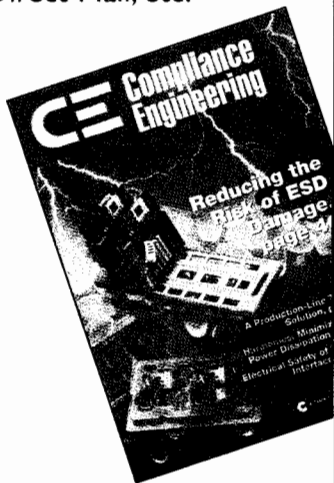


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ESD Symbols



Proper use of symbols can identify both ESD-sensitive and ESD-protective items.

Q. Is the ESD symbol with three arrows in a circle obsolete? What standards govern the use of ESD symbols?

A. The circle with three arrows is a generic symbol for electrostatic, electromagnetic, magnetic, and radioactive fields. Using this symbol for ESD control purposes would not properly alert people to the reason for its presence. Similarly, the old lightning bolt inside a circle is no longer used in ESD control because internationally it symbolizes an electrical hazard to persons. These symbols have been replaced by those described in ANSI/ESD S8.1, "ESD Awareness Symbols."

The ESD susceptibility symbol (see Figure 1) consists of a triangle, a reaching hand, and a slash through the reaching hand. The triangle means "caution," and the slash through the reaching hand



Figure 1. ESD susceptibility symbol.

means "don't touch." Because of its broad usage, the hand in the triangle has become associated with ESD, and the symbol literally translates to "ESD-sensitive stuff, don't touch."

The ESD susceptibility symbol is applied directly to integrated circuits, boards, and assemblies that are static sensitive. It indicates that handling or use of this item may result in damage from ESD if precautions are not taken.

The ESD protective symbol (see Figure 2) consists of the reaching hand in the triangle. An arc around the triangle replaces the slash. This umbrella represents

protection. The symbol indicates ESD protective material. It is applied to mats, chairs, wrist straps, garments, packaging, and other items that provide ESD protection. It also may be used on equipment such as hand tools, conveyor belts, or automated handlers specially designed or modified to provide ESD control.

An ESD control bag containing a static-sensitive circuit board can be used as an example of the proper use of these symbols. The circuit board inside should have



Figure 2. ESD protective symbol.

the ESD susceptibility symbol applied to it. Because the bag offers protection against ESD, it should have the ESD protective symbol affixed to it. The bag also should have the ESD susceptibility symbol to indicate that its contents are ESD sensitive. Now it can easily be seen that the bag provides ESD protection and that its contents are ESD sensitive.

Additional Resources

ANSI/ESD S4.1, "Worksurfaces Resistance Measurement," ESD Association, Rome, NY, 1997.

ESD S7.1, "Floor Materials—Resistive Characterization of Materials," ESD Association, Rome, NY, 1994

ANSI/ESD S8.1, "ESD Awareness Symbols," ESD Association, Rome, NY, 1993.

To submit your questions to the ESD Help Desk or to browse the archives of past questions and answers, go on-line at <http://www.ce-mag.com/esdhelp.html>. ■