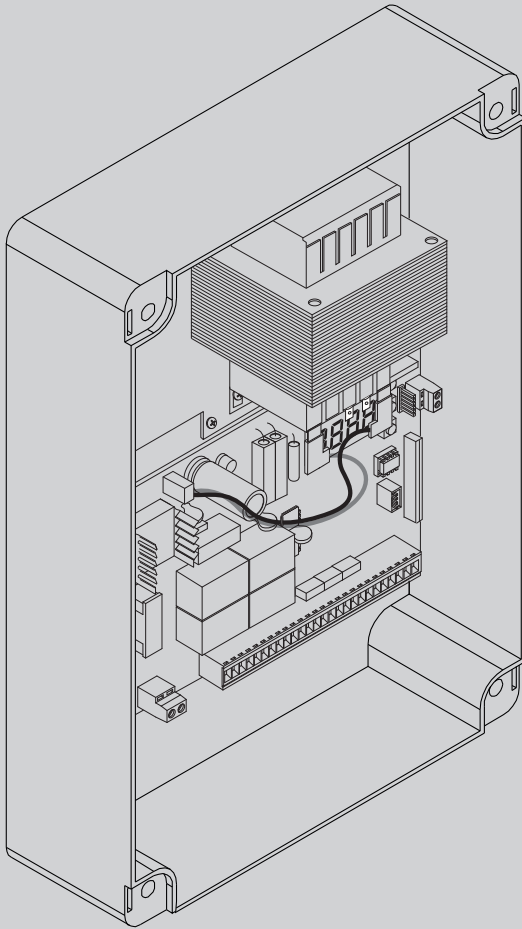




D812163.00100_04 30-03-15

QUADRO COMANDO
CONTROL PANEL
CENTRALE DE COMMANDE
SELBSTÜBERWACHENDE STEUERUNG
CUADRO DE MANDOS
BEDIENINGSPANEEL



THALIA

ISTRUZIONI DI INSTALLAZIONE
INSTALLATION MANUAL
INSTRUCTIONS D'INSTALLATION
MONTAGEANLEITUNG
INSTRUCCIONES DE INSTALACION
INSTALLATIEVOORSCHRIFTEN

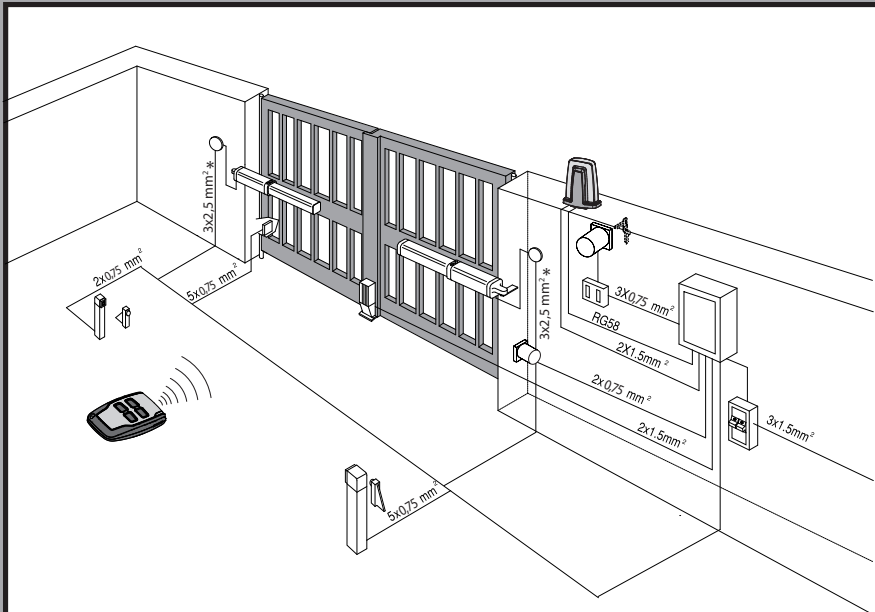
U-link



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

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" tigre aan de binnenkant zorgvuldig!

A



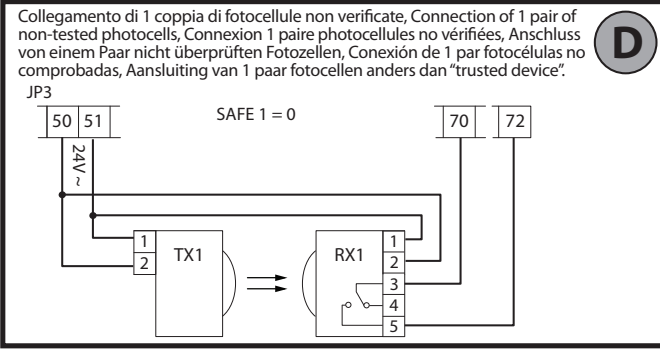
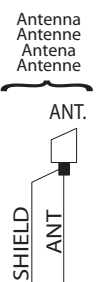
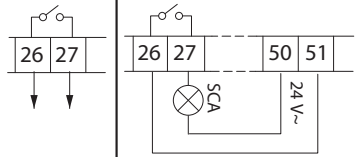
**PREDISPOSIZIONE TUBI
TUBE ARRANGEMENT
PRÉDISPOSITION DES TUYAUX
VORBEREITUNG DER LEITUNGEN
DISPOSICIÓN DE TUBOS
VOORBEREIDING LEIDINGEN**

* Vedere specifica motore
See motor specifications
Consultez les caractéristiques du moteur
Siehe Motordaten
Véase especificaciones motor
Zie motorspecificatie

1

- AUX 3 = 0
- AUX 3 = 2
- AUX 3 = 3
- AUX 3 = 4
- AUX 3 = 5
- AUX 3 = 6
- AUX 3 = 7
- AUX 3 = 8

AUX 3 = 1

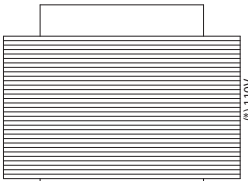


C

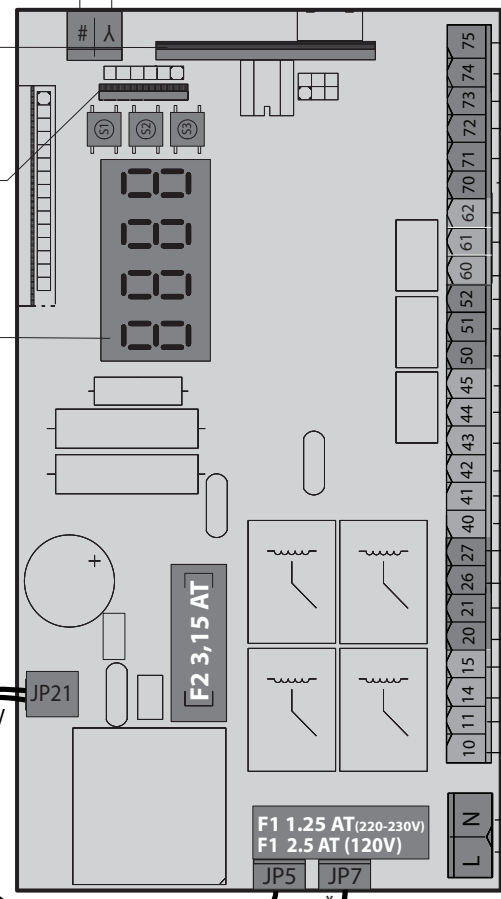
Connettore scheda opzionale,
SCS1 optional board connector,
Connecteur carte facultative,
Steckverbinder Zusatzkarte,
Conector de la tarjeta opcional,
Connector optionele kaart.

Connettore programmatore palmare,
Palmtop programmer connector,
Connecteur programmeur de poche,
Steckverbinder Palmtop-Programmierer,
Conector del programador de bolsillo,
Connector programmeerbare palmtop.

Display + tasti programmazione,
Display plus programming keys,
Afficheur et touches de programmation,
Display und Programmierungstasten,
Pantalla mas botones de programacion,
Display meerdere toetsen programmeur.



* Altre tensioni disponibili a richiesta
Other voltages available on request
Autres tensions disponibles sur demande
Weitere Spannungen auf Anfrage erhältlich
Otras tensiones disponibles a petición
Andere spanningen op aanvraag beschikbaar



- FAULT 2
- SAFE 2
- FAULT 1
- SAFE 1
- STOP
- COM
- IC 2
- IC 1
- COM
- 24V Safe+
- 24V +
- 24V -
- SWO2 / ENC2B
- SWC2 / ENC2A
- SWO 1 / SW 2 / ENC1B
- SWC 1 / SW 1 / ENC1A
- + REF SWE
- REF SWE
- AUX 3 (MAX 24V 1A)
- 24V
- M2
- M1
- L
- N

- Sicurezze
Safety devices
Sécurité
Sicherheitsvorrichtungen
Dispositivos de seguridad
Veiligheden
- Comandi / Commands
Commandes/Bedienelemente
Mandos/ Commando's
- Alimentazione accessori
Accessories power supply
Alimentation des accessoires
Stromversorgung Zubehör
Alimentación accesorios
Voeding accessoires
- Ingressi finecorsa/encoder
Encoder/limit switch inputs
Entrées des fins de course/encodeur
Eingänge Anschlag/Encoder
Entradas finales de carrera
Encoder/ingangen
- AUX
- Motore / Motor / moteur
Motor/Eindaanslag/Encoder
- Alimentazione / Power supply
Alimentation / Stromversorgung
Alimentación /Voeding

E' NECESSARIO SEGUIRE QUESTA SEQUENZA DI REGOLAZIONI:

- 1 - Regolazione dei finecorsa
- 2 - Autoset
- 3 - Programmazione radiocomando
- 4 - Eventuali regolazioni dei parametri / logiche

Dopo ogni modifica della posizione dei finecorsa e' necessario eseguire un nuovo autoset.
Dopo ogni modifica del tipo motore e' necessario eseguire un nuovo autoset.

Se si utilizza il menu semplificato:

- Nel caso di motori LUX-BT LUX G-BT la fase 1 (regolazione finecorsa) e' compresa nel menu semplificato.
- Negli altri motori la fase 1 (regolazione finecorsa) va eseguita prima di attivare il menu semplificato.

ENGLISH**IT IS NECESSARY TO FOLLOW THIS SEQUENCE OF ADJUSTMENTS:**

- 1 - Adjusting the limit switches
- 2 - Autoset
- 3 - Programming remote controls
- 4 - Setting of parameters/logic, where necessary

After each adjustment of the end stop position a new autoset is required.
After each modification of the motor type, a new autoset must be carried out

If the simplified menu is used:

- In LUX-BT and LUX G-BT motors: phase 1 (end stop adjustment) is included in the simplified menu.
- In other motors: phase 1 (end stop adjustment) must be carried out before activating the simplified menu

FRANÇAIS**VOUS DEVEZ OBLIGATOIREMENT SUIVRE CETTE SÉQUENCE DE RÉGLAGES:**

- 1 - Réglage des fins de course
- 2 - Réglage automatique (autoset)
- 3 - Programmation de la radiocommande
- 4 - Réglages éventuels des paramètres / logiques

Chaque fois que vous modifiez la position des fins de course vous devez procéder à un nouveau autoset.
Chaque fois que vous modifiez le type de moteur vous devez procéder à un nouveau autoset.

Si vous utilisez le menu simplifié:

- Avec les moteurs LUX-BT LUX G-BT la phase 1 (réglage fins de course) est comprise dans le menu simplifié.
- Avec les autres moteurs vous devez accomplir la phase 1 (réglage fins de course) avant d'activer le menu simplifié.

DEUTSCH**DIESE SEQUENZ DER EINSTELLUNGEN MUSS BEFOLGT WERDEN:**

- 1 - Einstellung der endschalter
- 2 - Autoset
- 3 - Programmierung fernbedienung
- 4 - Eventuelle einstellungen der parameter / logiken

Nach jeder änderung der position der endschalter musse in neuer autoset ausgeführt werden.
Nach jeder änderung des motortyps muss ein neuer autoset ausgeführt werden.

wenn das vereinfachte menü benutzt wird:

- Bei den motoren LUX-BT LUX G-BT ist die phase 1 (einstellung endschalter) im vereinfachten menü enthalten.
- Bei den anderen motoren wird die phase 1 (einstellung endschalter) ausgeführt, bevor das vereinfachte menü aktiviert wird.

ESPAÑOL**ES NECESARIO SEGUIR ESTA SECUENCIA DE AJUSTES:**

- 1 - Regulación de los finales de carrera
- 2 - Autoset
- 3 - Programación de radiomando
- 4 - Eventuales regulaciones de los parámetros / lógicas

Después de cambiar la posición de los interruptores de tope es necesario realizar un nuevo autoset.
Después de cambiar el tipo de motor es necesario realizar un nuevo autoset.

Si se utiliza el menú simplificado:

- En caso de motores LUX-BT LUX G-BT la fase 1 (ajuste de interruptor de tope) está comprendida en el menú simplificado.
- En los otros motores la fase 1 (ajuste de interruptor de tope) se debe realizar antes de activar el menú simplificado.

NEDERLANDS**VERRICHT DE VOLGENDE REGELINGEN:**

- 1 - Regeling van de eindaanslagen
- 2 - Autoset
- 3 - Programmering afstandsbediening
- 4 - Eventuele regelingen van de parameters / logica's

Verricht na elke wijziging van de positie van de eindaanslagen een nieuwe autoset.
Dna elke wijziging van het motortype moet een nieuwe autoset worden verricht.

Als het vereenvoudigde menu wordt gebruikt:

- In het geval van de motoren LUX-BT LUX G-BT is de fase 1 (regeling eindaanslag) opgenomen in het vereenvoudigde menu.
- In alle andere motoren moet de fase 1 (regeling eindaanslag) worden verricht alvorens het vereenvoudigde menu te activeren.

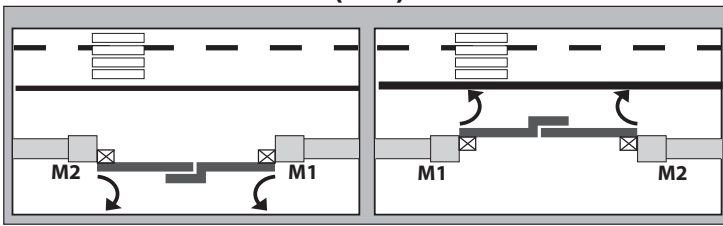
inv.direz. ap / open in other direct.
 inv.sens.ouv / inv richt opening
 inv.direcc.ap./ Omkering openingsrichting:

ELI 250 BT

է իՔօ ՌօտօրԷ - էՄՔԷ dԷ ՌօտԷՍր - ՌօտօրԷնէՄՔ - Ռօտօր էՄՔԷ - է իՔօ Ռօտօր: **1**

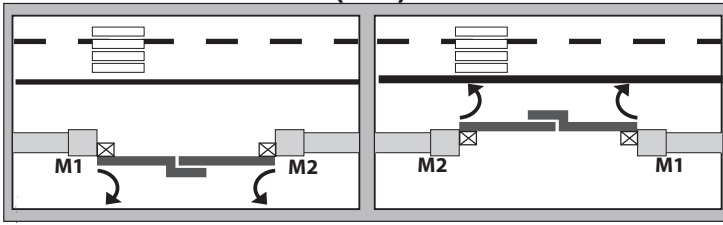


0 (ինէ)

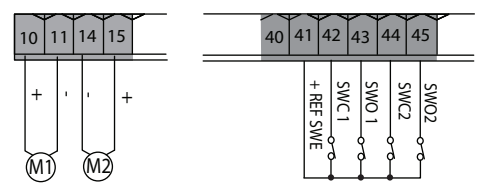


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 inv.sens.ouv / inv richt opening
 inv.direcc.ap./ Omkering openingsrichting:

1 (ԷԻէ)



ELI 250 BT	
Potenza massima - Maximum power - Puissance maximum Max. Leistung - Potencia máxima - Maximum vermogen	175W
Ciclo massimo - Maximum cycle - Cycle maximum Max. Zyklus - Ciclo máximo - Maximale cyclus	S3 15s-1-15s-1 x25 pausa - pause - pause pausa - pause - pause 90min.

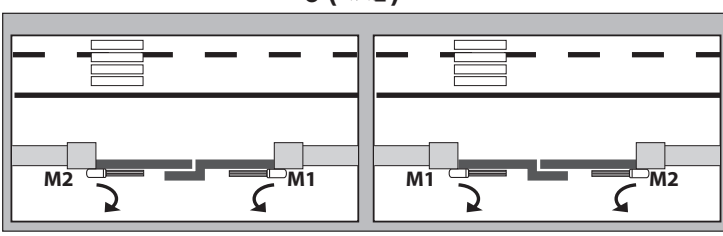


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 inv.direcc.ap./ Omkering openingsrichting:

PHOBOS N BT

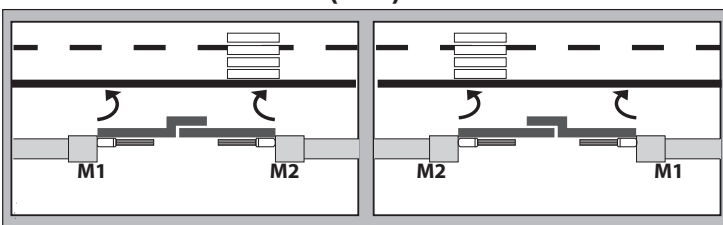
է իՔօ ՌօտօրԷ - էՄՔԷ dԷ ՌօտԷՍր - ՌօտօրԷնէՄՔ - Ռօտօր էՄՔԷ - է իՔօ Ռօտօր: **2**

0 (ինէ)

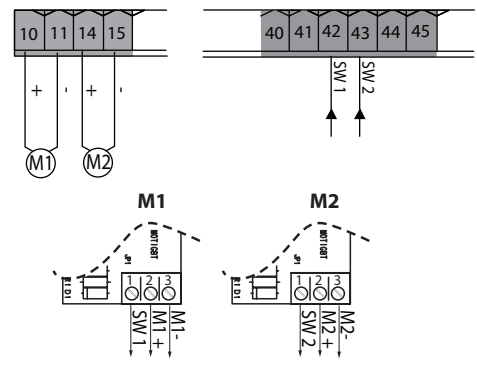


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 inv.sens.ouv / inv richt opening
 inv.direcc.ap./ Omkering openingsrichting:

1 (ԷԻէ)



PHOBOS N BT	
Potenza massima - Maximum power - Puissance maximum Max. Leistung - Potencia máxima - Maximum vermogen	40W
Ciclo massimo - Maximum cycle - Cycle maximum Max. Zyklus - Ciclo máximo - Maximale cyclus	S3 13s-1-13s-1 x30 pausa - pause - pause pausa - pause - pause 90min.

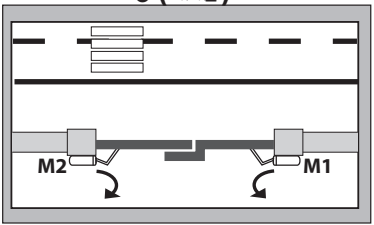


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 inv.sens.ouv / inv richt opening
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IGEA BT

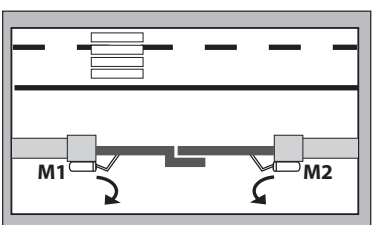
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0 (ինէ)

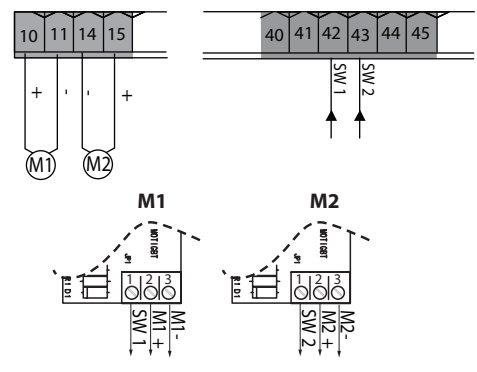


inv.direz. ap / open in other direct.
 inv.sens.ouv / inv richt opening
 inv.direcc.ap./ Omkering openingsrichting:

1 (ԷԻէ)



IGEA BT	
Potenza massima - Maximum power - Puissance maximum Max. Leistung - Potencia máxima - Maximum vermogen	40W
Ciclo massimo - Maximum cycle - Cycle maximum Max. Zyklus - Ciclo máximo - Maximale cyclus	S3 15s-1-15s-1 x12 pausa - pause - pause pausa - pause - pause 173min.



E

LUX BT

ε ιΡο ΡοτορΕ - εΥΡΕ dE ΡοτεΕΥρ - ΡοτορΕνεΥΡ - Ροτορ εΥΡΕ - ε ιΡο Ροτορ: **4**

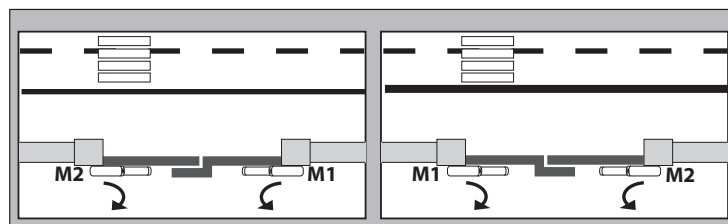
LUX G BT

ε ιΡο ΡοτορΕ - εΥΡΕ dE ΡοτεΕΥρ - ΡοτορΕνεΥΡ - Ροτορ εΥΡΕ - ε ιΡο Ροτορ: **5**

	LUX BT	LUX G BT
Potenza massima - Maximum power - Puissance maximum - Max. Leistung - Potencia máxima - Maximum vermogen	300W	300W
Ciclo massimo - Maximum cycle - Cycle maximum - Max. Zyklus - Ciclo máximo - Maximale cyclus	S3 10s-5-14s-5 x40 pausa - pause - pause pause - pausa - pause 90 min.	S3 10s-5-14s-5 x40 pausa - pause - pause pause - pausa - pause 90 min.
ANTA MAX/ LEAF MAX/ VANTAIL MAXI/ FLÜGEL MAX./ HOJA MÁX./ VLEUGEL MAX.	150 kg	150 - 400 kg
	2 m	3 - 2 m
TIPO DI UTILIZZO / TYPE OF USE - SEMI-INTENSIVE / TYPE D'UTILISATION BENUTZUNGSTYP - HALBINTENSIV / TIPO DE USO / SOORT GEBRUIK - SEMI-INTENSIEF	Semi-intensivo / Semi-intensive / Semi-intensive / Halbintensiv / Semi-intensivo / Semi-intensief	

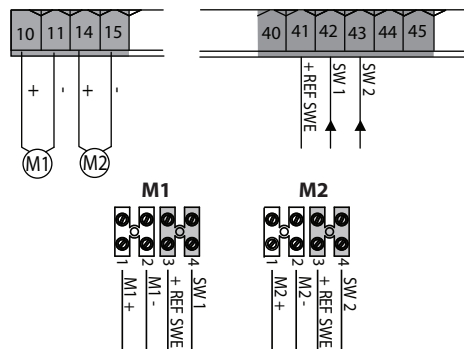
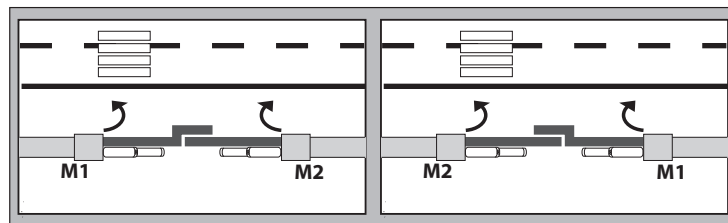
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inv.direcc.ap./ Omkering openingsrichting:

0 (int)

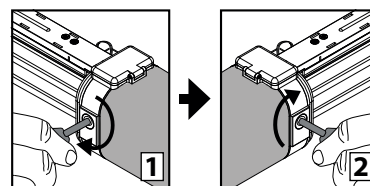


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inv.direcc.ap./ Omkering openingsrichting:

1 (EHL)



rEG. Fc. - LSG AdJ - rEG.Fc - EndSchE InSt



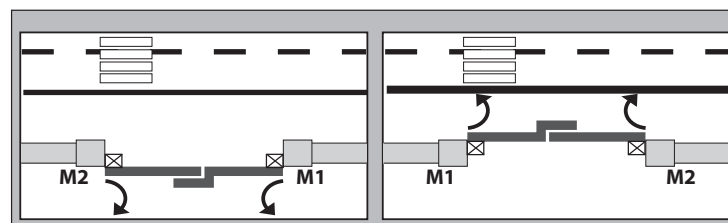
SUB BT

ε ιΡο ΡοτορΕ - εΥΡΕ dE ΡοτεΕΥρ - ΡοτορΕνεΥΡ - Ροτορ εΥΡΕ - ε ιΡο Ροτορ: **6**

	SUB BT
Potenza massima - Maximum power - Puissance maximum - Max. Leistung - Potencia máxima - Maximum vermogen	300W
Ciclo massimo - Maximum cycle - Cycle maximum - Max. Zyklus - Ciclo máximo - Maximale cyclus	S3 17s-1-17s-1 x21 pausa - pause - pause pause - pausa - pause 90 min.
ANTA MAX/ LEAF MAX/ VANTAIL MAXI/ FLÜGEL MAX./ HOJA MÁX./ VLEUGEL MAX.	400 kg
	2 m
TIPO DI UTILIZZO / TYPE OF USE - SEMI-INTENSIVE / TYPE D'UTILISATION BENUTZUNGSTYP - HALBINTENSIV / TIPO DE USO / SOORT GEBRUIK - SEMI-INTENSIEF	Semi-intensivo / Semi-intensive / Semi-intensive / Halbintensiv / Semi-intensivo / Semi-intensief

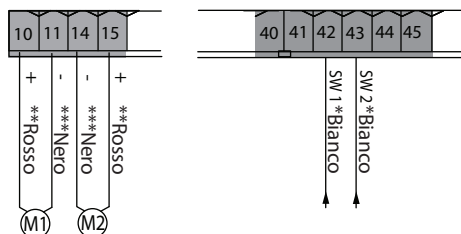
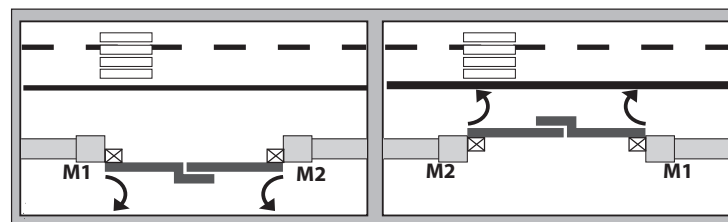
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0 (int)



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1 (EHL)



*Bianco	**Rosso	***Nero
White	Red	Black
Blanc	Rouge	Noir
Weiß	Rot	Nero
Blanco	Rojo	Negro
Wit	Rood	Zwart

PHOBOS BT A / KUSTOS BT A

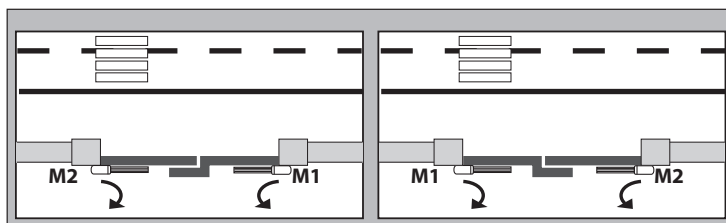
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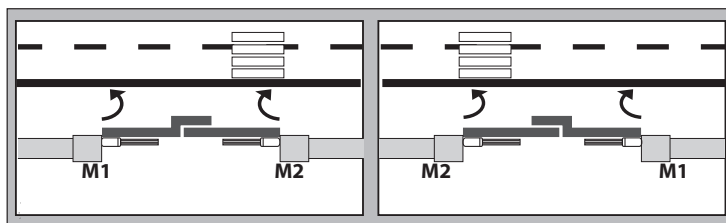
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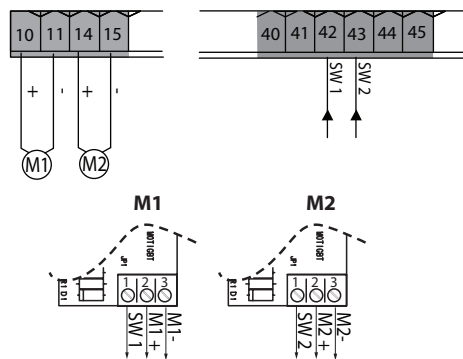


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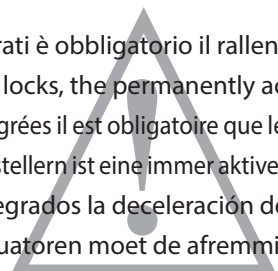
1 (ἑ῱῱)



	PHOBOS BT A	KUSTOS BT A
Potenza massima - Maximum power - Puissance maximum Max. Leistung - Potencia máxima - Maxi- mum vermogen	40W	40W
Ciclo massimo - Maximum cycle - Cycle maximum Max. Zyklus - Ciclo máximo - Maximale cyclus	S3 13s-1-13s-1 x30 pausa - pause - pause 90min.	S3 13s-1-13s-1 x30 pausa - pause - pause 90min.



- ATTENZIONE:** con attuatori con fermi integrati è obbligatorio il rallentamento sempre attivo ad un valore superiore a 5.
- ATTENTION:** with actuators with integrated locks, the permanently active slowdown to a value higher than 5 is mandatory.
- ATTENTION:** avec des actionneurs à butées intégrées il est obligatoire que le ralentissement soit toujours actif à une valeur supérieure à 5.
- ACHTUNG:** Bei Aktuatoren mit integrierten Feststellern ist eine immer aktive Verlangsamung bei einem Wert über 5 zwingend erforderlich.
- ATENCIÓN:** con accionadores con topes integrados la deceleración debe estar siempre activa a un valor superior a 5.
- OPGELET:** met ingebouwde, stilstaande actuatoren moet de afremming altijd geactiveerd zijn op een waarde hoger dan 5.



SIMPLIFIED MENU

LEGENDA

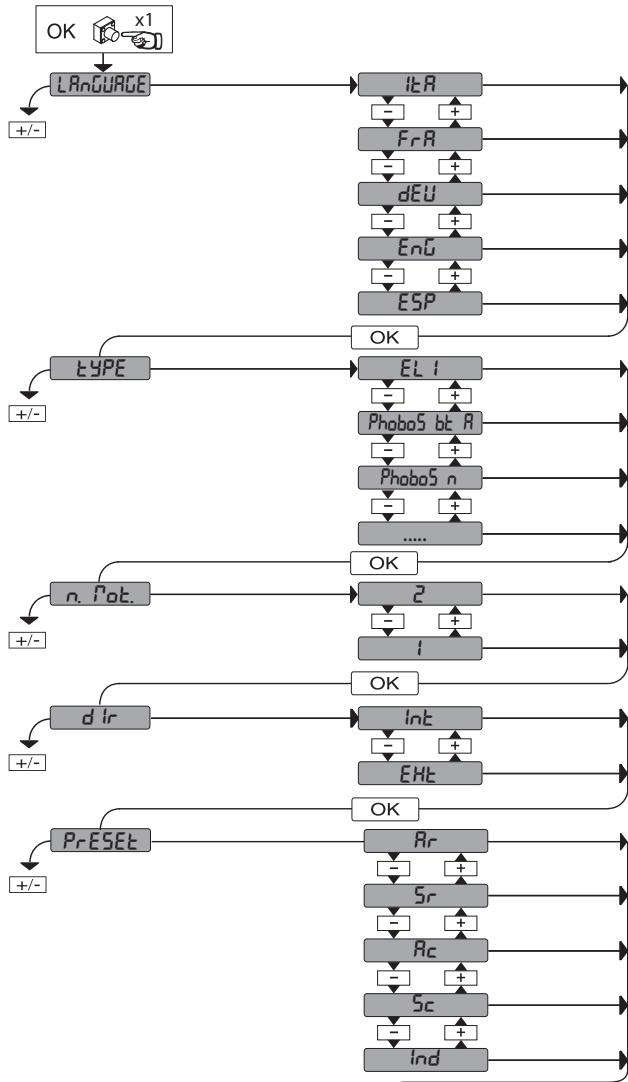
⬆️ + ↑ Scroll up

⬇️ - ↓ Scroll down

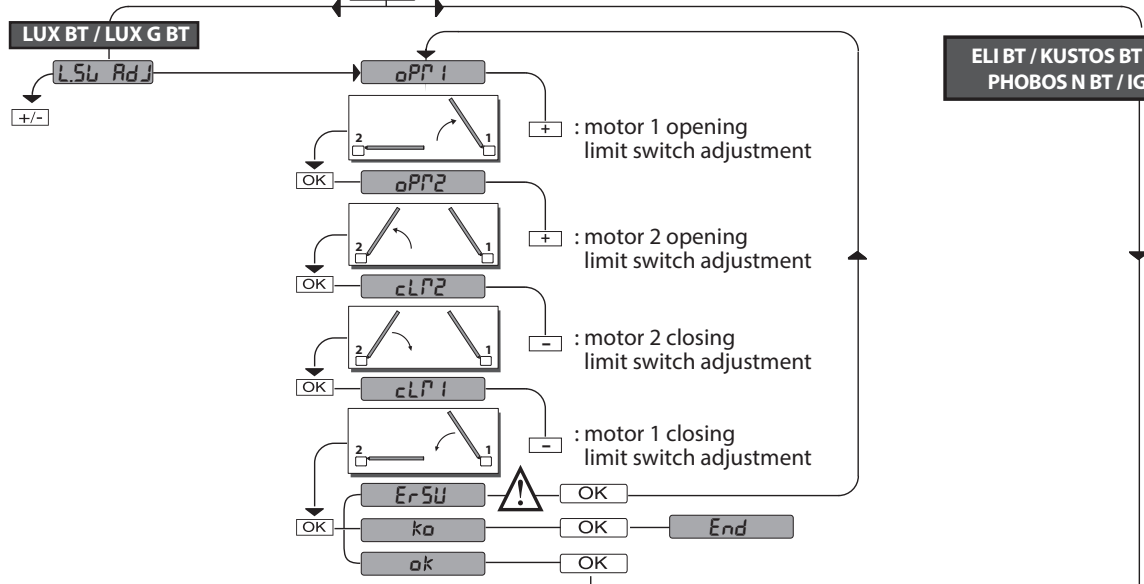
⏹️ OK Confirm/Switch on display

⊕ ⊖ Exit Menü

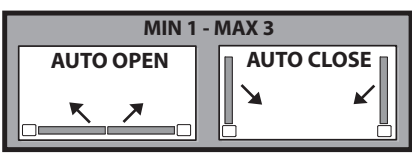
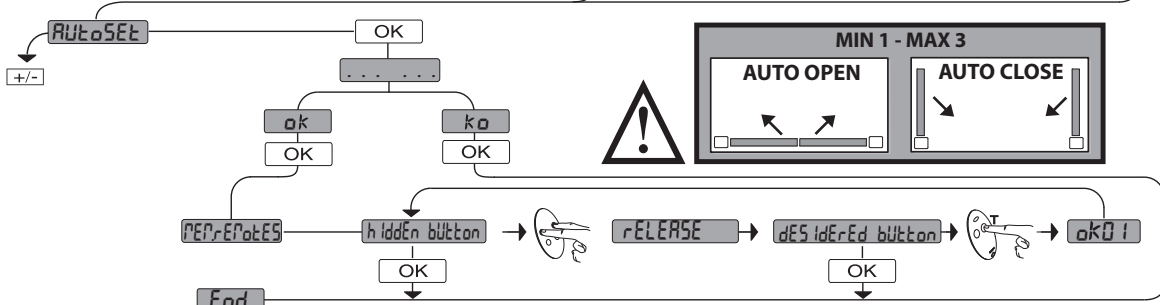
PRESET	DEFAULT	<i>Rr</i>	<i>Sr</i>	<i>Rc</i>	<i>Sc</i>	<i>Ind</i>
PARAMETERS						
LOGIC						
TCA	0	1	0	1	0	0
Step-by-step movement	0	1	0	1	0	0
Pre-alarm	0	0	0	1	1	0
Deadman	0	0	0	0	0	1
Block pulses during opening	0	0	0	1	1	0

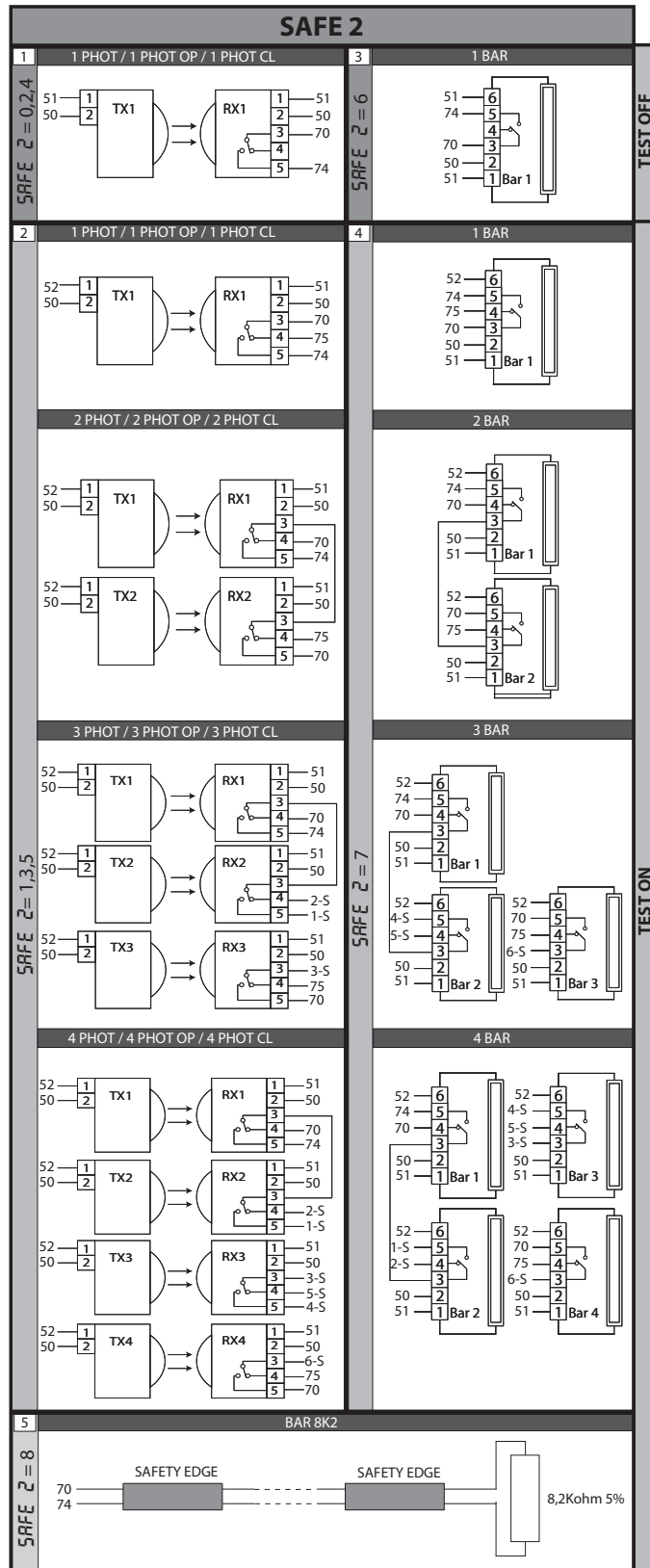
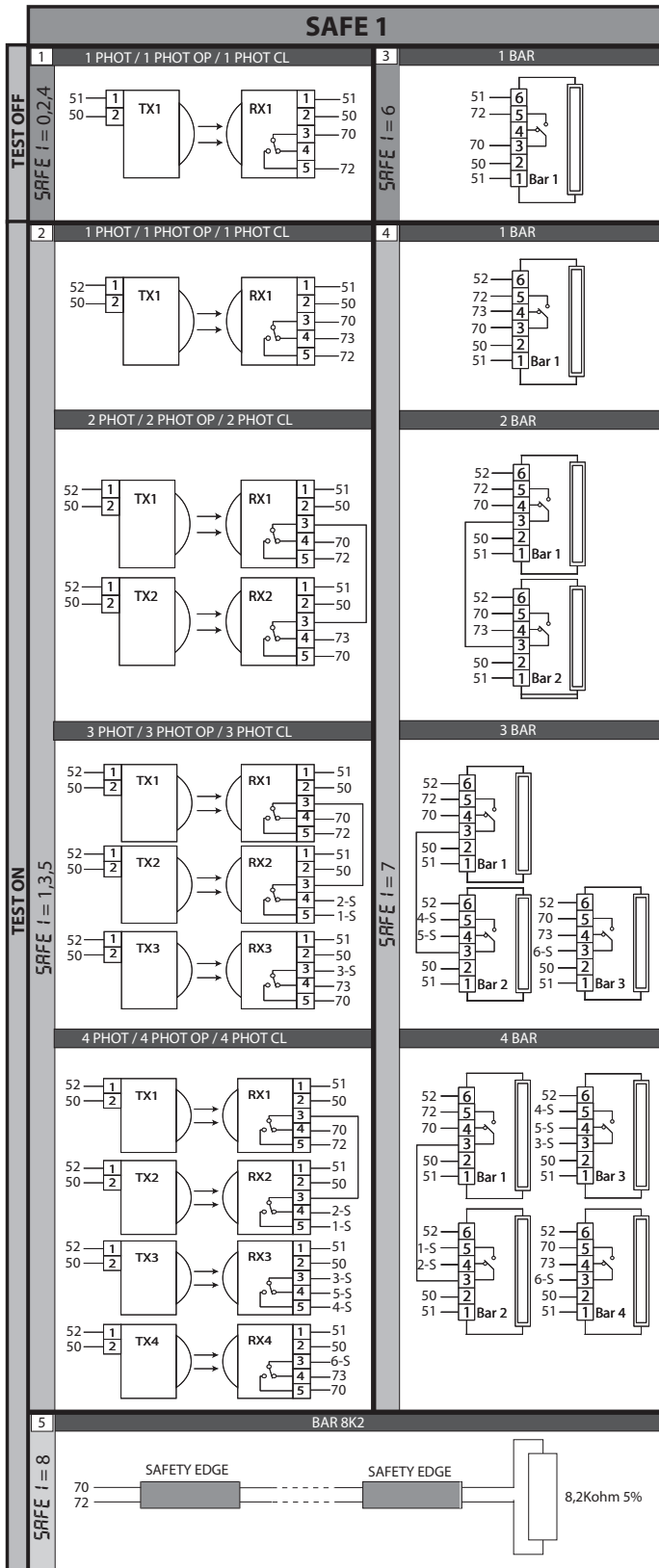
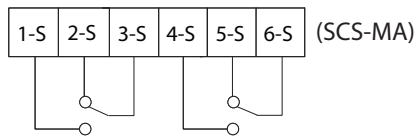
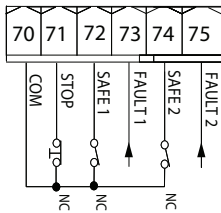
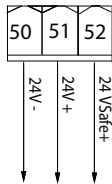


- InE**: inward opening
- EHt**: outward opening
- Rr**: automatic operation, residential
- Sr**: semiautomatic operation, residential
- Rc**: automatic operation, commercial
- Sc**: semiautomatic operation, commercial
- ind**: dead man operation



**ELI BT / KUSTOS BT A / PHOBOS BT A
PHOBOS N BT / IGEA BT / SUB BT**



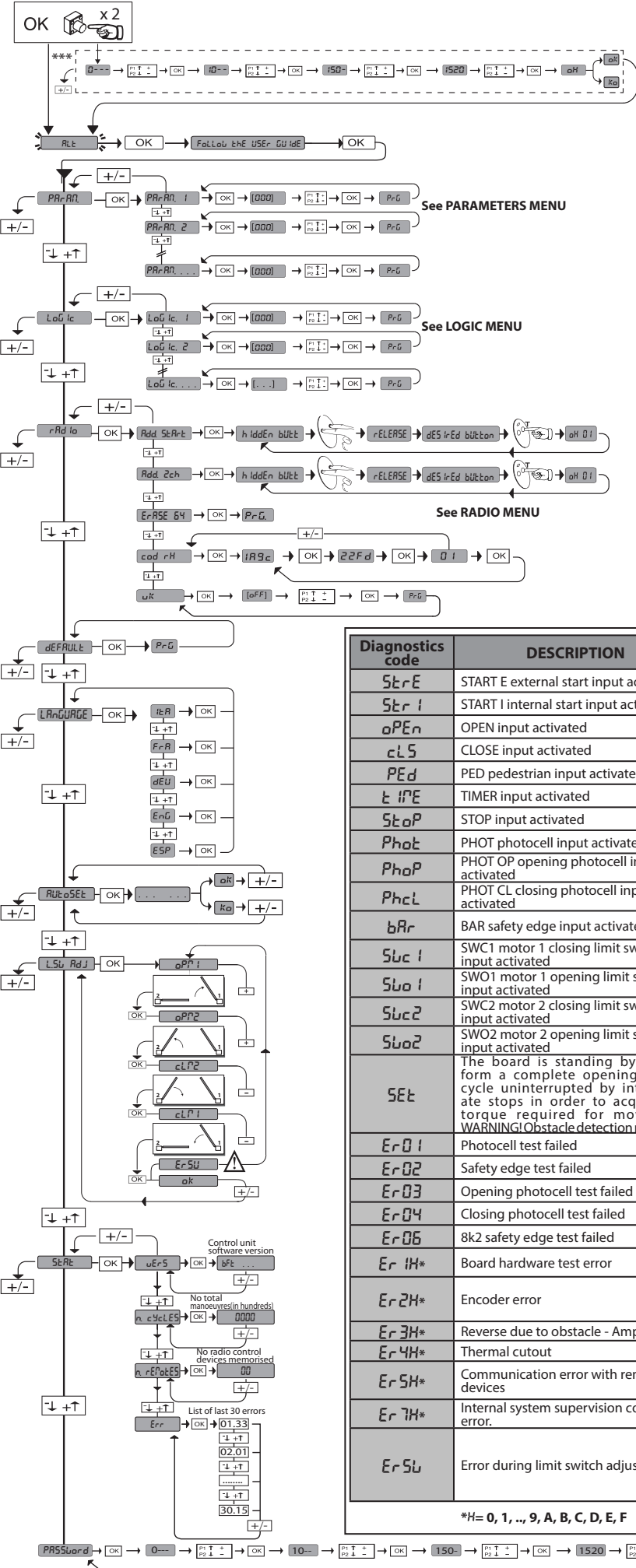


Numero massimo di dispositivi verificati: 6 (ma non più di 4 per tipo),
 Maximum number of tested devices: 6 (but no more than 4 per type),
 Nombre maximum dispositif vérifiés: 6 (mais pas plus de 4 par type),
 Max. Anzahl der überprüften Geräte: 6 (jedoch nicht mehr als 4 je Typ),
 Número máximo dispositivos comprobados: 6 (pero no más de 4 por tipo),
 Maximumaantal "trusted devices": 6 (maar niet meer dan 4 per type)

ACCESS MENUS Fig. 1

D812163 00100_04

*** Password entry.
Request with Protection Level
logic set to 1, 2, 3, 4



LEGENDA

⬆ + ⬆ Scroll up

⬇ - ⬇ Scroll down

OK ⬅ Confirm/Switch on display

+ [Hand icon] Exit Menü

- [Hand icon] Exit Menü

35.40
Instantaneous force motor 2
Instantaneous force motor 1

Diagnostics code	DESCRIPTION	NOTES
StArE	START E external start input activated	
StAr I	START I internal start input activated	
oPEn	OPEN input activated	
cLS	CLOSE input activated	
PEd	PED pedestrian input activated	
t iPE	TIMER input activated	
StoP	STOP input activated	
Phot	PHOT photocell input activated	
PhoP	PHOT OP opening photocell input activated	
PhcL	PHOT CL closing photocell input activated	
bAr	BAR safety edge input activated	
Sbc 1	SWC1 motor 1 closing limit switch input activated	
Sbc 2	SWC2 motor 2 closing limit switch input activated	
Sbc 1	SWO1 motor 1 opening limit switch input activated	
Sbc 2	SWO2 motor 2 opening limit switch input activated	
SEt	The board is standing by to perform a complete opening-closing cycle uninterrupted by intermediate stops in order to acquire the torque required for movement. WARNING! Obstacle detection not active	
ErD 1	Photocell test failed	Check photocell connection and/or logic settings
ErD 2	Safety edge test failed	Check safety edge connection and/or logic settings
ErD 3	Opening photocell test failed	Check photocell connection and/or parameter/logic setting
ErD 4	Closing photocell test failed	Check photocell connection and/or parameter/logic setting
ErD 6	8k2 safety edge test failed	Check safety edge connection and/or parameter/logic settings
Er 1H*	Board hardware test error	- Check connections to motor - Hardware problems with board (contact technical assistance)
Er 2H*	Encoder error	- Motor power or encoder signal cables inverted/disconnected. - Actuator movement is too slow or stopped with respect to programmed operation.
Er 3H*	Reverse due to obstacle - Amperostop	Check for obstacles in path
Er 4H*	Thermal cutout	Allow automated device to cool
Er 5H*	Communication error with remote devices	Check connection with serial-connected accessory devices and/or expansion boards
Er 7H*	Internal system supervision control error.	Try switching the board off and back on again. If the problem persists, contact the technical assistance department.
Er 5u	Error during limit switch adjustment	- Repeat the limit switch adjustment procedure. - Try moving the maximum limits of both the opening and closing limit switches. - Caution: the last centimetre of the piston's stroke, during either opening or closing, cannot be used.

*H= 0, 1, .., 9, A, B, C, D, E, F

ENGLISH

INSTALLER WARNINGS

D812163 00100_04

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: 2004/108/EC, 2006/95/EC, 2006/42/EC, 89/106/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.
- 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 5x1.5mm² or 4x1.5mm² when dealing with three-phase power supplies or 3x1.5mm² for single-phase supplies (by way of example, type H05 VV-F cable can be used with a cross-sectional area of 4x1.5mm²). To connect auxiliary equipment, use wires with a cross-sectional area of at least 0.5 mm².

- 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 EN 12453), 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.

THE DECLARATION OF CONFORMITY CAN BE VIEWED ON THIS WEBSITE: WWW.BFT.IT IN THE PRODUCT 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.

INSTALLATION MANUAL

2) GENERAL INFORMATION

The **THALIA** control panel comes with standard factory settings. Any change must be made using the programmer with built-in display or universal handheld programmer. The Control unit completely supports the EELINK protocol. Its main features are:

- Control of 1 or 2 24V BT motors
Note: 2 motors of the same type must be used.
- Electronic torque control with obstacle detection
- Limit switch control inputs based on motor selected
- 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 **THALIA** 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.

3) TECHNICAL SPECIFICATIONS

Power supply	220-230V 50/60 Hz*
Low voltage/mains insulation	> 2MΩ 500V ---
Operating temperature range	-20 / +55°C
Thermal overload protection	Software
Dielectric rigidity	mains/LV 3750V~ for 1 minute
Motor output current	max. 7.5A+7.5A

Motor relay switching current	10A
Maximum motor power	180W + 180W (24V ---)
Accessories power supply	24V~ (demand max. 1A) 24V~safe
AUX 0	NO 24V ---powered contact (max.1A)
AUX 3	NO contact (24V~/max.1A)
Fuses	see Fig. C
N° of combinations	4 billion
Max.n° of transmitters that can be memorized	63

(*other voltages to order)

Usable transmitter versions:

All ROLLING CODE transmitters compatible with ((€R-Ready))

4) TUBE ARRANGEMENT Fig. A

5) TERMINAL BOARD WIRING Fig. C

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 the dissipater.

WARNING! For connection to the mains power supply, use a multicore cable with a cross-sectional area of at least 3x1.5mm² of the kind provided for by the regulations in force.

To connect the motors, use a cable with a cross-sectional area of at least 1.5mm² of the kind provided for by the regulations in force. By way of example, if the cable is run outside (unprotected), it must be at least type H07RN-F, while if it is run inside (in a raceway), it must be at least type H05 VV-F.

	Terminal	Definition	Description
Power supply	L	LINE	Single-phase power supply 220-230V 50/60 Hz*
	N	NEUTRAL	
	JP5	TRANSF PRIM	Transformer primary winding connection, 220-230V.
	JP7		
	JP21	TRANSF SEC	Board power supply: 24V~ Transformer secondary winding 24V= Buffer battery power supply
Motor	10	MOT1 +	Connection motor 1. Time lag during closing. Check connections shown in Fig.E
	11	MOT1 -	
	14	MOT2 +	Connection motor 2. Time lag during opening. Check connections shown in Fig.E
	15	MOT2 -	
Aux	20	AUX 0 - 24V POWERED CONTACT (N.O.) (MAX. 1A)	AUX 0 configurable output - Default setting FLASHING LIGHT. 2ND RADIO CHANNEL/ SCA GATE OPEN LIGHT/ COURTESY LIGHT command/ ZONE LIGHT command/ STAIR LIGHT/ GATE OPEN ALARM/ FLASHING LIGHT/ SOLENOID LATCH/ MAGNETIC LOCK/ MAINTENANCE/ FLASHING LIGHT AND MAINTENANCE. Refer to "AUX output configuration" table.
	21		
	26	AUX 3 - FREE CONTACT (N.O.) (Max. 24V 1A)	AUX 3 configurable output - Default setting 2ND RADIO CHANNEL Output. 2ND RADIO CHANNEL/ SCA GATE OPEN LIGHT/ COURTESY LIGHT command/ ZONE LIGHT command/ STAIR LIGHT/ GATE OPEN ALARM/ FLASHING LIGHT/ SOLENOID LATCH/ MAGNETIC LOCK. Refer to "AUX output configuration" table.
	27		
Limit switch for ELI 250 BT	41	+ REF SWE	Limit switch common
	42	SWC 1	Motor 1 closing limit switch SWC1 (N.C.).
	43	SWO 1	Motor 1 opening limit switch SWO1 (N.C.).
	44	SWC 2	Motor 2 closing limit switch SWC2 (N.C.).
	45	SWO 2	Motor 2 opening limit switch SWO2 (N.C.).
Limit switch for PHOBOS N BT IGEA BT SUB BT PHOBOS BT A KUSTOS BT A	42	SW 1	Limit switch control motor 1. For actuators with single-wire limit switch control.
	43	SW 2	Limit switch control motor 2. For actuators with single-wire limit switch control.
Limit switch for LUX BT LUX GBT	41	+ REF SWE	Limit switch common
	42	SW 1	Limit switch control motor 1.
	43	SW 2	Limit switch control motor 2.
Accessories power supply	50	24V-	Accessories power supply output.
	51	24V+	
	52	24 Vsafe+	Tested safety device power supply output (photocell transmitter and safety edge transmitter). Output active only during operating cycle.
Commands	60	Common	IC 1 and IC 2 inputs common
	61	IC 1	Configurable command input 1 (N.O.) - Default START E. START E / START I / OPEN / CLOSE / PED / TIMER / TIMER PED Refer to the "Command input configuration" table.
	62	IC 2	Configurable command input 2 (N.O.) - Default PED. START E / START I / OPEN / CLOSE / PED / TIMER / TIMER PED Refer to the "Command input configuration" table.

INSTALLATION MANUAL

D812163 00100_04

	Terminal	Definition	Description
Safety devices	70	Common	STOP, SAFE 1 and SAFE 2 inputs common
	71	STOP	The command stops movement. (N.C.) If not used, leave jumper inserted.
	72	SAFE 1	Configurable safety input 1 (N.C.) - Default PHOT. PHOT / PHOT TEST / PHOT OP / PHOT OP TEST / PHOT CL / PHOT CL TEST / BAR / BAR TEST / BAR 8K2 Refer to the "Safety input configuration" table.
	73	FAULT 1	Test input for safety devices connected to SAFE 1.
	74	SAFE 2	Configurable safety input 2 (N.C.) - Default BAR. PHOT / PHOT TEST / PHOT OP / PHOT OP TEST / PHOT CL / PHOT CL TEST / BAR / BAR TEST / BAR 8K2 Refer to the "Safety input configuration" table.
	75	FAULT 2	Test input for safety devices connected to SAFE 2.
Antenna	Y	ANTENNA	Antenna input.
	#	SHIELD	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.

AUX output configuration

Aux logic= 0 - 2ND RADIO CHANNEL output. Contact stays closed for 1s when 2nd radio channel is activated.
Aux logic= 1 - SCA GATE OPEN LIGHT output. Contact stays closed during opening and with leaf open, intermittent during closing, open with leaf closed.
Aux logic= 2 - COURTESY LIGHT command output. Contact stays on for 90 seconds after the last operation.
Aux logic= 3 - ZONE LIGHT command output. Contact stays closed for the full duration of operation.
Aux logic= 4 - STAIR LIGHT output. Contact stays closed for 1 second at start of operation.
Aux logic= 5 - GATE OPEN ALARM output. Contact stays closed if the leaf stays open for double the set TCA time.
Aux logic= 6 - FLASHING LIGHT output. Contact stays closed while leaves are operating.
Aux logic= 7 - SOLENOID LATCH output. Contact stays closed for 2 seconds each time gate is opened.
Aux logic= 8 - MAGNETIC LOCK output. Contact stays closed while gate is closed.
Aux logic= 9 - MAINTENANCE output. Contact stays closed once the value set for the Maintenance parameter is reached, to report that maintenance is required.
Aux logic= 10 - FLASHING LIGHT AND MAINTENANCE output. Contact stays closed while leaves are operating. If the value set for the Maintenance parameter is reached, once the gate has finished moving and the leaf is closed, the contact closes for 10 sec. and opens for 5 sec. 4 times to report that maintenance is required.

Command input configuration

IC logic= 0 - Input configured as Start E. Operation according to 5ŁEP-bŸ-5ŁEP PŁŁ. logic. External start for traffic light control.
IC logic= 1 - Input configured as Start I. Operation according to 5ŁEP-bŸ-5ŁEP PŁŁ. logic. Internal start for traffic light control.
IC logic= 2 - Input configured as Open. The command causes the leaves to open. 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.
IC logic= 3 - Input configured as Closed. The command causes the leaves to close.
IC logic= 4 - Input configured as Ped. The command causes the leaf to open to the pedestrian (partial) opening position. Operation according to 5ŁEP-bŸ-5ŁEP. logic
IC logic= 5 - Input configured as Timer. Operation same as open except closing is guaranteed even after a mains power outage.
IC logic= 6 - Input configured as Timer Ped. The command causes the leaf to open to the pedestrian (partial) opening position. If the input stays closed, the leaf stays open until the contact is opened. If the input stays closed and a Start E, Start I or Open command is activated, a complete opening-closing cycle is performed before returning to the pedestrian opening position. Closing is guaranteed even after a mains power outage.

Safety input configuration

SAFE logic= 0 - Input configured as Phot (photocell) non tested (*). (fig.F, ref.1). Enables connection of devices not equipped with supplementary test contacts. 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. If not used, leave jumper inserted.
SAFE logic= 1 - Input configured as Phot test (tested photocell). (fig.F, ref.2). Switches photocell testing on at start of operation. In the event 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.
SAFE logic= 2 - Input configured as Phot op (photocell active during opening only) non tested (*). (fig.F, ref.1). Enables connection of devices not equipped with supplementary test contacts. In the event beam is broken, photocell operation is disabled during closing. During opening, stops motion for as long as the photocell beam stays broken. If not used, leave jumper inserted.
SAFE logic= 3 - Input configured as Phot op test (tested photocell active during opening only) (fig.F, ref.2). Switches photocell testing on at start of operation. In the event beam is broken, photocell operation is disabled during closing. During opening, stops motion for as long as the photocell beam stays broken.
SAFE logic= 4 - Input configured as Phot cl (photocell active during closing only) non tested (*). (fig.F, ref.1). Enables connection of devices not equipped with supplementary test contacts. In the event beam is broken, photocell operation is disabled during opening. During closing, movement is reversed immediately. If not used, leave jumper inserted.
SAFE logic= 5 - Input configured as Phot cl test (tested photocell active during closing only) (fig.F, ref.2). Switches photocell testing on at start of operation. In the event beam is broken, photocell operation is disabled during opening. During closing, movement is reversed immediately.
SAFE logic= 6 - Input configured as Bar (safety edge) non tested (*). (fig.F, ref.3). Enables connection of devices not equipped with supplementary test contacts. The command reverses movement for 2 sec.. If not used, leave jumper inserted.
SAFE logic= 7 - Input configured as Bar (tested safety edge) (fig.F, ref.4). Switches safety edge testing on at start of operation. The command reverses movement for 2 sec.
SAFE logic= 8 - Input configured as Bar 8k2 (fig.F, ref.5). Input for resistive edge 8K2. The command reverses movement for 2 sec.

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

6) MOTOR WIRING Fig. E

7) SAFETY DEVICES

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

7.1) TESTED DEVICES Fig. F

7.2) CONNECTION OF 1 PAIR OF NON-TESTED PHOTOCELLS FIG. D

8) CALLING UP MENUS: FIG. 1

8.1) PARAMETERS MENU (PR-R) (PARAMETERS TABLE "A")

8.2) LOGIC MENU (L-ic) (LOGIC TABLE "B")

8.3) RADIO MENU (r-ia) (RADIO TABLE "C")

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.
- 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.

8.4) DEFAULT MENU (d-FAULT)

Restores the controller's DEFAULT factory settings. Following this reset, you will need to run the AUTASET function again.

8.5) LANGUAGE MENU (L-R-URGE)

Used to set the programmer's language on the display.

8.6) AUTASET MENU (A-SET)

- Launch an autaset operation by going to the relevant menu.
- As soon as you press the OK button, the "....." message is displayed and the control unit commands the device to perform a full cycle (opening followed by closing), during which the minimum torque value required to move the leaf is set automatically. The number of cycles required for the autaset function can range from 1 to 3. During this stage, it is important to avoid breaking the photocell's beams and not to use the START and STOP commands or the display. Once this operation is complete, the control unit will have automatically set the optimum torque values. Check them and, where necessary, edit them as described in the programming section.

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.

Impact forces can be reduced by using deformable edges.

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

8.7) INSTALLATION TEST PROCEDURE

1. Run the AUTASET cycle (**)
2. Check the impact forces: if they fall within the limits (**) skip to point 10 of the procedure, otherwise
3. Where necessary, adjust the speed and sensitivity (force) parameters: see parameters table.
4. Check the impact forces again: if they fall within the limits (**) skip to point 10 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 10 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 10 of the procedure, otherwise

9. Allow the drive to move only in "Deadman" mode

10. Make sure all devices designed to detect obstacles within the system's operating range are working properly

(*) Before running the autaset 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

8.8) LIMIT SWITCH ADJUSTMENT MENU (L-5L-RdJ)

Used to adjust limit switches for motors featuring encoders.

The menu is enabled with the following motors: LUX BT, LUX G BT. In all other cases, the "not AVAILABLE" message is displayed.

NOTE: these operations must be performed in deadman mode at reduced speed and without the safety devices operating. If logic mode "I-P-act-Rct" is set, only messages relating to motor 1 will be displayed ("oP-1" and "cL-1").

8.9) STATISTICS MENU

Used to view the version of the board, the total number of operations (in hundreds), the number of transmitters memorized and the last 30 errors (the first 2 digits indicate the position, the last 2 give the error code). Error 01 is the most recent.

8.10) PASSWORD MENU

Used to set a password for the board's wireless programming via the U-link network. With "PROTECTION LEVEL" logic set to 1,2,3,4, the password is required to access the programming menus. After 10 consecutive failed attempts to log in, you will need to wait 3 minutes before trying again. During this time, whenever an attempt is made to log in, the display will read "BLOC". The default password is 1234.

9) CLOSING LIMIT SWITCH PRESSURE Fig. G Ref. A-B

OPENING DIRECTION Fig. G Ref. C-D

10) CONNECTION WITH EXPANSION BOARDS AND UNIVERSAL HANDHELD PROGRAMMER VERSION > V1.40 (Fig. H) Refer to specific manual.

11) U-LINK OPTIONAL MODULES

Refer to the U-link instructions for the modules.

The use of some models causes lowered radio capacity. Adjust the system using an appropriate antenna tuned to 433MHz.

12) SOLENOID LOCK Fig. I

SOLENOID LOCK

WARNING: In the case of leaves longer than 3m, it is essential to install a solenoid lock.

Fig. I shows a sample connection of an ECB 24V~ solenoid latch connected to the THALIA control panel.

In order to control the solenoid lock, the THALIA panel needs a special board mod. ME BT.

13) RESTORING FACTORY SETTINGS (Fig.J)

WARNING: this operation will restore the control unit's factory settings and all transmitters stored in its memory will be deleted.

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

- Cut off power to the board (Fig.J ref.1)
- Open the Stop input and press the - and OK keys together (Fig.J ref.2)
- Switch on the board's power (Fig.J ref.3)
- The display will read RST; confirm within 3 sec. by pressing the OK key (Fig.J ref.4)
- Wait for the procedure to finish (Fig.J ref.5)
- Procedure finished (Fig.J ref.6)

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.

Impact forces can be reduced by using deformable edges.

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

TABLE "A" - PARAMETERS MENU - (PR-R)

Parameter	min.	max.	Default	Personal	Definition	Description
oPEr dELAY tIME	0	10	3		Motor 2 opening delay time [s]	Motor 2 opening delay time with respect to motor 1.
cLS dELAY tIME	0	25	3		Motor 1 closing delay time [s]	Motor 1 closing delay time with respect to motor 2.
tCR	0	120	10		Automatic closing time [s]	Waiting time before automatic closing.
tRFLtGht.cLr.t	1	180	40		Time-to-clear traffic light zone [s]	Time-to-clear for the zone run through by traffic controlled by the traffic light.
oPd ISt.SLoId	0	50	10		Slow-down distance during opening [%]	Slow-down distance for motor(s) during opening, given as a percentage of total travel. WARNING: Once the parameter has been edited, a complete uninterrupted opening-closing cycle is required. WARNING: when the display reads "SET", obstacle detection is not active. ATTENTION: with actuators with integrated locks, the permanently active slowdown to a value higher than 5 is mandatory.

INSTALLATION MANUAL

D812163 00100_04

Parameter	min.	max.	Default	Personal	Definition	Description
<i>cLd ISt.SLoUd</i>	0	50	10		Slow-down distance during closing [%]	Slow-down distance for motor(s) during closing, given as a percentage of total travel. WARNING: Once the parameter has been edited, a complete uninterrupted opening-closing cycle is required. WARNING: when the display reads "SET", obstacle detection is not active. ATTENTION: with actuators with integrated locks, the permanently active slowdown to a value higher than 5 is mandatory.
<i>d ISt.dEcEL</i>	0	50	15		Deceleration distance [%]	Deceleration distance (switch from running speed to slow-down speed) for motor(s) both during opening and during closing, given as a percentage of total travel. WARNING: Once the parameter has been edited, a complete uninterrupted opening-closing cycle is required. WARNING: when the display reads "SET", obstacle detection is not active.
<i>P R r t I R L oPEn InG</i>	10	99	99		Partial opening M1 [%]	Partial opening distance as a percentage of total opening following activation of PED pedestrian command.
<i>oP ForcE</i>	1	99	50		Leaf force during opening [%]	Force exerted by leaf/leaves during opening. This is the percentage of force delivered, beyond the force stored during the autosect cycle (and subsequently updated), before an obstacle alarm is generated. The parameter is set automatically by the autosect function. 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 (**).
<i>cL S ForcE</i>	1	99	50		Leaf force during closing [%]	Force exerted by leaf/leaves during closing. This is the percentage of force delivered, beyond the force stored during the autosect cycle (and subsequently updated), before an obstacle alarm is generated. The parameter is set automatically by the autosect function. 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 (**).
<i>oP SPEEd</i>	15	99	99		Opening speed [%]	Percentage of maximum speed that can be reached by motor(s) during opening. WARNING: Once the parameter has been edited, a complete uninterrupted opening-closing cycle is required. WARNING: when the display reads "SET", obstacle detection is not active.
<i>cL SPEEd</i>	15	99	99		Closing speed [%]	Percentage of maximum speed that can be reached by motor(s) during closing. WARNING: Once the parameter has been edited, a complete uninterrupted opening-closing cycle is required. WARNING: when the display reads "SET", obstacle detection is not active.
<i>SLoW SPEEd</i>	15	99	25		Slow-down speed [%]	Opening and closing speed of motor(s) during slow-down stage, given as a percentage of maximum running speed. WARNING: Once the parameter has been edited, a complete uninterrupted opening-closing cycle is required. WARNING: When the display reads "SET", obstacle detection is not active.
<i>P R InTErRncE</i>	0	250	0		Programming number of operations for maintenance threshold [in hundreds]	Allows you to set a number of operations after which the need for maintenance will be reported on the AUX output configured as Maintenance or Flashing Light and Maintenance.



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

(**) Impact forces can be reduced by using deformable edges.

TABLE "B" - LOGIC MENU - (LoG ic)

Logic	Definition	Default	Cross out setting used	Optional extras
<i>Motor tYPE</i>	Motor type (Set the type of motor connected to the board).	0	0	Motors not active
			1	ELI 250 BT
			2	PHOBOS N BT
			3	IGEA BT
			4	LUX BT
			5	LUX G BT
			6	SUB BT
			7	KUSTOS BT A - PHOBOS BT A
<i>t c R</i>	Automatic Closing Time	0	0	Logic not enabled
			1	Switches automatic closing on
<i>FRSt cL S</i>	Fast closing	0	0	Logic not enabled
			1	Closes 3 seconds after the photocells are cleared before waiting for the set TCA to elapse.
<i>StEP-by-StEP P oUPEnt</i>	Step-by-step movement	0	0	Inputs configured as Start E, Start I, Ped operate with 4-step logic.
			1	Inputs configured as Start E, Start I, Ped operate with 3-step logic. Pulse during closing reverses movement.
			2	Inputs configured as Start E, Start I, Ped operate with 2-step logic. Movement reverses with each pulse.
<i>P r E - A L A r P</i>	Pre-alarm	0	0	The flashing light comes on at the same time as the motor(s) start.
			1	The flashing light comes on approx. 3 seconds before the motor(s) start.

INSTALLATION MANUAL

Logic	Definition	Default	Cross out setting used	Optional extras
<i>hold-to-run</i>	Deadman	0	0	Pulse operation.
			1	Deadman mode. Input 61 is configured as OPEN UP. Input 62 is configured as CLOSE UP. Operation continues as long as the OPEN UP or CLOSE UP keys are held down.  WARNING: safety devices are not enabled.
			2	Emergency Deadman mode. Usually pulse operation. If the board fails the safety device tests (photocell or safety edge, Er0x) 3 times in a row, the device is switched to Deadman mode, which will stay active until the OPEN UP or CLOSE UP keys are released. Input 61 is configured as OPEN UP. Input 62 is configured as CLOSE UP.  WARNING: with the device set to Emergency Deadman mode, safety devices are not enabled.
<i>ibl oPEn</i>	Block pulses during opening	0	0	Pulse from inputs configured as Start E, Start I, Ped has effect during opening.
			1	Pulse from inputs configured as Start E, Start I, Ped has no effect during opening.
<i>ibl tCA</i>	Block pulses during TCA	0	0	Pulse from inputs configured as Start E, Start I, Ped has effect during TCA pause.
			1	Pulse from inputs configured as Start E, Start I, Ped has no effect during TCA pause.
<i>ibl cLOSE</i>	Block pulses during closing	0	0	Pulse from inputs configured as Start E, Start I, Ped has effect during closing.
			1	Pulse from inputs configured as Start E, Start I, Ped has no effect during closing.
<i>rAP bLow oP</i>	Hammer during opening	0	0	Logic not enabled
			1	Before opening completely, the gate pushes for approx. 2 seconds as it closes. This allows the solenoid lock to be released more easily. IMPORTANT - Do not use this function if suitable mechanical stops are not in place.
<i>rAP bLow cCL</i>	Hammer during closing	0	0	Logic not enabled
			1	Before closing completely, the gate pushes for approx. 2 seconds as it opens. This allows the solenoid lock to be released more easily. IMPORTANT - Do not use this function if suitable mechanical stops are not in place.
<i>bLoc PER5 1St</i>	Stop maintenance	0	0	Logic not enabled
			1	If motors stay idle in fully open or fully closed position for more than one hour, they are switched on in the direction of the stop for approx. 3 seconds. This operation is performed every hour. NB: In hydraulic motors, this function serves to compensate a possible reduction in the volume of oil due to a drop in temperature during extended pauses, such as during the night, or due to internal leakage. IMPORTANT - Do not use this function if suitable mechanical stops are not in place.
<i>PrESS 5bc</i>	Closing limit switch pressure	0	0	Movement is stopped only when the closing limit switch trips: in this case, the tripping of the closing limit switch must be adjusted accurately (Fig.G Ref.B).
			1	Use when there is a mechanical stop in closed position. This function allows leaves to press against the mechanical stop without the Amperostop sensor interpreting this as an obstacle. Thus the rod continues its stroke for a few seconds after meeting the closing limit switch or as far as the mechanical stop. In this way, the leaves come to rest perfectly against the stop by allowing the closing limit switches to trip slightly earlier (Fig.G Ref.A).
<i>icE</i>	Ice feature	0	0	The Amperostop safety trip threshold stays at the same set value.
			1	The controller automatically adjusts the obstacle alarm trip threshold at each start up. 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. If in doubt, use auxiliary safety devices. This feature is useful when dealing with installations running at low temperatures. WARNING: once this feature has been activated, you will need to perform an autosest opening and closing cycle.
<i>1 Motor</i>	1 motor active	0	0	Both motors active (2 leaves).
			1	Only motor 1 active (1 leaf).
<i>oPEn in othEr dIrEct.</i>	Open in other direction	0	0	Standard operating mode (See Fig.G Ref. C).
			1	Opens in other direction to standard operating mode (See Fig. G Ref.D)
<i>SAFE 1</i>	Configuration of safety input SAFE 1. 72	0	0	Input configured as Phot (photocell).
			1	Input configured as Phot test (tested photocell).
			2	Input configured as Phot op (photocell active during opening only).
			3	Input configured as Phot op test (tested photocell active during opening only).
<i>SAFE 2</i>	Configuration of safety input SAFE 2. 74	6	4	Input configured as Phot cl (photocell active during closing only).
			5	Input configured as Phot cl test (tested photocell active during closing only).
			6	Input configured as Bar, safety edge.
			7	Input configured as Bar, tested safety edge.
			8	Input configured as Bar 8k2.

INSTALLATION MANUAL


D812163 00100_04

Logic	Definition	Default	Cross out setting used	Optional extras
IC 1	Configuration of command input IC 1. 61	0	0	Input configured as Start E.
			1	Input configured as Start I.
			2	Input configured as Open.
			3	Input configured as Close.
IC 2	Configuration of command input IC 2. 62	4	4	Input configured as Ped.
			5	Input configured as Timer.
			6	Input configured as Timer Pedestrian.
AUX 0	Configuration of AUX 0 output. 20-21	6	0	Output configured as 2nd Radio Channel.
			1	Output configured as SCA (gate open light).
			2	Output configured as Courtesy Light command.
			3	Output configured as Zone Light command.
AUX 3	Configuration of AUX 3 output. 26-37	0	4	Output configured as Stair Light
			5	Output configured as Alarm
			6	Output configured as Flashing light
			7	Output configured as Latch
			8	Output configured as Magnetic lock
			9	Output configured as Maintenance
			10	Output configured as Flashing Light and Maintenance.
FIXED CODE	Fixed code	0	0	Receiver is configured for operation in rolling-code mode. Fixed-Code Clones are not accepted.
			1	Receiver is configured for operation in fixed-code mode. Fixed-Code Clones are accepted.
Protection LEVEL	Setting the protection level	0	0	A - The password is not required to access the programming menus B - Enables wireless memorizing of transmitters. Operations in this mode are carried out near the control panel and do not require access: - 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. - 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 by repeating the previous step. C - Enables wireless automatic addition of clones. Enables clones generated with the universal programmer and programmed Replays to be added to the receiver's memory. D - Enables wireless automatic addition of replays. Enables programmed Replays to be added to the receiver's memory. E - The board's parameters can be edited via the U-link network
			1	A - You are prompted to enter the password to access the programming menus The default password is 1234. No change in behaviour of functions B - C - D - E from 0 logic setting
			2	A - You are prompted to enter the password to access the programming menus The default password is 1234. B - Wireless memorizing of transmitters is disabled. C - Wireless automatic addition of clones is disabled. No change in behaviour of functions D - E from 0 logic setting
			3	A - You are prompted to enter the password to access the programming menus The default password is 1234. B - Wireless memorizing of transmitters is disabled. D - Wireless automatic addition of Replays is disabled. No change in behaviour of functions C - E from 0 logic setting
			4	A - You are prompted to enter the password to access the programming menus The default password is 1234. B - Wireless memorizing of transmitters is disabled. C - Wireless automatic addition of clones is disabled. D - Wireless automatic addition of Replays is disabled. E - The option of editing the board's parameters via the U-link network is disabled. Transmitters are memorized only using the relevant Radio menu. IMPORTANT: This high level of security stops unwanted clones from gaining access and also stops radio interference, if any.
SERIAL MODE	Serial mode (Identifies how board is configured in a BFT network connection).	0	0	Standard SLAVE: board receives and communicates commands/diagnostics/etc.
			1	Standard MASTER: board sends activation commands (START, OPEN, CLOSE, PED, STOP) to other boards.
ADDRESS	Address	0	[____]	Identifies board address from 0 to 119 in a local BFT network connection. (see U-LINK OPTIONAL MODULES section)

INSTALLATION MANUAL

Logic	Definition	Default	Cross out setting used	Optional extras
<i>EHP11</i>	Configuration of EXPI1 input on input-output expansion board. 1-2	1	0	Input configured as Start E command.
			1	Input configured as Start I command.
			2	Input configured as Open command.
			3	Input configured as Close command.
			4	Input configured as Ped command.
			5	Input configured as Timer command.
			6	Input configured as Timer Pedestrian command.
			7	Input configured as Phot (photocell) safety.
			8	Input configured as Phot op safety (photocell active during opening only).
			9	Input configured as Phot cl safety (photocell active during closing only).
			10	Input configured as Bar safety (safety edge).
			11	Input configured as Phot test safety (tested photocell). Input 3 (EXPI2) on input/output expansion board is switched automatically to safety device test input, EXPFAULT1.
			12	Input configured as Phot op test safety (tested photocell active during opening only). Input 3 (EXPI2) on input/output expansion board is switched automatically to safety device test input, EXPFAULT1.
			13	Input configured as Phot cl test safety (tested photocell active during closing only). Input 3 (EXPI2) on input/output expansion board is switched automatically to safety device test input, EXPFAULT1.
14	Input configured as Bar safety (tested safety edge). Input 3 (EXPI2) on input/output expansion board is switched automatically to safety device test input, EXPFAULT1.			
<i>EHP12</i>	Configuration of EXPI2 input on input-output expansion board. 1-3	0	0	Input configured as Start E command.
			1	Input configured as Start I command.
			2	Input configured as Open command.
			3	Input configured as Close command.
			4	Input configured as Ped command.
			5	Input configured as Timer command.
			6	Input configured as Timer Pedestrian command.
			7	Input configured as Phot (photocell) safety.
			8	Input configured as Phot op safety (photocell active during opening only).
			9	Input configured as Phot cl safety (photocell active during closing only).
10	Input configured as Bar safety (safety edge).			
<i>EHPo1</i>	Configuration of EXPO2 output on input-output expansion board 4-5	11	0	Output configured as 2 nd Radio Channel.
			1	Output configured as SCA (gate open light).
			2	Output configured as Courtesy Light command.
			3	Output configured as Zone Light command.
			4	Output configured as Stair Light.
<i>EHPo2</i>	Configuration of EXPO2 output on input-output expansion board 6-7	11	5	Output configured as Alarm.
			6	Output configured as Flashing light.
			7	Output configured as Latch.
			8	Output configured as Magnetic lock.
			9	Output configured as Traffic Light control with TLB board.
			10	Output configured as Flashing Light and Maintenance.
<i>ErAFFlc LIGHt PrEFLASHInG</i>	Traffic light pre-flashing	0	0	Pre-flashing switched off.
			1	Red lights flash, for 3 seconds, at start of operation.
<i>ErAFFlc LIGHt rEd LAMP ALLWAYs on</i>	Steadily lit red light	0	0	Red lights off when gate closed.
			1	Red lights on when gate closed.

TABLE "C" – RADIO MENU (rRad io)

Logic	Description
<i>Add Start</i>	Add Start Key associates the desired key with the Start command
<i>Add 2ch</i>	Add 2ch Key associates the desired key with the 2nd radio channel command. Associates the desired key with the 2nd radio channel command. If no output is configured as 2nd Radio Channel Output, the 2nd radio channel controls the pedestrian opening.
<i>ErASE 64</i>	Erase List  WARNING! Erases all memorized transmitters from the receiver's memory.
<i>cod rH</i>	Read receiver code Displays receiver code required for cloning transmitters.
<i>wk</i>	ON = Enables remote programming of cards via a previously memorized W LINK transmitter. It remains enabled for 3 minutes from the time the W LINK transmitter is last pressed. OFF = W LINK programming disabled.