Introduction

Congratulations on your purchase of TISS I (Target Impact Signal System I) unit. You will find that the applications and uses for the TISS 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 TISS 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 TISS I unit, it gives more realistic training regardless of how the TISS I unit is deployed. And the “blast” of light can simulate return fire.

SET UP

1. Assembly 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 TISS 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 TISS I unit.

   Slide the battery door open of your TISS 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 TISS 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 TISS 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.

Place the TARGET BOX on the non-impact side of your target, by removing the “white” protective cover. Place the Target Box on the non-impact side of your target, be sure it is dry, and free of grease and grime. It is highly recommended you place the box in the approximate center of the target, with the Output connector pointing down. How insert one of the plugs 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 TISS 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 metal target is the appropriate thickness and hardness for the type and velocity of the ammunition you will be using so that your shots do not go through target. Equu-Pulse Company/Spencer Instrumentation, Inc. recommends the use of 3/8 inch thick, 500 Brinell hardness plate or 3/8 inch thick AR500. Equu-Pulse Company/Spencer Instrumentation, Inc. highly recommends that you do not use mild steel targets.

**USING YOUR TISS I UNIT**

1. At the range

   **NOTE!** Your TISS 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.

   Place the TISS I unit out of the flight path of your shot, and always behind, and to the side the target, and never in front of the target. **IN ANY EVENT DO WHAT IS NECESSARY TO PROTECT YOUR TISS I SYSTEM FROM BEING DAMAGED.**

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 TISS 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 TISS I unit to be free from defective materials or workmanship for a period of one year from date of purchase.

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 TISS 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 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 TISS 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  
Web site: www.targetimpactsignal.com

Equu-Pulse Company  
950 S. McGlincy Lane, Unit 303  
Campbell, CA. 95008  
Phone 408-626-9360  
Email: smeci@earthlink.net
OTHER PRODUCTS

Signal Unit          Order Number DK8-001-I
Signal Unit          Order Number DK8-001-II
Signal Unit          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

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. There are re-chargeable alkaline available and can re-charged up to 25 times. They feature longer-lasting charges and are more environmentally friendly than NiCad batteries.

Revision F, July 25, 2013