

# OWNER'S MANUAL MODEL SW425

**RESIDENTIAL SWING GATE OPERATOR** 



## 2 YEAR WARRANTY

Serial # (located on electrical box cover)
Installation Date

MODEL SW425 IS FOR USE ON VEHICULAR PASSAGE GATES ONLY AND IS NOT INTENDED FOR USE ON PEDESTRIAN PASSAGE GATES



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IMPORTANT NOTES

- BEFORE attempting to install, operate or maintain the operator, you MUST read and fully understand this manual and follow all safety instructions.
- DO NOT attempt repair or service of your commercial door and gate operator unless you are an Authorized Service Technician.

## **A WARNING**

Mechanical

## **A WARNING**

Electrical

## **CAUTION**

When you see these Safety Symbols and Signal Words on the following pages, they will alert you to the possibility of **SERIOUS INJURY or DEATH** if you do not comply with the warnings that accompany them. The hazard may come from something mechanical or from electric shock. Read the warnings carefully.

When you see this Signal Word on the following pages, it will alert you to the possibility of damage to your gate and/or the gate operator if you do not comply with the cautionary statements that accompany it. Read them carefully.

## **CARTON INVENTORY**

Before beginning your installation check that all components were supplied and received undamaged. Refer to list below for factory supplied parts.

## HARDWARE KIT SW425 (K7X-SW425)

Description	Qty.
Safety Gate Brochure	1
Gate Bracket	2
Take-Up Bolt	2
Nickel Plated Chain #50	1
U-Bolt 2" 5/16-18	4
U-Bolt 3" 3/8-16	4
Square Head Set Screw 7/16-14	4
Hex Nut 1/2-13	4
Flange Nut 5/16"-18	8
Flange Nut 3/8"-16	8
Flat Washer 3/8"	8
Flat Washer 1/2"	4
Lock Washer 1/2"	4
Antenna	1

## OPERATOR DIMENSIONS AND SPECIFICATIONS

#### **MODEL SW425**

## OPERATOR DIMENSIONS

- Height: 16-1/2" (41.9 cm)Width: 14-1/2" (36.8 cm)
- Depth: 13-1/2" (34.3 cm)

#### SHIPPING WEIGHT

- Operator: 53 lbs. (24 kg)
- Hardware Package: 12 lbs. (5.4 kg)
- Mounting Posts: 16 lbs. (7.3 kg)

Total: 83 lbs. (37.7 kg)

Options: Operator and Battery Run Package: 59 lbs. (26.8 kg) Low Voltage Cable: 1 lb./10 ft. (.5 kg/3.1 m) Concrete Mounting Stand: 17 lbs. (7.7 kg)

## **APPLICATIONS**

- Maximum Gate Weight: 300 lbs. (136.1 kg)
- Maximum Gate Length: 13 ft. (4 m)

#### POWER REQUIREMENTS

Dedicated 115 Vac (+/- 10V), 5A Power Circuit

**NOTE:** For standard operator, place 115Vac at or near the operator. For battery run operator, place 115Vac within 1000' (304.8 m) of the operator.

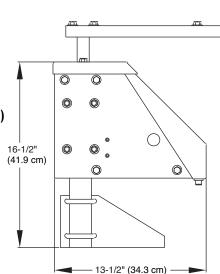
There are three possibilities for supplying power to the SW425 gate operator:

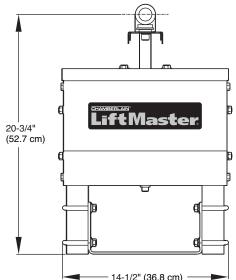
- The standard power supply version is made to connect directly to 115 Volt, 5 Amp power source and is available for full systems capability models. This power supply must be at or near the gate operator location. Because of the low current draw, 115 Volt power may be run as far as 1000' (304.8 m) with 12 gauge wire from the main breaker panel and can be run much farther with larger wire.
- Supply power to the operator with the low voltage battery run version of the SW425. To supply power to the SW425 Battery Run, wire as small as 16 gauge can be run as far as 300' (91.4 m) from a charger that is plugged in remotely. Because the power is low 12Vdc, the wire can be direct burial wire which eliminates the need for expensive conduit runs.
- Supply power to the SW425 with the solar power version of the operator. The Solar model does not require any power to be run because the operator and solar power supply are self contained. The panel may be placed several hundred feet from the operator if this is necessary to achieve maximum sunlight conditions.

INCLUDED WITH OPERATOR: Check package to make sure it contains the following items. **BATTERY RUN ONLY (OPTIONAL)** 

## STANDARD GATE OPERATOR

- 1-Model SW425 Gate Operator
- 2-Mounting Posts 2" Dia. x 36"
- 1-Gate Bracket
- 2-Swivel Joints
- 2-Sections, Pipe Arm
- 1-Primary Arm
- 2-Safety Warning Placards





## **SOLAR ONLY (OPTIONAL)**

- 3-Pipe Sections, 1" x 24"
- 2-Pipe Couplings, 1"
- 1-Solar Panel Assembly
- 5-Lock Rings
- · 2-Batteries, 12 Vac (See parts identification)

• 1-Burial Cable, 10'

• 1-Charger, 12Vac

• 1-Battery, 12Vac

## FEATURES

## SENSITIVITY

The SW425 has a built-in safety feature. When adjusted properly it delivers only enough power to the motor to overcome the resistance of the gate. If the gate hits a vehicle or pedestrian, it will immediately stop or reverse. The dc motor technology incorporated into the SW425 sensitivity feature is more sensitive and is at least 50% more effective than traditional ac current sensors.

## SOFT START/SOFT STOP

A unique feature of the SW425 is the Soft Start/Stop feature. Traditional gate openers begin opening the gate with full power causing a jerking effect, increasing wear on mechanical parts. The SW425 begins to open/close the gate slowly, then increases to full speed. This creates a gentler transition which considerably reduces wear on mechanical parts.

## BATTERY RUN/LOW VOLTAGE

The SW425 is available in battery run & solar versions. The benefit of battery run or solar power is the ability to operate the gate without power. During a power outage the gate will operate normally. It can be opened up to 150x before power is restored. Another benefit of battery run is that it is does not require 115V at the operator. Running high voltage is typically expensive and strictly regulated. All that is needed to supply power to the SW425 battery run is some inexpensive low voltage burial cable. If the cable is 16 gauge it can be run as far as 300'. For solar versions of the SW425, no power needs to be run to the operator. The solar panel is normally attached to the gate opener, it should be placed where the panel receives maximum sunlight.

## VISUAL FEEDBACK

The SW425 Full Systems Capability circuit board is equipped with visual feedback LEDs to simplify installation and trouble-shooting. Located directly beside each input terminal these LEDs indicate if any input devices are active. There are also two LEDs labeled O (opening) and C (closing) which indicate that the circuit board is delivering power to the motor to open or closed the gate.

## **AUTO CLOSE TIMER**

The operator comes factory preset with the auto close timer function OFF. The auto close timer will close the gate automatically after a specific amount of time has elapsed. The amount of time can be easily adjusted between 0 and 45 seconds by turning a small "pot" located on the edge of the circuit board (page 15). The timer can be disabled or activated by flipping a single switch located on the top edge of the circuit board. If the timer will be used it is recommended that some type of supplementary safety device (loops, photo beam, etc.) be installed.

## GATE SENSITIVITY ADJUSTMENT

The amount of force necessary to stop the gate can be adjusted to conform to the various sizes and weights of any particular gate. The full systems capability circuit board provides separate adjustments for both the opening and closing direction. When adjusting the sensitivity, the operator can be given only as much energy as is necessary to overcome the resistance of the gate. If the gate should strike an obstruction either direction, the gate will reverse. If the gate should again strike an obstruction before reaching a limit, the gate will stop and remain stopped (page 15).

## MASTER AND SECOND

Some very large entrances may require the use of two gates. If this is the case, the two gates can be easily automated using the "master and second" configuration. This configuration uses two gates and two operators in ONE driveway. The Full Systems Controller models have terminals provided especially for master and second applications and will reliably operate simultaneously all of the time.

#### PULSE OPEN INPUT

The Pulse Open input feature is an open input on the circuit board which will increase the security of the SW425 gate operator system. When an open input device such as a key switch is connected to the Pulse Open input, and the device is activated, the gate operator will activate but will then ignore the input if the input is prolonged. What is significant about this feature is that there is the possibility of a device being stuck and if the device is connected to the standard open input the gate will be held open. If a device is connected to the Pulse Open input on terminals 6 and 7, the circuit board will ignore the stuck input and will allow the gate to close. For added security any open input device may be used with Pulse Open including push buttons, key switches, numerical key pads, etc.

## FEATURES

## continued from previous page

## **PERIPHERALS**

**POWER SUPPLY:** There is 12Vdc .1 AMP available on the circuit board which is used to supply power to a radio receiver or other

device.

**OPEN INPUT:** Normally open devices are connected to terminals 5 and 6 on the circuit board to cause the gate to open and/or

close in PUSH-TO-OPEN/PUSH-TO-CLOSE (Timer switch OFF) mode of operation. Normally open devices are connected to terminals 5 and 6 to cause the gate to open in AUTO CLOSE TIMER (Timer switch ON) mode of operation. In this mode of operation the AUTO CLOSE TIMER will automatically close the gate after a specific amount of time has elapsed. The Auto Close Timer is adjustable between 0-45 seconds. These normally open devices can be push buttons, key switches, loop detectors, photo electric beams, 24-hour timers, etc.

**PULSE OPEN INPUT**: Normally open devices are connected to terminals 6 and 7 on the circuit board to cause the gate to open. Pulse

Open Input functions identical to Open Input with the exception that it will not hold open the gate. If an open device is stuck on, the gate will still close. This feature is sometimes used to provide a higher level of security but should be used only in addition to another open device connected to Open Input so the gate can still be

opened if necessary.

**SAFETY INPUT:** Normally open devices are connected to terminals 4 and 6 on the SW425 circuit board to cause the gate

operator to open and/or hold the gate open in any position except the fully closed position. Normally open safety input devices that can be used are push buttons, radio receivers, key switches, loop detectors, photo

electric beams, 24-hour timers, etc.

N.C. STOP INPUT: Normally closed devices are connected to terminals 8 and 9 on the circuit board after removing the stop jumper

that is on terminals 8 and 9. The N.C. Stop Input will cause the gate to stop at any position and will remain

stopped until activated to open or close.

**N.O. STOP INPUT:** Normally open devices are connected to terminals 9 and 11 to cause the gate to stop in any position until the

gate is again activated to open or close. N.O. Stop Input functions identical to N.C. Stop input with the exception

that it requires normally open contacts instead of normally closed contacts.

**CLOSE INPUT:** Normally open devices are connected to terminals 9 and 10 on the circuit board to cause the gate operator to

close the gate when in any position. Normally open input devices that can be used are push buttons, radio

receivers, key switches, loop detectors, photo electric beams, 24-hour timers, etc.

## **UL325 MODEL CLASSIFICATIONS**

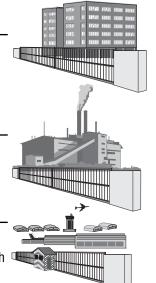
#### CLASS I – RESIDENTIAL VEHICULAR GATE OPERATOR –

A vehicular gate operator (or system) intended for use in a home of one-to four single family dwellings or a garage or parking area associated therewith.



## CLASS II - COMMERCIAL/GENERAL ACCESS VEHICULAR GATE OPERATOR ·

A vehicular gate operator (or system) intended for use in a commercial location or building such as a multi-family housing unit (five or more single family units) hotel, garage, retail store or other building servicing the general public.



#### CLASS III – INDUSTRIAL/LIMITED ACCESS VEHICULAR GATE OPERATOR

A vehicular gate operator (or system) intended for use in a industrial location or building such as a factory or loading dock area or other location not intended to service the general public.

## CLASS IV - RESTRICTED ACCESS VEHICULAR GATE OPERATOR -

A vehicular gate operator (or system) intended for use in a guarded industrial location or building such as an airport security area or other restricted access locations not servicing the general public, in which unauthorized access is prevented via supervision by security personnel.

#### SAFETY ACCESSORY SELECTION

All UL325 compliant LiftMaster gate operators will accept external entrapment protection devices to protect people from motorized gate systems. UL325 requires that the type of entrapment protection correctly matches each gate application. Below are the six types of entrapment protection systems recognized by UL325 for use on this operator.

#### ENTRAPMENT PROTECTION TYPES

- Type A: Inherent obstruction sensing system, self-contained within the operator. This system must sense and initiate the reverse of the gate within two seconds of contact with a solid object.
- Type B1: Connections provided for a non-contact device, such as a photoelectric eye can be used as a secondary protection.
- Type B2: Connections provided for a contact sensor. A contact device such as a gate edge can be used for secondary protection.
- Type C: Inherent adjustable clutch or pressure relief valve.
- Type D: Connections provided for a control requiring continuous pressure to operate the operator open and close.
- Type E: Built-in audio alarm. Examples include sirens, horns or buzzers.

**NOTE:** UL requires that all installations must have warning signs placed in plain view on both sides of the gate to warn pedestrians of the dangers of motorized gate systems.



## **UL325 ENTRAPMENT PROTECTION REQUIREMENTS**

GATE OPERATOR ENTRAPMENT PROTECTION				
UL325 Installation	Slide Gate Operator		Swing & Gate Barrier (Arm) Operator	
Class	Primary	Secondary	Primary	Secondary
	Type	Type	Type	Type
Class I & II	Α	B1, B2 or D	A or C	A, B1, B2, or C
Class III	A, B1 or	A, B1, B2,	A, B1, B2	A, B1, B2,
	B2	D or E	or C	C, D or E
Class IV	A, B1, B2	A, B1, B2,	A, B1, B2,	A, B1, B2,
	or D	D or E	C or D	C, D or E

The chart above illustrates the entrapment protection requirements for each of the four UL325 classes.

In order to complete a proper installation you must satisfy the entrapment protection chart shown above. That means that the installation must have one primary means of entrapment protection and one independent secondary means of entrapment protection. Both primary and secondary entrapment protection methods must be designed, arranged or configured to protect against entrapments in both the open and close directions of gate travel.

For Example: For a slide gate system that is installed on a single-family residence (UL325 Class I) you must provide the following: As your primary type of entrapment protection you must provide Type A inherent (built into the operator) entrapment sensing and at least one of the following as your secondary entrapment protection: Type B1- Non-contact sensors such as photoelectric eyes, Type B2- Contact sensors such as gate edges or Type D- Constant pressure control.

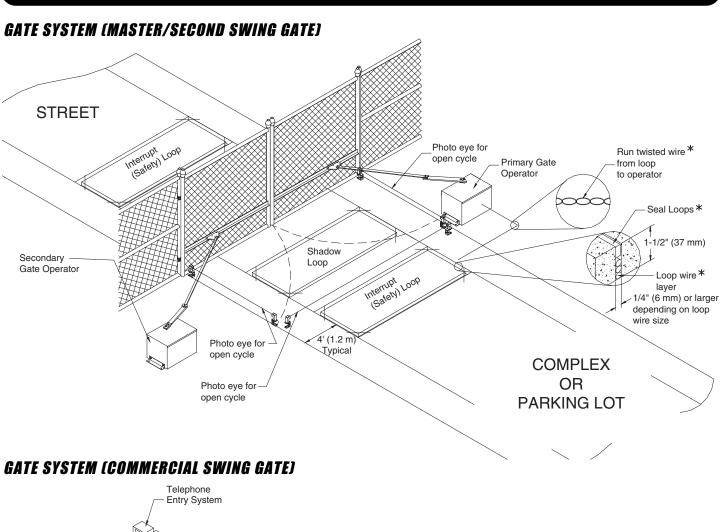
## SAFETY INSTALLATION INFORMATION

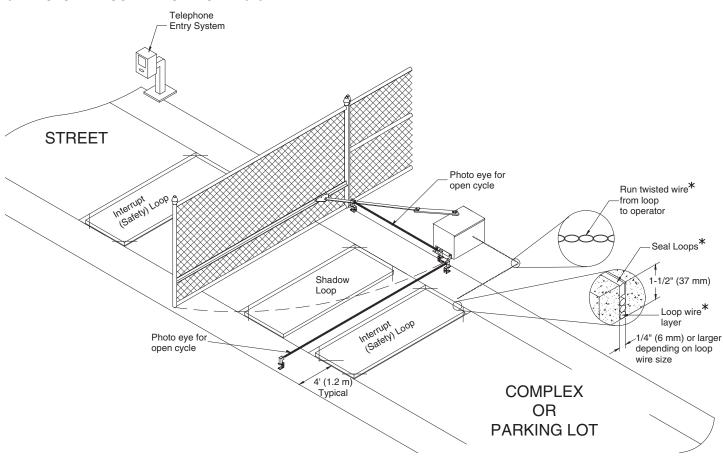
- 1. Vehicular gate systems provide convenience and security. Gate systems are comprised of many component parts. The gate operator is only one component. Each gate system is specifically designed for an individual application.
- 2. Gate operating system designers, installers and users must take into account the possible hazards associated with each individual application. Improperly designed, installed or maintained systems can create risks for the user as well as the bystander. Gate systems design and installation must reduce public exposure to potential hazards.
- 3. A gate operator can create high levels of force in its function as a component part of a gate system. Therefore, safety features must be incorporated into every design. Specific safety features include:
  - Gate Edges
- Guards for Exposed Rollers
- Photoelectric Sensors

- Screen Mesh
- Vertical Posts
- Instructional and Precautionary Signage

- 4. Install the gate operator only when:
  - a. The operator is appropriate for the construction and the usage class of the gate.
  - b. All openings of a horizontal slide gate are guarded or screened from the bottom of the gate to a minimum of 4' (1.2 m) above the ground to prevent a 2 1/4" (6 cm) diameter sphere from passing through the openings anywhere in the gate, and in that portion of the adjacent fence that the gate covers in the open position.
  - c. All exposed pinch points are eliminated or quarded, and quarding is supplied for exposed rollers.
- 5. The operator is intended for installation only on gates used for vehicles. Pedestrians must be supplied with a separate access opening. The pedestrian access opening shall be designed to promote pedestrian usage. Locate the gate such that persons will not come in contact with the vehicular gate during the entire path of travel of the vehicular gate.
- 6. The gate must be installed in a location so that enough clearance is supplied between the gate and adjacent structures when opening and closing to reduce the risk of entrapment. Swinging gates shall not open into public access areas.
- 7. The gate must be properly installed and work freely in both directions prior to the installation of the gate operator.
- 8 Controls intended for user activation must be located at least six feet (6') away from any moving part of the gate and where the user is prevented from reaching over, under, around or through the gate to operate the controls. Outdoor or easily accessible controls shall have a security feature to prevent unauthorized use.
- 9. The Stop and/or Reset (if provided separately) must be located in the line-of-sight of the gate. Activation of the reset control shall not cause the operator to start.
- 10. A minimum of two (2) WARNING SIGNS shall be installed, one on each side of the gate where easily visible.
- 11. For a gate operator utilizing a non-contact sensor:
  - a. Reference owner's manual regarding placement of non-contact sensor for each type of application.
  - b. Care shall be exercised to reduce the risk of nuisance tripping, such as when a vehicle trips the sensor while the gate is still moving.
  - c. One or more non-contact sensors shall be located where the risk of entrapment or obstruction exists, such as the perimeter reachable by a moving gate or barrier.
- 12. For a gate operator utilizing a contact sensor such as an edge sensor:
  - a. One or more contact sensors shall be located where the risk of entrapment or obstruction exists, such as at the leading edge, trailing edge and post mounted both inside and outside of a vehicular horizontal slide gate.
  - b. One or more contact sensors shall be located at the bottom edge of a vehicular vertical lift gate.
  - c. A hard wired contact sensor shall be located and its wiring arranged so the communication between the sensor and the gate operator is not subject to mechanical damage.
  - d. A wireless contact sensor such as the one that transmits radio frequency (RF) signals to the gate operator for entrapment protection functions shall be located where the transmission of the signals are not obstructed or impeded by building structures, natural landscaping or similar obstruction. A wireless contact sensor shall function under the intended end-use conditions.
  - e. One or more contact sensors shall be located on the inside and outside leading edge of a swing gate. Additionally, if the bottom edge of a swing gate is greater than 6" (152 mm) above the ground at any point in its arc of travel, one or more contact sensors shall be located on the bottom edge.
  - f. One or more contact sensors shall be located at the bottom edge of a vertical barrier (arm).

# SUGGESTED ENTRAPMENT PROTECTION DEVICE LOCATIONS





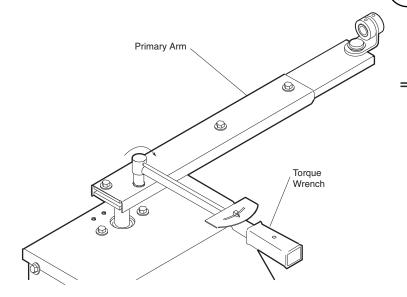
# SAFETY PRECAUTIONS FOR SWING AND ORNAMENTAL "GRILL TYPE" GATES

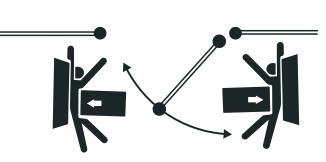
The primary arm is designed to clamp onto the output shaft in such a way that the arm will slip on the shaft in the event that an obstruction exists in the path of the gate. The bolts for securing the primary arm should be tightened to a torque that will cause the gate to push with minimum force. Tighten both bolts with equal torque, then push on the end of the gate to determine the amount of force necessary to cause the arm to slip.

## **A 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.
- A swinging gate shall NOT open into public access ways.





## WARNING SIGN PLACEMENT

The gate operator is provided with two safety warning placards. The placards are to be installed on each side of the gate where they are plainly visible. The placards may be mounted using sheet metal screws through the six holes provided on each placard.

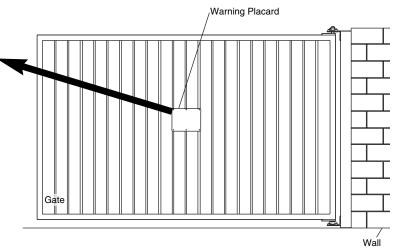
All warning signs and placards must be installed where visible in the area of the gate.

## **A WARNING**

To prevent SERIOUS INJURY or DEATH from a moving gate:

- Install warning signs on EACH side of gate in PLAIN VIEW.
- Permanently secure each warning sign in a suitable manner using fastening holes.





## INSTALLATION

## **PREPARATION**

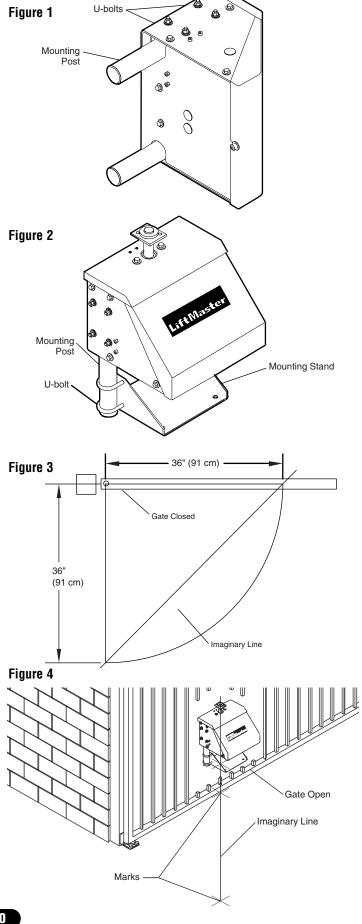
For post mount installation, install the posts onto the operator. The posts are first inserted up into the bottom of the operator. The posts are secured by tightening U-bolt nuts from the outside (Figure 1).

For optional concrete pad mount installation, short posts are installed onto the operator and secured by tightening the U-bolt nuts from the outside. The concrete pad mounting plate is then installed onto the bottom of the posts (Figure 2).

## **DETERMINE GATE OPERATOR LOCATION**

Determine the location where the operator is to be installed permanently. First close the gate and make a mark on the ground below the gate at 36" (91 cm) from the hinge. Open the gate and again make a mark on the ground at 36" (91 cm) from the hinge. A line may then be drawn though the two marks on the ground. The operator will then be placed so the shaft lies on the line (Figure 3).

Place the operator in its approximate location so that the center of the shaft is located along the line that was previously drawn (Figure 4). Allow some clearance for the gate so the gate will not run into the operator during operation.



## INSTALLATION

## **POST MOUNTING**

When the gate operator location has been determined, make two post holes at the location of the posts. Place the operator with posts so that the posts protrude down into the post holes. Set the operator at the desired height from the ground. Secure the operator from movement and pour concrete into the holes. Allow adequate time for the concrete to harden (Figure 5).

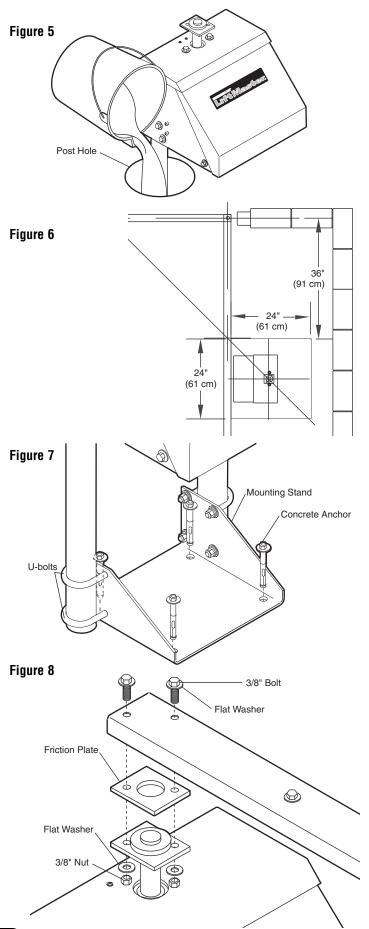
## PAD MOUNTING

If there is no existing concrete pad, and the gate operator will be concrete pad mounted, use the illustration as a guide for locating and sizing the concrete pad (Figure 6). There should be at least 6" (15 cm) of depth into the ground or below the frost line.

For concrete pad mount installation, first place the operator with concrete mounting stand at its desired location on the concrete surface. It is necessary to first mark through the holes onto the concrete, then remove the operator to drill the holes with a 3/8" masonry bit. The operator may then be set back in place. Insert the 3/8" concrete anchors into the holes and tighten (Figure 7).

## CONTROL ARM ASSEMBLY

Attach the primary arm onto the end of the operator shaft as shown (Figure 8). It may be convenient to not completely tighten the bolts securing the arm at this point.



## INSTALLATION

## GATE BRACKET AND PIPE ARM INSTALLATION

Temporarily attach the gate bracket onto the gate with clamps at the location shown (Figure 9). When the gate bracket location is established, it may be permanently attached. The gate bracket may be permanently affixed to the gate by welding or by bolting through the gate and gate bracket.

The second arm pipe needs to be cut to a length appropriate for the specific location chosen for the gate operator. First put the gate into the close position and point the primary arm toward the gate bracket (Figure 10). Be sure the swivel joints are also pointing toward each other. Measure the distance between the two swivel joints.

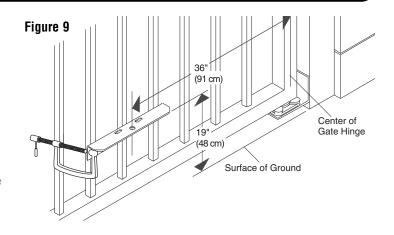
Put the gate into the open position and point the primary arm away from the gate bracket (Figure 11). Again be sure that the swivel joints are pointing toward each other. Measure the distance between the gate brackets. Compare the measurement to the previous measurement from the close position. The measurements should be the same.

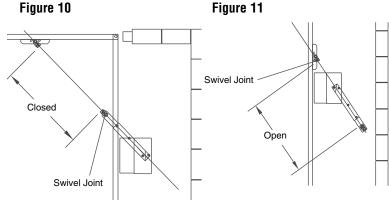
If the two measurements are not the same it will be necessary to adjust the length of the primary arm by loosening the two bolts on the primary arm (Figure 12). Repeat the above measurements until the two measurements are equal. Once equal, securely tighten the two bolts on the primary arm.

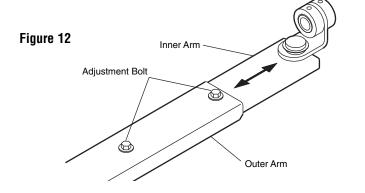
The second arm is shipped in two pieces and must be assembled. Connect the two pipe arm together with the pipe coupling and securely tighten them.

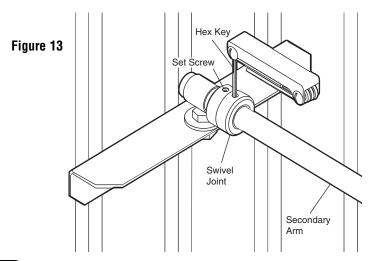
Use the measurement from adjusting the primary arm to determine the length of the second pipe arm. Take the previously determined measurement and add 3" (7.6 cm). This allows the extra pipe (that is necessary) to protrude into the swivel joint. Cut the arm with a hack saw.

When the pipe arm has been cut, it may be attached to the gate operator and gate bracket. Insert the pipe into both the swivel joint on the primary arm, and the swivel joint on the gate bracket. Secure the pipe arm to both swivel joints by tightening the set screws on the swivel joints (Figure 13).









## WIRING

# **MARNING**

To reduce the risk of SEVERE INJURY or DEATH:

- ANY maintenance to the operator or in the area near the operator MUST NOT be performed until disconnecting the electrical power and locking-out the power via the operator power switch. Upon completion of maintenance the area MUST be cleared and secured, at that time the unit may be returned to service.
- Disconnecting power at the fuse box BEFORE proceeding.
   Operator MUST be properly grounded and connected in accordance with local electrical codes. NOTE: The operator should be on a separate fused line of adequate capacity.
- ALL electrical connections MUST be made by a qualified individual.

- DO NOT install any wiring or attempt to run the operator without consulting the wiring diagram. We recommend that you Install an optional reversing edge BEFORE proceeding with the control station installation.
- ALL power wiring should be on a dedicated circuit and well protected. The location of the power disconnect should be visible and clearly labeled.
- ALL power and control wiring MUST be run in separate conduit.
- BEFORE installing power wiring or control stations be sure to follow all specifications and warnings described below. Failure to do so may result in SEVERE INJURY to persons and/or damage to operator.

## **POWER WIRING INSTALLATION**

Before making any electrical connections be sure that the power is switched off. If the gate operator is a standard 115V model, run conduit from the 115V power source into the gate operator (Figure 1). The gate operator is provided with a 90 degree flexible conduit fitting for installations where the electrical box is relatively close. Because of the 90 degree fitting, it is generally easier to run the electrical wires through the flexible conduit before attaching the conduit. Wiring for other devices such as push buttons may also be run at this time either in the same conduit or in another.

Make sure that wiring is employed as required by local codes.

If not already done, run three 12 gauge wires (hot, neutral and ground) from the power source, through the conduit and into the gate operator (Figure 2). It is easier to run these wires back out of the large hole in the operator along with the three existing wires. This allows the connection to be made externally and then later inserted back into the operator through the large hole. Be sure to use wire nuts to secure these connection. Be sure that the grounding wire is connected to a good earth ground.

Make the connections as follows:

- Black to (hot)
- White to (neutral)
- Green to (ground)

Figure 1

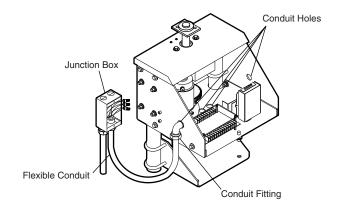
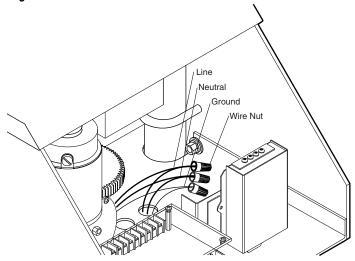


Figure 2



## WIRING

## BATTERY RUN INSTALLATION

If the gate operator is a battery run model, it is packaged from the factory with the battery disconnected. Connect the red wire to the positive battery terminal and the black wire to the negative battery terminal (Figure 3). There are wires provided for connecting the low voltage burial cable from the transformer to the gate operator. Be sure that the positive and negative match the positive and negative of the charger.

Connect the other end of the burial cable from the operator to the transformer. Be sure to match the positive and negative terminals of the charger to the positive and negative terminals of the battery (Figure 4). Once the connections are made, plug the charger into a 115V outlet. If possible, it is desirable to locate the charger out of the weather. Be sure the battery has been properly charged before putting into operation.

**NOTE:** Polarity must be correct.

## **SOLAR POWERED INSTALLATION**

If the gate operator is solar powered, no power will need to be run into the machine. The ends of the wires are provided with connectors which can simply be plugged in (Figure 5). Turn the panel so that it will get maximum sunlight during the day. If necessary the panel may be mounted away from the gate operator to get it out of the shade and into more consistent sunlight.

Similarly to the battery run, the solar operator comes with the battery wires disconnected. For both batteries, connect the black wires to the negative terminals and the red wires to the positive terminals (Figure 3). The wires have been labeled to make these connections easier to do.

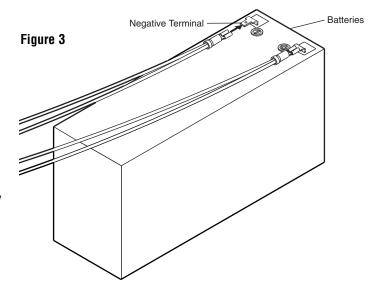
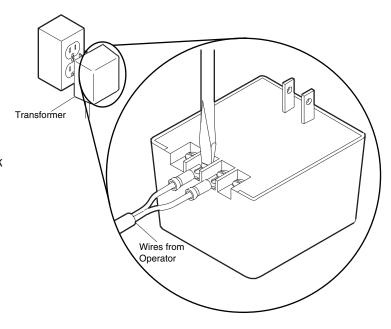
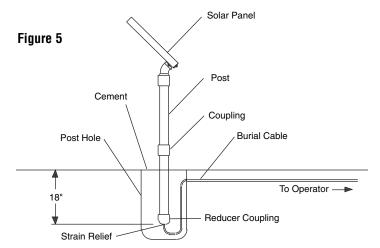


Figure 4





## ADJUSTMENT

## RIGHT/LEFT OPERATION

If the gate seems to be functioning in reverse, the Right/Left side operation switch may need to be flipped (Figure 1). One way to know if the operator is working in reverse is to try the sensitivity. If pressure is applied to the gate while it is closing, it should reverse and go open. If pressure is applied to the gate while it is opening, it should stop and remain stopped until activated again. If the gate operator responds differently than this, flip the Right/Left side operation switch. If the auto close timer function is turned on, this provides another way of knowing if the operator is working in reverse. If, when the gate gets closed, the operator automatically opens, the Right/Left side switch may need to be flipped the other way.

## **AUTO CLOSE TIMER ADJUSTMENT**

With the full systems capability control board there is the option of using the auto close timer which will close the gate automatically after it has opened.

To turn this feature on, flip the auto close timer to the on position (Figure 1). To adjust the amount of time it takes for the gate to begin closing use a small screw driver to turn the adjustment "pot" clockwise for more time (45 second maximum) or counter clockwise for less time. It is recommended that if the auto close timer function is used, that there be additional safety equipment installed to prevent the gate from closing into a vehicle or pedestrian.

## GATE SENSITIVITY ADJUSTMENT

This step is for sensitivity adjustments on the full systems capability control board.

To make adjustments, use a small screw driver to turn the adjustment "pots" clockwise for more sensitivity or counter clockwise for less sensitivity (Figure 1). There are separate adjustments for both the opening and closing directions of travel and these must both be adjusted. Try applying force against the gate while it is moving both open and close to test the setting (Caution: Do not stand directly in the path of the gate while doing this). The gate should stop or reverse easily.

## LIMIT SWITCH ADJUSTMENT

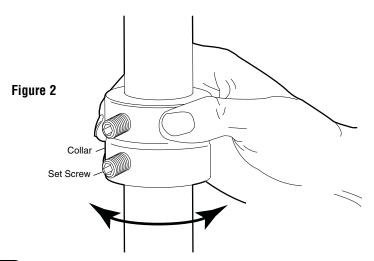
The limits of travel must be adjusted so that the gate stops correctly in the desired open and closed positions.

Adjust the open and close limits of travel by individually loosening the set screws on the limit collars, rotate the collar, then retighten the set screw (Figure 2). Notice that the set screw is what presses in the limit switch. Rotating the set screw closer to the limit switch will cause the gate operator to stop sooner, and rotating away from the switch will cause the gate to stop later. Be sure to adjust the close limit while the gate is open, and adjust the open limit while the gate is closed and remember to re-tighten the set screws.

## **A WARNING**

To reduce the risk of SEVERE INJURY or DEATH, disconnect power BEFORE performing ANY adjustments.

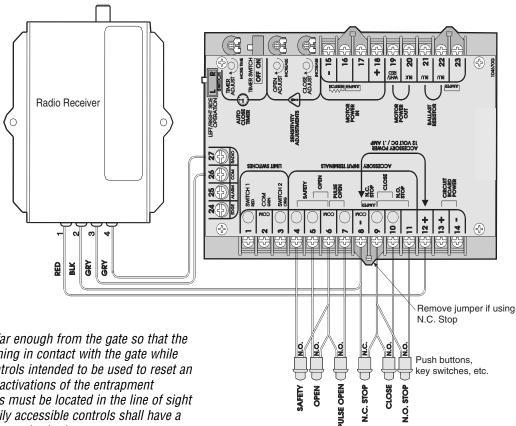
Figure 1 LEFT/RIGHT SIDE **OPERATION** SWITCH NOTE: Move switch up for right side installation and down for left side installation TIMER SWITCH OFF ON SENSITIVITY ADJUSTMENTS



## **A WARNING**

To protect against fire and electrocution:

• Disconnect power BEFORE installing or servicing operator.



**NOTES:** Controls must be far enough from the gate so that the user is prevented from coming in contact with the gate while operating the controls. Controls intended to be used to reset an operator after 2 sequential activations of the entrapment protection device or devices must be located in the line of sight of the gate. Outdoor or easily accessible controls shall have a security feature to prevent unauthorized use.

#### **OPEN INPUT:**

Any device that is used to open the gate from a closed position is an open input device. The device used must provide normally open contacts. These normally open contacts are connected to terminals 5 and 6. These open input terminals will cause the gate operator to open and/or close if the timer switch is in the OFF position. If the timer switch is in the ON position, these open input terminals will cause the gate operator to open and will hold the gate open until the input is released and the hold open time has elapsed.

## **CLOSE INPUT:**

Any device that is used to close the gate is a close input device. The device used must provide normally open contacts. These normally open contacts are connected to terminals 9 and 10. These close input terminals will cause the gate operator to close the gate any time the gate is in a non-closed position and can be used to override the timer and close the gate prematurely.

#### N.O. STOP INPUT:

This input functions identical to N.C. Stop with the exception that it requires normally open contacts. These contacts are connected to terminals 9 and 11.

#### N.C. STOP INPUT:

Any device that is used to stop the gate operator while it is running in the open or closed directions is a stop input device. These stop input devices must provide normally closed contacts. To connect these normally closed contacts, remove the stop iumper from terminals 8 and 9 and then connect the contacts to these same terminals 8 and 9.

## **SAFETY INPUT:**

Any device that is used to open and/or hold open the gate while the gate is in a non-closed position is a safety input device. The safety input device must provide normally open contacts. These contacts are connected to terminals 4 and 6. This function is especially useful when the auto close timer is being used in preventing the gate from accidentally closing on a pedestrian or vehicle.

## **PULSE OPEN INPUT:**

This input functions similarly to the standard open input with the exception that it will not hold the gate open if the input remains present. This feature will add additional security to the gate operator system in the event that there is a device that is stuck on. Pulse open is found at terminals 6 and 7.

## OTHER COMMON ACCESSORIES

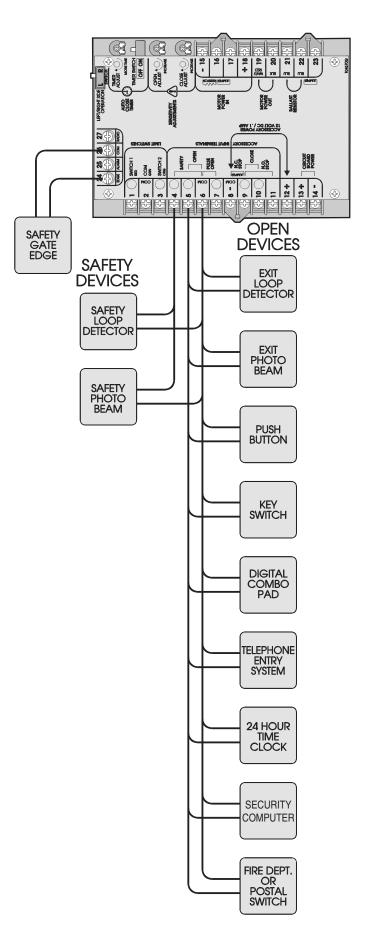
**IMPORTANT NOTE**: All controls that are to be used to operate the gate system must be installed where the user cannot come into contact with the gate while operating the controls where the user has full view of gate operation.

\*We strongly recommend that you follow the UL guidelines presented throughout the manual.

**Installation device instructions:** Always follow the instructions provided by the manufacturer when installing and adjusting any control device. If these instructions are contrary to the advice given here, call for assistance.

## **NOTES:**

- All open and safety devices must have normally open contacts.
- For devices requiring power, refer to the specific diagram for that particular device.



## **ACCESSORY WIRING**

## **OPTIONAL ACCESSORY WIRING**

#### MASTER/SECOND SYSTEMS

**NOTE:** The timer switch on the second circuit board must be OFF at all times.

- Connect 115Vac to each SW425 gate operator. Connect the Master/Second wires (4) from the master circuit board to the second circuit board (Figure 1). Any operator can be used as either a master or a second. Accessories can be connected to the master or second operator.
- Switch the Auto Close Timer switch to the OFF position on the second circuit board. The Auto Close Timer switch on the master circuit board may be switched either ON, if the timer function will be used, or OFF, if the timer function will not be used, but the second timer must always be switched OFF.

#### LIGHT DELAY TIMER WIRING

If it is desired that the driveway illuminate when the gate is activated, a light delay timer may be installed. The light delay timer will switch power on to the light for two minutes, then shut power back off. The timer relay is capable of switching up to 10 amps which will handle most flood or spot lights available. A general hook-up diagram for the light and timer is shown (Figure 2).

#### **EXTENDED AUTO CLOSE TIMER WIRING**

The standard auto close timer built into the circuit board can be adjusted to between 0 and 45 seconds. Some installations may require that the gate must stay open for more than 45 seconds before it automatically closes. The extended auto close timer may be hooked up as shown (Figure 3). This optional timer can be adjusted to automatically close the gate after the gate has been open between 1 and 100 minutes. The extended timer will add time onto the auto close timer already on the board. For more control, reduce the timer adjustment on the main control board to zero seconds and make all adjustments with the extended auto close timer knob.

#### WARNING ALARM WIRING

For added safety, a warning alarm may be installed in the gate operator to give audible warning that the gate is in motion. This will in some cases give extra time to get out of the way of the moving gate. The warning alarm is an ear piercing 120 decibel, dual tone, piezo siren that operates on 12Vdc. To install the alarm, mount the siren next to the circuit board and connect the positive wire to terminal 12 (12Vdc) (Figure 4). Connect the negative wire to limit switch 1 NC or limit switch 2 NC for the alarm to sound in the open or closed directions. Contact the manufacturer for connecting the alarm to sound in both directions. If the alarm is to loud, the sound may be partially muffled by applying tape over the two holes where the sound comes out.

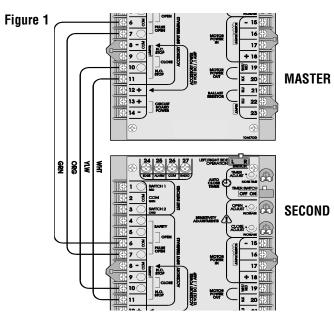


Figure 2

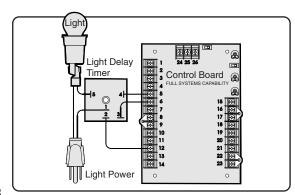
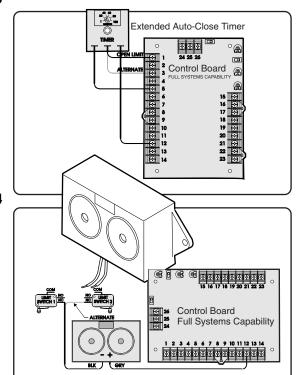


Figure 3



# OPERATION AND MAINTENANCE

## IMPORTANT SAFETY INSTRUCTIONS

## **A** WARNING

## To reduce the risk of SEVERE INJURY or DEATH:

- 1. READ AND FOLLOW ALL INSTRUCTIONS.
- 2. NEVER let children operate or play with gate controls. Keep the remote control away from children.
- 3. ALWAYS keep people and objects away from the gate. NO ONE SHOULD CROSS THE PATH OF THE MOVING GATE.
- 4. Test the gate operator monthly. The gate MUST reverse on contact with a rigid object or stop when an object activates the non-contact sensors. After adjusting the force or the limit of travel, retest the gate operator. Failure to adjust and retest the gate operator properly can increase the risk of INJURY or DEATH.
- 5. Use the emergency release ONLY when the gate is not moving.

- 6. KEEP GATES PROPERLY MAINTAINED. Read the owner's manual. Have a qualified service person make repairs to gate hardware.
- 7. The entrance is for vehicles ONLY. Pedestrians MUST use separate entrance.
- 8. Replace both batteries and connect red wires to red (positive) terminals. Connect black wires to black (negative) terminals.
- 9. Disconnect ALL power BEFORE performing ANY maintenance.
- ALL maintenance MUST be performed by a LiftMaster professional.
- 11. SAVE THESE INSTRUCTIONS.

## **MAINTENANCE**

The SW425 is designed to be maintenance free. However, for optimum performance and safety, the following maintenance procedures should be taken.

#### SENSITIVITY ADJUSTMENTS

The most important thing to maintain on any gate is the safety equipment. As the gate becomes older, the amount of force necessary to move the gate will vary. When this happens, the sensitivity adjustments may need to be readjusted. Check to see whether the sensitivity may need adjustment at least once a month. Actuate the gate a few times and observe the amount of force that is needed to reverse the gate in both directions. The gate should reverse relatively easy. If it does not reverse easily or does not reverse at all, adjust the gate sensitivity (page 15).

#### **CONTROL DEVICES**

From time to time check to see whether all of the control devices that are connected to the operator are functioning. This is especially important of interrupt devices such as reverse loops, reverse edges, photo beams or any other device which was installed in regards to safety.

#### **GATE**

Having a well maintained gate will ensure that the operator runs smoothly and safely. Occasionally inspect the gate to see that it swings easily at a normal speed and is free of any obstructions. See if the hinges show any sign of rusting and grease or oil if necessary. Observe the speed of the gate and determine if the gate operator appears to be working harder than usual.

## TROUBLESHOOTING

#### **EXPLANATION OF VISUAL FEEDBACK LEDS**

The SW425 Full Systems Capability circuit board has been equipped with Visual Feedback LEDs to simplify installation and troubleshooting. These are small lights which are located directly beside the input terminals. These LEDs give visual information to the installer or service technician indicating what commands are going into the circuit board from devices such as limit switches or from peripheral devices such as radio receivers or safety loops. There are also two LEDs which show output to the motor for both the opening and closing directions.

#### REMOTE CONTROL DOES NOT WORK

- Check the battery inside of the remote control and/or try another remote control.
- Check to see which LEDs are illuminated on the circuit board.
   For normal operating conditions, the only LEDs that should be illuminated are the stop input at terminal 9 and Limit Switch 1 input if the gate is in the fully open position or Limit Switch 2 input if the gate is in the fully closed position.
- If any of the input LEDs are illuminated on terminals 4, 5, 7 or 10, disconnect wire from that input terminal that is illuminated until the LED is extinguished to determine which input device may be stuck in an on condition.
- If it is the radio receiver that appears to be stuck in an on condition, check all remote controls to see if any of them are stuck on.
- Make sure that there is power (10 to 16Vdc) to the receiver on terminals 8 and 12 and make sure that the circuit breaker button is pressed in and that the motor fuse is not blown.
- If a click is heard while the remote control is being pressed and there is no response from the operator, check all receiver connections (page 16).
- If there is still no response, see GATE WILL NOT OPEN OR CLOSE on next page.

#### GATE TRAVELS TOO FAR/NOT FAR ENOUGH

- Adjust the gate sensitivity (page 15). If the gate sensitivity adjustment is too sensitive, the gate may stop in mid-travel.
- It may be necessary to lubricate any mechanical parts on the gate such as wheels and clean the gate track of any debris.
- Check the limit switch input LEDs on terminals 1 and 3 to see if
  either one is illuminated. If one of the limit switch input LEDs is
  illuminated and the gate has traveled too far or not far enough,
  this indicates that the limits of travel may need adjustment.
   Adjust the limits of travel (page 15). This adjustment may
  change slightly as the chain stretches due to normal wear and it
  may change dramatically if the limit plate is accidentally left not
  engaged with the limit nuts.
- If the limit nut has traveled past a limit switch, check the limit switch and all limit switch connections (pages 22 or 23).
- Watch the stop input LED on terminal 9 while the gate operator is running and see if the LED flickers or extinguishes. This may indicate a faulty stop input device or a poor connection between the stop input terminal 9 and common.
- If the stop input LED on terminal 9 flickers or extinguishes, check all connections to the stop input device and/or replace the faulty device.

INPUT	DESCRIPTION	
Limit Switch 1	This LED indicates that one of the normally open limit switches is pressed in and the gate is in the open position.	
Limit Switch 2	This LED indicates that one of the normally open limit switches is pressed in and the gate is in the closed position.	
Safety	This LED indicates that there is a closed contact between safety input terminal 4 and common.	
Open	This LED indicates that there is a closed contact between open input terminal 5 and common	
Pulse Open	This LED indicates that there is a closed contact between Pulse Open input terminal 7 and common. This LED also stays illuminated while the gate is opening.	
Normally Closed Stop	This LED indicates that there is a closed contact between stop input terminal 9 and common. Under normal operating conditions this LED must be in the on condition in order for the system to function.	
Close	This LED indicates that there is a closed contact between close input terminal 10 and common. This LED also stays illuminated while the gate is closing.	

## TROUBLESHOOTING

## GATE BEGINS TO OPEN OR CLOSE, THEN STOPS OR REVERSES

- Adjust the gate sensitivity (page 15). If the gate sensitivity adjustment is too sensitive, the gate may stop in mid-travel or reverse.
- It may be necessary to lubricate any mechanical parts on the gate such as wheels and clean the gate track of any debris.
- Watch the input LEDs on terminals 4, 5, 7 and 10 while the gate operator is running to see if any of the LEDs flicker or illuminate.
- If there is an input LED that flickers or illuminates while the gate is running, disconnect the wires one at a time from that input terminal until the LED does not flicker or illuminate to determine which input device may be activating.
- If it is the radio receiver that appears to be stuck in the on condition, check all remote controls to see if any of them may be stuck on. A stuck remote control may cause the gate operator to reverse.

#### **GATE WILL NOT OPEN OR CLOSE**

Test the operator to find out whether the open input devices are functioning by following these steps.

- If a remote control is being used to open the gate, try another remote control or try using a push button if there is one installed.
- If a push button is being used, try using another push button or a remote control.
- If there is no push button installed, the gate may be operated by connecting a jumper wire to terminal 6 and momentarily touching it to terminal 5 or 7.
- If the remote controls are not working, see REMOTE CONTROL DOES NOT WORK on the previous page.
- Check the motor fuse and replace it if necessary.
- Check to see which LEDs are illuminated on the circuit board.
   For normal operating conditions, the only LEDs that should be illuminated are the stop input at terminal 9 and Limit Switch 1 input if the gate is in the fully open position or Limit Switch 2 input if the gate is in the fully closed position.
- If any of the input LEDs are illuminated on terminals 4, 5, 7 or 10, disconnect wires from that input terminal that is illuminated until the LED is extinguished to determine which input device if any may be stuck.
- If the stop input LED on terminal 9 is not illuminated, check the stop input device if any are installed and all connections to the device. If no stop input device is installed make sure that there is a jumper between terminals 8 and 9 and that it is securely fastened.
- Check the circuit breaker button. If the circuit breaker is tripped, press it back in.
- Make sure there is power to the circuit board on terminals 13 and 15.

# GATE WILL NOT STOP OR REVERSE WHEN IT MEETS AN OBSTRUCTION

Adjust the gate sensitivity (page 15). The operator may need to be adjusted for more sensitivity. This is done by turning the open and close gate sensitivity adjustments clockwise for more sensitivity.

#### **GATE WILL NOT OPEN OR CLOSE**

- Make sure that the Right/Left side operation switch is in the correct position (page 15). If the Right/Left side operation switch is in the incorrect position, the auto close timer feature may be working in reverse and telling the gate operator to open after the auto close time has elapsed.
- Check to see if any input LEDs on terminals 4, 5 or 7 flicker or illuminate when the gate gets to the closed position.
- If any of the input LEDs flicker or illuminate on terminals 4, 5, or 7, disconnect wires from that input terminal that is illuminated until the LED is extinguished to determine which input device if any may be activating.

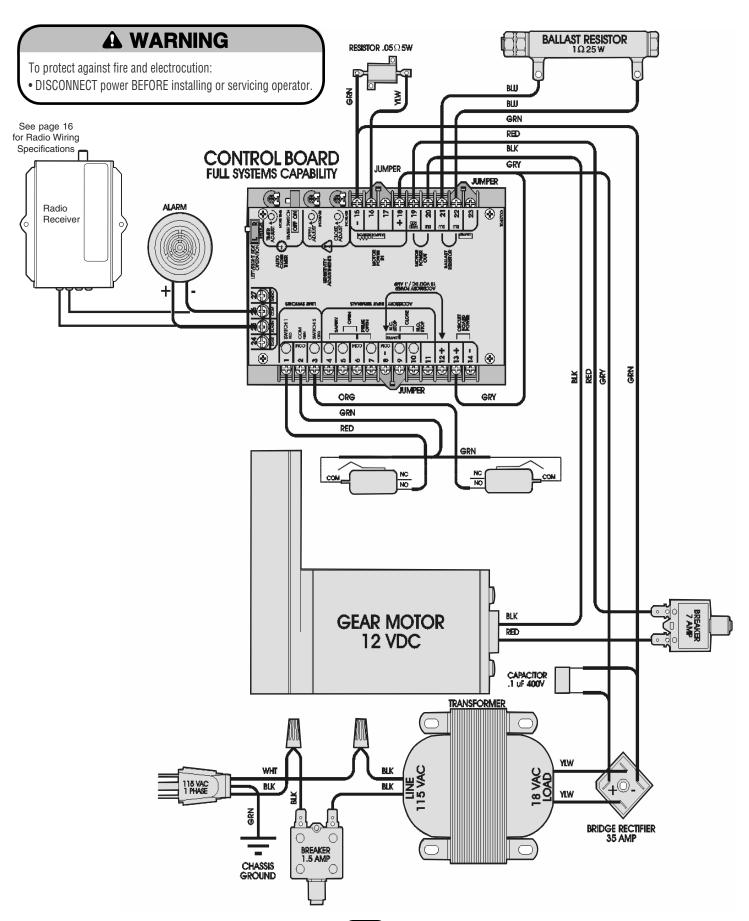
## TIMER WILL NOT CLOSE THE GATE

- Make sure that the Right/Left side operation switch is in the correct position (page 15). If the Right/Left side operation switch is in the incorrect position, the auto close timer feature may be working in reverse and telling the gate operator to open instead of close after the auto close time has elapsed.
- Make sure the auto close timer switch is in the ON position (page 15). The auto close timer switch is located on the top corner of the circuit board.
- Make sure that the radio receiver, push button or other open input device is connected to open input terminals 5 and 6. The timer may not work if any of these devices are connected to pulse open input terminals 6 and 7.
- Adjust the amount of auto close time (page 15). The auto close time may be set too high and is simply taking a long time to close. Do not continue pressing the remote control or other open or safety input devices because each time an open or a safety input is given the timer will reset and begin counting over.

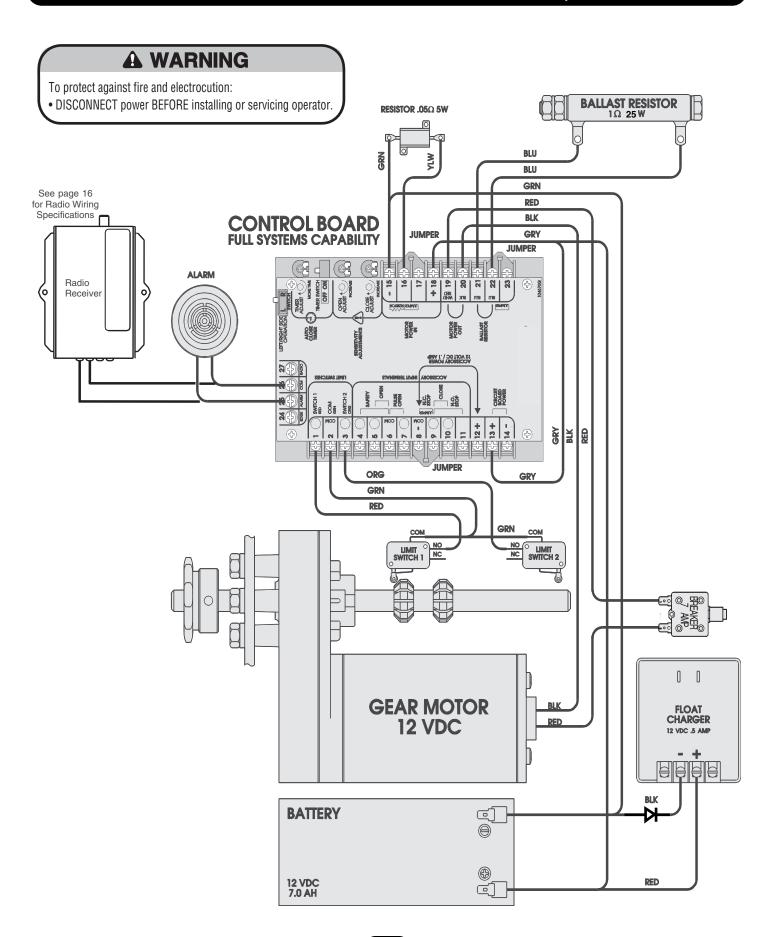
#### OPERATOR RUNS IN ONLY ONE DIRECTION

- Check to see which LEDs are illuminated on the circuit board. For normal operating conditions, the only LEDs that should be illuminated are the stop input at terminal 9 and Limit Switch 1 input if the gate is in the fully open position or Limit Switch 2 input if the gate is in the fully closed position.
- If any of the input LEDs are illuminated on terminals 4, 5, 7 or 10, disconnect wires from that input terminal that is illuminated until the LED is extinguished to determine which input device may be stuck.

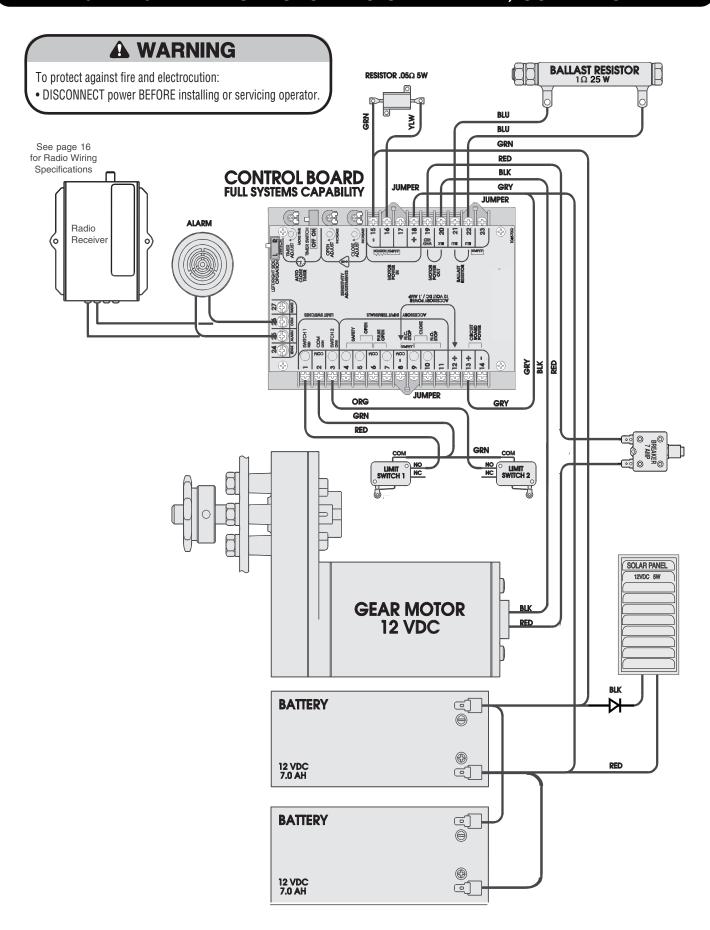
# WIRING DIAGRAM - FULL SYSTEMS CAPABILITY, 115 VAC



# WIRING DIAGRAM - FULL SYSTEMS CAPABILITY, BATTERY RUN



# WIRING DIAGRAM - FULL SYSTEMS CAPABILITY, SOLAR POWERED



NOTES

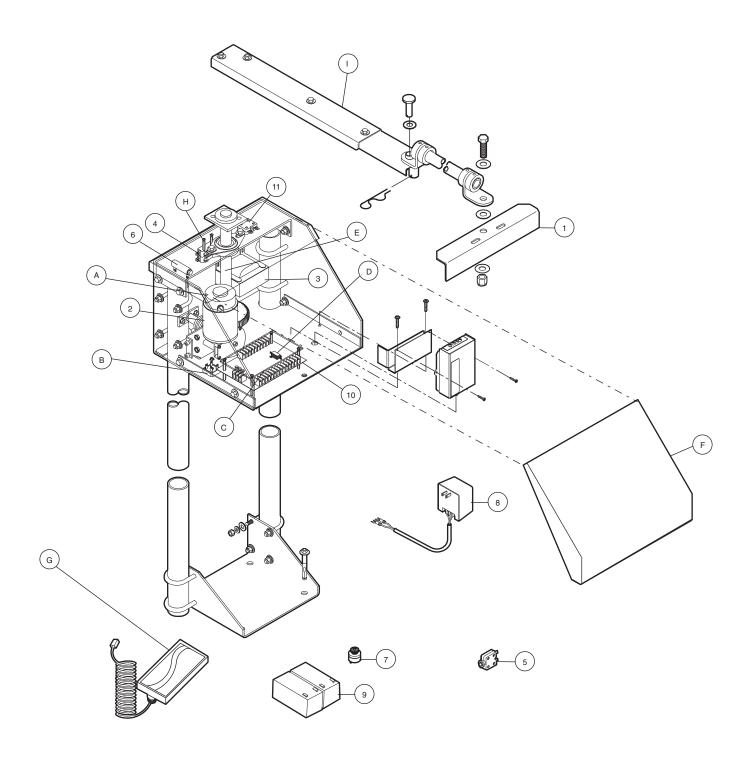
# REPAIR PARTS

Refer to the parts lists below for replacement parts available for your operator. If optional modifications and/or accessories are included with your operator, certain components may be added or removed from these lists. Please consult a parts and service representative regarding availability of individual components.

		SERVICE KITS
ITEM	PART#	DESCRIPTION
A	K75-40147	Motor Reducer Assembly Complete with: Gear Set, Motor Mount Bracket, Bearing Plate, Flange Bearing 7/16" ID, 12VDC Motor, 7 Amp Motor Breaker, Motor Standoffs 3.813, Bolts 1/4-20X5/8", Hex Bolts 5/16-18X3/4, Phillips Screws #1/4-20 X 5/8", Hex Head Cap Screws M6-1 X 120, Cap Screws M6 X 16, Flange Nuts 1/4-20, Flatwashers 1/4, Flatwashers 5/16, Lockwashers 1/4 and Roll Pin 1/4"x1-1/2".
В	K74-40084	Bridge Rectifier Assembly Complete with: Cap Rectifier, Bridge Rectifier, Phillips Screw #6-32x1" and Flange Nut 6-32.
С	K74-40045	Control Board Guard and Standoff Kit Complete with: Guard, Jumpers, Hex Standoffs 6-32x1" M/F, Hex Standoffs 6-32x1/2" F/F, Phillips Screws #6-32x1/4" and Phillips Screws #6-32x3/8".
D	K74-40065	External Resistor Service Kit Complete with: External Current Resistor, Shrink Wrap 1", Phillips Screws #2-56x1/2", Lock Nuts #2-56, 8" Green Wire and 8" Yellow Wire.
Е	K72-40146	Drive Shaft Assembly Complete with: Drive Shaft, Gear Set, Friction Plate, Self Aligning Pillow Block Bearings, Set Screw Collars 1", Button Screws 5/16-18x1/2", Hex Bolts 3/8-16x1", Hex Nuts 3/8-16, Flatwashers 3/8, Lockwashers 3/9 and Roll Pin 3/16"x3/4".
F	K74-40141	Operator Cover Service Kit Complete with: Cover, Label, Socket Screw 3/8-16x1", Flatwasher 3/8" and Plastic Washer 5/16.
G	K74-40031	Solar Panel Service Kit Complete with: Solar Bracket, Solar Panel, Modular Connect SP White, Modular Connect SP Yellow, Phillips Screws #8-32x5/8", Phillips Screws #1/4-20x5/8", Flange Nuts 8-32, Flange Nuts 1/4-20.
Н	K74-40151	Limit Switch Service Kit Complete with: SPDT Limit Switches, Hex Standoffs #6-32x1-1/4" FF, Phillips Screws #6-32x1-1/2", Phillips Screws #6-32x1/2" and Flatwashers #6.
ı	K75-40132	Primary and Secondary Arm Service Kit Complete with: Outer Primary Arm, Inner Primary Arm, Swivel Hex Bolts 3/8-16x1", Hex Bolt 1/2-13x1-1/2", Locknut 1/2-13, Hex Nuts 3/8-16, Flatwashers 3/8, Flatwashers 1/2", Lockwashers 3/9, Galvanized Coupling 3/4".

INDIVIDUAL PARTS		
ITEM	PART#	DESCRIPTION
1	10-40137	Gate Bracket
2	20-40155	Motor, 12VDC
3	21-40074	Transformer, 120V 60HV
4	23-40161	Limit Switch, SPDT
5	25-40083	Overload 1.5 Amp
6	29-40071	Resistor, 1 OHM, 25W OHMITE
7	29-40089	Sonalert Piezo Alarm
8	29-40095	Battery Charger, 12V.5A Dual Stg.
9	29-NP712	Battery, 12V 7AH
10	K79-40056	Control Board, Full System
11	25-40152	Motor breaker 7 Amp
	NOT SHOWN	
	K79-40098	Control Board, Solar
	13-10465	Limit Collar

# ILLUSTRATED PARTS



## **WARRANTY POLICY**

## LIFTMASTER® TWO YEAR LIMITED WARRANTY

The Chamberlain Group, Inc. warrants to the first retail purchaser of this product, for the structure in which this product is originally installed, that it is free from defect in materials and/or workmanship for a period of two years from the date of purchase. The proper operation of this product is dependent on your compliance with the instructions regarding installation, operation, maintenance and testing. Failure to comply strictly with those instructions will void this limited warranty in its entirety.

If, during the limited warranty period, this product appears to contain a defect covered by this limited warranty, call 1-800-528-2806, toll free, before dismantling this product. Then send this product, pre-paid and insured, to our service center for warranty repair. You will be advised of shipping instructions when you call. Please include a brief description of the problem and a dated proof-of-purchase receipt with any product returned for warranty repair. Products returned to Seller for warranty repair, which upon receipt by Seller are confirmed to be defective and covered by this limited warranty, will be repaired or replaced (at Seller's sole option) at no cost to you and returned pre-paid. Defective parts will be repaired or replaced with new or factory-rebuilt parts at Seller's sole option.

ALL IMPLIED WARRANTIES FOR THE PRODUCT, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE TWO YEAR LIMITED WARRANTY PERIOD SET FORTH ABOVE, AND NO IMPLIED WARRANTIES WILL EXIST OR APPLY AFTER SUCH PERIOD. Some States do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. THIS LIMITED WARRANTY DOES NOT COVER NON-DEFECT DAMAGE, DAMAGE CAUSED BY IMPROPER INSTALLATION, OPERATION OR CARE (INCLUDING, BUT NOT LIMITED TO ABUSE, MISUSE, FAILURE TO PROVIDE REASONABLE AND NECESSARY MAINTENANCE, UNAUTHORIZED REPAIRS OR ANY ALTERATIONS TO THIS PRODUCT), LABOR CHARGES FOR REINSTALLING A REPAIRED OR REPLACED UNIT, OR REPLACEMENT OF BATTERIES.

THIS LIMITED WARRANTY DOES NOT COVER ANY PROBLEMS WITH, OR RELATING TO, THE GATE OR GATE HARDWARE, INCLUDING BUT NOT LIMITED TO THE GATE ALIGNMENT OR HINGES. THIS LIMITED WARRANTY ALSO DOES NOT COVER ANY PROBLEMS CAUSED BY INTERFERENCE. ANY SERVICE CALL THAT DETERMINES THE PROBLEM HAS BEEN CAUSED BY ANY OF THESE ITEMS COULD RESULT IN A FEE TO YOU.

UNDER NO CIRCUMSTANCES SHALL SELLER BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES ARISING IN CONNECTION WITH USE, OR INABILITY TO USE, THIS PRODUCT. IN NO EVENT SHALL SELLER'S LIABILITY FOR BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE OR STRICT LIABILITY EXCEED THE COST OF THE PRODUCT COVERED HEREBY. NO PERSON IS AUTHORIZED TO ASSUME FOR US ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF THIS PRODUCT.

Some states do not allow the exclusion or limitation of consequential, incidental or special damages, so the above limitation or exclusion may not apply to you. This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

## HOW TO ORDER REPAIR PARTS

OUR LARGE SERVICE ORGANIZATION SPANS AMERICA

FOR INSTALLATION AND SERVICE INFORMATION CALL OUR TOLL FREE NUMBER

1-800-528-2806

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PLEASE SUPPLY THE FOLLOWING INFORMATION:
PART NUMBER DESCRIPTION MODEL NUMBER

ADDRESS ORDER TO:

THE CHAMBERLAIN GROUP, INC. Technical Support Center 6020 Country Club Road Tucson, AZ 85706