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Guard Your Yard

YG-5602/1U/E

Swinging Gate

Owner's Manual

YG-5602/1U/E Swinging Gate Owner's Manual, Version 4
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P.O. Box 752
Lacey's Spring, AL 35754
www.gatekeeperltd.com

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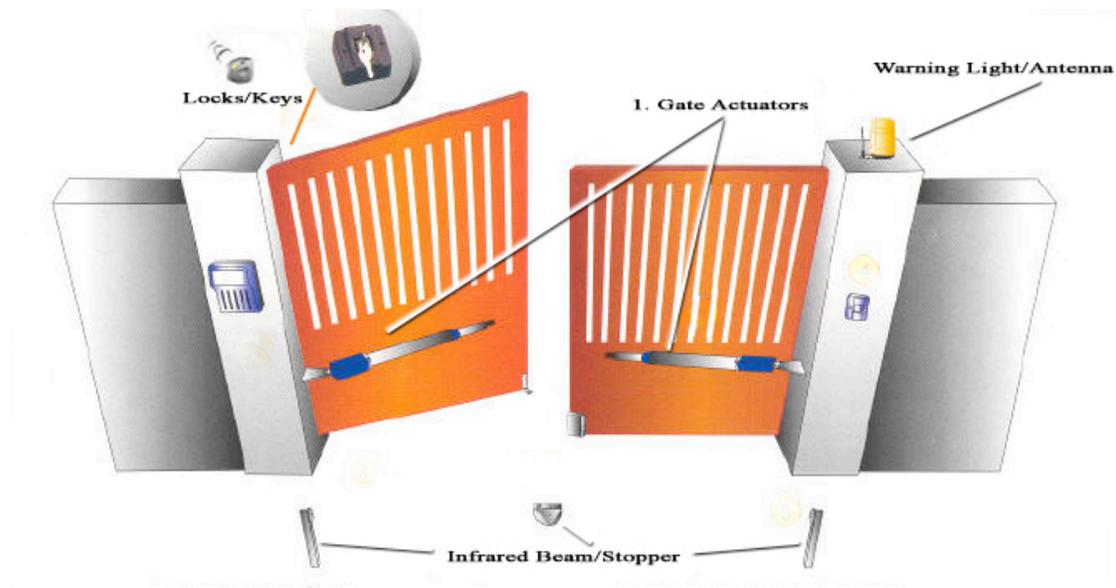
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Gatekeeper YG Features



The YG-5602/1U/E Swinging Gate Opener (Gatekeeper YG) is a heavy-duty, Class I vehicular gate opener that works in any residential application for a single or double-swing gate. Each arm supports a gate leaf that weighs up to 600 lbs. or 12 feet in length. When used on two gates, the Gatekeeper YG opens up to 24 feet of gates weighing up to 1,200 pounds.

The Gatekeeper YG meets all Underwriters Laboratories (UL)-325 Safety Standards to help reduce the risk of gate-related accidents. It also meets the UL Fourth Edition standard requiring any automatically opening gate to stop, and reverse, when it encounters an obstruction.

The Gatekeeper YG conforms to the highest standards and delivers a heavy-duty, high-quality gate opener. It features a one-year warranty from manufacture's defects.

Construction

- Water-proof design
- Heavy-duty design
- Steel gears
- Die-cast aluminum body

Power

- Overheat and over-current protection
- Battery backup for power outages

Locks/Security

- Keypad interface
- Single button interface
- Infrared safety beam interface
- Supports up to 15 remotes (two included).
- Rolling RF Codes (theft deterrent)
- Solid steel lock included
- Emergency manual key release

Operation

- Adjustable output thrust
- Adjustable operating time: 12 seconds ~ 100 seconds
- Time-delay protection
- Adjustable auto-close child safety obstruction sensitivity
- Self-locking and reversible gear motor
- Supports push-to-open or pull-to-open configurations
- Self-learning opening and closing limits
- Auto-close feature
- Dual gate operable sequence options
- Built-in micro-switches to arrest opening

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YG-5602/1U/E

Swinging Gate

Installation Guide

Safety Precautions



Please read the following as common-sense reminders for the installation and use of the Gatekeeper YG. This is an electrical/mechanical device that can cause injury or death!

- Installing the YG-5602/1 Gate Opener requires standard 110V or 230V electrical wiring. This work should be performed by a professional electrician. Mis-wiring could cause personal injury or DEATH! To prevent electrocution, be sure to turn off all power to the YG-5602/1 until installation is complete.
- Please keep hands, fingers and loose clothing away from moving parts as they may be dragged into moving parts.
- The gate may move at any time. Ensure all persons are clear of the gate when it is moving to avoid injury. Do not touch the gate while it is moving. Do not pass through gate until all motion is completed.
- Do not allow children or pets near your gate. Keep remote controls away from children. Place controls where they cannot be reached through the gate.
- To avoid electric shock, unplug unit before opening case.
- Make sure the battery inside the opener is fully charged before use. Achieve this by plugging in the Control Box for at least one hour before you begin programming.
- Before installation, use the key to unlock the linear actuators.
- The automatic gate opener must be grounded by connecting the electrical ground wire to the controllers' ground terminal.
- Additional safety equipment such as photoelectric sensors, safety edges, roller guards, and warning signs should be installed.
- In the event of power failure, an emergency release key operates the gate manually.
- Do not modify the components of the automated system; serious personal injury or property damage may occur.

Pre-installation

The Gatekeeper YG is a complex piece of machinery with the capacity to cause damage or injury. The installation must be approached with caution and thoroughness. The following section details aspects related to the gate and installation site that must be completed before you begin to install the Gatekeeper YG.

Gates

Each Gatekeeper YG actuator will handle a gate weight up to 661 lb. (300Kg) and a length of 12 ft. (3.6 m). Verify that your gates do not exceed these limits.

The site should be level where both gates can move freely. Do not install the Gatekeeper YG on gates that move up- or down-slope.

Conduit

Use PVC conduit to protect the electrical wires that power the Gatekeeper YG. You may need to preset conduit before pouring concrete. Acceptable conduits are PVC pipe or flexible tubes.



Ensure that electrical wires do not contact any rough or sharp protrusions that might nick or cut the electrical cable.

Permits

You may live in an area that requires permits for construction projects or electrical work. A permit may be required to own/operate an automatic gate opener.

Contact your local authorities to ensure you have all required permits and paperwork. Failure to do so could result in fines or bureaucratic interference.

Power Requirements

The Gatekeeper YG operates using standard power or a solar power source. Whichever you choose, your power source must be constant and reliable.



Installing the Gatekeeper YG requires a degree of comfort working with electricity. If you are not confident in your abilities, hire a professional!

Standard Power

The Gatekeeper YG is normally powered by U/E standard power (U model 110V/60Hz AC ; E model 240V/50Hz AC power). If you have not already done so, wire a waterproof outlet near the gate following proper safety standards for your area

The Gatekeeper YG requires at least 15A service. Make sure your electrician takes into account the voltage drop involved in running the wire to your installation location. Use a sufficient gauge wire to accommodate initial voltage and voltage at the gate. Visit <http://www.calculator.net/voltage-drop-calculator.html> to calculate the voltage drop.

There must be a 15A circuit breaker installed between the Gatekeeper YG Control Box and the power source.

Solar Power

If you plan to use solar panels to power your gate, verify that you have sufficient solar light available to adequately charge the battery and provide power for the number of openings and closings you plan to need. Different areas of the planet receive varying amounts of sunlight, and that amount varies on the time of the year. Account for this in any solar installation.

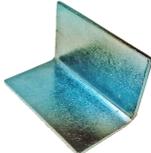
To use solar power, connect the charge controller configured for a 12V battery or your solar panel with integrated charge controller directly to the YG battery inside the control box. Connect the +Positive from the charge controller or solar panel with integrated charge controller to the +Positive on the battery and –Negative to the –Negative on the battery.



Insufficient or fluctuating power may permanently damage the Gatekeeper YG or the battery. It may also affect the reliability of the Gatekeeper YG. Associated damage is not covered by the warranty.

Inside the Box

The shipping box you received from Gatekeeper Ltd. contains the retail packaging for the Gatekeeper YG. Open the box and carefully remove the items. Place the items on trays or a tarp so that you can verify the contents. Mark each item opened as “Received.”

Qty	Red	Item
2		Actuator Arm Assembly 
1		Control Box 
1		Gate Stopper 1 
1		Right Angle Plate 
1		Key Lock 
1		Orange Flashing Light 
2		Photocell Sensors 

Qty	Rcd	Item
1		Antenna 
1		Key Switch 
1		Button Switch 
2		RF Opener Fobs 
3		Set of Two Keys 
2		Bracket Assembly 
2		T Bracket 
1		L Bar 
1		Z Bracket 
2		Cotter Pins/Cotter Pin Bolts 
2		Antenna Plate Mounting Screws 

Qty	Rcd	Item
4		Control Box Mounting Screws and Anchors 
3		Gate Stopper 1 Pavement Mounting Bolts 
1		Electric Lock Spring Accessory 

Once you have unpacked all of the items, verify that you received all of the parts above.

If you are missing something, please check the box and the packaging materials carefully. Some of these items are small and can be easily lost.

If you are definitely missing parts, please contact Gatekeeper Ltd. immediately by sending an email to support@gatekeeperltd.com or calling your respective support line: in the US (844) 526-5881, or in the UK 238-003-9023.

Pre-installation Checklist

Verify the following are true before you install the Gatekeeper YG:

- The fence structure is strong and rigid.
- The fence posts are set in concrete.
- The fence posts and gate are plumb.
- The fence posts and gate are level.

- Individual gate panels do not exceed weight or length requirements.
- The gate dimensions and weight are within specified levels.
- The gates swing freely.

- You have adequate electrical power at the installation site.

- You have all required permits.

- You have verified the contents of the shipping box.

If any remediation is required, do so before you begin installing the Gatekeeper YG.

If you have any questions, please email support@gatekeeperltd.com or call your respective support line: in the US (844) 526-5881, or in the UK 238-003-9023. Additional information and some helpful videos are available on the Gatekeeper website at www.gatekeeperltd.com/support.

Installation

The actual installation of the Gatekeeper YG will take about four hours, if all goes well. Completing the “Pre-installation Checklist” will expedite the installation process. Ensure you have sufficient time so you can complete the installation once you begin.

There is not a ‘good’ stopping place in the installation.

Tools and Equipment

The following items may be necessary to install the Gatekeeper YG:

- Standard and Philips screw drivers
- Electric drill
- Wire cutters
- Wire stripper
- Socket set
- Welder
- Adjustable wrench
- Tarp or tray to hold large items
- Dish or bowl to contain small parts
- First aid kit
- Installation instructions

Gate Arm (Actuator) Installation

The YG-5602 gate operator operates by forcing a worm gear to extend inside each actuator pushing or pulling the gate open.

Install the actuator mechanism inside of the property, inside of the fence, so that it cannot be tampered with from outside of your property. Initially mount the actuators on the gate so that the gate is open.

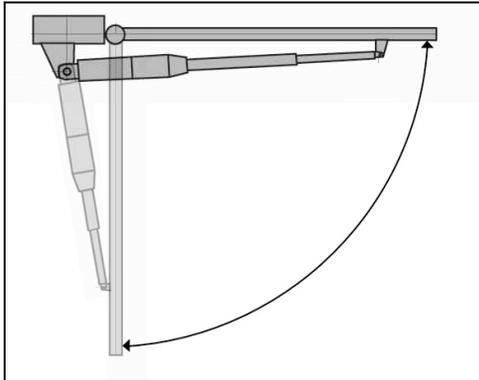
Be sure to unlock the linear actuators with the key.

Determine Gate Open Direction

Begin with both openers unlocked. Next, identify if this will be a “push to open” or a “pull to open” installation. In either configuration, the gate mounts on one face of the mounting post, and the opener mounts on the face 90 degrees from it.

The following sections explain the “push to open” and “pull to open” configurations.

Pull to Open Inward

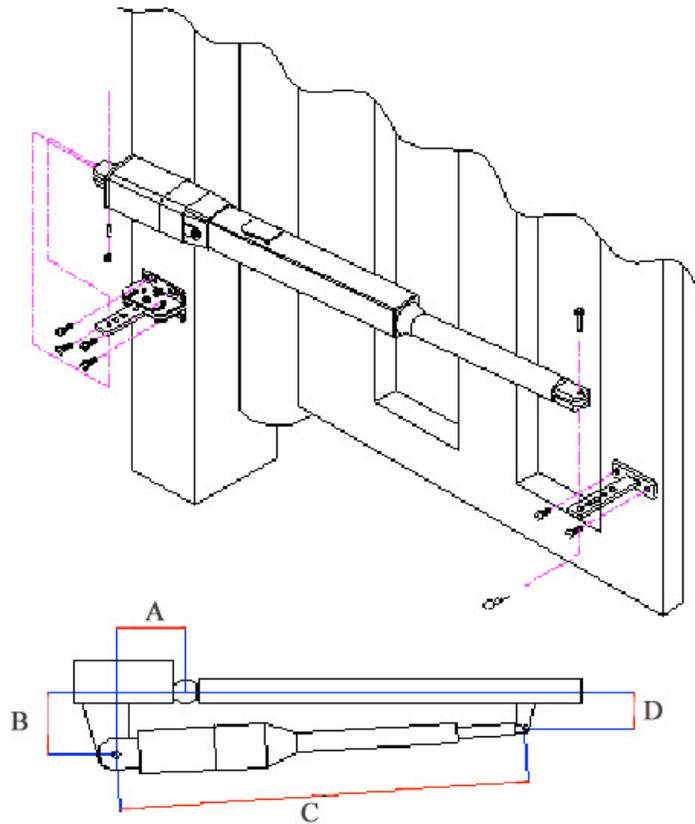


This configuration pulls your gate open, into your property, to open.

Mount the actuators on the included brackets according to the figure below. The gate mounts on one face of the mounting post, and the opener mounts on the face 90 degrees from it.

Mount the actuator so that the key slot is on top of the arm. **Open the gate** and lock the actuator with the key.

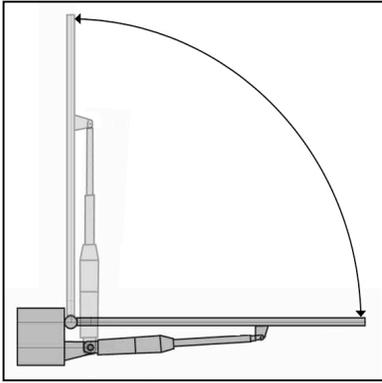
Pull to Open is the most common configuration for an entry gate.



Opening Angle	A cm	A inch	B cm	B inch	C cm	C inch	D cm	D inch
90	17.5	6.88	14.5	5.7	117.8	46.38	6.5	2.56
110	18	7.08	9.5	3.74	118.3	46.57	6.5	2.56

The installation should meet the specifications shown above. Failure to do so may cause opening and closing problems.

Push to Open Outward



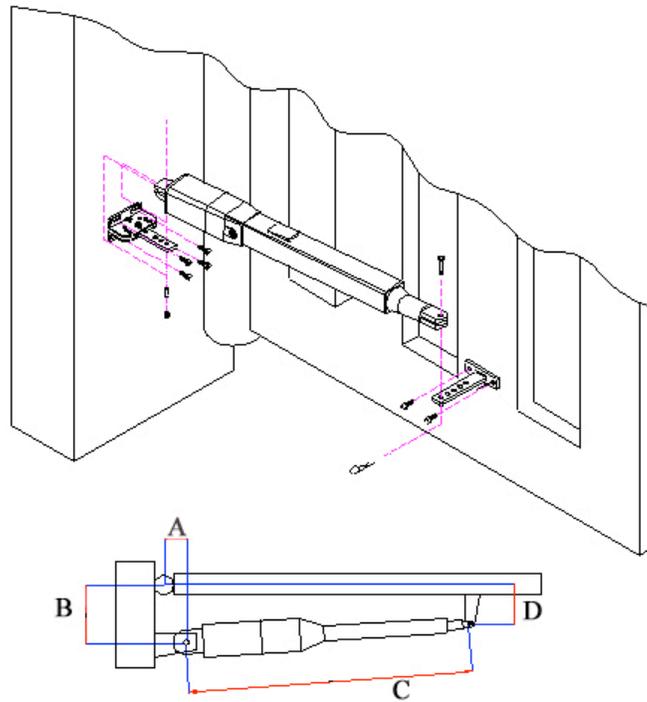
This configuration pushes the gate outward, away from your property, to open.

Mount the actuators on the included brackets according to the figure below. The gate mounts on one face of the mounting post, and the opener mounts on the face 90 degrees from it. Initially mount the actuators on the gate so that the **gate is open**. Mount the arm so that the key slot is on top of the actuator. Then lock the actuator with the key.

Push to Open Outward is the best configuration for exit gates.



Do not use Push to Open Outward with entry gates because of the risk of the gate striking a person or a vehicle waiting inside of the gate's sweep.



Opening Angle	A cm	A inch	B cm	B inch	C cm	C inch	D cm	D inch
90	8.5	3.34	13	5.12	97	38.12	6.5	2.56
110	12.5	4.92	11	4.33	85.9	33.82	6.5	2.56

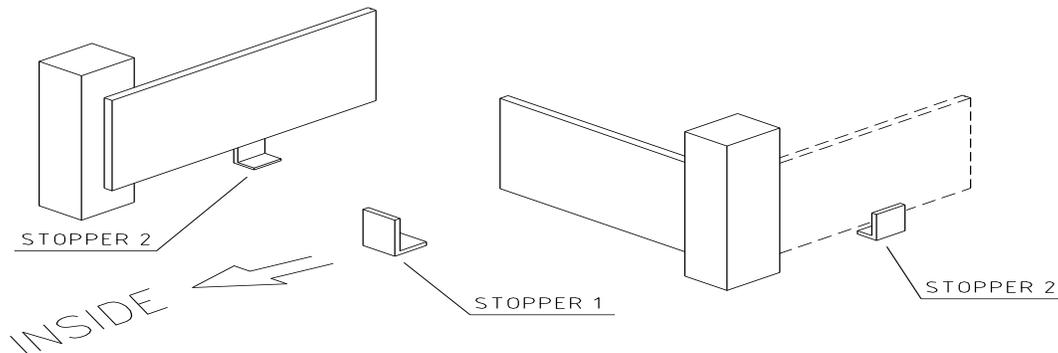
The installation should meet the specifications shown in the figure. Failure to do so may cause opening and closing problems.

Stopper and Latch Installation

The stoppers act as limits for the gate movement. Installing the stoppers allows you to control exactly where your gate stops.

The electric latch is added to hold the gate more securely than relying on the actuators to hold the gate closed. Install the latch securely into the ground.

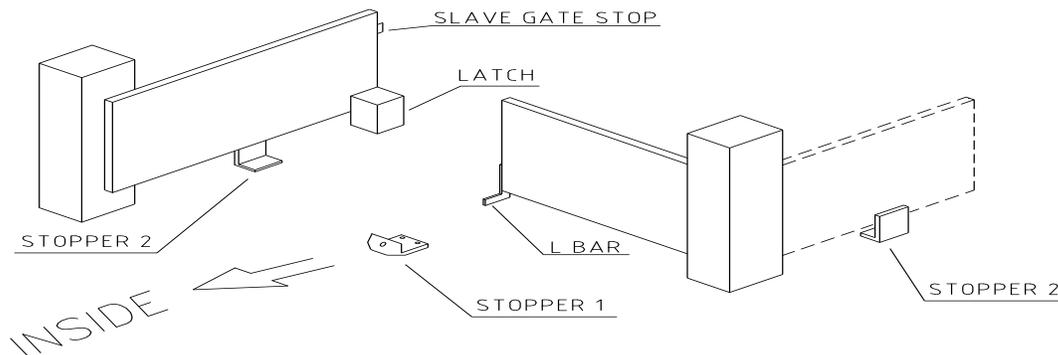
Stoppers without Electric Latch



Install Stopper 1: stops gate in closed position.

Install Stopper 2: stops gate in maximum opened position.

Stoppers with Electric Latch



Install the Electrical Latch and the Slave Gate Stop on the gate as shown above.

Install the L Bar on the opposite gate

Install Stopper 1: stops gate in closed position.

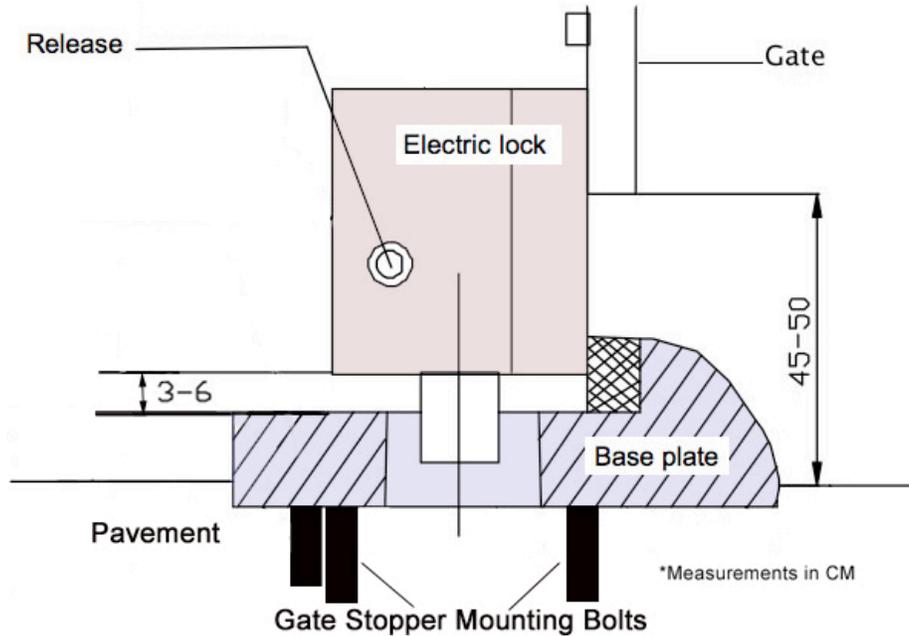
Install Stopper 2: stops gate in maximum opened position.



You may notice the gate pushing in the opposite direction of motion. This is the Kickback/extra push feature. It helps the gate disengage the lock.

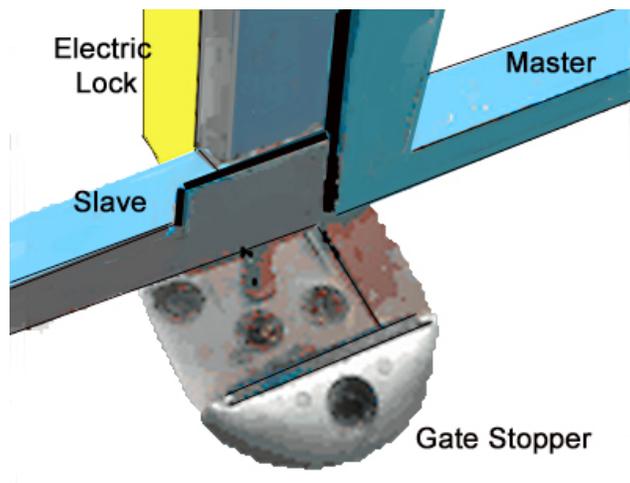
Electric Lock Cross Section

The following illustrates the electric latch assembly as a cross section. Weld the L Bar and electric lock to the gate for the most secure closure.



The L Bar controls the offset of the gate leaf from the Gate Stopper. The Electric Lock attaches to the slave gate and contacts the Stop Block. The L Bar is welded to the master gate ensuring the gates line up when closed. The Bar Mounting Bracket is used to trap the master gate. Install the Bar Mounting Bracket on the slave gate so that it keeps the master gate from opening once the slave gate closes and latches.

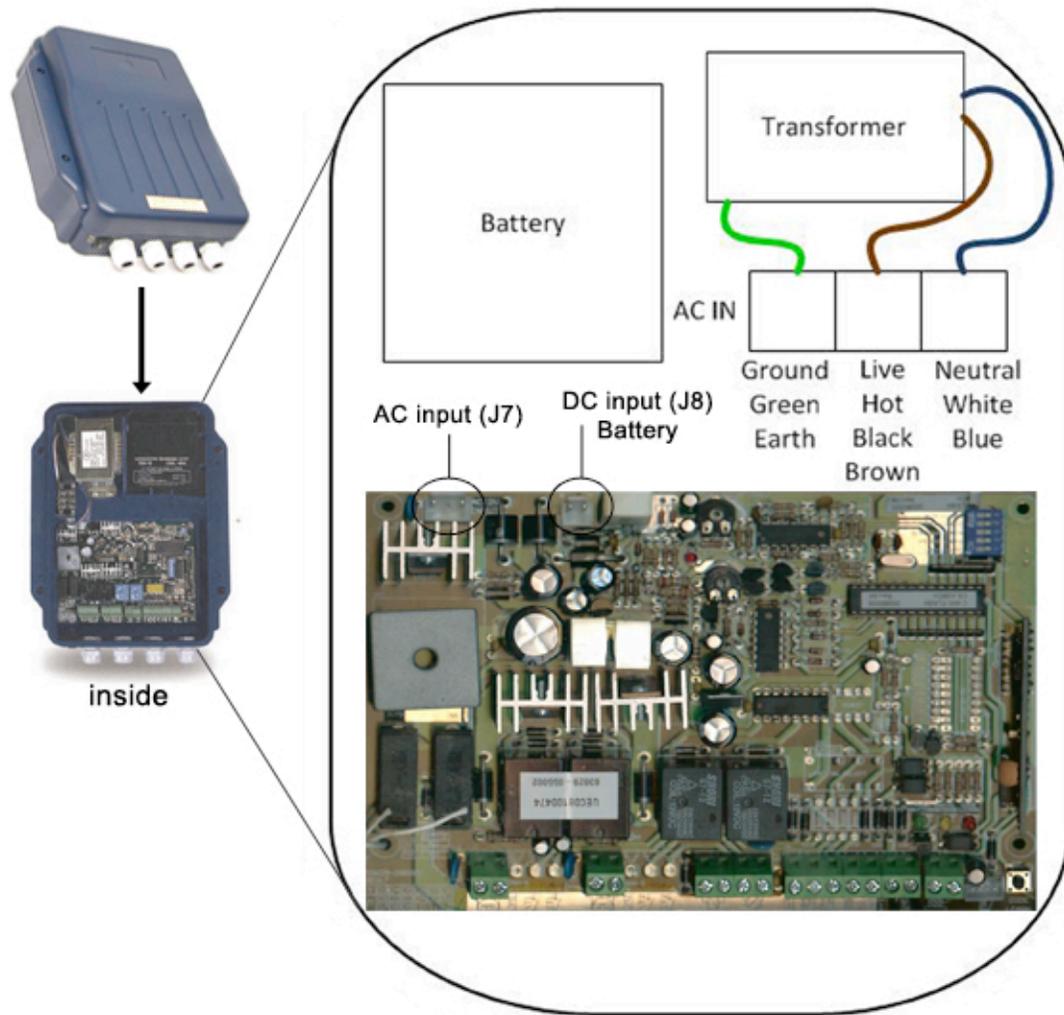
This drawing illustrates the mechanism form above:



Electrical Installation

Control Box Diagram

This diagram illustrates the inner works of the control box and is included for your information.



Connecting the AC Power

The Control Box must have a single-phase circuit breaker (15A) between the Control Box and the power source.



CAUTION!

Be sure that the rocker switch on the bottom of the Control Box is in the "Off" position. The On/Off positions are marked on the box.



CAUTION! Make sure that the power is OFF at the source and is not connected to the Control Box before making any electrical connections.

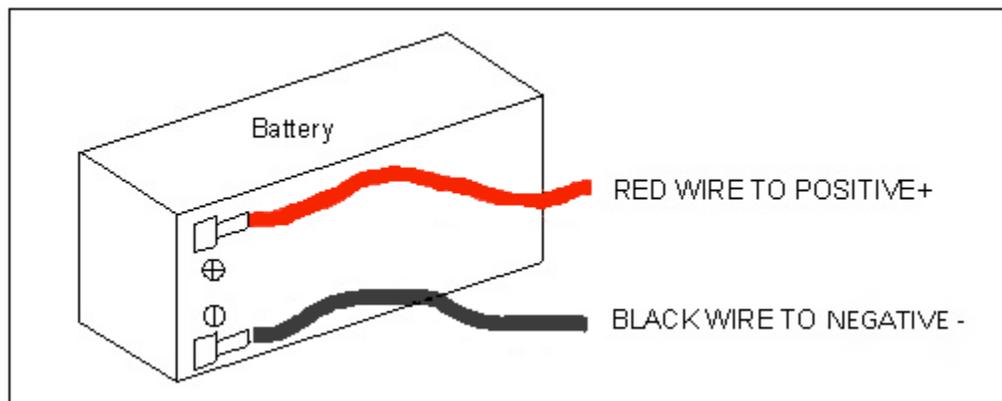


BEWARE!
The battery is not secured when the Control Box is open.
Open the box carefully so the battery does not fall out, damaging the unit or your foot.

Open the box carefully. Using the above diagram, complete these steps:

1. Wire the AC line into the AC IN terminal at the top of the control box near the transformer.
 - a) Wire the ground (usually green) to the terminal on the left.
 - b) Wire the hot (usually black) wire to the middle terminal.
 - c) Wire the neutral (usually white) wire to the terminal on the right.
2. Verify that all electrical connections are waterproof by installing electrical outlets into exterior grade boxes with waterproof covers. Always ensure that when any electrical connections through the Control Box are sealed and weatherproof.

Wiring the Battery



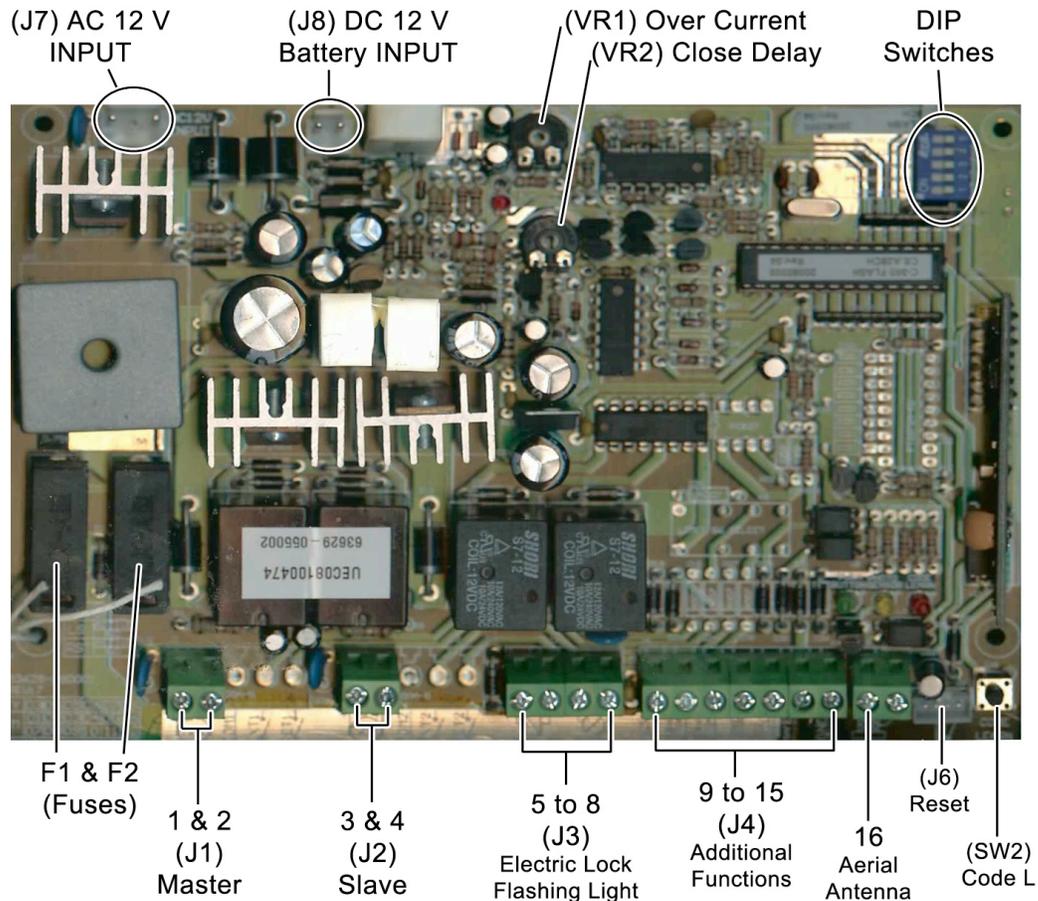
Verify that the Battery is connected to the Control Board.

1. Connect the red battery lead to the 'BAT+' terminal of the battery (if not already connected).
2. Connect the black battery lead to 'BAT-' terminal of the battery (if not already connected).
3. Connect the white connector from the battery to (J8) DC 12V Battery INPUT on the main board (see diagram next page).

Advanced Control Wiring

This picture details the Control Board. It identifies each of the items you will need during the installation of the Gatekeeper YG.

The jumper numbers on the main board are named to help illustrate the connections that will be made.



The information below details the connections used during installation:

F1 - fuse (maximum 0.5A) PCB

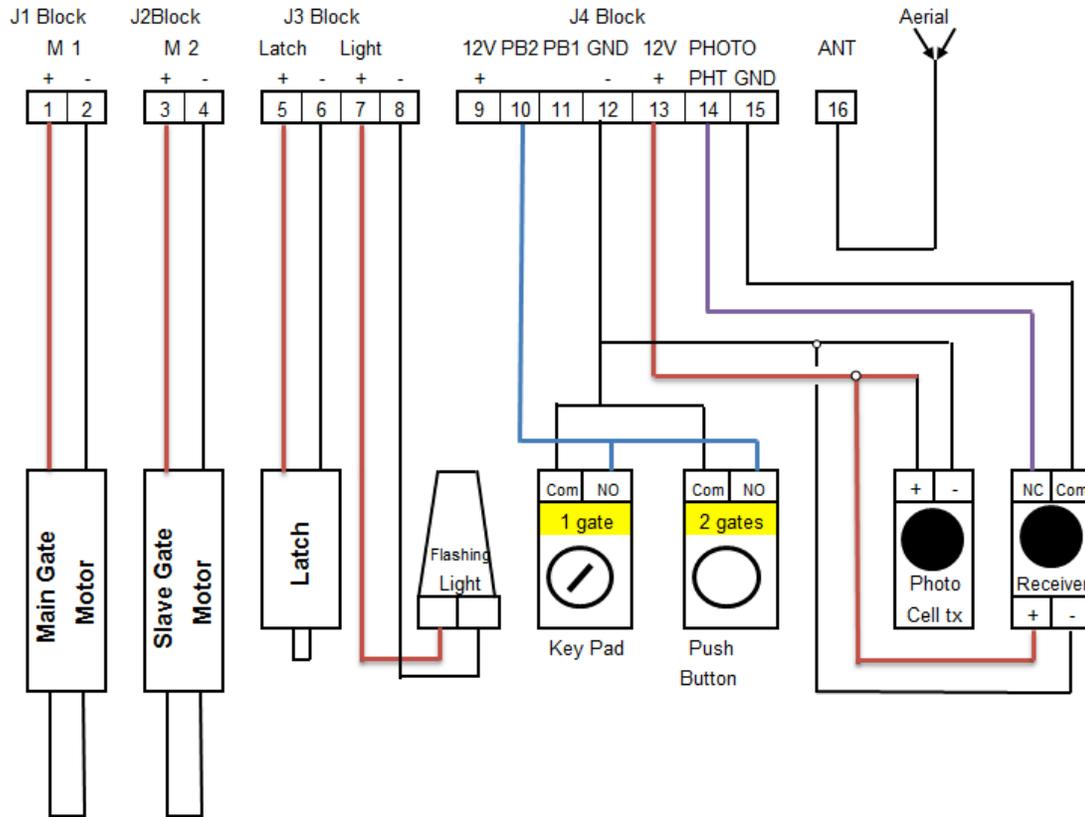
F2 - fuse (maximum 15A) Over current

SW2 - Used to program the remote controls to the board.

VR1 - Over current limit can be adjusted from min 3.5Amp to Max 7.5Amp

VR2 - Close delay can be adjusted from min 0 second to Max 8 second

Refer to the Control Board picture above. The lower row of items in the drawing support additional items that can be added to the Control Board. Each auxiliary item is explained in the text that follows the drawing.



- J1 – 1 & 2 MM1 Master Gate
- J2 – 3 & 4 SM2 Slave Gate
- J3 – 5 & 6 Electric Lock, 12VDC, maximum current 5A
- J3 – 7 & 8 Flashing Light, 12VDC, maximum power 21W
- J4 - 9 Positive Supply 12V DC
- J4 – 10, use with 12 Keypad / Pushbutton for the two- gate operation
- J4 – 11, use with 12 Keypad / Pushbutton for the single-gate operation
- J4 - 12 Logical and Power Ground for external devices
- J4 - 13 Positive Supply 12V DC
- J4 – 14 & 15 Photo Sensor contacts, must be shorted together if no photocell
- J5 – 16 Aerial Antenna Cable (connect to aerial for increased range)
- J6 – Reset Switch

The following table details each terminal:

F1	F1 – fuse (maximum 0.5A) The fuse protects the electronic control board in case of short circuit from receiver or photo sensor
F2	F2 – fuse (maximum 15A) This fuse is part of the Safety design for the over current protection during the system operation.

J1	MM1 Terminal block 1 & 2 Connect the cable to the MM1 for the master gate. (In gate opening operation, the master gate should be opened first) Important: connect only this interface if only using the single gate.
J2	SM2 Terminal block 3 & 4 Connect the cable to the MM2 for the slave gate. (In gate closing operation, slave gate moves ahead of master gate with a few second of close delay)
J3	Terminal block 5 & 6 Connect to the electric lock, 12VDC, Max current 3A
J3	Terminal block 7 & 8 Connect to the flashing light. 12VDC, Max power 15W
J4	Terminal block 13 +ve & 12 -ve Connect to the external receiver board for the 12 V DC (Positive) and Gnd (Negative)
J4	Terminal block 10 Connect to the push button or external receiver board for the dual gate operation
J4	Terminal block 11 Connect to the push button or external receiver board for the single gate operation
J4	Terminal block 12 to 15 If using the photo sensor: connect the two (one is transmitter and other is receiver) photo sensors' +VDC to 13 and GND to 12. Connect the N.C to 14 and COM to 15. If NOT using the photo sensor, make a jumper between 14 and 15. Otherwise, the systems cannot operate.
J5	Terminal block 16 Connect Aerial cable
J6	Terminal block J6 Connect to the Reset Switch
SW2	This button is used for code learning.
VR1	Over current limit can be adjusted from min 3.5Amp to Max 7.5Amp
VR2	Close delay can be adjusted from min 0 second to Max 8 second

Wiring the Actuators

To wire the actuators into the Control Box:

1. Connect the Master or Number 1 gate actuator wires to the J1 Master terminal.
 - a. Pull to Open: Connect the white wire to the + terminal and the black wire to the – terminal.
 - b. Push to Open: Connect the white wire to the – terminal and the black wire to the + terminal.
2. Connect the wires from the slave actuator to the J2 Slave terminal.
 - a. Pull to Open: Connect the white wire to the + terminal and the black wire to the – terminal.
 - b. Push to Open: Connect the white wire to the – terminal and the black wire to the + terminal.

If using a single gate, connect the active actuator to the J1 Master terminal.

RF Remote Control



BUTTON 1 - Main button

- Opens both gates
- Used for registering control

BUTTON 2 - Pedestrian button

- Opens single gate (if enabled)

Press button SW2/Code Learn on the Control Board. You will notice that an LED turns on the control board indicating that the “RF Remote Learning Mode” is active.

During the “RF Remote Learning Mode” period, press Button 1 on the remote control so the board can memorize the remote’s frequency. After the LED light turns off, the receiver module goes back to “Normal” mode.

The Gatekeeper YG supports up to 15 remote controls. Repeat the RF Remote Learning Mode for each additional remote.

You can order additional RF Remote controls through your dealer (found under “Dealers” on www.gatekeeperltd.com).

Removing Remotes

You can clear the Control Box memory of all remote control information by pressing the SW2/Code Learning button and keeping the button depressed for 10+ seconds.

You will then need to ‘relearn’ the remotes that you want active by pressing the SW2/Code Learning button as explained in the section above.

First Time Activation

Once the control box is attached and the actuators installed on your **open** gate, you will need to let the Control Box go through a “Learning” mode where it learns about its gate, its set up and other information the Control Box needs to know. The box will make strange clicking noises and it may appear that nothing is happening.

Don’t worry. The Control Box is waking up and learning. This process may take a few moments or a few minutes. Do not interrupt! Let the process complete before continuing the installation. Read more about System Learning Mode in the next section before continuing with the installation.



PLEASE NOTE:

If the rocker (Reset) switch on the bottom of the Control Box is off, the gate will not operate in any situation. The switch must be in the ON position for all of the components to function. **Verify the gate is OPEN.**

System Learning Mode



NOTE! The Gatekeeper YG will not execute the learning mode (remote control) using battery power. Your permanent power source must be attached. When it is ready, the red power light will turn on.

During the “system learning mode,” two situations must be corrected using the Variable Register (VR1) screw (over current sensitivity/obstruction sensor) on the Control Board.

1. One leaf stops before arriving at the end of travel, or
2. One leaf stops at end of travel but the other leaf is not moving and the lamp is still quick flashing.

If either of these two conditions occurs, adjust the VR1 by using a flat-head screwdriver to adjust the VR1 on the Control Board. Turn clockwise to allow more force before tripping the overcurrent limit, counter clockwise for less. After adjusting the VR1, repeat the self-learning system from the beginning. You may need to adjust and relearn several times to get the gates stopping exactly where you want.



**NOTE! Do NOT interrupt the “System Self-learning Process!”
If it is interrupted, you must restart the process from the beginning.**

If the Gatekeeper YG loses both power and backup battery power, anything stored in the memory will be lost. You will need to repeat the “System Self Learning Process.”

Single Gate Operation

For a single gate installation, the first time you click the Remote Control Button 2, the Control Box will receive the signal and initiate a small red light, located about the middle

of the Control Board, will begin flashing quickly. After about 75 seconds, the gate will begin moving on its own as it begins learning its travel path.

The learning mode executes as follows:

1. Master Gate Closes (actuator extends)
2. Master Gate Opens (actuator retracts)
3. Master Gate Close (actuator extends)

At this point, you should verify the direction that the gate is opening/closing the gate, as you want. That the gate is closing in the direction you want it closed (steps 1 and 3 above), and opens in the direction you want it to open.

If the gate does not move in the desired direction, then you will need to reverse the motor operating direction. To change the operating direction, swap the black and white wires from J1 Master and J2 Slave.

Two Gate Operation

For a two-gate installation, the first time you click the Remote Control Button 1, the Control Box will receive the signal and initiate a small red light, located about the middle of the Control Board, will begin flashing quickly. After about 75 seconds, both gates begin moving individually as they each learn their travel path.

The learning mode executes as follows (this example is Pull to Open):

1. Slave Gate Closes (actuator extends)
2. Master Gate Closes (actuator extends)
3. Master Gate Opens (actuator retracts)
4. Slave Gate Opens (actuator retracts)
5. Slave Gate Closes (actuator extends)
6. Master Gate Closes (actuator extends)

At this point, verify the direction that the gates open and close is correct and that the gates are opening and closing in the correct sequence.

If the gates do not move in the desired direction, then you will need to reverse the motor operating direction. To change the operating direction, swap the black and white wires from J1 Master and J2 Slave.

Pedestrian Start Feature:

The System can be set to open only one side of the gate for pedestrian traffic:

For a dual gate, connect the motor cables for both terminals J1 & J2. Press the green button of the transmitter to activate Pedestrian Start.

For a single gate, connect the motor cable for terminal J1 only. Press the black button of transmitter to activate Pedestrian Start.



When the gate is opening at normal speed, if the motor encounters an over current condition (because of obstruction), the gate will immediately stop. If the gate is closing, the gate will stop and reverse for two seconds.



If any command (transmitter, keypad or photocell or other abnormal event) interrupts the gates' motion before it reaches the end of travel, the gate operates at slow speed for the rest of the cycle. The feature ensures maximum safety during the operation.

Flashing Light Codes

The Control Box uses flashing lights to communicate any issues. The box may flash at you during installation or normal use.

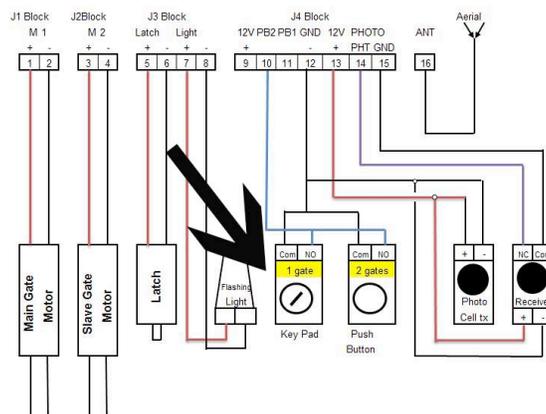
Use the following chart to interpret what the system is telling you:

Quick flashing light	Systems operation is at slow down speed or the system is in learning mode / kickback / extra-push phase.
Normal flashing light	System is operating at the full speed.
Slow flashing light	Gate is waiting for auto close execution.
Lamp fixed light 7 sec without gate movement	Gate is in waiting mode since photocell is covered by obstacle during the gate closing or opening.

External Interfaces

Keypad/ Button Switch/Key Switch

The Gatekeeper YG is equipped with an interface for an external switch or keypad. The interface type is a NO (Normally Open) momentary switch to ground. This spring-loaded switch is normally open when the springs are relaxed and closes when the switch is forced to its other position.



To activate the opener, the keypad or other device must short the ‘GND’ (12) and ‘Push Button 2’ (10) terminals momentarily in the J4 area of the Control Box. This type of switch is very common.

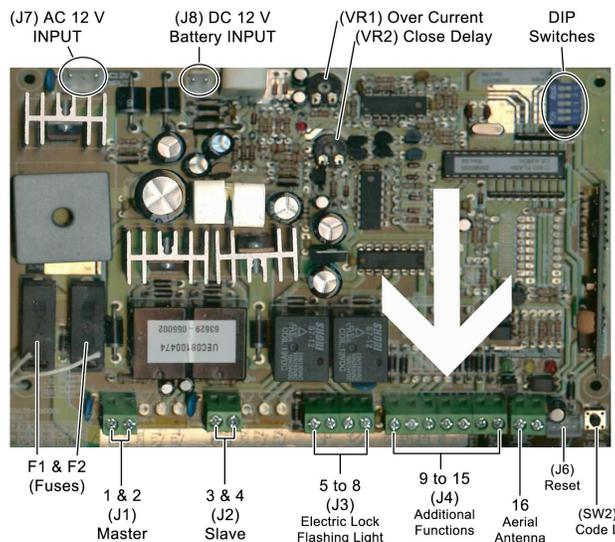
To install the device, attach one lead of your keypad to the ‘Push Button (10)’ terminal and the other to the ‘GND’ (12) terminal. If your keypad requires 12Volts DC, then you can connect the 12V+ to (9) and the –V DC to (12). The keypad will function in single channel mode just like the RF remote. Single channel mode means that only one button is used to start, stop, and reverse the gate.

If the gate is closed, then activating the keypad will open the gate. If the gate is open, then activating the keypad will close the gate. If the gate is moving, then activating the keypad will stop the gate.

The keypad device can be obtained through your dealer. To find a dealer, go to the Gatekeeper Ltd. website and look under “Dealers.”

Loop Detector

A magnetic loop detector is a device that detects vehicles that come within range of the gate. The device is usually buried in the driveway, under the point that you want the Gatekeeper YG to detect a vehicle. The wires are buried and run to the fence line then wired into the Control Board in the 9 – 15 (J4) Additional Functions area.



Magnetic loops usually require DC power, using the + and – DC terminals. Connect the 12V+ to (9) and the –V DC to (12). They provide a normally open momentary switch interface to the control board and its ground or common interface. Wire the magnetic loop’s normally open trigger wire to terminal (10) and the normally open ground or common to GND (12) both on block J4.

The Loop Detector device can be obtained through your dealer. To find a dealer, go to www.gatekeeperltd.com/dealers

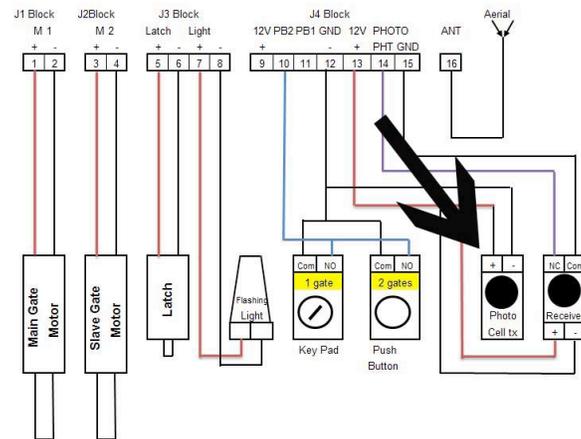
Safeguards

Infrared Photocell Device

Included with your Gatekeeper YG is an Infrared (IR) Photocell Device. We strongly recommend that you install the infrared photocell to provide for additional safety for users of your gate. Photocells prevent the gate from moving if the IR beam is broken. Some areas may require an IR safety device by law.

If the infrared beam is broken during closing, the gates will reverse and open immediately. If the gate is opening, the beeper will sound when the beam is broken.

Infrared photocells come in active and passive varieties. Active photocells require power on both sides of the driveway, whereas passive photocells employ a reflector plate so that power is only required on one side of the driveway. Most photocells will provide DC power input wires + and -, and two, normally closed, switch wires.



To install the photocell, go to the Control Board and remove the short circuit wire between Terminals (14) and (15). Attach the normally closed wire to (14) and the other common normally closed wire to (15) (COM). Attach the +12VDC power for the photocell to (13) and the -DC power to (15).

The signal wires are not polarized, so they can be interchanged without issue, but the power wires must be wired correctly to prevent damage.

When the gate is closing, if an obstacle breaks the infrared beam of the photocell, then the gate will stop and reverse its motion. It may take a few seconds for the gate to begin moving in the opposite direction.

In the opening phase, the function of the photo sensor can alternate between active or passive modes. Setting the photo sensor to active mode means that if the infrared beam is broken, the system will stop and wait for a new command.

Additional devices can be obtained through your dealer. To find a dealer, go to www.gatekeeperltd.com/dealers.

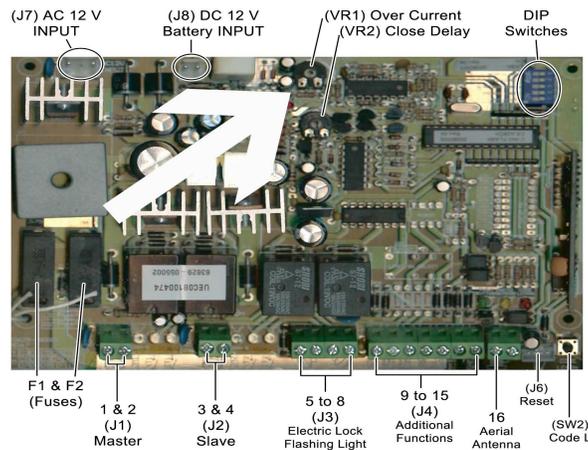
Auto-reverse Function

You must tune the safety reverse function after you have installed the Gatekeeper YG, performed all self-learning functions, and programmed any remote controls. The Control Box must be powered to tune the safety reverse.

To check the adjustment, verify that the gate closes and stops when it hits the gate stopper without over-forcing the gate. Check the stop/reverse function by placing a test object (i.e., trashcan, chair) in the gate's path. Verify that when it strikes the object, the alarm sounds and the gate reverses motion.



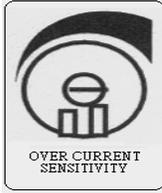
Do not use yourself, a pet, or a child to test the auto-reverse function! The gate can cause serious injury. Do not use heavy, immovable objects to test, as the resistance may damage the gate motors.



To adjust the auto-reverse function, use a screwdriver to rotate the (VR1) Over Current Adjustment knob. Rotating the knob clockwise will increase the resistance needed to trip the safety reverse function. Rotating the knob in a counter-clockwise will decrease the resistance.

If the gate does not move when activated, or auto-reverses without striking an obstacle, then the current resistance (current sensitivity) setting is probably too weak. If the gate does not stop when it hits an obstruction its path, then the setting is too strong. When making these adjustments, start with a low setting (weak) and slowly increase the setting until you reach the point where the gate functions as it should.

The auto-reverse function should be regularly inspected and adjusted if necessary. Once this step is complete, replace the cover and install the rubber caps over the screws.



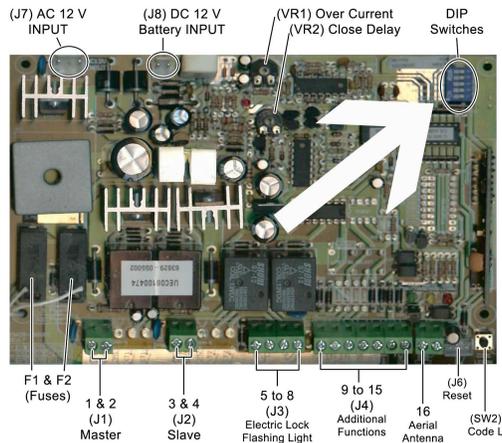
(VR1) Over-current Sensitivity:
The range of Over-Current resistance can be adjusted between 3.5 amperes and 7 amperes by turning the screw.

(VR2) Close Delay

The SM2 (slave leaf) start delay can be adjusted between 0 seconds and 8 seconds by turning the screw.

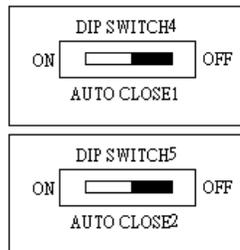


DIP Switches



Auto-close function

This feature allows the gate to stay open for 15, 25, or 50 seconds before it automatically closes. Combine settings on switches 4 and 5 to create the following gate open/close situations:



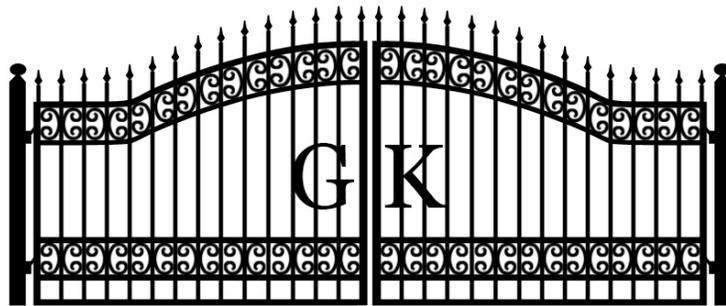
DIP4 (Auto close1)	DIP5 (Auto close2)	Function
OFF	OFF	No auto close/Auto close OFF
OFF	ON	Auto close On, waiting time 50 seconds
ON	OFF	Auto close On, waiting time 25 seconds
ON	ON	Auto close On, waiting time 12 seconds

Additional Features

 <p>DIP SWITCH1 ON OFF LIGHT DELAY</p>	<p>LIGHT DELAY: Flashing light delay on or off. ON: The flashing light starts 5 seconds ahead of gate moving. OFF: The flashing light starts and gate starts moving at same time.</p>
 <p>DIP SWITCH2 ON OFF OPENING PHOTO</p>	<p>OPENING PHOTO: When the gate is moving at opening phase, the photo sensor can be selected as active or inactive.</p> <p>ON: If photo sensor covered by the obstacle during the gate opening Phase, the gate system will stop immediately.</p> <p>OFF: If photo sensor covered by the obstacle during the gate-opening phase, the gate system will not be affected by photo sensor.</p>

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GatekeeperLtd.
www.gatekeeperltd.com



Guard Your Yard

YG-5602/1U/E

Swinging Gate

Maintenance Guide

Mechanical Maintenance

- Regularly verify that the gate swings freely.
- The Gatekeeper YG rarely requires lubrication.
- Check that all wiring and electrical parts are weatherproof.
- Keep opener clean at all times.
- Inspect the auto-reverse function and adjust if necessary.

Symptoms/Solutions

Use the following chart to identify solutions for some common issues with the Gatekeeper YG:

ISSUE	RESOLUTION
Battery overheats	<ol style="list-style-type: none"> 1. Check the battery wiring and make ensure that all connections are solid. 2. Verify polarity of each connection.
The gate will not work when using the remote control.	<ol style="list-style-type: none"> 1. Check if the LED used for “SLOW DOWN / POWER” is lit. 2. Check if the voltage of the battery is less than 10.5 VDC. 3. Check the LED used for “push button” is lit. 4. Check fuses at power source. 5. Turn the power off (disconnect J7/J8) for 30 seconds, then turn it back on and repeat the learning process.
Motor operates slower than usual.	<ol style="list-style-type: none"> 1. Check to see if the gate stopped because of the push button, photo sensor, or over current (obstruction). 2. Check to make sure that the battery and transformer J7/J8 is connected.
The gate stopped during the operation (opening or closing).	<ol style="list-style-type: none"> 1. Check to make sure that the Reset switch is on, and that the reset switch is connected to terminal J6. 2. Adjust the VR1. Re-set the over current limit at the proper position. 3. Check the wiring of the motor is well connected. 4. Check that the jumper for the photocell is in place or that the IR Photo Safety Sensor is in place and functioning. 5. Check fuses at the power source.

ISSUE	RESOLUTION
The gate will not move, or the gate moves in only one direction.	<ol style="list-style-type: none"> 1. Check that the Reset switch is on, and that the reset switch is connected to terminal J6. 2. Check that the wiring of the motor is connected. 3. Check that the jumper for the photocell is in place or that the IR Photo Safety Sensor is in place and functioning.
Gate “auto close” function works like “auto open ”	The first operation of “Learning Mode” is “Gate closing.” If your gate executes the contrary action, please swap the wiring of the motor to the opposite polarity. Reread “System Learning Mode on page 26.
Gate does not immediately stop at end of travel.	Adjust the VR1 to decrease the over current limit. Reread “Auto-reverse Function” on page 31.
Flashing light does not work.	Check the wiring of the flashing light to make sure that it is well connected and using the correct polarity.
If you suspect power issues	Check that ~18V AC is present on the output side of the transformer. Check that ~14VDC is present on the terminals of the battery when the unit is plugged into AC and that at least ~12V DC is present when it is not plugged into AC but after charging.

For additional information or assistance, contact the 24-hour customer support line:

email: support@gatekeeperltd.com
phone: US (855) 712-9890 or UK 800-802-1605.

Additional information and helpful videos are available on the Gatekeeper website:

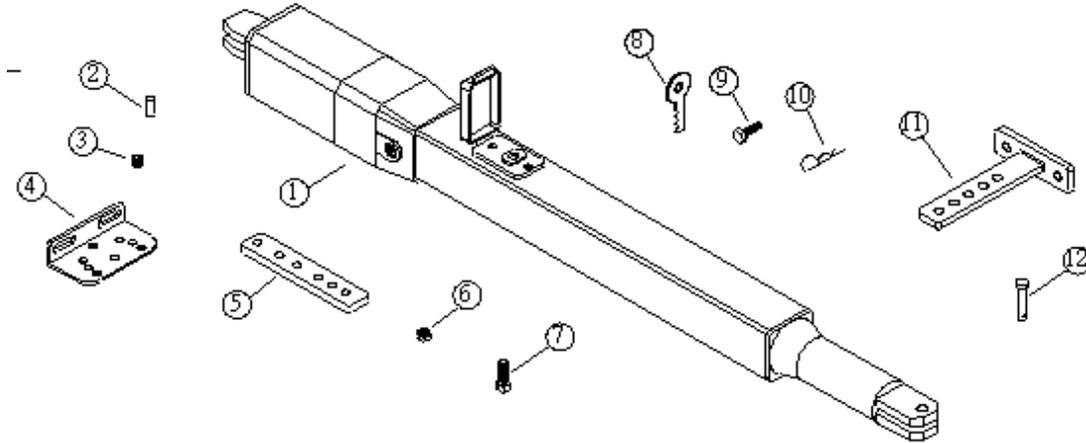
www.gatekeeperltd.com/support

Gatekeeper YG Specifications

Power Supply	U Model 110V AC (60Hz) E Model 230V AC (50Hz)
Backup Battery:	12VDC / 4AH
Maximum Number of Remote Controls	15 (2 Included)
Maximum Gate Weight	300 KG / 661 lbs.
Maximum Gate Width	3.6 meters / 12 feet per leaf
Duty Cycle	50%
Working Temperature Range:	-20°C - ~55°C, -4°F – ~131°F
Power Consumption:	150W (Max) 5W (Standby)
Power Supply of the Motor	12VDC/8A, 96W (MAX)
Power Supply of the Lamp:	12VDC, 21W (MAX)
Power Supply of the Electric Lock:	12VDC, 60W (Max)
Power Supply of the Receiver:	12VDC, 2W (Max)
Power Supply of the Accessories:	12VDC, 3W (Max)
Over-current-protection:	3.5A~7.5A
Pause Time:	Programmable, 0 sec ~ 50 sec
Slave Gate Closing Delay:	Programmable, 0 sec ~ 8sec
Dimensions and Weight:	300 x 245 x 90 mm, 4.6kgs 11.8"x9.65"x3.5", 10.1 lbs.

Gate Arm Actuator Parts

You need the following parts to connect an actuator to your gate.



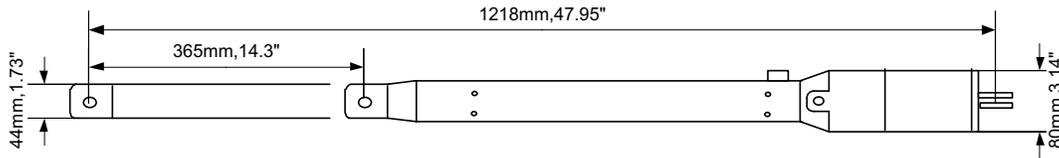
No	Description	Quantity	
		Single	Dual
1	Actuator	1	2
2	Nest Pin	1	2
3	Fastener Screw	1	2
4	“L” Mounting Bracket	2	4
5	Bar Mounting Bracket	1	2
6	Nut for Bolt	2	4
7	Bolt	2	4
8	Release Key	1	2
9	Bolt	6	12
10	Cotter Pin	1	2
11	“T” Mounting Bracket	1	2
12	Front Clevis Pin	1	2

Actuator Specifications and Measurements

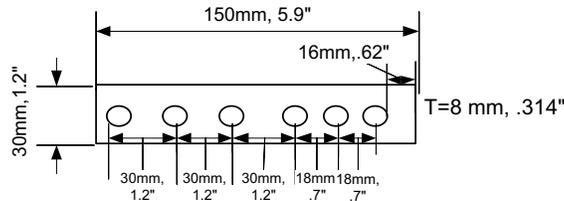
Actuator Maximum Direct Force: 1400N , 315 lbs.

Actuator Maximum Power Consumption: 12V at 6A = 72W

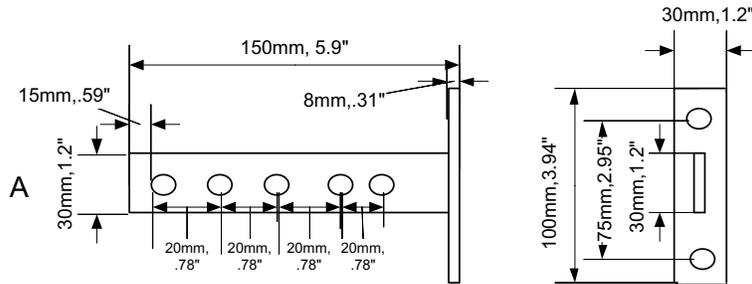
Duty Cycle: 50%



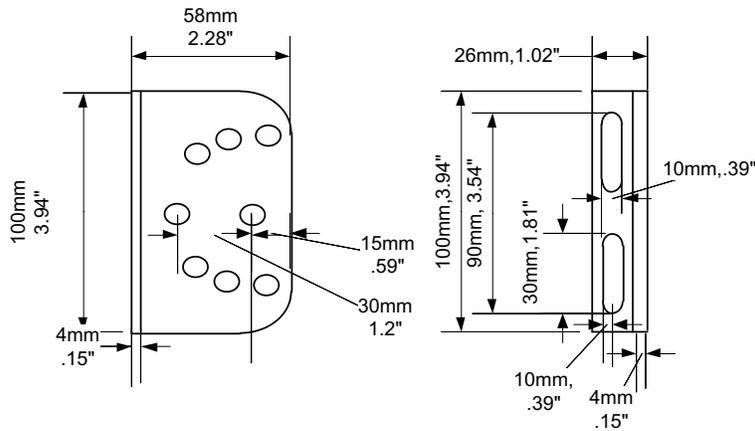
Actuator



Bar Mounting Bracket



"T" Mounting Bracket



Gatekeeper Ltd. Limited Warranty



Insufficient or fluctuating power may permanently damage the Gatekeeper YG or the battery. It may also affect the reliability of the Gatekeeper YG. Associated damage is not covered by the warranty.

Gatekeeper Ltd. warrants the YG-5602U/E Swinging Gate Opener to be free of defects in materials and workmanship for a period of one (1) year from the date of purchase subject to certain limitations.

This warranty shall not apply in the following circumstances:

- Misuse,
- Vandalism,
- Accident,
- Neglect,
- Unauthorized repair or modification,
- Acts of God (lightning, flood, insect damage etc.),
- Power surge,
- Corrosive environments,
- Incorrect installation or application,
- Damage to mechanism from incorrect gate, incorrect weight, lack of free motion, or installation on uneven ground, etc.

The warranty set forth here shall be entirely exclusive and no other warranty, either written or oral, is expressed or implied.

Gatekeeper Ltd specifically disclaims any and all implied warranties of merchantability or fitness for a particular purpose. It is the purchaser's sole and exclusive responsibility to determine whether or not the equipment will be suitable for a particular purpose.

Do not in any way modify the components of the automated system; otherwise, serious personal injury or property damage may occur. We do not accept responsibility for damage or injury resulting from the installation of this opener.

In no event shall Gatekeeper Ltd. be held liable for direct, indirect, incidental, special or consequential damages or loss of profits whether based on contract, tort, or any other legal theory during the course of the warranty or at any time thereafter.

The installer, purchaser, and/or end user do agree to assume all responsibility for all liability in use of this product, releasing Gatekeeper Ltd of all liability.

For service under this warranty, please contact your dealer. All parts, accessories, service and support for Gatekeeper products is supplied through our network of dealers. Dealer information can be obtained at www.gatekeeperltd.com/dealers

Gatekeeper Ltd.
P.O. Box 752
Lacey's Spring, AL 35754
info@gatekeeperltd.com

For updated versions of the manual see:
www.gatekeeperltd.com/YG5602UE_User_Manual.pdf

For Additional Remotes, Infrared Photo Cells, or parts please contact your dealer:
www.gatekeeperltd.com/dealers

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