

# ESD Test Table



## User Manual

## Introduction

The Absolute EMC **ESD Test table** is designed to meet IEC 61000-4-2. Wood is a cost-effective material available with relatively low dielectric value in comparison to other materials. Wood is very strong and not vulnerable to dents or breakage. This is why it is a great solution for EMC test tables. In some testing, a lower dielectric constant material may be needed; in this case, please see our EPS test tables.



## Included in shipment

*Tabletop*

*HCP-Metal Ground plane - cut to the size of a tabletop*

*2x legs (2 posts each)*

*4x wood pegs for legs*

*1x rubber mallet – for leg attachment*

*2m Ground Bleed wire 2x 470 Ohm resistors. 1 on each end*

*0.5mm Isolation mat*

*1x 5' ground strap – tin-coated copper braid*

*Optiona: VCP – Vertical Coupling Plane, ESD Disipation Brush, extra bleader wire*



## Unpacking

Please inspect the table upon delivery for shipping damage. If anything is noticed, please take pictures immediately and document the findings in writing.

- Due to the size, it is suggested 2-3 people unpack the table.
- The table may be in a create. Please remove the screws and disassemble it fully
- The table itself is wrapped with some padding and plastic wrap.
  - Please take care in removing the plastic wrap with a utility knife as not to cut into the table
- Place tabletop on top side down to proceed to install the legs

## Installing Legs

**Note:** The leg tops are marked with letters that correspond with letters on the underside of the tabletop. Match this up before insertion. If not matched up correctly, the wood pegs may not fit.

**Note:** The use of glue is recommended to add durability and ruggedness to the table. However, it is optional. One can just insert the pegs and not use glue if there is the possibility the table needs to be disassembled in the future.

### Legs

1. Line up one of the legs to the tabletop and lay them flat (take care to match up the letters)
2. Apply glue to all surfaces of the tabletop and leg that will come in contact with each other
3. Use a straight edge to spread the glue out evenly. (eg. buddy knife or business card)
4. Insert the leg fully into one side and push down. Use the mallet if needed.
  - a. Wipe away any excess glue with a damp rag or paper towel
5. Repeat 1-4 for the other leg (be sure to match up the letters)
6. Turn over the table and press on top to make sure legs are seated fully
  - a. Wipe away any excess glue with a damp rag or paper towel



### Wood Pegs

7. Coat a wood peg with glue (glue optional)
8. Inset the glue-coated peg into one of the holes
9. Use a mallet to hammer until flush with the table edge
  - a. Wipe away any excess glue with a damp rag or paper towel
10. Repeat steps 7-9 for the three (3) other pegs
  - a. The glue will take 24 hours to fully dry, but the table is ready to use

### Ground Plane:

11. Place the ground plane on top of the table. There is no need to glue this down, but it can be glued if desired.
  - a. Ground stud is provided and attached to the Horizontal Coupling plane.

## Construction

The table is constructed of only wood and glue and coated with Polycrylic for protection. All wood seams are glued and connected with glued dowels. Clamps are used to produce an even strong bond.



## Specifications

### ESD Test Table Kit



The **ESD Test Table Kit** is a simple, inexpensive solution for your ESD testing. Complies to the requirements of IEC 61000-4-2 and can be used for additional standards. Comes with a Horizontal Coupling Plane (HCP), resistive cable to tie HCP to floor ground plane, bleeder wire for discharging ungrounded battery-powered EUTs, 0.05mm insulator, and an alternative low impedance ground for using the table for additional

setups such as IEC 61000-4-6 requirements.

#### Specifications:

Test standard:	IEC 61000-4-2 + others
Material:	All Wood (no metal fasteners)
Standard Size:	1.6m x 0.8m x 0.8m (LxWxH)
HCP Top:	Aluminum Sheet >0.25mm, Removable
ESD resistive cable:	2x 470Ω 1m length
ESD-Static Dissipation Brush:	2x 470Ω 1.5m length (option)
Alternative ground:	Braided ground strap, 1" Wide 1m length
Insulator:	0.5mm thickness
Weight loading	500lb.

#### Options:

**COPPER GROUND PLANE** sized to fit the top of the table

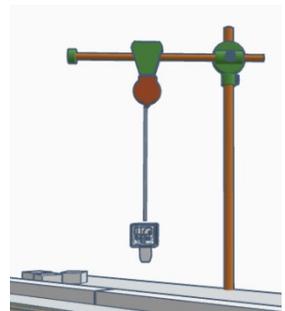
>0.9144m (36") wide or >2.438m (96") long needs to be two pieces

**ALUMINUM GROUND PLANE** (standard) sized to fit the top of the table

>1.219m (48") wide or >3.658m (144") long needs to be two pieces

**SESD BALANCER TABLE** Designed to attach to a table and suspend the ESD simulator with a tool retractor. Non-metal, made of wood and plastic. The system rotates and slides giving true 3 dimensions over the EUT being tested.

**SESD BALANCER CEILING** Designed to attach to the ceiling in a shielded chamber or low ceiling height. A steel track is placed on the ceiling and slides back and forth.



Custom table sizes are available, Contact us for your needs

Table constructed of Expanded Polystyrene (EPS) available, Contact us for your needs