



r-tec 220-K CONTROL UNIT WITH CONTACTOR MANUAL



PRODUCTS USED

r-tec 220-K control unit can be used in all door systems with 380V three-phase motors. It allows you to use many three-phase automations in a controlled and safe manner with its various features. The use and installation of the unit is described in detail below.

TECHNICAL SPECIFICATIONS

Input voltage	380 VAC 50/60Hz (+ -%10)
Motor out voltage	380 VAC
Current	10A max.
Output power	2200VA
Output current	50mA
Safety photocell power output	12-24 VAC/DC
Flash lamp	230 VAC 40W
Operating temperature	-20 C ~ 45 C

OPERATING FEATURES

Automatic pause: After the door is opened, it waits for the waiting time applied and if it does not receive any commands, it closes automatically. When the door starts closing, if the photocell sees an object, the motor starts to open, and after fully opening, the automatic closing starts to count down the waiting time. If the photocell sees any object before the door closes the automatic closing wait time is reset and starts counting again.

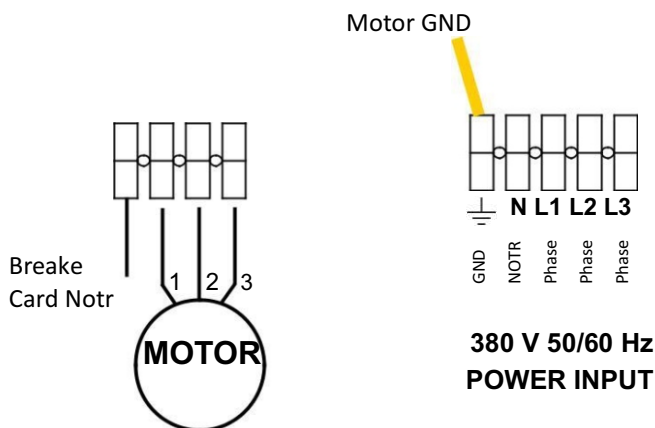
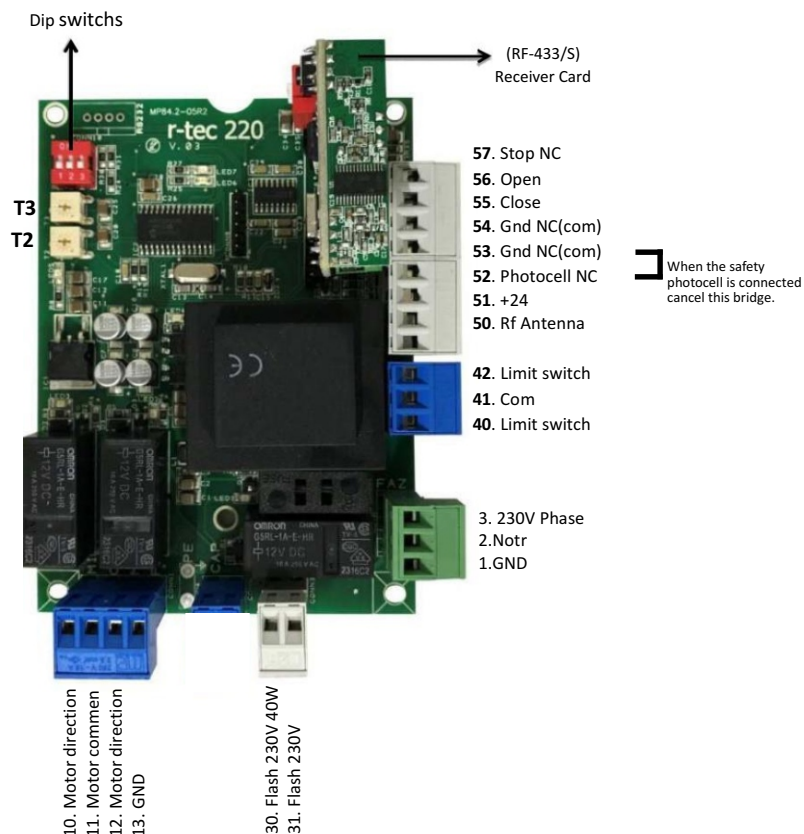
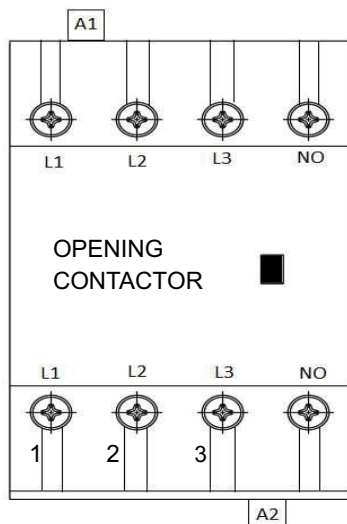
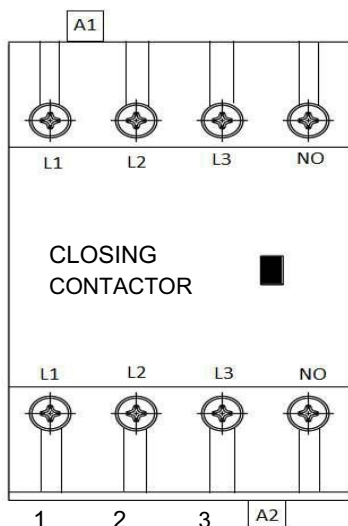


IMPORTANT

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 DIAGRAM

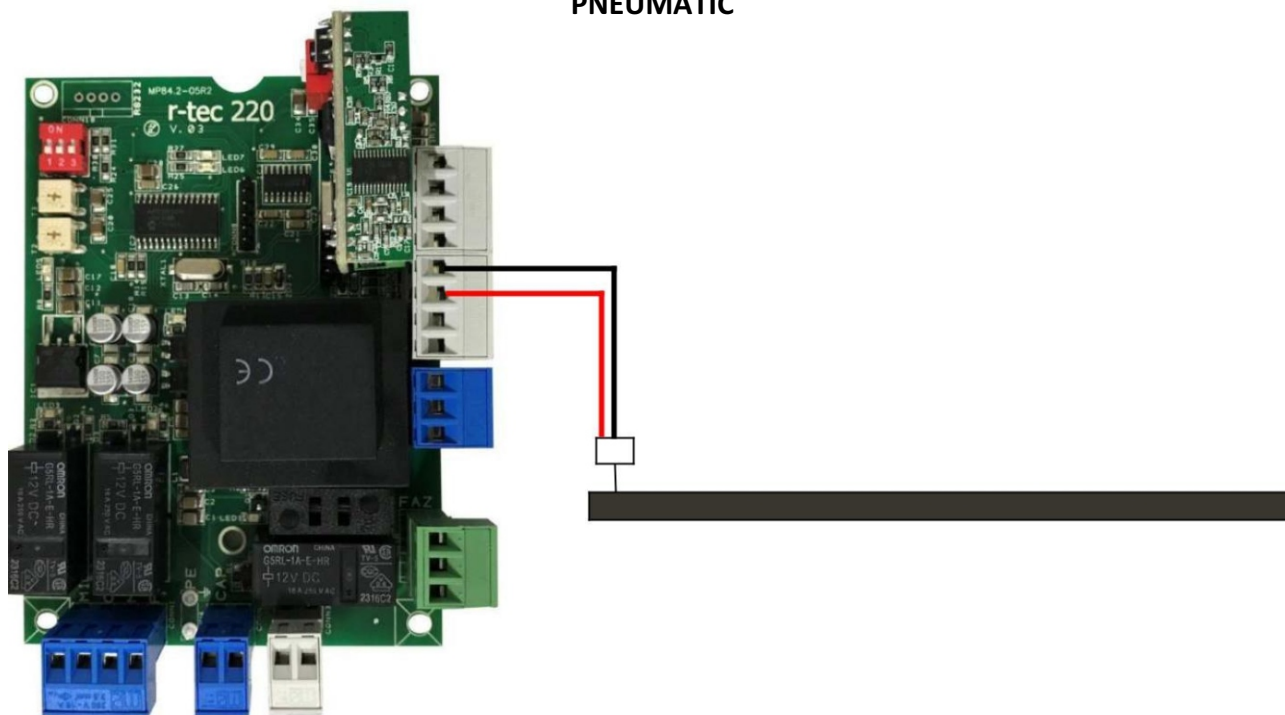


Note: If the engine is running downward when you press the Up Button after energizing the control unit, de-energize the control unit. Change terminals of L2 and L3 power cables and energize again.

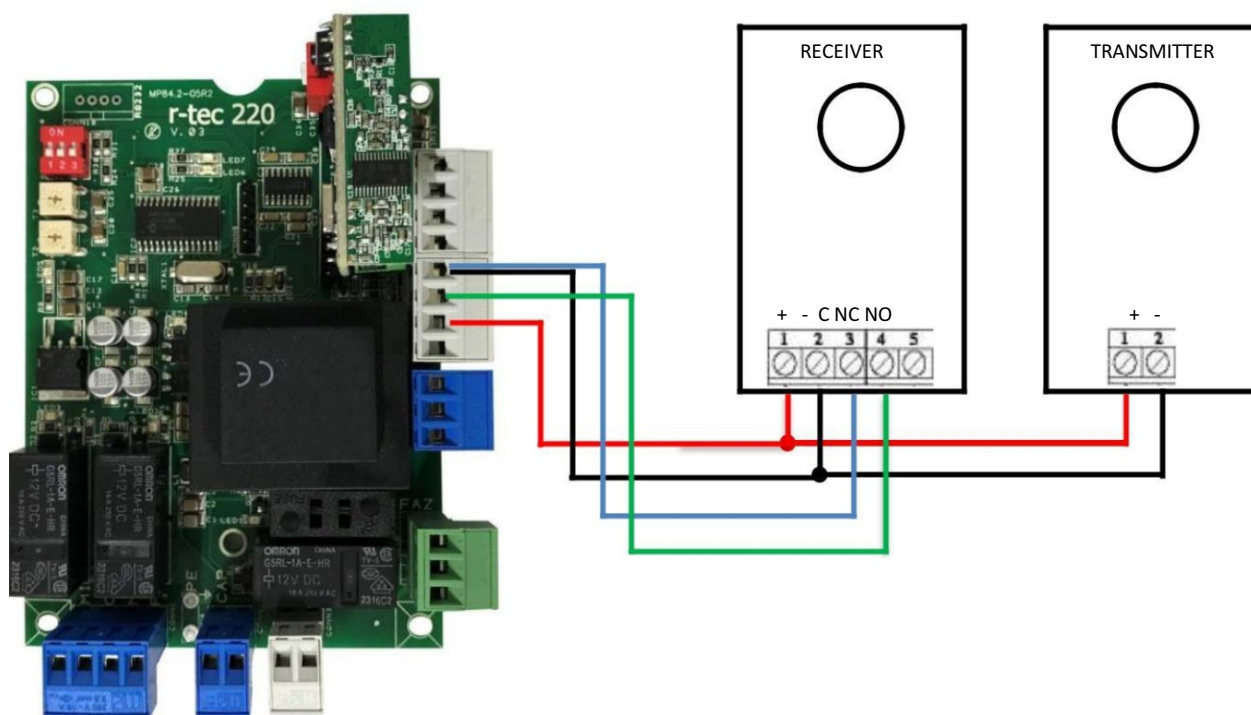
In Fast PVC Door motors, take the brake card 220V energy from one of the motor phase ends, the Neutral end from the control unit "Brake Card Notr" terminal.

PNEUMATIC AND SAFETY PHOTOCELL CONNECTION

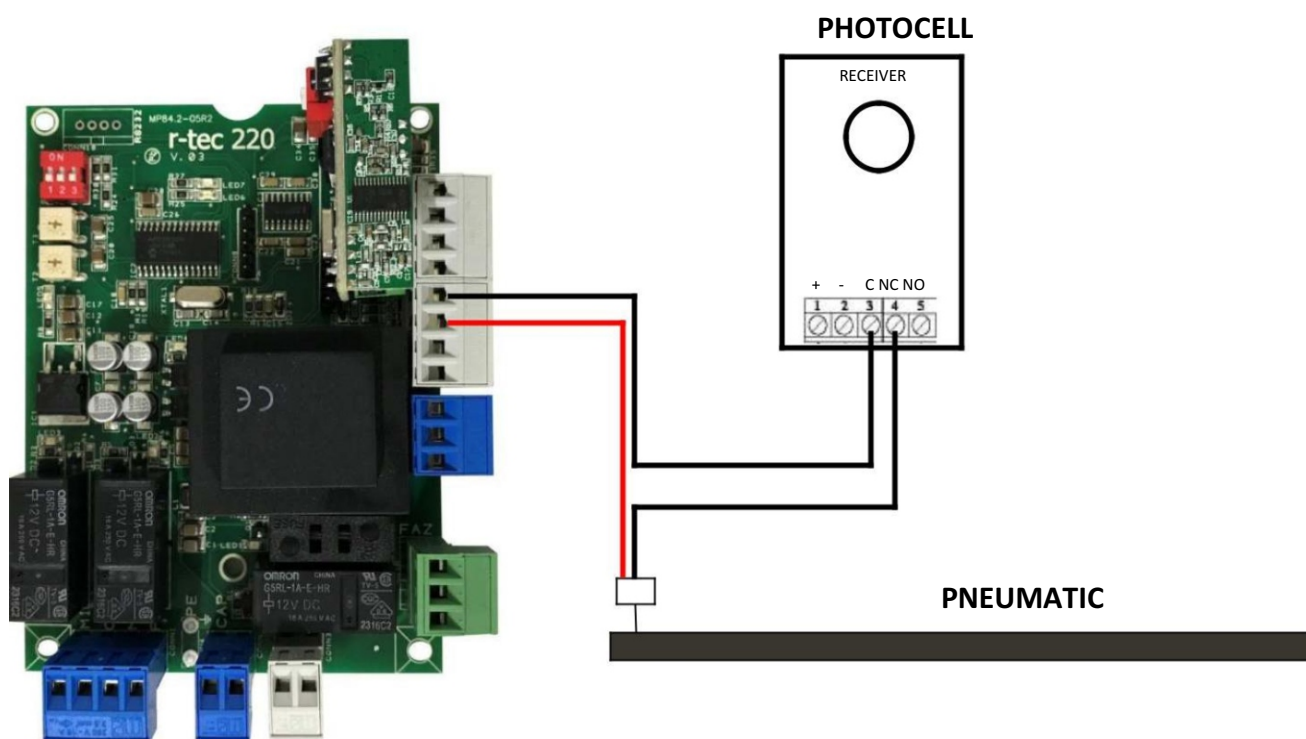
PNEUMATIC



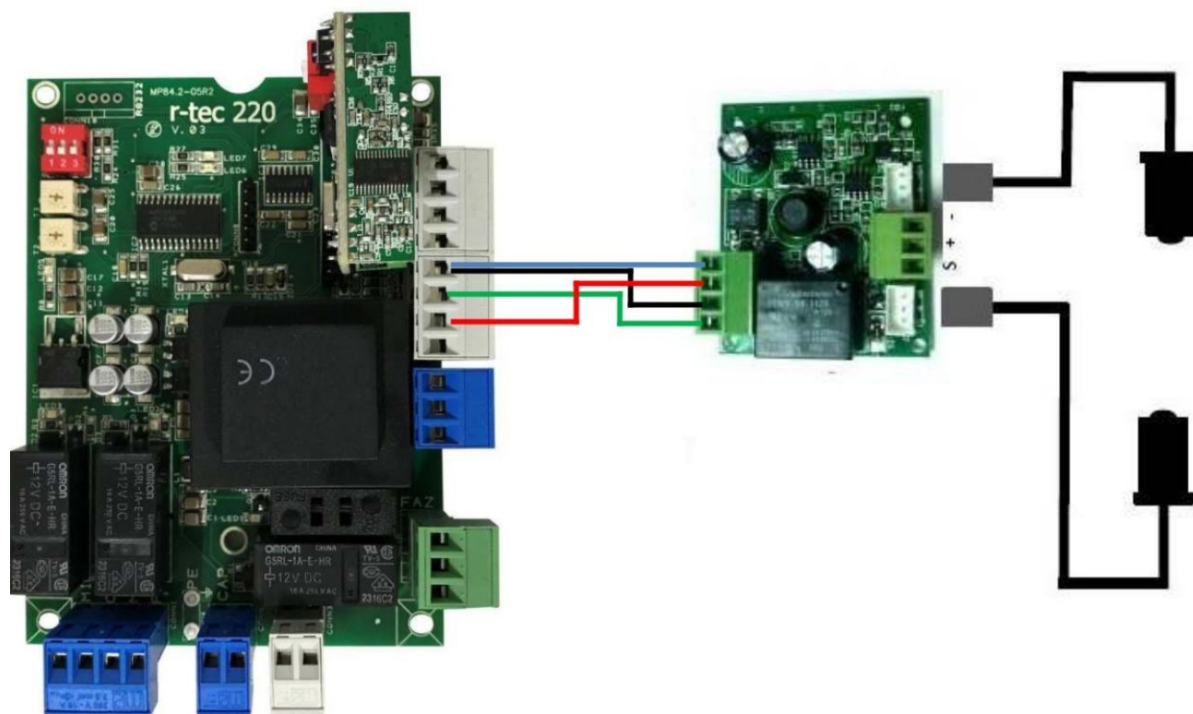
SAFETY PHOTOCELL



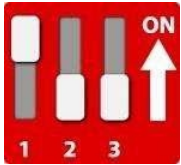
CONNECTING PHOTOCELL AND PNEUMATIC (SERIAL CONNECTION)



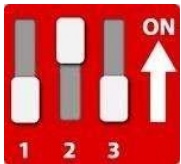
OPTICAL SENSOR CONNECTION



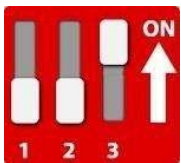
DIP SWITCH FUNCTIONS



Automatic closing active



Not used (must be OFF)



Not used (must be OFF)

TRIMPOT FUNCTIONS

T2: not used

T3: Automatic closing pause time

FUNCTIONS OF LEDS ON THE CONTROL CARD

LED 1 : Relay 1 is running (flashed during working time)

LED 2 : Relay 3 is running (lights steadily as long as the motor is opening or closing)

LED 3 : Relay 2 is running (lights steadily as long as the motor is opening or closing)

LED 4 : If there is + 24V energy, it lights up constantly

LED 5 : If there is + 5V energy, it lights up constantly

LED 6 : not used

LED 7 : If there is microprocessor, flashes constantly

BEFORE POWER THE CONTROL UNIT

1. Check that the mechanical installation of the door is complete.
2. Check cable connections.
3. Make sure motor cables are connected.
4. Make sure the Notr and phase cables are properly connected to the 380V power terminal,
5. Turn the door half open before starting the motor.
6. Command the motor by pressing the Open button and after a short press the Stop button. Make sure the direction of the motor is correct. If the engine is running in the opposite direction, turn off the power. Replace the terminals of the L2-L3 phase cables.
7. If automatic closing is desired, set Dip Switch 1 to ON.
8. Dip switches 2 and 3 are disabled, not used.
9. T2 trimpod is disabled, not used.

FREQUENTLY ASKED QUESTIONS

PROBLEM	REASON	RESULT
The door goes closing when you press the Open button.	The motor can run in the opposite direction.	Disconnect power, change the L1 and L2 phases.
Pressing the Open button open the door, but does not stop when the limit switch is pressed.	Limit switches can operate in the opposite direction.	Change the opening and closing limit switches.
All connections are correct, the door opens but does not close.	There may be a problem with the photocell cable.	There may be a problem with the photocell cable connection or the photocell unit. Check the cable connections and the photocell location. The photocell sensors must be able to see each other.
The remote control not defined	The receiver socket may be inserted upside down.	Make sure the receiver is fully seated in the socket, if the receiver is rolling, enable the "common receiver" mode and try to introduce the remote control again.
There is energy on the control board, no LED lights on the board.	The fuse may have been cut. Check the mains voltage.	Check the fuse on the control card, if the problem still persists, the card may be malfunctioning.
If the engine does not run at all.	Unused Nc contact terminals may not complete the circuit.	Make sure the bridging cables on the control board are plugged in.
As soon as it energizes the motor, it moves towards the door opening direction and the limit switches do not stop the motor.	The relay may be stuck.	The trip relay on the electronic card may be giving continuous contact. If you cut the energy and click the relay lightly, it will release itself. Your engine will run normally.
If the engine is running in one direction	Limit switches group connection may be wrong	Check the connection of the limit switches group

RF-433 ROLLING RECEIVER-REMOTE CONTROL

OPTIONS

TECHNICAL SPECIFICATIONS

Input voltage	12 Vdc/24Vdc
Current	20mA
Operating temperature	-20C ~ 80C
Relay contact current	4 A
Relay contact time	0,5 sn.
RF Receiver frequency	433 MHz (crystal)
Contact quantity	1 NC*, 1 NO*
Channel quantity	1
Identifiable amount of remote control	For standard receiver : 1 piece = 1 x 2000 = 2000 Copy
	For common receiver : 120 pieces = 120 x 2000 = 240.000 Copy

- Standard receiver mode;** 1 gently remote control can be defined to the receiver in the standard receiver location. Provided that the firm and remote control code are the same, 2000 pieces remote controls can be used.
- Common receiver mode;** In the common receiver position, 120 pieces different code remote control can be defined provided that the firm code is the same. Each different code remote control must be introduced once. 120 x 2000 = 240.000 controls can be used.

NOTE: You can only introduce the same button of the controls in different codes while in the common receiver mode. Sample: Only Button 1

To make the receiver the common buyer;

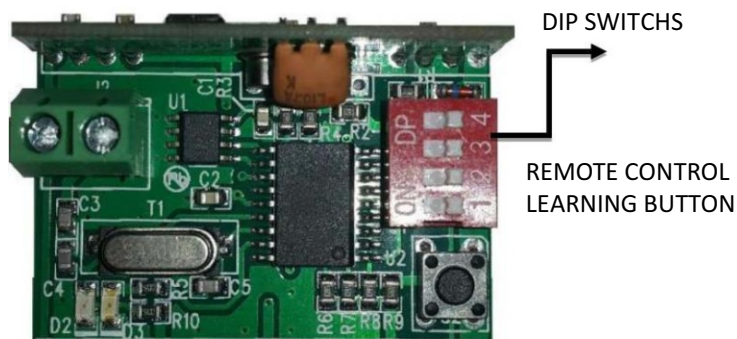
- Turn on dipswitch 4 (1 for wired receiver),
- Disconnect operating voltage, turn on again after 5 seconds,
- The warning led lights continuously for about 20 seconds after flashing 4 times. You can introduce remote controls after the light goes out.

To return from the common buyer to the standard buyer;

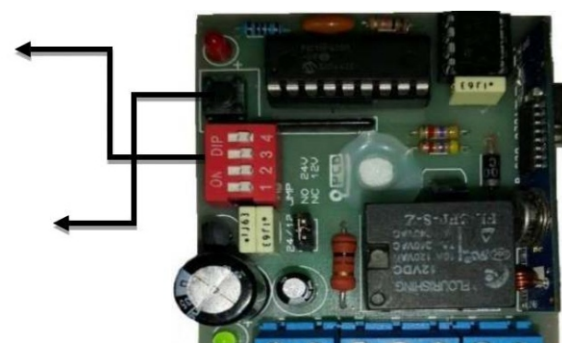
- Turn off dip switch 4 (1 for wired receiver),
- Disconnect operating voltage, turn on again after 5 seconds,
- The warning led lights continuously for about 20 seconds after flashing 4 times. You can introduce remote controls after the light goes out.

NOTE: When switching between modes, the remote controls used in the old mode are deleted.

EXTERNAL SOCKET RECEIVE



EXTERNAL CABLE RECEIVER



RF-433 ROLLING RECEIVER-REMOTE CONTROL OPTIONS

Remote control identification:

ATTENTION! Only one remote control can be defined on a receiver card. The remote control of another company cannot be identified on the receiver card, which has been defined once, even if it is the same type.

1. To define one remote control to the receiver, press the learning button and release the button when the red warning light comes on.
2. Press and hold the button of the remote control (you want to define button).
3. Release the button when the red led on the receiver starts flashing.
4. You can use the remote controls when the led on the receiver goes out.
5. You only need to introduce one of the remote controls in the standard receiver mode. Other remote controls will work because they are copy.
6. In the common recipient mode, it is enough to introduce one gently from one each of the different copies.

NOTE: The receiver does not detect with different codes have remote controls after the first defined remote control code.

Deleting remote controls from memory:

ATTENTION! After the remote control deletion process, only the company that made the first remote control definition to that receiver card can define the new remote control. The receiver unit will not accept the definitions by other companies, even if it is the same type of remote control.

1. Hold down the receiver's learning button
2. The warning led will turn on and off, release the button when it is turned on again.
3. Warning led stays on for 20 seconds and goes off.

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

Dip switch functions; Dip switch 1; common receiver open (dip switch 4 for socket receiver)

Dip switch 4; 5 sec. sends contact through (dip switch 1 for socket receiver)

Warranty:

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

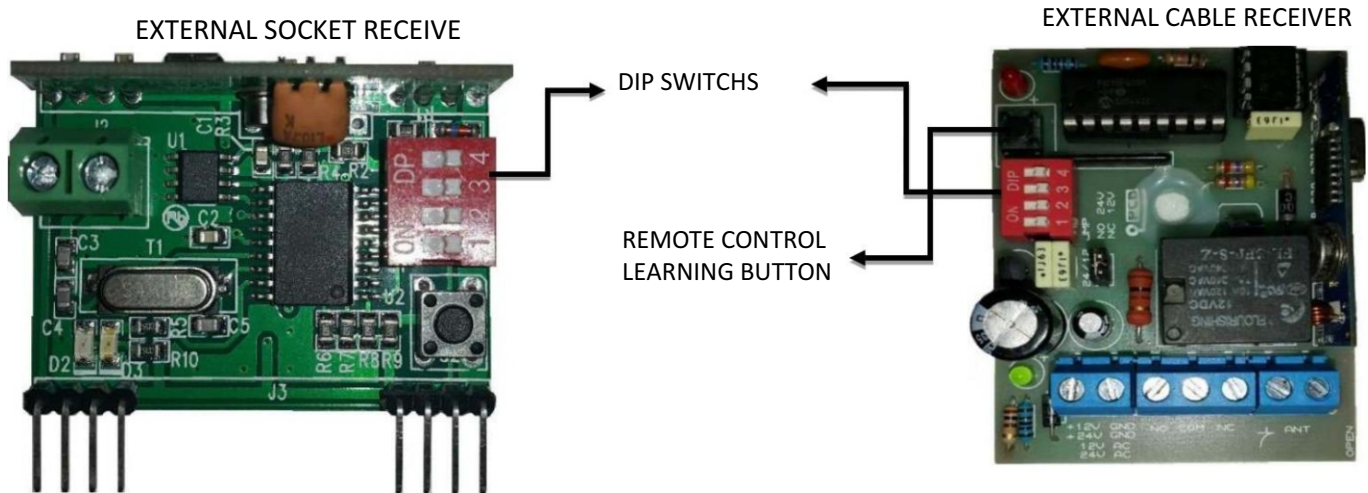
The product should be used in accordance with the instructions for use. Otherwise, problems that may occur are out of warranty.

The product is under warranty only when the card is in the box.

In case of any malfunction, take the product to the technical service in a box. Otherwise, the product is out of warranty.

RF-433 FIX CODE RECEIVER-REMOTE CONTROL OPTIONS
TECHNICAL
SPECIFICATIONS

Input voltage	12 Vdc/24Vdc
Current	20mA
Operating temperature	-20C ~ 80C
Relay contact current	4 A
Relay contact time	0,5 sn.
RF Receiver frequency	433 MHz (crystal)
Contact quantity	1 NC*, 1 NO*
Channel quantity	1



Remote control identification:

1. Press the learning button of the receiver and release the button when the red warning led lights up.
2. Press and hold the button of the remote control you want to introduce.
3. Release the button of the remote control when the led on the receiver goes out.
4. **Repeat the same procedure for each remote.** Your remotecontrols are ready to use.

Deleting remote controls from memory:

1. Press and hold the learning button on the receiver.
2. The warning led lights up, then starts flashing. Release the button when blinking starts.
3. When the warning led turns off, the remote controls in the memory will be deleted.

Dip switch fonksiyonları: Dip switch 1 ON; 5 sec. gives contact throughout. (Only in cable receiver), other dip switches are not used.

Warranty:

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

The product should be used in accordance with the instructions for use. Otherwise, problems that may occur are out of warranty.

The product is under warranty only when the card is in the box.

In case of any malfunction, take the product to the technical service in a box. Otherwise, the product is out of warranty.