SPEEDY

Kit aprigarage per porte sezionali e basculanti
Garage Opener for sectional and balancing doors
Kit pour l'ouverture des portes sectionneles et basculantes
Kit Garagenöffner für abschnittweise und ausgleichende

Istruzioni e avvertenze per l'installazione, l'uso e la manutenzione
Instructions and warnings for installation, use and maintenance
Instructions et avertissements pour l'installation, l'usage et l'entretien
Anleitungen und hinweise für installation, gebrauch und wartung

Leb electronics s.r.l.
Via Caduti del Lavoro,1
25010 Acquafredda (BS) - Italy
www.leb-electronics.com
Info@leb-electronics.com

ENGLISH

GENERAL INDEX

ENGLISH

SPEEDY

Garage Opener for sectional and balancing doors

ISTRUCTIONS

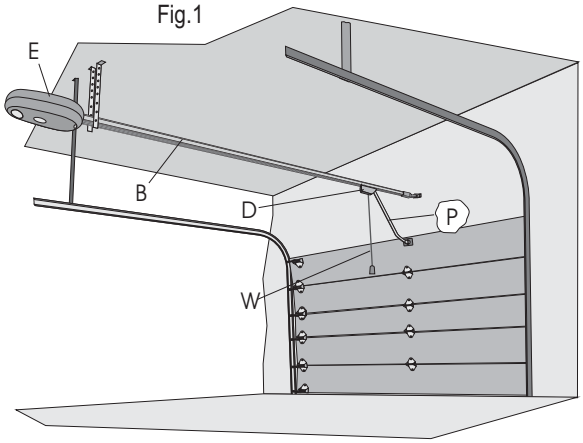
WHERE TO APPLY

SPEEDY is a garage opener for the automatic operation of sectional and balancing doors with a 2,5 mt maximun height.

DESCRIPTION CAP. 1

Speedy is a device for different types of automatic garage doors including sectional doors and balancing doors. The device is composed by an electrical motor, an electronic card, a guide with chain, an dragging arm and auxiliary parts for the positioning and the anchorage of the guide. The device's electric power is supplied by the 230Vac mains. It includes a radio receiver for the operation with remote control. The dragging clutch includes the releasing device in order to free the door mechanically from the chain and allow the manual operation.

Fig.1



E - mainframe
B - chain guide
P - dragging arm
D - dragging clutch
W - releasing wire

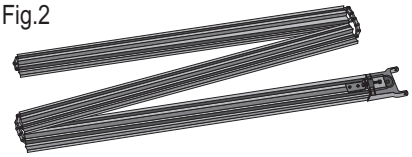
RECOMMENDATIONS CAP. 2

Before operating the device make sure that the following operations have been carried out :

Note 1 - Read carefully the whole technical documentation supplied .
Note 2 - The unit must be applied for the intended use only.
Note 3 - Make sure that the structure of the door is suitable for the device .
Note 4 - Make sure that there are no rubbing point during the movement of the door.
Note 5 - Make sure that the door is balanced correctly .
Note 6 - The device must not to be handled by children or no-qualified persons .
Note 7 - The extraordinary maintenance of the device must only to be executed by qualified technicians (CAP.10).
Note 8 - Keep far from the door the children and the animals during the movement.
Note 9 - In case of breakdown, the mains cable must be changed by authorized technicians by the manufacturer and with the power supply disconnected.

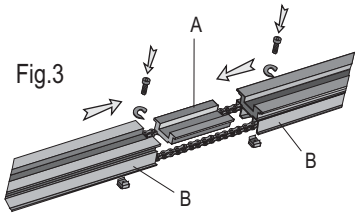
1 - Extract the refolded chain guide in three pieces from the package (fig.2) and unfold by placing the three pieces on the same axis.

Fig.2



2 - Through the two junctions (A), connect the three separate parts (B) of the chain guide with the appropriate screws as indicated in the fig.3.

Fig.3



3 - Close the chain (fig.4) connecting the free terminal to the dragging clutch support (C) and then insert the support in the guide .

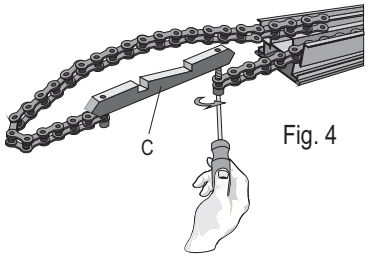
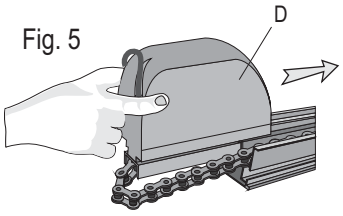


Fig. 4

Fig. 5



4 -Insert the dragging clutch (D) in the chain guide (fig.5), from the extremity, until it surmount the support (C) and hook it .

5 - Connect the mainframe (E) to the chain guide (B) by inserting it in the guide slots (F) and mount the chain on the pinion (G) . Insert the screws head (K) into the external rails of the guide. This is essential for the following fixing of the guide to the support stirrups (fig.12). Joint the guide to the mainframe with the collar (H) using the appropriate screws (fig.6) .

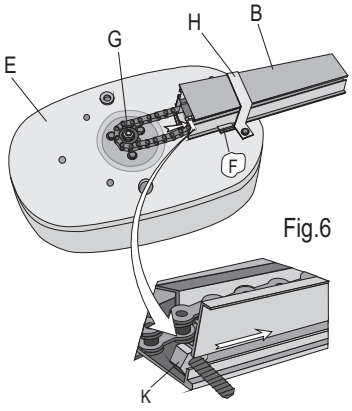
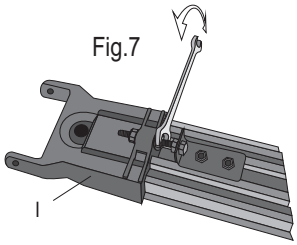


Fig.6

6 - With an appropriate wrenche, adjust the bolt on the guide head (I), by tightening or loosing the chain in order to get a little of space by coupling the pinion (G) to the chain (fig.7).

Fig.7



7 - Apply the bracket stirrup (L) to the guide head (I) using the appropriate screw (M) , the bolt and the washers provided in the package (fig.8).

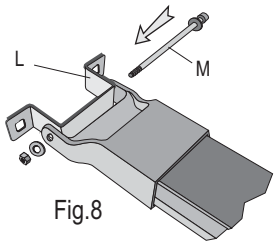
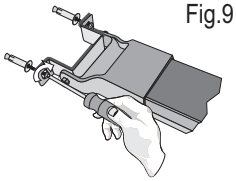


Fig.8

Fig.9



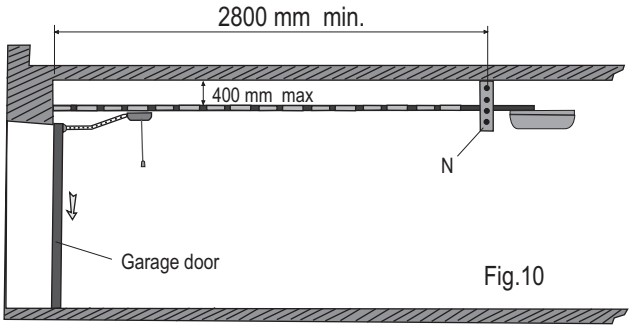
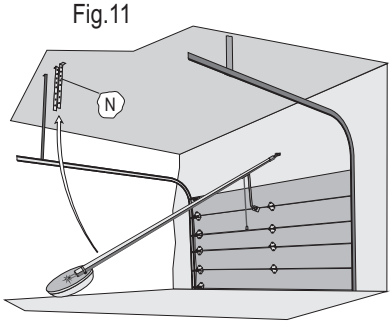


Fig.10

8 - Close completely the garage door and fix the stirrup (L) on the wall (fig.9) at a distance not more than 8 cm from the upper limit of the door.
In order to have the guide parallel to the pavement (balancing doors) or to the ceiling (sectional doors), It is necessary that such distance is equal to that on the stirrup of guide support (N).

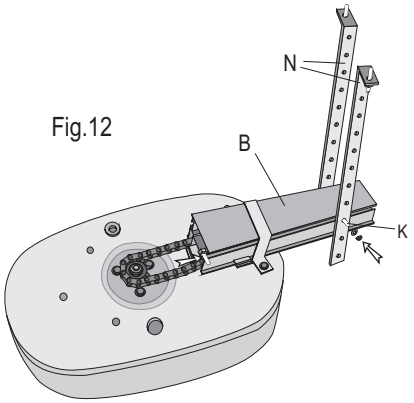
Fig.11



9 - Fix the support stirrups (N) to the ceiling at a distance more than 2,8 mt (fig.10) and then lift the guide with the mainframe in order to connect it to the support stirrups (fig.11).

10 - Connect the guide (B) to the support stirrup (N) with the two appropriate screws (K) previously predisposed (fig.12) .

Fig.12



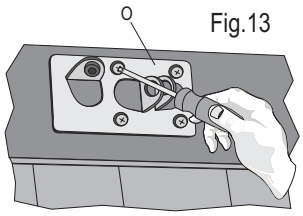
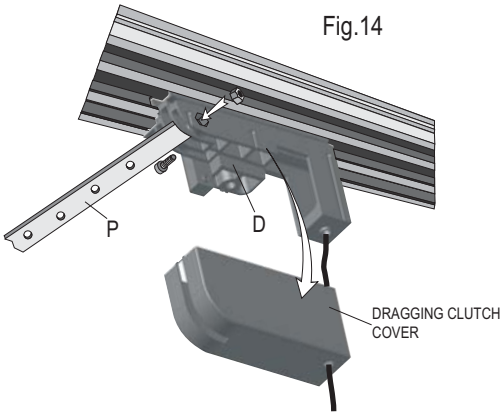


Fig.13

11 - Fix the door stirrup (O) in the center and on the top of the door with four appropriate screws (fig.13).

Fig.14



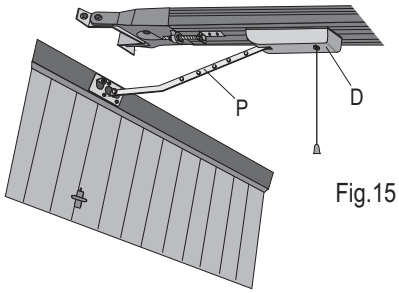


Fig.15

12 - Remove the cover of dragging clutch (D) in order to connect the dragging arm (P) as indicated (fig.15). Insert the dragging arm in the proper seat and connect it by using the appropriate screw (fig.14). Assemble the cover with the release wire as in origin.

13 - Mount the other extremity of the dragging arm to the door stirrup (O) using the cylindrical pin and split pin suitable (fig.16).

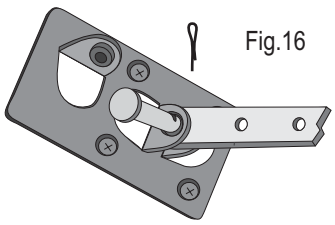


Fig.16

14 - Lubricate the chain with the suitable grease for equipment use .

Mains power supply > 4A

15 - Predispose a 230Vac line protected by a 10A overcurrent switch (R). Connect the 230Vac line to a socket Schuko (S), installed near to the mainframe (fig.17).

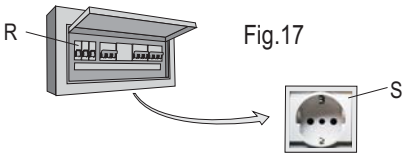


Fig.17

16 - Connect the plug (S1) of the mainframe to the predisposed socket (Fig.18) .

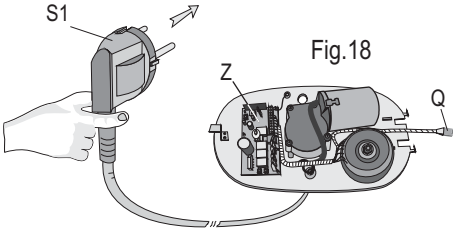


Fig.18

Limit Switches assembling > 4B

17 - Apply the magnet (T) by hooking it to the chain through the protruding tongs (Fig.19a).

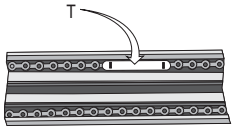


Fig.19a

18 - Apply the magnetic limit switch (U) to the guide as indicated (Fig.19b).

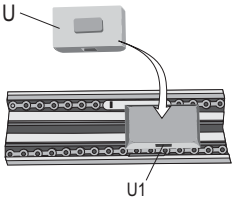


Fig.19b

19 - Rotate of 90° the magnetic limit switch (U) for hooking it to the guide (Fig.19c). The connector (U1) must be directed toward the mainframe.

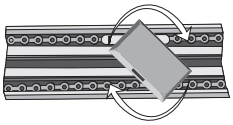


Fig.19c

20 - Connect (Fig.19d) the female connector (Q) to the magnetic contact (U) and regulate the position of the contacts through the keys P2 and P3 (CAP.6L).

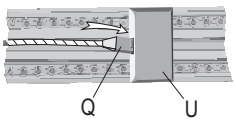


Fig.19d

Photocell installation > 4C

In order to get higher safety during the movement of the door, it is recommended the installation of the photocell (CAP.6D).

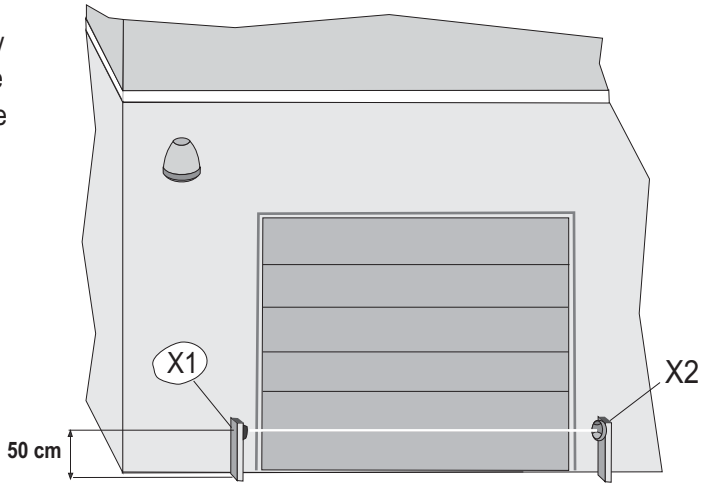


Fig.20

21 - Remove the cover of the transmitter (X1) and fix the base to about 50cm of height from the floor near to the side of the door (Fig.20) .

22 - Connect the 24Vac power supply line coming from the electronic card (mainframe) and then mount the cover as in origin (Fig.21).

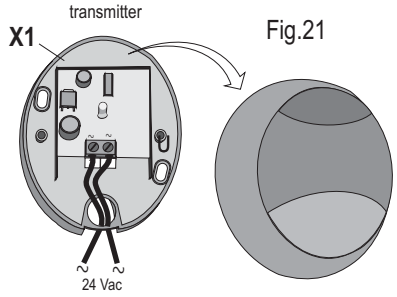


Fig.21

23 - Remove the cover of the receiver (X2) and fix the base to about 50cm of height (Fig.20) from the floor and in perfect visual alignment with the transmitter (X1).

24 - Connect the cables coming from the electronic card (mainframe), including the 24Vac power supply line and the N.C. contact and then mount the cover as in origin (Fig.22).

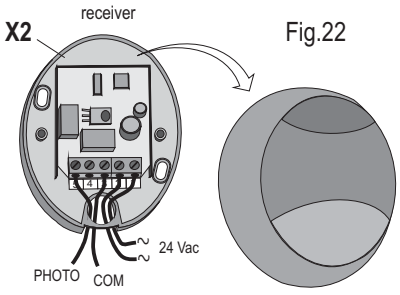


Fig.22

Blinker installation **> 4D**

In order to get higher safety and to have an optical signal during the movement of the door, it is recommended the installation of the blinker (Y).

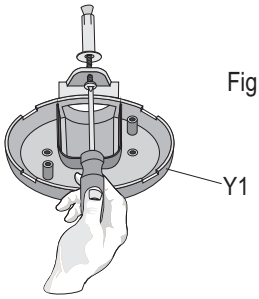
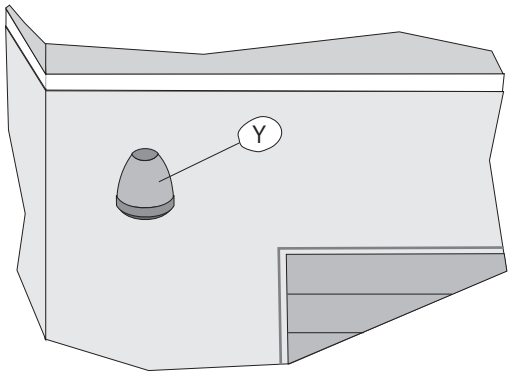


Fig.23



25 - Fix the support of the blinker (Y1) in proximity of the door in visible position (Fig.23) .

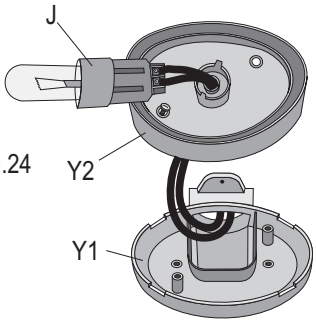


Fig.24

26 - Connect the two cables coming from the electronic card (mainframe) to the lamp holder (J). Make sure that the lamp bulb (12Vac/15 W) is well screwed and then fix the lamp holder on the base (Y2) .

27 - Connect the base (Y2) to the support (Y1) through the two suitable screws (Fig.25).

28 - Mount the cover (Y3) on the base by pushing it until they are well connected (Fig.25).

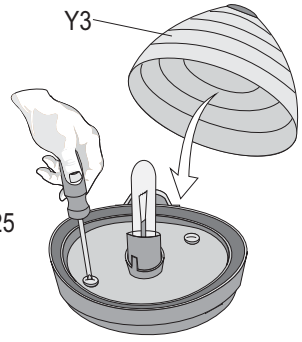
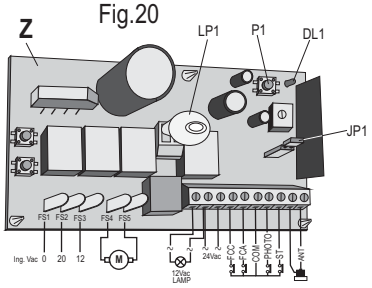


Fig.25

OPERATION START — CAP. 5

29 - Connect the mains power supply (230Vac) and verify that the led DL1 lights for approximately one second confirming that the electronic card is operating.

Fig.20



30 - Remove the jumper JP1 in order to select the mode STEP-BY-STEP (see cap. OPERATION MODES).

31 - Give a START command through the ST input on the electronic card in order to begin the first opening cycle which will stop on the limit switch. During the opening, the courtesy light (LP1) is lit and it goes OFF about two minutes after the stop of the movement. During the movement the blinker (Y) flashes uninterruptedly.

OPERATION MODE — CAP. 6

THE DEVICE HAS TWO OPERATION MODES :

- STEP-BY- STEP (JP1 open)
- AUTOMATIC (JP1 closed)

Step-by-step operation (JP1 open) **> 6A**

A start command (ST) or the reception of one valid code from one remote control (V), it causes the following actions :

- next start command > close - stop
- next start command > open - stop
- next radio command > close - stop

....

Every command causes the inversion of the door motion and the movement will stop when the magnet (T), placed on the chain, catches up the limit switch (fig. 21). During the movement, the courtesy light (LP1) is lit and it goes OFF about two minutes after the stop of the motion. During the movement the blinker (Y) flashes continually.

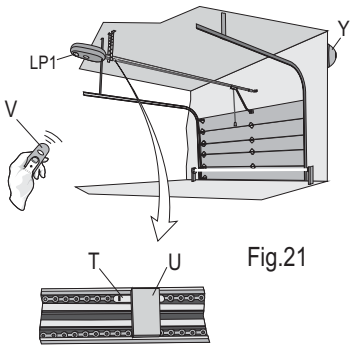


Fig.21

Automatic operation (JP1 closed) **CAP 6B**

A start command (ST) or the reception of one valid code from one remote control , it causes the following actions :

- start command > open - stop - pause - close
- next radio command > open - stop - pause - close

....

Every command causes an opening cycle that will stop when the magnet (T), placed on the chain, catches up the limit switch. When the door stops, the pause time will start (CAP.6H). At the end of the pause time, the closure cycle starts automatically and it will stop when the magnet (T), placed on the chain, catches up the limit switch again. During the movement, the courtesy light (LP1) is lit and it goes OFF about two minutes after the stop of the motion. During the movement the blinker (Y) flashes continually.

Slowing down **CAP 6C**

- At the beginning of an opening cycle , the speed of the dragging clutch is reduced and , after two seconds, it will increase up to a normal speed. It will keep the normal speed until it stops.
- At the beginning of a closure cycle , the speed of the dragging clutch is reduced and , after two seconds, it will increase up to a normal speed. It will reduce the speed in the final part for 1/8 of the total run and however the slowing-down process will take more than two seconds.

NOTE: The length of the run is taken automatically at the first whole closure cycle (from Limit switch to the other Limit switch) after the connection of the 230Vac power supply or next to an absence of the Mains.

SAFETY DEVICES **CAP 6D**

During the movement, the motor's anomalous current absorption due to a shot against an obstacle (Amperostop), it causes the following actions :

- during an opening phase, an AMPEROSTOP will cause the immediate stop of the movement .
- during a closure phase, an AMPEROSTOP will cause the immediate stop of the movement and then a complete opening cycle. In the automatic mode, at the end of the opening cycle, the door won't close automatically.

NOTE.: The Amperestop level is programmable through the trimmer TR1. The current level during the opening cycle is 25% higher than during the closure (fig.22).

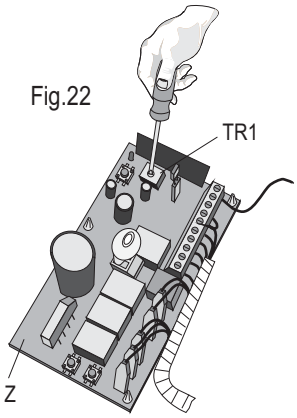


Fig.22

During the movement, the photocell operation causes the following effects :

- during the opening phase, it doesn't have effect.
- during the closure phase, it causes the door stop and, after approximately 1,5 sec., a complete opening cycle. In the automatic mode, at the end of the opening phase, the door will close automatically.

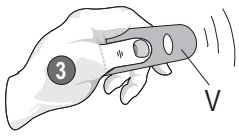
Remote control - Start code programming CAP 6E

In order to control the device, the remote control must be learned by the electronic card (Z) called also control unit.

In order to store the code of the remote control having the function of START, act in the following way:

1 - Make sure that the jumper JP1 has been removed.

2 - Shortly press the key P1. The led DL1 goes OFF for 1 sec., then it lights again .



3 - Shortly press the key of the remote control (V) which must be learned. The electronic card learns the new START code and the led DL1 goes OFF.

If the control unit don't receive a valid code within 10 sec., it will finish the programming.

NOTE: the control unit (Z) can learn up to 16 different codes.

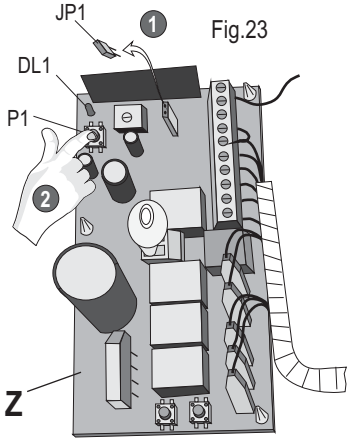


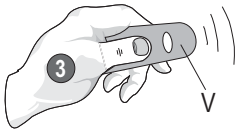
Fig.23

Remote control - Courtesy light code programming CAP 6F

In order to store the code of the remote control having the function of COURTESY LIGHT, act in the following way:

1 - Make sure that the jumper JP1 is not inserted .

2 - Shortly press the key P1 twice. Each time the led DL1 goes OFF for 1 sec., then it lights again .



3 - Shortly press the key of the remote control (V) which must be learned. The electronic card learns the new COURTESY LIGHT code and the led DL1 goes OFF.

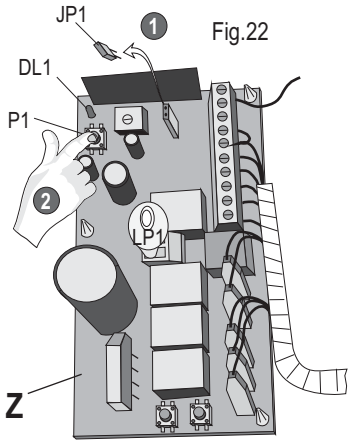


Fig.22

Erasure of remote control codes CAP 6G

1 - Make sure that the jumper JP1 has been removed .

2 - Press the key P1 for approximately 10 seconds , until the led DL1 goes OFF.

Note : After this operation, all the codes of start and courtesy light previously programmed will be cancelled.

Pause time programming CAP 6H

The PAUSE TIME (CAP. 6B) is the time period which elapses from the end of the opening cycle until the beginning of the automatic closure.

1 - Make sure that the jumper JP1 is inserted .

2 - Press the key P1, the led DL1 will light.

3 - Let to pass the desired PAUSE TIME, then press key P1 again. The led DL1 goes OFF and the programming is finished .

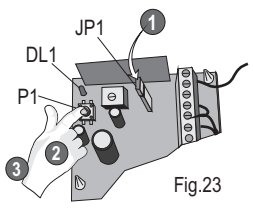


Fig.23

Pause time and condominium mode programming CAP 6I

The CONDOMINIUM MODE is used when there is a common entrance (multiuser), in order to avoid the overlap of the START commands (when a user enters and another user goes out). The CONDOMINIUM MODE is similar to the AUTOMATIC MODE but during the opening phase the START commands have no effect (they work only during the closure).

1 -Make sure that the jumper JP1 is inserted (fig.24).

2 - Press the key P1, the led DL1 will light.

3 - Remove the jumper JP1 (fig.25).

4 - Let to pass the desired PAUSE TIME, then press key P1 again. The led DL1 goes OFF and the programming is finished .

5 - Insert the jumper JP1 (fig.24) in order to enable the automatic closure in CONDOMINIUM MODE.

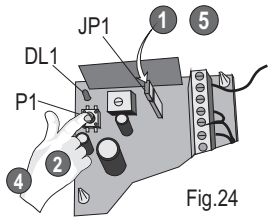


Fig.24

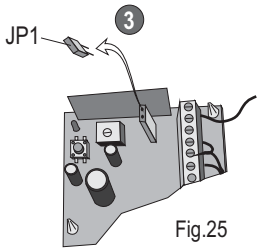


Fig.25

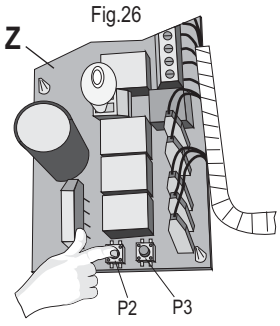
Manual operation CAP 6L

The keys P2 and P3 on the electronic card are the MANUAL COMMANDS of the door (fig.26) :

- by pressing the key P2 will cause the opening of the door.
- by pressing the key P3 will cause the closing of the door.

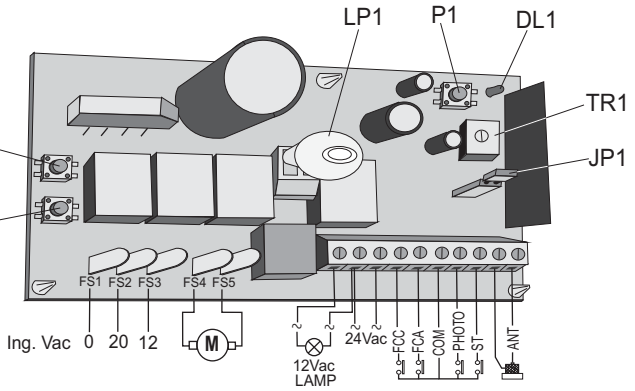
NOTE: During the manual operation, the limit switches don't have effect (disabled).

Fig.26



ELECTRONIC CARD FEATURES - CTR47 — CAP. 7

Fig.27



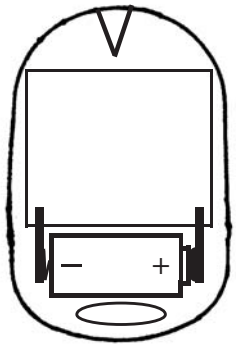
0 - 20 - 12	electric transformer input	**ANT**	antenna cable input
M1 - M2	24Vdc motor output	**DL1**	power supply led
LAMP	12Vac 15W blinker output	**P1**	start key (programming key)
~ 24 Vac ~	24Vac output (photocell power supply)	**P2**	opening key - manual operation
COM	common terminal	**P3**	closing key - manual operation
FCC	closing limit switch input	**TR1**	amperostop regulation (0 - 9A)
FCA	opening limit switch input	**JP1**	automatic closure jumper
PHOTO	photocell input	**LP1**	24Vac 20W max. courtesy light
ST	start input		

TECHNICAL DATA — CAP. 8

MODEL >>	SPEEDY 80	SPEEDY 60
MAIN POWER SUPPLY.....	230Vac 50Hz	230Vac 50Hz
MOTOR POWER SUPPLY.....	24Vdc	24Vdc
MOTOR POWER.....	100W	60W
TRACTION FORCE.....	800 N	600 N
NOISE	Less than 50 dB	Less than 50 dB
SPEED.....	0.1 - 0.2 mt/s	0.1 - 0.2 mt/s
OPERATING TEMPERATURE.....	From -20°C to +60°C	From -20°C to +60°C
OPERATING FREQUENCY.....	433.92 Mhz	433.92 Mhz

REMOTE CONTROL MOD. TRK4 CAP. 9

The remote control allow to control the device remotely (CAP. 6A, 6B, 6E and 6F) .



Technical features

Power Supply : 12 Vdc Alkaline battery
Power consumption : approx. 7 mA
Operating frequency : 433.92 MHz
Radiated power : 0.1 mW
Dimensions : 37 x 58 x 14 mm
Weight : 20 gr
Operating temperature : -10 / +55 °C

TRK4 is a rolling-code remote control operating at 433.92 Mhz. It is already encoded by the manufacturer so that the customer doesn't need to program it.

Instructions and recommendations:

- in order to replace the battery (every two years approximately), open the remote control's cover and insert the battery by observing the right polarity.

- In case of remote control elimination, the battery must previously be removed and eliminated according to the enforced norms. In no case it must be dispersed in the space or be assimilated to the solid urban refusals.

- The electrolyte contained in the battery is irritant for the eyes and the skin; in case of electrolyte leakage, avoid every physical contact. In case of skin contact, wash quickly with water. In case of eyes contact, wash immediately for 15 minutes with water and consult a doctor.

DOOR RELEASE CAP. 10

It is possible to unhook the door from the motor device through the releasing wire (W). If a lock is mounted on the door, in order to unhook the door with the lock it is necessary to install a special kit, available as optional (fig.28).

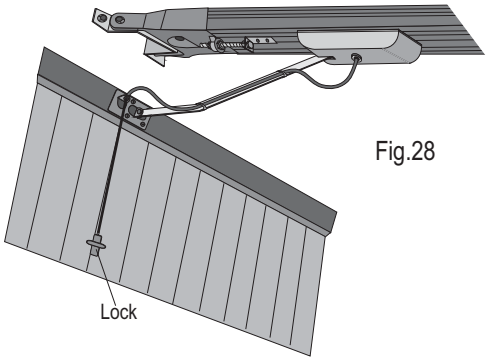


Fig.28

MAINTENANCE CAP. 11

ORDINARY MAINTENANCE :

- It is essential to assure the fluency of the chain and to lubricate it when necessary. Anyway, lubricate the chain and all the movable parts every 12 months.
- Adjust the door balance every month by operating with the hands after unhooking the automation through the releasing wire or the lock (CAP.10). In order to guarantee a good operation of the device, the door balance needs to be regulated periodically.

NOTE: Every operation of ordinary maintenance or control of the device (E) must be carried out by authorized technicians by the manufacturer and with the power supply disconnected.

EXTRA-ORDINARY MAINTENANCE :

- If the device (E) needs an extra-ordinary maintenance, it is recommended to remove it in order to allow the reparation in laboratory by the manufacturer's technical department or by an authorized technician.

CAPTION

	DESCRIPTION		DESCRIPTION
A	Junctions of guide	P	Dragging arm
B	Chain guide	Q	Female connector of limit switches box
C	Dragging clutch support	R	Overcurrent switch on 230Vac line
D	Dragging clutch	S	230Vac Schuko socket
E	Mainframe	T	Limit switches Magnet
F	Guide slots	U	Limit switches box
G	Pinion	V	Remote control
H	Guide collar	W	Releasing wire
I	Guide head	X1	Photocell transmitter
L	Bracket stirrup	X2	Photocell receiver
M	Screw of bracket stirrup	Y	Blinker (Y1+Y2+Y3)
N	Guide support stirrup	J	Blinker lamp holder
O	Door anchorage stirrup	Z	Electronic card