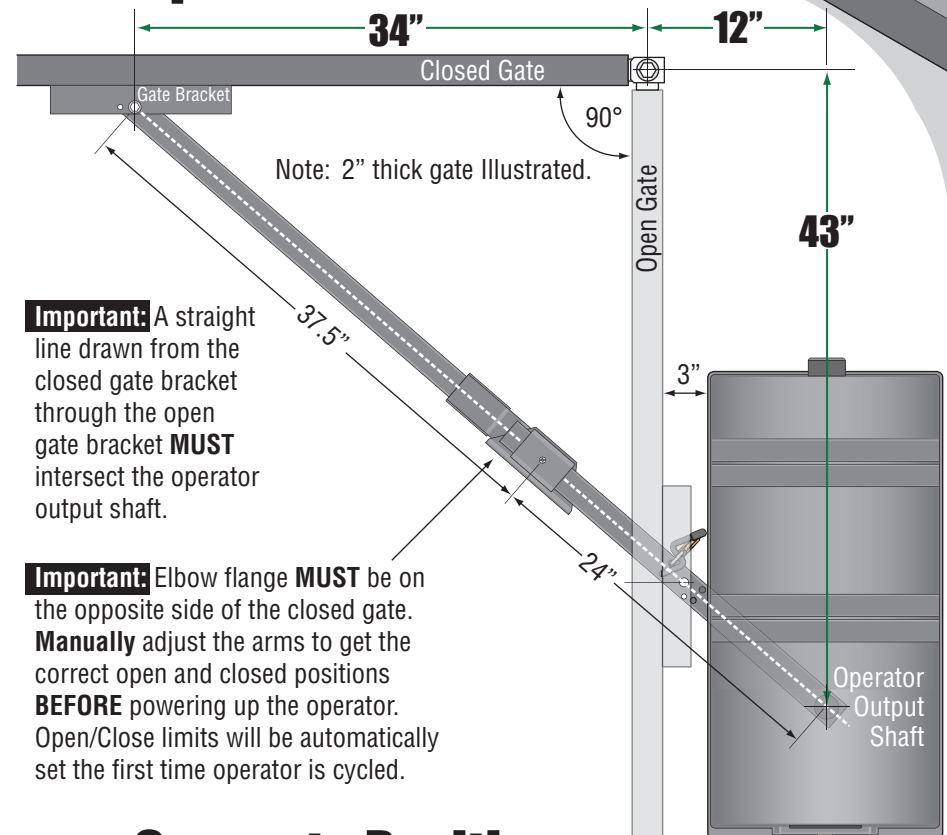UL 325 August 2018 Standard

DKS DOORKING®

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

Model 6300 is intended for installation only on swing gates used for vehicles. Pedestrians must be supplied with a separate access opening.

For safety and installation instructions, please refer to the Installation/Owner's manual.
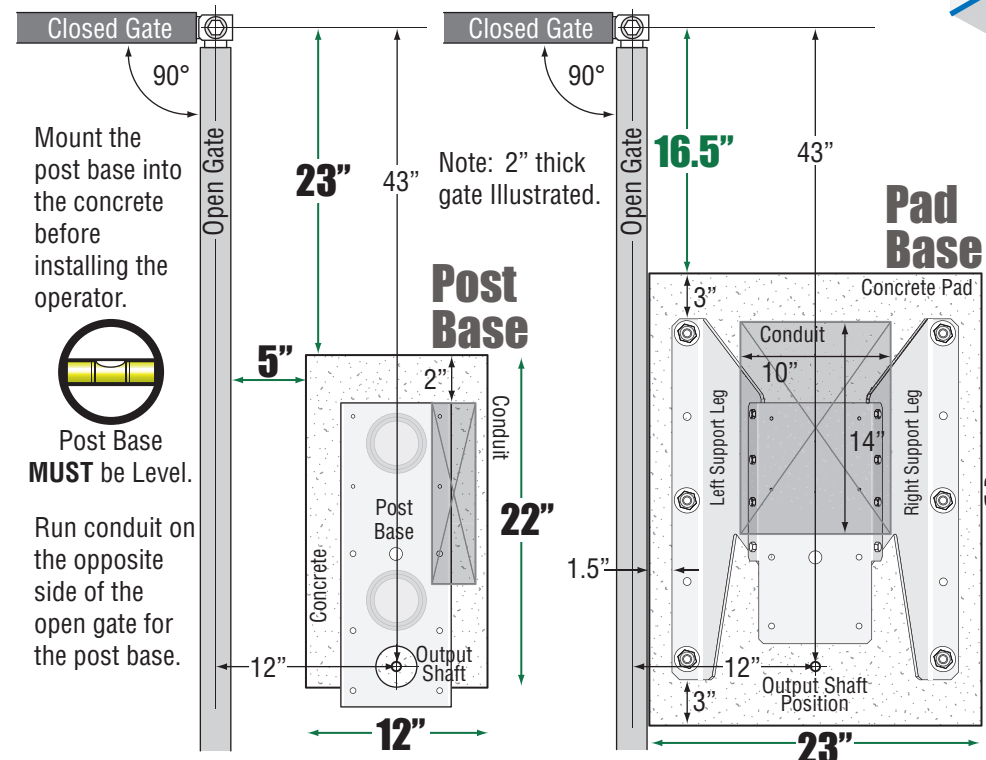
Operator Position

34"   12"

Gate Bracket   Closed Gate   90°
Open Gate

Note: 2" thick gate Illustrated.

43"

Important: A straight line drawn from the closed gate bracket through the open gate bracket **MUST** intersect the operator output shaft.

37.5"   3"

24"

Important: Elbow flange **MUST** be on the opposite side of the closed gate. **Manually** adjust the arms to get the correct open and closed positions **BEFORE** powering up the operator. Open/Close limits will be automatically set the first time operator is cycled.

Operator Output Shaft

Concrete Position

Closed Gate   90°   Open Gate
Closed Gate   90°   Open Gate

Mount the post base into the concrete before installing the operator.

23"   43"   16.5"   43"

Note: 2" thick gate Illustrated.

5"

Post Base **MUST** be Level.

Run conduit on the opposite side of the open gate for the post base.

Post Base

Conduit   2"

Concrete   Post Base

22"   1.5"

12"   Output Shaft

12"

Pad Base

Concrete Pad
Conduit   3"
10"   14"
Left Support Leg   Right Support Leg

30"

Pad **MUST** be Level.

Secure operator to the concrete pad with six (6) 3/8" x 3" sleeve anchors (not supplied).

12"   Output Shaft Position   3"

23"

Reverse Loop

Shadow Loop

Pad Base Gate Bracket
Post Base Gate Bracket

Safety Cover

Elbow Flange   Elbow Assembly
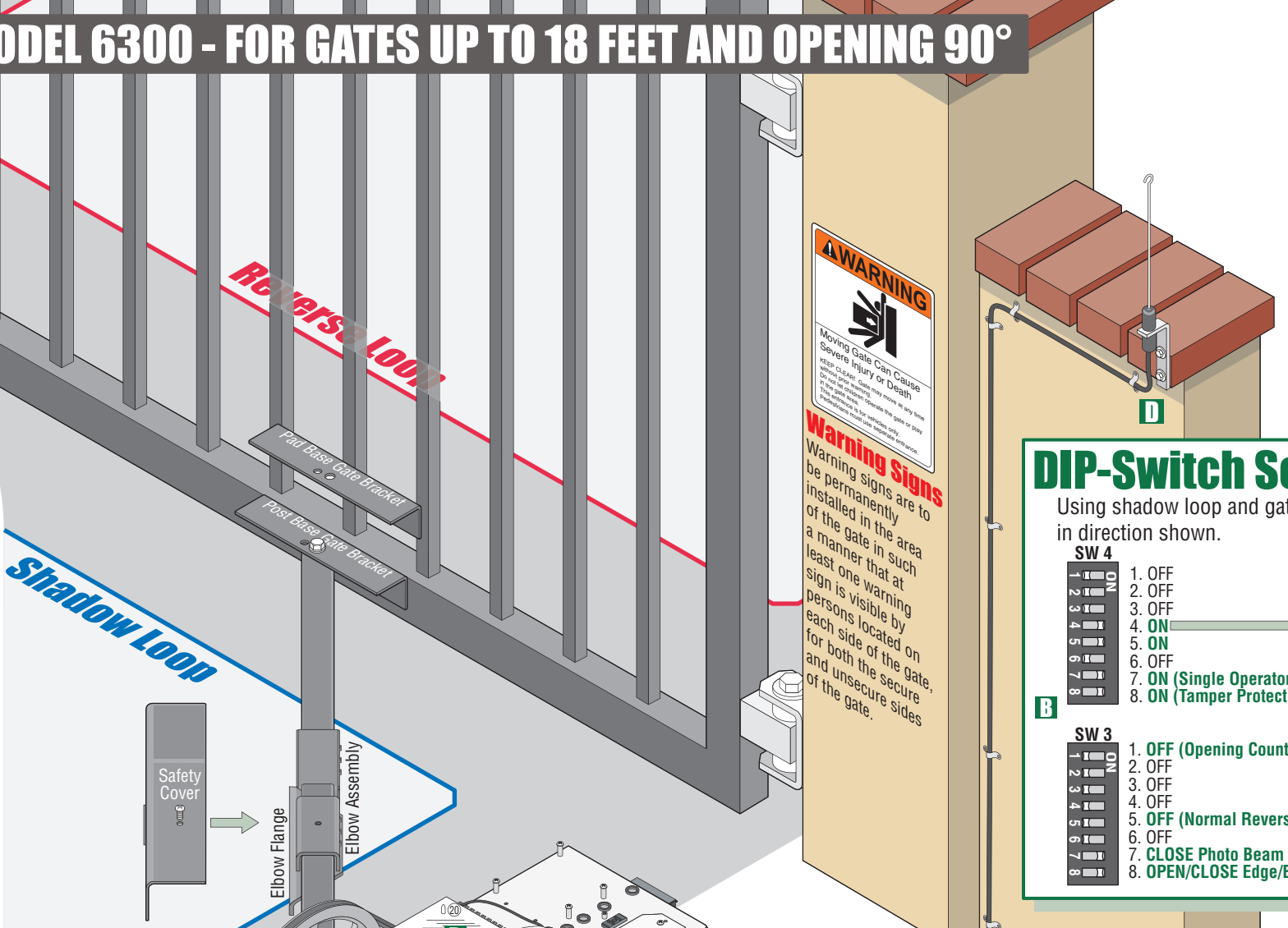
⚠ WARNING
Moving Gate Can Cause Severe Injury or Death

Warning Signs
Warning signs are to be permanently installed in the area of the gate in such a manner that at least one warning sign is visible by persons located on each side of the gate, for both the secure and unsecure sides of the gate.

1. Com to #20
2. Relay to #11
3. 24 Volt to #1

A   B   C   D

Low Volt   High Volt   Junction Boxes

Bottom Plate of 6300

Flexible Conduit

Depth of the concrete is determined by soil conditions and local building codes.

AC Power Conduit   3/4" Loop Conduit with Sweeps

Ground

D

High Voltage Connection

GATE OPERATOR MUST BE PROPERLY GROUNDED!!

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

DIP-Switch Settings

Using shadow loop and gate opening in direction shown.

SW 4
1. OFF
2. OFF
3. OFF
4. ON → **Auto Close Timer** Adjust 1 to 23 sec.
5. ON
6. OFF
7. ON (Single Operator)
8. ON (Tamper Protect)

B

SW 3
1. OFF (Opening Counter-Clockwise)
2. OFF
3. OFF
4. OFF
5. OFF (Normal Reverse Function)
6. OFF
7. CLOSE Photo Beam   ⎤ REQUIRED
8. OPEN/CLOSE Edge/Beam ⎦ See other side

Important: The elbow assembly must be in the correct position on the arms **BEFORE** cycling operator the first time.

⚠ **DANGER HIGH VOLTAGE!**

115 VAC

Neutral   115 VAC

Chassis Ground   A

High Voltage Conduit

Note: "Optional" High Voltage Kit black and white wires connect the same as shown. See High Voltage Kit instruction sheet for more information.

- NO AC power.
- NO DC power (On select models).

Crank Arm   Crank Power Arm

1   2

Manual Release

Loop Detectors

C Not included - Refer to the Installation/Owner's manual and Loop Information Manual (available **FREE** from www.doorking.com) for more information on loops and loop detectors.

Radio Receiver

D Not included - Refer to a specific Radio Receiver Manual (available from www.doorking.com) for more information on radio receivers and antenna installation. (See reverse side for wiring)

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.

Gate Bracket Height

Arms and Operator MUST be level.

DKS

Bottom Plate of 6300

Gate Bracket   5"   Flange   30" Crank Arm
60" Connecting Arm   Crank Power Arm
Brass Bushing   Elbow Assembly

Varies with base used.

Ground

Important: Adjust the locknut on the crank power arm so that it is snug against the washer, but will still allow the 30" crank arm to rotate with little force.

6300-066-W-9-24

QUICKSTART "BASIC" GUIDELINES FOR MODEL 6300 - DIP-SWITCH AND WIRING REFERENCE

UL 325 August 2018 Standard

DKS DOORKING®

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

Model 6300 is intended for installation only on swing gates used for vehicles. Pedestrians must be supplied with a separate access opening.

For safety and installation instructions, please refer to the Installation/Owner's manual.

⚠ **Every time** the operator is powered up, the **First** open command will automatically set the open and close limits of the gate.
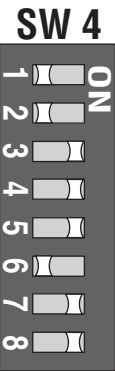
SW 4 (Top 8 Switches)

Switch	Function	Setting	Description
1 and 2	Circuit Board Relay	1-OFF 2-OFF	Relay activates when gate is open (Shadow loop setting when used).
		1-OFF 2-ON	Relay activates when gate is not closed.
		1-ON 2-OFF	Relay activates when gate is opening and open.
		1-ON 2-ON	Relay activates when gate is opening and closing.
3	Exit Loop Port Output	OFF	The output wired to terminal #12 becomes the output from the exit loop detector plugged into the EXIT Loop port.
	Full Open Input	ON	**Normal Setting.** Terminal #12 is a normal full open input.
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 to close gate.
5	Slide Operator	OFF	Switch must be OFF for slide gate operator (**DO NOT** use for 6300).
	Swing Operator	ON	**Normal Setting.** Switch must be ON for swing gate operator.
6	3-Button	OFF	OFF when using a 3-button station (DoorKing 3-button control stations only).
	Single Button	ON	ON when using a single button control, terminals 13 &14 become a STOP input.
7	Dual Operators	OFF	Switch must be OFF when bi-parting (dual) gates are used.
	Single Operator	ON	Switch must be ON for single operator.
8	Tamper Protect	OFF	Tamper protect is OFF.
		ON	**Normal Setting.** Tamper protect is ON. Operator will close gate when being forced open.

Note: After a DIP-switch setting is changed, power must be turned OFF and then turned back on for the new setting to take affect.
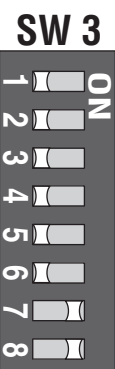
SW 3 (Bottom 8 Switches)

Switch	Function	Setting	Description
1	Primary 6300 Gate Opening Direction		Opens Clockwise — ON / Opens Counter-Clockwise — OFF
2	Secondary 6300 Gate Opening Direction		Same as above, for secondary 6300 **ONLY**.
3	Self-Test	OFF	**Normal Setting.** Normal operation.
		ON	Self-test mode. Operator **MUST** be disconnected from gate to run self test.
4	Single Gates OR Bi-Parting Gates	OFF	Switch is OFF when using a single operator.
		ON	Switch is ON when using dual gate operators (Primary/Secondary Bi-Parting gates).
5	Reverse	OFF	Terminal 15 is a STANDARD Reverse input.
	Shadow Loop	ON	Terminal 15 is a Shadow input. Gate will **NOT** stop **during** the close cycle.
6	Gate Overlap	OFF	Primary and secondary operators start at the same time.
		ON	Secondary operator starts 1-2 seconds prior to primary operator.
7	Monitored Close Beam	OFF	No Photo Sensor connected to Aux terminal 7 and 8.
		ON	Photo sensor is connected to Aux terminal 7 and 8 and monitored. (Close ONLY)
8	Monitored Edge/Beam	OFF	No Edge or Beam connected to Aux terminal 9 and 10.
		ON	Edge OR Beam is connected to Aux terminal 9 and 10 and monitored. (Open/Close)

Antenna mounted outside operator cover.

Coax Antenna Kit P/N 1514-073

3-Wire Radio Receiver Limited to 250 mA

Terminal #7 Note: Exceeding 250 mA of power from this terminal may cause the circuit board transformer to overheat, causing intermittent problems.

#11 - Access Control Devices

Telephone Entry

Key Switch

3-Button Station
Red Open
Green Close
White Com
DoorKing ONLY

Stand-Alone Keypad

Stand-Alone Card Reader

Note: All stand-alone and telephone entry devices must use a separate power source.

Magnetic Lock
Power (24 Volt DC) and logic output. Power is shut off .5 sec. prior to gate starting and remains off while gate is opening and in the open position.

24 VDC @ 250 ma Max.

(2) Two 115 VAC Convenience Outlets (Plug-In transformers **NOT** provided)

Powering Entrapment Protection Devices

24 VAC Power Output Powers 24VAC control devices/ entrapment protection devices. (2 amps Max)

Important: Controls intended for user activation must be located at least six (6) feet away from any moving part of the gate and where the user is prevented from reaching over, under, around or through the gate to operate the controls. Emergency access controls only accessible by authorized personnel (e.g., fire, police, EMS) may be placed at any location in the line-of-sight of the gate.

4502-018

Please refer to the Installation/Owner's manual for complete installation instructions for entrapment protection devices.

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.

IMPORTANT: Monitored Photo and Edge sensors must be end-of-line resistive types. See specific manufacturer's wiring manual for more information.

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

Potential Entrapment Area

CLOSE Beam
CLOSED gate

CLOSE Photo Sensor 7&8
SW 3 switch 7 MUST be ON.

Open Photo Sensor 9&10...OR....
SW 3 switch 8 MUST be ON.

OPEN Beam

Open/Close Edge

......Reverse Edge 9&10
SW 3 switch 8 MUST be ON.

Fire Dept Open
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.

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.