

**CENTRALE DI COMANDO**  
MANUALE D'INSTALLAZIONE ED USO

pag. 3



**CONTROL UNIT**  
INSTALLATION AND OPERATION MANUAL

pag. 17

# CSB Xtreme (1.2)



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## 1. INTRODUCTION

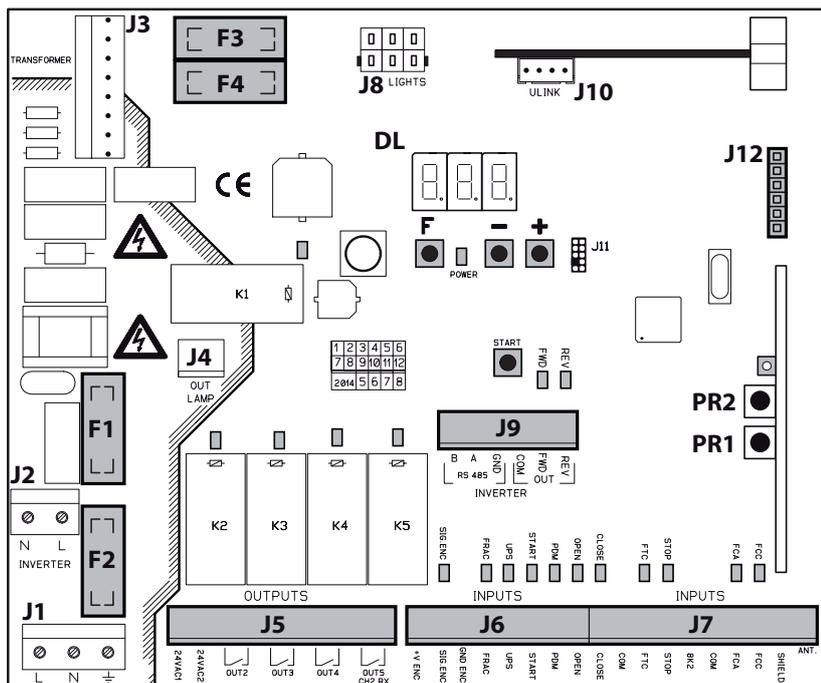
The control unit has been developed to control automatic single-phase barriers with inverter-driven three-phase motor.

= Electrical connections configured at the factory.

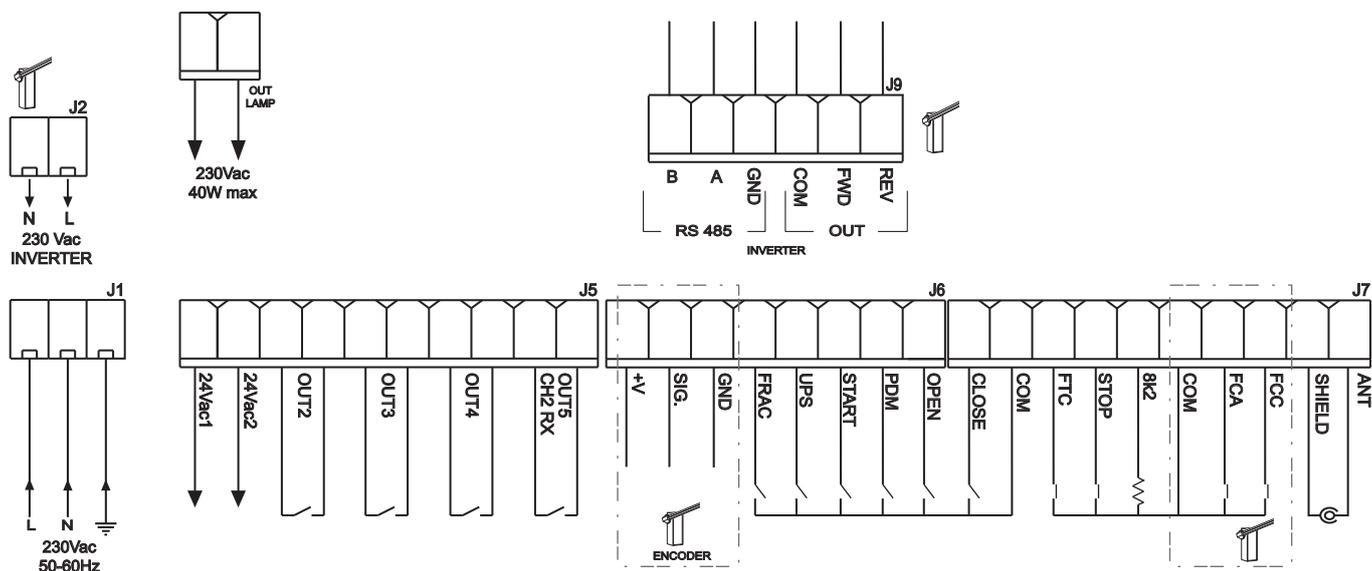
## 2. MAIN CHARACTERISTICS

- Microprocessor logic
- LEDs displaying inputs/outputs status
- Integrated radio receiver 433.92MHz, 2 channels, 2 048 codes
- TCP/IP module and RS485 module (Option)
- 3-digit display for programming and system status
- Up to 4 configurable outputs
- Radio programmer connector
- Built-in heater for cold climates (Termon)

ENGLISH



- |   |  |
|---|--|
| <b>J1:</b> Control unit power supply        | <b>J10:</b> Expansion connector  |
| <b>J2:</b> Inverter power supply            | <b>J12:</b> Radio programmer connector   |
| <b>J3:</b> Transformer connector            | <b>DL:</b> 3-digit LED display   |
| <b>J4:</b> Flashing light output            | <b>START:</b> "START" control button   |
| <b>J5:</b> Outputs/accessories power supply | <b>F1:</b> Transformer primary fuse: 500 mA (230Vac) - 1 AT (115Vac) 5x20mm              |
| <b>J6:</b> Encoder/inputs                   | <b>F2:</b> Line fuse (control board and inverter): 4 AT (230Vac) - 8 AT (115Vac) 5x20 mm |
| <b>J7:</b> Inputs/antenna                   | <b>F3, F4:</b> Transformer secondaries fuses: 2 AT 5x20mm                                |
| <b>J8:</b> Boom lights connector            | <b>F, -, +:</b> Programming push buttons   |
| <b>J9:</b> Inverter signals                 | <b>PR1, PR2:</b> Radio receiver programming push buttons                                 |



### 3. TECHNICAL SPECIFICATIONS

- Power supply:.....230Vac ±10%, 50/60Hz (115Vac on request)
- Flashing light output:.....230Vac; 40W max
- Accessory output:.....24Vac; 24W - 1A max

### 4. INSTALLATION SAFETY

In order to reach the level of safety required by current regulations, follow these prescriptions carefully.

- 1) Make all the connections in the terminal block after carefully reading the instructions given in this manual and observing the general rules and technical standards concerning electrical systems installations.
- 2) Always fit an omnipolar circuit breaker with a contact gap of at least 3 mm.
- 3) Install a differential circuit breaker with a threshold of 30 mA.
- 4) Check the effectiveness of the protective earth and connect to it all the parts of the automation fitted with a terminal or grounding cable.
- 5) Fit at least one external warning device, such as a traffic light or flashing light, along with a warning or danger sign.
- 6) Fit all the safety devices required by the type of installation, taking into consideration the risks it can cause.
- 7) Separate in the ducts the power lines (1.5 mm<sup>2</sup> min. section) from the low-voltage signal lines (0.5 mm<sup>2</sup> min. section).



### 5. PRELIMINARY OPERATIONS

Barriers with standard booms are automatically selected. For special booms (barrier 35 only), before operating the automation, make sure to have correctly selected the barrier/boom type as follows:

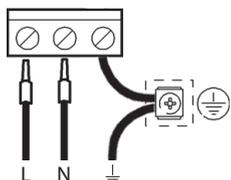
- Press and hold down buttons F and + for 5 seconds.
- Select the barrier/boom type using buttons +/-.
- Press together F and + to confirm.
- Only select the actual barrier/boom being used:

BARRIER TYPE SELECTION			
5-8	MAXIMA ULTRA 68 (auto select)	90	ATM 90° boom (ULTRA 35 only)
3-5	MAXIMA ULTRA 35 (auto select)	180	ATM 180° boom (ULTRA 35 only)
Cr-b	Carbon boom (ULTRA 35 only)		

**The Company is not liable for injury to people or animals or damage to things in the case of wrong selection of the barrier. Selecting wrong barrier/boom voids warranty.**

### 6. INPUT AND OUTPUT FUNCTIONALITY AND CONNECTIONS

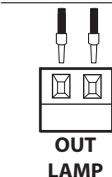
#### 6.1 J1 CONTROL UNIT POWER SUPPLY



230Vac 50/60Hz power supply.  
Connect the LINE and NEUTRAL as shown on the board. Use cable type H07RN-F 2x1.5+E min.  
Connect the yellow/green EARTH wire of the power supply mains to the earth terminal of the appliance.



#### 6.2 J4 FLASHING LIGHT OUTPUT



Output 230Vac, 40W max.

#### 6.3 J5 OUTPUTS/ACCESSORIES POWER SUPPLY



**OUT24**  
Output 24Vac, 1A max



**OUT2**  
Programmable dry relay output, max. 500mA 24 Vac/dc (parameter α<sup>2</sup> - level 2)



**OUT3**  
Programmable dry relay output, max. 500mA 24 Vac/dc (parameter α<sup>3</sup> - level 2)

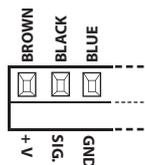


**OUT4**  
Programmable dry relay output, max. 500mA 24 Vac/dc (parameter α<sup>4</sup> - level 2)

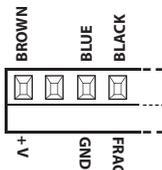


**OUT5/CH2 RX**  
Programmable dry relay output, max. 500mA 24 Vac/dc or N.O. output of the 2nd radio receiver channel (parameter α<sup>5</sup> - level 2)

## 6.4 J6 ENCODER/INPUTS

**ENCODER**

Supplied already wired. Encoder can trigger in the closing movement only, when the boom hits an obstacle. Select the desired behaviour by programming the parameter  $E\bar{L}$ -level 1. +V terminal can be used for powering additional sensors (16Vdc not stabilized-100mA max)

**FRAC**

N.C. additional safety input for swinging boom sensor. When activated (open) it stops the automation immediately. Subsequent START always cause reopening.

**UPS**

UPS status input. To be connected to smart UPS with status output, active-high during mains failure. The control unit has also an internal detector that works with simpler square-wave and quasi-sinusoidal UPS. With these simpler UPS there is no need to use this input.

**START**

N.O. input for controlling the automation according to four-step logic: open-stop-close-open.

**PDM INPUT**

Programmable input, parameter  $Pd$ -level 3. This signal can be duplicated on an programmable output (see OUT2, 3, 4, 5).

**OPEN**

N.O. input - opens the boom. This input has priority over CLOSE command and can be kept always activated until necessary. Connect loop detectors, clocks, daily or weekly timers here, where and if necessary.

## 6.5 J7 INPUTS/ANTENNA

**CLOSE**

N.O. input for closing. It allows the automation to be closed only if the safety devices have not triggered. Operating mode programmable with parameter  $\bar{L}L$ -level -3.

**FTC**

N.C. safety input (photocell). Enter the programme wanted by programming the  $F\bar{L}$ -level-1 parameter. It triggers only in the closing phase; it never triggers in opening.

**STOP**

N.C. safety input. When activated it stops the automation instantly and a subsequent start always cause reopening. During pause time (PAUSE trimmer) a stop command disables automatic reclosing, leaving the bar open waiting for commands. NOTE: The hatch microswitch is already connected to this input.

**8k2**

Multi-purpose analog input. For TERMON heater see paragraph 8.3.

**FCA**

Limit switch N.C. input in opening. When activated the opening travel finishes.

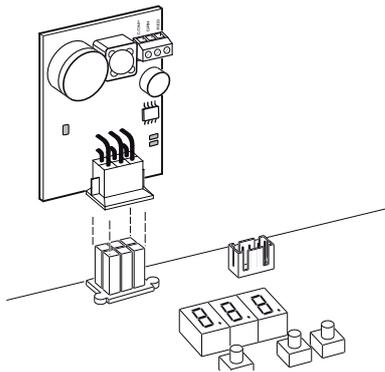
**FCC**

Limit switch N.C. input in closing. When activated the closing travel finishes.

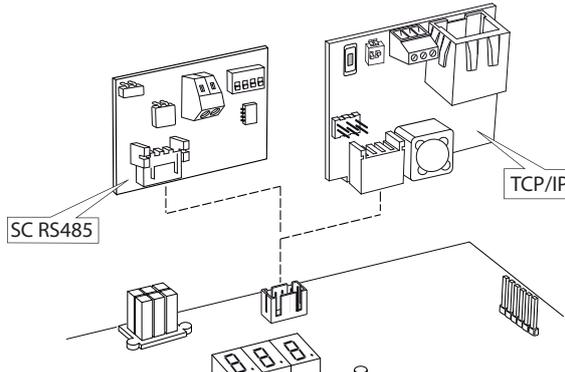
**ANTENNA**

Antenna connection for the integrated receiver

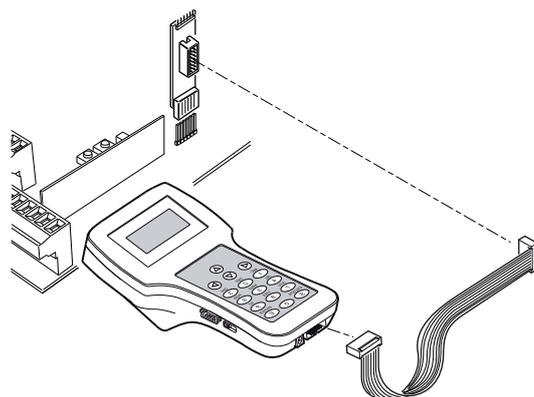
6.6 **J8** BOOM LIGHTS CONNECTOR



6.7 **J10** EXPANSION CONNECTOR



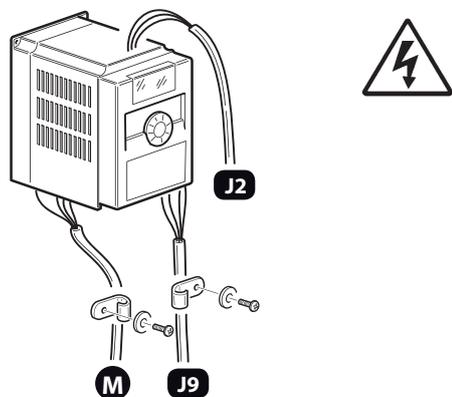
6.8 **J12** RADIO PROGRAMMER CONNECTOR



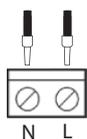
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7. INVERTER CONNECTIONS

7.1 **J2** INVERTER

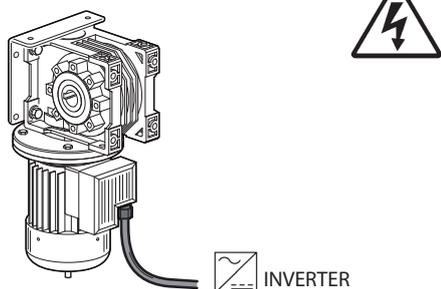


7.2 **J2** POWER SUPPLY

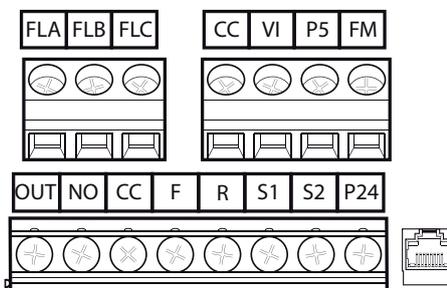


**CONTROL UNIT**  
230Vac 50/60Hz with internal protection and fuse.

7.3 **M** MOTOR



7.4 **J9** INVERTER SIGNALS



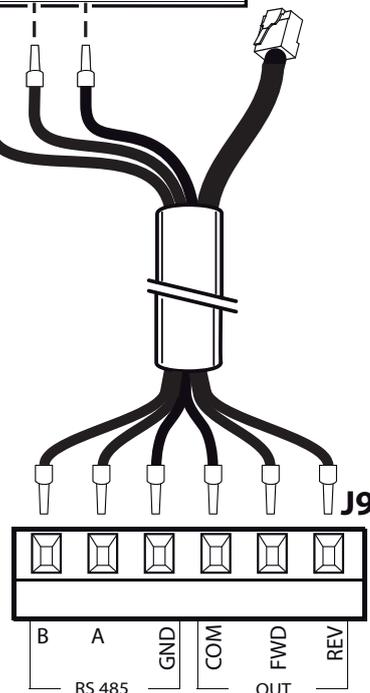
**INVERTER**

CC: Brown  
F: Yellow  
R: White

**CONTROL UNIT**

B: Gray  
A: Pink  
GND: Green

COM: Brown  
FWD: Yellow  
REV: White



## 8. PROGRAMMING

### 8.1 BASIC FUNCTIONS

To access programming, press button **F** for 2 seconds.

Programming is divided into 4 levels.

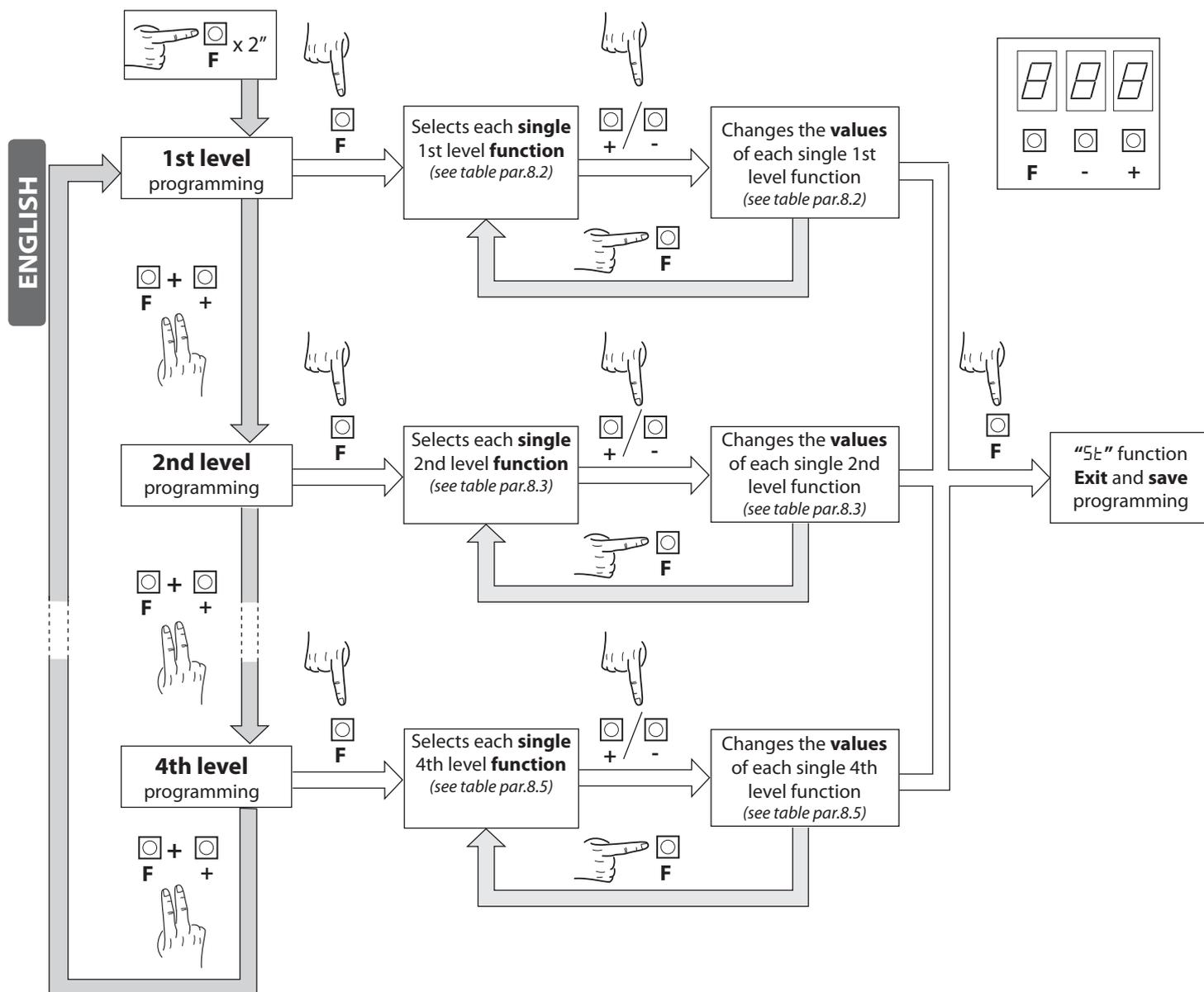
To go to the next level keep key **F** pressed and press the + key (Sequence 1-2-3-1.....).

After selecting the level wanted, press push button **F** to display the functions available in consecutive order. Each time **F** is pressed it corresponds to a function (L0-LL-FE-EE.....)

With the function set, use the  $\oplus$  or  $\ominus$  key to change the values of the parameters ( $\oplus$ : 00-0 1-02-03... /  $\ominus$ : ...03-02-0 1-00).

The changes made to the parameters are active immediately but will be saved when exiting the menu, selecting the 5t function with key **F**.

**PLEASE NOTE:** If there is a black out when programming, all changes will be lost.



**Example:**  
 Selecting Output2 on closed arm:

(A) $\square$ x 2" <b>F</b> x 2" 	(B) $\square$ + $\square$ <b>F</b> +  2 <sup>nd</sup> level	(C) $\square$ x 5 <b>F</b> x 5  02	(D) $\square$ x 4 <b>F</b> +  04=arm closed	(E) $\square$ x 3 <b>F</b> x 3  5t
--	---	--	---	--

8.2 **1ST** LEVEL PROGRAMMING

The following table gives the 1st level functions and the single settable parameters.



= DEFAULT value set in factory.



= parameter value set during installation: must be indicated if DEFAULT value is modified.

Par	Function	Settable data		
L0	Selects the functioning logic. (see notes after the table)	00: Hold-to-run	01	
		01: Semi automatic		
		02: Automatic		
CL	Close input configuration (see notes after the table)	00: Standard close input	00	
		01: Close-when-released input		
		02: The close command acts as a release closing and safety function.		
Ft	Photocells	00: When closing it stops and waits for disengaged photocell commands	02	
		01: When closing it stops; reclosing after 1" when the photocell is disengaged		
		02: When closing it reopens; reclosing after 1" when the photocell is disengaged		
		03: When closing it reopens; reclosing after 5" when the photocell is disengaged		
		04: When closing it reopens; reclosing when the photocell is disengaged		
		05: When closing it reopens and waits for disengaged photocell commands		
EC	Encoder	00: Excluded	03	
		01: When closing it stops and waits for commands		
		02: When closing it reopens and waits for commands		
		03: When closing it reopens, reclosing after 5 seconds		
ES	Encoder sensitivity	01 - 09 (minor - major)	05	
PF	Warning flash	00: Excluded	00	
		01: Prior to each movement on a configured output (see parameters 02,03,04,05 in the 2nd level table)		
		02: Prior to each movement on a configured output and on the arm lights		
Lb	Arm lights	00: Flashing red light when moving, off red light when the arm is closed and open.	00	
		01: Flashing red light when moving, on red light when the arm is closed and off when the arm is open.		
		02: Flashing red light when moving and with the arm closed, on red light when stopped and on green light when the arm is open.		
		03: Flashing red light when moving, off red light when the arm is closed and on green light when the arm is open		
		04: Flashing red light when moving, on red light when the arm is closed and on green light when the arm is open		
EP	Pause time (expressed in seconds)	00-99	10	
dF	Resetting default parameters. (see notes after the table)	00: No resetting	01	
		01: Resetting the default parameters and arm type		
St	Exiting the menu/saving	Exit programming and view machine status (see notes St automation status display)		

Description of level 1 parameters

• **L0: Functioning logic**

- Hold-to-run: The automation works when the commands are held down. The start command opens once and closes once.
- Semi automatic: The automation works with jog commands, without automatic reclosing. Hence, when fully open, to control closing you need to act on the start or close command respectively.
- Automatic: The automation works in jogs. When the opening manoeuvre is completed in the standard cycle, automatic reclosing is activated after the pause time set (parameter EP).

• **CL: Close configuration**

- 01: Close-when-released input  
This mode has been developed so the arm closes automatically only when the vehicle has completely passed by the photocell or magnetic detector (the most suitable accessories for this purpose).

Connect the N.O. contact of the detector or photocell to the Close contact terminals.

If the vehicle is on the detector or in front of the photocell it does not cause immediate closing but rather you have to wait for the signal to be released.

- **02**: The close command acts as a release closing and safety function.

When closing, the close command engaging stops the automation. When disengaged the barrier resumes closing.

• **dF**: Default

- To reset the default parameters, set parameter **dF** on 1 and exit the menu.

• **5t**: Automation status display

- During operation, the control unit displays automation status so the installer is able to follow the logical flow of the board.

The status are:

<b>01</b> : Idle	<b>09</b> : Stop due to photocell triggering
<b>02</b> : Opening	<b>10</b> : Opening due to photocell triggering
<b>03</b> : Stop opening limit switch	<b>11</b> : Photocell triggering pause
<b>04</b> : Stop opening	<b>12</b> : Stop due to encoder triggering
<b>05</b> : Closing	<b>13</b> : Opening due to encoder triggering
<b>06</b> : Stop closing limit switch	<b>14</b> : Pause due to encoder triggering
<b>07</b> : Stop closing	<b>15</b> : Maximum working time in opening reached
<b>08</b> : N/A	<b>16</b> : Maximum working time in closing reached

### 8.3 2ND LEVEL PROGRAMMING

The following table gives the 2nd level functions and the single settable parameters.



= DEFAULT value set in factory.



= parameter value set during installation: must be indicated if DEFAULT value is modified.

Par	Function	Settable data		
<b>tL</b>	Maximum operating time (sec.)	<b>03-30</b>	15	
<b>5r</b>	Request for maintenance	<b>00</b> : disabled	00	
		<b>01</b> : active on the configured outputs		
		<b>02</b> : active on the configured outputs and the bar lights flash twice		
<b>nt</b>	Programming maintenance cycles in thousands	<b>00-99</b>	00	
<b>nL</b>	Programming maintenance cycles in millions	<b>0.0-9.9</b>	0.0	
<b>02</b> <b>03</b> <b>04</b> <b>05</b>	Output 2, Output 3, Output 4, Output 5	<b>00</b> : request for maintenance	11=50 - 20=40 - 04=02 - 05=14 02=05 - 03=04 - 10=04 - 05=20	
		<b>01</b> : photocell triggering		
		<b>02</b> : encoder triggering		
		<b>03</b> : PDM contact actuated		
		<b>04</b> : arm closed		
		<b>05</b> : arm open		
		<b>06</b> : stop contact actuated		
		<b>07</b> : warning flash		
		<b>08</b> : Arm locking device		
		<b>09</b> : open triggering		
		<b>10</b> : contatto close attivato		
		<b>11</b> : start triggering		
		<b>12</b> : FRAC triggering		
		<b>13</b> : UPS triggering		
<b>14</b> : second radio channel triggering (only OUT 5)				
<b>tE</b>	Termon	<b>00</b> : Disabled	00	
		<b>01</b> : Enabled and always active		
		<b>02</b> : Enabled when needed by means of NTC sensor connected between 8k2 and COM input terminal		

Par	Function	Settable data		
UP	UPS	00: disabled	00	
		01: enabled, opens automatically during mains failure		
		02: enabled, closes automatically during mains failure ⚠ATTENTION: THIS SELECTION MAY BE DANGEROUS		
5E	Exiting the menu/saving	Exit programming and view machine Status (see notes 5E automation Status display after the 1st level table)		

**Description of level 2 parameters**

• **5r: Request for maintenance**

00: the request for maintenance is not active.

01: at the end of the countdown, by means of counters nE and nL, one of the programmed outputs is activated (see parameter a2, a3, a4, a5)

02: at the end of the countdown, by means of counters nE and nL, one of the programmed outputs is activated (see parameter a2, a3, a4, a5) and the bar lights flash twice.

• **nE and nL: Programming maintenance cycles in thousands and millions**

Thanks to the combination of the two parameters the countdown can be set after which a request for maintenance is signalled.

Thousands can be set with the nE parameter, millions with the nL parameter.

Example: to set 275 000 maintenance manoeuvres set nL on 0.2 and nE on 75.

The value displayed in the parameters updates along with the manoeuvres.

• **EE: TERMON (integrated motor heater system).**

01: system is always ON. Must be used only with maximum ambient temperature less than +10°C

⚠ WARNING: ambient temperatures >10°C may cause overheating and damages to the motor, not covered by warranty

02: system is activated depending on motor temperature, measured by a NTC sensor (option). In case of NTC failure, system reverts to setup 01

• **UP: UPS**

UPS TYPE	
Square-wave or quasi-sine wave UPS	Internal detector, UPS input not connected
Pure-sinusoidal wave UPS <b>with</b> mains failure output	Connect mains failure output to UPS input
Pure-sinusoidal wave UPS <b>without</b> mains failure output	Use 230Vac relais, bobbin connected to mains supply, close contacts to UPS input

• **Arm locking device configuration:**

To use the arm locking device, connect the enabling contact to OUT2 or OUT3 or OUT4 or OUT5 and set the corresponding parameter a2, a3, a4 or a5 to 00. Set advance electric lock disengagement (r5 -3rd level)

**8.4 3ND LEVEL PROGRAMMING**

The following table gives the 3rd level functions and the single parameters.



= DEFAULT value set in factory.



= parameter value set during installation: must be indicated if DEFAULT value is modified.

Par	Function	Settable data		
A5	Advanced setup	00: no advanced setup	00	
		01: N/A		
		02: controlled entry and automatic exit		
Pd	PDM dynamic input polarity	00: input N.O.	00	
		01: input N.C.		
P2	Output 2 polarity Output 3 polarity Output 4 polarity Output 5 polarity	00: N.O.	00	
P3				
P4				
P5		01: N.C.		
r5	Advance electric lock disengagement	00: 0,5s - 01: 1s - 02: 1,5s - 03: 2s - 04: 2,5s - 05: 3s	00	
05	Opening speed (%)	66 - 99 (MAXIMA ULTRA 68, ATM 90°, ATM 180°)	66	
		50 - 99 (MAXIMA ULTRA 35, Carbon)	50	

CS	Closing speed (%)	53 - 99 (MAXIMA ULTRA 68, ATM 90°, ATM 180°)	53	
		40 - 99 (MAXIMA ULTRA 35, Carbon)	40	
FP	Speed selection input	00: Disabled	00	
		01: Enabled		
Fr	Swinging boom sensor input	00: swinging boom not mounted or disabled	00	
		01: swinging boom sensor mounted and activated N.C.		
St	Exiting the menu/saving	Exit programming and view machine status (see notes 5t St automation status display after the 1st level table)		

### Description of level 3 parameters

• P2, P3, P4, P5: Output polarity

Output polarity: The outputs can be configured as N.O. or N.C. but, in the event of a blackout the contacts open anyway.

• FP: Velocity selection input

By enabling this parameter bar speed can be adjusted via the PDM input.

If the PDM is activated and parameter FP enabled the barrier moves at a speed equal to 60% of maximum speed, both when opening and closing.

• rS: Advance electric lock disengagement

This parameter adjusts the delay between electro-lock deactivation and engine start, to allow the resetting of the residual magnetism of the electro lock.

• RS: Advanced setup

This parameter enables the use of special configurations to cater for specific necessities.

01 N/A.

02 Controlled entry and automatic exit (see paragraph 11).

• Fr: Swinging boom sensor input N.C.

00 swingin boom sensor not mounted or disabled

01 automation stops immediately in case of swinging boom opened

## 8.5 4TH LEVEL PROGRAMMING

The following table gives the 4rd level functions and the single parameters.



= DEFAULT value set in factory.



= parameter value set during installation: must be indicated if DEFAULT value is modified.

Par	Function	Settable data		
Con	Communication protocol	00: disabled	00	
		01: U-LINK		
		02: Modbus/RTU		
UNo	U-LINK mode	00: Slave	00	
		01: Master		
		02: Slave for opposing barriers		
		03: Master for opposing barriers		
UId	U-LINK adress	00 - 31	00	
Ni d	Modbus/RTU ID	01 - 247: For Slave	01	
		00: For Master		
NSP	MODBUS RTU speed	00: 19 200 band	00	
		01: 38 400 band		

### Descrizione parametri livello 4

• Con:

Setting communication protocol.

**Set value always same to Master and Slave.**

• Ni d:

Setting Modbus/RTU ID.

• UNo:

Impostazione U-LINK mode.

• NSP:

Setting MODBUS RTU speed

**Set value always same to Master and Slave.**

• UId:

Setting U-LINK adress.

## 9. RADIO RECEIVER

### 9.1 RECEIVER TECHNICAL SPECIFICATIONS

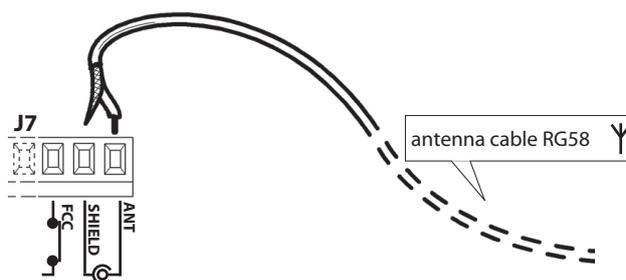
- Max. n° of radio transmitters that can be memorized:	2 048
- Frequency:	433.92MHz
- Code by means of:	Rolling-code algorithm
- N° of combinations:	4 billion

### 9.2 RADIO CHANNEL FUNCTIONALITY

Channel 1:	Start command
Channel 2:	Closes the relay contact on the terminal block J5 "CH2 RX"

### 9.3 ANTENNA INSTALLATION

Use an antenna tuned to 433MHz. Connect the tuned antenna to the antenna terminals using RG58 coaxial cable.



### 9.4 MANUAL PROGRAMMING

In the case of standard installations where no advanced functions are required, it is possible to proceed to manual storage of the transmitters, making reference to programming table A and to the example for basic programming.

- 1) If you wish the transmitter to activate output 1, press pushbutton PR1, otherwise if you wish the transmitter to activate output 2, press pushbutton PR2.
- 2) When LED DL1 starts blinking, press hidden key on the transmitter, LED DL1 will remain continuously lit.
- 3) Press the key of the transmitter to be memorized, LED DL1 will flash quickly to indicate that it has been memorized successfully. Flashing as normal will then be resumed.
- 4) To memorize another transmitter, repeat steps 2) and 3).
- 5) To exit memorizing mode, wait for the LED to go off completely or press the key of a remote control that has just been memorized.

**IMPORTANT NOTE: ATTACH THE ADHESIVE KEY LABEL TO THE FIRST MEMORISED TRANSMITTER (MASTER).**

In the case of manual programming, the first transmitter assigns the key code to the receiver; this code is necessary in order to carry out subsequent cloning of the radio transmitters.



Hidden key

### 9.5 SELF-LEARNING MODE PROGRAMMING

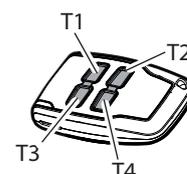
This mode is used to copy the keys of a transmitter already stored in the receiver memory, without accessing the receiver.

The first transmitter is to be memorised in manual mode (see paragraph 9.4).

- a) Press hidden key on the transmitter already memorised.
- b) Press key T on the transmitter already memorised, which is also to be attributed to the new transmitter.
- c) Within 10 s., press hidden key on the new transmitter to be memorised.
- d) Press key T to be attributed to the new transmitter.
- e) To memorise another transmitter, repeat the procedure from step (c) within a maximum time of 10 seconds, otherwise the receiver exits the programming mode.
- f) To copy another key, repeat from step (a), having waited for the receiver to exit the programming mode (or after disconnecting the receiver from the power supply).



Hidden key



## 10. WARNINGS

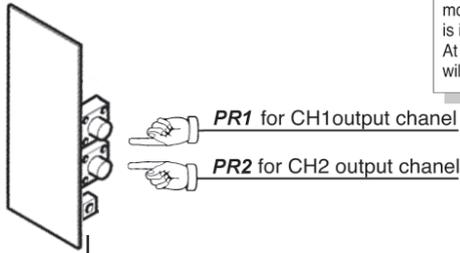
It is recommended to make an installation which has all the accessories necessary to ensure operation according to current provisions, always using genuine devices.

This equipment must be installed and used in strict compliance with the manufacturer's instructions. The manufacturer cannot be held responsible for any damage deriving from improper or unreasonable use.

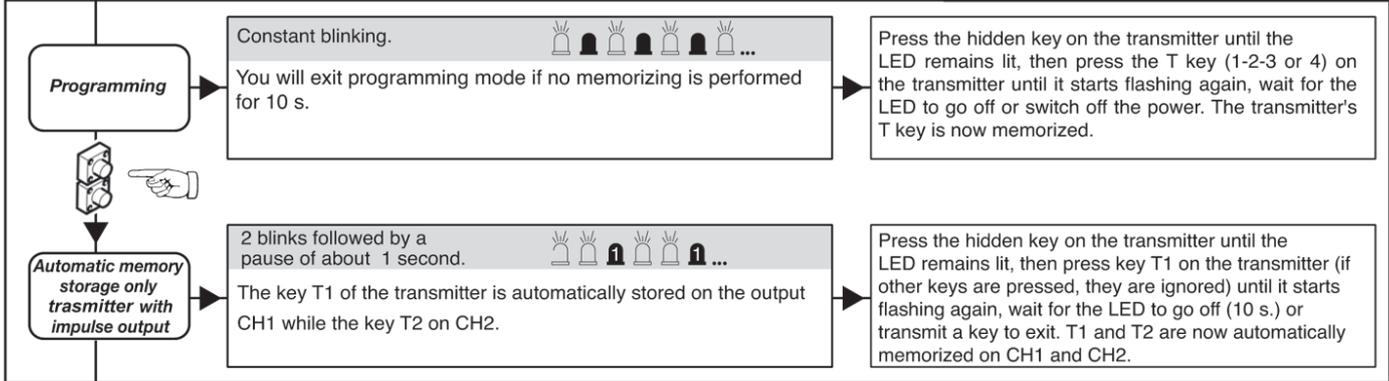
The constructor disclaims all liability for any inaccuracies contained in this booklet and reserves the right to make changes at any time without any prior notice whatsoever.

**TABLE A**

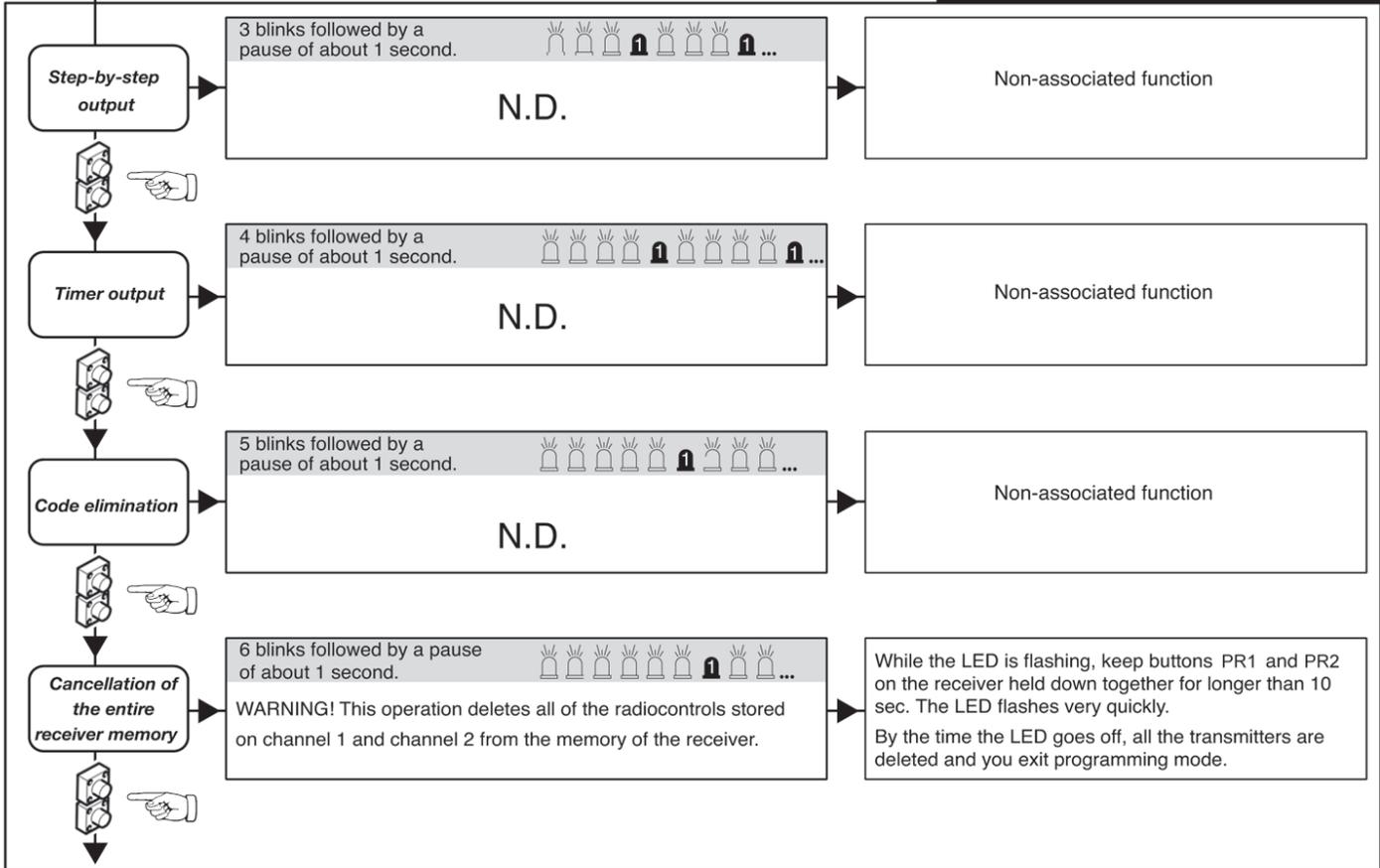
When pressing the key PR1 (for channel 1) or PR2 (for channel 2) for the first time, the receiver sets to the programming mode. Every time the key PR is pressed after that, the receiver switches to the configuration for the subsequent function, that is indicated by the number of flashings (see table).  
 At this stage, after selecting the channel (PR1 or PR2) and the desired function, the key T (T1-T2-T3 or T4) of the transmitter will be stored in the memory of the receiver as indicated in the table for programming.



**Standard Programming**



**Advanced Programming**



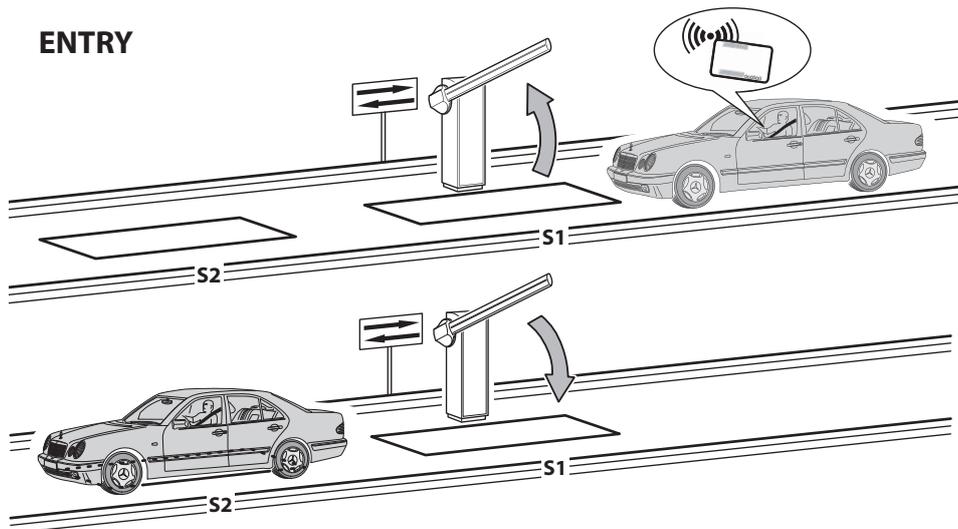
**LEGEND**



### 11. CONTROLLED ENTRY AND AUTOMATIC EXIT

This solution is recommended when you want to enter a reserved area in both directions. To enter, transit is allowed by means of a recognition command while exiting is automatic.

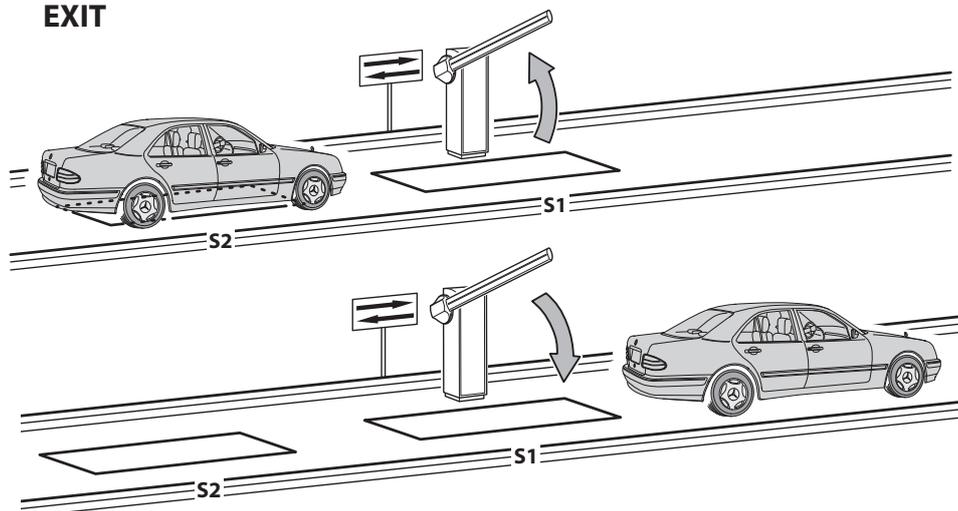
#### ENTRY



The recognition system enables barrier opening. If the coil **S1** is not occupied within the pause time, the barrier closes again.

When coil **S1** is cleared, the barrier starts closing instantaneously.

#### EXIT

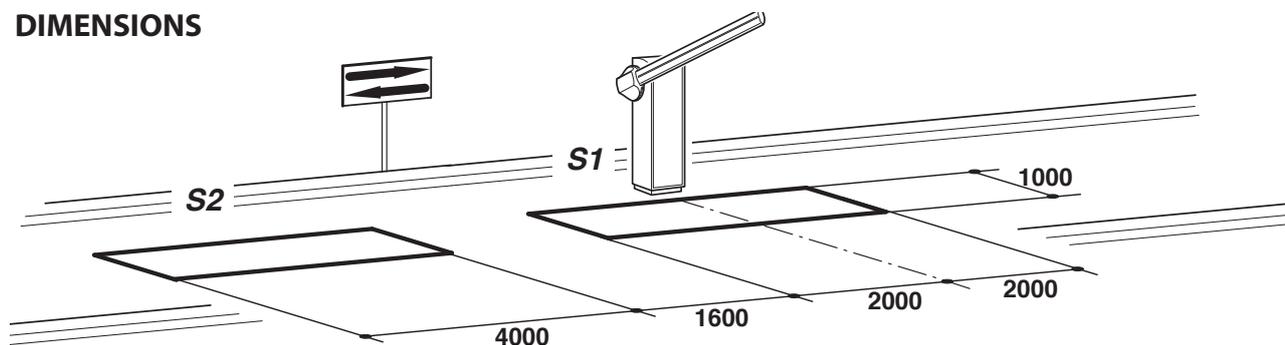


The vehicle approaches the reserved area. When the coil **S2** is occupied, barrier opening is enabled. If the coil **S1** is not occupied within the pause time, the barrier closes again.

When coil **S1** is cleared, the barrier starts closing instantaneously.

Loop **S1** also perform as safety function not permitting the barrier closure as long as barrier is occupied.

#### DIMENSIONS

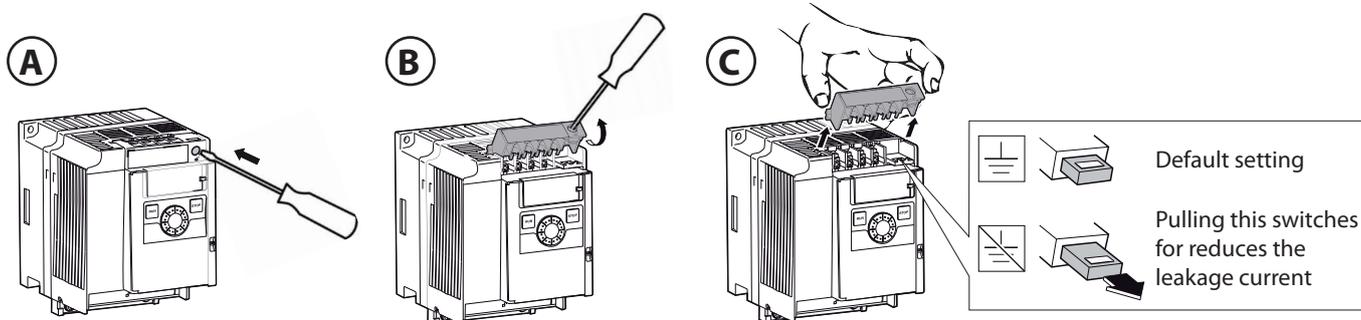


- Connect the coil **S1** to the **CLOSE** input.
- Connect the **N.O.** contact of the **S2** loop receiver to input **START**.
- The dimensional values of the loops are only approximate.
- \*We suggest installing the "RME 2" metal mass detector.
- Only use recognition systems other than remote control units (badge readers, video camera systems with license plate recognition etc.) with a potential free output, which must be connected to the **OPEN** input.

PARAMETER	DATA	DESCRIPTION
L0	02	Automatic
CL	02	The close control closes when pressed and released, and also functions as a safety system.
RS	02	Advanced Setup: controlled entry and automatic exit

## 12. TROUBLESHOOTING GUIDE

- In the case of a malfunction, check that the correct barrier was selected (paragraph 5)
- Dual flashing of the cover lights. Indicates that scheduled maintenance is required. Check the parameters 5r-2ND level, nE-2ND level, nL-2ND level.
- Current from to ground leakage problem: the Inverter have a built-in high-attenuation noise filter and are grounded via a capacitor. A switch makes to reduce leakage current from to ground. The reducing the load means though non-conformity with the EMC standard on the inverter itself. Do switching with the power off.



**REGISTRO DI MANUTENZIONE**  
*MAINTENANCE LOG*

**Dati impianto • Plant data**

<b>Installatore</b> <i>Installer</i>	
<b>Cliente</b> <i>Customer</i>	
<b>Matricola</b> <i>Serial number</i>	
<b>Data installazione</b> <i>Installation date</i>	
<b>Data attivazione</b> <i>Activation date</i>	

<b>Nr.</b>	<b>Data • Date</b>	<b>Descrizione intervento • Intervention description</b>	<b>Firme • Signatures</b>
<b>1</b>			Tecnico • <i>Technician</i>
			Cliente • <i>Customer</i>
<b>2</b>			Tecnico • <i>Technician</i>
			Cliente • <i>Customer</i>
<b>3</b>			Tecnico • <i>Technician</i>
			Cliente • <i>Customer</i>
<b>4</b>			Tecnico • <i>Technician</i>
			Cliente • <i>Customer</i>
<b>5</b>			Tecnico • <i>Technician</i>
			Cliente • <i>Customer</i>
<b>6</b>			Tecnico • <i>Technician</i>
			Cliente • <i>Customer</i>
<b>7</b>			Tecnico • <i>Technician</i>
			Cliente • <i>Customer</i>
<b>8</b>			Tecnico • <i>Technician</i>
			Cliente • <i>Customer</i>
<b>9</b>			Tecnico • <i>Technician</i>
			Cliente • <i>Customer</i>
<b>10</b>			Tecnico • <i>Technician</i>
			Cliente • <i>Customer</i>

INSTALLATORE  
INSTALLER

**Bft Spa**  
Via Lago di Vico, 44  
36015 Schio (VI)  
T +39 0445 69 65 11  
F +39 0445 69 65 22  
→ [www.bft.it](http://www.bft.it)



**SPAIN**  
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