



r-tec 380 CONTROL UNIT



USAGE AREA and FEATURES

r-tec 380 Control Unit; It has the ability to operate both mechanical and electronic (encoder) motors with its various features. It allows you to operate 3-phase industrial door motors safely and safely with various safety precautions.

Buton controls: The control card provides control of industrial doors with open, close, start (open-stop-close-stop) and emergency stop button inputs.

Safety control terminal: The following accessories can be used to use the safety systems.

- o **Pneumatic:** When the door is closing direction, if there is any pressure on the door lower wick before reaching the lower limit, the door will stop and move towards the opening direction.
- o **Optical Sensor:** When the door is closing direction, if the connection between the eyes in the door lower wick is cut off, the door will stop and move towards the opening direction
- o **Safety Photocell:** When the door is closing direction, if any object enters between the receiver and transmitter eyes, the door moves towards the opening direction.

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.

Current protection: The system protects itself when excessive current is applied to the motor.

Lower and Upper Limit Accuracy: This feature is used for motors with an encoder, allowing you to fine-tune the upper and lower limit of the door after the limits settings have been made.

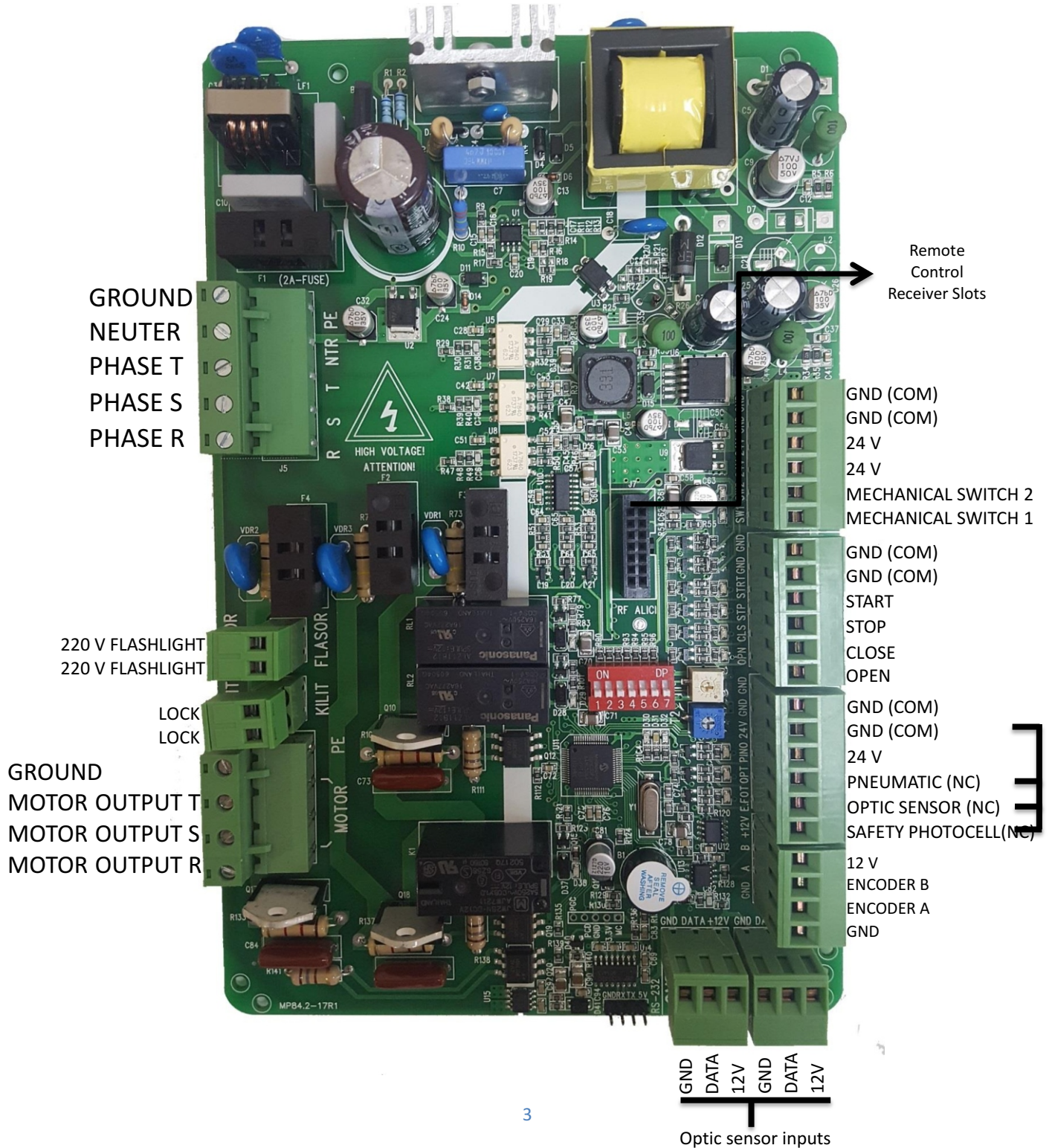


IMPORTANT

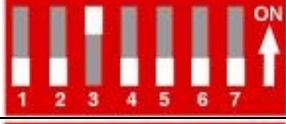
MATTERS TO BE CONSIDERED DURING INSTALLATION

- 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



DIPSWITCH FUNCTIONS

	Introduction to upper and lower limit definition.
	The door moves in the closing direction 5 seconds after passing through the photocell.
	Automatic Closing ON (5sec)
	Optic Sensor Active
	Dead-man Mode Active (Controlled Switch)
	Automatic Closing ON (15sec)
	Automatic Closing ON (30sec)
	Automatic Closing ON (60sec)

PARAMETER SETTINGS



T1: Lower and upper limit fine adjustment trimpot



T2: Current protection trimpot

NOT: Trimpot setting; decreases Clockwise and increases Counterclockwise.

Lower and Upper Limit Fine Adjustment Trimpot

This trimpot is used for motors with an encoder and is used to correct shifts in the upper and lower limits of the door after the limit settings have been made.

Current Protection Trimpot

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 trimpot 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.

LOWER AND UPPER LIMIT SETTINGS

- **For motor with encoder; the door must be in the off position before the limit starts to be defined.**

1. Enter the limit program by setting Dipswitch 1 to ON.
2. Move the door to the closed position,
3. Press and hold the Stop button for 5 seconds. Pull your hand from the stop button when the control unit beeps.
4. A total of 4 beeps will come from the control unit,
5. Hold down the up button. Open the door to the desired upper limit.
6. Press and hold the Stop button for 5 seconds. Pull your hand from the stop button when the control unit beeps.
7. A total of 4 beeps will come from the control unit,
8. Close dip switch # 1,
9. Close the door by pressing the close button,
10. If the door does not stop at the limit, fine-tune the T1 trimpot.

For motor with mechanical limit switches;

It is made from switch wedges located on the engine. Set the white wedge to press in the opening limit. set the red wedge next to it to press immediately. Set the green wedge to press in the closing limit. set the red wedge next to it to press immediately. If the red wedges do not stop at the door limits for any reason, these wedges act as stops by pressing the switch.

QUESTION – REASON - RESULT

QUESTION	REASON	RESULT
When the limit starts to be defined, if the door moves slightly towards the upper limit and the control unit emits a beep,	Reverse encoder direction.	The direction of the encoder is reversed. To change the direction of encoder, dip switch # 1 is off and then dip switch # 1 is on again. The encoder will change direction. You can continue defining the limit.
If you are energizing the buzzer and the LED D31 is starting to flash	Your phase sequence is wrong.	You need to change your phase sequence.
If you are energizing the buzzer and the LED D31 is starting to flash blue	One of the phases does not come.	One of the R and S phases does not come in. Check your phase connection. If there is no problem with your phase connection, check the mains voltage.
If the LEDs on the card do not light up when you energize	One of the phases does not come.	Your T is not coming. Check your T phase connection. If there is no problem with your phase connection, check the mains voltage.
When you press the button to send the upper limit, your door is moving towards the lower limit. If you press the button to send the lower limit, if your door is moving towards the upper limit;	Reverse motor direction.	Replace the motor directional cables.

RF-433 ROLLING 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*
Contact 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

1. **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.
2. **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 identify only the same button of different code remote controls. Example: Only button 1.

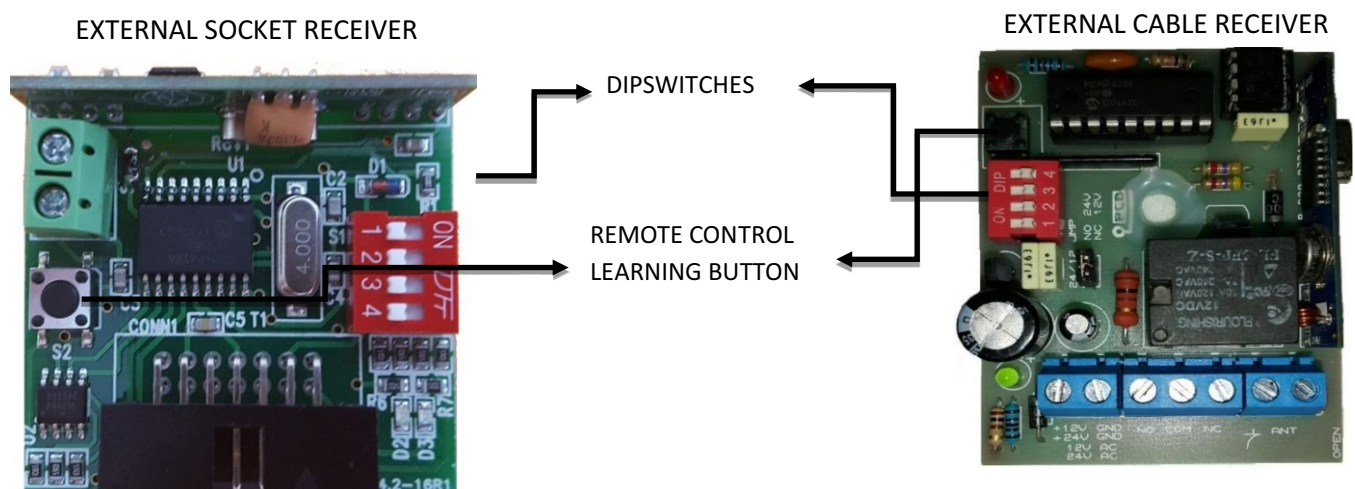
Common Receiver Settings

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 identify 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 identify 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 RECEIVER – REMOTE CONTROL OPTIONS

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.

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:

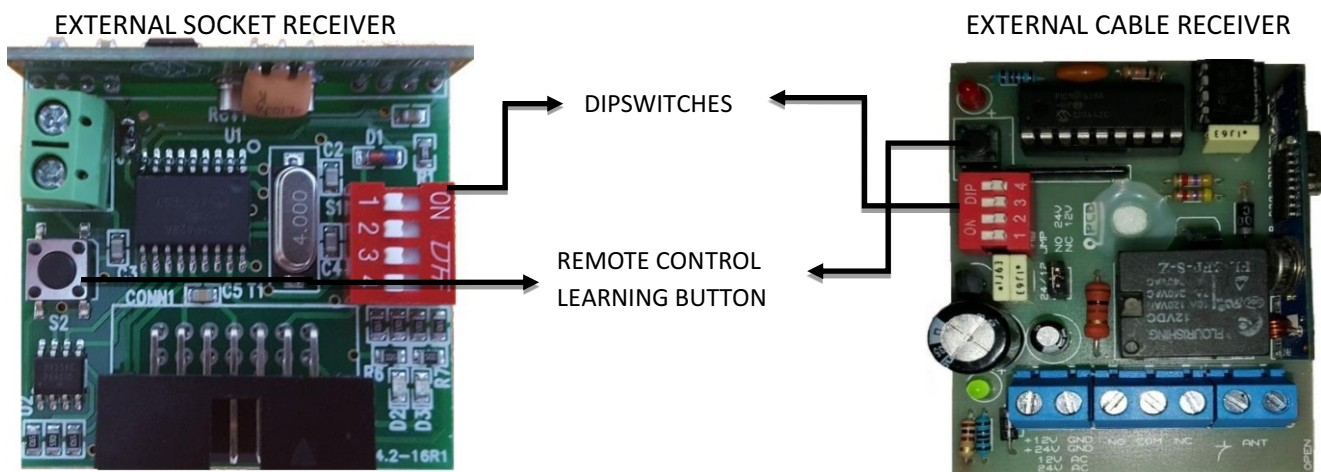
RF 433 EXTERNAL RECEIVER is guaranteed for 2 years against problems caused by material.

- 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 FIXING 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 o99996n 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.