ACCESSORIES

GLX900
INSTALLATION MANUAL

GLX900
GATELOCK

Centurion Systems (Pty) Ltd
www.CentSys.com

1. Introduction

The **GLX900** Lock has been developed for both swing and sliding gates and interfaces seamlessly with the gate operator system. The **GLX900** Lock unlocks a moment before the gate starts to open and automatically locks again once the gate closes.

The **GLX900** Lock incorporates a key-operated barrel lock allowing for convenient manual override in the absence of an electric signal.

2. Important Safety Instructions

1. All installation, repair, and service work to this product must be done by a suitably qualified person.
2. Do not in any way modify the components of the system.
3. Do not leave packing materials (plastic, polystyrene, etc.) within reach of children as such materials are potential sources of danger.
4. Dispose of all waste products like packaging materials, according to local regulations.
5. Centurion Systems (Pty) Ltd does not accept any liability caused by improper use of the product, or for use other than that for which the automated system was intended.
6. This product was designed and built strictly for the use indicated in this documentation. Any other use, not expressly indicated here, could compromise the service life/operation of the product and/or be a source of danger.
7. Anything not expressly specified in these instructions is not permitted.
8. Do not place your fingers inside the lock.

3. Icons Used in This Manual

This icon denotes variations and other aspects that should be considered during installation.

This icon indicates warning, caution or attention! Please take special note of critical aspects that MUST be adhered to in order to prevent injury.

4. General Description

The **GLX900** Lock has been designed to introduce an additional level of security to an existing swing or sliding gate installation. The lock can be fitted to both automated and manually-operated gates since it has a manual override key that can be used in the absence of an electric signal.

The **GLX900** Lock incorporates an actuator driver circuit in order to protect the actuator from overheating thereby extending the useful life of the product.

5. Product Identification

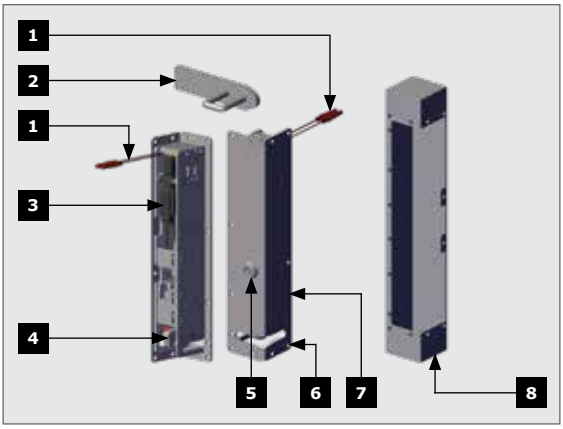

FIGURE 1

1. Connector Cables
2. Gate Staple
3. Lock Actuator
4. Latch
5. Manual Key Release
6. Blind Rivet Hole (x12)
7. **GLX900** Lock Housing
8. Mounting Box (Optional)

6. Overall Product Dimensions

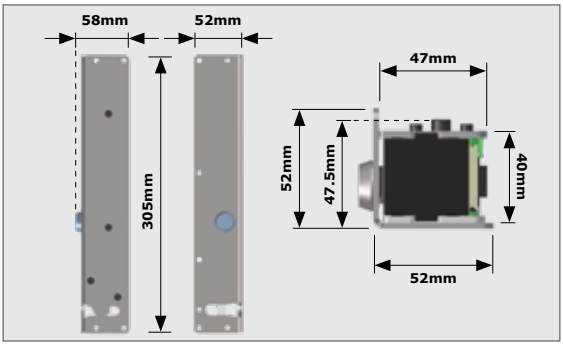

FIGURE 2

7. Technical Specifications

Operating voltage	10.8 - 30V DC
Maximum current draw	2.7A @500mS
Minimum pulse duration	1 second
Maximum pulse duration[1]	10 seconds
Operating temperature range	-20°C - 50°C
Dimensions	Height: 305mm Width: 52mm Depth: 52mm
Weight	1450g
Material	
Lock housing	Grade 304 Stainless Steel
Lock components	Zinc plated Mild Steel
Gate Staple	Spray-galvanised Mild Steel
Pop Rivets	Grade 304 Stainless Steel
Ultimate Strength	900kg

TABLE 1

1. The length of the electrical pulse should not exceed 10 seconds, as this may result in the internal release mechanism being damaged.

8. Cabling Requirements

For distances under five meters, 0.5mm² cable (ripcord) can be used. However, it is strongly recommended that cable with a thickness of at least 1mm² be used for distances greater than five meters, to compensate for any drops in voltage that may be incurred. For distances greater than 10m it is recommended that a thickness of 1.5mm² be used.

Use rubber grommets when passing through steel to stop the cable from rubbing and breaking/short circuiting.

Crimp the supplied female bullet connectors to the supply cables.

Ensure that no loose cables will come into contact with any part of the locking mechanism at any time.

8.1. Swing Gates

8.1.1. Single Leaf

The cables are routed from the controller along the pillar and up to where the lock is mounted, as illustrated below.

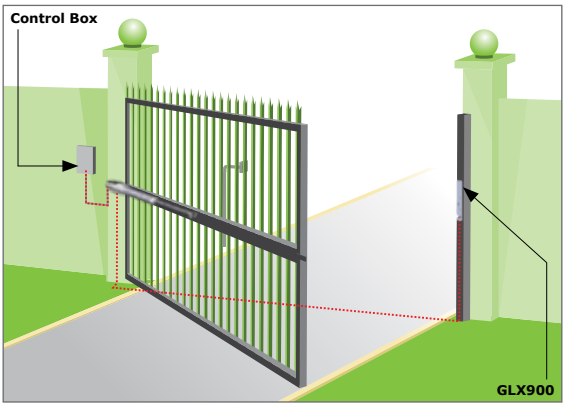

FIGURE 3

8.1.2. Double Leaf

It is advisable to always mount the **GLX900** Lock on the gate leaf that is closest to the control box as shown in the illustration below. Route the cables from the control box to where the lock is mounted, via the frame of the gate so as to conceal the wires and prevent criminals from simply cutting them.

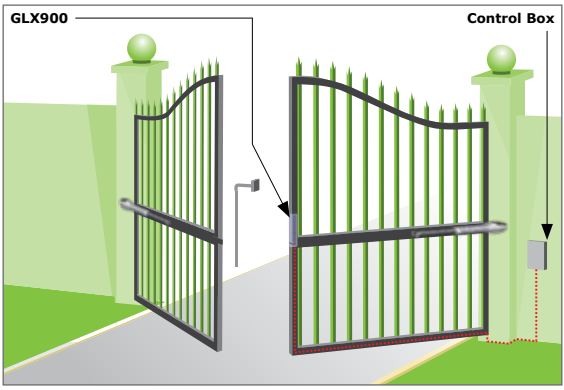

FIGURE 4

8.2. Sliding Gates

8.2.1. Option One

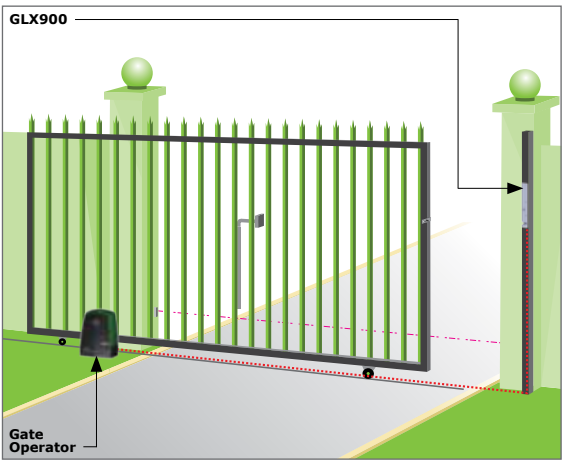

FIGURE 5

8.1.2. Option Two

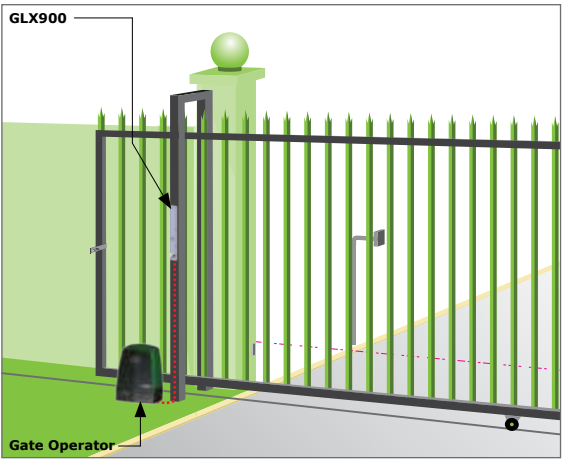

FIGURE 6

9. GLX900 Lock Installation

9.1. Required Tools and Equipment

To install the **GLX900** Lock, the following tools and equipment will be needed;

- Small grinder with steel cutting disc
- Flat steel file
- Power drill with 5mm drill bit
- Blind rivet tool/gun
- Connector crimping tool
- Welding equipment

9.2. General Site Considerations

1. Decide on which side of the post you wish to install the gate lock.
2. Note that there are two types of locks available.
3. In order to determine which orientation is required for your installation, stand inside the property and face the gate.

9.3. Possible Orientations

The **GLX900** Lock comes in two variants. Determination of which variant to use will depend upon preference and the practicality of the site in which the **GLX900** Lock is being installed. Below are possible scenarios in which both variants can be used.

In all the below scenarios, the point of view is from inside the property looking out to the road.

The barrel lock of the GLX900 must always face the inside of the property and the latch must always be orientated downward at the bottom of the lock.

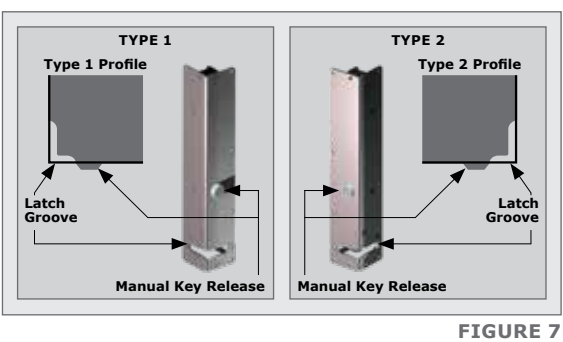

FIGURE 7

9.3.1. Type 1

Swing Gates (Inward and Outward swinging)

Double-leaf swing gate. The lock is mounted on the right leaf, and the Gate Staple mouted on the left leaf.

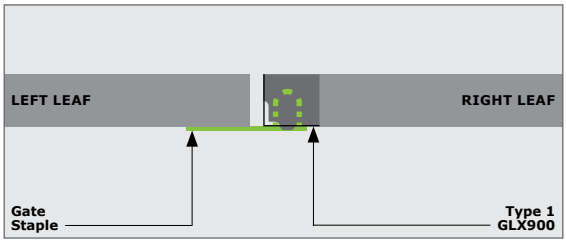

FIGURE 8

Single-leaf swing gate, hinged on the left.
The lock is mounted into a catch post on the right, and the Gate Staple mouted to the gate.

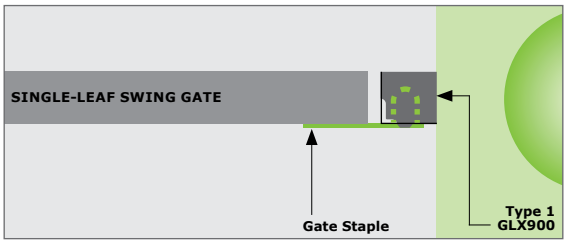

FIGURE 9

Sliding Gates

The Gate Operator on the right-hand side with the gate closing to the left. The Lock is mounted on the closing-side catch post if the catch post is outside the property.

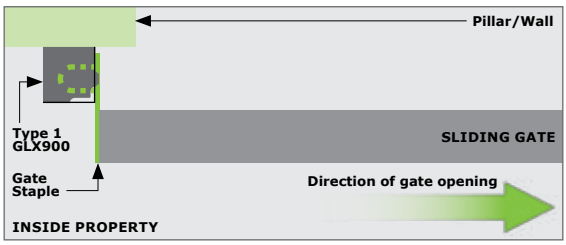

FIGURE 10

The Gate Operator is on the right-hand side with the gate closing to the left. The Lock is mounted on the opening-side catch post if the catch post is outside the property.

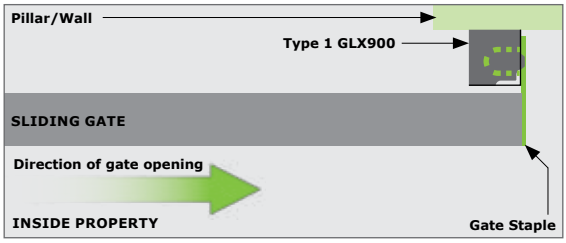

FIGURE 11

The Gate Operator is on the left-hand side with the gate closing to the right. The Lock is mounted on the closing-side catch post if the catch post is inside the property.

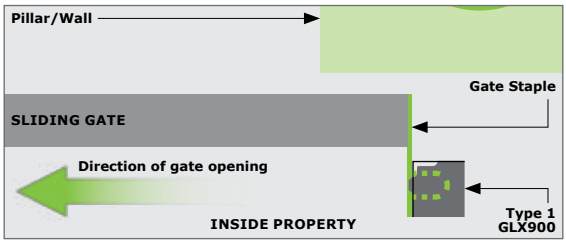

FIGURE 12

The Gate Operator is on the left-hand side with the gate closing to the right. The Lock is mounted on the opening-side catch post if the catch post is inside the property.

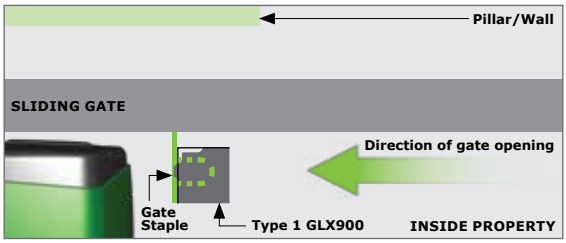

FIGURE 13

9.3.2. Type 2

Swing Gates (Inward and Outward swinging)

Double-leaf swing gate. The lock is mounted on the left leaf, and the Gate Staple mouted on the right leaf.

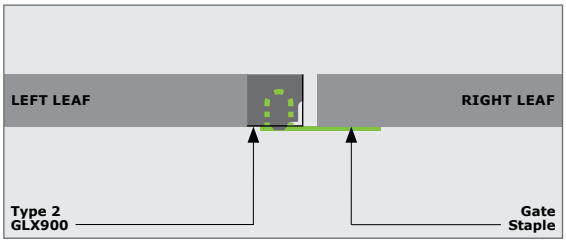

FIGURE 14

Single-leaf swing gate, hinged on the right.
The lock is mounted into a catch post on the left, and the Gate Staple mouted to the gate.

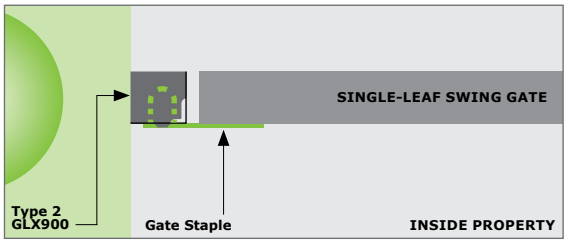

FIGURE 15

Sliding Gates

The Gate Operator on the Left-hand side with the gate closing to the right. The Lock is mounted on the closing-side catch post if the catch post is outside the property.

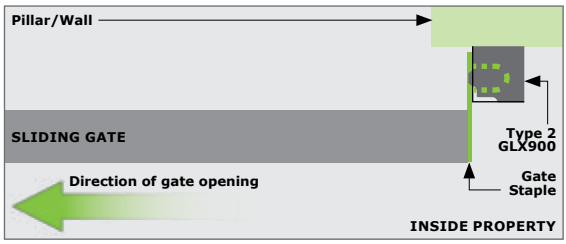

FIGURE 16

The Gate Operator is on the left-hand side with the gate closing to the right. The Lock is mounted on the opening-side catch post if the catch post is outside the property.

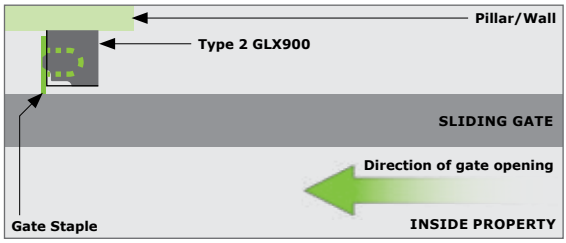

FIGURE 17

The Gate Operator is on the right-hand side with the gate closing to the left. The Lock is mounted on the closing-side catch post if the catch post is inside the property.

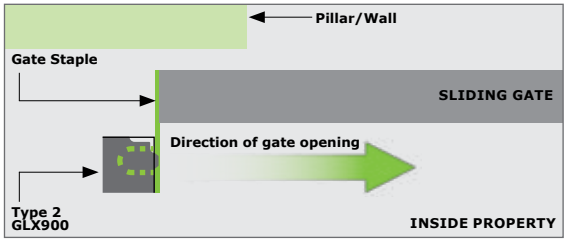

FIGURE 18

The Gate Operator is on the right-hand side with the gate closing to the left. The Lock is mounted on the opening-side catch post if the catch post is inside the property.

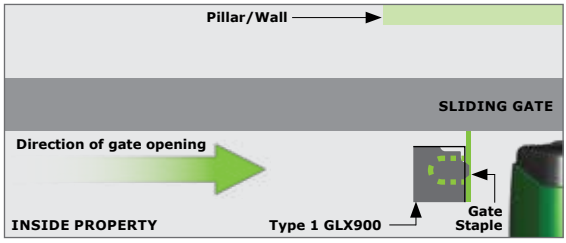

FIGURE 19

9.4. Mounting the GLX900 Lock

- The Gate Staple poses a safety risk, as it could potentially injure a person in the path of the gate
- When the installation is complete, push the gate closed
- When testing, the lock will disengage upon triggering and the gate will proceed to move in the opening direction

The gate post should have minimum dimensions of 50mm x 50mm and maximum wall thickness of 2mm.

If your gate posts do not meet these minimum requirements, it is strongly recommended that the mounting box be purchased.

Using the template provided, mark and cut the corner of the gate / post in the position you wish to install the lock, and drill the twelve 5mm blind rivet holes.

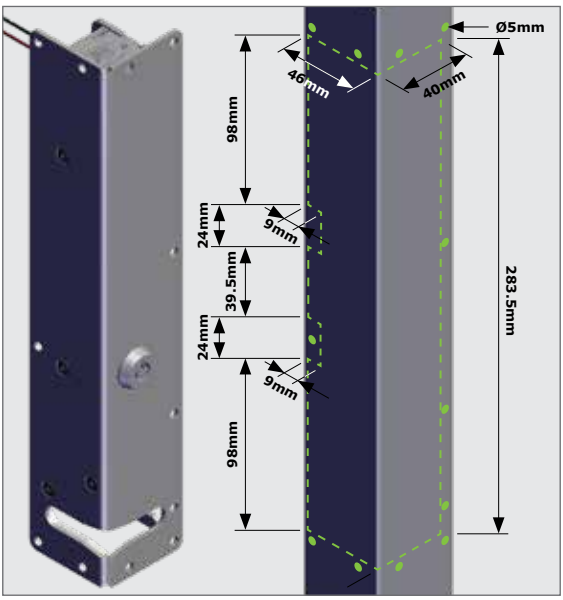

FIGURE 20 - TYPE 1 CUT-OUT

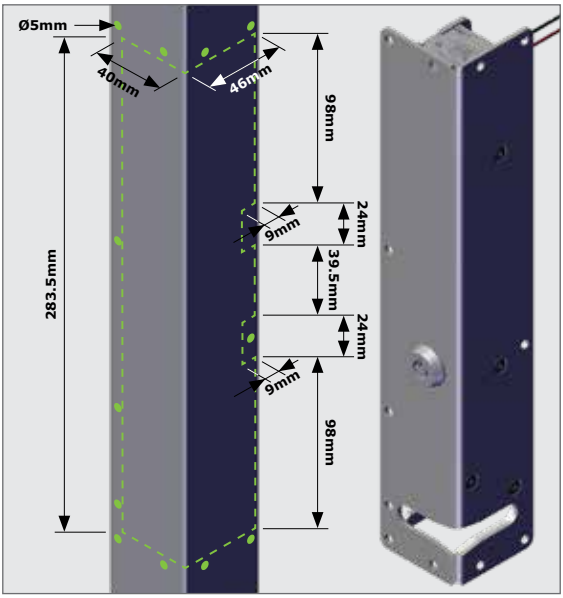

FIGURE 21 - TYPE 2 CUT-OUT

Connect the pair of wires to the lock. Depending on the operator being used, the specified DC Voltage should be obtained either from the gate motor's remote control receiver or from the controller itself.

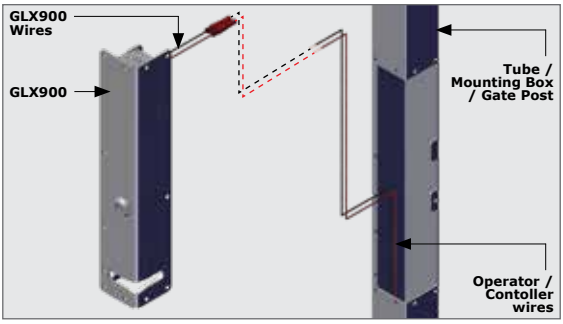

FIGURE 22

The pulse duration must be set to a minimum of one second. In situations where the pulse duration is shorter than our minimum specified by using the existing remote receiver or controller, a pulse-stretcher or similar timing device or a relay card MUST be used. However, a current-limiting interface card is integrated into the lock to prevent over-current from damaging the lock's internal actuator.

The lock must be installed vertically with the arrows on the back plate pointing upwards. If the lock is not installed vertically with the correct orientation, it will not operate reliably.

Care must be taken not to leave excessive slack on the cables as this will electrically strain the actuator which in turn could lead to the release system failing.

Fit the lock in the desired location, and use the twelve stainless steel pop rivets that were provided to secure the lock. The use of aluminium pop rivets will result in a weaker lock installation.

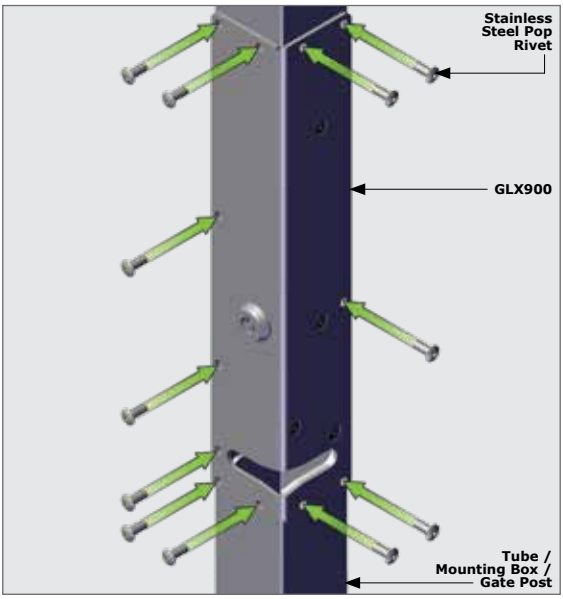

FIGURE 23

9.5. Mounting the Gate Staple into position

To determine the position of the Gate Staple, the gate must be in a fully-closed position. Insert the staple into the **GLX900** Lock and then mark where the bracket should be before welding it into its final position.

Weld the Gate Staple onto either the gate or the post in the desired position. Allow for clearance for possible movement in the gate over time.

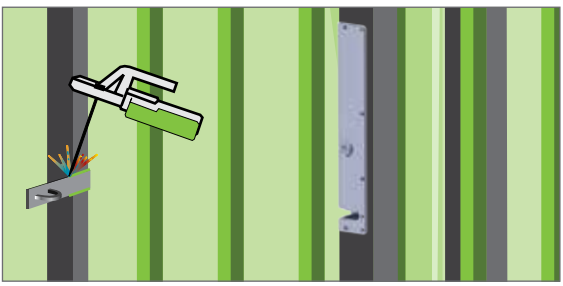

FIGURE 24

Once the Gate Staple is welded into position, it is highly recommended to paint the welded areas with suitable paint to prevent corrosion.

10. Wiring

10.1 Positive Switching

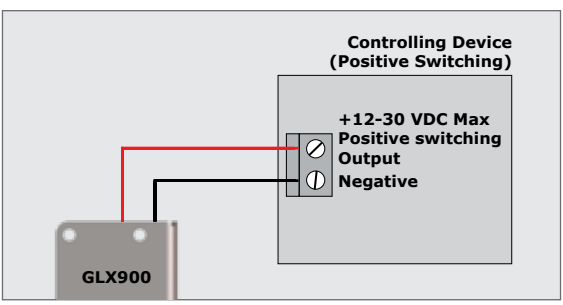

FIGURE 25

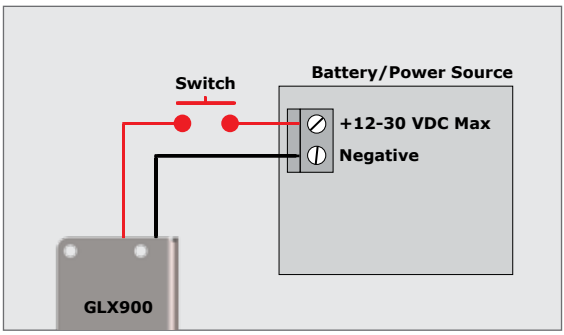

FIGURE 26

10.2 Negative Switching

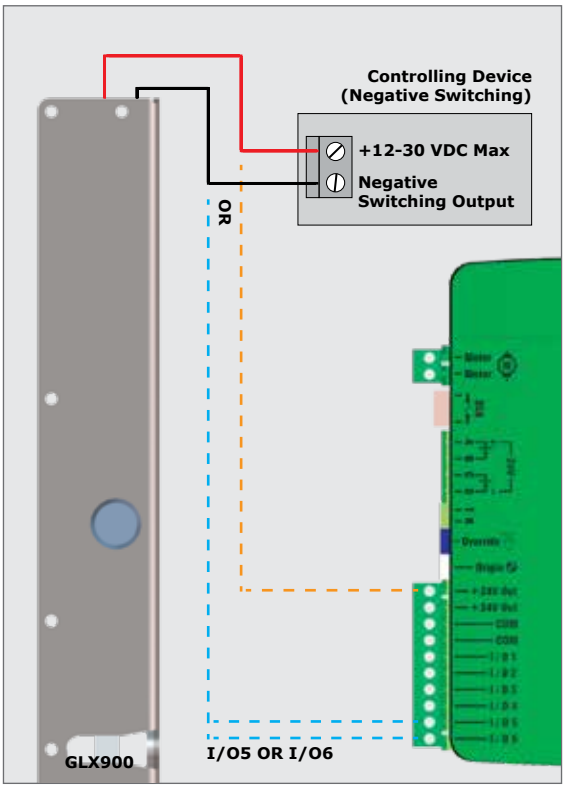

FIGURE 27

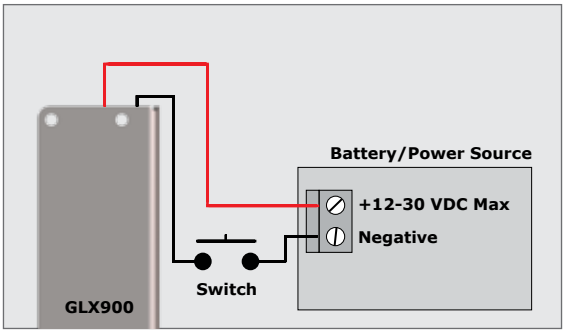

FIGURE 28

V-Series Controller

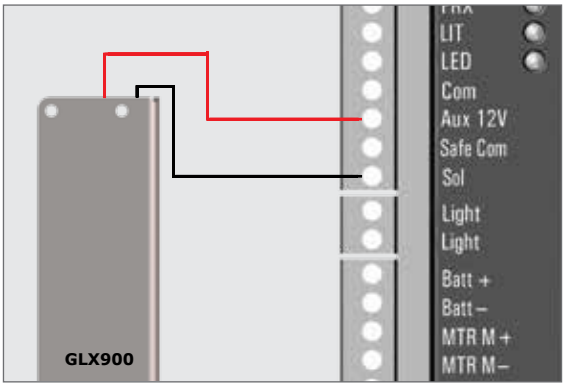

FIGURE 29

10.3 Connecting the GLX900 to a CP80 Board

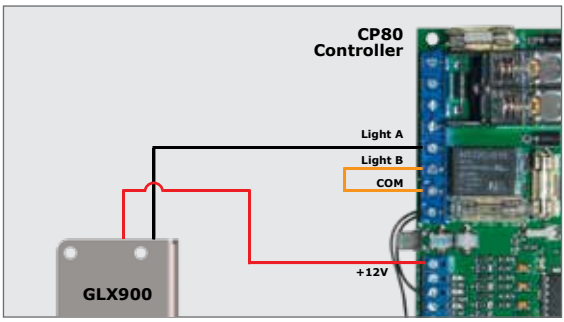

FIGURE 30

- Connect the 12V supply from the CP80 to the **GLX900**'s IN+
- Connect a shorting wire between the CP80's Com and Light_B Terminal
- Connect the Light_A Terminal of the CP80 to the **GLX900**'s IN-

Programming

CP80: The Courtesy light Relay contacts will be used to activate the Gate Lock. The Pre-flash mode 3 and the Pre-flash time of 1s will need to be programmed on the CP80 controller.

- Enter the CP80 into programming mode by removing all power from the controller i.e. charger and battery. Fit the SET link to the SET jumper pins
- Reapply power by reconnecting the charger plug, and then the battery to the controller
- The Status LED will flash 5 times. Thereafter, L2 will Turn On
- Press and hold the Test button while monitoring LED L1. LED L1 will start flashing evenly. Count the number of flashes and release once the flashes reach 10 flashes. LED L2 will go OFF. The CP80 Pre-Flash Mode is now selected
- Press and hold the Test button while monitoring the Status LED. The Status LED will start flashing evenly. Release the Test button once the number of 3 flashes on the Status LED is reached. L2 will come back on indicating the Pre-flash Mode 3 is now selected
- Press and hold the Test button while monitoring LED L1. LED L1 will start flashing evenly. Count the number of flashes and release once the flashes reach 11 flashes. LED L2 will go OFF. The CP80 Pre-Flash Time is now selected
- Press and hold the Test button while monitoring the Status LED. Release immediately after you see one flash on the Status LED. L2 will come back on indicating the Pre-flash time of one second is now selected

10.4 Connecting a D5-Evo/D10 using XIO

The combined duration of the pre-open delay and the total runtime of the gate should not exceed 10 seconds, as applying an electrical pulse for longer than the specified maximum duration may result in the internal release mechanism being damaged.

Make use of the XIO. A relay must be used to interface with the **GLX900**.

For the Gate to operate correctly, the **GLX900** needs to activate before the gate moves; to achieve this a Open Pre-delay is required;

- Press the Elliptical button for greater than 2 seconds to enter the programming menu
- Press the Down Button until the Run Profile Menu is reached
- Press the Elliptical Button to enter
- Press the Down Button to select the Pre-open Delay Menu
- Press the Elliptical Button to enter
- Set a Pre-open Delay of 1 second
- Exit Programming Menu

To correctly configure the XIO, follow the below steps;

- Press the Elliptical button for greater than 2 seconds to enter the programming menu
- Press the Down Button until the Safety Menu is reached
- Press the Elliptical Button to enter
- Press the Up Button to select the External Gate Status Indication Menu
- Press the Elliptical Button to enter
- Press the Elliptical Button to select Indicator Output
- Select XIO as the Output Indicator
- Press the Elliptical Button to Accept
- Press the Down Button to select the Opening Indication Menu
- Turn the Opening Indication ON
- Exit Programming Menu

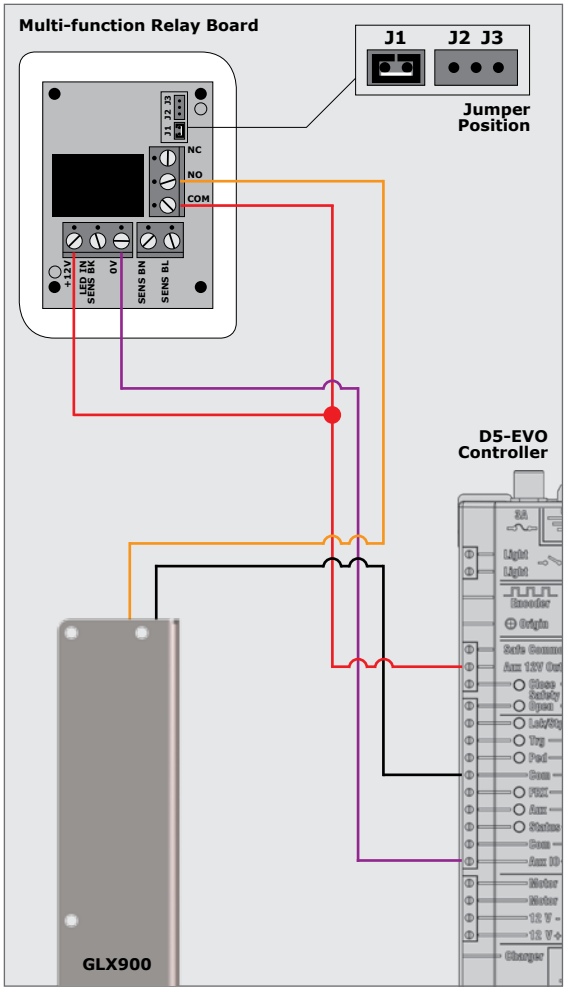

FIGURE 31 - D5-EVO XIO CONNECTION

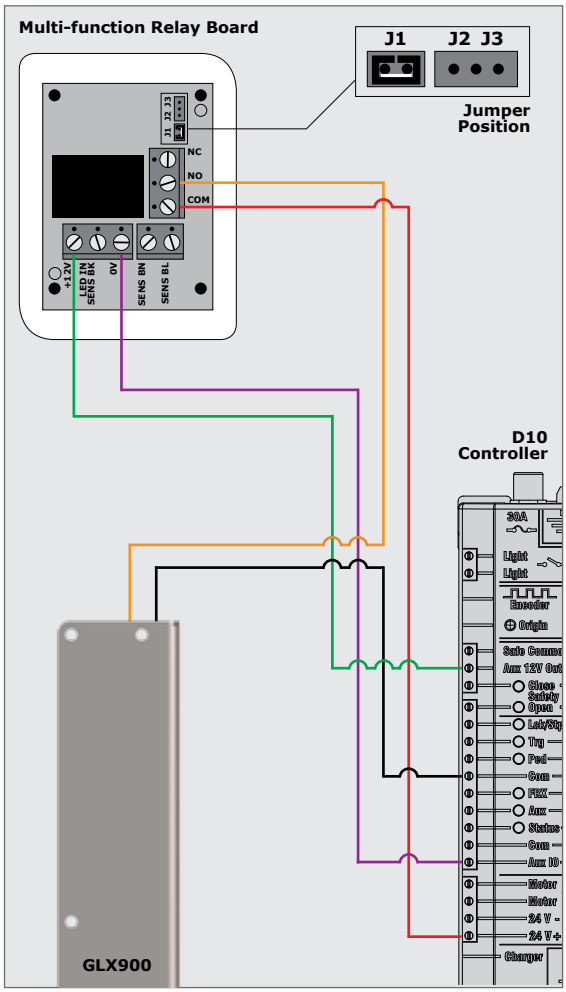

FIGURE 32 - D10 XIO CONNECTION

10.5 Connecting a D5-Evo/D10 using the Light Relay

For the Gate to operate correctly, the **GLX900** needs to activate before the gate moves, to achieve this a Open Pre-delay is required;

- Press the Elliptical button for greater than 2 seconds to enter the programming menu
- Press the Down Button until the Run Profile Menu is reached
- Press the Elliptical Button to enter
- Press the Down Button to select the Pre-open Delay Menu
- Press the Elliptical Button to enter
- Set a Pre-open Delay of 1 second
- Exit Programming Menu

To correctly configure the LIGHT Relay, follow the below steps;

- Press the Elliptical button for greater than 2 seconds to enter the programming menu
- Press the Down or Up Button until the Courtesy Light Menu is reached
- Press the Elliptical Button to enter
- Press the Down Button to select the Light Profile Menu
- Press the Elliptical Button to enter
- Press the Down Button to select Pre-flash A

DO NOT USE Courtesy Light Profile.

- Press the Elliptical Button to Accept Pre-flash A
- Exit Programming Menu

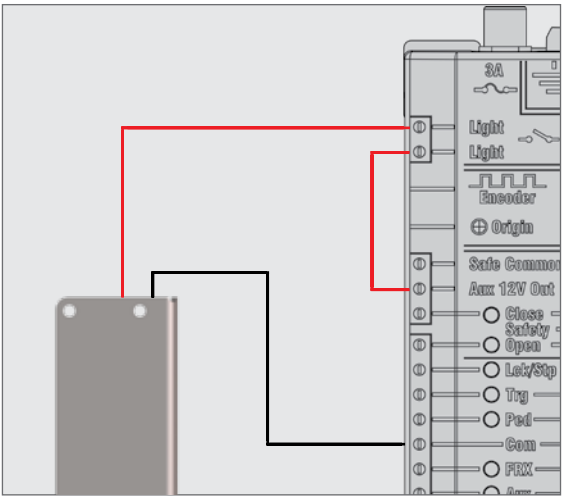

FIGURE 33 - D5-EVO LIGHT RELAY CONNECTION

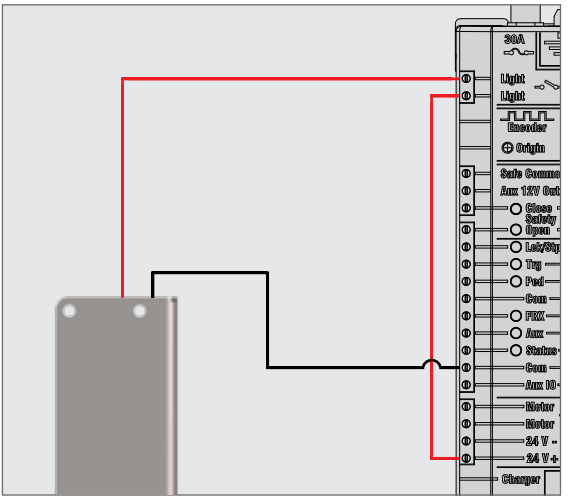

FIGURE 34 - D10 LIGHT RELAY CONNECTION

Ensure that all items are secure. Test the **GLX900** Lock by activating the remote control. The lock should release for a sufficient duration (minimum of 1 second) to allow the Gate Operator to start opening the gate.

11. Maintenance

The lock is installed outside where it is exposed to the elements, which may degrade the lock over time. Periodic maintenance of the **GLX900** Lock is suggested in order to keep the lock functioning optimally and to increase the operating life of the product.

It is recommended to generously spray lubricant such as Q20 / WD40 or an equavalent alternative up through the opening of the lock, and into the front of the barrel lock every 6 months.

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