

# QUICKSTART "BASIC" GUIDELINES FOR 115 VAC CONTROL BOX FOR 6004, 6006 AND 6400 USING MicroPLUS® TRANSMITTER



120 S. Glasgow Avenue  
Inglewood, California 90301  
U.S.A.

## UL 325 Terminal

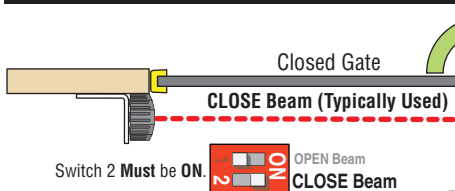
Connect DoorKing 8080-057 device. Installed on gate that opens to the **INSIDE** of property. See manual for gate that opens **OUTSIDE** of property.

### Monitored OPEN/CLOSE Reversing Edge

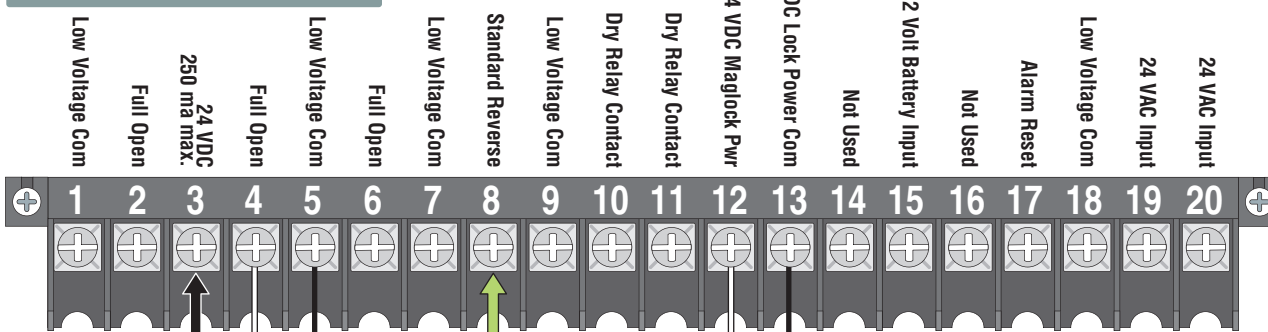
Switch 1 Must be ON for reversing edge.



Entrapment Protection must be provided for the gate system where the risk of entrapment or obstruction exists. The operator will not run without **ONE** or more monitored type B1 or B2 entrapment protection devices in **EACH** entrapment area.



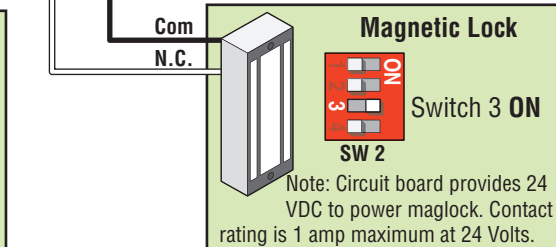
## Main Terminal



**Main Terminal #3 Note:** Exceeding 250 mA of power from this terminal may cause the circuit board transformer to overheat, causing intermittent problems.

Use 18 AWG wire for all low voltage wiring, maximum distance 3000 feet. Use a low voltage surge suppressor, (DoorKing P/N 1878-010) if low voltage wire runs exceed 1000 feet. All control device inputs to the terminal must be **NORMALLY OPEN**. Controls must be far enough from the gate so that the user is prevented from coming in contact with the gate while operating the controls.

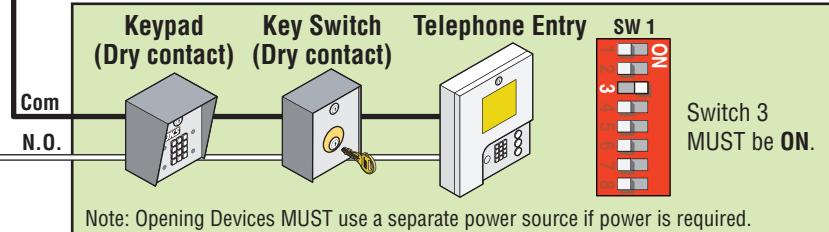
Reversing input on Terminal #8 functions **ONLY** while the gate is at the **FULL OPEN** position or during the **CLOSING** cycle. It **MUST NOT** be used as an input for a UL 325 entrapment protection device during the **OPENING** gate cycle. See above for External Entrapment Protection Wiring of UL 325 Terminal.



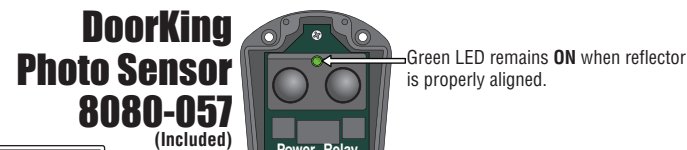
Gate will **ONLY OPEN** when this device is activated by authorized personnel **ONLY** (fire, police, EMS) and operator has power. Alarm will sound during entire open cycle. Operator will then go into a hard shutdown once fully opened. Operator **MUST** be reset to function normally again. This device **MUST** be mounted in the line-of-site of gate so authorized personnel can monitor gate movement.

**Dual Gate Operators Note:** Both gates will fully open.

**Activation Note:** Activation of this device will **OPEN** gate regardless of the status of the open direction monitored external entrapment protection device(s). If gate is opening, and the operator's **inherent** entrapment protection system detects an obstruction, the operator will reverse approx. 2 inches and go into a hard shutdown. Operator reset button **MUST** be pushed to function again **OR** cycle operator's power.



Note: Opening Devices **MUST** use a separate power source if power is required.

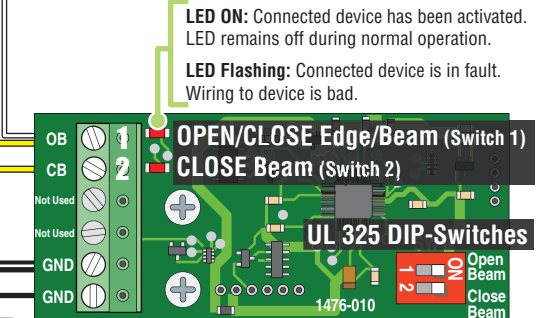


**DoorKing Photo Sensor 8080-057 (Included)**

Green LED remains **ON** when reflector is properly aligned.

Relay to UL 325 Terminal:  
To GND  
To #1 Open Beam **OR** #2 Close Beam (depending on mounting location)

## UL 325 Terminal



LED **ON:** Connected device has been activated. LED remains off during normal operation.  
LED **Flashing:** Connected device is in fault. Wiring to device is bad.

**OPEN/CLOSE Edge/Beam (Switch 1) CLOSE Beam (Switch 2)**

**UL 325 DIP-Switches**

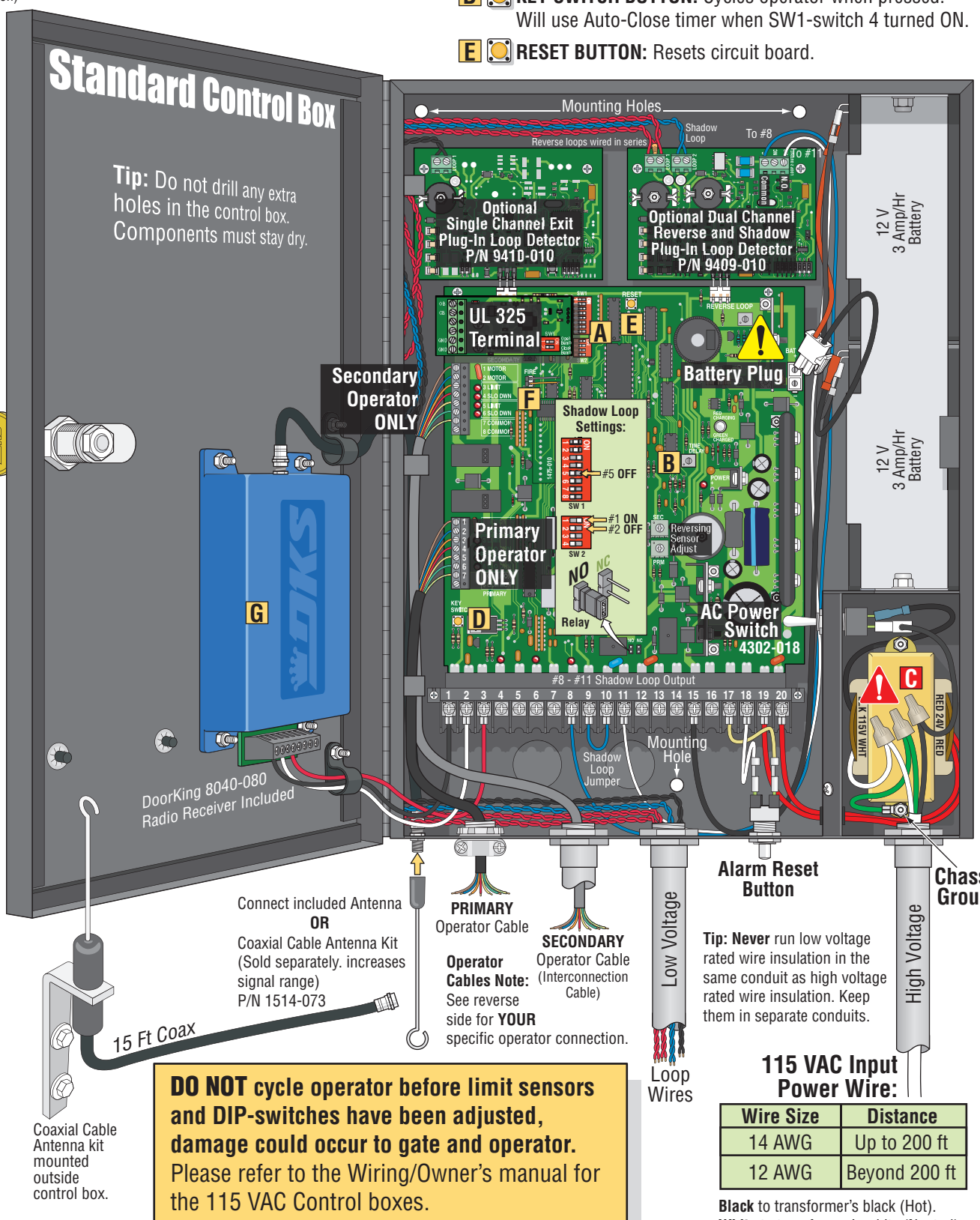
Note: Only 1 monitored Device can be connected to each input. An **OPTIONAL** Expansion Kit (sold separately) will allow connection for additional devices.

DIP-switches **MUST** be turned **ON** for each device wired to terminal.

THIS PRODUCT IS TO BE INSTALLED AND SERVICED BY A TRAINED GATE SYSTEMS TECHNICIAN ONLY. Visit [www.dkslocator.com](http://www.dkslocator.com) to find a professional installing and servicing dealer in your area.

**Control box is intended for installation only on automated gates used for vehicles. Pedestrians must be supplied with a separate access opening. For safety and complete installation and adjustment instructions, please refer to the Wiring/Owner's manual for the 115 VAC control boxes.**

- D** **KEY SWITCH BUTTON:** Cycles operator when pressed. Will use Auto-Close timer when SW1-switch 4 turned ON.
- E** **RESET BUTTON:** Resets circuit board.



Tip: Do not drill any extra holes in the control box. Components must stay dry.

Connect included Antenna **OR** Coaxial Cable Antenna Kit (Sold separately, increases signal range) P/N 1514-073

15 Ft Coax

Coaxial Cable Antenna kit mounted outside control box.

**DO NOT cycle operator before limit sensors and DIP-switches have been adjusted, damage could occur to gate and operator. Please refer to the Wiring/Owner's manual for the 115 VAC Control boxes.**

## Circuit Board Settings

- Typical Settings with Plug-In Reverse, Shadow and Exit Loops
- Direction **Primary** operator opens.
  - Direction **Secondary** operator opens.
  - Open Input
  - Auto-Close Timer** → B
  - Standard Reverse
  - Overlapping Gates
  - Single/Dual Operators
  - OFF
- Adjust 1 to 23 sec.
- SW 1**
- Relay Control
  - Relay Control
  - Maglock
  - OFF
- SW 2**
- SW1, Switch 1&2 Note:** See reverse side for your specific operator switch settings.

## Plug-In Loop Detectors

Not included - Refer to the Wiring/Owner's manual **AND** Loop Information Manual (available from [www.doorking.com](http://www.doorking.com)) for more information on loops and plug-in loop detectors.

**Important Note:** DoorKing highly recommends that loops and loop detectors are installed with this gate operator. A loop detection system will preventing the gate from automatically opening or closing on a vehicle when it is in the gate's path.

## Radio Receiver

**G** DoorKing radio receiver Included - Choose MicroCliik® **OR** MicroPlus® transmitter type (Sold separately). Please refer to the Wiring/Owner's manual for the 115 VAC Control boxes about receiver programming the transmitter(s) etc. MicroPlus® is receiver factory default setting, see back page to learn transmitter.

## Battery Plug

**CAUTION**

Do not connect the battery plug to the circuit board until power is needed to test the operator.

## 115 VAC Connection

**DANGER HIGH VOLTAGE!**

White - Neutral  
Black - 115 VAC Hot  
Green - Chassis Ground

Tip: It is recommended that a surge suppressor be installed on the high voltage power lines.

**115 VAC Input Power Wire:**

| Wire Size | Distance      |
|-----------|---------------|
| 14 AWG    | Up to 200 ft  |
| 12 AWG    | Beyond 200 ft |

Black to transformer's black (Hot).  
White to transformer's white (Neutral).  
Green to chassis ground.

**Note:** To turn-off **ALL** power to the operator, the AC power switch must be turned off **AND** the battery plug must be disconnected from the circuit board.



# QUICKSTART "BASIC" GUIDELINES FOR 115 VAC CONTROL BOX DIP-SWITCH REFERENCE AND OPERATOR(S) CONNECTION

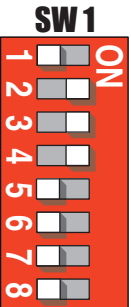


120 S. Glasgow Avenue  
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U.S.A.

UL 325 August  
2018 Standard

## SW 1 DIP-Switches

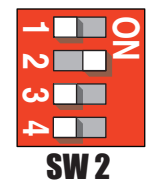
| Switch | Function                                | Setting      | Description   |
|--------|---|--------------|---|
| 1      | Opening Direction of PRIMARY Operator   |              | <p><b>Opening Direction of PRIMARY Operator</b></p> <p>The operator <b>MUST OPEN GATE</b> upon initial power up and OPEN command. If the operator closes gate after giving open command, shut off power and reverse this switch setting otherwise operator will <b>NOT</b> function correctly.</p>  |
|        |   |              | <p><b>6004 ONLY</b></p>   |
| 1      | Opening Direction of PRIMARY Operator   |              | <p><b>6006 ONLY</b></p>   |
|        |   |              | <p><b>6400 ONLY</b></p>   |
| 2      | Opening Direction of SECONDARY Operator |              | <p>Same opening directions as illustrated above for the secondary operator.</p> <ul style="list-style-type: none"> <li>Switch 2 will be the <b>SAME</b> setting as switch 1 for the 6006.</li> <li>Switch 2 will be the <b>OPPOSITE</b> setting as switch 1 for the 6004 and 6400.</li> </ul> <p>Note: SW1, switch 7 <b>MUST</b> also be <b>ON</b> when using a secondary operator.</p> |
| 3      | Exit Loop Port Output                   | OFF          | Terminal #4 is output from plug-in exit loop detector installed in EXIT loop port.  |
|        | Open Input                              | ON (normal)  | Terminal #4 is normal open command.   |
| 4      | Auto-Close Timer                        | OFF          | Auto-close timer is OFF. Manual input required to close gate.   |
|        |   | ON           | Auto-close timer is ON. Adjustable from 1-23 seconds.   |
| 5      | Reverse                                 | OFF (normal) | Terminal #8 is a standard Reverse input.  |
|        | Not Used                                | ON           | On setting is NOT used.   |
| 6      | Overlapping Gates                       | OFF          | Both operators start at the same time.  |
|        |   | ON           | Secondary operator opens 1-2 seconds before primary operator. Vice-versa when closing.  |
| 7      | Single                                  | OFF          | Switch must be OFF for single operator.   |
|        | Dual                                    | ON           | Switch must be ON when (dual) operators are used.   |
| 8      | Input Power                             | OFF          | Switch <b>MUST</b> be in the OFF position.  |



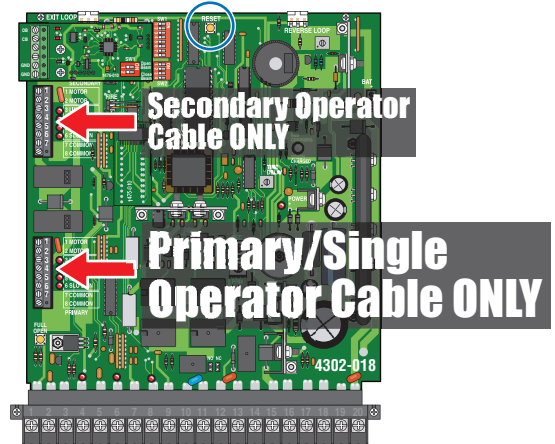
## SW 2 DIP-Switches



Whenever any programming or switch setting on the control board is changed, press the reset button for new settings to take effect.



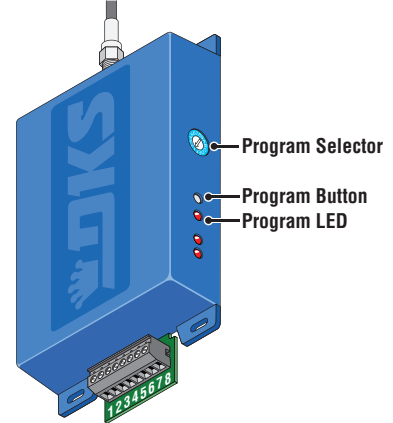
| Switch  | Function        | Setting    | Description  |
|---------|-----------------|------------|--|
| 1 and 2 | Relay Operation | 1-OFF 2-ON | Circuit board relay activates when the gate is NOT closed. |
| 3       | Maglock         | OFF        | NO maglock is used.  |
|         |                 | ON         | Maglock is installed                                       |
| 4       | Spare           | OFF        | Leave in the OFF position.                                 |



## Learn MicroPlus Transmitter

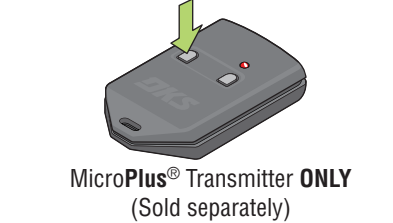
The MicroPlus® type transmitter and **NORMAL Power Mode** are the factory default settings for 8040-080 receiver in 115 VAC control boxes.

Note: See manual for MicroClik® transmitter programming.



1. Turn the Program Selector to **Position 1**.

2. Press and **HOLD** Program Button until the Program LED flashes **ONCE** and receiver will **BEEP** once. Receiver is now in "Learn Mode" and will flash and beep for 10 seconds.



3. Press a **specific** button on the MicroPlus® transmitter to be "Learned" within 10 seconds, wait for the receiver to time-out. MicroPlus® transmitter can now operate the gate.

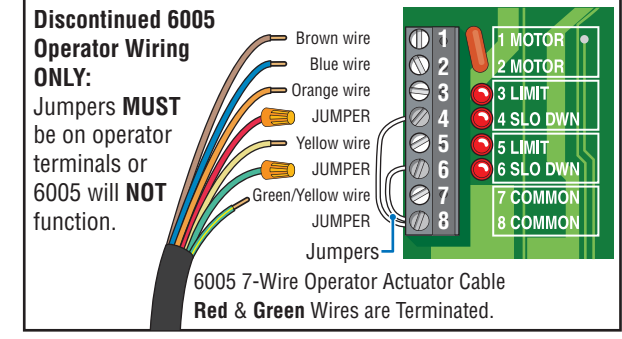
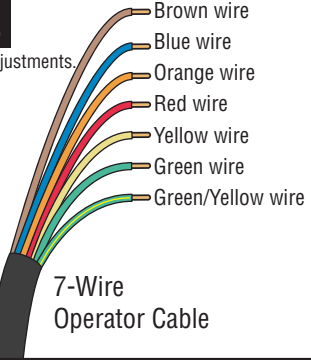
## Gate Operator(s) Connection

**DO NOT** cycle the operator **BEFORE** setting limit sensors.

Refer to your specific operator for limit sensor adjustments.

### Choose Your Operator Model:

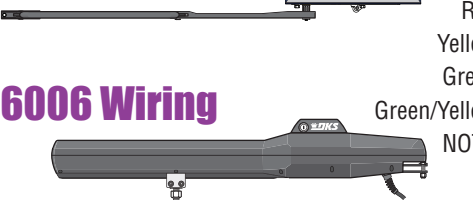
Follow wiring colors for the PRIMARY/Single or DUAL gate operators. If factory wired jumpers are installed on operator terminals, they **must** be removed or operators will **not** function.



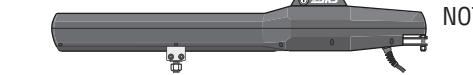
### Discontinued 6003



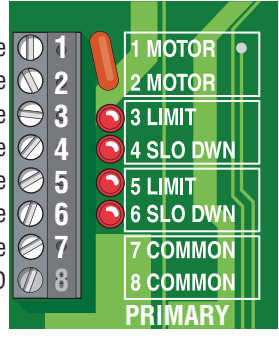
### 6004 Wiring



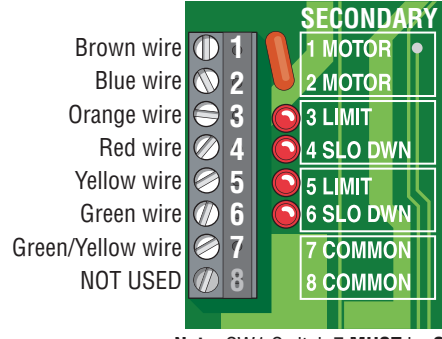
### 6006 Wiring



### Primary/Single operator wiring

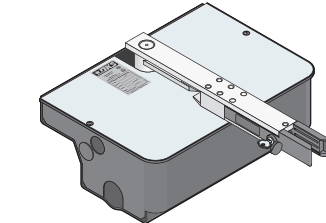


### Secondary operator wiring

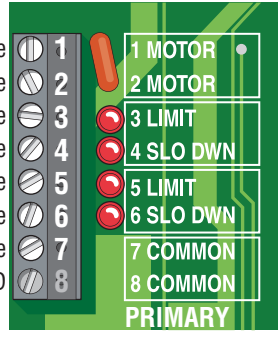


Note: SW1 Switch 7 **MUST** be ON.

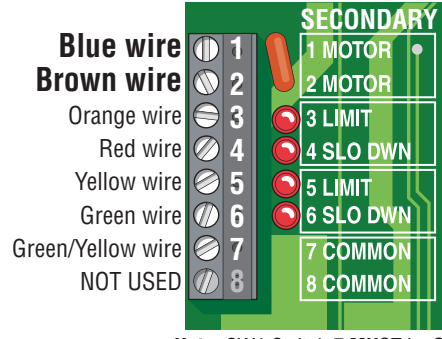
### 6400 Wiring



### 6400 Primary/Single operator wiring



### 6400 Secondary operator wiring



Note: SW1 Switch 7 **MUST** be ON.

Note: **Secondary** operator **MOTOR** wires **MUST** be reversed from the primary operator when using DUAL gate operators.