

IS131 Rev09 10/03/2022

SMARTY SERIES

Swing gates automations



INSTALLATION INSTRUCTIONS AND USER MANUAL

General safety precautions

 **Failure to respect the information given in this manual may cause personal injury or damage to the device.**

This installation manual is intended for qualified personnel only.

ROGER TECHNOLOGY cannot be held responsible for any damage or injury due to improper use or any use other than the intended usage indicated in this manual. Installation, electrical connections and adjustments must be performed by qualified personnel, in accordance with best practices and in compliance with applicable regulations.

Read the instructions carefully before installing the product. Bad installation could be dangerous.

Before installing the product, make sure it is in perfect condition: if in doubt, do not use the equipment and contact qualified personnel only.

Do not install the product in explosive areas and atmospheres: the presence of inflammable gas or fumes represents a serious safety hazard.

Before installing the motorisation device, make all the necessary structural modifications to create safety clearance and to guard or isolate all the crushing, shearing, trapping and general hazardous areas.

Make sure the existing structure is up to standard in terms of strength and stability.

ROGER TECHNOLOGY is not responsible for failure to observe Good Working Methods when building the frames to be motorised, or for any deformation during use.

The safety devices (photocells, safety edges, emergency stops, etc.) must be installed taking into account: applicable laws and directives, Good Working Methods, installation premises, system operating logic and the forces developed by the motorised door or gate.

The safety devices must protect against crushing, cutting, trapping and general danger areas of the motorised door or gate.

ROGER TECHNOLOGY declines all responsibility if component parts not compatible with safe and correct operation are fitted.

Display the signs required by law to identify hazardous areas.

Each installation must bear a visible indication of the data identifying the motorised door or gate.

An omnipolar disconnection switch with a contact opening distance of at least 3mm must be fitted on the mains supply.

Make sure that upline from the mains power supply there is a residual current circuit breaker that trips at no more than 0.03A and overcurrent cutout upstream of the electrical system in accordance with best practices and in compliance with applicable regulations.

When requested, connect the automation to an effective earthing system (⏏) that complies with current safety standards.

During installation, maintenance and repair operations, cut off the power supply before opening the cover to access the electrical parts.

The electronic parts must be handled using earthed antistatic conductive arms.

Only use original spare parts for repairing or replacing products.

The installer must supply all information concerning the automatic, manual and emergency operation of the motorised door or gate, and must provide the user with the operating instructions.

The packaging materials (plastic, polystyrene, etc.) should not be discarded in the environment or left within reach of children, as they are a potential source of danger.

Dispose of and recycle the packing components in accordance with the standards in force.

These instructions must be kept and forwarded to all possible future user of the system.

Declaration of Conformity

I the undersigned, as acting legal representative of the manufacturer:

Roger Technology - Via Botticelli 8, 31021 Bonisiolo di Mogliano V.to (TV)

hereby DECLARE that the appliance described hereafter:

Description: Swing gate automation

Model: serie **SMARTY**

Is conformant with the legal requisites of the following directives:

- Directive **2014/30/EU** (EMC Directive) and subsequent amendments;
- Directive **2014/35/EU** (Low Voltage Directive) and subsequent amendments;

and that all the standards and/or technical requirements indicated as follows have been applied:

EN 61000-6-3

EN 61000-6-2

EN 60335-1

EN 60335-2-103

Last two figures of year in which marking was applied **CE 16**.

Place: Mogliano V.to

Date: 30/04/2016

Signature



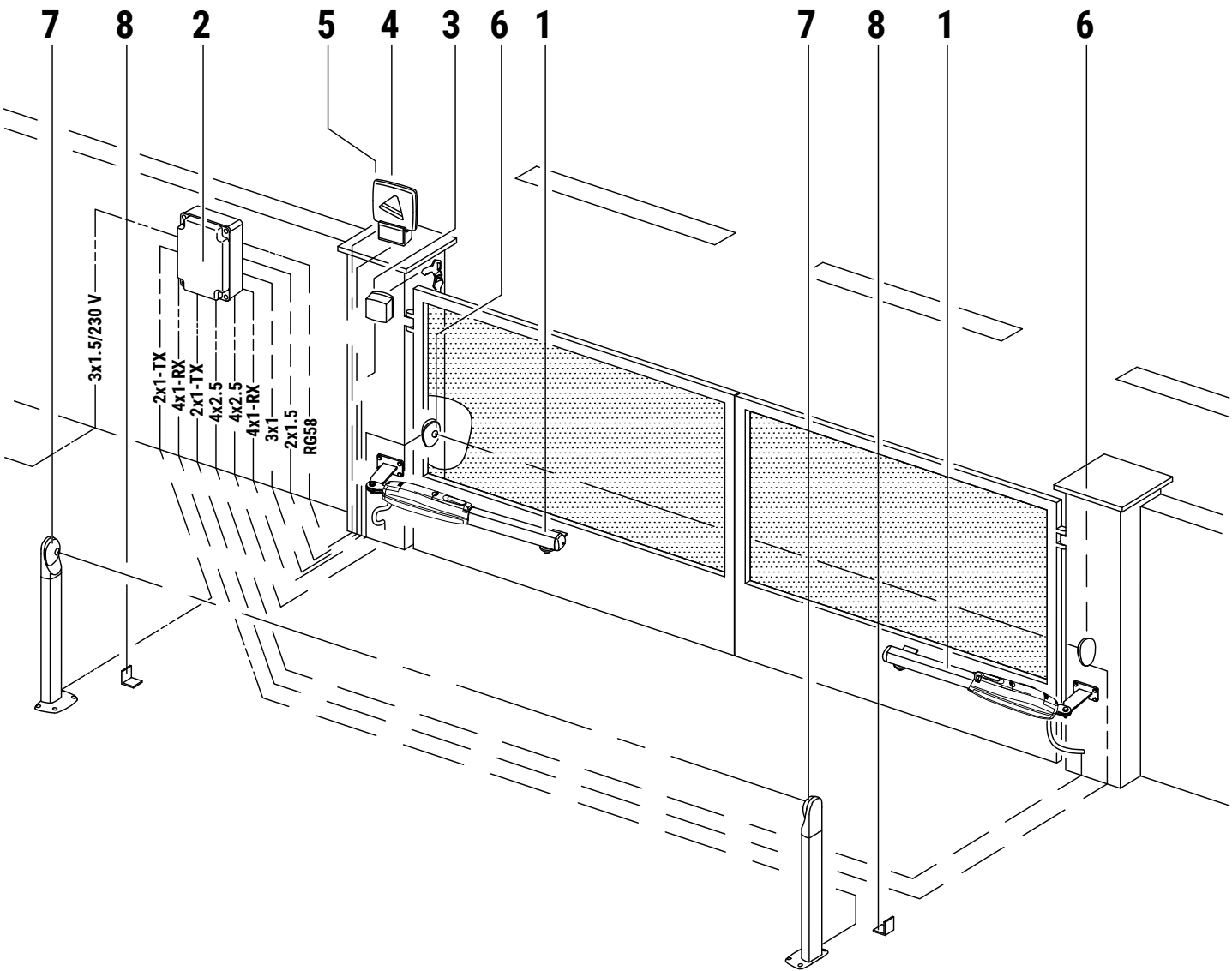
ROGER TECHNOLOGY is the exclusive proprietor holder of all rights regarding this publication.

ROGER TECHNOLOGY reserves the right to implement any modifications without prior notification. Copying, scanning or any alterations to this document are prohibited without express prior authorisation from ROGER TECHNOLOGY.

This instruction manual and the warnings for the installer are given in printed form and included in the box containing the product.

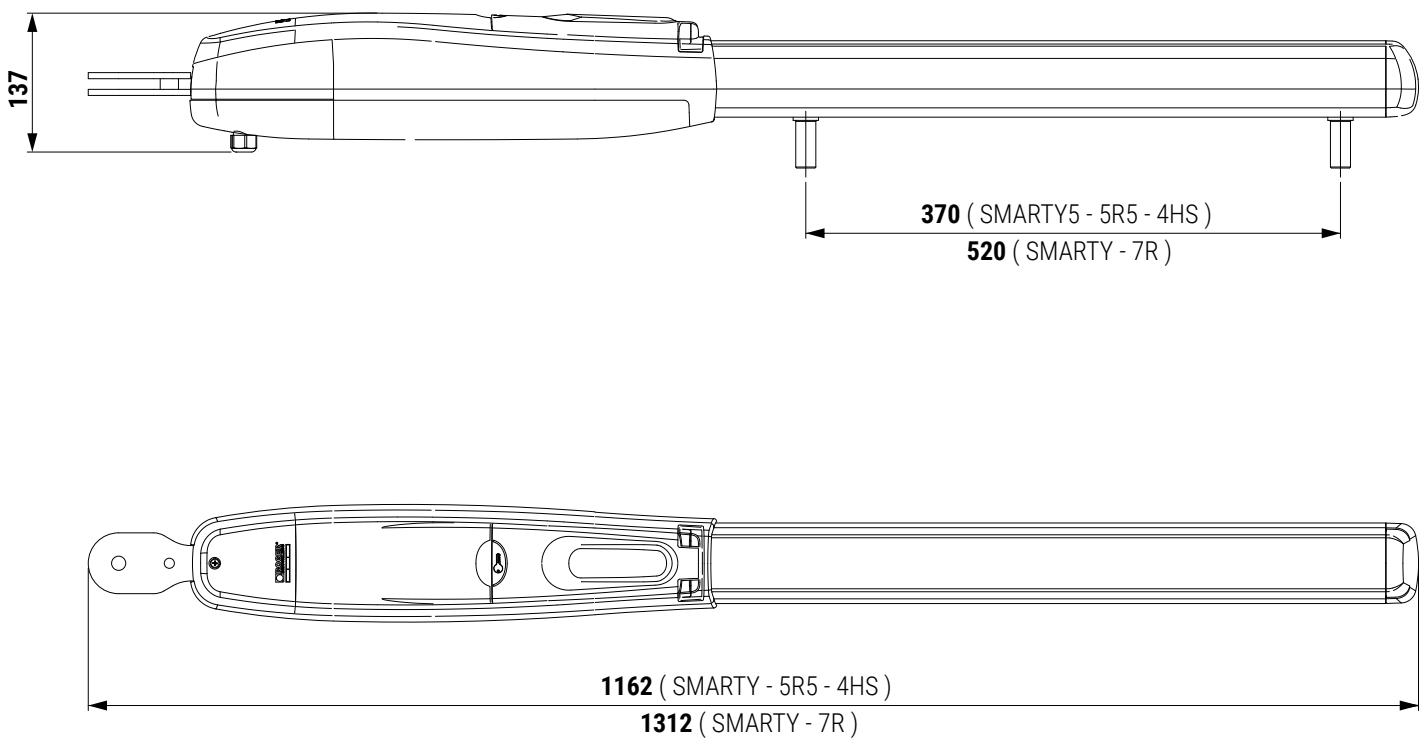
The digital version of this documentation (in PDF format) and all future revisions are available from the reserved area of our website www.rogertechnology.com/B2B, in the section 'Self Service'.

1 STANDARD INSTALLATION SMARTY RANGE



	DESCRIPTION
1	Automatism SMARTY
2	Control unit
3	Key selector
4	Flashing light
5	Antenna
6	External photocell
7	Internal photocell
8	Gate open mechanical stop

2 DIMENSIONS



All measurements are expressed in mm unless otherwise indicated.

WARNING

According to the legislation in force and for safety purposes, if the gate length exceeds 2.5 m with normal wings, 2 m with full wings and if its height exceeds 2 m, it is recommended to use an electric lock.

SMARTY7	Low voltage irreversible electromechanical gear motor for heavy duty use, configured for use with absolute encoder and ideal for swing leaf gates with leaf lengths up to 5 m.
SMARTY7R	Low voltage reversible electromechanical gear motor for heavy duty use, configured for use with absolute encoder and ideal for swing leaf gates with leaf lengths up to 7 m.



NOTE: Even though it is a REVERSIBLE unit, the motor is equipped with a lock release system.

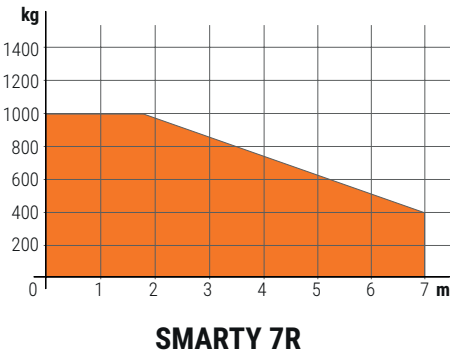
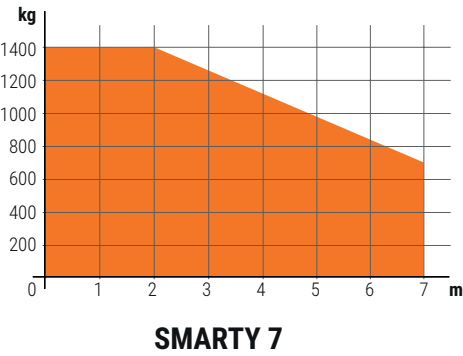
WARNING

It is recommended to keep the release handle of the drive unit for swing gates always closed, except in those cases in which it is necessary to release it (mains power loss, malfunction, etc.). The prolonged opening of the release handle could facilitate the entry of water, rain, insects, and various dirt that could reduce the mechanical and electromechanical efficiency of the drive unit during use over time.

4 TECHNICAL DATA

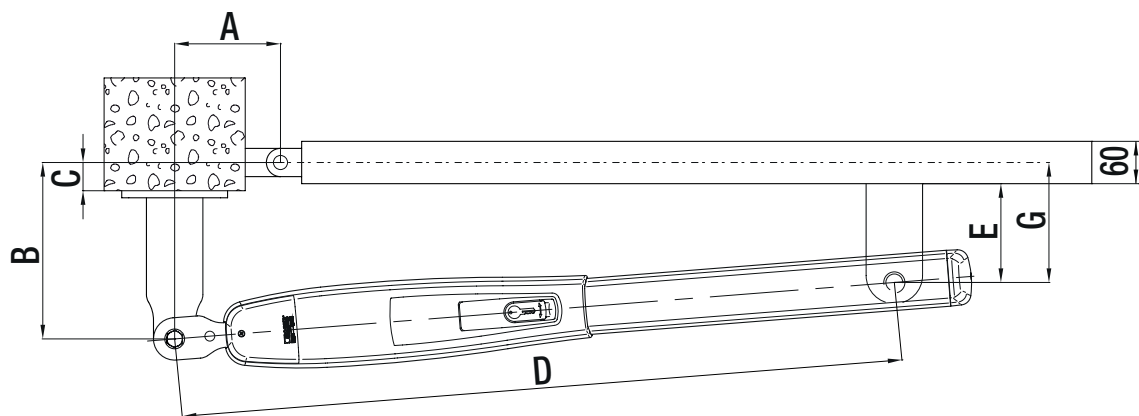
		SMARTY7	SMARTY7R
USAGE TYPE		CONDOMINIUM	
MOTOR TYPER		REVERSIBLE	
BRUSHLESS MOTOR POWER SUPPLY	V	36	
RATED POWER	W	200	
WORKING TEMPERATURE	°C	-20°C +55°C	
JOGGING		INTENSIVE USE	
PROTECTION RATING	IP	44	
OPERATOR WEIGHT	kg	12,2	13,2
90° OPENING TIME	s	35 ÷ 50	
WORKING SPEED	cm/s	1,6 ÷ 1	
TRUST	N	600 ÷ 7000	600 ÷ 6500
TRAVEL	mm	max 520	
OPERATING CYCLES PER DAY (OPENING/CLOSING - 24 HOURS NO STOP)	n°	1000	

5 WORKING DIAGRAM



In case of installation in areas subject to strong gusts of wind, the limits of use may be reduced.

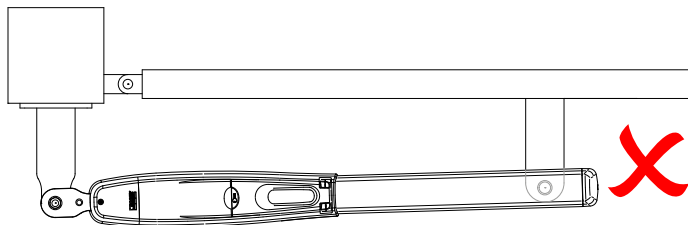
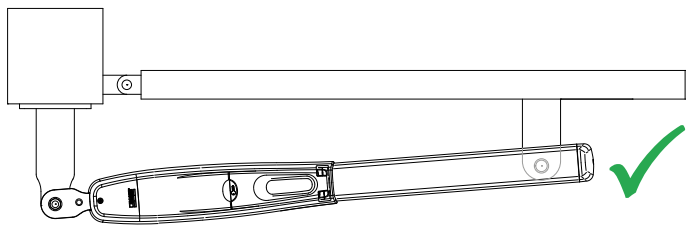
6 PRELIMINARY CHECKS



SMARTY 7 / SMARTY 7R

(Corsa massima/Max run = 520 mm)

A	B	C (max)	D (max)	E	G	α°
200	200	200	1180	140	170	98°
200	230	200	1180	140	170	97°
200	260	200	1180	140	170	96°
200	280	200	1180	140	170	95°
200	300	200	1180	140	170	93°
220	220	200	1180	140	170	102°
220	250	200	1180	140	170	100°
220	280	200	1180	140	170	93°
250	200	200	1180	140	170	106°
250	250	200	1180	140	170	94°



EN PRELIMINARY CHECKS

- Check that the structure of the gate is sturdy and in good condition.
- Check that the hinges are well greased and that the gate moves throughout its entire travel smoothly without impediment or friction.
- Always install mechanical stops in the gate open and gate closed positions, anchored securely to the ground and with elastic damper elements (e.g. rubber buffer) to attenuate the impact of the gate leaf against the stop.

Depending on the model installed, on the available space and any obstacles existing in the installation site, and on the required angle of aperture, install the rear bracket on the pillar and check that the installation measurements indicated in the table are correct.

The measurements [A] and [B] must always be compatible with the maximum effective travel of the piston.

If the sum of the values [A]+[B] is greater than the maximum travel, shorten the rear bracket to reduce measurement [B].

N.B: for the gate to operate smoothly and correctly, the measurements [A] and [B] must always be approximately 20-30 mm greater than measurement [G].

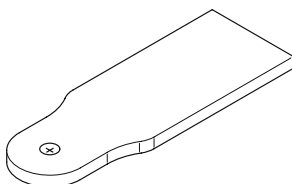
The measurement [G] indicated in the table was calculated considering a gate leaf thickness of 60 mm.

- **The end of the piston rod must meet the gate leaf.**
- **When opening the wing manually, check that the piston does not collide with the wing or the pillar.**

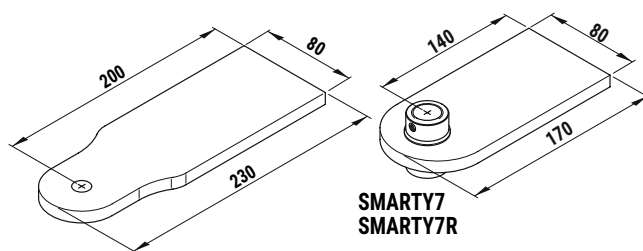
7 BRACKETS FASTENING

EN FASTENING BRACKETS

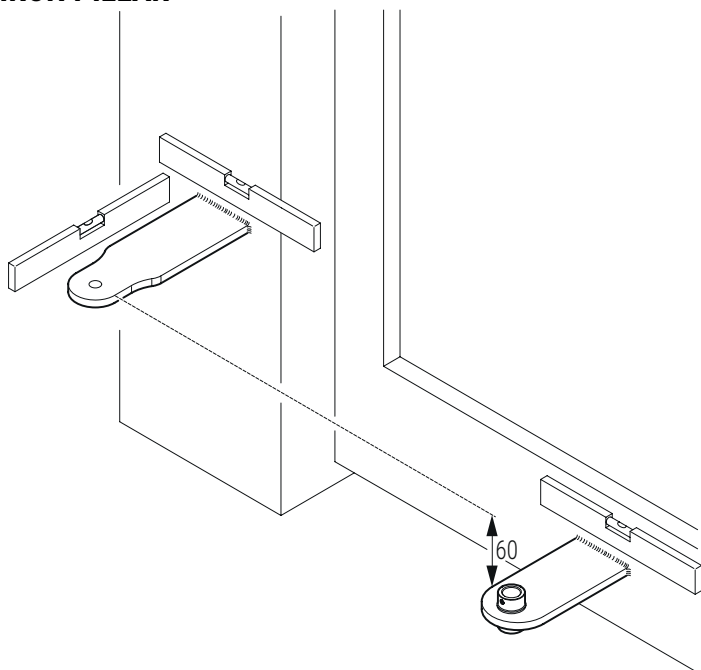
1. Fasten the rear bracket in a perfectly level position and in accordance with the installation measurements indicated in paragraph 6.
 - For masonry/cement pillars, use the specific masonry brackets with suitable anchor bolts and screws.
 - With steel pillars, weld the bracket in place.
2. With the gate completely closed, fit the front bracket to obtain the installation measurements [D] and [E], and fasten in a perfectly level position to the gate leaf as shown in the figure.



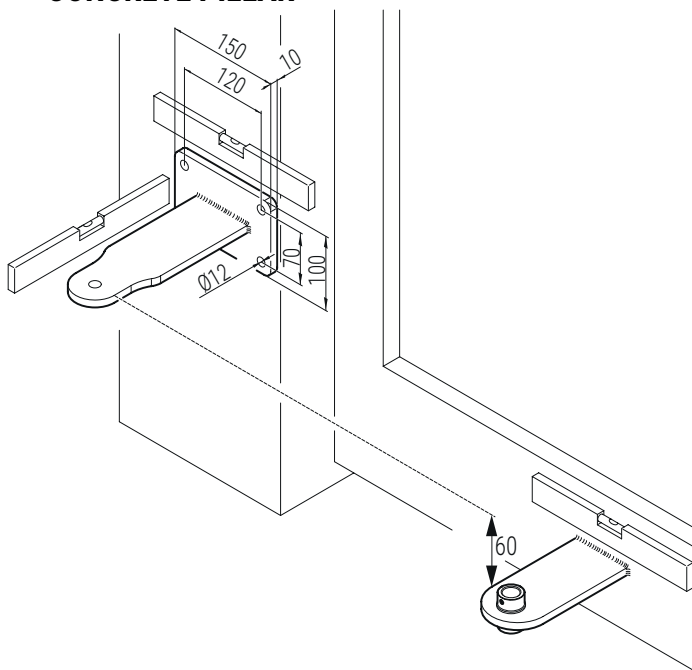
KT238



IRON PILLAR



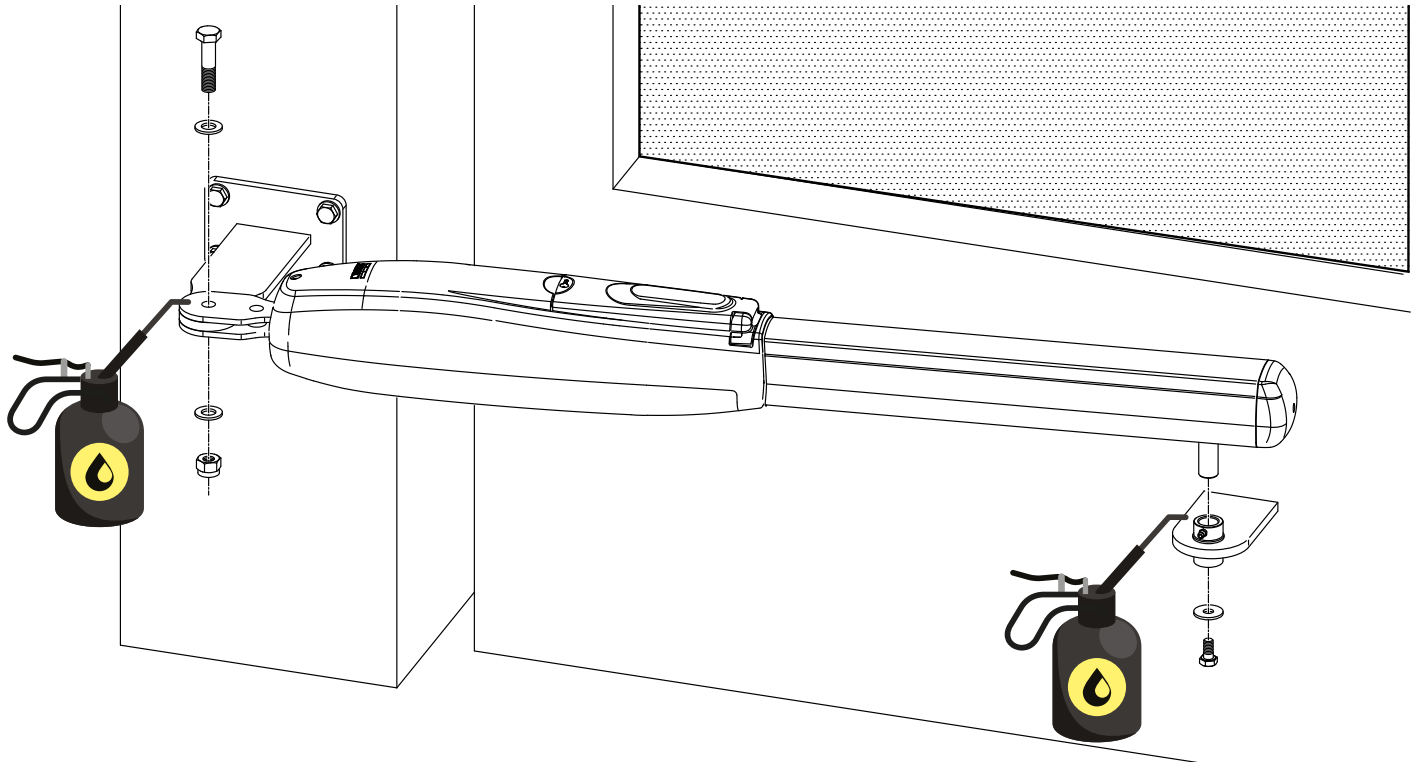
CONCRETE PILLAR



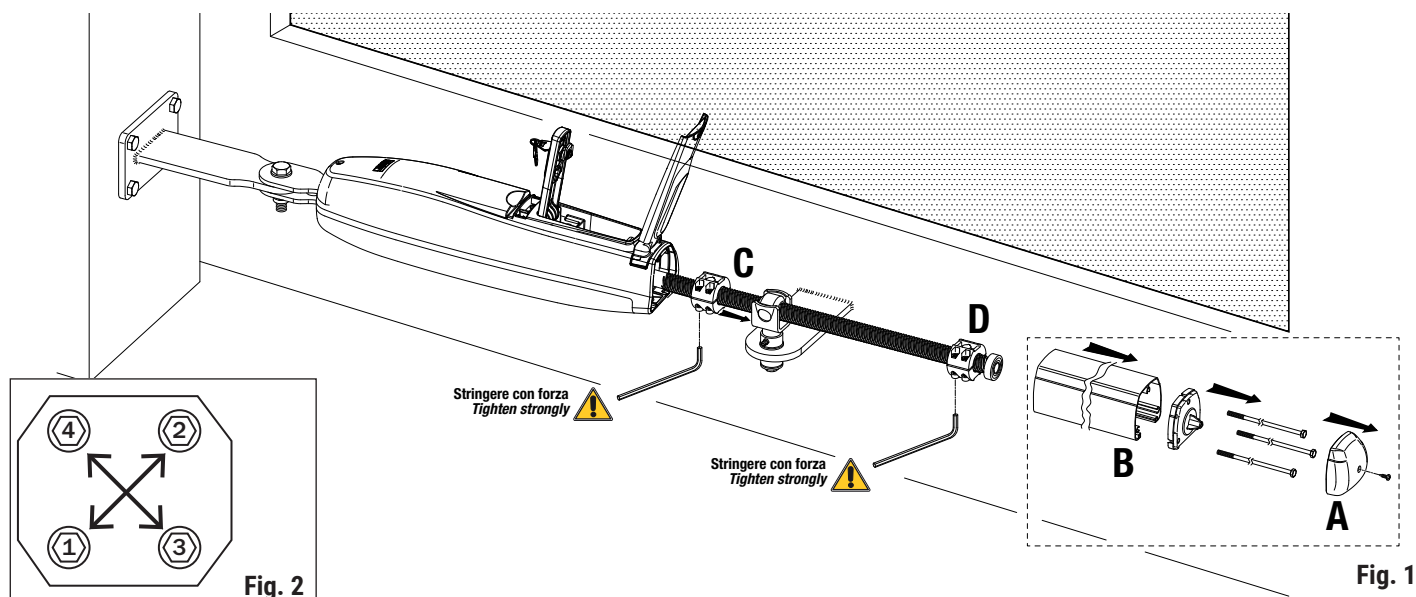
8 INSTALLATION DRIVE UNIT

INSTALLATION

- The **SMARTY** piston may be installed on the right or left hand side.
- Fasten the piston to the rear bracket and to the front bracket, **lubricating the pivot points**.
- Move the gate manually and check that it moves smoothly throughout its entire travel without impediment or friction.



9 MECHANICAL STOPS ADJUSTMENT



EN  Use the internal mechanical stops in the piston as a supplementary safety measure in addition to the mechanical stops of the gate.

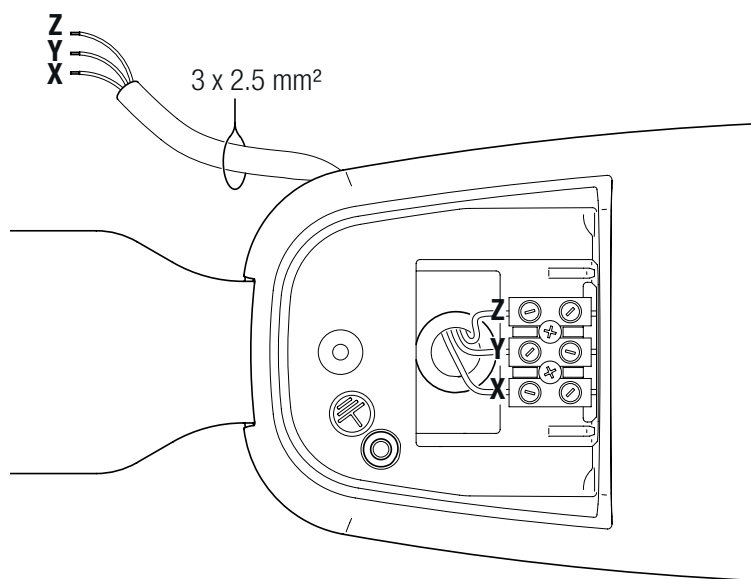
WARNING: the mechanical stops have become loose inside the piston. Even if not used, they must always be securely fastened.

Mechanical stops in the gate open and gate closed positions must always be used.

Adjust the mechanical stops from underneath, or:

- Remove the cap [A] and remove the drive screw cover [B].
- Move the gate into the fully open position and adjust the gate open mechanical stop [C], tightening the screws as shown in fig. 2.
- Perform the same procedure in the gate closed position to adjust the gate closed mechanical stop [D].

10 ELECTRICAL CONNECTIONS



EN

A switch or an omnipolar cut-off switch with a contact opening of at least 3 mm must be installed on the mains power line.

Ensure that an adequate residual current circuit breaker with a threshold of 0.03 A and a suitable over-current cut-out are installed ahead of the electrical installation in accordance with best practices and in compliance with applicable legislation.

When requested, connect the automation to an effective earthing system that complies with current safety standards.

1. Connect the 3x2.5 mm² power cable to the control unit.
2. To start the SMARTY device, it **IS NOT NECESSARY** to perform the earthing connection.

The accessory connections and the **SMARTY** gear motor tests are illustrated in the installation manual of the **EDGE1** control unit.

11 ABSOLUTE MAGNETIC ENCODER

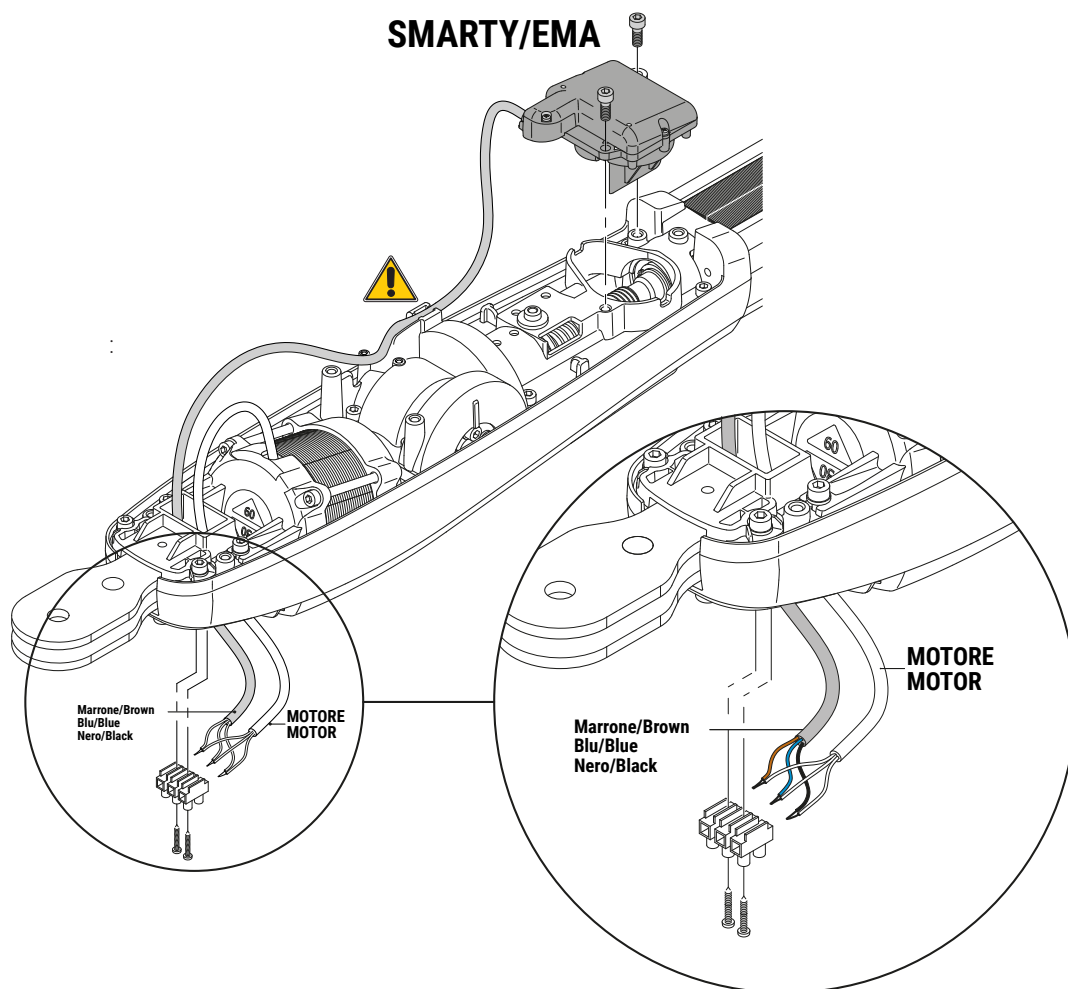
EN

The encoder determines the precise position of the gate, and allows the controller to reacquire the position of the gate leaf immediately when the first command is received following a power failure or after the gate is unlocked.

For **SMARTY REVERSIBLE**: the encoder is already installed in the factory by ROGER TECHNOLOGY.

For **SMARTY IRREVERSIBLE**:

- Fasten the encoder to the motor as indicated in the figure.
- Route the cable as shown and secure it with the cable retainer.
- Connect the encoder in parallel with the motor phases.
- Enable the encoder with the parameter **71 01** and perform the travel acquisition procedure (see control unit installation manual).



12 PERIODICAL MAINTENANCE

EN

NOTE: Only use original spare parts when repairing or replacing products.

The installer must provide the user with complete instructions for using the motorised door or gate in automatic, manual and emergency modes, and must deliver the operating instructions to the user of the installation upon completion. The installer must compile the maintenance log book, in which all scheduled and unscheduled maintenance operations performed must be indicated. The installation must be subject to regular maintenance. We recommend servicing at least once every 6 months.

Disconnect from mains electricity and from battery power (if applicable) to avoid the risk of accident or injury.

- Disconnect the system from mains electricity and unlock the gate.
- Check all parts for wear and deterioration. In particular, check all structural parts for wear and corrosion. Replace any parts that are not in an adequate condition to ensure continued correct operation.
- Check the condition and tightness of all fastener screws.
- Clean and lubricate the pivot pins, the gate hinges and the coupling screw.
- Manually check that the gate slides smoothly and without impediment.
- Check that the manual lock release system works.

Reconnect the mains power.

- Check that the safety devices and all the control functions work correctly.
- Check that the obstacle detection function works correctly.
- Check that the force limiting function prevents potentially dangerous situations in compliance with the standard EN 12445.

General safety precautions for the user

These precautions are an integral and essential part of the product and must be supplied to the user.

Read them carefully since they contain important information on safe installation, use and maintenance.

These instructions must be kept and forwarded to all possible future users of the system.

This product must only be used for the specific purpose for which it was designed.

Any other use is to be considered improper and therefore dangerous.

The manufacturer cannot be held responsible for any damage caused by improper, incorrect or unreasonable use.

Avoid operating in the proximity of the hinges or moving mechanical parts.

Do not enter within the operating range of the motorised door or gate while it is moving.

Do not obstruct the motion of the motorised door or gate, as this may cause a dangerous situation.

The motorised door or gate may be used by children over the age of 8 and by people with reduced physical, sensorial or mental abilities, or lack of experience or knowledge, as long as they are properly supervised or have been instructed in the safe use of the device and the relative hazards.

Children must be supervised to make sure they do not play with the device, nor play/remain in the sphere of action of the motorised door or gate.

Keep remote controls and/or any other command devices out of the reach of children, to avoid any accidental activation of the motorised door or gate.

In the event of a product fault or malfunction, turn off the power supply switch. Do not attempt to repair or intervene directly, and contact only qualified personnel.

Failure to comply with the above may cause a dangerous situation.

Any repair or technical intervention must be carried out by qualified personnel.

Cleaning and maintenance work must not be carried out by children unless they are supervised.

To ensure that the system works efficiently and correctly, the manufacturer's indications must be complied with and only qualified personnel must perform routine maintenance on the motorised door or gate. In particular, regular checks are recommended in order to verify that the safety devices are operating correctly.

All installation, maintenance and repair work must be documented and made available to the user.

Only lock and release the door wings when the motor is switched off.

Do not enter within the operating range of the wing.

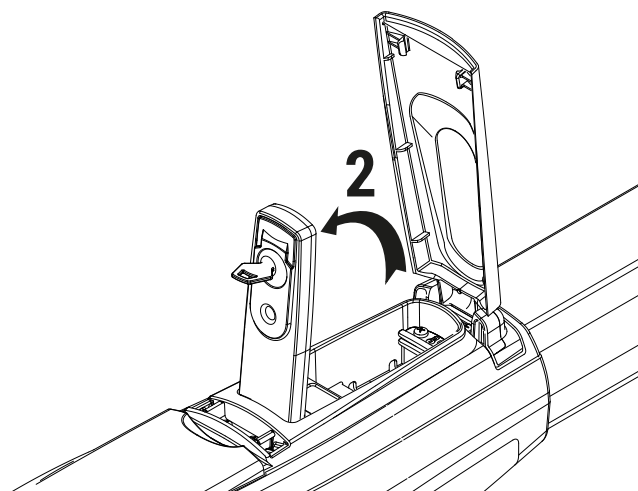
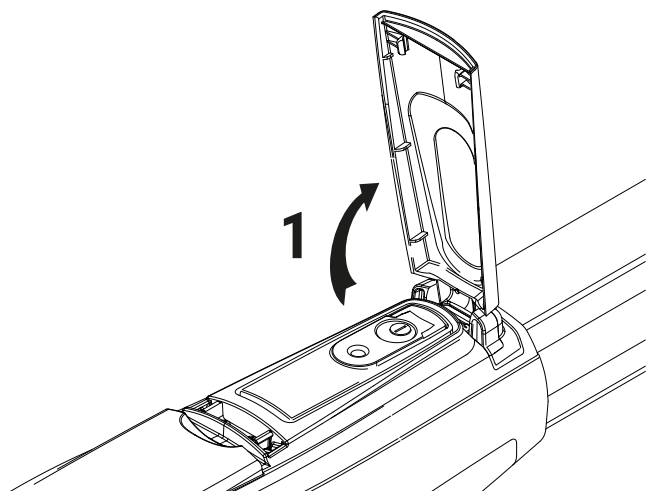


The product may only be uninstalled by qualified technical personnel, following suitable procedures for removing the product correctly and safely. This product consists of numerous different materials. Some of these materials may be recycled, while others must be disposed of correctly at the specific recycling or waste management facilities indicated by local legislation applicable for this category of product.

Do not dispose of this product as domestic refuse. Observe local legislation for differentiated refuse collection, or hand the product over to the vendor when purchasing an equivalent new product. Local legislation may envisage severe fines for the incorrect disposal of this product.

Warning! Some parts of this product may contain substances that are harmful to the environment or dangerous and which may cause damage to the environment or health risks if disposed of incorrectly.

Manual release



EN WARNING: only perform the gate leaf release and lock procedures with the unit disconnected from mains and with the motor at a standstill.



It is recommended to keep the release handle of the drive unit for swing gates always closed, except in those cases in which it is necessary to release it (mains power loss, malfunction, etc.). The prolonged opening of the release handle could facilitate the entry of water, rain, insects, and various dirt that could reduce the mechanical and electromechanical efficiency of the drive unit during use over time.

RELEASE AND MANUAL OPERATION

Open the cover as indicated in step 1.

Insert the key included into the lock and turn clockwise by 90°.

Open the release cover completely, as indicated in step 2.

Move the leaves manually.

RESTORING AUTOMATIC OPERATION

To lock the gate leaf again, lower the release cover with the key inserted, taking care not to trap your fingers.

Turn the key anticlockwise by 90°.

Remove the key and close the lock cover.

Reconnect to mains electricity.

ROGER TECHNOLOGY is the exclusive proprietor holder of all rights regarding this publication. ROGER TECHNOLOGY reserves the right to implement any modifications without prior notification. Copying, scanning or any alterations to this document are prohibited without express prior authorised from by ROGER TECHNOLOGY.