



# Instruction Sheet

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## **TVB-1**

Test Verification Box

***Item 99-10721-01***

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Version 1.01

# TVB-1 Technical Specifications

Model	TVB-1	
Components	Resistor Specification	
120kΩ	2.5 KVAC / 50W / 1% +/- 50ppm	
2MΩ	3K VDC / 3W / 1% +/- 50ppm	
GENERAL		
Test Points	Test Condition	Specification
<b>PASS</b> ACW / DCW 2MΩ / 6W	<ol style="list-style-type: none"> <li>1. ACW: 1240V, 10mA or DCW: 2121V, 5000uA</li> <li>2. Maximum Voltage 2500V</li> <li>3. Test duty cycle, OFF time = ON time x 2</li> <li>4. Maximum ON time limit 30 seconds</li> <li>5. Recommended 2s ramp time</li> </ol>	2% of resistor value
<b>FAIL</b> ACW / DCW 120kΩ / 50W	<ol style="list-style-type: none"> <li>1. ACW: 1240V, 10mA or DCW: 2121V, 5000uA</li> <li>2. Maximum Voltage 2300V</li> <li>3. Test duty cycle, OFF time = ON time x 8</li> <li>4. Maximum ON time limit 5 seconds</li> <li>5. Recommended 2s ramp time</li> </ol>	2% of resistor value
Environment	32° F - 104° F (0° - 40° C)	
Dimension	7.3" (W) x 5.75" (L) x 2.95" (H) , 186mm x 146mm x 75 mm	
Weight	0.70 Kg, 1.55 lbs.	

## Symbol Explanation



Please refer to the instruction manual for specific warning or caution information to avoid personal injury or damage to the product.

S'il vous plaît se référer au manuel d'instructions de mise en garde ou information sur la prudence pour éviter des blessures ou des dommages au produit



To indicate hazardous voltages may be present.

Avertissement des tensions dangereuses qui peuvent être présentes

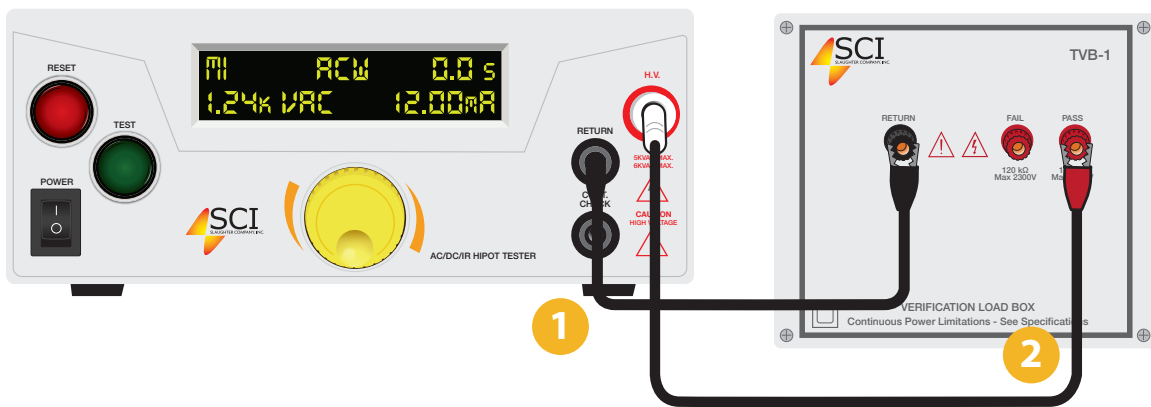
## General Information

The TVB-1 is a go/no-go load box for verifying that the failure detectors of your Slaughter electrical safety compliance tester are functioning properly. Use the TVB-1 daily before you begin performing Hipot tests. The TVB-1 is not intended to comply with any specific safety agency standard.

**Note:** the trip setting may vary up to 10% of the set value based on the combined tolerances of the instrument and the components used in the TVB-1.

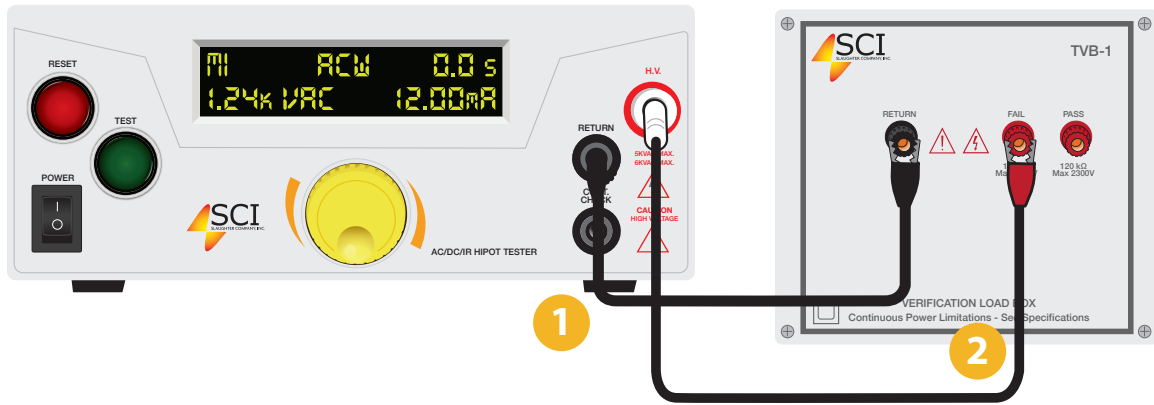
## Using the TVB-1

The TVB-1 load box consists of resistors of varying types that induce a PASS or FAIL condition depending on the test parameters that are set in your electrical safety tester. The two Red and one Black banana jacks located at the top of the TVB-1 box can be used to apply the corresponding load to the output of your tester. Each banana jack should be used for a particular type of test, which is outlined on the layout of the load box.



- 1 Connect the return lead from the RETURN point of your electrical safety tester to black RETURN point TVB-1.
- 2 To setup a test, connect the high voltage lead of your electrical safety tester to the red PASS point.

Ensure that the settings on your electrical safety tester are less than or equal to the maximum recommended voltage, current and duty cycle settings of the TVB-1. When all connections have been made, press the TEST button to begin the test. With the correct settings entered into the electrical safety tester, connecting the output leads to a PASS terminal should result in a PASS.



- 1 Connect the return lead from the RETURN point of your electrical safety tester to the black RETURN point on TVB-1.
- 2 To setup a test, connect the high voltage lead of your electrical safety tester to the red FAIL point.

Ensure that the settings on your electrical safety tester are less than or equal to the maximum recommended voltage, current and duty cycle settings of the TVB-1. When all connections have been made, press the TEST button to begin the test. With the correct settings entered into the electrical safety tester, connecting the output leads to a FAIL terminal should result in a FAIL.



**Note:** pay close attention to the maximum voltage and duty cycle limitations of each resistor. Applying voltages that are higher than the recommended maximum setting or duty cycles greater than indicated can cause damage to the TVB-1.

**Note:** attention à la tension maximale et les limites du cycle de travail de chaque résistance. L'application de tensions plus élevées que le réglage maximum recommandé ou cycles de travail supérieures à celles indiquées peut causer des dommages à la TVB-1

## Recommended Test Parameter Conditions

The following table illustrates the resistor values and recommended test parameter settings for each type of test. Pay close attention to the duty cycle limitations in the specifications in order to avoid damaging the TVB-1 load box.

	ACW	DCW
PASS	2M $\Omega$	2M $\Omega$
FAIL	120k $\Omega$	120k $\Omega$
Instrument Settings	1240V 10mA	2121V 5000uA
Ramp	2s	2s



### **WARNING:**

The test voltages and currents which can cause harmful or fatal electric shock. To prevent accidental injury or death, these safety procedures must be strictly observed when handling and using the test instrument.

Les tensions et les courants qui peuvent causer des chocs électriques dangereux ou fatal. Pour éviter les blessures accidentelles ou la mort, ces procédures de sécurité doivent être strictement observées lors de la manipulation et l'utilisation de l'instrument de test



### **Not rated for measurements within MEASUREMENT CATEGORIES II, III, or IV**

**N'est pas classé pour les catégories de surtension II, III ou IV**



### **DO NOT TOUCH WHEN TESTING OR AFTER A MALFUNCTION HAS OCCURRED.**

**NE TOUCHEZ PAS LORS DE L'ESSAI OU APRÈS UN DYSFONCTIONNEMENT DU PRODUIT**

**CAUTION:** Never connect TVB-1 to any mains circuit directly

**ATTENTION:** Ne jamais connecter directement le TVB-1 à un circuit d'alimentation.

## **Maintenance**

To prevent electric shock do not remove the instrument cover. There are no user serviceable parts inside. Routine maintenance or cleaning of internal parts is not necessary. Any external cleaning should be done with a clean dry or slightly damp cloth. Avoid the use of cleaning agents or chemicals to prevent damage plastic parts or lettering.

## **Entretien**

Pour éviter les chocs électriques ne pas enlever le couvercle de l'instrument. Il n'y a aucune pièce réparable par l'utilisateur. L'entretien de routine ou le nettoyage des pièces internes ne sont pas nécessaires. Tout nettoyage externe doit être fait avec un chiffon sec ou légèrement humide. Éviter l'utilisation de produits de nettoyage ou des produits chimiques pour éviter d'effacer les lettres ou d'abimer les pièces en plastique.

## **Operating Environment**

This instrument may be operated in environments with the following limits:

- Indoor Use Only
- Altitude: 2000 m
- Temperature: 32° F to 104° F (0°C to 40°C)
- Humidity: Maximum 80% RH at 31°C decreasing to 50% RH at 40°C
- Pollution Degree: 2