

I-380

380V CONTROL UNIT



USAGE AREA

The I380 Threephase Control Unit is the control unit used to drive 3 -phase industrial door motors. The installation and operation of the I380 control unit, which allows you to operate 3 -phase industrial door motors in a controlled and secure manner with various features, is described in detail below.

TECHNICAL SPECIFICATIONS

Operating Voltage	380 V
Operating Current	10 MA
Operating Heat (°C)	-20° ~ 80°
Output Power	1.5 KW
Fuse	4 A
Max. 24 v output Current	200 MA
Max. Flashlight output	220 V 40 W
Operating Time	2.5 sn ~ 90 sn

OPERATING SPECIFICATIONS

•**Current Control:** The current protection relay automatically stops the system when the system is overloaded due to any reason.

Phase Sequence Control: During phase sequence changes that may occur in the main electricity, the system stops automatically and the warning starts to flash.

Phase Control: If any of the 3 phases is interrupted or the inter-phase voltage falls below 310V, the system will stop automatically and the red warning will light continuously.

Threephase Energy LED: controls the suitability of the threephase energy input to the control board of I380

If it is green: Indicates that the card's energy inputs are correct and the card is working.

If it is flashing red: Threephase energy input phase sequence to the card is wrong.

Steady red: Some or more of the phases are not present or the voltage is below 310 volts.

Low Voltage Protection: The system stops automatically when the voltage falls below 310V in one or all of the phases and the red warning is continuously on.

Internal 3 Phase Fuse Protection: A separate fuse for each phase is placed on the board to prevent overcurrent from being drawn due to any fault that may occur at the phase inputs and thus prevent damage to the control unit.

500mA 24V AC Output: Extra output jack on board to connect external unit.

Automatic Closing: Set by the dipswitches (see DIP SWITCH) automatically turns off at the end of the standby time. If the photocell shows any object while the door is closed, the motor will stop, the door will open and count down to the automatic closing standby time again after it is completely turned on. If the photocell sees any object before the motor is move to closing, the automatic closing standby time is reset and starts counting again.

CONTROL CRITERIAS BEFORE THE INSTALLATION

- **Mechanical Criteria:** There should not be any problems in mechanical Operation that the system to be used, of 1380 three-phase control unit
- **Supply Criteria:** Phase and neutral lines that energy source of 1380 three-phase control unit, should not be a problem

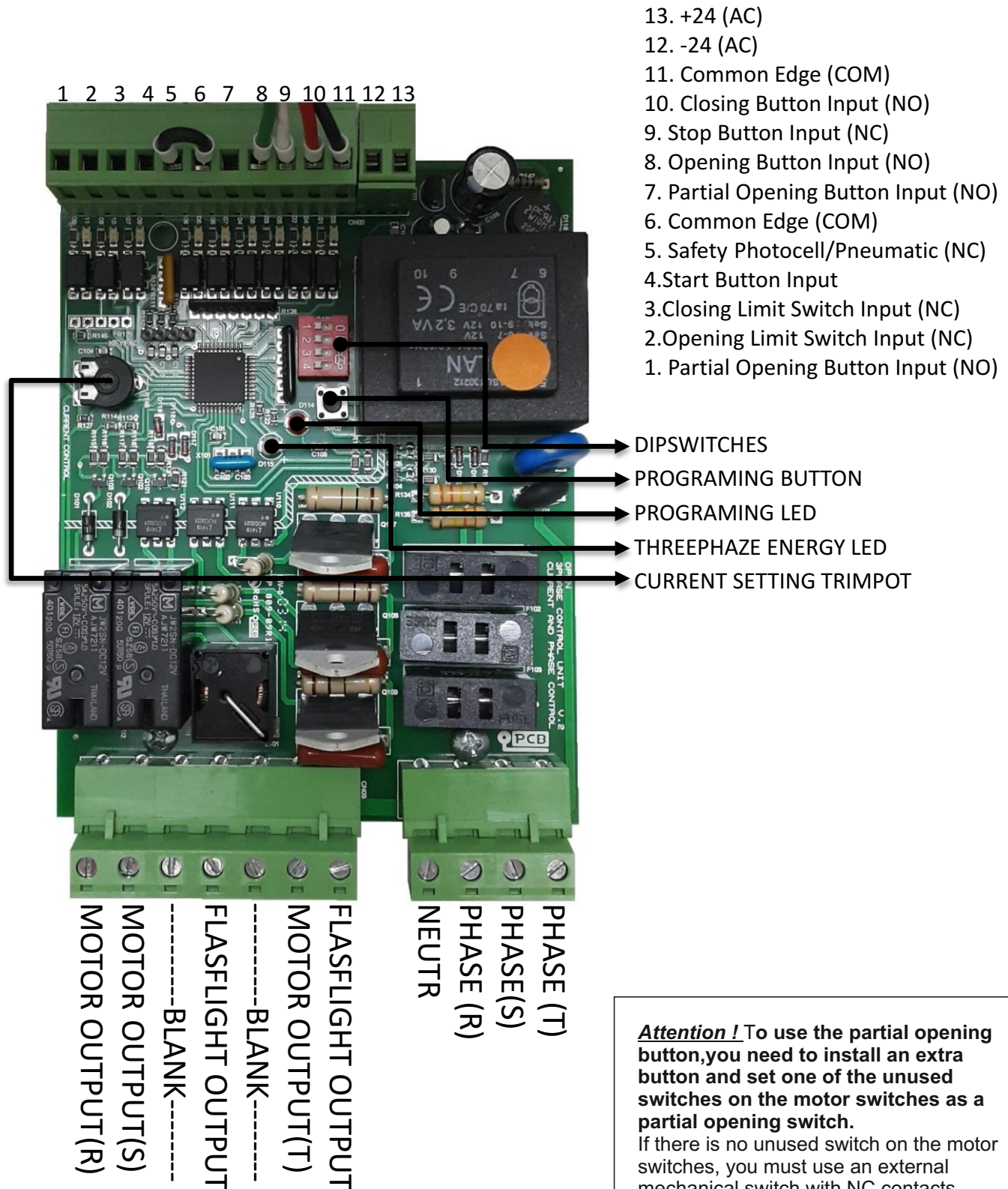


IMPORTANT

MATTERS TO BE CONSIDERED DURING INSTALLATION

- First of all, connect the 380V three-phase power line coming from the electrical panel to a 10A (ampere) three-phase fuse, then connect the fuse output to the control unit connection.
- Before making the connections of the electrical cables, make sure that the 380V three-phase fuse must be turned off.
- Keep 380V three-phase energy cables away from limit switches, encoders and control cables. Do not run in the same cable channel.
- Keep the motor mechanical limit switch cables or encoder cables away from electrical cables, mains transformers and ignition transformers whose magnetic field is energized for a long time.
- Protect the control unit from direct sunlight and heavy rain.

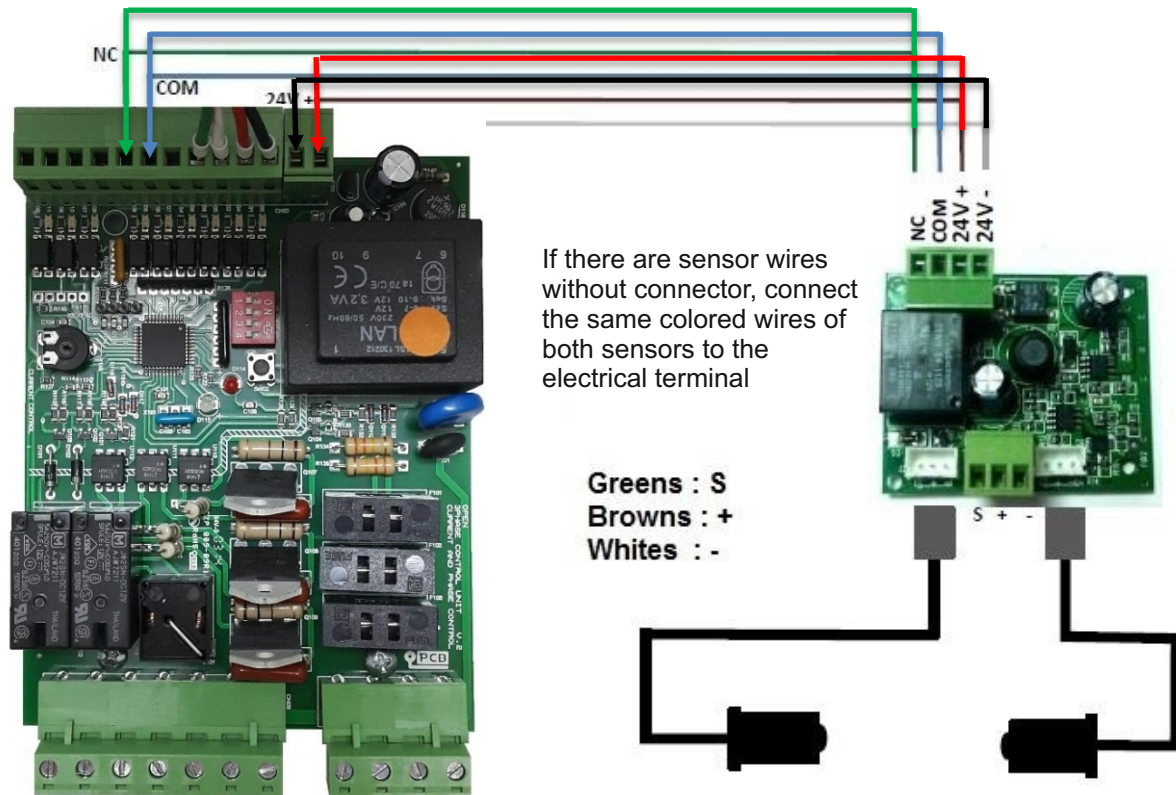
CONTROL CARD CONNECTION SCHEMA



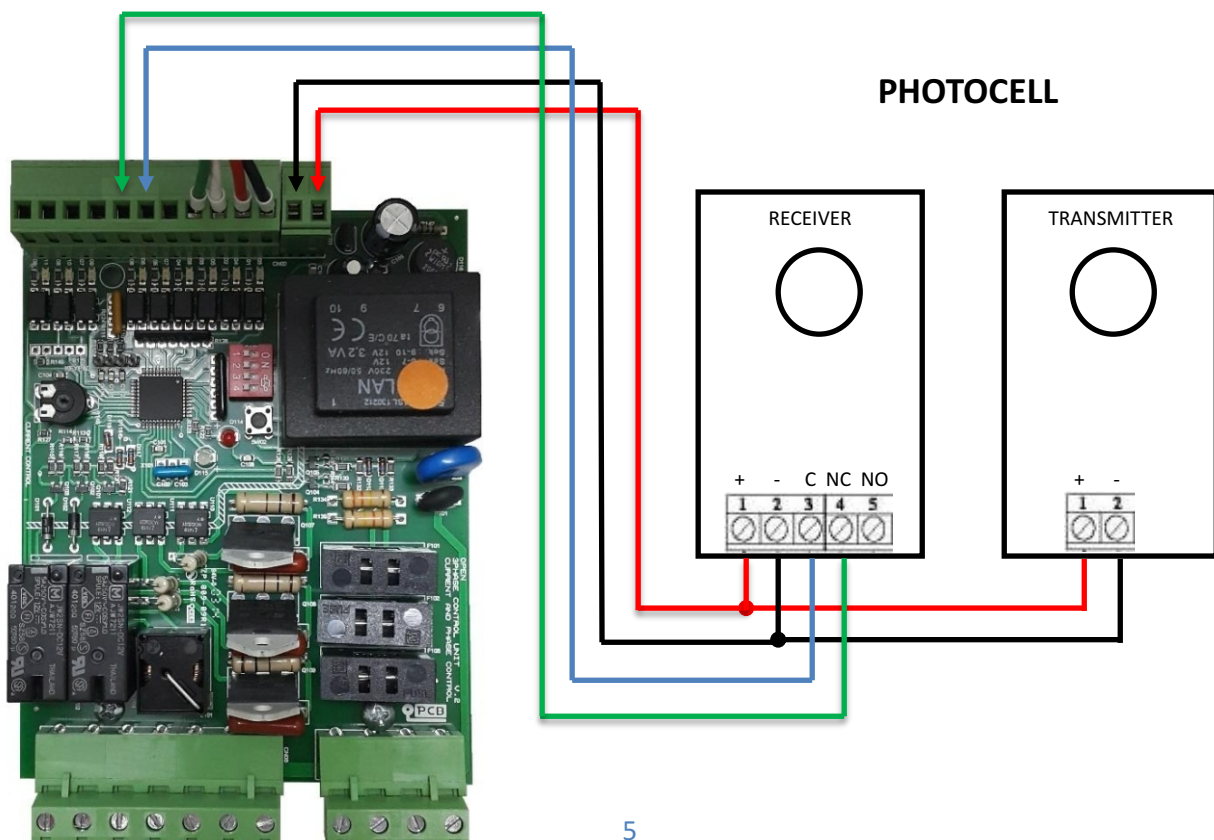
Attention ! To use the partial opening button, you need to install an extra button and set one of the unused switches on the motor switches as a partial opening switch.

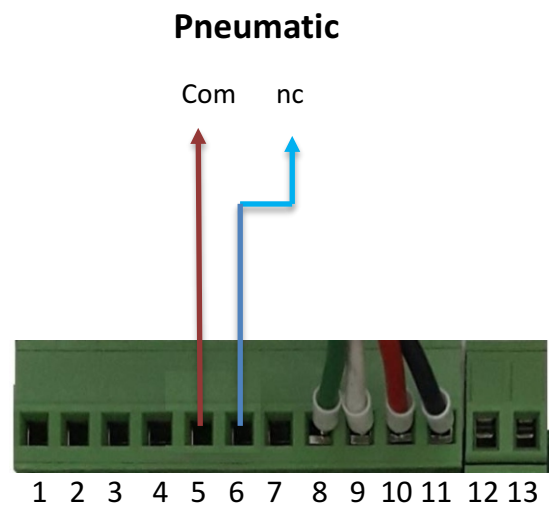
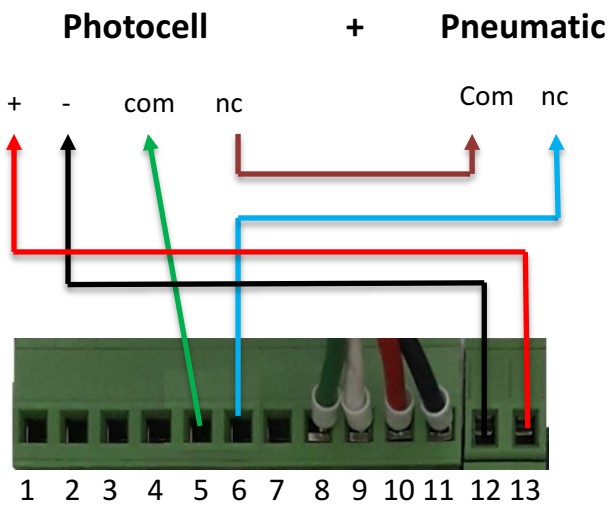
If there is no unused switch on the motor switches, you must use an external mechanical switch with NC contacts.

OPTICAL SENSOR CONNECTION



PHOTOCELL



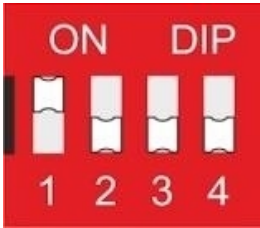


CONTROL CARD SETTINGS

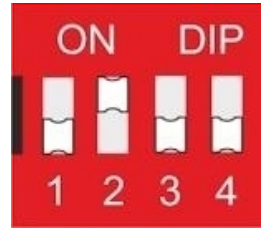
Current Protection Setting : It is the control and setting trimpot of the system which is used to prevent any damage to the motor or motor due to any external cause of the motor. The setting can be set between 0 -100% of the maximum current that can be withdrawn from the card by the trimpot. Thus, the output current is limited and kept under control. When the current drawn from the card for any reason reaches the current limit set by the trimpot, the system cuts the motor current very quickly and switches off the card. If the card re-energizes again without removing the cause, the card starts to work and switch OFF itself again after 2 sec . That's why; **After the current protection system has been started, the door should not be operated repeatedly until the door, motor and motor connections have been checked.**

After the door, card and motor installations are completed correctly, the adjustment trim pot is set to the maximum level. Current setting should be done under load. During operation, while the current protection trimpot is in its maximum position, the engine is gradually reduced to the stop. Attention here the motor stops due to current draw under the minimum current, not due to any switch. Since the trimpot is set to a value below the minimum current at which the motor will move, the minimum operating current of the motor is determined. When the motor stops, the trimpot setting is increased a little and the current is set to the required setting.

DIPSWITCH FUNCTIONS



Automatic Closing
ON (10sec)



Automatic Closing ON
(25sec)



Automatic Closing
ON (45sec)



Programmed working time
activated (for self-limit
switched motors)

NOTE: If Automatic Closing required you should use safety photocell.

RUN TIME PROGRAMING

Run time is set by programming button. Kendi üzerinde limit switchi olup kontrol ünitesiyle arasında herhangi bir limit switch bağlantısı olmayan motorlarda kullanılır.

Run Time Programming:

Çalışma süresi tanımlama işlemini yapmadan önce threephase motorla kullanılan kapı mutlaka kapalı konumda olmalıdır ve dip switchler kapalı "off" konumlarında olmalıdır.

1. Tüm kablo bağlantıları ve switch ayarları yapıldıktan sonra kapı tamamen kapalı konuma getirin.
2. Program butonuna bir kez basıp bırakın. Kırmızı programlama ledinin yanması ile çalışma süresi programlanmaya hazır hale gelir.
3. Açma butonuna bir kez basılıp bırakılır. Kapı açılma yönünde hareket edecektir.
4. Motor kendi limit switchine gelip durduktan 3 saniye sonra Stop butonuna 1 kez basıp bırakın.

5. Programlamayı aktif hale getirmek için 3 nolu dip switch on konumuna getirin.

6. Yeni çalışma süresi programlandığında eskisi silinecektir.

PROBLEMS THAT CAN BE ENCOUNTERED:

If you have performed the installation but the warning light on the unit is flashing red and the system is not working; If the phase sequence is incorrect, the warning light flashes red. In this case, you can correct the phase sequence on the unit by changing the position of any two phases. If the phase sequence is correct, the warning light will turn solid green and the system will operate.

If you have performed the installation but the warning light on the unit is solid red and the system is not working; If there are any faults occurring in any one or several of the unit, the warning light will turn red continuously. In this case, the system will not operate until the fault is cleared.

All of the socket connections have been made, the green led on the board is lit, but the system is not working; If the earth is connected instead of the neutral connection, the warning light turns green but the system does not work. For this reason NEUTR connection should be used instead of ground connection.

If the card is running, the green led is on. The switch connections are checked and the neutr link is correct, but the motor is running, if it is not running there may be contact failure or malfunction in the socket of the button assembly.

All connections are correct, but when the buttons are pressed, the door opens slightly and closes slightly; Increase the current setting trimpot clockwise (current setting trimpot not open at maximum level)

If the card is working, the door is opening but not closing; Check if the 7 LED on the card is lit and if it is not, check your photocell connection and wiring.

All the assembly is done, the LED lights up green but the motor does not move; Make sure that the stop LED on the control card is on. If it does not lit; Safety switches are fixed, motor is on manual mode, crankshaft mounted or motor thermal protection may be fused. Check all these systems.

Automatic Closing is active, dipswitch is ON mode, but automatically closing does not work; When the automatic closing is active or de-activated, the power is cut off and re-issued, it will be activated.

The card is working, all the LEDs that need to be lit are on, but if the motor does not move and a high sound is hearing from the motor; Check the motor output terminal of the card, one or both of the supply cables may be disconnected, If there is no output cable, measure the motor outputs with the aid of a measuring instrument. 380 V energies must be between the two phases.

RF-433 ROLLING RECEIVER-REMOTE CONTROL OPTIONS

TECHNICAL SPECIFICATIONS

Operating Voltage	12 Vdc/24Vdc
Operating Current	20mA
Operatin Heat (°C)	-20°C ~ 80°C
Relay Contact Current	4 A
Relay Contact Time	0,5 sn.
RF Receiver Frequency	433 MHz (Crystalized)
Contact Quantity	1 NC*, 1 NO*
Channel Quantity	1
Quantity of Remote Control should be identified	For Standard Receiver : 1 unit = 1 x 2000 = 2000 Copy
	For Common Receiver: 120 unit = 120 x 2000 = 240.000 copy

ROLLING CODE RECEIVER

Standard Receiver Mode; On standard receiver mode only 1 remote control can indentify. provided that the same firm and remote control code 2000pieces remote control can be copied.

Common Receiver Mode; In the common receiver mode, 120 different remote controls can be identified with the condition that the receiver and the company code are the same. Each different remote control must be identified once. 120 x 2000 = 240000 remote controls are available.

NOTE: When in common receiver mode, you can identif y only the same button of different code remote controls. Example: Only button 1.

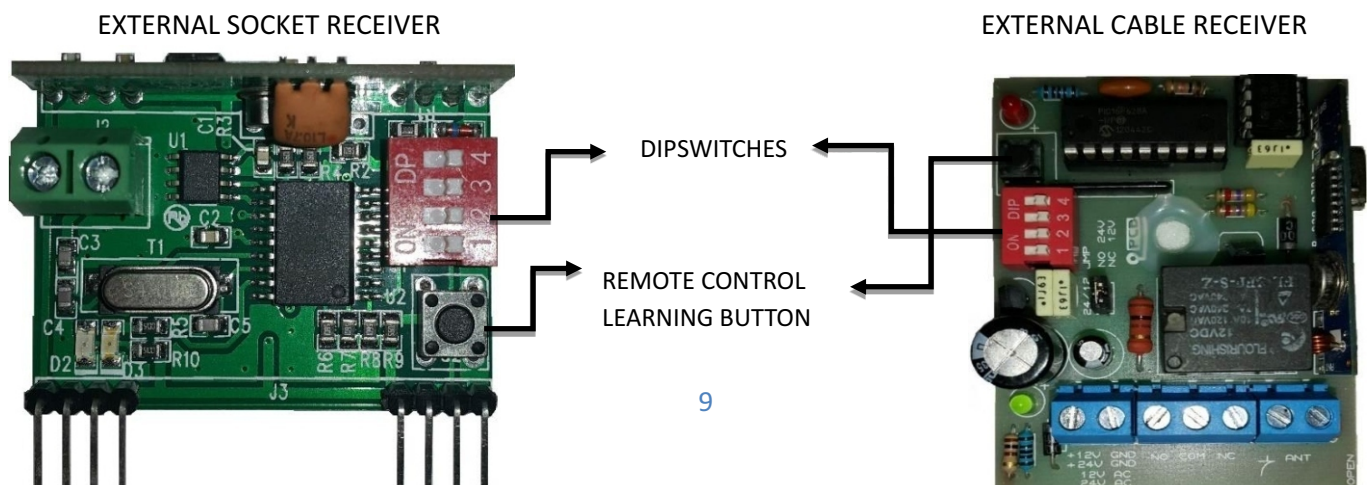
Common Receiver Settings

1. Switch ON DipSwitch number 4 (number 1 is for wired receiver)
2. Cut the operating voltage, after 5 sec. connect it,
3. Warning LEDs light up continuously for about 20 seconds after flashing 4 times. You can i dentify the remote controls after the light goes out.

To return from the common receiver to the standard receiver;

1. Switch OFF the Dipswitch number 4 (number 1 for wired receiver)
2. Cut the operating voltage, after 5 sec. connect it,
3. Warning LEDs light up continuously for about 20 seconds after flashing 4 times. You can i dentify the remote controls after the light goes out.

NOTE: Remote controls used in the previous mode will be deleted when switching between modes



RF-433 ROLLING CODE RECEIVER – REMOTE CONTROL OPTIONS

Identifying The Remote Control:

ATTENTION! Only one firm can identify the control to a receiving card. The controller of another company can not be identified on the receiving card which has been identified once, even if it is the same type.

1. To identify the remote control to the receiver, press the learning button until the red warning is lighted.
2. Press and hold the button that you want to identify.
3. Pull your hand as the red LED on the receiver starts to flash
4. You can use the remote control after the leds turn off.

In standard receiver mode, you only need to identify one of the remote controls. The other remote controls are copies, they also run them.

For the common receivers, it is enough to introduce one of the different copies.

NOTE: The receiver can not detect the remote controls in different codes from the first programmed remote control code.

Delete Remote Control Code:

ATTENTION! After the remote control deletion, only the first company that identified the remote controls before, identify the new remote controls to the receiver. The receiver unit will not accept the identifications of other companies, even if they are of the same type.

1. Press and hold on the remote control learning button
2. Warning LED will light up, will go out, and light up again then pull your hand again
3. The warning lights on for 20 seconds and off.

At the end of this process, all the remote controls in the memory are deleted.

Dip switch functions; Dip switch # 1; Common receiver on (number 4 for plug-in / socket receiver)
Dip switch #4; sends contact for 5 sec. (number 1 for plug-in / socket receiver)

WARANTY:

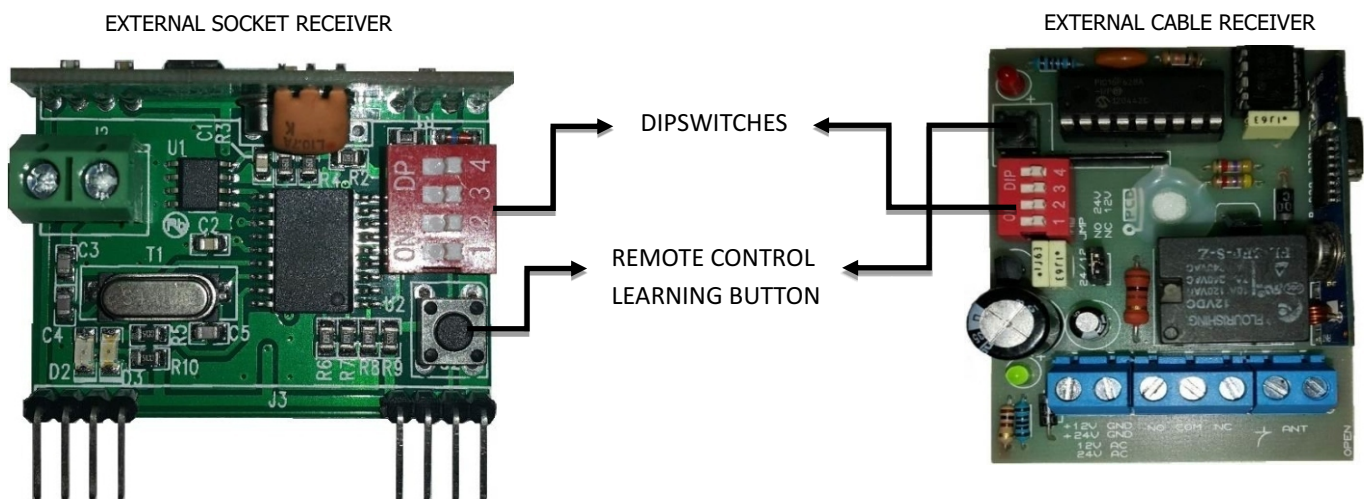
RF 433 EXTERNAL RECEIVER is guaranteed for 2 years against problems caused by material.

- The product must be used in accordance with the operating instructions. Problems that may otherwise occur are not covered by the warranty.
- The product is under guarantee only when the card is mounted on the box.
- In case of any malfunction, send the product with the box to technical service. Otherwise, the product is out of warranty.

RF-433 FIX CODE RECEIVER – REMOTE CONTROL OPTIONS

TECHNICAL SPECIFICATIONS

Operating Voltage	12 Vdc/24Vdc
Operating Current	20Ma
Operating Heat	-20C ~ 80C
Relay Contact Current	4 A
Relay Contact Time	0,5 sn.
RF Receiver Frequency	433 MHz (Crystalized)
Contact Quantity	1 NC*, 1 NO*
Channel Quantity	1



Identifying The Remote Control:

1. To identify the remote control to the receiver, press the learning button until the red warning is lighted.
2. Press and hold the button that you want to identify.
3. Pull your hand as the red LED on the receiver starts to flash
4. **Apply the same process for each remote control.** The remote controls are ready to use.

Delete Remote Control Code:

1. Press and hold the learning button on the recipient
2. warning light will light up, then pull your hand when you start flashing.
3. When the warning light is off, the the remote controls in the memory will be erased
4. Dip switch functions: dip switch number 1 is On; sends contacts for 5 sec. (Wired receiver only), other dip switches are nonfunctional.

Dip switch functions; Dip switch # 1 is on, it send contacts for 5 sec. (only cabled receiver)
Other dipswitches are nonfunctional.

WARANTY:

RF 433 EXTERNAL RECEIVER is guaranteed for 2 years against problems caused by material.

- The product must be used in accordance with the operating instructions. Problems that may otherwise occur are not covered by the warranty.
- The product is under guarantee only when the card is mounted on the box.

- In case of any malfunction, send the product with the box to technical service. Otherwise, the product is out of warranty.