# SPIKE-BELT TIRE DEFLETION SYSTEM

By Spike Strip mfg. makers of the Spike - Devil





### **USER ACCEPTS LIABILITY**

All departments should have a policy before they use Spikes. It can be a very simple document and it can borrow from State Procedures on pursuits.

In the following classroom pages, Spike Strip Mfg. describes the overall and basic use of the spike System, and saves the hands on use for outdoors in a parking lot.

These pages discuss protective cover, and concealment, proper set up at the deployment site, and how to inspect and service your equipment.

We recommend you follow along in the training manual, however note that any sections marked (inst) are special instructor aids which are not covered in the manual. This is reserved for you to explain your recommended deployment locations and methods. If you are self taught then this portion will also apply to you, and help you develop a deployment stratagy.

### RESOURCES

Departmental supervisors must train on the proper use of the product and include departmental use of force, pursuit policies and policies on Pursuit termination devices.

Spike-Strip mfg offers Training Manual downloads, videos, photos and illustrations, at www.spikedevil.com and www.spikedevil.net

The Spikedevil.net site is a training site with the manuals on line and navigable in the field from a smart phone. All images can be downloaded, and the illustrations' are all pdf for PowerPoint.



#### TRAINING OVERVIEW

A complete Spike training should provide an officer a classroom introduction to tire deflation devices, with your departmental policies regarding the use of such a device.

Spike-Strip mfg. also recommends two methods of hands on training a basic training can be conducted in a parking lot and a more advanced training on a closed road we call Track Training.

### **CLASSROOM TRAINING**

A Spike class should provide an officer an introduction to the safe use of tire deflation devices, and your departmental policies regarding the use of such a device

### **PARKING LOT TRAINING**

Your Spike-Belt system can be used for training purposes in a parking lot. In the tabs labeled Parking lot training, we go over the basic operation and inspection in a series of Training scenarios. You can train in a Church parking lot, school parking lot, undeveloped street, or any area which is not in active use and can be closed or secured.

### TRACK TRAINING

A more advanced training method can be conducted on a roadway with moving cars and special un-spiked system. In the tab labeled Track Training we go over the methods, objectives and tips on conducting such a class.

### **CLASSROOM TRAINING**

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The use of Tire deflation devices is very dependent on policy and circumstances. The Classroom portion is where we study the effective and safe use of the product within the guidelines of our departmental policy. As an instructor it will be your responsibility to provide training for your officers which includes several important documents.

These resources can be used together and on this website we have extra training just for instructors not found in the manual.

# APPROVED DEPLOYMENT LOCATIONS

Know the traffic scenarios in your area and those favorable for deployment of tire deflation devices. Not all pursuits are favorable for use Tire deflation devices.



Use internet mapping software to look at these locations and document the scenarios and how it might affect cover and deployment.

Take a close-up look of the deployment site and discuss the safe locations to use. Understand the traffic scenarios and how it might affect your deployment. Consider, Traffic, lanes, direction of travel, opposite direction travel.

### **COVER VS CONCEALMENT**

When tasked to deployment a system you should know the difference between concealment and cover. In these example pictures and in the training video we are going to show you samples of both and describe them to you using simulated scenarios.

#### HIGH RISK DEPLOYMENT

A high visibility deployment is where a patrol car, the officer, and the system are used in a manner where they have a visible presence to traffic. High visibility deployments can provoke and adverse reaction by the target vehicle, and should be considered high risk. Spike Belt and other systems which are tossed into traffic can be high risk when due to a mid-air deployment.

#### CONCEALMENT

In the Spike Devil video the officer is able to see the orange Challenger before the curve, he spikes the Challenger as it comes out of the curve.





The curve provides concealment and the physics of the vehicle in a curve gives the deployment officer an added margin of safety. This is an example of concealment and low visibility; however, it is not protective cover.

### **PROTECTIVE COVER**

Protective cover requires bridges, guard rails, concrete barriers and other solid objects that can stop a car.



Just beyond the curve, is a concrete wall, large poles and pipes which can be used for protective cover.



In this picture you can see a bridge and a ravine. This Community has several ravines and bridges; they were approved as safe deployment locations. Some provide cover to the front and back of the officer.





Pre-planned deployment sites serve as Landmarks for officers in pursuit. The officers can identify these locations and slow down and give room for deployment and recovery of the Spike Belt.

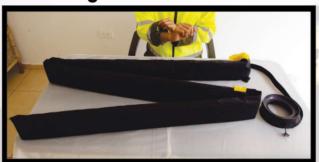
### DEPLOYMENT LOCATION NOTES

### **SPIKE-BELT DESCRIPTION**

Spike-Strip mfg. manufactures several types of tire deflation systems for use by Law Enforcement. Spike-Belt is our disposable double sided system.



All Spike-Belt Systems include a winder and a deployment sleeve and several spikes strips. Also included with each system is training manual.



The Spike-Belt device consists of winder and a series of Strips inside a deployment sleeve. The Belt allows for the device to collapse and fold up and be stored when deployed, allows it to expand in an extended fashion across the roadway.

The Spike Belt is available in 9 foot and 12 foot models.



The Spike-Belt is attached to a winder with 80 feet of braided cord. The winder allows the officer to adjust and recover the Spike-Belt from a remote location

### WHATS INSIDE

The Spike-Belt is designed to tossed into traffic and self-right, or fall on one of two flat sides. Spike-Belt's Strips are double sided and present Spikes Point up every time.



Each Strip is loaded with double sided hollow Spike's. The Spike provides a controlled deflation. The strip facilitates the reload of the Belt by the user for future use

#### **HOW IT WORKS**

Multi-sided systems depend on the road surface to provide compression between the ground spike and the tire.



The compression tilts the strip, and pushes the spike through the tire. The Strip collapses and is damaged.

Notice the spikes outside the tire, and how they penetrate straight into the tire.



Tilt technology is now available in a multisided system.

Spike Belt does not work on rough, bad, or un-improved road surfaces, like gravel and dirt; our Spike-Devil is an all-terrain type system.

### **HOW IT DEPLOYS**

Notice the Winder is in one hand and the Strip in the other hand. Regardless of the winder you use, it should be held by your non dominant hand to facilitate proper use.



The Spike Belt includes 2 or 3 handles for deployment.

The loop winder has a beveled side and allows rope to be released when it is twisted sideways, towards the intended deployment area.



### SPIKE-BELT

# CLASSROOM

You can also point the beveled side down and release cord before deployment. Control the release with your thumb or by twisting back.



When the loop is twisted back, it catches the cord and allows you to pull the system in place or retrieve the system from traffic.



Cord Reel models require you open the crank to allow the cord to release.

The Spike-Belt deploys and is righted as it expands and opens up in the roadway.

For more info on Loop Winder operation go to <a href="http://www.spikedevil.com/loop-winder/">http://www.spikedevil.com/loop-winder/</a>

For more info on Cord Reel operation go to http://www.spikedevil.com/cord-reel/

#### **DEPLOYMENT BY THROWING**

With the Strip in your hand, posture your body in a low stance, by spreading your legs by stepping one leg back and practice with a swinging motion, and letting go.



### **DEPLOYMENT BY PULLING**

Spike-Belt device can be pulled open across the lanes of traffic by use of the winder.



Place or throw the Spike-Belt device on the other side of the road

### SPIKE-BELT TIRE DEFLATION SYSTEM

# CLASSROOM

When positioned behind cover, the Cord-Reel crank should be in the locked position.



Loop Winder twisted back Like show. Traffic can pass over the rope.



When traffic is clear, and before the suspect vehicle arrives, pull the unit across the roadway into the path of the target. After the spike unit is run over, remove it from traffic with one quick, hard pull on the spool.

#### **STANCE**

The stance places your body in an orientation where it can see three important areas.

- 1) Facing traffic, target and pursuit vehicles.
- 2) The deployment area.
- 3) the path to seek cover.



When used to deploy it serves as a way of counting your steps to accurately position the system in the traffic lanes. (very useful at night)



When used to seek cover it prevents the officer from backing up and tripping over something.

### PARKING LOT TRAINING

Have each officer pair off with another officer and practice with the department issued spike system.



#### **HANDLING**

The goal is to become familiar with the system, it's handling, how to inspect the system, and basic traffic scenarios.



Vehicles are set up to simulate traffic scenarios. Vehicles parked can represent traffic lane.

Were ready to the practice deployments, learn how your winder type works throwing and or pulling by simply conducting a series of practice deployments.

Begin a series of deployments into specific lanes, Deployment into the specific lane is easy during daylight, but not at night.



#### **ROADWAY WIDTH**

Practice counting your steps to develop skills, which might help at night. Here the system is pulled into the far lane.



A few more steps and we deploy into the close lane, then finally recover the system. Practice on your own developing skills.

### SPIKE-BELT TIRE DEFLATION SYSTEM

### TRACK TRAINING

You can practice with moving vehicles, to accomplish timing in traffic scenarios, Spike-Belt training units allow you to practice deployment on moving vehicles without damaging tires.



Shown above is such a scenario. The Training units are deployed on the lead vehicle and retrieved before the patrol car arrives.



A more difficult scenario places a third vehicle in traffic, and requires you to spike the target vehicle without effect on the other vehicles.

Here are some Ideal locations to teach such a class. Empty school parking lot, like a sports complex can provide such a location. A dead-end road is another location however turning vehicles around might slow down the class. This parking lot has long straight roads, where high speeds can be obtained, this is an ideal spot.

### **VEHICLE SEQUENCE**

The moving vehicle will traverse the location of the training units and then return from a different direction. This allows the officer to practice with different type traffic scenarios.



You should first practice pulling the unit into place and retrieving the belt from the road.

### **OFFICER SEQUENCE**

Start slow with officers, stress cover and proper handling of system. Make sure they keep the winder out front and deployment by walking onto the roadway.

Do not grab the Cord to handle system.

# SPIKE-BELT TIRE DEFLATION SYSTEM

### PRODUCT SERVICE

After the system has been used, it should be carefully inspected and new Spike Belt Re-built. The sleeve must be opened and inspected for damaged and good sections.

#### **INSPECT**

When inspecting the Spike-Belt, open the deployment sleeve by disconnecting the winder.



#### **STRIP REPLACEMENT**

When the system is hit one or more sections might need to be replaced. In this case the spikes push through the Strip, and the deployment sleeve and damages both.



Take out the damaged strip(s) and set them aside. Save the good Strip to assemble into a new deployment sleeve to build your new Spike Belt.

### DO NOT REUSE THE DAMAGED SLEEVE DO NOT DEPLOY WHITHOUT SLEEVE



Replace the good strips into a new sleeve. Re-connect the winder to the sleeve.

Wind up the Cord-reel and inspect the reel via the mouth to assure it is properly wound up and has no debris.

Deploy the unit to test that the system is properly assembled. With the Spike-Strip expanded, and retrieved it should test that the spike strips are in place and the sleeve fastened to the cord reel.

#### **TRAINING UNITS**

The old sleeve can serve as a training sleeve. Old Strips can be used as trainers if Spikes are pulled.

To depose of the strips, read on the label for recycling instructions.

# SPIKE-BELT

### **WARRANTY & PARTS**

Spike-Belt tire deflation devices are fully warranted to be free of defects in material and workmanship for life, to the original purchaser. Defective parts will be replaced or repaired free of charge.

This limited lifetime warranty also includes free replacement of sections damaged in a pursuit for a period of 4 years. We ask for a case number and date of pursuit and pay a small handling fee. We also offer a lifetime of replacements parts when used in a pursuit for discount off list price. Spike Strip mfg offers free updates on products, when used systems are replaced with the new updates at no charge

**360090** 9 Foot Spike Belt System with Loop Winder

**360095** 9 Foot Spike Belt System with Cord Reel

360120 12 Foot Spike Belt System with Loop Winder

360125 12 Foot Spike Belt System with Cord Reel

#### **ACCESSORY AND LIST**

The Spike-Strip Spike-Belt 9 foot and 12 models both use the same parts.

#### STRIPS AND ACCESSORIES

#### **CORD-REEL AND LOOP WINDER**

1602 CORD-REEL SB

**1660** LOOP WINDER

#### SPIKE-BELT STRIPS

**36500 STRIP 3** Foot Replacement Strip

36609 9 - foot deployment sleeve

**36612** 12 - foot deployment sleeve

Replacement parts after 4 year warranty. When used in a pursuit.

1 Deployment sleeve

1 Deployment sleeve + Strip

1 Deployment sleeve + 2 Strips

### CALL 830-899-4575