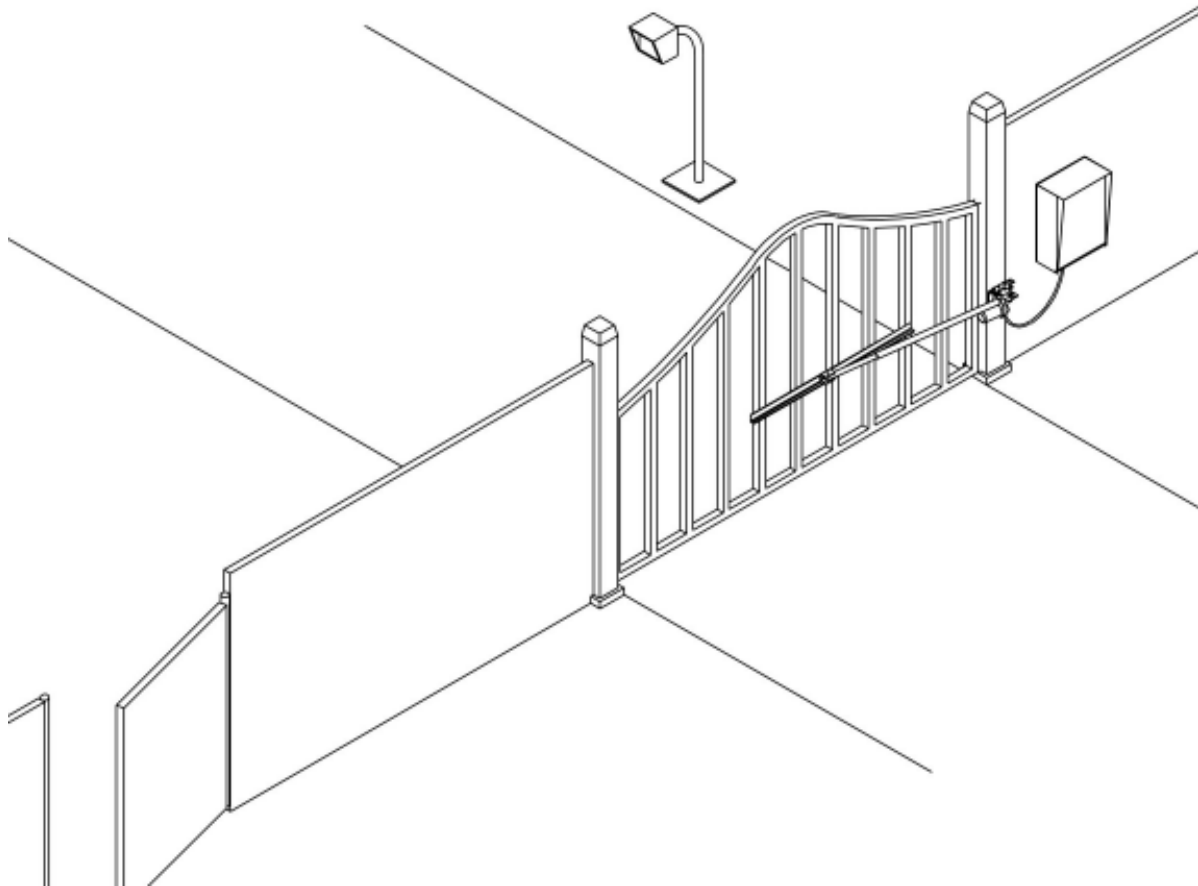


LA36

INSTALLATION GUIDE



OSCO[®]

OPERATOR SPECIALTY COMPANY, INC.

CASNOVIA, MI 49318 • U.S.A.



OSCO REQUIRES THE USE OF CONTACT EDGES OR PHOTOELECTRIC CONTROLS ON ALL AUTOMATIC OR REMOTELY-CONTROLLED GATE OPERATORS.

LA36 OPERATOR INSTALLATION GUIDE

TABLE OF CONTENTS

PRE-INSTALLATION INFORMATION

Safety Information and Warnings	3
Pre-Installation Information	3
Warranty	3

INSTALLATION

Wiring Specifications	4
Post/Pillar Bracket Installation	5
Gate Bracket Installation	5
Control Box Mounting	5
Gate Layout Illustration	6
Limit Switch Adjustment	7

CONTROL BOARD ADJUSTMENTS and ACCESSORY CONNECTIONS

Control Board Adjustments	8
Terminal Connection Descriptions	9
Current Sensing Adjustments	10
Close Direction Current Sense Adjustment	10
Open Direction Current Sense Adjustment	10
Maximum Run Timer Adjustment	10
Auto Close Timer Adjustment	10
Battery Back-Up Charger Board Configuration	10
Master/Slave Connection	10
Onboard L.E.D. Indicator Descriptions	11
Charger Board Sleep Mode	12
Surge Protector Instructions	12
Control and Accessory Connection Illustrations	13-16

ILLUSTRATIONS

Loop Layout Illustration	17
Edge Layout Illustration	18
Photo Eye Illustration	19

TROUBLESHOOTING

.....	20
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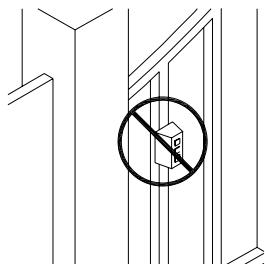
PARTS LISTS

How to Order Replacement Parts	20
Model LA36 Mechanical Parts Exploded View and Parts List	21
Model LA36 Control Box Exploded View and Parts List	22

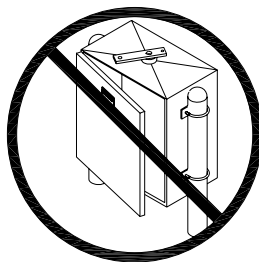
PREVENTATIVE MAINTENANCE

Battery Maintenance	23
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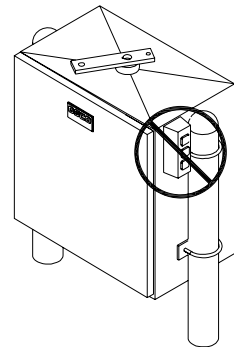
GATE OPERATOR INSTALLATION CHECKLIST	24
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CAUTION!
DO NOT INSTALL
CONTROLS ON OR
NEAR THE GATE



CAUTION!
ONLY QUALIFIED SERVICE
TECHNICIANS SHOULD
WORK ON AN OSCO
SWING GATE OPERATOR



CAUTION!
DO NOT INSTALL
CONTROLS ON
THE OPERATOR

LA36 OPERATOR INSTALLATION GUIDE

GATE OPERATOR CLASSIFICATIONS

All gate operators can be divided into one of four different classifications, depending on their design and usage.

Class I Residential Vehicular Gate Operator

A vehicular gate operator intended for use in a home of one to four single family dwellings, or garage or parking area associated with these dwellings.

Class II Commercial / General Access Vehicular Gate Operator

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

Class III Industrial / Limited Access Vehicular Gate Operator

A vehicular gate operator intended for use in an 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 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.

IMPORTANT!!

Before installing the gate operator, make sure the gate's swing is free and level throughout the entire swing path. If the gate does not seem to operate properly, it may affect the operator performance or greatly shorten the life of the unit. The gate should be designed so that airflow is ample to prevent wind resistance and drag.



SAFETY INFORMATION AND WARNINGS

Read the following before beginning to install OSCO swing gate operators:

1. Read the orange "Safety Instructions" brochure enclosed with the packet of information. If you do not have one, please call OSCO at 1-800-333-1717 to request one. Read and follow all instructions.
2. All electrical connections to the power supply must be made by a licensed electrician and must observe all national and local electrical codes.
3. A separate power-disconnect switch should be located near the operator so that primary power can be turned off when necessary.
4. Install the enclosed warning signs on both sides of the gate. Each sign must be plainly visible from the side of the gate on which they are mounted.
5. Never reach between, through or around the fence to operate the gate.
6. You must install all required safety equipment.

PRE-INSTALLATION INFORMATION

Before unpacking, inspect the carton for exterior damage. If you find damage, advise the delivery carrier of a potential claim. Inspect your package carefully. You can check your accessory box parts with the enclosed packing slip for your convenience. Claims for shortages will be honored for only 30 days from the date of shipment.

Before installing the operator, read this manual completely to ensure all requirements for proper installation are present. Verify that the voltage to be used matches the voltage of the operator.

The following contact or non-contact obstruction detection devices have been approved for use with OSCO slide gate operators as part of a UL325 compliant installation:

Contact Edges:

Miller Models*: MG0-20, MGR-20, MGS-20, and ME-120

Photoeyes:

2520-441	MMTC Model IR-55 photoeye, 165' with mounting hardware
2520-031	MMTC Model E3K photoeye, 28' with mounting hardware

**for OSCO part numbers, contact a sales representative for details*

LA36 OPERATOR INSTALLATION GUIDE

WIRING SPECIFICATIONS

1. Select from the chart at the bottom of this page corresponding to the model, voltage and horsepower rating of your operator.
2. The distance shown on the chart is measured in feet from the operator to the power source. **DO NOT EXCEED THE MAXIMUM DISTANCE.** These calculations have been based on standard 115V with a 10% drop allowable. If your supply is under the standard rating, the runs listed may be longer than what your application will handle, and you should not run wire too near the upper end of the chart for the gauge of wire you are using.
3. When large-gauge wire is used, a separate junction box (not supplied) may be needed for the operator power connection.
4. All control devices are now 24VDC, which can be run considerable distances.
5. Wire run calculations are based on the National Electrical Code, Article 430 and have been carefully determined based on motor inrush, brake solenoids, and operator requirements.
6. Connect power in accordance with local codes. **The green ground wire must be properly connected.**
7. Wire insulation must be suitable to the application.
8. Control wiring must be run in a separate conduit from power wiring. Running them together may cause interference and faulty signals in some accessories.

USE COPPER WIRE ONLY!

MODEL LA36

Power Wiring			
Volts & HP	Max Distance		Wire Gauge
	Single	Dual	
115V	3288	1644	14
	5224	2612	12

MODEL LA36 ACCESSORY WIRING

All DC Models		
Volts	Maximum Distance (ft.)	Wire Gauge
24VDC	0-2000	14

LA36 OPERATOR INSTALLATION GUIDE

CONTROL BOX MOUNTING

For dual-leaf applications, both linear drive motors will connect to a single control box. Locate the control box in the vicinity of either linear actuator motor. Mount the box firmly to a non-movable object. Knockouts are provided for conduits. Do not mount the control box where a lawn sprinkler may spray water on it.

NOTE: When installing the cable connecting the operator to the control box, be sure to leave some slack to allow for the swing of the gate. Water tight connectors are highly recommended.

POST/PILLAR BRACKET INSTALLATION

Several brackets have been supplied for post or pillar mounting. The post pillar bracket, operator mounting bracket, and spacer plate can be combined in various configurations to fit most applications. It is very important to achieve the required mounting location for proper operation and to avoid premature failure.

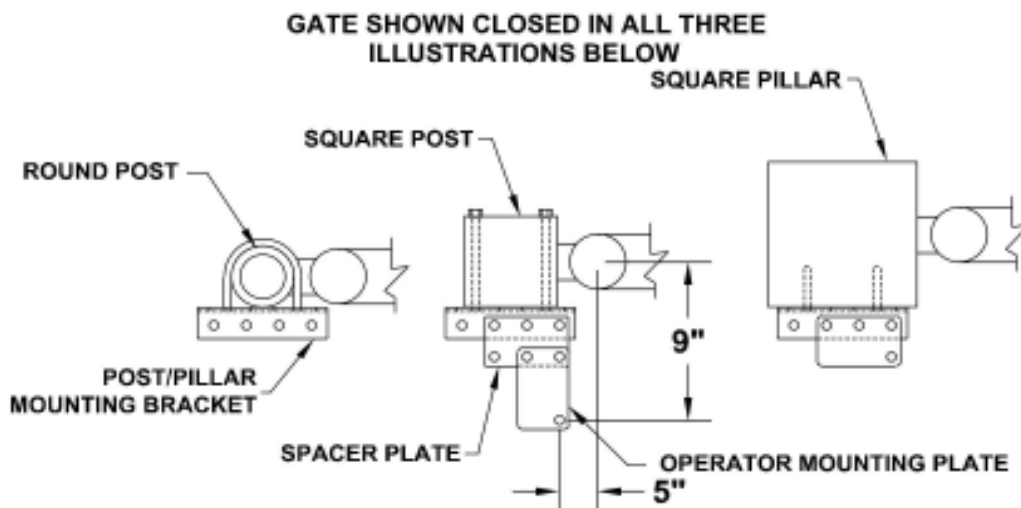
1. Locate the post pillar bracket vertically approximately halfway up from the ground relative to the overall gate height.
2. If mounting to a round post of 4" diameter or less, use two U-bolts to attach the post/pillar bracket.
3. If mounting to a square post, use either through bolts or, if applicable, weld the bracket to the post directly. Avoid drilling into mortar joints wherever possible.
4. When mounting to a pillar, anchor the bracket using 1/2" lag bolts and lag bolt anchors. Drill 3/4" diameter holes to a depth of 4" using a rotary hammer percussion drill. Insert lag bolt anchors for 1/2" diameter lag bolts. Lubricate bolts before installation and tighten in place when done.

GATE BRACKET INSTALLATION

Refer to the illustration on the following page.

1. Open the gate to approximately 90 to 95 degrees (full open position).
2. Carefully mount the operator to the post/pillar bracket assembly and hold the front end of the operator level and in its fully open position. If necessary, you can temporarily apply power to the operator to open it fully. **DO NOT ALLOW THE DRIVE TUBE TO SPIN!**
3. Line up the gate bracket with the linear actuator and mark the position. Clamp the bracket in place. Once its final position is set, permanently attach the bracket.
4. Run the operator to the fully-closed position, adjusting the close limit as needed to achieve full travel. Make any mounting changes needed to achieve full travel without the operator binding against the post, gate, etc.

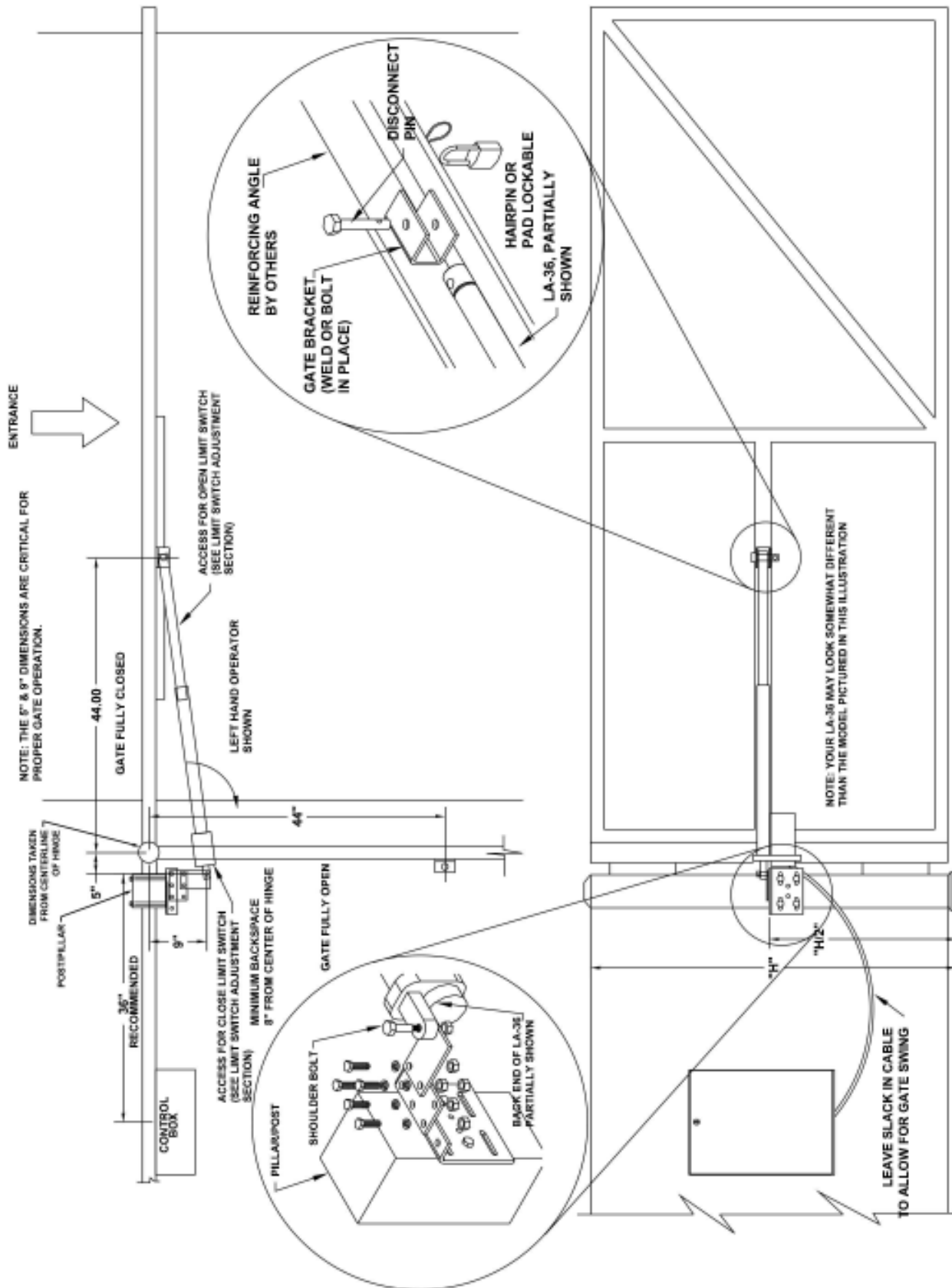
The factory suggested mounting will use approximately 14" of stroke. The maximum available stroke for the LA36 is 18".



A SEPARATE PEDESTRIAN GATE IS REQUIRED FOR ALL PEDESTRIAN TRAFFIC. THIS GATE MUST BE A MINIMUM DISTANCE OF 7 FEET FROM THE VEHICULAR GATE AND GATE OPERATOR

LA36 OPERATOR INSTALLATION GUIDE

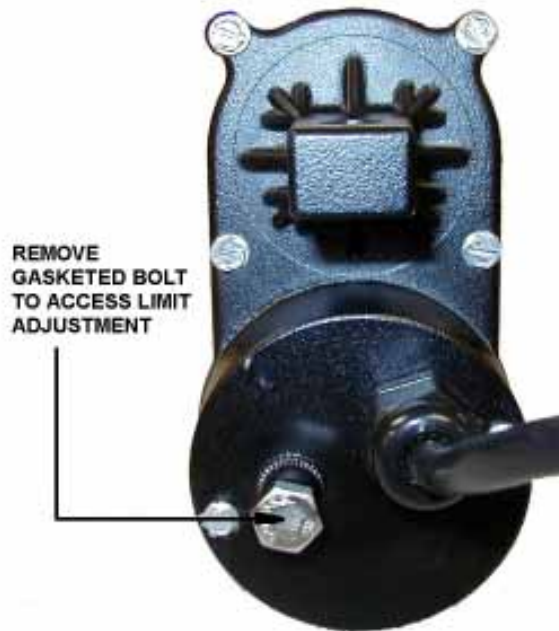
GATE LAYOUT ILLUSTRATION



LA36 OPERATOR INSTALLATION GUIDE

WARNING!
YOU MUST TURN OFF THE POWER SWITCH
LOCATED IN THE LA36 CONTROL BOX
BEFORE ADJUSTING LIMITS OR
SERVICING THE OPERATOR.

DO NOT ALLOW THE DRIVE TUBE TO SPIN WHEN RUNNING!

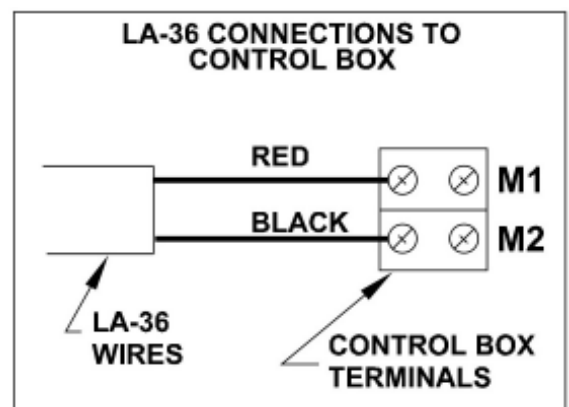


LIMIT SWITCH ADJUSTMENT

The limit for open is adjusted by screwing the inner tube in or out. The tube can only be screwed in about 1/2" before bottoming out.

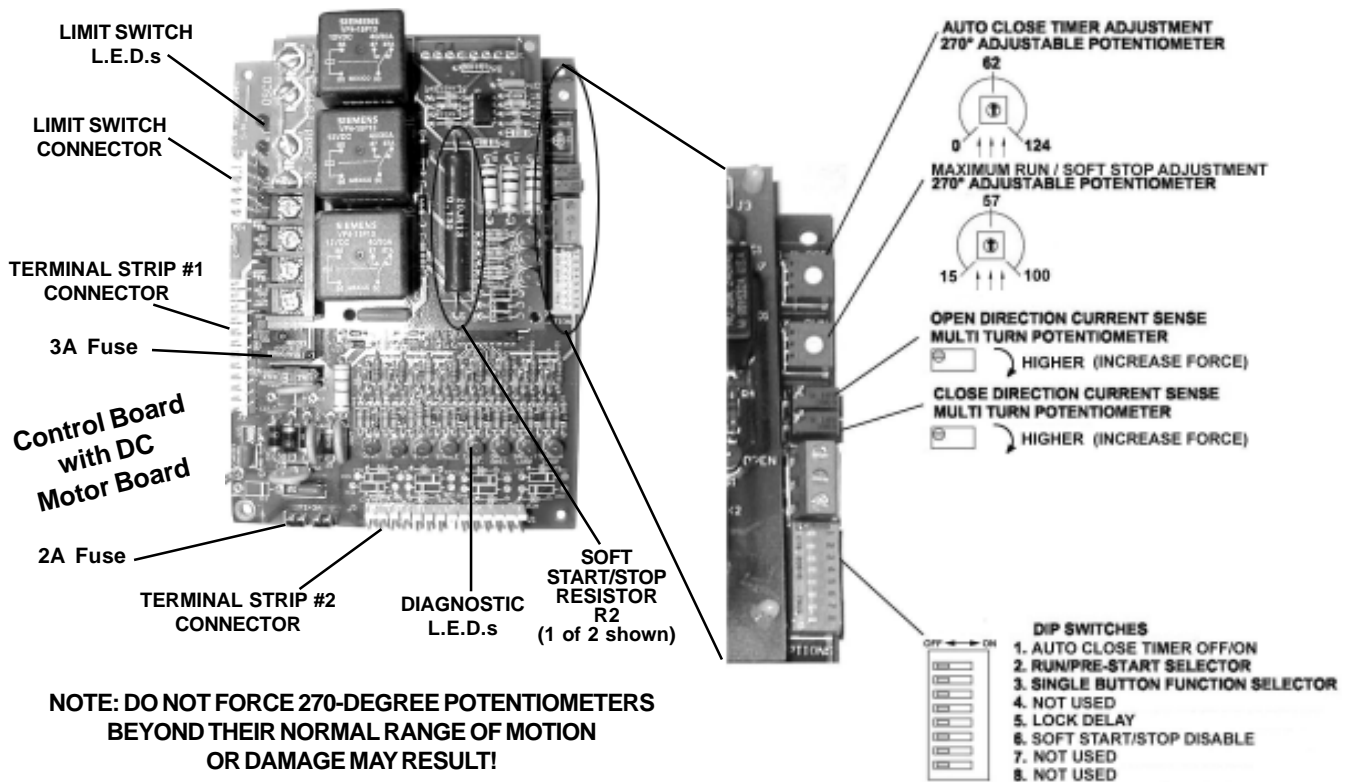
The limit for close is accessed by removing the gasketed bolt in the coupler of the rear cover. Using a standard, 1/4"-wide screwdriver, the adjustment screw can be turned one click at a time. Each click adjusts the closing position by approximately 4" for a 10-foot-wide gate. Each clockwise click will allow the gate to swing further closed.

Fine tuning can be accomplished by turning the tube 1/2 turns, keeping in mind that it will also affect the full-open position.



LA36 OPERATOR INSTALLATION GUIDE

CONTROL BOARD ADJUSTMENTS



Auto Close Timer Adjustment: This 270-degree adjustable potentiometer will signal the operator to close automatically, provided no open, reversing or obstruction signals are present from the fully-open position. This timer is adjustable from 0 to 124 seconds. This feature is turned on or off using dip switch #1.

Maximum Run Timer Adjustment: This 270-degree adjustable potentiometer sets the amount of full speed run time for the operator, as well as the maximum run time. There should be approximately three seconds of slow speed travel before reaching the end of travel. Maximum run is set automatically as 10 seconds longer than the length of time at full speed.

Open Direction Current Sense Adjustment: This multi-turn potentiometer is used to calibrate the built-in current sensing feature for detection of obstructions while running in the open direction.

Close Direction Current Sense Adjustment: This multi-turn potentiometer is used to calibrate the built in current sensing feature for detection of obstructions while running in the closed direction.


Dip Switches:


- #1 This switch turns the auto close timer off/on.
- #2 This switch is used in conjunction with alarms and flashing lights that may be added to the operator. When the switch is in the **ON** position, these devices will start approximately two seconds prior to the operator starting. In the **OFF** position, the devices will only work while the operator is running.
- #3 This switch is used in conjunction with single-button controls and radio receivers. In the **ON** position, successive inputs will cause signals in the order of **OPEN-STOP-CLOSE-STOP**. In the **OFF** position, inputs will cause an **OPEN** signal unless the gate is fully open, in which case it will signal **CLOSE**.
- #4 Not used at this time.
- #5 When turned **ON**, this switch will allow a one-second delay for solenoid locks to unlock before the motor starts.
- #6 When turned **ON**, this switch disables the soft start/stop feature. If the switch is in the **OFF** position and the soft start/stop isn't noticeable, remove one of the two R2 resistors.
- #7 Not used at this time.
- #8 Not used at this time. Set to **OFF**.


LA36 OPERATOR INSTALLATION GUIDE

TERMINAL CONNECTION DESCRIPTIONS

TERMINALS	FUNCTION	DESCRIPTION OF FUNCTION
24VDC+ 24VDC- COMM.	24VDC	Provides fused 24Volt DC power for accessories.
1 & 4	OPEN	Opens the operator. Several accessories such as button stations, keypads, transmitters and card readers can be wired to open.
3 & 4	CLOSE	Closes the operator. Use caution when wiring accessories to these terminals. The gate must be clearly visible from the location of any accessories wired to close.
4 & 5	SINGLE-BUTTON	Performs the single-button function which will alternate between open and close or open, stop and close - depending on dip switch #3. (See page 8 for details.)
2 & 4	STOP	Stops the operator. If no stop button is used, a jumper is required across 2&4 .
4 & 6	REVERSE	This function will cause a reversal when the gate is traveling closed and will travel back to the fully open position. Loop detectors are often wired for reverse.
4 & 50	OPEN OBSTRUCTION	This function works only while the operator is opening. Any signal to this function will cause the gate to stop, reverse a short distance, and then stop again. At this time the auto close timer is disabled, and a renewed input will be required to start the gate again. Should the gate be restarted and the signal occur again prior to reaching a limit, the gate will stop again, and this time will sound the emergency alarm and lock out.
4 & 51	CLOSE OBSTRUCTION	This function works exactly like the OPEN OBSTRUCTION, except that it will only work in the closing direction.
4 & 11	SHADOW/HOLD	This function will keep the gate in its fully open position while the signal is present. This is typically used with a loop and loop detector to keep a large swing gate open while vehicular traffic is passing through.
24VDC+ & 60	RUN/PRE-START	A 24Volt DC device such as a strobe light or alarm can be wired to these terminals. Depending on dip switch #2, these devices will either begin three seconds before the operator starts, or only while the motor is running. (See page 8 for details.)

 You must follow all required safety precautions and instructions at all times. Review the safety brochure included with the operator. If any pages are missing or unreadable, contact OSCO at 1-800-333-1717 to request additional copies.

 Never connect a button station within reach of the gate or on the side of the gate operator or operator control box.

 Do not adjust the circuit board current sensing feature too high. It should be adjusted high enough to keep the gate from falsely triggering the sensing, but no higher than necessary for the gate to operate. Do not defeat the purpose of this function!

LA36 OPERATOR INSTALLATION GUIDE

CURRENT SENSING ADJUSTMENTS

Because gates vary in construction and may have different force requirements in the open and close directions to move, the OSCO control board has separate Multi-turn potentiometers for adjusting in both directions independently. The adjustment should be set light enough to maintain minimal force (40 lbs.) should an obstruction occur, but high enough to keep the gate moving under normal conditions without interruption.

Prior to adjusting the operator current sensing functions, make sure the gate moves freely in both directions. A badly aligned or poorly maintained gate may cause false triggering of the current sensor. Refer to page 8 when following the instructions below. A factory adjustment tool has been supplied to make these adjustments easier. This tool can be found in the information packet.

CLOSE DIRECTION CURRENT SENSE ADJUSTMENT

When the gate operator leaves the factory, it has been preset for a relatively light gate function and will require additional adjustment. Begin by starting the gate going closed. If the operator stops and reverses, turn the close direction potentiometer (see page 8) one turn higher, press the **STOP** button, and try again. Repeat this process until the gate no longer causes false tripping of the current sensor. Note that each time the gate operator reverses, the **STOP** button must be pressed. Next, turn the close direction potentiometer lower slowly while the operator is running the gate closed until the gate operator stops and reverses again. From this point, turn the close direction potentiometer higher by 1 1/2 turns. Additional adjustment by 1/2-turn increments may be necessary.

OPEN DIRECTION CURRENT SENSE ADJUSTMENT

Repeat the same process with the open direction potentiometer while running the gate in the open direction. Once this is done, run the gate through several complete cycles and make sure the gate does not false trip in either direction.

Multi-turn Potentiometer



Remember it is important not to set the adjustment too high! Doing so will defeat the purpose of the current sensing as an obstruction detecting feature.

MAXIMUM RUN TIMER ADJUSTMENT

This adjustable potentiometer sets the full speed run time for the operator, as well as the maximum run time. There should be approximately three seconds of slow speed travel before reaching the end of travel. Maximum run is set automatically as ten seconds longer than the length of time at full speed. See page 8 for details.

AUTO CLOSE TIMER ADJUSTMENT

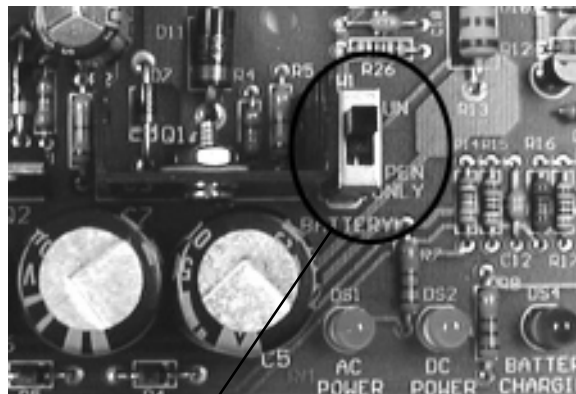
This adjustable potentiometer sets the length of time which elapses before the gate operator automatically closes the gate, from the fully open position, provided no open, reversing, or obstruction signals are present. This feature can be turned on or off via dip switch selection. See page 8 for details. **Do not use the auto close timer without an appropriate reversing device installed!**

MASTER/SLAVE CONNECTION

Wire the black and red wires of both operators to M1 and M2 on the motor board.

BATTERY BACK-UP FOR DC MODELS ONLY CHARGER BOARD CONFIGURATION

For Model LA36, the voltage monitor selector switch must be left in the **RUN** position to function properly. If AC power is lost, it will allow the operator to continue to function until the batteries have dropped to 17 volts. When the batteries have reached 17 volts, the operator will open and shut down until the batteries are recharged to 24 volts from either return of power, solar panels, or by installing fresh, fully charged batteries. **(You must turn off the power switch before changing batteries if you choose to swap them out!)**



VOLTAGE MONITOR SHOWN ABOVE IN THE RUN POSITION

LA36 OPERATOR INSTALLATION GUIDE

ONBOARD L.E.D. INDICATOR DESCRIPTIONS

CONTROL BOARD L.E.D. INDICATORS:

- OPEN** This indicator is lit when an open signal is present. This signal can come from such devices as button stations, radio receivers, keypads and telephone entry systems.
- CLOSE** This indicator is lit when a closed signal is present. This signal typically comes from three-button stations.
- STOP** This indicator is lit when there is a break in the stop circuit. Make sure there is a stop button wired in and working properly.
- SINGLE** This indicator is lit when a signal from a single-button station or radio receiver is present.
- CLOSE OBST** This indicator is lit when a **close obstruction** signal is present. This signal can come from edges and photo eyes which have been wired to the close obstruction inputs.
- OPEN OBST** This indicator is lit when an **open obstruction** signal is present. This signal can come from edges and photo eyes which have been wired to the open obstruction inputs.
- SAFETY LOOP** This indicator is lit when a reversing signal is present. This signal is generated by a loop detector wired to the safety loop terminals.
- SHADOW LOOP** This indicator is lit when a shadow/hold open signal is present. This signal is generated by a loop detector wired to the shadow loop terminals.

LSC-1
LSC-2 These indicators are not used and will be lit at all times.

LSO-1
LSO-2 These indicators are not used and will be lit at all times.

MOTOR BOARD L.E.D. INDICATORS:

- NON LABELED** One of these two indicators will be lit when the motor is running the gate open, and the other is lit when the motor is running the gate closed.
- BRAKE REL.** This indicator is lit when the operator is running at full speed.

DC OPERATORS ONLY:

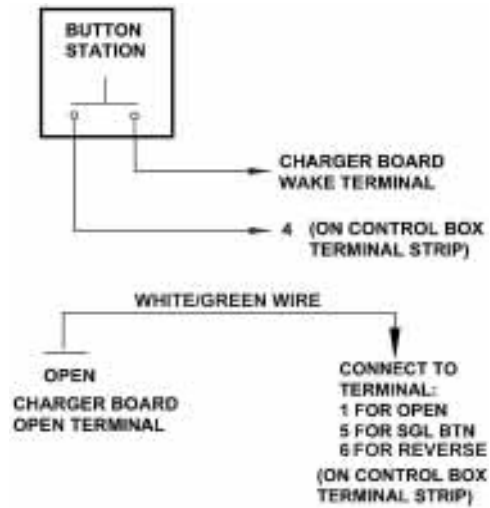
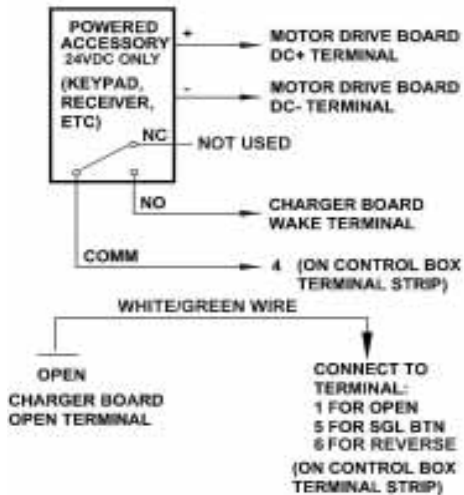
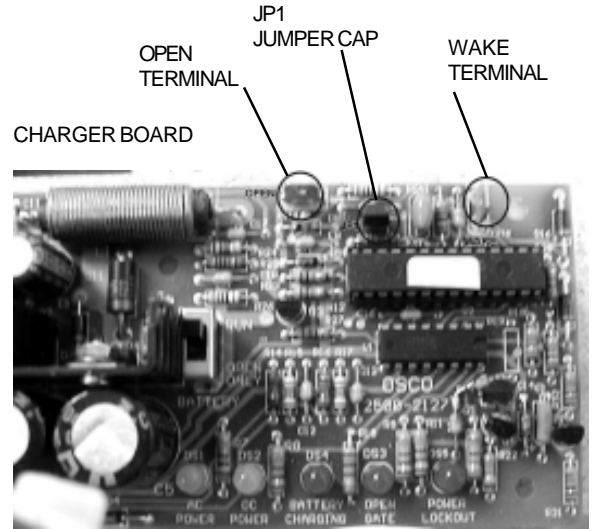
- DC POWER** Indicates the operator has power to operate. This indicator flashes when in sleep mode.
- BATTERY CHARGING** Indicates batteries are being charged.
- OPEN GATE** Operator is in open then lockout stage.
- POWER LOCKOUT** Flashes when controls/motor are in lockout mode.

LA36 OPERATOR INSTALLATION GUIDE

CHARGERBOARD SLEEP MODE

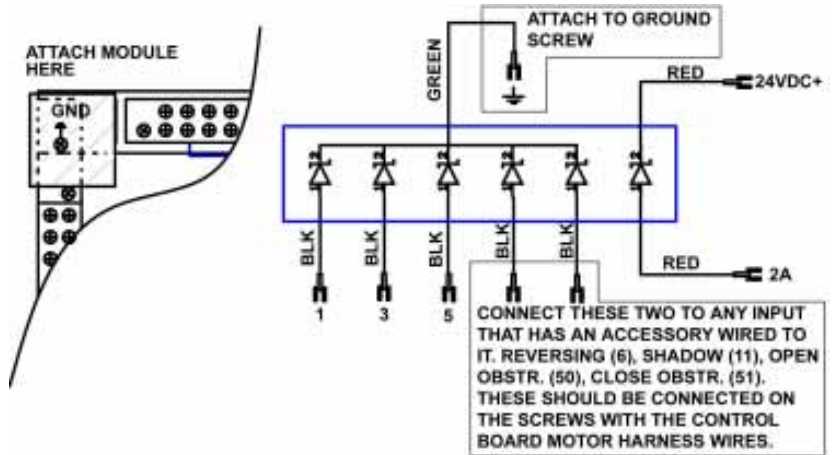
When primary AC power is not available, the operator will continue to operate in battery only mode if the charger board is set in its RUN mode (see **Battery Backup Charger Configuration**). Accessories wired into the operator will continue to draw power, even when the operator is not opening or closing the gate. This can dramatically reduce the amount of standby time available from the batteries.

To extend the available standby time, the charger board has a “sleep” mode feature which will turn off power to all controls except for any that are wired according to the schematics below. By removing the black jumper cap **JP1** located in the upper right hand corner of the charger board this feature can be enabled. In the absence of incoming power sufficient to change the batteries and operate the controls, the control power will be shut off after 15 minutes of inactivity. This will remove power to all accessories except those wired as shown below. Those wired as shown will continue to have power at all times and will upon activation generate first a “wake” signal that will power all controls back up, and then create either an open signal or single button signal, depending on how the wire jumper shown below is connected.



SURGE PROTECTOR INSTRUCTIONS

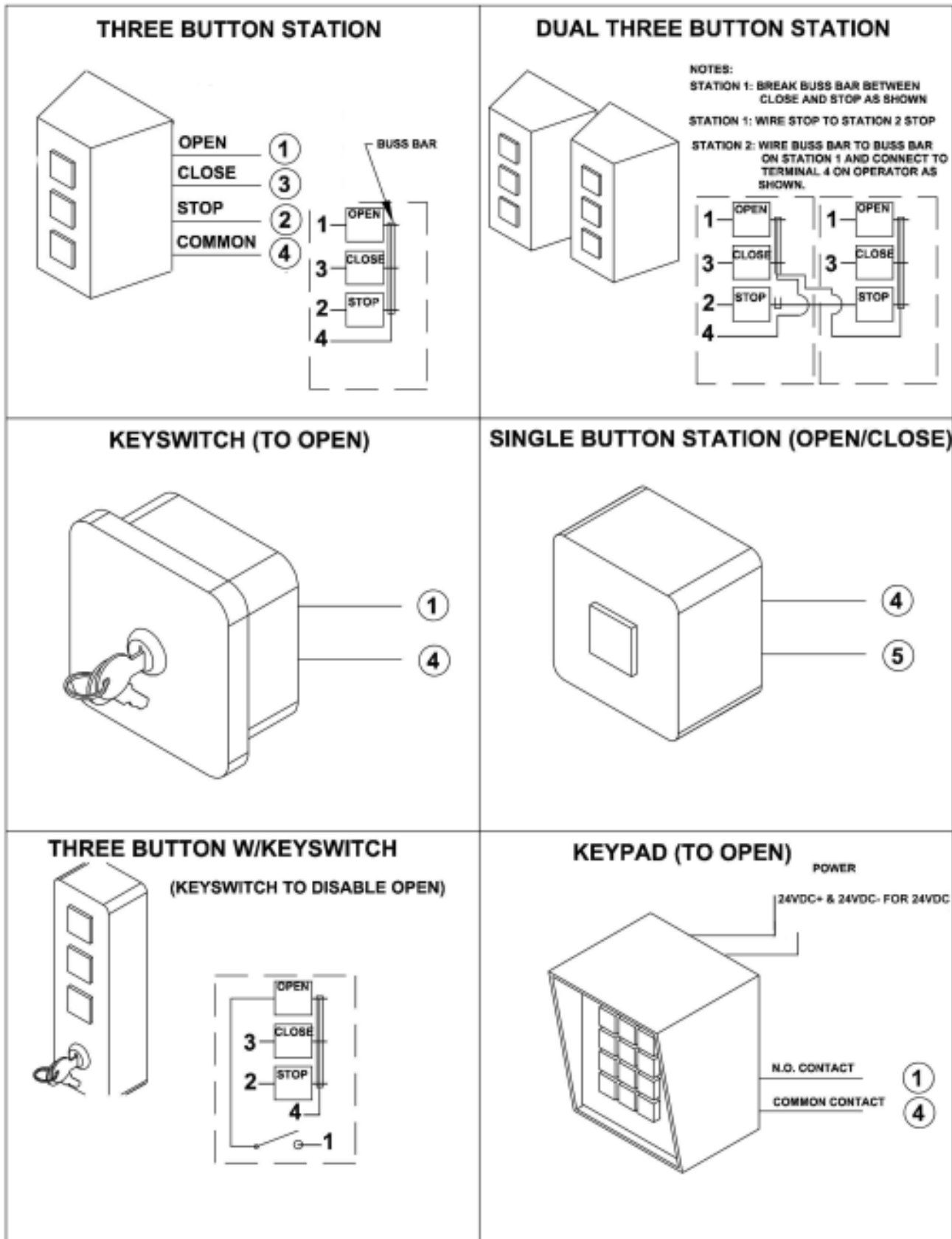
The optional surge protector should be connected to any inputs that have an accessory connected to it. This includes the 3-button station, so it must be connected to 1, 2A and 3 in all cases. The green wire connected to ground, which is electrically the same as terminal 4. The red wires connect to terminals 2A and 24VDC+. This will cause the 2 amp fuse to blow if this section of the module becomes shorted. With any of the other inputs connected to the surge protector, if their protection line becomes shorted due to a surge over the rating of the module, the corresponding LED on the main board will remain lit, causing a constant signal to the controller. If this is found, please replace the entire surge protector with a new unit.



Do not simply unhook the shorted wire, as this removes the protection from the circuit that was saved by the protector in the first place!

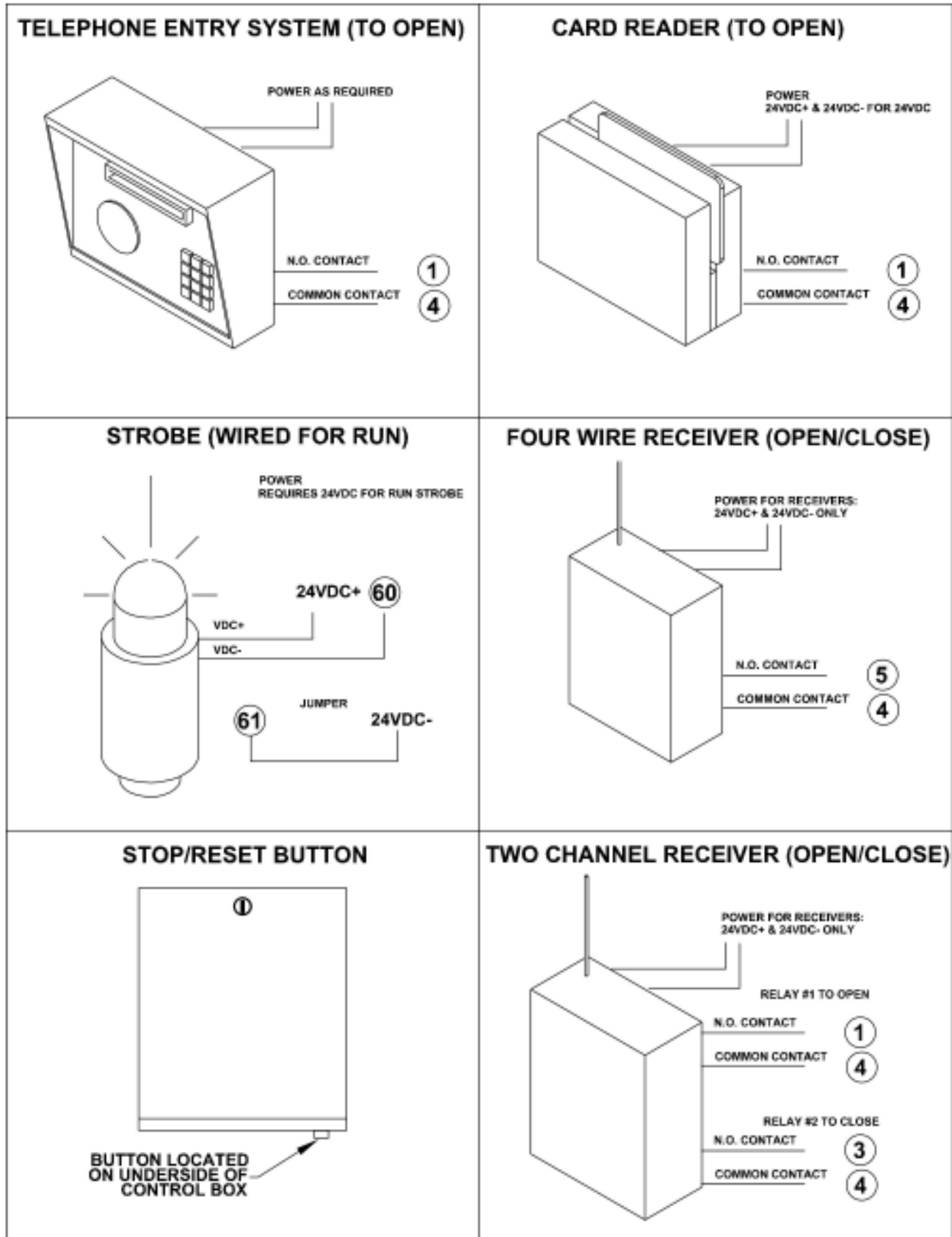
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CONTROL and ACCESSORY CONNECTION ILLUSTRATIONS



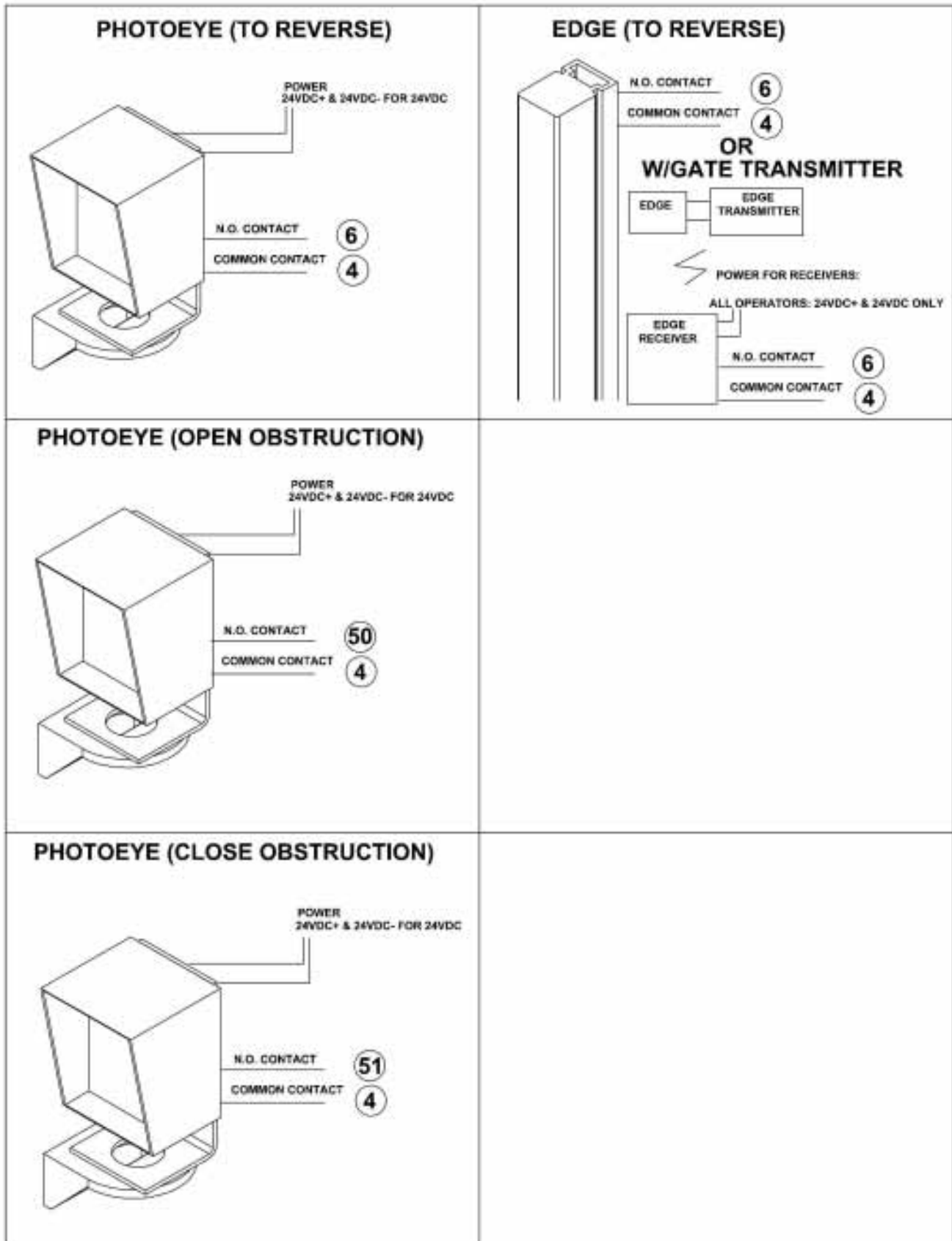
LA36 OPERATOR INSTALLATION GUIDE

CONTROL and ACCESSORY CONNECTION ILLUSTRATIONS



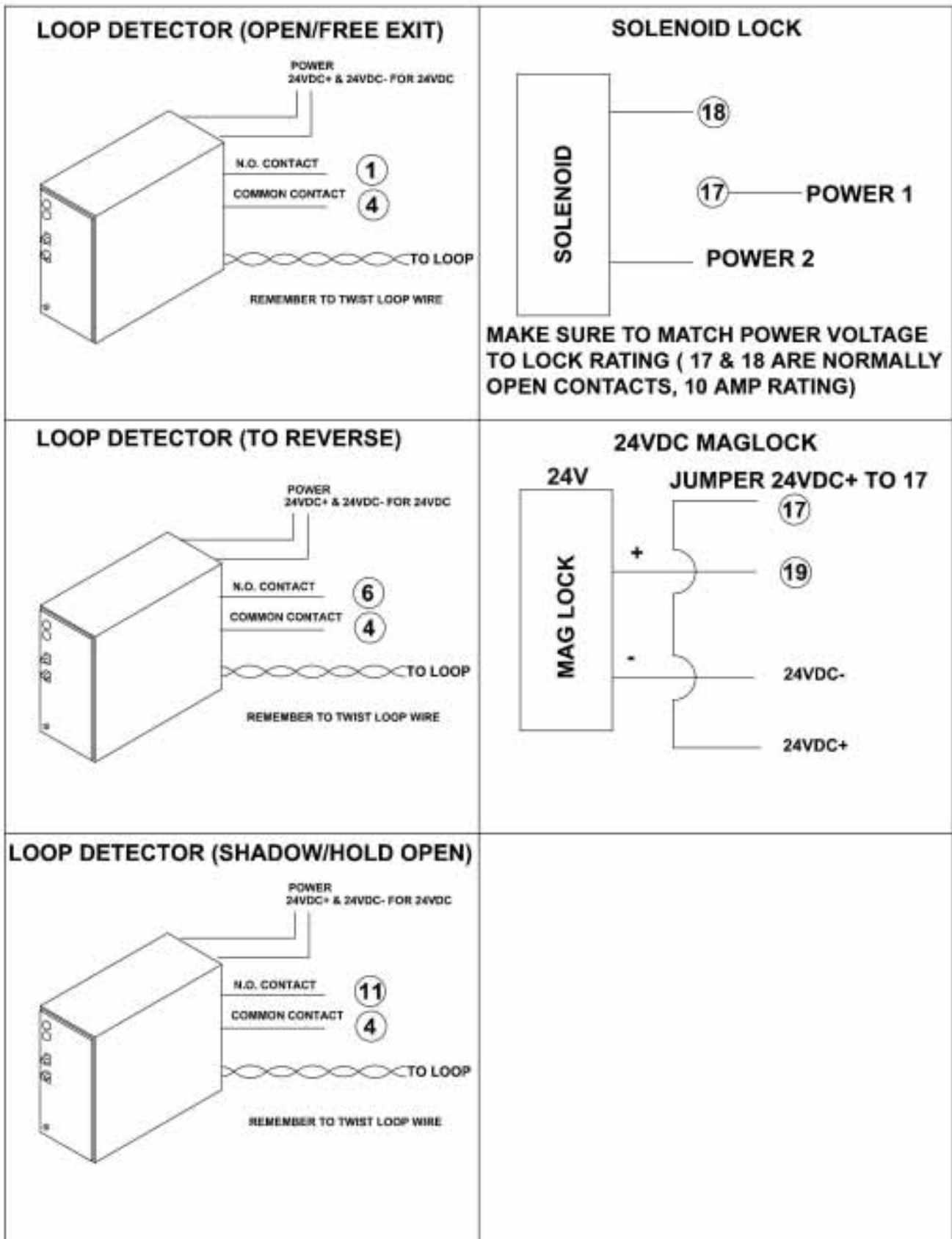
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OSCO CONTROL and ACCESSORY CONNECTION ILLUSTRATIONS



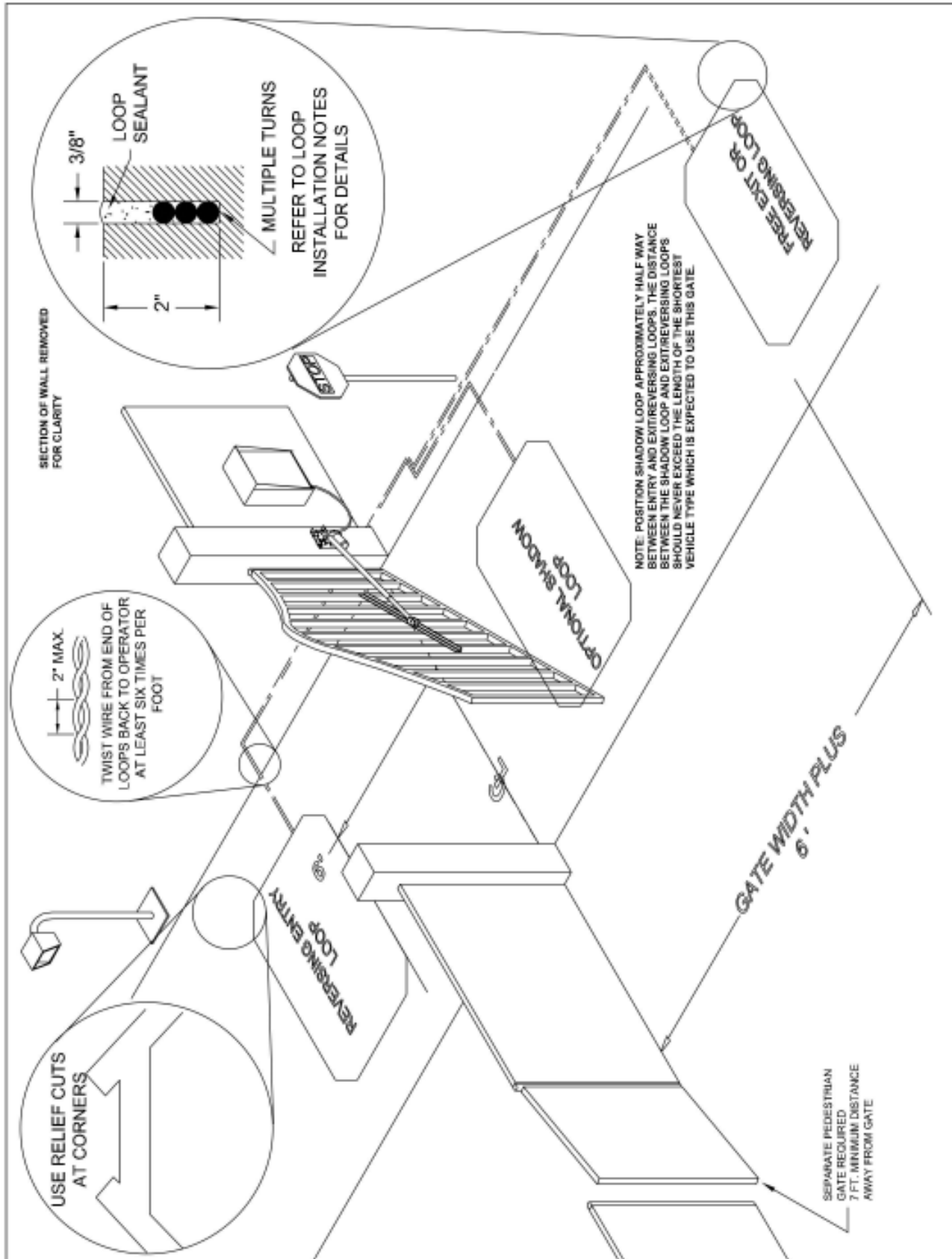
LA36 OPERATOR INSTALLATION GUIDE

CONTROL and ACCESSORY CONNECTION ILLUSTRATIONS



LA36 OPERATOR INSTALLATION GUIDE

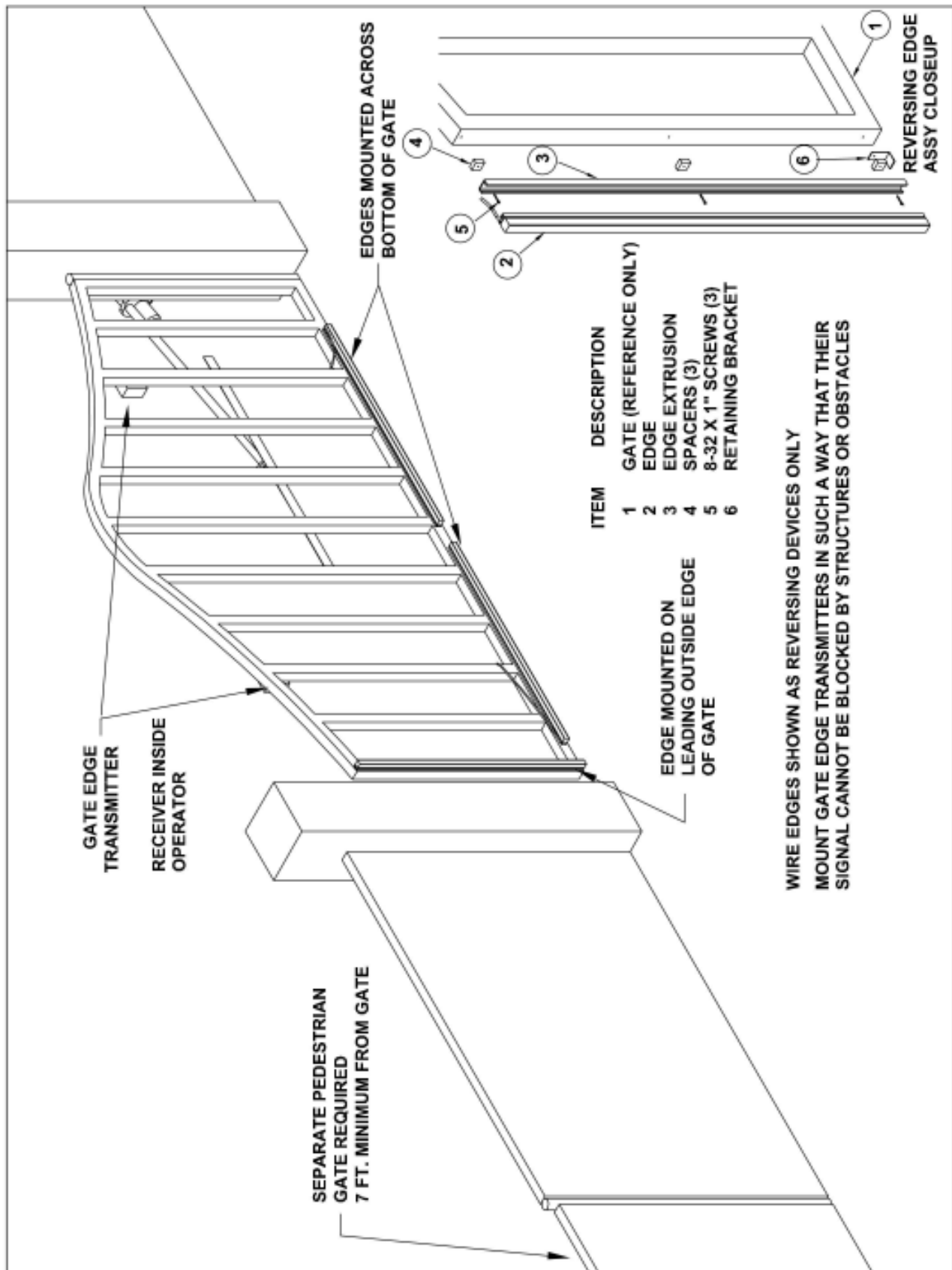
LOOP LAYOUT ILLUSTRATION



Refer to Connection Descriptions on page 9 and Loop Accessory Connections on page 16 for additional details.

LA36 OPERATOR INSTALLATION GUIDE

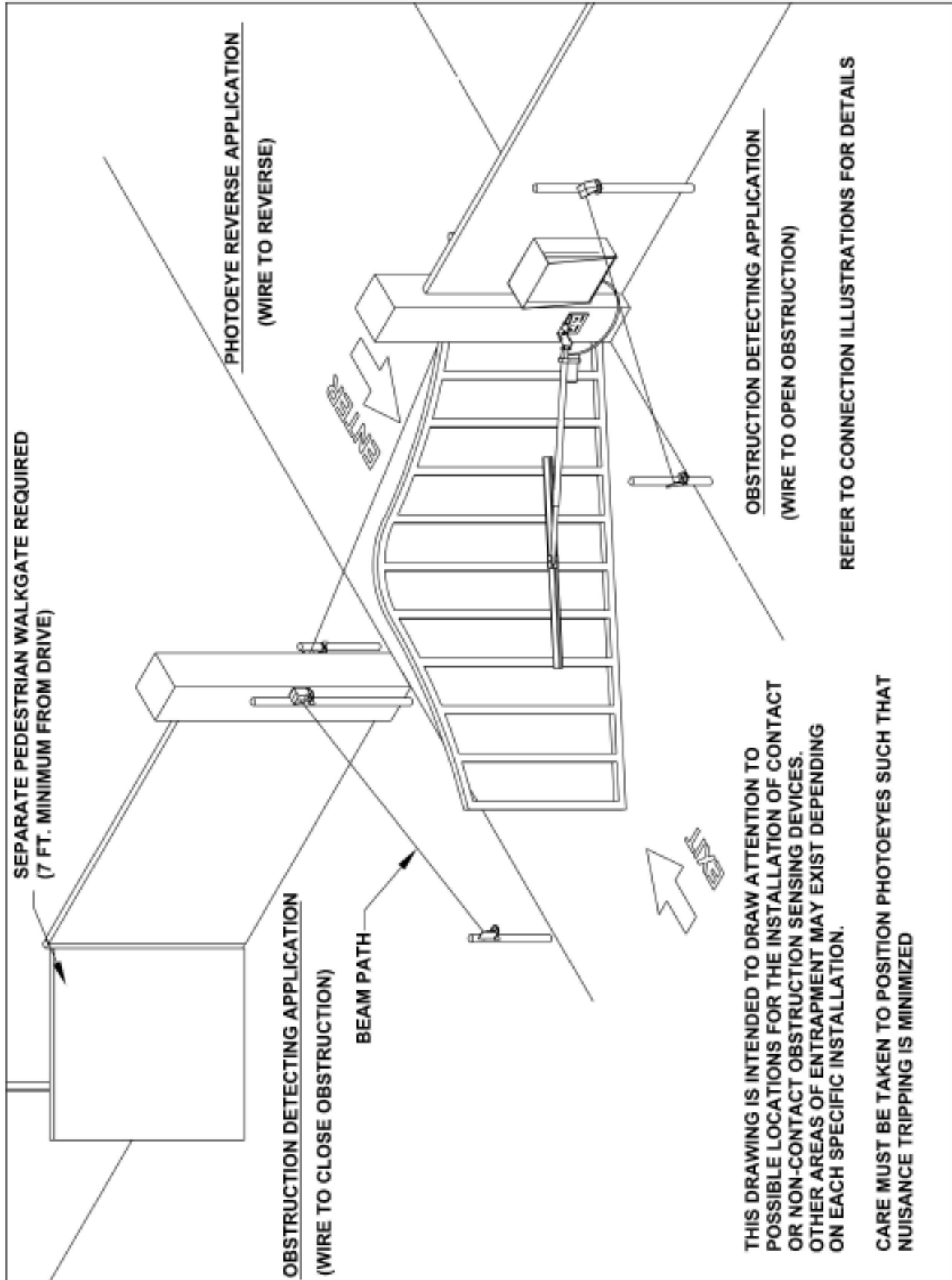
EDGE LAYOUT ILLUSTRATION



Refer to Connection Descriptions on page 9 and Contact Edge Connections on page 15 for additional details.

LA36 OPERATOR INSTALLATION GUIDE

PHOTOEYE ILLUSTRATION



Refer to Connection Descriptions on page 9 and Photoeye Accessory Connections on page 15 for additional details.

LA36 OPERATOR INSTALLATION GUIDE

TROUBLESHOOTING

WARNING!

**YOU MUST TURN OFF THE POWER SWITCH
LOCATED IN THE LA36 CONTROL BOX BEFORE
SERVICING THE GATE OR GATE OPERATOR!**

KEEP CLEAR OF THE GATE DURING OPERATION!

Operator fails to start:

- A. Make sure you have power at the master distribution panel and that the power has not been turned off.
- B. The 3-amp fuse on the control board or charger board may have blown. Replace the fuse (refer to control box parts list on page 22).

Motor operates, but gate does not move:

- A. Make sure all mounting hardware is still attached and that all fasteners are tight.
- B. Check that the actuator cylinder is moving. If it isn't, the gears in the drive may have stripped.

Motor sounds like it is working harder than normal:

- A. Make sure the gate is moving freely and without binding throughout its entire travel.

Gate stopping part way open or closed (but no visible obstruction):

- A. The control board may have received a false obstruction input triggered by current sensing set too low. Make sure the gate moves freely through its entire travel before adjusting the current sensing.
- B. The maximum run timer may have counted down and expired. This can be caused by having the timer set too low. When the timer expires, the gate stops and an alarm

will sound.

- C. An obstruction signal from an accessory wired to the obstruction input may have triggered falsely. Check the control board for lit L.E.D. indicators for any of the following inputs: safety, shadow, open obstruction, close obstruction, stop, etc. If any are lit when the operator should be running, remove all devices hooked to that function and hook them up one at a time and try to run the operator until the problem device is found. Refer to page 11 for details on the control board indicators.

Gate staying open with automatic system:

- A. If there are vehicle detectors in your machine which are set up for reverse, one of your loops or loop detectors may be sending a false signal. Disconnect the wire harness and try running the operator.
- B. An opening or reversing device may be stuck or malfunctioning. Try disconnecting these devices and hook them back up one at a time and try running the operator until the malfunctioning device is found.

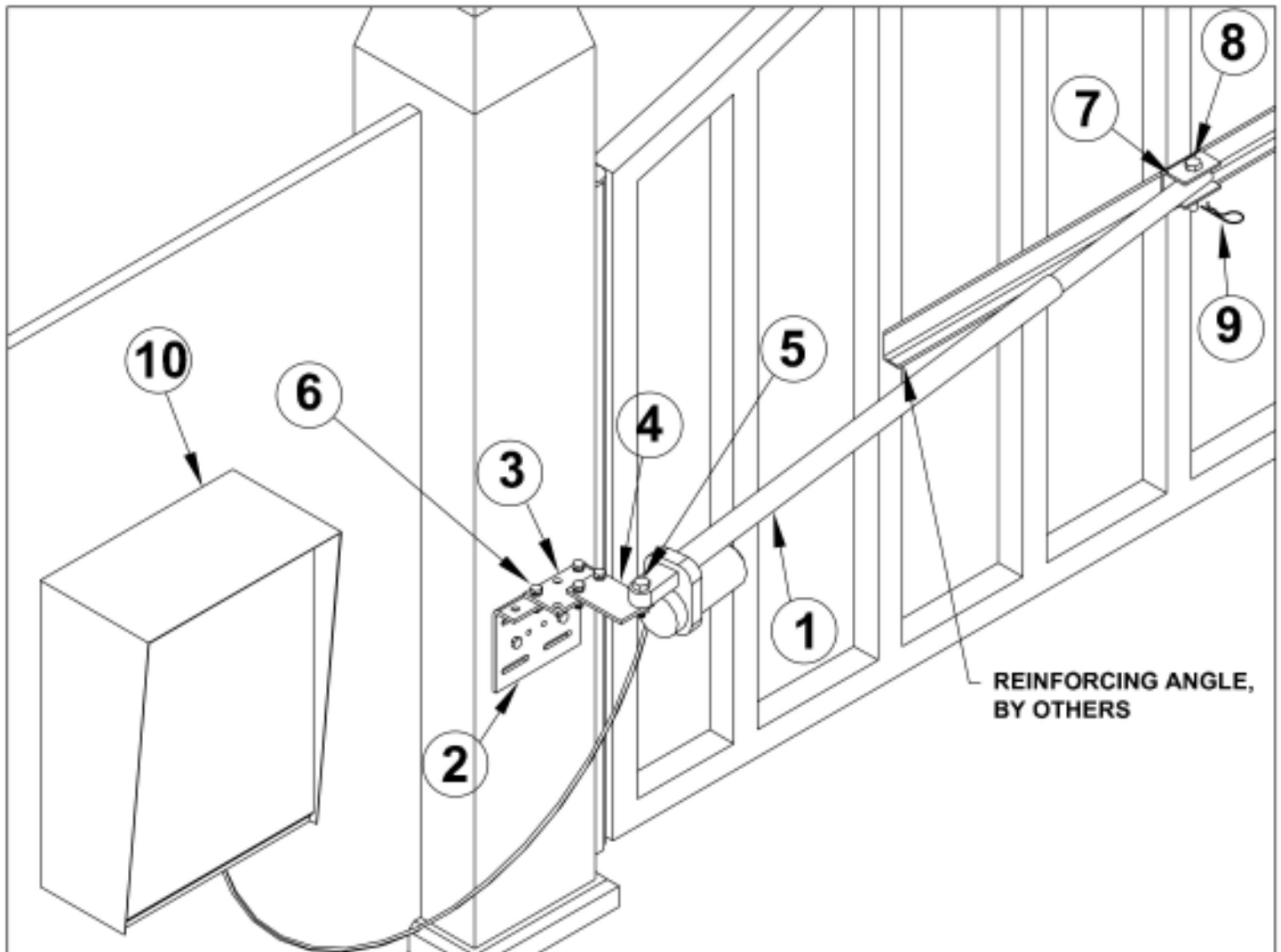
HOW TO ORDER REPLACEMENT PARTS

Use the part numbers listed on the following pages. Contact your **local OSCO dealer** or **distributor** to order parts.

1. Supply the model number and serial number of your operator.
2. Specify the quantity of pieces needed and order by part number and name of part.
3. State whether to ship by freight, truck, parcel post, UPS or air express.
4. State whether transportation charges are to be prepaid or collect.
5. Specify name and address of person or company to whom parts are to be shipped.
6. Specify name and address of person or company to whom invoice is to be sent.

LA36 OPERATOR INSTALLATION GUIDE

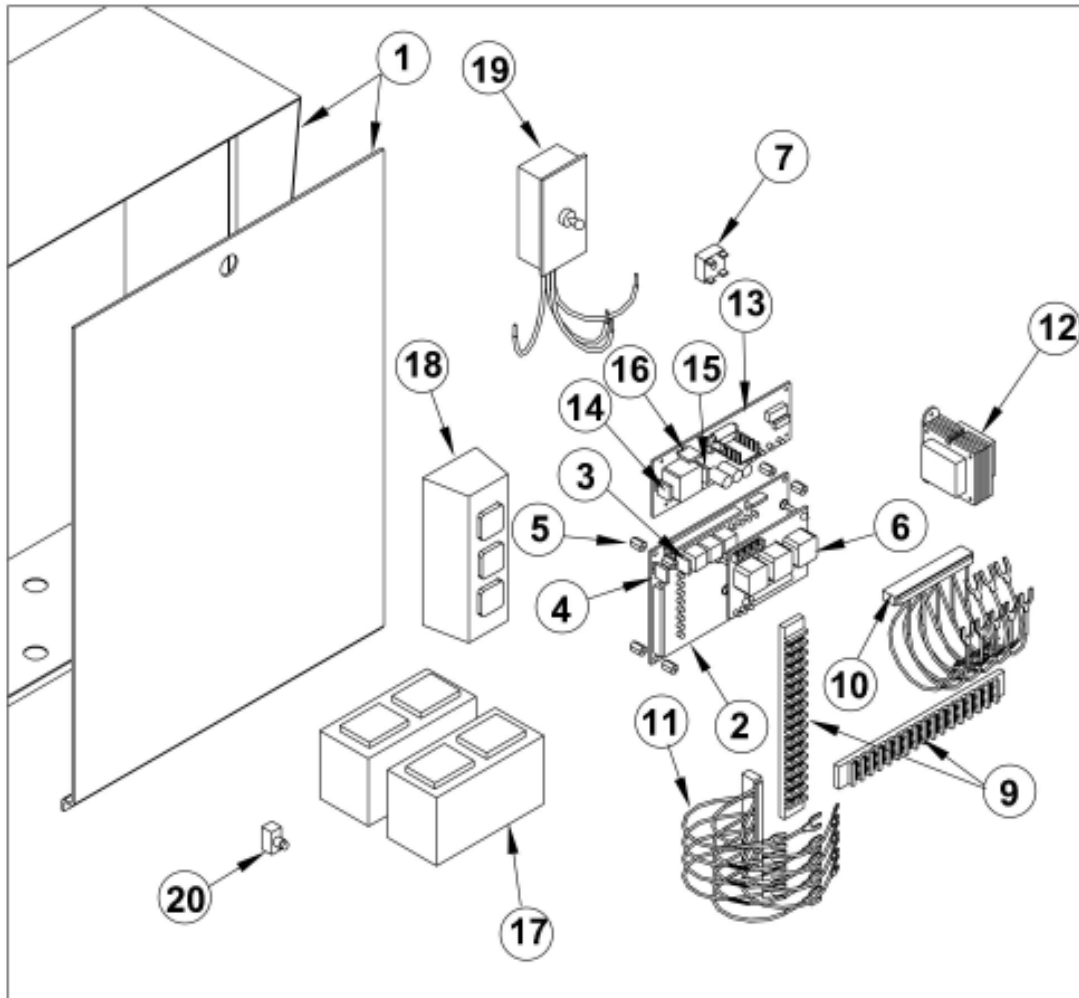
MODEL LA36 MECHANICAL PARTS EXPLODED VIEW & PARTS LIST



<u>REF NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REF NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2500-2163-BT	Linear Actuator, 36"		2400-054	Lock Washer, 1/2"
2	2100-1251	Post/Pillar Mounting Bracket		2400-090	Hex Nut, 1/2-13
3	2100-1298	Post/Pillar Spacer Plate	7	2100-1958	Gate Attachment Bracket
4	2100-1295	Operator Mounting Plate	8	2400-490	Disconnect Pin
5	2400-489	Shoulder Bolt, 1/2" x 1 1/2", with 3/8-16 Thread	9	2400-351	Hair Pin for Disconnect Pin
6	2400-107	Hex Head Screw, 1/2-13 x 1"	10		Controller, see following page for parts list

LA36 OPERATOR INSTALLATION GUIDE

MODEL LA36 CONTROL BOX EXPLODED VIEW & PARTS LIST



REF NO.	PART NO.	DESCRIPTION	REF NO.	PART NO.	DESCRIPTION
*1	2120-459	Enclosure without Cover, 22x16"	9	2500-071	Terminal Strips, 16-141
	2100-1944	Cover for 22 x 16" Enclosure	10	2510-249	Input Wire Harness Assembly
	2200-067	Lock with Keys	11	2510-249	Input Wire Harness Assembly
2	2510-339	Control Board with Chip	12	2500-766	Transformer, 115/24VAC, 75VA
3	2500-1975	Fuse, 3 Amp	13	2500-2127-CB	DC Charger Board
5	2500-1948	Standoff	14	2500-2293	Circuit Breaker, 15 Amp Auto-Reset
6	2510-340	DC Motor Board for Linear Actuator	15	2500-2293	Circuit Breaker, 15 Amp Auto-Reset
7	2500-1768	Bridge Rectifier, 25 Amp	16	2500-1975	Fuse, 3 Amp
	2500-219	Diodes (2) (located in limit switch housing of the actuator)	17	2500-1118	Battery, 12 Volt (2 required)
			18	2500-033	Three-Button Station
			19	2510-266	Power On/Off Switch Assembly
			20	2510-365	Stop/Reset Button Assembly

*Available in black or white
Add **-BT** for black or **-WS** for white

LA36 OPERATOR INSTALLATION GUIDE

PREVENTATIVE MAINTENANCE

WARNING!

**YOU MUST TURN OFF THE POWER SWITCH
LOCATED IN THE LA36 CONTROL BOX BEFORE
SERVICING THE GATE OR GATE OPERATOR!**

KEEP CLEAR OF THE GATE DURING OPERATION!

GENERAL:

OSCO gate operators are designed for many years of trouble-free operation and, under recommended operating conditions, will require only minimal maintenance. To ensure that your unit is ready for operation at all times--and to preclude serious damage or failure--inspect the unit systematically. Proper adjustments and lubrication should be made as recommended.

LUBRICATION:

Motor. Motors have sealed ball bearings and do not require further lubrication. If bearing noise develops after several years of operation, bearings should be replaced by a motor repair company, or the motor should be replaced if necessary.

Shoulder Bolts. Lubricate the front and back shoulder bolts twice a year with a lithium complex-based grease.

Actuator Cylinder. Wipe down the cylinder with WD40 or similar lubricant.

Power and Limits Cable. Inspect the operator to control box cable for cracks in the insulation, breaks, or other signs of failure. Check all connection points. Replace if necessary.

ADDITIONAL SIX MONTH PREVENTATIVE MAINTENANCE:

1. Inspect all nuts and bolts for proper tightness and tighten as necessary.
2. Check all reversing devices for proper function. Inspect all contact edges for wear and replace if required. Check photo-eyes for proper alignment and function.
3. Check current sensing for proper adjustment when finished with inspection and maintenance.
4. Inspect the installation area. Are all the warning signs intact and visible? If they are missing or need replaced, contact OSCO. Be sure there are no control stations mounted within reach of the gate. Review safety literature with the customer and advise them to remove any such stations found.

BATTERY MAINTENANCE

The gel-cell batteries in this operator require no routine maintenance. For assured continued performance, they should be replaced every year.

If power is to be removed for one week or more, turn power switch off, as this will prevent deep discharging.

Fully charge before use after storage or upon initial installation.

You must inspect the gate for proper operation. The gate should move easily without binding through its entire travel. If the gate does bind, adjust or fix as required. Failure to keep the gate in good working condition will have adverse effects on the operator.

LA36 OPERATOR INSTALLATION GUIDE

GATE OPERATOR INSTALLATION CHECKLIST

INSTALLER	CUSTOMER	
_____	_____	1. The gate has been checked to make sure it is level and moves freely in both directions.
_____	_____	2. Potential pinch areas have been guarded so as to be inaccessible OR have contact and/or non-contact obstruction sensing devices installed.
_____	_____	3. The installer has installed one or more contact or non-contact obstruction sensing devices, in compliance with UL325 requirements for this installation.
_____	_____	4. If pedestrian traffic is expected, a separate pedestrian gate has been installed, a minimum of seven feet from the gate. The customer has been informed that <i>all pedestrian traffic must use the pedestrian gate.</i>
_____	_____	5. Warning signs have been installed on each side of the gate in highly visible locations. The customer has been informed that these signs must remain at all times.
_____	_____	6. There are no controls installed on the gate operator, or within seven feet of the gate.
_____	_____	7. The installer has properly adjusted the obstruction sensing feature and has tested the gate to make sure that the gate stops and reverses a short distance with minimal resistance applied (40 lbs. on a swing gate at the end of the gate, 75 lbs. on a slide gate)
_____	_____	8. The installer has instructed the customer in the proper use of the gate operator and reviewed all of the operational functions, obstruction sensing devices, warning beeper and reset, etc.
_____	_____	9. The installer has instructed the customer in the proper use of the operator's manual disconnect feature. The manual disconnect must never be used while the gate is in motion. The power switch must be turned off before using the manual disconnect and disengaging the operator.
_____	_____	10. The installer has reviewed all safety instructions with the customer, and has left the safety instructions and owner's information sheets for their reference.
_____	_____	11. The installer has answered any questions the customer has regarding the operation of the gate operator and gate operator safety precautions.
_____	_____	12. The installer has explained to the customer that a regular maintenance schedule for both the gate and the gate operator is recommended.

By signing this installation checklist, I/we hereby certify that each item listed and checked above has been covered by the installer and is clearly understood by the customer.

Customer Signature

Date

Installer Signature

Date