For the Protection of Electrostatic Discharge Susceptible Items –

Symbols – ESD Awareness
ESD Association Standard
for Protection of Electrostatic Discharge Susceptible Items –

Symbols –
ESD Awareness

Approved September 16, 2007
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Published by:

Electrostatic Discharge Association
7900 Turin Road, Bldg. 3
Rome, NY 13440

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Printed in the United States of America

FOREWORD

At the present time, many symbols are being used to indicate that a device or assembly (item) is susceptible to some level of ESD damage. Also, no recognized symbol exists to indicate that an item or material is designed to afford some degree of Electrostatic Discharge (ESD) protection for Electrostatic Discharge Susceptible (ESDS) items. Many arbitrarily chosen symbols are currently in use for this application. Further, the symbols which are intended to be used to indicate that an item is susceptible to damage from an ESD event, have been sometimes misused by applying them to "ESD protective" materials.


Standard ANSI/ESD S8.1-2007 was reviewed for reaffirmation by the ESD Association Technical and Administrative Support Committee. The document was then approved for reaffirmation by the ESD Association Standards Committee.

At the time the EOS/ESD S8.1-1993 version was prepared, the 8.0 Symbols Subcommittee had the following members:

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1.0 PURPOSE AND SCOPE

1.1 Purpose

The purpose of this document is to standardize commonly available and in use symbols and to clarify the meaning of each of these symbols.

The correct usage of symbols will eliminate confusion between symbols that indicate that an item or material is ESD susceptible and those that indicate that an item is designed to afford some degree of ESD protection. This symbol standard is developed in accordance with international graphical guidelines and standards.

1.2 Scope

Three symbols are covered in this document. The first indicates that an electrical or electronic device or assembly is susceptible to damage from an ESD event if not properly handled. The second indicates that the material or product on which the symbol is displayed provides protection to ESD susceptible devices or assemblies. The third indicates the location of an ESD common point ground.

The application of these ESD symbols on products does not constitute or imply product performance.

2.0 REFERENCED PUBLICATIONS

Unless otherwise specified, the following documents of the latest issue, revision or amendment form a part of this standard to the extent specified herein:

ANSI/ESD STM5.1, Human Body Model (HBM) – Component Level¹

ANSI/ESD S6.1, Grounding¹

ESD ADV1.0, ESD Association Glossary of Terms¹

IEC 60417, Graphical Symbols for Use on Equipment²

ISO 3864-2, Safety Colors and Safety Signs³

RS-471, Symbol and Label for Electrostatic Sensitive Devices


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² International Electrical Commission, 3, rue de Varembé, P.O. Box 131, CH-1211 GENEVA 20, Switzerland; www.iec.ch
³ International Organization for Standardization, 1, ch. De la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland; www.iso.org
3.0 ESD SUSCEPTIBILITY SYMBOL
The ESD susceptibility symbol incorporates a reaching hand in a triangle with a slash through it and is used to indicate that an electrical or electronic device or assembly is susceptible to damage from an ESD event.

3.1 Application
The ESD susceptibility symbol should be used on assemblies and devices that have a sensitivity to ESD events.

The symbol shall not be used on materials designed for use in ESD protective areas, such as smocks, seating, worksurface materials, tools and equipment, packaging materials or personnel grounding equipment.

The symbol may be incorporated on a sticker used to close or seal ESD protective packaging to indicate that materials inside the package are ESD susceptible.

3.2 Format
The symbol is a reaching hand with defined fingers and fingernail, in a contrasting triangle with a slash in front of the hand. See Figure 1A.

![Figure 1A: ESD Susceptibility Symbol](image)

When it is necessary to shrink the symbol due to the size of the item on which the symbol is placed, all detail possible should be included in the symbol. This symbol should not be decreased in size to less than 12 mm (1/2 inch) square, except in cases where available space is severely limited. See Figure 1B.

![Figure 1B: Size Constraints for ESD Susceptibility Symbol](image)
This symbol may incorporate a number to indicate the ESD sensitivity (ESDS) classification of the device or assembly. This number should be in accordance with the ESD Sensitivity Components Classification, Table 1, of ANSI/ESD STM5.1. The ESDS classification, if used, should be placed in the central area of the symbol as indicated in Figure 1C.

![Figure 1C: ESD Susceptibility Symbol with Component Classification](image)

### 3.2.1 Color
The choice of color for this symbol is arbitrary. The color red shall not be used because it suggests a hazard to personnel.

The preferred color is a yellow hand on a black background.

### 4.0 ESD PROTECTIVE SYMBOL
The ESD protective symbol differs from the ESD susceptibility symbol, by the addition of an arc around the outside of the triangle and the omission of the slash across the hand and the triangle.

#### 4.1 Application
The ESD protective symbol should be used to identify items that are specifically designed to provide ESD protection for ESDS assemblies and devices. Examples of these are packaging, ESD protective clothing and personnel grounding equipment. The ESD protective symbol should also be used on items designed to replace static generative materials. Examples of these items are ESD protective work station equipment, trash can liners and chairs. The item is to be ESD protective or non-static generative by design.

The symbol shall not be used on ESD susceptible devices or assemblies. Refer to Section 3.0 of this standard.

#### 4.2 Format
The symbol is a reaching hand with defined fingers and fingernail, in a contrasting triangle, surrounded by a bold arc. See Figure 2A.
When it is necessary to shrink the symbol due to the size of the item on which the symbol is placed, this symbol may be simplified as a function of the size. All detail possible should be included in the symbol. This symbol should not be decreased in size to less than 12 mm (1/2 inch) square, except in cases where available space is severely limited. See Figure 2B.

The ESD protective symbol may be printed, embossed, hot stamped, silk screened or incorporated through other mechanisms. In addition to the symbol, the manufacturer's name, date of manufacture or lot date code should be included where applicable. See Figure 2C.

4.2.1 Color

The choice of color for this symbol is arbitrary. The color red shall not be used because it suggests a hazard to personnel.

The preferred color is a yellow hand on a black background.
5.0 ESD COMMON POINT GROUND SYMBOL

This symbol is established to indicate an ESD common point ground, which is defined by ANSI/ESD S6.1 as "a grounded device where two or more conductors are bonded."

5.1 Application

The ESD common point ground symbol should be used to indicate the location of an acceptable common point ground as defined by ANSI/ESD S6.1.

5.2 Format

This symbol consists of a bold outer circle inside of which are the words ESD COMMON POINT GROUND, in bold type. Inside that are two thick contrasting circles and one thick circle that may fill the center or extend to the center where a snap, plug or other fastener may be connected. See Figure 3.

![ESD Common Point Ground](image)

Figure 3: ESD Common Point Ground

5.2.1 Color

The choice of color for this symbol is arbitrary, but black or white on green is suggested. The color red shall not be used because it suggests a hazard to personnel.