

Manual Instruction of 16039-B

Specifications

Receiver

Input Voltage: AC110V-250V 50HZ/60HZ

Motor Voltage: AC110V-250V 50HZ/60HZ

Protective Tube: 250V 10A

Output Power: 1000W

Temperature: -20°C-65°C

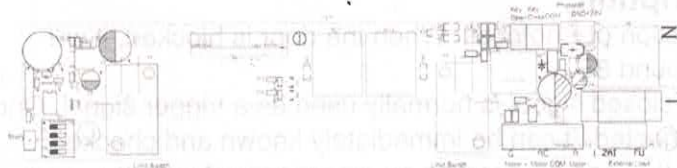
Remote

Working Voltage: Black Type(with 4 keys): 12V (23A battery*1)

Working Current: $\leq 15\text{mA}$ Working Frequency: 433MHz

Temperature: -20°C-65°C

Remote Distance: $\leq 50\text{m}$ Remote storage capacity:50 PCS. If more than 50 pcs,the first study remotes will be deleted.



Key function description:

STUDY-Remote control learning key :

- 1、 Increase the remote control
- 2、 Delete all the remote control keys

Dial switch instruction

OFF --- ON

- 1、 Impulse Open --- Deadman open
- 2、 Impulse Close --- Deadman close
- 3、 Motor direction control Open、close --- Close、open
- 4、 One-key/multi-key control Multi-key control --- One-key control

Add/delete remote

1、 Add remote: Push "study" key and loose it until you hear a sound, now it is study mode. Push one key on new remote three times continuously, when you hear a sound, then study successfully. If fail, please follow these steps and study again. You need to finish the study within 8s, if more than 8s, the study mode will be off automatically (you will hear the sound twice)

(Note: For four keys remote, push key 2 and key 3 together, it will be distance studying guidance mode. If this four keys remote has studied successfully, you can enter/exit the distance studying mode by push this key).

2、 Delete remote: Keep pushing "study" key, don't loose it when you hear a sound, and loose it until you hear the sound sounds for a while, it means delete all remotes.

3、 Remote storage capacity: 50pcs. If more than 50pcs, the first study remotes will be deleted.

One key/multi-key control

- 1、 For one key control, only the first studied key can control. If change to another key, you need to study again , push “study” key.
- 2、 One key control is same as line control, open、 stop、 close、 stop.
- 3、 For inching/linkage control, pushing the key is open/close, loose it is stop.

Remote instruction

Key 1: Open

Key 2: Close

Key 3: Stop

Key 4: Lock

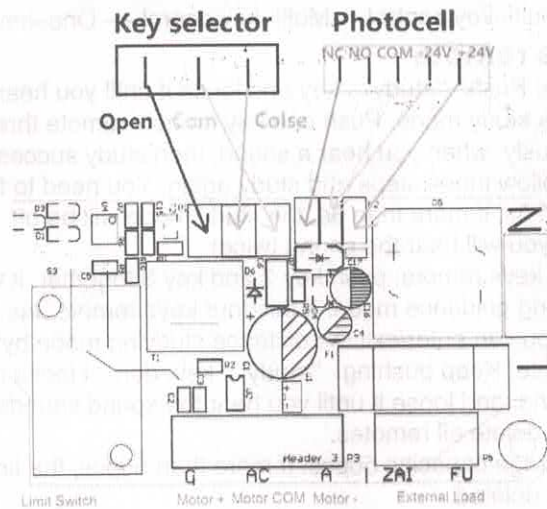
Push key 2 and key 3 together: Enter/exit distance study mode.

Note: For one key mode, distance study can not be entered. If it has been studied before, then it can still work.

Security description:

- 1、 It has the function of Photocell. When the door is blocked, it will automatically rebound 3S.
- 2、 The normally closed signal is normally used as a trigger signal. Once the line is disconnected, it can be immediately known and checked.
- 3、 The boxed button can be used as an emergency stop button and can be stopped at work.
- 4、 The use of potting transformer is safer than ordinary transformer.
- 5、 Boxed fuse protection line
- 6、 Acousto-optic reminding
- 7、 In remote control learning, the same button should be pressed 3 times in a short time to prevent crosstalk.

Key selector and Photocell wiring diagram:



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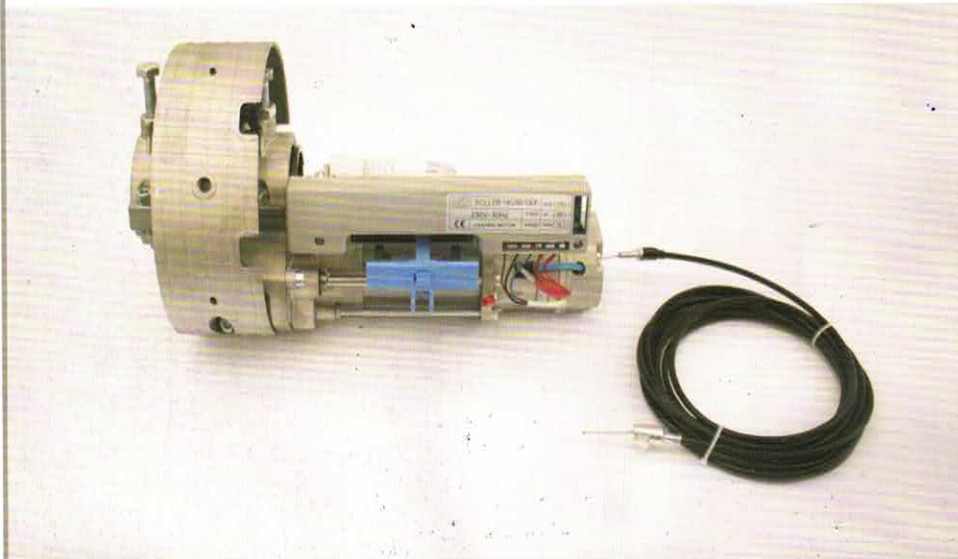


Cancelli Automatici - Shed - Infixi Telecomandati

MOTORIDUTTORI PER SERRANDE 230V 230V GEARED MOTORS FOR ROLLING SHUTTERS



ROLLER180/60CEF
 ROLLER260/60CEF
 ROLLER360/762MCEF




ITALIANO

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ATTENTION! IMPORTANT SAFETY INSTRUCTIONS

READING THESE INSTRUCTIONS IS IMPORTANT FOR PERSONAL SAFETY. READ THE FOLLOWING REMARKS CAREFULLY BEFORE PROCEEDING WITH THE INSTALLATION. PAY PARTICULAR ATTENTION TO ALL THE PARAGRAPHS MARKED WITH THE SYMBOL  IN THIS ORIGINAL INSTRUCTION MANUAL. NOT READING THESE IMPORTANT INSTRUCTIONS COULD COMPROMISE THE CORRECT WORKING ORDER OF THE SYSTEM AND CREATE DANGEROUS SITUATIONS FOR THE USERS OF THE SYSTEM. SAVE THESE INSTRUCTIONS FOR FUTURE USE. THE ORIGINAL INSTRUCTIONS AND RELATIVE UPDATES ARE AVAILABLE IN DIGITAL FORMAT FROM THE WEBSITE

Attention! Only for EU customers - WEEE marking

 The symbol indicates that once the products life-span has expired it must be disposed of separately from other rubbish. The user is therefore obliged to either take the product to a suitable differential collection site for electronic and electrical goods or to send it back to the manufacturer if the intention is to replace it with a new equivalent version of the same product.

Suitable differential collection, environmental friendly treatment and disposal contributes to avoiding negative effects on the ambient and consequently health as well as favouring the recycling of materials. Illicitly disposing of this product by the owner is punishable by law and will be dealt with according to the laws and standards of the individual member nation.

These instructions are aimed at professionally qualified 'installers of electrical equipment' and must respect the local standards and regulations in force.

All materials used must be approved and must suit the environment in which the installation is situated.

All maintenance operations must be carried out by professionally qualified technicians. Before carrying out any cleaning or maintenance operations make sure the power is disconnected at the mains and that any batteries have been disconnected. This appliance must be used exclusively for the purpose for which it has been made: **The automation of Rolling Shutters.**

This product and all its relative components conforms in every aspect to the safety standards in force. Any non authorised modifications are to be considered improper and therefore dangerous.

The manufacturer accepts no liability for situations arising from the use of an electrical installation which does not conform to the local standards and regulations in force and in particular when the earthing circuit is not efficient.

GENERAL SAFETY INSTRUCTIONS

- Before installing make sure that the guided parts are in good condition, correctly balanced and that they open and close correctly.
- Avoid becoming trapped between the moving parts and the fixed parts during the opening and closing movements.
- The motor's power cable must be made of polychloreprene in conformity with the international standard 60245 IEC 57.
- It is the responsibility of the installer to make sure that the following public safety conditions are satisfied:
 - 1) The controls (including emergency command(s)) must be installed at a height between 1,5 and 1,8 m and at a minimum distance of 1,83 m (6 ft) from any moving part of the rolling shutter. Controls installed externally must be protected by a safety device inhibiting unauthorised use.
 - 2) At least two warning signs (similar to the example on the right) should be placed, where they can be easily seen by the public, in the area of the system of automatic operation. One inside the property and one on the public side of the installation. These signs must be indelible and not hidden by any objects (such as tree branches, decorative fencing etc.).
 - 3) Do not allow children to play with fixed controls and keep remote controls away from them. This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of



experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way or understand the hazards involved.

- 4) Ahead of the automation a means of disconnection from the power supply must be installed which has an opening distance on the contacts of all the poles and ensures that the power supply is completely cut off under the conditions of a category III overvoltage situation.
- 5) A correct earth connection is fundamental in order to guarantee the electrical safety of the machine.
- 6) Before installing make sure that the ambient temperature falls within the range indicated on the appliance's data plate.
- 7) If you have any questions about the safety of the boom operating system, do not install the operator. Contact your dealer for technical assistance.
- In order to respect the requirements of the standard **EN 12453** (dynamic impact force limitation) make sure the current sensor is set to **SMS1**.



Attention! If you use a rubber safety edge (at least 3 cm high) this is obligatory in order to conform to the standard. If you can't respect the limits, increase the size of the safety edge or change the type of edge used.

- You are still obliged to check the impact force using the relative instrument.

Frequently examine the installation for imbalance where applicable and signs of wear or damage to cables, springs and mounting. Eventual repair work or maintenance must be carried out by specialised personnel using original spare parts.

The appliance is not suitable for continuous operation and must be adjusted according to the model (see technical data on page 12).

TECHNICAL DESCRIPTION

Automation for rolling grills and shutters with a cast aluminium geared motor and crown wheel and in-built travel limits.

- Crown wheel in cast aluminium
- Steel gears and roller bearings
- Motor drive shaft mounted on double roller bearings
- Electric brake and manual release cord
- Maximum rolling shutter height: 6m.

MODELS

ROLLER 180/60 CEF: 230V geared motor permitting a maximum lifting power of 170kg. This model may fitted to all types of rolling shutter with a 60mm or 48mm drive shaft diameter and a crown wheel diameter of 200mm or 220mm.

PRELIMINARY CHECKS

Before starting with the installation of the system check that the structure which is to be automated is in good working order and respects the local standards and regulations in force.

Automating an existing system which has sliding or balancing problems will not solve those problems and may even make them worse by placing more stress on weakened or damaged areas.

To this end make sure that the rolling guides "1" and "2" slide freely and grease all the moving parts (pins, bearings etc.) using lubricants which maintain unaltered friction characteristics over a period of time and are suitable for temperatures of -20 to +70°C then:

- position a clean workbench near to the rolling shutter to be automated;
- manually move the rolling shutter to the completely closed position (lowered rolling shutter) as shown in figure 1.



Fig. 1

Equipment:

- 3 - drill
- 4 - 10,5 mm drill bit
- 5 - 12 mm drill bit
- 6 - 6 mm Allen key
- 7 - 17 mm spanner
- 8 - 16 mm spanner
- 9 - 10 mm spanner
- 10 - Type 2 small flat-nosed screwdriver
- 11 - Type 3 medium Phillips screwdriver
- 12 - pliers
- 13 - wire strippers
- 14 - scissors

INSTALLATION INSTRUCTIONS

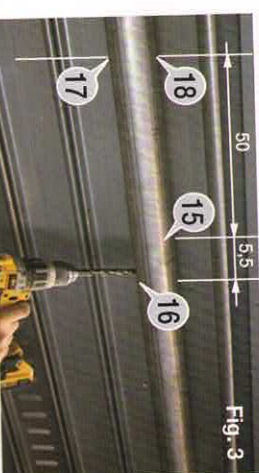


Fig. 3

- 15 - centre of the rolling shutter support shaft;
 - 16 - Ø10,5 mm motor fastening hole;
 - 17 - Ø12 mm power cable passing hole;
 - 18 - Ø12 mm manual release cord passing hole.
- Drill a 10,5 mm diameter hole "16" vertically under the shutter support tube at 5,5 cm from the centre of the shutter axis "15".
 - Drill a 12 mm diameter hole "17" starting vertically under the shutter support shaft and exiting at "18" at 50 cm from the centre of the shutter axis "15".

Equipment required for the installation



Fig. 2

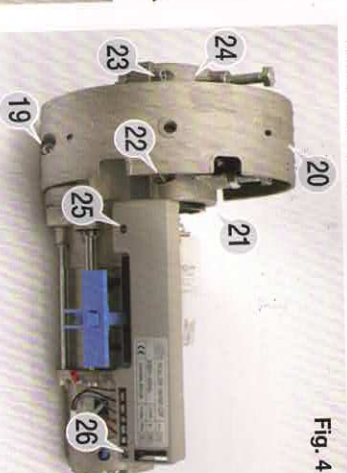


Fig. 4

Breaking down the geared motor (fig. 4/5)

- Remove the geared motor from its packaging and place it on the work bench.
- Remove the two screws crown holding screws "19" and "20" from the geared motor using the 6 mm Allen key "6".
- Carefully remove the external crown "27", making sure you don't damage the rubber needle bearing "28".
- Separate the two parts of the geared motor (upper body "29" from the lower body "30") by removing the screws "21, 22, 23, 24" using the 6 mm Allen key "6".
- Unscrew the two screws "25" and "26" and take off the terminal boards cover "31".
- Remove the hand-grip and M10 screws + washer from the accessory bag.

At this point the components on the work bench should look something like those indicated in figure 5.

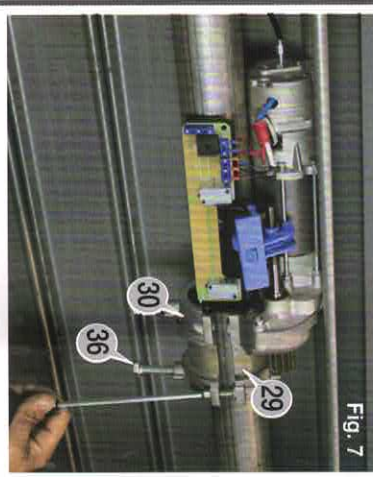


- 27 - crown wheel;
- 28 - rubber needle bearing;
- 29 - upper half bearing block;
- 30 - upper half bearing;
- 31 - terminal board cover;
- 32 - manual release hand grip;
- 33 - Ø10 mm motor - rolling shutter - fastening screw and washer;
- 34 - geared motor unit.

Geared motor installation part I



- Position the geared motor "34" over rolling shutter support shaft and align the hole "35" with the hole "16" previously drilled at 5.5 cm from the centre of the shutter axis "15".

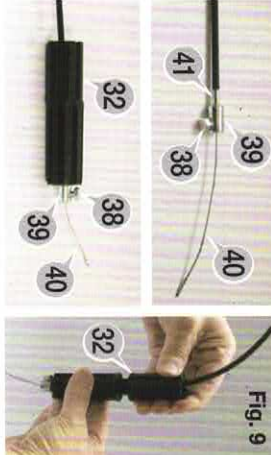


- Fasten the upper half-bearing block "29" to the lower block "30" using the four M6 "21, 22, 23, 24" screws previously removed using the 6 mm Allen key.
- Fasten the M10 screw "36" using the spanner "7" and make sure it enters into the rolling shutter support shaft through the 10,5 mm hole "16" (drilled in fig. 3).

MANUAL RELEASE CABLE INSTALLATION



- Pass the release cable "37" through the hole "18" and thread it through the tube until it exits to the left or right of the shutter support shaft. Cut the electric brake release cable to the correct length with the cable cutter "12" depending on the final position of the release hand grip "32".



- Unscrew the nut "38" using the 10 mm spanner "9" and slide off the screw nipple "39" from the release cable "40".
- Strip the end of the cable "40", remove the end cap "41" and fit it to the end of the cable just cut.
- Pass the steel cable through the hand grip "32", pull the cable core "40" using the pliers "12", thread it into the screw nipple "38" and fasten down with the nut "39".
- Tighten the release cable adjustment nut "42" (fig. 10) on the motor "34".
- Unscrew the hand grip "32" (fig. 9) to release the motor.

Geared motor installation part II



- Insert the rubber needle bearing "28" into its housing in the crown wheel "27". Fit the first half crown wheel "27" to the geared motor and rotate it until it reaches position "43" as shown in fig. 11.



- Fit the second half crown wheel "27" and fasten it into position with the screw "19" using the 6 mm Allen key "9".



- Rotate the crown wheel "27" through 180° to gain access to the second fastening hole. If the crown wheel doesn't rotate, make sure you have followed the paragraph "Manual release cable installation" on page 7 and you have unscrewed the hand grip "22" as shown in fig. 9.

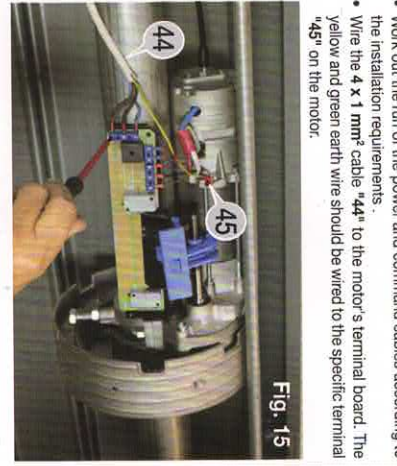


- Insert the screw "20" and fasten it down using the 6 mm Allen key "9".

ELECTRICAL CONNECTION

Important remarks

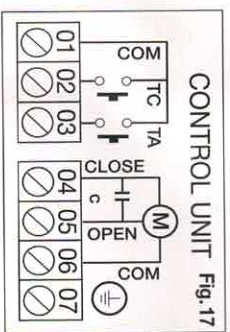
- Before connecting the appliance make sure that the voltage and frequency rated on the data plate conform to those of the mains supply.
- The power cable must be made of polychloroprene in conformity with the international standard 60245 IEC 57 (e.g. 3 x 1.5 mm² H05RN-F).
- The cable may only be replaced by qualified technicians.
- An all pole trip switch with at least 3 mm between the contacts must be installed between the unit and the mains supply.
- Don't use cables with aluminum conductors; don't solder the ends of cables which are to be inserted into the binding posts; use cables marked T min 85°C and resistant to atmospheric agents.
- The terminal wires must be positioned in such a way that both the wire and the insulating sheath are tightly fastened.



- Work out the run of the power and command cables according to the installation requirements.
- Wire the 4 x 1 mm² cable "44" to the motor's terminal board. The yellow and green earth wire should be wired to the specific terminal "45" on the motor.
- Pass the power cable "44" through the hole "17" fig. 3 avoiding any contact with mechanical moving parts until it exits to the left or right of the shutter support shaft.
- Fit the terminal board cover using the two screws "25" and "26".



- The minimum requirements for the electronic control unit are:
 - output for one 230V 650W motor for the model ROLLER 180/60 CEF;
 - opening button;
 - closing button;
 - closing button.



- Wire the power cable "44" to the electronic control unit. In the example shown in figure 17 we have connected:
 - the brown wire to binding post 4;
 - the black wire to binding post 5;
 - the blue (neutral) wire to binding post 6;
 - the yellow and green (earth wire) to binding post 7.
- Press the opening button "TA". The motor, not yet fixed to the rolling shutter, will rotate to the completely open position.
- If the motor rotates in the wrong direction (closing) invert the black and brown wires on the control unit.
- Reset the control unit, press the opening button "TA" again and then press the closing button "TC".

Fastening the geared motor to the rolling shutter

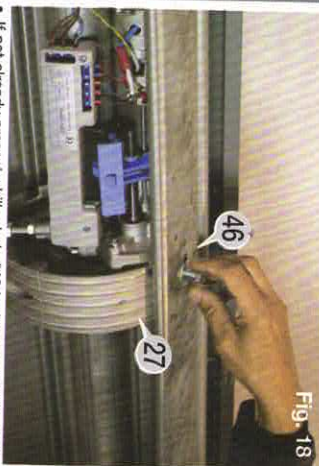


Fig. 18

- If not already present, drill a hole "46" in the metal plate of the rolling shutter in alignment with the 10 mm fastening hole in the upper part of the crown wheel "27" and affix a metal support plaque on the under side of the shutter plate "46".



Fig. 19

- Fasten the rolling shutter to the crown wheel with the M10 x 20 screw "47" and the washer "48" using the spanner "8".
- If the play between the rolling shutter "51" and the crown wheel "27" is greater than 5 mm, insert the plastic shim "49" and fasten the shutter to the crown using the M10 x 25 screw "50" and the washer "48".
- Block the geared motor by screwing the hand grip "32" as shown in fig. 9).

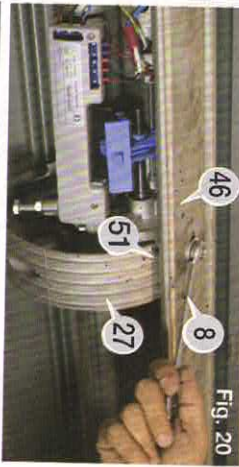


Fig. 20

ADJUSTING THE TRAVEL LIMITS

Attention! Adjustment of the travel limits must be carried out with the rolling shutter completely closed and the motor blocked.

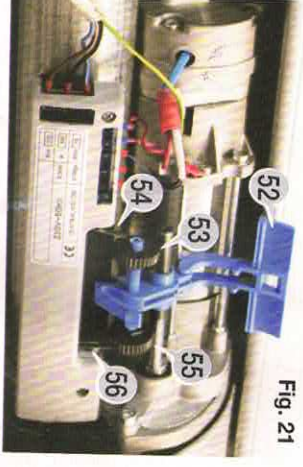


Fig. 21

- Press the opening button "7A". The rolling shutter will rotate to the completely open position.
- If the completely open position of the rolling shutter is not quite right it can be adjusted later on.
- Press the closing button "7C". The rolling shutter will rotate to the completely open position. If the completely open position of the rolling shutter is not quite right, lift up the travel limit cover "52" and rotate the wheel "55":
 - anticlockwise "57" to move the travel limit adjustment wheel away from the micro switch activation blade if the rolling shutter is not completely closed;
 - clockwise "58" if the rolling shutter is overreaching the completely closed position.
- If necessary, you may now adjust the completely open position of the shutter by rotating the wheel "53".

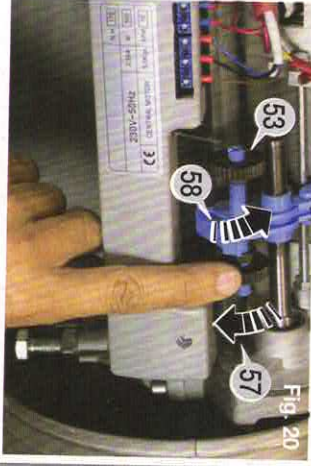


Fig. 20

- Once you have set the travel limits carry out several opening and closing cycles to check the rolling shutter travel limits.

MAINTENANCE

Attention! Before carrying out any cleaning or maintenance operations make sure the power is disconnected at the mains and the motor power cables are disconnected. Eventual repair work must be carried out by specialised personnel using original spare parts.

- The motor does not normally require particular maintenance; in any case the **24 month** or **1 million manoeuvre** guarantee is only valid if the following controls have been observed and eventual maintenance has been carried out to the machine **rolling shutter**:
 - periodically check the moving parts for wear and tear and grease if required using lubricants which maintain their friction levels unaltered throughout time and are suitable for temperatures of **-20 to +70°C**;
 - periodically check the correct operation of all safety devices (photoelectric cells, safety edges etc.);
- These checks must be written down as they are paramount in validating the guarantee as stipulated in the General Sales Conditions.



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