Instruction Manual for GateCrafters.com Accessories

Long Range Receiver

Hook this to any gate opener to make it operable from up to 1500'. It has the versatility of 12V or 24V for power and both a normally open and closed dry connection.
(must be used in conjunction with long range remotes)

Keypad

Keypads are the smart and easy way to secure any entrance. And with up to 60 independently changeable codes, the access possibilities are many.

Push Button

Push buttons are a quick fix for simple gate entry and exit without all the fancy gadgets.

Automatic Gate Lock

High winds or high security, no mater what the reason is you have this lock on your gate you can be sure of one thing. Your gate will only open when you want it to.

NIR Photo Eye

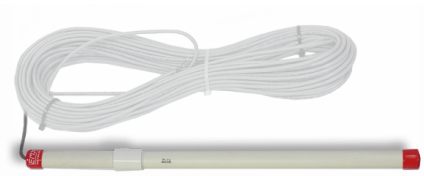
Safety is on everyone's mind. Protect your property and loved ones with a photo safety eye.

Digital Timer

Regulate gate access with a digital timer. Hold your gate open or let it go closed; you decide the times, the machine does the rest.

Telephone Entry System

Know who is at your gate AND let them in, from ANY phone in the house!



Free Exit Wand

Hands free that is. As cars drive by this detects the metal in the chasse. A great way to let your guests leave on their own.

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The Push Button is a simple normally open connection non-lighted push button.

Installation for the Estate Swing E-S 1100

1. Before attempting any wiring, disconnect the battery and power from the *Estate Swing E-S 1100* control board.
2. Using 16 or 18 gauge stranded low voltage wire connect a **terminal** on the push button with **terminal 1** on the Master *Estate Swing E-S 1100* board.
3. Connect the **other terminal** on the push button with one of the negatives on the *Estate Swing E-S 1100* board **(12,13,14,or 15)**.

Push Button Wiring

Installation for the Estate Swing E-S and E-SC 1600, E-SU 2200

1. Before attempting any wiring, disconnect the battery and power from the *Estate Swing E-S* control board.
2. Using 16 or 18 gauge stranded low voltage wire connect a **terminal** on the push button with **Open A** on the *Estate Swing* board **on terminal block CN4**.
3. Connect the **other terminal** on the push button with **COM** on the *Estate Swing* board **on terminal block CN4**.

Installation for the Apollo 1550

Connection Terminals

1. Before attempting any wiring, disconnect the battery and power from the *Apollo 1550* control board.
2. Using 16 or 18 gauge stranded low voltage wire connect to the one of the three **3 Pin Black Connectors** terminals on the Apollo board. A **terminal** on the push button connects with the **INP terminal** on the *Apollo 1550 board*.
3. Connect the **other terminal** on the push button with the **GND terminal** on the *Apollo 1550 board*.

Installation for the GTO/PRO 1000,2000 & Mighty Mule FM700

1. Before attempting any wiring, disconnect the battery and power from the *PRO1000, 2000, & FM700* control board.
2. Using 16 or 18 gauge stranded low voltage wire connect a **terminal** on the push button with the **White terminal** on the accessories section of terminals on the *PRO1000, 2000, & FM700*.
3. Connect the **other terminal** on the push button with the **Green terminal** on the *PRO1000, 2000, & FM700 board*.

Installation for the Mighty Mule FM250

1. Before attempting any wiring, disconnect the battery and power from the *FM250* control board .
2. Using 16 or 18 gauge stranded low voltage wire connect a **terminal** on the push button with the **CYCLE terminal** on the accessories section of terminals on the *FM250*.
3. Connect the **other terminal** on the push button with the **COMMON terminal** on the *FM250 board*.

Installation for the GTO/PRO 3000,4000 & Mighty Mule FM500

1. Before attempting any wiring, disconnect the battery and power from the *PRO3000, 4000, & FM500* control board.
2. Using 16 or 18 gauge stranded low voltage wire connect a **terminal** on the push button with the **CYCLE CLOSE terminal** on the accessories section of terminals on the *PRO3000, 4000, & FM500*.
3. Connect the **other terminal** on the push button with one of the **COM terminals** on the *PRO3000, 4000, & FM500 board*.

Installation for the Zareba G750

1. Before attempting any wiring, disconnect the battery and power from the *G750* control board.
2. Using 16 or 18 gauge stranded low voltage wire connect a **terminal** on the push button with the **CYCLE terminal** on the accessories section of terminals on the *G750*.
3. Connect the **other terminal** on the push button with one of the **COM terminals** on the *G750.*

Wireless Installation - MUST BE USED WITH OPENERS USING A 318 Mhz RECEIVER

Programming the keypad dipswitches

1. Open the Stainless Steel Keypad by removing the 4 screws on the front panel with a Philips head screwdriver.
2. Open the transmitter set in previously steps to match the first eight dip switches (+,0,-) with the keypad dipswitches. Change the dipswitches in the keypad to match the first eight on the transmitter.
3. The 9th dipswitch on the transmitter and receiver must be set to 0 in order to communicate with the Stainless Steel Keypad. If dipswitch settings in the transmitter and receiver must be changed to meet this requirement be sure to make the change in all transmitters and receivers.

(NOTE: SOME NEWER MODELS HAVE 9 DIP SWITCHES, in that case set all 9 the same as the transmitter.)

Setting the transmitting time

1. The Stainless Steel Keypad has the ability to transmit a signal for 0-4 seconds. While the cover is removed, locate the Tx transmitting time board. (Fig 1-b)
2. The *Estate Swing* requires a transmit time of 1 seconds. Move the jumper to J1 to achieve a 1 second transmission time.
    a. J0 for transmitting 0 seconds
    b. J1 for transmitting 1 seconds
    c. J2 for transmitting 2 seconds
    d. J3 for transmitting 3 seconds
    e. J4 for transmitting 4 seconds

Fig 1-B

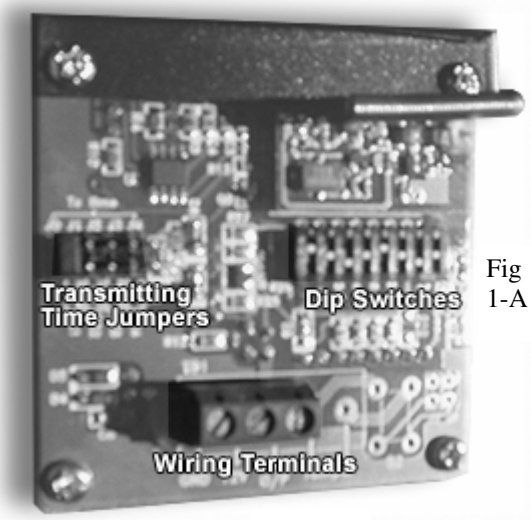


Fig 1-A

Fig 1-C

(NOTE: SOME NEWER MODELS HAVE ONLY ONE JUMPER, in that case the jumper in place indicates the unit will be used wireless and will transmit a radio signal. If the jumper is removed it the keypad will be used wired. In order to use wired you must remove the jumper.)

For wiring with various gate openers see the following 2 pages.

Wired Installations by Opener Type

Wired Installation for the Estate Swing E-S 1100

1. Before attempting any wiring, disconnect the battery and power from the *Estate Swing E-S 1100* control board and from the keypad.
2. Set the transmitting time to 0 seconds (J0) by moving the jumper on the Tx transmitting time board on the keypad board. (Or on some new models remove the sole jumper to indicate no radio transmitting time)
2. Using 16 or 18 gauge stranded low voltage wire connect the **O/P terminal** on the keypad board with **terminal 1** on the Master *Estate Swing E-S 1100* board. (Fig 1-c)
3. Connect the **Ground terminal** on the keypad board with one of the negatives on the *Estate Swing E-S 1100* board **(12,13,14,or 15)**.
4. (*Optional*) To conserve battery power on the keypad 12V power can be installed.
BATTERIES MUST STILL BE USED. Using 16 or 18 gauge wire connect the 12V terminal on the *Estate Swing E-S 1100* board with the 12V terminal on the keypad board.

Wired Installation for the Estate Swing E-S and E-SC 1600, E-SU 2200

1. Before attempting any wiring, disconnect the battery and power from the *Estate Swing E-S 1100* control board and from the keypad.
2. Set the transmitting time to 0 seconds (J0) by moving the jumper on the Tx transmitting time board on the keypad board. (Or on some new models remove the sole jumper to indicate no radio transmitting time)
2. Using 16 or 18 gauge stranded low voltage wire connect the **O/P terminal** on the keypad board with **Open A** on the Master *Estate Swing* board **on terminal block CN4**. (Fig 1-c)
3. Connect the **Ground terminal** on the keypad board with **COM** on the *Estate Swing* board **on terminal block CN4**.

Wired Installation for the Apollo 1550

1. Before attempting any wiring, disconnect the battery and power from the *Apollo 1550* control board and from the keypad.
2. Set the transmitting time to 0 seconds (J0) by moving the jumper on the Tx transmitting time board on the keypad board. (Or on some new models remove the sole jumper to indicate no radio transmitting time)
2. Using 16 or 18 gauge stranded low voltage wire connect to the one of the three **3 Pin Black Connectors** terminals on the Apollo board. The **O/P terminal** on the keypad board connects with the **INP terminal** on the *Apollo 1550 board*. (Fig 1-c)
3. Connect the **Ground terminal** on the keypad board with the **GND terminal** on the *Apollo 1550 board*.
4. (*Optional*) To conserve battery power on the keypad 12V power can be installed.
BATTERIES MUST STILL BE USED. Using 16 or 18 gauge wire connect the 12V terminal on the *Apollo 1550 board* with the 12V terminal on the keypad board.

Wired Installation for the GTO/PRO 1000,2000 & Mighty Mule FM700

1. Before attempting any wiring, disconnect the battery and power from the *PRO1000, 2000, & FM700* control board and from the keypad.
2. Set the transmitting time to 0 seconds (J0) by moving the jumper on the Tx transmitting time board on the keypad board. (Or on some new models remove the sole jumper to indicate no radio transmitting time)
2. Using 16 or 18 gauge stranded low voltage wire connect the **O/P terminal** on the keypad board with the **White terminal** on the accessories section of terminals on the *PRO1000, 2000, & FM700*. (Fig 1-c)
3. Connect the **Ground terminal** on the keypad board with the **Green terminal** on the *PRO1000, 2000, & FM700 board*.
4. (*Optional*) To conserve battery power on the keypad 12V power can be installed.
BATTERIES MUST STILL BE USED. Using 16 or 18 gauge wire connect the Red (Positive) battery spade with the 12V terminal on the keypad board.

Wired Installation for the Mighty Mule FM250

1. Before attempting any wiring, disconnect the battery and power from the *FM250* control board and from the keypad.
2. Set the transmitting time to 0 seconds (J0) by moving the jumper on the Tx transmitting time board on the keypad board. (Or on some new models remove the sole jumper to indicate no radio transmitting time)
2. Using 16 or 18 gauge stranded low voltage wire connect the **O/P terminal** on the keypad board with the **CYCLE terminal** on the accessories section of terminals on the *FM250*. (Fig 1-c)
3. Connect the **Ground terminal** on the keypad board with the **COMMON terminal** on the *FM250 board*.
4. (*Optional*) To conserve battery power on the keypad 12V power can be installed. BATTERIES MUST STILL BE USED. Using 16 or 18 gauge wire connect the Red (Positive) battery spade with the 12V terminal on the keypad board.

Wired Installation for the GTO/PRO 3000,4000 & Mighty Mule FM500

1. Before attempting any wiring, disconnect the battery and power from the *PRO3000, 4000, & FM500* control board and from the keypad.
2. Set the transmitting time to 0 seconds (J0) by moving the jumper on the Tx transmitting time board on the keypad board. (Or on some new models remove the sole jumper to indicate no radio transmitting time)
2. Using 16 or 18 gauge stranded low voltage wire connect the **O/P terminal** on the keypad board with the **CYCLE CLOSE terminal** on the accessories section of terminals on the *PRO3000, 4000, & FM500*.
3. Connect the **Ground terminal** on the keypad board with one of the **COM terminals** on the *PRO3000, 4000, & FM500 board*.
4. (*Optional*) To conserve battery power on the keypad 12V power can be installed. BATTERIES MUST STILL BE USED. Using 16 or 18 gauge wire connect the Red (Positive) battery spade with the 12V terminal on the keypad board.

Wired Installation for the Zareba G750

1. Before attempting any wiring, disconnect the battery and power from the *G750* control board and from the keypad.
2. Set the transmitting time to 0 seconds (J0) by moving the jumper on the Tx transmitting time board on the keypad board. (Or on some new models remove the sole jumper to indicate no radio transmitting time)
2. Using 16 or 18 gauge stranded low voltage wire connect the **O/P terminal** on the keypad board with the **CYCLE terminal** on the accessories section of terminals on the *G750.*
3. Connect the **Ground terminal** on the keypad board with one of the **COM terminals** on the *G750 board*.
4. (*Optional*) To conserve battery power on the keypad 12V power can be installed. BATTERIES MUST STILL BE USED. Using 16 or 18 gauge wire connect the Red (Positive) battery spade with the 12V terminal on the keypad board.

Other keypads (Example F300) use all of the same terminals.

For programming see next page.

!READ FIRST!

The Master Code is for programming only
it does not command your gate opener to operate

User Entry Codes operate your gate opener.

Programming the User Entry Codes

1. Enter the "Master Code" – Default is 1234.
2. Press the programming button.
3. Enter "1" to enter code changing mode.
4. Enter "01, or 02, or 03, and so on…" to select the User Code to be entered. (Up to 60 different User Entry Codes)
5. Enter the new "User Entry code" (4 digits)
6. Press the programming button to exit the programming mode and save your new code.

Deleting a User Code

1. Enter the "Master Code" – Default is 1234.
2. Press the programming button.
3. Enter "2" to enter code deleting mode.
4. Enter "01, or 02, or 03, and so on…" to select the User Code to be deleted.
5. Press the programming button to exit the programming mode and save your change.

Changing the Master Code (For added security)

1. Enter the "Master Code" – Default is 1234.
2. Press the programming button.
3. Enter "1" to enter code changing mode.
4. Enter "00" to select the Master Code as the code to be changed.
5. Enter the new "Master Code" (4 digits)
6. Press the programming button to exit the programming mode and save your new code.

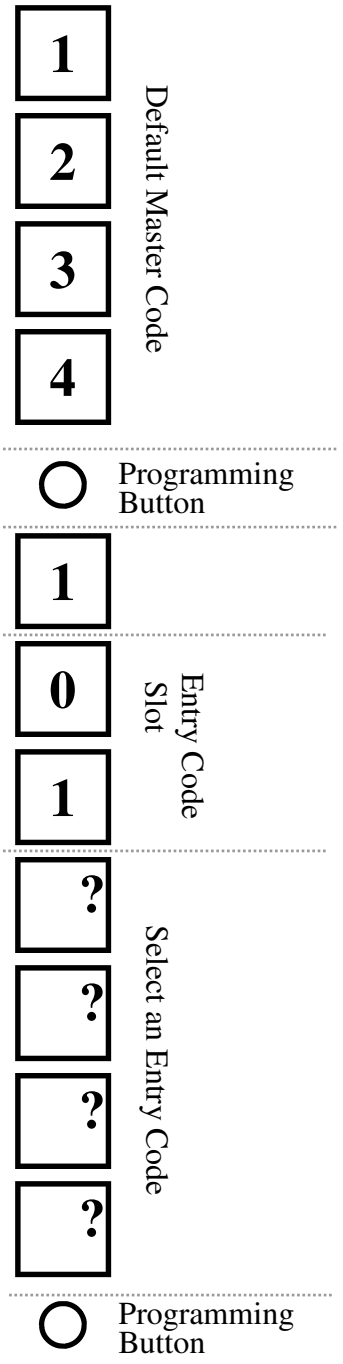
Returning to Default Settings

1. Disconnect the power by removing **all** of the batteries.
2. Depress and hold "3", "6", and "9" keys simultaneously.
3. Power the keypad again. (Reinsert the battery)
4. Release the "3", "6", and "9" keys.

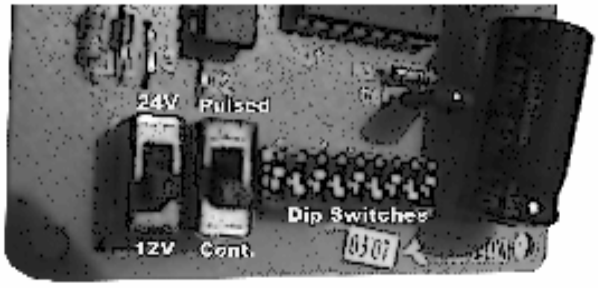
Multi-colored Status LED Interpretation

Orange – A key is depressed
Red – Correct code enter and transmitting
Green – In programming mode
Green (flash 3 times) – Error during programming mode
Red (flashing slowly) – Low battery, replace the batteries soon.

Sequential view to programming an entry code.



1. Install the receiver after the operator is programmed and the limits are set.
2. Remove the cover of the transmitter. Inside there are 9 dipswitches set in factory settings. The dip switches should be changed for security purposes. Move the dip switches to either +,0, or –.
3. After all nine dip switches are set be sure to set any other transmitters purchased or provided to match the dip switches in the first transmitter that was already adjusted.



4. The receiver is mounted in a black **non-weather proof box**. Along the bottom of the receiver there are 9 dip switches. Set the dip switches on the receiver to match those in your transmitters.
5. Mount the black box in a weather proof container. Be sure to allow the **GREEN wire** to hang outside the box as this is the antenna.

Wiring to gate openers by opener type.

Installation for the Estate Swing E-S 1100

1. Before attempting any wiring, disconnect the battery and power from the *Estate Swing E-S 1100* control board.
2. Connect the **yellow wire** on the receiver with **terminal 1** on the Master *Estate Swing E-S 1100* board.
3. Connect the **white wire** on the receiver with one of the negatives on the *Estate Swing E-S 1100* board **(12,13,14,or 15)**.
4. Connect the **red wire** on the receiver with **terminal 11** on the *Estate Swing E-S 1100* board.
5. Connect the **black wire** on the receiver with one of the negatives on the *Estate Swing E-S 1100* board **(12,13,14,or 15)**.
6. Set the power dip switch to **12V.**
7. Set the second large dip switch to **CONT**.

Installation for the Estate Swing E-S and E-SC 1600, E-SU 2200

1. Before attempting any wiring, disconnect the battery and power from the *Estate Swing E-S* control board.
2. Connect the **yellow wire** on the receiver with **Open A** on the *Estate Swing* board **on terminal block CN4**.
3. Connect the **white wire** on the receiver with **COM** on the *Estate Swing* board **on terminal block CN4**.
4. Connect the **red wire** on the receiver with the **24V+ terminal** on the *Estate Swing* board **on terminal block CN1**.
5. Connect the **black wire** on the receiver with the **24V- terminal** on the *Estate Swing* board **on terminal block CN1**.
6. Set the power dip switch to **24V.**
7. Set the second large dip switch to **CONT**.

Installation for the Apollo 1550

1. Before attempting any wiring, disconnect the battery and power from the *Apollo 1550* control board.
2. Connect to the one of the three **3 Pin Black Connectors** terminals on the Apollo board. The **yellow wire** on the receiver connects with the **INP terminal** on the *Apollo 1550 board*.
3. Connect the **white wire** and the **black wire** on the receiver with the **GND terminal** on the *Apollo 1550 board*.
4. Connect the **red wire** on the receiver with the **12V terminal** on the *Apollo 1550 board*.

Installation for the GTO/PRO 1000,2000 & Mighty Mule FM700

1. Before attempting any wiring, disconnect the battery and power from the *GTO/PRO 1000,2000 & Mighty Mule FM700* control board.
2. Connect the **yellow wire** on the receiver with the **White terminal** on the *GTO/PRO 1000,2000 & Mighty Mule FM700* board.
3. Connect the **white wire** on the receiver with the **Green terminal** on the *GTO/PRO 1000,2000 & Mighty Mule FM700* board.
4. Connect the **red wire** on the receiver with the **Red Battery spade** on the *GTO/PRO 1000,2000 & Mighty Mule FM700* battery.
5. Connect the **black wire** on the receiver with the **Black Battery spade** on the *GTO/PRO 1000,2000 & Mighty Mule FM700* battery.
6. Set the power dip switch to **12V.**
7. Set the second large dip switch to **CONT**.

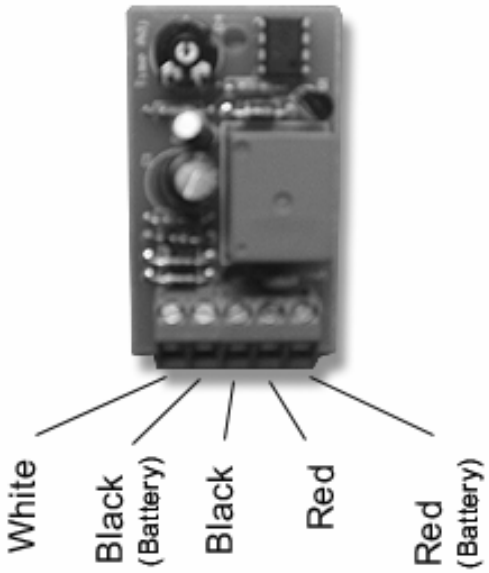
Installation for the GTO/PRO 3000,4000 & Mighty Mule FM500

1. Before attempting any wiring, disconnect the battery and power from the *PRO3000, 4000, & FM500* control board.
2. Connect the **yellow wire** on the receiver with the **CYCLE CLOSE terminal** on the *PRO3000, 4000, & FM500* board.
3. Connect the **white wire** on the receiver with the **COM terminals** on the *PRO3000, 4000, & FM500* board.
4. Connect the **red wire** on the receiver with the **Red Battery spade** on the *PRO3000, 4000, & FM500* battery.
5. Connect the **black wire** on the receiver with the **Black Battery spade** on the *PRO3000, 4000, & FM500* battery.
6. Set the power dip switch to **12V.**
7. Set the second large dip switch to **CONT**.

Installation for the Zareba G750

1. Before attempting any wiring, disconnect the battery and power from the *Zareba G750* control board.
2. Connect the **yellow wire** on the receiver with the **CYCLE terminal** on the *Zareba G750* board.
3. Connect the **white wire** on the receiver with the **COM terminals** on the *Zareba G750* board.
4. Connect the **red wire** on the receiver with the **Red Battery spade** on the *Zareba G750* battery.
5. Connect the **black wire** on the receiver with the **Black Battery spade** on the *Zareba G750* battery.
6. Set the power dip switch to **12V.**
7. Set the second large dip switch to **CONT**.

Installation for the Estate Swing E-S 1100



1. Before attempting any wiring, disconnect the battery and power from the *Estate Swing E-S 1100* control board.
2. Connect the **White Wire** from **Terminal 1** on the gate lock control board (far left when wires are at bottom) to **Terminal 7** on the **control board of the Estate Swing.**
3. Connect the **Black Wire** from **Terminal 2** on the gate lock control board (next to the white, 2nd from left when wires are at the bottom) to the **negative, *black***, of the battery.
4. Connect the **Black Wire** from the **Lock** to **Terminal 3** on the **gate lock control board**.
5. Connect the **Red or White Wire** (depending on model) from the **Lock** to **Terminal 4** on the **gate lock control board**.
6. Connect the **Red Wire** from **Terminal 5** on the gate lock control board (far right when wires are at bottom) to the **positive, *red***, of the battery.

Installation for the Estate Swing E-S and E-SC 1600, E-SU 2200

1. Before attempting any wiring, disconnect the battery and power from the *Estate Swing* control board.
   You do not use the gate lock control board with this installation.

2. Connect the **Red or White Wire** (depending on model) from the gate lock to the **LEFT ELS terminal** on the **control board of the Estate Swing on terminal block CN2.**
3. Connect the **Black Wire** from the gate lock the **RIGHT ELS terminal** on the **control board of the Estate Swing on terminal block CN2.**
4. To help with the release of the lock you can set the gate to over-push, or move closed slightly before opening, by setting **Opening Parameter "F" to ON (F1).**

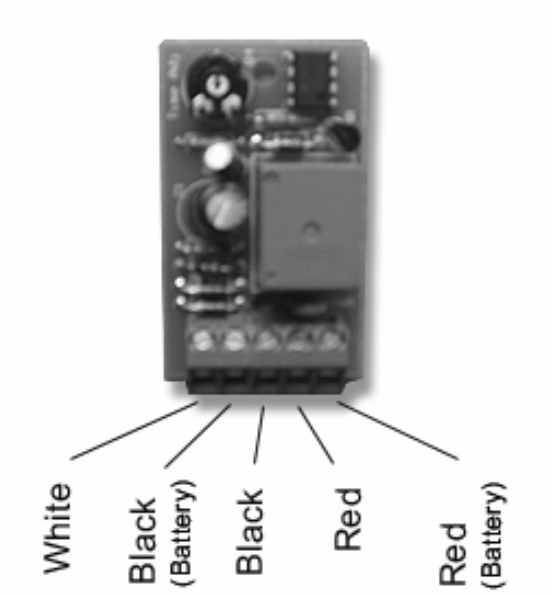
Depending on the Gate Lock Brand a new F4 fuse may be provided. Please take out the current F4 fuse and use the new one provided.

Installation for the Apollo 1550

1. Before attempting any wiring, disconnect the battery and power from the *Apollo* control board.
   You do not use the gate lock control board with this installation.

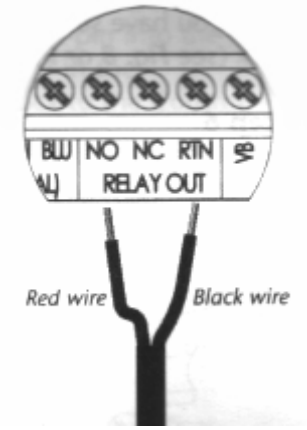
2. Turn **program switch #6** to **OFF** on the *Apollo* control board.
3. Connect the **Red or White Wire** (depending on model) from the gate lock to **lock** on the control board of the *Apollo***.**
4. Connect the **Black Wire** from the gate lock to **GND terminal** on the *Apollo* board.

Installation for the GTO/PRO 1000,2000,3000,4000 & Mighty Mule FM700, 500



1. Before attempting any wiring, disconnect the battery and power from the control board.
2. Connect the **White Wire** from **Terminal 1** on the gate lock control board (far left when wires are at bottom) to the **Motor lead wire** on the **control board.**
3. Connect the **Black Wire** from **Terminal 2** on the gate lock control board (next to the white, 2nd from left when wires are at the bottom) to **Black battery spade**.
4. Connect the **Black Wire** from the **Lock** to **Terminal 3** on the **gate lock control board**.
5. Connect the **Red or White Wire** (depending on model) from the **Lock** to **Terminal 4** on the **gate lock control board**.
6. Connect the **Red Wire** from **Terminal 5** on the gate lock control board (far right when wires are at bottom) to the **Red battery spade**.

Installation for the Zareba G750



Zareba Diagram Only

1. Before attempting any wiring, disconnect the battery and power from the *Zareba* control board.

You do not use the gate lock control board with this installation.

2. Connect the **Red or White Wire** (depending on model) from the gate lock to **NO terminal listed under RELAY OUT** on the control board of the *Zareba***.**
3. Connect the **Black Wire** from the gate lock to **RTN terminal listed under RELAY OUT** on the *Zareba* board.

The Mighty Mule FM250 is NOT compatible with any solenoid locking mechanisms.

WARNING: The Free Exit Senor works on electromagnetics and could be triggered by a child on a bike or metal gear and accessories worn by pets or livestock. It is not recommended for use around children.

With all wiring, do not let exposed wiring make a connection with exposed wiring or a connection on the control board.

During set up the first 5 minutes after energizing the unit it is calibrating itself to the surroundings, do not move metal objects near the wand during this processes.

The CS 202 sensor uses passive probe sensor to detect changes in the earth's magnetic field. These changes are caused by a movement of ferrous metal objects such as a car in the proximity of the probe. The sensing area of each probe is in the shape of about 15 foot circle. The size of this detection circle changes with the size and speed of the moving car.

The CS 202 sensor can be buried in the ground about 6 inches deep parallel to the paved driveway. It also can be placed 2" deep in asphalt or concrete under the path of the vehicle. In all cases, the probe has to stay totally motionless and be free of any vibration in order to prevent false detects. The lead-in cable has to be protected from any damage to its outer insulation.

Installation for the Estate Swing E-S 1100

1. Disconnect the battery and power from the *Estate Swing* control board.
2. On the wire coming from the Free Exit Wand strip off 2 inches of insulation from the **Gray** cover.
3. Connect the **Brown** wire to terminal 1 on the *Estate Swing* control board
4. Connect the **Green** wire to one of the negative terminals on the *Estate Swing* control board (12,13,14,15).
5. Connect the **Black** wire from the free exit wand wire to one of the negative terminals on the *Estate Swing* control board (12,13,14,15).
6. Connect the **Red** wire from the free exit wand wire to **terminal 11** on the Estate Swing control board.
7. **IMPORTANT: In order for the *Estate Swing* to function properly and safely with the Free Exit Wand it must be set to Logic "A" (variable A-1)**
8. After making connections the Free Exit Wand must power up for 60 seconds before use. During this time the exit wand will calibrate itself to non-moving metal in the area.

Installation for the Estate Swing E-S and E-SC 1600, E-SU 2200

1. Disconnect the battery and power from the *Estate Swing* control board.
2. On the wire coming from the Free Exit Wand strip off 2 inches of insulation from the **Gray** cover.
3. Connect the **Brown** wire to **Open A** on the Master *Estate Swing* board **on terminal block CN4**
4. Connect the **Green** wire to **COM** on the *Estate Swing* board **on terminal block CN4**.
5. Connect the **Black** wire from the free exit wand wire to the **24V- terminal** on the *Estate Swing* board **on terminal block CN1**.
6. Connect the **Red** wire from the free exit wand wire to the **24V+ terminal** on the *Estate Swing* board **on terminal block CN1**.
7. **IMPORTANT: In order for the *Estate Swing* to function properly and safely with the Free Exit Wand it must be set to Opening Parameters C1, D0, E1**
8. After making connections the Free Exit Wand must power up for 60 seconds before use. During this time the exit wand will calibrate itself to non-moving metal in the area.

Wired Installation for the Apollo 1550

1. Disconnect the battery and power from the *Apollo* control board.
2. On the wire coming from the Free Exit Wand strip off 2 inches of insulation from the **Gray** cover.
3. Connect the **Brown** wire to **terminal 10 (Free Exit)** on the *Apollo* board **on the 7 pin black connector terminal block.**
4. Connect the **Green** wire to **terminal 9 (Ground)** on the *Apollo* board **on the 7 pin black connector terminal block.**
5. Connect the **Black** wire from the free exit wand wire to the **terminal 1 (Ground)** on the *Apollo* board **on a 3 pin Connector terminal block**.
6. Connect the **Red** wire from the free exit wand wire to the **terminal 3 (12V+)** on the *Apollo* board **on a 3 pin Connector terminal block**.
7. **IMPORTANT: In order for the *Apollo* to function properly and safely with the Free Exit Wand Program Switches #1 and #8 must be set to on (Auto close & Free Exit should be on) .**
8. After making connections the Free Exit Wand must power up for 60 seconds before use. During this time the exit wand will calibrate itself to non-moving metal in the area.

Wired Installation for the GTO/PRO 1000,2000 & Mighty Mule FM700

1. Disconnect the battery and power from the *GTO/Mighty Mule* control board.
2. On the wire coming from the Free Exit Wand strip off 2 inches of insulation from the **Gray** cover.
3. Connect the **Brown** wire to the **Blue terminal** on the *GTO/Mighty Mule* board**.**
4. Connect the **Green** wire to the **Green terminal** on the *GTO/Mighty Mule* board**.**
5. Connect the **Black** wire from the free exit wand wire to the **black battery spade**.
6. Connect the **Red** wire from the free exit wand wire to the **red battery spade**.
7. After making connections the Free Exit Wand must power up for 60 seconds before use. During this time the exit wand will calibrate itself to non-moving metal in the area.

Wired Installation for the GTO/PRO 3000,4000 & Mighty Mule FM500

1. Disconnect the battery and power from the *GTO/Mighty Mule* control board.
2. On the wire coming from the Free Exit Wand strip off 2 inches of insulation from the **Gray** cover.
3. Connect the **Brown** wire to the **Exit Open terminal** on the *GTO/Mighty Mule* board**.**
4. Connect the **Green** wire to the **COM terminal** on the *GTO/Mighty Mule* board**.**
5. Connect the **Black** wire from the free exit wand wire to the **black battery spade**.
6. Connect the **Red** wire from the free exit wand wire to the **red battery spade**.
7. After making connections the Free Exit Wand must power up for 60 seconds before use. During this time the exit wand will calibrate itself to non-moving metal in the area.

Wired Installation for the Zareba G750

1. Disconnect the battery and power from the *Zareba G750* control board.
2. On the wire coming from the Free Exit Wand strip off 2 inches of insulation from the **Gray** cover.
3. Connect the **Brown** wire to the **Exit terminal** on the *Zareba G750* board**.**
4. Connect the **Green** wire to the **COM terminal** on the *Zareba G750* board**.**
5. Connect the **Black** wire from the free exit wand wire to the **black battery spade**.
6. Connect the **Red** wire from the free exit wand wire to the **red battery spade**.
7. After making connections the Free Exit Wand must power up for 60 seconds before use. During this time the exit wand will calibrate itself to non-moving metal in the area.

The Mighty Mule FM250 is NOT compatible with any Free Exit (exit wand) mechanisms.

Wiring instructions are for the digital timer to hold the gate open for a period of time.

Digital Timer

Installation for the E-S 1100 - Use the 12V version

1. Purchase 16 gauge stranded wire long enough to go between the keypad and the operator. You will need collectively 4 conductors (or separate wires).
2. Run wire between terminal **1 on the timer** and terminal **11 on the E-S 1100**.
3. Run wire between terminal **2 on the timer** and terminal **14 on the E-S 1100**.
4. Run wire between terminal **3 on the timer** and terminal **13 on the E-S 1100**.
5. Run wire between terminal **5 on the timer** and terminal **1 on the E-S 1100**.
6. Be sure the logic setting is on **EP Stepped Semi-automatic (A,4)**.
7. Set the timer to activate for 1 minute when you want the gate to open and activate for one minute when you want the gate to close.

(Example: You want the gate to open at 6AM and close at 6PM—Set 1 ON for 6:00 AM and 1 OFF for 6:01 AM, 2 ON for 6:00 PM and 2 OFF for 6:01 PM)

Installation for the E-S 1600, E-SC 1600, E-SU 2200 - Use the 24V version

1. Purchase 16 gauge stranded wire long enough to go between the keypad and the operator. You will need collectively 4 conductors (or separate wires).
2. Run wire between terminal **A and B on the timer** and terminals on the **24V+ transformer for the Estate Swing**.
3. Run wire between terminal **2 on the timer** and terminal **COM on the Estate Swing board** on terminal block **CN4**.
4. Run wire between terminal **1 on the timer** and terminal **OPEN A on the Estate Swing board** on terminal block **CN4**.
5. Be sure the logic setting is on variables **C=1, D=0, E=1**.

Installation for the Apollo 1550/1650 - Use the 12V version

1. Purchase 16 gauge stranded wire long enough to go between the keypad and the operator. You will need collectively 4 conductors (or separate wires).
2. Run wire between terminal **5 on the timer** and terminal **10 (Free Exit)** on the *Apollo* board **on the 7 pin black connector terminal block.**
3. Run wire between terminal **3 on the timer** and terminal **9 (Ground)** on the *Apollo* board **on the 7 pin black connector terminal block.**
4. Run wire between terminal **2 on the timer** and terminal **1 (Ground)** on the *Apollo* board **on a 3 pin Connector terminal block**.
5. Run wire between terminal **1 on the timer** and terminal **3 (12V+)** on the *Apollo* board **on a 3 pin Connector terminal block**.
6. **IMPORTANT: In order for the *Apollo* to function properly and safely with the Digital Timer Program Switches #1 and #8 must be set to on (Auto close & Free Exit should be on) .**

Digital Timer

Wiring instructions are for the digital timer to hold the gate open for a period of time.

Wired Installation for the GTO/PRO 1000,2000 & Mighty Mule FM700 - Use the 12V version

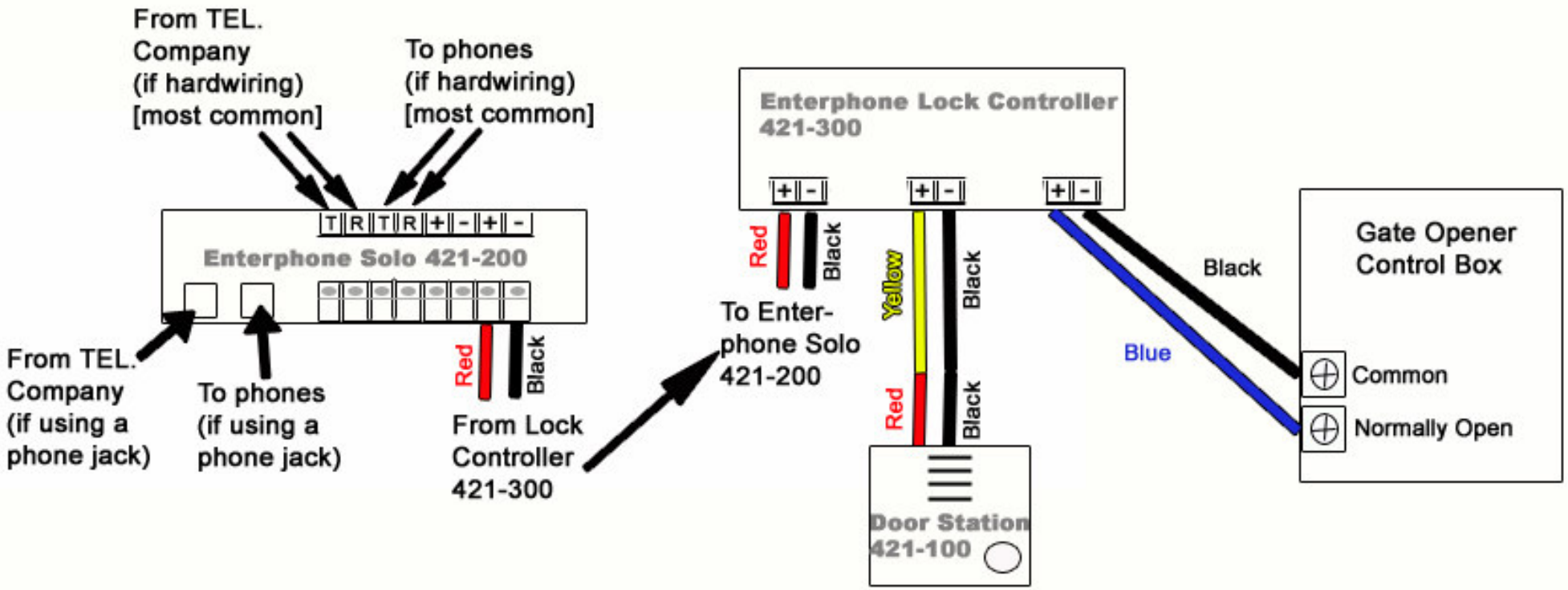
1. Disconnect the battery and power from the *GTO/Mighty Mule* control board.
2. Run wire between terminal **5 on the timer** and the **Blue terminal** on the *GTO/Mighty Mule* board**.**
3. Run wire between terminal **3 on the timer** and the **Green terminal** on the *GTO/Mighty Mule* board**.**
4. Run wire between terminal **2 on the timer** and the **black battery spade**.

Run wire between terminal **1 on the timer** and the **red battery spade**.

Installation for the GTO/PRO 3000,4000 & Mighty Mule FM500, FM250 - Use the 12V version

1. Disconnect the battery and power from the *GTO/Mighty Mule* control board.
2. Run wire between terminal **5 on the timer** and the **Exit Open terminal** on the *GTO/Mighty Mule* board**.**
3. Run wire between terminal **3 on the timer** and the **COM terminal** on the *GTO/Mighty Mule* board**.**
4. Run wire between terminal **2 on the timer** to the **black battery spade**.
5. Run wire between terminal **1 on the timer** to the **red battery spade**.

The Mighty Mule FM250 and Zareba G750 is NOT compatible with a timer to hold the opener open.



Above are wiring directions for the Enterphone Solo Telephone Intercom System with an Enterphone Door Release Lock Controller. Below are the wire gauges to use for different distances to the Door Station 421-100. The wiring instructions for each Gate Opener Control Box are on the following page.

300’	450’	700’	1,100’	2,000’	4,000’
24 AWG	22 AWG	20 AWG	18 AWG	Cat 3	Cat 5

Installation for the Estate Swing E-S 1100

1. Before attempting any wiring, disconnect the battery and power from the *Estate Swing E-S 1100* control board.
2. Using 16 or 18 gauge stranded low voltage wire connect the **blue terminal wire** on the lock controller 421-300 with **terminal 1** on the Master *Estate Swing E-S 1100* board.
3. Connect the **black terminal wire** on the lock controller 421-300 with one of the negatives on the *Estate Swing E-S 1100* board **(12,13,14,or 15)**.

Installation for the Estate Swing E-S and E-SC 1600, E-SU 2200

1. Before attempting any wiring, disconnect the battery and power from the *Estate Swing E-S* control board.
2. Using 16 or 18 gauge stranded low voltage wire connect the **blue terminal wire** on the lock controller 421-300 with **Open A** on the *Estate Swing* board **on terminal block CN4**.
3. Connect the **black terminal wire** on the lock controller 421-300 with **COM** on the *Estate Swing* board **on terminal block CN4**.

Installation for the Apollo 1550

1. Before attempting any wiring, disconnect the battery and power from the *Apollo 1550* control board.
2. Using 16 or 18 gauge stranded low voltage wire connect to the one of the three **3 Pin Black Connectors** terminals on the Apollo board. The **blue terminal wire** on the lock controller 421-300 connects with the **INP terminal** on the *Apollo 1550 board*.
3. Connect the **black terminal wire** on the lock controller 421-300 with the **GND terminal** on the *Apollo 1550 board*.

Installation for the GTO/PRO 1000,2000 & Mighty Mule FM700

1. Before attempting any wiring, disconnect the battery and power from the *PRO1000, 2000, & FM700* control board.
2. Using 16 or 18 gauge stranded low voltage wire connect the **blue terminal wire** on the lock controller 421-300 with the **White terminal** on the accessories section of terminals on the *PRO1000, 2000, & FM700*.
3. Connect the **black terminal wire** on the lock controller 421-300 with the **Green terminal** on the *PRO1000, 2000, & FM700 board*.

Installation for the Mighty Mule FM250

1. Before attempting any wiring, disconnect the battery and power from the *FM250* control board .
2. Using 16 or 18 gauge stranded low voltage wire connect the **blue terminal wire** on the lock controller 421-300 with the **CYCLE terminal** on the accessories section of terminals on the *FM250*.
3. Connect the **black terminal wire** on the lock controller 421-300 with the **COMMON terminal** on the *FM250 board*.

Installation for the GTO/PRO 3000,4000 & Mighty Mule FM500

1. Before attempting any wiring, disconnect the battery and power from the *PRO3000, 4000, & FM500* control board.
2. Using 16 or 18 gauge stranded low voltage wire connect the **blue terminal wire** on the lock controller 421-300 with the **CYCLE CLOSE terminal** on the accessories section of terminals on the *PRO3000, 4000, & FM500*.
3. Connect the **black terminal wire** on the lock controller 421-300 with one of the **COM terminals** on the *PRO3000, 4000, & FM500 board*.

Installation for the Zareba G750

1. Before attempting any wiring, disconnect the battery and power from the *Zareba G750* control board.
2. Using 16 or 18 gauge stranded low voltage wire connect the **blue terminal wire** on the lock controller 421-300 with the **CYCLE terminal** on the accessories section of terminals on the *Zareba G750*.
3. Connect the **black terminal wire** on the lock controller 421-300 with one of the **COM terminals** on the *Zareba G750* board.

Installation for the Estate Swing E-S 1100

A safety device in terminal STOP stops the motion of the gate during any cycle, A safety device in terminal FSW OP stops the gate only when it is opening. A safety device in terminal FSW CL only stops the gate when it is closing.

1. Mount the beam projector with the wiring harness on the control box side of the driveway. Mount the reflector on the opposite side.
2. Disconnect the battery and power from the *Estate Swing* control board.
3. Connect the **Brown wire** from the photo eye to **Terminal 7** on the *Estate Swing* board.
4. Connect the **Blue wire** from the photo eye to one of the negatives on the *Estate Swing E-S 1100* board **(12,13,14,or 15)**
5. Connect the **Black wire** from the photo eye to **Terminal 3, 4, or 5** on the *Estate Swing* board.
6. Connect the **White wire** from the photo eye to one of the negatives on the *Estate Swing E-S 1100* board **(12,13,14,or 15)**
7. Restore power to your system. During normal operation your photo eye will ONLY receive power while the gate is in motion. **To line up the photo eye enter diagnostic mode (Press P2 to enter)**. The red or yellow light should become lit on the photo eye. If the Yellow is lit, your eye is already aligned with the reflector and should not need adjustment.
8. If the Red is lit, adjust your reflector and/or the sensitivity pod on the photo eye until the Yellow light comes on.
9. Once alignment is achieved also check the control board to be sure the diagnostic light corresponding with the terminal the photo eye is wired into is lit (C=terminal 3, D=terminal 4, E=terminal 5). This will indicate the safety circuit is closed and ready to be used. You may now exit the diagnostic mode by again pressing P2.

Installation for the Estate Swing E-S and E-SC 1600, E-SU 2200

A safety device in terminal STOP stops the motion of the gate during any cycle, A safety device in terminal FSW OP stops the gate only when it is opening. A safety device in terminal FSW CL only stops the gate when it is closing.

1. Mount the beam projector with the wiring harness on the control box side of the driveway. Mount the reflector on the opposite side.
2. Disconnect the battery and power from the *Estate Swing* control board.
3. Connect the **Brown wire** from the photo eye to **Terminal Block CN1, terminal 24V+** on the *Estate Swing* board.
4. Connect the **Blue wire** from the photo eye to **Terminal Block CN1, terminal 24V-** on the *Estate Swing* board.
5. Connect the **Black wire** from the photo eye to **Terminal Block CN4, terminal STOP, FSW CL, FSW OP** on the *Estate Swing* board.
6. Connect the **White wire** from the photo eye to **Terminal Block CN4, terminal COM** on the *Estate Swing* board.
7. Restore power to your system, the red or yellow light should become lit on the photo eye. If the Yellow is lit, your eye is already aligned with the reflector and should not need adjustment.
8. If the Red is lit, adjust your reflector and/or the sensitivity pod on the photo eye until the Yellow light comes on.
9. Once alignment is achieved also check the control board to be sure the indicator LED above the Safety terminal chosen to wire the photo eye to is on. This will indicate the safety circuit is closed and ready to be used.

Installation for the Apollo 1550

A safety device in terminal SAFETY (14) resets close timer if gate is open, stops and reverses if gate is closing. (Does not open a closed gate)

1. Mount the beam projector with the wiring harness on the control box side of the driveway. Mount the reflector on the opposite side.
2. Disconnect the battery and power from the *Apollo* control board.
3. Connect the **Brown wire** from the photo eye to any **12V+** on the *Apollo* board.
4. Connect the **Blue wire** from the photo eye to any **GND** on the *Apollo* board.
5. Connect the **Grey wire** from the photo eye to the **SAFETY (14)** on the *Apollo* board.
6. Connect the **White wire** from the photo eye to the **GND (13)** on the *Apollo* board.
7. Restore power to your system, the red or yellow light should become lit on the photo eye. If the Yellow is lit, your eye is already aligned with the reflector and should not need adjustment.
8. If the Red is lit, adjust your reflector and/or the sensitivity pod on the photo eye until the Yellow light comes on.

Installation for the GTO/PRO 1000,2000 & Mighty Mule FM700

A safety device in Orange terminal holds the gate if gate is open, stops and reverses if gate is closing. (Does not open a closed gate)

1. Mount the beam projector with the wiring harness on the control box side of the driveway. Mount the reflector on the opposite side.
2. Disconnect the battery and power from the *GTO/PRO* control board.
3. Connect the **Brown wire** from the photo eye to the **RED battery spade** on the *GTO/PRO* battery.
4. Connect the **Blue wire** from the photo eye to the **BLACK battery spade** on the *GTO/PRO* battery.
5. Connect the **Grey wire** from the photo eye to the **Orange terminal** on the *GTO/PRO* board.
6. Connect the **White wire** from the photo eye to the **Green terminal** on the *GTO/PRO* board.
7. Restore power to your system, the red or yellow light should become lit on the photo eye. If the Yellow is lit, your eye is already aligned with the reflector and should not need adjustment.
8. If the Red is lit, adjust your reflector and/or the sensitivity pod on the photo eye until the Yellow light comes on.

Installation for the Mighty Mule FM250

A safety device in Safety terminal stops and reverses if gate is closing. (Does not open a closed gate)

1. Mount the beam projector with the wiring harness on the control box side of the driveway. Mount the reflector on the opposite side.
2. Disconnect the battery and power from the *GTO/PRO* control board.
3. Connect the **Brown wire** from the photo eye to the **RED battery spade** on the *GTO/PRO* battery.
4. Connect the **Blue wire** from the photo eye to the **BLACK battery spade** on the *GTO/PRO* battery.
5. Connect the **Grey wire** from the photo eye to the **Safety terminal** on the *GTO/PRO* board.
6. Connect the **White wire** from the photo eye to the **Common terminal** on the *GTO/PRO* board.
7. Restore power to your system, the red or yellow light should become lit on the photo eye. If the Yellow is lit, your eye is already aligned with the reflector and should not need adjustment.
8. If the Red is lit, adjust your reflector and/or the sensitivity pod on the photo eye until the Yellow light comes on.

Installation for the GTO/PRO 3000,4000 & Mighty Mule FM500

A safety device in Safety terminal stops and reverses if gate is closing. (Does not open a closed gate)

1. Mount the beam projector with the wiring harness on the control box side of the driveway. Mount the reflector on the opposite side.
2. Disconnect the battery and power from the *GTO/PRO* control board.
3. Connect the **Brown wire** from the photo eye to the **RED battery spade** on the *GTO/PRO* battery.
4. Connect the **Blue wire** from the photo eye to the **BLACK battery spade** on the *GTO/PRO* battery.
5. Connect the **Black wire** from the photo eye to the **Safety terminal** on the *GTO/PRO* board.
6. Connect the **White wire** from the photo eye to one of the **Com terminals** on the *GTO/PRO* board.
7. Restore power to your system, the red or yellow light should become lit on the photo eye. If the Yellow is lit, your eye is already aligned with the reflector and should not need adjustment.
8. If the Red is lit, adjust your reflector and/or the sensitivity pod on the photo eye until the Yellow light comes on.

Installation for the Zareba G750

A safety device in Safety terminal reverses a closing gate to the full open position. (Does not open a closed gate nor stop an opening gate)

1. Mount the beam projector with the wiring harness on the control box side of the driveway. Mount the reflector on the opposite side.
2. Disconnect the battery and power from the *Zareba G750* control board.
3. Connect the **Brown wire** from the photo eye to the **RED battery spade** on the *Zareba G750* battery.
4. Connect the **Blue wire** from the photo eye to the **BLACK battery spade** on the *Zareba G750* battery.
5. Connect the **Black wire** from the photo eye to the **Safety Sensor terminal** on the *Zareba G750* board.
6. Connect the **White wire** from the photo eye to one of the **Com terminals** on the *Zareba G750* board.
7. Restore power to your system, the red or yellow light should become lit on the photo eye. If the Yellow is lit, your eye is already aligned with the reflector and should not need adjustment.
8. If the Red is lit, adjust your reflector and/or the sensitivity pod on the photo eye until the Yellow light comes on.