



DKS 1603 Barrier Gate Operator Auto Spikes System Installation Guide

[Home](#) » [DKS](#) » DKS 1603 Barrier Gate Operator Auto Spikes System Installation Guide 

Contents

- 1 DKS 1603 Barrier Gate Operator Auto Spikes System
- 2 Auto Spikes
- 3 Arm Assembly
- 4 Arm Bracket Holes
- 5 Mounting Operator and Auto Spikes
- 6 Board Adjustments
- 7 Loop Detectors
- 8 VAC Connection
- 9 DIP-SWITCH AND WIRING REFERENCE
- 10 SW 1 DIP-Switches
- 11 SW 2 DIP-Switches
- 12 Specifications:
- 13 FAQ:
 - 13.1 Q: Can the auto-close timer be used with down loops?
 - 13.2 Q: What should be done if the spikes freeze in the up position?
- 14 Documents / Resources
 - 14.1 References
- 15 Related Posts

DKS 1603 Barrier Gate Operator Auto Spikes System



INSTALLATION GUIDE

Model: 1603 is intended for installation only on barrier 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.

It is recommended that the "Spike" sections not exceed 9 feet (Three 3-Ft spike sections) for proper operation.

Auto Spikes

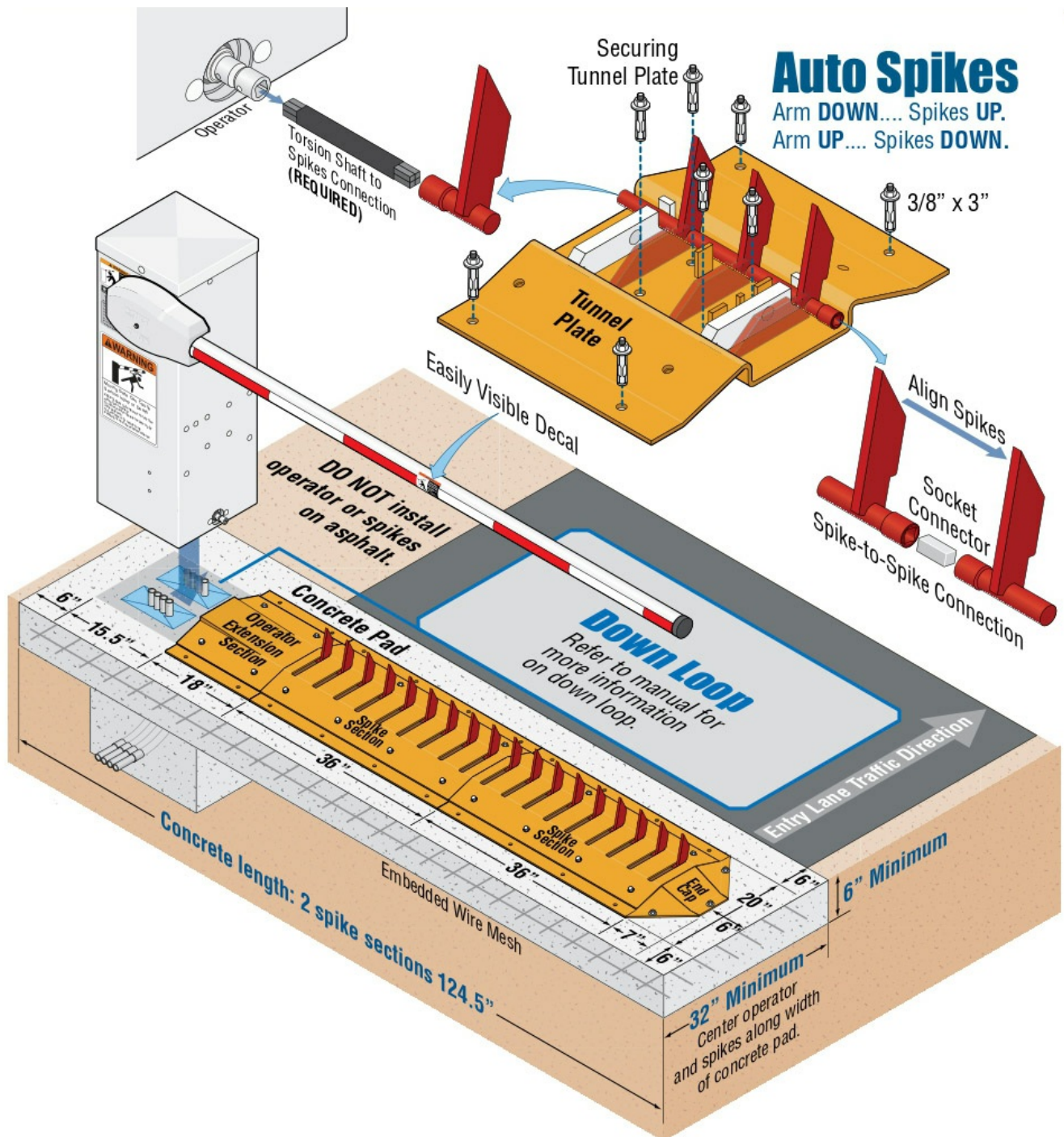
Arm DOWN.... Spikes UP.
Arm UP.... Spikes DOWN.

Refer to Section 3 Auto Spike System

Installation in the manual for COMPLETE spike installation.

Note: Operator shown mounted on the LEFT side of traffic lane (preferred).

Note: Spike adjustment may be necessary after installation, see manual.



CAUTION: Installation and use of traffic control spike unit in areas that are subject to freezing weather with the potential of snow and ice accumulation is not recommended. The unit may freeze in the up position and cause unintended injury or damage due the inability of the spikes to retract.

Arm Assembly

Spike Assembly

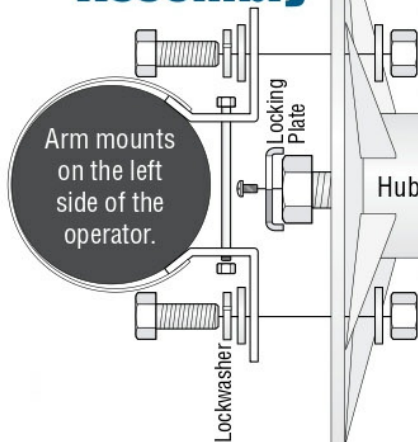
Arm mounts on the left side of the operator.
Snap all sections together using socket connectors with spikes aligned with each other.

Important Note: Operator extension section's torsion shaft MUST connect to operator.

Test spike rotation BEFORE securing tunnel plates to concrete with 3/8" x 3" sleeve anchors.

Limit Magnets have been pre-set at the factory to rotate arm 90°.
No adjustment is necessary.

Arm Assembly



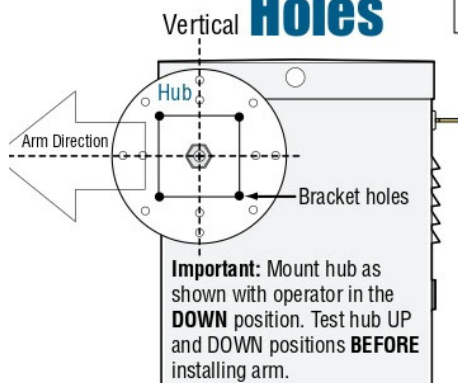
Spike Assembly

1. Snap all sections together using socket connectors with spikes aligned with each other.

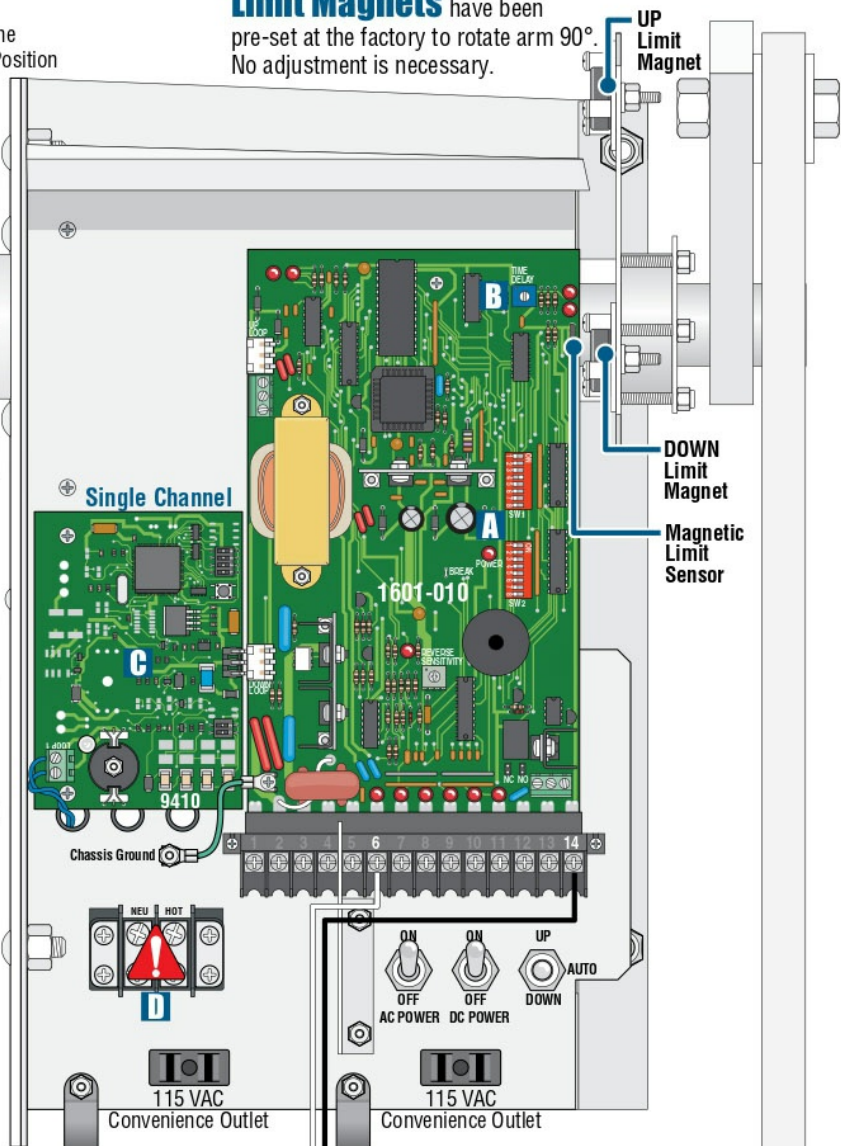
Important Note: Operator extension section's torsion shaft **MUST** connect to operator.

2. Test spike rotation **BEFORE** securing tunnel plates to concrete with 3/8" x 3" sleeve anchors.

Arm Bracket Holes



Limit Magnets have been pre-set at the factory to rotate arm 90°. No adjustment is necessary.

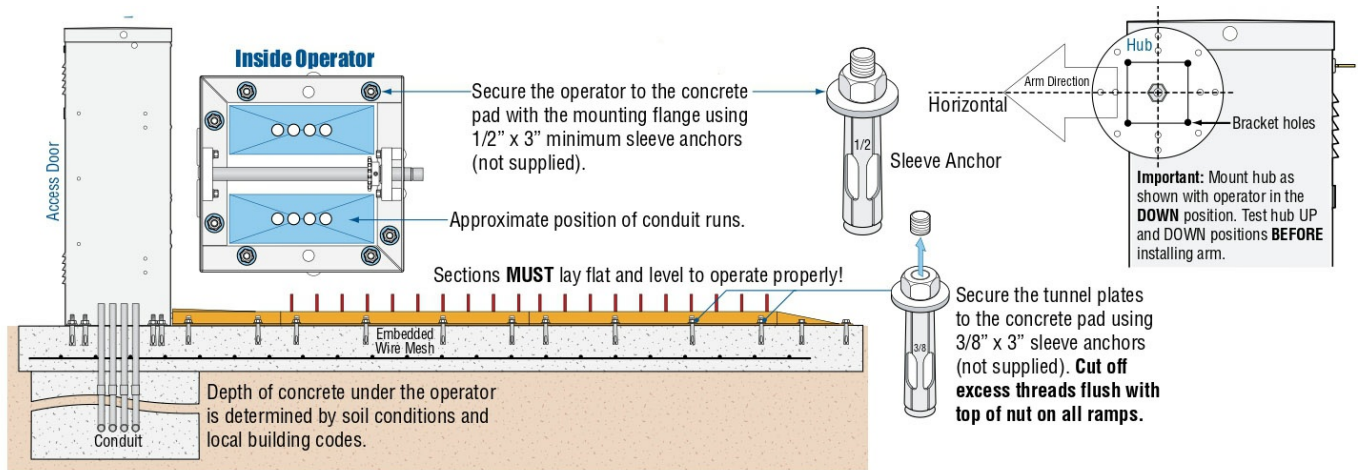


Access Control Device

See reverse side and refer to Installation/Owner's manual for other access control device connections.

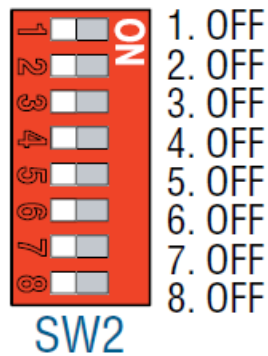
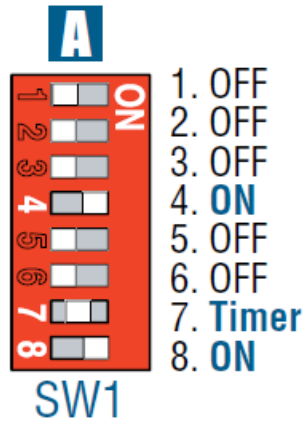
Arm Bracket Holes

Mounting Operator and Auto Spikes



Board Adjustments

See reverse side.



When SW1, switch 7 is turned ON, automatic timer can be set from 1-59 seconds to automatically lower arm.

Note: The auto close timer CAN be used with down loops. Refer to the manual for more info.

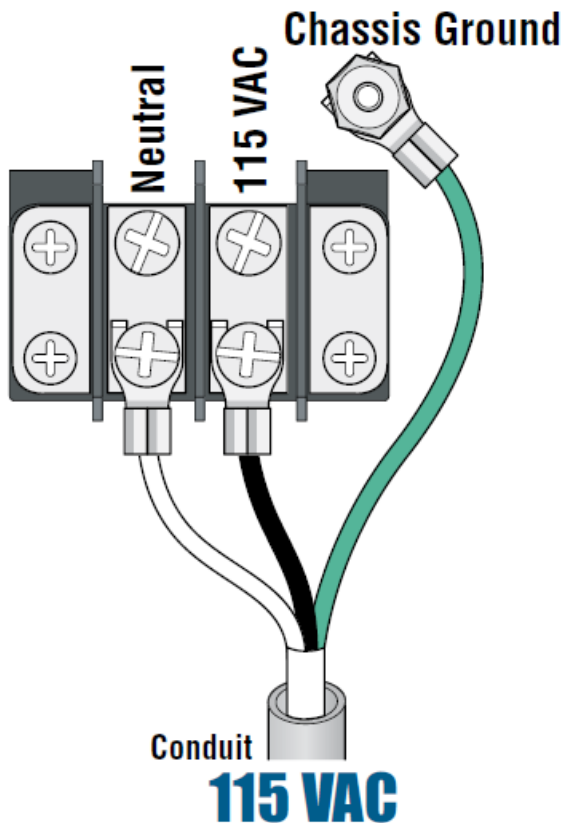
Loop Detectors

C. Not included – Refer to the manual and Loop Information Manual (available free from www.dkaccess.com) for more information on loops and loop detectors.

VAC Connection

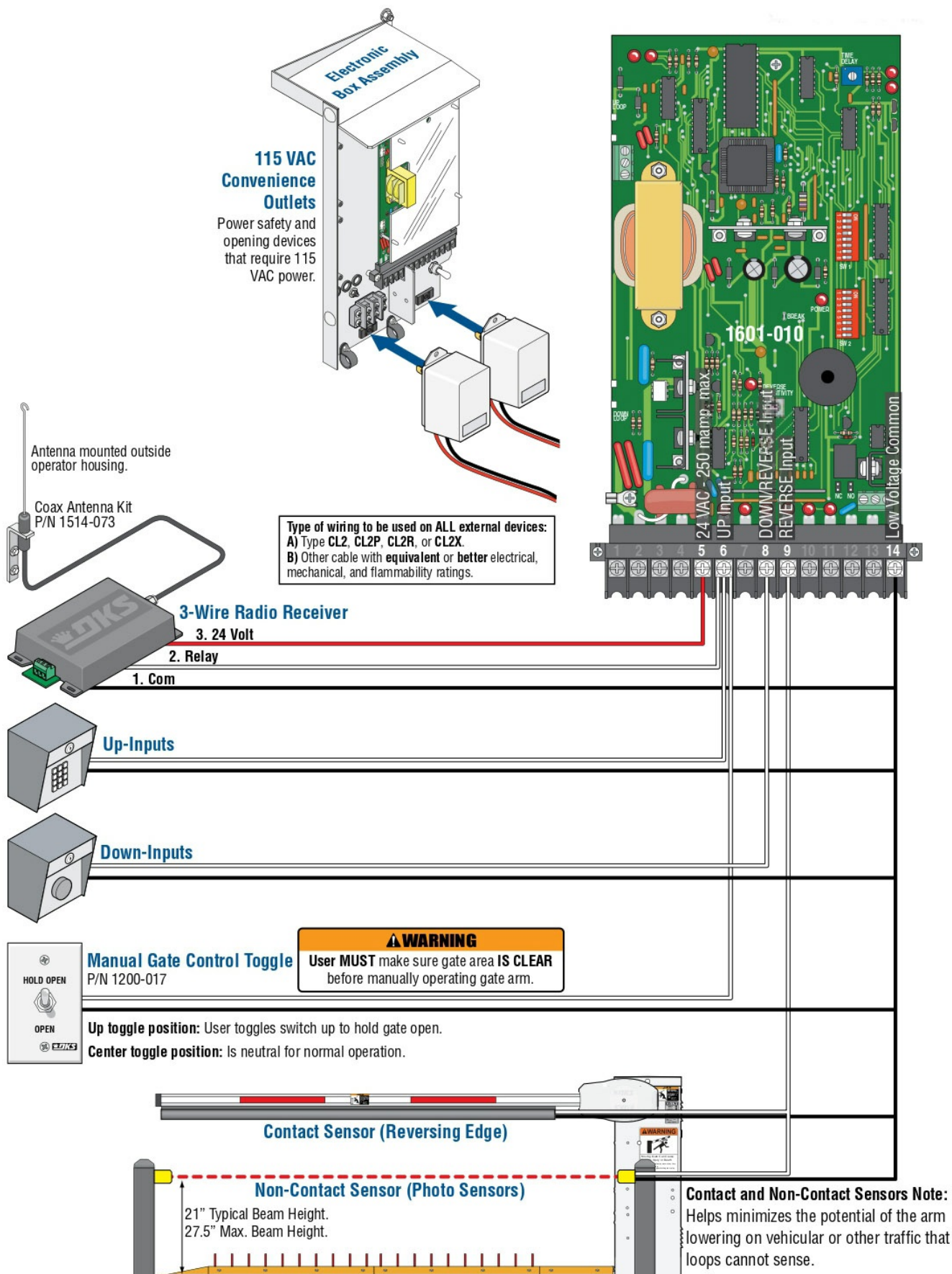
OPERATOR MUST BE PROPERLY GROUNDED!!

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

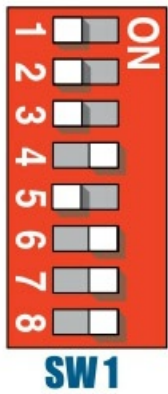


Note: “Optional” High Voltage Kit black and white wires connect the same as shown. See High Voltage Kit instruction sheet for more information.

DIP-SWITCH AND WIRING REFERENCE



SW 1 DIP-Switches

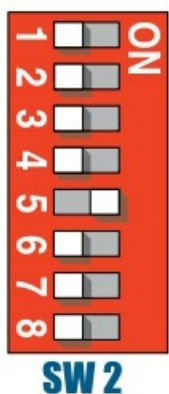


Switch	Function	Setting	Description
1	Down Active when arm is full up.	OFF	Activation and then deactivation of the down loop or down / reverse input will cause the arm to rotate down ONLY if the deactivation occurred after the arm reached the FULL UP position.
	Down Active when arm is moving up or is up.	ON	Activation and then deactivation of the down loop or down / reverse input will cause the arm to rotate down AFTER reaching the FULL UP position regardless of when the deactivation occurred.
2	Self-Test	OFF	Normal setting. Self-test is turned off.
		ON	Run self-test.
3	Gear Box Travel	OFF	Normal setting. Operator uses 360° of gearbox. Extends wear life of gearbox.
		ON	Operator uses 180° of gearbox.
4	Down / Reverse Loop and Input	OFF	Down / Reverse loop and input will function as a REVERSE loop and REVERSE input.
		ON	Normal setting. Down / Reverse loop and input will function as a down input and cause the arm to rotate down upon deactivation of the input. See SW 1, switch 1 for additional information.
5	Relay 1 Activation	OFF	Normal setting. Relay activates when the DOWN loop detector (DoorKing plug-in detector only) senses a vehicle presence.
		ON	Relay activates when the UP loop detector (DoorKing plug-in detector only) senses a vehicle presence.
6	Up Input Function	OFF	Up Input will raise arm and/or reset the down timer. Input will not lower the arm.
		ON	Up Input will raise arm if it is down, or will lower arm if it is up.
7	Timer	OFF	Timer to lower arm is OFF.
		ON	Timer to lower arm is ON. Set from 1 to 59 seconds for close time delay. Timer can be used as a secondary closing command for a down loop. Timer countdown starts when arm has fully raised. Down loop activation will cancel timer and lower arm OR arm will lower when timer has timed out.

8	Up Loop Port Input	OFF	Output of the loop detector plugged into the UP loop port is switched to terminal 7 for connection to other input terminals.
		ON	Normal setting. Output of the loop detector plugged into the UP loop port will raise arm when activated.

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 DIP-Switches



SWitch	Function	Setting	Description
1	Model 1603	OFF	Switch must be OFF for model 1603 barrier gate operator.
2	Multiple Input Memory ON/OFF Switch	OFF	Normal setting. Operator will respond to a single UP command, then require a DOWN command. Operator will not accept multiple Up commands. Operator will not accept the next UP command until the previous DOWN command is in progress.
		ON	Turns ON the multiple input memory option 1 or 2 (See switch 3). SW 1, switch 4 must also be on.
3	Multiple Input Memory Options (SW2, Switch 2 must be ON) (SW1. Switch 4 must be ON)	Option 1 (OFF Position)	Override a DOWN command -When the arm is in the up position for a vehicle passing through and the next vehicle's UP command is received, the operator will hold the arm up and wait for the next vehicle to clear the down loop before lowering the arm. The operator will not count multiple UP commands. Distance between access control device and barrier operator is a factor when using this option. Remote transmitters recommended for this option. See Installation/Owner's manual for more information.
		Option 2 (ON Position)	Override Multiple DOWN commands -The operator will count multiple UP commands received during an UP command and require a matching number of DOWN commands before lowering the arm. Distance between access control device and barrier operator is a factor when using this option. Remote transmitters NOT recommended for this option. See Installation/Owner's manual for more information.
4	Stop Arm Function	OFF	Normal setting. Arm will NOT stop DURING the down cycle.
		ON	Stop Arm Function -Arm will stop DURING the down cycle if a vehicle activates the down loop. An UP command will raise the arm, or the arm will continue down AFTER the down loop is cleared.
5	Reverse Delay	OFF	Arm reversal is delayed approximately .5 seconds when a reverse input from terminal 9 is received during the down cycle. (eg. non-contact sensor beam is blocked). Limited application use.
		ON	"Normal setting. instant Reverse -Arm reversal is approximately .1 seconds when a reverse input from terminal 9 is received during the down cycle. (eg. non contact sensor beam is blocked)
6	Arm Rotation Direction	OFF	Normal setting. Leave in OFF position.
	Warn Before Operate Beeper	OFF	Beeper will beep 2 times before lowering arm ONLY when the TIMER times out. If using a down loop, when it gets activated, it will cancel the timer and lower arm WITHOUT beeping.
		ON	Beeper will beep 2 times before lowering arm EVERYTIME.
8	Spare	OFF	Normal setting. Leave in OFF position.

Specifications:

- Model: 1603
 - Intended use: Barrier gates for vehicles
 - Spike sections maximum length: 9 feet
 - Power: 120VAC, 3.8 Amps, Single Phase, 60 Hz
 - Location: Inglewood, CA
-

FAQ:

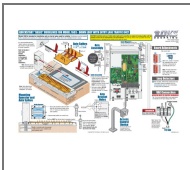
Q: Can the auto-close timer be used with down loops?

A: Yes, when switch 7 is turned on, the automatic timer can be set from 1-59 seconds to lower the arm automatically. Refer to the manual for more information on using the auto-close timer with down loops.

Q: What should be done if the spikes freeze in the up position?

A: Avoid installing or using the spike unit in areas prone to freezing weather with snow and ice accumulation. Freezing may cause unintended injury or damage due to the spikes' inability to retract.

Documents / Resources



[DKS 1603 Barrier Gate Operator Auto Spikes System](#) [pdf] Installation Guide
1603, 1603 Barrier Gate Operator Auto Spikes System, 1603, Barrier Gate Operator Auto Spikes System, Gate Operator Auto Spikes System, Operator Auto Spikes System, Auto Spikes System, Spikes System, System

References

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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