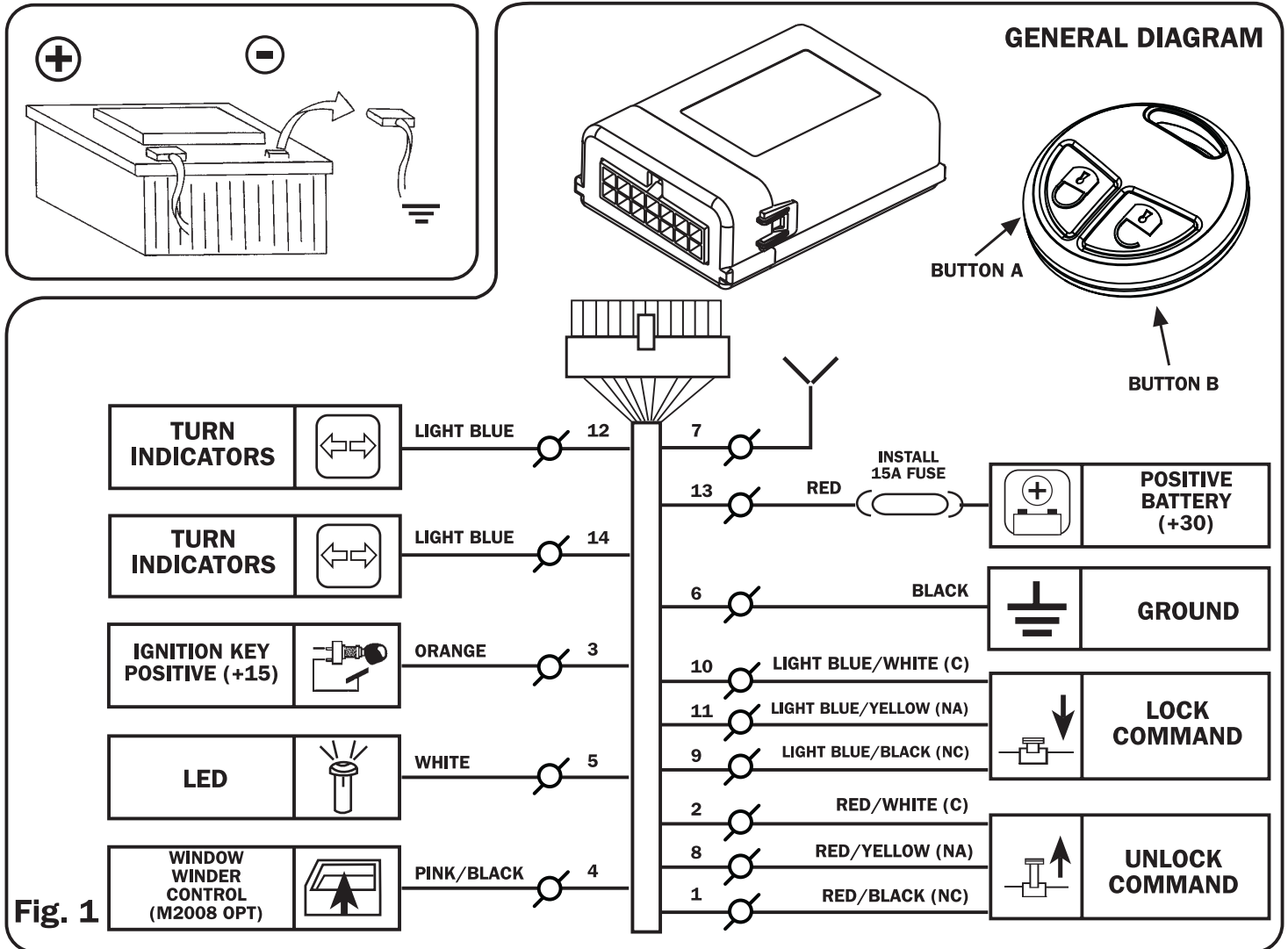


# M325 INSTALLATION INSTRUCTION EN

## DISCONNECT THE VEHICLE'S BATTERY CONNECTIONS



## Technical specifications

### General Specifications

Power supply	12 Vdc (10V-15V)
Power input of door-locking unit	<2 mA
Operating temperature	-25°C +85°C
Rolling Code remote control (Max 7)	M2502 (Combinations: 72 million billion)
Dimensions	50x20x65 mm
Weight	50 g

### Range of commands and facilities

Universal central lock command output	Max 10 A
Command output for turn indicators	Positive Max 8 A + 8 A
Command output for window-winder module	Max 1 A electronic Positive Command
Pre-engineering for flashing LED	Positive electronic command

### General description

This product comprises a universal remote controlled door locking system with 6 relay outputs that allow door motors with different polarities to be connected (Fig. 2, 3, 4, 5, 6, 7). It is supplied with a pair of M2502 remote controls with 2 keys that can be used for piloting the central locks and for changing some of the programmable functions in the product, as described in the programmable functions table.

Besides the connection lines of the central locks, there are another two lines for piloting the turn indicators, an output for piloting a LED and an output for a window-winder module.

## Remote controls

The product comes with a pair of M2502 remote controls with two keys: press key “A” to lock the doors and key “B” to unlock them. A further four keys can be added besides the two remote controls supplied with the product (Max 7). To use the additional M2502 remote controls, just program them with the code allocated to the supplied remote controls. The control unit is already programmed to recognize them, so there is no need for any further procedure. The supplied pair of remote controls can only be substituted by using the PDC/Alarm Programmer.

## Central locking time settings

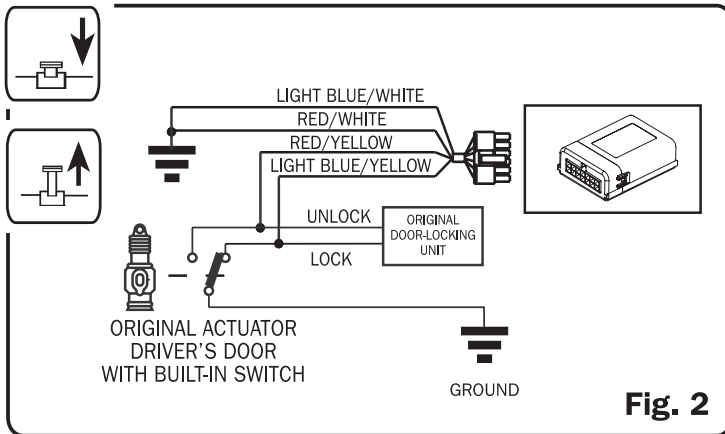
There are 3 time settings available for piloting the central locking action (short, medium and long). The various different locking and unlocking time settings are indicated in the simple table below:

SELECTED TIME SETTING	UNLOCKING TIME	LOCKING TIME*
Short time setting	0.5 Sec.	0.5 Sec.
Medium time setting #	1.5 Sec.	1.5 Sec.
Long time setting	4.5 Sec.	4.5 Sec.

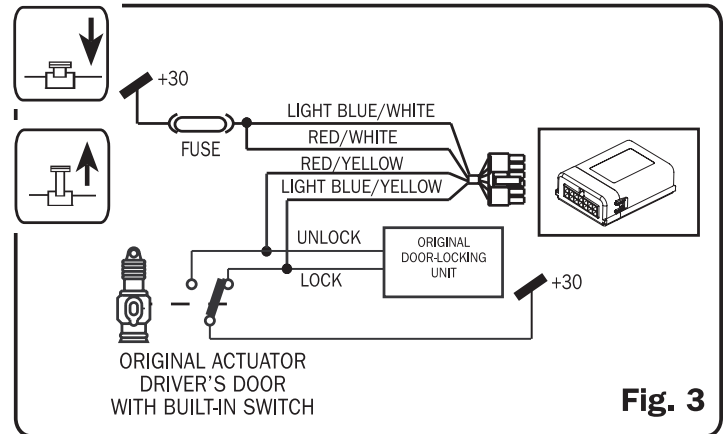
\* If the automatic comfort function is used, the locking time will always be 12 sec.

# To select the medium time setting, turn the comfort function off via the programmer (see the table of programmable functions on page 8).

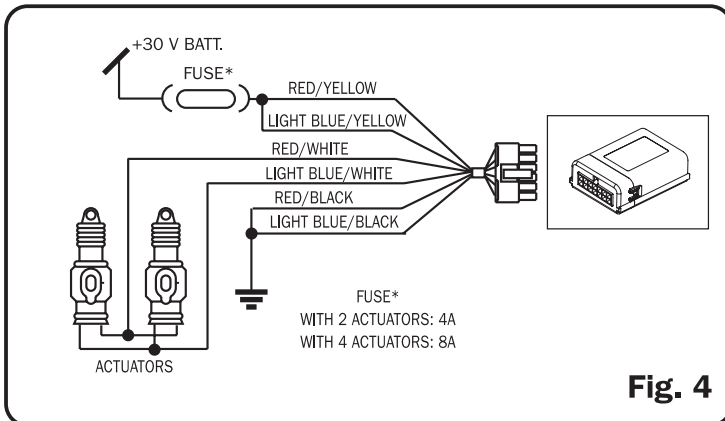
## DIAGRAM FOR LOCKS WITH NEGATIVE POLARITY



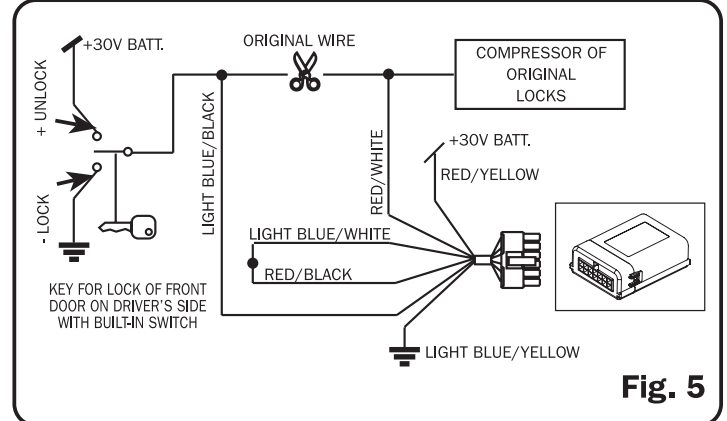
## DIAGRAM FOR LOCKS WITH POSITIVE POLARITY



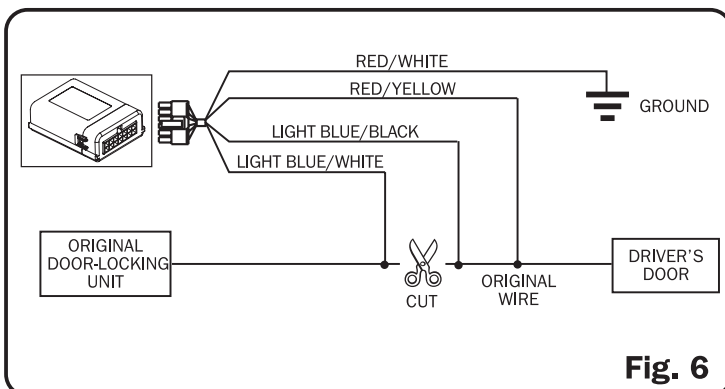
## SUPPLEMENTARY ACTUATOR COMMANDS



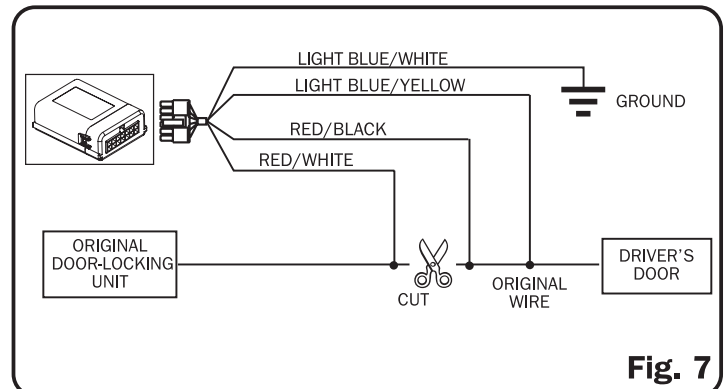
## COMMANDS FOR PNEUMATIC LOCKS



## BREAK COMMAND FOR LOCKING



## BREAK COMMAND FOR UNLOCKING



### Manual or automatic Comfort function

La funzione comfort permette di pilotare la salita dei vetri nelle auto che sono dotate di comfort originale, e non è escludibile.

La selezione Comfort manuale permette che mantenendo premuto il tasto “A” del radiocomando durante il blocco delle chiusure è possibile fare salire i vetri fino al punto desiderato.

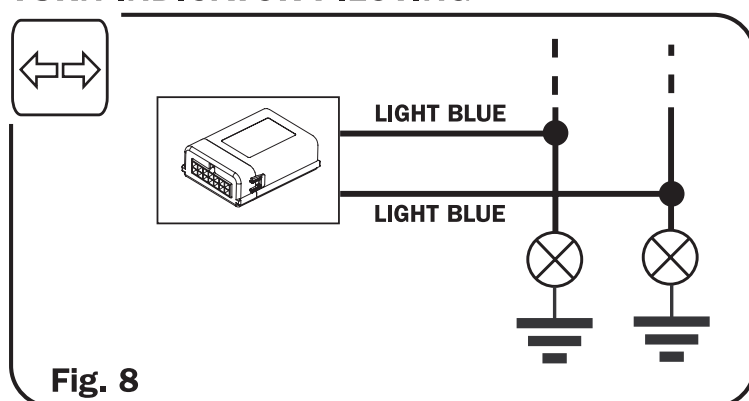
La selezione Comfort automatico implica che premendo il tasto “A” del radiocomando per il blocco delle chiusure i vetri saranno comandati fino alla chiusura completa senza dover tenere premuto il tasto.

### Turn indicators

The control unit has two positive outputs for piloting the turn indicators, so as to warn when the doors are being locked and unlocked. Opening is signalled by a single blink of the turn indicators while the locking signal differs, depending on the type of comfort function selected. The blink modes are given in the simple table below:

TYPE OF COMFORT FUNCTION SELECTED	BLINKS WHEN UNLOCKING	BLINKS WHEN LOCKING
Automatic	1	2
Controlled	1	3

### TURN INDICATOR PILOTING



### Car Finder

The Car-Finder function can be used to make the turn indicators blink, so that the vehicle is easier to identify in a parking lot. To activate the function, press locking key “A” once the doors have been locked for at least 30 sec.

This will be followed by a series of 10 blinks from the turn indicators.

The series of 10 blinks can be interrupted by pressing key “B” on the remote control. Besides interrupting the blinks, this action will also unlock the doors.

### Window-winder or Trunk Release command

There is a positive timed output that allows an optional window-winder module to be piloted during the locking phase.

The window-winder output can be used to activate an external trunk unlocking relay (Trunk release) when programmed with the PDC/Alarm Programmer and the product is used with M2503 remote controls (3 keys) that allow the Trunk release function to be controlled with the third key.

### Dead Lock

Activation of the dead lock automatically inhibits the comfort and multiple command functions. It consists of an additional 0.5 sec command transmitted to the central locks during both the locking phase and unlocking phase, so as to force the lock’s mechanical block and prevent the door from being unlocked and opened with the internal door opening lever.

### Multiple Commands

Use of the Multiple Commands function automatically inhibits the Car-Finder and dead lock functions. It allows the unlocking or locking command of the central locks to be repeated several times.

### Product Set-up

It is advisable to use the portable PDC/CAR ALARM PROGRAMMER to change, the operating functions of the alarm control unit preset in the factory and adapt them to the specific application.

The software upgrade of the programmer will be available ON LINE in the CAR-ALARM technical area of web site [www.metasystem.it](http://www.metasystem.it).

ALARM/PDC PROGRAMMER MetaSystem code:  
P6987E

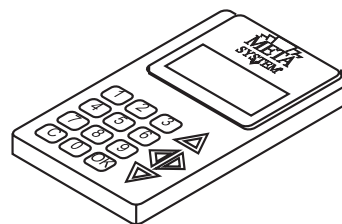


Fig. 9

## Programmable Functions

All the programmable functions in the following table can be varied by means of the PDC/Alarm Programmer:

TYPE OF PROGRAMMABLE FUNCTION	FACTORY PROGRAMMING	PDC/ALARM PROGRAMMER	PROGRAMMABLE IN THE MANUAL
Locking time: SHORT, MEDIUM, LONG	Short 0,5 Sec.	YES	YES
Type of Comfort: MANUAL, AUTOMATIC	Manual	YES	YES
Comfort disabling: ON, OFF	OFF	YES	NO
Polarity of window-winder command: POSITIVE, NEGATIVE	Positive	YES	NO
Car Finder: ON, OFF	ON	YES	NO
Trunk Release: ON, OFF	OFF	YES	NO
Dead Lock: ON, OFF	OFF	YES	NO
Multiple commands: ON, OFF	OFF	YES	NO
Substitution of pair of remote controls	—	YES	NO
Transmitter: M2502/M2503/M2500	M2502/M2503	YES	NO

If the PDC/Alarm Programmer is unavailable, some of the functions listed above can also be changed by means of the manual procedure described below.

### Manual selection of a different central locking time setting

- 1 - Unlock the doors with the remote control.
- 2 - Turn on the +15 Dashboard power and within a few seconds, press key "A" on the remote control and keep it depressed until the turn indicators have blinked 3 times (about 12 sec.).
- 3 - Select the time setting required within 1 minute by pressing key "A" the number of times shown in the table below. After this, turn off the +15 Dashboard power and check to make sure that the number of blinks from the turn indicators equals the number of times the key was pressed when the time setting was selected.

KEY "A" PRESSED ONCE	KEY "A" PRESSED TWICE	KEY "A" PRESSED 3 TIMES
Medium time 1,5 sec.	Long time 4,5 sec.	Short time 1,5 sec.

Repeat the procedure from point 1 to point 3 if the programming is incorrect or you wish to change it.

### Manual variation of the comfort function

- 1 - Unlock the doors with the remote control.
- 2 - Turn on +15 Dashboard power and keep it on for a couple of seconds before turning it OFF.
- 3 - Within a couple of seconds from the previous action, turn on the +15 Dashboard power and keep it ON.
- 4 - Within 10 seconds, press key "A" on the remote control and keep it depressed until the turn indicators blink 3 times (about 12 sec.). Now turn off the +15 Dashboard power and check to make sure that the number of blinks from the turn indicators corresponds to the type of comfort function desired, as shown in the table below.

1 BLINK FROM TURN INDICATORS	2 BLINK FROM TURN INDICATORS
Manual Comfort	Automatic Comfort

Repeat the procedure from point 1 to point 4 if the programming is incorrect or you wish to change it.