

SURFACE MOUNT STAND-ALONE TRAFFIC SPIKE SYSTEM Mounted on Concrete Surface



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

Safety Information

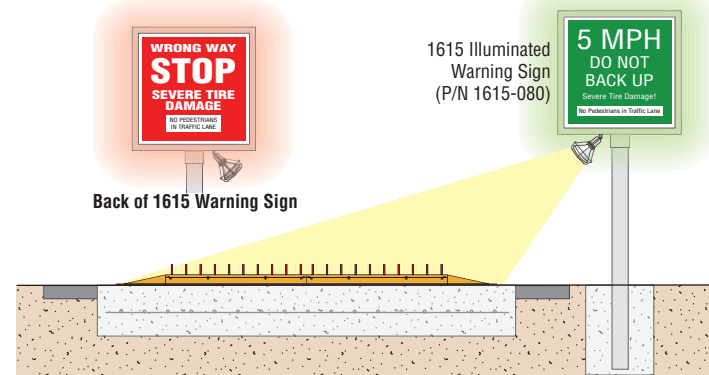
PLEASE READ THIS FIRST

Traffic spikes are not intended for use on high stress facilities such as hospitals, emergency rooms or busy roadways where vehicular traffic is traveling at full speed. **Traffic spikes should only be used in a parking situation or other areas where traffic can be slowed to a maximum of 5 miles before crossing the traffic spikes.**

Failure to follow these guidelines may result in bodily injury, vehicle damage and extreme wear and tear on hardware.

Identify Spikes to Vehicular Traffic

It is extremely important that traffic spikes are installed in an area that is illuminated and clearly marked with warning signs (DoorKing's model 1615 illuminated warning sign kits).

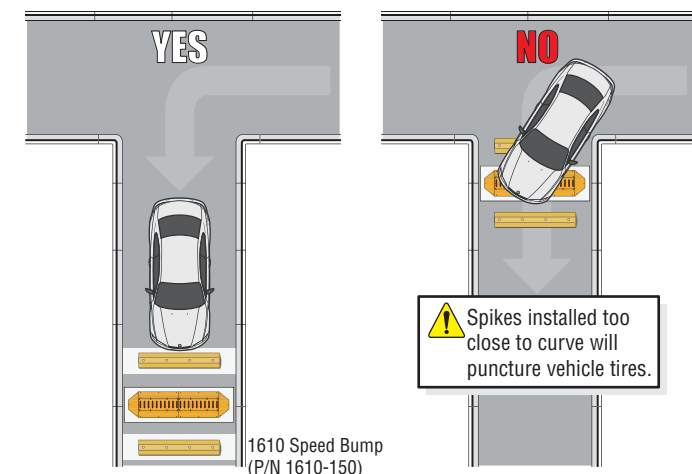


Additional lighting, warning signs and pavement markings can be used to increase awareness for potential danger and to separate pedestrians from vehicular traffic.

Control Vehicular Traffic

Traffic must be slowed to a **cautious speed** prior to crossing the traffic spikes to avoid accidents and excessive wear and tear on hardware. Speed-bumps may be installed where additional speed control is desired, which also serves to prolong the life of the traffic spikes (see 1610 speed bump for concrete surfaces).

Traffic spikes must always be installed at a 90° angle, never installed in blind spots, corners, curves, (enough straight-away must be available to allow vehicles that have just completed a turn to straighten out and approach the spike system **perpendicular** to the spikes).



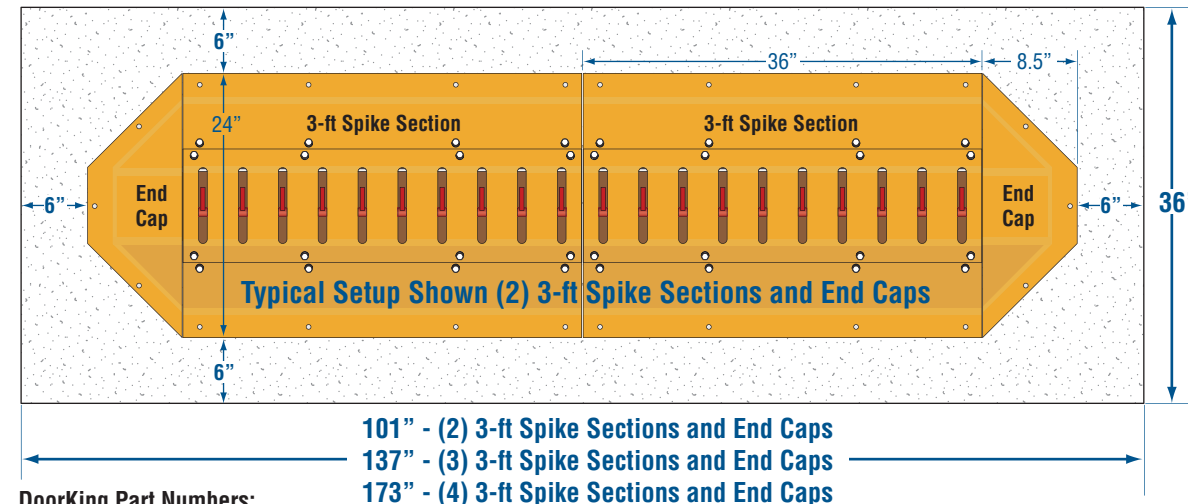
Traffic spikes must be installed on a flat-level concrete surface avoiding bumps or dips including uphill or downhill slopes minimizing the possibility of water draining into the spike assembly. Asphalt, brick, dirt, gravel or worn out concrete are not appropriate installation surfaces. **If traffic spikes are needed in an area that has an inappropriate road surface, a leveled concrete pad must be laid out covering the entire spike area.**

Regular Maintenance of Spike System

Regular inspection and removal of dirt, debris, gravel, and rock is required in order to keep traffic spikes functioning properly. **Neglecting to regularly clean dirt and debris from inside traffic spikes is the number one cause of excessive spring breakage and traffic spike malfunction.**

Installation

Minimum Concrete Pad Size Spikes **MUST** be anchored to a concrete surface. If you do not have a concrete surface, you will need to create a concrete base before installing the surface mounted spikes. **Asphalt, brick, dirt, gravel or worn out concrete are not appropriate installation surfaces.**



DoorKing Part Numbers:

P/N 1610-086:

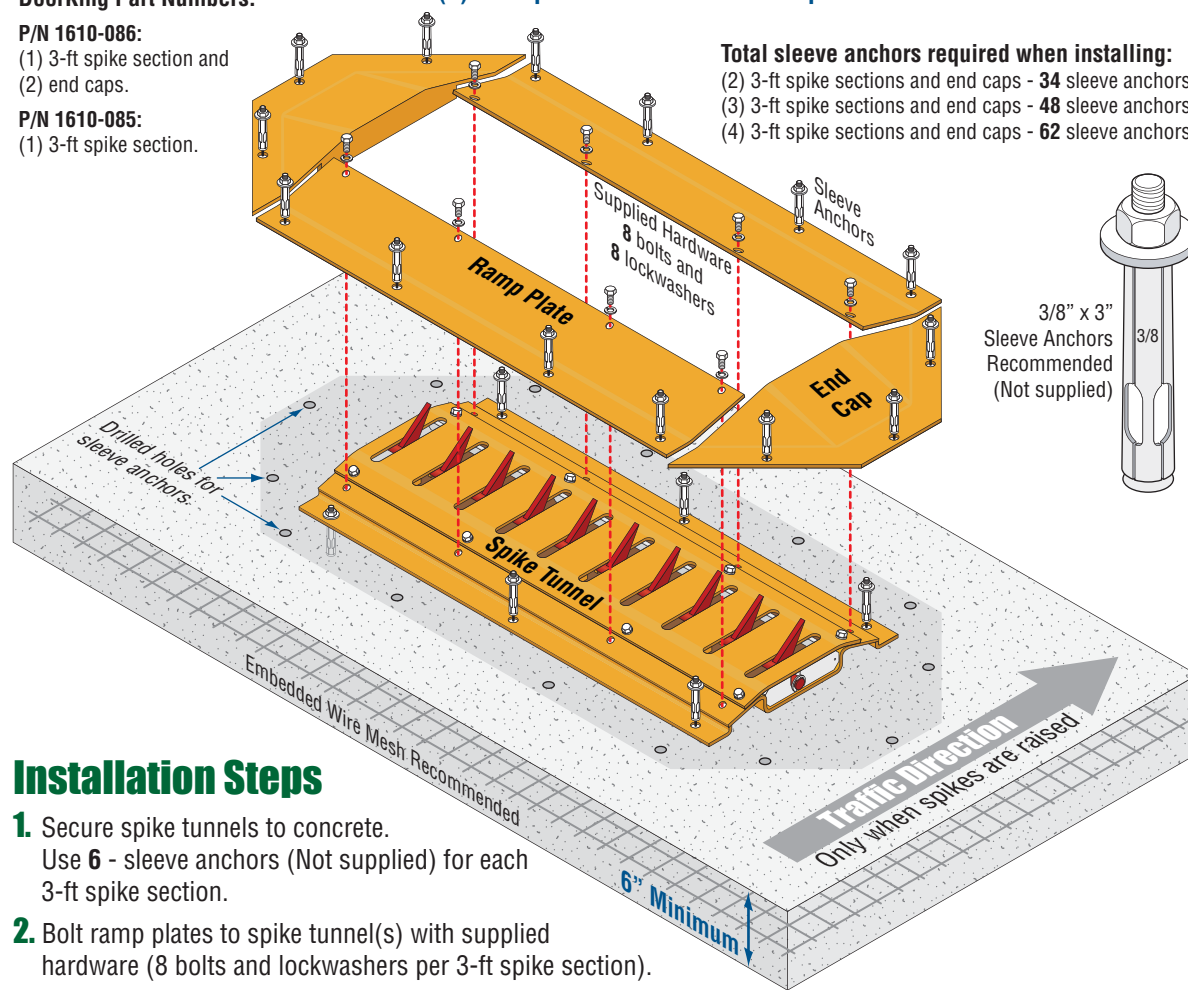
- (1) 3-ft spike section and
- (2) end caps.

P/N 1610-085:

- (1) 3-ft spike section.

Total sleeve anchors required when installing:

- (2) 3-ft spike sections and end caps - **34** sleeve anchors.
- (3) 3-ft spike sections and end caps - **48** sleeve anchors.
- (4) 3-ft spike sections and end caps - **62** sleeve anchors.



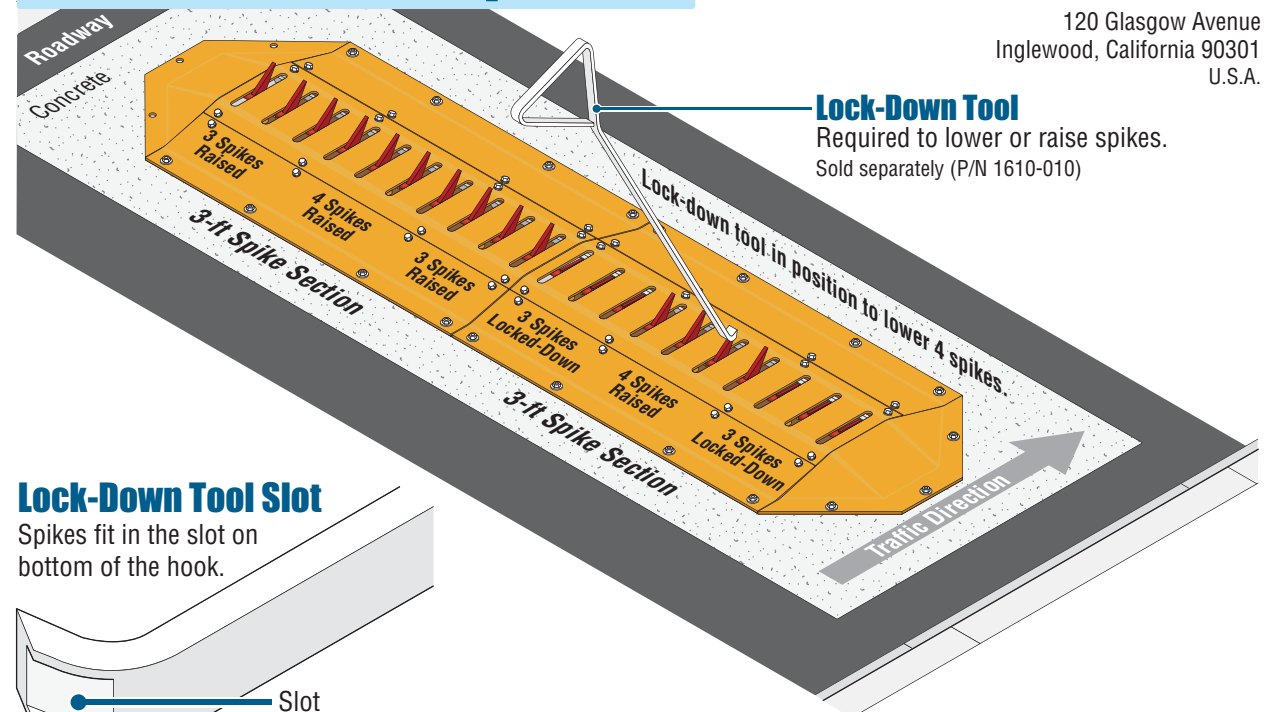
Installation Steps

1. Secure spike tunnels to concrete. Use **6** - sleeve anchors (Not supplied) for each 3-ft spike section.
2. Bolt ramp plates to spike tunnel(s) with supplied hardware (8 bolts and lockwashers per 3-ft spike section).
3. Secure ramp plates to concrete. Use **8** - sleeve anchors (Not supplied) per 3-ft spike section.
4. Secure two end caps to concrete. Use **3** - sleeve anchors (Not supplied) per end cap.
5. Cut off the excess threads on all the sleeve anchors flush with the top of the nuts. File them if necessary to make them smooth.



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Lower or Raise Spikes



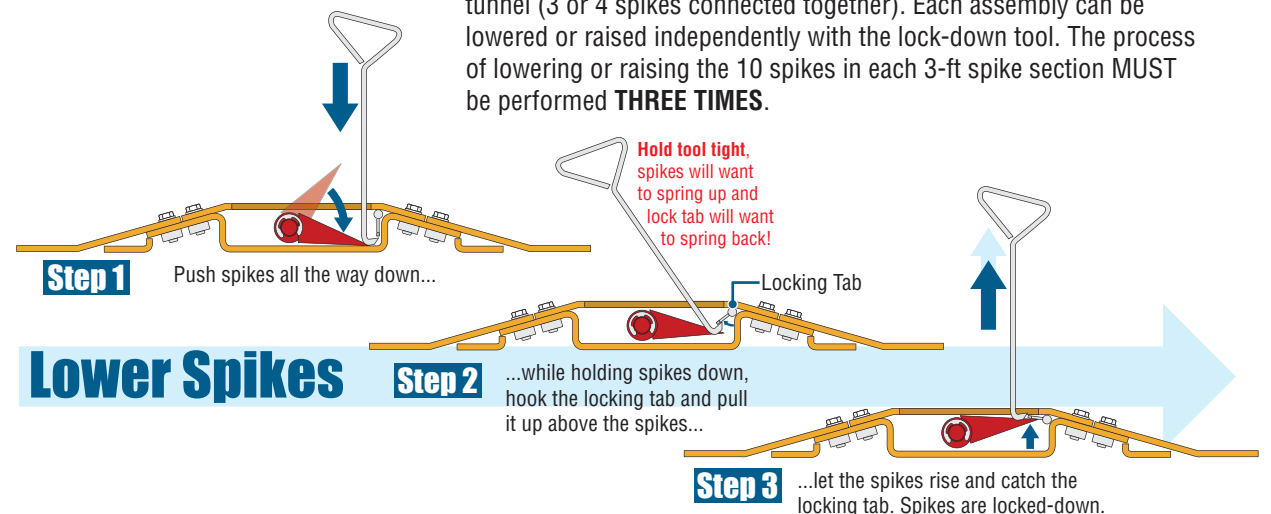
Lock-Down Tool
Required to lower or raise spikes.
Sold separately (P/N 1610-010)

Lock-Down Tool Slot

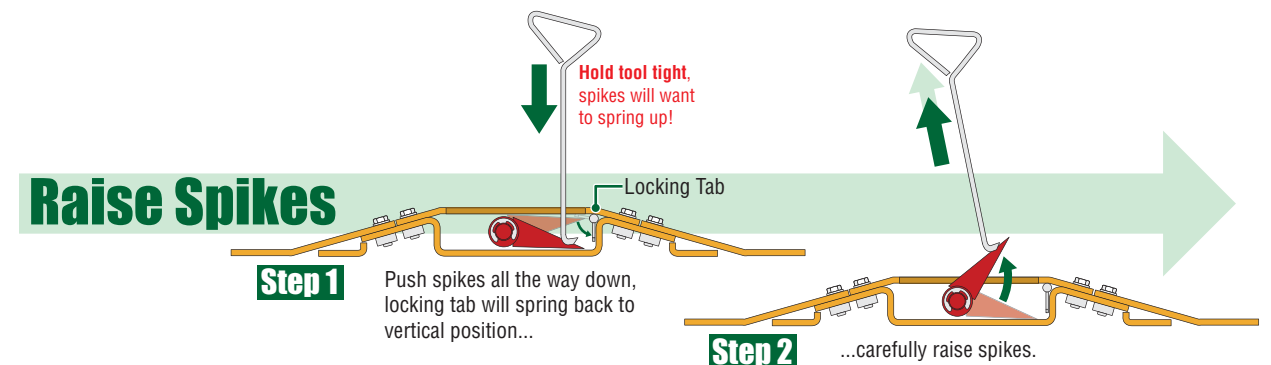
Spikes fit in the slot on bottom of the hook.

How Lock-Down Tool Functions

Each **3-ft spike section** has **3 separate spike assemblies** in the spike tunnel (3 or 4 spikes connected together). Each assembly can be lowered or raised independently with the lock-down tool. The process of lowering or raising the 10 spikes in each 3-ft spike section **MUST** be performed **THREE TIMES**.



Lower Spikes



Raise Spikes

Important Maintenance Information:

When disassembling the spike tunnel to clean out debris that will build up over time, pay attention to the orientation of the springs for the spikes and locking tabs. They **MUST** remain in the factory installed orientation or the spike system **WILL NOT** function correctly.

1610-066-A-8-10