CAME UNITED KINGDOM LTD
UNIT 3
ORCHARD PARK INDUSTRIAL ESTATE,
TOWN STREET, SANDIACRE,
NOTTINGHAM NG10 5BP

TEL: 0115 921 0430
FAX: 0115 921 0431

INTERNET - www.cameuk.com
E-MAIL - enquiries@cameuk.com

TECHNICAL
HELPLINE
0115 921 0430

VER KIT

Installation Instructions

Kit U 4281 includes:

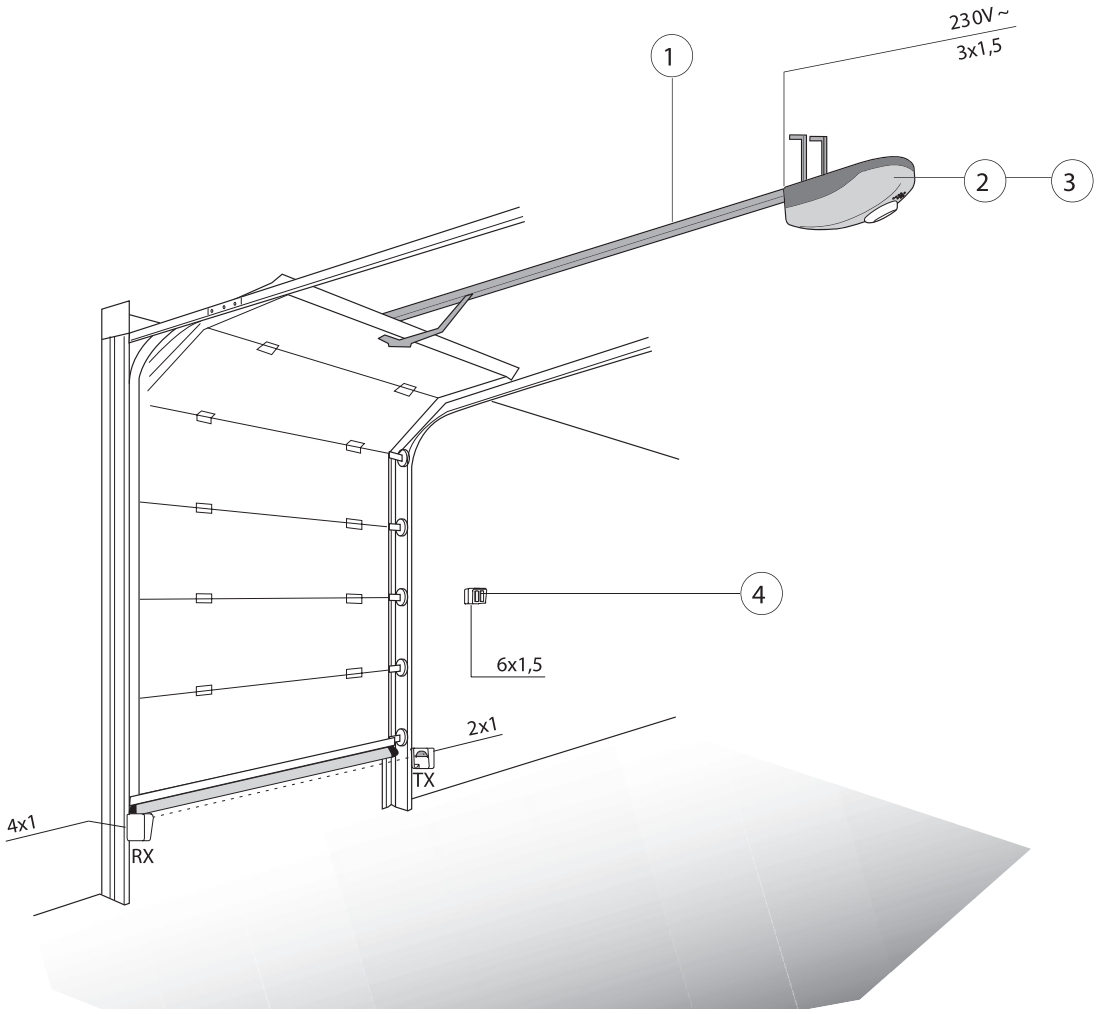
1 x 001 V 600	Gearmotor built-in control panel and courtesy light
1 x 001 AF 43S	Radio receiver 433.92 MHz
1 x 001 TOP-432SA	Radio transmitter 433.92 MHz
1 x 001 TOP-A433N	Radio antenna 433.92 MHz

Kit U 4281-B includes:

1 x 001 V 600	Gearmotor built-in control panel and courtesy light
1 x 001 AF 43S	Radio receiver 433.92 MHz
1 x 001 TOP-432SA	Radio transmitter 433.92 MHz
1 x 001 TOP-A433N	Radio antenna 433.92 MHz
1 x 001 DOC-P	Weatherproof pushbutton
1 x 001 V0675	Belt transmission guide

INTRODUCTION

These instructions will show you how to install a VER automatic traction system for overhead and sectional doors.



1 - VER unit
2 - incorporated control panel

Accessories

3 - Radio receiver
4 - Internal pushbutton

UNDER NO CIRCUMSTANCES SHOULD THIS EQUIPMENT BE OPERATED UNLESS FITTED TO A GATE.

FAILURE TO COMPLY WILL INVALIDATE THE GUARANTEE.

CHARACTERISTICS

General description:

- Automatic traction system for overhead and sectional doors;
- Designed and built entirely by CAME Cancelli automatici S.p.A., in full compliance with current safety standards UNI 8612, and with an IP 40 protecting rating;
- Guaranteed for 12 months, unless tampered with by unauthorized personnel.

Versions:

V600
Single-phase ratiomotor with mechanical end-stops and built-in control board; 230V AC power with 50÷60Hz frequency; 130W max. motor power and up to 500N in traction power.

V700
Single-phase ratiomotor with mechanical end-stops and built-in control board; 230V AC power with 50÷60Hz frequency; 260W max. motor power and up to 850N in traction power. Sliding guides:

V0671
Guide unit with chain L = 3,02 m; - for garage-type doors up to 2,4 m tall with counterweights
- for garage-type doors up to 2,2 m tall with springs and sectionals

V0672
Guide unit with chain L = 3,52 m;
- for garage-type doors up to 2,9 m tall with counterweights
- for garage-type doors up to 2,7 m tall with springs and sectionals

V0673
Guide unit with chain L = 4,02 m;
- for garage-type doors up to 3,4 m tall with counterweights
- for garage-type doors up to 3,25 m tall with springs and sectionals

V0675
Guide unit with belt L = 3,02 m;
- for garage-type doors up to 2,4 m tall with counterweights
- for garage-type doors up to 2,2 m tall with springs and sectionals

V0676
Guide unit with belt L = 3,52 m;
- for garage-type doors up to 2,9 m tall with counterweights
- for garage-type doors up to 2,7 m tall with springs and sectionals

V0677
Guide unit with belt L = 4,02 m;
- for garage-type doors up to 3,4 m tall with counterweights
- for garage-type doors up to 3,25 m tall with springs and sectionals

Accessories

V201
Transmission adapter arm for garage-type doors with counterweights (it substitutes the arm supplied), see pg. 7;

Optional accessories:

V0670
Emergency battery connection card with support for 2 batteries (12V-1,2Ah - ESCLUSE);

V121
Cable release device and transmission for connection to the lock;

V122
Improved transmissionarm for sectional gates, see pg. 6;

Technical specifications:

- 24V DC gear motor; reduction gear unit housed in a die-cast aluminium casing. The unit features an irreversible reduction gear with worm screw and helicoidal. Permanently lubricated with liquid grease.
- ABS automation container and cover with window for lamp to illuminate the area. The unit is mounted on and supported by the sliding guide.
- Built-in electric control panel.
- Microswitch end-stops;
- Galvanised cold-formed plate sliding guide; front tensioning and fastening wall terminal; ABS back motor unit support and connector terminal. The guide has a built-in emergency release device and the transmission arm's hook; the guide has holes for possible connection of additional brackets.
- Chain or belt sliding system.

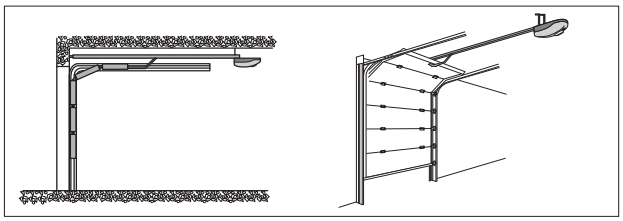
Attention! to insure easy installation and conformance with current safety, norms, we reccomend installation of CAME safety and control accessories.

GEAR MOTOR TECHNICAL CHARACTERISTICS

Gear motor	*Weight*	*Power Supply*	*Motor absorption*	*Max power*	*Duty cycle*	*Traction force*	*Average speed*
V600	**5,7 Kg**	**230V a.c.**	**6A max**	**130W**	**50 %**	**500N**	**6 m/min**
V700	**5,9 Kg**		**11A max**	**260W**		**850N**	

EXAMPLES OF APPLICATIONS

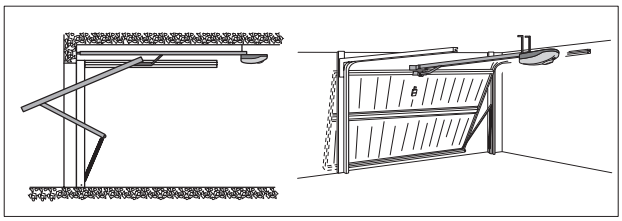
A



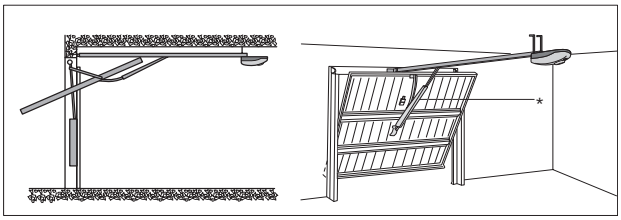
A - Sectional door

B - Spring-balanced overhead door

B

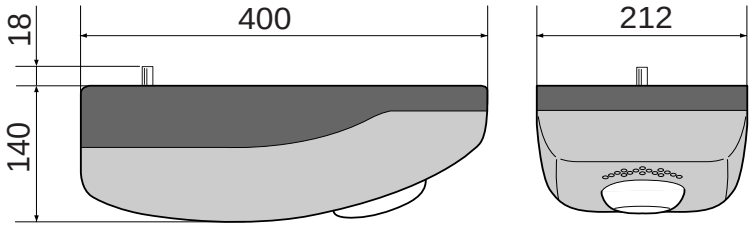


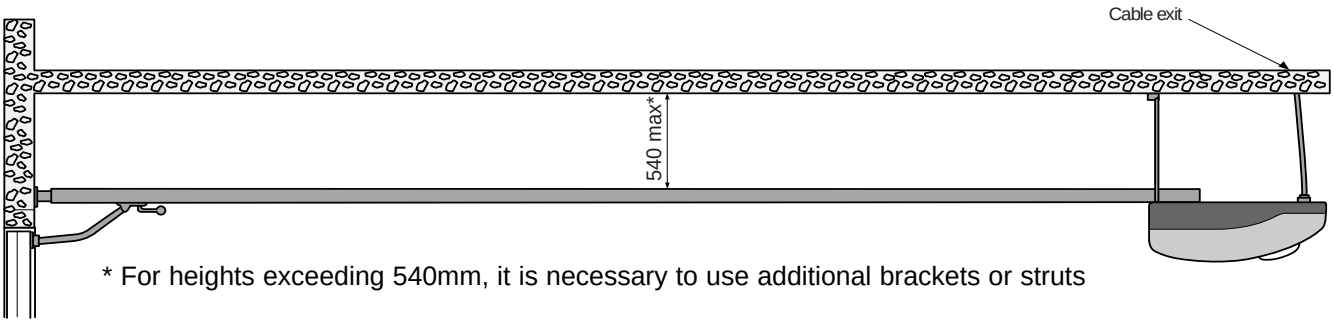
C



C - Overhead door with counterweight balancing or canopy door

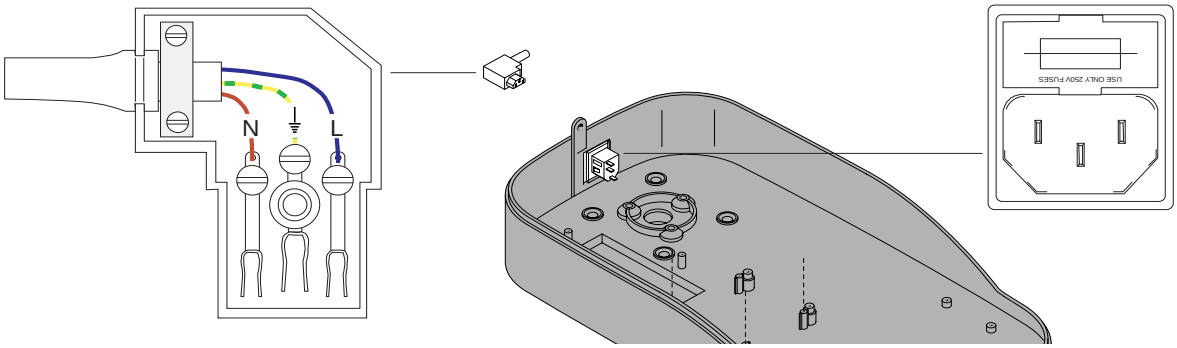
EXTERNAL DIMENSIONS





* For heights exceeding 540mm, it is necessary to use additional brackets or struts

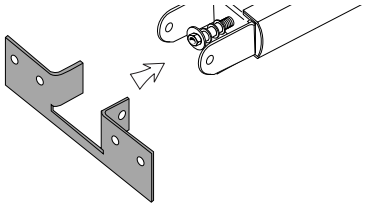
POWER SUPPLY PLUG & OUTLET

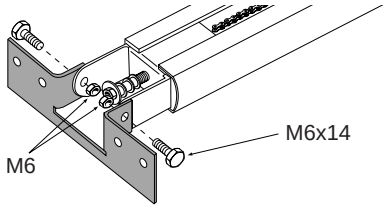


UNIT ASSEMBLY

PREARRANGEMENT OF TRANSMISSION GUIDE

- Fasten the bracket to the transmission guide's front terminal with the nuts and bolts provided;

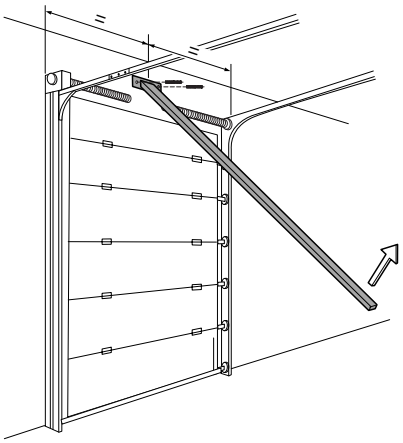


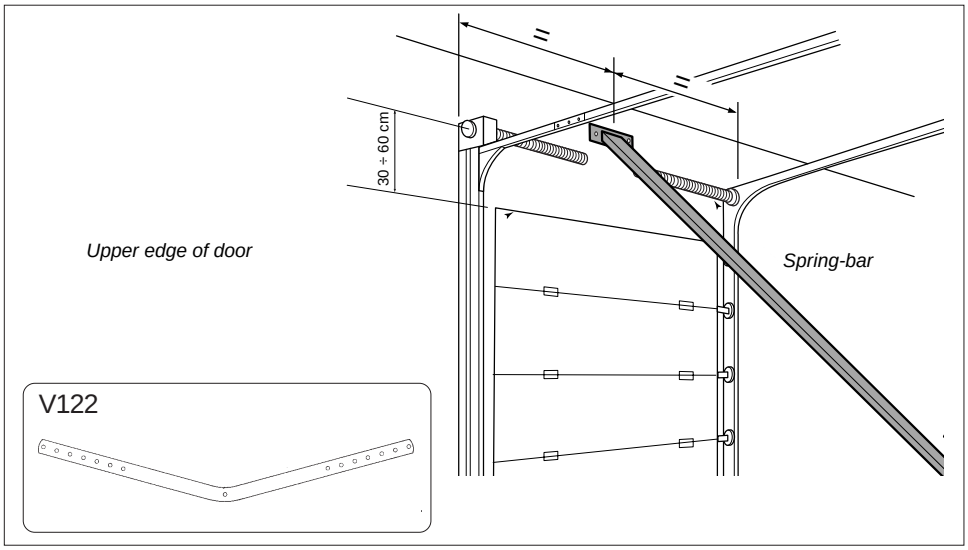


TRANSMISSION GUIDE FASTENING

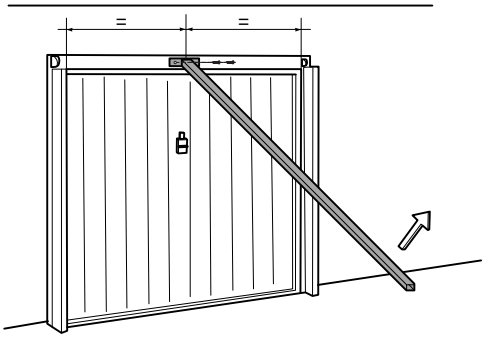
- Fasten the transmission guide in the following manner:

a) for sectional doors, fasten the bracket directly to the wall over the spring-release coiling shaft using adequate dowels and screws; if the distance between the coiling shaft and the gate's upper ledge is between 30 and 60 cm, apply the V122 arm (read the technical documentation provided with the accessory);



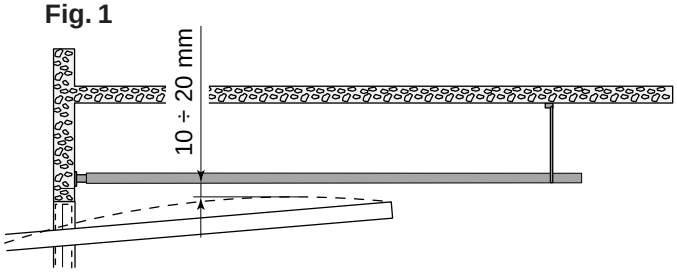


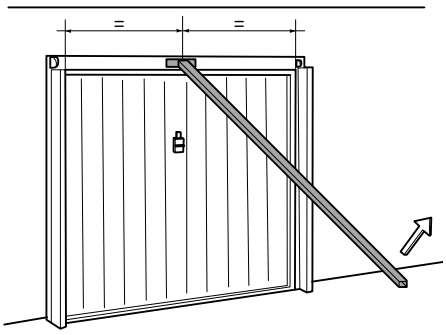
b) for **spring garage-type doors,** fasten the bracket on the fixed frame with adequate screws or rivets.

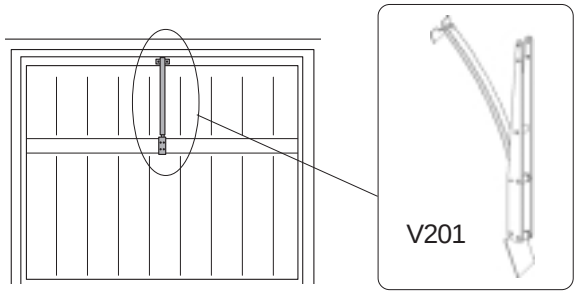


c) for **garage-type doors with counterweights or canopy doors,** verify the maximum door sliding point (fig.1) and consequently fasten the bracket on high with adequate screws or rivets.
N.B.: for garage-type doors with counterweights it is necessary to use the V201 adapter arm (read the technical documentation provided with the accessory).

Fig. 1



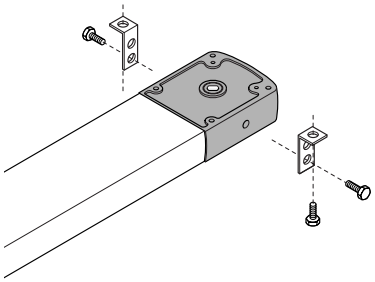


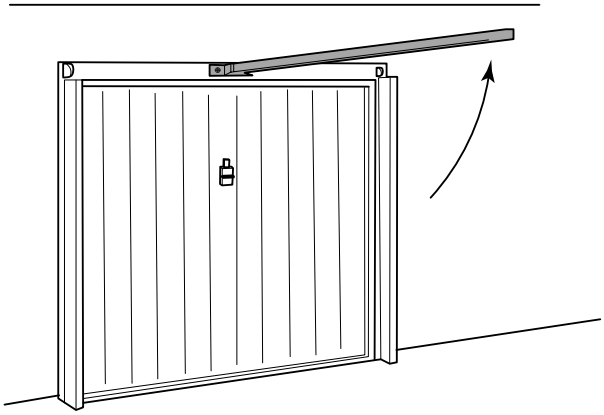


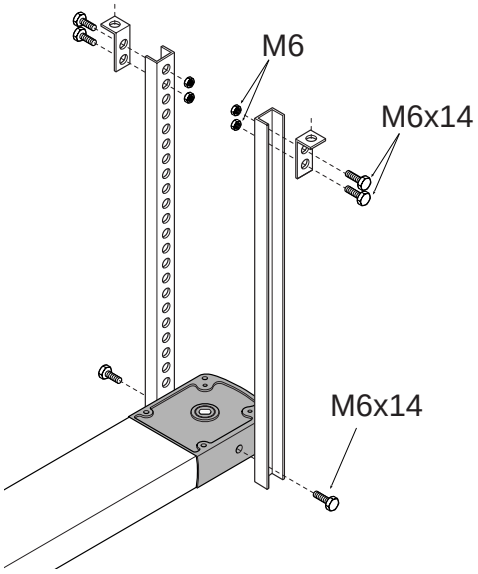
- Raise and set the guide horizontally to establish the distance from the ceiling; then fasten the angle sections or fastening brackets provided (cutting off any excess part) to the guide's back terminal. N.B. the transmission guide has three ø7 holes for further fastening should it prove necessary to reinforce the unit.

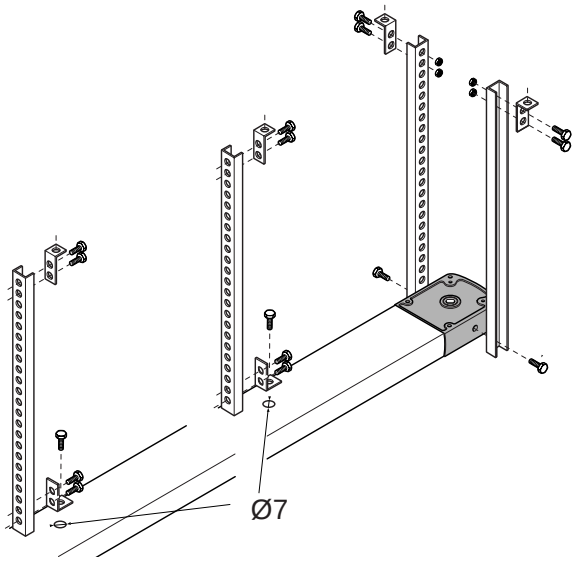
- Prepare the chase for electric wiring.

- Lift and fasten the transmission guide to the ceiling at right angles to the wall.





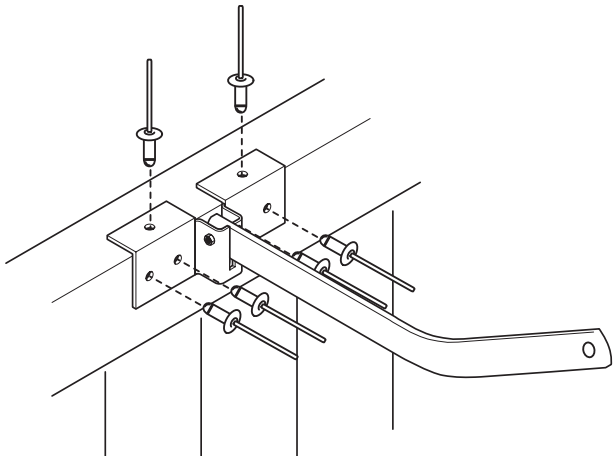


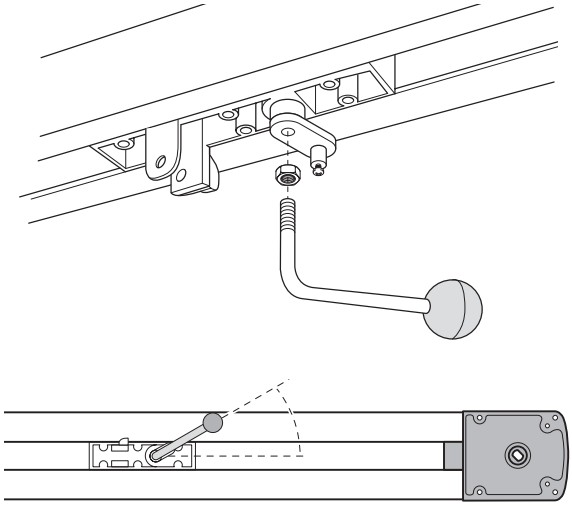


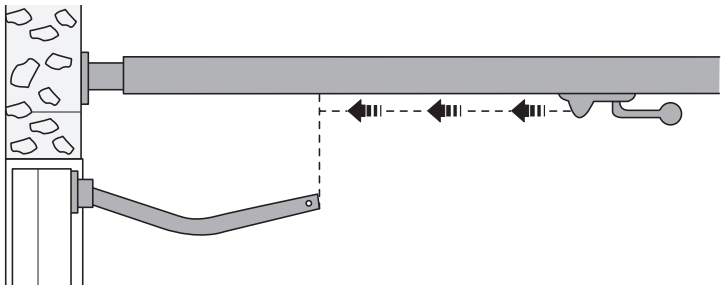
SLIDING LEVER FASTENING

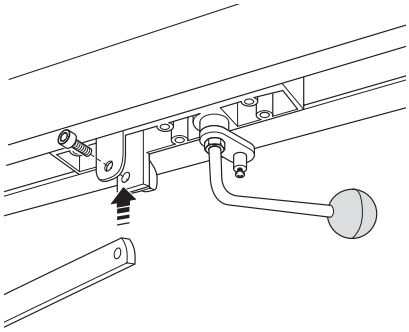
- Centrally fix the sliding lever to the door's upper crosspiece with the rivets provided;
- Mount the unlocking handle by screwing it to the preassembled unlocking unit's revolving plug and fasten it in the recommended position with the lock nut;
- Move the sliding runner and hook it to the transmission arm after removing the preset screw.

N.B.: if the adapter arm (V201) is used, hook the carriage to the sliding runner.



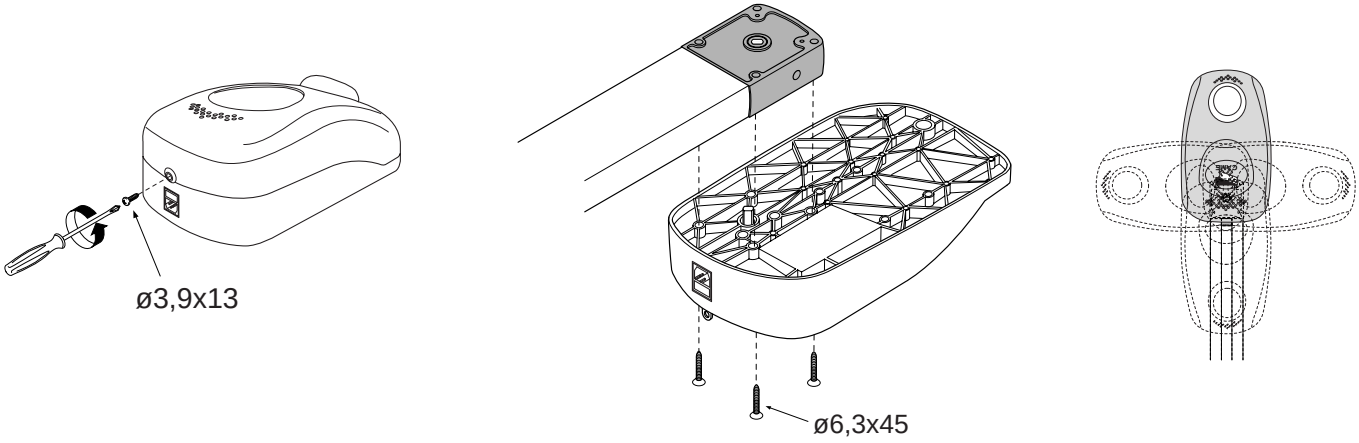






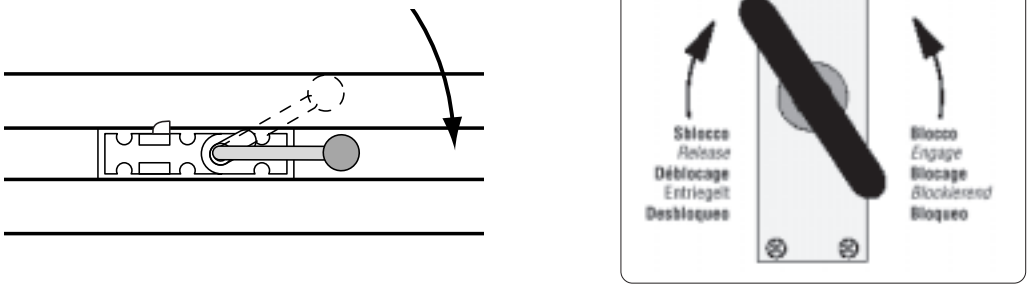
GEAR MOTOR INSTALLATION

- Remove the automation container cover by unscrewing the ø3.9x13 screw;
- Fasten the container to the sliding guide's back terminal in the desired position with the ø6.3x45 screws provided;



GEAR MOTOR UNLOCKING

- Turn the handle as illustrated; the rehooking of the release will take place automatically at the first manoeuvre, re-setting the handle in the original position.
- If there is a V121 cable release device (read the technical documentation accompanying the accessory for assembly instructions), turn the handle as illustrated to lock and the ratiomotor.



TECHNICAL DESCRIPTION ZL55 CONTROL PANEL

The card is powered with a 230V (AC) power outlet and its input is protected with a 1.6A line fuse. Control systems are powered by low voltage and protected by a 315mA fuse. The total power consumption of 24V accessories (which are protected by a 3.15A fuse) must not exceed 40W.
Fixed operating time of 80 sec.

Safety
Photocells can be connected to obtain:
- Re-opening during the closing cycle (2-C1), the photocells on detecting an obstacle while closing the door, cause the movement direction to be reversed until opening is complete;
- Total stop (1-2), stop of the garage-type door with the exclusion of the automatic closing cycle. To resume the movement, use the pushbutton or the radio control;
- Amperometric safety device: see below, fig A and fig B.

Other functions
- Automatic closing. The automatic closing timer is automatically activated at the end of the opening cycle. The preset, adjustable automatic closing time is automatically interrupted by the activation of any safety system, and is deactivated after a STOP command or in case of power failure;
- Obstacle detection. When the motor is stopped (gate is closed, open or half-open after an emergency stop command), the transmitter and the control pushbutton will be deactivated if an obstacle is detected by one of the safety devices (for example, the photocells);
- "Operator present" function. Gate operates only when the pushbutton is held down (the radio remote control system is deactivated);
- Pre-flashing. After an opening or closing command, the flasher connected to the 10-E flashes for 5 seconds before beginning the procedure;
- Type of command:
- «open-stop-close-stop» for pushbutton and radio transmitter;
- «open-close» for pushbutton and radio transmitter;
- «open only» for pushbutton and radio transmitter.

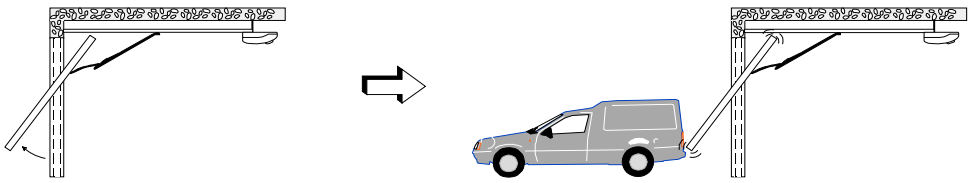
Accessories connected
- Courtesy Light (24V-25W). A light that illuminates the manoeuvring zone; after an opening command, the light remains on for a fixed time of 2 minutes and 30 seconds.

Optional accessories
- Courtesy Light (24V-25W), connect it to terminal blocks W-E;
- Flashing signal light when gate is in motion (24V-25W max.),
connect it to terminal blocks 10-E;
- **V0670** board card for emergency battery. which is automatically connected in case of power failure; battery is recharged when line power is restored;
- AF radiofrequency board (see table on pg. 24) for remote control.

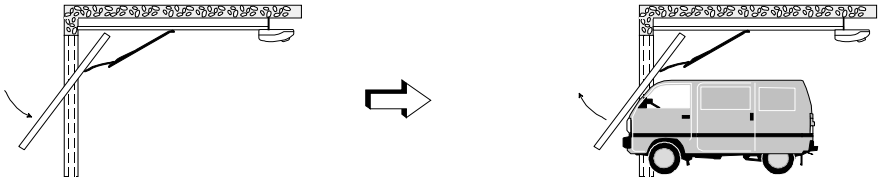
Adjustments
- Trimmer TCA = adjustment automatic closing time;
- Trimmer SENS = adjustment sensitivity of amperometric safety system.

Caution! *Shut off the mains power and disconnect the batteries if fitted before servicing the inside of the unit.*

In the presence of an obstacle, the amperometric device:
a) completely stops the door during opening and subsequently closes it automatically (if activated);



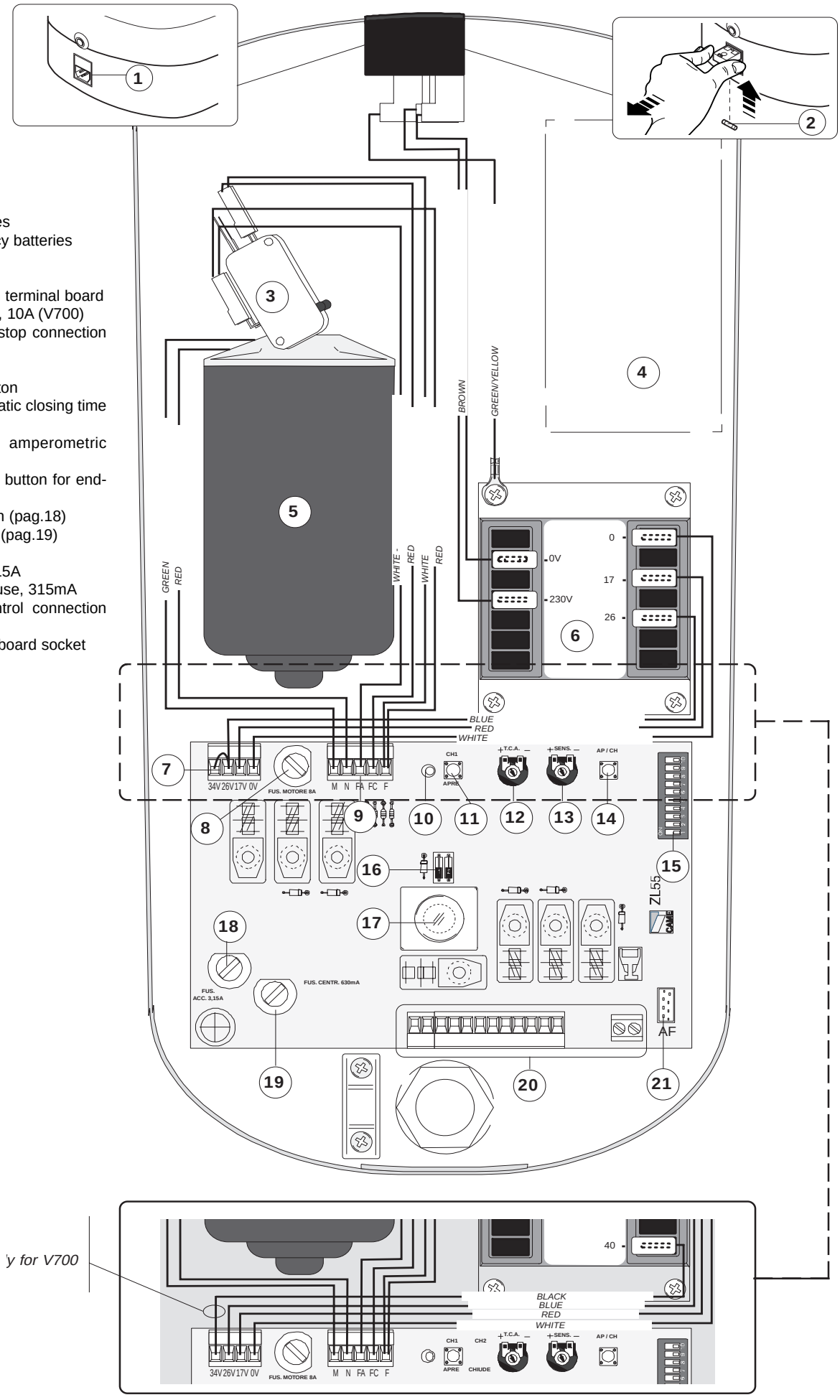
b) if in the closure phase, the movement of the door is reversed.
N.B.: In situation (b), if an obstacle is detected three times, the door wing stops during aperture, and automatic closure is disactivated. Use the keyboard or the radio transmitter to resume movement of the bar.



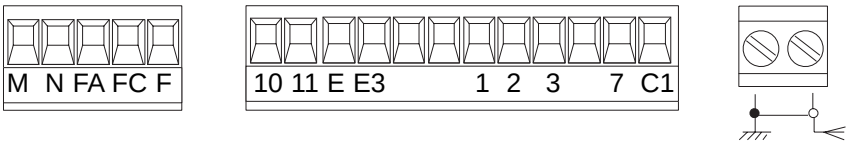
CONTROL PANEL

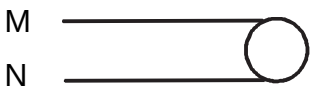
Main compoments

1 - 230V electric plug
2 - Line fuse, 1,6A
3 - End-stop microswitches
4 - Location for emergency batteries
5 - Gear motor
6 - Trasformer
7 - Trasformer connection terminal board
8 - Motor fuse, 8A (V600), 10A (V700)
9 - Gear motor and end-stop connection terminal board
10 - Signal LED
11 - Radio-code save button
12 - Trimmer TCA: automatic closing time adjustment
13 - Trimmer SENS: amperometric sensitivity adjustment
14 - Opening and closing button for end-stop adjustment
15 - 10-dip function switch (pag.18)
16 - 2-dip function switch (pag.19)
17 - Courtesy Light
18 - Accessoires fuse, 3,15A
19 - Central control unit fuse, 315mA
20 - Accessory and control connection terminal board
21 - "AF" radiofrequency board socket

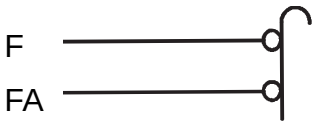


ELECTRICAL CONNECTIONS

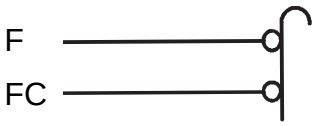




24 (dc) motor



Connection limit switch open (N.C.)

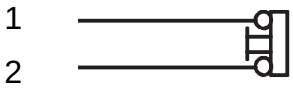


Connection limit switch closes (N.C.)

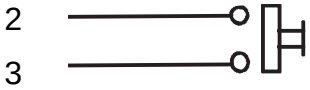
Powering accessories (maxc 40W)
- 24V (A.C.) with power supply at 230V (A.C.)
- 23V (D.C.) with power supply at 24V (A.C.)

24V output in motion (e.g. flashing light)

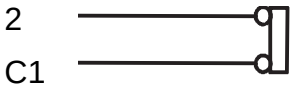
24V - 25W max. courtesy light



Pushbutton stop (N.C.)



Pushbutton opens (N.O.)



Contact (N.C.) for <<re-aperture during closure>>

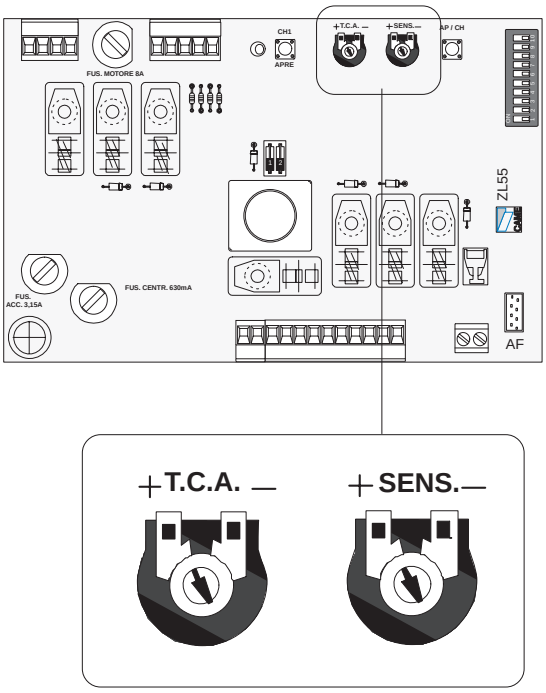
Contact radio and/or button for control (see dip-switch 2-3 function selection)

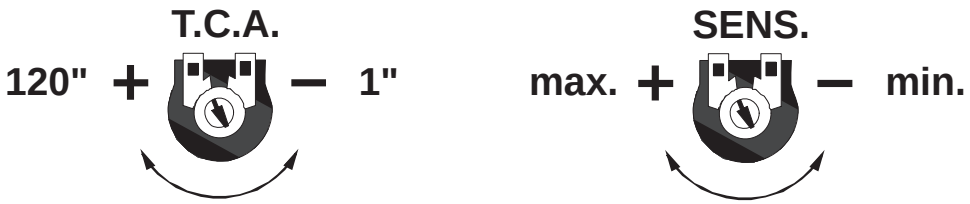
Antenna connection

N.B. All normally closed (N.C.) contacts and buttons not used should be disconnected with a dipswitch or short-circuited.

ADJUSTMENTS

Trimmer T.C.A. = Automatic closing time adjustment
Trimmer SENS. = Amperometric sensitivity adjustment



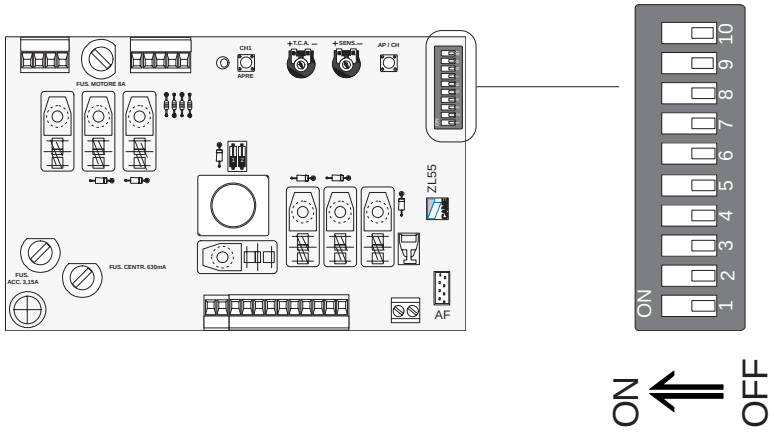


Minimum power

Maximum power

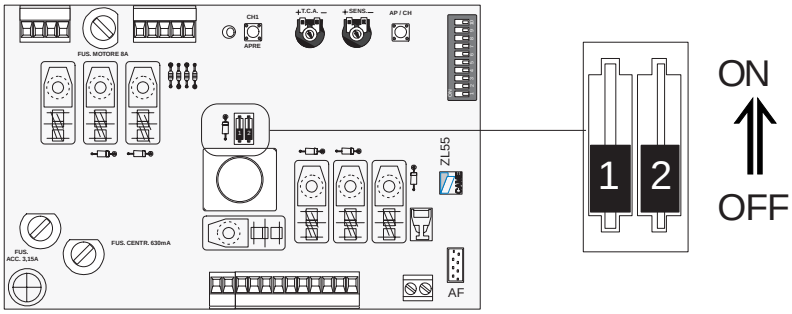
SELECTION OF FUNCTIONS

10-way dip-switch



1 ON Automatic closure **enabled**;
2 ON "Open-stop-close-stop" with pushbutton (2-7) and radio control (AF board inserted) **enabled**;
2 OFF "Open-close" with pushbutton (2-7) and radio control (AF board inserted) **enabled**;
3 OFF "Only opening" with pushbutton (2-7) and radio control (AF board inserted) **enabled**;
4 ON Pre-flashing in opening and closing **enabled**; After an opening or closing command, the flascher connected to the 10-E flashes for 5 seconds before beginning the procedure;
5 ON Obstacle detection device with motor of limit position **enabled**; when the motor is stopped (gate is closed, open or half-open after an emergency stop command), the transmitter and the control pushbutton will be deactivated if an obstacle is detected by one of the safety devices (for example, the photocells);
6 ON "Operator present" **enabled**, gate operates only when the pushbutton is held down (the radio remote control system is deactivated);
7 OFF Re-opening in closing phase **enabled**; connect the safety device on terminal (2-C1) the photocells on detecting an obstacle while closing the door, cause the movement direction to be reversed until opening is complete;
8 Not used, keep the dip in position «OFF»;
9 Not used, keep the dip in position «OFF»;
10 ON Enables the function of stopping while closing;
10 OFF Enables the function of slowing while closing;

2-way dip-switch

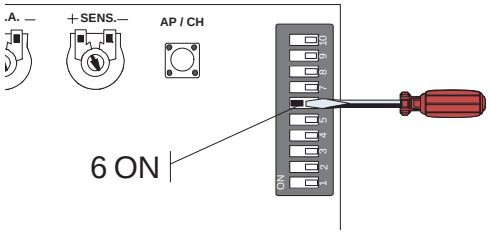


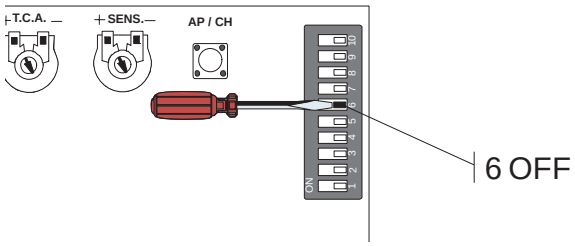
1 ON Control unit enabled for V600 gear motor;
1 OFF Control unit enabled for V700 gear motor;
2 Not used, keep the dip in position «OFF»;

ADJUSTING THE LIMIT SWITCHES

IMPORTANT: READ INSTRUCTIONS CAREFULLY BEFORE PROCEEDING WITH ADJUSTMENTS.

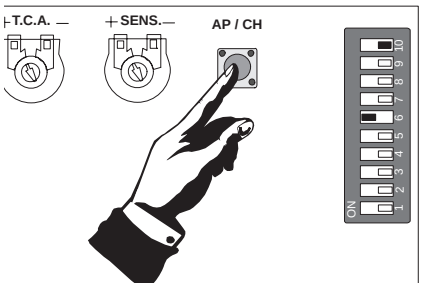
During opening there is only one end-stop mode;
During closing there is the possibility of slowing down before stopping.
Set dip 6 to ON during all the subsequent adjustments. Turn it back to OFF when finished.

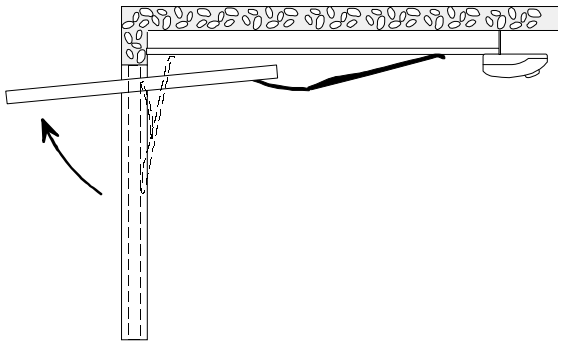


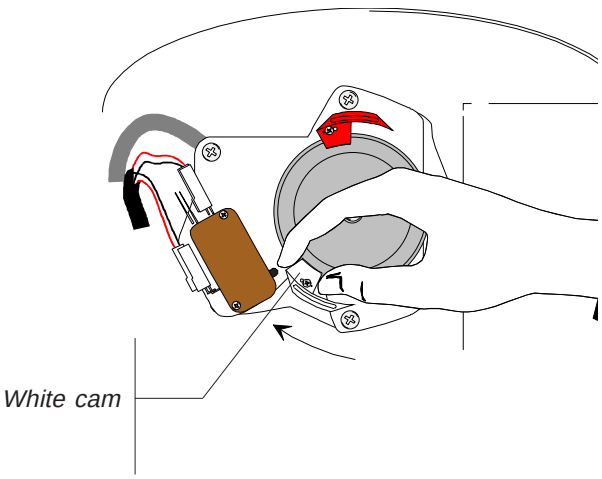


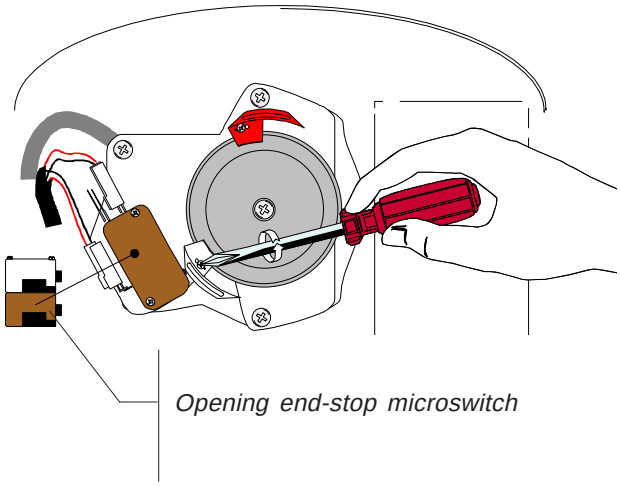
Opening end-stop adjustment

- Keep the “AP/CH” key pressed until the garage door reaches the desired opening position;
- turn the white cam until the opening end-stop microswitch is inserted and secure it with a screw.



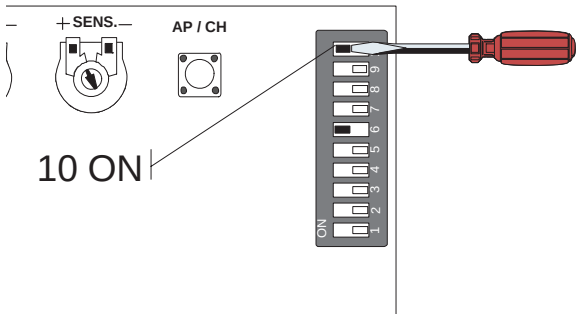


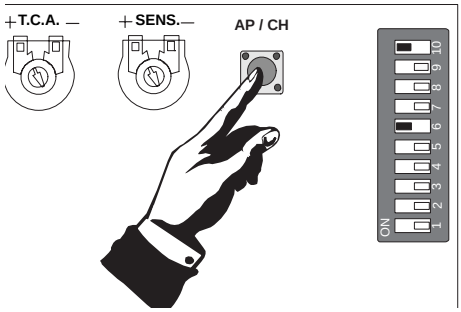


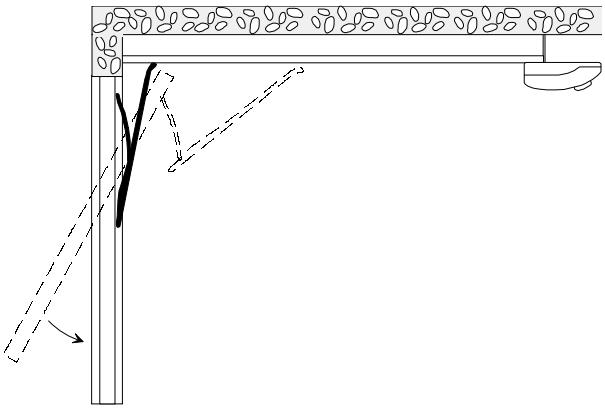


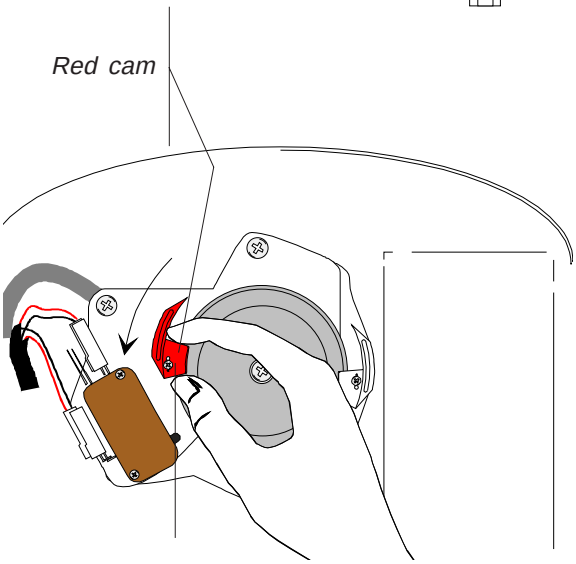
Closing end-stop adjustment

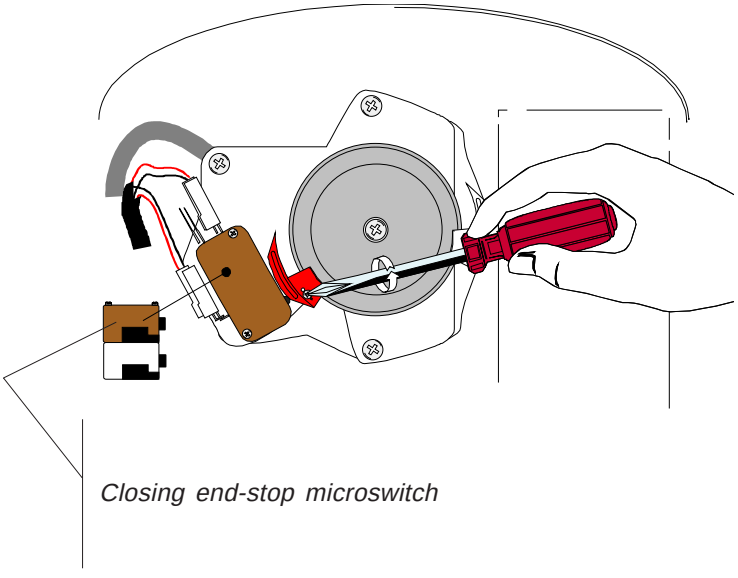
- Set dip 10 to ON.
- Keep the "AP/CH" key pressed until the door reaches the closing ledge position.
- Turn the red cam until the closing end-stop microswitch is inserted and secure it with a screw.





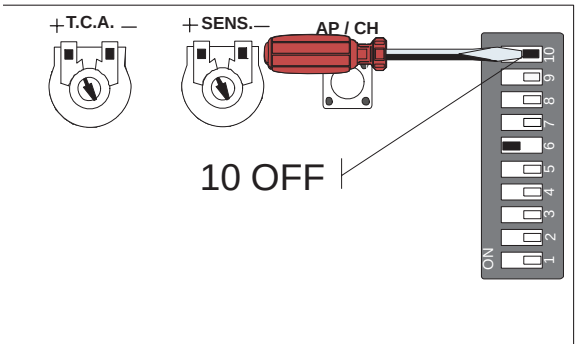


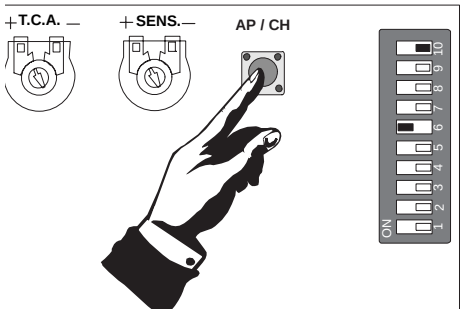


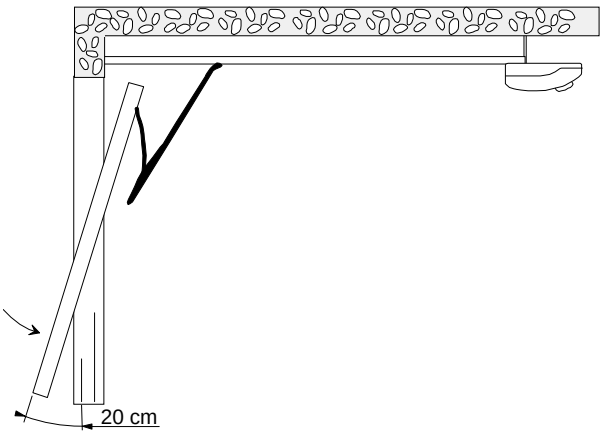


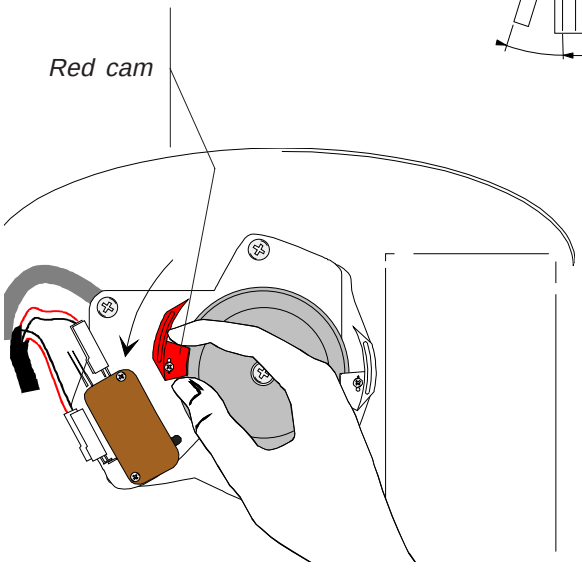
Slowing when closing end-stop adjustment

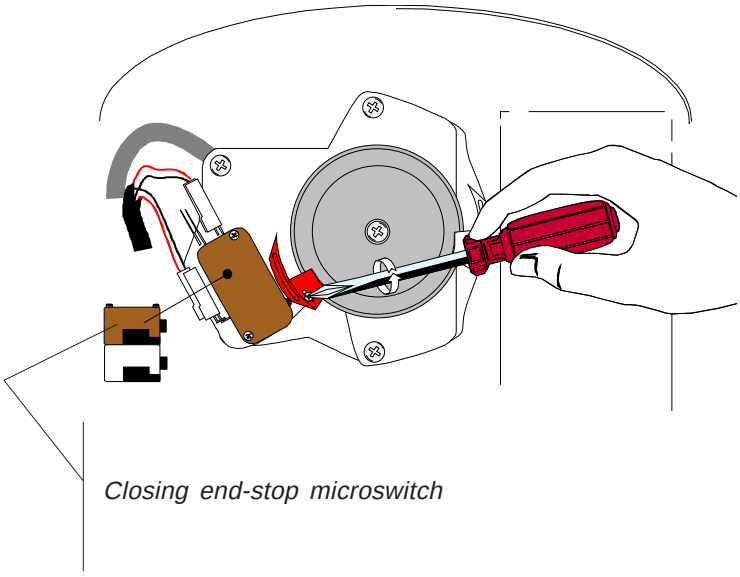
- Set dip 10 to OFF.
- Keep the “AP/CH” key pressed until the door is approximately 20 cm from the closing ledge;
- Turn the red cam until the closing end-stop microswitch is inserted and secure it with a screw.





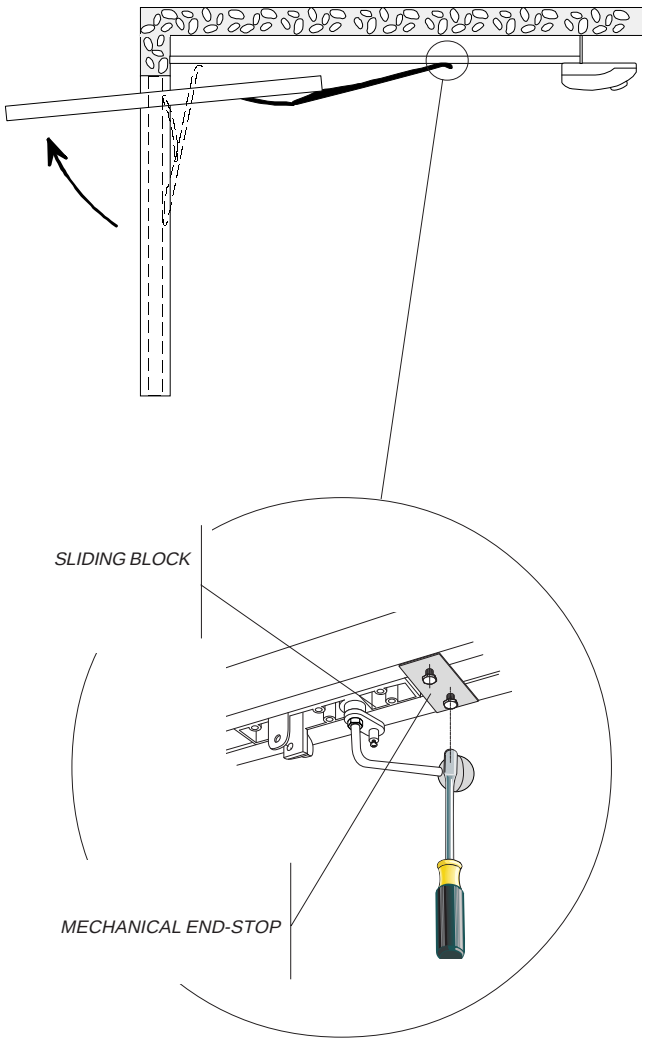


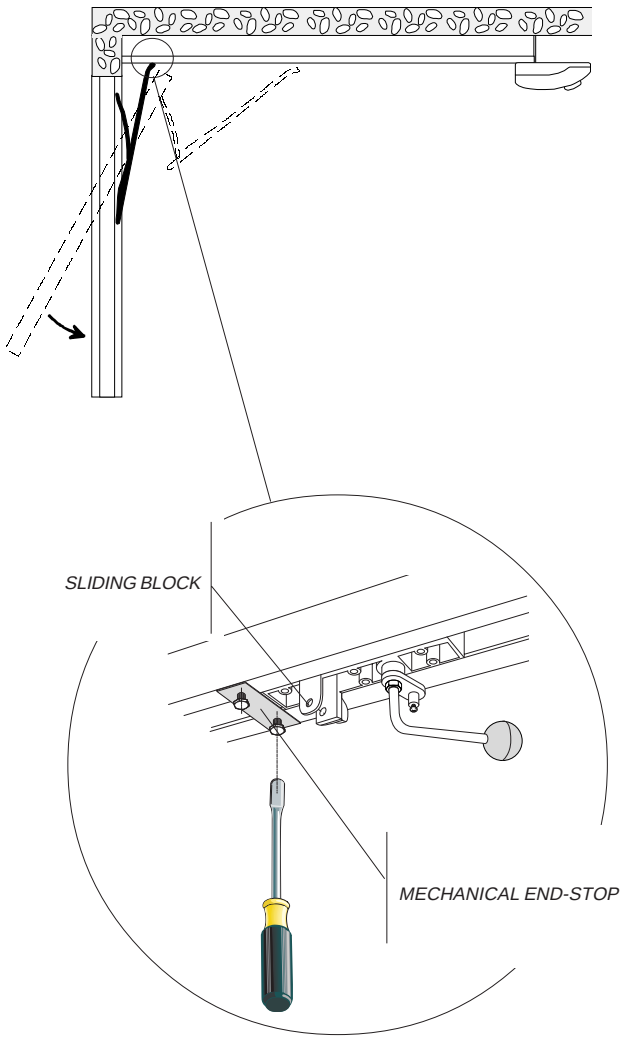




Safety screw-locks

With the door either open or closed, set safety screw-locks placed in the transmission guide on the sliding runner and screw them on.

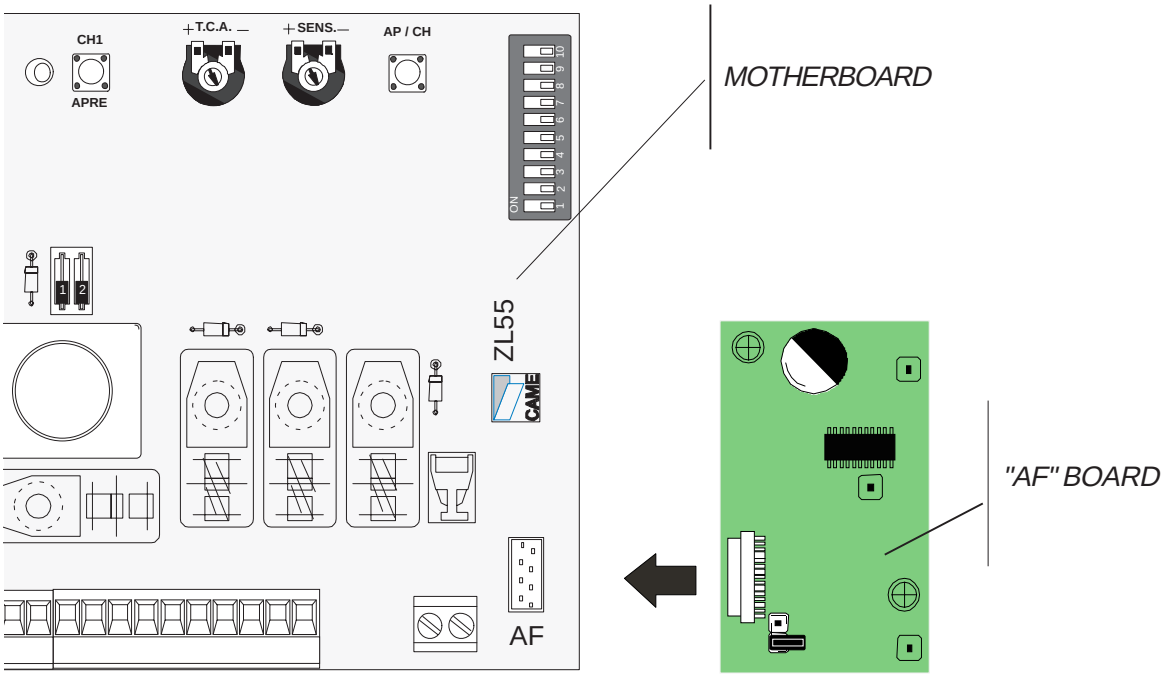




RADIO CONTROL INSTALLATION

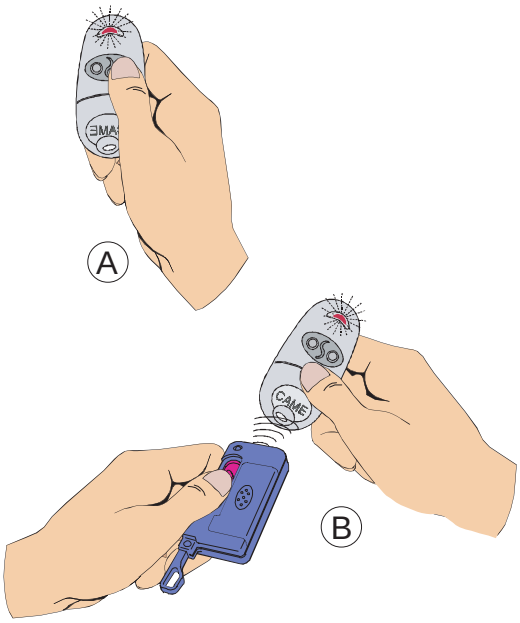
PROCEDURE

A. insert an AF card **.
B. encode transmitter/s.
C. store code in the motherboard.



The AF board should ALWAYS be inserted when the power is off because the motherboard only recognises it when it is powered.

TRANSMITTER ENCODING



Use on existing system

(with TOP at 433.92 MHz)

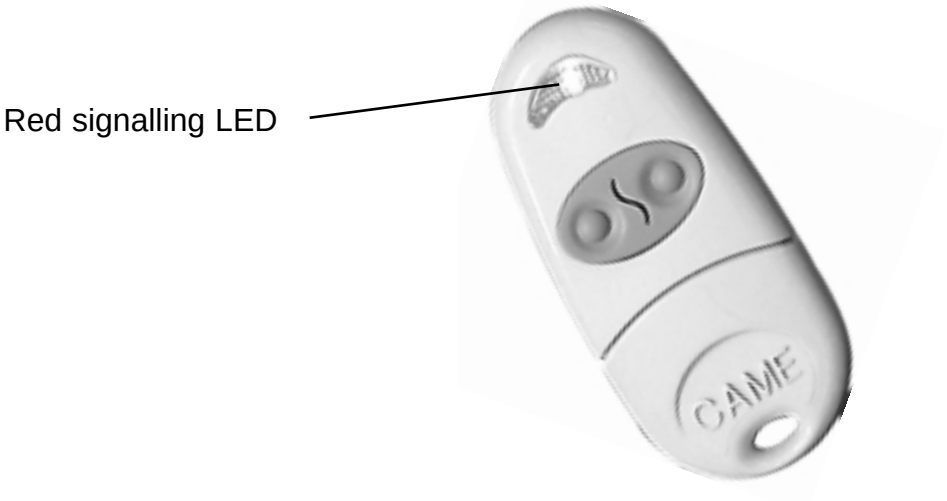
1. Press the key to encode until, after 7 seconds of flashing, the red signalling LED remians on. (fig A)

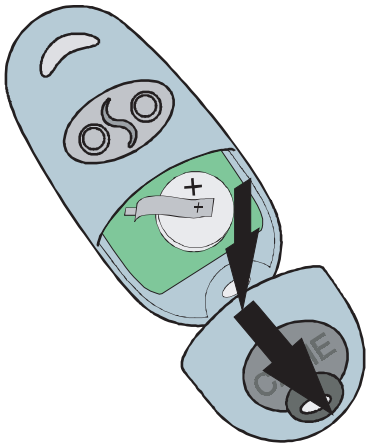
2. Within 10 seconds, bring the existing transmitter closer from the rear part and press the pushbutton you want to copy for a few seconds. (fig B)
   Once it has been saved, the LED will flash 3 times and the transmitter will be ready for use.

Repeat 1 and 2 for the other pushbuttons. (NB: the code of another system can be saved).

Use on new system

Consult the documentation of the electric board to save the first transmitter, then follow the procedure described above to duplicate it in the quantity desired.

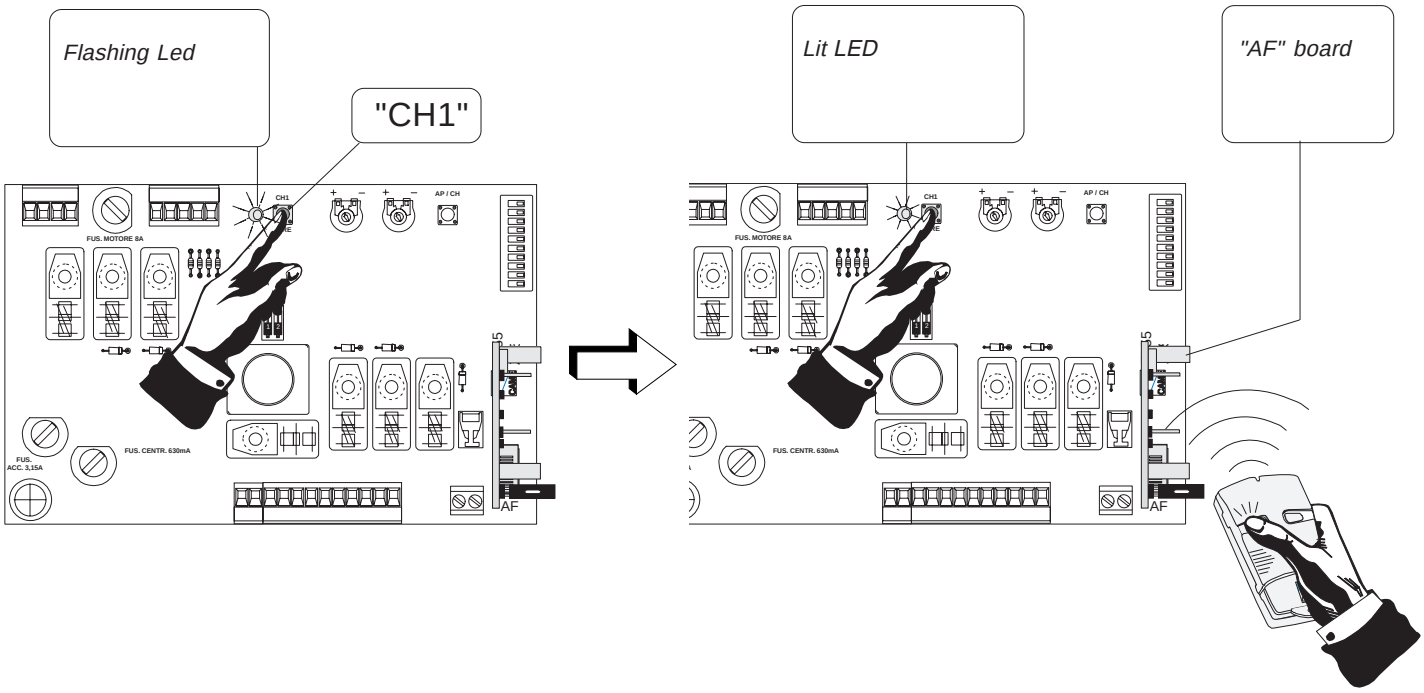




To open battery compartment, press and slide.

CODE STORAGE

Keep the CH1 key pressed on the base card (the signal LED will flash), and with a key on the transmitter the code is sent, the LED will remain lit to signal the successful saving of the code.



CH1 = Channel for direct control of one function performed by the control unit on the gear motor ("open only" / "open-close-reverse" or "open-stop-close-stop", depending on the position of dip switches 2 and 3, 10-dip function switch).

N.B. If you wish to change the code on your transmitters in the future, simply repeat the procedure described above.

PERIODIC MAINTENANCE

The unit does not require specific maintenance. However, it is a good idea to periodically oil the sliding wheels and the pins of the door arms, and to check the belt or chain’s tension.

CONTACT INFORMATION

CAME UNITED KINGDOM LTD

UNIT 3
ORCHARD PARK INDUSTRIAL ESTATE
TOWN STREET, SANDIACRE, NOTTINGHAM NG10 5BP

TEL: **0115 921 0430**
FAX: **0115 921 0431**

INTERNET : **www.cameuk.com**
E-MAIL: **enquiries@cameuk.com**

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NAME.....
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