

# OPERATOR FOR SLIDING GATES

FA00605-EN







**INSTALLATION MANUAL** 

**BK-1200P** 

**EN** English



# WARNING! important safety instructions for people: READ CAREFULLY!



#### **PREMISE**

• This product should only be used for the purpose for which it was explicitly designed. Any other use is dangerous. CAME S.p.A. is not liable for any damage caused by improper, wrongful and unreasonable use • Keep these warnings together with the installation and operation manuals that come with the operator.

#### BEFORE INSTALLING

(CHECKING WHAT'S THERE: IF SOMETHING IS MISSING, DO NOT CONTINUE UNTIL YOU HAVE COMPLIED WITH ALL SAFETY PROVISIONS)

 CHECK THAT THE AUTOMATED PARTS ARE IN PROPER MECHANICAL ORDER, THAT THE OPERATOR IS LEVEL AND ALIGNED, AND THAT IT OPENS AND CLOSES PROPERLY. Make sure you have suitable mechanical stops • If the operator is to be INSTALLED AT A HEIGHT OF LESS THAN 2.5 M FROM THE GROUND OR OTHER ACCESS LEVEL, MAKE SURE YOU HAVE ANY NECESSARY PROTECTIONS AND/OR WARNINGS IN PLACE • IF ANY PEDESTRIAN OPENINGS ARE FITTED INTO THE OPERATOR, THERE MUST ALSO BE A A SYSTEM TO BLOCK THEIR OPENING WHILE THEY ARE MOVING • Make sure that the opening automated door or gate cannot entrap people AGAINST THE FIXED PARTS OF THE OPERATOR • DO NOT FIT UPSIDE DOWN OR ONTO ELEMENTS THAT COULD BEND. IF NECESSARY, ADD SUITABLE REINFORCEMENTS TO THE ANCHORING POINTS • DO NOT INSTALL DOOR OR GATE LEAVES ON TILTED SURFACES • Make sure any sprinkler systems cannot wet the operator from the GROUND UP • Make sure the temperature range shown on the product LITERATURE IS SUITABLE TO THE CLIMATE WHERE IT WILL BE INSTALLED • FOLLOW ALL INSTRUCTIONS AS IMPROPER INSTALLATION MAY RESULT IN SERIOUS BODILY INJURY • It is important to follow these instructions for the safety of people. Keep THESE INSTRUCTIONS.

#### Installing

• SUITABLY SECTION OFF AND DEMARCATE THE ENTIRE INSTALLATION SITE TO PREVENT UNAUTHORIZED PERSONS FROM ENTERING THE AREA, ESPECIALLY MINORS AND CHILDREN ● BE CAREFUL WHEN HANDLING OPERATORS THAT WEIGH OVER 20 KG. IF NEED BE, USE PROPER SAFETY HOISTING EQUIPMENT • ALL OPENING COMMANDS (THAT IS, BUTTONS, KEY SWITCHES, MAGNETIC READERS, AND SO ON) MUST BE INSTALLED AT LEAST 1.85 M FROM THE PERIMETER OF THE GATE'S WORKING AREA, OR WHERE THEY CANNOT BE REACHED FROM OUTSIDE THE GATE. ALSO, ANY DIRECT COMMANDS (WHETHER BUTTONS, TOUCH PANELS, AND SO ON) MUST BE INSTALLED AT LEAST 1.5 M FROM THE GROUND AND MUST NOT BE REACHABLE BY UNAUTHORIZED PERSONS • ALL MAINTAINED ACTION COMMANDS, MUST BE FITTED IN PLACES FROM WHICH THE MOVING GATE LEAVES AND TRANSIT AND DRIVING AREAS ARE VISIBLE • APPLY, IF MISSING, A PERMANENT SIGN SHOWING THE POSITION OF THE RELEASE DEVICE • BEFORE DELIVERING TO THE USERS, MAKE SURE THE SYSTEM IS EN 12453 STANDARD COMPLIANT (REGARDING IMPACT FORCES), AND ALSO MAKE SURE THE SYSTEM HAS BEEN PROPERLY ADJUSTED AND THAT ANY SAFETY, PROTECTION AND MANUAL RELEASE DEVICES ARE WORKING PROPERLY • APPLY WARNING SIGNS WHERE NECESSARY AND IN A VISIBLE PLACE, (SUCH AS, SUCH AS THE GATE'S PLATE

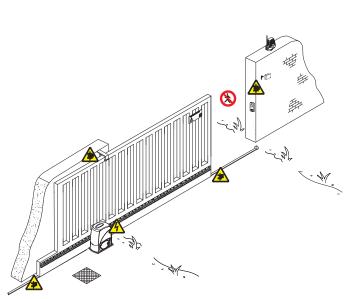
#### SPECIAL USER-INSTRUCTIONS AND RECOMMENDATIONS

• KEEP GATE OPERATION AREAS CLEAN AND FREE OF ANY OBSTRUCTIONS. MAKE SURE THAT THE PHOTOCELLS ARE FREE OF ANY OVERGROWN VEGETATION AND THAT THE OPERATOR'S AREA OF OPERATION IS FREE OF ANY OBSTRUCTIONS • DO NOT ALLOW CHILDREN TO PLAY WITH FIXED COMMANDS, OR TO LOITER IN THE GATE'S MANEUVERING AREA. KEEP ANY REMOTE CONTROL TRANSMITTERS OR ANY OTHER COMMAND DEVICE AWAY FROM CHILDREN, TO PREVENT THE OPERATOR FROM BEING ACCIDENTALLY ACTIVATED. • THE APPARATUS MAY BE USED BY CHILDREN OF EIGHT YEARS AND ABOVE AND BY PHYSICALLY, MENTALLY AND SENSORY-CHALLENGED PEOPLE, OR EVEN ONES WITHOUT ANY EXPERIENCE, PROVIDED THIS HAPPENS UNDER CLOSE SUPERVISION OR ONCE THEY HAVE BEEN PROPERLY INSTRUCTED TO USE THE APPARATUS SAFELY AND TO THE POTENTIAL HAZARDS INVOLVED. CHILDREN MUST NOT PLAY WITH THE APPARATUS. CLEANING AND MAINTENANCE BY USERS MUST NOT BE DONE BY CHILDREN, UNLESS PROPERLY SUPERVISED • FREQUENTLY CHECK THE SYSTEM FOR ANY MALFUNCTIONS OR SIGNS OF WEAR AND TEAR OR DAMAGE TO THE MOVING STRUCTURES, TO THE COMPONENT PARTS, ALL ANCHORING POINTS, INCLUDING CABLES AND ANY ACCESSIBLE CONNECTIONS. KEEP ANY HINGES, MOVING JOINTS AND SLIDE RAILS PROPERLY LUBRICATED • PERFORM FUNCTIONAL CHECKS ON THE PHOTOCELLS AND SENSITIVE SAFETY EDGES, EVERY SIX MONTHS, TO CHECK WHETHER THE PHOTOCELLS ARE WORKING, WAVE AN OBJECT IN FRONT OF THEM

WHILE THE GATE IS CLOSING; IF THE OPERATOR INVERTS ITS DIRECTION OF TRAVEL OR SUDDENLY STOPS, THE PHOTOCELLS ARE WORKING PROPERLY. THIS IS THE ONLY MAINTENANCE OPERATION TO DO WITH THE POWER ON. CONSTANTLY CLEAN THE PHOTOCELLS' GLASS COVERS USING A SLIGHTLY WATER-MOISTENED CLOTH; DO NOT USE SOLVENTS OR OTHER CHEMICAL PRODUCTS THAT MAY RUIN THE DEVICES • IF REPAIRS OR MODIFICATIONS ARE REQUIRED TO THE SYSTEM, RELEASE THE OPERATOR AND DO NOT USE IT UNTIL SAFETY CONDITIONS HAVE BEEN RESTORED • CUT OFF THE POWER SUPPLY BEFORE RELEASING THE OPERATOR FOR MANUAL OPENINGS AND BEFORE ANY OTHER OPERATION, TO PREVENT POTENTIALLY HAZARDOUS SITUATIONS. Read the instructions If the power supply cable is damaged, it must be REPLACED BY THE MANUFACTURER OR AUTHORIZED TECHNICAL ASSISTANCE SERVICE. OR IN ANY CASE, BY SIMILARLY QUALIFIED PERSONS, TO PREVENT ANY RISK • IT IS FORBIDDEN FOR USERS TO PERFORM ANY OPERATIONS THAT ARE NOT EXPRESSLY REQUIRED OF THEM AND WHICH ARE NOT LISTED IN THE MANUALS. FOR ANY REPAIRS, MODIFICATIONS / ADJUSTMENTS, AND FOR EXTRA-ORDINARY MAINTENANCE, CALL TECHNICAL ASSISTANCE • LOG THE JOB AND CHECKS INTO THE PERIODIC MAINTENANCE LOG.

#### FURTHER RECOMMENDATIONS FOR ALL

• KEEP CLEAR OF HINGES AND MECHANICAL MOVING PARTS • DO NOT ENTER THE OPERATOR'S AREA OF OPERATION WHEN IT IS MOVING • DO NOT COUNTER THE OPERATOR'S MOVEMENT AS THIS COULD RESULT IN DANGEROUS SITUATIONS • ALWAYS PAY SPECIAL ATTENTION TO ANY DANGEROUS POINTS, WHICH HAVE TO BE LABELED WITH SPECIFIC PICTOGRAMS AND/OR BLACK AND YELLOW STRIPES • WHILE USING A SELECTOR SWITCH OR A COMMAND IN MAINTAINED ACTIONS, KEEP CHECKING THAT THERE ARE NO PERSONS WITHIN THE OPERATING RANGE OF ANY MOVING PARTS, UNTIL THE COMMAND IS RELEASED ● THE GATE MAY MOVE AT ANY TIME AND WITHOUT WARNING • ALWAYS CUT OFF THE MAINS POWER SUPPLY BEFORE PERFORMING ANY MAINTENANCE OR CLEANING.





Danger of foot crushing



Danger of hand crushing



Danger! High voltage.



No transiting while the barrier is moving

- This symbol shows which parts to read carefully.
- ⚠ This symbol shows which parts describe safety issues
- This symbol shows which parts to tell users about.

# DESCRIPTION

Operator featuring control board, mechanical limit-switches and PRATICO SYSTEM radio releasing system which comes with its own 12 V - 1.2 Ah battery for sliding gates weighing up to 1,200 kg in weight and measuring 14 m in length.

#### Intended use

The BK-1200P is designed to power sliding gates in single homes and apartment blocks alike.

Any installation and/or use other than that specified in this manual is forbidden.

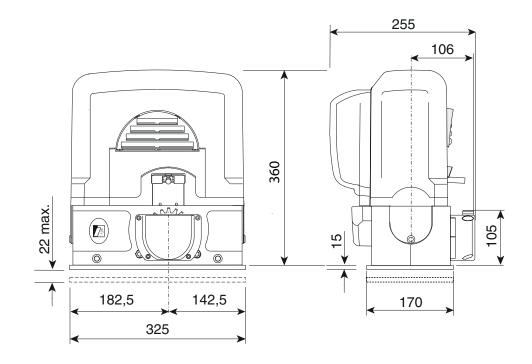
#### Limits to use

Туре	BK-1200P
Max gate-leaf weight (kg)	1,200
Maximum door-leaf length (m)	14
Pinion module	4

#### Technical data

Туре	BK-1200P
Protection rating (IP)	44
Power supply (V - 50/60 Hz)	230 AC
Power supply to motor (V - 50/60 Hz)	230 AC
Stand-by consumption (W)	3.3
Power (W)	380
Thrust (N)	850
Opening speed (m/min)	14.5
Duty cycle (%)	30
Operating temperature (°C)	-20 ÷ +55
Condenser (µF)	31.5
Apparatus class	I
Motor's heat protection (°C)	150
Weight (Kg)	18

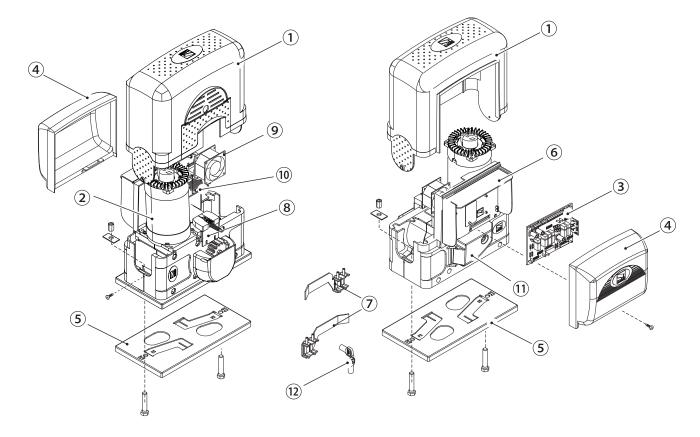
#### Dimensions (mm)



# **Description of parts**

- 1. Cover
- 2. Gearmotor
- 3. Control board
- 4. Front cover
- 5. Anchoring plate
- 6. Control-board holder

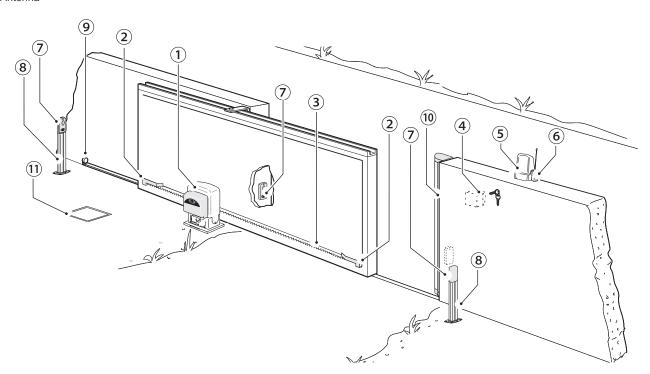
- 7. Limit-switch fins
- 8. Mechanical limit switch
- 9. Fan
- 10. Transformer
- 11. Release hatch
- 12. Release key



# Standard installation

- 1. Operator
- 2. Limit-switch fins
- 3. Rack
- 4. Key-switch selector
- 5. Flashing light
- 6. Antenna

- 7. Photocells
- 8. Photocells post
- 9. Mechanical gate stop
- 10. Sensitive safety-edge
- 11. Junction pit



 ⚠ Only skilled, qualified staff must install this product.

#### **Preliminary checks**

▲ Before beginning the installation, do the following:

- check that the gate is stable and that the casters are in good working order and lubricated;
- check that the ground rails are well-fastened, entirely on the surface and are smooth and level so as not to obstruct the gate's movement;
- check that the upper slide-guides are friction-free;
- make sure you have fitted opening and closing mechanical gate stops;
- make sure that the point where theoperator is fastened is protected from any impacts and that the surface is solid enough;
- make sure you have set up a suitable dual pole cut off device along the power supply that is compliant with the installation rules. It should completely cut off the power supply according to category III surcharge conditions (that is, with minimum contact openings of 3 mm);
- (a) make sure that any connections inside the container (ones that ensure continuity to the protection circuit) are fitted with additional insulation with respect to those of other electrical parts inside:
- set up suitable tubes and conduits for the electric cables to pass through, making sure they are protected from any mechanical damage.

#### Cable types and minimum thicknesses

Connection	Cable type	Cable length 1 < 15 m	Cable length 15 < 30 m
230 V AC power-supply to control panel	H05RN-F	3G x 1.5 mm <sup>2</sup>	3G x 2.5 mm <sup>2</sup>
Flashing light	TUOKIN-F	2 x 0.5 mm <sup>2</sup>	
Photocell transmitters		2 x 0.5 mm <sup>2</sup>	
Photocell receivers	FROR CEI 20-22 CEI EN 50267-2-1	4 x 0.5 mm <sup>2</sup>	
Command and safety device		2 x 0.5 mm <sup>2</sup>	
Paired		2 x 1.5 mm <sup>2</sup>	
Antenna	RG58	max 10 m	

If cable lengths differ from those specified in the table, establish the cable sections depending on the actual power draw of the connected devices and according to the provisions of regulation CEI EN 60204-1.

For multiple, sequential loads along the same line, the dimensions on the table need to be recalculated according to the actual power draw and distances. For connecting products that are not contemplated in this manual, see the literature accompanying said products

#### INSTALLING

⚠ The illustrations are mere examples. The actual space required for fitting the operator varies depending on the overall dimensions. It is up to the installer to find the most suitable solution.

Set up the corrugated tubing needed to make the connections coming from the junction pit. Connect the operator by using a

The drawing show an operator fitted on the left.

# Corrugated tube laying

Dig a hole for the foundation frame.

0 40 mm corrugate tube; connect the accessories by using 0 25 mm corrugated tubes.

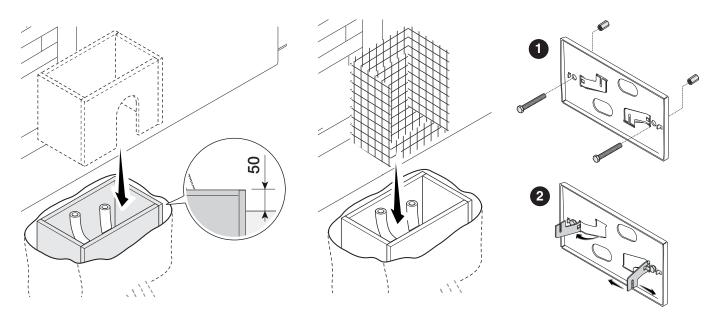
The number of tubes depends on the type of system and the accessories you are going to fit.

# Laying the anchoring plate

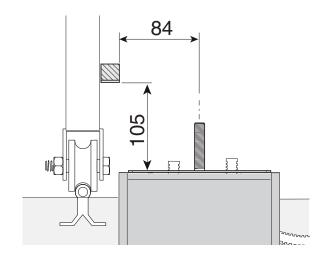
Set up a foundation frame that is larger than the anchoring plate and sink it into the dug hole. The foundation frame must jut out by 50 mm above ground level.

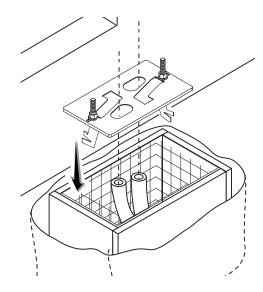
Fit an iron cage into the foundation frame to reinforce the concrete.

Fit the bolts into the fastening plate and tighten them using the nuts. Remove the pre-shaped clamps using a screw driver or pliers.



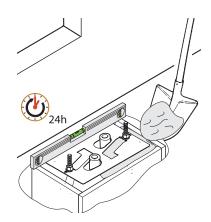
If the rack is already there, place the anchoring plate, being careful to respect the measurements shown in the drawing.  $\triangle$  Careful! The tubes must pass through their corresponding holes.

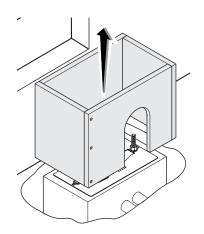


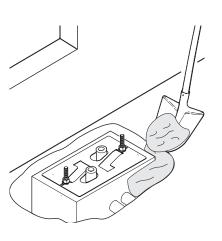


Fill the foundation frame with concrete. The plate must be perfectly level with the bolts which are entirely above surface. Wait at least 24 hours, for it to solidify.

Remove the foundation frame and fill the hole with earth around the concrete block.

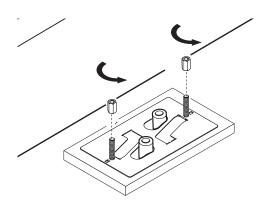


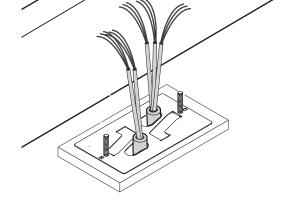




Remove the nuts from the bolts.

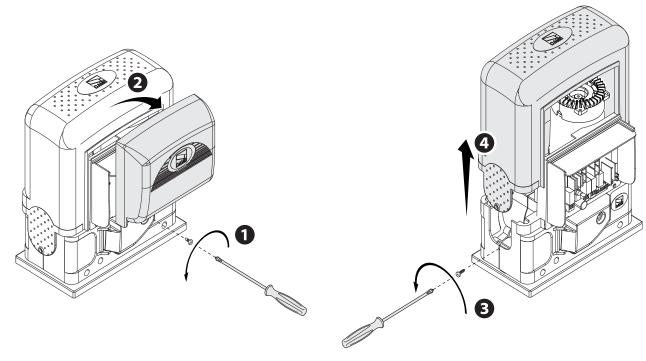
Fit the electric cables into the tubes so that they come out about 600 mm.





Setting up the operator

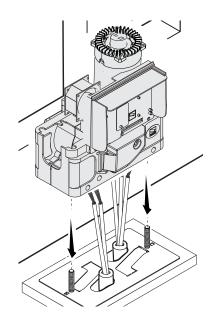
Remove both covers.

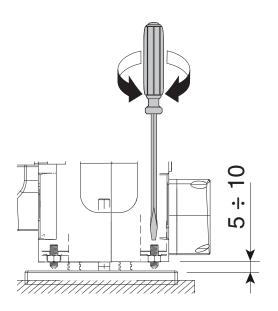


Place the gearmotor above the anchoring plate.

Careful! The electric cables must pass under the gearmotor case.

Lift the gearmotor by about 5 to 10 mm from the plate, adjust the threaded rests to allow for future adjustments between the pinion and the rack.



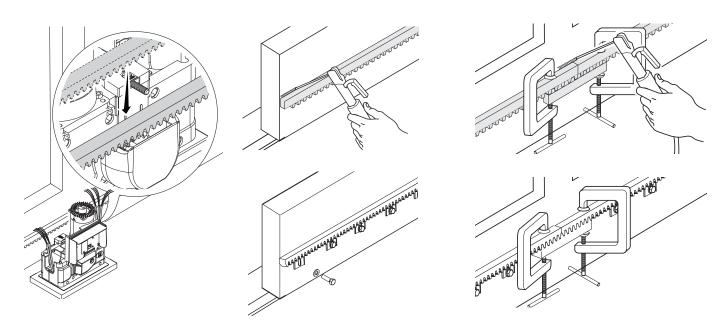


p. 7 - Manual: FA00605-EN v. 1 - 01/2017 - © CAME S.p.A. - The manual's contents may be edited at any time without notice.

If the rack is already set up, the next step should be to adjust the rack-and-pinion coupling distance, otherwise, fasten it:

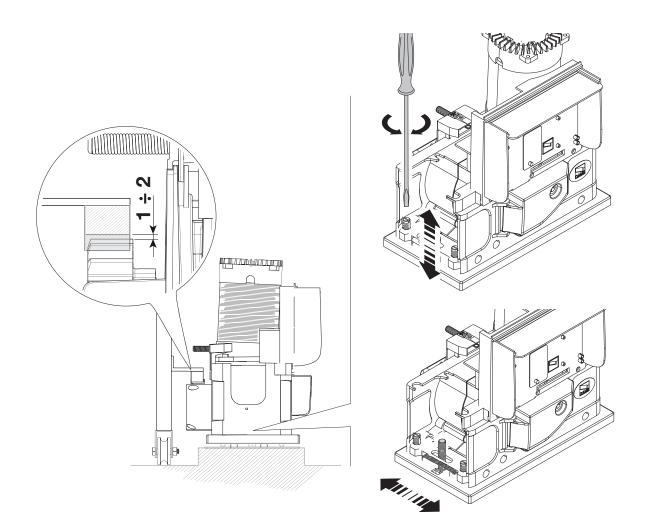
- release the gearmotor (see RELEASING THE GEARMOTOR paragraph);
- rest the rack above the gearmotor pinion;
- weld or fasten the rack to the gate along its entire length.

To assemble the rack modules, use an extra piece and rest it under the joint, then fasten it using two clamps.



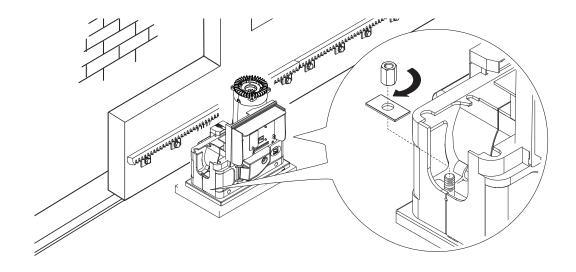
## Adjusting the pinion-rack coupling

Manually open and close the gate and adjust the pinion-rack coupling distance using the threaded feet (vertical adjustment) and the holes (horizontal adjustment). This prevents the gate's weight from bearing down on the operator.



#### Fastening the gearmotor

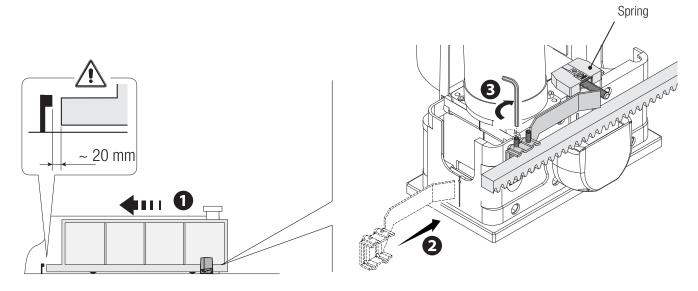
Once adjusting is complete, fasten the gearmotor to the plate using the plates and nuts.



# Establishing the limit-switch points

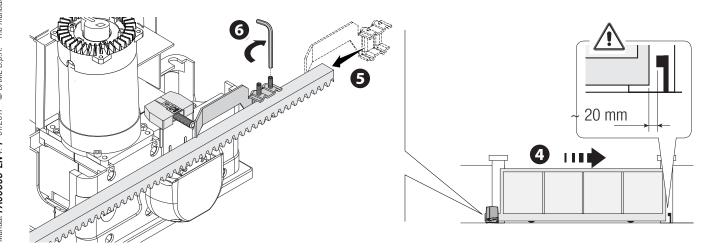
# For opening:

- open the gate **①**;
- fit the opening limit-switch tab onto the rack until the micro switch activates (spring) and fasten it using the grub screws 23.



#### For closing:

- close the gate 4;
- fit the closing limit-switch fin into the rack until the micro-switch is activated (spring) and fasten it using the grub screws 96.



#### **ELECTRICAL CONNECTIONS**

\( \triangle \) Warning! Before doing any work on the control board, cut off the mains power supply, and disconnect any batteries.

Power supply to the control panel and control devices: 24 V AC/DC.

Use DIP switches to set functions and the trimmer for adjustments.

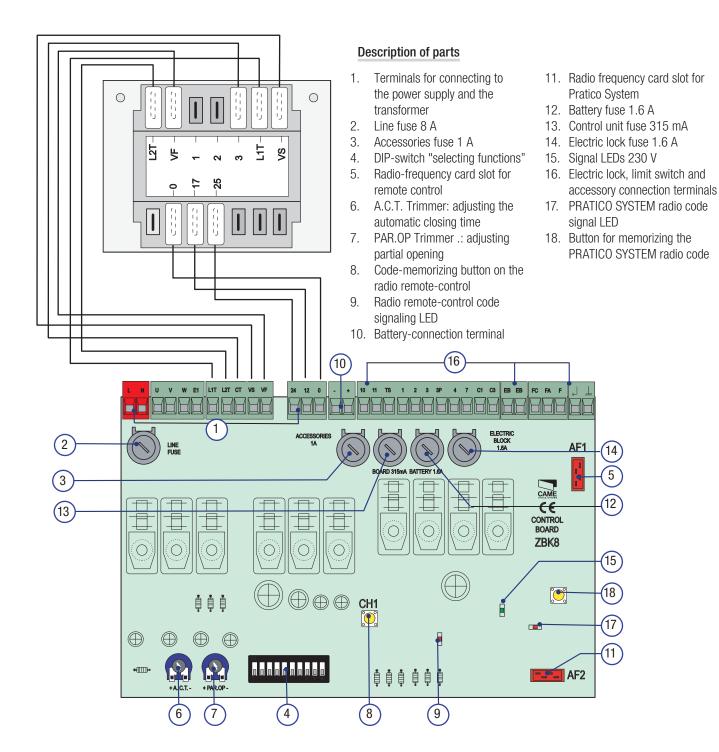
All connections are quick-fuse protected.

 $\Lambda$ 

The operator is designed to be fitted on the left. If installing on the right, invert the gearmotor's U-V and the limit-switches FA-FC cables.

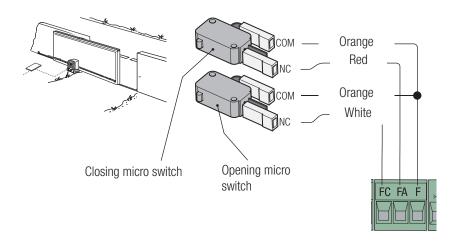
ZBK8 FUSE TABLE	
to protect:	fuse rated:
Control board (line)	8 A-F
Accessories	1 A-F
Control devices (control unit)	315 mA-F
Electroblock	1.6 A-F
Batteries	1.6 A-F

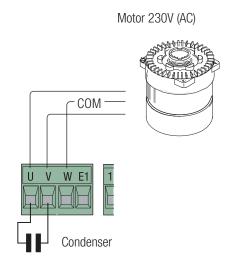
ZBK8 TECHNICAL DATA		
Power supply voltage	230 V - 50/60 Hz	
Absorption when idle	38 mA	
Accessories' maximum power load 24 V	40 W	
Circuits insulation class	II	



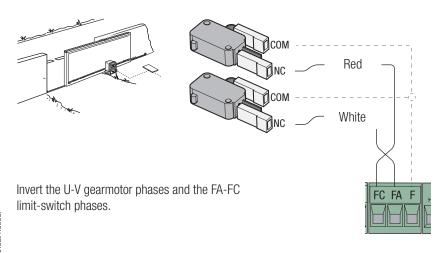
10 - Manuari FA00605-EN v. 1-01/2017 - © CAMES.p.A. - The contents of this manual may be changed, at any time, and without notice.

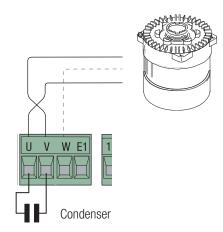
Description of the electrical connections is the same as that for installing on the left



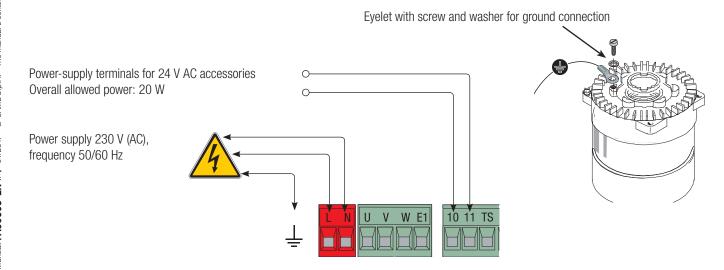


Changes to the electrical connections for installing on the right





#### **Power supply**



STOP button (NC contact). For stopping the gate while excluding automatic closing. To resume movement either press the control button or any other control device.

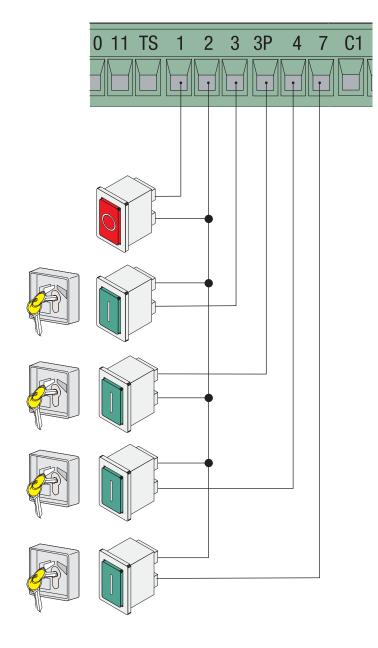
If unused, set DIP switch to ON.

ONLY OPEN function from control device (NO contact)

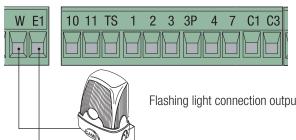
PARTIAL OPENING feature from command device (NO contact). Adjustable via PAR.OP. trimmer.

ONLY CLOSE function from control device (NO contact)

OPEN-STOP-CLOSE-STOP (sequenziale) function or OPEN-CLOSE-INVERT (step-by-step) from a control device (NO contact). See selecting functions, DIP switches 2 and 3.

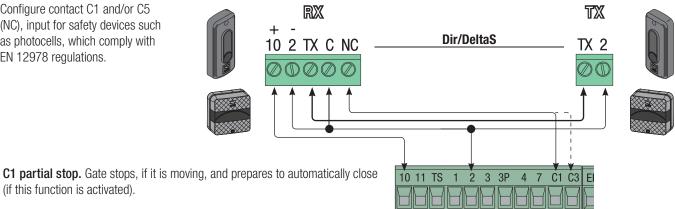


#### Signaling devices



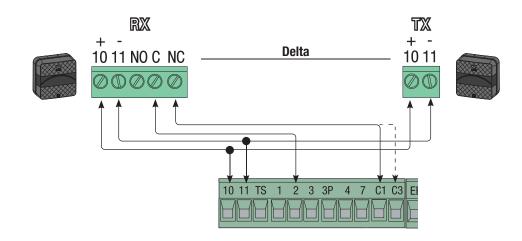
Flashing light connection output: 230 V AC - 25 W max).

Configure contact C1 and/or C5 (NC), input for safety devices such as photocells, which comply with EN 12978 regulations.



(if this function is activated).

C3 reopening during closing. When gate is closing, opening the contact triggers an inversion of movement until it is wide open.



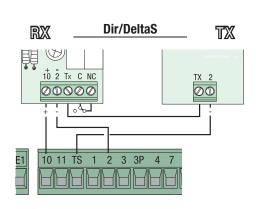
# Connecting the safety devices (i.e. the safety test)

At each opening and closing command, the control board checks the efficacy of the safety devices (such as, photocells).

Any malfunction will inhibit any command and is signaled by the flashing (PROG) LED on the control board. It cancels any command from either transmitter or button.

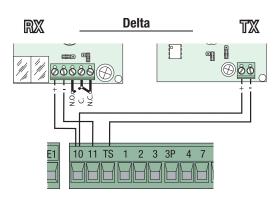
Electronic connection for running the photocells' safety test:

- both the transmitter and the receiver must be connected as shown in the drawing;
- set DIP-switch 9 to ON to activate the running of the test.

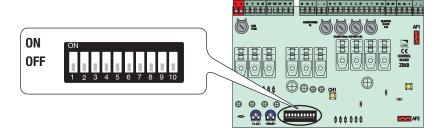


#### **IMPORTANT**:

When the safety test function is activated, the NC contacts - if unused - should be excluded by their corresponding DIP switches (see the Selecting functions paragraph).

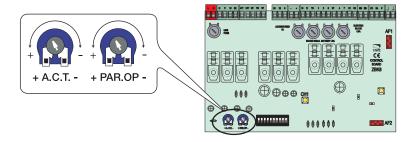


#### **Features selection**



DIP-SWITCH	Description of functions
1 ON	AUTOMATIC CLOSING (1 OFF - deactivated)
2 ON	OPEN-STOP-CLOSE-STOP from button on 2-7 and/or from transmitter (with AD card fitted)
2 0FF	OPEN-CLOSE-INVERT from the button on 2-7 and/or from a transmitter (with AF card fitted)
3 ON	ONLY OPEN from button 2-7 and/or from transmitter (with AF card fitted)
4 ON	MAINTAINED ACTION (4 OFF - deactivated)
5 ON	PRE-FLASHING when opening and closing (pre-flashing duration: 5 seconds) (5 OFF - deactivated)
6 ON	OBSTRUCTION DETECTION when motor is idle (6 OFF - deactivated)
7 OFF	REOPEN WHEN CLOSING (7 ON - deactivated)
8 OFF	PARTIAL STOP (8 ON - deactivated)
9 ON	RUNNING THE SAFETY TEST (9 OFF - deactivated)
10 OFF	TOTAL STOP (10 ON - deactivated)

#### **Settings**



#### **Trimmer Description of functions**

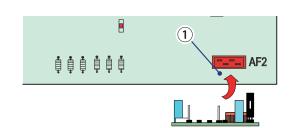
PAR. OP. Partial opening it regulates the gate's opening time.

By pressing on the partial opening button on 2-3P, the gate will open for a interval of 1 to 15 seconds.

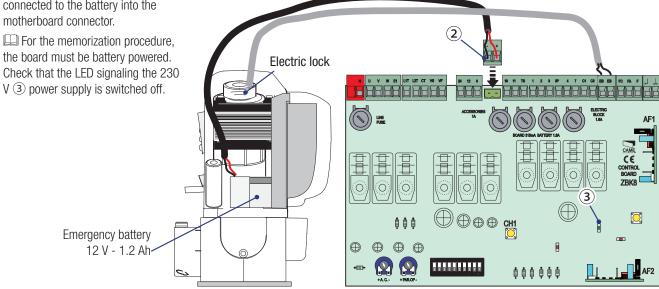
# **Automatic Closing Time**

**A.C.T.** It sets the open gate's waiting time. Once this time elapses, a closing maneuver is automatically performed. The waiting time can be set to between 1 and 140 seconds.

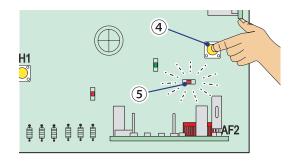
A Disconnect the 230 V power supply and fit the AF radio card into slot AF2 ①, the mother board recognizes it only when it is battery powered.



**B** Fit the (-/+) ② terminal connected to the battery into the motherboard connector.

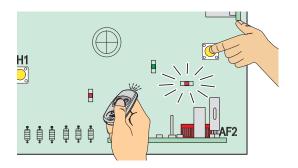


C Press and keep pressed key 4 on the base board, the 2 alert LED will flash.



D Press any button, eventhe gate-opening one on the transmitter, to send the code, the LED will stay on to signal that the code has been memorized.

To change code later, just repeat the above sequence.



A Connect the RG58 cable to the antenna.

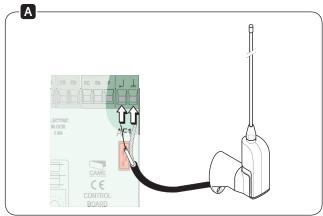
 ⚠ Cut off themains power supply, disconnect the batteries.

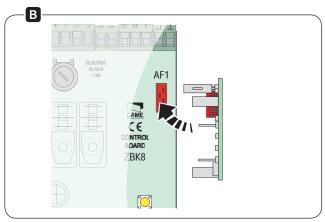
B Fit the AF card into the control board.

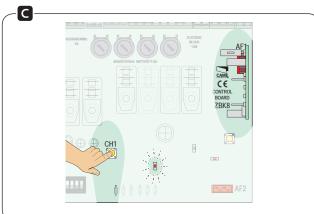
The control board recognizes the AF card only when it is the mains power supply is restored.

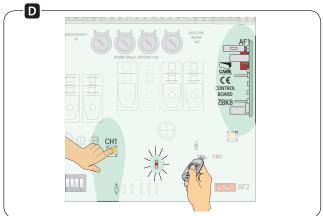
C Keep pressed the CH1 key on the control board: the alert LED will flash.

D Press any key on the transmitter to send the code: the LED will stay on to signal that memorization is now complete. Repeat **Steps** C/D for any other transmitter buttons.





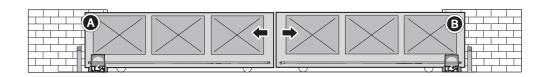




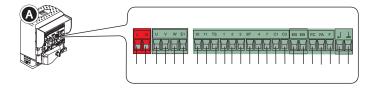
# CONNECTING TWO PAIRED GEARMOTORS WITH A SINGLE COMMAND

With two paired gearmotors, you can only control the opening (by button and/or radio command): the gate will only close in automatic closing mode.

• Coordinate the direction of travel of the gearmotors **A** and **B**, by changing the motor's rotation **B** (invert the cables on terminals FA-FC and U-V).



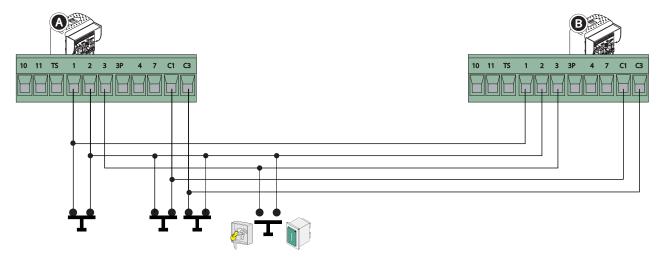
• Make all the electrical connections only on the control board of motor **A**.



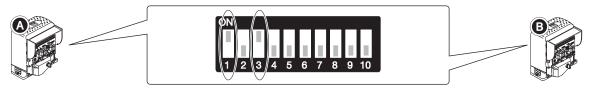
• Make the same adjustments and activate the same functions on both boards.



• Connect the two control boards, as shown in the figure.



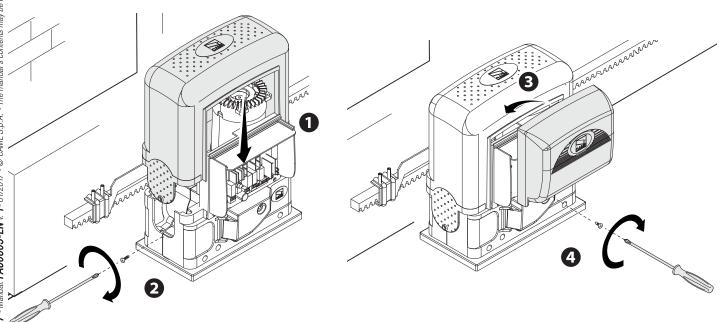
• Set DIP switches 1 and 3 to ON; on both boards.



For opening with the radio command, connect an external receiver ((RExxx/RBExxx with relay switch in MONOSTABLE mode) to terminals 2-3 of gearmotor **A**.

# FINAL OPERATIONS

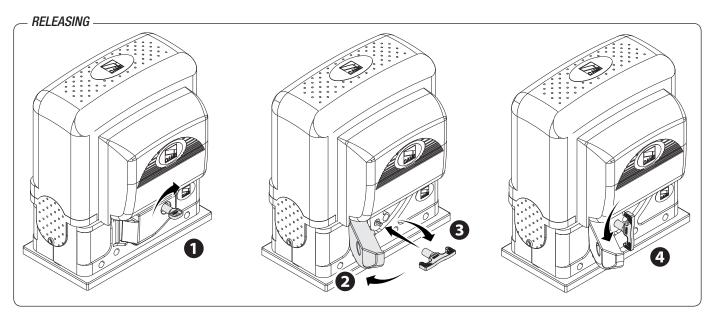
Do the final operation only once the connections are complete and the system is started up.

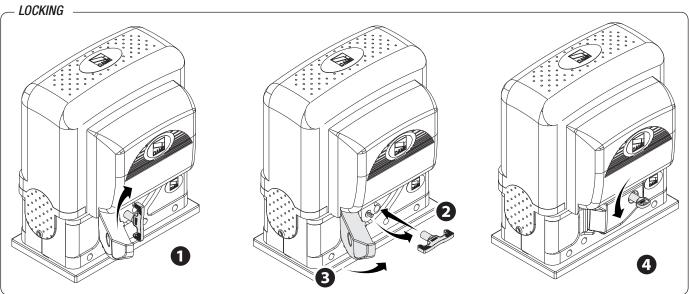


p. 17 - Manual: FA00605-EN v. 1- 01/2017 - © CAMES,p.A. - The manual's contents may be edited at any time without notice.

# RELEASING THE GEARMOTOR

- △ This procedure must be done with the main power cut off.
  △ Manually releasing the operator may result in uncontrolled movement of the gate, if this has any mechanical problems or is unbalanced.
- ⚠ When the release hatch door is open, the operator cannot work.





TDO	Поп	ECL	0.0	Y-11	MC
TRO	UDL	1501	UU	Ш	NG

ISSUES	POSSIBLE CAUSES	FIXES
It neither opens nor closes	<ul> <li>Power supply missing</li> <li>The gearmotor is stuck</li> <li>The stop button is either stuck or broken</li> <li>The opening/closing button or the key-switch selector is stuck</li> <li>The transmitter does not work/the battery is flat</li> <li>Photocells in partial-stop mode</li> </ul>	<ul> <li>Check main power supply</li> <li>Lock the gearmotor</li> <li>Call for assistance</li> <li>Call for assistance</li> <li>Replace the batteries of call for assistance</li> <li>Call assistance</li> </ul>
The gate opens but does not close	The photocells are soiled.	Clean and check that the photocells work properly. Otherwise call for assistance
The flashing light doesn't work	Lamp burned out	Call for assistance

# MAINTENANCE

#### Periodic maintenance

☞ Before doing any maintenance, cut off the power supply, to prevent any hazardous situations caused by accidentally activating the operator.

Periodic maintenance log kept by users (every six months)

Date	Notes	Signature

#### Extraordinary maintenance

⚠ The following table is for logging any extraordinary maintenance jobs, repairs and improvements performed by specialized contractors.

Any extraordinary maintenance jobs must be done only by specialized technicians.

# Extraordinary maintenance log

Fitter's stamp	Name of operator
	Job performed on (date)
	Technician's signature
	Requester's signature
Job performed	
Fitter's stamp	Name of operator
	Job performed on (date)
	Technician's signature

Requester's signature

Job performed \_

#### **DISMANTLING AND DISPOSAL**

CAME S.p.A. applies a certified Environmental Management System at its premises, which is compliant with the UNI EN ISO 14001 standard to ensure the environment is safeguarded.

Please continue safeguarding the environment. At CAME we consider it one of the fundamentals of our operating and market strategies. Simply follow these brief disposal guidelines:

#### DISPOSING OF THE PACKAGING

The packaging materials (cardboard, plastic, and so on) should be disposed of as solid household waste, and simply separated from other waste for recycling.

Always make sure you comply with local laws before dismantling and disposing of the product.

DISPOSE OF RESPONSIBLY!

#### DISMANTLING AND DISPOSAL

Our products are made of various materials. Most of these (aluminum, plastic, iron, electrical cables) are classified as solid household waste. They can be recycled by separating them before dumping at authorized city plants.

Whereas other components (control boards, batteries, transmitters, and so on) may contain hazardous pollutants.

These must therefore be disposed of by authorized, certified professional services.

Before disposing, it is always advisable to check with the specific laws that apply in your area.

DISPOSE OF RESPONSIBLY!

#### REFERENCE REGULATIONS

This product complies with the law.



CAME S.p.A.

Via Martiri Della Libertà, 15

31030 Dosson di Casier Treviso - Italy

(+39) 0422 4940

(+39) 0422 4941

Via Cornia, 1/b - 1/c

33079 Sesto al Reghena Pordenone - Italy (+39) 0434 698111 (+39) 0434 698434

www.came.com