecting wires vehicle wiring harness for central door locking: Wires screen-printed "B1 RF" and "B2 RF" (no particular polarity)
- C. Vehicle push button for central door locking
- D. Splicing on central locking vehicle beam



- A. RF remote control
- B. Push button

The BLM option with RF remote control makes it possible to provide a solution for centralised locking of the vehicle's doors while retaining the functionalities of the BLM (Rotating Engine Immobiliser).

In order to fulfil this function, the BLM RF is supplied with a dedicated RF remote control.

During the use of this equipment (following the loss of the original remote control for example) it may be necessary to pair a new RF remote control.

B. PAIRING PROCEDURE

Contact pins n°3 and n°6 of the BLM's 6-way connector for at least 1 second. LED 1 flashes slowly red. For 10 seconds, the BLM is in the remote control pairing phase. Then press its push-button.

C. DELETION OF PAIRING

Keep pins n°3 and n°6 of the BLM's 6-way connector in contact for more than 10 seconds. LED 1 flashes red rapidly. The remote control is no longer paired.

D. USE OF THE REMOTE CONTROL

Each impulse on the remote control push-button locks or unlocks the vehicle doors if this option has been wired.

2. ANTI-THEFT OPERATION

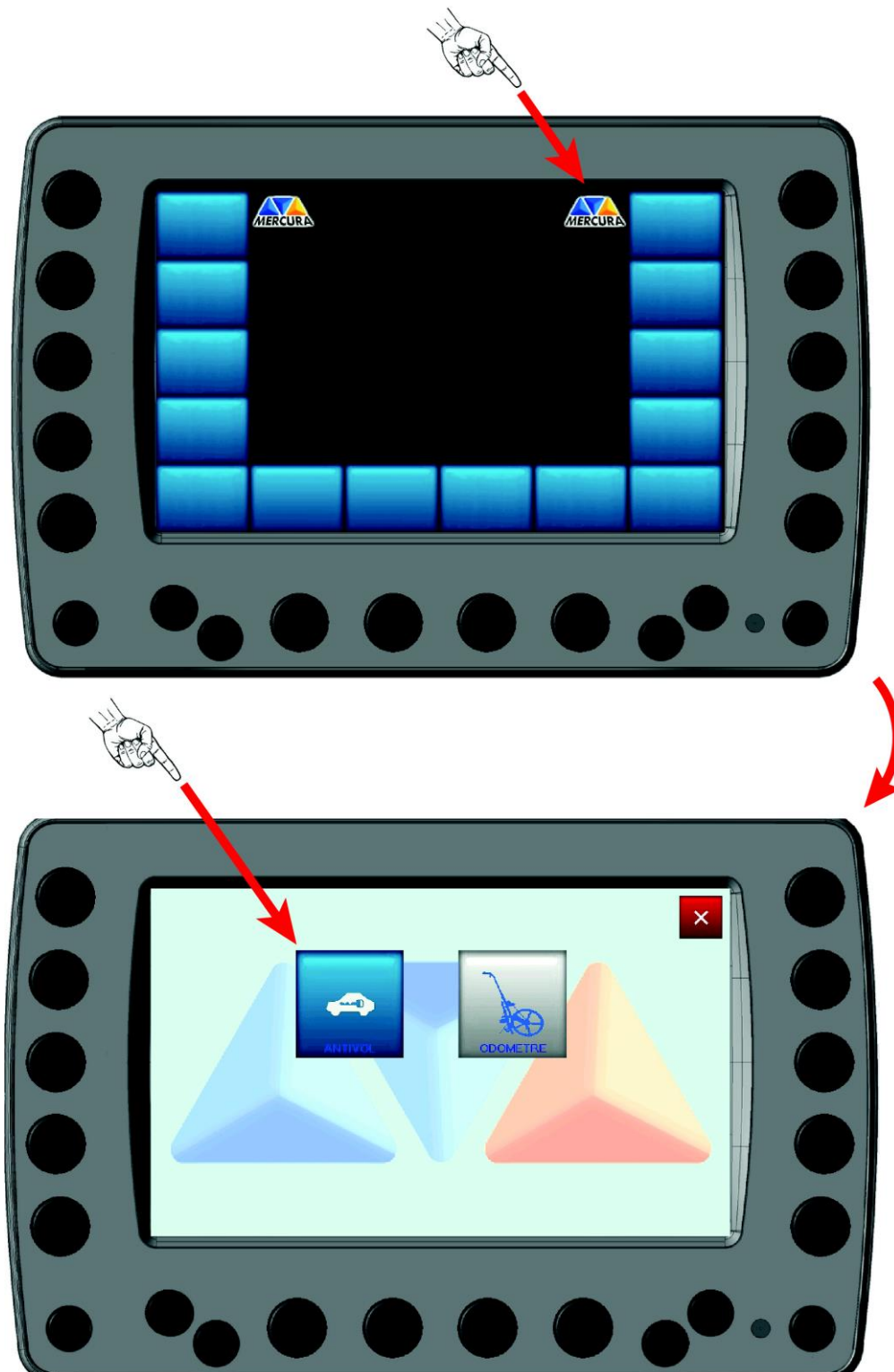
The presence of the anti-theft function on the system is symbolised by the following symbol :



This is the function control knob. This button is available on the right-hand side of the XXL graphic display:



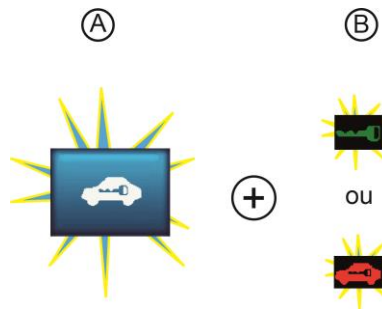
Or in the advanced menu



The operation of the anti-theft device is subject to the following conditions:

1. Engine running
2. Hand brake applied

When this information is present, the control button and the associated indicator on the screen will flash.



- A. Control knob
 B. Associated indicators (2 possible versions)

An impulse on the control button confirms the activation of this function. The LEDs become fixed. It is therefore possible from this moment on to remove the NEIMAN key from the vehicle without stopping the engine. If the handbrake is released, the engine stalls.

When the function is active with the engine running, it is necessary to put the key back into the NEIMAN of the vehicle, in the CONTACT position to deactivate the anti-theft device. From this moment on, the push-button indicator light will flash again. Note that when the key is put back in the NEIMAN, the control of the LAUNCHER relay is inhibited so as not to cause starting since the engine is already running.

3. ANTI-STARTING OPERATION

The immobiliser function prevents the vehicle from being started if an external input is present: the chain link is not retracted, the running board is open, the external connection is plugged in, etc...

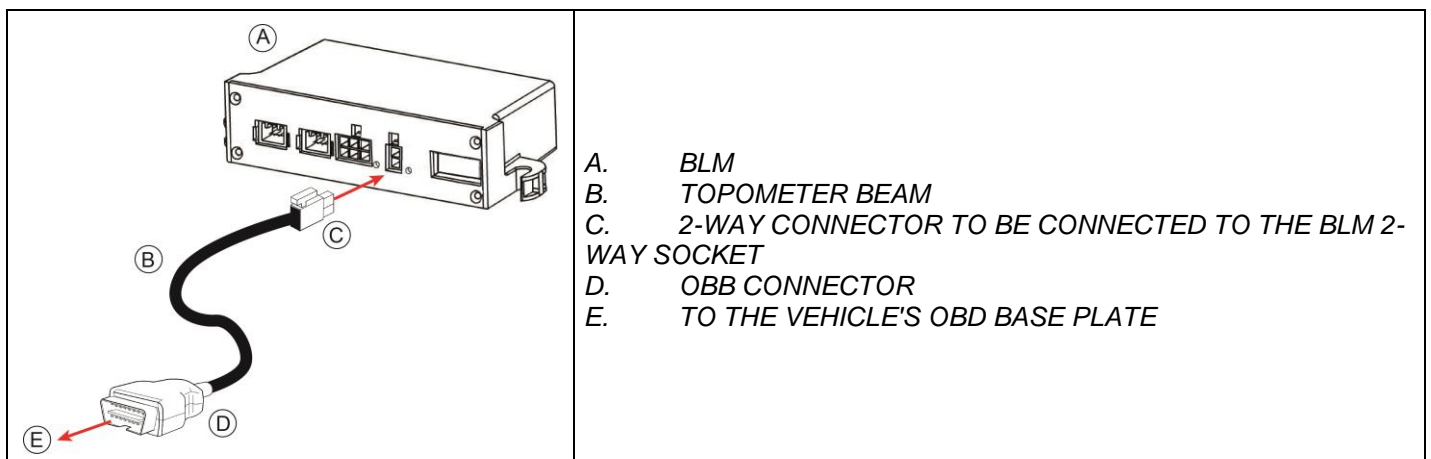
The After-Contact output and accessories are still available.

4. TOPOMETER FUNCTION

4.1. CONNECTION OF THE BLM FOR THE TOPOMETER VERSION

ATTENTION !

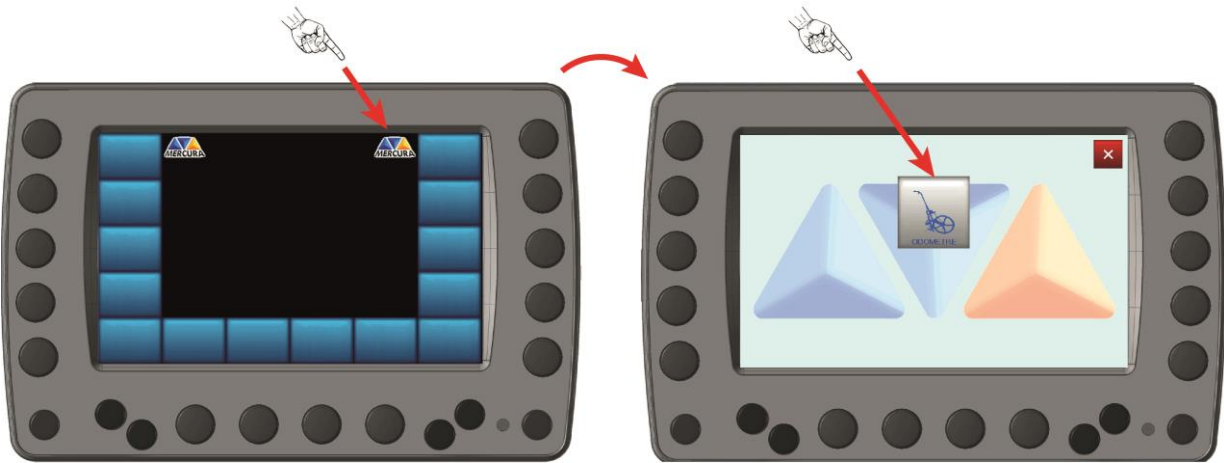
BEFOREHAND, THE BLM MUST BE WIRED AS IN THE CHAPTER DEALING WITH THE ANTI-THEFT FUNCTION.



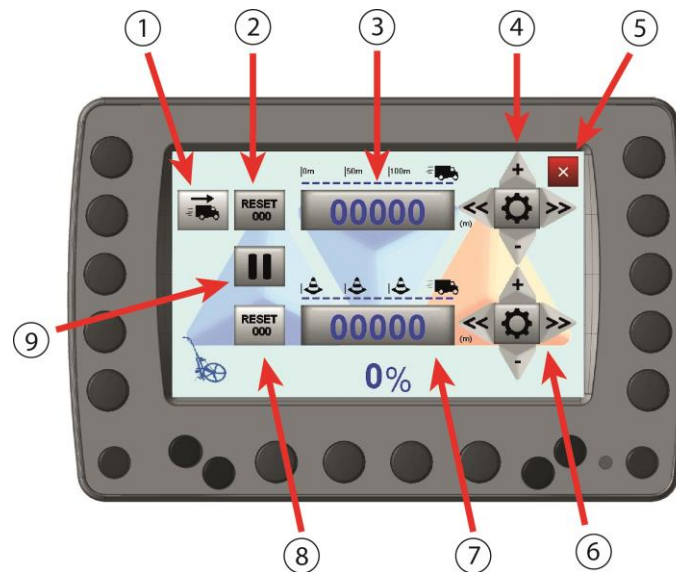
4.2. OPERATING

The topometer works as soon as the system is switched on, provided the vehicle engine is running. To access the topometer menu, follow the instructions below:

A. ACCESS TO THE TOPOMETER MENU



B. DESCRIPTION OF THE TOPOMETER MENU

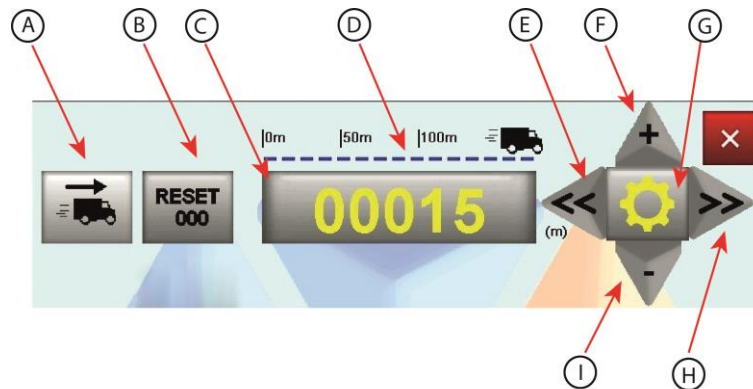




1. Selection of counting direction: INCREMENT or DECREMENT
2. Reset DISTANCE INDICATOR to zero
3. DISTANCE INDICATOR in metres (5-digit indication)
4. Digit selection and DISTANCE value increment/decrement keypad.
5. Exit the page
6. Digit selection and increment/decrement pad for BANKING value selection
7. Distance indicator in metres (5-digit indication)
8. Reset the distance counter to zero
9. Operation control



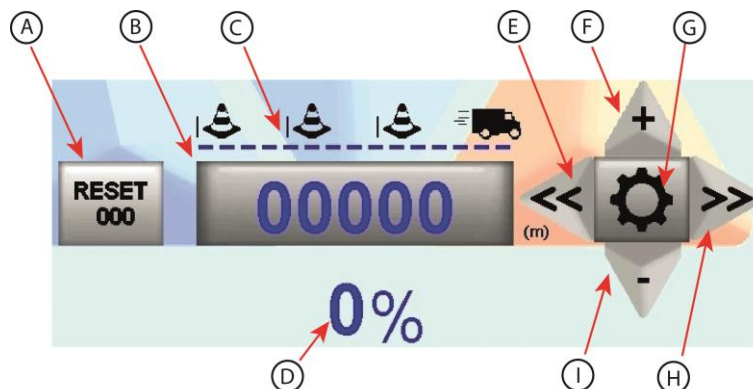
C. INDICATION DISTANCE ZONE DETAIL

Certain operational conditions require the programming of fixed distances. The DISTANCE menu allows you to program the value.



- A. Selecting the direction of measurement
-  *Incremental measurement*
-  *... Measurement in decrement*
- B. Resetting the counter to zero
- C. 5-digit distance display area
- D. Metric scale of the meter
- E. Moving the digit selection to the left
- F. Incrementing of the digit value (from 0 to 9)
- G. Activating / Deactivating the setting mode
- H. Moving the digit selection to the right
- I. Decrementing of the digit value (from 9 to 0)

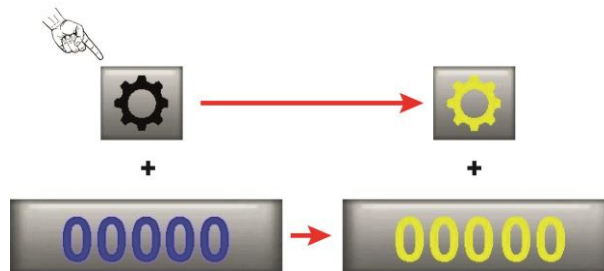
D. INTER-DISTANCE INDICATION ZONE DETAIL



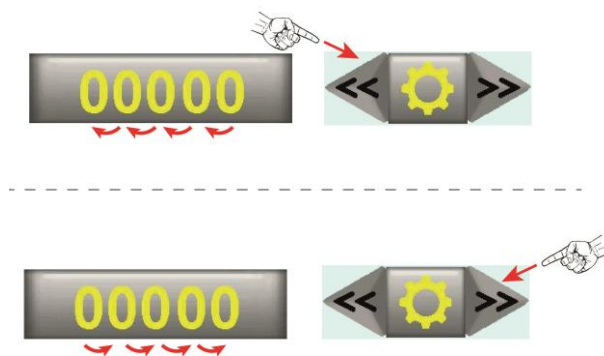
- A. Reset the counter to zero
- B. Inter-distance display area
- C. Distance scale
- D. Indication of the percentage of inter-distances reached
- E. Moving the digit selection to the left
- F. Incrementing of the digit value (from 0 to 9)
- G. Activating / Deactivating the setting mode
- H. Moving the digit selection to the right
- I. Decrementing of the digit value (from 9 to 0)

E. OPERATION OF THE SETTING PADS

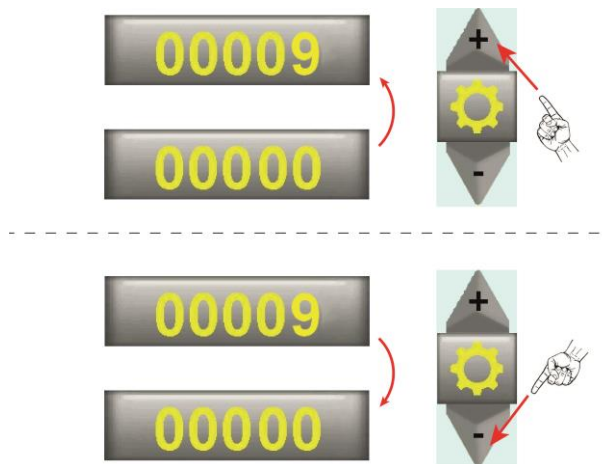
- ENTER THE SETTING MODE



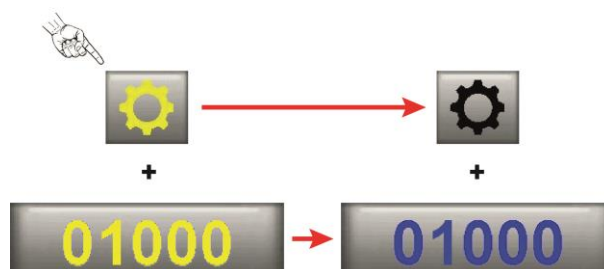
- DIGIT SELECTION



- INCREMENTATION / DECREMENTATION DIGIT

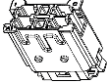
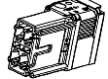


- SETTING MODE EXIT

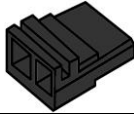



5. CONNECTORS REFERENCES

5.1. FOR HARNESS WITH NG1 TYCO CONNECTOR SYSTEM

	<ul style="list-style-type: none"> ▪ Clip holder 6 points NG1 TYCO : 25086-00 ▪ Clips 6.35mm (2.5-6mm²) NG1 TYCO: 25084-00
	<ul style="list-style-type: none"> ▪ Pin and groove holder 6 points NG1 TYCO : 25087-00 ▪ Pin 6.35mm (2.5-6mm²) NG1 TYCO: 25085-00

5.2. FOR BUNDLE WITH PRONER CONNECTOR

	<ul style="list-style-type: none"> ▪ Clip-holder 2pts 8mm black Proner/TYCO: 06922-00 ▪ Clips 8mm (6-8mm²) Proner/TYCO: 06923-00
	<ul style="list-style-type: none"> ▪ Pin holder 2pts 8mm black Proner/TYCO: 07246-00 ▪ Clip 8mm (6-8mm²) Proner/TYCO: 07247-00
	<ul style="list-style-type: none"> ▪ Yellow Sleeve
	<ul style="list-style-type: none"> ▪ Green Sleeve