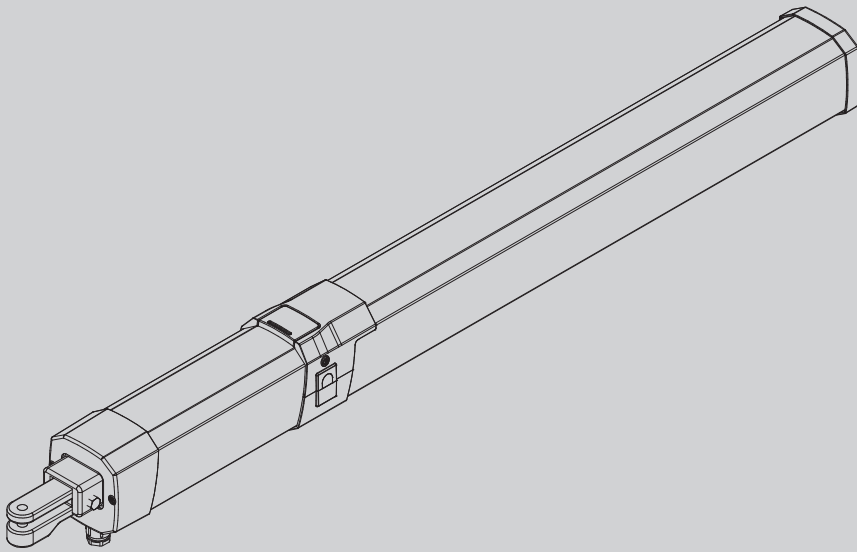




Ultra

D812230 00100\_04 26-10-16

PISTON AUTOMATIONS FOR SWING GATES



INSTALLATION MANUAL

# GIUNO ULTRA BT A20 GIUNO ULTRA BT A50



AZIENDA CON SISTEMA DI GESTIONE  
INTEGRATO CERTIFICATO DA DNV  
= UNI EN ISO 9001:2008 =  
UNI EN ISO 14001:2004

Read "Warnings" inside carefully!

**WARNING! Important safety instructions. Carefully read and comply with the Warnings and Instructions that come with the product as improper use can cause injury to people and animals and damage to property. Keep the instructions for future reference and hand them on to any new users.**

**This product is meant to be used only for the**

**purpose for which it was explicitly installed. Any other use constitutes improper use and, consequently, is hazardous. The manufacturer cannot be held liable for any damage as a result of improper, incorrect or unreasonable use.**

**GENERAL SAFETY**

Thank you for choosing this product. The Firm is confident that its performance will meet your operating needs.

This product meets recognized technical standards and complies with safety provisions when installed correctly by qualified, expert personnel (professional installer).

If installed and used correctly, the automated system will meet operating safety standards. Nonetheless, it is advisable to observe certain rules of behaviour so that accidental problems can be avoided:

- Keep adults, children and property out of range of

the automated system, especially while it is moving.

- Do not allow children to play or stand within range of the automated system.
- The unit can be used by children over 8 years old and by people with reduced physical, sensory or mental capabilities or with no experience or necessary knowledge on condition they are supervised or trained about the safe use of the equipment and understand the risks involved. Children must not play with the unit. Cleaning and maintenance must not be performed by unsupervised children.
- Children must be supervised to ensure they do not play with the device. Do not allow children to play with the fixed controls. Keep remote controls out of reach of children.
- Do not work near hinges or moving mechanical parts.
- Do not hinder the leaf's movement and do not attempt to open the door manually unless the actuator has been released with the relevant release knob.

Keep out of range of the motorized door or gate while they are moving.

Keep remote controls or other control devices out of reach of children in order to avoid the automated system being operated inadvertently.

- The manual release's activation could result in uncontrolled door movements if there are mechanical faults or loss of balance.
- When using roller shutter openers: keep an eye on the roller shutter while it is moving and keep people away until it has closed completely. Exercise care when activating the release, if such a device is fitted, as an open shutter could drop quickly in the event of wear or breakage.
- The breakage or wear of any mechanical parts of the door (operated part), such as cables, springs, supports, hinges, guides... may generate a hazard. Have the system checked by qualified, expert personnel (professional installer) at regular intervals according to the instructions issued by the installer or manufacturer of the door.
- When cleaning the outside, always cut off mains power.
- Keep the photocells' optics and illuminating indicator devices clean. Check that no branches or shrubs interfere with the safety devices.
- Do not use the automated system if it is in need of repair. In the event the automated system breaks down or malfunctions, cut off mains power to the system; do not attempt to repair or perform any other work to rectify the fault yourself and instead call in qualified, expert personnel (professional

installer) to perform the necessary repairs or maintenance. To allow access, activate the emergency release (where fitted).

- If any part of the automated system requires direct work of any kind that is not contemplated herein, employ the services of qualified, expert personnel (professional installer).
- At least once a year, have the automated system, and especially all safety devices, checked by qualified, expert personnel (professional installer) to make sure that it is undamaged and working properly.
- A record must be made of any installation, maintenance and repair work and the relevant documentation kept and made available to the user on request.
- Failure to comply with the above may result in hazardous situations.



**SCRAPPING**

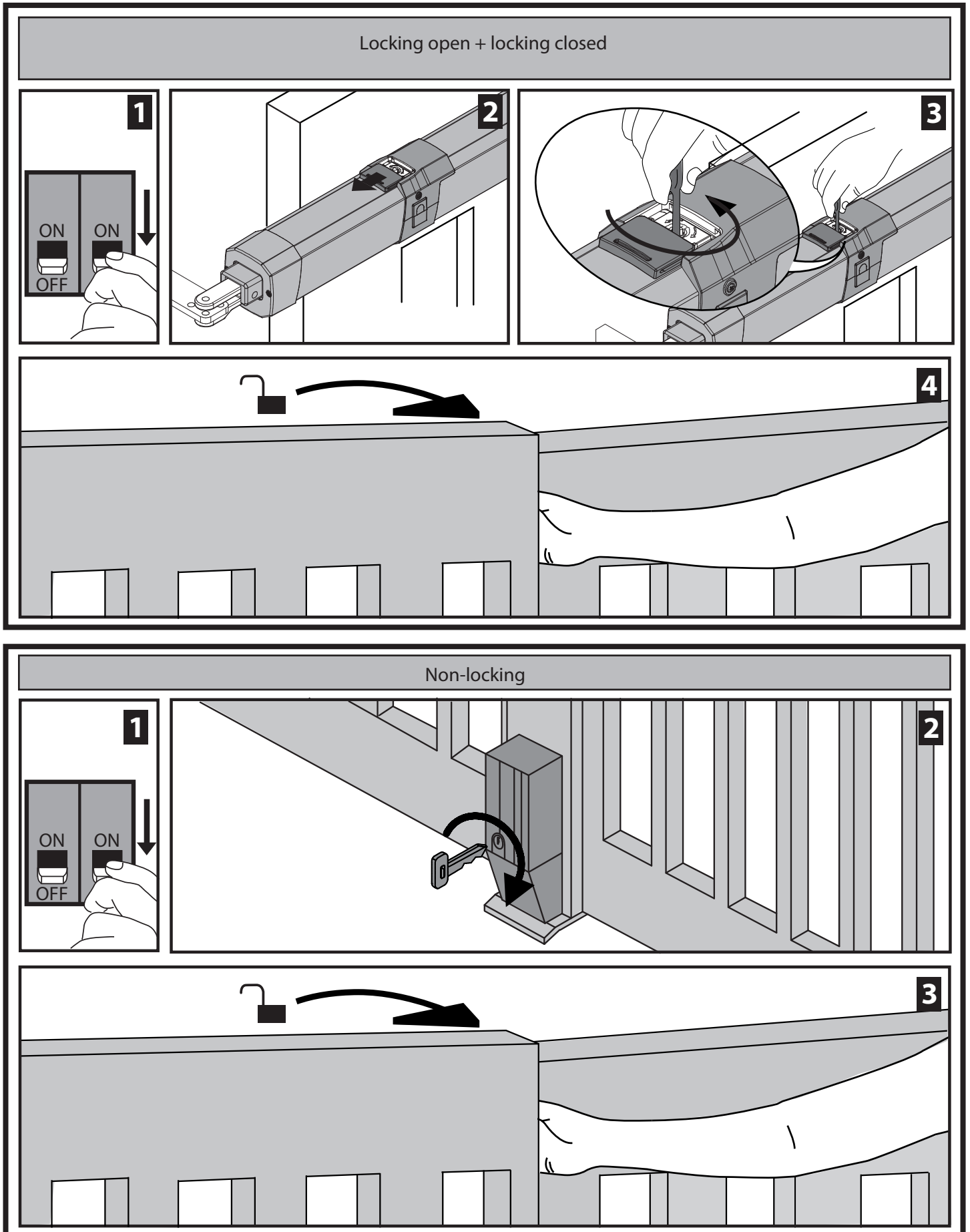
Materials must be disposed of in accordance with the regulations in force. Do not throw away your discarded equipment or used batteries with household waste. You are responsible for taking all your waste electrical and electronic equipment to a suitable recycling centre.

**Anything that is not explicitly provided for in the user guide is not allowed. The operator's proper operation can only be guaranteed if the instructions given herein are complied with. The Firm shall not be answerable for damage caused by failure to comply with the instructions featured herein.**

**While we will not alter the product's essential features, the Firm reserves the right, at any time, to make those changes deemed opportune to improve the product from a technical, design or commercial point of view, and will not be required to update this publication accordingly.**



**FIG.1** ACTIVATING EMERGENCY RELEASE.



## INSTALLER WARNINGS

**WARNING! Important safety instructions. Carefully read and comply with all the warnings and instructions that come with the product as incorrect installation can cause injury to people and animals and damage to property. The warnings and instructions give important information regarding safety, installation, use and maintenance. Keep hold of instructions so that you can attach them to the technical file and keep them handy for future reference.**

### GENERAL SAFETY

This product has been designed and built solely for the purpose indicated herein. Uses other than those indicated herein might cause damage to the product and create a hazard.

- The units making up the machine and its installation must meet the requirements of the following European Directives, where applicable: 2014/30/EC, 2014/35/EC, 2006/42/EC, 2011/305/EC, 99/05/EC and later amendments. For all countries outside the EEC, it is advisable to comply with the standards mentioned, in addition to any national standards in force, to achieve a good level of safety.
- The Manufacturer of this product (hereinafter referred to as the "Firm") disclaims all responsibility resulting from improper use or any use other than that for which the product has been designed, as indicated herein, as well as for failure to apply Good Practice in the construction of entry systems (doors, gates, etc.) and for deformation that could occur during use.
- Installation must be carried out by qualified personnel (professional installer, according to EN 12635), in compliance with Good Practice and current code.
- Before installing the product, make all structural changes required to produce safety gaps and to provide protection from or isolate all crushing, shearing and dragging hazard areas and danger zones in general in accordance with the provisions of standards EN 12604 and 12453 or any local installation standards. Check that the existing structure meets the necessary strength and stability requirements.
- Before commencing installation, check the product for damage.
- The Firm is not responsible for failure to apply Good Practice in the construction and maintenance of the doors, gates, etc. to be motorized, or for deformation that might occur during use.
- Make sure the stated temperature range is compatible with the site in which the automated system is due to be installed.
- Do not install this product in an explosive atmosphere: the presence of flammable fumes or gas constitutes a serious safety hazard.
- Disconnect the electricity supply before performing any work on the system. Also disconnect buffer batteries, if any are connected.
- Before connecting the power supply, make sure the product's ratings match the mains ratings and that a suitable residual current circuit breaker and overcurrent protection device have been installed upline from the electrical system. Have the automated system's mains power supply fitted with a switch or omnipolar thermal-magnetic circuit breaker with a contact separation that provide full disconnection under overvoltage category III conditions.
- Make sure that upline from the mains power supply there is a residual current circuit breaker that trips at no more than 0.03A as well as any other equipment required by code.
- Make sure the earth system has been installed correctly: earth all the metal parts belonging to the entry system (doors, gates, etc.) and all parts of the system featuring an earth terminal.
- Installation must be carried out using safety devices and controls that meet standards EN 12978 and EN 12453.
- Impact forces can be reduced by using deformable edges.
- In the event impact forces exceed the values laid down by the relevant standards, apply electro-sensitive or pressure-sensitive devices.
- Apply all safety devices (photocells, safety edges, etc.) required to keep the area free of impact, crushing, dragging and shearing hazards. Bear in mind the standards and directives in force, Good Practice criteria, intended use, the installation environment, the operating logic of the system and forces generated by the automated system.
- Apply all signs required by current code to identify hazardous areas (residual risks). All installations must be visibly identified in compliance with the provisions of standard EN 13241-1.
- Once installation is complete, apply a nameplate featuring the door/gate's data.
- This product cannot be installed on leaves incorporating doors (unless the motor can be activated only when the door is closed).
- If the automated system is installed at a height of less than 2.5 m or is accessible, the electrical and mechanical parts must be suitably protected.
- For roller shutter automation only
  - 1) The motor's moving parts must be installed at a height greater than 2.5 m above the floor or other surface from which they may be reached.
  - 2) The gearmotor must be installed in a segregated and suitably protected space so that it cannot be reached without the aid of tools.
- Install any fixed controls in a position where they will not cause a hazard, away from moving parts. More specifically, hold-to-run controls must be positioned within direct sight of the part being controlled and, unless they are key operated, must be installed at a height of at least 1.5 m and in a place where they cannot be reached by the public.
- Apply at least one warning light (flashing light) in a visible position, and also attach a Warning sign to the structure.
- Attach a label near the operating device, in a permanent fashion, with information on how to operate the automated system's manual release.
- Make sure that, during operation, mechanical risks are avoided or relevant protective measures taken and, more specifically, that nothing can be banged, crushed, caught or cut between the part being operated and surrounding parts.
- Once installation is complete, make sure the motor automation settings are correct and that the safety and release systems are working properly.
- Only use original spare parts for any maintenance or repair work. The Firm disclaims all responsibility for the correct operation and safety of the automated system if parts from other manufacturers are used.
- Do not make any modifications to the automated system's components unless explicitly authorized by the Firm.
- Instruct the system's user on what residual risks may be encountered, on the control systems that have been applied and on how to open the system manually in an emergency. Give the user guide to the end user.

-Dispose of packaging materials (plastic, cardboard, polystyrene, etc.) in accordance with the provisions of the laws in force. Keep nylon bags and polystyrene out of reach of children.

### WIRING

**WARNING!** For connection to the mains power supply, use a multicore cable with a cross-sectional area of at least 5x1.5mm<sup>2</sup> or 4x1.5mm<sup>2</sup> when dealing with three-phase power supplies or 3x1.5mm<sup>2</sup> for single-phase supplies (by way of example, type H05RN-F cable can be used with a cross-sectional area of 4x1.5mm<sup>2</sup>). To connect auxiliary equipment, use wires with a cross-sectional area of at least 0.5 mm<sup>2</sup>.

- Only use pushbuttons with a capacity of 10A-250V or more.
- Wires must be secured with additional fastening near the terminals (for example, using cable clamps) in order to keep live parts well separated from safety extra low voltage parts.
- During installation, the power cable must be stripped to allow the earth wire to be connected to the relevant terminal, while leaving the live wires as short as possible. The earth wire must be the last to be pulled taut in the event the cable's fastening device comes loose.

**WARNING!** safety extra low voltage wires must be kept physically separate from low voltage wires.

Only qualified personnel (professional installer) should be allowed to access live parts.

### CHECKING THE AUTOMATED SYSTEM AND MAINTENANCE

Before the automated system is finally put into operation, and during maintenance work, perform the following checks meticulously:

- Make sure all components are fastened securely.
- Check starting and stopping operations in the case of manual control.
- Check the logic for normal or personalized operation.
- For sliding gates only: check that the rack and pinion mesh correctly with 2 mm of play along the full length of the rack; keep the track the gate slides on clean and free of debris at all times.
- For sliding gates and doors only: make sure the gate's running track is straight and horizontal and that the wheels are strong enough to take the weight of the gate.
- For cantilever sliding gates only: make sure there is no dipping or swinging during operation.
- For swing gates only: make sure the leaves' axis of rotation is perfectly vertical.
- For barriers only: before opening the door, the spring must be decompressed (vertical boom).
- Check that all safety devices (photocells, safety edges, etc.) are working properly and that the anti-crush safety device is set correctly, making sure that the force of impact measured at the points provided for by standard EN 12445 is lower than the value laid down by standard EN 12453.
- Impact forces can be reduced by using deformable edges.
- Make sure that the emergency operation works, where this feature is provided.
- Check opening and closing operations with the control devices applied.
- Check that electrical connections and cabling are intact, making extra sure that insulating sheaths and cable glands are undamaged.
- While performing maintenance, clean the photocells' optics.
- When the automated system is out of service for any length of time, activate the emergency release (see "EMERGENCY OPERATION" section) so that the operated part is made idle, thus allowing the gate to be opened and closed manually.
- If the power cord is damaged, it must be replaced by the manufacturer or their technical assistance department or other such qualified person to avoid any risk.
- If "D" type devices are installed (as defined by EN12453), connect in unverified mode, foresee mandatory maintenance at least every six months
- The maintenance described above must be repeated at least once yearly or at shorter intervals where site or installation conditions make this necessary.

### WARNING!

Remember that the drive is designed to make the gate/door easier to use and will not solve problems as a result of defective or poorly performed installation or lack of maintenance



### SCRAPPING

Materials must be disposed of in accordance with the regulations in force. Do not throw away your discarded equipment or used batteries with household waste. You are responsible for taking all your waste electrical and electronic equipment to a suitable recycling centre.

### DISMANTLING

If the automated system is being dismantled in order to be reassembled at another site, you are required to:

- Cut off the power and disconnect the whole electrical system.
- Remove the actuator from the base it is mounted on.
- Remove all the installation's components.
- See to the replacement of any components that cannot be removed or happen to be damaged.

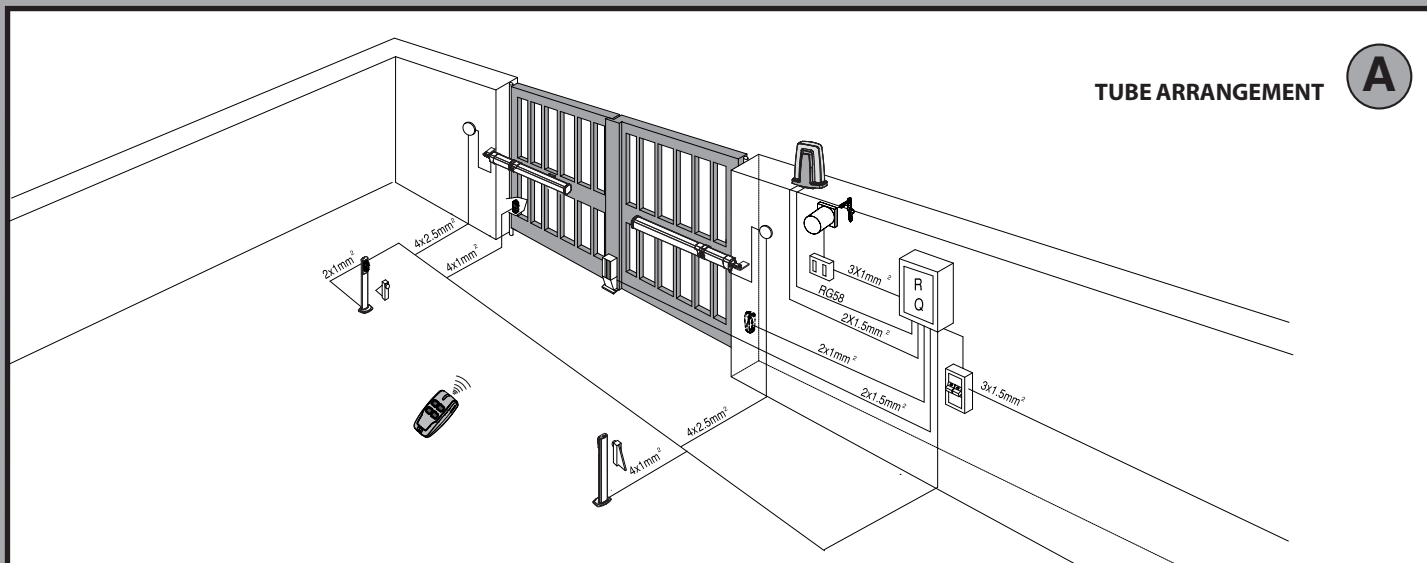
**DECLARATIONS OF CONFORMITY CAN BE FOUND AT bft.ro  
INSTRUCTIONS FOR USE AND ASSEMBLY CAN BE FOUND IN THE DOWN-LOAD SECTION.**

**Anything that is not explicitly provided for in the installation manual is not allowed. The operator's proper operation can only be guaranteed if the information given is complied with. The Firm shall not be answerable for damage caused by failure to comply with the instructions featured herein.**

**While we will not alter the product's essential features, the Firm reserves the right, at any time, to make those changes deemed opportune to improve the product from a technical, design or commercial point of view, and will not be required to update this publication accordingly.**

# QUICK INSTALLATION-

**!** a) Before commencing installation, make sure you read the warnings. b) In addition to the figures, you must follow the instructions given in the INSTALLATION MANUAL.



**TUBE ARRANGEMENT** **A**

## PILLAR FASTENINGS INSTALLATION DISTANCES.

**B**

GIUNO ULTRA BT A20										mm
b \ a	90	100	110	125	135	145	155	165	175	
90					110	104	98	95	91	
100					105	99	95	91	88	
110				108	100	95	91	88		
125				99	93	89	86			
135			99	93	89					
145		95	97	89						
155		95	91							
165	91	91	86							
175	91	85								$\alpha^\circ$

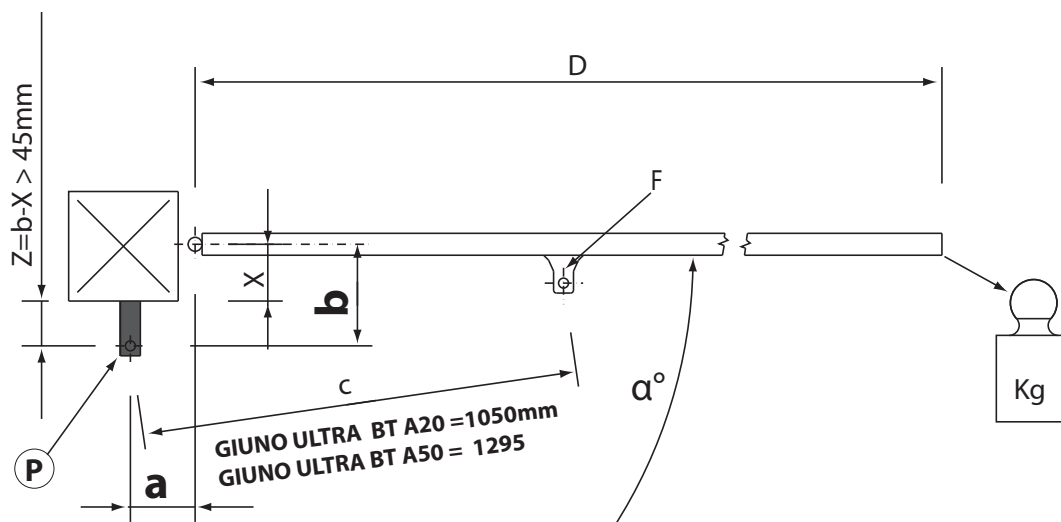
GIUNO ULTRA BT A50										mm
b \ a	115	135	155	175	195	215	235	255	275	
115				110	110	108	101	96	92	
135			106	106	110	102	96	92		
155		107	106	108	103	96	91	87		
175		103	107	106	96	91	86			
195		104	106	97	90	86				
215		101	99	90	85					
235	96	101	90	84						
255	95	89	83							
275	88									$\alpha^\circ$

Tables refer to an 80mm-thick gate.



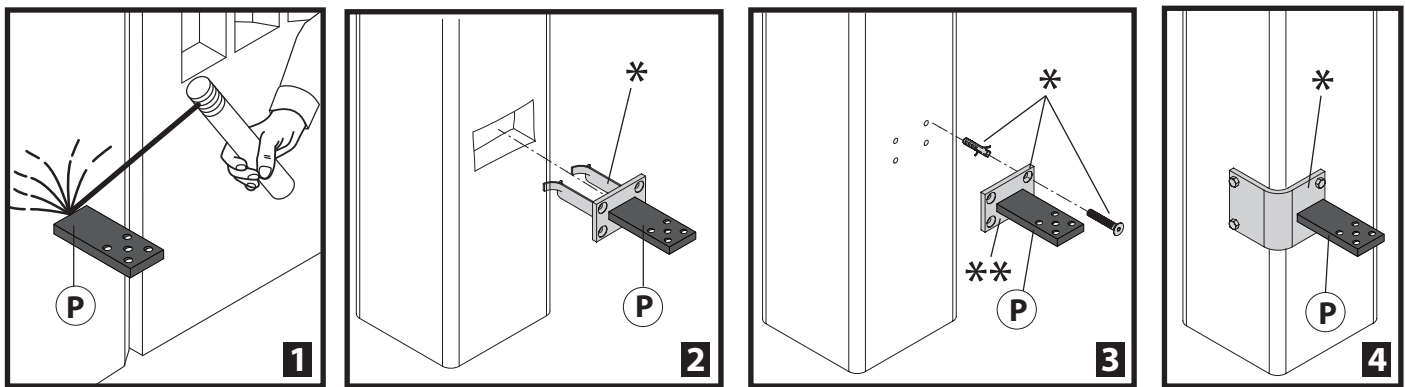
## INSTALLATION DIAGRAM.

**C**



**FASTENING OF FITTINGS TO PILLAR.**

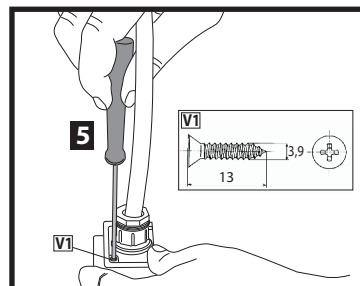
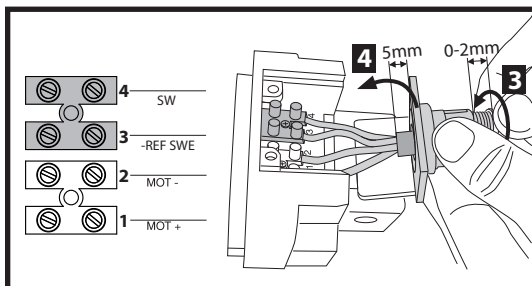
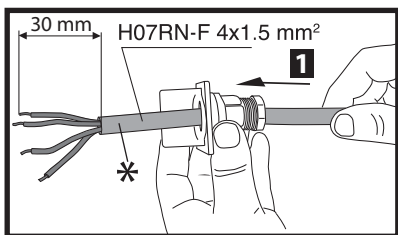
**D**



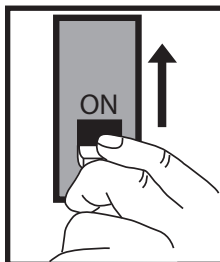
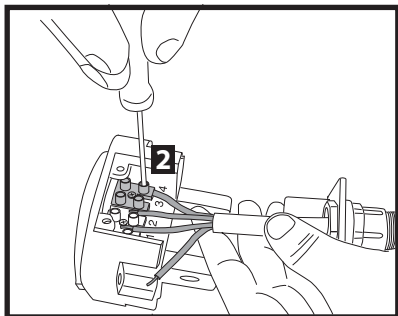
\* Not provided!

\*\* Accessory available in product list -

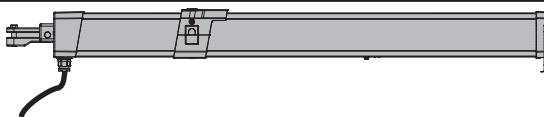
**POWER CABLE.**



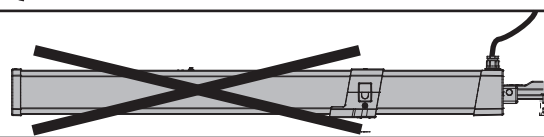
**E**



**OK**



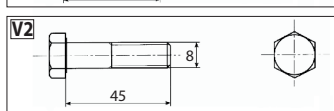
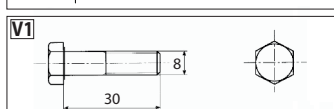
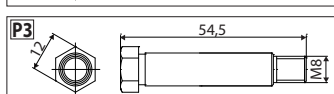
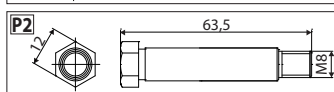
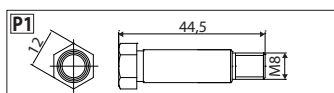
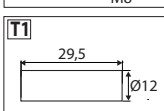
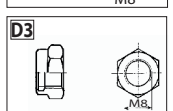
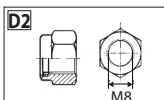
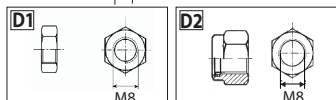
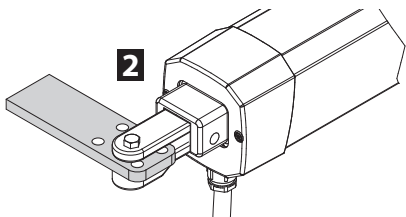
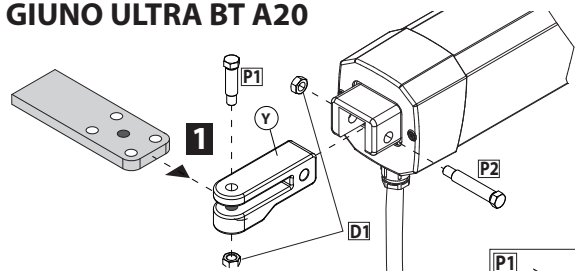
**KO**



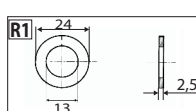
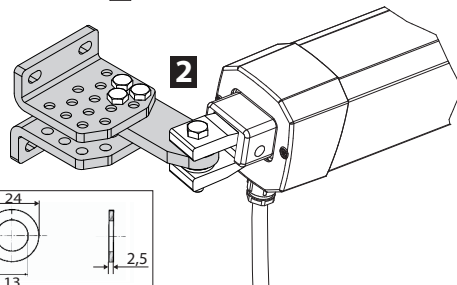
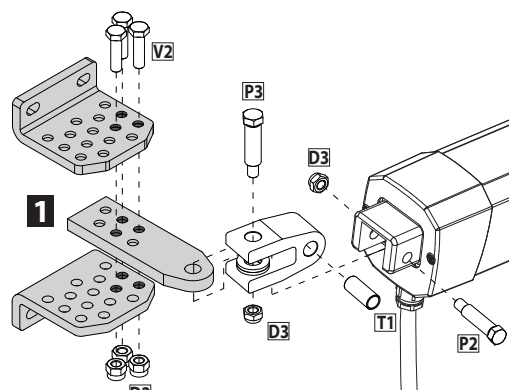
Wire before installation

**ATTACHING MOTOR TO FASTENING ON PILLAR.**

**GIUNO ULTRA BT A20**

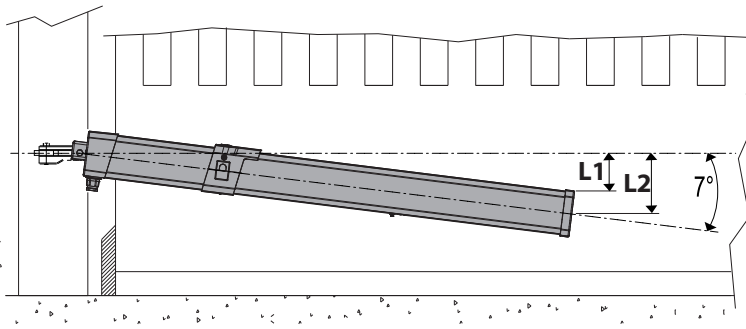


**GIUNO ULTRA BT A50**



MAXIMUM TILT

G

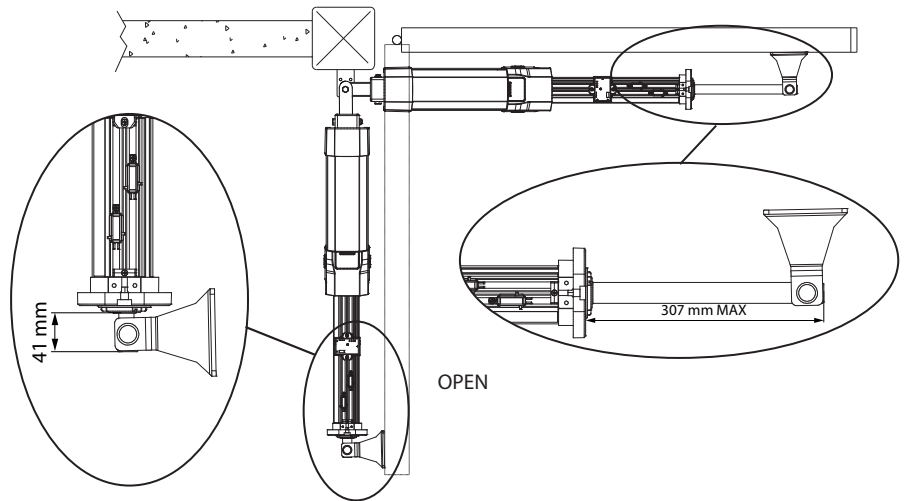
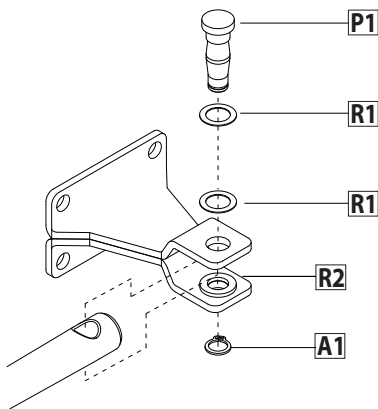


	L1	L2
BT A20	79	127
BT A50	112	159

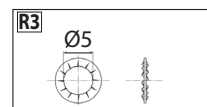
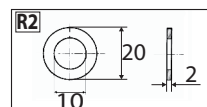
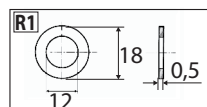
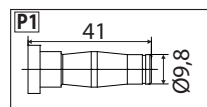
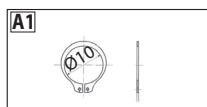
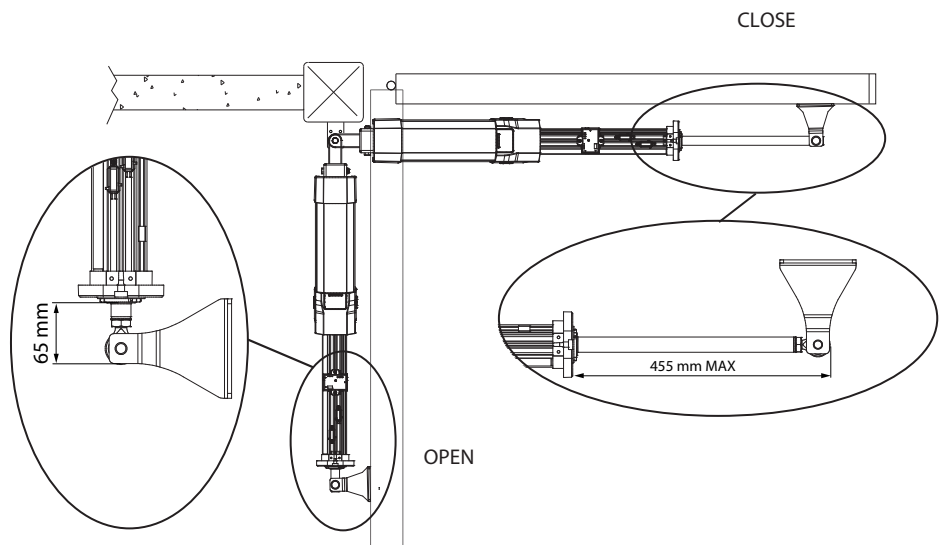
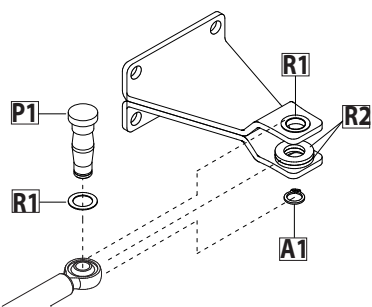
CORRECT INSTALLATION

H

GIUNO ULTRA BT A20

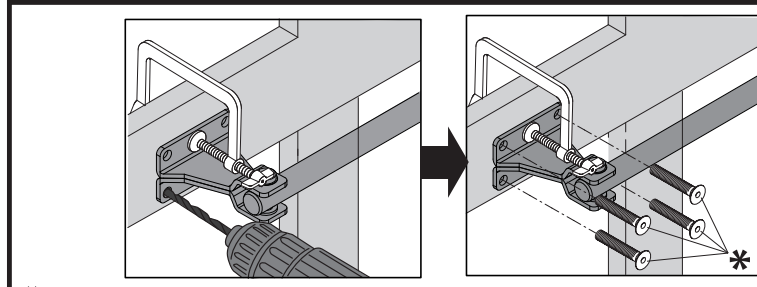
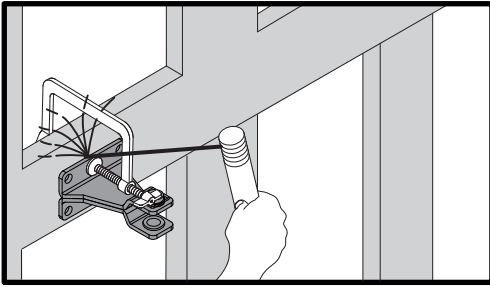


GIUNO ULTRA BT A50



## FASTENING OF FITTINGS TO LEAF

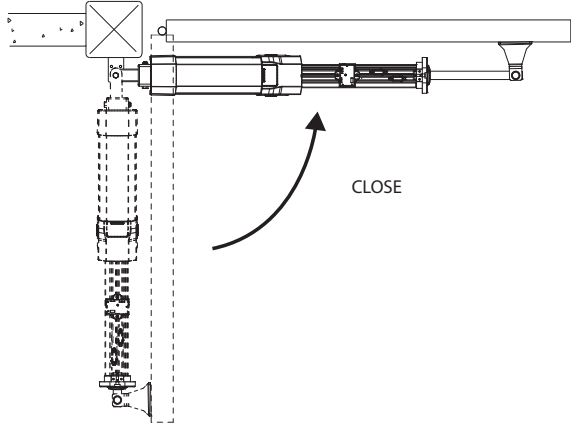
I



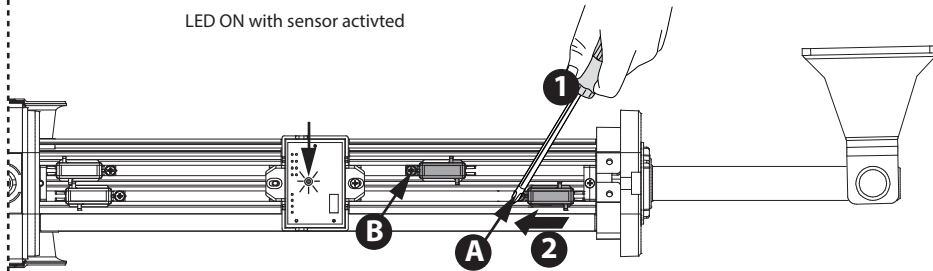
\* Not provided!

## CLOSING LIMIT DEVICE ADJUSTMENT

J



LED ON with sensor activated

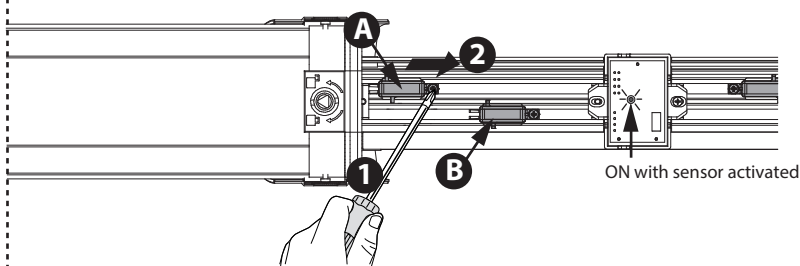
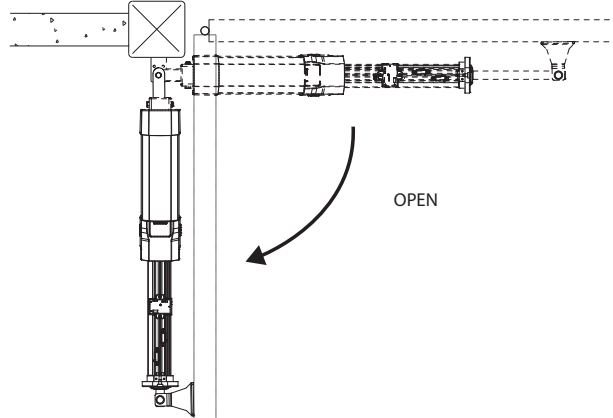


**A** Closing limit stop

**B** Closing slow-down

## OPENING LIMIT DEVICE ADJUSTMENT

K



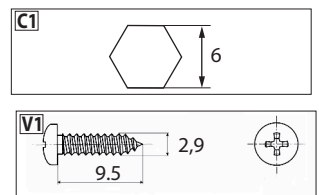
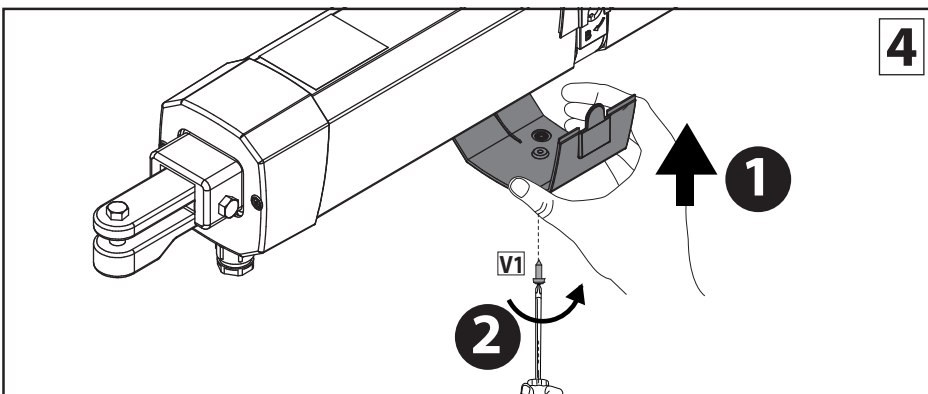
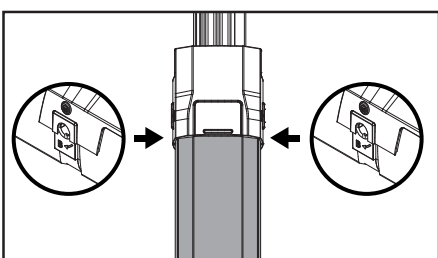
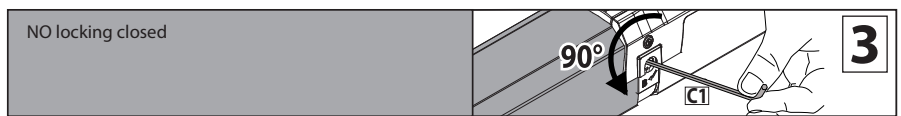
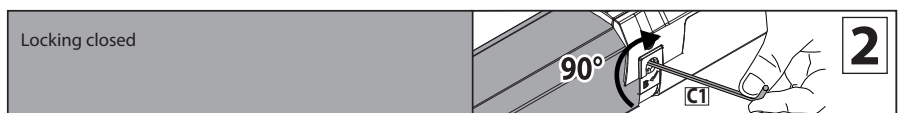
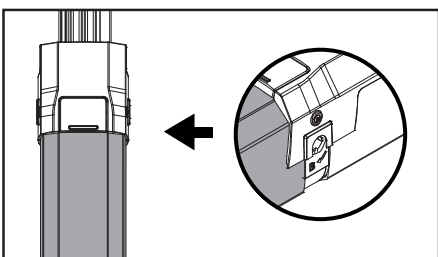
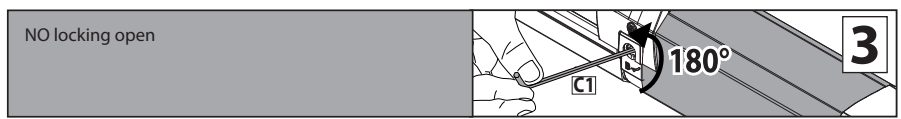
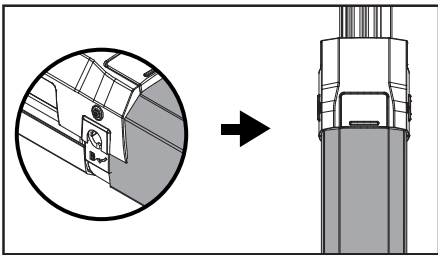
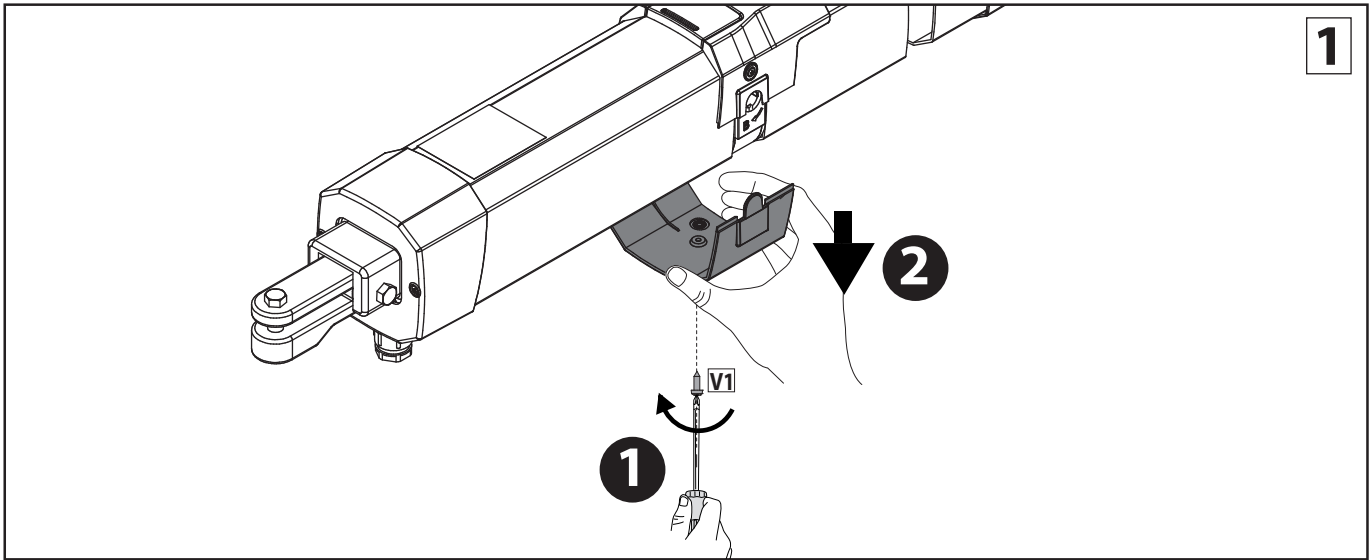
**A** Opening limit stop

**B** Opening slow-down

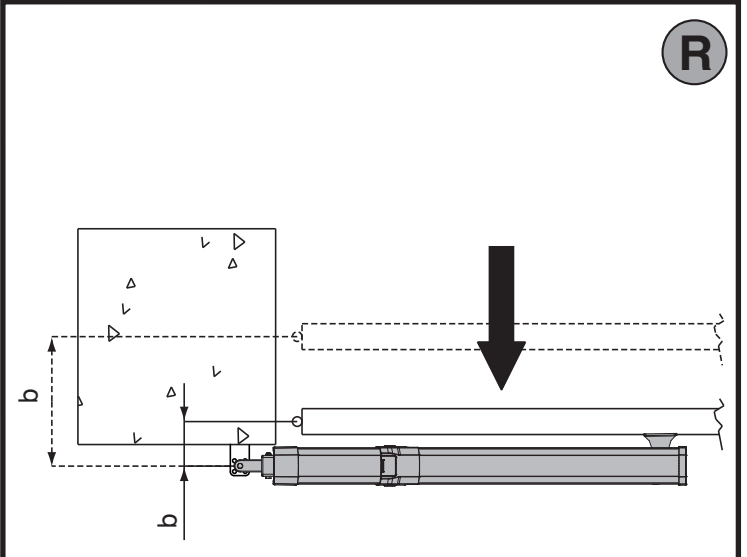
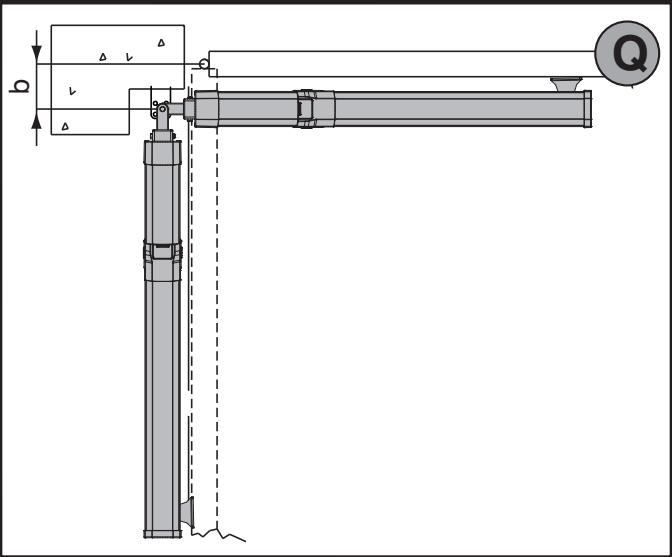
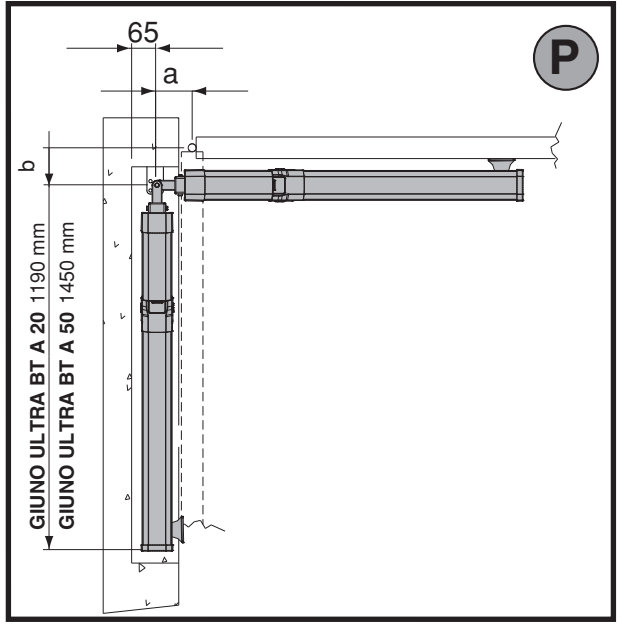
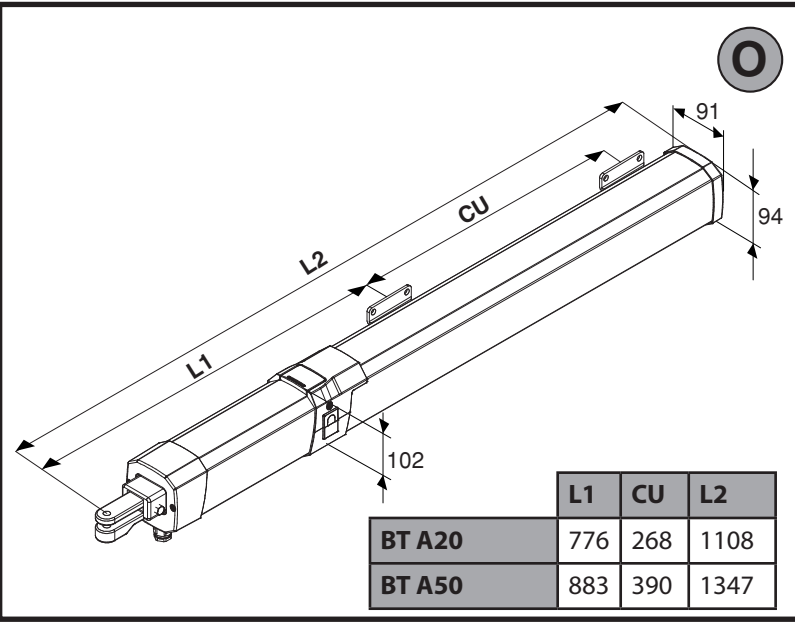
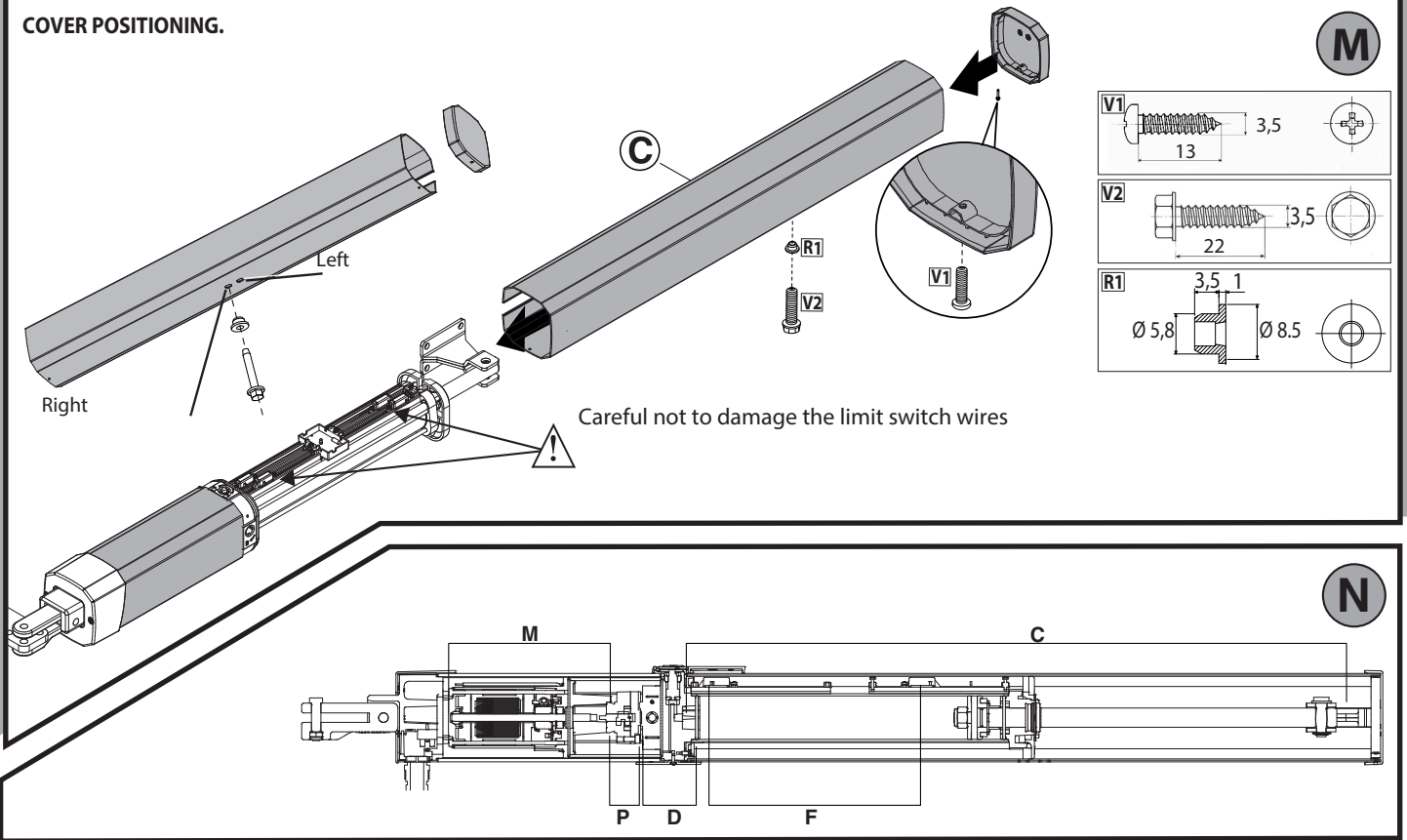


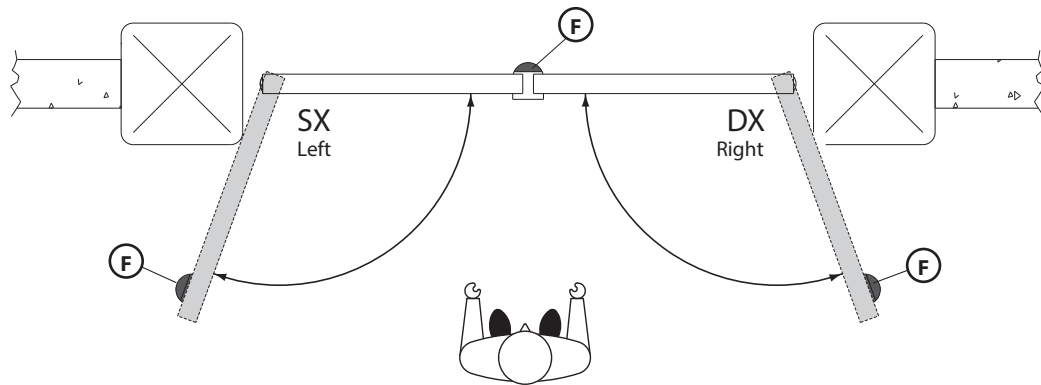
LOCKING SETTINGS (perform after limit switches have been set). See table 1

L

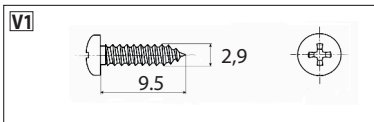
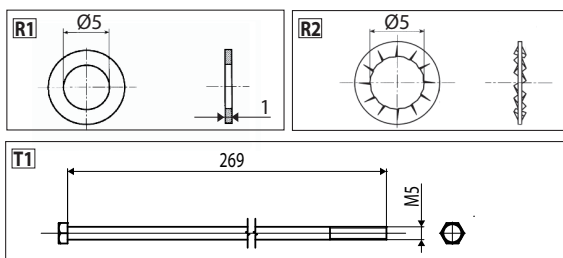


**COVER POSITIONING.**

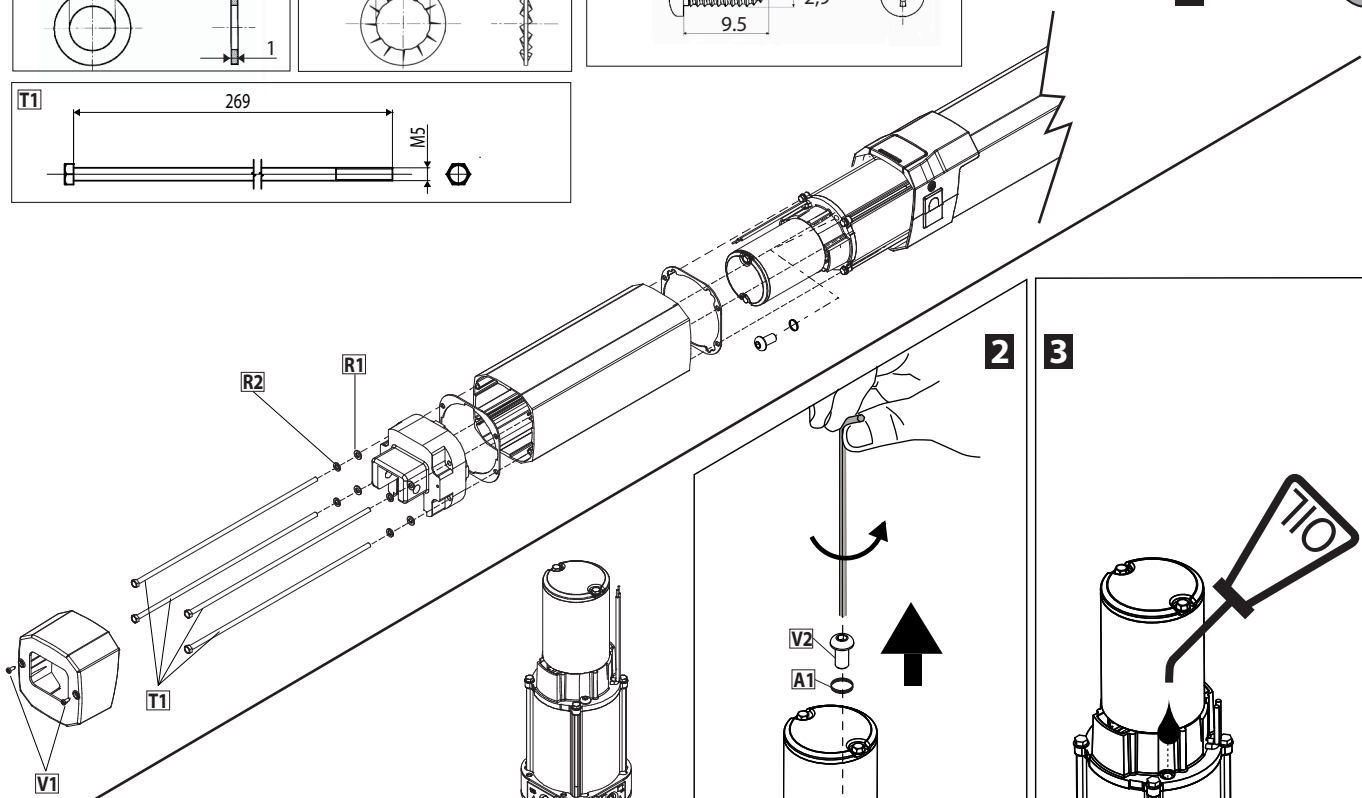




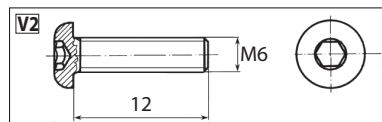
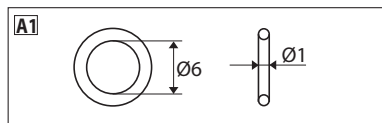
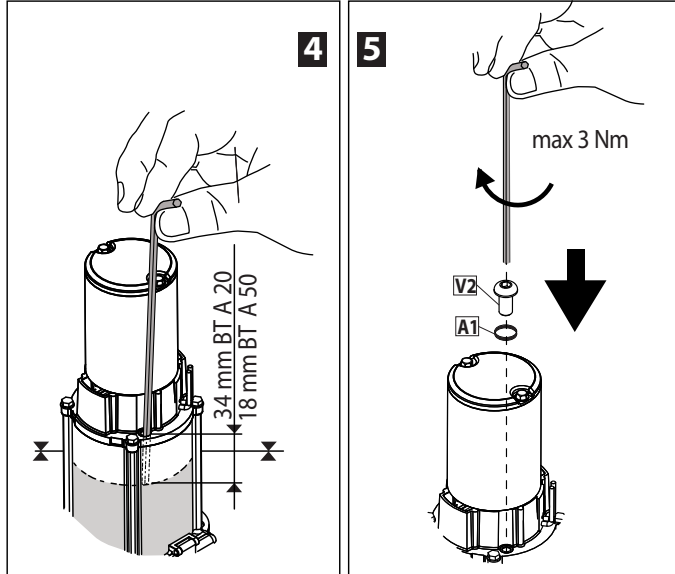
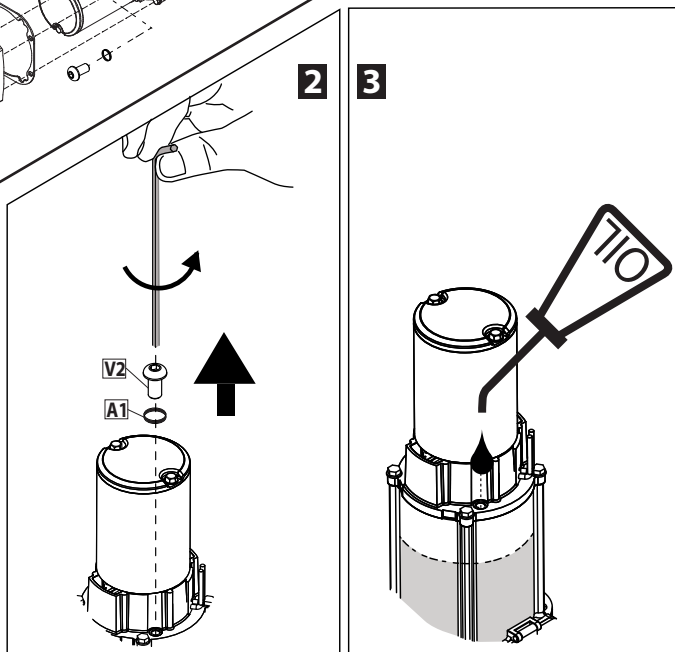
S



1 T



Rod all the way in



**1) GENERAL INFORMATION**

Compact and strong hydraulic piston, available in the GIUNO ULTRA BT A20 and GIUNO ULTRA BT A50 versions.

Operating force is adjusted with extreme precision by means of the control unit's electronic control.

**2) TECHNICAL SPECIFICATIONS**

Power supply (*)	24V
Max. power input	90W
Max. pressure	30 bar
Pump delivery rate	1,2 l/min.
Operating force	3000 N
Pulling force	2600 N
Ambient temperature range	- 20°C to 60°C
Type of use	very intensive
Impact reaction	electronic clutch (with control panel)
Manual operation	release key
Protection rating	IP 55
Actuator weight	GIUNO ULTRA BT A20: 6,6 kg GIUNO ULTRA BT A50: 7,4 kg
Overall dimensions	<b>Fig. Q</b>
Oil	Idrolux Winter

(\*) Special supply voltages to order.

Table 1:

**BLOCK APPLICATION LIMITS**

MOD.	GIUNO ULTRA BT A20	GIUNO ULTRA BT A50
<b>LOCKING TYPE</b>	Hydraulic	Hydraulic
<b>ACTUAL TRAVEL TIME</b>	14 sec.	2 0 sec.
<b>LEAF MAX.</b>		
(m)	2	5-2
(Kg)	300	300/800
<b>TRAVEL mm</b>		
usable	268	390
total	288	410

**WARNING:** With leaves over 3 metres long, the solenoid lock must be used and locking devices must be opened (Fig. M Ref. 2)

**3) TUBE ARRANGEMENT Fig. A****4) PILLAR FASTENINGS INSTALLATION DISTANCES Fig. B****5) INSTALLATION DIAGRAM Fig. C**

P rear bracket fastening to pillar

F front fork fastening leaf

a-b distances for determining bracket "P" fastening point

C value of fastening centre-to-centre distance (see Fig. O)

D gate length

X distance from gate axis to corner of pillar

Z value always greater than 45 mm (b - X)

kg max. weight of leaf (Table 1)

α° leaf opening angle

**6) FASTENING OF FITTINGS TO PILLAR Fig. D****7) POWER CABLE Fig. E****8) ATTACHING MOTOR TO FASTENING ON PILLAR Fig. F****9) MAXIMUM TILT Fig. G****10) CORRECT INSTALLATION Fig. H**

Correct installation entails maintaining a rod stroke margin of approx. 10mm on

the maximum stroke to avoid possible trouble with operation.

**11) FASTENING OF FITTINGS TO LEAF Fig. I****12) ADJUSTING THE LIMIT SWITCHES (Fig. J-K)**

Position the slow-down sensors (Ref. B fig. J-K) towards the centre of the motor, near the limit switch board; position the limit switch sensors (Ref. A Fig. J-K) at the motor ends.

Enter the limit switch adjustment menu and bring the door to the desired position. To position the door you can release the motor and position it manually or operate buttons + and - (+ Opens, - Closes). Once the door is in the desired position, adjust the limit switch sensor: starting from the motor end, move the sensor towards the centre of the motor until the limit switch board LED lights up; when the limit switch is working, the relative board LED is on, when it is not, the LED is off. Adjust both the opening and closing limit switches. After adjusting the limit switch position (Ref. A Fig. J-K), adjust the position of the slow-down start (Ref. B Fig. J-K).

**13) LOCKING SETTING Fig. L****14) COVER POSITIONING Fig. M****15) MAIN PARTS OF AUTOMATED SYSTEM Fig. N**

M) 24V permanent magnet motor

P) Lobe pump

D) Control valve assembly

C) Cylinder with piston

F) Limit switch sensors

Components provided: fittings attached to pillar and gate - release key - instruction manual.

**16) TIPS FOR SPECIAL INSTALLATIONS**

With the leaf fully open, create a recess to accommodate the operator.

**Fig. P** gives the minimum dimensions of the recess for the various **GIUNO ULTRA BT A20 - GIUNO ULTRA BT A50** models.

If distance "b" is greater than the values given in the installation tables:

- create a recess in the pillar **Fig. Q**

- move the leaf so that it is flush with the pillar **Fig. R**.

**17) LEAF STOPS AT GROUND LEVEL**

For the actuator to work properly, it is advisable to use stops "F" to stop the leaves both when they are open and closed, as illustrated in **Fig. S**.

The leaf stops must prevent the actuator rod from reaching the end of its travel.

**18) OIL TOP-UP OR REPLACEMENT Fig. T**

An oil change is recommended every 5 years.

**19) MANUAL OPENING (See USER GUIDE -FIG.1-).**

**Bft Spa**

Via Lago di Vico, 44 ITALY  
36015 Schio (VI)  
T +39 0445 69 65 11  
F +39 0445 69 65 22  
→[www.bft-automation.com](http://www.bft-automation.com)

**SPAIN**

**BFT GROUP ITALIBERICA DE AUTOMATISMOS S.L.**  
08401 Granollers - (Barcelona)  
[www.bftautomatismos.com](http://www.bftautomatismos.com)

**FRANCE**

**AUTOMATISMES BFT FRANCE**  
69800 Saint Priest  
[www.bft-france.com](http://www.bft-france.com)

**GERMANY**

**BFT TORANTRIEBSSYSTEME GmbH**  
90522 Oberasbach  
[www.bft-torantriebe.de](http://www.bft-torantriebe.de)

**UNITED KINGDOM**

**BFT AUTOMATION UK LTD**  
Heaton Mersey, Stockport SK4 3GL  
[www.bft.co.uk](http://www.bft.co.uk)

**IRELAND**

**BFT AUTOMATION LTD**  
Dublin 12

**BENELUX**

**BFT BENELUX SA**  
1400 Nivelles  
[www.bftbenelux.be](http://www.bftbenelux.be)

**POLAND**

**BFT POLSKA SP.ZO.O.**  
Marecka 49, 05-220 Zielonka  
[www.bft.pl](http://www.bft.pl)

**CROATIA**

**BFT ADRIA D.O.O.**  
51218 Drazice (Rijeka)  
[www.bft.hr](http://www.bft.hr)

**PORTUGAL**

**BFT SA-COMERCIO DE AUTOMATISMOS E MATERIAL DE SEGURANCIA**  
3026-901 Coimbra  
[www.bftportugal.com](http://www.bftportugal.com)

**CZECH REPUBLIC**

**BFT CZ S.R.O.**  
Praha  
[www.bft.it](http://www.bft.it)

**TURKEY**

**BFT OTOMATIK KAPI SISTEMELERI SANAY VE**  
Istanbul  
[www.bftotomasyon.com.tr](http://www.bftotomasyon.com.tr)

**RUSSIA**

**BFT RUSSIA**  
111020 Moscow  
[www.bfttrus.ru](http://www.bfttrus.ru)

**AUSTRALIA**

**BFT AUTOMATION AUSTRALIA PTY LTD**  
Wetherill Park (Sydney)  
[www.bftaustralia.com.au](http://www.bftaustralia.com.au)

**U.S.A.**

**BFT USA**  
Boca Raton  
[www.bft-usa.com](http://www.bft-usa.com)

**CHINA**

**BFT CHINA**  
Shanghai 200072  
[www.bft-china.cn](http://www.bft-china.cn)

**UAE**

**BFT Middle East FZCO**  
Dubai