

TECHNICAL INSTALLATION MANUAL

**MOTOR
FOR GARAGE DOORS
COUNTERWEIGHT
OVERHEAD DOORS**

HERA



WARNING!! Before installing, thoroughly read this manual that is an integral part of the pack

Our products if installed by qualified personnel capable to evaluate risks, comply with norms
UNI EN 12453, EN 12445

The CE mark conforms to European directive 2006/42/EC



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PACKING CONTENTS

- 1- MOTOR WITH CARTER AND COURTESY LIGHT
- 1- PACK OF ACCESSORIES
- 1- CAPACITOR

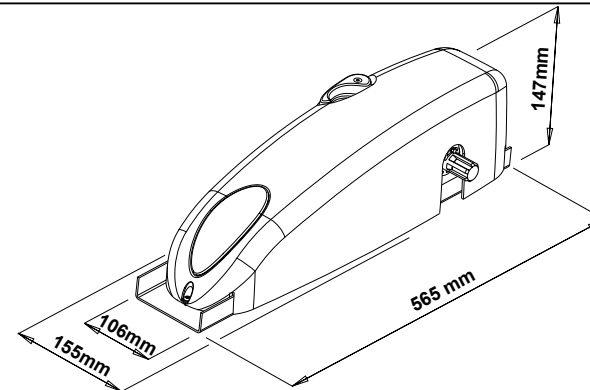
- 1- CONTROL BOARD WITH RECEIVER



TECHNICAL DATA

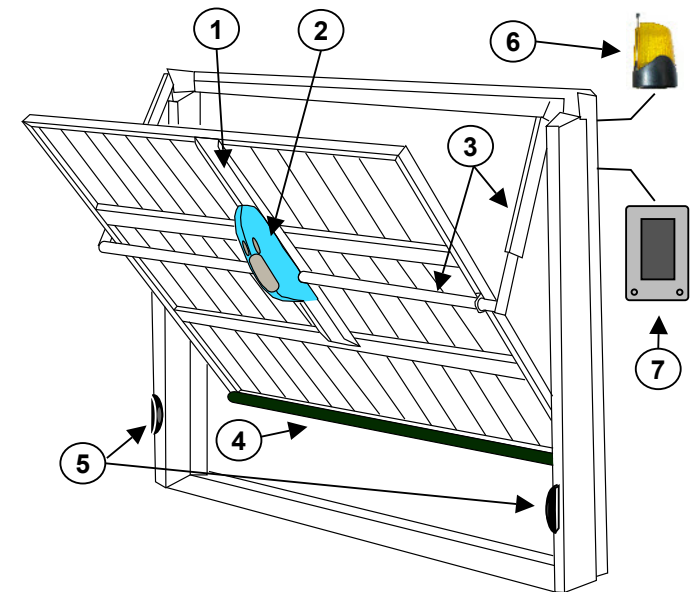
Max door width	10 mq
Motor power supply	230Vac
Motor power	250 W
Motor rpm	1400
Capacitor	12,5 µF
Average power consumption	1,3A
Torque	200 Nm
Speed	1,9 rpm
Duty Cycle S3	50%
Mechanical release for emergency operation	Indoor use with possibility of outdoor use
Working temperature	-20° C / +55° C
Weight	8Kg
Protection rating	IP 30
Limit switch	Electromechanical

DIMENSIONS



VIEW OF TYPICAL AUTOMATION AND NAMES OF COMPONENTS

1. FIXING PLATE OF THE MOTOR
2. MOTOR
3. ARMS KIT
4. SAFETY EDGE
5. PHOTOCELLS
6. FLASHING LIGHT + ANTENNA
7. CONTROL BOARD (IF NOT INCLUDED IN THE MOTOR)



CONSIDERATIONS FOR INSTALLATION

- The installation and testing operations must be performed only by qualified personnel in order to ensure the proper and safe operation of the automated door.
- The manufacturer declines all responsibility for damages caused by incorrect installations due to incompetence and/or negligence.
- Before installing the automation, check that the door is perfectly working and balanced.

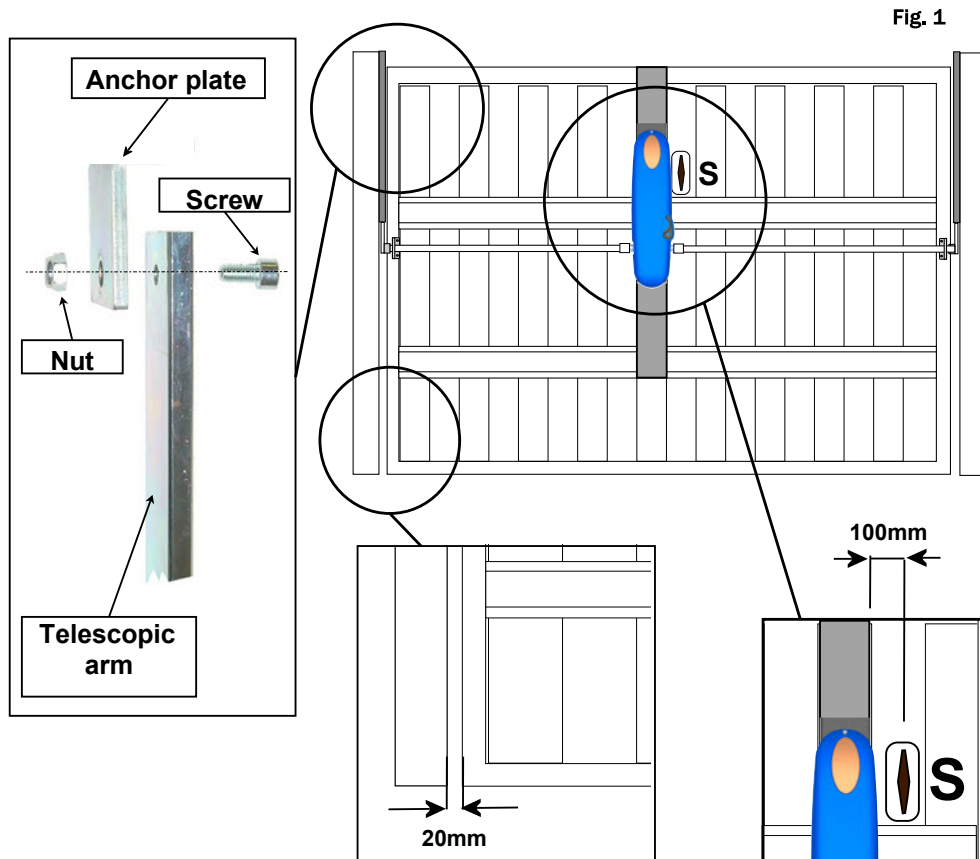
Note: The increase of counterweights is equal to the weight of the frame that you will install on the door in addition to the weight of the motor.

INSTALLATION

Place and securely fix the anchor plate of the telescopic arm to the door frame so that the movement of the arm does not overlap with the existing arm of the door.

Make sure there are at least 20 mm of space between the door frame and the box of the counterweights.

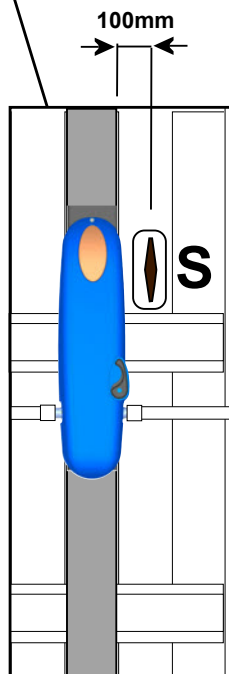
Note: If you are not able to use the straight telescopic arm, use the curved one



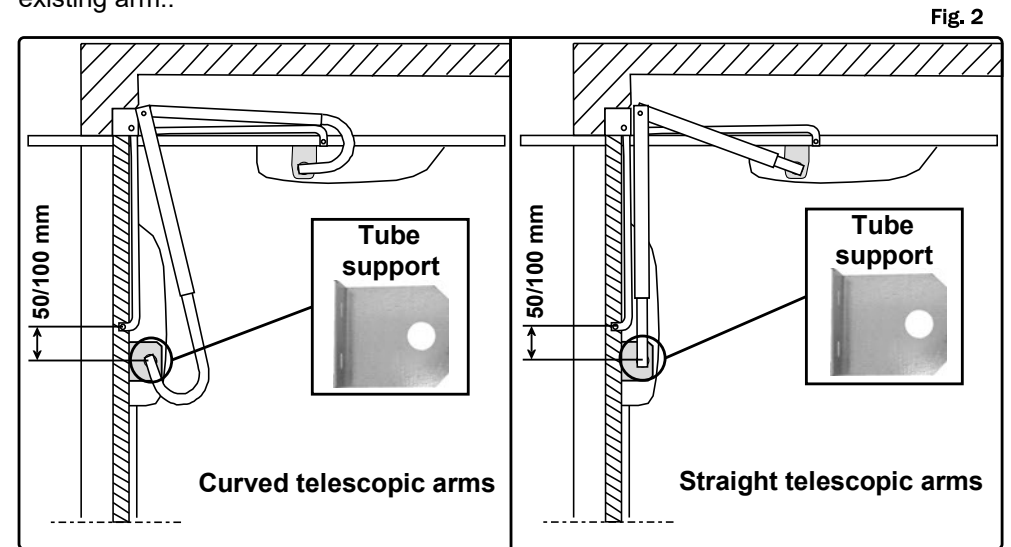
EXAMPLE AUTOMATION ONE MOTOR WITH CENTRAL INSTALLATION

INSTALLATION OF THE FIXING PLATE

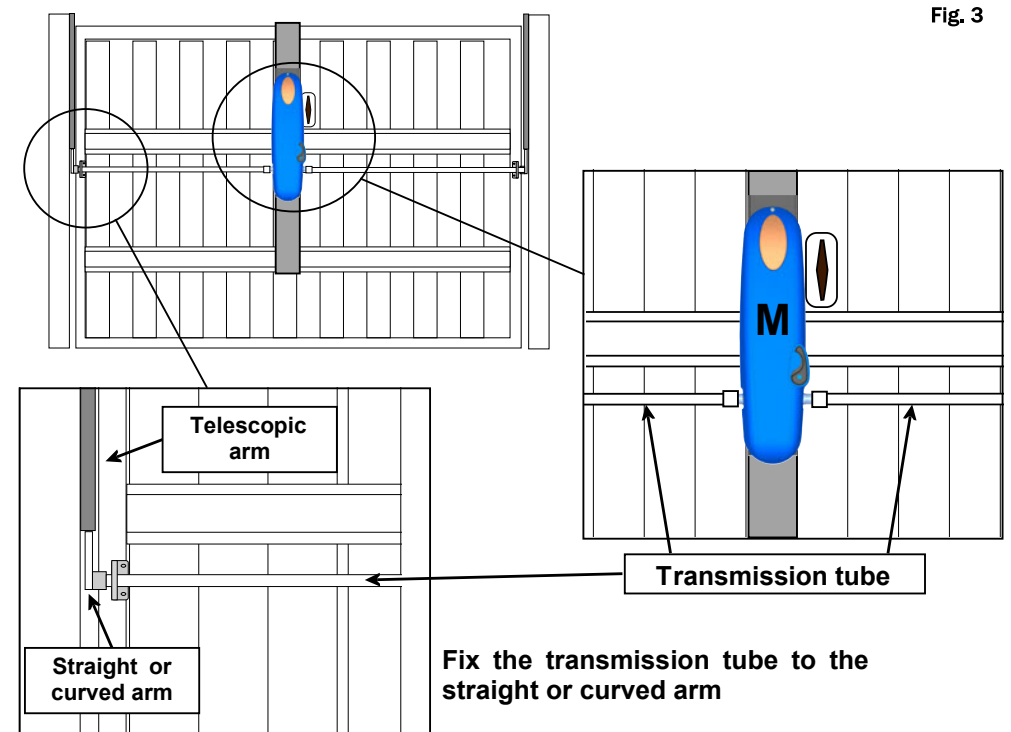
Place the fixing plate L motor support to the door, at a distance of **100 mm** from the lock **S** of the door and fix securely.



Place and securely fix the tube support to the door frame, at a distance between **50** and **100** mm downwards by taking as reference the attachment pin of the existing arm..



Place the motor **M** on the fixing plate so that the pinions are in line with the tubes and lock it.

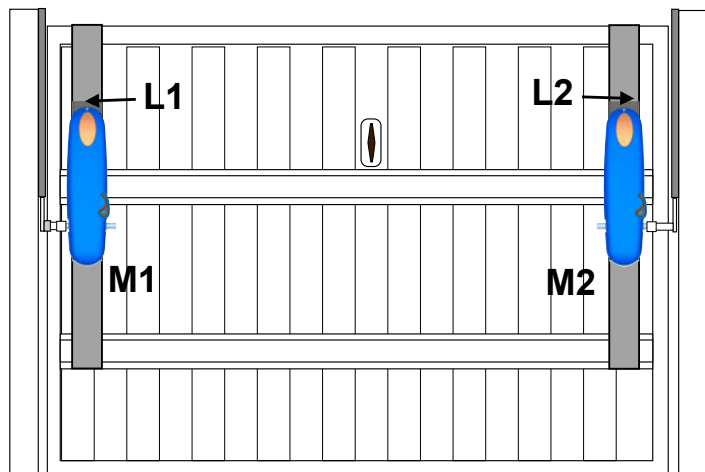


EXAMPLE AUTOMATION TWO MOTORS WITH LATERAL INSTALLATION

INSTALLATION OF THE LATERAL FIXING PLATES

Place the fixing plates L motor support to the door as illustrated.

Fig. 4



Place and fix the motors on the fixing plates so that they are in line with the broaching arms at a distance between **50** and **100** mm downwards by taking as reference the attachment pin of the existing arm (fig 2). Insert the broaching arms (straight or curved) on the motor shaft and lock it.

LIMIT SWITCH ADJUSTMENT

- **Close the door.**
 - Place the limit switch (C) in order to touch the lever of the microswitch of the closing limit switch and tighten the screw.
 - **Open the door.**
 - Place the limit switch (C) in order to touch the lever of the microswitch of the opening limit switch and tighten the screw.
- (See also the specifications of the control panel)

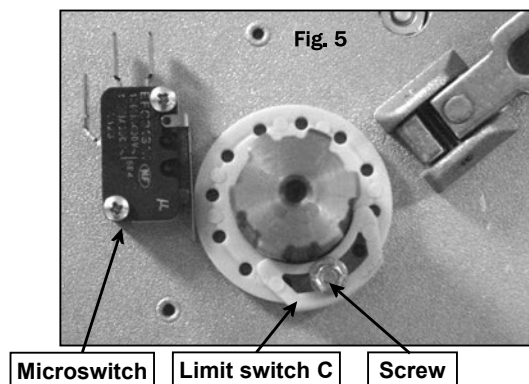
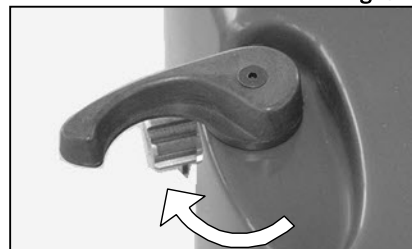


Fig. 5

MANUAL RELEASE

In case of lack of electric power, the motor can be manually unlocked with the lever by performing a rotation of about 90°. To block bring back the release lever to its original position.

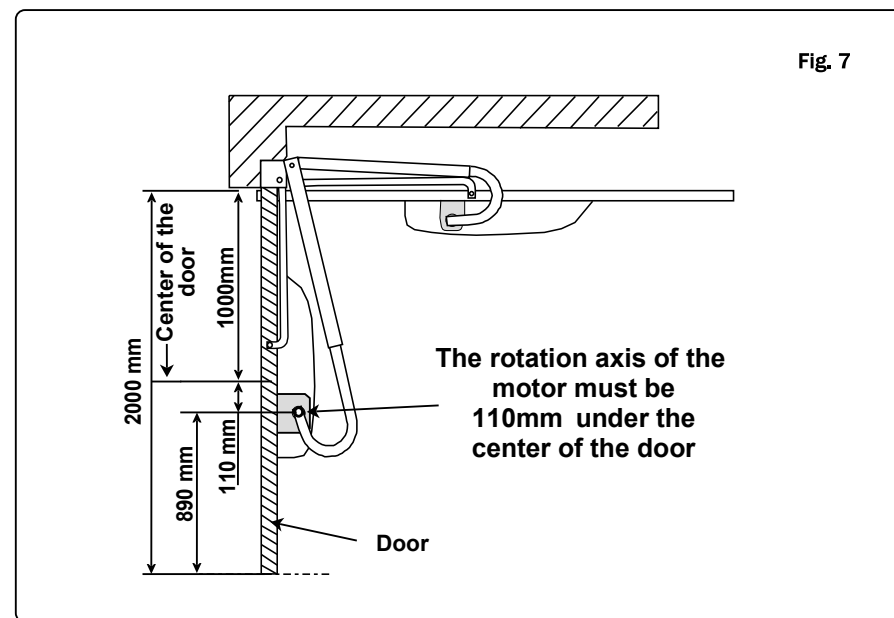
Apply the external lock (**OPTIONAL**) to unlock the motor from the outside in case of power failure.



EXAMPLE AUTOMATION WITH NON-PROJECTING DOOR

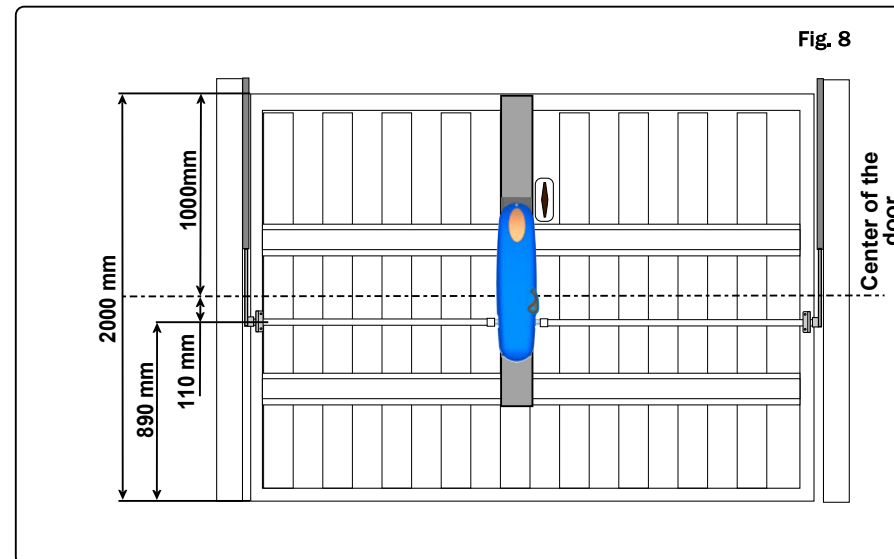
Place and securely fix the tube support to the door frame, at a distance of **110** mm under the center of the door (look at fig. 7-8)

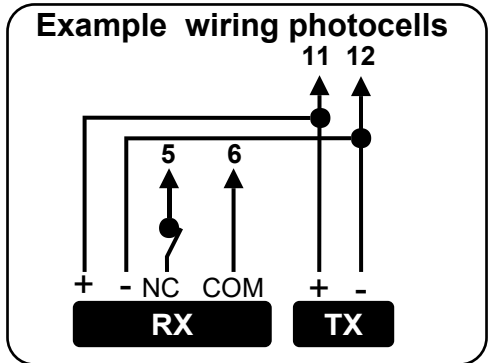
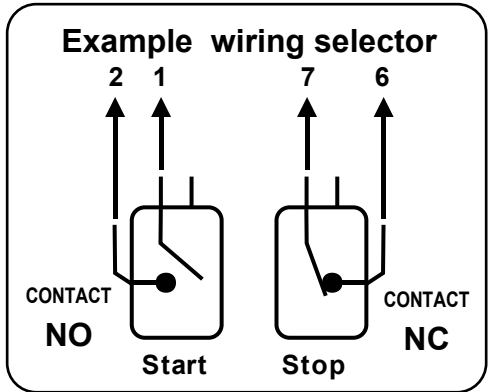
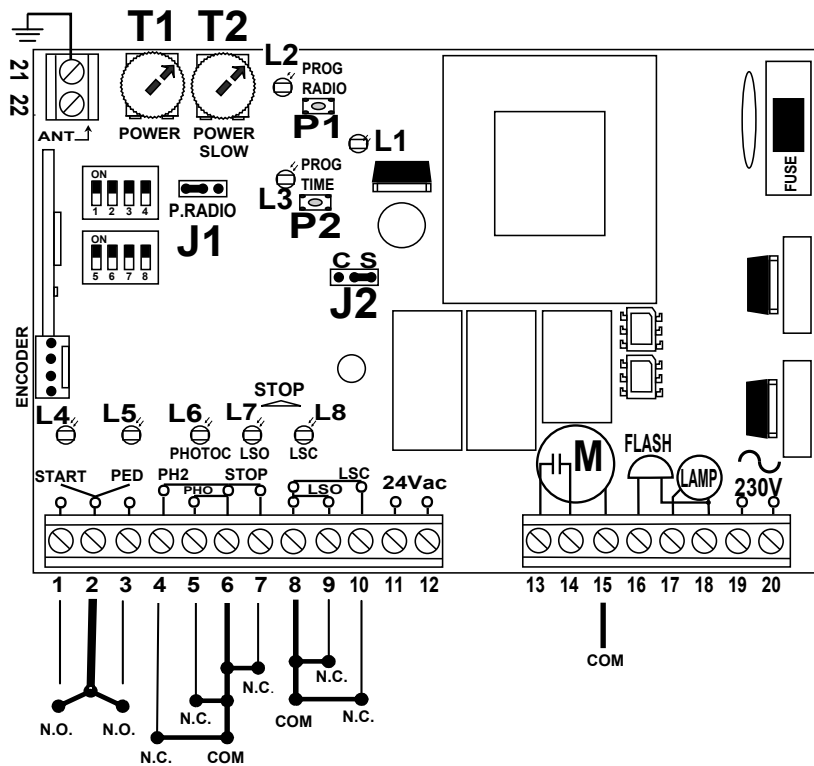
Fig. 7



The rotation axis of the motor must be **110mm** under the center of the door

Fig. 8





TECHNICAL SPECIFICATIONS

Power	230V AC +/- 10%
Power engine	550 W
Output accessories	24V AC 250mA
Time for automatic close	5 a 120 sec
Time for maneuver	3 a 120 sec
Time for slow down	2 a 120 sec
Time for courtesy light	180 sec
Nr codes storable	254 code
Transmitters type	Roller code
Frequency	433.92 / 868 Mhz
Temperature to work	-20 a 70°C
Sensibility	Better of -100dBm
Homologation	Conf ETS 300-220/ETS 300-683

JUMPER J1

Open radio memory with transmitter. (With J1 in ON you can store other transmitter without opening the control board.)
 Insert Bridge: **ON** **OFF**

JUMPER J2 (CS)

Manage slowdown **Heavy leaf** **C** **S** **Light leaf**

TRIMMER T1

The trimmer **POWER** regulates the torque and sensitivity during the maneuver

TRIMMER T2

The trimmer **POWER SLOW** regulates the torque and sensitivity during the **SLOW DOWN** phase



BUTTON P1 or **RADIO PROG** for storage the transmitter
BUTTON P2 or **PROG TIME** for storage the stroke

TABLED LEDS

L1	Led STATUS	Lit when the unit is powered
L2	Led RADIO	Lit when accessing in radio storage
L3	Led PROG. TIME	It is blinking when in programming
L4	Led START	Lit when taking a pulse
L5	Led PEDESTRIAN	Lit when taking a pedestrian pulse
L6	Led FOTOCELLS	Lit when the fotocells are aligned
L7	Led L.S. OPENING	Lit when limitswitch opening is on NC
L8	Led L.S. CLOSING	Lit when limitswitch closing is on NC
L7+L8	Led STOP	Both on when the stop is on NC

Terminal	Tip.	Description
1 - 2com	NO	START CONTACT (Each impulse OPEN/STOP/CLOSE/STOP)
3 - 2com	NO	PEDESTRIAN CONTACT
4 - 6com	NC	SAFETY BAND OR OPENING PHOTOCELLS (If no use make bridge)
5 - 6com	NC	CLOSING PHOTOCELLS (If no use make bridge)
7 - 6com	NC	STOP contact (If no use make bridge)
9 - 8com	NC	LIMIT SWITCH OPENING
10 - 8com	NC	LIMIT SWITCH CLOSING
11 - 12	24V ~	Power service or accessories (output 24Vac 250mA)
13-14-15	230V ~	Input ENGINE (13-14 input phases with capacitor in parallel) (15 common)
16 - 18	230V ~	FLASH
17 - 18	230V ~	COURTESY LIGHT
19 - 20	230V ~	Input POWER 110Vac
21 - 22		Input ANTENNA (22 signal)

ALL DIP-SWITCH:

DIP 1	COUNTERWEIGHT DOORS/SLIDING GATE ON- Counterweight doors function OFF- Sliding gate function
DIP 2	AUTOMATIC CLOSING ON- Automatic closing activated OFF- Automatic closing not activated
DIP 3	CONDOMINIUM / STEP BY STEP ON- The automation will end the operation always on end switches, in opening does not accept pulses, in closing a pulse will cause the reverse. OFF- For each pulse automation will stop (OPEN-STOP-CLOSE-STOP)
DIP 4	INVERSION OF THE DIRECTION ON- Invert direction and the limitswitch OFF- Invert direction and the limitswitch
DIP 5	SETTING SAFETY CONTACT IN OPENING ON- In opening the control board stop and invert for 2sec the gate direction OFF- In opening the control board stop the gate direction
DIP 6	FLASHING FUNCTION ON- Intermittent light OFF- Steady light
DIP 7	SLOW DOWN ON- Activate OFF- Not activate
DIP 8	ENCODER ON- Encoder activated OFF- Encoder not activated

FLASHING OPERATION WITH DIP6 ON

IN OPENING: Flash slow
IN CLOSING: Flash fast
IN PAUSE: Steady light
PHOTOCELL ENGAGED: Turn off

ENCODER OPERATION

Activated by **DIP8 ON**

CHANGE OF SENSITIVITY AND TORQUE

More torque = less sensitivity

Less torque = more sensitivity

The parameters are set by **the trimmer T1 and T2.**

FEATURES

The control unit is SHE01 control equipment for sliding systems and road barriers to 230Vac power supply.

This panel can manage motors with or without limit switches, encoders and encoder+limitswitches.

The peculiarity of SHE01 is that it has separate torque control, through trimmer T1 and T2 (T1 regulates the torque while running in normal speed the T2 adjusts the torque during deceleration). Interacting on these devices can optimize the operation of the automation so as to be within the actual rules. The programming of the switches and remote controls is self-learning, so everything is easier.

In case management through ENCODER (DIP 8 ON) security will be guaranteed by the photocells/bands safety or to torque control: if the gate find an obstacle will be reversed or blocked.

With ENCODER not active (OFF DIP 8) not have the reverse function but only torque control through trimmer T1 and T2.

PROGRAMMING REMOTE CONTROL

The control unit is able to handle radio roller code

The SHE01 can handle 254 transmitters ROLLER CODE.

The programming of the transmitters is done by pressing the **P1 for 2sec**, the LED L2 turns on, then pressing the button of the remote will flash twice to indicate the LED L2 is stored in memory. After 6 seconds automatically central will exit the programming function.

PROGRAMMING PEDESTRIAN MODE (by remote control)

To program this function push **P1 button for 2sec, release it and press it again for 1 sec**, the LED L2 starts flashing and each press of the button on a remote control will be a rapid double flash of the LED L2, after 6sec the control board automatically exit to programming. **The operating time of the pedestrian mode is 8 sec.**

REMOVE ALL CODES

Press and hold the **P1 for 6 seconds** when it is released there will be a quick flash of the LED L2, with consequent turning off after 6 seconds.

PROGRAMMING THE STROKE

The programming begins automation is closed, the first operation will be the opening, otherwise reverse the direction by **DIP switch 4.**

PROGRAMMING with slow down (DIP 7ON)

To enter in programming, press the P2 button for 2 seconds, the LED3 will flash

Give a **FIRST PULSE** by **START** contact (terminals 1 and 2) or by transmitter already been programmed.

The operator will start the opening phase, give a **SECOND PULSE** where you want to start the slow down in opening.

The engine will complete the stroke and will stop at close limitswitch (if you chose an automatism without limitswitches must give a further impulse to fix the stopping point of the stroke).

If you choose to have the AUTOMATIC CLOSING (OPTION 2 IN ON), the closing time will be calculated from the moment when the operator arrives to open limitswitch until you give the THIRD PULSE, the automatism will start closure.

Where do you want start slowing down in closing you must give the **FOURTH PULSE.** The arrest will be through the closing limitswitch and now the LED will turn off 3. If the automatism is not expected to limit switch, you will need to give a last pulse where you want to stop.

PROGRAMMING without slow down (DIP 7OFF)

Set the option 7 to OFF for the exclusion of the slowdown phase. Follow the procedure listed above (learning with slowdown) without transmitting the second pulse in opening and the fourth during closing. So once impulses transmitted to the beginning of the maneuvers, in opening and in closing, they will finish at the limitswitch position.

OPERATION LOGIC OF THE SAFETY

SAFETY BAND TERMINAL (4-6)

This contact protects opening and closing.

DIP 5 ON: in opening when there is an obstacle, the engine stop and reverse for 2 sec.

DIP 5 OFF: in opening when there is an obstacle engine STOP

In both cases in closing when there there is an obstacle the gate stop.

PHOTOCELLS TERMINAL (5-6)

This contact protects only in closing

In closing when there is an obstacle engine STOP

STOP TERMINAL (6-7)

The contact if open will cause the immediate arrest of the automation in any situation.

TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	SOLUTION
On giving a command with the remote control or with the key-switch, the door doesn't open or the motor doesn't start	230 volt mains voltage absent	Check master switch
	Emergency STOP present	Check for any STOP selectors or commands. If not used, check jumper on STOP contact input on the control board
	Fuse blown	Replace with one of same value.
	Power cable of motor or motors not connected or faulty.	Connect the cable to appropriate terminal or replace.
	The photocell is not functioning or the beam is interrupted	Check the connection, remove any obstacle across the beam
On giving a command with the remote control, the door doesn't open but works with the key command	The remote control has not been memorised or the battery is flat	Carry out the remote control learning procedure on the radio receiver or replace the battery with a new one..
The door starts, but stops immediately	The force of the motor or motors is insufficient	Modify the value with the FORCE trimmer on the control unit
On giving a command, the motor starts, but the door does not move	There is an obstacle in front of the wings, the hinges are blocked or the motor anchorage bracket or brackets have come loose	Remove the obstacle from the wings, restore the hinges, replace or lubricate them. Fasten the motor bracket

NOTE

N.B. - If the problem persists, contact your Retailer or the nearest Service Centre

SAFETY PRECAUTIONS

These warnings are an essential, integral part of the product and must be given to the user. They provide important indications on the installation, use and maintenance and must be read carefully. This form must be preserved and passed on to subsequent users of the system. The incorrect installation or improper use of the product may be dangerous.

INSTALLATION INSTRUCTIONS

- The installation must be performed by professionally skilled personnel and in compliance with current local, state, national and European legislation.
- Before beginning the installation, check the integrity of the product.
- The laying of cables, electrical connections and adjustments must be workmanlike performed.
- The packing materials (cardboard, plastic, polystyrene, etc.) are a potential hazard and should be disposed of correctly and not left within reach of children.
- Do not install the product in potentially explosive environments or environments disturbed by electromagnetic fields. The presence of inflammable gases or fumes is a grave danger to safety.
- Set up a safety device for overvoltage, a disconnecting and/or differential switch suitable for the product and conforming to current standards.
- The manufacturer declines any and all responsibility for product integrity, safety and operation in the event incompatible devices and/or components are installed.
- Solely original spare parts should be used for repairs and replacements.
- The installer must provide all the information relating to the operation, maintenance and use of the individual parts, components and system as a whole.

WARNINGS FOR THE USER

- Read the instructions and enclosed documentation carefully.
- The product must be used for the express purpose for which it was designed. Any other use is considered improper and therefore hazardous. In addition, the information given in this document and in the enclosed documentation may be subject to modifications without prior notice. It is given as an indication only for product application. The company declines any responsibility for the above.
- Keep products, devices, documentation and anything else provided out of reach of children. In the event of maintenance, cleaning, breakdown or faulty operation of the product, cut off the power and do not attempt to operate on the product. Contact solely the professionally skilled personnel responsible for these operations. Failure to adhere to the above indications may be dangerous.

All products are guaranteed for 2 years, as per the date on the invoice or on the receipt.

The warranty also does not include: failures or damages caused by faults of the electrical system and/or carelessness, negligence or inadequacy of the installation to the use for which it is intended and in any case from abnormal use; failures or damages due to tampering by unauthorized personnel or the use of components not attributable to the manufacturer and/or non-original spare parts; defects caused by chemical agents, external bodies or atmospheric and/or natural phenomena in general; failures or damages caused by incorrect installation of the Products according to the rule of art, safety and conformity of use expressly indicated in the technical documentation of the same Products; the consumables; interventions for checks and assessments of any flaws or defects then not found; compensations for the period of inactivity of the system where the Products are installed.

**The data and images are for guidance only
reserves the right to change at any time characteristics of the products described in its
sole discretion, without notice.**

