RAPID PARK

con / avec / with / mit PARK 230V

con nuovo finecorsa, più facile e veloce da regolare
avec un nouveau fin de course, plus facile et plus rapide à régler
with the new limit switch, easier and faster to adjust
mit neuem Endschalter - noch einfacher und rascher zu regulieren
con un nuevo final de carrera, se regula más fácil y rápidamente

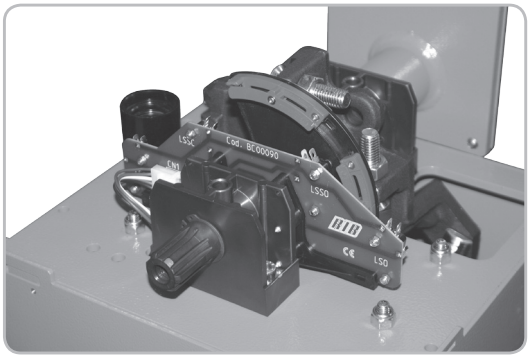
NUOVA VERSIONE con funzionamento a uomo presente se le fotocellule o le coste sono guaste. Conforme alle normative in vigore.

NOUVELLE VERSION avec travail avec homme present, dans le cas de panne de sécurité. Conforme aux Normes en vigueur.

NEW VERSION with functioning in dead man mode when the safety devices are failing. According to current European Norms.

NEUE VERSION mit arbeit im mannsbeisein im fall eines ausfalls der Sicherheiten. In Übereinstimmung mit der aktuellen Normen.

NUEVA VERSIÓN con funcionamiento a hombre presente en caso de averías con los accesorios de seguridad. En conformidad a las Normas en vigor.



BARRIERA IRREVERSIBILE PER IL CONTROLLO DEL TRAFFICO VEICOLARE

BARRIÈRE IRRÉVERSIBLE POUR LE CONTRÔLE DU TRAFIC VÉHICULAIRE

IRREVERSIBLE BARRIER FOR VEHICULAR TRAFFIC CONTROL

SELBSTHEMMENDE SCHRANKE ZUR VERKEHRSSTEUERUNG

BARRERA IRREVERSIBLE PARA CONTROL DE TRÁFICO VEHICULAR

CE

Operatore Operateur Operator Torantrieb Operador	Alimentazione Alimentation Power Supply Stromspannung Alimentacion	Lunghezza max asta Longueur maxi de la lisse Max. boom lenght Max. Baumlänge Longitud máxima de la asta	codice code code code codigo
RAPID PARK	230V/50-60Hz	3 m	AA50041F
RAPID PARK METAL	230V/50-60Hz	3 m	AA50037F

ITALIANO pag. 05 / FRANÇAIS pag. 15 / ENGLISH page 25 / DEUTSCH pag. 35 / ESPAÑOL pag. 45

GB IMPORTANT SAFETY INSTRUCTIONS FOR THE INSTALLATION

- ATTENTION -
FOR THE SAFETY OF THE PEOPLE IT IS IMPORTANT TO FOLLOW ALL THE INSTRUCTIONS.

FOLLOW ALL INSTALLATION INSTRUCTIONS

1° - **This handbook is exclusively addressed to the specialized personnel** who knows the constructive criteria and the protection devices against the accidents for motorized gates, doors and main doors (follow the standards and the laws in force).
2° - The installer will have to issue to the final user a handbook in accordance with the EN 12635.
3° - Before proceeding with the installation, the installer must forecast the risks analysis of the final automatized closing and the safety of the identified dangerous points (following the standards EN 12453/EN 12445).
4° - The wiring harness of the different electric components external to the operator (for example photoelectric cells, flashlights etc.) must be carried out according to the EN 60204-1 and the modifications to it done in the point 5.2.2 of the EN 12453.
5° - The possible assembly of a keyboard for the manual control of the movement must be done by positioning the keyboard so that the person operating it does not find himself in a dangerous position; moreover, the risk of accidental activation of the buttons must be reduced.
6° - Keep the automatism controls (push-button panel, remote control etc.) out of the children way. The controls must be placed at a minimum height of 1,5m from the ground and outside the range of the mobile parts.
7° - Before carrying out any installation, regulation or maintenance operation of the system, take off the voltage by operating on the special magnetothermic switch connected upstream it.

THE RIB COMPANY DOES NOT ACCEPT ANY RESPONSIBILITY for possible damages caused by the non observance during the installation of the safety standards and of the laws in force at present.

KEEP THESE INSTRUCTIONS WITH CARE

1° - If it is not forecast in the electric gearcase, install a switch of magnetothermic type upstream, (omni polar with minimum port of the contacts of 3 mm) with a check of conformity to the international standards. Such devise must be protected against the accidental lockup (for example by installing inside a locked board).
2° - For the section and the type of the cables, RIB advices to use a cable of the H05RN-F type with minimum section of 1,5 sqmm and, in any case, to keep to the IEC 364 standard and to the installation standards in force in your country.
3° - Positioning of a possible couple of photoelectric cells: the radius of the photoelectric cells must be at a height of 50÷60 cm from the ground and at a distance not superior to 15 cm from the motion plane of the rod. Their correct working must be verified at the end of the installation in accordance with the point 7.2.3 of the EN 12445.

N.B.: The system must be grounded
Data described by this manual are only Indicative and RIB reserves to modify them at any time. Install the system complying with current standards and regulations.

D WICHTIGE SICHERHEITS ANLEITUNGEN FÜR DIE INSTALLATIONEN

- ACHTUNG -
FÜR DIE SICHERHEIT DER PERSONEN IST ES WICHTIG, DASS ALLE ANWEISUNGEN GENAU AUSGEFÜHRT WERDEN

ALLE INSTALLATIONSANLEITUNGEN BEFOLGEN

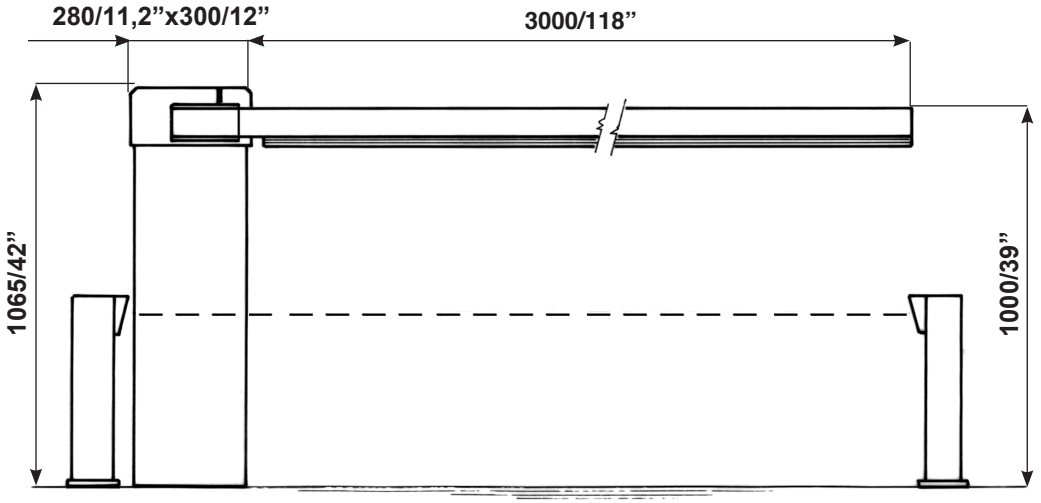
1° - **Diese Betriebsanleitung dient ausschließlich dem Fachpersonal**, welche die Konstruktionskriterien und die Sicherheits-Vorschriften gegen Unfälle für Tore, Türen und automatische Tore kennt (geltende Normen und Gesetze beachten und befolgen).
2° - Der Monteur muss dem Endkunde eine Betriebsanleitung in Übereinkunft der EN12635 überreichen.
3° - Vor der Installierung muss für die automatische Schließung und zur Sicherheitsgewährung der identifizierten kritischen Punkte, eine Risiko Analyse vorgenommen werden mit der entsprechenden Behebung der identifizierten, gefährlichen Punkte. (die Normen EN 12453/EN 12445 befolgend).
4° - Die Verkabelung der verschiedenen externen elektrischen Komponenten zum Operator (z.B. Fotozellen, Blinker etc.) muss nach EN 60204-1 ausgeführt werden, Änderungen davon nach Punkt 5.2.2 der EN 12453.
5° - Die eventuelle Montage einer Schalttafel für den manuellen Bewegungsbefehl muss so angebracht werden, dass der Benutzer sich nicht in einer Gefahrenzone befindet, und dass, das Risiko einer zufälligen nicht gewollten Aktivierung von Schaltern gering ist.
6° - Alle Steuerungselemente (Schalttafel, Fernbedienung etc.) gehören nicht in Reichweite von Kindern. Die Kommandos müssen min. 1,5 m ab Boden und außerhalb des Aktionsbereiches der mobilen Teile angebracht werden.
7° - Vor jeglichem Eingriff, sei es Installation, Regulation oder Wartung der Anlage, muss vorher die Stromzufuhr unterbrochen werden, den dafür bestimmten Magnetthermo-Schalter drücken, der am Eingang der Anlage installiert ist.

DIE FIRMA RIB ÜBERNIMMT KEINE VERANTWORTUNG für eventuelle Schäden, die entstehen können, wenn die Installierungsvorschriften die den gültigen Sicherheitsnormen entsprechen, nicht eingehalten werden.

INSTALLATIONSVORSCHRIFTEN BEACHTET WERDEN

1° - Wenn in der elektrischen Steuerung nicht vorgesehen, muss am Eingang derselben ein Schalter angebracht werden des Typs thermomagnetisch (mit minimaler Öffnung der Kontakte bzw. 3mm), welcher die Übereinstimmungszeichen der internationalen Normen aufweist. Diese Vorrichtung muss geschützt werden vor einer ungewollten Schließung (z.B. wenn sie in einer abgeschlossenen Schalttafel installiert ist).
2° - Für die Sektion und für den Kabel-Typ empfiehlt RIB die Benutzung eines Kabels des Typs H05RN-F mit Minimalsektion von 1,5 mm_2 und auf jeden Fall, sich an die Norm IEC 364 halten, unter Beachtung der gültigen Installationsnormen des eigenen Landes.
3° - Positionierung eines eventuellen Fotozellen Paares: Der Fotozellenstrahl muss auf einer Höhe von 50÷60 cm. vom Boden angebracht werden, die Distanz zu der Bewegungsfläche der Schranke darf nicht mehr als 15 cm sein. Ihre korrekte Funktionierung muss bei Installationsschluss überprüft werden, in Übereinstimmung mit Punkt 7.2.3 der EN 12445.

ANMERKUNG: Die Erdung der Anlage ist obligatorisch
Die in diesem Handbuch aufgeführten Daten sind ausschließlich empfohlene Werte. RIB behält sich das Recht vor, das Produkt zu jedem Zeitpunkt zu modifizieren. Die Anlage muss in Übereinstimmung mit den gültigen Normen und Gesetzen montiert werden.



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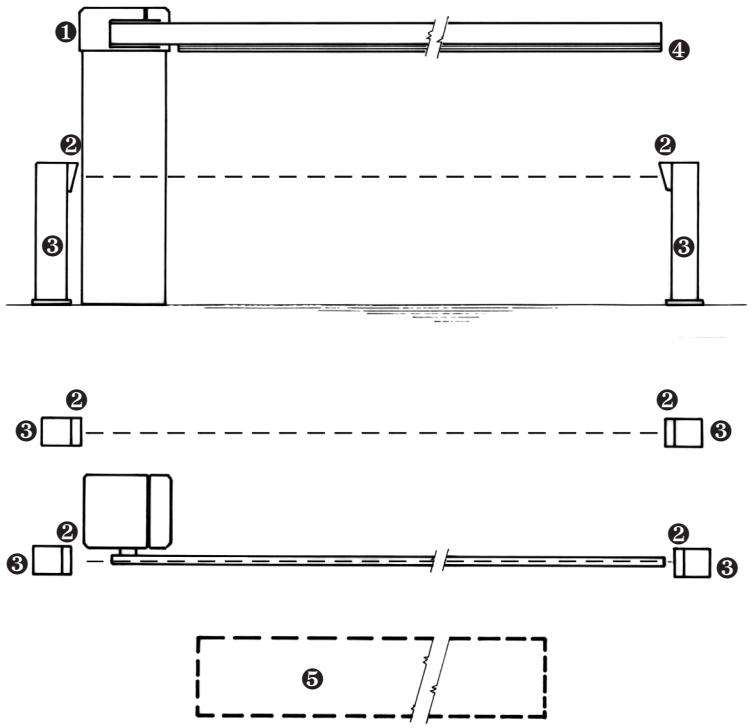


1 - RAPID PARK barrier
2 - Photoelectric cells
3 - Galvanized column for P.E. cells
4 - Strip with Photo electric cells
5 - Magnetic loop
- Key selector
- Tuned aerial

2

Parts to install meeting the EN 12453 standard

COMMAND TYPE	USE OF THE SHUTTER		
	Skilled persons (out of a public area*)	Skilled persons (public area)	Unrestricted use
with manned operation	A	B	
with visible impulses (e.g. sensor)	C	C	C e D
with not visible impulses (e.g. remote control device)	C	C e D	C e D
automatic	C e D	C e D	C e D

* a typical example are those shutters which do not have access to any public way.

A: Command button with manned operation (that is, operating as long as activated), like code ACG2013.
B: Key selector with manned operation, like code ACG1010.
C: Safety edges, like code ACG3010 and/or other safety devices to keep thrust force within the limits of EN12453 regulation - Appendix A.
D: Photocells, like code ACG8026.

TECHNICAL FEATURES

Lh./rh.irreversible gearmotor used for raising and lowering barrier poles up to 3 m. long.
The cabinet of the operator is treated with cataphoresis and thermal spray coating.
The motor is protected from overheating by a thermal probe which momentarily interrupt the power supply.
The worm gear reducer unit with oil bath lubrication is equipped with an emergency disengage system.
The barrier is supplied also with electronic control panel, flasher unit, electrical and mechanical limiters and compression type balancing springs.
N.B. You must make installation features comply with laws and standards in force.

TECHNICAL DATA	RAPID PARK		
Max. boom lenght	m/in	3/118”	
Opening time	s	1,5	
EEC Power supply	230V~ 50Hz		60Hz
Motor capacity	W	202	210
Power absorbed	A	0,86	0,99
Capacitor	µF	10	10
Max. torque	Nm/lbsm	72/158	72/158
Power supply	120V~ 60Hz		
Motor capacity	W	200	
Power absorbed	A	2,1	
Capacitor	µF	40	
Max. torque	Nm/lbsm	60/132	
Normative cycles 230V	n°	∞ - 2s/2s	∞ - 1,5s/2s
Normative cycles 120V	n°	∞ - 2s/2s	
Daily operations suggested	n°	2000	
Service	100%		
Guaranteed consecutive cycles	n°	2000	
Lubrification	SHELL OMALA S2 G100		
Weight of electroreducer	kg	62	
Working temperature	°C	-10 ÷ +55	
Protection grade	IP	54	

Boom arm assembling

To assemble the boom arm follow these 3 steps:

1 - Fit the base of the fixing hub in vertical position onto the main shaft, by using the DSB10X45I screw. Fasten it tight (Fig. 3).
2 - Fix the U shape profile onto the base of the fixing hub, by using the four DTB8X20I screws and their washers. Do not tighten the screws to allow the boom arm to slide into the fixing hub (Fig. 4).
3 - Fit the black plastic caps at the both ends of the boom arm. Insert the boom arm into the fixing hub and fasten the four screws tight (Fig. 5).

The gear unit is irreversible so no external locking device is necessary to keep the barrier in securely engaged in close position.

Adjusting the balancing springs

Adjusted balancing springs are generally provided with the barrier.
If the boom arm tends to drop too quickly when it is disengaged from the gearmotor, adjust the balancing springs in the following way:

1 - With the boom arm engaged to the gearmotor, press the open command of the control board to lift the boom arm until the barrier is completely opened.
2 - Switch off the motor power supply. Screw clockwise the ring nut of the balancing-unit to increase the spring compression degree. Use the second ring nut to block the first one (Fig. 6).

To check if the boom arm is balanced perfectly, disengage the boom arm from the gearmotor and move the boom by hand. The boom should slightly tend to rise.

Limit switch setting

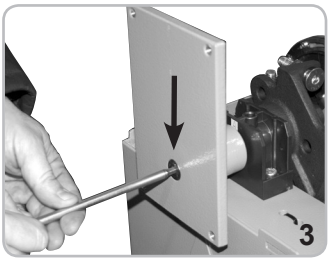
The barrier is supplied with the electrical limit switches and the mechanical stoppers already set to allow optimum boom arm movement.
If the base plate cannot be cemented on a horizontal plane, the boom might be not perfectly horizontal or vertical. To avoid this, it is possible to trim the trajectory of the boom by adjusting the mechanical stoppers and the electrical limit switches (Fig. 7):

1 - Use a No.19 hexagonal wrench to loosen the retaining nuts **(F)** and a No.8 allen key to loosen or tighten the countersunk screws **(G)**. Trim the mechanical stoppers to find the desired boom arm trajectory angle.
2 - Having done this, the electrical limit switches now have to be set. To do this you must use a Philip's head screwdriver to loosen the fastening screws **(E)** of the electric limit switch cams (Fig. 8). Once the rod is positioned at the base of the mechanical stop plate, just move the cams as shown in Fig. 9 in order to make the micro limit switch trip.
3 - Fasten tight the fixing screws **(E)**.

Slowing action adjustment

Normally the barrier is supplied with a slowdown limit switch already adjusted to allow the ideal rod motion.
In cases where it is necessary to change the slowdown parameters, just adjust the appropriate cams (Fig. 10) by loosening the fastening screws with a Philip's head screwdriver **K** (Fig. 10).
The slowdown cams are independent from the limit switch adjustment cams (by moving them, the Open and Close cams are not modified) and they are separate from each other (Slow opening - Slow closing).
After you have adjusted them, tighten the fastening screws and check that the barrier is working properly by making a complete opening and closing movement.

Note: It is recommended to anticipate the slow-opening limit switch to avoid the bounce-back of the rod once it has arrived at the mechanical plate.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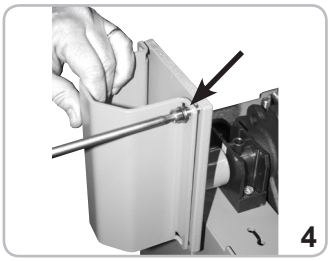
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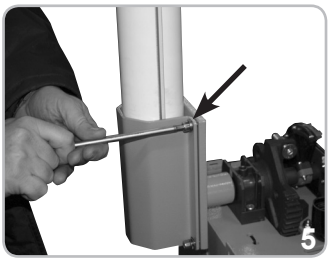
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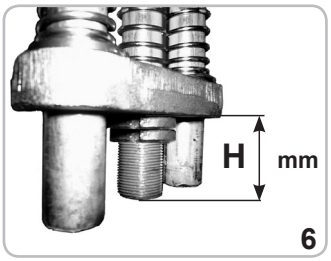

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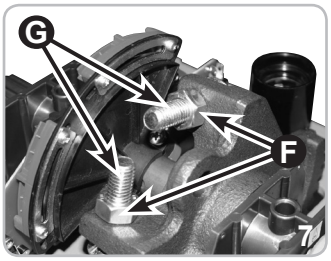

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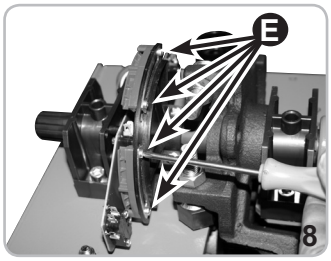

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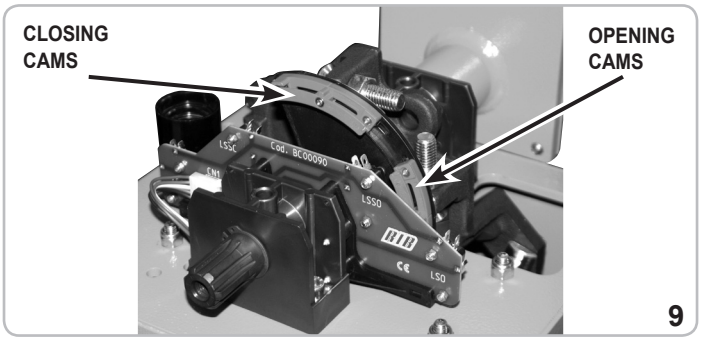

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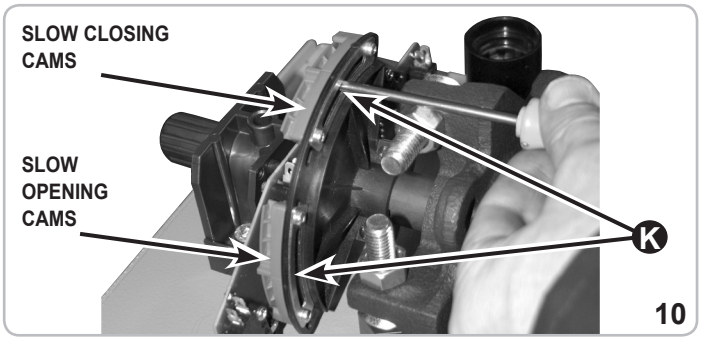

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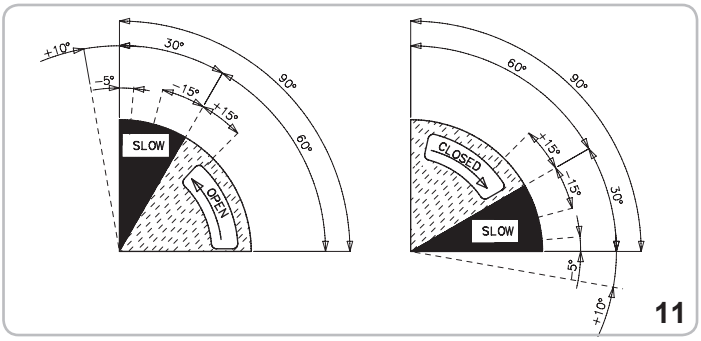

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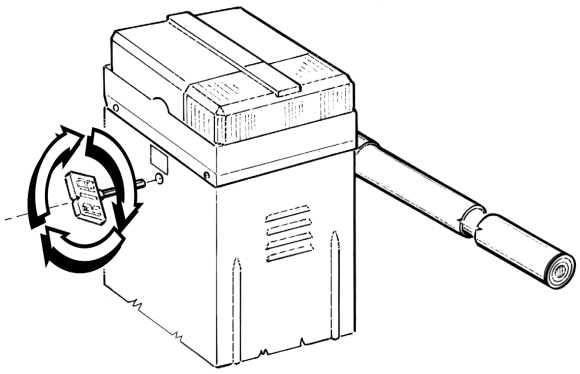
EMERGENCY RELEASE

Carry out only after power supply to the motor has been interrupted!
In the event of a power supply failure, release the gearmotor, so that you can move the boom by hand.
To do so, use the RIB key supplied and turn it in the clockwise sense, until the stop is reached (Pic. 12).
By doing so, the barrier boom works independent from the gearmotor and it can be moved by hand.
When power is supplied again, turn the key counterclockwise strongly until you block it.



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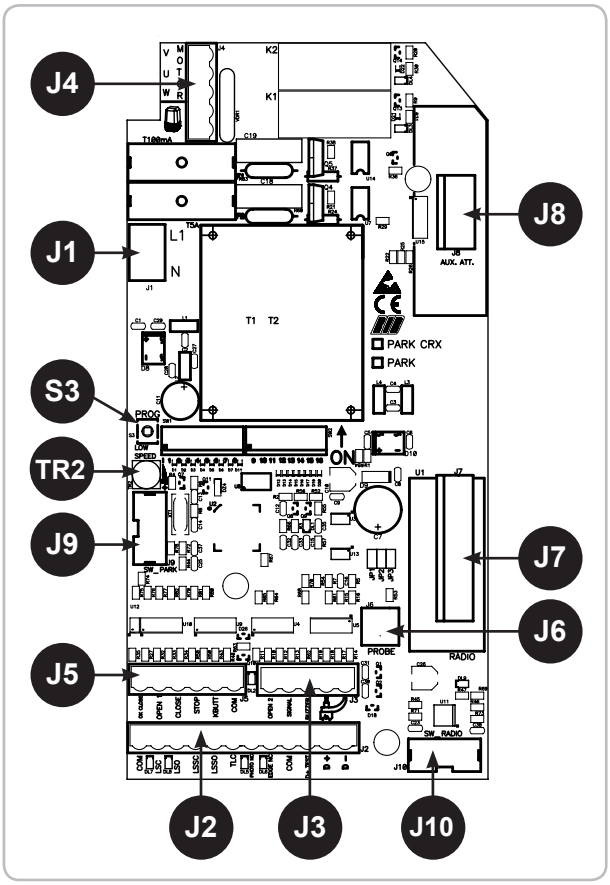
MAINTENANCE

To be undertaken only by specialized staff after disconnecting power supply.
After every 100.000 cycles check:
- boom balance (see the paragraph “ADJUSTING THE BALANCING SPRINGS”);
- the tightness of the release knob (see the paragraph “EMERGENCY RELEASE”);
- the tightness of the boom holding attachment and the implantation of the boom (see the paragraph “ASSEMBLING THE BOOM”);
- the wear on the mechanical stops and the limiti switch setting (see the paragraph “LIMIT SWITCH SETTING”).
- Grease the bearings of the boom carrier shaft and the threaded spring guide bar.

The described maintenance is vital for the corrected operation of the product in the time.

POINT A - CONTROL PANEL FEATURES



J1	L-N	Main power supply 230Vac 50/60Hz upon request)
J2	COM	Common contact
	LSC	Closing limit switch contact (NC)
	LSO	Opening limit switch contact (NC)
	LSSC	Closing slowing down limit switch contact (NO)
	LSSO	Opening slowing down limit switch contact (NO)
	TLC	Vehicle presence signal (NO) (only when switched to PARK mode)
	PHOT. NC	Photocells contact (NC)
	EDGE NC	Safety strip contact (NC)
	COM	Common contact
	D+ TEST	Safety strip self-test power supply +12Vdc 500mA max
	D+	Accessories power supply +12Vdc 500mA max
	D-	Accessories power supply -12Vdc 500mA max
J3	OPEN 2	Barrier opening button 2 contact (NO) (only when switched to PARK mode)
	SIGNAL	Barrier open signal 12Vdc
		Buzzer - Acoustic signal connection (12Vdc max 200 mA)
	AERIAL	Radio antenna
J4		Blinker (max 40W)
	U - MOTOR	Motor common connection
	V-W - MOTOR	Motor inverters and condenser connection
J5	OK CLOSE	Immediate closure command contact (only when switched to PARK mode)
	OPEN 1	Open1 button contact (NO)
	CLOSE	Close button contact (NO)
	STOP	Stop button contact (NC)
	K BUTT.	Single pulse button (NO)
	COM	Common contact (common line for all the commands and safety inputs)
J6	PROBE	Heating probe connection terminal block (code ACG4666 optional)
J7	RADIO	Connector for radio receiver RIB, 12Vdc supply
J8	AUX. ATT.	Card 1 relay connector (code ACQ9080) for management of courtesy light or boom arm locking magnet Card 3 relay connector (code ACQ9081) for management of courtesy light or boom arm locking magnet and traffic lights.
J9	SW PARK	**DO NOT TOUCH THE JUMPER!** **IF REMOVED THE OPERATOR DOES NOT FUNCTION!**
J10	SW RADIO	**DO NOT TOUCH THE JUMPER!** **IF REMOVED THE RADIO SYSTEM DOES NOT FUNCTION!**
S3	PROG.	Programming button
TR2	TRIMMER LOW SPEED	Slow closure speed electronic regulator

RELAY AND MOTOR COMMAND
K1 => Opening direction command
K2 => Closure direction command
Q4 => TRIAC - Opening and Closing motor command
Q5 => Blinker command

POINT B - SETTINGS

DIP 1 (ON) MOTOR ROTATION DIRECTION CHECK (See Point C)
DIP 2 (ON) PROGRAMMING (See Point D)

DIP 3 ON - Automatic Closing ENABLED (max 5 min)
OFF - Automatic Closing DISABLED
DIP 4 ON - AUTOMATIC Radio Receiver Command
OFF - STEP BY STEP Radio Receiver Command
DIP 5 ON - AUTOMATIC single pulse command (K BUTT.)
OFF - STEP BY STEP single pulse command (K BUTT.)
DIP 6 ON - Operation in PARK MODE
OFF - Operation in NORMAL MODE

WARNING: The PARK MODE enables or disables some features and commands:
If NORMAL MODE is enabled, OPEN2 command, OK CLOSE command and TLC (Traffic Light Control) input, are not enabled.
If PARK MODE is enabled all commands are enabled.

DIP 7 ON - boom arm locking magnet ENABLED (ACQ9080 or ACQ9081 optional cards)
OFF - courtesy light operation ENABLED (ACQ9080 or ACQ9081 optional cards)
If none of the optional card is connected, turn DIP7 to OFF.
DIP 8 ON - in PARK MODE the OPEN2 button is always enabled
OFF - in PARK MODE the OPEN2 button works if there is no vehicle on the magnetic sensor connected to the TLC input (TLC contact opened).
DIP 9 ON - safety strip self-test ENABLED
OFF - safety strip self-test DISABLED
DIP 10 ON - after the blackout the boom arm automatically closes
OFF - after the blackout the boom arm remains still on the point it was when blackout occurred
DIP 11 OFF for RAPID PARK barrier
DIP 12 OFF
DIP 13 ON - Blinker operation with intermittent power supply
OFF - Blinker operation with fixed power supply
DIP 14 OFF for RAPID PARK barrier
DIP 15 ON for RAPID PARK barrier
DIP 16 OFF for RAPID PARK barrier

LOW SPEED REGULATOR
Slow-speed regulations are carried out by turning the Trimmer LOW SPEED, it permits to vary the speed of the motor in approaching to the closing position (turning clockwise to increase the motor speed). This kind of regulation is not available in approaching to the opening position.
The starting of slowing down is controlled automatically by the limit switches at approximately 30° before reaching the complete opening and closing position.

LED WARNING
DL1 - Programming activated (red)
DL2 - Stop contact (red)
DL3 - Barrier opening (green)
DL4 - Barrier closing (red)
DL5 - Photocells contact (red)
DL6 - Safety strip contact (red)
DL7 - Closing limit switch contact (red)
DL8 - Opening limit switch contact (red)

POINT C - CALIBRATING LOW SPEED MOTOR

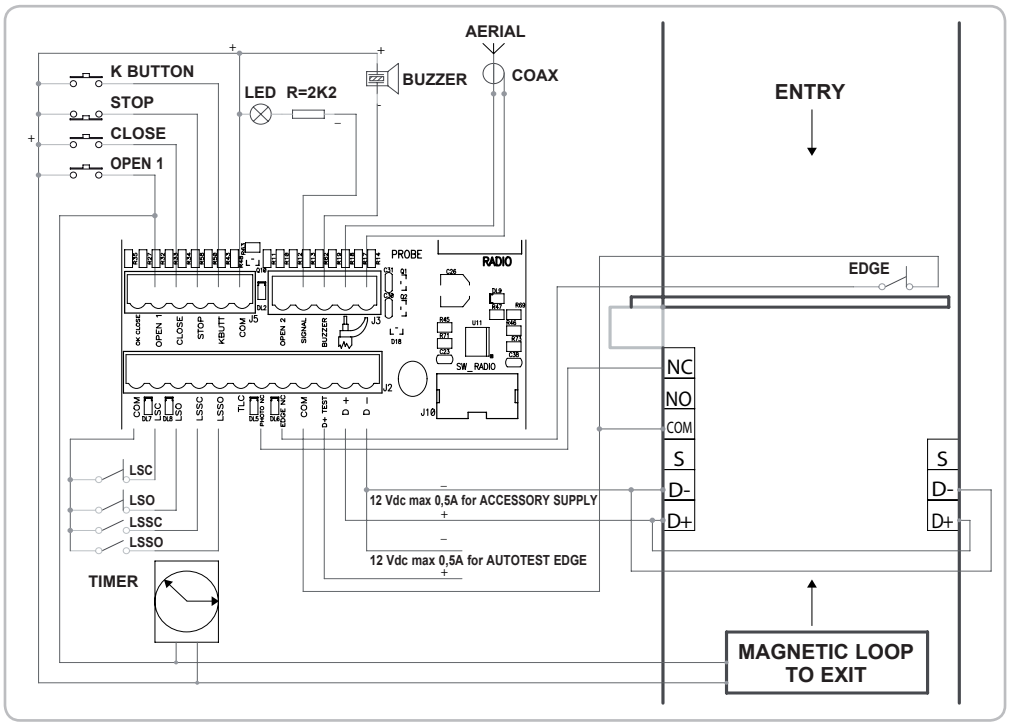
This check is meant to facilitate the installer during the start-up of the system or for any other future controls:
1 - **Turn DIP1 to ON**, the red led DL1 starts blinking
2 - **Press the PROG button** and hold it (movement is now performed in "man present" mode, open-stop-close-stop-open etc.).
If the GREEN led DL3 is on, the boom arm opens. If the RED led DL3 is on, the boom arm closes.
3 - Carry out the slow-down speed calibration:
- Turn the LOW SPEED trimmer to minimum
- Press and hold the PROG button pressed
- Check whether the low speed has been enabled once LSSC and LSSO limit switches have been reached
- Adjust the LOW SPEED trimmer
WARNING: Make sure the motor is powerful enough to move the bar during closure. Otherwise increase the value set on the LOW SPEED trimmer until it reaches the ideal operation condition.
4 - **Turn DIP1 to OFF**, the red LED DL1 turns off.
During Point C procedure the safety-strip and photocells are not enabled.

POINT D - TIME PROGRAMMING

1 - Close the barrier completely.
2 - **Turn the DIP 2 to ON**, the red led DL1 starts blinking.
3 - **Press the PROG button**, the boom arm opens.
4 - Once opening has been completed, the boom arm stops. The gap of time between now (stop of the motor) and the next pressing of the PROG button (see step 5 below) will be then stored as waiting time (max 5 minutes) for Automatic Closing feature.
5 - **Press the PROG button**, the boom arm closes and the Automatic Closing time is stored (see DIP3 function to enable or disable the Automatic Closing feature).
6 - The red LED DL1 turns off.
7 - **Turn DIP2 to OFF.**
During Point D procedure, the safety devices (photocells and safety strip) are active.

FUNCTIONING OF CONTROL ACCESSORIES in NORMAL MODE (DIP6 OFF)

ATTENTION: ONLY IMPULSIVE COMMANDS HAVE TO BE CONNECTED.
Make sure that any other type of command accessories (e.g. mass detectors) used on the installation are set in the IMPULSIVE mode, otherwise, the gate will be operated even without the protection of the safety devices.



OPEN1 BUTTON (COM - OPEN1)
The OPEN1 button performs the open command, regardless the position of the boom arm. If the OPEN1 button is pressed during the closing, the boom arm stops and will reverse the movement in opening.

In PARK MODE (DIP6 ON), if there is a vehicle at the entry (see scheme 4) and the TLC contact is closed, the OPEN1 command opens the barrier. Otherwise, if the TLC contact is open the OPEN1 command is disabled.

CLOCK FUNCTION

If you want the Clock Function must request PARK 230V with firmware 04.
ATTENTION: A CLOCK CONNECTED TO PARK 230V with fw 05 or more ACTIVATES THE OPENING MOVEMENT OF THE BARRIER WITHOUT HAVING THE PROTECTION OF THE SAFETY DEVICES!

The Clock Function permits to keep the boom arm opened even if, for example, the Automatic Closing is enabled (DIP3 ON) or somebody commands the barrier closing. It is useful during rush hour, when traffic is heavy and the flow is low (e.g. entrance/exit of employees, emergencies in residential areas or car parks) and it's necessary to keep the boom arm opened.

CLOCK FUNCTION APPLICATION
It is necessary to request a PARK 230V control panel with firmware 04.
It can be done by connecting a switch and/or a daily/weekly timer either in parallel to the OPEN1 button or instead of the OPEN1 button. When the control board receives this command, the boom arm will open and by keeping this contact closed for all the time of the boom arm opening, the Clock Function is automatically activated.
In fact, once reached the open position, the barrier will remain opened and all of the control board features are blocked. Only when the OPEN1 button is released, the control board functions are re-activated and the boom arm will close immediately.

CLOSE BUTTON (COM - CLOSE)
The CLOSE button performs the close command, regardless the position of the boom arm.

STEP BY STEP or AUTOMATIC COMMANDS (COM - K BUTT)
DIP5 - OFF => The K BUTT performs the cyclic command open-stop-close-stop-open etc.
DIP5 - ON => The K BUTT performs:
- the open command, if pressed with the barrier completely closed
- the close command, if pressed with the barrier completely opened
- no effect, if pressed during the barrier opening
- the boom arm re-open, if pressed while the barrier is closing

REMOTE CONTROL
DIP4 - OFF => The REMOTE CONTROL performs the cyclic command open-stop-close-stop-open etc.
DIP4 - ON => The REMOTE CONTROL performs:
- the open command, if pressed with the barrier completely closed
- the close command, if pressed with the barrier completely opened
- no effect, if pressed during the barrier opening
- the boom arm re-open, if pressed while the barrier is closing

AUTOMATIC CLOSING (DIP3 ON)
The Automatic Closing from the complete open position can be enabled turning ON the DIP3. The maximum time that can be programmed is 5 minutes (see Point D).

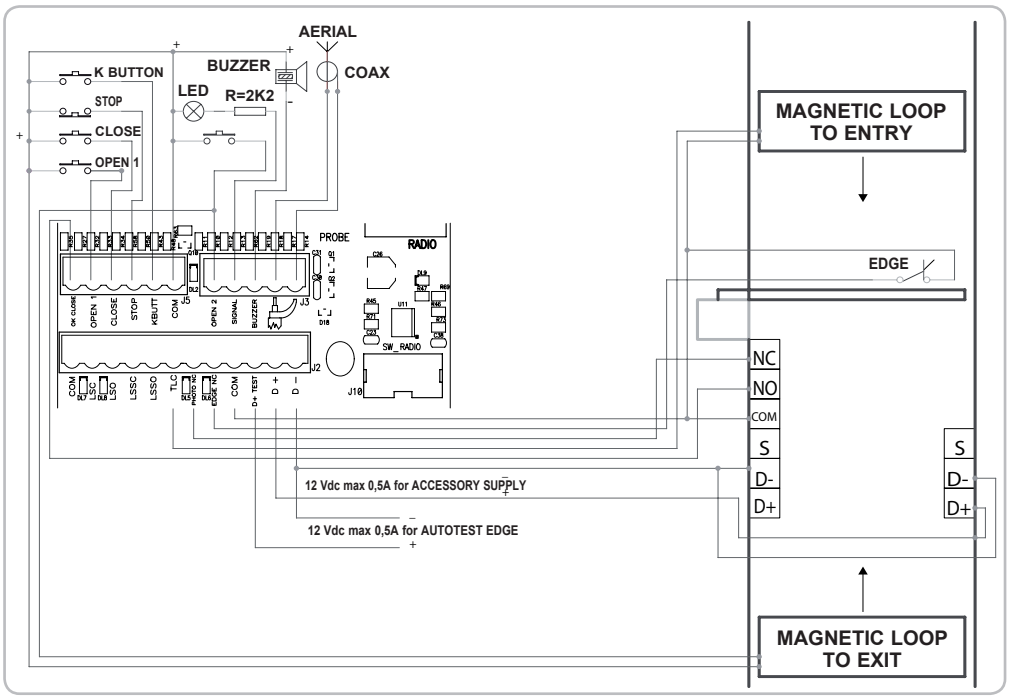
OPERATING IN PARK MODE (DIP6 ON)

TO ENTER:
Provided there be a vehicle on the Entry magnetic loop (see scheme 4), opening can be controlled by pressing OPEN1, K BUTT or RADIO switch (OPEN1 performs the boom arm opening only if the TLC, connected to the Entry Magnetic Loop, contact is closed).

TO EXIT:
Provided there be a vehicle on the Exit magnetic loop (see scheme 4), opening can be controlled by pressing OPEN2, K BUTT, RADIO switch. The OPEN2 can be connected to the Exit magnetic loop.
If the DIP8 is turned ON, the OPEN2 will perform the barrier opening regardless the presence of a vehicle at the Entry.
If the DIP8 is turned OFF, the OPEN2 will perform the barrier opening if there is no vehicle on the magnetic sensor connected to the TLC input (TLC contact opened).
In both the conditions, TO ENTER and TO EXIT, from the complete boom arm open position:

If the Automatic Closing is enabled (DIP3 ON), the boom arm will close at the end of the delay time programmed (see Point D).

If the Automatic Closing is disabled, the boom arm will remain open until a closing command is pressed or until the vehicle passes in front of the photocells, giving an OK CLOSE impulse to the control board (the OK CLOSE command can be connected to the NO contact of the photocell receiver).



OPEN2 BUTTON (COM - OPEN2) (ONLY PARK MODE)

If the NORMAL MODE is enabled (DIP6 OFF), the OPEN2 command will be disabled.

If the PARK MODE is enabled (DIP6 ON), the OPEN2 will perform the boom arm opening depending on the switch DIP8 position.

If DIP8 is turned ON and PARK MODE is enabled, OPEN2 will perform the boom arm opening regardless the state of the TLC input.

If DIP8 is turned OFF and PARK MODE is enabled, OPEN2 will perform the boom arm opening only if the TLC contact is OPEN (no vehicle at the Entry, see scheme 4).

OKCLOSE INPUT (COM - OKCLOSE) (ONLY PARK MODE)

If the NORMAL MODE is enabled (DIP6 OFF), the OKCLOSE command will be disabled.

If the PARK MODE is enabled (DIP6 ON), the OKCLOSE will perform the boom arm closure after the vehicle transit.

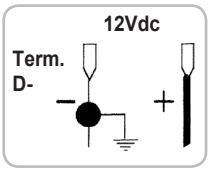
Usually, this command is connected to the Normally Open contact from a photocell receiver or a magnetic sensor device installed along the boom arm closing line. The vehicle will engage the contact when it reaches the closing line. The boom arm will close as soon as the vehicle left the closing line and the contact is released.

TRAFFIC LIGHT CONTROL (COM - TLC) (ONLY PARK MODE)
The TLC input can be connected to the Entry magnetic loop device (see scheme 4). The OPEN1 command is enabled only if the TLC input is closed, presence of a vehicle at the entrance. Whereas the OPEN2 command is enabled only if the TLC input is opened, absence of a vehicle at the entrance.
If in PARK MODE the TLC input is useless.

RESTORING OPERATIONS AFTER A BLACKOUT
In case of a blackout occurs, the switch DIP10 permits to change the barrier behaviour when the mains will be restored.
DIP10 - OFF => When the mains is restored, the boom arm will remains still waiting for a command.
DIP10 - ON => When the mains is restored, the boom arm will close.

OPERATING SAFETY ACCESSORIES

PHOTOCELL (COM- PHOT)
If the boom arm is opened and there is an obstacle within the photocells (the photocell beam is cut), any close command will be ignored.
If the boom arm is closing and an obstacle cuts the photocell beam, the boom arm will stop and reverse the movement in opening.
With the boom arm closed and an obstacle within the photocells (the photocell beam is cut), if an open command occurs the boom arm will open regardless to the obstacle presence.
NB: we recommend checking the photocells working every 6 months.
ATTENTION: In case the receiver led remains lit, malfunctioning of the main supply is suspected.
It is advisable to connect electrically to earth the columns or the photocells stands to the terminal D-, to shield the photocells from external noise.
Be careful not to short circuit the system when the supply phases are inverted!



SAFETY STRIP (COM -EDGE)
During closure, if engaged it reverses the opening motion.
If the safety edge remains engaged (contact NO) movement is enabled only for opening.
If not used, apply a jumper on the COM-EDGE terminals.

MONITORING SAFETY STRIPS (D+TEST D-)
You can monitor the safety edge/s through the entrance D+TEST and the DIP 9 ON.
Monitoring consists of a Functional test, of the safety edge at the end of each complete opening of the bar. After each opening, the closure of the bar is thus allowed only if the safety edge/s have passed the Functional test.

WARNING: MONITORING OF THE SAFETY STRIP INPUT CAN BE ENABLED THROUGH DIP 9 TURNED ON OR DISABLED THROUGH DIP 9 TURNED OFF. IN FACT, THE SAFETY EDGES FUNCTIONAL TEST CAN BE CARRIED OUT ONLY WHEN DEALING WITH DEVICES EQUIPPED WITH THEIR OWN CONTROL POWER SUPPLY. A MECHANICAL SAFETY EDGE CANNOT BE MONITORED, AND THUS DIP 9 MUST BE TURNED TO OFF.

SAFETY STRIP SELF-TEST ALARM (DIP 9 ON)
At the end of the opening if the safety strip monitoring operation is negative, an alarm indicated by a blinker that lights up twice in a row before going off for 2 seconds, and by the buzzer (if connected) enabled for 5 minutes, get into action. In this case the gate cannot open and normal functions are reinstated only upon repair of the safety edge and by pressing one of the enabled switches.

STOP BUTTON (COM - STOP)
During any operation, the STOP button blocks the bar.
If pressed with the bar fully open automatic closure is excluded temporarily (if selected through DIP3 ON).
Therefore a new command operation is required to close it.
On the following cycle the «automatic closure" operation is enabled again (if selected through DIP3 ON).

FUNCTIONING IN DEAD MAN MODE WHEN THE SAFETY DEVICES ARE FAILING
If the safety edge fails or remains engaged for more than 5 seconds, or if photocell fails or remain engaded for more than 60 seconds, the OPEN 1, OPEN 2, CLOSE, and K BUTTON commands will work only in dead man mode.
The signal that this mode has been activated is given by the blinking of the programming led.
With the blinking of the programming led, the opening and closing operation are allowed only with the command button pressed and held.
The radio commands and that of automatic closing, will be excluded, since their use in this mode, is not allowed by the norms.
Once the failing safety device is repaired, in automatic after 1 second, all standard commands that were selected, such as step by step, automatic mode, radio commands and automatic closing start functioning again.
Note 1: during this functioning in dead man mode, in case of damage to the safety strips (or photocells) the photocells (or safety strips) still work by interrupting the operation in progress.
Note 2: the stop command is not to be considered a safety command that can be bypassed in this mode. Therefore, when pressed or damaged, it will not allow any movement of the gate.
The dead-man operation is only an emergency operation which must be activated for a very short period and with the complete installation at sight so to have a secure and safe control of the system. As soon as possible however, the failing safety devices must be repaired and activated.

BLINKER 230V 40W
You can control the blinker output, through DIP 13:
DIP 13 ON => RAPID S, RAPID N and RAPID PARK types of barrier come with the blinker already connected.
The blinker is power supplied at intermittence, with 500 mS on/off blinks during opening and 250 mS on/off blinks during closure.
In case of safety-edge alarm or safety-edge auto-test the blinker output changes intermittence turning to 2 short blinks before going off for 2 seconds.

BUZZER (Optional) (COM-BUZZER)
During opening the buzzer shall emit an intermittent acoustic signal shortening acoustic signal intervals during closure. When the safety devices (alarm) get into action, this acoustic signal increases the intermittence frequency. Power supplied to buzzer 200 mA at 12Vdc.

GATE OPEN WARNING LIGHT (COM-SIGNAL)
Its function is to signal when the barrier is open, partially open or not totally closed. It turns off only when the gate is totally closed. The buzzer goes off only with the barrier totally closed.
N.B.: If push button panels or lamps are overused, the logic system of the control board will be jeopardised possibly leading to the block of operations.

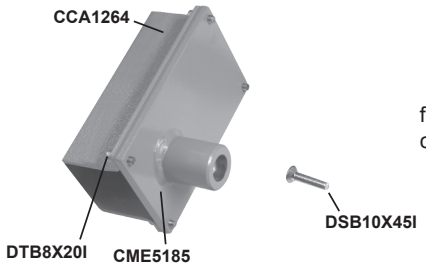
TECHNICAL FEATURES

- Humidity	< 95% without condensation
- Power supply voltage	230 or 120V~ ±10%
- Frequency	50/60 Hz
- Maximum card absorbtion	30mA
- Network microswitch	100ms
- Barrier open warning light maximum power	3 W (equivalent to 1 lamp of 3W or 5 leds with 2.2 kΩ resistance in series)
- Maximum power at blinker output	40W with resistive charge
- Voltage available for photocells and accessories	500mA 12Vdc
- Voltage available on the radio connector	200mA 12Vdc

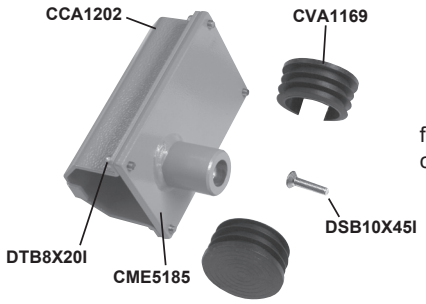
- All the inputs must be used as clean contacts given that the power supply is generated internally (safe voltage) in the card and it is set in a way to guarantee the use of the double insulation and reinforced compared to parts with hazardous voltage.
- Any external circuits connected to the outputs of the control board, must be carried out to make sure the double or reinforced insulation is used compared to parts with hazardous voltage.
- All the inputs are run by a programmed integrated circuit which carries out an auto-test at every start-up operation.

ACCESSORIES - For the connections and the technical data of the optional equipments follow the relevant handbooks.

FIXING HUB

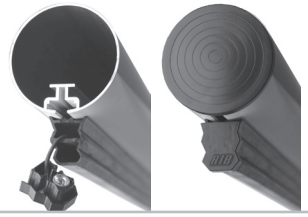


for Ø 60 mm boom arm
code ACG8551



for Ø 80 mm boom arm
code ACG8548

PHOTOELECTRIC CELL STRIP ON Ø 80 BOOM ARM



code ACG8610 + ACG7090

BASE PLATE

Base plate. code ACG8110

FORK TYPE SUPPORT COLUMN

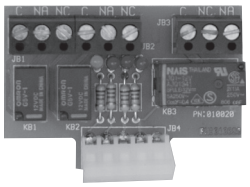
Fork type support column for all boom arms.

code ACG9130

ONE RELAY EQUIPPED OPTIONAL CARD FOR BOX LIGHT OR ELECTROMAGNET

code ACQ9080

THREE RELAY EQUIPPED OPTIONAL CARD FOR BOX LIGHT OR ELECTROMAGNET AND TRAFFIC LIGHT CONTROL

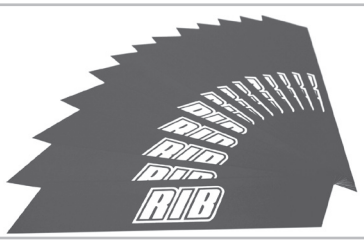


code ACQ9081

METALLIC MASS DETECTOR

to open with vehicles
1 channel - 230 Vac code ACG9060
1 channel - 12÷24 Vac/dc code ACG9063
2 channels - 12÷24 Vac/dc code ACG9064

STICKERS FOR Ø 80 BOOM ARM



12 pieces. code ACG8526

Loop pre-assembled

6 m - perimeter 2 x 1 + 15 m of cable code ACG9067
10 m - perimeter 3 x 2 + 15 m of cable code ACG9068

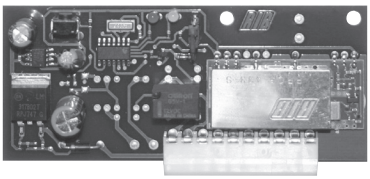
Probe

The probe detects the motor temperature to operate the heating system under low temperature conditions, up to -30°C (connect to connector J6). code ACG4666

Radio transmitter SUN

SUN 2CH code ACG6052 SUN 4CH code ACG6054
SUN CLONE 2CH code ACG6056 SUN CLONE 4CH code ACG6058

Code learning system radioreceivers



RX91/A quarzata and coupling code ACG5005
RX433/A super eterodyne and coupling code ACG5055
RX433/A 2CH super eterodyne, 2 channel and coupling code ACG5051

Block

BLOCK KEY SELECTOR FOR WALL-INSTALLATION code ACG1053
BLOCK KEY SELECTOR TO BUILD-IN code ACG1048

Fit syncro

FIT SYNCRO PHOTOCELLS for the wall-installation code ACG8026
The range you can set is 10-20 m, 30÷60 ft.
You can fit many couples close together thanks to the synchronising circuit.
Add the **SYNCRO TRANSMITTER** code ACG8028
for more than 2 photocells couples (up to 4).
COUPLE OF BUILT-IN BOXES FOR THE FIT SYNCRO
code ACG8051

Spark

In order to make the systems mentioned above give the best performances, you need to install an antenna tuned on the frequency of the radio receiver installed.
N.B. Pay attention to not let the central wire of the cable to came Into contact with the external copper sheath, since this would prevent the antenna from working.
Install the antenna vertically and in such a way the remote control can reach it.
SPARK BLINKER WITH IN-BUILT INTERMITTENT CARD
code ACG7059
LATERAL SUPPORT code ACG7042
SPARK ANTENNA 91 code ACG5454
SPARK ANTENNA 433 code ACG5452