

# QUICKSTART "BASIC" GUIDELINES FOR MODEL 9100 - FRONT INSTALLATION MOUNTED ON A CONCRETE PAD

UL 325 August  
2018 Standard



Model 9100 is intended for installation only on sliding 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.

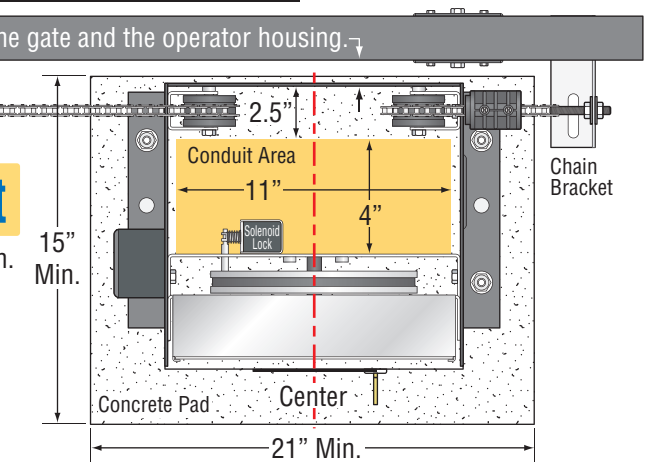
- Chain **MUST** be parallel to gate!
- Chain bracket **MUST** line up with idler wheels!

## Physical Stops MUST be Used to Stop Gate

**DO NOT** power up and cycle the operator without "Physical Stops" installed to stop the gate in the open and close positions (Chain stops are included with the operator but other physical stops can be used). **Damage could occur to the gate and operator.** Chain stop's rubber bumpers face toward operator. They will make contact with the operator housing during the initial automatic open/close limits setting sequence.

## Chain Adjustment

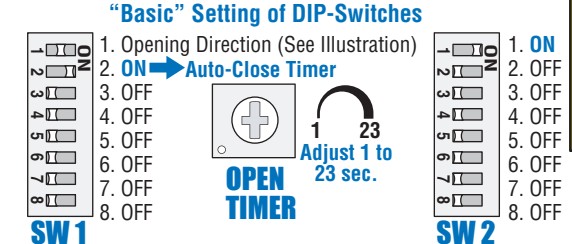
Adjust the chain nuts to tighten the chain. The chain should sag no more than one (1) inch per 10 feet of chain travel. **Do not over tighten the chain.**



## Concrete Pad and Conduit Area

## Circuit Board Settings

**SW 1, Switch 1 - Must OPEN** the gate upon initial AC power up and open command. If the open command begins to close the gate, turn AC power off and reverse this switch. (See reverse side)



## Key Switch

Cycles the operator when pressed.

## Automatic Limits

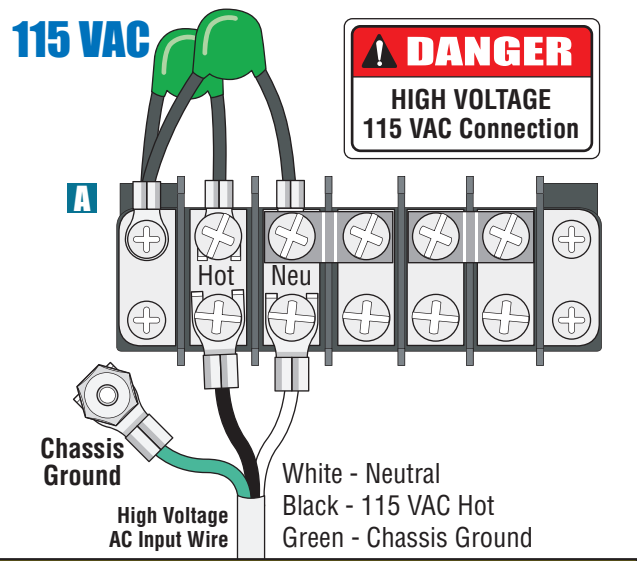
The 9100's open/close limits **DO NOT** have to be physically adjusted. **Every time the 9100 is powered up, the first open command will automatically run "2 open/close gate cycles" that will locate and remember the gate's open and close limit positions.** These limit positions are determined by where the physical stops have been installed. It does not matter what position the gate is in before running this sequence. The gate will function normally after this automatic sequence has finished.

**Note:** Auto-close timer should be on before running this sequence.

## 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.



**Every time the 9100 is powered up, the First open command will automatically run "2 open/close gate cycles" that will locate and remember the gate's open and close limit positions.** See "Automatic Open/Close Limit Adjustment" in Installation/Owner's manual for more information.

## Plug-In Loop Detectors

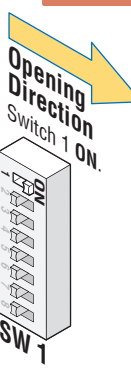
**B** Not included - Refer to the Installation/Owner's manual **AND** Loop Information Manual (available from [www.doorking.com](http://www.doorking.com)) for more information on loops and plug-in loop detectors.

**Important Note:** DoorKing highly recommends that loops and loop detectors are installed with this slide 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.

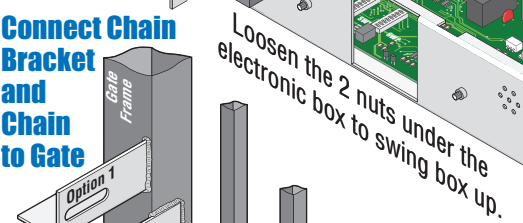
## Radio Receiver

**C** Not included - Refer to a specific Radio Receiver Manual (available from [www.doorking.com](http://www.doorking.com)) for more information on radio receivers and antenna installation. (See reverse side for wiring)

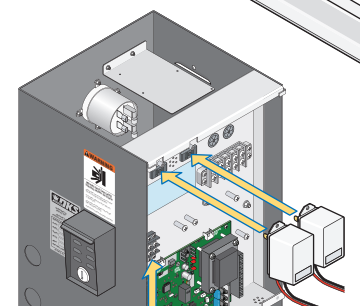
**Entrapment Protection must be provided for the gate system where the risk of entrapment or obstruction exists. The operator will NOT run without one or more monitored type B1 or B2 external entrapment protection devices in EACH direction of gate travel (minimum of 2 external devices required). See manual for more information.**



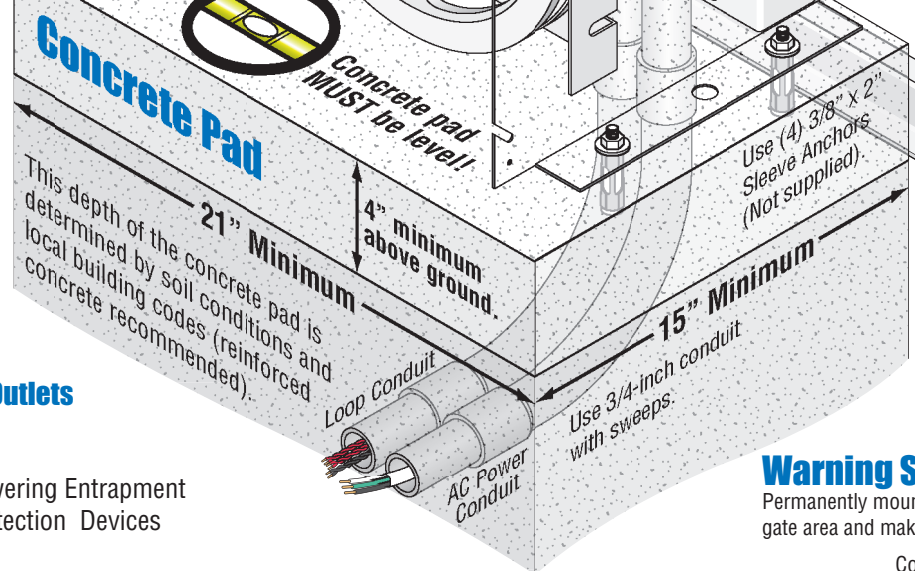
**IMPORTANT:** Electronic box **MUST** be in the down position and secured for operator to function.



Chain nut and chain bolt should not protrude past gate frame.



**Two 115 VAC Convenience Outlets** (Plug-In transformers NOT provided)  
**24 VAC 50 VA Output Terminal** (2 amps Max)  
Powering Entrapment Protection Devices



## Warning Signs

Permanently mount signs on **BOTH** sides of the gate area and make sure they are easily visible.

# QUICKSTART "BASIC" GUIDELINES FOR MODEL 9100 - DIP-SWITCH AND WIRING REFERENCE

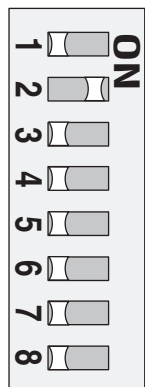
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## SW 1

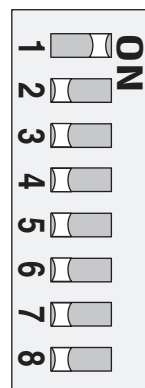


SW 1

Switch	Function	Setting	Description
1	Changes the direction the operator will open/close the gate depending on the different chain configurations.	ON	Opening direction using ON setting.
		OFF	Opening direction using OFF setting.
		ON	Opening direction using ON setting.
2	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.
3	Motor Hold	OFF	<b>Normal Setting.</b> No voltage to motor when gate is stopped (Level gate).
		ON	Voltage applied to motor always. Keeps inclined gate from coasting when stopped.
4 and 5	Relay Activation and LED Indicator Light Activation	4-OFF 5-OFF	Relay activates and LED is ON when the gate is fully open.
		4-OFF 5-ON	Relay activates and LED is ON when the gate is not closed.
		4-ON 5-OFF	Relay activates and LED is ON when the gate is opening and open.
		4-ON 5-ON	Relay activates and LED is ON when the gate is opening and closing.
6	Self-Test	OFF	<b>Normal Setting.</b>
		ON	Runs self-test. <b>Caution: Bench testing ONLY!</b>
7 and 8	Gate Open Back-Off Position	7-OFF 8-OFF	<b>Normal Setting.</b> Gate fully opens.
		7-OFF 8-ON	Gate stops short 1" from full open position. Used for a reversing edge device.
		7-ON 8-OFF	Gate stops short 2" from full open position. Used for a reversing edge device.
		7-ON 8-ON	Gate stops short 3" from full open position. Used for a reversing edge device.

**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 2



SW 2

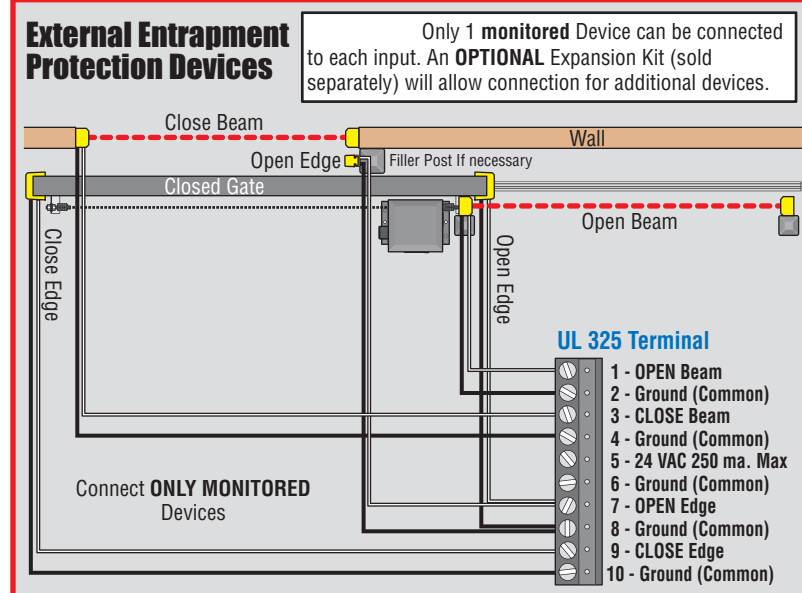
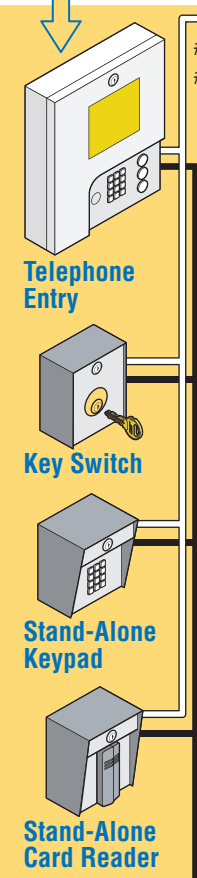
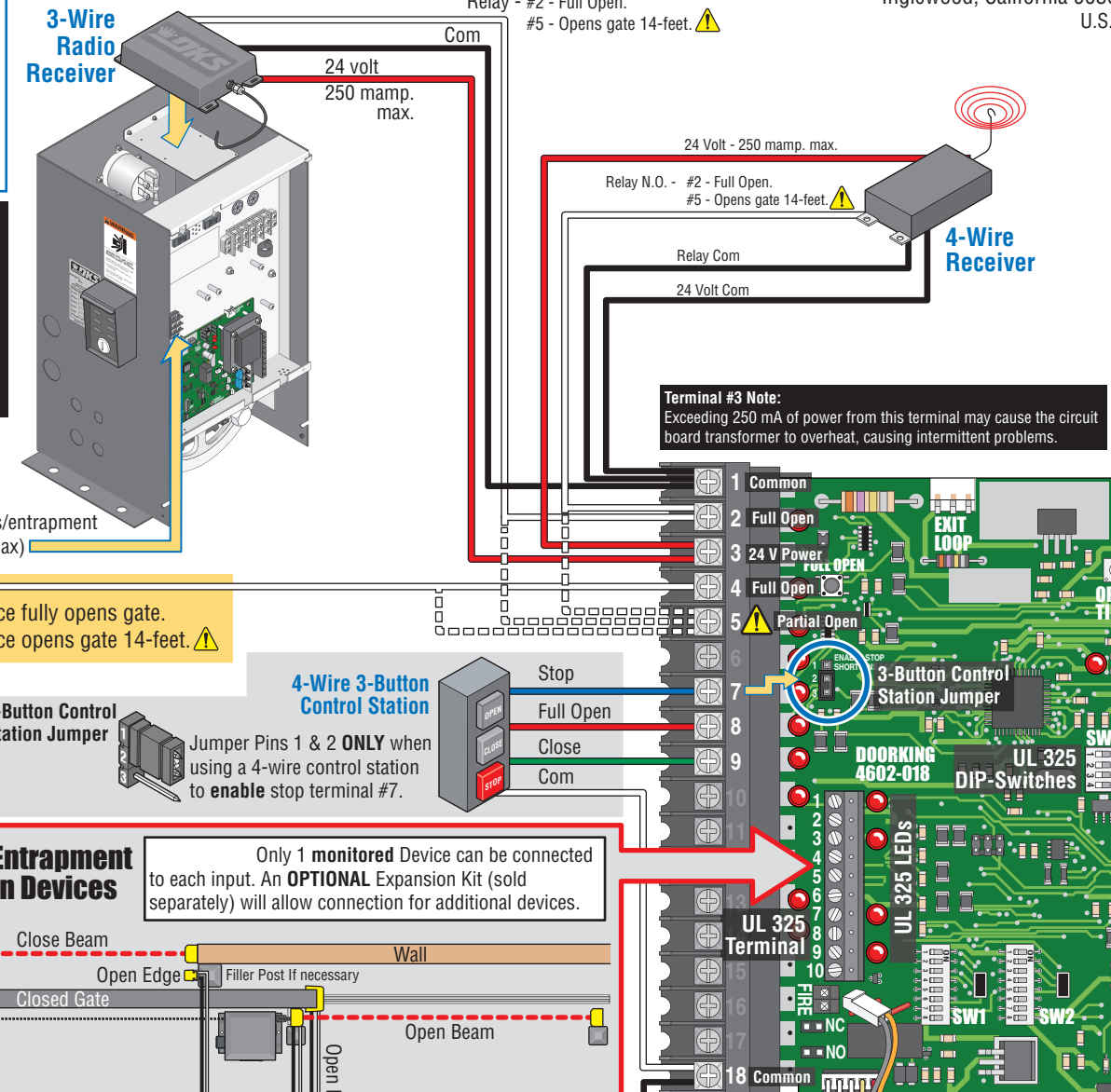
Switch	Function	Setting	Description
1	Exit Loop Port Output	Jumper Wire Needed See Manual OFF	A plug-in exit loop detector plugged into the EXIT Loop port will partially open single operator or fully open dual operators depending on type of loop detector used).
	Full Open Input	ON	<b>Normal Setting.</b> Plug-in exit loop detector will fully open gate (Single operator).
2	Reverses Gate	OFF	<b>Normal Setting.</b> Input to terminal #6 and/or reverse loops will <b>reverse</b> gate during <b>close</b> cycle.
		ON	Input to terminal #6 and/or reverse loops will <b>stop</b> gate during <b>close</b> cycle – gate will continue to close after input to terminal #6 and/or reverse loops are cleared (Helps prevent tailgating vehicles from unauthorized entry).
3	Partial Open (14 Ft)	OFF	<b>Normal Setting.</b> Switch must be OFF for terminal #5 input to open gate 14 Ft.
		ON	<b>DO NOT</b> use ON setting. <b>NOT</b> associated with partial open feature for the 9100.
4	Built-in Solenoid Lock	OFF	<b>Normal Setting.</b> Fail-safe logic. Lock engages only if attempt is made to force gate open (Factory setup).
		ON	Fail-secure logic. Lock engages after each gate cycle (2600-862 Lock kit required).
5	Operator Model Select	OFF	<b>Normal Setting.</b> Switch must be OFF for Model 9100.
		ON	<b>DO NOT</b> use ON setting for Model 9100.
6	Quick-Close Timer Override	OFF	<b>Normal Setting.</b> Timer will function normally.
		ON	Opening gate will stop and begin to close as soon as all reversing inputs (Reverse loops, photo sensors) are cleared regardless of the distance the gate has opened.
7 and 8	Gate Close Back-Off Position	7-OFF 8-OFF	<b>Normal Setting.</b> Gate fully closes.
		7-OFF 8-ON	Gate stops short 1" from full close position. Used for a reversing edge device.
		7-ON 8-OFF	Gate stops short 2" from full close position. Used for a reversing edge device.
		7-ON 8-ON	Gate stops short 3" from full close position. Used for a reversing edge device.

**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.

**#5 Terminal Note (Single Operator Only):** Any opening device connected to terminal #5 will open the gate to the partial open 14-ft setting. External entrapment protection devices will also open the gate to the partial open setting. If the **Inherent Reverse Sensor** gets activated during the close cycle, it will always **fully** open the gate.

**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 external entrapment protection devices in EACH direction of gate travel (minimum of 2 external devices required). See manual for more information.**

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



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

**UL 325 DIP-Switches**  
DIP-switches **MUST** be turned ON for each device wired to terminal.

- 1 - OPEN Beam (UL 325 Terminal 1)
- 2 - CLOSE Beam (UL 325 Terminal 3)
- 3 - OPEN Edge (UL 325 Terminal 7)
- 4 - CLOSE Edge (UL 325 Terminal 9)

**Fire Dept Open**  
2-Pin Supplied Wire Harness

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:** Connect device to **BOTH** operators, 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.