



Insist on quality...

Insist on **RAMSET!**




www.ramsetinc.com

Designed to satisfy the need for gate operators in residential and light-duty commercial areas.
Also excellent for installations in limited spaces.


TABLE OF CONTENTS

- Important Safety Requirements & Instructions 1
- Responsibilities of Installers and Technicians 2
- Important Safety Requirements by UL Standards 3
- Classes of Vehicular Gate Operators 4
- General Specifications 5
- Positive Stops and Emergency Release 6
- Gate Operator Installation 7
- Standard & Compact Installation 8
- Installation Guideline 9
- Terminal Strip Connections 10-11
- Trim Adjustments – Potentiometers 12
- Dip Switch Configuration 13
- Loop Installation 14-15
- Photo Eye Installation 15
- Master Slave Installation 16
- Programming Procedure 17
- Radio Transmitter Programming Procedure 17
- Adjustable Slow Down Learning Procedure 17
- Main Block Terminal Hookup 18
- Ramset Optional Accessories 19
- Important Information for The Homeowner 20
- Gate Entrance Safety Precautions 21

JET



WARNING Do not install this gate operator if you do not have experience or appropriate training with gate operators.


IMPORTANT SAFETY REQUIREMENTS & INSTRUCTIONS

WARNING To reduce the risk of injury or death:

<ol style="list-style-type: none"> 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 Vehicular 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 limit of travel, retest the Vehicular Gate Operator. Failure to adjust and retest the 	<p>Vehicular Gate Operator properly can increase the risk of injury or death.</p> <ol style="list-style-type: none"> 5. Use the Emergency Release only when power switch or circuit breaker has been turned off. Using the Emergency Release during a power failure can be a hazard if power is abruptly restored. 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. SAVE THESE INSTRUCTIONS.
--	---

RESPONSIBILITIES OF INSTALLERS AND TECHNICIANS

INSTALLATION

- READ AND UNDERSTAND THE INSTRUCTION MANUAL BEFORE ATTEMPTING ANY INSTALLATION.
- DO NOT EXCEED THE EQUIPMENT SPECIFICATIONS.
- INSURE A SAFE AND PROPER INSTALLATION.
- INSTALL THIS EQUIPMENT IN ACCORDANCE WITH THE UL 325 SPECIFICATIONS.
- MAKE SURE TO ELIMINATE ANY PINCH POINTS EXISTING ON THE INSTALLATION. (ie. ROLLERS, ARMS...etc.)
- RAMSET GATE OPERATORS MUST BE INSTALLED BY A TRAINED TECHNICIAN.

SAFETY DEVICES

- REMOVE OR PROTECT ALL PINCH POINTS FROM THE GATE OPERATOR.
- MAKE SURE EVERY INSTALLATION HAS A MINIMUM OF ONE NON-CONTACT SAFETY DEVICE (SUCH AS A PHOTO EYE OR LOOP DETECTOR).
- CHECK THE E.R.D. SENSITIVITY FOR PROPER ADJUSTMENTS.
- MAKE SURE THAT ALL AREAS AROUND THE GATE ARE SAFE AND SECURE. (SUCH AS THE FRONT, REAR, AND TRAVEL AREA).

COMMUNICATE WITH THE END-USER

- INSTRUCT THE END USER ON HOW TO SAFELY OPERATE ALL FUNCTIONS OF THE OPERATOR.
- INSTRUCT THE END-USER ON HOW TO SAFELY USE THE EMERGENCY RELEASE.
- CLEARLY LABEL AND IDENTIFY THE CIRCUIT BREAKER FOR THE OPERATOR.
- SHOW THE END-USER THE LOCATION OF THE CIRCUIT BREAKER FOR THE OPERATOR.
- THOROUGHLY EXPLAIN ANY AND ALL WARRANTIES ASSOCIATED WITH THE OPERATOR AND INSTALLATION.
- KEEP A COPY OF EACH MANUAL HANDY FOR FUTURE REFERENCES.
- PROVIDE THE END-USER WITH THE “HOME OWNERS MANUAL PACKET” (INCLUDED WITH EVERY OPERATOR).

IMPORTANT SAFETY REQUIREMENTS BY UL STANDARDS

Prior to installation, the following must be observed: (per UL 325.56.8.4).

a) Install the gate operator only when:

1. The operator is appropriate for the construction of the gate and the usage Class of the gate,
2. All openings of a horizontal slide gate are guarded or screened from the bottom of the gate to a minimum of 4 feet (1.22 m) above the ground to prevent a 2 1/4 inch (57.2 mm) 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.
3. All exposed pinch points are eliminated or guarded, and
4. Guarding is supplied for exposed rollers.

b) 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.

c) 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.

d) The gate must be properly installed and work freely in both directions prior to the installation of the gate operator. Do not over-tighten the operator clutch or pressure relief valve to compensate for a damaged gate.

e) For gate operators utilizing Type D protection:

1. The gate operator controls must be placed so that the user has full view of the gate area when the gate is moving.
2. The placard as required by 58.1.6 shall be placed adjacent to the controls,
3. An automatic closing device (such as a timer, loop sensor, or similar device) shall not be employed, and
4. No other activation device shall be connected.

f) 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.

g) The stop and/or reset button must be located in the line-of-sight of the gate. Activation of the reset control shall not cause the operator to start.

h) A minimum of two (2) WARNING SIGNS shall be installed, one on each side of the gate where easily visible.

i) For gate operators utilizing a non-contact sensor in accordance with UL 31.1.1:

1. See instructions on the placement of non-contact sensors for each Type of application.
2. 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, and
3. 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.

j) For a gate operator utilizing a contact sensor in accordance with 31.1.1:

1. 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 postmounted both inside and outside of a vehicular horizontal slide gate.
2. One or more contact sensors shall be located at the bottom edge of a vehicular vertical lift gate.
3. One or more contact sensors shall be located at the pinch point of a vehicular vertical pivot gate.
4. A hardwired contact sensor shall be located and its wiring arranged so that the communication between the sensor and the gate operator is not subjected to mechanical damage.
5. A wireless contact sensor such as 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.
6. 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 inches (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.
7. One or more contact sensors shall be located at the bottom edge of a vertical barrier (arm).

CLASSES OF VEHICULAR GATE OPERATORS

Vehicular horizontal slide-gate operator (or system) - A vehicular gate operator (or system) that controls a gate which slides in a horizontal direction that is intended for use for vehicular entrance or exit to a drive, parking lot, or the like.

Vehicular swing-gate operator (or system) - A vehicular gate operator (or system) that controls a gate which swings in an arc in a horizontal plane that is intended for use for vehicular entrance or exit to a drive, parking lot or the like.

Residential vehicular gate operator-Class I - A vehicular gate operator (or system) intended for use at a home of one-to four single family dwellings, or a garage or parking area associated there with.

Commercial/general access vehicular gate operator-Class II - 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), hotels, garages, retail stores, or other buildings serving the general public.

Industrial/limited access vehicular gate operator-Class III - A vehicular gate operator (or system) intended for use in an industrial location or building such as a factory or loading dock area or other locations not intended to service the general public.

Restricted access vehicular gate operator-Class IV - 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.

RECOMMENDED ELECTRICAL CONNECTION

A 3 wire, 120 VAC electrical circuit with a 15 amps independent circuit breaker for single operator and a 20 amps for Master/Slave. Low voltage control wires must be run in a separate conduit to the operator.

NOTE: Always consult and follow all local building and electrical codes prior to installation.

RECOMMENDED WIRE GAUGE

		AMPERES	
INPUT POWER	MOTOR	RUN	START
120 VAC	24 VDC	3	3

MAXIMUM CONDUIT DISTANCE IN FEET USING COPPER WIRE BY WIRE SIZE			
14ga.	12ga.	10ga.	8ga.
Up to 100'	100-350'	350-650'	800'

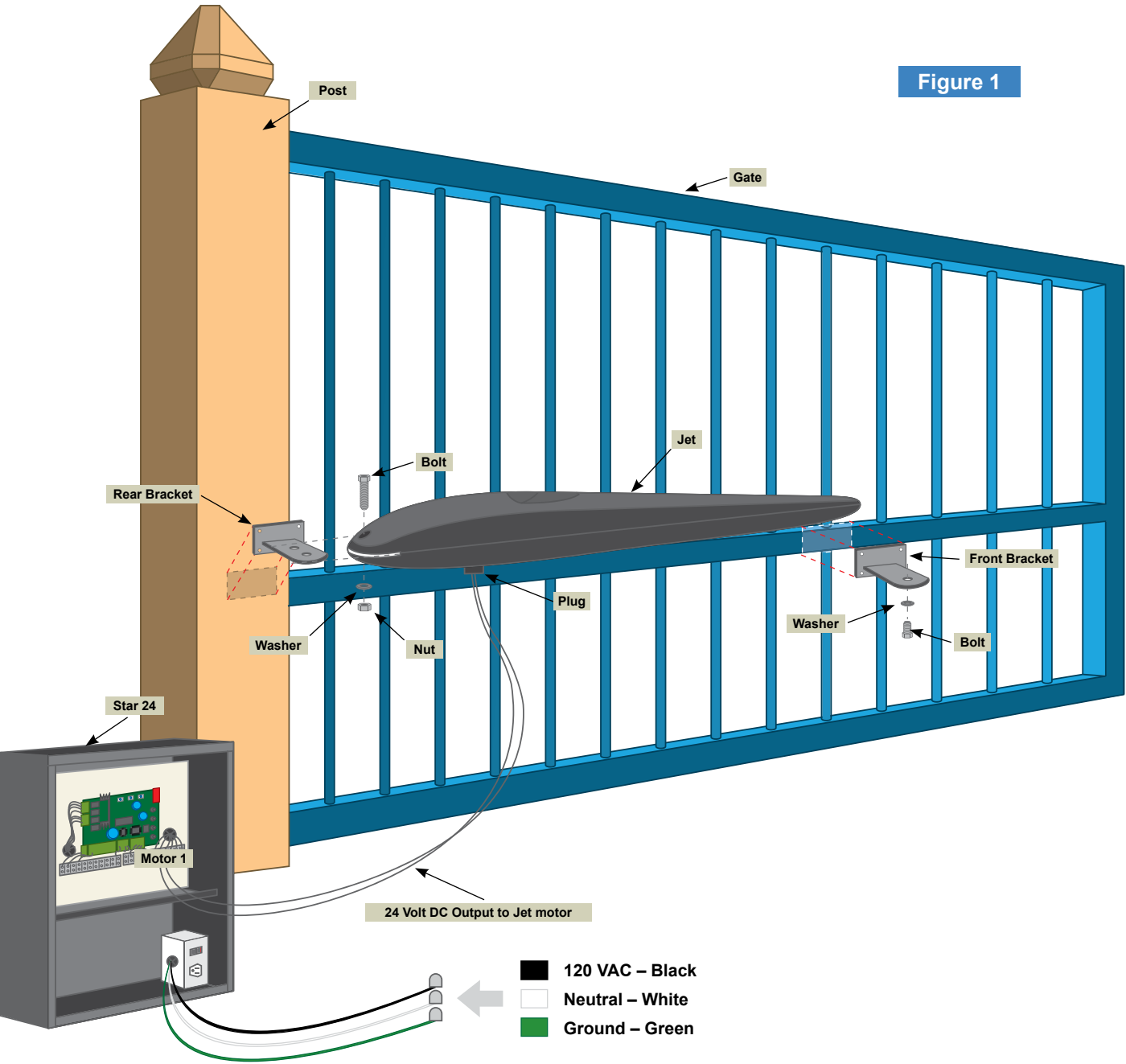
GENERAL SPECIFICATIONS

MAXIMUM GATE SIZE & WEIGHT:	14' @ 600 lbs / 12' @ 800 lbs
GATE TRAVELING SPEED:	Approx 90° opening in 18 sec
MOTOR:	24 VDC, 3 amp
DUTY CYCLE:	70%
OPERATING TEMPERATURE:	-4° F to 131° F
POWER FAILURE RELEASE:	Hand Lever Release or Battery Back Up
OVERALL DIMENSIONS:	H 4" L 32" W 4"
SHIPPING WEIGHT:	Jet Arm: 22 lbs / Star Control Board: 22 lbs

JET

⚠ WARNING Do not exceed the specifications. The warranty on your unit will be void if the installation exceeds the recommended specifications.

Figure 1



POSITIVE STOPS AND EMERGENCY RELEASE

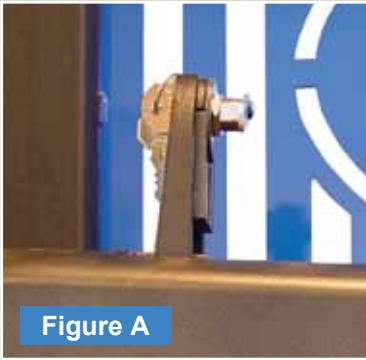


Figure A



The breaker or all power should be turned off before using the emergency release.

EMERGENCY RELEASE

The emergency release handle is located on the top of the Jet arm. Insert the key into the emergency release handle and turn it in order to unlock the release handle. The release handle can now be raised in order to disengage the operator (see figure A). The gate can now be opened and closed manually. To reengage the emergency release handle: Lower the release handle back into position and turn the key to lock it.



Figure B

Adjust on the closed position



Figure C

Adjust on the open position

POSITIVE STOPS

The positive stops for the Jet operator are located on the undercarriage of the Jet arm. Set the positive stops using the following method.

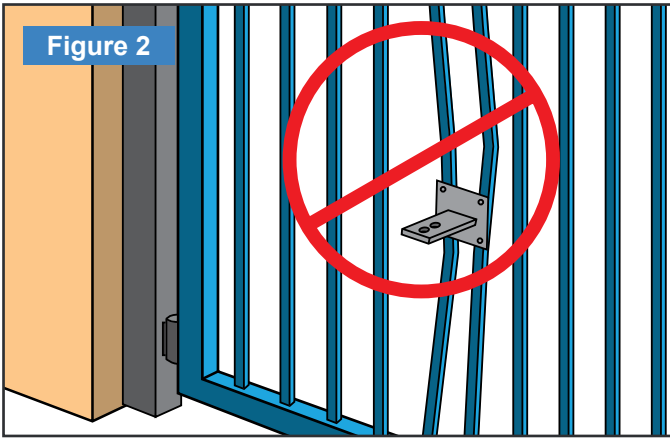
- 1) Use a hex/ allen wrench to loosen the positive stops at the front and back of the undercarriage (See figures B and C). Once loosened, slide the forward stop all the way to the front and the rear stop all the way to the back.
- 2) Lift the emergency release handle so that the gate can move freely.
- 3) Push the gate all the way to the closed position and then slide the front positive stop forward until it contacts the screw arm bolt. Tighten the positive stop into place.

- 4) Push the gate all the way to the open position and slide the rear positive stop back until it contacts the screw arm bolt. Tighten the positive stop into place.

The positive stops are now set. Close the gate halfway and reengage the emergency release handle. The operator is now ready to begin programming mode through the Star 24 Control Board.

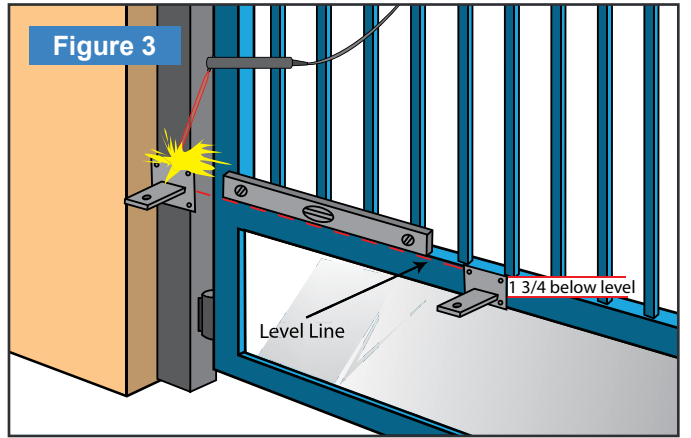
GATE OPERATOR INSTALLATION

Figure 2



CAUTION: To avoid damage to gate and gate operator, do not weld Jet bracket directly onto gate pickets.

Figure 3



CAUTION: Weld the Jet bracket onto a solid frame member across the full length of the gate. 1 3/4" below the level of the rear bracket. Ramset suggests that every installation should have a magnetic lock.

JET

INSTALLATION DETAILS

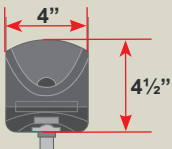


Figure 4

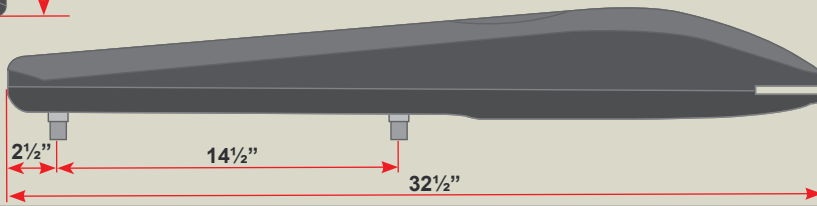


Figure 5

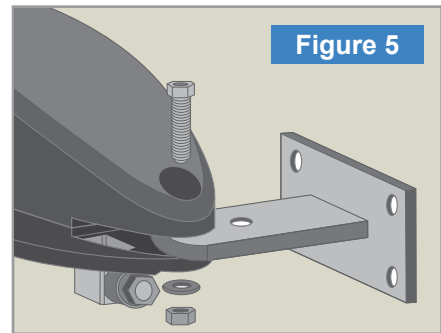


Figure 6

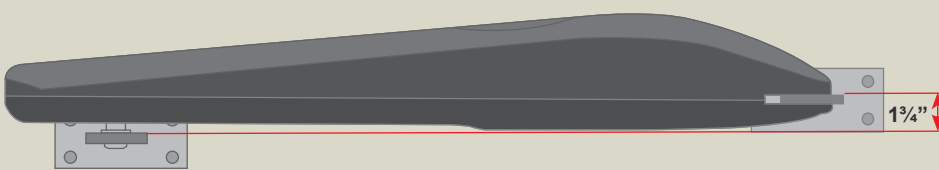


Figure 7

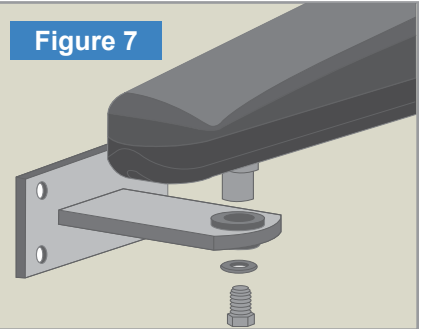
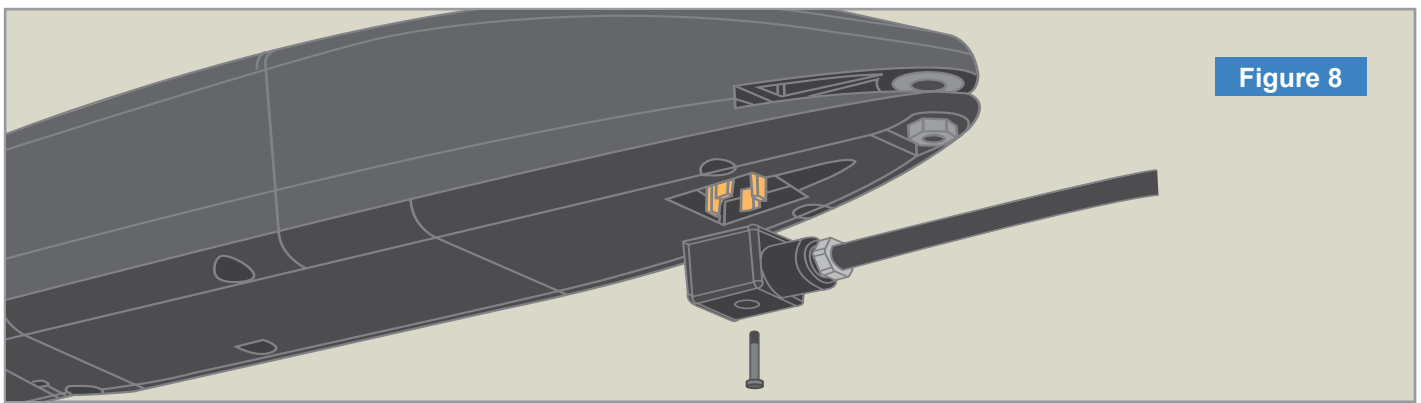
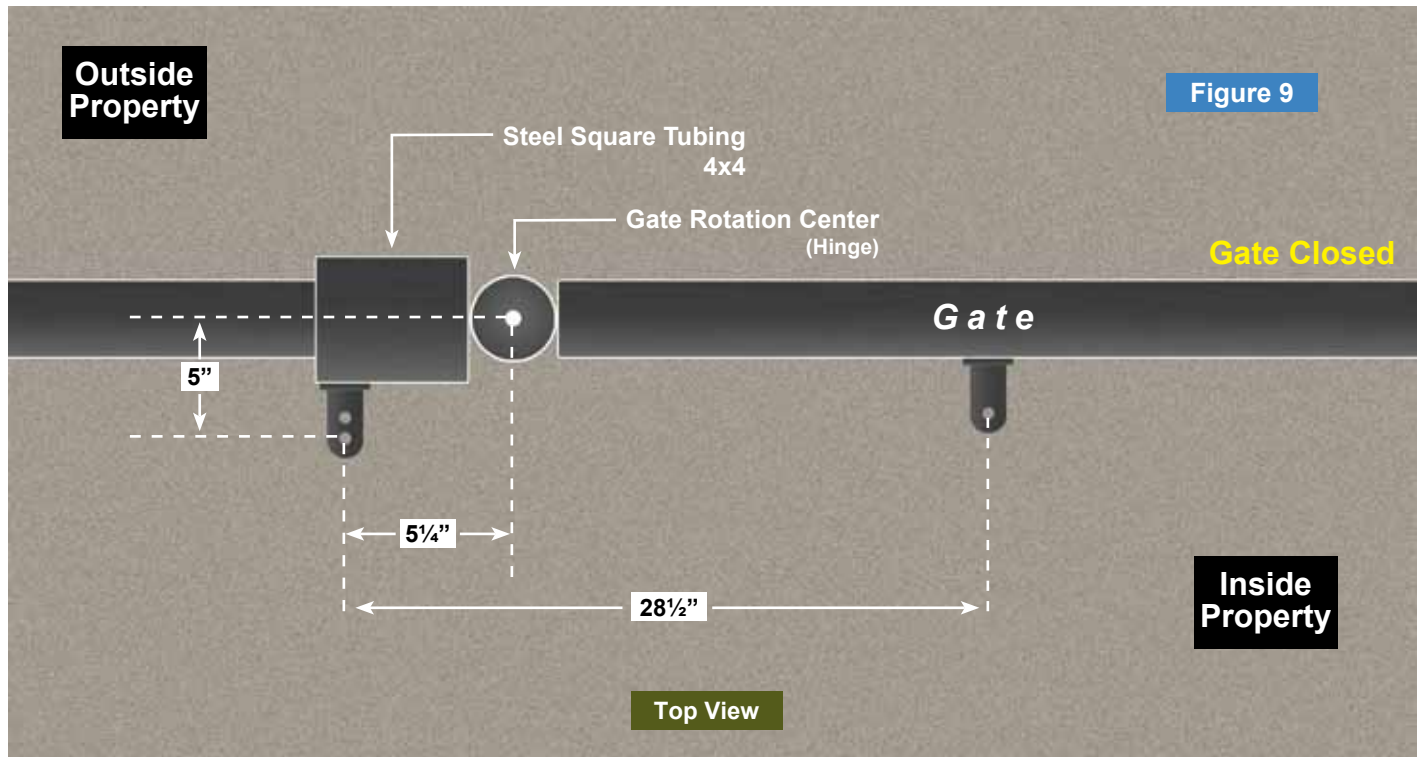


Figure 8



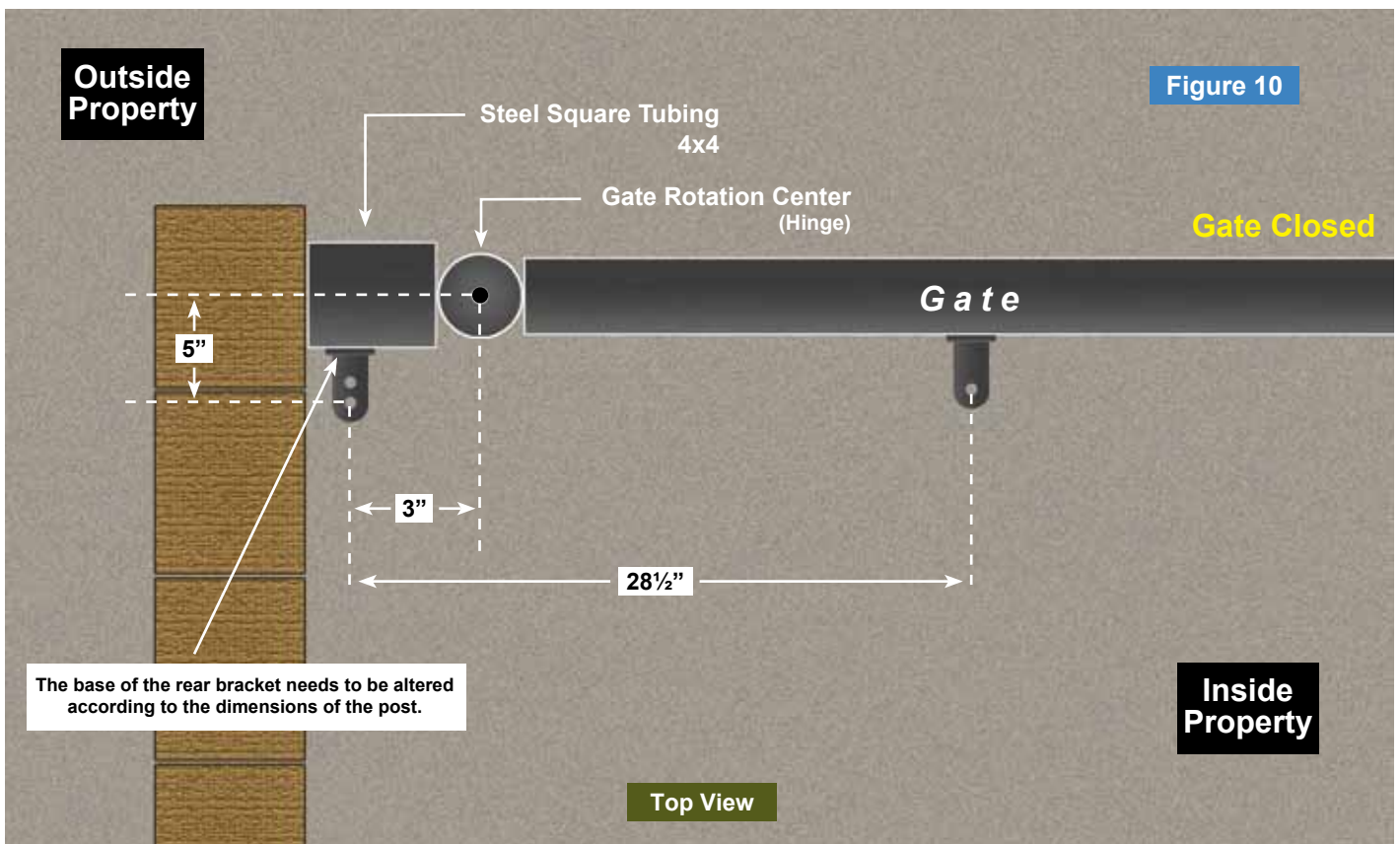
STANDARD INSTALLATION

MAXIMUM GATE SIZE & WEIGHT 14' @ 600 LBS — 12' @ 800 LBS



COMPACT INSTALLATION

MAXIMUM GATE SIZE & WEIGHT 8' @ 400 LBS



INSTALLATION GUIDELINE

- 1) Measure the distance **A** from the center point of the hinge to the rear bracket hole.
- 2) Use the table to determine the optimum measurement for **B** and attach the rear bracket to the post.
- 3) Mount the front bracket so that the hole of the front bracket is 28½" from the hole on the rear bracket **C**

A

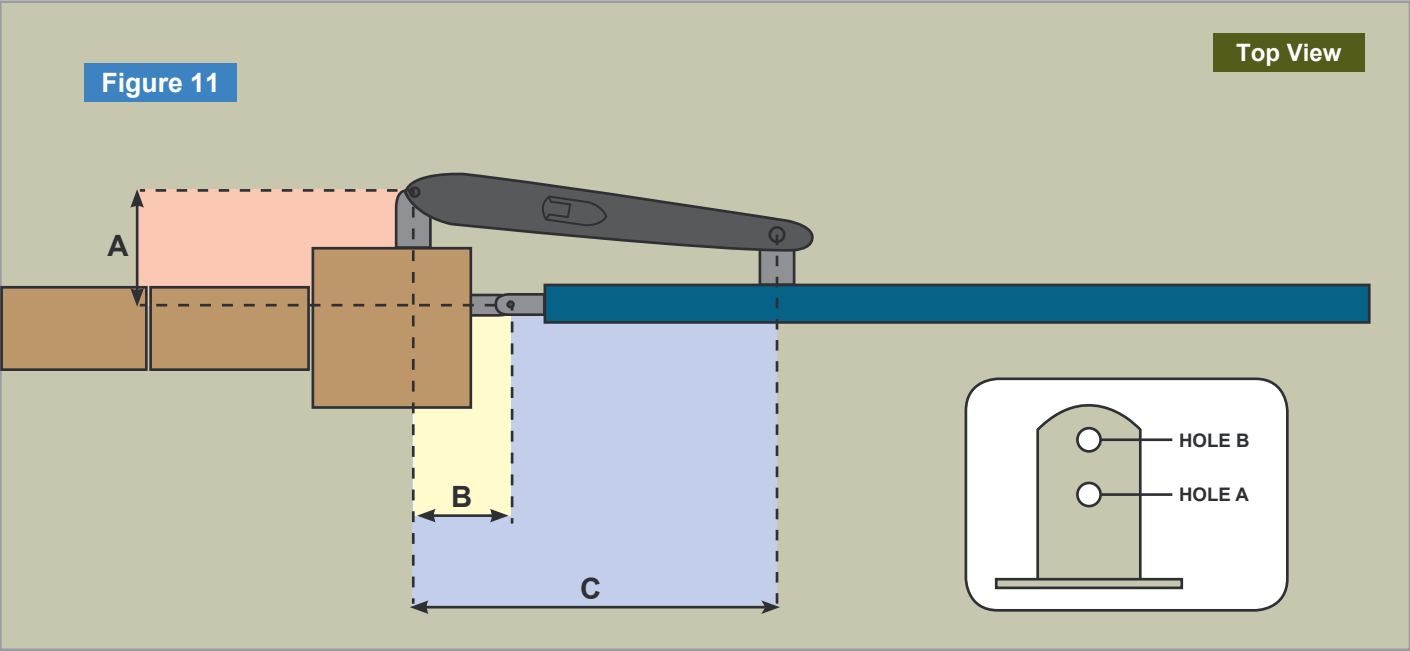
Measurement between the center of the gate plane and the rear bracket hole.

B

Measurement between the center of the gate hinge and the rear bracket hole plane.

C

Measurement between the front and rear brackets.



90° Opening			
	A(in)	B(in)	C(in)
	5"	5¼"	28½"
	5¾"	5½"	28½"
	5¼"	5½"	28½"
	6"	5¾"	28½"
	6¾"	6¼"	28½"
	7½"	5¼"	28½"

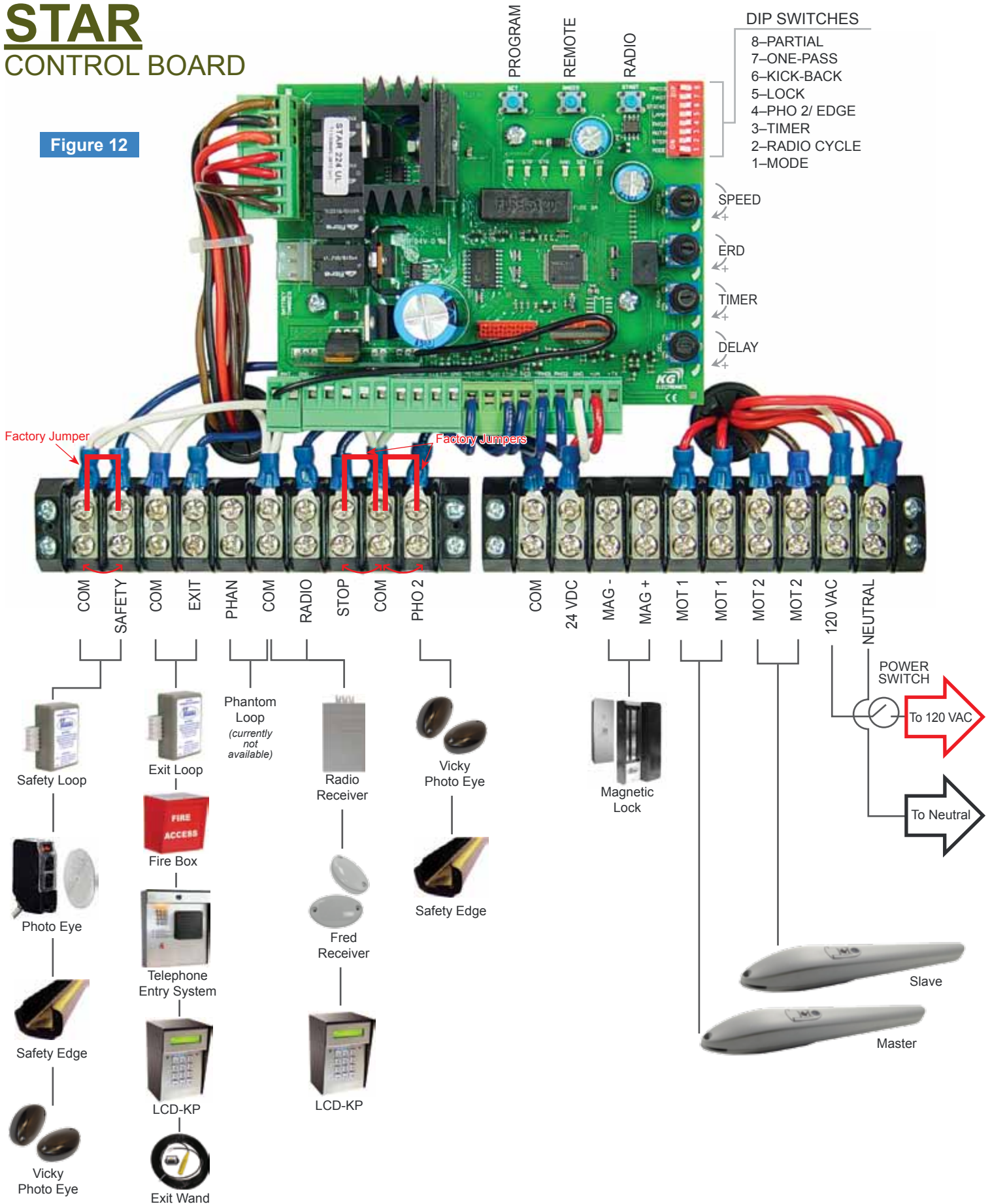
110° Opening			
	A(in)	B(in)	C(in)
	5"	6¼"	28½"
	5¾"	6"	28½"
	4¾"	6"	28½"
	4¾"	6¼"	28½"
	5¼"	6"	28½"
	6"	6"	28½"

JET

TERMINAL STRIP CONNECTIONS

STAR CONTROL BOARD

Figure 12



TERMINAL STRIP CONNECTIONS

TERMINAL #1 – COMMON

Low voltage common.

TERMINAL #2 – SAFETY

Normally Closed. Becomes active with an open contact to common. If the gate is closed, it will have no effect. If the gate is opening, it will have no effect. If the gate is opened, it will hold the gate open. If the gate is closing it will stop and automatically reopen the gate. Remove the factory jumper when using.

TERMINAL #3 – COMMON

Low voltage common.

TERMINAL #4 – EXIT

Normally open. Becomes active with a closed contact to common. Used with loop detectors, exit wands, fire boxes, keypads, etc... Opens the gate. If the gate is closed, it will open the gate. If the gate is opening it will have no effect. If the gate is opened, it will hold the gate open. If the gate is closing, it will stop and reopen the gate.

TERMINAL #5 – PHANTOM

This terminal is currently not active.

TERMINAL #6 – COMMON

Low voltage common.

TERMINAL #7 – RADIO

Normally open. Becomes active with a closed contact to common. Used with RF receivers, keypads, push-buttons, etc... Opens and closes the gate. Operation depends on the position of Dip Switch #2 (Radio Cycle)

Dip switch #2 – OFF: If the gate is closed it will open all the way. If the gate is open it will close all the way. If the gate is traveling it will have no effect.

Dip switch #2 – ON: Cycle mode. The gate will open and close to it's limits but if a command it triggered while traveling the gate will; stop on the first command and reverse on the second command.

TERMINAL #8 – STOP

Normally Closed. Becomes active with an open contact to common. Used with back plane photo eyes, edge sensors, etc... If the gate is closed it will hold the gate closed. If the gate is opening it will stop the gate and hold it. To reactivate the motion a second command must be input and then the gate will reverse it's direction. If the gate is open it will hold the gate open. If the gate is closing it will stop the gate and hold it. To reactive the motion a second command must be input and then the gate will reverse it's direction.

TERMINAL #9 – COMMON

Low voltage common.

TERMINAL #10 – PHO 2

Normally Closed. Becomes active with an open contact to common. Used with photo eyes, loop detectors, safety edges, etc... Operation depends upon the position of the Dip Switch #4 (Pho 2/ Edge)

Dip switch #4 – ON: If the gate is closed it holds the gate closed. If the gate is opening it stops the gate until the sensor is cleared and then it automatically continues to open the gate. If the gate is open it holds the gate open. If the gate is closing it stops the gate and until the sensor is cleared and then reverses the motion to reopen the gate automatically.

Dip switch #4 – OFF: If the gate is closed it holds the gate closed. If the gate is opening it stops the gate and reverses it's motion for 2 seconds. Another command must be received for the gate to continue. If the gate is open it holds the gate open. If the gate is closing it has no effect.

TERMINAL #11 – COMMON

Low voltage common.

TERMINAL #12 – 24 VDC

24 volt DC output for photocells, keypads, etc...

TERMINAL #13 – MAG –

Negative terminal for magnetic lock.

TERMINAL #14 – MAG +

Positive terminal for magnetic lock.

TERMINAL #15 & #16 – MOT 1

Input for motor wire coming from operator. If gate closes instead of opening, reverse polarity by switching the motor 1 wires.

TERMINAL #17 & #18 – MOT 2

Input for second operator in a master/ slave configuration. If gate closes instead of opening, reverse polarity by switching the motor 2 wires.

TERMINAL #19 – 120 VAC

120 Volt AC output terminal via switch. DO NOT wire AC input power directly to this terminal.

TERMINAL #20 – NEUTRAL

Neutral output terminal via switch. DO NOT wire AC input power directly to this terminal.

TRIM ADJUSTMENTS – POTENTIOMETERS

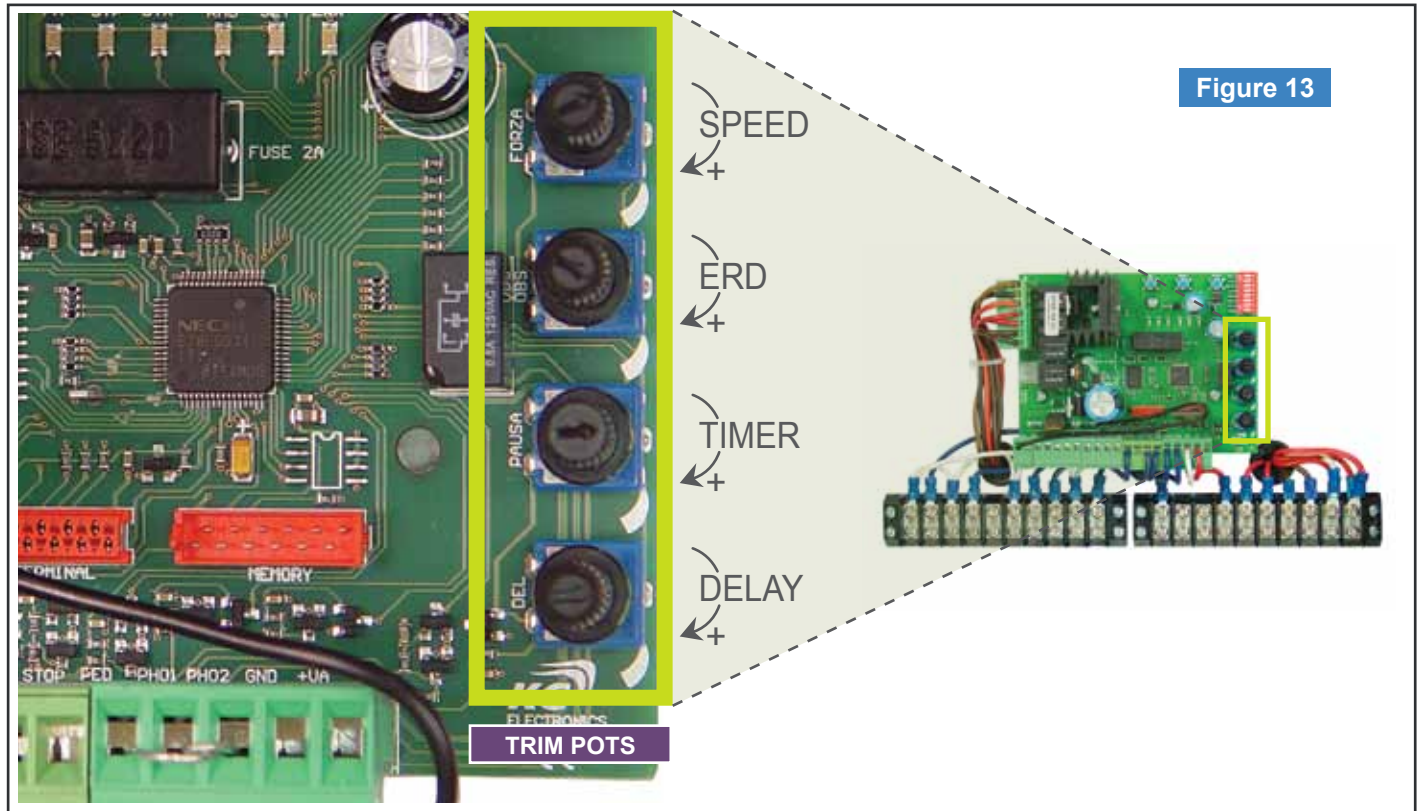


Figure 13

TRIM POTS

SPEED Use the “SPEED” trimmer to adjust the voltage with which the motor is powered during operation. Increasing/ decreasing this trimmer will affect the speed and torque with which the operator functions.

ERD The “ERD” trimmer is used to adjust the amount of time that the gate will continue to push before reversing. Turning the trimmer clockwise increases the amount of time it will continue to push. At minimum setting the gate will continue to push for about ½ second before reversing. At maximum setting the gate will continue to push for about 3 seconds before reversing. If the ERD is triggered twice in a row it will stop the gate and the warning siren will sound.

TIMER The “TIMER” trimmer is used with the automatic timer and adjusts the amount of time the gate will stay open before automatically closing. The automatic timer is activated by putting the Dip Switch #3 (TIMER) in the ON position. The timer trimmer can now be used to set the gate to stay open from a minimum of 3 seconds to a maximum of 90 seconds. Turning the trimmer clockwise increases the amount of delay.

DELAY The “DELAY” trimmer is used with a double gate - master/ slave configuration. The delay timer can be adjusted to make sure that the gates open and close simultaneously. With the delay trimmer turned all the way counter-clockwise the delay trimmer is off. The gates will open and close at the same time. Turning the delay trimmer clockwise activates the delay. The gates will now open with a 3 second delay between gate #1 and gate #2. The delay between the gates closing will depend upon how far the delay trimmer is turned clockwise; the further it is turned the longer the delay will be. With the delay trimmer turned to maximum delay: gate #1 will close 3 or 15 seconds after gate #2 begins to close.

DIP SWITCH CONFIGURATION

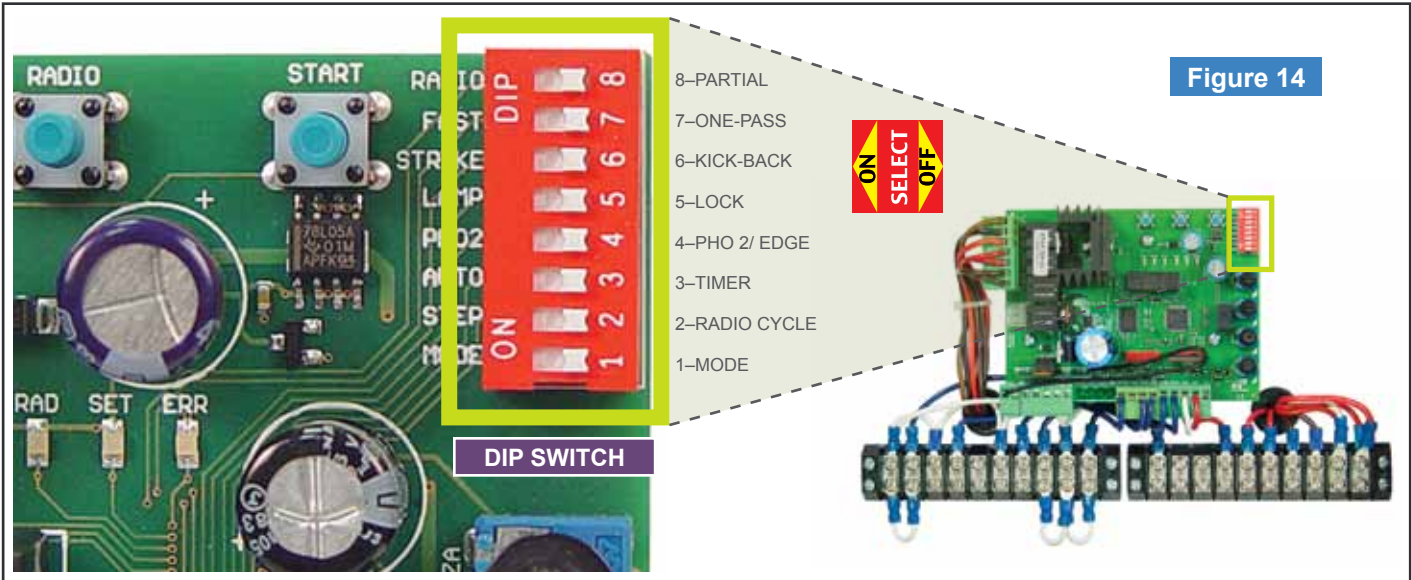


Figure 14

DIP SWITCH

Dip Switch 1 – MODE	
ON	The control unit is in slow mode. This setting is suitable for all gates.
OFF	<i>(used on gates under 6 ft)</i> The unit is in fast mode. Make sure that the gate does not strike too hard against the mechanical stops or the operator could be damaged. If so turn the switch 'on'.

Dip Switch 2 – RADIO CYCLE	
ON	The operator is in cycle mode. It will start the gate moving on the first command, stop the gate on the second command, and start the motion in the opposite direction on the next command.
OFF	The unit will open or close the gate depending on the limits. The unit will not stop if a command is received while the gate is moving. If closing the gate opens.

Dip Switch 3 – TIMER	
ON	The automatic closing timer is activated. The gate will automatically close according to the amount of time set by the timer trimmer.
OFF	The automatic closing timer is inactive. The operator must receive a command to close the gate.

Dip Switch 4 – PHO2/ EDGE	
ON	(PHOTO EYE) Safety devices attached to terminal #10 (PHO2) will cause the operator to do as follows: If the gate is open or closed it will not move until the sensor is cleared. If the gate is opening it stops the gate until the sensor is cleared and then automatically continues to open the gate. If the gate is closing it stops the gate until the sensor is cleared and then automatically opens the gate.
OFF	(EDGE) If the gate is open or closed it will not move until the sensor is cleared. If the gate is closing the safety sensor has no effect. If the gate is opening the gate will stop and reverse direction for 2 seconds. Another command must be received for the gate to continue.

Dip Switch 5 – LOCK	
ON	Use this setting when operating a magnetic lock with the operator.
OFF	Use this setting when using an electric lock with the operator.

Dip Switch 6 – KICK BACK	
ON	Kickback enabled. Used with the Modus operator. The control board supplies a surge of reverse power to the operator to release tension on the emergency release mechanism. No function currently.
OFF	The kickback feature is disabled. Keep this dipswitch off when using the Jet operator.

Dip Switch 7 – ONE PASS	
ON	Rapid re-closing or "anti-tailgating" feature is enabled. When this feature is active the gate will begin to re-close as soon as the photocell or loop has been occupied and cleared. If the gate is opening it will reverse direction and close without fully opening.
OFF	The rapid re-closing feature is disabled.

Dip Switch 8 – PARTIAL	
ON	Keep this switch ON for normal operation. The start channel is memorized during programming of the radio transmitter.
OFF	<i>(this is used on very long gates when to open limits are desired)</i> In this mode a partial opening channel is memorized during the programming of the radio transmitter. WARNING: THIS IS A VEHICULAR GATE OPERATOR. PEDESTRIANS SHOULD ALWAYS USE A SEPARATE ACCESS DOOR.

JET

LOOP INSTALLATION

Ramset Gate Operators should always be installed with non-contact sensing devices such as Loop Detectors, Photo Eyes or the equivalent.



WARNING

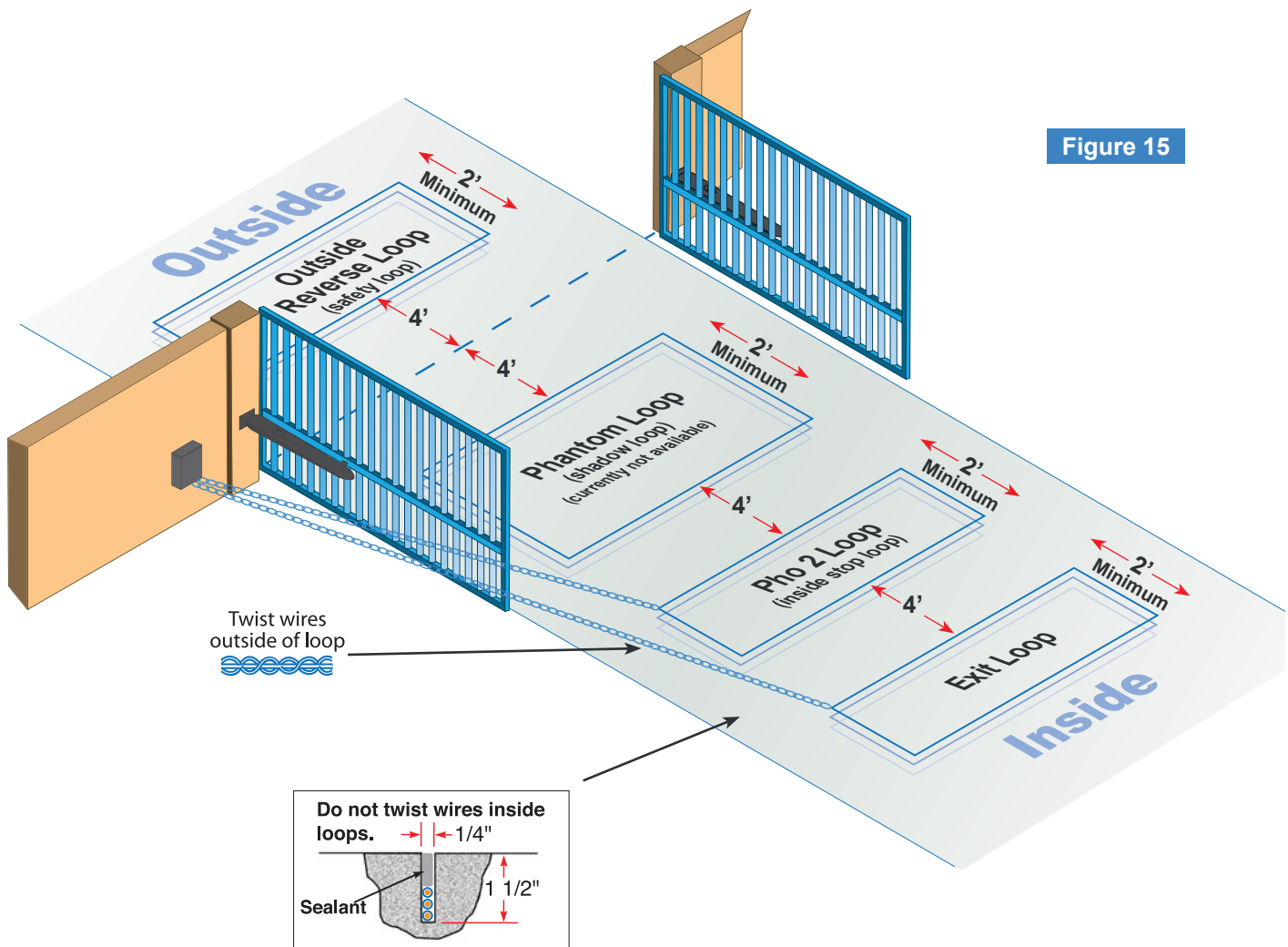
A non-contact sensor (photoelectric sensor or equivalent) and a contact sensor (edge device or equivalent) is required on each individual installation to comply with UL325.

Reversing Loop (safety loop) Prevents the gate from closing when a vehicle is in the loop area. The reversing loop will either stop the gate movement or reopen the gate when activated.

Exit Loop Opens the gate when a vehicle crosses the loop area.

PHO 2 Loop (inside stop loop) Prevents the gate from opening or closing when a vehicle is in the loop area. Can either stop the gate or reverse the gate motion if the gate is traveling when a vehicle crosses the loop area.

Phantom Loop (shadow loop) Holds the gate open while there is a vehicle in the loop area. Has no effect when the gate is in motion. ***This function is not currently active with the Star 24 control board.***



LOOP INSTALLATION



A non-contact sensor (photoelectric sensor or equivalent) and a contact sensor (edge device or equivalent) is required on each individual installation to comply with UL325.

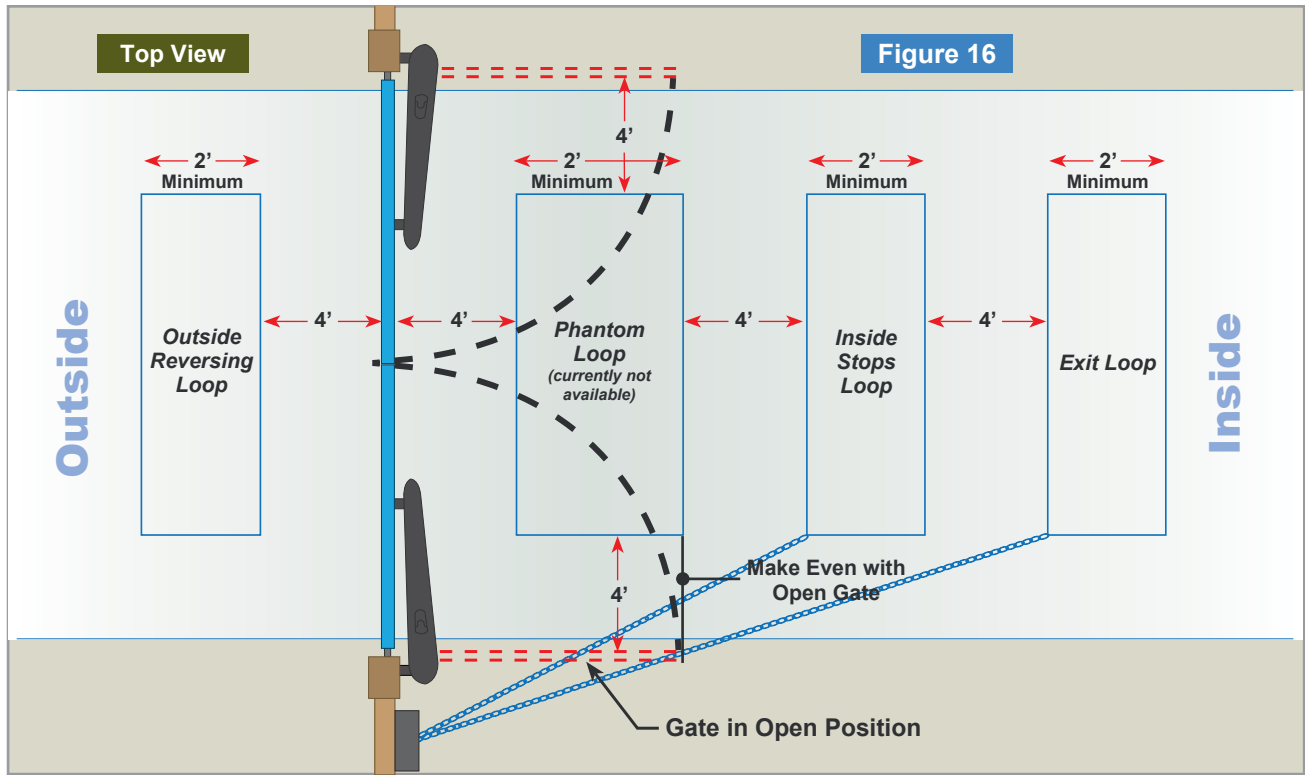


PHOTO EYE INSTALLATION

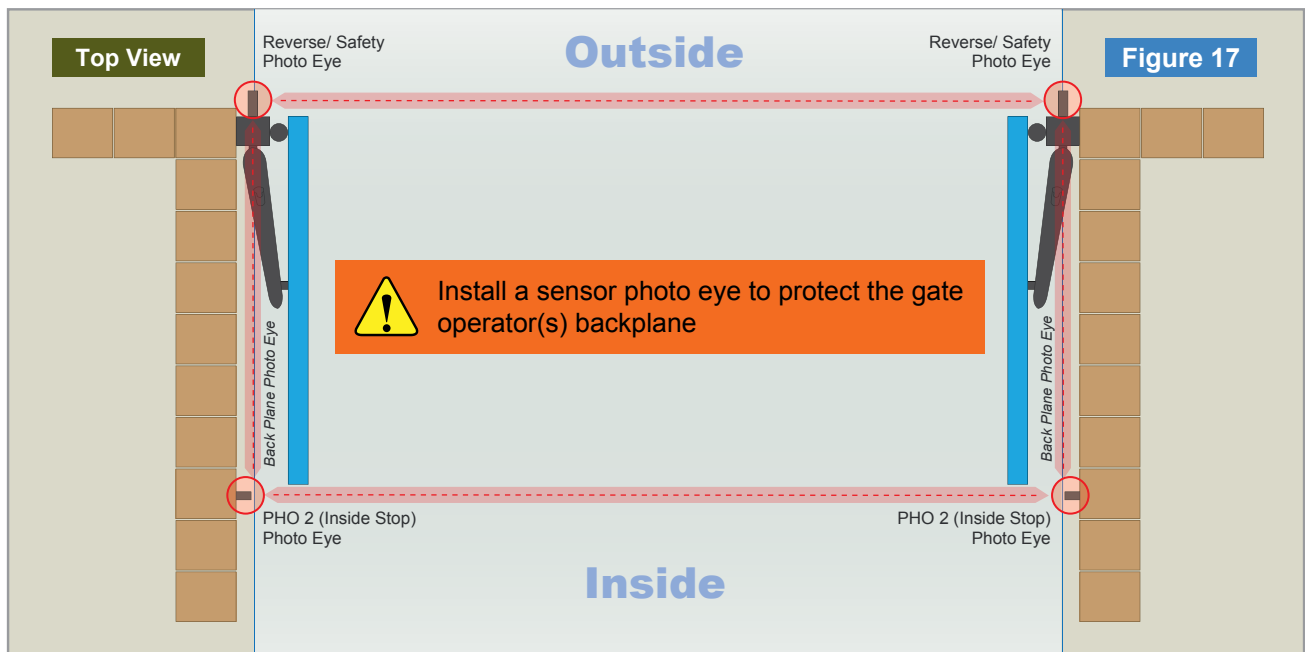


Make sure that all areas around the gate are safe and secure.

Reversing Photo Eye Prevents the gate from closing when a vehicle has broken the beam of the photo eye. The photo eye will either stop the gate movement or reopen the gate when activated.

PHO 2 Photo Eye Prevents the gate from opening or closing when a vehicle has broken the beam of the photo eye. The photo eye can either stop the gate or reverse the gate motion if the gate is traveling when a vehicle crosses the photo eye.

Back Plane Photo Eye Prevents the gate from moving when a person, such as a service technician, is in the area behind the gate. This helps eliminate entrapment.

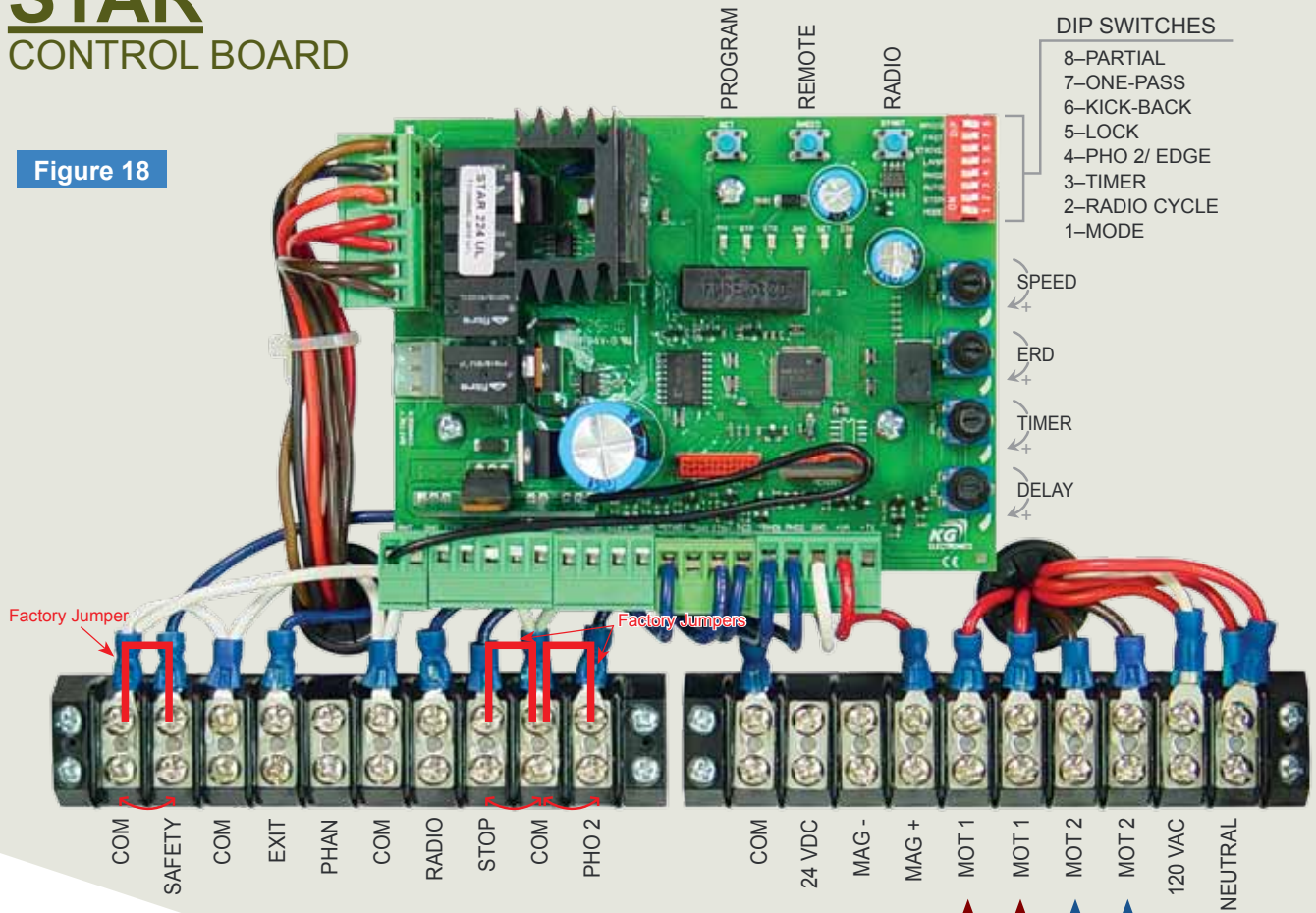


JET

MASTER SLAVE INSTALLATION

STAR CONTROL BOARD

Figure 18



PROGRAMMING PROCEDURE

Make sure that the Jet gate operator has been properly installed and the physical limits on the undercarriage of the Jet arm have been set to the open and close positions. Use the emergency release handle to move the gate to a half – open position then reengage the release handle and apply pressure to the gate until it locks in place.

Program the operator using these steps:

Step 1

Locate the “PROGRAM” button on the Star 24 control board. The red LED lights; PH and STP should be on.

Step 2

Press and hold the Program button for about 2 seconds. The red LED lights will go out. Release the Program button when the red LED’s go out.

Step 3

The red LED lights will come back on and the yellow LED will now begin to flash. Press the Program button again and release it immediately.

The Jet will automatically proceed to a learning mode. It will open the gate for 5 seconds (see important note below) and close the gate all the way, then it will open the gate again all the way and close the gate.

Programming is now complete.

IMPORTANT: If during the initial programming the gate begins to close instead of open, stop the procedure by shutting off the power and reverse the MOT 1 wires on the terminal strip. This will reverse the polarity of the motor. Repeat the programming procedure.

RADIO TRANSMITTER PROGRAMMING PROCEDURE

Step 1

Locate the “REMOTE” button on the Star 24 control board. The red LED lights PH and STP should be on.

Step 2

Press and release the “REMOTE” button. The red RAD LED light should come on.

Step 3

Press the button on the transmitter (remote control) you wish to program. The RAD LED light on the Star 24 control board should flash rapidly to confirm that it has recognized the transmitter input.

Step 4

If you have more than one remote control that you wish to program you can program them all at this time. Simply press the button on the remote control(s) and make sure that the RAD light flashes to confirm the input.

Step 5

When you have finished programming all of the remote controls, wait for about 10 seconds until the RAD LED light goes out. The remote controls are now programmed and ready to use.

NOTE:

You can program up to 200 buttons on remote controls at one time using this procedure

ADJUSTABLE SLOW DOWN LEARNING PROCEDURE

The Jet operator can be programmed to slow down at any point during the opening and closing process. This is especially useful when you are using the operator on large gates or in compact installation. Complete the normal programming procedure for the Jet operator first to make sure the operator is operating correctly and that the open and close stops are set properly.

Use the following procedure to reprogram the operator for adjustable slow down.

Step 1

Locate the “PROGRAM” button on the Star 24 control board. The red LED lights; PH and STP should be on.

Step 2

Press and hold the Program button for about 2 seconds. The red LED lights will go out. Release the Program button when the red LED’s go out.

Step 3

The red LED lights will come back on and the yellow SET LED light will now begin to flash.

Step 4

Immediately press the “REMOTE” button on the Star 24 control board. The yellow SET LED light will now stop flashing and the Jet will begin its learning procedure. The gate will open for 5 seconds and then close. The yellow SET LED light will remain on and the operator is now standing by for a command input.

Step 5

Using either the “PROGRAM” button on the Star 24 control board or a programmed remote control, press the button to initiate a command. The gate will now begin to open.

Step 6

When the gate reaches the point where you wish the slow down to begin, press the PROGRAM or remote control button again and the gate will slow down.

Step 7

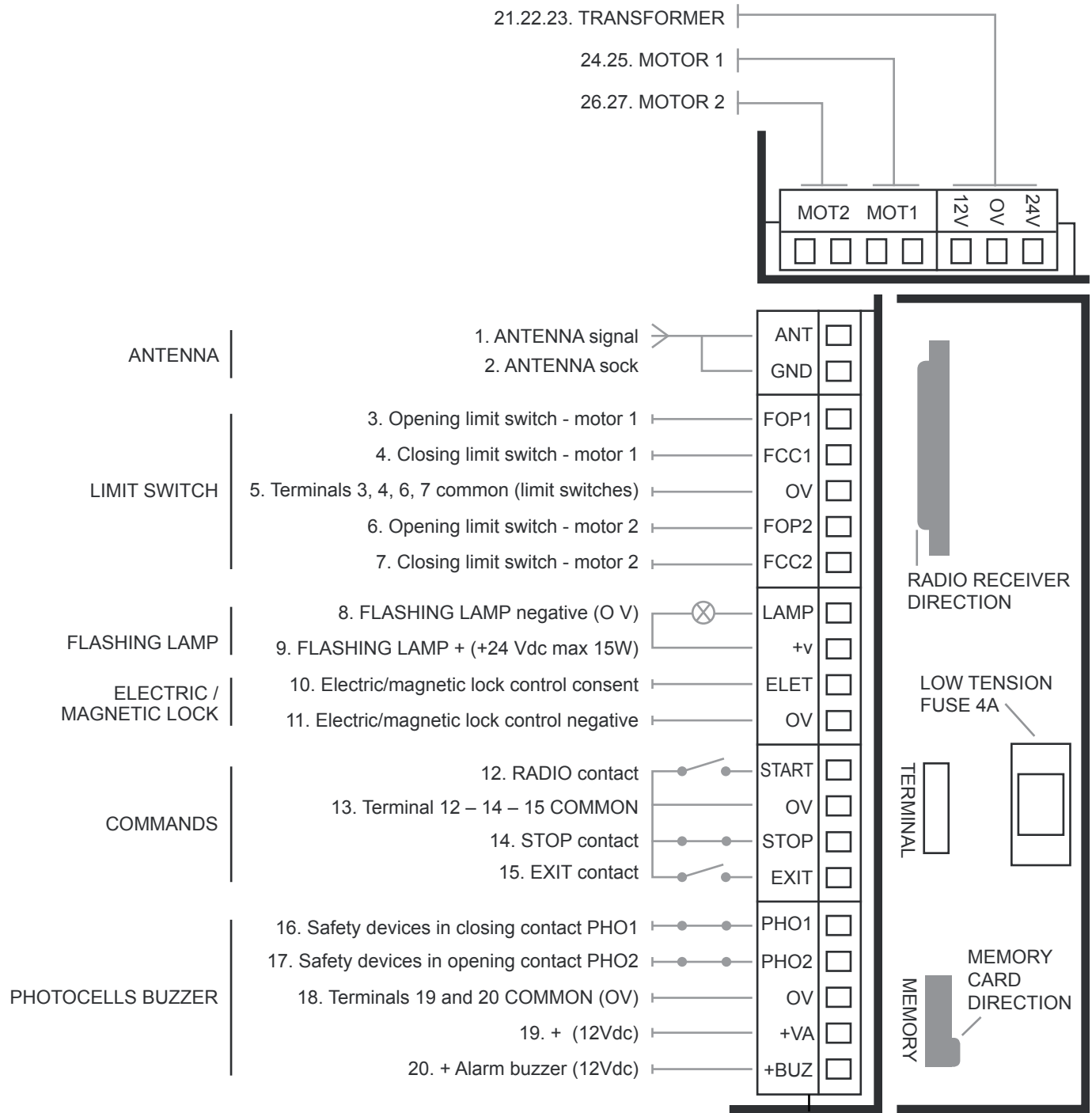
With the gate open use the same procedure to set the slow down point for closing the gate: Press the PROGRAM or remote control button to begin closing and then press it again at the point you want the gate to slow down. When the gate is completely closed the yellow SET LED light will go out and the programming is complete.

NOTE:

In a double gate, master/ slave configuration: The PROGRAM button is used to set the slow down point for the first gate and the REMOTE button is used to set the slow down points for the second gate.

MAIN BLOCK TERMINAL HOOKUP

JET



RAMSET OPTIONAL ACCESSORIES



LCD-KP
Liquid Crystal Display-Keypad
 1,024 Codes
 5,112 Event Log
 LCD Display
 7-Day Timer
 Time Zones
 Latching
 Stainless Steel Faceplate



Key Switch Box
 Suitable for use on
 Entry doors where access
 is restricted by a key.



Batteries & Charger
 Batteries 12V
 2,7ah



Fire Box
 Allows the fire department
 to open the gate in
 case of an emergency.



Magnetic Lock
 12/24V DC.
 1100 lb holding force.
 Secures the gate(s) closed.



Solar Panel
Solar Battery Charger
 10 amps, 24 VDC
 or Solar Panel.



RAMSET
Stylo Remote Controls
 4-Channel Radio Transmitter,
 Rolling Code, Small,
 Sleek, black and
 Chrome Design.



RAMSET
Fred Receivers
 433.1 MHz Rolling Code
 Receiver. (12 to 24 VDC)

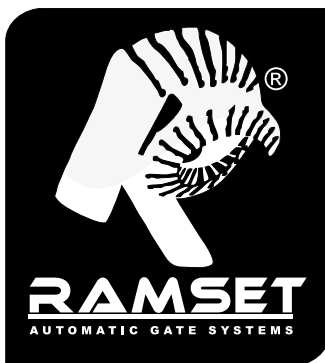


Photocells
 External photocells.
 For safety reasons every
 installation should include
 a photocell.



ILD-24S
Loop Detector
 Wire harness loop detector with
 sensitivity adjustment and
 inherent loop diagnostics.

JET



IMPORTANT INFORMATION FOR THE HOMEOWNER

Ask your technician about all the features of our new Ramset operator.

Safety devices, such as reversing loops, phantom loops, photo eyes, or miller edges must be installed on your gate before the operator may be used. Ask your technician which safety devices best suit your safety needs.

Never let children operate or play with gate controls. Keep the controls away from children.

The entrance is for vehicles only. Pedestrians should use a separate entrance.

Always keep people, children and objects away from the gate while the gate is in operation. No one should cross the area of a moving gate.

Use the emergency release only when the gate is not moving & power is turned off to the unit.

Have the technician give you a demonstration of how to use the emergency release.

Keep gates properly maintained. Have a qualified gate technician service the gate operator and gate hardware every six months to a year. This includes checking of safety devices, E.R.D. and battery back up systems.

Warning signs must be placed on every gate in a highly visible area.

To reset the audible alarm on the gate operator you must turn the power of the unit off for approximately 10 seconds, then back on.

Always keep a good relationship with your technician and keep his or her number handy for future maintenance or emergencies.

***RAMSET WISHES TO THANK YOU FOR TRUSTING US
TO MEET YOUR GATE OPERATOR NEEDS***

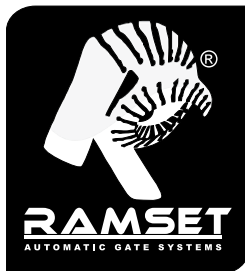
GATE ENTRANCE SAFETY PRECAUTIONS



WARNING:

1. Never let children operate or play with gate controls. Keep the controls away from children.
2. The entrance is for vehicles only. Pedestrians should use a separate entrance.
3. Always keep people, children and objects away from the gate while the gate is in operation. No one should cross the area of a moving gate.
4. No opening devices such as a keypad, cardreader etc., should be installed close to the gate, where the gate could possibly cause injury.
5. Use warning signs attached on both sides of the gate.





9116 De Garmo Ave.
Sun Valley, CA 91352
Tel: (818) 504-2533 • Fax: (818) 504-1141
www.ramsetinc.com