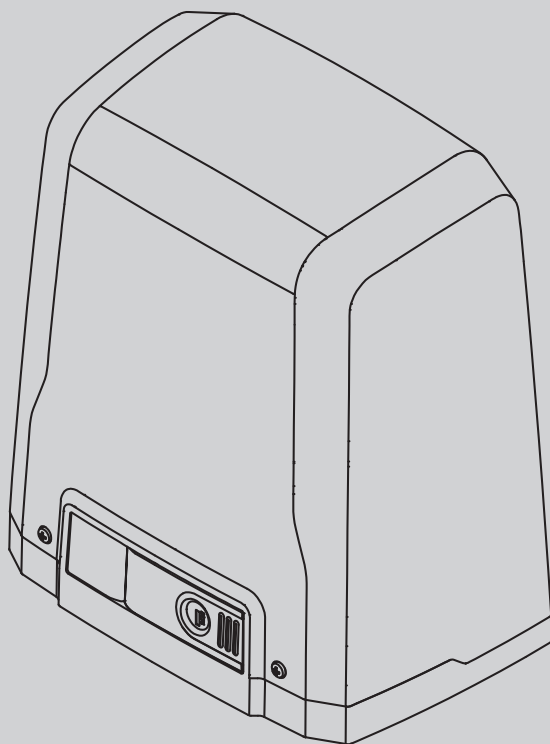




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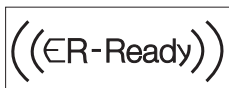
ATTUATORE PER CANCELLI SCORREVOLI A CREMAGLIERA
ACTUATOR FOR RACK SLIDING GATES
ACTIONNEUR POUR PORTAILS COULISSANTS A CREMAILLERE
ANTRIEB FÜR ZAHNSTANGEN-SCHIEBETORE
SERVOMOTOR PARA CANCELAS CORREDERAS DE CREMALLERA
ACTUATOR VOOR SCHUIFHEKKEN MET TANDHEUGEL



ISTRUZIONI D'USO E DI INSTALLAZIONE
INSTALLATION AND USER'S MANUAL
INSTRUCTIONS D'UTILISATION ET D'INSTALLATION
INSTALLATIONS-UND GEBRAUCHSANLEITUNG
INSTRUCCIONES DE USO Y DE INSTALACION
INSTALLATIEVOORSCHRIFTEN

DEIMOS BT A 400
DEIMOS BT A 600

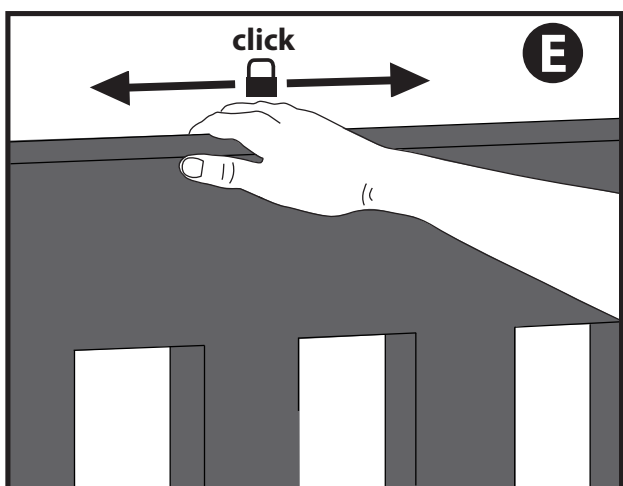
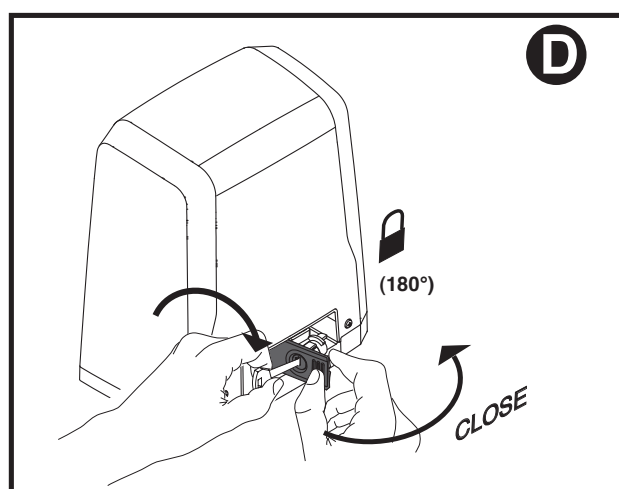
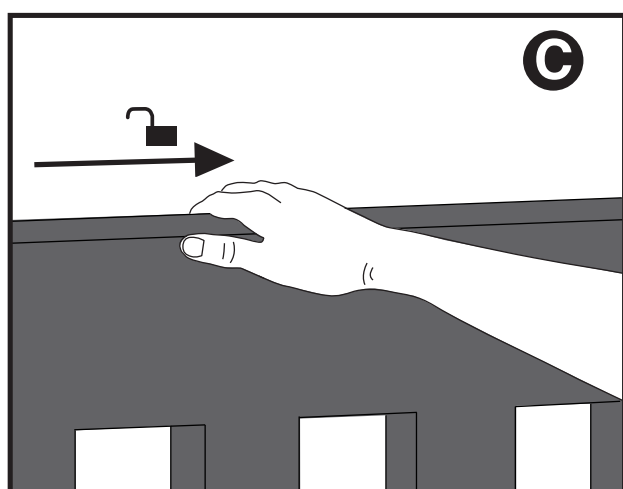
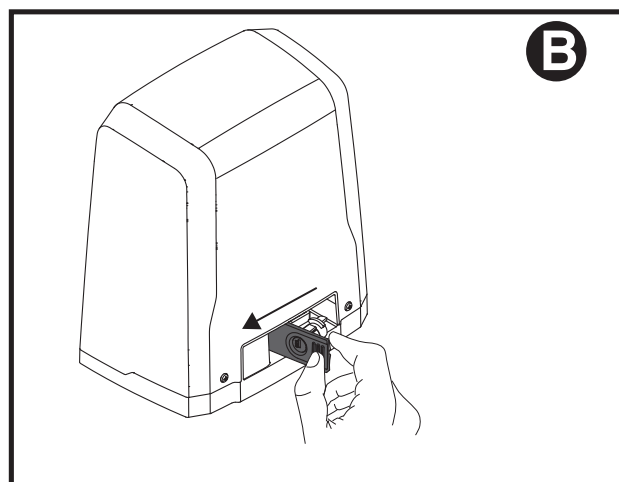
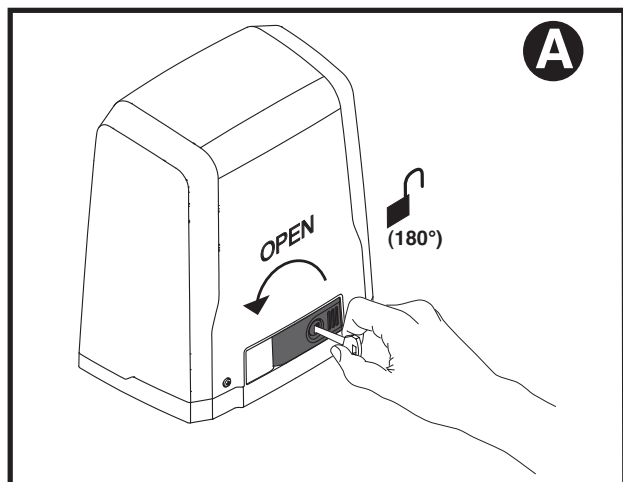
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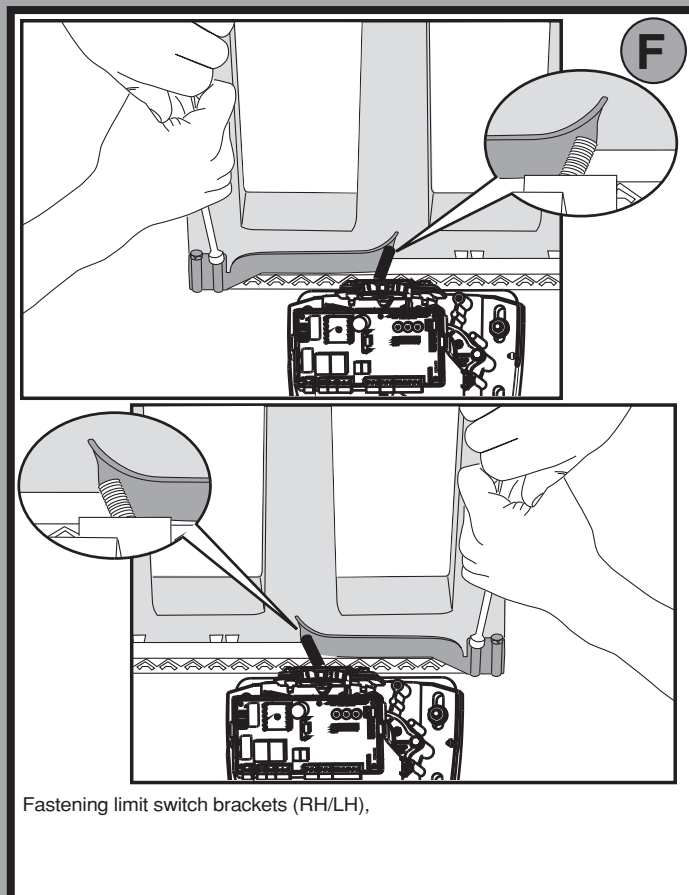
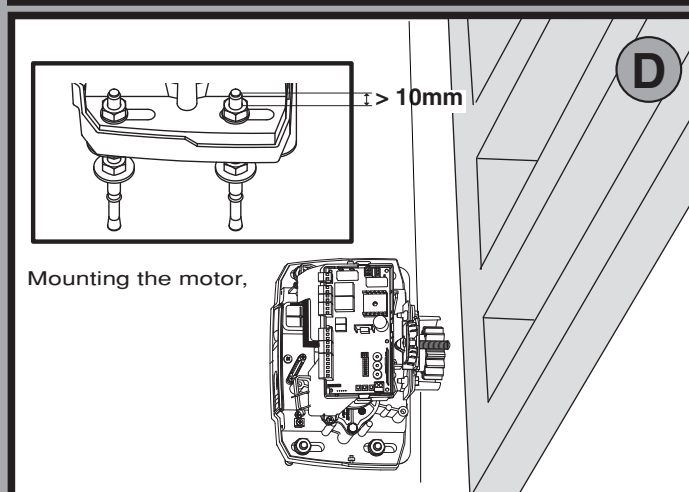
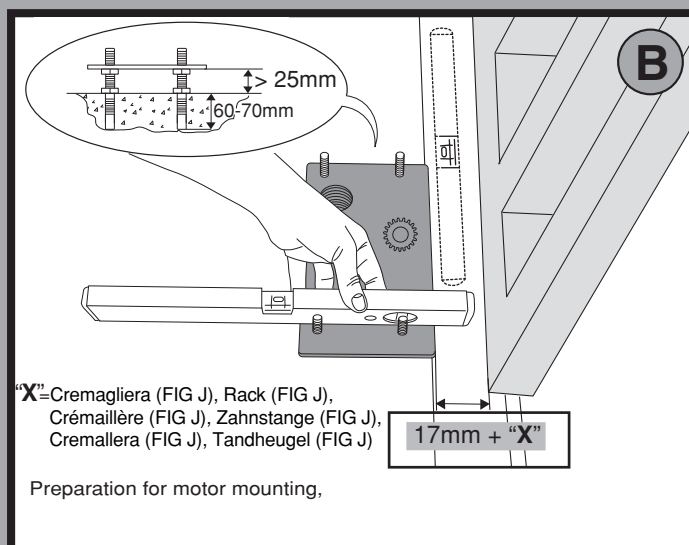
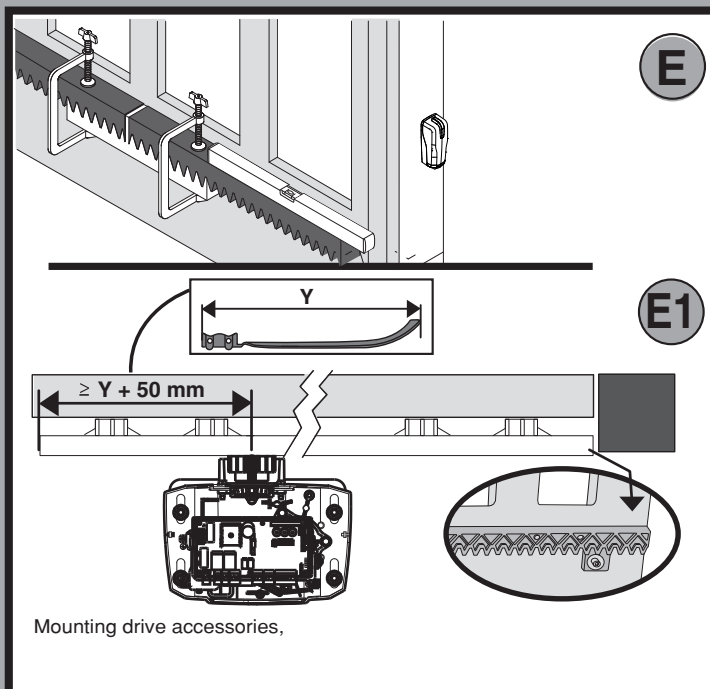
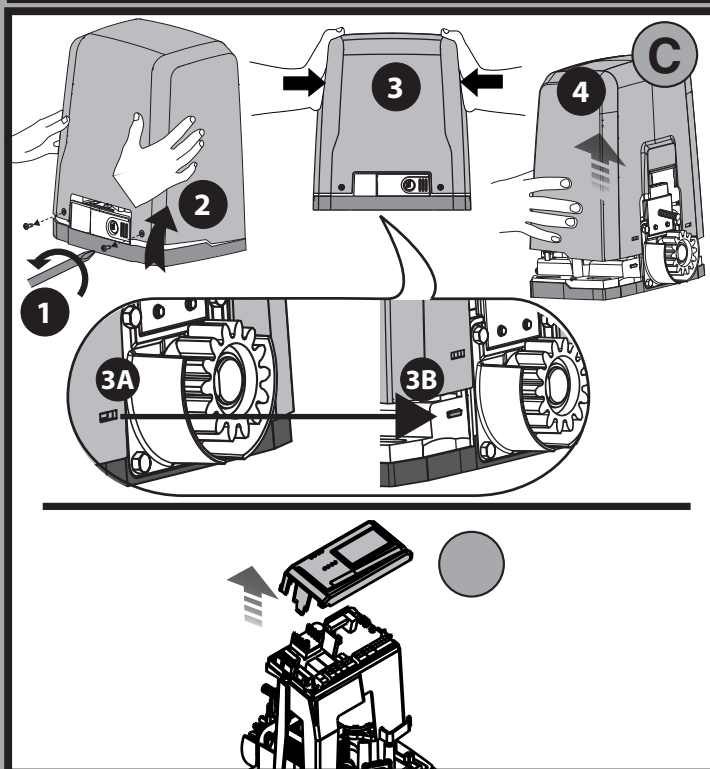
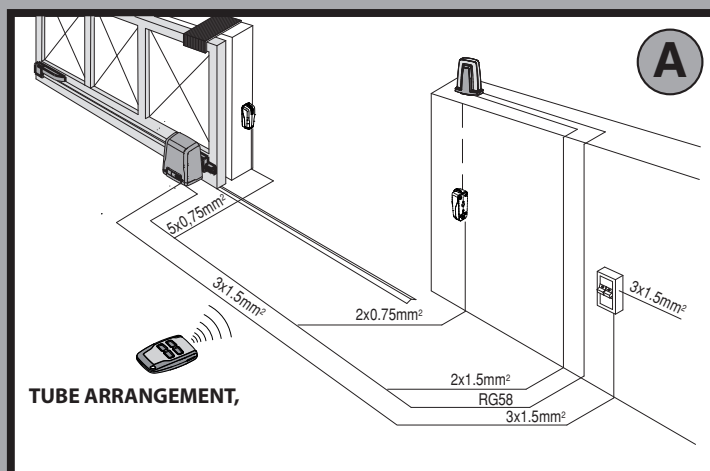
AZIENDA CON
SISTEMA DI GESTIONE
CERTIFICATO DA DNV GL
= ISO 9001 =
= ISO 14001 =

Attenzione! Leggere attentamente le "Avvertenze" all'interno! **Caution!** Read "Warnings" inside carefully! **Attention!** Veuillez lire attentivement les Avertissements qui se trouvent à l'intérieur!
Achtung! Bitte lesen Sie aufmerksam die „Hinweise“ im Inneren! **¡Atención!** Leer atentamente las "Advertencias" en el interior! **Let op!** Lees de "Waarschuwingen" aan de binnenkant zorgvuldig!

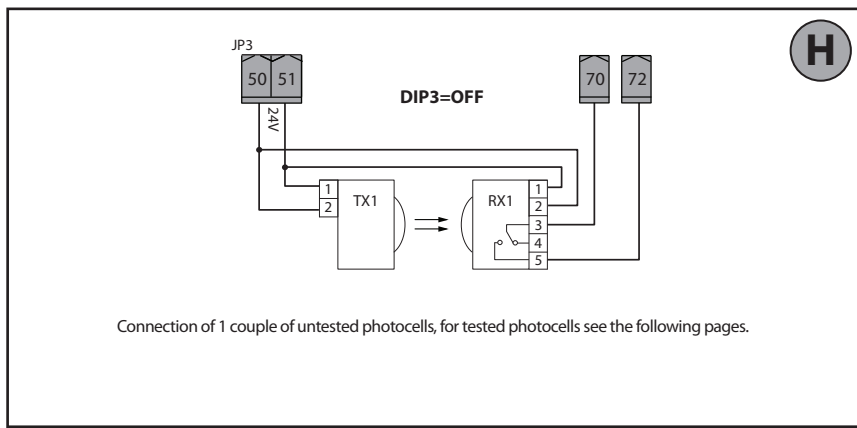
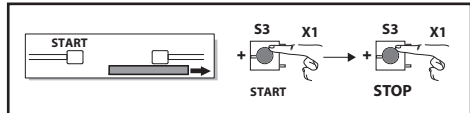
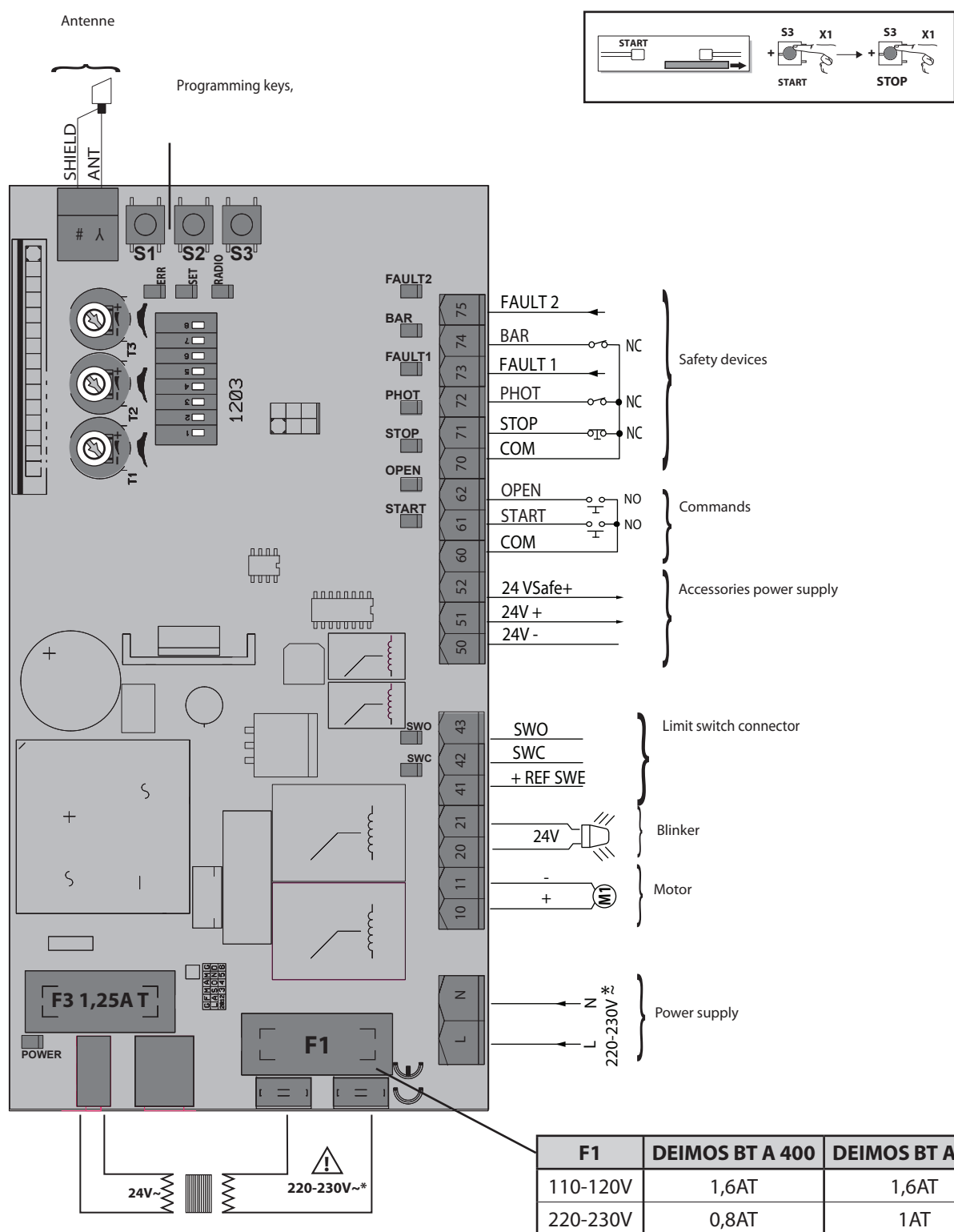
FIG. 3



QUICK INSTALLATION

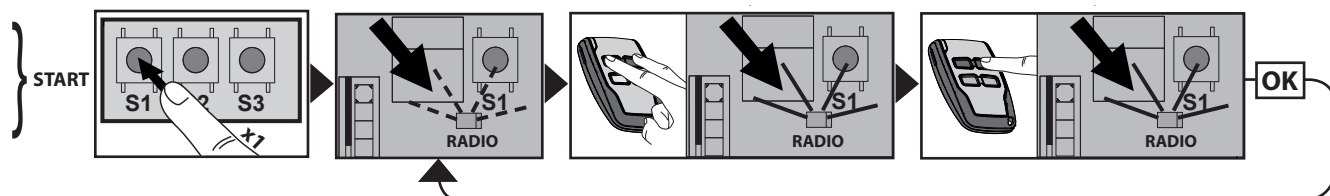


G



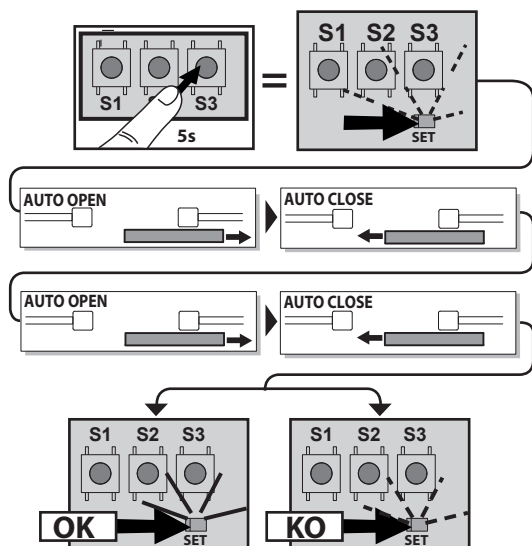
MEMORIZING REMOTE CONTROLS

I



ADJUSTING AUTOSET,

I1



KEY

Steadily lit



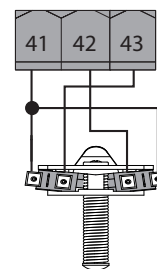
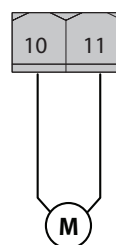
Continuous flashing



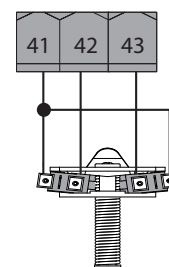
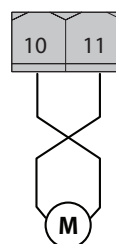
Intermittent flashing

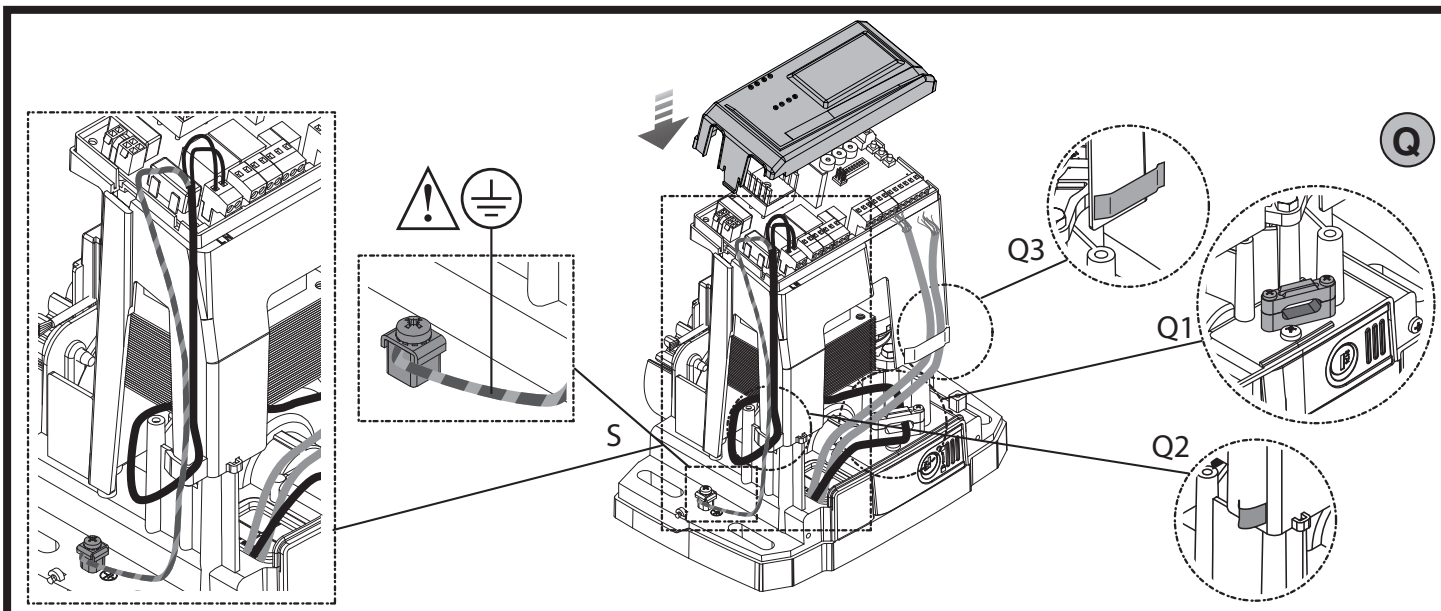
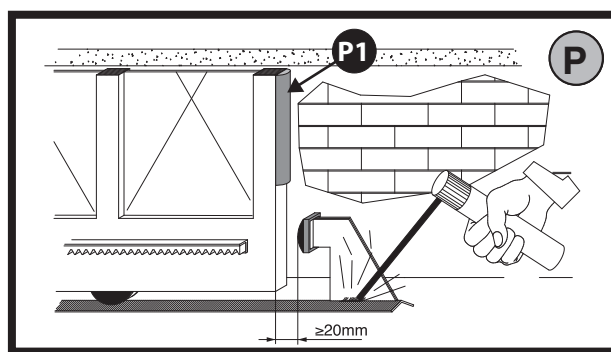
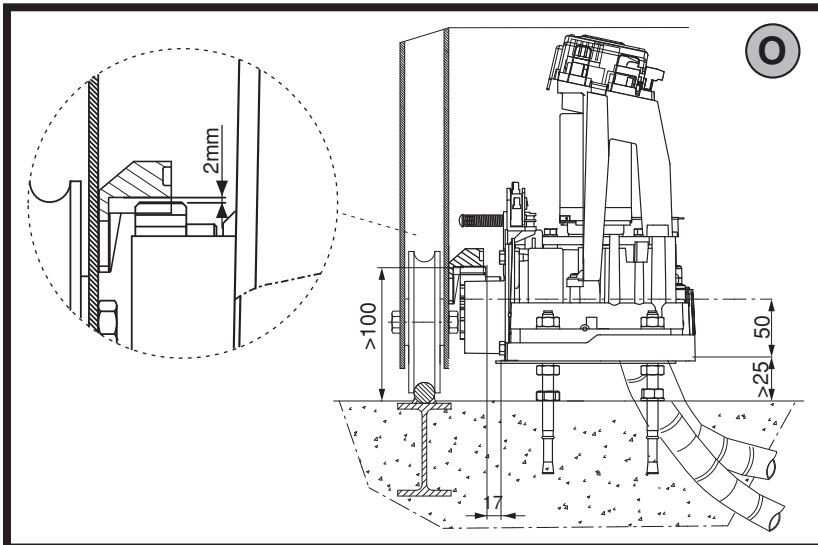
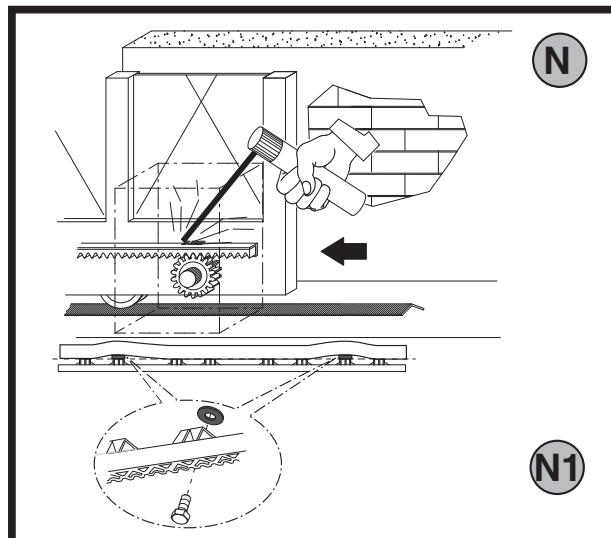
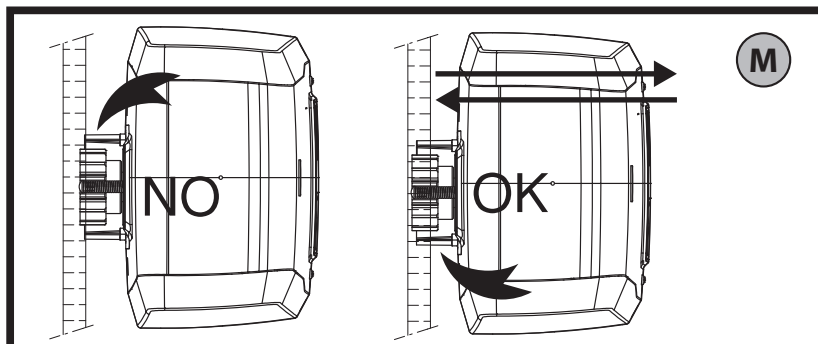
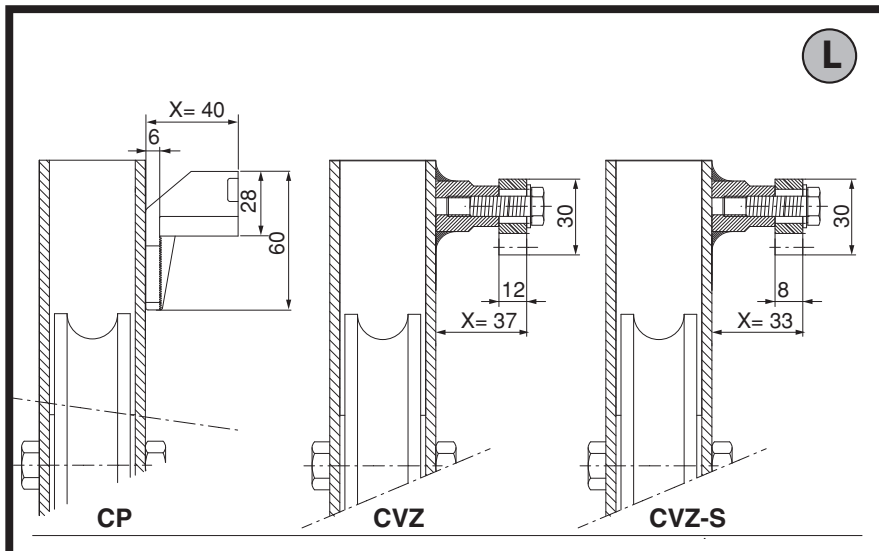
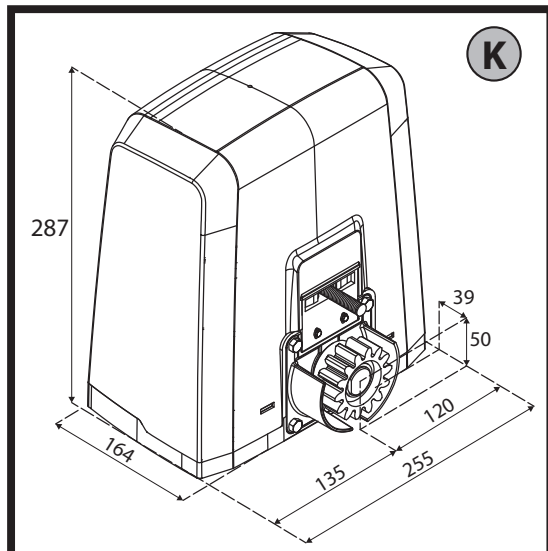


opening direction: right

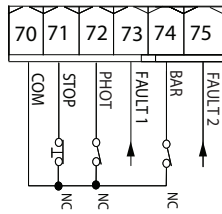
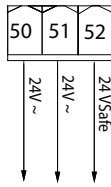


opening direction: left

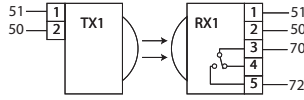




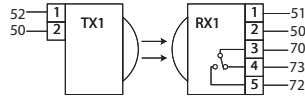
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- ** 1 BAR TEST/ 1 BAR CL TEST
- *** 2 BAR TEST/ 2 BAR CL TEST
- **** BAR 8K2/ BAR CL 8K2

**PHOT**

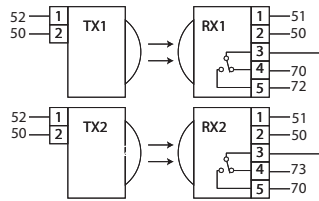
1 PHOT / 1 PHOT CL



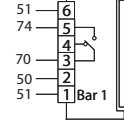
1 PHOT / 1 PHOT CL



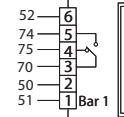
2 PHOT / 2 PHOT CL

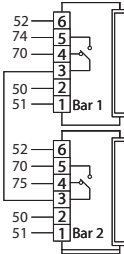
**BAR**

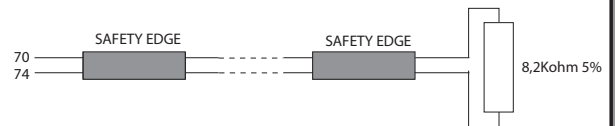
*



**







1) GENERAL INFORMATION

The **DEIMOS BT A** actuator is highly versatile in terms of installation options due to the extremely low position of the pinion, the actuator's compact nature and the height and depth adjustment features it offers. The adjustable electronic torque limiter provides anti-crush safety. Manual emergency operation is extremely easy to perform using just a release lever.

Stopping at end of travel is controlled by electromechanical microswitches.

The **HAMAL** control panel comes with standard factory settings.

Any change must be set by means of the TRIMMER and DIP SWITCH settings.

Its main features are:

- Control of 1 low-voltage motor
- Obstacle detection
- Separate inputs for safety devices
- Built-in radio receiver rolling code with transmitter cloning.

The board has a terminal strip of the removable kind to make maintenance or replacement easier. It comes with a series of prewired jumpers to make the installer's job on site easier. The jumpers concern terminals: 70-71, 70-72, 70-74. If the above-mentioned terminals are being used, remove the relevant jumpers.

TESTING

The **HAMAL** panel controls (checks) the start relays and safety devices (photocells) before performing each opening and closing cycle.

If there is a malfunction, make sure that the connected devices are working properly and check the wiring.

2) TECHNICAL SPECIFICATIONS

MOTOR		
	400	600
Power supply	110-120V 50/60Hz 220-230V 50/60 Hz(*)	110-120V 50/60Hz 220-230V 50/60 Hz(*)
Motor	24V ---	24V ---
Power input	50W	70W
Max. current demand	0,5A (230V~) - 1A (110V~)	0,5A (230V~) - 1A (110V~)
Pinion module (standard)	4mm (14 teeth)	4mm (14 teeth)
Leaf speed (standard)	12m/min	12m/min
Max. leaf weight - standard**	4000N (≈400kg)	6000N (≈600kg)
Pinion module (fast)	4mm (18 teeth)	4mm (18 teeth)
Leaf speed (fast)	15.5m/min	15.5m/min
Max. leaf weight - fast**	3000N (≈300kg)	3600N (≈360kg)
Max. torque	20Nm	30Nm
Impact reaction	Electronic torque limiter	Electronic torque limiter
Lubrication	Lifetime greased	Lifetime greased
Manual operation	Lever-operated mechanical release	Lever-operated mechanical release
Type of use	intensive	intensive
Buffer batteries (optional extras)	Two 12V 1.2Ah batteries	Two 12V 1.2Ah batteries
Environmental conditions	from -20°C to +55°C	from -20°C to +55°C
Protection rating	IP24	IP24
Noise level	<70dBA	<70dBA
Operator weight	7kg (≈70N)	7kg (≈70N)
Dimensions	See Fig. K	See Fig. K
CONTROL UNIT		
Low voltage/mains insulation	> 2MOhm 500V ---	
Operating temperature range	-20 / +55°C	
Thermal overload protection	Software	
Dielectric rigidity	mains/LV 3750V~ for 1 minute	
Accessories power supply	24V~ (demand max. 0,2A) 24V~safe	
AUX 0 - BLINKER	NO 24V~powered contact (max.1A)	
Fuses	Fig. G	
Built-in Rolling-Code radio-receiver	frequency 433.92MHz	
Setting of parameters and logics	TRIMMER + DIP SWITCH	
N° of combinations	4 billion	
Max. n° of remotes that can be memorized	63	

Maximum work time	3 minutes
Pedestrian opening space	30% of the total travel (not modifiable)

(*) Special supply voltages to order.

** There are no minimum or maximum dimension restrictions for the guided part that can be used

Usable transmitter versions:

All ROLLING CODE transmitters compatible with  ((E-Ready)).

3) TUBE ARRANGEMENT Fig.A

Install the electrical system referring to the standards in force for electrical systems CEI 64-8, IEC 364, harmonization document HD 384 and other national standards.

4) PREPARATION FOR MOTOR MOUNTING FIG.B

Make a hole in the ground to accommodate the concrete pad, with anchors embedded in the base plate for fastening the gearbox assembly, keeping to the distances featured in **FIG.B**.

5) REMOVING THE COVER Fig.C

- Unscrew the relevant two front screws (FIG. C - rif.1)
- Push as illustrated (FIG.C - rif.2 - rif.3) to release the cover from the two rear blocks (FIG.C - rif.3A e FIG.C - rif.3B).
- Lift the cover (FIG.C - rif.4).

6) MOUNTING THE MOTOR FIG.D

7) MOUNTING DRIVE ACCESSORIES FIG.E-E1

Recommended rack types (FIG.L)

8) RACK CENTRING WITH RESPECT TO PINION FIG.M-N1-O

! DANGER - Welding must be performed by a competent person issued with the necessary personal protective equipment as prescribed by the safety rules in force FIG.L.

9) FASTENING LIMIT SWITCH BRACKETS FIG.F

10) STOPS FIG.P

! DANGER - The gate must be fitted with mechanical stops to halt its travel both when opening and closing, thus preventing the gate from coming off the top guide. Said stops must be fastened firmly to the ground, a few centimetres beyond the electric stop point.

Note: the safety edge P1 must be installed so that it is not triggered by the mechanical stops.

11) MANUAL RELEASE (See USER GUIDE -FIG.3-).

Warning Do not JERK the gate open and closed, instead push it GENTLY to the end of its travel.

12) TERMINAL BOARD WIRING Fig. G-Q

Once suitable electric cables have been run through the raceways and the automated device's various components have been fastened at the predetermined points, the next step is to connect them as directed and illustrated in the diagrams contained in the relevant instruction manuals. Connect the live, neutral and earth wire (compulsory). The mains cable must be clamped in the relevant cable gland (**FIG.Q-ref.Q1**) and in the grommet (**FIG.Q-ref.Q2**), while the earth wire with the yellow/green-coloured sheath must be connected in the relevant terminal (**FIG.Q-ref.S**) and the extra low voltage wires must be run through the relevant grommet (**FIG.Q ref.Q3**).

WARNINGS - When performing wiring and installation, refer to the standards in force and, whatever the case, apply good practice principles. Wires carrying different voltages must be kept physically separate from each other, or they must be suitably insulated with at least 1mm of additional insulation. Wires must be secured with additional fastening near the terminals, using devices such as cable clamps. All connecting cables must be kept far enough away from dissipaters.

12.1) LOCAL COMMANDS Fig. G

Pressing the S3 key commands one START. By pressing the key again while the automated device is moving a STOP is commanded.

13) SAFETY DEVICES

Note: only use receiving safety devices with free changeover contact.

13.1) TESTED DEVICES Fig.R

13.2) CONNECTION OF 1 PAIR OF NON-TESTED PHOTOCELLS FIG. H

14) MEMORIZING TRANSMITTERS FIG. I

RADIO

- IMPORTANT NOTE: THE FIRST TRANSMITTER MEMORIZED MUST BE IDENTIFIED BY ATTACHING THE KEY LABEL (MASTER).

In the event of manual programming, the first transmitter assigns the RECEIVER'S KEY CODE: this code is required to subsequently clone the radio transmitters. The Clonix built-in on-board receiver also has a number of important advanced features:

- Cloning of master transmitter (rolling code or fixed code).
- Cloning to replace transmitters already entered in receiver.

INSTALLATION MANUAL

	Terminal	Definition	Description
Power supply	L	LINE	Single-phase power supply 220-230V ~50/60 Hz*
	N	NEUTRAL	
	JP31	TRANSF PRIM	Transformer primary winding connection, 220-230V ~.
	JP32		
	JP13	TRANSF SEC	Board power supply: 24V~ Transformer secondary winding
Motor	10	MOT +	Connection motor 1
	11	MOT -	
Aux	20	AUX 0 -BLINKER 24V (N.O.) (MAX. 1A)	Contact stays closed while leaf is operating.
	21		
Limit switches	41	+REF SWE	Limit switch common
	42	SWC	Closing limit switch SWC (N.C.)
	43	SWO	Opening limit switch SWO (N.C.)
Accessories power supply	50	24V-	Accessories power supply output.
	51	24V+	
	52	24 Vsafe+	Tested safety device power supply output (photozell transmitter and safety edge transmitter). Output active only during operating cycle.
Commands	60	Common	START and OPEN inputs common
	61	Only active on FW < 3.03	
		START	START command button (N.O.). Operation according to "3/4-STEP" logic
		Only active on FW ≥ 3.03	
		START	START command button (N.O.). Operation according to "Residential / apartment building operation" logic
Safety devices	62	OPEN	OPEN command button (N.O.). Gate opened with this command. If the input stays closed, the leaves stay open until the contact is opened. When the contact is open, the automated device closes following the TCA time, where activated.
	70	Common	STOP, PHOT and BAR inputs common
	71	STOP	The command stops movement. (N.C.) If not used, leave jumper inserted.
	72	PHOT (*)	PHOTOCELL input (N.C.). Operation according to "PHOTOCELL/PHOTOCELL DURING CLOSING" logic. If not used, leave jumper inserted.
	73	FAULT 1	Test input for safety devices connected to PHOT.
	74	Only active on FW < 3.03	
		BAR (*)	BAR safety edge input (N.C.). Configurable according to the "BAR/ 8K2" logic. The command reverses movement for 2 sec. If not used, leave jumper inserted.
		Only active on FW ≥ 3.03	
		Safety edge input (N.C.). If not used, leave jumper inserted	
		BAR/8K2 dip	Safety edge check dip
		Safety edge check dip	Safety edge operation dip
		OFF	OFF
		OFF	ON
		OFF	OFF
		OFF	ON
		ON	OFF
		ON	ON
		ON	ON
	75	FAULT 2	Test input for safety devices connected to BAR.
Antenna	Y	ANTENNA	Antenna input. Use an antenna tuned to 433MHz. Use RG58 coax cable to connect the Antenna and Receiver. Metal bodies close to the antenna can interfere with radio reception. If the transmitter's range is limited, move the antenna to a more suitable position.
	#	SHIELD	

(*) If "D" type devices are installed (as defined by EN12453), connect in unverified mode, foresee mandatory maintenance at least every six months.

TABLE "A" - PARAMETERS

TRIMMER	Parameter	 min.	 max.	Description
T1	Automatic closing time [s]	0	120	Waiting time before automatic closing. NOTE: Set to 0 if not used.
T2	Leaf force [%]	10	90	Force exerted by leaf/leaves. This is the percentage of force delivered, beyond the force stored during the autoset cycle (and subsequently updated), before an obstacle alarm is generated. WARNING: It affects impact force directly: make sure that current safety requirements are met with the set value (*). Install anti-crush safety devices where necessary.
T3	Slow-down distance [%]	1 (***)	50	Set opening slow-down speed as a percentage of total travel. This distance is travelled at low speed. NOTE: When this parameter is edited, a new Autoset cycle must be run to confirm it.

(*) In the European Union, apply standard EN 12453 for force limitations, and standard EN 12445 for measuring method.

(***) If the calculated value is less than 30 cm, it is set to 30 cm.

TABLE "B" - LOGICS

DIP	Logic	Default	Cross out setting used	Description																		
1	Transmitter programming	ON	ON	Enables wireless memorizing of transmitters: 1- Press in sequence the hidden key and normal key (T1-T2-T3-T4) of a transmitter that has already been memorized in standard mode via the radio menu. 2- Press within 10 sec. the hidden key and normal key (T1-T2-T3-T4) of a transmitter to be memorized. The receiver exits programming mode after 10 sec.: you can use this time to enter other new transmitters. This mode does not require access to the control panel. IMPORTANT: Enables the automatic addition of new transmitters, clones and replays.																		
			OFF	Disables wireless memorizing of transmitters and automatic addition of clones. Transmitters are memorized only using the relevant Radio menu or automatically with replays. IMPORTANT: Disables the automatic addition of new transmitters and clones																		
2	BAR / 8K2	OFF	ON	Input configured as Bar 8k2. Input for resistive edge 8K2. The command reverses movement for 2 sec.																		
			OFF	Input configured as Bar, safety edge. The command reverses movement for 2 sec.																		
3	Photocell input check	OFF	ON	Enable safety check on the PHOT input																		
			OFF	Safety check on PHOT input not enabled																		
4	Edge input check	OFF	ON	Enable safety check on the BAR input																		
			OFF	Safety check on BAR input not enabled																		
5	Photocells during closing	OFF	ON	In the event beam is broken, photocell operation is disabled during opening. During closing, movement is reversed immediately.																		
			OFF	When beam is broken, photocells are active during both opening and closing. When beam is broken during closing, movement is reversed only once the photocell is cleared.																		
Only active on FW < 3.03																						
6	Fast closing	OFF	ON	Closes 3 seconds after the photocells are cleared before waiting for the set TCA to elapse.																		
			OFF	Logic not enabled																		
7	Block pulses during opening	OFF	ON	The start pulse has no effect during opening.																		
			OFF	The start pulse has effect during opening.																		
8	3-step logic	OFF	ON	Switches to 3-step logic; during closing, start reverses movement.																		
			OFF	Switches to 4-step logic.																		
<table><tr><td></td><td>3 step</td><td>4 step</td></tr><tr><td>CLOSED</td><td rowspan="2">opens</td><td>opens</td></tr><tr><td>DURING CLOSING</td><td>stop</td></tr><tr><td>OPEN</td><td>closes</td><td>closes</td></tr><tr><td>DURING OPENING</td><td>stop + TCA</td><td>stop + TCA</td></tr><tr><td>AFTER STOP</td><td>opens</td><td>opens</td></tr></table>						3 step	4 step	CLOSED	opens	opens	DURING CLOSING	stop	OPEN	closes	closes	DURING OPENING	stop + TCA	stop + TCA	AFTER STOP	opens	opens	
	3 step	4 step																				
CLOSED	opens	opens																				
DURING CLOSING		stop																				
OPEN	closes	closes																				
DURING OPENING	stop + TCA	stop + TCA																				
AFTER STOP	opens	opens																				
Only active on FW ≥ 3.03																						
6	Safety edge input operation	OFF	ON	Safety edge with active reversal only when closing, when opening the movement stops																		
			OFF	Safety edge with active reversal in both directions																		
7	Fast closing	OFF	ON	Closes 3 seconds after the photocells are cleared before waiting for the set TCA to elapse.																		
			OFF	Logic not enabled																		
8	Residential / apartment building operation	OFF	ON	Sets the automation type of operation: ON = Apartment building																		
			OFF	OFF = Residential																		
8	Residential / apartment building operation	OFF	ON	Reaction to the START input (wired or radio): <table><tr><td></td><td>Residential</td><td>Apartment building</td></tr><tr><td>CLOSED</td><td>Opens</td><td>Opens</td></tr><tr><td>WHILE CLOSING</td><td>Stops</td><td>Opens</td></tr><tr><td>OPEN</td><td>Closes</td><td>Closes</td></tr><tr><td>WHILE OPENING</td><td>STOPS + TCA</td><td>No effect</td></tr><tr><td>AFTER STOP</td><td>Opens</td><td>Opens</td></tr></table>		Residential	Apartment building	CLOSED	Opens	Opens	WHILE CLOSING	Stops	Opens	OPEN	Closes	Closes	WHILE OPENING	STOPS + TCA	No effect	AFTER STOP	Opens	Opens
				Residential	Apartment building																	
CLOSED	Opens	Opens																				
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OPEN	Closes	Closes																				
WHILE OPENING	STOPS + TCA	No effect																				
AFTER STOP	Opens	Opens																				
8	Residential / apartment building operation	OFF	OFF	Reaction to the OPEN input (wired): <table><tr><td></td><td>Residential</td><td>Apartment building</td></tr><tr><td>CLOSED</td><td>Opens</td><td>Opens</td></tr><tr><td>WHILE CLOSING</td><td>Opens</td><td>Opens</td></tr><tr><td>OPEN</td><td>No effect</td><td>No effect</td></tr><tr><td>WHILE OPENING</td><td>Keeps it open</td><td>Keeps it open</td></tr><tr><td>AFTER STOP</td><td>Opens</td><td>Opens</td></tr></table>		Residential	Apartment building	CLOSED	Opens	Opens	WHILE CLOSING	Opens	Opens	OPEN	No effect	No effect	WHILE OPENING	Keeps it open	Keeps it open	AFTER STOP	Opens	Opens
				Residential	Apartment building																	
CLOSED	Opens	Opens																				
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OPEN	No effect	No effect																				
WHILE OPENING	Keeps it open	Keeps it open																				
AFTER STOP	Opens	Opens																				
8	Residential / apartment building operation	OFF	ON	Reaction to the PEDESTRIAN input (radio): <table><tr><td></td><td>Residential</td><td>Apartment building</td></tr><tr><td>CLOSED</td><td>Opens partially</td><td>Opens partially</td></tr><tr><td>WHILE CLOSING</td><td>Stops</td><td>Opens partially</td></tr><tr><td>OPEN</td><td>Closes</td><td>Closes</td></tr><tr><td>WHILE OPENING</td><td>STOPS + TCA</td><td>No effect</td></tr><tr><td>AFTER STOP</td><td>Opens partially</td><td>Opens partially</td></tr></table>		Residential	Apartment building	CLOSED	Opens partially	Opens partially	WHILE CLOSING	Stops	Opens partially	OPEN	Closes	Closes	WHILE OPENING	STOPS + TCA	No effect	AFTER STOP	Opens partially	Opens partially
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AFTER STOP	Opens partially	Opens partially																				

INSTALLATION MANUAL

- Transmitter database management.
- Receiver community management.

To use these advanced features, refer to the universal handheld programmer's instructions and to the general receiver programming guide.

15) AUTOSET ADJUSTMENT FIG. I1

Enables Motor Torque to be set automatically.

If the power is suddenly disconnected and then restored the automation performs the operations at autoset speed till the travel limits are identified.

WARNING!! The autoset operation must be performed only once you have checked that the leaf is moving accurately (opening/closing) and that the mechanical stops are positioned correctly.

You must run an autoset cycle whenever the slow-down distance (T3) .

WARNING! While the autoset function is running, the obstacle detection function is not active. Consequently, the installer must monitor the automated device's movements and keep people and property out of range of the automated device.

WARNING: the torque values set by the autoset function refer to the motor force set during the autoset cycle. If motor force is edited, an autoset opening and closing cycle will need to be performed again.

WARNING: check 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. Setting sensitivity incorrectly can result in damage to property and injury to people and animals.

16) REVERSING THE OPENING DIRECTION (Fig.S)

KEYS

KEYS	Description
S1	Add Start Key associates the desired key with the Start command.
S2	Add Pedestrian Key associates the desired key with the pedestrian command. (Pedestrian opening space, see technical specifications)
S2 >5s	Confirms the changes made to parameter settings and operating
S1+S2 >10s	Erase List  WARNING! Erases all memorized transmitters from the receiver's memory.
S3	Pressed BRIEFLY, it gives the START command. HELD DOWN (>5 sec.), it activates the AUTOSET function.

LED INDICATORS:

POWER	Steadily lit: - Mains power on - Board powered - Fuse F1 intact
START	Lit: START input activated
OPEN	Lit: OPEN input activated
STOP	Unlit: STOP input activated
PHOT	Unlit: PHOT photocell input activated
FAULT 1	PHOT input safety device test input diagnostics
BAR	Unlit: BAR safety edge input activated
FAULT 2	BAR input safety device test input diagnostics
SWC	Unlit: leaf fully closed Lit: motor limit switch is disengaged
SWO	Unlit: leaf fully open Lit: motor limit switch is disengaged
ERR	Unlit: no error LIT: see error diagnostics table
RADIO (GREEN)	Unlit: remote programming not active Radio LED only flashing: Remote programming active, waiting for hidden key. Flashing in sync with Set LED: Transmitter deletion in progress Lit: remote programming active, waiting for desired key. Lit 1s: Radio receiver channel activated
SET	Lit: Set key pressed / Autoset completed successfully Flashes three times: Autoset in progress Fast flashing 10s: Autoset failed Flashing in sync with Radio LED: Transmitter deletion in progress Lit 1s: Start/Stop after key S3 pressed Lit 10s: Autoset completed correctly

17) ADJUSTMENT PROCEDURE

- Before turning the unit on, check electrical connections.

- Set the following parameters: Automatic Closing Time, motor force, slow-down distance.
- Set the logics.
- Run the autoset function.

WARNING! Incorrect settings can result in damage to property and injury to people and animals.

 **WARNING: Check 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.**

For best results, it is advisable to run the autoset function with the motors idle (i.e. not overheated by a considerable number of consecutive operations)

18) INSTALLATION TEST PROCEDURE

1. Run the AUTOSET cycle (*)
 2. Check the impact forces: if they fall within the limits (**) skip to point 9 of the procedure, otherwise
 3. Where necessary, adjust the sensitivity (force) parameter: see parameters table.
 4. Check the impact forces again: if they fall within the limits (**) skip to point 9 of the procedure, otherwise
 5. Apply a shock absorber profile
 6. Check the impact forces again: if they fall within the limits (**) skip to point 9 of the procedure, otherwise
 7. Apply pressure-sensitive or electro-sensitive protective devices (such as a safety edge) (**)
 8. Check the impact forces again: if they fall within the limits (**) skip to point 9 of the procedure, otherwise
 9. Make sure all devices designed to detect obstacles within the system's operating range are working properly
- (*) Before running the autoset function, make sure you have performed all the assembly and make-safe operations correctly, as set out in the installation warnings in the drive's manual.
- (**) Based on the risk analysis, you may find it necessary to apply sensitive protective devices anyway

WARNING! Incorrect settings can result in damage to property and injury to people and animals.

LED ERR:

Led SET	Led ERR		
	Lit	slow flashing	fast flashing
Unlit:	<u>Reverse due to obstacle - Amperostop</u> - Check for obstacles in path	<u>Photocell test, Costa o Costa 8k2 failed</u> - Check photocell connection and/or logic settings	<u>Thermal cutout</u> - Allow automated device to cool
Lit	<u>Internal system supervision control error.</u> - Try switching the board off and back on again. If the problem persists, contact the technical assistance department.		<u>Limit switch error</u> - Check limit switch connections
slow flashing	<u>Test hardware card error</u> - Check the connection to the motor - Hardware problems to the card (contact technical assistance)		<u>Parameters and/or Operating Logic edited</u> - If the "Slow-down distance" is edited, run a new Autoset cycle to confirm the new setting. - If other parameters and/or operating logic are edited, hold down S2 for 5s to confirm. NOTE: In any case, the Autoset function confirms all changes made to the board.