

AUTOMATION SYSTEM FOR SLIDING GATES

BX



INSTALLATION MANUAL

BX-A / BX-B

"IMPORTANT SAFETY INSTRUCTIONS FOR INSTALLATION"

"CAUTION: IMPROPER INSTALLATION MAY CAUSE SERIOUS DAMAGE, FOLLOW ALL INSTALLATION INSTRUCTIONS CAREFULLY"

"THIS MANUAL IS ONLY FOR PROFESSIONAL INSTALLERS OR QUALIFIED PERSONS"

1 Legend



This symbol indicates sections to be read with particular care.

This symbol indicates sections concernig safety

This symbol indicates notes to communicate to users.

2 Destination and limits of use

2.1 Destination

The BX-A / BX-B ratiomotor is for the automation of sliding residential gates, even in cases of intense traffic.

The use of this product for purposes other than the one intended and installation carried out in a manner other than as instructed in this technical manual are prohibited.

2.2 Limits of use

Туре	BX-A	ВХ	(-B
Gate maximum weight	400 kg	600 kg for intensive use	800 kg for residential use

3 Reference Standards

For its quality processes management Came Cancelli Automatici is ISO 9001:2000 certified, and for its environmental management it is ISO 14001 certified. Came designs and manufactures entirely in Italy. This product complies with the following standards: *see chapter 9 - Conformity declaration - pag. 11.*

4 Description

4.1 Gearmotor

The BX-A / BX-B ratiomotor is designed and built by CAME CANCELLI AUTOMATICI S.p.A. and it meets the safety standards in force. Guaranteed 24 months if not tampered with.

The casing is made up of a fused aluminium part where the irreversible electromechanical ratiomotor is housed and an ABS plastic-lined part that encloses the electronic board.

4.2 Technical information

BX-A GEARMOTOR

Motor power supply: 230V A.C. 50/60Hz Absorption: 2,6 A Rated power: 200W Max. torque: 24 Nm* Reduction ratio: 1/33 Push: 300 N Max. speed: 10 m/min Operation intermittence: 30% Protection level: IP54 Weight: 15 kg Condenser: 20µF

55°C

* Obtained with CAME control panel.

BX-B GEARMOTOR

Motor power supply: 230V A.C. 50/60Hz Absorption: 2,4 A Rated power: 300W Max. torque: 32 Nm* Reduction ratio: 1/33 Push: 800 N Max. speed: 10 m/min Operation intermittence: 30% Protection level: IP54 Weight: 15 kg Condenser: 20µF

55°C



5 Installation

Installation must be carried out by expert qualified personnel and in full observance of regulations in force.

5.1 Preliminary checks

Before proceeding with the installation, it is necessary to:

• Make sure the door is rigid and compact and that the sliding wheels are well oiled and in good condition.

• The ground guide must be well fastened to the ground, fully on the surface for the entirety of its length and without irregularities that might obstruct the gate's movement.

- The upper guide runners must not create friction.
- Provide for a gate stopper for opening and one for closing, and for the path of electrical cables as per standard system.
- Make sure the point in which the ratiomotor is fixed is in an area protected from shocks or bumps, and that the anchoring surface is solid.

• Provide for suitable omnipolar disconnection device with more than 3 mm between contacts to section power supply.

• 🕒 Connections inside the case made for protection circuit continuity are allowed as long as they include additional insulation with respect to other internal drive parts.

• Install suitable tubes and ducts for electric cable passage to guarantee protection against mechanical damage.

5.2 Tools and materials

Make sure all tools and materials necessary are within reach to install the edge in maximum safety, according to regulations in force. The following figure illustrates the minimum equipment for the installer.







5.3 Cable list and minimun thickness

Connections	Type of cable	Length of cable 1 < 10 m	Length of cable 10 < 20 m	Length of cable 20 < 30 m
230V power supply	FROR CEI 20-22 CEI EN 50267-2-1	3G x 1,5 mm ²	3G x 2,5 mm ²	3G x 4 mm ²
230V motor power supply		3 x 1 mm ²	3 x 1,5 mm ²	3 x 2,5 mm ²
Flashing lamp		2 x 0,5 mm ²	2 x 1 mm ²	2 x 1,5 mm ²
Photoelectric cells TX		2 x 0,5 mm ²	2 x 0.5 mm ²	2 x 0,5 mm ²
Photoelectric cells RX		4 x 0,5 mm ²	4 x 0,5 mm ²	4 x 0,5 mm ²
Power supply accessory		2 x 0,5 mm ²	2 x 0,5 mm ²	2 x 1 mm ²
Control button		2 x 0,5 mm ²	2 x 0,5 mm ²	2 x 0,5 mm ²
Antenna connection	RG58		max. 10 m	

N.B.: An evaluation of the size of the cables with lengths other than the data in the table must be made based on the effective absorption of the connected devices, according to the instructions indicated by the CEI EN 60204-1 standards. For connections that require several loads on the same line (sequential), the size given on the table must be re-evaluated based on actual absorption and distances.

5.4 Standar installation

- 1-BX unit
- 2-Control board incorporated
- 3-Radio receiver
- Limit-switch tabs 4-

- 5-Rack
- Key-operated selector switch 6-Flashing light indicating door movement 7-
- Antenna 8-
- Safety photocells 9-
- 10- Photocell column
- 11- Mechanical gate stops



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5.5 Motor to base anchorage

The following applications are only examples, as the space required for unit installation and the accessories vary depending on dimensions and therefore it is up to the installer to select the best solution.

- Install the screws in the anchor plate and fasten them with a nut, then bend the preformed clamps downwards.
- Construct a cement foundation that is large enough to accomodate the gear motor (it is a good idea to protrude 50 mm. from the ground). When pouring the foundation, embed the gear motor anchor plate and the relative clamps in the cement.
- The anchor bolts should be embedded in the concrete in the positions indicated; the drive unit is then attached to this bots. The anchor plate must be perfectly level and absolutly clean; the bolts threads must be completly exposed.

N.B.: The flexible tubes for the electrical wiring must be embedded in the base and protude in the correct position.



5.6 Unit installation

During the initial phase of installation, the feet should protrude by 5-10 mm. in order to allow for alignment, anchorage of the rack and further adjustments.

Perfect alignment with the guide rail is made possible by the (paten-ted) built-in regulation system, which consists of:

- slots for horizontal adjustment;
- threaded steel feet for vertical adjustment and levelling;
- plates and bolts for anchorage to the base.



5.7 Attaching the rack/limit

Attach the rack to the gate

- as described below:
- Release the gearmotor;
- position the rack on the pinion of the gearmotor and slide the gate manually in order to attach the rack along its entire length;
 when the rack is attached to the gate, adjust the feet using a screwdriver until the play between the pinion and the rack is correct (1-2 mm.).
- N.B.: This position ensures that the weight of the gate does not rest on the gearmotor.
- If the rack is already attached, proceed directly to the adju-stment of the rack/pinion coupling.
- when the necessary adjustment have been completed, fasten the unit in position by tightening the two anchor bolts.



5.8 Attaching the switch tabs

Position the rack brackets onto the rack and secure them with a 3 mm hexagonal wrench. Their positioning limits the gate's opening/closing stroke.

Note: prevent the gate from slamming against the physical stop, when closing and opening.



5.9 Manual release of the gearmotor

To open the access door, insert the key, push down and rotate clockwise. Now, release the gear motor by rotating the knob in the direction shown.



6 Safety instructions

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Important safety instructions

This product must only be employed for its originally intended use. Any other use is wrong and potentially dangerous. The manufacturer cannot be held liable for any damages resulting from wrongful, erroneous or negligent uses.

Avoid working close to the upper guide runners or other moving mechanical parts. Stay out of the opening/closing arc when operator is in motion.

Do not exercise force against the motion of the operator as this could result in potentially dangerous situations.



Do not allow children to play or loiter within the opening/closing arc of the operator. Keep remote controls and any other command device out the reach of children, to prevent operator from being activated by accident.

In the event of anomalous behaviour, stop using the operator immediately.



Danger of crushing hands



Danger of crushing feet





No transit during operation

7 Maintenance

7.1 Periodic maintenance

Periodic maintenance to be carried out by the end-user is as follows: wipe clean the glass surface of the photocells; check that the safety devices work properly; remove any obstructions.

We suggest checking the state of lubrication and tightness of the anchoring screws on the operator.

To check the efficiency of the safety devices, move an object in front of the photocells when gate is closing. If the operator inverts the motion or stops, the photocells are working properly.

This is the only maintenance procedure to be carried out with the power source connected.

Before performing any maintenance procedures, cut off the main power, to prevent possible accidents due to gate movement. To clean the photocells use a water dampened cloth. Do not use solvents or other chemical products which may ruin the devices.

In the event of any strange vibrations or squeaking, lubricate the joints with grease, as shown in the diagram.



Make sure there are no plants within the photocell's beam, and that the gate motion is free of any obstacles.

7.2 Trouble shooting

MALFUNCTIONS	POSSIBLE CAUSES	CHECK AND REMEDIES
The gate will not open nor close	 There is no power The gearmotor is released The transmitter's batteries are run down The transmitter is broken The stop button is either stuck or broken The opening/closing button or the selector switch are stuck 	 Check that the power is up Call assistance Replace batteries Call assistance Call assistance Call assistance
The gate opens but will not close	The photocells are engaged	 Check that photocells are clean and in good working order Call assistance
The Flashing light does not work	The bulb is burnt	Call assistance

Date		Notes	Signature
7.3 Extra-ordin	ary maintenand	ce	
The followir cialised firms. N.B.: Any extraordina	ng table serves to ary maintenance r	note down any extraordinary maintenance, repairs or improven must be performed by specialised technicians.	ments performed by spe-
Extra-ordinary main	tenance log		
Installer's stamp		Operator name	
		Date of job	
		Technician's signature	

Requester's signature

Technician's signature Requester's signature

Operator name Date of job

Operator name Date of job

Technician's signature Requester's signature

Job performed _____

Job performed _____

Job performed _____

Installer's stamp

Installer's stamp

Periodic maintenance log for end-user (every 6 moths)

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Installer's stamp	Operator name	
	Date of job	
	Technician's signature	
	Requester's signature	
Job performed		
Installer's stamp	Operator name	
	Date of job	
	lechnician's signature	
	Requester's signature	
Job performed	Requester's signature	
Job performed	Technician's signature Requester's signature	

8 Phasing out and disposal

CAME cancelli automatici s.p.a. employs a UNI EN ISO 14001 certified and compliant environmental protection system at its plants, to ensure that environmental safeguarding.

We ask you to keep protecting the environment, as CAME deems it to be one of the fundamental points of its market operations strategies, by simply following these brief guidelines when disposing.

DISPOSING THE PACKING MATERIALS

The packing components (cardboard, plastic, etc.) are solid urban waste and may be disposed of without any particular difficulty, by simply separating them so that they can be recycled.

Before actions it is always advisable to check the pertinent legislation where installation will take place.

DO NOT DISPOSE OF IN NATURE!

DISPOSING OF THE PRODUCT

Our products are made using different types of materials

The majority of them (aluminium, plastic, iron, electric cables) can be considered to be solid urban waste

They may be recycled at authorised firms

Other components (electrical circuit board, remote control batteries etc.) may contain hazardous waste.

They must, thus, be removed and turned in to licensed firms for their disposal.

Before acting always check the local laws on the matter.

DO NOT DISPOSE OF IN NATURE!

9 Conformity declaration

MANUFACTURER'S DECLARATION OF CONFORMITY

Pursuant to annex II B of the Machinery Directive 98/37/EC

CE

CAME Cancelli Automatici S.p.A. via Martiri della Libertà, 15 31030 Dosson di Casier - Treviso - ITALY tel (+39) 0422 4940 - fax (+39) 0422 4941 internet: www.came.it - e-mail: info@came.it

--- STANDARDS ---EN 13241-1 EN 12453 EN 12445

IMPORTANT WARNING!

EN 12635 EN 12978 EN 60335-1 EN 61000-6-2 EN 61000-6-3 EN 60204-1

Declares under its own responsibility that the equipments for automatic garage doors and gates listed below:

BX-A / BX-B

.. comply with the National Law related to the following European Directives and to the applicable parts of the following Standards.

DIRECTIVES . 98/37/CE - 98/79/CE 98/336/CEE - 92/31/CEE 73/23/CEE - 93/68/CE 89/106/CEE

MACHINERY DIRECTIVE FLECTROMAGNETIC COMPATIBILITY DIRECTIVE Low Voltage Directive CONSTRUCTION PRODUCTS DIRECTIVE

Do not use the equipment specifi ed here above, before completing the full installation In full compliance with the Machinery Directive 98/37/EC

MANAGING DIRECTOR Mr. Andrea Menuzzo

Judia Herrin 335

Reference code to request a true copy of the original: DDF B EN B001a

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