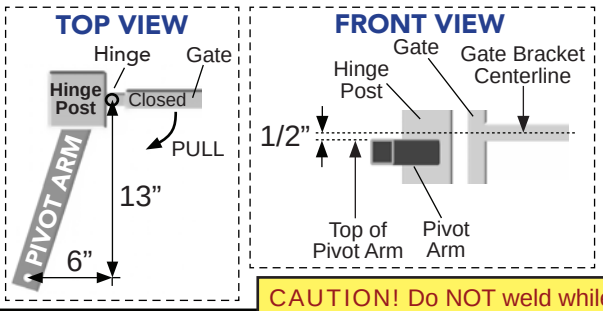
Mercury 310 / ACBOX / TITAN 912L
Quick Start Installation Guide

Actuator And Control Box Installation *(perform ALL steps in numerical order)*:

IMPORTANT! Read entire manual before attempting the installation. This is NOT a "do-it-yourself" project. Use a qualified contractor to install this system. Read all safety information!

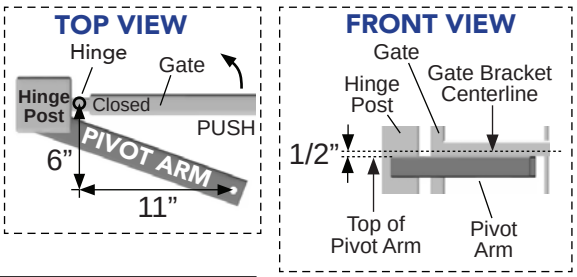
1 Weld or clamp pivot arm onto hinge post. For Pull-to-Open installation, use **Detail A.** For Push-to-Open, use **Detail B**:

A Pull-to-Open



Or

B Push-To-Open



CAUTION! Do NOT weld while control board is powered!

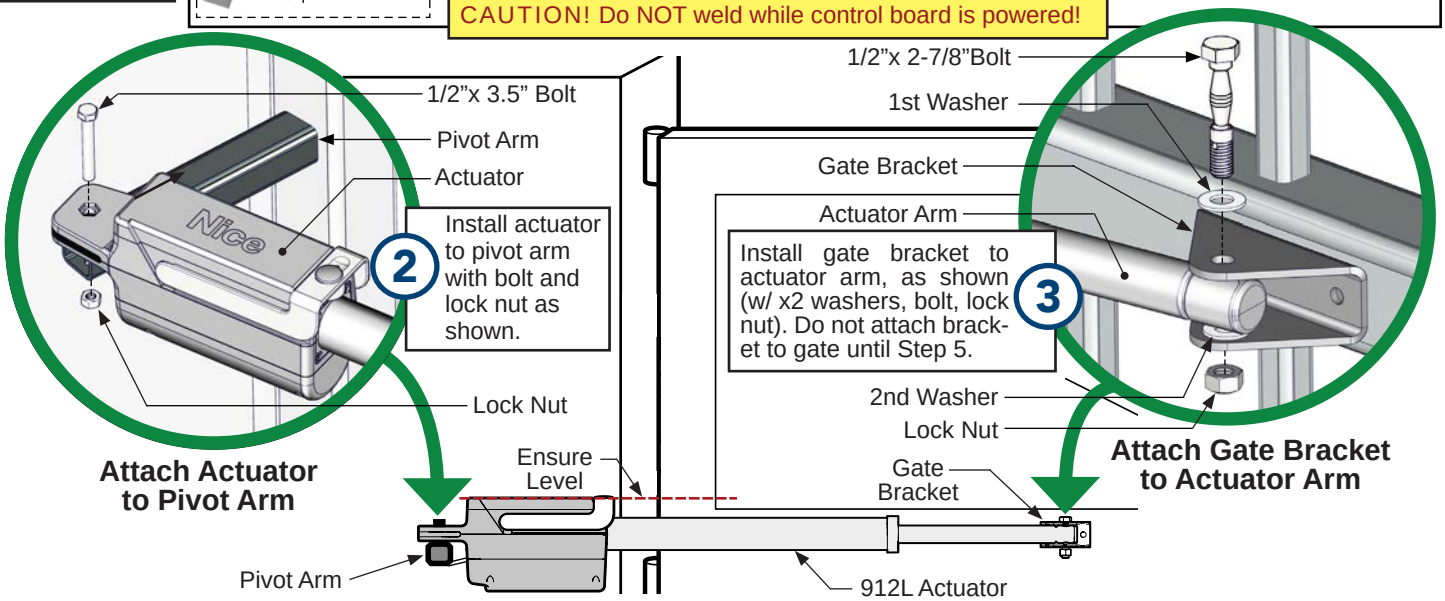
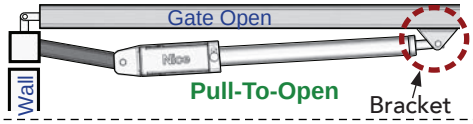


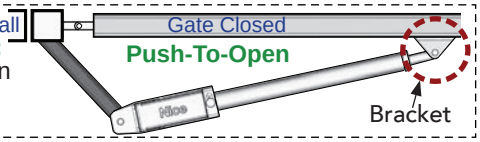
Fig-1: Pivot Arm, Actuator, & Gate Bracket Install

4 Ensure actuator arm is fully *retracted*, then position gate bracket on gate structural support per **Detail A** or **Detail B**:

A Pull-To-Open: Fully open gate, then locate bracket on gate support.



B Push-To-Open: Fully close gate, then locate bracket on gate support.



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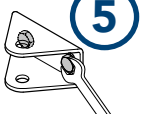
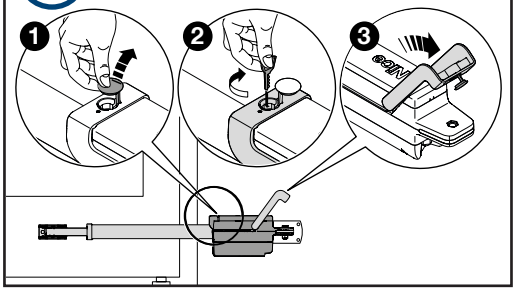


Affix Gate Bracket to gate structural support by welding or using bolt & nut.

6 Open mechanical release on actuator.



CAUTION! Do not mount the control box where the person using the push button on box can come in contact with the gate!

7 With actuator release open, set mechanical limits by manually pushing gate to desired close limit, then to desired open limit, then to halfway position. Close release, but do not lock.

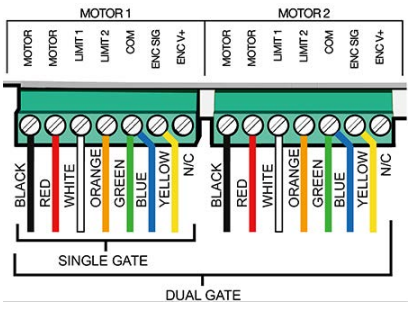
8 Mount Control Box same side as primary actuator and minimum six feet away from pivot arm (See Fig-2).

9 Remove power supply cover & run AC Cable into ACBox bottom. Wire to power supply: Green = Earth, Ground, Black = Hot, White = Neutral. See Fig-3 on next page.

10 Wire TITAN 912L to control board:

Pass cable through rubber grommets in bottom of control box and wire per diagram at right.

For dual gate install, dig trench across drive and run 2nd actuator cable through conduit.



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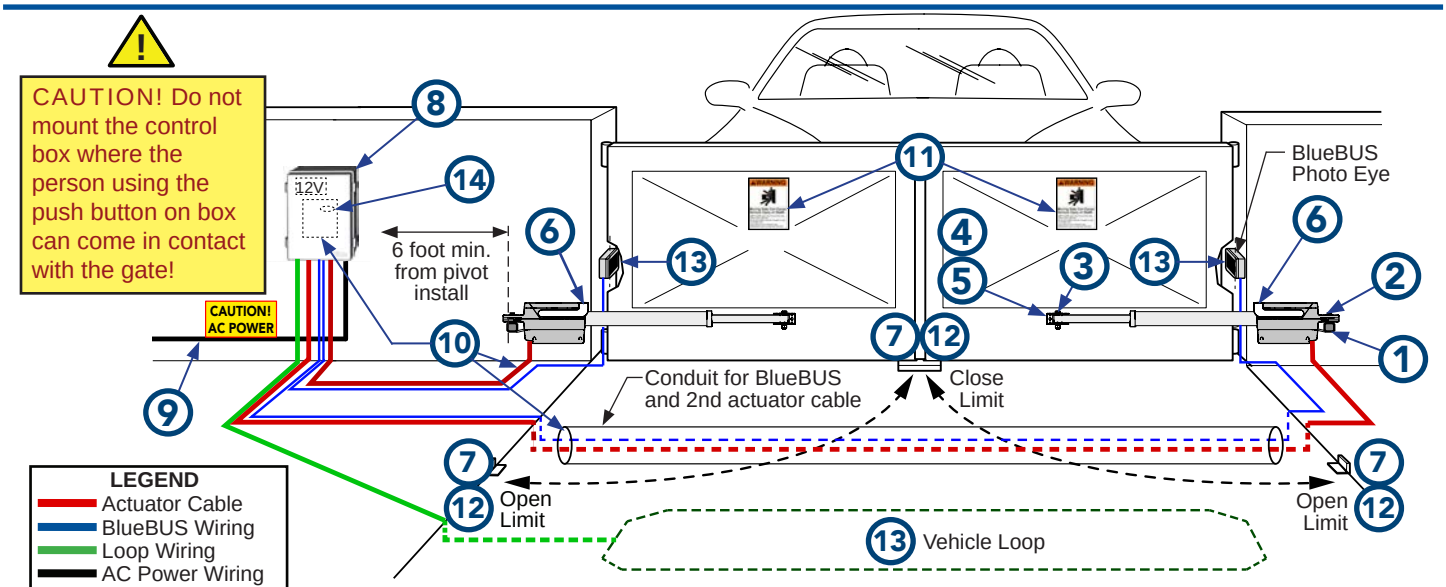


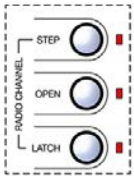
Fig-2: Titan 912L Dual-Gate System (Pull-To-Open Shown)

11 Attach warning signs to gate(s).

12 Perform Gate Limit Learn procedure (see below right).

13 Connect other accessories, such as loop detectors, photo eyes, or other safety devices. See accessory inputs in image below.

14 To program the OXI receiver, press/hold desired button on remote control, then within 2 seconds press & release the STEP, OPEN, or LATCH button on Mercury controller. LED flashes twice & alarm chirps to indicate progamming success.



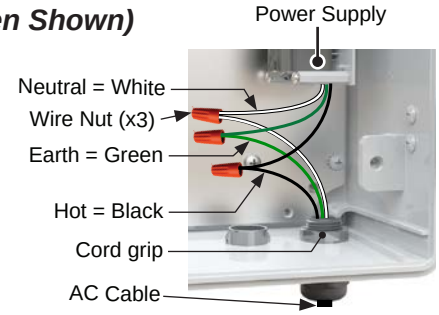
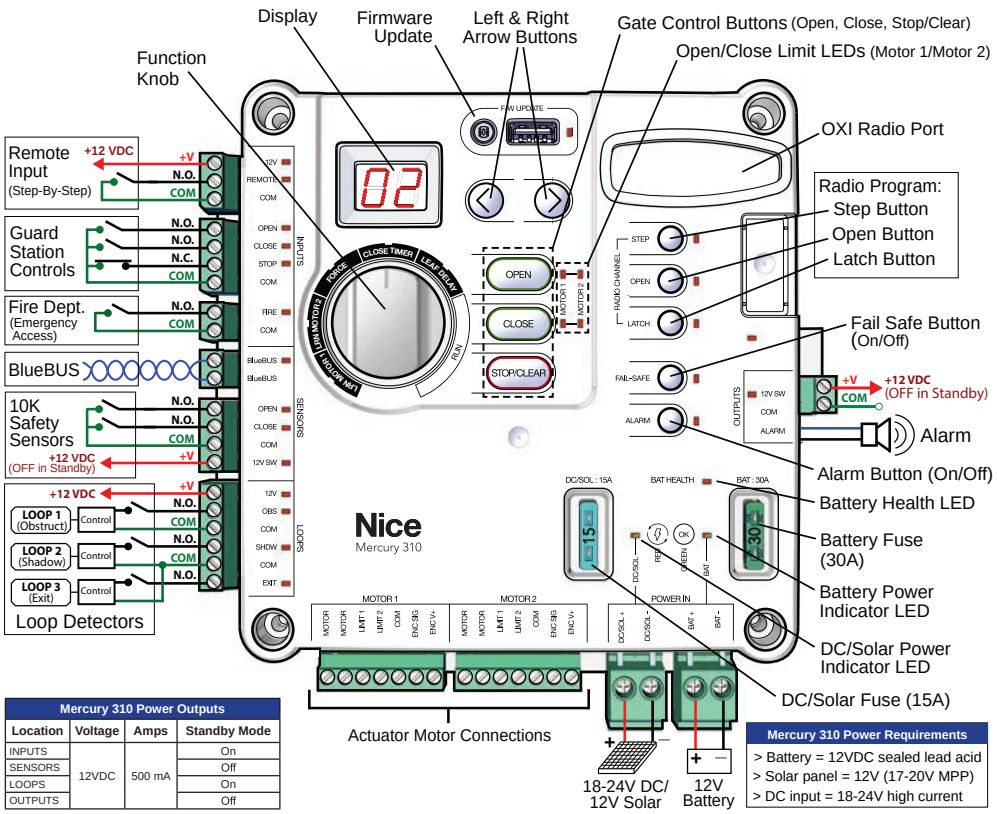


Fig-3: Power Supply Wiring



Mercury 310 Power Outputs			
Location	Voltage	Amps	Standby Mode
INPUTS	12VDC	500 mA	On
SENSORS			Off
LOOPS			On
OUTPUTS			Off

Mercury 310 Power Requirements
> Battery = 12VDC sealed lead acid
> Solar panel = 12V (17-20V MPP)
> DC input = 18-24V high current

Fig-4: Mercury 310 Controller Features

Gate Limit Learn Procedure:

1. Set function knob to LRN MOTOR 1 (display flashes L1).
2. Use Left/Right buttons to "jog" gate to between open and close limits.
3. Press/hold both left and right buttons for two (2) seconds.
4. Display will show solid L1 and gate will run at crawl speed to first limit.
5. After reaching first limit, display flashes between OP and CL (LEDs also flash).
6. Observe *current* position of the gate and do only one of the following:
   - If gate is at *open* limit, press the **open button**.
   - If gate is at *close* limit, press the **close button**.
7. Gate auto-runs to 2nd limit at crawl speed & stops, then runs to 1st limit at normal speed & stops, then runs to the 2nd limit at normal speed & stops.
8. When finished, display will show either OP or CL, depending on buttons pressed during procedure.
9. If dual gate, set function knob to LEARN MOTOR 2 (display flashes L2) & repeat all steps for 2nd motor.