

## Target Impact Signal System I

### Introduction

Congratulations on your purchase of Target Impact Signal System I unit. Please read this literature and set up your system, and test before going to the range. If you find that you have a problem it will be less stressful to fix it before you are at the range.

You will find that the applications and uses for the Target Impact Signal System I unit are only limited by your imagination. This durable target system is adaptable to many types of shooting; pistols, rifles, and shotguns. It has an easy setup and can save shooters many steps on the range replacing targets or spotting hits and misses. The Target Impact Signal System I unit can give your target shooting the high tech electronic capabilities that are now in use by the U.S. military, Department of Energy, and commercial and law enforcement shooting ranges. Since you are shooting with live ammo using Target Impact Signal System I unit, it gives more realistic training regardless of how the Target Impact Signal System I unit is deployed. And the “blast” of light can simulate return fire.

### Set Up

#### 1. Assembly of the Signal Unit

Slide the Accessory “Hot” Shoe onto the base of the Signal Unit. Install the Mini Flexi Pod to the Accessory Shoe, tightening the Mini Flexi Pod, turn clock-wise to tighten, counter clock-wise to loosen.

#### 2. Installation of Batteries.

Your Target Impact Signal System I unit is supplied with two (2) AA Alkaline batteries. First clean the battery terminals by rubbing both ends with a clean rough cloth, for best electrical connection.

Make sure the power switch is in the OFF position.

Make sure the TARGET CABLE is not attached to the Target Impact Signal System I unit.

Slide the battery door open of your Target Impact Signal System I unit, in the direction of the indicator arrow. Once the door is open and place batteries in the cavity, be sure that you note the battery placement, indicated on the Red and Black label in the cavity.

Replace the battery door to its closed position.

Move the power switch to the “ON” position. You will hear a faint hum. This is normal. After several seconds, the ready light will glow Red, indicating that the strobe unit is ready to fire.

Press the test button. The strobe unit will fire. This should be done two to three times in succession if your Target Impact Signal System I unit has not been used for some time. This will “form” the capacitor for the blast of light.

When the batteries become weak, the time for the test-ready button to illuminate will increase. If the test button fails to illuminate after 30 seconds, replace the batteries.

Always remove the batteries, if you do not plan to use your Target Impact Signal System I unit within the next 1 to 2 weeks. It is best to always remove the batteries; sooner or later all batteries will leak. If the batteries leak and damage the Signal Unit, it will **VOID** the **WARRANTY**.

For other battery options see section **BATTERIES**.

### 3. Installation of Target Box, and Target Cable.

Select a place on the non-impact side of your target, roughly in the center of mass of your target, be sure it is dry, and free of grease and grime. Remove the “white” protective liner. Firmly press the adhesive side to the back of your target, so when the Target Box is mounted, output connector is pointed down. By mounting the Target Box in this manner, if the weather is damp, water will not be able to short out the motion sensor. Press the Target Box on the selected Velcro mount. Once again it is highly recommended you place the place the box in the approximate center of the target, with the *Output* connector pointing down. The Target Cable assembly that is supplied with your Target Impact Signal System I unit has two different size plugs, a 2.5mm plug that is to be inserted in to the Target Box, and a 3.5mm plug, identified with a **RED** band, to be inserted into the side of the Accessory “Hot” Shoe. Insert the proper plug of the Target Cable into the Output connector of the Target Box. How is the time to think about how the Target Cable is going to “run” to the Target Impact Signal System I unit? Using the supplied adhesive backed cradle mounts and cable ties, attach the Target Cable in such a way that it is protected from bullet splatter. (Down load drawing number 002-TISS-SK, this will give you information on how to protect the Target Cable from getting bullet splatter damage. You can obtain additional pieces of Velcro mounting strips from Equu-Pulse Company/Spencer Instrumentation, Inc. (Order Number DK8-004)

Be sure your steel target has the appropriate thickness and hardness for the type and velocity of the ammunition you will be using so that your shots do not flex or go through target. Equu-Pulse Company/Spencer Instrumentation, Inc. recommends the use of 3/8 inch thick minimum, 500 Brinell hardness plate or 3/8 inch thick minimum, AR500. Equu-Pulse Company/Spencer Instrumentation, Inc. highly recommends that you do not use mild steel targets.

## Using Your Target Impact Signal System I

### 1. At the range

**NOTE!** Your Target Impact Signal System I Signal unit is **NOT WATERPROOF**; using this product in **wet** conditions may **VOID** the **WARRANTY**. Please see the documentation for Soda Bottle Umbrella, drawing number 001-TISS-SK.

Set your target at the desired distance.

Connect the Target Box to the Target Impact Signal System I unit, using the Target Cable. Always protect Target Impact Signal System I unit from being shot or being hit and damaged by bullet splatter. The Target Cable should be well protected from bullet splatter by running the TARGET CABLE through a piece of flexible electrical conduit, ½ inch metal pipe, or under a piece of iron channel, or it can be buried.

*IN ANY EVENT DO WHAT IS NECESSARY TO PROTECT YOUR Target Impact Signal System I SYSTEM FROM BEING DAMAGED.* Always place the Signal unit out of the flight path of your shot, and always behind the target, never in front of the target.

## 2. At home

The TARGET BOX can be attached to a cardboard or Masonite target and be shot at with BB guns, rubber band guns, slingshots etc. In any event do not use any projectile that will penetrate your target and damage the Target Box. Always wear eye protection when using any toy or weapon that can launch a projectile.

## Mode of Operation

The "ON" mode of the Target Impact Signal System I unit, will allow for a first bullet strike/flash in approximately 2 seconds. The time to the next bullet strike/flash less than 2 seconds. In this mode the electronics will provide a full discharge blast of light, which will be visible to greater than 1000 meters (1093 yards).

## Warranty

Equu-Pulse Company/Spencer Instrumentation, Inc. warrants the Target Impact Signal System I unit to be free from defective materials or workmanship for life of the product. Providing that any of the parts of the system have not been abused, strobe unit, target box, i.e. no bullet strikes.

All items returned to Equu-Pulse Company/Spencer Instrumentation, Inc. that have been subject to abuse, misuse damage or accident; have been connected, installed or adjusted contrary to the instructions furnished by Equu-Pulse Company/Spencer Instrumentation, Inc. or repaired by unauthorized persons will not be covered by this warranty.

**NOTE!** Your new Target Impact Signal System I unit flash unit is **NOT WATERPROOF**; using this product in **wet** conditions will **VOID** the **WARRANTY**. Please see the document for Soda Bottle Umbrella.

Equu-Pulse Company/Spencer Instrumentation, Inc. reserves the right to discontinue models; change specifications, price, design of this device at any time without notice and without incurring any obligation whatsoever.

The purchaser agrees to assume all liabilities for any damages and/or bodily injury which may result from use or misuse of this device by the purchaser, his employees, or agents.

Equu-Pulse Company/Spencer Instrumentation, Inc. shall not be liable in anyway for consequential damage resulting from the use of this device. With respect to component parts Equu-Pulse Company/Spencer Instrumentation, Inc. makes no warranty whether express, implied is statutory or otherwise included any warranty of merchantability and fitness for a particular purpose.

This warranty is in lieu of all other warranties, expressed or implied, and of all obligations or liabilities on part of Equu-Pulse Company/Spencer Instrumentation, Inc. No person or corporation is authorized to assume any liability on behalf of Equu-Pulse Company/Spencer Instrumentation, Inc.

Items not covered under warranty expressed by Equu-Pulse Company/Spencer Instrumentation, Inc. are Target Cables, batteries, or any item that has been struck by bullet fire.

## Repairs

To return the Equu-Pulse Company/Spencer Instrumentation, Inc. for repairs simply ship the unit back to Equu-Pulse Company/Spencer Instrumentation, Inc. with a check in the amount of \$25.00 to cover the cost of handling and return shipping. Units will be repaired and returned to you as quickly as possible. If for any reason your unit can't be repaired, Equu-Pulse Company/Spencer Instrumentation, Inc. will contact you, and you will be apprised whether the failure of your Target Impact Signal System I unit is covered under warranty.

Return repairs to either of following address:

Spencer Instrumentation, Inc.  
17286 Citron  
Irvine, CA. 92612

Phone: 949-786-4011

Email: [bspencer@spencerinst.com](mailto:bspencer@spencerinst.com)

Web site: [www.targetimpactsignal.com](http://www.targetimpactsignal.com)

Equu-Pulse Company  
6149 Royal Acorn Place  
San Jose, CA. 95120

Phone 408-626-9360

Email: [equupulse@gmail.com](mailto:equupulse@gmail.com)

## Other Products

TISS I	Order Number DK8-001-I
TISS II	Order Number DK8-001-II
TISS III	Order Number DK8-001-III
Target Box	Order Number DK8-002
Target Cable, 10ft	Order Number DK8-003-10
Target Cable, 20ft	Order Number DK8-003-20
Target Cable, Custom length	Order Number DK8-003-XX
Target Splitter Box	Order Number DK8-004
Velcro Mounting pads	Order Number DK8-005 (Package of 5 sets)
Cradle Mounts w/ Cable ties	Order Number DK8-006 (Package of 10 sets)
Strobe Mounting Rod	Order Number DK8-007
Wireless Transmitter/Receiver	Order Number DK8-010

## TROUBLE SHOOTING

No blast of light when target is hit:

Check the strobe unit to make sure that the power switch is in the ON position.

The Target Box may have been damaged.

The Target Cable may have been damaged.

Check for low voltage of the batteries. Press the test-ready button, the flash unit should fire. If the unit does not fire, replace the batteries with fresh batteries, if your unit still will not flash when the test-ready button is pressed, please contact Equu-Pulse Company/Spencer Instrumentation, Inc. for evaluation.

## **BATTERIES**

Non-rechargeable has a finite life. The batteries chemical makeup and capacity, as well as the power consumption of the device it's used with determine the battery's life. Alkaline batteries are the most popular. Super alkaline batteries last longer than standard alkaline batteries in high-drain applications such as this. There are re-chargeable alkaline are available and can re-charged up to 25 times. They feature longer-lasting charges and are more environmentally friendly than NiCad batteries.

Rechargeable batteries can be charged repeatedly, making them good economical alternative to disposable batteries. Nickel cadmium (NiCad) batteries can be recharged hundreds of times. To maintain maximum storage capacity, batteries should be completely drained before recharging.

Nickel metal hydride (NiMH) batteries can be recharged up to a thousand times and are more environmentally friendly than NiCad batteries. Recharging the batteries without completely draining them does not affect their storage capacity.