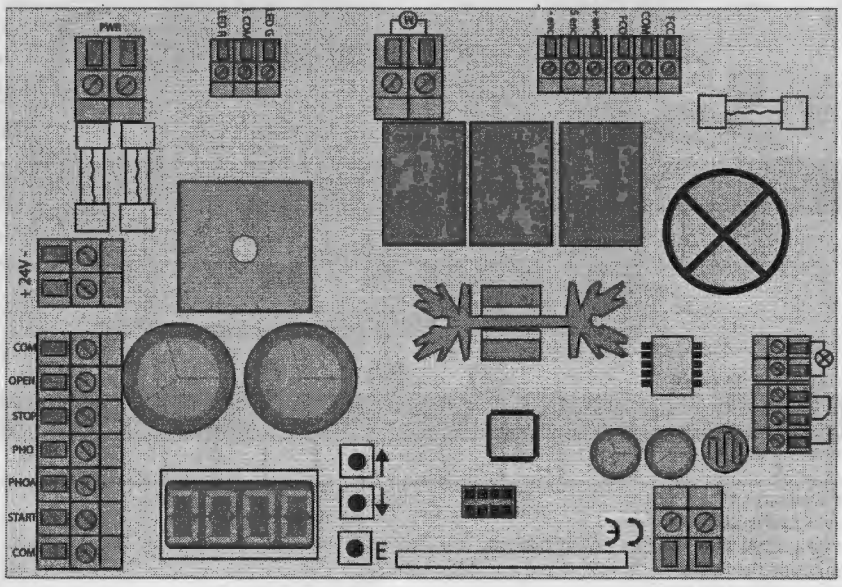
D241000

IT ISTRUZIONI CENTRALE DI COMANDO PER BARRIERA

EN CENTRAL UNIT CONTROLLER INSTRUCTIONS FOR BARRIER



Moving Ideas.

Stagnoli S.r.l. - Via Mantova Traversa I, 105 e/b
25017 Lonato - Brescia - Italia
tel. (+39) 030 9139511 | fax (+39) 030 9139590
www.stagnoli.com

OPERATING INSTRUCTIONS FOR INSTALLATION AND SETTINGS EN

Instructions for use only for professional installer. Before installing, please read carefully instructions. Uncorrect use of the product or a connection failure could affect the correct working and the end user's safety.

TECHNICAL DATA

Power Supply : 230V ~ ±10% - 50Hz*;
Integrated Receiver: 433MHz: 76 trasmettitori MAX;
Anti-crushing Electronic Device: amperometric + encoder

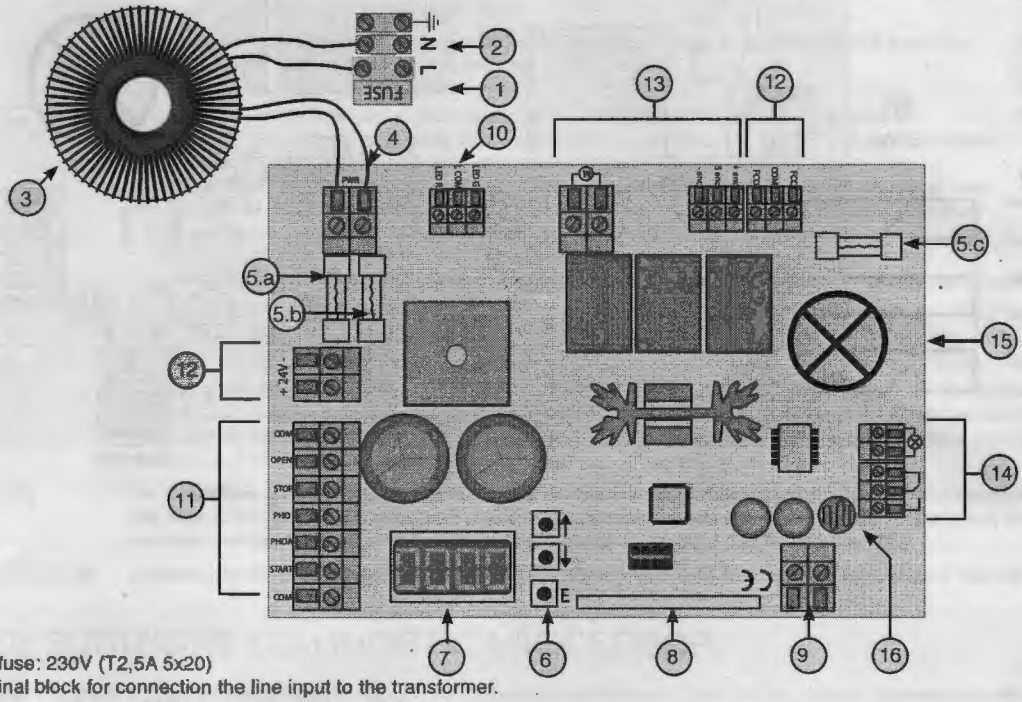
Working Temperature: -20°C / +60°C;
MAX Power Output External Flash: 24V~ - 25W;
Accessories Supply: 24V~ - 25W;

INTENDED USE

The Skygates D241000 is the central unit controller designed to manage road barriers DAPHNE 24V and its accessories. Made only with grade materials, it's designed to have low absorption when not working, and allows a net energy saving. Particular attention was paid to professionals making easy the settings of unit controller, thanks to a multilanguage display.

PARTS DESCRIPTION

FIG 1

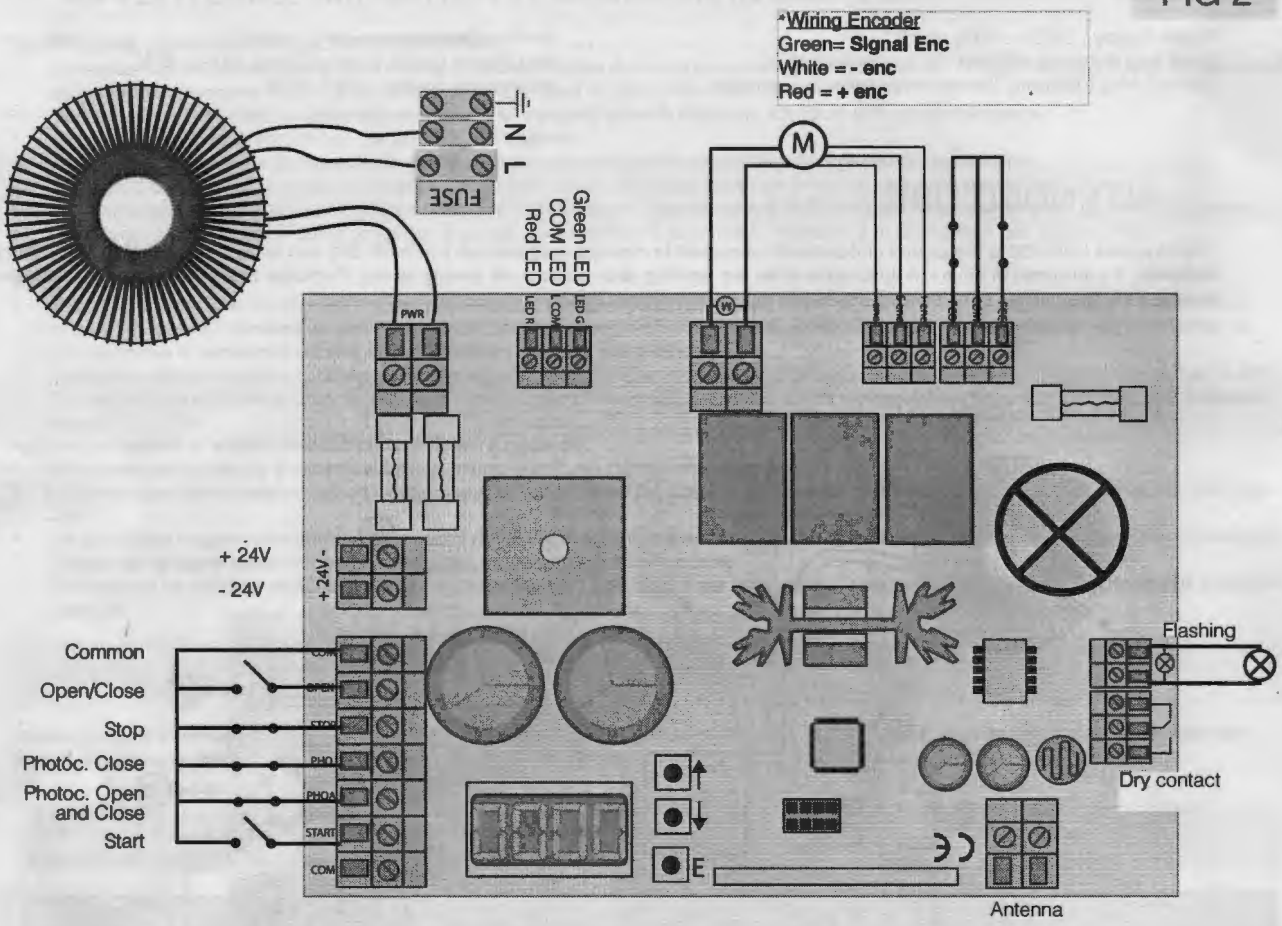


1 Line fuse: 230V (T2,5A 5x20)
2 Terminal block for connection the line input to the transformer.
3 Primary transformer: 230V, secondary 24V~, 110VA
4 Supply input: 24V~
5 – Fuses
   a. accessories output (F2A 5x20)
   b. motor (F10A 5x20)
   c. output flashing and LED strip (F2A 5x20)
6- Keys for Menu navigation
7- Display LCD 4 Languages (EN,FR,ES, IT)
8- Receiving Module 433Mhz Rollingcode/Fixed Code
9- Clamp for external antenna
10- Connection LED strip 24V
11- Terminal for Connecting Controls and Security
12- Connection for limit switch
13- Terminal for connection to motor
14- Terminal for connection external flashing (MAX 10W) and output programmable dry contact
15- Aboard flashing MAX 25W
16- Input light sensor.

WIRING & CONNECTIONS

Warning!
The electrical connections must be performed in the absence of power, and with disconnected charger kit, where exists.

FIG 2



MENU GUIDE

To move within the menu it's good to know that:
- if pressed for 1s the "E" button works as " ENTER " and if pressed for 3s works as " ESC " ;
- When you are in the menu, the panel will not keep in consideration any command signal;

The starting screen as shown, reports a code where the first character signals the type of programmed TX :

R = Rolling Code ;

F = Fix Code ;

The second character is a hyphen (-) , it blinks when the encoder detects the motor is moving.
The next number will be 0 at the first time, and it stands for the number of stored TX.

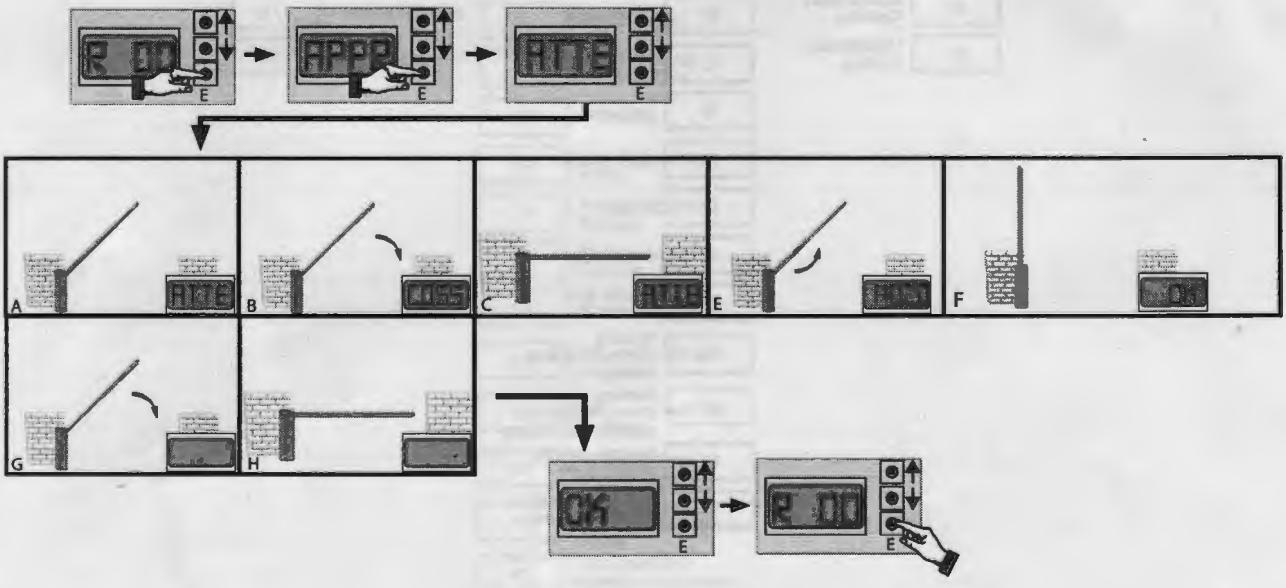
SETTING LANGUAGE

The Spagnoli Central Units allow you to choose between 4 different languages: English, French, Spanish, Italian. The Default Central Unit is setted in Italian language, if you want to change language, open the menu pressing the "E" button, then press four times the down arrow and again the "E" button; then choose the language with the arrows ↑↓ and press the "E".

SELF-LEARNING

Using this operation, the central unit will store encoder pulses and it shows on display the necessary strength to complete the race, both in opening and closing.
To perform a operation of " SELF-LEARNING " you have to:
1. Unlock the motor;
2. Set the shaft at 45 ° ;
3. Lock the motor;
4. Go to the menu voice " SELF-LEARNING " and press the " E " button :
5. Wait for the barrier completing the two operations, the first need to find the beats and the second to show the necessary strength ;
6. The self-learning ends when the shaft returns to the closed position after the second operation.
7. If everything goes well, the display will show "OK " otherwise " ERR " .
8. To confirm the successfull self-learning, press the "E " button, which will report you to the main screen.

During the self-learning process the control unit stores the forces required for the correct movement of the rod.
To change these forces, if they don't respect the existing standard regulations, modify the item " AMP " in the " PARAMETERS " section of the menu.



REMOTE CONTROL STORAGE (ONE OR MORE THAN ONE)

The Spagnoli Central Units can store 76 transmitters , both Rollingcode than fixed code , the default is enabled to store transmitters with Rollingcode Skygates, for storing fixed codes you must change the " CF " parameter in the "FUNCTION" section of the Menu.
In addition, the Spagnoli Central Units provide two storage channels :
1- The first channel is for automation control: open -stop - close (or as programmed)
2- The second channel is used to give an impulse command to the auxiliary relay, if the function is OU = 1;

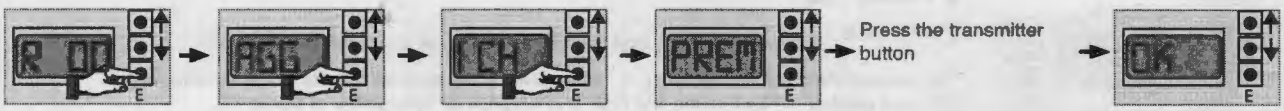
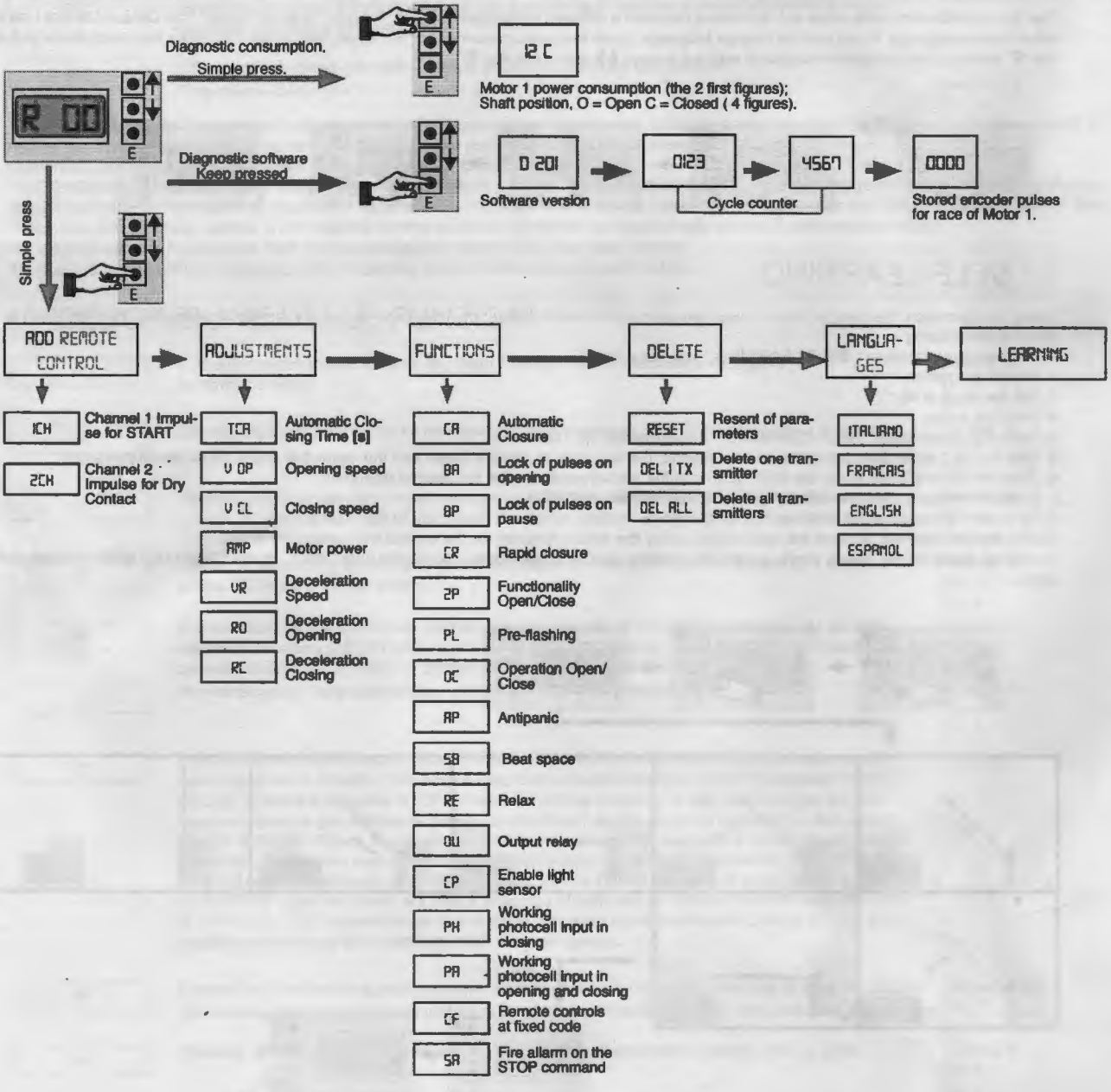


DIAGRAM MENU



PARAMETERS DESCRIPTION

TCA	This is the time that elapses between the complete opening of the gate and its closure that occurs automatically. If the photocell is busy, the count of the time is reloaded.	Default: 10sec Min: 0sec Max: 140sec
V OP	(Opening velocity) = this is the velocity of the opening rod.	Default: 3 Min: 1 Max: 3
V CL	(Closing velocity) = this is the velocity of the closing rod.	Default: 2 Min: 1 Max: 3
AMP	(Motor Power) = this is the required motor force for moving the shaft in the correct manner.	Default: 2 Min: 1 Max: 3
B OP	(Opening brake)= This is the brake used to pass from normal velocity to deceleration velocity in the opening phase *	Default: 1 Min: 0 Max: 3
B CL	(Closing Brake) = This is the brake used to pass from normal velocity to deceleration velocity in the closing phase **	Default: 1 Min: 0 Max: 3

*** WARNINGS: Before setting the decelerations (slowdowns) or the brakes, check that the shaft is correctly installed. Indeed, during this phase, the motor has less power and the setting of this parameters can affect the safety level of the system itself. Check the impact forces after the adjustment of these parameters.**

**** WARNINGS: The setting of these parameters can affect the safety level of the system itself. Skygates recommends to set these parameters with a safety margin that is at least + 10 compared to the maximum of the motor current consumption, respectively in opening and closing phase. This can be read during the motor race on the display in the second main screen.**

A low value for the AMP parameter stands for a greater sensitivity crush. Check after installation that the impact forces respect the norm EN12453.

DESCRIZIONE DELLE FUNZIONI

CA	(Automatic Closure) = If enabled, after the TTCA time, the gate will close automatically.	Default: 0 Off: 0 On: 1
BA	(Lock of pulses on opening) = The central unit ignores the START pulses during the opening phase.	Default: 0 Off: 0 On: 1
BP	(Lock of pulses on pause) = The central unit ignores START pulses during the pause phase.	Default: 0 Off: 0 On: 1
CR	Rapid closure) = In case of activation of opening photocells, or the gate is open, the time of pause (Break time) TTCA is reduced to 3 sec.	Default: 0 Off: 0 On: 1
2P	Functionality Open/Close) = If enabled : at every each START pulse, the gate movement reverses direction (OPEN - CLOSE). If not enabled: the movement sequence of the gate becomes OPEN - STOP (TTCA) - CLOSE – STOP.	Default: 0 Off: 0 On: 1
PL	(Pre-flashing) = flashing of 2 seconds before the start of the operation.	Default: 0 Off: 0 On: 1
OC	OC (Operation Open/Close) = **OC = 0** ; The START command, which activates the automatic cycle and can be stopped or reversed, it can be given by remote control or by the clamp " START / CLOSE " , while the " OPEN " clamp gives way to a single opening operation that can't be stopped, and to close it you have to wait for the pause time set, or you have to give a START command. **OC = 1** ; The START command, which activates the automatic cycle can be stopped or reversed , it can only be given by remote control. The clamp of the " OPEN " command opens, and the control clamp "START / CLOSE " closes. **OC = 2** ; function of present (Existent) man, the clamp " OPEN " opens until it reaches the limit switch or the contact is kept closed, and the clamp "START / CLOSE " closes until it reaches the limit switch or you keep the contact closed. With this setting all the remote controls are ignored. Default: 1 AP (Antipanic) = Activating this function, in case of power failure, if there are backup batteries, the barrier will stay opened accepting all commands, but it will continue to re-open.	Default: 1
AP	(Antipanic) = Activating this function, in case of power failure, if there are backup batteries, the barrier will stay opened accepting all commands, but it will continue to re-open.	Default: 0 Off: 0 On: 1
VR	(Deceleration Speed) =this is the speed of the deceleration phases : 0 very slow , 1 slow.	Default: 0 Off: 0 On: 1
RA	(Rallentamento in apertura)= è lo spazio di rallentamento sulla corsa totale in fase di apertura, 0=minimo; 1= massimo:	Default: 0 Off: 0 On: 1

RC	(Deceleration closing) = this is the deceleration distance on the total race in the closing phase, 0 = min ; 1 = maximum.	Default: 0 Off: 0 On: 1
SB	(Beat Space) = this is the space needed for the central unit to recognize the beats , 0= low , 1 = max . This feature results in a greater or lesser precision in the approach to the beats.	Default: 0 Off: 0 On: 1
RE	(Relax) = if this function is enabled, for a few hundredths of a second, allowing the motor to turn in the opposite direction to the just ended movement. In this way, it avoids the unlocked problems, this feature can be used on assigned barriers.	Default: 0 Off: 0 On: 1
OU	(output relay) = Auxiliary relay operation = 0 : the dry contact output switches with open bar; =1 : working as second radio channel rf 2 , storing a button on "2 ch ", while pressing the button, the dry contact relay output energizes for 1s. =2 : activates the opening relay for 1s (for electric lock).	Default: 1
CP	(Operation light sensor) = Default : 0. The light sensor is not active and the lights outputs RED and GREEN operate uninterruptedly according to the logic expected : stopped bar – flashing RED light, opening bar – steady RED light, open bar – flashing GREEN light, closing bar , continuously fixed RED lit. 1: the lights are activated as above only if the sensor detects darkness (fixed threshold for now ...)	Default: 0
PH	(Working photocell input in closing) = (Behavior Closing photocell input) = 0 : occupying the photocell beam, the bar stops and starts. 1 : occupying the photocell beam, the bar stops and once the beam released, it closes.	Default: 0 Off: 0 On: 1
PB	(Working photocell input in opening and closing) 0 : occupying the photocell beam , the bar stops and starts again if in closing, if in opening would stop and once released the beam , would continue the opening . 1 : occupying the photocell beam , the bar stops and opens again if in closing, if in opening would ignore the beam interruption.	Default: 0 Off: 0 On: 1
CF	(Remote controls at fixed code)= (Fixed code) = If activated, the control panel is enabled for storing remote controls on Code Fixed of type HT53200, and on fixed Rollingcode HCS.	Default: 0 Off: 0 On: 1
SA	(Fire allarm on the STOP command) (Stop - Fire Alarm) = defines the STOP input behavior. you can choose from : 0 : STOP NC contact , each time it is opened , the panel will show " ALAR " and it will stop immediately. To let it continue just make a new START pulse. 1 : FIRE ALARM , NC contact , each time you open the barrier it opens, if the contact is maintained opened , it will ignore all incoming commands. To make it close you will simply close the contact and give a new impulse to START . For situations involving the Antifire.	Default: 0

*** WARNING : BA and BP are useful in cases where there are several steps with different input through the same entrance.**

DESCRIPTION "DELETE" MENU

RESET	The Reset menu item DELETE serves to restore to default all the parameters and functions . Once entering in DELETE menu, move to the item RESET, pressing ENTER the display will start flashing to be confirmed , re-press ENTER if you want to reset to factory default . Otherwise quit . If you press Enter on the display, It will read PRG indicating the reset in progress.
CACELLA TX	To delete a remote control from the Skygates Central Unit is essential to have the remote control, and when accessed to the item "DELETE TX 1" press the button on the transmitter to be deleted. If this button is not found the Central will return "ERR", instead. if It is found and then eliminated, you will see "OK" in the display.
CANCELLA TUTTI I TX	This item gives the option to delete all remote controls from the memory, either on channel 1 and channel 2.

ACCESSORIES DIAGNOSTIC DESCRIPTION

The control center is able to recognize problems or alarms that may occur on the system, so it may report on the main display some messages to allow the detection of the problem:

- 1 RF = activation of the START command on the first radio frequency channel, with transmitter.
- 2 RF = activation of the second radio frequency channel, with the transmitter.
- I5 = activation of the START on the input of the clamp.
- STO = activation of the STOP on the input of the clamp.
- PHO = activation of the entrance of the closing photocells on clamp.
- PHOR = input activation of the photocells during opening and Closing the clamp.
- AMP = action of the amperometric sensor on the first motor.
- ENC = Action of the encoder sensor on the first motor.
- OPE = open button active on the clamp.
- CLO = close button active on the clamp.
- !BAT = low battery , voltage lower then 21V
- PRG = programming of settings or functions in progress
- OK = successful operation.
- ERR = failure operation.
- FULL = full remote controls memory.
- ATTENDI = wait, pause.
- TOUT = waiting time expired.

FINAL TESTING

You should always run a final test after doing all the programming:

- Unlock the motor and make sure that the rod moves freely, and finally lock it again.
- Check the correct working of the protective devices (anti-crushing system, stop button, photocells, etc ...)
- Check the operation of signaling devices
- Check the operation of the control devices (radio control, remote control, selectors etc.).
- Adjust the motor operating forces according to EN 12445, as well as to guarantee the safety of the plant.

WARNINGS AND STARTING UP

IMPORTANT RECOMMENDATIONS CONCERNING INSTALLATION:

- The automation installation must be performed perfectly done by qualified personnel having the legal requirements and made in accordance to the machinery directive 98/37/EC and to the norms EN13241-1, EN 12453 and EN 12445.
- Check the solidity of existing structures (columns, hinges, doors) in relation to the forces generated by the motor.
- Check the condition of cables that are already present in the plant.
- Analyse the risks and take the necessary safety and signaling.
- Install the commands (key selector for example) and be sure that the user is not placed in a dangerous area.
- After installation try several times the safety devices, signaling and release (see FINAL TEST).
- Ensure that the user has understood the correct automatic functioning of the manual and emergency automation.

STARTING UP

- Draw up a technical dossier of the plant, containing: installation design, electrical wiring diagram, risks analysis and adopted solutions, residual risks analysis, conformity declaration of all the products prepared by the manufacturer, and Declaration of Conformity, related to the installation, compiled by the installer.
- Apply on automating the label or CE plate containing information about the hazards and identification data (number of series etc).
- Give to the end user the operating instructions, the safety warnings, the CE declaration of conformity and a copy of the technical dossier.

Also make sure to inform the end user about:

- the presence of any unprotected residual risks and foreseeable improper or uncorrect use.
- To disconnect the power supply when cleaning the automated area or when performing small maintenance (repainting).
- To frequently control there are no visible damages to the automation and if any, immediately notify the installer
- Not to let the children play closely to the automation
- Prepare a plant maintenance plan (at least every 6 months for the safety) reporting on a register all the performed operations.

DISPOSAL

- This product is made of various components which may contain polluting substances. Please do not litter! Inquire concerning the recycling or product disposal according to the locally laws.

DISPOSAL

This product is made of various components which may contain polluting substances. Please do not litter! Inquire concerning the recycling or product disposal according to the locally laws.

RECORDING PARAMETERS AND FUNCTIONS

We suggest to mark here the parameters you have customized.

TCA	V OP	V CL	AMP	B OP	B CL	TIPE

CA	BA	BP	CR	2P	PL	OC	AP	VR	RO	RC	SB	RE	OU	CP	PH	PA	CF	SA

NOTE:

.....

.....

.....

.....

.....