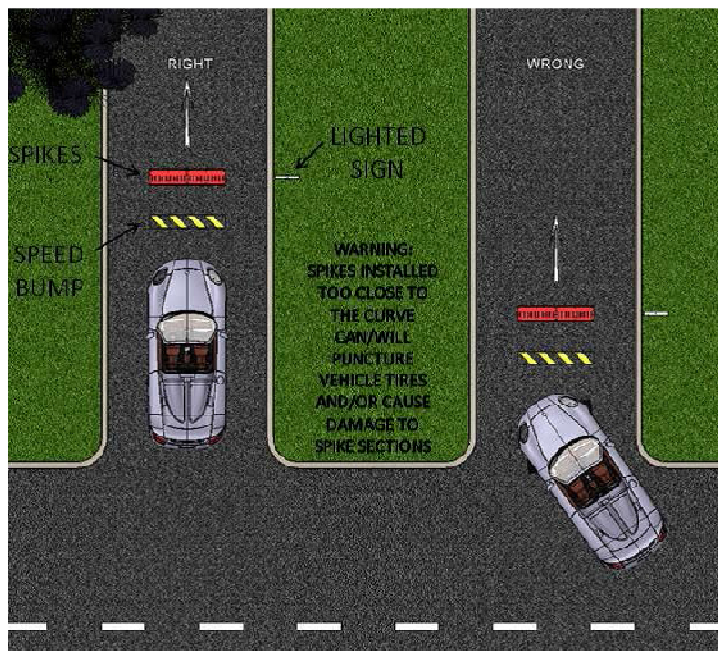


RB72-3 HD Flush Mounted Directional Traffic Spikes Installation and Operating Precautions



1. Install the Directional Traffic Controller perpendicular to the flow of traffic. If vehicles cross the controller at an angle other than 90 degrees the spikes may cause sidewall damage to the tires. Check all bolts to insure none have loosened during shipping, and tighten as necessary. LocTite is recommended for final installation.
 - Crossing the controller at other than 90 degrees or turning directly over a controller can cause damage to the units, tread or sidewalls of vehicle tires.
 - Proper selection and placement of the controller or the use of boundary posts, curbs, etc. that can prevent turning or crossing at other than the required 90 degrees is strongly recommended.



2. The maximum suggested speed vehicles may cross the controller is 5 MPH. Excessive speed will cause increased damage to the spikes and and/or broken springs will result from speed in excess of 5 MPH.
 - Speeds above 5 MPH across the directional controller can result in unit, tread or sidewall damage.
 - Speed can be controlled by properly designed speed bumps, signs, signals, etc.

3. The Directional Controller should be installed in a location where the least amount of water will drain into the unit. Be sure there is adequate drainage under the unit for water runoff.
4. Install the Directional Controller on a level area to prevent vehicles from rolling back onto the controller and causing tire damage.
5. Keep pedestrians away from the area of the Directional Traffic Controller.
 - Proper site selection, cautionary signs, pedestrian barriers, raised walls are some means of limiting pedestrian access to the area of the controller
6. Routine maintenance should be performed periodically to ensure that all bolts are tightened and debris is not accumulating in the unit and that water is draining properly. **Excessive debris may also prevent spikes from moving freely in the frame and causing damage to the unit and possibly to tires.**
 - Important in the proper continued operation includes checking and clearing debris that might have accumulated in the unit.
 - During the first 60 days of operation – weekly inspection should be conducted. Thereafter, monthly or as needed.
7. Signage is recommended at each installation of a Directional Controller. Recommended signage should read as follows:

**DO NOT BACK UP – SEVERE TIRE DAMAGE
SPEED LIMIT 5 MILES PER HOUR
NO PEDESTRIANS IN TRAFFIC LANE**

SPRINGS - TESTED at 100,000 HITS (AT 5MPH) (5MPH IS INDUSTRY STANDARD)

Load Rated: 40,000 lbs/20 Tons per single axle load

WE HAVE PARKING FACILITIES THAT HAVE 380+ CARS A DAY FOLLOWING THE 5 MPH RULE AND FOR 5 YEARS HAVE NOT HAD A SINGLE BROKEN SPRING

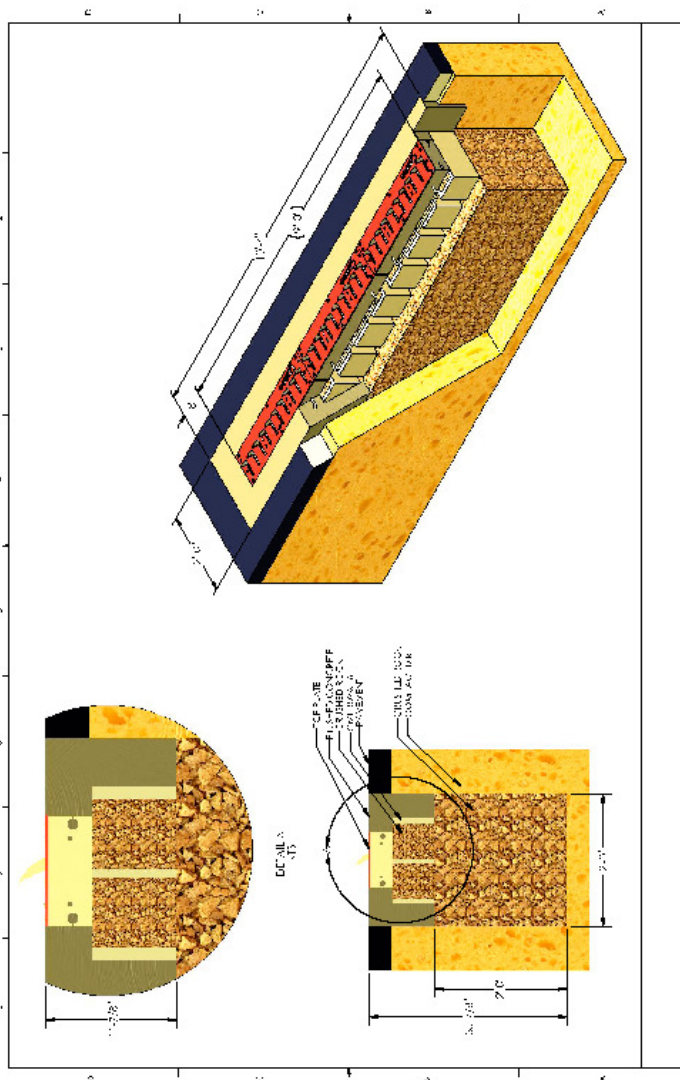
TEETH - 3 SPECIFICALLY DESIGNED BLADES ARE WELDED TO A 3/4 ROUND STEEL ROD. TEETH ARE 3/8 THICK WITH A CUTTING EDGE AWAY FROM NORMAL TRAFFIC.

TOP PLATE- A PRECISION CUT HD 1/2 INCH THICK

A COUNTER BORE IS MADE IN THE TOP PLATE FOR THE BOLTS TO SIT BELOW THE SURFACE

MANY SYSTEMS CLAIM TO BE FLUSH, BUT LEAVE THE BOLTS EXPOSED AND RAISED ABOVE THE TOP PLATE. THE RB72-3 IS A TRUE FLUSH MOUNT WITH NO RAISED BOLT HEADS

There are several ways to install in ground units. This is an example of a simple in ground install using CMU blocks, crushed rock and concrete.



1. **Excavate the placement area 24 to 48 inches deep (depending on drainage needs in your area) by at least 12" longer and 8" wider than the units you are installing.**

2. **Fill the excavated area with size 1-1/2" to 2-1/2" crushed rock for drainage, compact and level to approximately 12" below the road surface.**
3. **Position the 8" CMU Hollow web cement blocks in the rock bed as shown in the drawing below as a base to support the traffic spike units and allow drainage. Use at least three 8" CMU blocks per 36" section of spikes. Fill in between and in the hollow areas of CMU blocks with 3/8" to 3/4" crushed rock.**
4. **Place the spike units on top of the CMU blocks making sure the top of the top plate of the units is flush with the pavement surface.**
5. **Make sure that the teeth are orientated the correct way for the intended direction of traffic flow.**
6. **When satisfied with the placement, orientation and positioning, place 3500 to 4000 psi concrete around the perimeter of the units until flush to the road surface.**
Note: Do not pour or allow concrete in the inside the spike housing. Use tape to cover all spike paths and latch down slots to protect. Do not pour concrete in to the gravel filled hollow areas of the CMU blocks. Doing so will restrict the water drainage.
7. **Always use traffic spike warning signs**
8. **Speed limit when crossing any traffic spike controller is 5 MPH. Use speed bumps to slow vehicle speeds to the recommended 5 MPH.**

