

FORMASPACE



ESD  
TESTING  
PROCEDURE

## FORMASPACE ESD TESTING PROCEDURE

Purpose of test is to ensure correct assembly procedure for ESD benches and to verify ESD laminate is within the proper dissipative range. Formaspace uses the 3M 701 Megohmmeter for surface resistivity testing.

Be sure to check the battery level prior to testing. Just set the meter to battery test and hit the red test button. It should read dead center on the battery scale.

Hook the meter and weights up as shown. Weights should be about 20" apart. Meter should be on the 10V setting (not the 100V as shown).

# 1



Press the red test button. The reading should be between  $10^6$  to  $10^9$ . The reading below would be about  $6 \times 10^8$ .

# 2

Next, remove the lead from one of the weights and attach the alligator clip as shown.

# 3

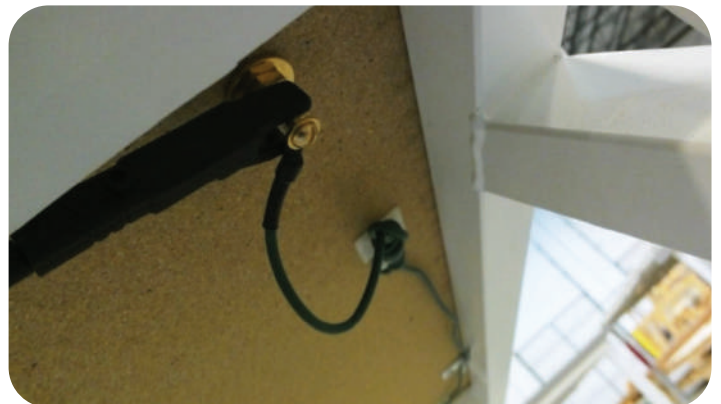


Attach the alligator clip to the ground stud under the top. You should still get the same reading as between the two weights on the surface. This verifies that the ground stud is conducting the electricity away from the top.

# 4

You should still get the same reading as between the two weights on the surface. This verifies that the ground stud is conducting the electricity away from the top.

# 5



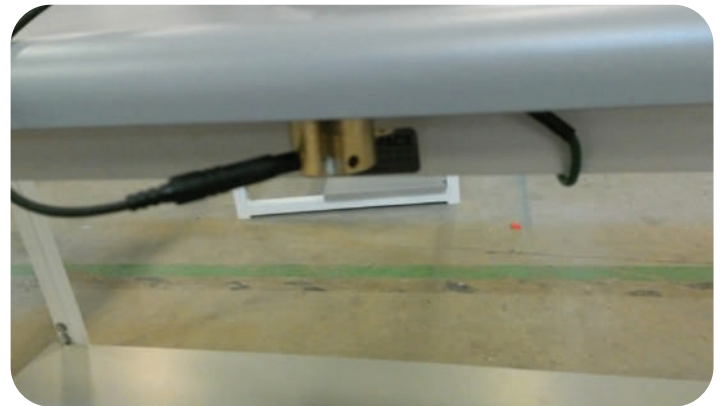


Next, remove the other lead from the weight on the table and plug it in to the ground hub on the front of the bench.

6

If you have used the correct ground wire from the kit you will see 1Mohm between the hub and lug. This ensures that the user connected through his wrist strap does not have a direct short to ground for safety purposes.

7



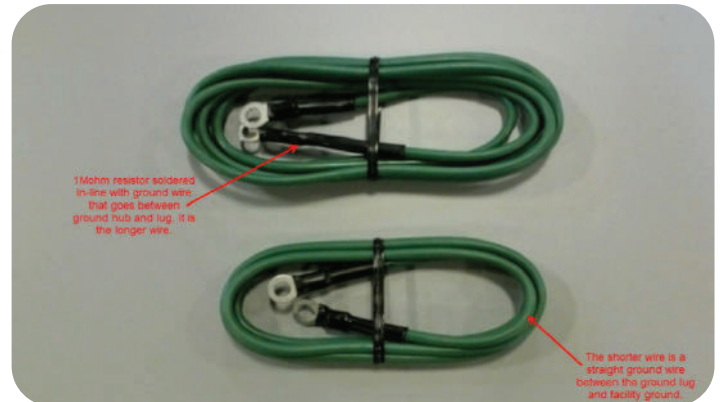
There are two ground wires included in an ESD kit. The longer wire is ALWAYS used between the ground hub and ground lug. It contains a 1Mohm resistor inline for safety purposes.

8

The short ground wire must be routed between the ground lug and a facilities ground. Once connected you should be able to test for a dead short between the ground lug and facilities ground.

You should also be able to test from the surface to ground and get the  $10^6-10^9$  range.

If the table fails any of these three test you should troubleshoot immediately as your bench is not properly grounded.



9

