

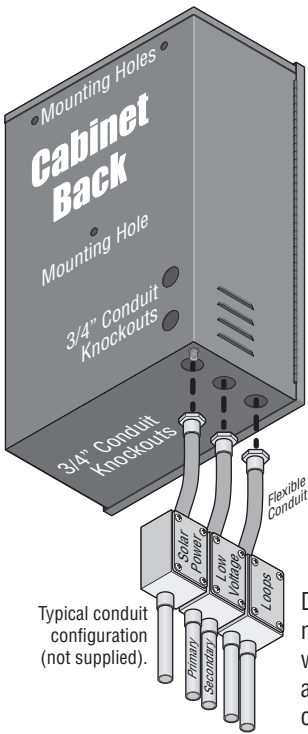
QUICKSTART “BASIC” GUIDELINES FOR SOLAR CONTROL BOX FOR 6004, 6006 AND 6400 USING MicroPLUS® TRANSMITTER

UL 325 August 2018 Standard



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

Mount Control Box Cabinet



Position the control box on the wall, **close enough to the gate operator so the primary operator cable can be easily routed inside the box.** Use appropriate hardware (not supplied) in the existing 3 mounting holes to secure the cabinet to a vertical surface.
DO NOT drill any additional holes in the cabinet. Drilling produces metal filings, which can cause shorts on the circuit board and **will void the warranty.**

- **Never** run high voltage and low voltage wire insulation in the same conduit.

DoorKing offers an **OPTIONAL** mounting post kit (P/N 1000-045) when no vertical surface is available to mount the control box cabinet to.

Circuit Board Settings

Typical Settings with Reverse and Exit Loops. See reverse side.

SW 1

SW1, Switch 1&2 Note: See reverse side for your specific operator switch settings.

A

1. Direction **Primary** operator opens.
2. Direction **Secondary** operator opens.
3. Open Input
4. ON - Auto-Close Timer
5. OFF - Standard Reverse
6. Overlapping Gates
7. Single/Dual Operators
8. ON

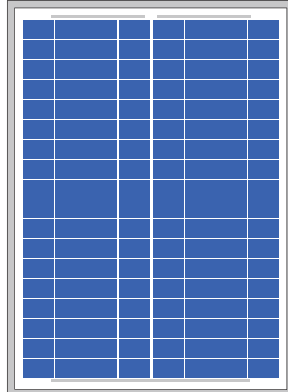
B

Adjust 1 to 23 sec.

SW 2

1. OFF - Circuit Board Relay Control
2. ON - Circuit Board Relay Control
3. OFF - Not Used
4. OFF - Spare

24 Volt Solar Panel



Keep sunlight **OFF** solar panel while connecting to prevent electric shock.
Solar Pos. (White Wire)
Solar Neg. (Black Wire)
Solar panel should face true south in unobstructed sunlight.

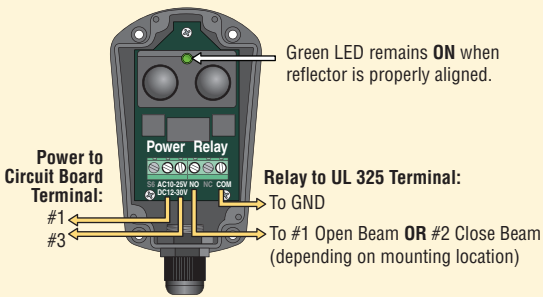
Solar Control Box Requirements:

- (1) **One** 24 Volt 10 Watt Solar Panel for 18 Amp/Hr Batteries (P/N 2000-077).
- (1) **One** 24 Volt 20 Watt Solar Panel for 35 Amp/Hr Batteries (P/N 2000-076).

DO NOT connect 12 Volt solar panel. Damage WILL occur!!

DoorKing Photo Sensor 8080-057

(Included, see “UL 325 Terminal” section)

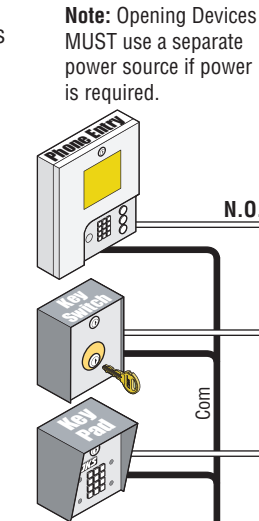


Entrapment Protection must be provided for the gate system where the risk of entrapment or obstruction exists. The operator will not run without one or more monitored type B1 or B2 entrapment protection devices in EACH entrapment area.

Opening Devices

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. Do not connect any control devices to the circuit board terminal.

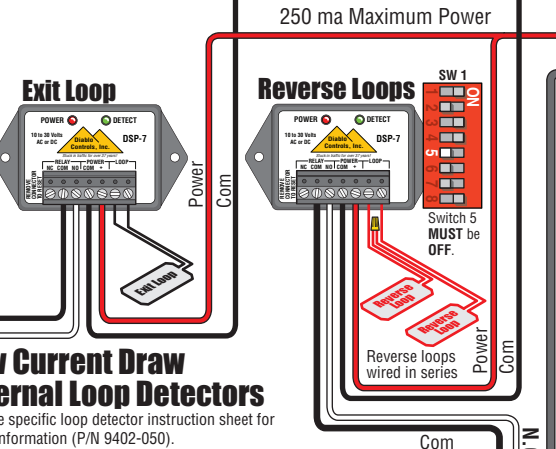
Use 18 AWG minimum.



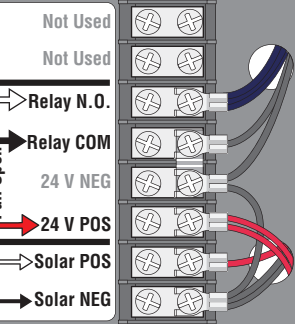
Low Current Draw External Loop Detectors

See the specific loop detector instruction sheet for more information (P/N 9402-050).

Loop Detectors



Full Open-Power Terminal



DO NOT Connect a Plug-In Transformer to the Solar Power Terminals

PUSH TO OPERATE
technician use only

Battery Switch
Disconnects battery power from circuit board. Solar panels still charge batteries.

Two 12 Volt Batteries

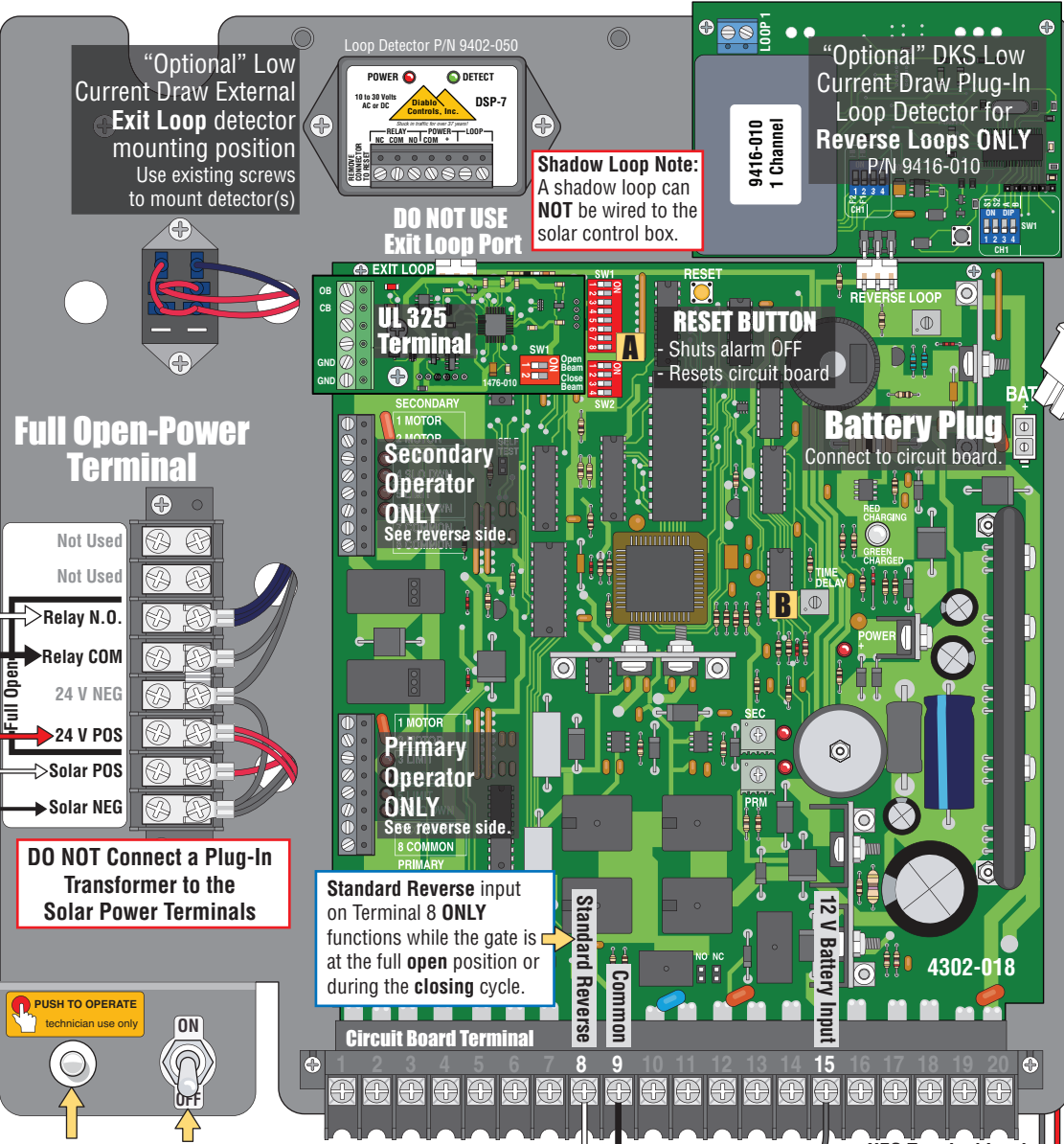
DoorKing Recommends:

- 12 Volt 18 Amp/Hr batteries:** Use for applications with normal usage (60 cycles per day or less).
- 12 Volt 35 Amp/Hr batteries:** Use for applications with higher usage (60 cycles per day or more).



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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.



Shadow Loop Note:
A shadow loop can **NOT** be wired to the solar control box.

Loop Detector P/N 9402-050

DO NOT USE
Exit Loop Port

“Optional” DKS Low Current Draw Plug-In Loop Detector for Reverse Loops ONLY
P/N 9416-010

RESET BUTTON
- Shuts alarm OFF
- Resets circuit board

Battery Plug
Connect to circuit board.

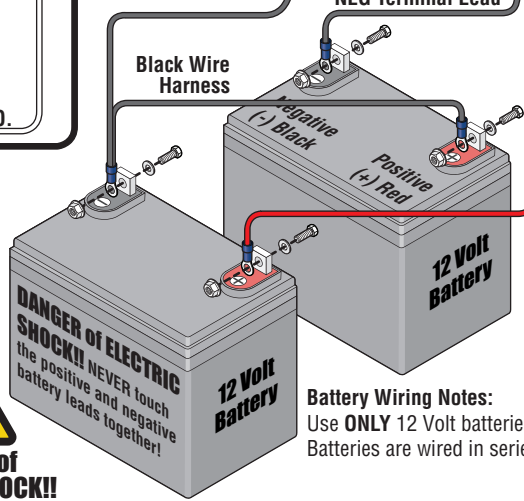
UL 325 Terminal

Secondary Operator ONLY
See reverse side.

Primary Operator ONLY
See reverse side.

Standard Reverse input on Terminal 8 **ONLY** functions while the gate is at the full **open** position or during the **closing** cycle.

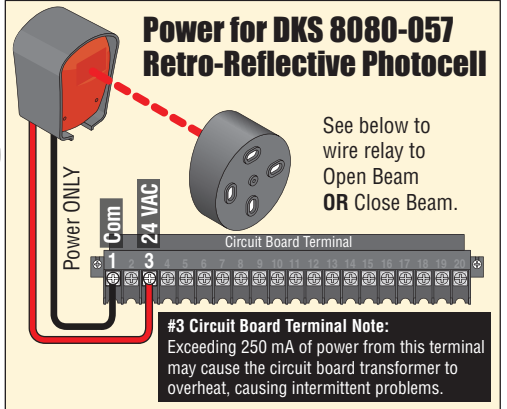
Black Wire Harness



Battery Wiring Notes:
Use **ONLY** 12 Volt batteries. Batteries are wired in series.

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.

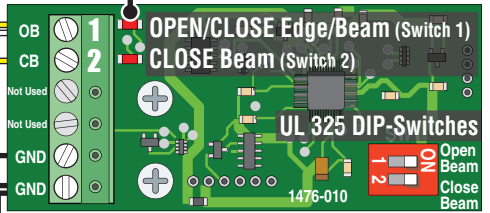


Power for DKS 8080-057 Retro-Reflective Photocell

See below to wire relay to Open Beam **OR** Close Beam.

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

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.



UL 325 Terminal

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

Monitored OPEN/CLOSE Reversing Edge

NO OPEN Beam
Close Beam
Switch 1 Must be ON for reversing edge.

Monitored OPEN Photo Sensor

NO OPEN Beam
Close Beam
Switch 1 Must be ON.

Monitored CLOSE Photo Sensor

NO OPEN Beam
CLOSE Beam
Switch 2 Must be ON.

4302-068-U-7-20

QUICKSTART “BASIC” GUIDELINES FOR SOLAR CONTROL BOX DIP-SWITCH REFERENCE AND OPERATOR(S) CONNECTION

UL 325 August 2018 Standard

SW 1 DIP-Switches

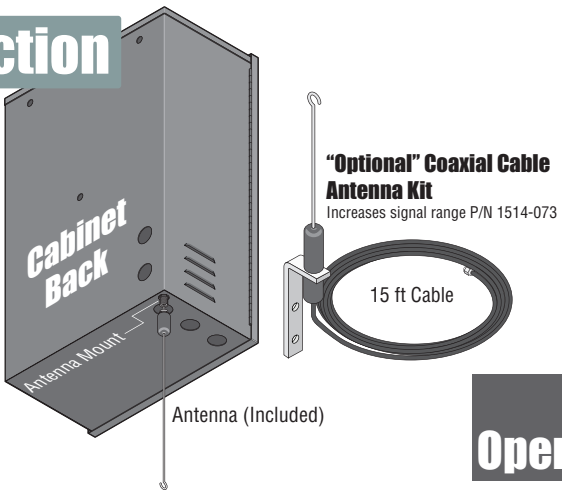
Switch	Function	Setting	Description
<div>Opening Direction of PRIMARY Operator</div> <div>The operator MUST OPEN GATE upon initial power up and OPEN command. If the operator closes gate after giving open command, shut off power and reverse this switch setting otherwise operator will NOT function correctly.</div> <div><div>6004 ONLY</div><div>Left-Side</div><div>Right-Side</div><div>ON setting</div><div>Opens Outside</div><div>OFF setting</div><div>Opens Inside</div><div>ON setting</div><div>OFF setting</div><div>Opens Inside</div><div>ON setting</div></div> <div><div>6006 ONLY</div><div>Push to Open</div><div>OFF setting</div><div>Pull to Open</div><div>ON setting</div><div>ON setting</div><div>ON setting</div></div> <div><div>6400 ONLY</div><div>Same Drive Motor Orientation</div><div>Closed</div><div>Opens as Shown</div><div>Open</div><div>OFF setting</div><div>ON setting</div><div>Open</div><div>Opens as Shown</div><div>Open</div><div>ON setting</div><div>OFF setting</div></div>			
2	Opening Direction of SECONDARY Operator		Same opening directions as illustrated above for the secondary operator. • Switch 2 will be the SAME setting as switch 1 for the 6006. • Switch 2 will be the OPPOSITE setting as switch 1 for the 6004 and 6400. Note: SW1, switch 7 MUST also be ON when using a secondary operator.
3	Not Used	OFF	Leave in the OFF position.
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	ON	Switch MUST be in the ON position.

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

SW 2 DIP-Switches

Switch	Function	Setting	Description
1 and 2	Relay Operation	1-OFF 2-ON	Circuit board relay activates when the gate is NOT closed.
3	Not Used	OFF	Leave in the OFF position.
4	Spare	OFF	Leave in the OFF position.

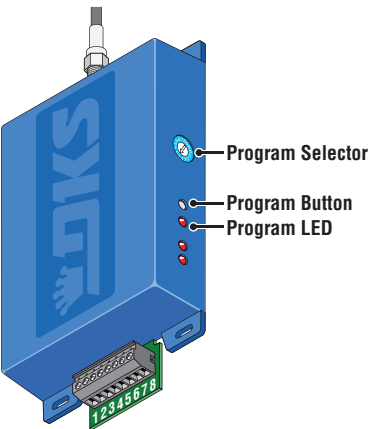
Antenna Connection



Learn MicroPlus® Transmitter

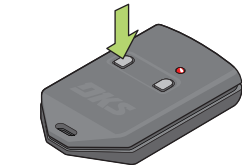
The MicroPlus® type transmitter and LOW Power Mode are the factory default settings for 8040-080 receiver in solar control box.

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.



MicroPlus® Transmitter ONLY (Sold separately)

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.

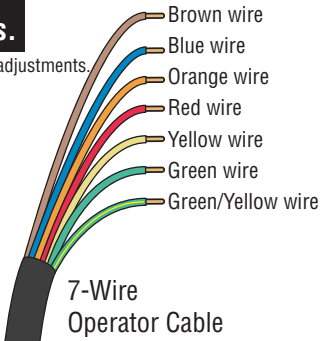
Gate Operator(s) Connection

DO NOT cycle the operator BEFORE setting limit sensors.

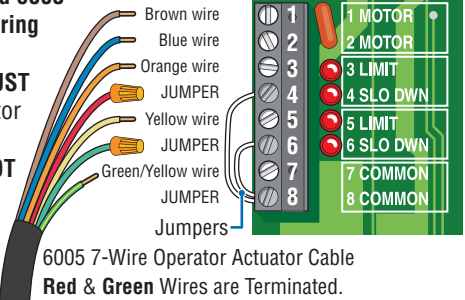
Refer to your specific operator for limit sensor adjustments.

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.



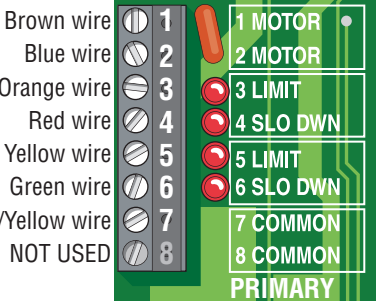
Discontinued 6005 Operator Wiring ONLY: Jumpers MUST be on operator terminals or 6005 will NOT function.



Discontinued 6003



Primary/Single operator wiring

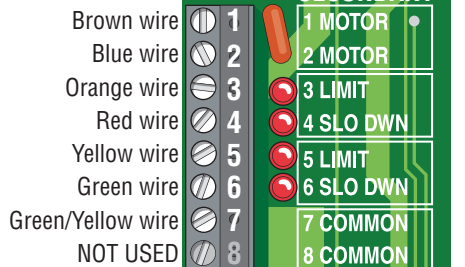


6004 Wiring

6006 Wiring

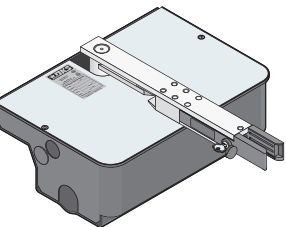


Secondary operator wiring

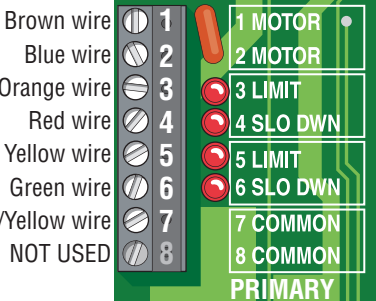


Note: SW1 Switch 7 MUST be ON.

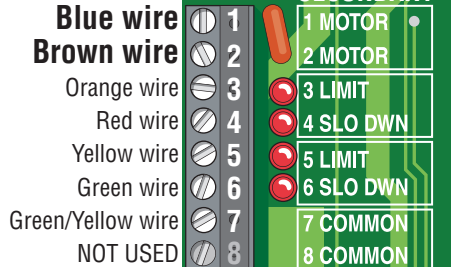
6400 Wiring



6400 Primary/Single operator wiring



6400 Secondary operator wiring



Note: SW1 Switch 7 MUST be ON.