

5 .Wiring and debugging

5.1 Wiring instructions

Wiring

Main functions

(1) Just a battery voltage can be connected at once,or 12 or 24V.

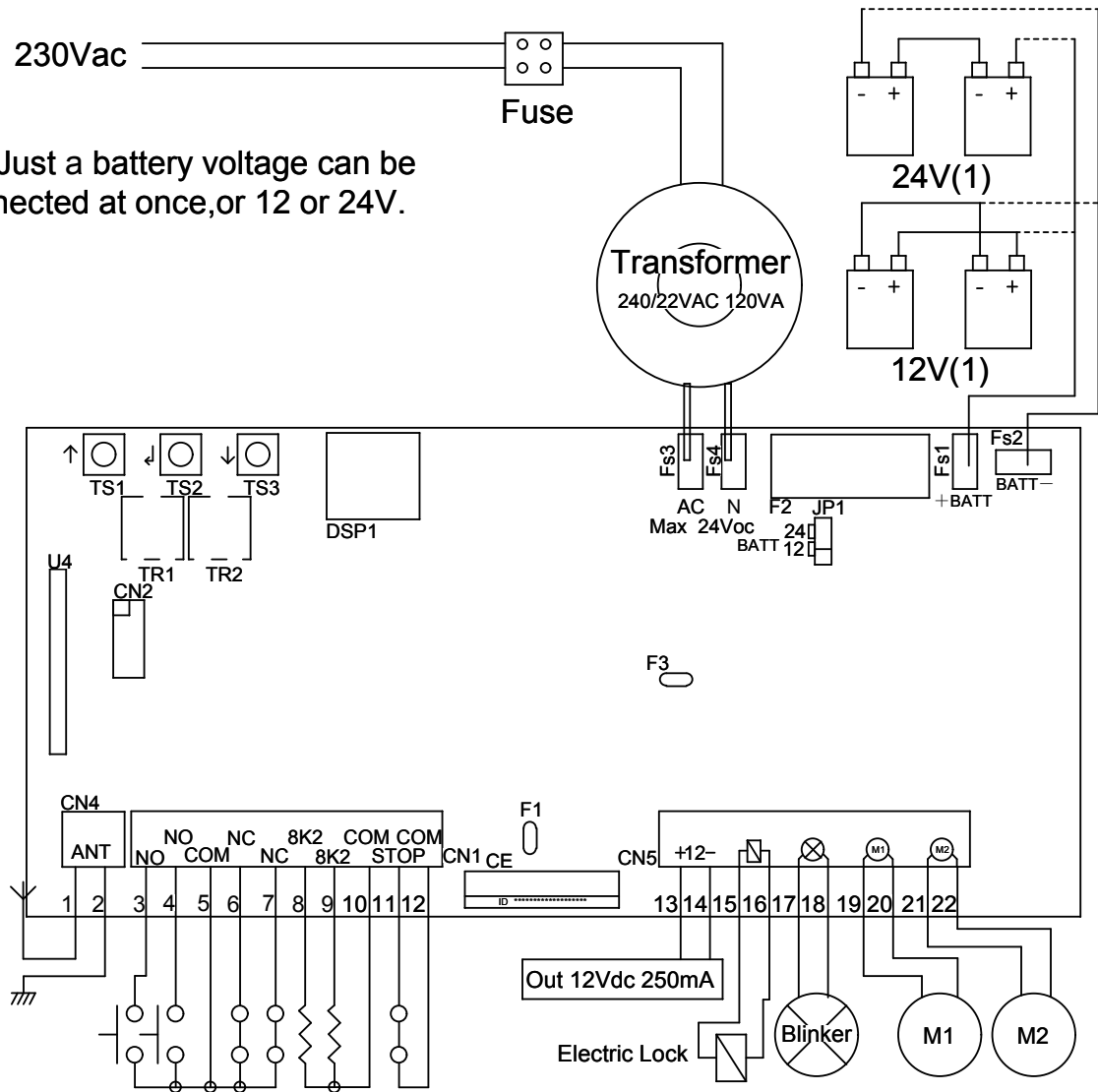


Figure 17

5.2 Control Board Port Description

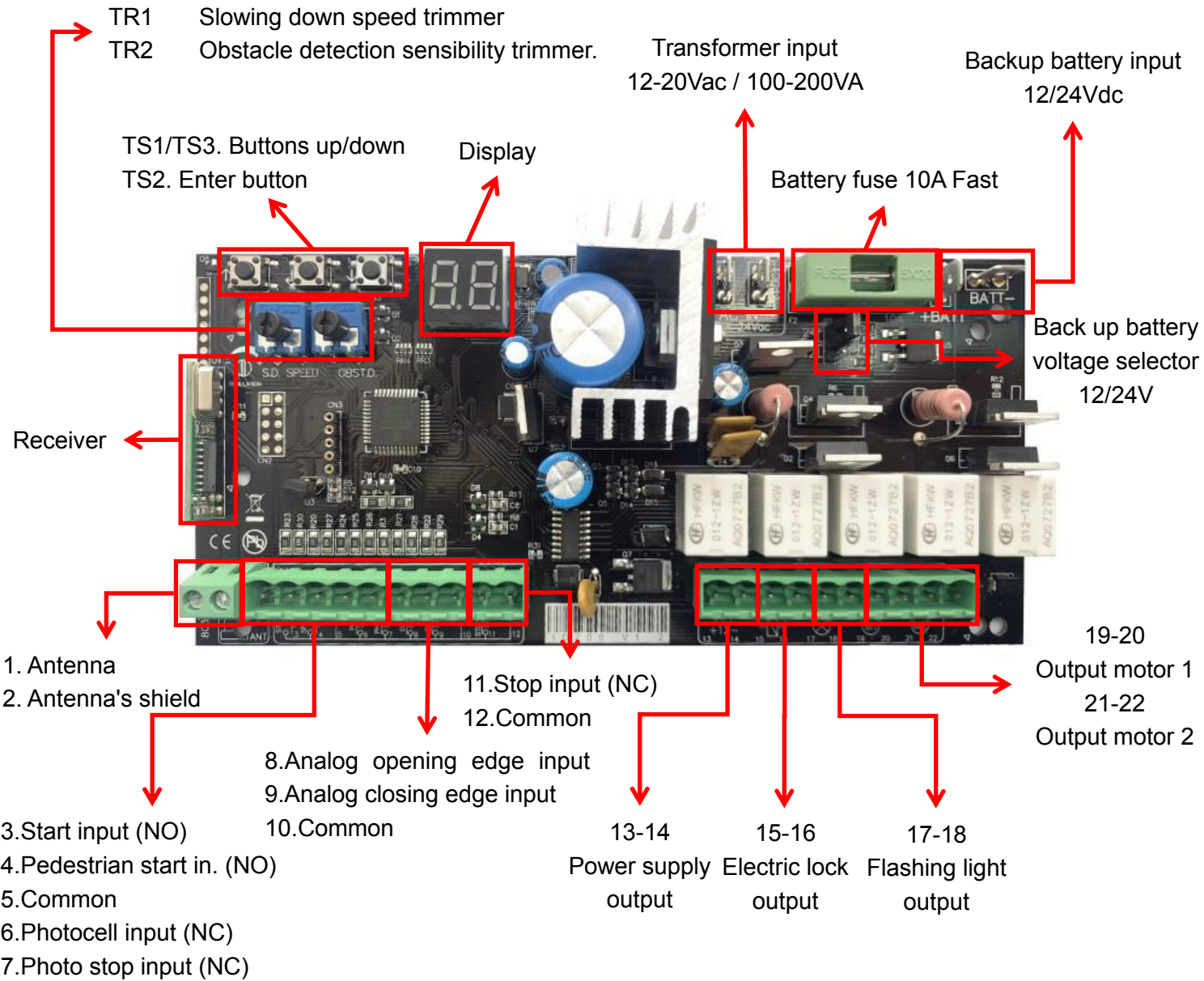


Figure 18

5.3 Description of Control Board Port, Button and Digital Tube

Port	Remarks
1. Antenna	
2. Antenna's shield	
3. Start input (NO)	It completely opens the gate
4. Pedestrian start in. (NO)	It opens just motor 2
5. Common	
6. Photocell input (NC)	During pause: Reloads pause During closing: Reverses motors direction
7. Photo stop input (NC)	During pause: Reloads pause.

	During closing: Reverses motors direction. During opening: stops the motors and waits till contact returns close.
8. Analog opening edge input (8K2 ohm)	Waiting an opening command: inhibits opening During opening: reverses motor direction for 1 second. If not used left unconnected.
9. Analog closing edge input (8K2 ohm)	Waiting a closing command: inhibits closing. During closing: reverses motor direction for 1 second. If not used left unconnected.
10. Common	
11. Stop input (NC)	It always stops motors and blocks control unit activity.
12. Common	
13-14. Power supply output	12Vdc 250mA
15-16. Electric lock output	12/24V 1A (fix on MOT2)
17-18. Flashing light output	12/24V 1A
19-20. Output motor 1	8A
21-22. Output motor 2	8A
TR1. Slowing down speed trimmer TR2. Obstacle detection sensibility trimmer. TS1-TS3. Buttons up/down TS2. Enter button DSP. Display	
FS3-FS4. Transformer input 12-20Vac / 100-200VA	
F2. Battery fuse 10A Fast FS1-FS2. Backup battery input 12/24Vdc J1. Back up battery voltage selector 12/24V	The default is 24VDC.

5.4 Inputs status

When the control unit is in standby. User can read inputs status on display:

__ : No input active.

ST: Stop input active.

P5: Photo stop input active.

PC: Photocells input active.

EO: Analogic edge opening input active.

EC: Analogic edge closing input active.

SB: Start input active.

SP: Pedestrian input active.

OP: Open input active.

CL: close input active.

During pause, the display show the seconds countdown to closing.

5.5 Travel Setting

To program the working time and auto-reverse force quickly, open both wings fully, then press and hold on 'TS1' till you read **AU** on the display. The door will open and stop in the open position about 5 seconds (learn motor rotor-locked current value), then door will close automatically. Till the door is fully closed, learning process is finished. If slow speed is too slow, please adjust TR1 to increase. If slow speed is not obvious, please adjust TR1 to decrease. After that reprogram working time as above again.

Note: If the door cannot be fully opened due to site constraints, please set the door-opening block in place reasonably.

5.6 Trimmers setting

Slow down speed trimmer regulates the slowdown speed. Do not set speed to low (less than 10 cm/sec on the wing edge) to avoid that gate stops in too cold conditions.

Obstacle sensibility trimmer fine tunes the obstacle detection level learned by the control unit during working times programming. This fine regulation must be done after working times learning.

Normally the trimmer goes in the center, in this position should be possible to respect rules in most of installations. If it's need to resolve problems related to norms or to environmental situations (ex. Strong wind) is it possible to regulate this trimmer increasing or decreasing sensibility.

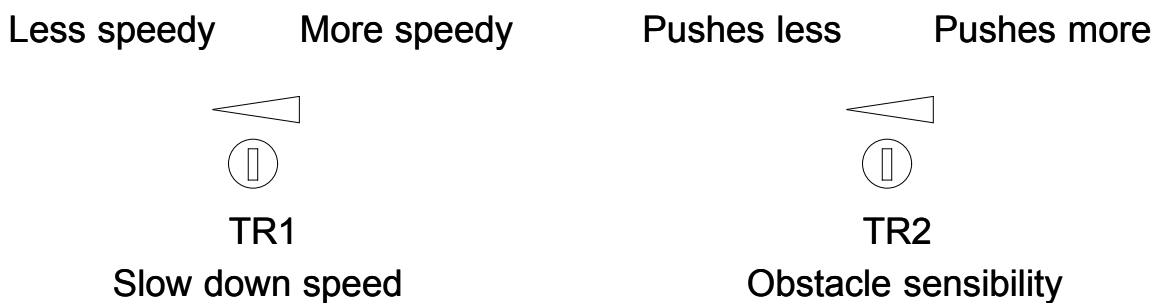


Figure 20

5.7 Learning Transmitter & Delete Transmitter

Press button **TS3**, display shows **C1**, press the button you want to program, and until display shows digital, learning is finished. (The default remote control mode is Step by Step)

Press button **TS3** and hold on until display shows **OK**, all the remotes have been deleted.

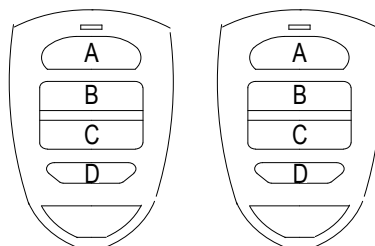


Figure 21

5.8 Board settings

Base Menu

Push button 'TS2' for at least 1 second to enter base menu.

SG is on the display, with up/down it's possible to select other functions of this menu.
 To exit this menu select **EH** and push button 'TS2' or push button up 'TS1' and button down 'TS3' together.
 After 2 minutes without actions, the control unit exits itself from this menu.

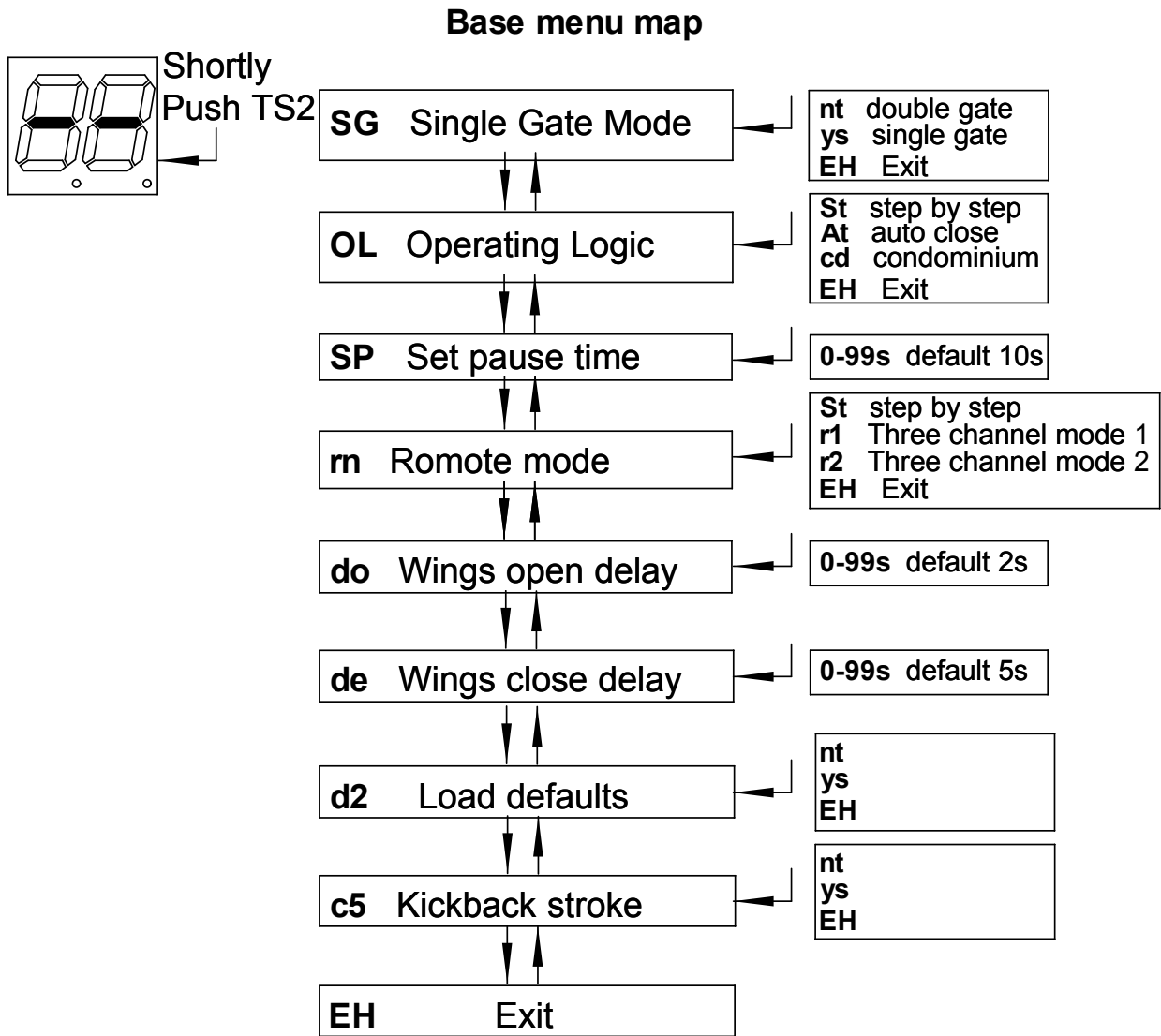


Figure 22

5.9 Base Menu description:

SG Single wing mode:

In this menu it's possible to verify or set if gate works in single wing mode (motor2). Use up/down to choose yes (YS), not (NT) or exit(EH). Push enter 'TS2' to confirm.

Operating logic OL:

Select **OL** and push enter, with up/down select wanted logic between following end push once enter. Check tab operating logic for further information.

ST: Step by step logic.

At: Automatic closing with stop function.

CD: Automatic closing for condominium function.

To exit this menu select **EH** or push up/down together.

SP Set pause times:

Use up/down to set the pause time between 0 and 99 seconds. Push enter to confirm. To exit without modifications push together up and down.

Attention: setting pause time doesn't enable auto closing, please refer to chapter "OL operating logic" to enable this function.

RN Radio mode:

In this menu it's possible to modify how transmitters work with the control unit.

ST- Step by step mode: Each button (code) of the transmitter is entered separated by the others

R1- Learning a code from a transmitter, it enables all the four buttons of transmitter wording with the control unit. Sequence is: Button1=open command, Button2=close commend, Button3=Pedestrian commend, Button 4=stop commend.

R2- Learning a code from a transmitter, it enables all the four buttons of transmitter wording with the control unit. The sequence is as above, except buttons3 and 4 inverted.

DO-Motors delay opening (When opening the door, MOT1 start is delayed by a certain time than MOT2)

DC- Motors delay closing (When closing the door, MOT2 start is delayed by a certain time than MOT1)

D2 Load defaults:

Choosing this menu and confirming with yes (YS), set the control unit at factory defaults.

C5 Enable kickback stroke:

In this menu you can enabled the stroke at start to unlock electric lock and the final stroke to lock it.

6. Others

6.1 Maintenance

Check whether the gate operates normally every month.

For the sake of safety, each gate is suggested to be equipped with infrared protector, and regular inspection is required.

Before installation and operation of the gate opener, please read all instructions carefully.

Our company has the right to change the instruction without prior notice.

6.2 Troubleshooting

Problems	Possible Reasons	Solutions
The gate cannot open	1.The power is off.	1.Switch on the power

or close normally, and Display does not light.	2.Fuse is burned. 3.Control board power wiring with problem.	supply. 2.Check the fuse, change the fuse if burnt. 3.Re wiring according to instructions.
The gate can open but cannot close.	1.Photocell wiring with problem. 2.Photocell mounting with problem. 3.Photocell is blocked by objects. 4.Sensitivity of obstacle is too high.	1.If not connect photocell , please make sure that the 5 and 6, 5 and 7short circuit; if connect infrared sensor, please make sure the wiring is correct and the photocell is N.C. 2.Make sure that the photocell mounting position can be mutually aligned. 3.Remove the obstacle. 4.Reduce the sensitivity of obstacle.
Remote control doesn't work.	1.Battery level of the remote control is low. 2.Remote control learning is not completed.	1.Change the remote control battery. 2.Re-conduct remote control learning.
Press OPEN, CLOSE button, the gate is not moving, motor has noise.	Gate moving is not smoothly.	According to the actual situation to adjust the motor or the gate.
Leakage switch tripped.	Power supply line short circuit or motor line short circuit.	Check wiring.
Remote control working distance is too short.	Signal is blocked.	Connect external receiver antenna, 1.5 meters above ground.
The gate moves to the middle position to stop or reverse.	1.Motor output force is not enough. 2.Sensitivity of obstacle is too high. 3.Gate meets obstacle.	1.Check whether the transformer power is normal, if not, change the transformer. 2.Adjust the TR2. 3.Remove the obstacle.