

EasyGate Installation Guide for Super12 SLIDER 12v Gate Opener

Technical Specifications:

- Model: DC12v Slide 500
- Transformer Input voltage: AC220-240v stepdown to DC16v
- Motor voltage: DC12V
- Absorbed Power: 80 Watt
- Absorbed rated current: 1.7A
- Environment temperature: -20 - +50°
- Protection class: IP44
- Max recommended gate weight 350 kgs (conditions apply)
- Motor Speed: 14m per min

Main Features:

- Quick start and soft stop
- Adjustable auto close function via switch
- Automatically stop and re-open when the moving gate contacts with obstacle
- Rolling code technology prevents thieves from guessing your remote code
- Terminals for Battery, Optional Photocell, Flash lamp, Solar panel, Antenna, Push button, exit wand and wired keypad
- Built in solar regulator
- Transformer can be installed up to 50m from the control board using suitable cable of 2.5mm twin as a minimum size.

NOTE: All fastening holes drilled within the control box shell must be sealed with waterproof sealant. Place insect bait inside the control box once installation is complete to prevent damage to control board.

Connecting cables to terminal blocks:

This control board is supplied with removable connector blocks to assist in installing cables. Pull the connector block with two fingers away from the control board.

Dip switch settings:

2 to ON: Soft Start is ON (highly recommended) **2 to OFF:** Soft start is OFF

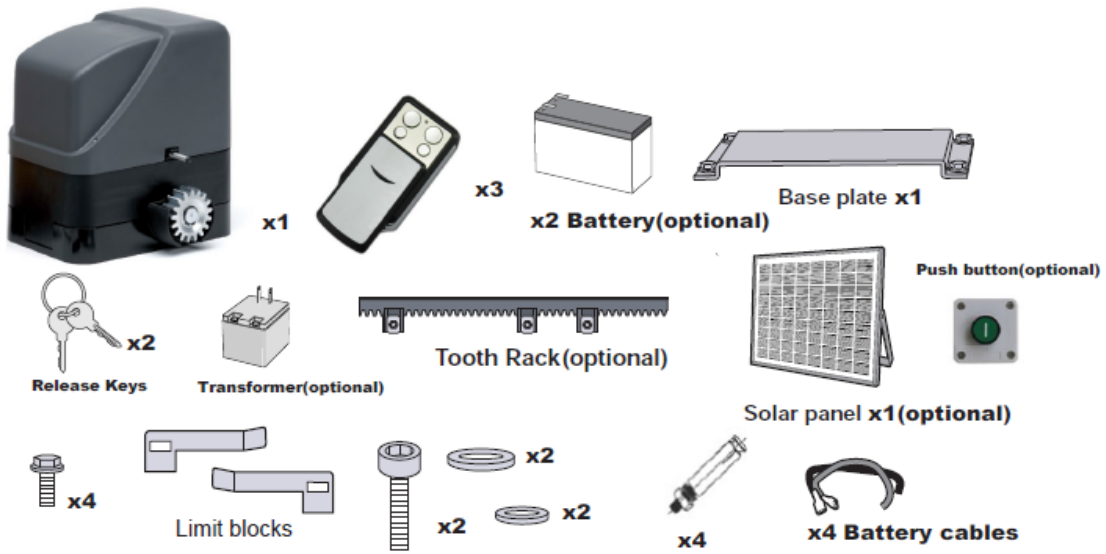
Connecting the battery:

NOTE: Pay close attention to positive (+) RED and negative (-) black terminals. If the wires are connected incorrectly, the control board will be damaged.

The control box has space for 2pcs x 12V batteries. 1 x battery is supplied as standard. Connect the cables provided from the control board BAT terminals. It is highly recommended two batteries for solar application or when transformer is more than 4m from control box. Once battery is connected you will hear a short beep and the LED red light will shine. Indicating control board is now in live standby.

Warning: Do not install any wiring to the board when it is live. Always remove power first.

Content of the Kit:



Qualification of a properly designed sliding gate:

As a general rule, an automatically operated gate must be stronger and smoother than a manually operated gate. Since the gate is a major component of the system, great care and concern must be given to the gate design.

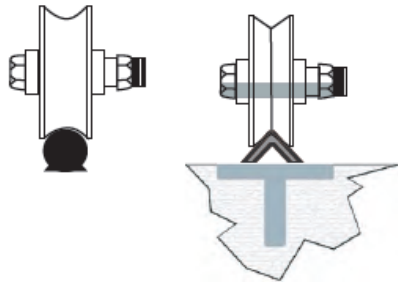
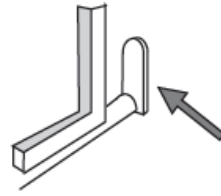
A poorly designed gate can damage a gate operator.

Check if the gate slides smoothly on the rail without binds or excessive resistance. The rail has to be level, so the gate will slide without resistance on it. The gate structure must be an in-line structure and has a balanced center of gravity.

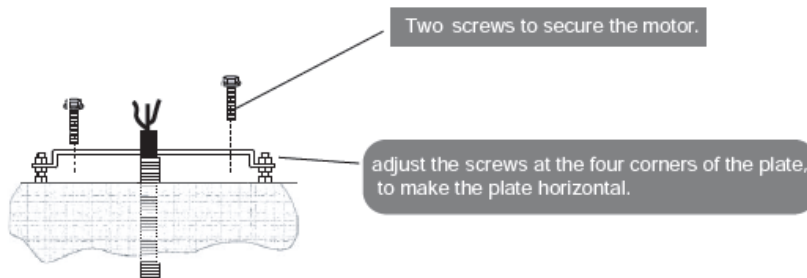
Upper roller guides: The gate must be equipped with a set of roller guide with at least 2 rollers in one line.



Caution: A stopper on each end of the rail is required to bring the gate back to still condition and prevent the gate from getting off the rail.



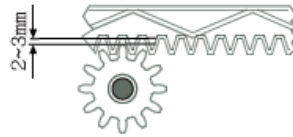
Wheels: To keep the gate sliding smoothly, the shape and size of the wheel should suit the shape and size of the rail, so there will be no resistance coming from the friction.



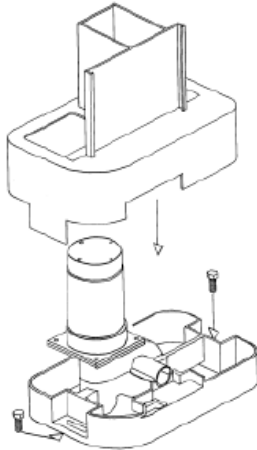
1. Prepare a concrete block and drill four holes in the block to fit the metal base plate for the motor. Keep a proper distance between the edge of the plate and the tooth rack,
2. Pass the power cable through the big hole on the plate.
3. Adjust the screws and nuts to level the plate.

4. Adjust the position of the motor to make the tooth rack connect with the tooth cog wheel of the motor leaving 2-3mm vertical distance between tooth rack and cog wheel.

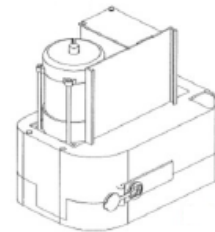
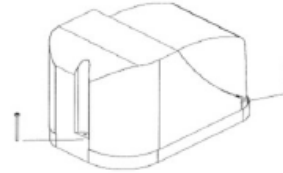
Keep a distance of about 2-3mm between tooth rack and the output cog wheel through out the full length of the rack



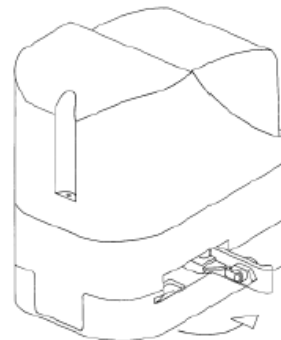
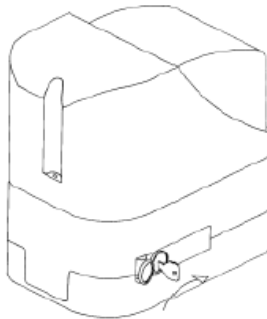
5. Secure the motor on the base plate by tighten two screws.



Two screws to secure the motor.



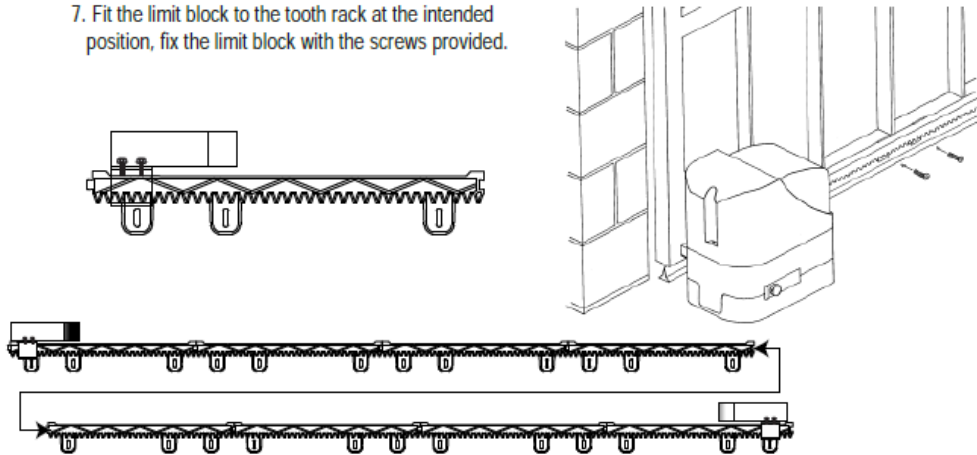
6. Insert and turn the key counterclockwise and pull to release the motor clutch and move the gate to see if the gate slides well.



NOTE:

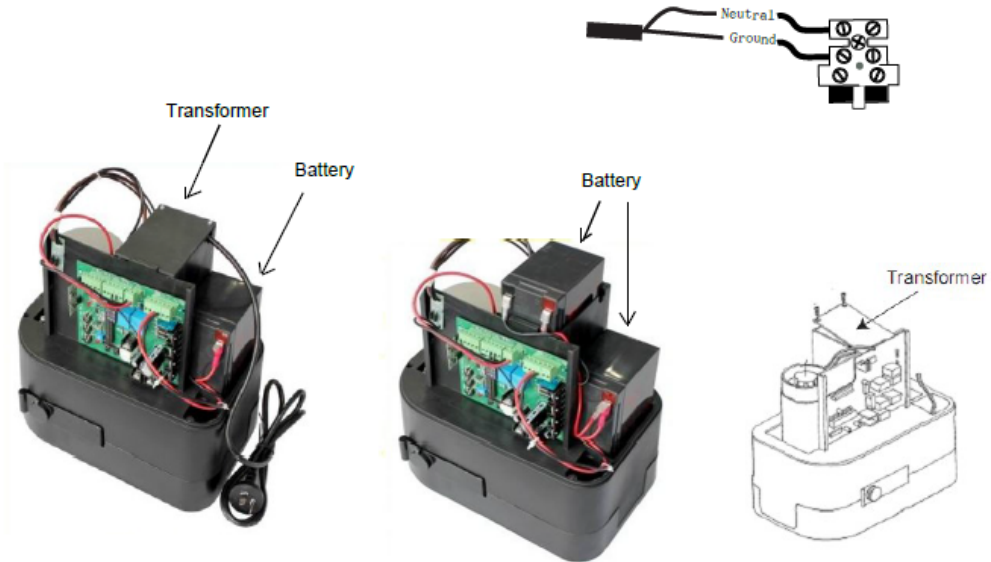
When power is failure, turn the key clockwise to release the clutch, the gate can be operated manually. turn the key anticlockwise to lock it.

7. Fit the limit block to the tooth rack at the intended position, fix the limit block with the screws provided.



8. Lock up the clutch.

9. Make sure the power cable is disconnected from the mains and connect the two wires to the power socket of the transformer.



NOTE: There are no POSITIVE(+) and NEGATIVE(-) for AC power input.

Connecting transformer:

Important

All new batteries must be fully charged prior to commencing a "setting travel time"

Charge all batteries to DC 14-14.3v for a minimum 2-3 hours via transformer/control board, then set "force 1" and "force 2" to middle of available rotational setting prior to commencing a "setting travel time". You cannot achieve more than 13.5v using a standard battery charger. You must use the internal charge system of the slider control board to get the desired voltage.

60VA transformer with 12v cable upto 1m + 2pcs 7AH batteries = 300KG gate

105VA transformer with 12v cable upto 1m +2pcs 7AH batteries = 400kg gate

150VA transformer with 12v cable upto 1m +2pcs 7AH batteries = 500kg gate

105VA transformer with 12v cable upto 30m (min cable size 2.5mm +) + 2pcs 7AH batteries = 100KG gate

150VA transformer with 12v cable upto 30m (min cable size 2.5mm +) + 2pcs 7AH batteries = 200KG gate

The Slider motor current draw is approx 6amps on a normal open/close cycle. One fully charged 7AH battery can supply approx 3amps and if a 105VA transformer is also used and the output cable is less than 4m long, then it can supply an additional 5amps giving approx 8amps so a single battery is sufficient.

If the transformer output cable is longer than 4m it will supply only about 2amps, consequently a single 7amp battery may not drive the motor consistently over time causing the gate to stop mid way through a cycle. It is highly important to operate this setup with 2 x 7amp batteries.

NOTE: There are no positive (+) and negative (-) for AC power input. So it does not matter which orientation the cables go in the AC12v terminal.

Connecting the optional solar panel:

All new batteries must be fully charged prior to commencing a "setting moving time"

NOTE: Pay close attention to positive (+) RED and negative (-) black terminals. If the wires are connected incorrectly, the control board will be damaged.

Charge all batteries to DC14-14.3v for a minimum 5 hours via solar power/control board, then set "force 1" and "force 2" to middle of available rotational setting prior to commencing a "setting moving time".

The Slider motor current draw is 6amps on a normal open/close cycle. One fully charged 7AH battery can supply 3amps so consequently a single 7amp battery may not drive the motor consistently over time causing the gate to stop mid way through a cycle. It is highly important to operate this setup with 2 (or more) 7amp batteries.

Solar cable should be less than 4m long as any further length will drastically reduce the strength of the solar power to the control board and increasing the time/sun/panel size needed to charge batteries. Face the panel north in a clear unobstructed area for maximum solar absorption from available sun light.

Setting remote Code to activate gate:

Note: EasyGate has pre-tested remotes and keypads prior to dispatch so you will find these to be ready to go! Left button to activate open/close and right button to place auto-close function into standby mode (see auto-close notes below for use of this function)

1. Power up control board. Test your remotes first as they may already be tuned to this board. If no activation....follow steps 2 – 4 below.
2. Locate learn code button on control board (please see photo). This button opens the memory chip of the remote receiver situated to the right on the control board
3. Press the learn code button once, LED2 red light will start flashing. You have 10 seconds to perform the next step or you will need to re-press the learn code button.
4. Pick up a remote and press the left hand top button once. This will send a signal to the control board receiver to memorise the frequency code. LED light will stop flashing and stay on confirming code has been accepted.

Fitting Limit Cams:

Gate must be fitted with Limit Cams or risk damage to the control board. The motor is fitted with a Limit spring pole. It is activated by means of the Limit cams contacting the pole to tell the motor when to stop in the fully open or closed position. Install left and right cams on the end of your black nylon gear rack using the supplied fasteners. Note: Gate should NOT stop on CONTACT with end catcher and end stopper. To be effective they must be working in the correct direction. Test this by placing the gate half way and activate a cycle. Move the limit spring pole in the direction of the gate travel to stop the gate. If it does not stop the motor, you will need to reverse the cables of the limit switch pole at the control board. Re-test to confirm correct operation of the limit switch pole.

Test Motor Direction:

Upon powering up the control board, the gate must perform an open cycle when first activated. To test, follow the steps below.

1. De-power control board completely then re-power.
2. Position gate so it does not touch the Limit Cams. Eg. Half way.
3. Activate an open cycle using your remote then press again to stop the gate.
4. Check the gate performs an open cycle first. If gate closes first, continue to step 5
5. De-power board then reverse the 2 motor cables on the control board.
6. Re-power board and re-test as per steps 2-4.

Setting travel time of gate:

If the open/close travel time is not set correctly, the gate will not complete a cycle and be unreliable. Batteries must be fully charged to 14 to 14.5v before setting travel time, otherwise the moving time might not be accurate and soft stop will be missed from the programming.

Located in the top right corner are 3 pedometer dials. Use a suitable flat head screwdriver to make adjustments. **Warning:** Do not place FORCE 1 AND 2 on maximum as this will give a high amp to the actuators and may cause injury to pedestrians, damage gates and or control board.

1. Close gate completely and de-power board (all led lights are off). Re-power board. Place DIP switch 2 to ON
2. Adjust FORCE1 AND 2 to approximately ½ way to start with. Only increase this if gate stops before completing a cycle...you will need to go back to Step 1 and start again.
3. Locate the "**learn time**" button on the control board, press once and Led red light will shine. You have 10 seconds to press the "**Set**" Button.
4. Gate will enter into time learning mode automatically as follow: Gate will open fully and stop at the Open Limit Cam. A few seconds later the gate will automatically close and stop at the Closed Limit Cam. A "beep" from the control board confirms study is completed.

Now that open/close moving time is successfully set, press remote button to operate the gate, the gate will know which position to quick start and soft stop.

Trouble Shooting:

Gate stops moving before fully opening/closing:

Adjust the force1 clockwise in small increases to overcome the weight of the gate and repeat step1 to 4.

Motor Force Adjustment:

Motor quick moving "FORCE 1" (while gate is moving quickly)

- The quick moving force must be adjusted to overcome the resistance needed to move the gate. This adjustment should also allow for the gate to stop if an object is contacted during a closing cycle.
- Turn it clockwise to increase force, turn counterclockwise to decrease force.

Motor slow moving "FORCE 2" (while gate is moving slowly)

- Gate will move quickly for about 80% of then slow down prior to the limit switch pole contacting the limit cam....turning off the motor. If motor force is set correctly and contact is made with an obstacle during a closing cycle, the gates should stop closing and re-open.
- Turn clockwise to increase force, turn counterclockwise to decrease force.

Gate Auto Close Function:

Located at the top right of the control board is the pedometer for "AUTO CLOSE TIME." To adjust you will need a suitable screwdriver.

- To turn OFF auto close function rotate counterclockwise to "O".
- To turn ON auto close function rotate clockwise depending on desired time delay. Small adjustments are best as fully ON has a 240 second time.

You can turn on or off auto close function using a pre-programmed remote. Wait for the auto close delay time to start (about 4 seconds after the gate stops in the fully open position) then press the right button on the remote. This will place the auto close function in sleep mode. To re activate the auto close function, activate a close cycle. Auto close time dial must not be in the off position and must be set to more than 5 seconds.

Note: EasyGate control boards have replaced the remote activated pedestrian function with the auto close function.

Erasing all remote and keypad Codes:

Step1: Press and hold "LEARN CODE" button for 5 seconds

Step2: Release the "LEARN CODE" button until LED1 and LED2 flash at the same time. Once LED1 and LED2 go out, all the remote and wireless keypad codes will have been erased.

Connecting Optional Wired Accessories:

Once your gate is working correctly using a remote, you can then install any optional device one by one and test their correct operation before installing the next accessory.

Wireless Keypad: The optional keypad pre-tuned to activate by pressing button "1" twice then press left arrow. It may be pre-tuned so test it first. If it is not simply press the "learn code" button on the control board....then quickly press the above test code. The control board receiver will learn the code just like a remote. To change the keypad codes please refer to the keypad manual.

Wireless Exit Button (white): Tune as you would with the remotes

Photocell Safety Beams: This is a recommended safety device for protection against entrapment. Photo cell safety beams are installed 50-70cm off the ground and positioned across the entrance away from a moving gate. When an object such as a vehicle or person breaks the beam during a close cycle, the gates will stop and re-open immediately. After the obstacle is removed, the gates will be able to close.

NOTE: The output signal is a "normally close" (NC) circuit. Note: You must remove the fitted loop wire on the control board when connected to photocell beams.

Antenna:

The control board is fitted with a short length of wire (basic antenna) to the receiver connector block. You can increase the range of the remote by replacing this wire with an optional 434MHZ Antenna.

Wired (not wireless) Keypad/Exit Button/Intercom/Dial2Open:

Connect to terminal P.B.1 and COM. This is a "normally open" circuit (NO) setup and activates a single command. E.g. Open/stop/close/stop.

Exit Wand/vehicle probe/Loop Detector:

Connect to terminal P.B.2 and COM. This is a "normally open" (NO) circuit setup and will activate an open cycle only. If the gate is in a close cycle and P.B.1 is activated, the gate will stop and re-open a few seconds later. Note: We recommend photo beams to be fitted if this function is used.

TROUBLE SHOOTING

Gate stops moving and a beep is heard

1: Low battery voltage. Charge battery (via control board charger) to 14-14.5v

Gate stops moving before completing "learn time"

1: Increase force 1 slightly and re-do the "learn time"

2: Check power to motor is correct and battery has 14-14.5v. If using a transformer and is installed more than 4m from control board, use 2 x 12v batteries of 14 or more amps in total. If solar powered use also 2 x batteries.

Gate closes fully then re-opens by itself.

1: Check if motor direction is correct...gate should do an open cycle first after powering up the control board. Close gate, remove all power, re-power and check with first activation of motor.

2: Check that DIP switch 2 is in the "ON" position to activate a slow down speed before gate stops at limit cams.

3: Reduce the Force 2 for slow down speed

Gate slams into end catcher/stopper

1: Check limit cams are fitted correctly allowing the switch pole to activate a stop in a timely manner. Check switch is working correctly for the gate travel direction.

Gate stops at the same spot.

1: Place clutch into neutral and check for increase in resistance over the travel distance of gate.

2: Check there is a 2mm gap between the top of the sprocket tooth and the valley of the gear rack.

3: Check correct power to control board

Gate will open but not close

1: Check photocell loop wire is fitted correctly and secure.

2: If photocell is fitted check it is working correctly

Remote/wireless keypad range is low

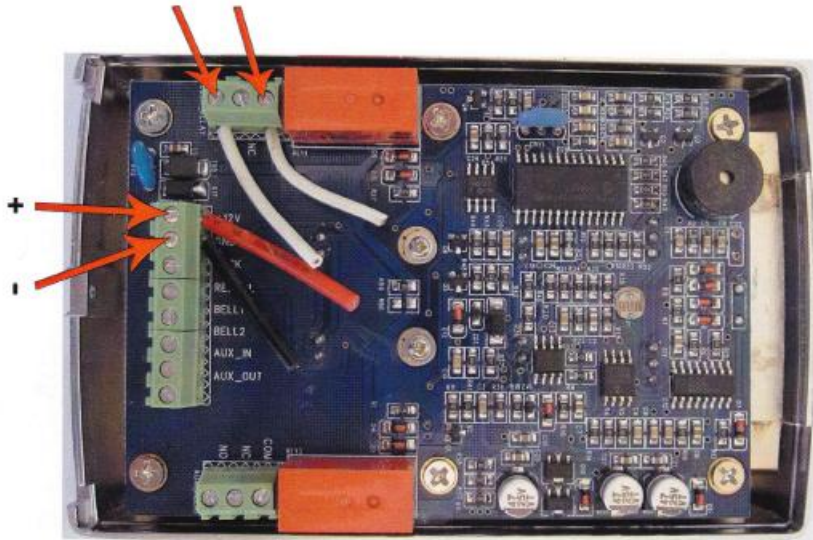
1: Fit an optional long range antenna

2: Replace short antenna cable with a cable 30cm long

3: Check condition of remote for moisture damage and change battery

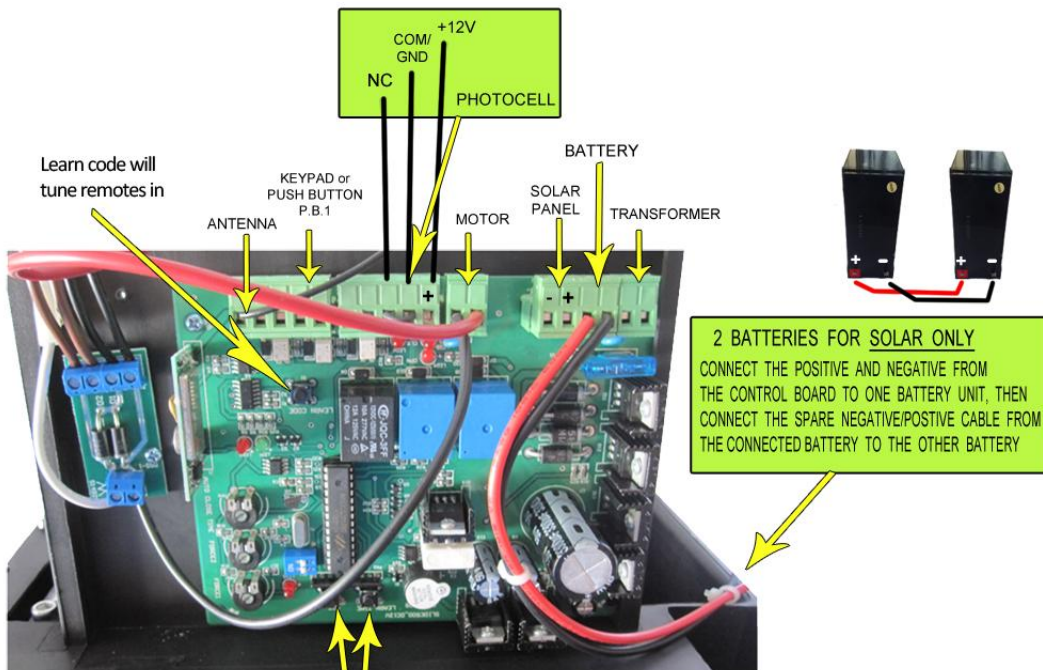
Lost codes for wireless keypad

Press the re-set button found on the back of the keypad electronic PCB...you will need to dis assemble the whole unit completely to get to it! Re.fit the 2 x keypad batteries and hold down the button for more than 10 sec



Keypad wiring

WIRING FOR SOLAR AND DC SLIDE



Learn code will tune remotes in

2 BATTERIES FOR SOLAR ONLY
 CONNECT THE POSITIVE AND NEGATIVE FROM THE CONTROL BOARD TO ONE BATTERY UNIT, THEN CONNECT THE SPARE NEGATIVE/POSTIVE CABLE FROM THE CONNECTED BATTERY TO THE OTHER BATTERY

Learning the gate to open/close

1. Slide gate to fully closed position
 2. Press "LEARN TIME" button, LED 3 will come on
 3. Press "SET" button, the motor will automatically open fully, then close fully
- YOUR ARE ALL DONE!**