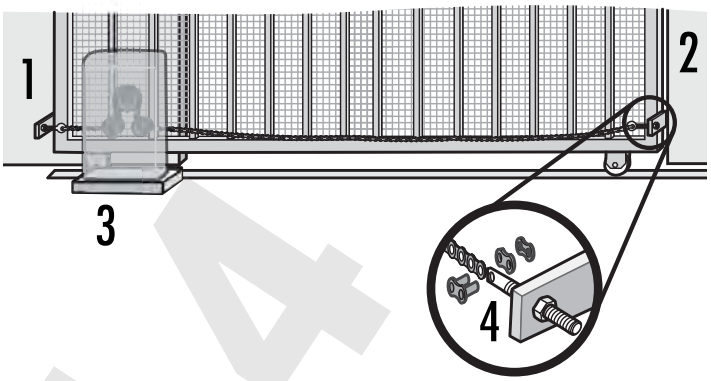
STANDARD INSTALLATION ONLY

DO NOT run the operator until instructed.

1. Open the gate and line up the front bracket so the chain will be level with the idler pulley and parallel to the ground. Weld the front bracket in this position.
2. Close the gate and line up the rear bracket so the chain will be level with the idler pulley and parallel to the ground. Weld the rear bracket in this position.
3. Route the chain through the operator.
4. Connect the chain to the brackets using the eye bolt hardware. Chain should not be too tight or have excessive slack.

NOTE: *The chain should have no more than 1 inch of sag for every 10 feet of chain length.*



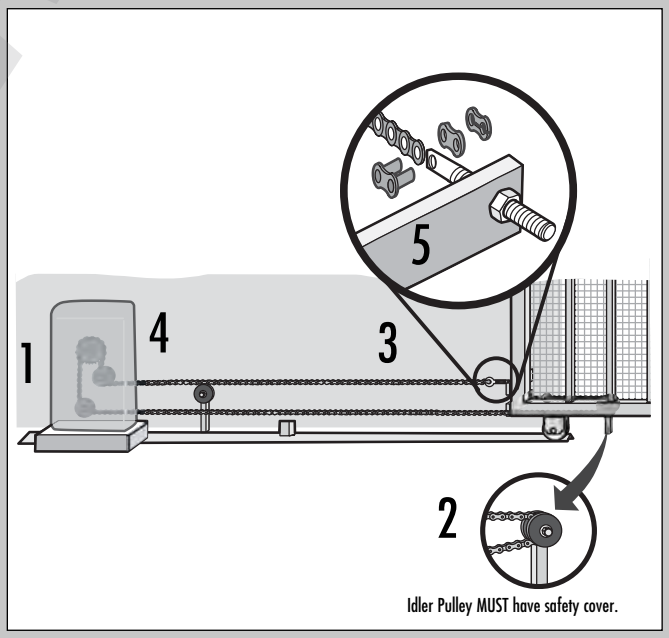
REAR INSTALLATION ONLY

DO NOT run the operator until instructed.

NOTE: *This installation will require two extra idler pulleys. Make sure all exposed pinch points are guarded. Refer to Gate Construction Information on page 4.*

1. Move the back pulley to the bottom hole in the operator.
2. Close the gate and align the bottom bracket so the chain will be level with the bottom idler pulley and parallel to the ground. Weld the bottom bracket in this position
3. Align the top bracket so the chain will be level with the top idler pulley and parallel to the ground. Weld the upper bracket in this position.
4. Route the chain through the operator.
5. Connect the chain to the brackets using the eye bolt hardware. Chain should not be too tight or have excessive slack.

The chain should have no more than 1 inch of sag for every 10 feet of chain length.



WIRE THE ENTRAPMENT PROTECTION DEVICES

Entrapment protection devices are required. Refer to page 5 for more information regarding application.

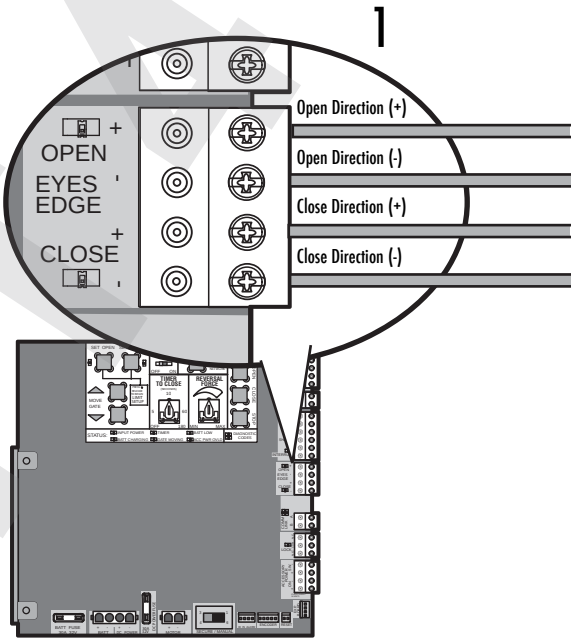
⚠ WARNING

To prevent SERIOUS INJURY or DEATH from a moving gate:

- Entrapment protection devices MUST be installed to protect anyone who may come near a moving gate.
- Locate entrapment protection devices to protect in BOTH the open and close gate cycles.
- Locate entrapment protection devices to protect between moving gate and RIGID objects, such as posts or walls.

1 Connect the entrapment protection device to the EYES EDGE terminal on the control board:

- Open Entrapment Protection: Connect wires from the entrapment protection device to the Open Inputs on the EYES EDGE terminal.
- Close Entrapment Protection: Connect wires from the entrapment protection device to the Close Inputs on the EYES EDGE terminal.



TO ERASE LEARNED MONITORED PHOTOELECTRIC SENSORS

1 Remove the photoelectric sensor wires from the terminal block.

2 Press both Set Limit Buttons simultaneously until the SET LEDs turn on.

3 Press both Set Limit Buttons again to turn off the SET LEDs.

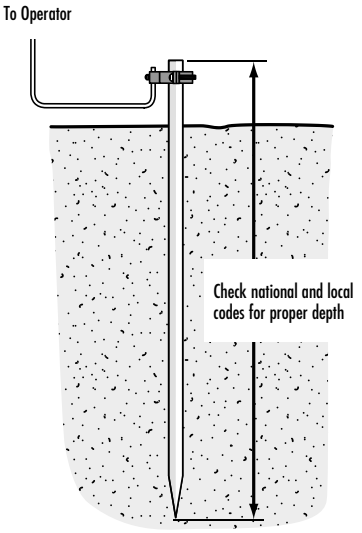
EARTH GROUND ROD

Use the proper earth ground rod for your local area. The ground wire must be a single, whole piece of wire. Never splice two wires for the ground wire. If you should cut the ground wire too short, break it, or destroy its integrity, replace it with a single wire length.

1 Install the earth ground rod within 3 feet of the operator.

2 Run wire from the earth ground rod to the operator.

NOTE: *If the operator is not grounded properly the range of the remote controls will be reduced.*



POWER WIRING

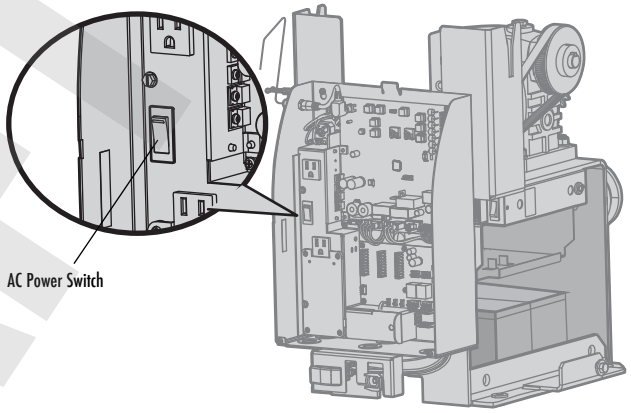
This operator can be wired for either 120 Vac or 240 Vac or a solar panel (not provided). Follow the directions according to your application. For dual gate applications, power will have to be connected to each operator. Main power supply and control wiring MUST be run in separate conduits.

AMERICAN WIRE GAUGE (AWG)	MAXIMUM WIRE LENGTH (120 VAC)	MAXIMUM WIRE LENGTH (240 VAC)
14	130 feet	260 feet
12	205 feet	410 feet
10	325 feet	650 feet
8	520 feet	1040 feet
6	825 feet	1650 feet
4	1312 feet	2624 feet

NUMBER OF CYCLES PER DAY						
Slide Gate Installation (16 ft. 1000 lb. gate)						
	Accessories				Single Gate	
	Solenoid Lock	50 mA	100 mA	300 mA	7AH Batteries (standard)	33AH Batteries (optional)
TRANSFORMER POWERED					Continuos	Continuos
	✔				Continuos	Continuos
		✔			Continuos	Continuos
			✔		Continuos	Continuos
				✔	Continuos	Continuos
BATTERY POWERED					100	275
	✔				35	230
		✔			45	270
			✔		45	270
				✔	40	260

AC POWER SWITCH

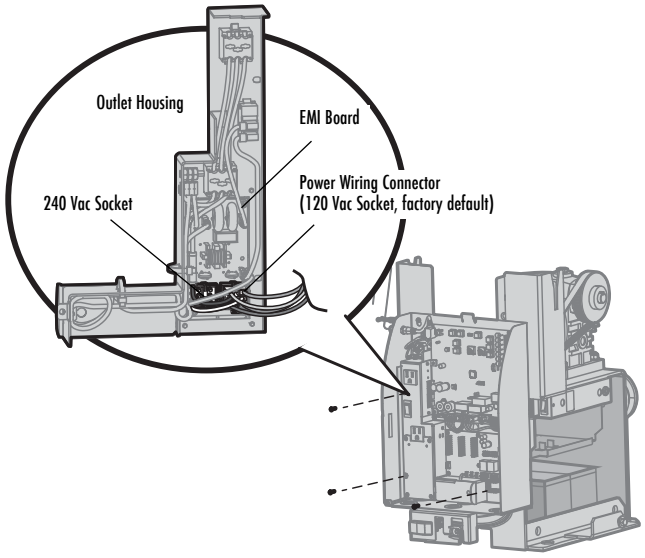
The AC Power switch on the operator will turn the incoming 120/240 Vac power ON or OFF. The operator's AC Power switch ONLY turns off AC power to the control board and DOES NOT turn off battery power.



240 VAC ONLY

If using the 240 Vac option a heater cannot be used. The accessory outlet is disabled and cannot be used with the 240 Vac option.

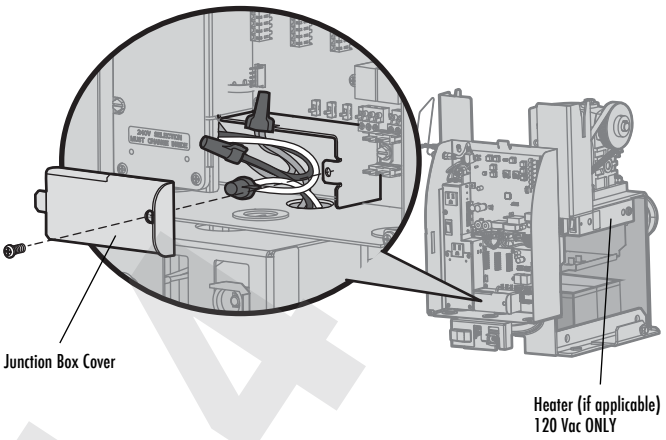
1. Remove the outlet housing from the chassis by removing the screws (3).
2. Pull the outlet housing out and locate the power wiring connector on the EMI board.
3. Unplug the power wiring connector from the 120 Vac socket (factory default location) and plug it into the 240 Vac socket.
4. Replace the outlet housing by securing with the screws. The operator is now set for 240 Vac operation.



POWER WIRING CONTINUED...

120 VAC AND 240 VAC

1. Turn off the AC power from the main power source circuit breaker.
2. Run the AC power wires to the operator.
3. Remove the junction box cover.
4. Connect the green wire to the earth ground rod wire using a wire nut.
5. Connect the white wire to NEUTRAL using a wire nut.
6. Connect the black wire to HOT using a wire nut.



HEATER WIRING:

NOTE: *If your operator comes with a heater it will have to be wired. The heater may be wired to the internal receptacle or a separate junction box.*

If wiring the heater to the internal receptacle, thread the heater wires through the same knockout as the power wires. Connect the heater wires to the power wires with wire nuts (green to green, black to black, and white to white).

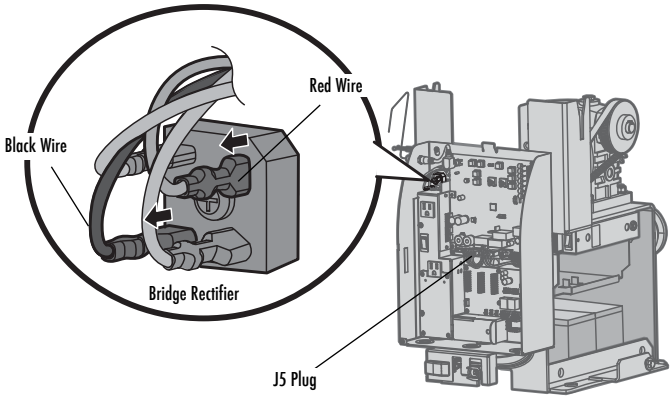
7. Replace the junction box cover. Ensure the wires are not pinched.

SOLAR PANEL(S)

NOT PROVIDED. SEE ACCESSORIES.

The solar panel(s) must be located in an open area clear of obstructions and shading for the entire day. The gate operator is not supported in northern climates where temperatures reach below -4˚F. This is due to cold weather and a reduced number of hours of sunlight during the winter months. Cycle rate may vary from solar chart for areas that reach below 32˚F. Solar panels should be cleaned on a regular basis for best performance to ensure proper operation. For solar applications, a minimum of two 10W solar panels in series and two 7AH batteries are recommended. For Zone 3 cold weather sites, two 33AH batteries are recommended. We recommend LiftMaster low power draw accessories to minimize power draw, refer to accessory page.

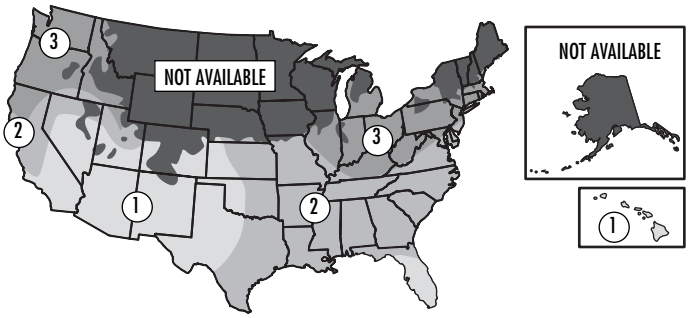
1. Locate the red and black wires connected to the J5 plug labeled DC POWER on the control board. Unplug the wires from the bridge rectifier.
2. Connect the red (+) wire from the J5 plug to the red wire from the solar panel.
3. Connect the black (-) wire from the J5 plug to the black wire from the solar panel.



NUMBER OF CYCLES PER DAY (SOLAR)

Slide Gate Installation (16 ft. 1000 lb. gate)

	CONFIGURATION				ZONE 1 (6 Hrs sunlight/day)		ZONE 2 (4 Hrs Sunlight/day)		ZONE 3 (2 Hrs Sunlight/day)	
	Transmitters	Wireless Dual Gate	Expansion Board connected	1 Loop	7AH Batteries (standard)	33AH Batteries (optional)	7AH Batteries (standard)	33AH Batteries (optional)	7AH Batteries (standard)	33AH Batteries (optional)
20W SOLAR PANEL					51	66	31	39	11	13
	✔				49	64	30	38	10	12
	✔	✔			44	59	25	33	5	7
	✔		✔		46	60	26	34	7	8
	✔	✔	✔	✔	40	54	20	28	1	2
40W SOLAR PANEL					90	144	70	92	31	39
	✔				88	142	69	90	30	38
	✔	✔			83	137	64	85	25	33
	✔		✔		85	139	66	87	26	34
	✔	✔	✔	✔	79	132	59	80	20	28
60W SOLAR PANEL					90	222	90	144	51	66
	✔				88	220	88	142	49	64
	✔	✔			83	215	83	137	44	59
	✔		✔		85	217	85	139	46	60
	✔	✔	✔	✔	79	210	79	132	40	54



DUAL GATES ONLY

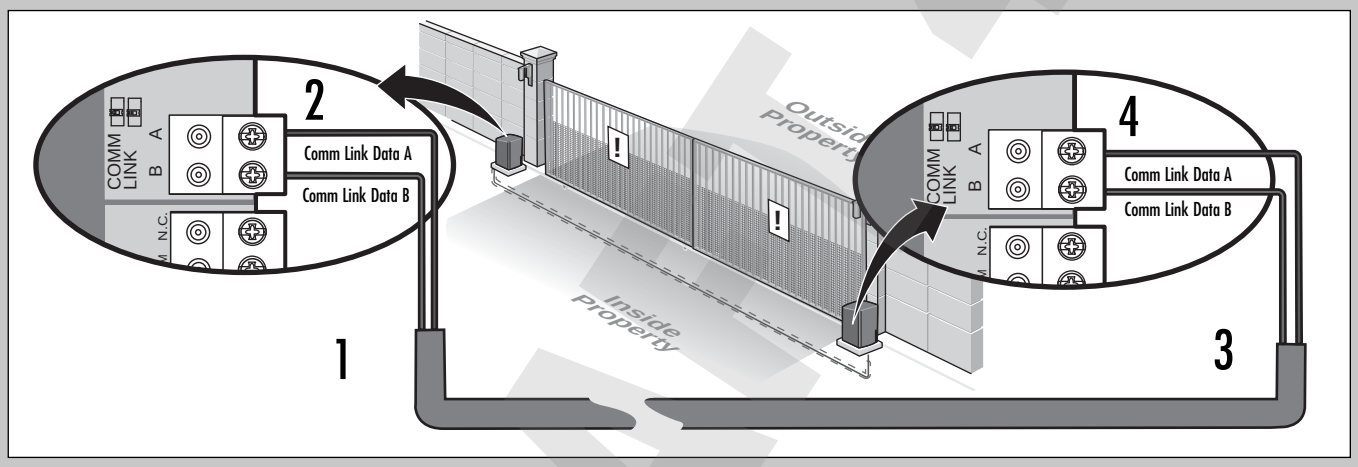
There are two options for dual gate communication: wired or wireless. Follow the directions according to your application. Wired dual gate applications will have a longer battery standby time than wireless applications.

WIRED DUAL GATES

Before digging, contact local underground utility locating companies. Use PVC conduit to prevent damage to cables.

1. Trench across driveway to bury the extension cable.
2. Connect the wires from the extension cable to the Comm Link terminals on the primary gate operator control board.
3. Route the extension cable to the secondary gate operator's control board.
4. Connect the wires from the extension cable to the Comm Link terminals on the secondary control board (Comm Link A to Comm Link A and Comm Link B to Comm Link B).

DUAL GATE WIRE TYPE (STRANDED COPPER WIRE)	
22AWG up to 200 feet (61 m)	18AWG - 200-1000 feet (61-305 m)
Wire must be rated at 30 Volt minimum	



WIRELESS DUAL GATES

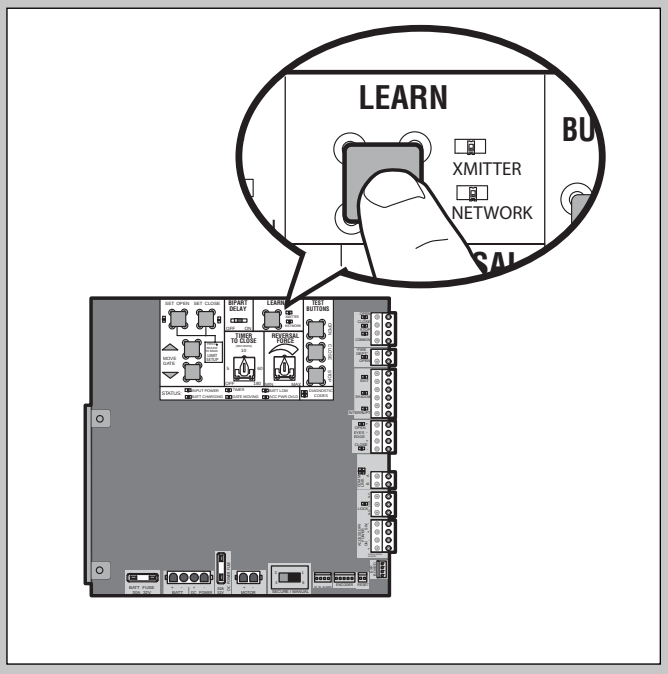
Turn on power to the operator.

TO ACTIVATE THE WIRELESS FEATURE:

1. Press and release the LEARN button on the first operator. The green XMITTER LED will light.
2. Press and release the LEARN button again on the same operator. The yellow NETWORK LED will light.
3. Press and release the LEARN button on the second operator. The green XMITTER LED will light.
4. Press and release the LEARN button again on the second operator. The yellow NETWORK LED blink (operator will beep) then turn off indicating successful activation.

TO DEACTIVATE THE WIRELESS FEATURE:

1. Press and release the LEARN button on either operator. The green XMITTER LED will light.
2. Press and release the LEARN button again on the same operator. The yellow NETWORK LED will light.
3. Press and hold the LEARN button for 5 seconds. The yellow NETWORK LED will blink (operator will beep) then turn off indicating successful deactivation.

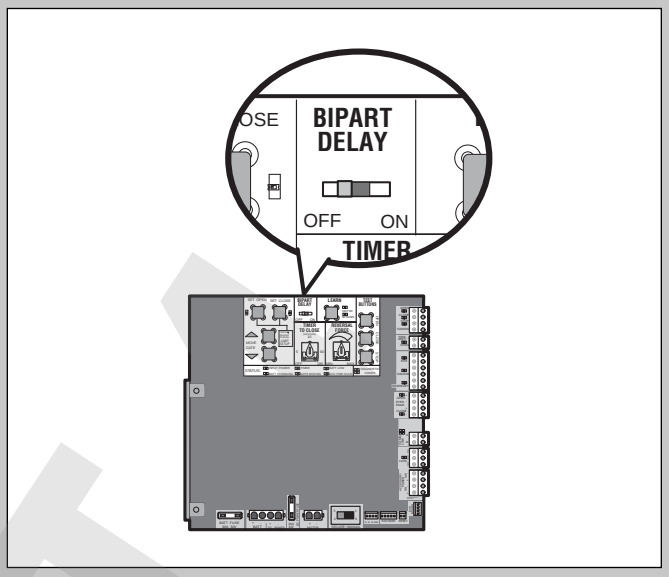


DUAL GATES ONLY

BIPART DELAY

The BIPART DELAY switch is used only with dual gate applications where a mag-lock, solenoid lock, or decorative overlay would require one gate to close before the other. Factory default is OFF.

1 Turn the BIPART DELAY switch ON according to your application: the operator with the bipart delay switch ON will delay from the close limit when opening and be the first to close from the open limit.



CONNECT BATTERIES

The batteries are charged in the circuit by the integrated transformer. The batteries are for battery backup or solar installation.

1 Turn OFF AC power to the operator.

2 Unplug the J15 plug labeled BATT on the control board by squeezing the plug and pulling it from the control board.

3 Connect a jumper between the positive (+) terminal of one battery to the negative terminal (-) of the other battery.

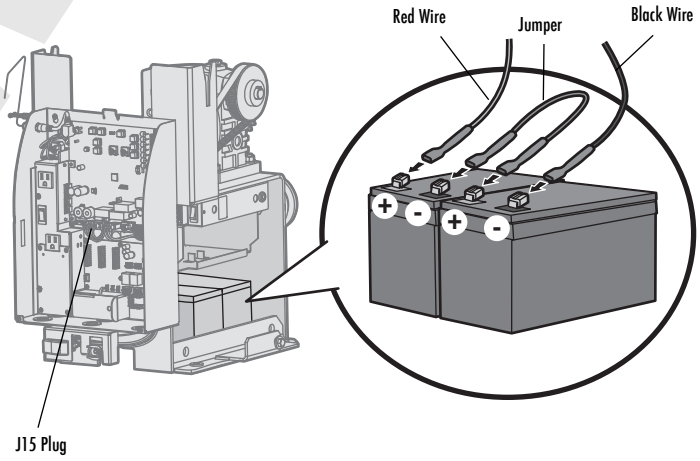
4 Connect the red wire from the J15 plug to the positive (+) terminal of the battery.

5 Connect the black wire from the J15 plug to the negative (-) terminal of the battery.

6 Plug the J15 plug back into the control board. This will power up the control board.

7 Turn ON AC power to the operator.

8 Turn ON the AC power switch on the operator.



LIMIT SETUP

⚠ WARNING

To reduce the risk of SEVERE INJURY or DEATH:

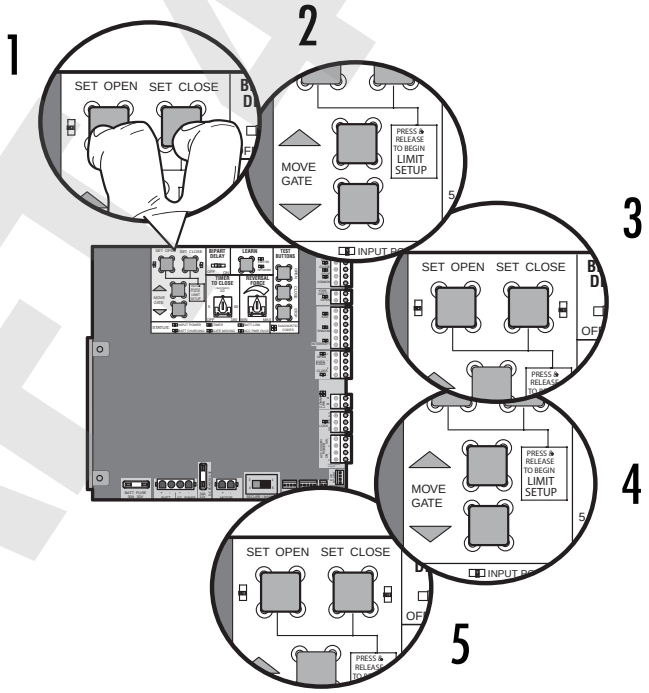
- Without a properly installed safety reversal system, persons (particularly small children) could be SERIOUSLY INJURED or KILLED by a moving gate.
- Too much force on gate will interfere with proper operation of safety reversal system.
- NEVER increase force beyond minimum amount required to move gate.
- NEVER use force adjustments to compensate for a binding or sticking gate.
- If one control (force or travel limits) is adjusted, the other control may also need adjustment.
- After ANY adjustments are made, the safety reversal system MUST be tested. Gate MUST reverse on contact with a rigid object.

For dual gate applications the limits will have to be set for each operator.

1. Press the SET OPEN and SET CLOSE buttons simultaneously to enter limit setting mode.
2. Press the MOVE GATE buttons to move the gate to the open or close limit.
3. Press the SET CLOSE or SET OPEN button depending on which limit is being set.
4. Press the MOVE GATE button to move the gate to the other limit.
5. Press the SET CLOSE or SET OPEN button depending on which limit is being set.

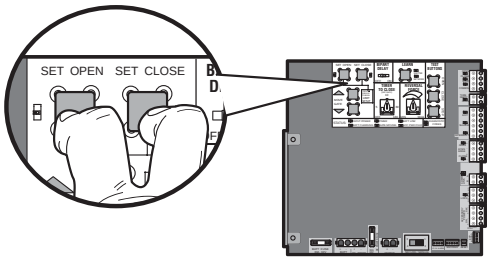
When limits are set properly the operator will automatically exit limit setting mode.

NOTE: *If the limits have already been set the operator will exit the limit setting mode when re-setting any limit. Repeat steps 1-3 as needed to set both limits.*



ERASE LIMITS

1. To erase the limits, press and hold the SET OPEN and SET CLOSE buttons simultaneously (5 seconds) until both the SET OPEN and SET CLOSE LEDs blink rapidly and the operator beeps.
2. Release the buttons and the SET OPEN and SET CLOSE LEDs will blink slowly indicating the limits will need to be set.

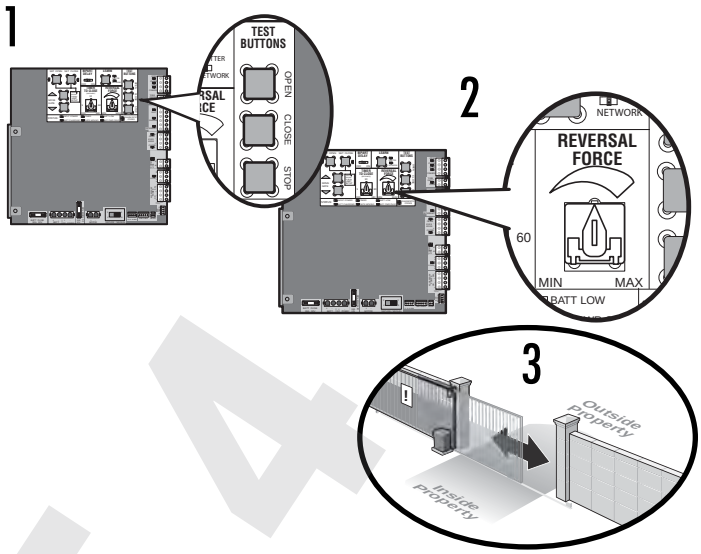


LIMIT SETUP LEDS			
SET OPEN LED	**SET CLOSE LED**	**OPERATOR MODE**	**EXPLANATION**
BLINKING	BLINKING	NORMAL MODE	Limits are not set.
OFF	OFF	NORMAL MODE	Limits are set.
BLINKING	BLINKING	LIMIT SETTING MODE	Limits are not set.
BLINKING	OFF	LIMIT SETTING MODE	Open limit is not set.
OFF	BLINKING	LIMIT SETTING MODE	Close limit is not set.
ON	ON	LIMIT SETTING MODE	Limits are set.

FORCE ADJUSTMENT

The operator is equipped with an automatic obstruction sensing feature. If the gate encounters an obstruction during motion, the operator will automatically reverse direction of the gate for a short time and then stop the gate.

Based on the length and weight of the gate it may be necessary to make force adjustments. The force setting should be high enough that the gate will not reverse by itself nor cause nuisance interruptions, but low enough to prevent serious injury to a person. The force setting is the same for both the open and close gate directions. Perform the "Obstruction Test" after every force adjustment.



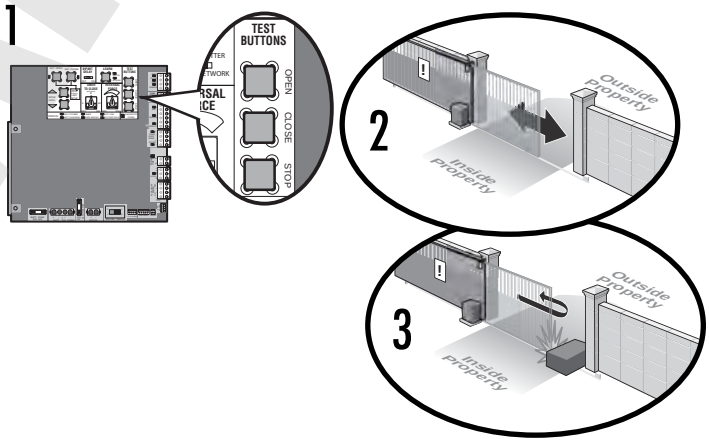
TO ADJUST THE FORCE

1. Open and close the gate with the test buttons.
2. If the gate stops or reverses before reaching the fully open or closed position, increase the force by turning the force control slightly clockwise.

   If the gate cycles correctly limit-to-limit, reduce the force setting by turning the force control slightly counter-clockwise and cycle the gate again. If the gate now stops and reverses before reaching the fully open or closed position, increase the force by turning the force control slightly. Repeat as needed.
3. Perform the "Obstruction Test" after every force setting adjustment.

OBSTRUCTION TEST

After any adjustments are made, test the operator:



1. Open and close the gate with the test buttons, ensuring that the gate is stopping at the proper open and close limit positions.
2. Place a solid object between the open gate and a rigid structure. (Ensure that the gate, the solid object, and the rigid structure can withstand the forces generated during this obstruction test.)
3. Run the gate in the close direction. The gate should stop and reverse upon contact with the solid object. If the gate does not reverse off the solid object, reduce the force setting by turning the force control slightly counter-clockwise, as shown above in the "TO ADJUST THE FORCE" section.
4. Repeat the test for the open direction.

The basic installation is complete.