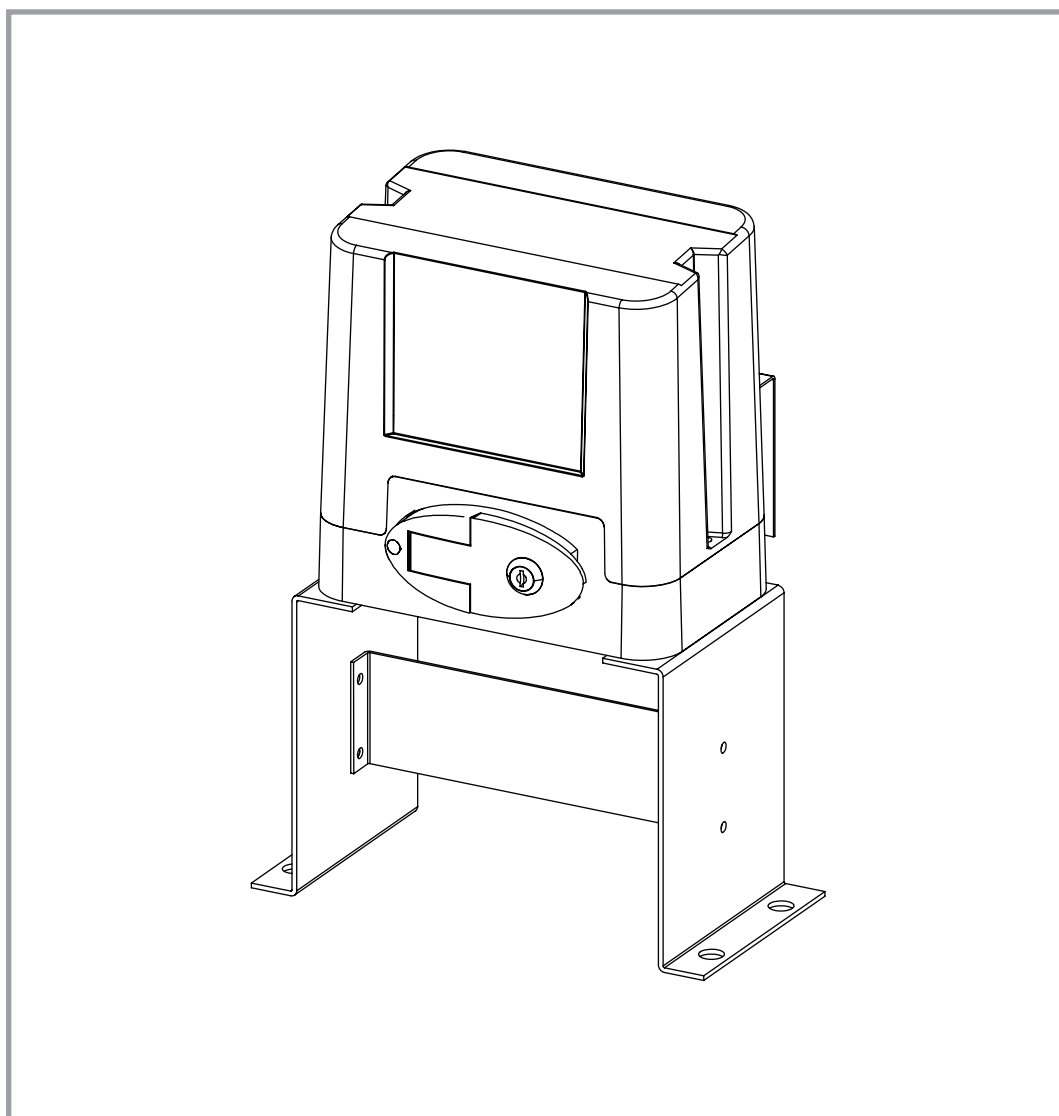




SLIDING GATE OPENER

USER MANUAL



Read Carefully Before Use
Keep for Future Reference

DISCLAIMER

Read this disclaimer completely and carefully before proceeding with the rest of the manual content.

1. **As-Is**

This CO-Z product is sold 'as is' and without any express or implied warranties, including but not limited to the implied warranties of merchantability and fitness for a particular purpose.

2. **Product Modifications**

Any modifications or alterations to CO-Z products void any warranties and may result in damage or injury. CO-Z shall not be liable for any damages resulting from such modifications or alterations.

3. **Compliance with Laws**

Customers shall be liable for ensuring that the use of CO-Z products complies with all applicable laws and regulations in their respective jurisdictions. CO-Z assumes no responsibility for any violations of laws or regulations resulting from the use of CO-Z products.

4. **Correct Use**

Always use CO-Z products only as directed in the accompanying manuals. Failure to follow instructions may result in injury or damage.

Always ensure the assembly, installation, operation, maintenance, or repair of CO-Z products is carried out by a competent person.

Always make maintenance regularly throughout CO-Z products' lifecycles; you have the liability to keep the products operating as intended.

Always wear appropriate protective gear.

5. **Third-Party Products**

CO-Z shall not be liable for any damages or losses resulting from the use of third-party products in conjunction with CO-Z products. Customers shall refer to the third-party's guidelines or/and warranties (if any) for any third-party products used.

6. **Limitation of Liability**

CO-Z shall not be liable for any direct, indirect, punitive, incidental, special, or consequential damages to property or life, whatsoever arising out of or connected with the use or misuse of CO-Z products. In no event shall CO-Z's liability exceed the value of the products sold.

This disclaimer states the entire obligation of CO-Z with respect to CO-Z products. If any part of this disclaimer is determined to be void, invalid, unenforceable, or illegal, including but not limited to the warranty disclaimers, liability disclaimers, and liability limitations set forth above, the invalid or unenforceable provision will be deemed superseded by a valid and enforceable provision that most closely matches the intent of the original provision and the remainder of the agreement shall remain in full force and effect.

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1 SAFETY

1.1 Symbol Guide

Get familiar with the connotations of these safety symbols before reading the next page. They comprise important precautions against personal injuries and property damages.



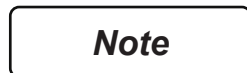
Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices.



Gives tips that help.

1.2 General Safety

- Read these instructions completely before installation and use.
- Provide them to any technician used to install, maintain, or repair this device and provide them with the device if it is ever given or sold to a third party.
- Install and use this gate opener only in accordance with these instructions and all applicable local and national laws and regulations. Adding instructional or warning signage may be necessary in your area.
- **DO NOT** install this device in any area prone to flooding or in locations exposed to flammable or explosive fumes.
- **ONLY** use well-connected and maintained ANSI #41 chains with this device. Never use this device for gates wider than 40 feet (12 m) and never allow the sprockets to carry the weight of the gate. Keep the chain correctly positioned so all weight is distributed to the gate's wheels during operation.
- Always aim to minimize public exposure to potential hazards such as pinch points. Failure to do so may result in serious property damage and severe personal injury.
- **NEVER** allow children to play on or around this device or its attached gate. Keep controls away from children and out of their reach at all times and warn them of the gate's danger.
- All provided components of this device are weatherproofed to withstand normal rain. Ensure adequate insulation and protection of all electrical connections and never direct pressurized water against any part of this device.
- Keep your gate well maintained and its track free of grime and debris. Periodically confirm that it runs smoothly under manual operation.
- **DO NOT** use if any component is missing, loose, worn, or damaged. Tighten, repair, or replace problematic parts before further use. Only replace components with identical parts and always fully replace damaged electrical cords.

1.3 Designated Use

- Only use the device for its intended purpose, opening and closing a single sliding gate for vehicular traffic.
- Install and use this gate opener only on firm, level ground. Install and use this device so that its motor and other hazardous components are not in public areas and are protected as much as possible from unauthorized access and use. There should be adequate clearance between your gate and any nearby structures to prevent any possibility of pinching or crushing hazards during use. If this is impossible, the area should be guarded as well as possible and warnings placed nearby.
- Pedestrians should be provided with a separate access point far enough away to ensure they never come into contact with the moving vehicular gate.
- **NEVER** pair a remote control for this device with any other control board. Never attempt to operate this device with two or more remotes or control devices at the same time.
- **ONLY** install fixed controls for the gate where they cannot be reached over, under, around, or through the gate. They should also be far enough away that operators cannot contact the moving gate during use.

1.4 Electrical Safety

- **ONLY** allow trained technicians to install and repair this device and its electrical connections.
- Disconnect all power from electronic components during installation and maintenance except as instructed for safely testing functionality.
- **ONLY** use conductors of sufficient gauge for the expected electrical load of this device.

The wiring should run from a GFCI outlet or a circuit breaker within sight of the gate. It is recommended this outlet or switch be located at least 5 feet (1.5 m) above the ground. The wiring connections should be able to withstand rain and other weather. It is recommended that the power cable run underground near the gate inside a PVC pipe.

1.5 Gate Requirements

The gate **MUST**:

- Not exceed 1400 lb. (600 kg)
- Measure within 20 ft. (6 m)
- Have a smooth track and safety catch rollers
- Have sturdy end catches and stops

For other requirements on the construction of vehicular gates, contact ASTM at 610-832-9585 or www.Astm.org.

1.6 Entrapment Countermeasures

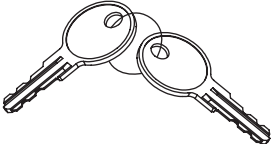
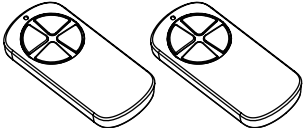
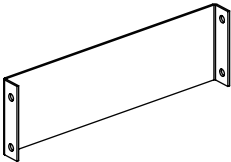
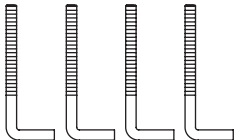
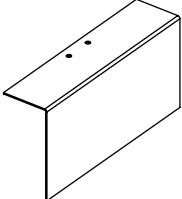
Entrapment Zone	Countermeasures
Between the gate ends and the post	<ul style="list-style-type: none"> • Keep body parts and pets clear of these parts when the gate is in motion. • Put up warning signs indicating the use of an automated gate.
Between the gate and wall	<ul style="list-style-type: none"> • Keep body parts and pets clear of these parts when the gate is in motion. • Put up warning signs indicating the use of an automated gate.
Between the track and roller	Keep body parts and pets clear of these parts when the gate is in motion.


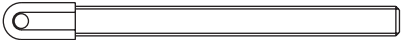

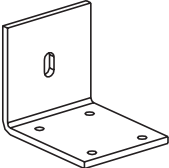
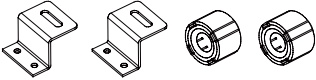
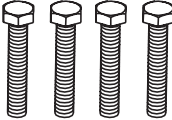
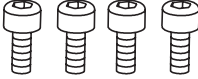

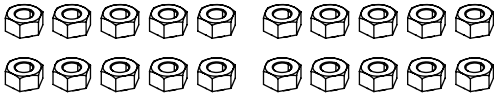
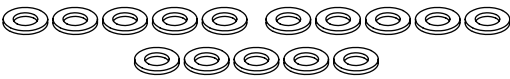
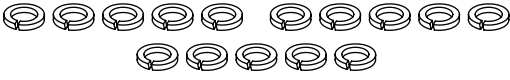
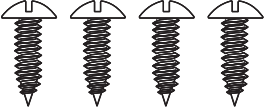
These are the possible entrapment or pinching zones. Use warning signs (not included) to warn users of the use of an automated gate and its dangers.



2 ABOUT THE PRODUCT

2.1 Package List

Item	Name	Quantity
	Main Body	1
	Manual Release Keys	2
	Remote Controls	2
	Horizontal Mounting Plate	1
	Vertical Mounting Plates	2
	M8 Foundation Bolts	4
	Sprocket Cover	1

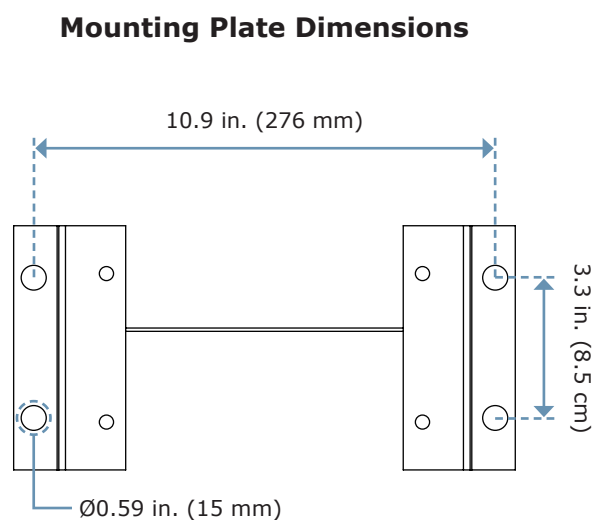
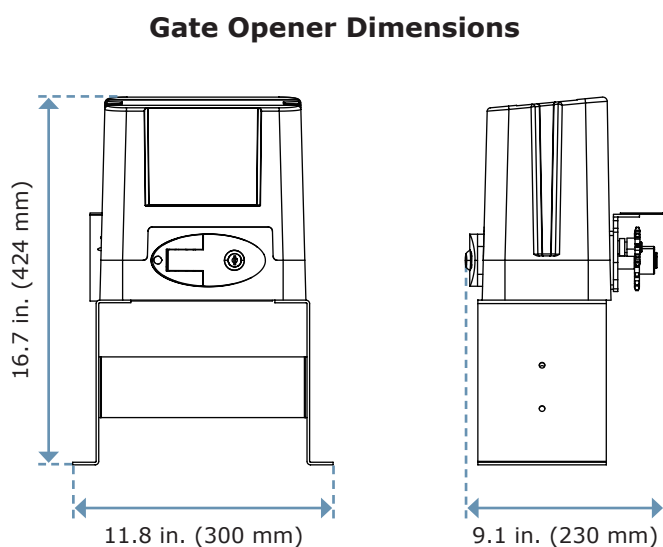
Item	Name	Quantity
	#41 Chains	2
	Tie Rods	2
	Square Bolts	4
	Tie Rod Brackets	2
	Magnets & Brackets	2 & 2
	M6×65 Bolts	4
	M8×70 Bolts	4
	M6×20 Bolts	4
	Mounting Flat Washers	4
	M8 Nuts	20
	M6 Nuts	16
	M8 Flat Washers	15
	M6 Flat Washers	17
	M8 Spring Washers	15
	M6 Spring Washers	17
	M4 Self-Tapping Screws	4

Note

Extra flat washers and spring washers are spare parts.

2.2 Specifications

Input Power	AC 110 V–120 V, 60 Hz	
Rated Power	0.37 hp	280 W
Torque	10.3 lb.ft	14 N·m
Duty Cycle	S2 15 min.	
Max. Gate Weight	1400 lb.	600 kg
Max. Gate Speed	42.5 fpm	13 m/min.
Max. Gate Length	40 ft.	12 m
Max. Noise	56 dB	
Min. Temperature	-4°F	-20°C
Max. Temperature	158°F	70°C
Weatherproofing	IP44	
Max. Remotes	40	
Remote Range	98.4 ft.	30 m
Remote Frequency	433.92 MHz	

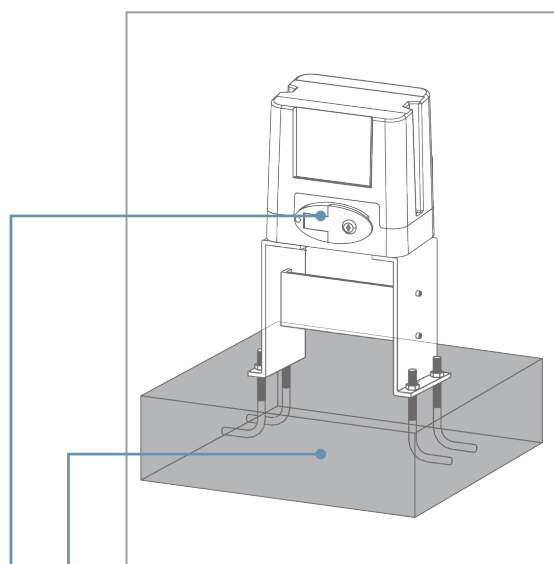


3 INSTALLATION

3.1 Typical Installation Overview

Refer to the diagrams below for the position of the main body relative to the gate and concrete stump.

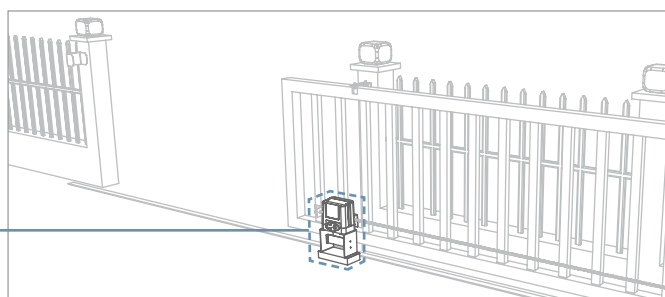
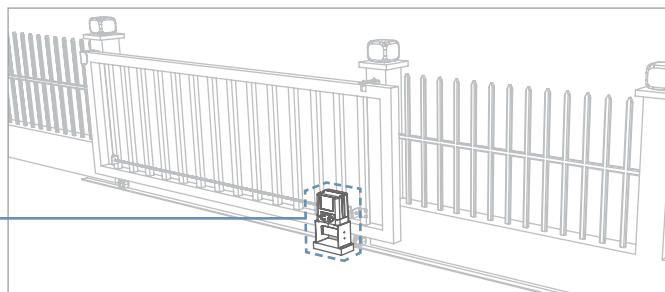
Note that the motor can be adjusted to accommodate for both installations. See **4 Initial Setup** to reverse the rotatory direction of the motor if it does not turn in the right direction.



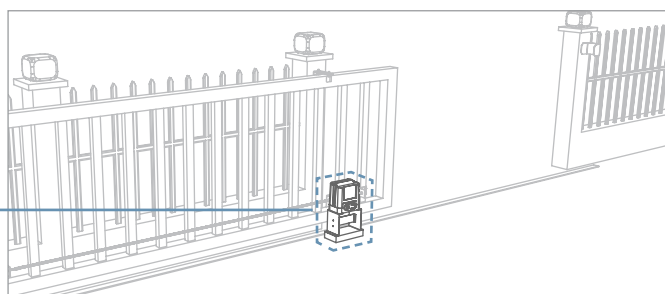
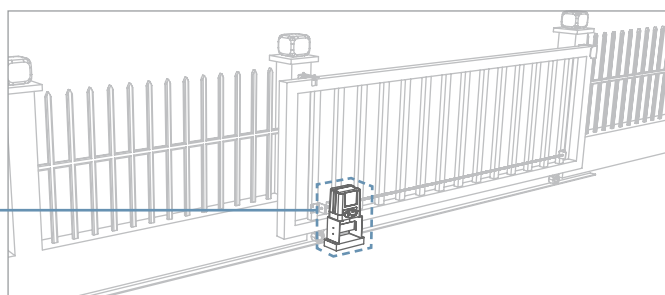
Concrete Stump

Main Body

Standard Right Side Installation



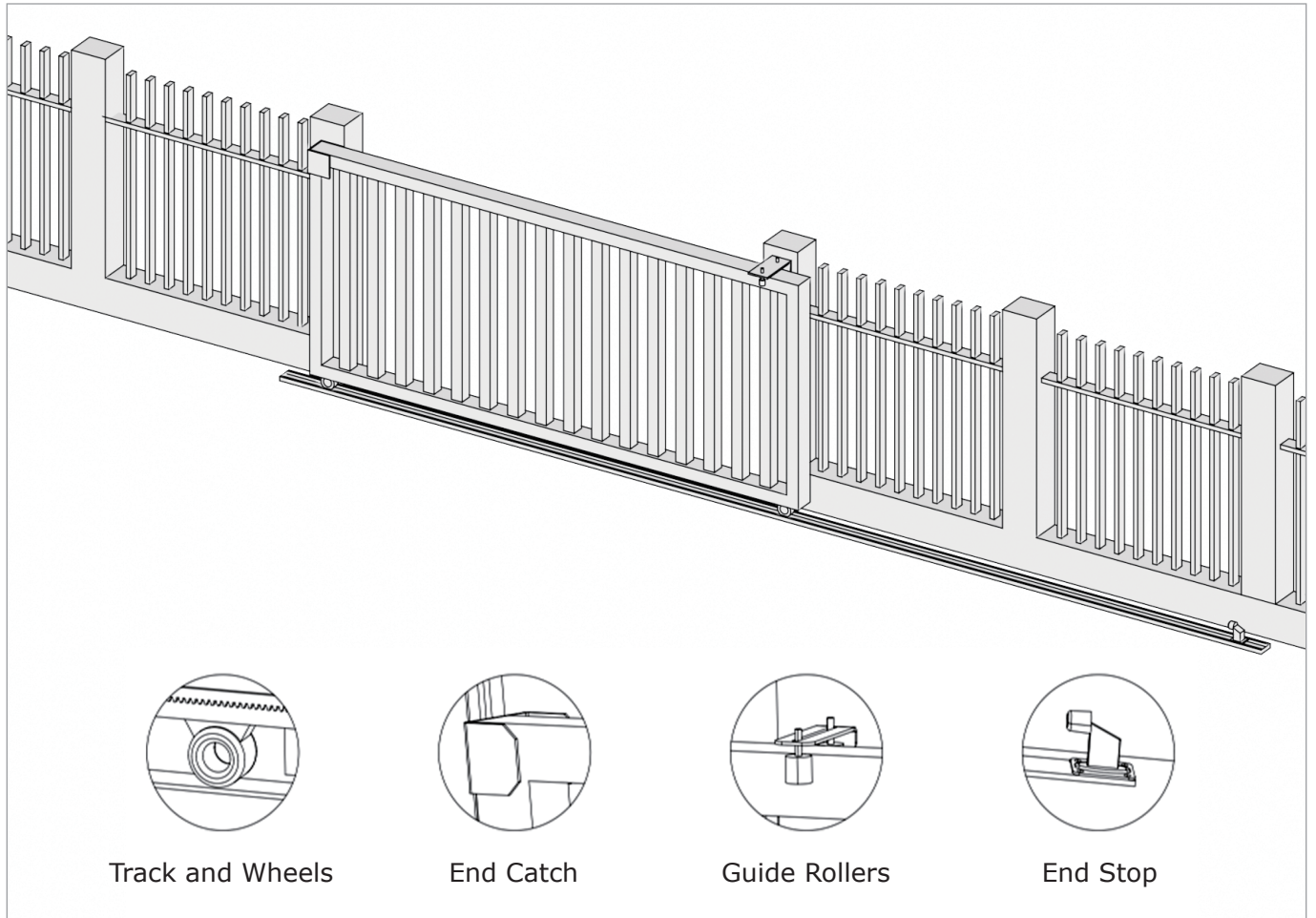
Optional Left Side Installation



3.2 Pre-Installation Check

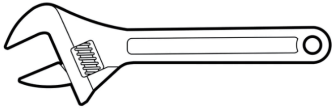
Check that:

- The gate weighs less than 1400 lb. (600 kg).
- The gate measures within 20 ft. (6 m).
- The gate has a smooth track and guide rollers.
- The gate has a sturdy end catch and end stop.
- The gate moves smoothly and horizontally along its entire range.
- The gate is free of any corrosion, dirt, or grime.



3.3 Base Assembly

Tools Needed but Not Included



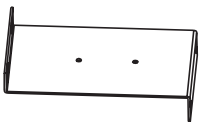
Adjustable Wrench × 1



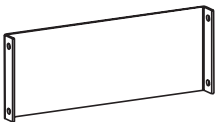
M6 Hex Key × 1

1. Go fetch the hardware and tools as shown in the tables above and right.
2. Brace the horizontal mounting plates using the two vertical mounting plates as shown.
3. Use 4 M6×20 bolts, 4 spring and flat washers, and 4 nuts to connect the plates so that both vertical plates face inwards on top and the large holes on the vertical plates face out.

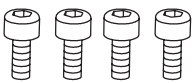
Base Hardware Needed



Vertical Plate × 2



Horizontal Plate × 1



M6×20 Hex Bolts × 4



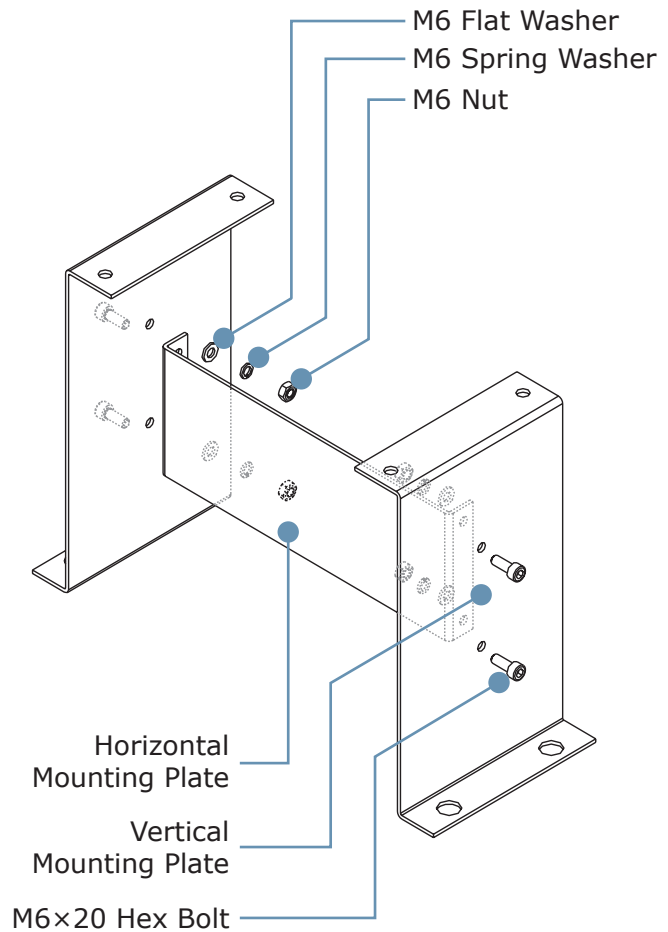
M6 Nuts × 4



M6 Flat Washers × 4



M6 Spring Washers × 4



3.4 Main Body Location

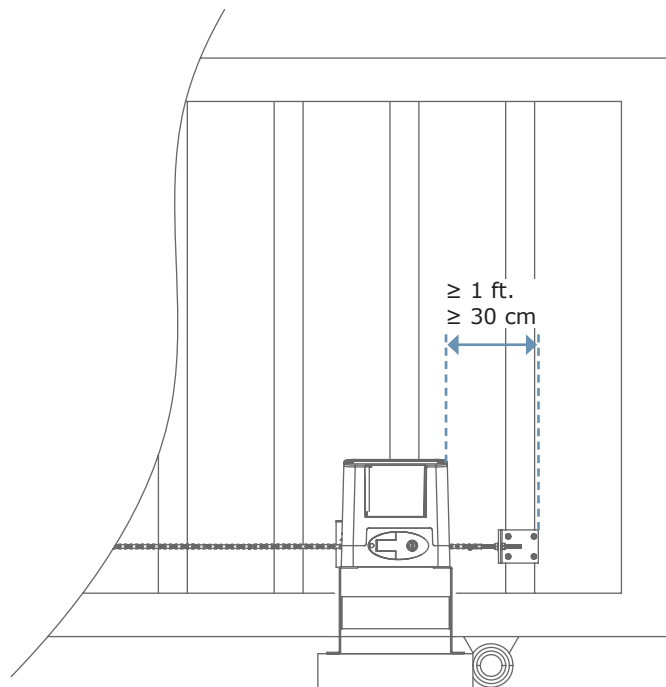
Warning

- **ONLY** use a level ground as the location for the main body. Installing on an even surface may cause the gate to fall over.
- Ensure that the gate opener will have a suitable location on firm level ground at least one foot (30 cm) inside the chain bracket on the nearest end of the gate.

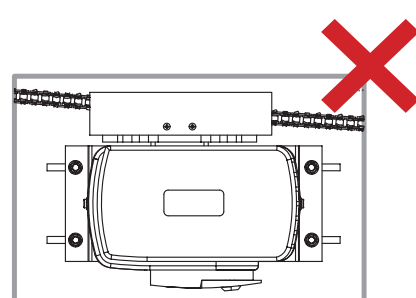
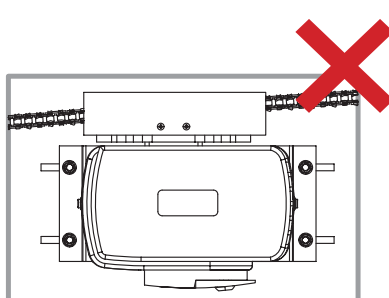
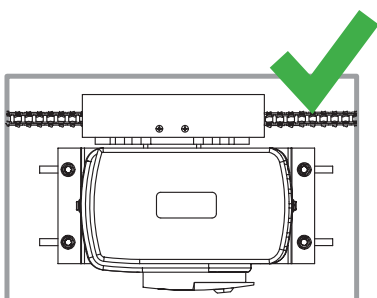
Warning

Using a motorized sprocket, the gate opener opens and closes the gate by pulling the chain attached to the gate columns as shown.

- If the main body is located too far away from the gate track, then it may cause gate derailment.
- Position the main body parallel to the gate track so that the chain will look as shown when installed.



1. Place the already assembled base near the gate track.
2. Mark the location of the main body using the diagrams below.



3.5 Concrete Stump

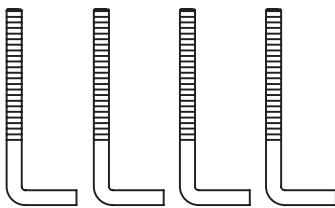
Warning

- To avoid damaging gas, power, or other underground utility lines, contact underground utility companies **BEFORE** digging.
- Use separate PVC conduits for the power and control wiring.

Caution

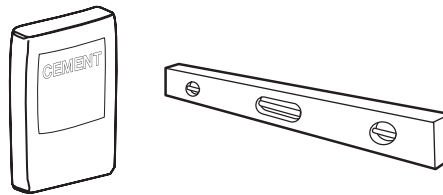
- Your motor **MUST** be firmly secured for safe use. Do not attempt to use it loose or only secured to thin pavement.
- If you ever subsequently notice the gate opener rocking with the concrete during use, add additional concrete or further secure the base as needed.
- If the area beside your gate already has concrete 10 inches (25 cm) or deeper, you can attempt to secure this base into it with your drill and suitable fasteners

Hardware Needed



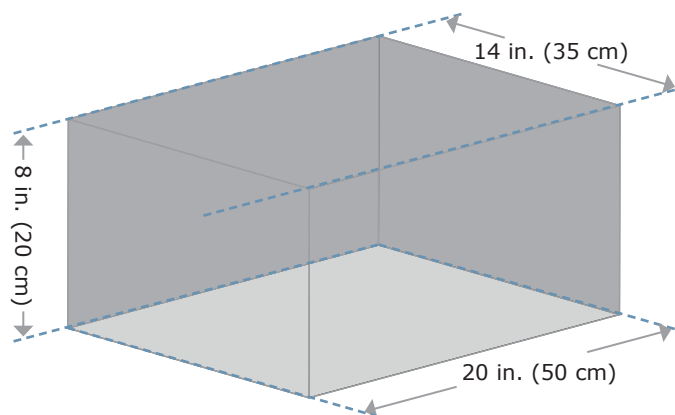
M8 Foundation Bolts × 4

Tools Needed but Not Included



- Spirit Level
- Cement
- Shovel (Not shown)
- Gravel / Sand (Not shown)
- PVC Conduit
- Form Box (20×14×8 in.)
- Wood Shim

1. Go fetch the and tools as shown right and above.
2. Dig a hole about 20 inches across, 14 inches wide, and 8 in. deep (50×35×20 cm) in the location you have selected for your gate opener.



3. Cut out a base plate using your wood shim against the diagram on the right.
4. Fit the form box of the same dimensions into the hole.
5. Arrange your PVC conduit the way shown in the form box, ensuring they stick out of the box and will not be filled up with concrete while you are molding the stump.

Note

The exact length of the PVC conduits depends on how protected you want the wiring to be. For maximum safety, it is recommended that you cover the full length of your wirings with the conduits.

6. Fill the form box with a concrete mixture.

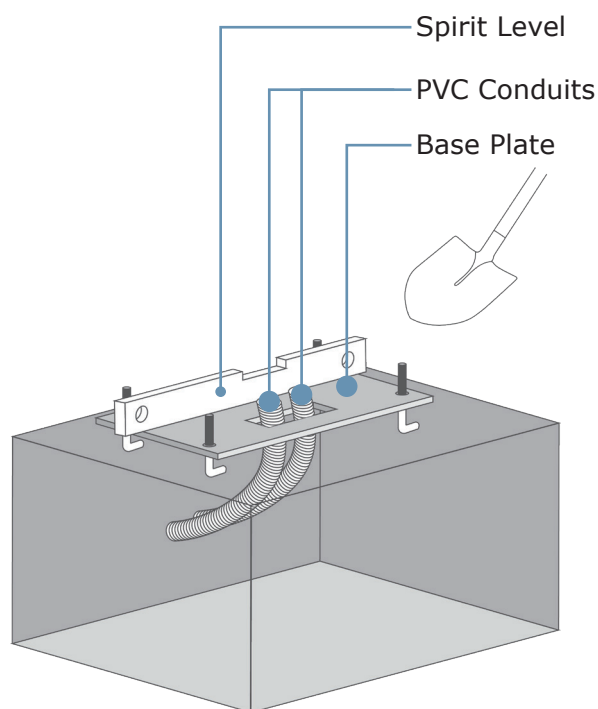
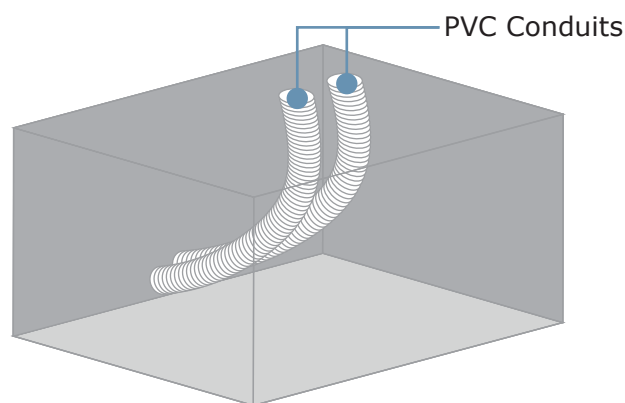
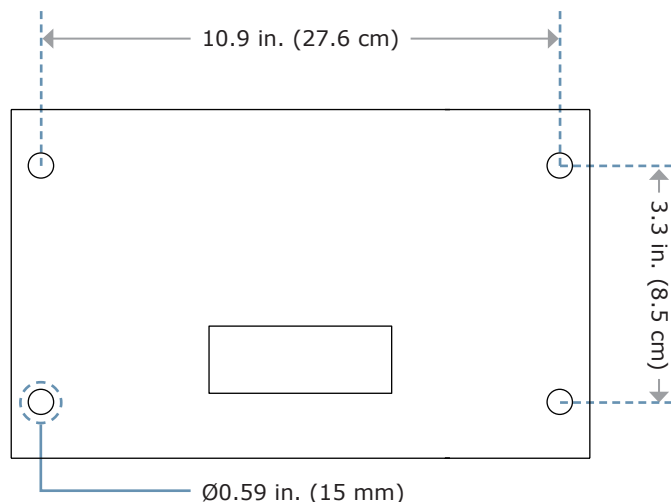
Note

- A metal wire or cage frame can be added near the sides to further reinforce your concrete foundation.
- You will need a minimum of 1.25 cubic feet (35 L) of cement, equivalent to about three standard 60 lb. bags or a little more than two standard 80 lb. bags.

7. While the concrete is still wet,
 - a. Adjust the PVC conduits as needed.
 - b. Insert the four M8 foundation bolts as shown.
 - c. Fit the base plate you've cut out onto the bolts
 - d. Adjust the concrete using your spirit level (not provided).

Note

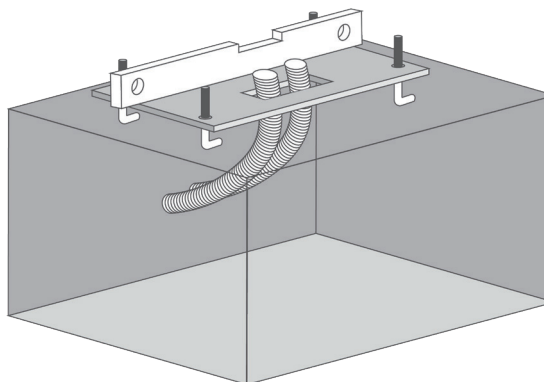
Remember to allow for the additional 2 inches (5 cm) or so, which the chain gears will need between the nearest foundation bolts and the gate.



8. Wait for 24 hours for the concrete to settle.
9. Remove the form box from around the concrete and pack the soil tightly back into place.

Note

It is recommended to coat the bolts with a protective solution to minimize corrosion during their time in the wet concrete and afterward.

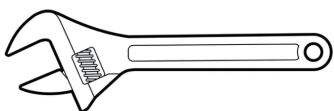


3.6 Mounting the Main Body

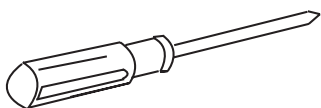
Warning

- **NEVER** connect the main body to power unless it is instructed to do so.
- Your motor **MUST** be firmly secured for safe use. Do not attempt to use it loose or only secured to thin pavement.
- If you ever subsequently notice the gate opener rocking with the concrete during use, add additional concrete or further secure the base as needed.

Tools Needed but Not Included



Adjustable Wrench × 1



Phillips Screwdriver × 1

Base Hardware Needed



M8×70 Bolts × 4



M8 Nuts × 8



M8 Spring Washers × 8



Mounting Flat Washers × 4



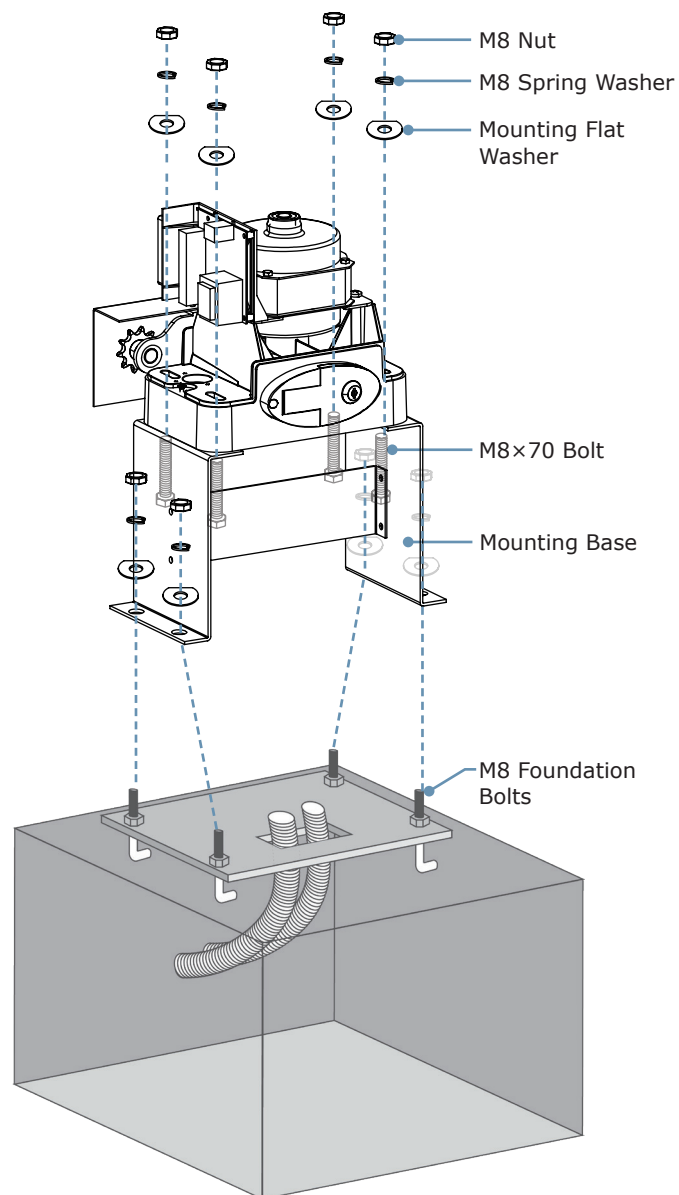
M8 Flat Washers × 4



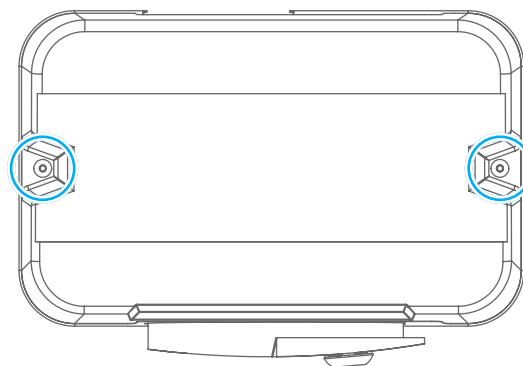
M4 Self-Tapping Screws × 2

1. Fetch the main body, base hardware, assembled base, and the tools shown above.

2. Safely secure the base to the M8 foundation bolts as shown.
3. Attach the main body to the base, ensuring the side with the sprockets faces the gate.



4. Install the cover to the main body using 2 M4 self-tapping screws.

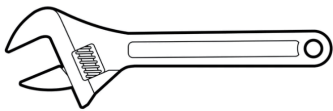


3.7 Chain Installation

Warning

- **ONLY** locate the tie rod brackets at the same height as the two smaller sprockets on the motor.
- **ONLY** use ANSI #41 chain with this device and do not use any chain longer than 40 feet (12 m).
- **ONLY** use the correct gate post bracket. Use the square ones for square posts and round for round posts.

Tools Needed but Not Included

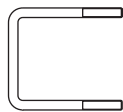


Adjustable Wrench × 1

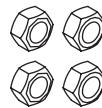


M6 Hex Key × 1

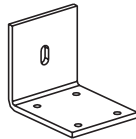
Hardware Needed



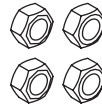
Square Bolts × 2



M6 Nuts × 4



Tie Rod Brackets × 2



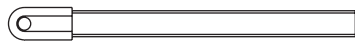
M8 Nuts × 4



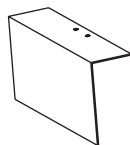
M6&M8 Flat Washers × 4



M6&M8 Spring Washers × 4



Tie Rods & Chain Links × 2



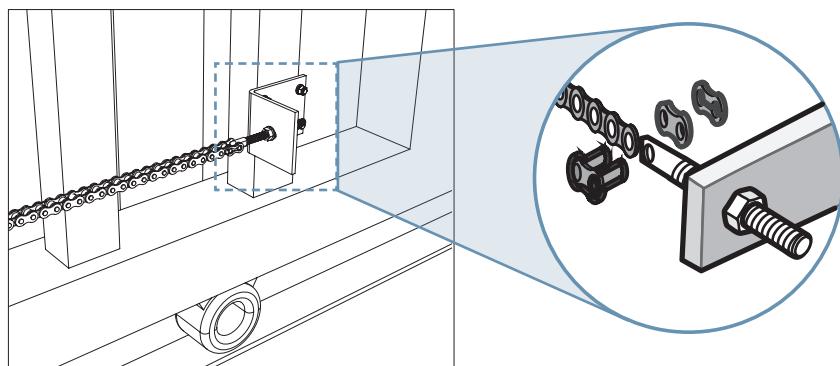
Sprocket Covers × 4

1. Close the gate by hand.

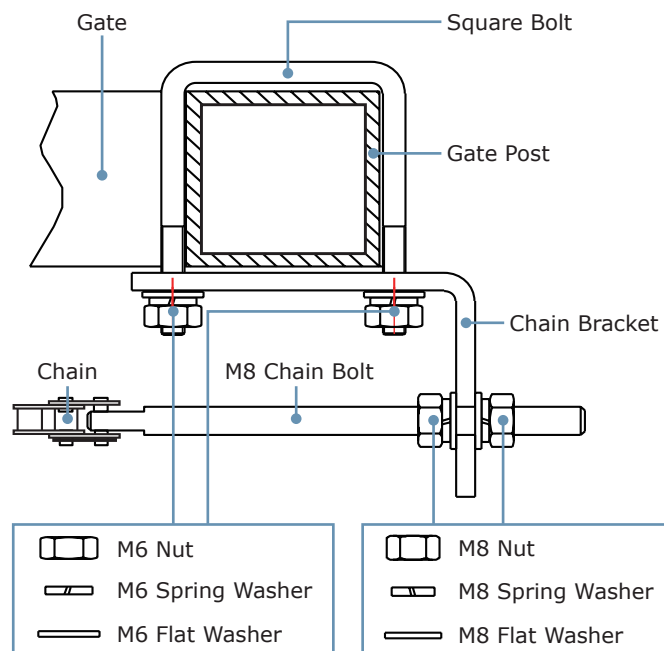
Note

The nearest bracket to the main body should be at least one foot (30 cm) away from the motor.

2. Refer to the figure below for where the tie rod brackets should be.



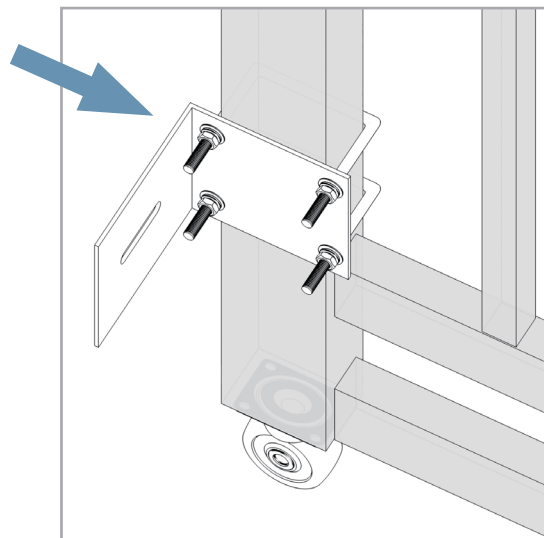
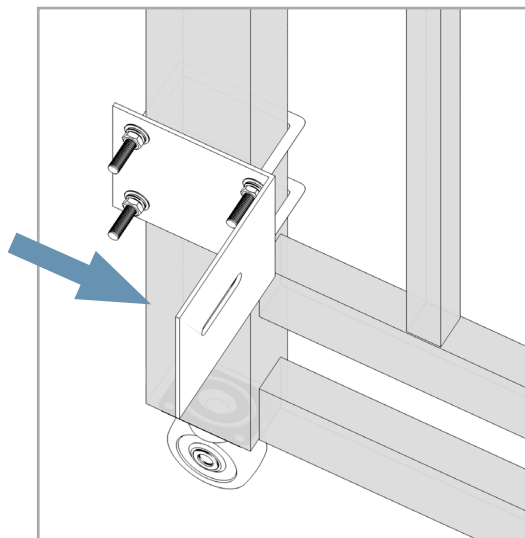
3. If your gate has square columns,
 - a. Attach the tie rod bracket the way shown.
 - b. Fix the tie rod to the bracket using 2 M8 bolts, 2 flat washers, and 2 spring washers, being sure the tie rod points to the main body.



4. Repeat for the other tie rod bracket.

Note

The brackets can be installed either way, but we recommend the first one.

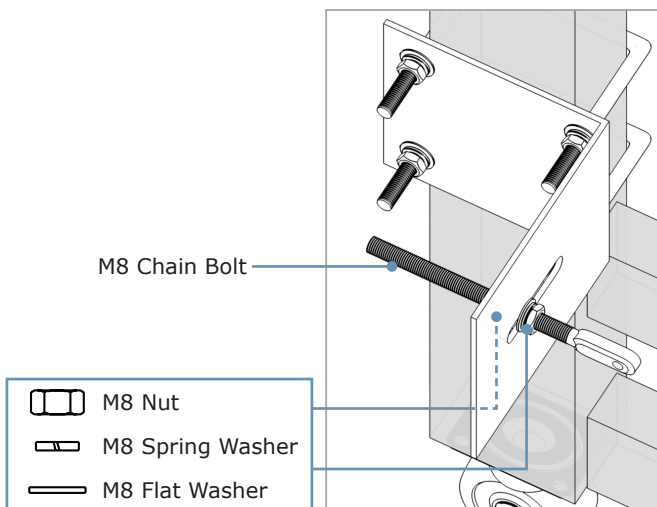


5. Attach the tie rods to the installed tie rod bracket as shown.

Note

Do not fully tighten the M8 nuts for now.

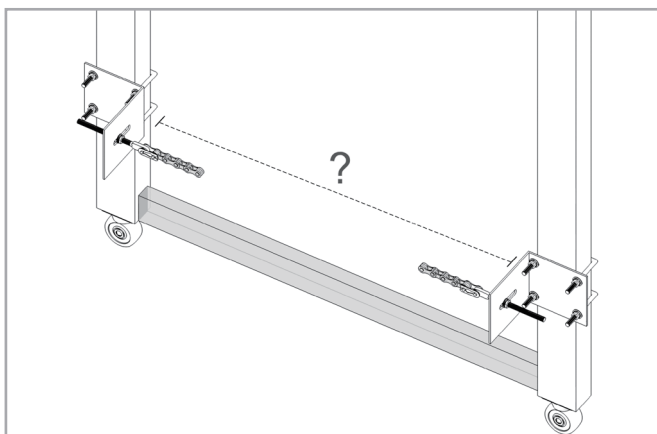
6. Repeat for the other tie rod bracket.



7. Measure the distance between the two chain brackets as shown to see the necessary length of the chain's extension.

Note

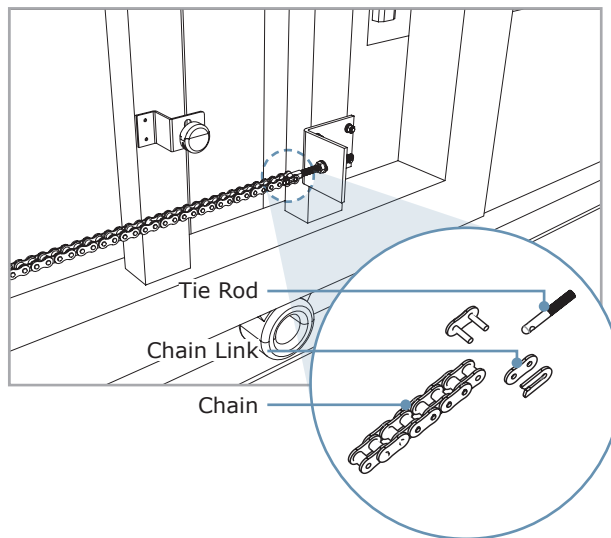
- If the distance is within the length of the provided chain, cut off the excess chain section while leaving a certain amount as needed.
- If the distance is longer than the provided chain, use a longer #41 galvanized chain (not included).



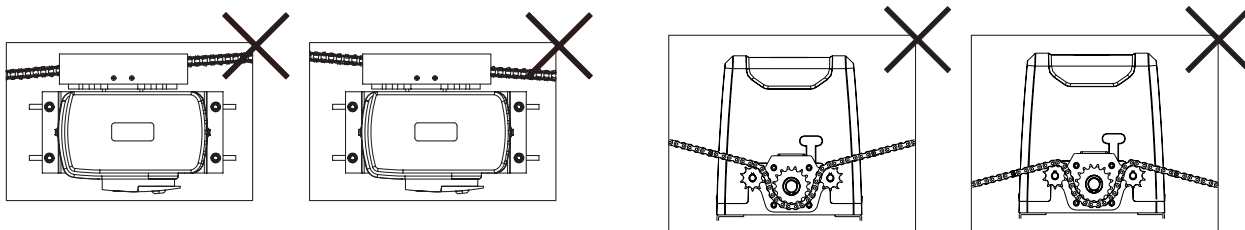
8. Fasten one end of the chains to the tie rod of the bracket farther from the motor by opening, positioning, and resealing its final chain link.
9. Repeat for the other end of the chain.
10. Wind the chain around the one of the idle sprockets, the main sprocket, and the other idle sprocket.

Note

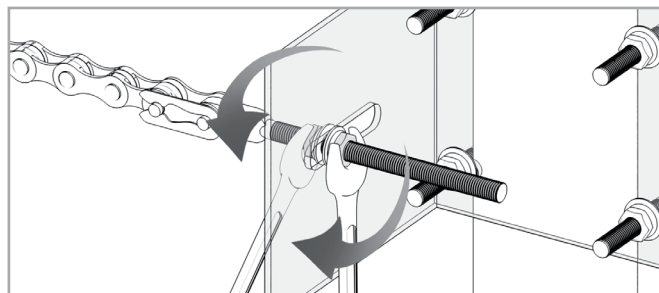
Make sure the chain looks as shown right instead of the **WRONG** installation as below.



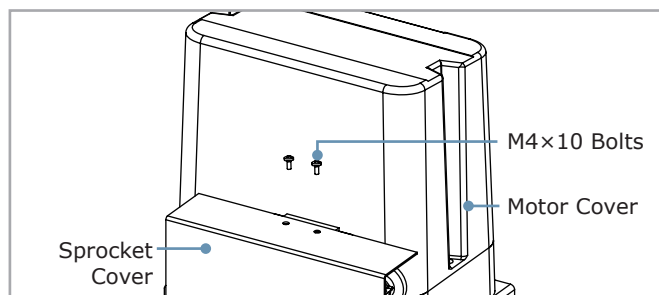
Wrong Chain Installation



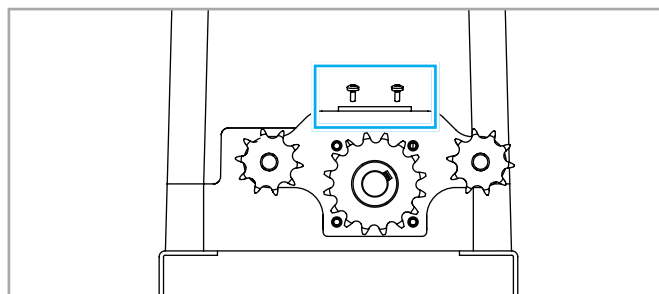
11. Adjust the M8 nuts on each tie rod until your preferred tension is reached.



12. Remove the 2 M4 bolts from the plate on top of the gear.



13. Secure the sprocket cover to the motor using the 2 M4 bolts removed earlier and your hex wrench.

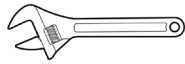


3.8 Magnetic Limits Installation

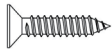
Warning

- Using this gate opener without its magnets in the correct position risks damage to the motor and to the gate, including possible derailment.
- The magnets and brackets are interchangeable but the functions of their positions are not.

Tools Needed but Not Included



Adjustable Wrench × 1

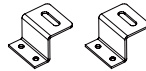


Self-tapping Screws × 2

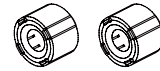


Power Screwdriver/Drill × 1

Hardware Needed



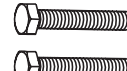
Magnet Brackets × 2



Magnets × 2



M6 Nuts × 4



M6×65 Bolts × 2



M6 Flat Washers × 4



M6 Spring Washers × 4



Manual Release Keys

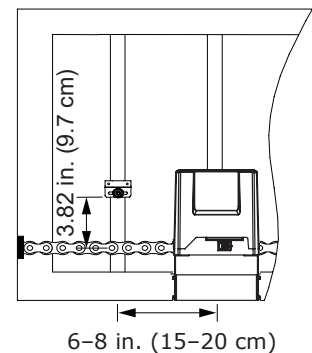
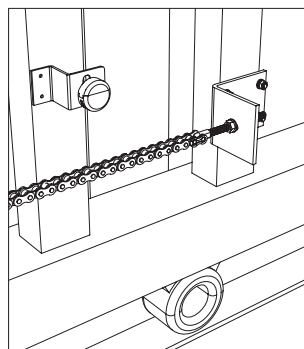
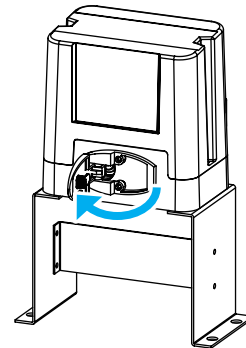
1. Insert either manual release key and open the release bar 90° to put the motor into manual mode.
2. Pull the gate to the position you want it to go to when fully open.
3. From the driveway side, locate the post on the open gate that is 6–8 inches (15–20 cm) away from the middle of the main body and 3.82 inches (9.7 cm) above the middle of the taut chain.

Refer to the diagram for where the magnetic limit switches should be.

4. Attach the magnet bracket to the chosen post using 2 M6×65 bolts if the post is wooden or similarly drillable material.

Note

For a metallic post, use fasteners of enough strength to secure the brackets in place.

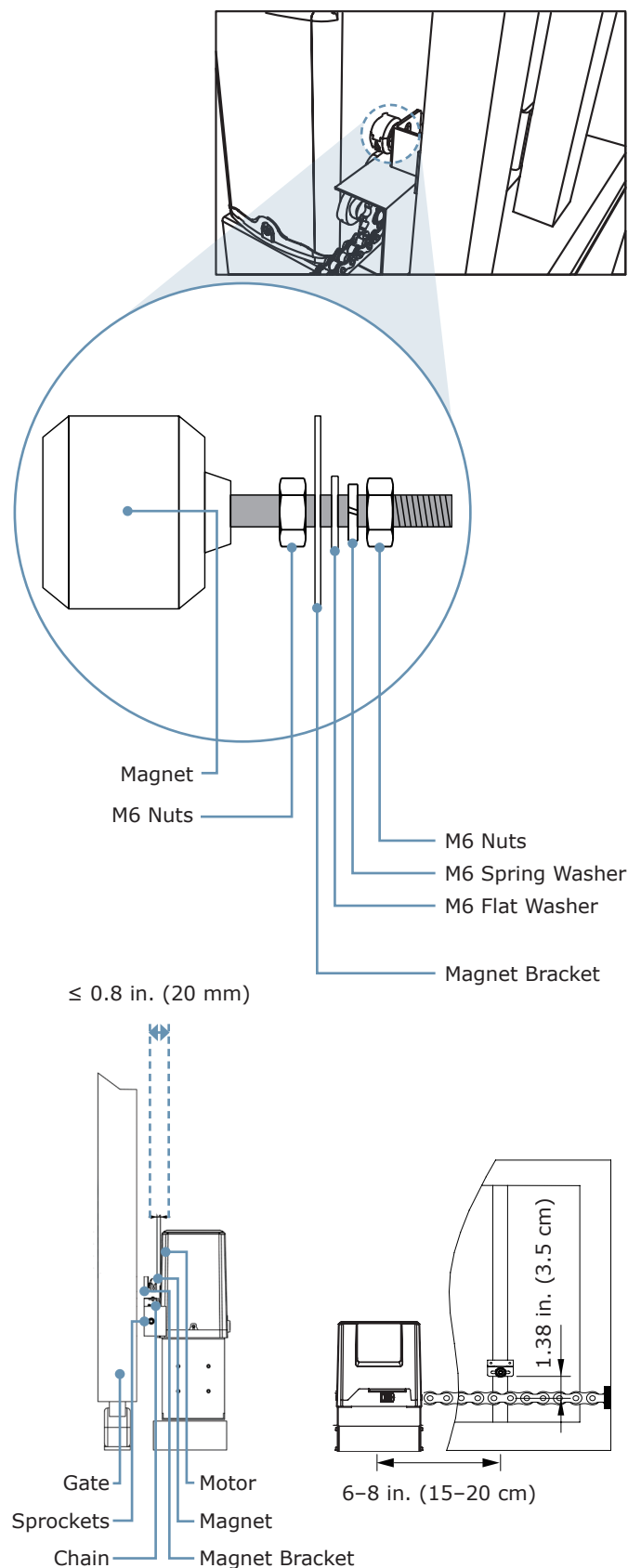


5. Attach the magnet to the installed bracket using the washer and nut combination as shown.

Note

Leave 0.8 in. (20 mm) of clearance between the vertical planes of the chain and the magnet.

6. Push the gate to its fully closed position.
7. From the side of the main body, locate the post that is 6–8 inches (15–20 cm) from the main body.
8. Locate the position of the other bracket on the post, exactly 1.38 inches from the taut chain.
9. Attach the magnet bracket and then the magnet the same way as in steps 4–5.
10. Deactivate the motor manual mode by reversing step 1.

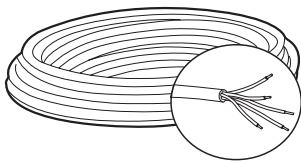


3.9 Wiring

⚠ Warning

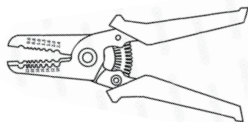
- **NEVER** make electrical connections while the motor’s power supply is active. Disconnect the GFCI or circuit breaker before any wiring adjustment.
- Use separate PVC conduits for the control and power wiring.
- **ONLY** wire as instructed in the wiring diagram.
- **ONLY** allow the field wiring to be done by a certified electrician.
- **ONLY** use 3-core cables of sufficient gauge.

Hardware Needed but Not Included

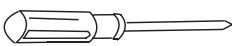


3-Core cable

Tools Needed but Not Included



Wire Stripper × 1

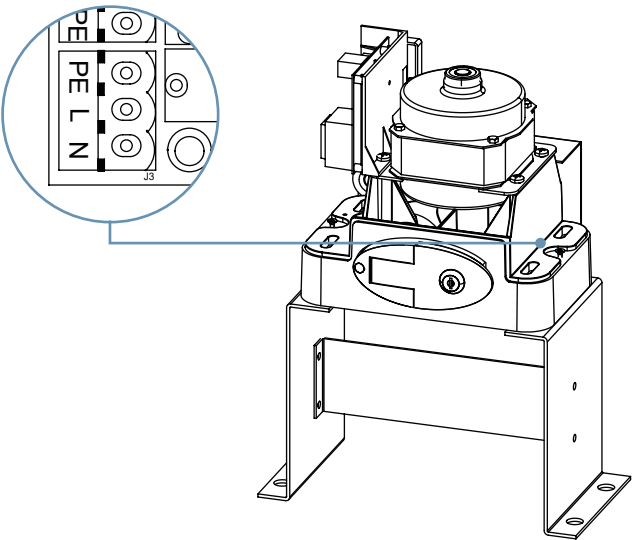


Phillips Screwdriver × 1

1. Remove the cover of the main body, and place the screws nearby.
2. Remove the cover of the control board, and place the screws nearby.
3. Refer to the table right for the correct length for each wire gauge.

American Wire Gauge (AWG)	Max. Wire Length (120 VAC)
14	130 ft.
12	205 ft.
10	325 ft.
8	520 ft.
6	825 ft.
4	1312 ft.

4. Connect the return or neutral line to the **N** pin, the live line to the **L** pin, and the ground line to the **PE** pin.



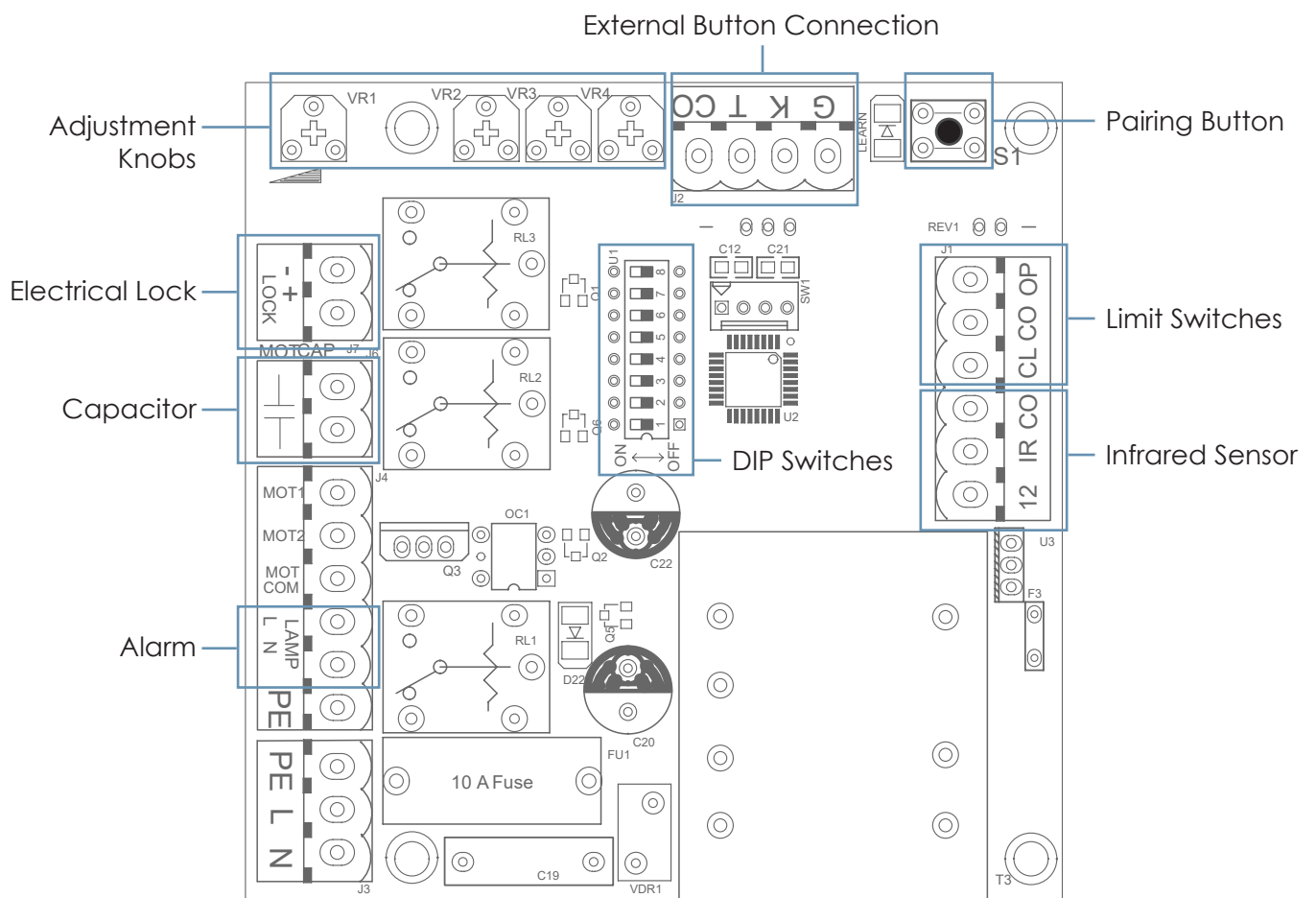
5. Connect the 3 wires on the other end of the cable to a three-prong plug/circuit breaker.

4 INITIAL SETUP

Warning

- Clear the gate's path of any obstruction before testing.
- Stay out of the path of the gate at its front and rear.
- Restrict access to the gate before testing.
- **DO** run this test before use. An untested gate opener may cause the gate to derail or damage your gate posts.

4.1 Circuit Board



Adjustment	VR1	Motor Running Time
	VR2	Braking Force
	VR3	Slow Stop Distance
	VR4	Starting Force
DIP Switches	1	Deactivate Slow Start
	2	Limit Mode Switch*
	3	Auto Close Time
	4	
	5	Reverse Direction
	6	External Button Switch
	7	Remote Control Mode Switch
	8	Electrical Lock

*The default setting is **OFF**. It is related to the motor limit status. It is not recommended for users to change.

4.2 Remote Controls

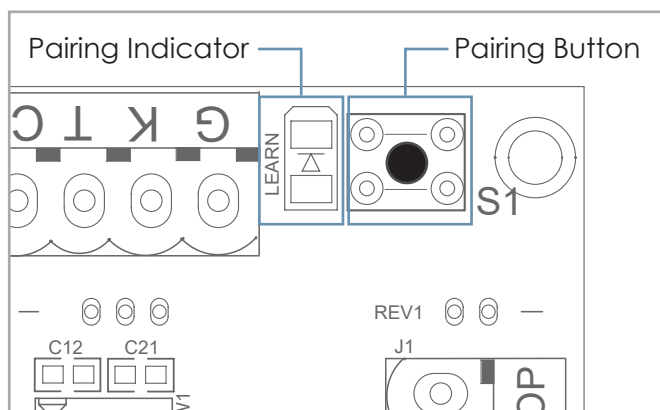
4.2.1 Pairing

⚠ Warning

- **NEVER** pair the same button to 2 different gates or devices at the same time.
- Be careful and only touch the pairing button while the circuit is live.
- Disconnect the motor's power while its casing is being removed and replaced or making any other adjustment besides remote pairing.

The top left and bottom right buttons of both included remotes should come already paired with your gate opener. Up to 38 additional remotes or wireless control buttons can be paired to the gate's circuit board. Be sure that they use the 433.92 MHz (LPD433 Channel 35) radio band or can be configured to do so.

1. Remote pairing must be done with the circuit board exposed and connected to power.
2. Press the remote pairing button long enough for the nearby indicator light to come on.



3. Press any button on the remote control two times and the pairing indicator should flash and go out.
The button of the remote is now paired and can be used to open or close the gate.
This pairing should remain stored in memory even when power to the gate opener is cut accidentally or at its circuit breaker.

4.2.2 Unpairing

This board cannot unpair an individual remote. If you need to remove lost remotes from the system's memory, you will need to delete **ALL** stored remotes at once.

1. Open the motor and circuit board casing as before.
2. Press and **HOLD** the pairing button, wait for the indicator light to come on, and then off.
3. Use any remote to test that all stored remotes have been cleared.
4. Once this process is successful, pair the remotes that you want to continue using in the same way as before.

4.2.3 Testing the Remote Controls

1. Press the top left button on either remote.

Note

The top left and bottom right buttons on the provided remote controls were pre-paired to the control board at the factory.

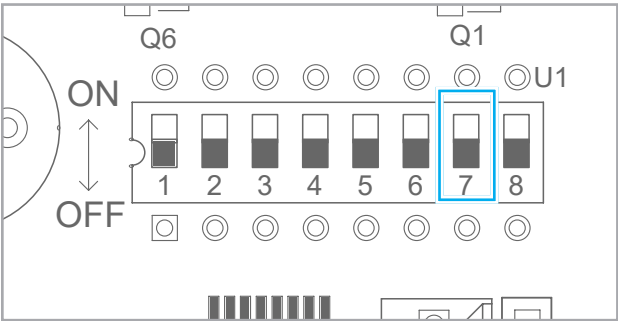
2. Pressing the top left button should cycle through the commands **OPEN→STOP→CLOSE→STOP**.
3. Test both remotes through the full cycle of commands.
4. When finished with testing the buttons, deactivate the power to your motor using its circuit breaker.

4.2.4 Changing Command Modes

Note

The default command mode for this gate opener is a single-button operation.

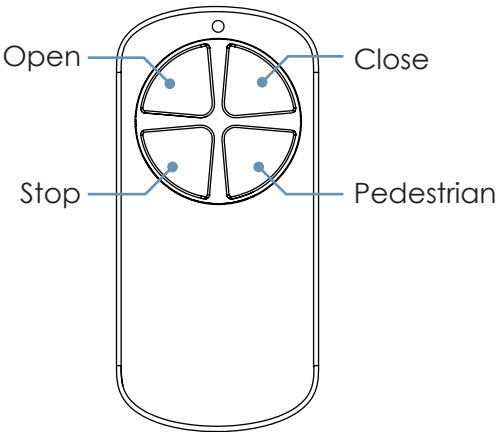
- 1. Connect to the main power.
- 2. For single-button mode, toggle the DIP Switch 7 on its circuit board to **ON**.
For three-button mode, toggle the DIP Switch 7 on its circuit board to **OFF**.



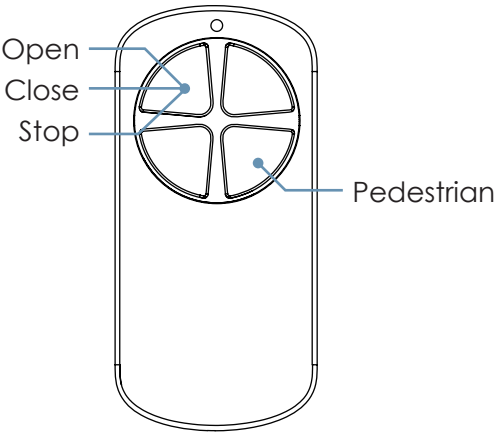
DIP7	Effect
ON	Single-Button Mode
OFF	Three-Button Mode

Warning

Be aware that this setting increases the risk of accidents and excessive wear from contradictory commands and is not recommended.



Three-Button Mode



Single-Button Mode

4.3 Reversing Direction

Warning

- **ONLY** locate the tie rod brackets at the same height as the two smaller sprockets on the motor.
- **ONLY** use ANSI #41 chain with this device and do not use any chain longer than 40 feet (12 m).
- **ONLY** use the correct gate post bracket. Use the square ones for square posts and round for round posts.

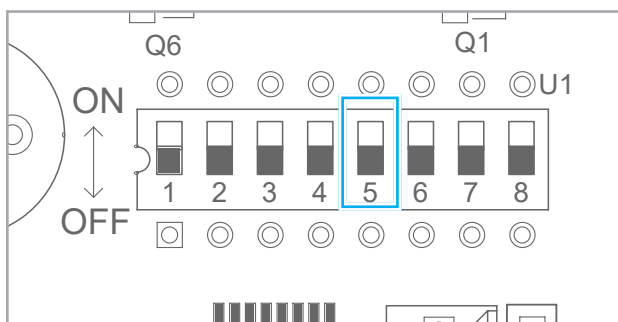
The default placement for this system is on the right side of the sliding gates when looking out from the property.

1. Connect to the main power.
2. Press any button on either remote control.

Note

The provided remote control was pre-paired to the control board at the factory.

3. If the sprocket is spinning in the wrong direction for their location,
For right-mounted main body, toggle the DIP Switch 5 on its circuit board to **ON**.
For left-mounted main body, toggle the DIP Switch 5 on its circuit board to **OFF**.



DIP5	Effect
ON	Right open direction
OFF	Left open direction

4. When finished with adjusting the motor direction, press any button on either remote control to stop the sprockets.

Note

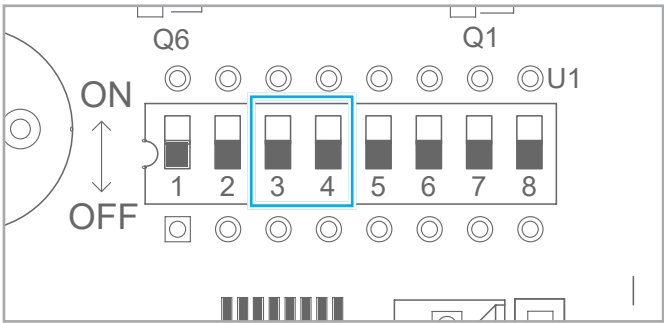
The default command mode for this system is a single-button operation. Pressing a single button on the remote will cycle through the commands **OPEN** → **STOP** → **CLOSE** → **STOP**.

4.4 Automatic Closing

Caution

- For the safe use of this function, it is strongly recommended that the infrared (IR) sensor be installed. With it, the gate stops immediately when an obstruction is detected during the closing. See **ACCESSORIES** for setting up the IR sensor.
- By default, the gate remains open indefinitely until it receives a command to close.

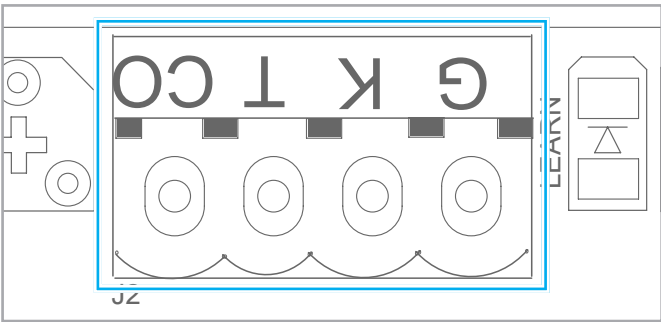
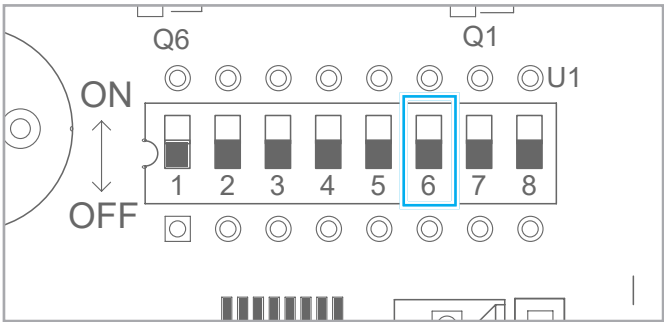
To set the gate to automatically close after a preset length of time, toggle **DIP Switches 3&4**. See the table below for details.



DIP3	DIP4	Effect
ON	ON	35 Second Delay
ON	OFF	2 Second Delay
OFF	ON	10 Second Delay
OFF	OFF	Manual Closure

4.5 External Button

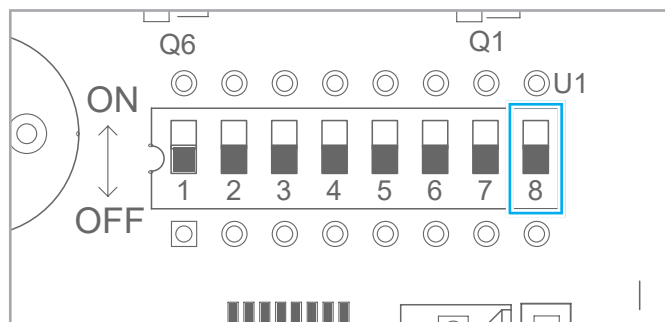
This function is **ONLY** effective when an external button is connected.



DIP6	Pin	Effect
ON	G	Close
	K	Open
	T	Stop
	CO	Public
OFF	G	Pedestrian
	K	Single Cycle
	T	Stop
	CO	Public

4.6 Electrical Lock

This function is **ONLY** effective when the opener works with an electrical lock.



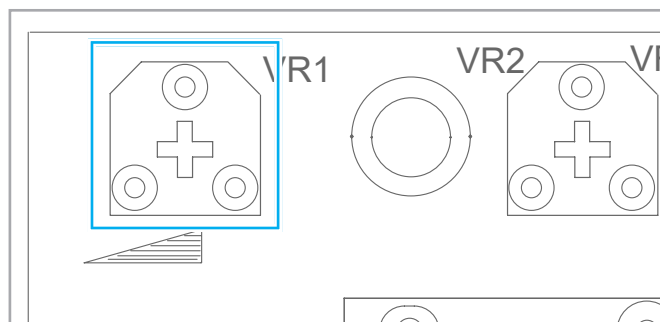
DIP8	Effect
ON	Disables the electrical lock function.
OFF	Enables the electrical lock function. *

*When the electrical lock function is enabled, the lock needs 0.5 s to power on before each gate opening. The gate then unlocks and starts to move. After 2 seconds, the electrical lock automatically powers off, allowing the gate to continue on its original movement path.

4.7 Adjusting the Motor Running Time

This knob is used to adjust the total motor running time, with a minimum setting of 10 seconds and a maximum setting of 90 seconds.

Turn clockwise to increase, and counterclockwise to decrease.

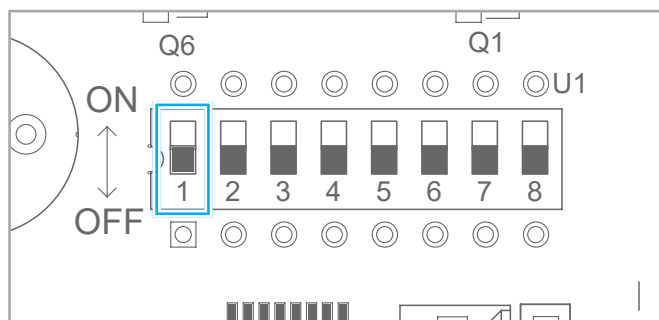


4.8 Adjusting the Gate's Forcefulness

Various settings control the forcefulness of the gate. The gate normally minimizes wear by speeding up gradually as it begins moving.

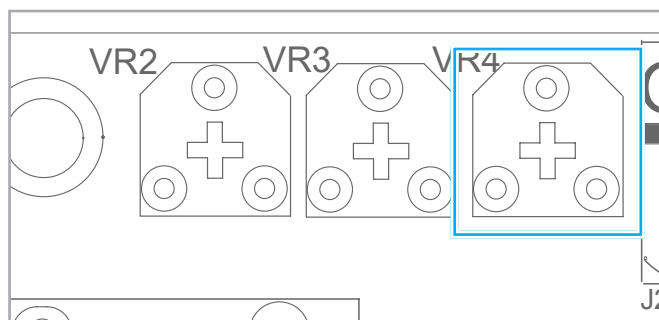
Caution

DIP Switch 1 can be flipped up to deactivate this soft start. (This can damage the system and is not usually recommended.)



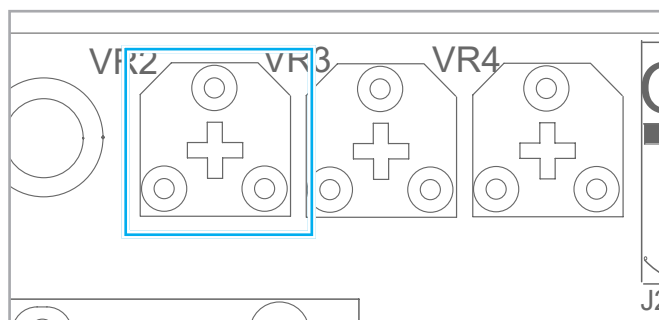
1. Turn the rightmost adjustment knob VR4 to control the gate's initial force.

The far-left position minimizes wear on the motor and gate but may cause it to react too sluggishly.



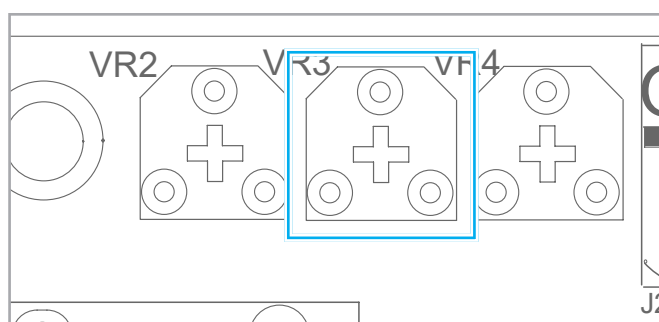
2. Turn the 2nd knob VR2 to control the braking force of the motor.

The far-left position minimizes wear on the motor and gate but may react too slowly to obstructions and limit switches, causing a forceful collision with the end stops and brackets.



3. Turn the 3rd knob VR3 to control the sensitivity of the limit switches.

The far-left position responds immediately and disables any soft stop, but this can cause unnecessary wear and even cause your gate to stop before reaching its end bracket.



5 ACCESSORIES

Warning

- **NEVER** pair the same keypad or remote to 2 different openers at the same time.
- Stay out of the path of the gate at its front and rear.
- Restrict access to the gate before testing.

5.1 IR Sensor

5.1.1 Mounting

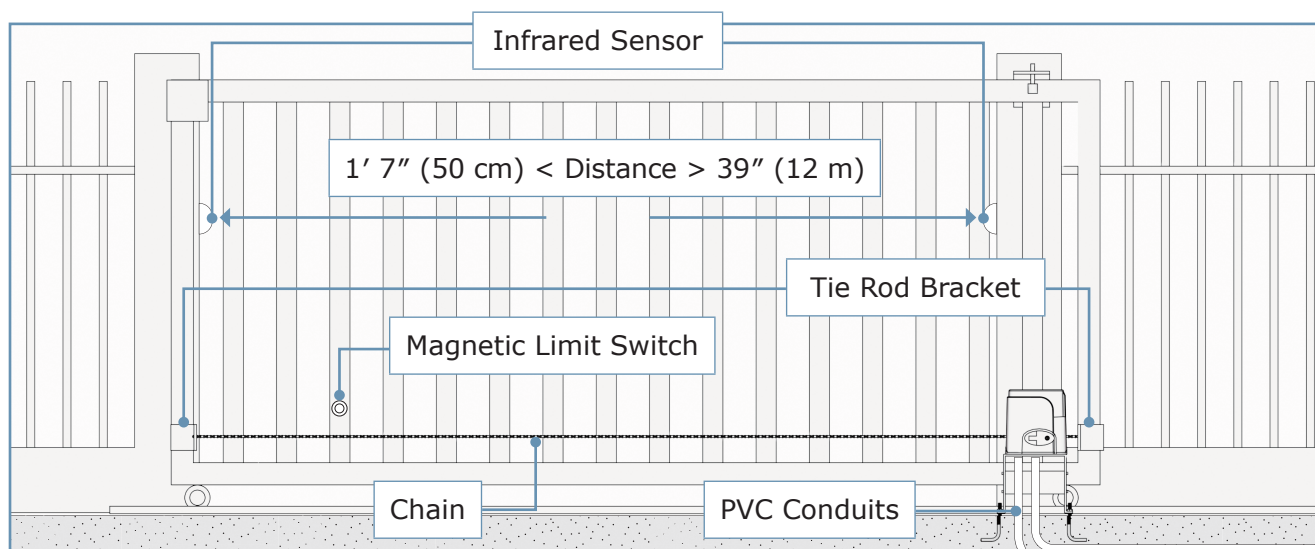
Warning

- Keep children and pets away from the sensor and the gate when they are in use.
- **ALWAYS** make sure the sensor is properly aligned with the gate, as misalignment can cause the gate to malfunction or become stuck.
- **ALWAYS** keep the sensors and areas around them clean and free of debris. Dust, dirt, and other obstructions can interfere with the sensor's operation. Install away from direct sunlight.
- Check the sensors' alignment regularly. Make sure they are properly aligned with the gate, as misalignment can cause the gate to malfunction or become stuck.

1. Prepare locations for the sensors on opposite sides of your gate. Refer to the diagram for where the sensor should be.

Note

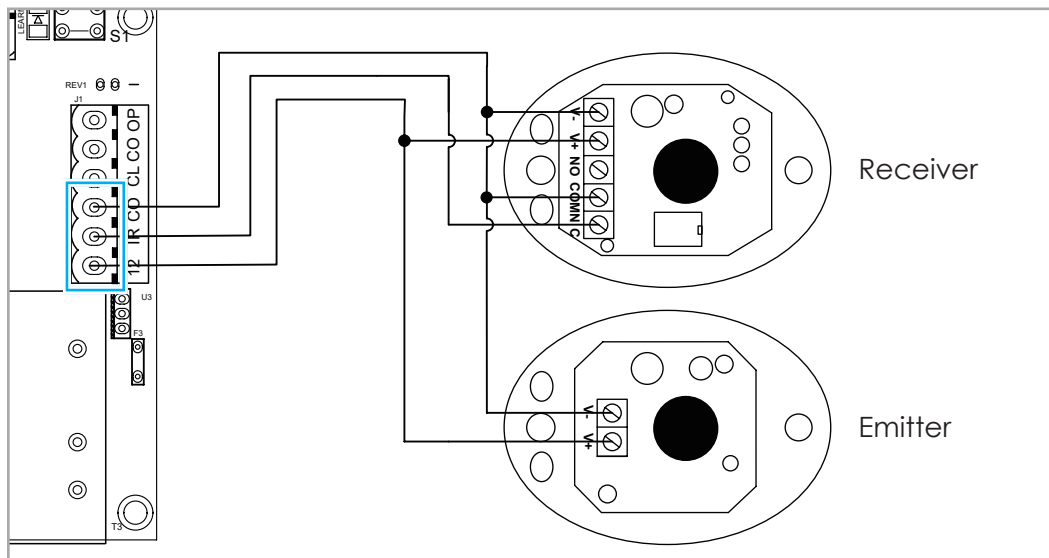
- The distance between the sensors should at least be 1' 7" (50 cm) but no farther than 39 feet (12 m).
- Protect them from the weather elements.



2. Use the provided bolts and expansion plugs to install the infrared sensors at the prepared location.

5.1.2 Wiring

1. Remove the sensors' housing and connect them to your gate's circuit board.
2. Wire the IR sensor to the control board.

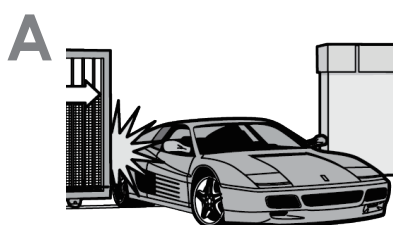
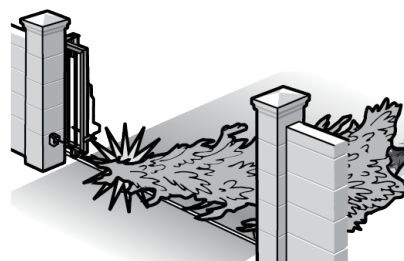


5.1.3 Operation

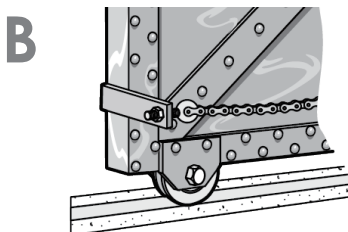
With the IR sensors correctly wired and programmed, they instantly stop and retract the closing gate if they detect any of the obstruction as below.

Caution

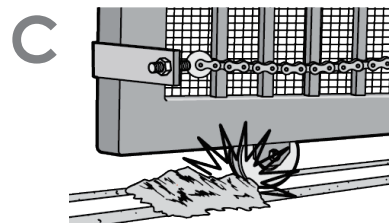
Test the functionality of the IR sensors before actually using it.



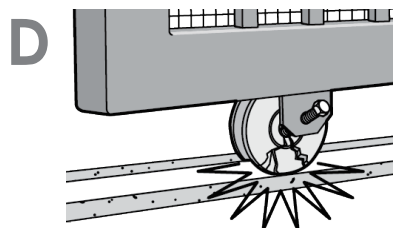
The gate is hitting a wall or vehicle.



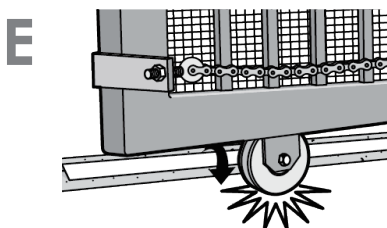
The gate does not meet specifications.



Debris (dirt, mud, for example) is on the track.



The wheel is broken.



The gate has derailed.

6 MAINTENANCE

Warning

- **ALWAYS** cut the power by flipping down the circuit breaker or unplugging the main body before maintenance of any kind.
- **ALWAYS** replace broken components with identical ones.
- **ONLY** allow any maintenance to be done by a certified technician.
- Limit access to the gate when maintenance is under way.
- **ALWAYS** test the functionality of all accessories and components before resuming use.

Caution

ALWAYS wear personal protective equipment sufficient for the task at hand.

Parts and Schedules

Parts		Tasks	Schedule	
			Monthly	Every 6 Months
Accessories	IR Sensor	Check and test for proper operation.	✓	
Electrical	All Connections	Check all for loosened connection(s)		✓
Hardware	Chain(s)	Check the tension and smoothness.	✓	
	Sprockets	Check all for wear and damage.	✓	
	Fasteners	Check all for looseness.		✓
	Gate	Check for wear or damage.	✓	
Warning Signs		Check for illegibility.	✓	
Manual Release		Check for any rigidity.		✓

Note

- Shorten the maintenance schedule if the opener is used for heavy-duty purpose or its surround environment may entail this.
- The magnetic limit switch may need to be reset for any big changes to the chain or the main body's location.
- If lubricating the chain, use only lithium spray. Never use grease or silicone spray.

7 TROUBLESHOOTING

Possible Problems	Typical Solution(s)
The gate does not open or close normally and no indicator lights activate on the circuit board.	Verify that the power supply is functioning properly.
	Check that the fuse is not blown. If necessary, replace it with an identical 10A 250V fuse.
	Have a certified electrician rewire your system.
The gate opens but does not close.	Remove any obstacles that might be in the gate's path.
	Check the placement of the limit switches.
	Check the gate direction switch on the circuit board.
	Correct the wiring for your infrared sensors.
A remote control does not activate the gate.	Change the remote control's battery.
	Pair the remote control button to the board again.
	Remove any obstruction between the motor and the remote.
The motor makes noise but the gate does not move.	Remove any obstruction from the motor, main gear, track, or gate path.
	Have a certified electrician check the gate opener's capacitor. Replace or rewire it if necessary.
The circuit breaker trips repeatedly.	Remove any other devices from the circuit providing the motor's power and confirm it is not unstable or experiencing surges.
	Have a certified electrician check the power supply line and motor line for short circuits. Repair if necessary.
The gate suddenly stops or reverses when moving.	Remove any obstacles that might be in the gate's path.
	Check the infrared sensors, their wiring, and the circuit board indicator lights, adjusting as necessary.
	Check the limit switches, their placement, and the circuit board indicator lights, adjusting as necessary.
An obstruction to the infrared sensors stops the gate from opening but doesn't stop it from closing.	Correct the direction settings on the circuit board to match your motor's placement.

8 DISPOSAL



Electrical products should not be disposed of with household products. In the EU and UK, according to the European Directive 2012/19/EU for the disposal of electrical and electronic equipment and its implementation in national laws, used electrical products must be collected separately and disposed of at the collection points provided for this purpose. Locations in Australia, Canada, and the United States may have similar regulations. Contact your local authorities or dealer for disposal and recycling advice.



CONTACT US

Thank you for choosing our products! If you have any questions or comments, contact us at **contact@cssupportgroup.com** and we'll resolve your issue ASAP!

For a .pdf copy of the latest version of these instructions, use the appropriate app on your smartphone to scan the QR code to the right.



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