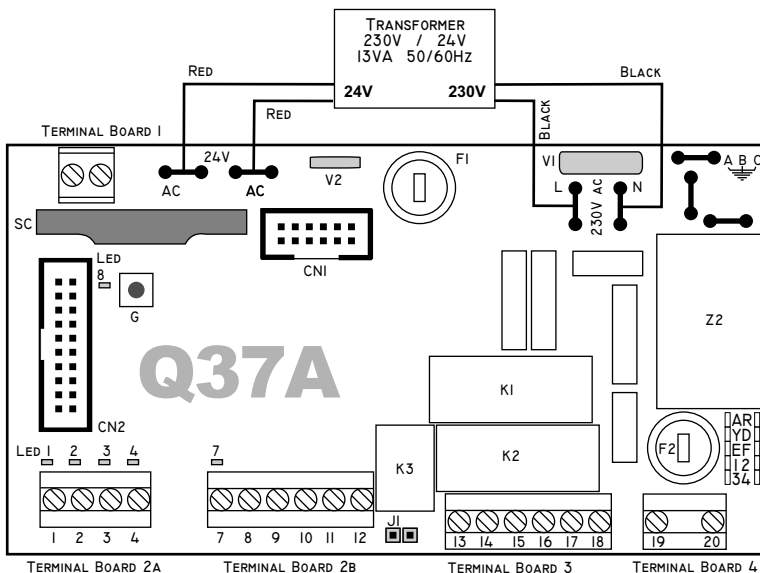
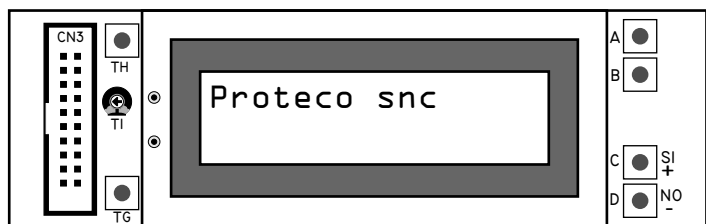


Q37A Control unit for swing gate 1 or 2 leaves

Portable programming unit = LCD

COMPONENTS

- A BUTTON A = ENTER MAIN MENÙ
- B BUTTON B = ENTER SUBMENÙ
- C BUTTON C = CONFIRMATION (YES) / INCREASE
- D BUTTON D = NEGATION (NO) / DECREASE
- TH BUTTON TH = NUMBER 4 FOR PASSWORD ENTERING
- TG BUTTON TG = NUMBER 5 FOR PASSWORD ENTERING
- T1 DISPLAY CONTRAST
- CN3 UNIT'S CABLE SERIAL CONNECTOR



CONTROL UNIT COMPONENTS

- G NEW TRANSMITTER QUICK SAVING BUTTON
- F1 FUSE 24 VAC 800 MA
- F2 POWER FUSE 230 VAC 5A
- M1 TERMINAL BOARD FOR AERIAL
- M2A/M2B TERMINAL BOARD FOR CONTROLS AND SECURITY
- M3 TERMINAL BOARD FOR MOTORS
- M4 TERMINAL BOARD FOR POWER SUPPLY
- A B C GROUND TERMINAL BOARDS
- SC RADIO BOARD
- J1 PROGRAMMING JUMPER
- CN1 ELECTROLOCK MODULE'S (MEL) CONNECTOR
- CN2 PROGRAMMING DISPLAY (LCD) CABLE CONNECTOR
- Z2 FILTER
- K1/ K2 MOTORS RELAY
- K3 RELAY BLINKER
- V1 PRIMARY VARISTOR
- V2 SECONDARY VARISTOR
- LED 1-7 SIGNALLING LIGHTS
- LED 8 POWER ON SIGNALLING LIGHT

Signalling lights:

- 1 = START
- 2 = STOP
- 3 = PHOTOCELL 1
- 4 = PHOTOCELL 2
- 7 = PEDESTRIAN
- 8 = POWER ON

TERMINAL BOARDS CONNECTIONS

All the connections must be done without power supply.

EARTH TERMINAL BOARD CONNECTIONS

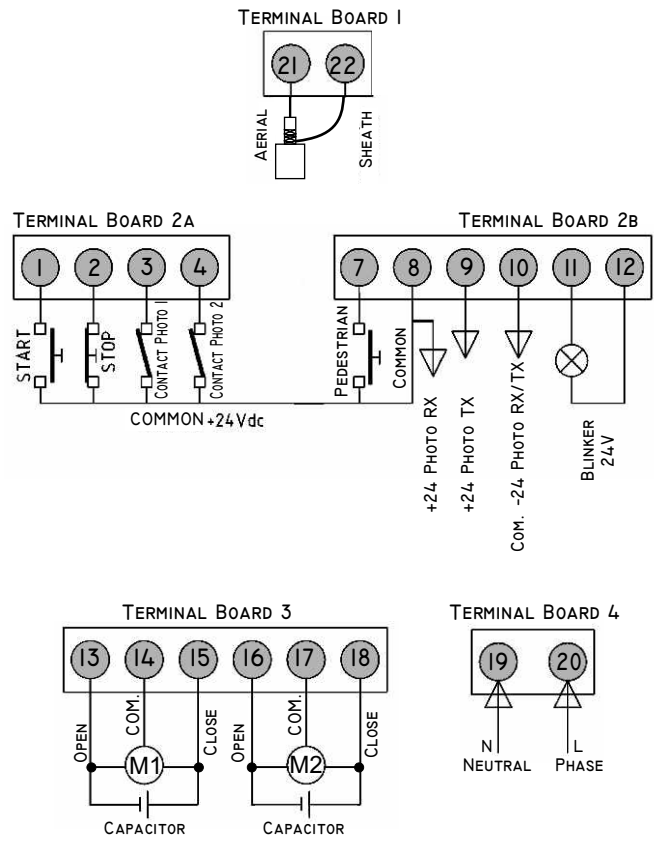
Connect the yellow/green motors cable to ground terminals **A / B**.
Connect the yellow/green network cable to ground terminal **C**.

TERMINAL BOARD 1 CONNECTIONS

21 Aerial - **22** Sheath or negative for radio receiver

TERMINAL BOARD 2 CONNECTIONS

1-8	Start control normally open (NO) for button, key selector and radio connection. The Start control starts the programmed running cycle.
2-8	Stop control normally closed (NC). Emergency button. <u>When pressed the gate stops immediately.</u> In Opening phase: at the first impulse the gate closes. Break-time: at the first impulse the gate closes. In Closing phase: at the first impulse the gate opens. If temporarily the Stop contact is not used, jump terminal 2 and 8.
3-8	Input of one safety photocell in closing phase. Input of safety rubber edges and of safety photocell in closing phase. Input of several safety photocells in closing phase. The receiver contacts must be connected in series. Normally closed (NC). In opening phase: does not work In closing phase: Stop, break-time for 2 seconds, opening phase again. If the photocell contacts are temporarily not used, jump terminal 3 and 9.
3-9	Input for safety rubber edges only in closing phase. Normally closed (NC). In opening phase: does not work. In closing phase: Stop, break-time for 2 seconds, opening phase again. The contacts must be connected in series if there is more than one safety rubber edge.
4-8	Input for safety photocells in opening phase (for swing gate). Normally closed (NC). In opening phase: Stops until the obstacle has not been removed In closing phase: Stops and changes direction when the obstacle has been removed If you also want to connect the safety rubber edges, you must connect in series their contacts with the photocell ones. If temporarily the photocell contacts are not used, jump terminal 4 and 9.
4-9	Input for safety rubber edges in opening phase (for swing gate). Normally closed (NC). In opening phase: Stops until the obstacle has not been removed In closing phase: Stops and changes direction when the obstacle has been removed The contacts should be connected in series.
7-8	Pedestrian start input. Normally open (NO).
8-10	Output for photocell receiver power supply. Output for extra 24V dc accessories power supply. With all Standard accessories included 100 mA are still available for extra accessories.
9-10	Output for photocell transmitter power supply.
11-12	Alternate blinking output. 24V dc 10W max.



TERMINAL BOARD 3 CONNECTIONS

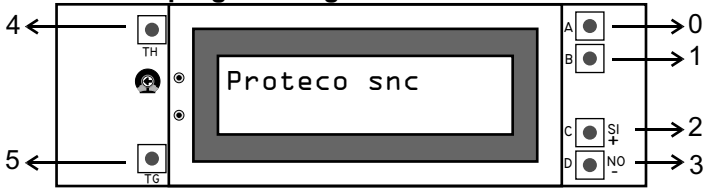
13 Brown	Motor M1. Leaf that opens firstly and that delays in closing phase.
14 Blue	In case of one leaf only, please connect the motor to M1 output, select parameter "1 motor only" and enter YES . Then select "Save parameters" and press button C to confirm.
15 Black	Capacitor between terminal 13 and 15
16 Brown	Output motor M2.
17 Blue	Leaf that opens secondly.
18 Black	Capacitor between terminal 16 and 18

TERMINAL BOARD 4 CONNECTIONS

19-20 Power input 230-240 V ac - 50/60 Hz. (19 = Neutral - 20 = phase)



Portable programming unit



To enter password

- Button A = 0
- Button B = 1
- Button C = 2
- Button D = 3
- Button TH = 4
- Button TG = 5

To program

- Button A = Enter main menu
- Button D = Enter submenu
- Button C = YES - Increase
- Button D = NO - Decrease

Parameters

CHANGE PARAMETERS

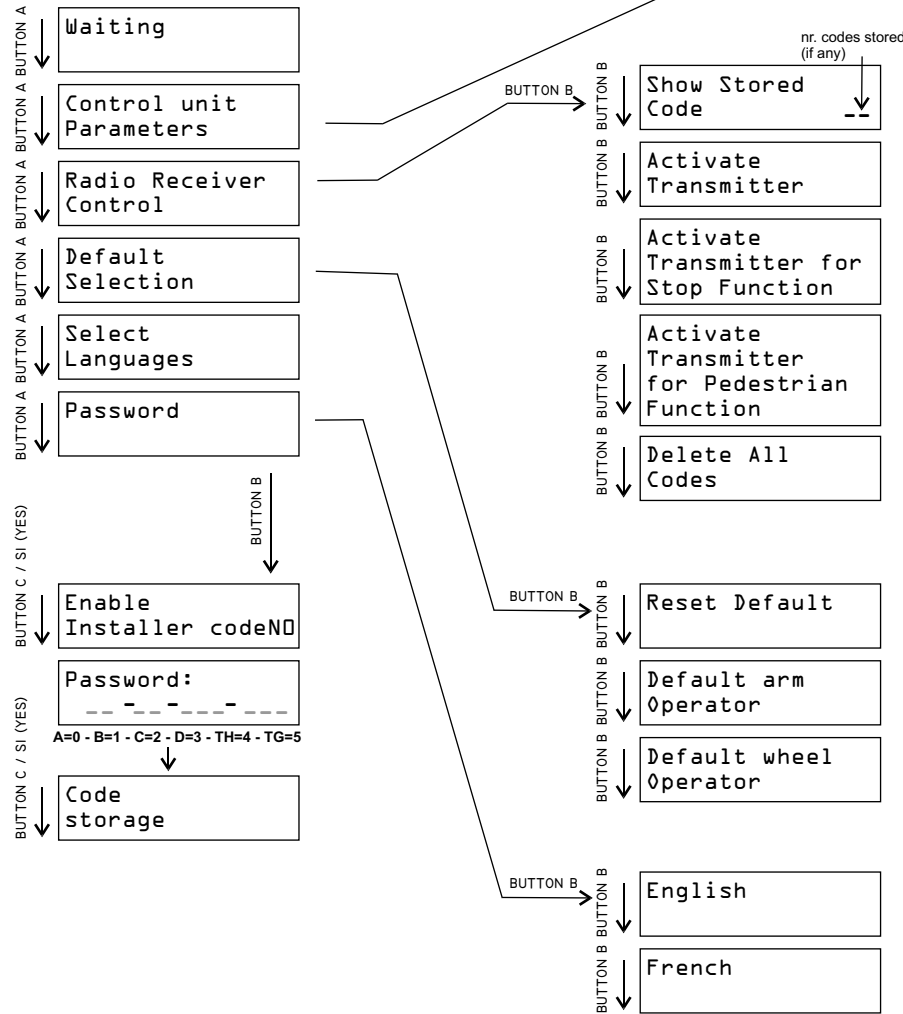
Each time you press the button **A**, you enter in a menu; with the button **B** you can choose the suitable parameter.

In order to change the default parameters, use button C and D as follows:

- **Button C:** Increase, insert or confirm the chosen parameter
- **Button D:** Decrease, deactivate or cancel the chosen parameter

When you change one or more parameters with the buttons **C** and **D**, you have then to save the new inputs by entering in to the function "Save parameters" (the last of the menu) and pressing the button **C** to confirm.

WARNING: If while programming no input is given for 40 seconds, the control unit will automatically come back to the stand by mode



- Available in:**
- English - Italian
 - Inglese - French
 - Inglese - Spanish

PASSWORD

A password is normally needed to enter to the unit's menus. The control unit is delivered without any password in order to allow the user to program it for the first time.

ATTENTION: Please take note on this instructions manual, (that shall be kept in the future) of the saved user code (password).

The password consists of 4 strings, the first two with 2 numbers each and the last two with 3 numbers each. Numbers from 0 to 5 can be inserted by using buttons: **A - B - C - D - TH - TG**. (A=0 - B=1 - C=2 - D=3 - TH=4 - TG=5)

Password:

Any time a user starts operating on the control board, a password will be requested. If the password is dialled properly, the control unit will automatically swift to the programming mode. If the password dialled is not correct, the control unit will swift back to the "Stand by" and the user won't be allowed to program. Please repeat the action using the correct password.

DEFAULT				
	Piston Operator	ART OPERATOR	WHEEL OPERATOR	
FUNCTIONS				
First motor Working time	21	13	08	0 - 99
Second motor Working time	21	13	08	0 - 99
First motor Power	10	10	12	6 - 19
Second motor Power	10	10	12	6 - 19
First motor Final Deceleration	08	06	03	0 - 99
Second motor Final Deceleration	08	06	03	0 - 99
Phase Displacement Closing motors	03	03	02	0 - 99
Automatic Closure Time	03	03	03	0 - 99
Pedestrian Opening time	07	07	03	0 - 99
Power of the Motors during Deceleration	10	10	19	6 - 19
Closing pulse Time	00	00	03	0, ½, 1, 1 ½, ...
Water Hammer	NO	NO	SI	
Elettro-Lock	NO	NO	SI	
Condominial	NO	NO	NO	
Automatic Closure	SI	SI	SI	
Pre-Blinking	NO	NO	NO	
↓ Motor option	NO	NO	NO	
Final Deceleration	SI	SI	SI	
Test for motors	SI	NO	SI	
Photocell test	SI	SI	SI	
Parameters Storage	NO	NO	NO	

RADIO RECEIVER PROGRAMMING

DELETE ALL THE SAVED DEFAULT CODES (used by manufacturer to testing) BEFORE PROGRAMMING THE RADIO RECEIVER

Radio Receiver Control

Show Stored Codes --

SHOW SAVED CODES

Saved codes form 1 to 50 will be showed on the display. With this function you can also **DELETE A SINGLE CODE** by pressing button **D** when the code appears on the display. During the scanning press the button **D** when the display shows the number of the code you want to erase

Learn Transmitter code

TRANSMITTER CODE LEARNING

Method 1 = STANDARD Learning
Method 2 = SEQUENTIAL Learning

Method 1

- While keeping pressed the transmitter chosen button, press once button **C** on the display to confirm the code saving.
- Once the code has been saved a number (01 02 03 ...) will appear. (Please repeat the action to save further codes)

Method 2

- Connect Jumper **J1**
- While keeping pressed the transmitter chosen button, press once button **A** on the display to confirm the code saving.
- Please repeat the action to save further codes.
- Remove Jumper **J1** (without cutting the power supply off)
- A double click of the relay will confirm that the saving process as been completed successfully and a number (01 02 03 ...) will appear on the display.

Learn Transmitter with Stop Function 03

LEARNING A TRANSMITTER CODE WITH STOP FUNCTION

- While keeping pressed the transmitter button (please choose a different button from the one used with the Start or Pedestrian functions) press once button **C** on the display to confirm the code saving.
- A number (01 02 03 ...) will appear on the display to confirm that the process has been completed successfully and the code has been saved with the others.

Learn transmitter for Pedestrian Function 04

LEARNING A TRANSMITTER CODE WITH PEDESTRIAN FUNCTION

- While keeping pressed the transmitter button (please choose a different button from the one used with the Start or Stop functions) press once button **C** on the display to confirm the code saving.
- A number (01 02 03 ...) will appear on the display to confirm that the process as been completed successfully and the code has been saved with the others.

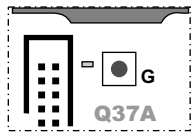
Delete All Codes

DELETE ALL CODES

All the saved codes will be deleted at once by keeping pressed button **D** until the display shows

Show Stored Codes --

NEW TRANSMITTER QUICK SAVING METHOD



This function is always possible and doesn't need any password. Operate on the control board panel (the display isn't needed) as follows:
While keeping pressed the transmitter button press once the **G** button. To check if that code has been saved press the transmitter button: the gate should open properly

Self Diagnosis Anomalies Signalling

Opening Photocell	Please check photocell connections or alignment	Start	Start impulse transmitting continuously
Closing Photocell	Please check photocell connections or alignment	Receiving Radio Signal --	Remote control transmitting continuously
Open/Close Photocell	Please check both photocell connections	Motor 1 Error --	Please check Motor 1 connections
Opening:0001 Stop	Please check the emergency stop button	Motor 2 Error --	Please check Motor 2 connections
Pedestrian Start	Pedestrian start impulse transmitting continuously	Both Motors Error	Please check both motors' connections

CONTROL UNIT PARAMETERS PROGRAMMING

Control unit Parameters

Method 1 = STANDARD
Method 2 = SEQUENTIAL

Warning: The control unit is preset with the PISTON operator default

- 1 Please check that the Motors connections correspond to the diagram
- 2 Please check that the Security devices connections correspond to the diagram
NOTE: If temporarily you don't install photocells please jump terminals 3 and 9
If temporarily you don't install a security rubber edge, please jump terminals 4 and 9
- 3 Please check the **Start** and **Stop** buttons connections correspond to the diagram
NOTE: If temporarily you don't use a **Stop** control, please jump terminals 2 and 8
- 4 **Close** the gate
- 5 Give power to the control unit

STANDARD PROGRAMMING (Method 1)

- a) Give a **START** impulse by using a start button or a transmitter button previously saved on the radio receiver.
- b) Please let the gate finish a complete cycle (**Open Pause Close**) to check that all the connections to the control unit have been done properly
- c) Now give a further **START** impulse, check the times and the functions that don't match with your needs and take note
- d) Enter into the control unit programming menu by pressing the **A** button, use button **B** to select the parameter. **C** and **D** button will change/confirm the preset data.

Example 1:

How to increase Motor 1 working time from 21 to 23 seconds

While the control unit is powered wait until the display shows:

Stand by
Control unit Parameters
First motor Working time 21
First motor Working time 23
Save Parameters OFF
Stand by

- Press the button **A** the display will show
- Press several times the button **B** until the display shows
- Press twice button **C**, the time will be increased up to 23
- Press button **B** several times until the display shows
- Press button **C** to save the changes. The display will come back to

The Motor 1 working time has been increased up to 23 seconds.

Example 2: How to cancel the automatic closing function

While the control unit is powered wait until the display shows:

Stand by
Control unit Parameters
Automatic Closure ON
Automatic Closure OFF
Save Parameters OFF
Stand by

- Press button **A** the display will show
- Press several times the button **B** until the display shows
- Press once button **D** the display then will show
- Press button **B** several times until the display shows
- Press button **C** to save the changes. The display will come back to

Now the automatic closing function is off.

SEQUENTIAL PROGRAMMING (Method 2)

- a) While the control unit is powered connect Jumper **J1**
- b) Keep pressing button **B**
- c) Then:
 - If you want to install a single leaf gate Release button **B** when the following text: will appear on the display
 - If you want to install a double leaf gate Release button **B** when the following text: will appear on the display
- d) Now you can start programming the working times by using a start button or a transmitter button previously saved on the radio receiver:
 - 1° Impulse The gate will **OPEN**
 - 2° Impulse Give this impulse when the gate is at about 30cm before the complete opening. The gate will start to **slow down**
 - 3° Impulse Give this impulse about 3 second after the first leaf of the gate has completely open. Now wait for all the time you want to set the pause time
 - 4° Impulse Pause time ends and the second leaf (Motor 2) begin to close
 - 5° Impulse Phase displacement time ends and the first leaf too begin to close
- e) Wait until the gate completely finishes his closing movement (the light will stop blinking)
- f) Remove jumper **J1**. (Without cutting the power supply off)
A double click of the relay will confirm that the working times has been saved successfully.
- g) Now give **START** impulse and check if the working times match with your needs
- h) If **Opening, Closing, Slowing down or Pause** time are not suitable to your needs you can:
 - Repeat the "Sequential Programming" from step a)
 - Use the "Standard programming" (Method 1) and change only the chosen parameter

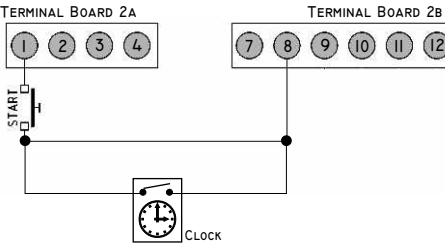
AUTOMATIC CLOSING FUNCTION

- If this function is **ON**, the display will show:
- The gate will automatically close after the pause time.
But an impulse given while the gate is opening will stop the movement and an impulse given when the gate is closing will change the direction of the movement.
- If you don't want that any impulse given in the opening phase would stop the gate, please check that the **Multi-users function** is on
- If this function is **OFF**, the display will show: OFF
- That means that the gate works "step by step". At the first impulse the gate begins to open; at the second impulse the gate stops any movement at third impulse the gate starts closing.

Multi-users function ON **MULTI-USERS FUNCTION**
If this function is on, the control unit will not accept any further impulse while the gate is in the opening or pause phase.

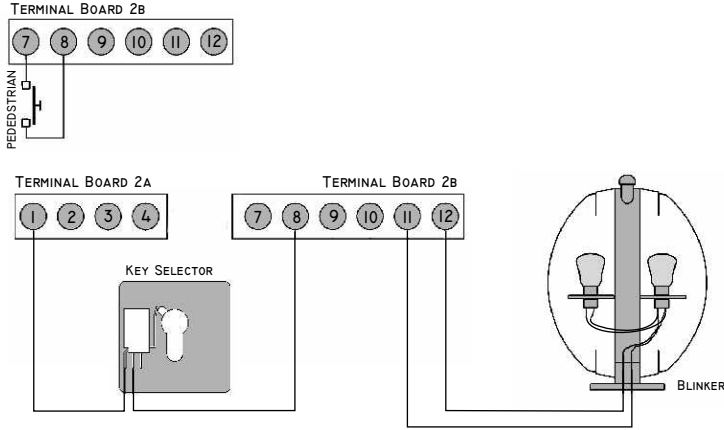
MEMORANDUM FOR WIRING AND PROGRAMMING THE CONTROL UNIT Q37A

1 START

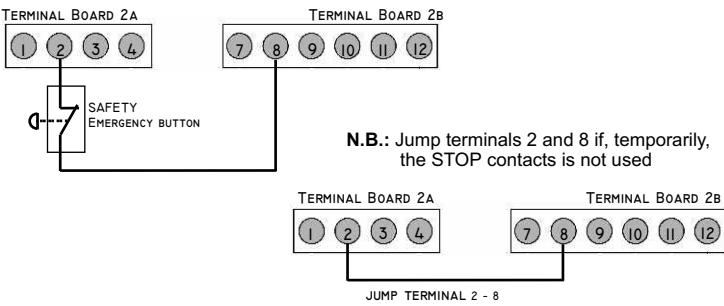


CLOCK
You can put in parallel connection with the Start button a clock switch. When the clock switch is turned on the gate will open and stay open until the release. Then, if the automatic closing function is on, the gate will close.

2 PEDESTRIAN START

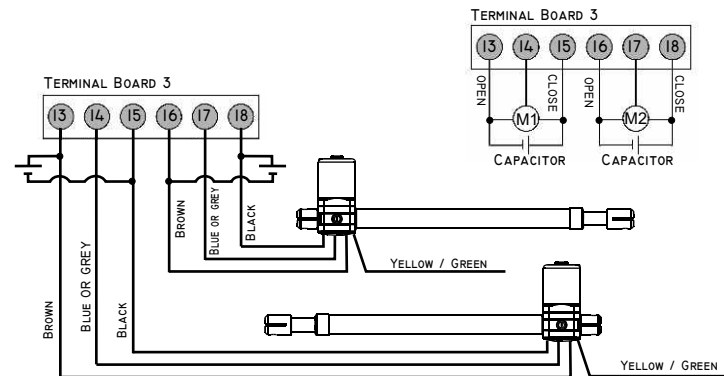


3 EMERGENCY PUSH BUTTON STOP CONTACT



4 MOTORS CONNECTIONS

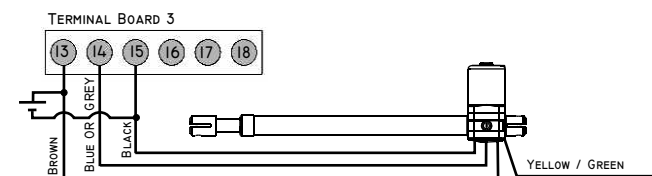
- MOTOR 1**
Leaf with electro-lock or first opening leaf
13 OPEN + CAPACITOR
14 COMMON (MOTOR BLUE OR GREY WIRE)
15 CLOSE + CAPACITOR
- MOTOR 2**
Secondly opening leaf
16 OPEN + CAPACITOR
17 COMMON (MOTOR BLUE OR GREY WIRE)
18 CLOSE + CAPACITOR



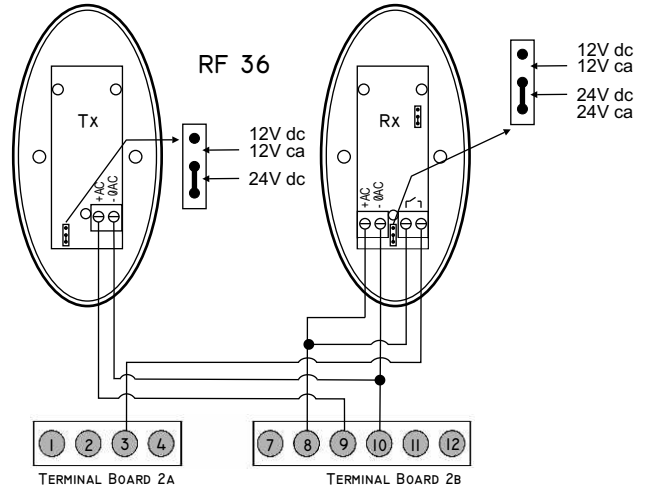
ONE MOTOR ONLY USE

Turn on function:

Motor only option OFF



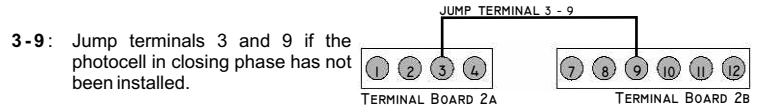
5 PHOTOCELLS CONNECTION IN CLOSING PHASE



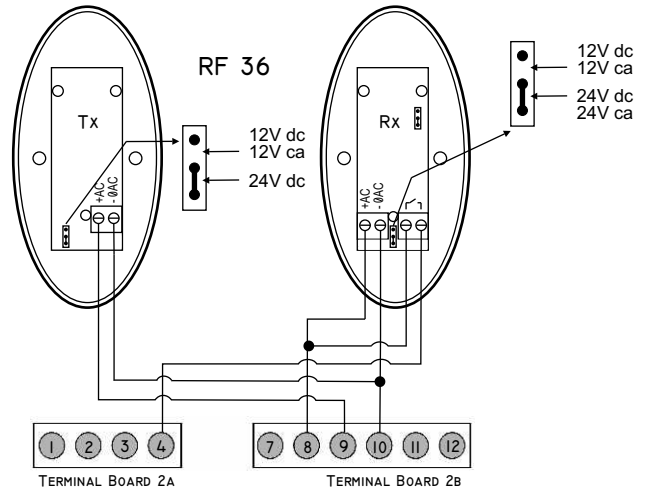
PHOTOCELLS CONNECTION

8 = Power supply + PHOTO RX
9 = Power supply + PHOTO TX
10 = Power supply - COM. PHOTO TX/RX

3 - 8 = Photocells connection



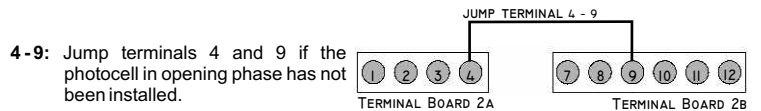
5 PHOTOCELLS CONNECTION IN OPENING PHASE



PHOTOCELLS CONNECTION

8 = Power supply + PHOTO RX
9 = Power supply + 24 PHOTO TX
10 = Power supply - COM. PHOTO TX/RX

4 - 8 = Photocells connection



7 MEL= ELECTRO LOCK DEVICE

- Plug the MEL module properly in the CN1 connector and do as follows:
- Connect the electro lock wires to the terminals on the MEL board
 - Confirm parameter "Electro lock YES" and, if needed, "Reversing stroke" and "Closing pulse time".

