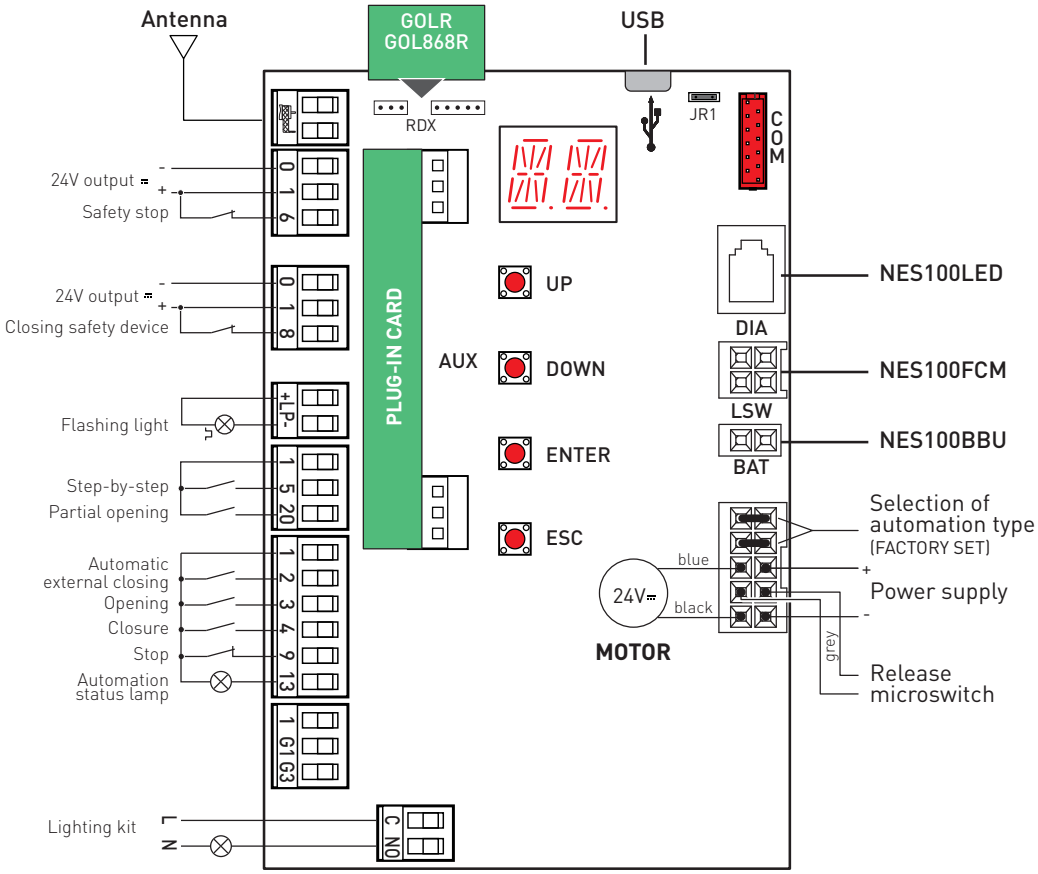
ENTREMATIC

Ditec CS12M

IP2163EN

Control panel installation manual for Ditec NEOS+ automations

(Original instructions)



Contents

Key

This symbol indicates instructions or notes regarding safety, to which special attention must be paid.

This symbol indicates useful information for the correct functioning of the product.

Factory settings

1. General safety precautions

"Important instructions for installation safety.
Incorrect installation can cause serious injury"

This installation manual is intended for qualified personnel only.
Installation, electrical connections and adjustments must be performed in accordance with Good Working Methods and in compliance with the present standards.
Read the instructions carefully before installing the product. Bad installation could be dangerous.
The packaging materials (plastic, polystyrene, etc.) should not be discarded in the environment or left within reach of children, as they are a potential source of danger.
Before installing the product, make sure it is in perfect condition.
Do not install the product in explosive areas and atmospheres: the presence of inflammable gas or fumes represents a serious safety hazard.
The safety devices (photocells, safety edges, emergency stops, etc.) must be installed taking into account: applicable laws and directives, Good Working Methods, installation premises, system operating logic and the forces developed by the automation.
Before connecting the power supply, make sure the plate data correspond to that of the mains power supply. An omnipolar disconnection switch with a contact opening distance of at least 3mm must be fitted on the mains supply.
Check that there is an adequate residual current circuit breaker and a suitable overcurrent cutout upstream of the electrical installation in accordance with Good Working Methods and with the laws in force.
When requested, connect the automation to an effective earthing system that complies with current safety standards.
During installation, maintenance and repair operations, cut off the power supply before opening the cover to access the electrical parts.
The electronic parts must be handled using earthed antistatic conductive arms.
The manufacturer of the motorisation declines all responsibility if component parts not compatible with safe and correct operation are fitted.
Only use original spare parts for repairing or replacing products.

1.1 Safety functions

The CS12M control panel has the following safety functions:

- obstacle recognition with force limiting;

The maximum response time of the safety functions is 0.5 s. The reaction time to a faulty safety function is 0.5 s.
The safety functions comply with the standards and performance level indicated below:

EN ISO 13849-1:2008 Category 2 PL=c
EN ISO 13849-2:2012

The safety function cannot be bypassed either temporarily or automatically. Fault exclusion has not been applied.

2. EC Declaration of Conformity

The manufacturer Entrematic Group AB, with headquarters in Lodjursgatan 10, SE-261 44 Landskrona, Sweden, declares that the Ditec CS12M type control panel complies with the conditions of the following EC directives:

EMC Directive 2004/108/EC
Low Voltage Directive 2006/95/EC
R&TTE Directive 1999/5/EC.

Landskrona, 07-04-2014

Marco Zini
(President & CEO)

3. Technical specifications

Description	NES300EHP	NES400EHP
Power supply	230 V~ 50/60 Hz	230 V~ 50/60 Hz
Motor output	24 V⎓ 12 A max	24 V⎓ 14 A max
Power supply for accessories	24 V⎓ 0.3 A	24 V⎓ 0.3 A
Ambient temperature	-20 °C - +55 °C	-20 °C - +55 °C
Storable radio codes	100 200 [BIXMR2]	100 200 [BIXMR2]
Radio frequency	433.92 MHz	433.92 MHz

Description	NES600EHP	NES1000EHP
Power supply	230 V~ 50/60 Hz	230 V~ 50/60 Hz
Motor output	24 V⎓ 16 A max	24 V⎓ 20 A max
Power supply for accessories	24 V⎓ 0.3 A	24 V⎓ 0.3 A
Ambient temperature	-20 °C - +55 °C	-20 °C - +55 °C
Storable radio codes	100 200 [BIXMR2]	100 200 [BIXMR2]
Radio frequency	433.92 MHz	433.92 MHz

NB: The given operating and performance features can only be guaranteed with the use of DITEC Entrematic accessories and safety devices.

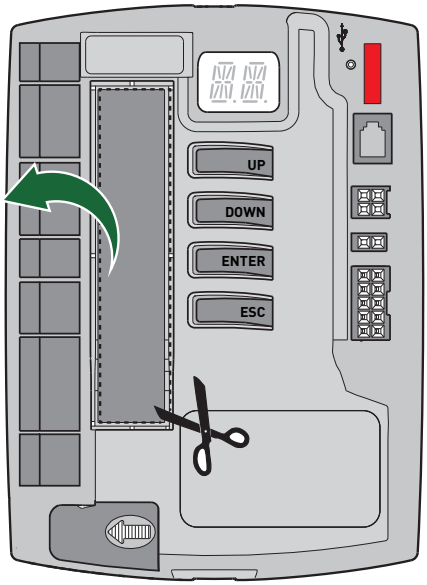
4. Commands

Command		Function	Description
1 — 2	NO	AUTOMATIC CLOSING	Permanent closing of the contact enables automatic closing if AC → 1-2
1 — 3	NO	OPENING	Closing of the contact activates an opening operation.
1 — 4	NO	CLOSING	Closing of the contact activates a closing operation.
1 — 5	NO	STEP-BY-STEP	When selecting BC → CS → 1-5, closing the contact starts a sequential opening or closing operation: opening-stop-closing-opening. WARNING: if automatic closing is enabled, the duration of the stop can be selected by selecting BC → SS. The sequence "opening-stop-closing-opening" can be changed to "opening-stop-closing-stop-opening" BC → PP.
		OPENING	When selecting BC → CS → 1-3, closing the contact activates an opening operation.
1 — 6	NC	SAFETY STOP	The opening of the safety contact stops and prevents any movement. NB: to set different safety contact functions, see the AP → SM parameter settings.
1 — 8	NC	CLOSING SAFETY DEVICE	Opening the safety contact triggers a reversal of the movement (reopening) during the closing operation. When selecting BC → SO → ON, with the automation idle, opening of the contact prevents any operation. When selecting BC → SO → OF, with the automation idle, opening of the contact only prevents closing.
1 — 9	NC	STOP	Opening the safety contact stops the current operation.
1 — 20	NO	PARTIAL OPENING	Closing of the contact activates a partial opening operation. Once the automation stops, the partial opening control performs the opposite operation to the one performed before the stop.

WARNING: make a jumper for all NC contacts if not in use. The terminals with the same number are equal.

4.1 Inserting plug-in card (AUX)

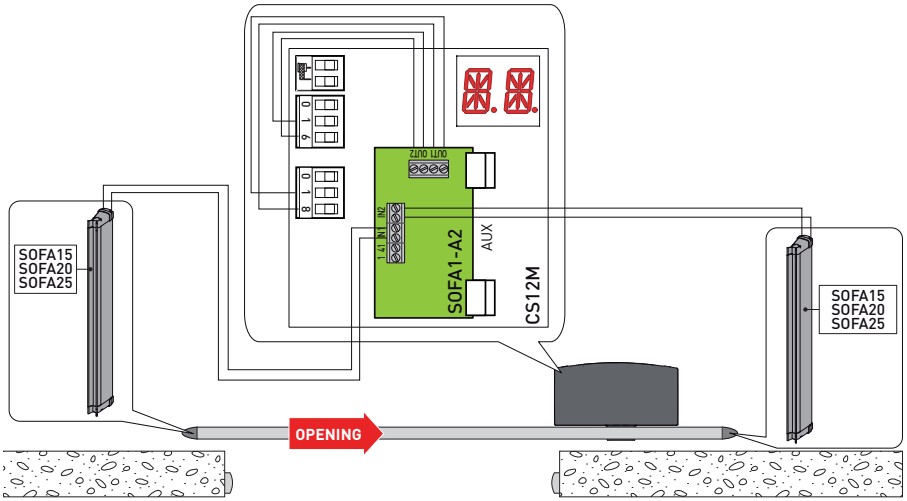
To access the plug-in card (AUX), cut the control panel cover as shown in the figure.

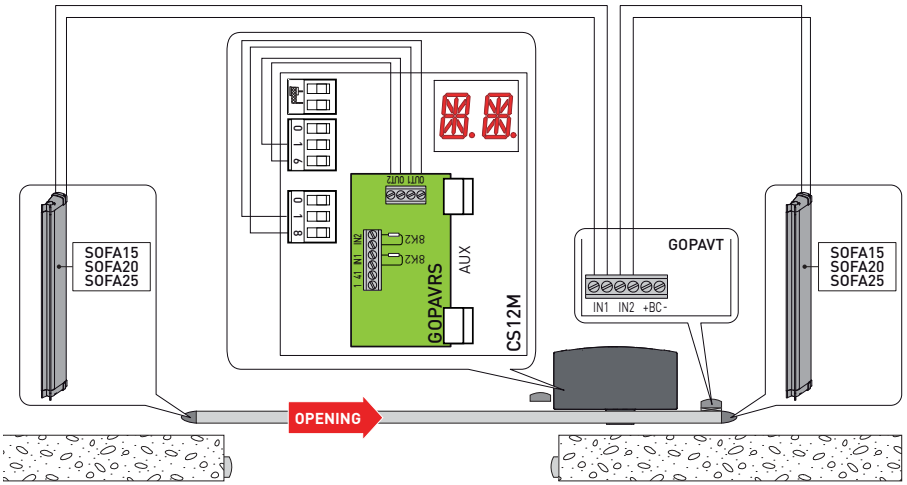


4.2 SOFA1-SOFA2 or GOPAVRS self-controlled safety edge

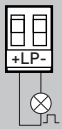
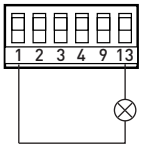
Command		Function	Description
		SAFETY TEST	Place the SOFA1-SOFA2 or GOPAVRS device into the special housing for AUX plug-in cards. If the test fails, an alarm message appears on the display.
	NC	SAFETY STOP	When selecting AP → d6 → SEt, connect the output contact of the safety device to terminals 1-6 on the control panel (in series with the photocell output contact, if installed).
	NC	CLOSING SAFETY DEVICE	When selecting AP → d8 → SEt, connect the output contact of the safety device to terminals 1-8 on the control panel (in series with the photocell output contact, if installed).

Examples of installation of self-controlled safety edge





5. Outputs and accessories

Output	Value Accessories	Description
	24 V⎓ 0.3 A	Accessories power supply. External accessories power supply output. NB: the maximum absorption of 0.3 A corresponds to the sum of all terminals 1. The gate open indicator light (1-13) is not calculated in the 0.3 A indicated above, the maximum value considered is 3 W.
	GOL148REA	If the GOL868R4 radio receiver is used (868.35 MHz), connect the supplied antenna wire (90 mm).
	LAMPH 24 V⎓ 25 W	Flashing light. The pre-flashing settings can be selected from the third level menu AP→WO and/or AP→WC.
	24 V⎓ 3 W	Automation status lamp (proportional) The light comes on when the automation is open BC→OL→ON The light goes off when the automation is closed. The light flashes with a variable frequency while the automation is operating BC→OL→OF.
		G1 - General Purpose Input Operating of the G1 input can be selected from the menu AP→G1.
	10 mA max	G3 - General Purpose Output Operating of the G3 output depends on the type of G1 input selection. SY - If G1→SY, G3 operates as a sync output for parallel or interlocked automations. The ES - Energy Saving mode is not available with this configuration. 41 - If the safety test (SAf or PAf) is enabled on at least one or both inputs D6 and D8, G3 operates as a safety test output. 30 - In applications with solar panels, G3 operates as a permanent positive at 24 V max 10 mA to be connected with the NO contact to G1 (opening and/or step-by-step).
	230 V~ 400 W	External courtesy light. An external courtesy light that turns on for 180 seconds with every opening (total or partial), step-by-step and closing command can be connected. The C-NO terminal can be accessed by removing the cover on the left-hand side at the bottom of the control panel.  In order to comply with essential requirements of standards in force, reclose the cover once the wires have been connected to the terminal. WARNING: use a double insulated cable and secure it using the supplied cable clamps The courtesy light output settings can be modified by selecting AP→US or AP→LU or AP→LG.

<table>
<tr><th>Output</th><th>Value
Accessories</th><th>Description</th></tr>
<tr><td>AUX</td><td>SOFA1-SOFA2
GOPAV
LAN4S
LAB9</td><td>The control panel has a housing for plug-in control and safety cards.
The action of the control card can be selected by selecting BC → AM.
WARNING: the plug-in cards must be inserted and removed with the power supply disconnected.</td></tr>
<tr><td>RDX
  </td><td>GOLR
GOL868R</td><td>The control panel is fitted with a housing for a plug-in card such as a GOLR-GOL868R radio receiver.
Operating of the plug-in card is selected by selecting BC → AM.
WARNING: the plug-in cards must be inserted and removed with the power supply disconnected.</td></tr>
<tr><td>  </td><td></td><td>Mains power supply, motor, release microswitch and automation wiring connection (factory settings)</td></tr>
<tr><td>  </td><td>Micro -B plug</td><td>The control panel has a USB input for connecting a USB memory stick to update the FW or download diagnostic data from the control panel by way of a Standard -A receptacle to Micro -A plug cable (not supplied).
It can also be connected to a PC for AMIGO software management by way of a USB Standard-A plug to Micro -B plug cable.

For more information, refer to kit NES100U-SB manual.

WARNING: only disconnect the cable from the USB input when you have disconnected the peripheral device on the Windows application bar.</td></tr>
<tr><td>COM
  </td><td>BIXMR2</td><td>COM - This allows the functioning configurations to be saved using the function SF → SV.
The saved configurations can be recalled using the function SF → RC.

COM - The storage module allows the remote controls to be stored. If the control panel is replaced, the storage module being used can be inserted in the new control panel.
WARNING: the storage module must be inserted and removed with the power supply disconnected.</td></tr>
<tr><td>DIA
  </td><td></td><td>DIA - Connection of automation diagnostic LED.
<table>
<tr><td>○○○</td><td>OFF</td><td>No power supply.</td></tr>
<tr><td>●○○</td><td>1 flash every 5s</td><td>Mains power supply present, but gate stopped waiting for commands. Any external faults are not detected by the diagnostic LEDs.</td></tr>
<tr><td>●○○</td><td>flashing in sync with LAMPH</td><td>Mains power supply present, normal operation. flashing LED in sync with output +LP- (LAMPH)</td></tr>
<tr><td>○●○</td><td>1 flash every 10s</td><td>No mains power supply, battery-powered operation.</td></tr>
<tr><td>○●○</td><td>steady on</td><td>Request for maintenance (V0 alarm)</td></tr>
<tr><td>○○●</td><td>steady on</td><td>Release door open.</td></tr>
<tr><td>○○●</td><td>1 flash every 1s</td><td>Permanent alarm (see ALARMS and/or TROUBLESHOOTING)</td></tr>
</table></td></tr>
</table>

Output	Value Accessories	Description
BAT 	NES100BBU 2x12 V 2Ah	BAT - Battery-powered operation. The batteries are kept charged when the power supply is on. If the power supply is off, the panel is powered by the batteries until the power is re-establish or until the battery voltage drops below the safety threshold. The panel turns off in the last case. WARNING: the batteries must always be connected to the control panel for charging. Periodically check the efficiency of the batteries. NB: the operating temperature of the rechargeable batteries is from +5°C to +40°C. For advanced control of battery-powered operation, refer to the menu EM.
LSW 	NES100FCM	LSW - Magnetic limit switch kit (optional on Ditec NES300 and NES400).

6. Selections

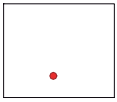
Jumper	Description	OFF	ON
JR1	Display mode selection.	Display mode. Only the values and parameters present can be displayed.	Maintenance mode. Only the values and parameters present can be displayed and modified. Going into maintenance mode is indicated by the permanent switching on of the right-hand point on the display.

7. Adjustments

NB: pressure on the keys can be quick (less than 2 s) or prolonged (longer than 2 s). Unless specified otherwise, quick pressure is intended.

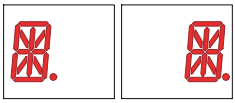
7.1 Switching the display on and off

The procedure to switch on the display is as follows:

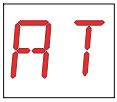


- press the ENTER key

- the display functioning check starts



- the first level menu is displayed



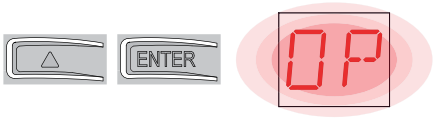
The procedure to switch off the display is as follows:

- press the ESC key

NB: the display switches off automatically after 60 s of inactivity.

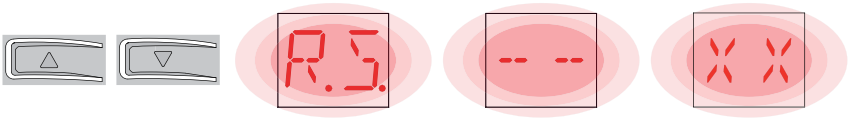
7.2 Key combinations

- Simultaneous pressing of the keys ↑and ENTER performs an opening command.



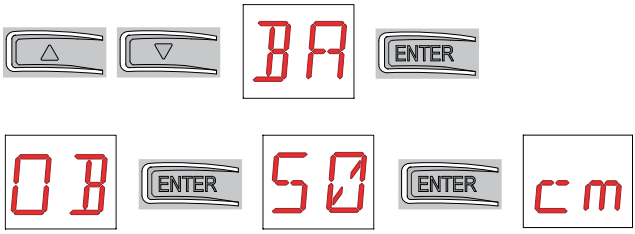
- Simultaneous pressing of the keys ↓and ENTER performs a closing command.

- Simultaneous pressing of the keys ↑ and ↓ performs a POWER RESET command. (interruption of the power supply and restart of the automation).



- Hold down the UP ↑ or DOWN ↓ key to begin fast menu scrolling.

- In some menus, the parameter unit of measurement can be displayed by pressing the ENTER key once the value has been displayed (in the example, 50 cm).



7.3 Main menu

- using keys ↑ and ↓ select the desired function

- press the ENTER key to confirm

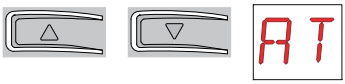
After confirming the selection, you access the second level menu.

Display	Description
AT	AT - Automatic Configurations. The menu allows you to manage the automatic configurations of the control panel.
BC	BC - Basic Configurations. The menu allows you to display and modify the main settings of the control panel.
BA	BA - Basic Adjustments. The menu allows you to display and modify the main adjustments of the control panel. **NB: some settings require at least three operations before they are set correctly.**
RO	RO - Radio Operations. The menu allows you to manage the radio operations of the control panel.
SF	SF - Special Functions. The menu allows you to set the password and manage the special functions in the control panel.
CC	CC - Cycles Counter. The menu allows you to display the number of operations carried out by the automation and manage the maintenance interventions.
EM	EM - Energy Management. The menu allows you to display and modify the energy saving settings and adjustments.
AP	AP - Advanced Parameters. The menu allows you to display and modify the advanced settings and adjustments of the control panel. **NB: some settings require at least three operations before they are set correctly.**

WARNING: depending on the type of automation and control panel, some menus may not be available.

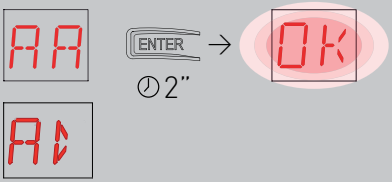
7.4 Second level menu AT (Automatic Configurations)

- using keys ↑ and ↓ select the desired function



- press the ENTER key to confirm

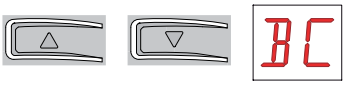
Display	Description
RT	**RT - Opening to right.**
LF	**LF - Opening to left.**
H0	**H0 - Predefined setting, residential use 0.** This selection loads predefined values for certain standard parameters: AC - enabling of automatic closing : 1-2 C5 - step-by-step/opening command operation : step-by-step RM - remote control operation : step-by-step AM - AUX plug-in card operation : step-by-step SS - Selection of automation status at start-up : open
H1	**H1 - Predefined setting, residential use 1.** This selection loads predefined values for certain standard parameters: AC - enabling of automatic closing : enabled TC - setting of automatic closing time : 1 minute C5 - step-by-step/opening command operation : step-by-step RM - remote control operation : step-by-step AM - AUX plug-in card operation : step-by-step SS - Selection of automation status at start-up : closed
C0	**C0 - Predefined setting, condominium use 0.** This selection loads predefined values for certain standard parameters: AC - enabling of automatic closing : enabled TC - setting of automatic closing time : 1 minute C5 - step-by-step/opening command operation : opening RM - remote control operation : opening AM - AUX plug-in card operation : opening SS - Selection of automation status at start-up : closed
RD	**RD - Resetting of general settings (SETTINGS RESET).** ENTER → OK 2"

Display	Description
AA	**AA - Activating advanced parameters menu.**  After activation you can scroll through the third level menus. The third level menus are activated for 30 min.

Depending on the type of automation and control panel, some menus may not be available.

7.5 Second level menu - BC (Basic Configurations)

- using keys ↑ and ↓ select the desired function



- press the ENTER key to confirm

Display	Description		
AC	**AC - Enabling of automatic closing.** ON - Enabled 1-2 - Dependent on input 1-2	ON	1-2
SS	**SS - Selection of automation status at start.** OP - Open CL - Closed Indicates how the control panel considers the automation at the time of switch-on, or after a POWER RESET command.	OP	CL
SO	**SO - Enabling of reversal safety contact functioning.** ON - Enabled OF - Disabled When enabled (ON) with the automation idle, if the contact 1-8 is open, all operations are prevented. When disabled (OF) with the automation idle, if the contact 1-8 is open, opening operations are permitted.	ON	OF
NI	**NI - Enabling of NIO electronic anti-freeze system.** ON - Enabled OF - Disabled When enabled (ON) it maintains motor efficiency even at low ambient temperatures, increases the starting time ST to the maximum value and reduces the acceleration time TA to the minimum value. NB: for correct operation, the control panel must be exposed to the same ambient temperature as the motors. The intervention temperature for NIO can be set by selecting AP→TN.	ON	OF

WARNING: depending on the type of automation and control panel, some menus may not be available.

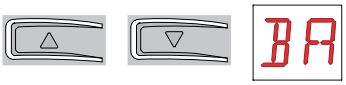
7.5.1 Third level menu - BC (Basic Configurations)

Access the third level menu by activating function AA (see paragraph 7.4)

Display	Description		
OL	**OL - Automation open indicator light mode** ON - Steady on OF - Flashing	ON	OF
C5	**C5 - Step-by-step/opening command operation.** 1-5 - Step-by-step 1-3 - Opening	1-5	1-3
RM	**RM - Radio receiver operation.** 1-5 - Step-by-step 1-3 - Opening	1-5	1-3
AM	**AM - AUX plug-in control card operation.** 1-5 - Step-by-step 1-3 - Opening	1-5	1-3
PP	**PP - Setting step-by-step sequence from command 1-5.** ON - Opening-Stop-Closing-Stop-Opening OF - Opening-Stop-Closing-Opening	ON	OF
S5	**S5 - Duration of STOP in step-by-step sequence from command 1-5.** ON - Permanent OF - Temporary	ON	OF
OD	**OD - Selecting opening direction.** LF - Opening to left. RT - Opening to right. The opening direction is intended by viewing the automation from the side being examined. NB: Modification of status from RT to LF and vice versa performs an automatic RESET of the card.	LF	RT

7.6 Second level menu - BA (Basic Adjustment)

- using keys ↑ and ↓ select the desired function



- press the ENTER key to confirm

Display	Description	
MT	**MT - Display of type of automation.** N3 - Motor with 300 kg capacity N4 - Motor with 400 kg capacity N6 - Motor with 600 kg capacity N1 - Motor with 1000 kg capacity NB: this parameter is DISPLAY only.	N3 N4 N6 N1
TC	**TC - Setting of automatic closing time. [s]** It is set with different intervals of sensitivity. • from 0" to 59" with intervals of 1 second; • from 1' to 2' with intervals of 10 seconds.	00▸59 1'▸2' **1'00"**
RP	**RP - Adjustment of partial opening measurement. [%]** Adjusts the percentage of operation in relation to the total opening of the automation. 10 - Minimum 99 - Maximum	10▸99 **30**
TP	**TP - Setting of automatic closing time after partial opening. [s]** It is set with different intervals of sensitivity. • from 0" to 59" with intervals of 1 second; • from 1' to 2' with intervals of 10 seconds.	00▸59 1'▸2' **00'30"**
VA	**VA - Setting of opening speed. [cm/s]** NB: 19 - Maximum with MT→N1 24 - Maximum with MT→N6 25 - Maximum with MT→N3 or N4	10▸25 **15**
VC	**VC - Setting of closing speed. [cm/s]** NB: 19 - Maximum with MT→N1 24 - Maximum with MT→N6 25 - Maximum with MT→N3 or N4	10▸25 **15**

Display	Description	
R2	**R2 - Adjustment of thrust on obstacles and current during opening [%]** The control panel is equipped with a safety device that stops movement if an obstacle is detected during an opening operation with disengagement of 10 cm. 00 - Minimum thrust 99 - Maximum thrust	00 99 **50**
R1	**R1 - Adjustment of thrust on obstacles and current during closing [%]** The control panel is fitted with a safety device which stops or reverses movement when an obstacle is detected during a closing operation. 00 - Minimum thrust 99 - Maximum thrust	00 99 **50**

WARNING: depending on the type of automation and control panel, some menus may not be available.

NB: make adjustments gradually and only after performing at least three complete operations to allow the control panel to be set correctly and detect any friction during operations.

7.6.1 Third level menu - BA (Basic Adjustment)

Access the third level menu by activating function AA (see paragraph 7.4)

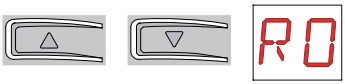
Display	Description	
dT	**DT - Adjustment of obstacle recognition time. [s/100]** 10 - Minimum 60 - Maximum NB: the parameter is adjusted in hundredths of a second.	10▸60 **40**
MP	**MP - Start at maximum power** ON - During start-up it increases the thrust on obstacles to maximum. OFF - During start-up the thrust on obstacles is that adjusted by R1 - R2	ON OF
ST	**ST - Adjustment of start time. [s]** 0.5 - Minimum 3.0 - Maximum	0.5▸3.0 **2.0**
TA	**TA - Adjustment of acceleration time. [s]** 0.5 - Minimum (start speed is 75% of VA - VC) 2.0 - Maximum	0.5▸2.0 **1.5**
TD	**TD - Adjustment of deceleration time. [%]** 10 - Minimum 99 - Maximum	10▸99 **75**
OB	**OB - Adjustment of deceleration distance during opening. [cm]** Indicates the distance from the end of the opening stroke where the deceleration ramp begins. 05 - Minimum 99 - Maximum NB: reduce the deceleration space if there is a series of quick vibrations (chattering) in heavy gates installed with a slight incline.	05▸99 **40**
CB	**OB - Adjustment of deceleration distance during closing. [cm]** Indicates the distance from the end of the closing stroke where the deceleration ramp begins. 05 - Minimum 99 - Maximum NB: reduce the deceleration space if there is a series of quick vibrations (chattering) in heavy gates installed with a slight incline.	05▸99 **40**

Display	Description	
PO	**PO - Adjustment of approach speed during opening. [cm/s]** Indicates the speed from the end of the deceleration ramp to the end of the stroke. 02 - Minimum 10 - Maximum NB: gradually increase the approach speed if there is a series of quick vibrations (chattering) in heavy gates installed with a slight incline.	02 › 10 **03**
PC	**PC - Adjustment of approach speed during closing. [cm/s]** Indicates the speed from the end of the deceleration ramp to the end of the stroke. 02 - Minimum 10 - Maximum NB: gradually increase the approach speed if there is a series of quick vibrations (chattering) in heavy gates installed with a slight incline.	02 › 10 **03**
OO	**OO - Obstacle detection limit during opening [cm]** Indicates the distance from the end of the opening stroke after which each obstacle is considered a stop. 05 - Minimum 99 - Maximum NB: This parameter is only active if AP→FA→NO	05 › 99 **40**
OC	**OC - Obstacle detection limit during closing [cm]** Indicates the distance from the end of the closing stroke after which each obstacle is considered a stop. 05 - Minimum 99 - Maximum NB: This parameter is only active if AP→FC→NO	05 › 99 **40**

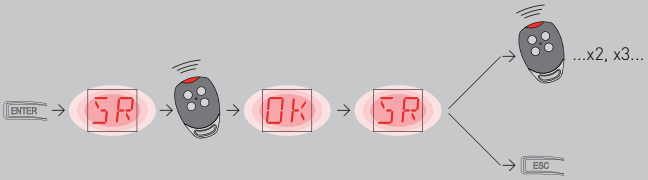
NB: make adjustments gradually and only after performing at least three complete operations to allow the control panel to be set correctly and detect any friction during operations.

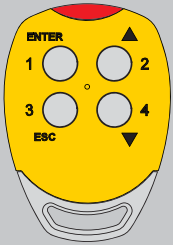
7.7 Second level menu - RO (Radio Operations)

- using keys ↑ and ↓ select the desired function



- press the ENTER key to confirm

Display	Description		
SR	**SR - Remote control storage.** You can directly access the Remote control storage menu even with the display turned off, but only with the Display visualisation mode option set to 00 or 03: - for transmitting a remote control not present in the memory; - for transmitting an unstored channel of a remote control already present in the memory. 		
MU	**MU - Indication of maximum number of remote controls that can be stored in the integrated memory.** You can store a maximum of 100 or 200 remote control codes. 20 - 200 storable remote controls 10 - 100 storable remote controls	20	10

Display	Description		
RK	**RK - Menu navigation using remote control keyboard.** ON - Enabled OF - Disabled **You are advised to use a NES100TXT remote control.** With the display turned off, quickly type in the sequence of keys ③③②④① from the stored remote control you want to use. Make sure all the CH keys are stored. WARNING: during navigation with a remote control keyboard ALL the stored remote controls are inactive.  To aid viewing and adjustment (avoiding the need to continuously press the remote control), press the UP ↑ or DOWN ↓ key once to begin slowly scrolling through the parameters. This scrolling movement is faster if the UP ↑ or DOWN ↓ key is pressed twice. To stop the scrolling, press ENTER. To confirm your choice of parameter, press ENTER again. To test any new setting, switch off the display and issue an opening command using key ③. Navigation using a remote control keyboard is automatically disabled after 4 minutes of inactivity or by setting RK→OF.	ON	OF

WARNING: depending on the type of automation and control panel, some menus may not be available.

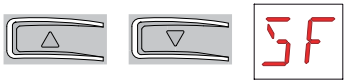
7.7.1 Third level menu - RO (Radio Operations)

Access the third level menu by activating function AA (see paragraph 7.4)

Display	Description		
C1 C2 C3 C4	**C1, C2, C3, C4 - Selection of CH1, CH2, CH3, CH4 function of stored remote control.** NO - No setting selected 1-3 - Opening command 1-4 - Closing command 1-5 - Step-by-step command P3 - Partial opening command 1-9 - STOP command If only one (any) CH key of the remote control is stored, command 1-3 (step-by-step/opening) is carried out. If 2-4 CH keys of a single remote control are stored, the functions matched with the CH keys are as follows: • CH1 = command 1-3 step-by-step/opening; • CH2 = partial opening command; • CH3 = no setting selected; • CH4 = STOP command. WARNING: options 1-3 (opening) and 1-5 (step-by-step) are available as an alternative and depend on the selection BC → RM.	NO 1-5 P3	1-3 1-4 1-9
ER	**ER - Cancelling a single remote control.** 		
EA	**EA - Cancelling an entire memory.** 		
EC	**EC - Cancelling a single code.** **(FOR FUTURE USE)**		
RE	**RE - Setting memory opening from remote control.** OF - Disabled ON - Enabled (only if b5 → 00 or b5 → 01) When enabled (ON), the remote programming is activated. To store new remote controls without using the control panel, press the PRG key of an already stored GOL4 remote control for 5 seconds until the LED comes on (within the range of the receiver) and press any one of the CH keys on the new remote control. NB: make sure you do not accidentally memorise unwanted remote controls.	ON	OF

7.8 Second level menu - SF (Special Functions)

- using keys ↑ and ↓ select the desired function



- press the ENTER key to confirm

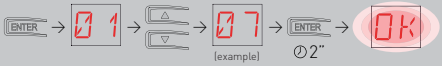
Display	Description
CU	**CU - Displaying the control panel firmware version.** ENTER → R. → 1.1 → Release 1.1 (example)
SV	**SV - Saving user configuration on control panel storage module.** ENTER → U1 → U2 (example) → ENTER (2") → OK By selecting R0 → MU → 10 you can save up to 2 personalised configurations in memory positions U1 and U2 only with the storage module present on the control panel. WARNING: if more than 100 remote control codes are stored on the control panel storage module, you cannot save any user configuration.
RC	**RC - Loading configuration.** ENTER → 01 → U2 (example) → ENTER (2") → OK You can upload the user configurations previously saved U1 and U2 on the control panel storage module, or upload the predefined settings available in memory positions 01, 02, 03 and 04. 01 - parameter setting for passive edge on closure edge and stopping limit switch. 02 - parameter setting for passive edges on both edges and stopping limit switch. 03 - FUTURE USE 04 - FUTURE USE
RL	**RL - Loading the last configuration set.** ENTER (2") → RL → OK The control panel automatically saves the last configuration set, and keeps it memorised in the storage module. In the event of a fault or the replacement of the control panel, the last configuration of the automation can be restored by inserting the storage module and loading the last configuration set.

WARNING: depending on the type of automation and control panel, some menus may not be available.

IP2163EN - 2014-08-05

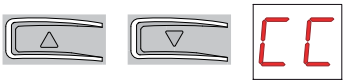
7.8.1 Third level menu - SF (Special Functions)

Access the third level menu by activating function AA (see paragraph 7.4)

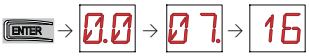
Display	Description
SP	**SP - Setting the password.**  NB: this can only be selected when the password is not set. Setting the password prevents unauthorised personnel from accessing selections and adjustments. You can delete the set password by selecting the sequence JR1=ON, JR1=OFF, JR1=ON.
IP	**IP - Inserting the password.**  NB: this can only be selected when the password is set. When the password is not inserted, you can access the display mode regardless of the selection made with JR1. When the password is inserted, you can access in maintenance mode.
EU	**EU - Cancellation of user configurations and last configuration set in the storage module.** 

7.9 Second level menu - CC (Cycles Counter)

- using keys ↑ and ↓ select the desired function



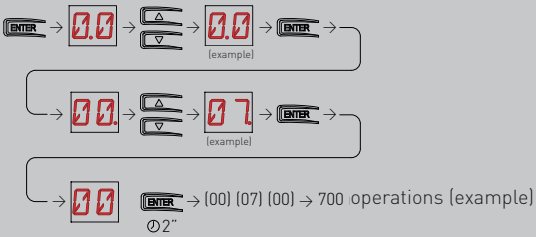
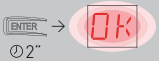
- press the ENTER key to confirm

Display	Description
	**CV - Display of total operations counter.**  → 182 operations (example)
	**CP - Display of partial operations counter.**  → 716 operations (example)
	CH - Display of power supply hour counter.  → 256 hours of power (example)

WARNING: depending on the type of automation and control panel, some menus may not be available.

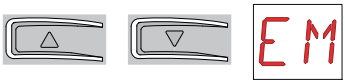
7.9.1 Third level menu - CC (Cycles Counter)

Access the third level menu by activating function AA (see paragraph 7.4)

Display	Description
CA	**CA - Setting the maintenance alarm.** You can set the required number of operations (regarding the partial operations counter) for signalling the maintenance alarm. When the set number of operations is reached, the alarm message appears on the display M0. 
OA	**OA - Selecting maintenance alarm display mode.** 00 - Display (displays the alarm message M0) 01 - Flashing light (with the automation closed, it flashes 4 times, repeating this action every 60 minutes) and display (it displays the alarm message M0). 02 - Gate open indicator light (with the automation closed, it flashes 4 times, repeating this action every 60 minutes). 
ZP	**ZP - Zero-setting of partial operations counter.**  For correct functioning, you are advised to reset the partial operations counter: - after maintenance work; - after setting the maintenance alarm interval.

7.10 Second level menu - EM (Energy Management)

- using keys ↑ and ↓ select the desired function



- press the ENTER key to confirm

Display	Description		
PV	**PV - Solar panel power supply (panels not supplied)** ON - Enabled OF - Disabled	ON	OF
ES	**ES - Accessory power supply disconnection with automation stopped or in stand-by "Energy Saving" mode (RECOMMENDED FOR SOLAR PANEL SYSTEMS - not supplied).** ON - Enabled (the LEDs are OFF, the red dot on the right flashes every 5 s on the display, the flashing light and the courtesy light are not operated). OF - Disabled The power supply disconnection mode is activated after 10 s with the gate closed or when the gate is closed and automatic closing is not enabled or when a 1-9 - STOP command intervenes. The automation resumes normal operation after a command received from the radio card (GOLR-GOL868R) or after activation of a contact (for example, key selector switch) connected between G3-G1. WARNING: - The GOPAV safety devices are not compatible with this selection. Only SOF safety devices can be used. - If ES is enabled, parallel or interlocked systems cannot be used. - The USB output is not active with ES enabled. - The operating hours CH counter is not active.	ON	OF

WARNING: depending on the type of automation and control panel, some menus may not be available.

IP2163EN - 2014-08-05

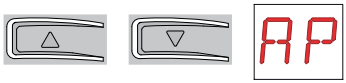
7.10.1 Third level menu - EM (Energy Management)

Access the third level menu by activating function AA (see paragraph 7.4)

Display	Description		
LL	**LL - Voltage threshold for indicating that batteries are almost flat (V)** 17 - Minimum 24 - Maximum NB: it is set with an interval of sensitivity of 0.5 V shown when the decimal point on the right lights up.	 22	
LB	**LB - Indication that batteries are almost flat** 00 - Indication only on display 01 - Indication on flashing light 02 - Indication on gate open indicator light		

7.11 Second level menu - AP (Advanced Parameters)

- using keys ↑ and ↓ select the desired function



- press the ENTER key to confirm

Display	Description		
FA	**FA - Selection of opening limit switch mode.** NO - None SX - Stop limit switch (after activation the door wing stops its movement) PX - Proximity limit switch (after activation the door wing continues as far as the end stop and any obstacle is considered a stop) (with standard limit switches)	NO PX	SX
FC	**FC - Selection of closing limit switch mode.** NO - None SX - Stop limit switch (after activation the door wing stops its movement) PX - Proximity limit switch (after activation the door wing continues as far as the end stop and any obstacle is considered a stop) (with standard limit switches)	NO PX	SX
D6	**D6 - Selection of device connected to terminals 1-6.** NO - None SE - Safety edge (if contact 1-6 opens, after stopping, there is a disengagement of 10 cm) S41 - Safety edge with safety test (if contact 1-6 opens, after stopping, there is a disengagement of 10 cm) PH - Photocells P41 - Photocells with safety test	NO S41 P41	SE PH
D8	**D8 - Selection of device connected to terminals 1-8.** NO - None SE - Safety edge S41 - Safety edge with safety test PH - Photocells P41 - Photocells with safety test	NO S41 P41	SE PH

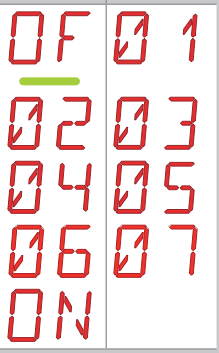
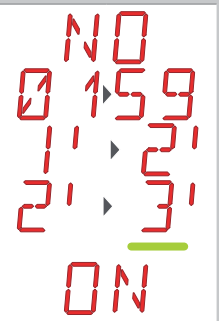
Display	Description		
	**DS - Setting of display visualisation mode.** 00 - No display 01 - Commands and safety devices with radio test (see paragraph 8.2). Display of count down to automatic closing. 02 - Automation status (see paragraph 8.1) 03 - Commands and safety devices (see paragraph 8.2)		

WARNING: depending on the type of automation and control panel, some menus may not be available.

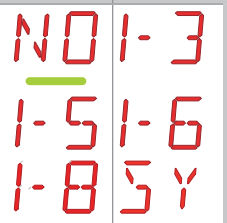
NB: make adjustments gradually and only after performing at least three complete operations to allow the control panel to be set correctly and detect any friction during operations.

7.11.1 Third level menu - AP (Advanced Parameters)

Access the third level menu by activating function AA (see paragraph 7.4)

Display	Description	
ED	**ED - Enabling of diagnostics** Enables periodic saving of data via serial for diagnostic use. NO - Disabled 01 - Checking virtual encoder (DO NOT USE) 02 - Alarm log	
US	**US - Type of C-NO contact use** OF - Contact always open 01 - Courtesy light 02 - LAMP flashing (230 V~) 03 - Gate closed 04 - Gate open 05 - Gate moving 06 - Gate opening 07 - Gate closing ON - Contact always closed	
LU	**LU - Setting switch-on time for courtesy light (s)** It is set with different intervals of sensitivity. NO - Disabled - from 01" to 59" with intervals of 1 second; - from 1' to 2' with intervals of 10 seconds; - from 2' to 3' with intervals of 1 minute; ON - Permanently ON, switched off with remote control NB: The courtesy light switches on at the start of each operation.	
LG	**LG - Setting switch-on time for independent light. [s]** It is set with different intervals of sensitivity. NO - Disabled - from 01" to 59" with intervals of 1 second; - from 1' to 2' with intervals of 10 seconds; - from 2' to 3' with intervals of 1 minute; ON - Switched on and off with remote control. NB: The switching on of the light does not depend on the start of an operation, but can be commanded separately using the special remote control key.	

IP2163EN - 2014-08-05

Display	Description	
PA	**PA - Automation parallel (see examples of applications)** Sets the type of automation parallel 01 - Simultaneous automations 02 - Interlocked one-way automations without presence 03 - Interlocked one-way automations with presence on contact 1-2	
G1	**G1 - Setting the G1 input mode** NO - Absent 1-3 - Opening 1-5 - Step-by-step 1-6 - Safety stop 1-8 - Input 1-8 (safety reopening) depending on setting AP→T5. SY - Synchronism input	
PG	**PG - Enabling interlocked automation opening control request (see examples of applications).** ON - Enabled OF - Disabled When enabled (ON), it requests the automation 1 opening command if automation 2 is engaged in completing the operation.	
TO	**TO - Motor 2 delay time (s) (see examples of applications).** This adjusts the opening delay time of the second interlocked automation. 00 - Minimum 30 - Maximum	 **03**
PT	**PT - Fixed partial opening.** ON - Enabled. OF - Disabled If ON, a partial opening command given on the partial opening position is ignored. With contact 1-20 closed (for example with the timer or manual selector), the gate will partially open and if it is then opened completed and reclosed (with automatic closing as well), it will stop at the partial opening position.	
DO	**DO - Setting of disengagement on stop during opening. [mm]** 00 - Minimum 10 - Maximum NB: Not active if FA→5x	 **02**
DC	**DC - Setting of disengagement on stop during closing. [mm]** 00 - Minimum 10 - Maximum NB: Not active if FC→5x	 **02**

Display	Description		
OT	**OT - Selection of type of obstacle.** 00 - Overcurrent or door stopped 01 - Overcurrent 02 - Door stopped	00 02	01
CR	**CR - Correction to calculated speed. [mm/s]** DO NOT USE (diagnostic purposes only)	-- 9 ▸ +9	
R9	**R9 - Enabling automatic closing after command 1-9 (STOP) from terminal board.** OF - Disabled. ON - Enabled. NO - None. Disables safety device 1-9.	OF NO	ON
SM	**SM - Selection of operating mode of device connected to terminals 1-6.** **00** - During the operation, the opening of the safety contact stops movement (with disengagement if 16 → 5E / 541). **01** - During the operation, the opening of the safety contact stops movement (with disengagement if 16 → 5E / 541). When the contact closes again, the interrupted operation continues. **02** - During the operation, the opening of the safety contact stops movement (with disengagement if 16 → 5E / 541). When the contact closes again, an opening operation is performed. **03** - During the opening operation, the opening of the safety contact stops movement (with disengagement if 16 → 5E / 541). When the contact closes again, the interrupted opening operation is resumed. During the closing operation, the safety device is ignored. **04** - During the closing operation, the opening of the safety contact reverses the movement. During the opening operation, the safety device is ignored. **05** - During the closing operation, the opening of the safety contact stops and reverses the movement. During the opening operation, opening of the safety contact stops movement (with disengagement if 16 → 5E / 541).	00 02 04	01 03 05
TN	**TN - Setting of intervention temperature for NIO antifreeze system. [°C]** Adjustment of the working temperature of the control panel. The value does not refer to ambient temperature. NB: the temperature is adjusted by trial and error until the problem is solved.	-- 9 ▸ 20 5	
TB	**TB - Display of working temperature of control panel.** DO NOT USE		

Display	Description	
	**WO - Setting of pre-flashing time on opening. [s]** Adjustment of the lead time for the switch-on of the flashing light, in relation to the start of the opening operation from a voluntary command. 00 - Minimum 05 - Maximum	 **00**
	**WC - Setting of pre-flashing time on closing. [s]** Adjustment of the lead time for the switch-on of the flashing light, in relation to the start of the closing operation from a voluntary command. 00 - Minimum 05 - Maximum	 **00**
	**TS - Setting of renewal of automatic closing time after safety device release. [%]** 00 - Minimum 99 - Maximum	 **99**
	**VR - Setting of learning speed. [cm/s]**	 **05**

8. Display visualisation mode

WARNING: depending on the type of automation and control panel, some menus may not be available.

8.1 Display of automation status

The automation status display mode is only visible with Display visualisation mode set to 02.

AP → DS → 02

Display	Description
OD→RT	
	Automation closed.
	Automation closed. Release door open.
	Automation open.
	Automation open. Release door open.
	Automation stopped in intermediate position.
	Automation stopped in intermediate position. Release door open.
	Automation closing.
	Automation that slows down during closing.
	Automation opening.
	Automation that slows down during opening.

Display	Description
0D→LF	
	Automation closed.
	Automation closed. Release door open.
	Automation open.
	Automation open. Release door open.
	Automation stopped in intermediate position.
	Automation stopped in intermediate position. Release door open.
	Automation closing.
	Automation that slows down during closing.
	Automation opening.
	Automation that slows down during opening.

8.2 Display of safety devices and commands

The safety and command display mode is only visible with Display visualisation mode set at 01 or 03.

AP → DS → 01

AP → DS → 03

Display	Description
	1-3 - Automatic closing command.
	1-3 - Opening command.
	1-4 - Closing command.
	1-5 - Step-by-step command.
	1-6 - Safety device with opening and closing stop.
	1-8 - Safety with closing reversal.
	1-9 - STOP command
	P3 - Partial opening command.
	3P - Opening command with operator present.
	4P - Closing command with operator present.
	RX - Radio reception (of any memorised key of a transmitter present in the memory).
	NX - Radio reception (of any non-memorised key).

	CX - Receipt of command from AUX card.
	F1 - Closing limit switch
	F2 - Opening limit switch
	O1 - Detection of an obstacle during closing
	O2 - Detection of an obstacle during opening
	OO - Reaching of obstacle detection limit during opening
	OC - Reaching of obstacle detection limit during closing
	S1 - Detection of stop during closing
	S2 - Detection of stop during opening
	SW - Release door open. When the release door is closed, the control panel performs a RESET (alarm )
	RV - Enabling/disabling of built-in radio receiver via RDX.
	MQ - Learning operation of mechanical end stops in progress.
	HT - Heating of the motors (NIO function) in progress.
	JR1 - Variation of the JR1 jumper status.
	G1 - General Purpose 1

	PC - Recognition of connected HOST (Personal Computer).
	UB - Recognition of connected USB memory stick
	UD - Disconnection of cable and USB memory stick
	ES - Switch to Energy Saving mode.
	AO - Interlocked automation opening control request.

8.3 Display of alarms and faults

Alarms and faults can be displayed with any display selection. The signalling of alarm messages takes priority over all other displays.

Type of alarm	Display	Description	Operation	LED
Mechanical alarm		M0 - Selected motor not suitable.	Set correct motor wiring.	-
		M3 - Automation blocked (open/closed)	Check the mechanical parts	-
		M4 - Motor short circuit	Check the motor is correctly connected.	-
			Check the motor is working properly.	
		M8 - Gate too long error (>25 m)	Check the rack / chain belt	-
		M9 - Gate too short error (< 200 mm)	Manually check that the door wing moves freely.	-
		MB - Absence of motor during an operation.	Check connection of motor. Check motor brush contacts. If the problem persists, contact Technical Support.	-
		MD - Irregular functioning of motor opening limit switch.	Check connection of the motor opening limit switch.	
		ME - Irregular functioning of motor closing limit switch.	Check connection of the motor closing limit switch.	
		MI - Detection of fifth consecutive obstacle.	Check for the presence of permanent obstacles along the stroke of the automation.	-
		ML - Inverted limit switches	Check limit switch connection.	-
Power supply operations alarm		R0 - Insertion of a storage module containing over 100 stored remote controls. Warning: R0 → MU → 20 is set automatically. The alarm is displayed 3 times only.	To save the system configurations on the storage module, delete any stored remote controls and bring the total to less than 100. Set R0 → MU → 10.	

Type of alarm	Display	Description	Operation	LED
Power supply operations alarm		R3 - Storage module not detected (with RDX inserted) .	Insert a working storage module or remove RDX.	
		R5 - Storage module not working (regardless of RDX)	Replace the storage module.	
Accessories alarm		A0 - Failure of test of safety sensor on contact 6.	Check that device SOFA1-A2/GOPAV is working correctly. If the supplementary card is not inserted, check that  is not set to  / 	
		A3 - Failure of test of safety sensor on contact 8.	Check that device SOFA1-A2/GOPAV is working correctly. If the supplementary card is not inserted, check that  is not set to  / 	
		A7 - Incorrect connection of contact 9 to G3	Check that terminal 1 and 9 are correctly connected.	
		A9 - Flashing light output short circuit alarm	Check that the flashing light is working properly.	
		AB - Gate open indicator light shortcircuit alarm	Check that the gate open indicator light is working correctly.	
Battery		B0 - Battery almost flat	Check battery voltage. Replace battery.	
Power supply alarm		P0 - No mains voltage.	Check the control panel is powered correctly. Check the line fuse. Check the mains power supply.	
		P1 - Microswitch voltage too low	Check the control panel is powered correctly.	
Control panel internal alarm		I2 - No communication between parallel automations.	Check G1 (MASTER) - G3 (SLAVE) and G3 (MASTER) - G1 (SLAVE) connections. Reset. If the problem persists, contact Technical Support.	
		I7 - Internal parameter outside limits error	Reset. If the problem persists, replace the control panel.	
		I8 - Program sequence error	Reset. If the problem persists, replace the control panel.	

IP2163EN - 2014-08-05

Type of alarm	Display	Description	Operation	LED
Control panel internal alarm		IA - Internal parameter error (EEPROM)	Reset. If the problem persists, replace the control panel.	
		IB - Internal parameter error (RAM)	Reset. If the problem persists, replace the control panel.	
		IC - Operation time out error (>5 min or >7 min in acquisition mode)	Manually check that the door wing moves freely. If the problem persists, replace the control panel.	
		IH - Overcurrent with motor switched off alarm	Reset. If the problem persists, replace the control panel.	
Control panel internal alarm		IM - Shortcircuited motor MOSFET alarm	Reset. If the problem persists, replace the control panel.	
		IO - Interrupted power circuit (motor MOSFET open)	Reset. If the problem persists, replace the control panel.	
		IR- Motor relay malfunctioning	Reset. If the problem persists, replace the control panel.	
		XX - Firmware reset (SIGNAL ONLY)		
Service		V0 - Request for maintenance intervention	Proceed with the scheduled maintenance intervention.	

9. Start-up

WARNING The operations related to point 5 are performed without safety devices.
The display parameters can only be adjusted when the automation is idle.
The automation automatically slows when approaching the end stops or stop limit switches.
At every start-up the control panel receives a RESET and the first operation is performed at reduced speed (automation position acquisition).

1- Make a jumper for NC safety contacts.
2- Adjust the opening and closing stop limit switches, if any.
NB: The limit switches must remain pressed until the operation is completed and placed as shown in the Ditec NEOS installation manual.
3- Set the desired opening direction from the AT menu.
4- Manually move the sliding gate and make sure the entire stroke slides evenly and without friction.
5- Switch on and check the automation is operating correctly with the subsequent opening and closing commands (see paragraph 7.2).
Check that the limit switches are activated if used.
6- Connect the safety devices D6 and D8 → S4 (removing the relative jumpers) and check they are working correctly.
7- To modify the operation and deceleration speed settings, automatic closing times and thrust on obstacles, consult the menus.
8- Connect any other accessories and check they are functioning.

WARNING: Ensure that the forces exerted by the door wings are compliant with EN12453-EN12445 regulations.

9- If required, store the remote controls using command R0 → SR.
10- Once the start-up and check procedures are completed, close the container.

NB: in the event of servicing or if the control panel is to be replaced, repeat the start-up procedure.

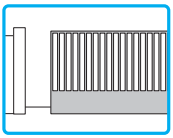
10. Troubleshooting

Problem	Possible cause	Signal / Alarm	Operation
The automation does not open or close.	No power.	P0	Check power supply cable.
	Short circuited accessories.		Disconnect all accessories from terminals 0-1 (a voltage of 24V= must be present) and reconnect them one at a time. Contact Technical Service
	Blown line fuse.	P0	Replace fuse.
	Safety contacts are open.	1-6 1-8	Check that the safety contacts are closed correctly (NC).
	Safety contacts not correctly connected or self-controlled safety edge not functioning correctly.	A0 A3 1-6 1-8	Check connections to terminals 6-8 on control panel and connections to the self-controlled safety edge.
	SAFETY SWITCH release microswitch open.	SW	Check that the hatch is closed correctly and the microswitch makes contact.
	Photocells activated.	1-6 1-8	Check that the photocells are clean and operating correctly.
	The automatic closing does not work.		Issue any command. If the problem persists, contact Technical Service
		A7 1-9	Check terminal 9 on the control panel.
	Mechanical fault	M3 M8	Check the rack or transmission chain, and/or the mechanical parts.
	Faulty motor	M4 MB	Check motor connection, if the problem persists, contact Technical Service.
	Faulty control panel	I7 I8 IA IB IH IM IO IR	Replace the control panel.

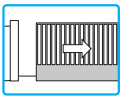
Problem	Possible cause	Signal / Alarm	Operation
The external safety devices are not activated.	Incorrect connections between the photocells and the control panel.		Check that I-6 / I-8 is displayed Connect NC safety contacts together in series and remove any jumpers on the control panel terminal board.
			Check the AP→D6 and AP→D8 setting
The automation opens/closes briefly and then stops.	There is a presence of friction.	M9 IC MI	Manually check that the automation moves freely and check the R 1/R2 adjustment Contact Technical Service
The remote control has limited range and does not work with the automation moving.	The radio transmission is impeded by metal structures and reinforced concrete walls.		Install the antenna outside.
			Replace the transmitter batteries.
The remote control does not work	No storage module or incorrect storage module.	R0 R3 R5	Switch the automation off and plug in the correct storage module.
			Check the correct memorisation of the transmitters on the built-in radio. If there is a fault with the radio receiver that is built into the control panel, the remote control codes can be read by removing the storage module.
The flashing light is not working	Bulb burnt or flashing light wires detached or short-circuited.	A9	Check the bulb and/or wires. Contact Technical Service
The gate open indicator light does not work	Bulb burnt or wires detached or short-circuited.	AB	Check the bulb and/or wires. Contact Technical Service

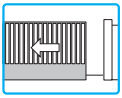
11. Examples of sliding gate applications

When the CS12M control panel is used for sliding automation applications, the following connections can be made:



- set the correct opening direction:





Example 1 - Door wing stops against mechanical end stops (standard setting)

Set

Example 2 - Door wing stops against limit switches (setting with standard limit switches installed)

Connect the limit switches to the terminal LSW

Set

With these settings, if an obstacle is detected while opening, the door wing stops and performs a disengagement operation whereas during a closing operation, the door wing reopens.

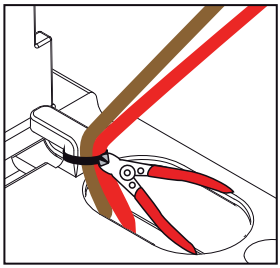
Example 3 - Door wing stops against mechanical end stops and reverses motion if an obstacle is detected

Connect the limit switches to the terminal LSW

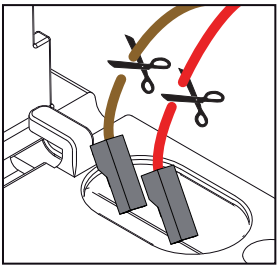
Set

In this configuration, the door wing stops against its respective mechanical closing and opening end stop. In the event of obstacle detection before the activation of the proximity limit switch while opening, the door wing stops, performing a disengagement operation; after the proximity limit switch is activated, the door wing stops against the obstacle.
In the event of obstacle detection during closing and before the activation of the proximity limit switch, the door wing reopens; after the proximity limit switch is activated, the door wing stops against the obstacle.

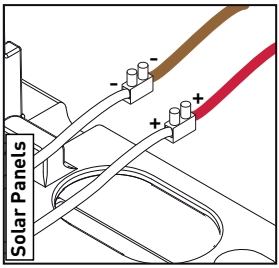
12. Examples of sliding gate applications powered with solar panels.



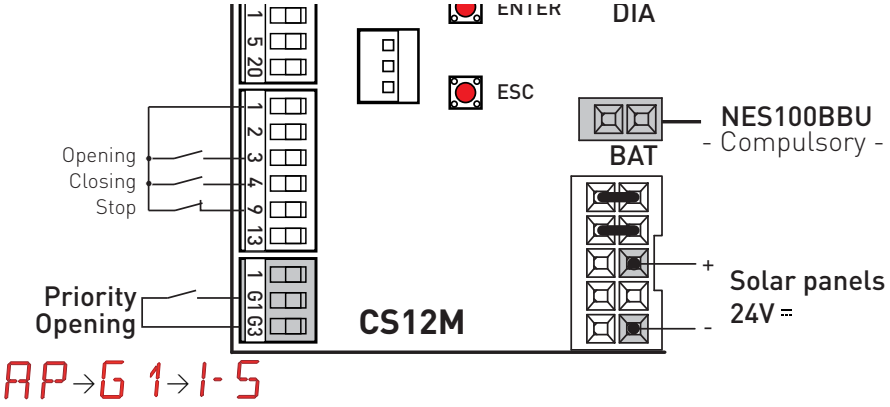
Cut the existing cable tie.



Remove the cables with fastons - red (positive) and brown (negative) - from the diode bridge.



Connect the 24V⎓ solar panel cables (not supplied), the negative to the brown wire (-) and the positive to the red wire (+).

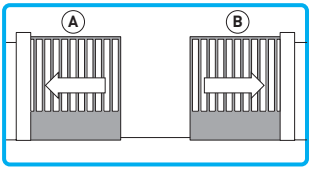


Make the connections as indicated above.

Set PV and ES as ON.
For any other selections and/or adjustments relating to battery management, refer to paragraph 7.10.1.

NB: The power supply disconnection mode is activated after 10 s with the gate closed or when the gate is closed and automatic closing is not enabled or when a 1-9 - STOP command intervenes.
The automation resumes normal operation after a command received from the radio card (GOLR-GOL868R) or after activation of a priority opening contact (for example, key selector switch) connected between G3-G1.

13. Examples of application for parallel automations



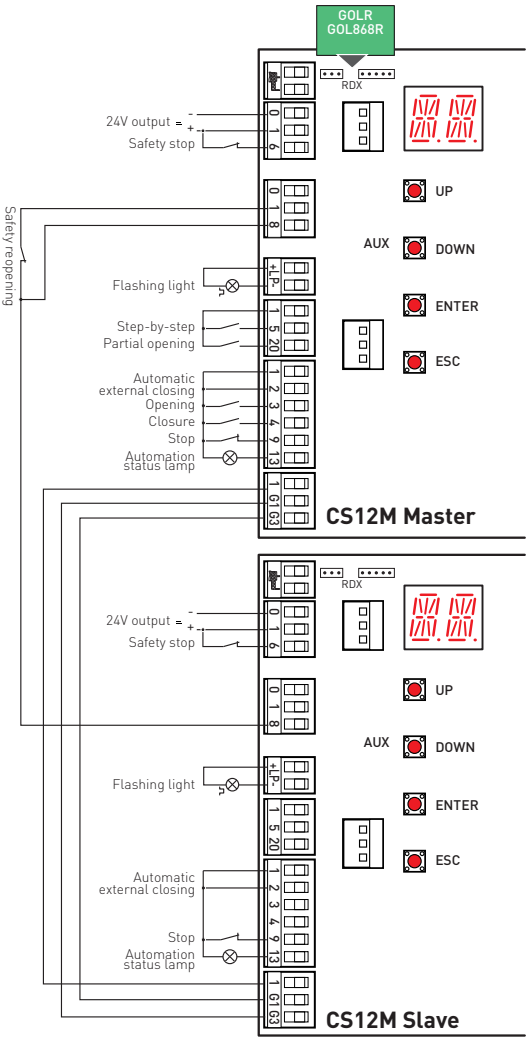
With these settings, an obstacle during closing will cause both automations to reopen.
An obstacle during opening will cause only the automation involved to stop.

1. Disconnect connectors 1-G1-G3 from the control panels.
2. Set the following parameters on both automations via the display:

   Setting advanced parameters

   AT > AA ENTER → OK (2")

   Setting input mode
   AP > G1 > SY
   Setting automation parallel mode
   AP > PA > 01
3. Reconnect connectors 1-G1-G3.
4. Enable automatic closing BC> AC > 1-2 on both automations by making a jumper for contacts 1-2.
5. Set the desired automatic closing time (BA > TC) for the MASTER automation.
   Set the automatic closing time (BA > TC) for the SLAVE automation to maximum.
   With these settings the automations will perform the closing operation at the same time as the time set with the MASTER automatic TC expires).
6. Install only one GOLR radio receiver - GOL868R.



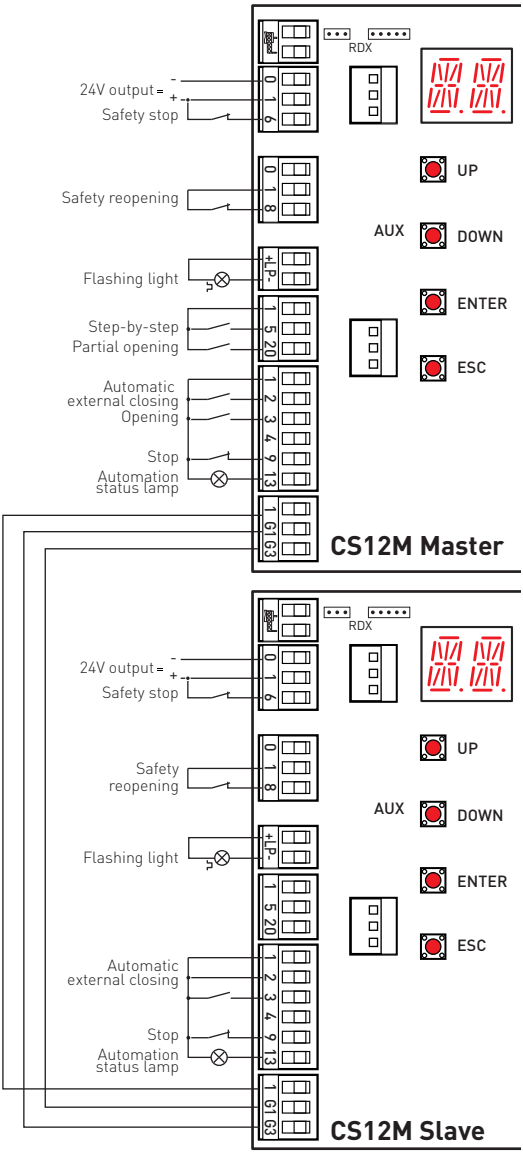
14. Examples of application for automations with two-way interlocking device without presence detection

With these settings, command 1-3 starts an opening operation of the MASTER automation which will close after the time set with BA > TC. When the delay time set with AP > TO elapses, the SLAVE automation will open and will close after the time set with BA > TC.

1. Disconnect connectors 1-G1-G3 from the control panels.
2. Set the following parameters on both automations via the display:
   Setting advanced parameters

   AT > AA ENTER (2") → OK

   Setting input mode
   AP > G1 > SY
   Setting automation parallel mode
   AP > PA > 02
3. Reconnect connectors 1-G1-G3.
4. Set the radio controls RO > C1 > I-3
5. Enable automatic closing BC > AC > I-2 on both automations by making a jumper for contacts 1-2.
6. Set the desired automatic closing time (BA > TC)
7. Set the delay time AP > TO (from 0 to 30 s).
8. The reservation function BC > PG > ON can be enabled if a vehicle arrives from the same direction while another one is still in transit. A second opening command is stored and executed as soon as the cycle in progress terminates.



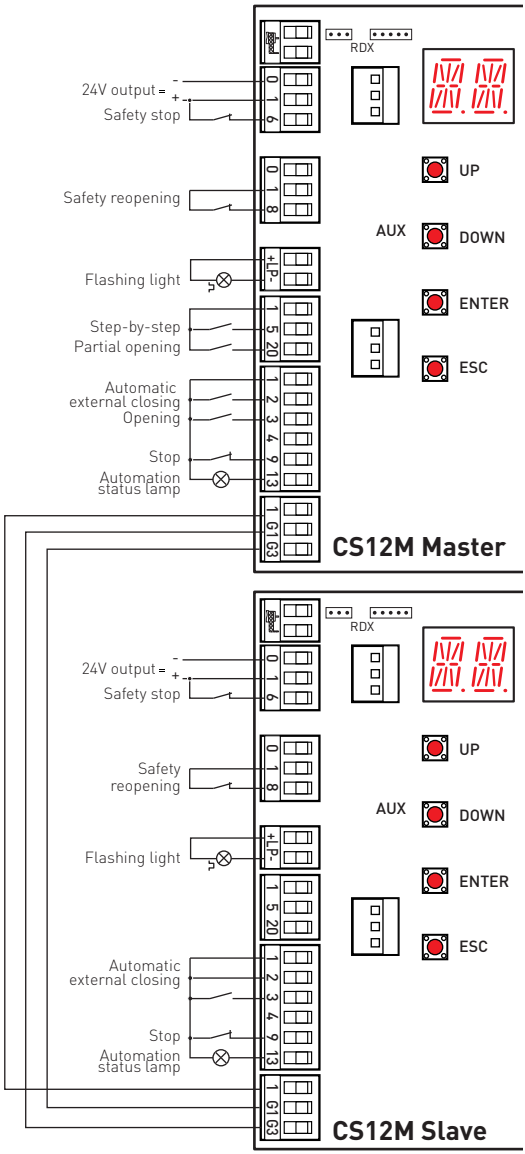
IP2163EN - 2014-08-05

15. Examples of application for automations with two-way interlocking device with presence detection

With these settings, command 1-3 starts an opening operation.
Automatic closing is only enabled when the vehicle activates the detection device.

For the connections and adjustments, refer to chapter 14.

You can connect two automations with one-way operating mode with presence detection by installing a detection device between the two automations (e.g. magnetic loop).
Connect terminals 1-2 of the MASTER automation and automatic closing will only be enabled when the vehicle activates the detection device.



IP2163EN - 2014-08-05

IP2163EN - 2014-08-05

ENTREMATIC

Entrematic Group AB
Lodjursgatan 10
SE-261 44, Landskrona
Sweden
www.ditecentrematic.com