

# Foot Grounders Grounding, Testing and Maintenance



Made in the  
United Kingdom

## Description

Desco Europe's complete line of foot grounders has been created to provide a continuous ground path between the operator and a properly grounded ESD safe flooring. Foot grounders are designed for use in applications where user mobility is required, such as wave solder, kitting or quality control. Foot grounders quickly and effectively drain the static charges which collect on personnel during normal, everyday activities.

## General Guidelines

1. It is recommended that foot grounders be worn on both feet, in order to assure that a continuous path to ground is maintained.
2. Contact strips should be tucked inside the shoe with as much contact area as possible to the bottom of the stockinged foot. Foot grounders rely upon the perspiration layer inside of the shoe to make contact through the stocking.
3. Foot grounders should be used in conjunction with floor surfaces which have a surface resistance of less than  $1 \times 10^{10}$  ohms.
4. A current limiting one megohm resistor in series with the contact strip is recommended but not required.

## Testing your Foot Grounders

Proper testing of your foot grounders involve testing the individual foot grounder, the contact strip and the interface between the contact strip and the wearer's perspiration layer.

Desco Europe has a tester designed to properly test foot grounders. For more detailed information on this tester, download Technical Bulletin [PPE-5111.E](#).



Figure 1. Combo Tester with Stand and Foot Plate

If you obtain a fail reading from the tester, you should stop working. Clean the foot ground and contact strip. Retest after cleaning. If the unit still fails, replace the foot grounder. Retest the system.

## Cleaning

Foot grounders are to ground static charges, while dirt generally provides an insulative layer adversely effecting reliability. For proper operation, the foot grounder and its conductive contact strip must be kept clean.

The rubber portion of the foot grounder should be cleaned using Desco Europe's [Reztore® Antistatic Surface & Mat Cleaner](#) or isopropyl alcohol. Desco Europe cleaning products are specially formulated for cleaning ESD control components and are silicone free. This is critical as silicone is an insulator. Desco Europe ESD cleaners should not be used to clean the nylon polyester contact strip.

Foot grounders can be safely hand or machine washed on a gentle cycle. Mild detergents, such as Woolite® or a liquid dish washing product and warm water are recommended. However, care must be taken to ensure that these detergents are silicone free.

## Installation

### Heel Grounders with Hook-and-Loop Straps

These heel grounders are designed for use on standard shoes and can be easily adjusted to fit the individual wearer.

1. Place the heel grounder on the shoe so that the lining is making contact with the shoe.

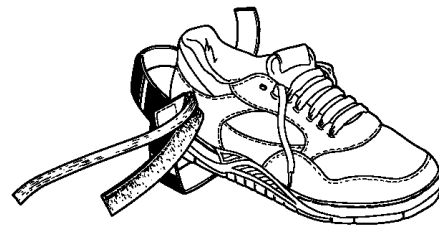


Figure 2. Heel Grounder with Hook-and-Loop Straps - Installation

2. Insert the contact strip inside of the shoe and under the foot. Make sure that a solid contact is made between the sock and body. Cut contact strip to desired length.

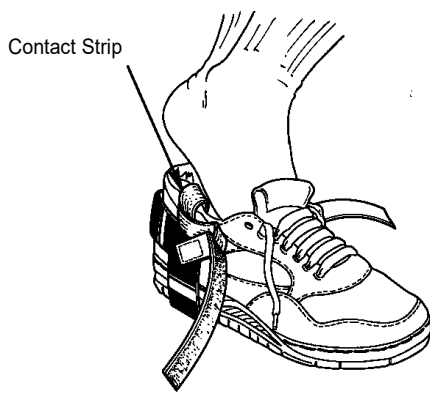


Figure 3. Heel Grounder with Hook-and-Loop Straps - Contact Strip

3. Fasten hook-and-loop straps together, securing heel grounder firmly on shoe.

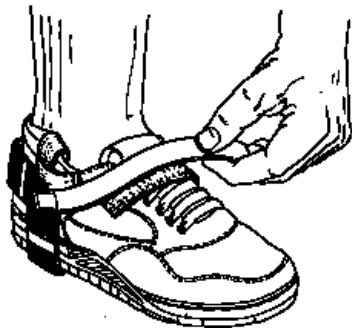


Figure 4. Heel Grounder with Hook-and-Loop Straps - Fastening

4. Test each heel grounder to confirm proper installation.

### D-Ring Heel Grounders

The D-Ring fastening system provides snug cinching of the ankle strap and allows “flex” during walking. They are designed for use on most types of shoes and boots.

These heel grounders include a moulded external resistor and a permanently attached grounding tab.

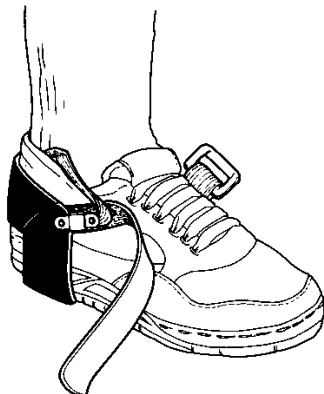


Figure 5. D-Ring Heel Grounder - Installation

1. Place heel grounder on the shoe so that the lining is making contact with the shoe.
2. Insert the contact strip inside of the shoe and under the foot. Make sure that a solid contact is made between the sock and body. Cut contact strip to desired length.

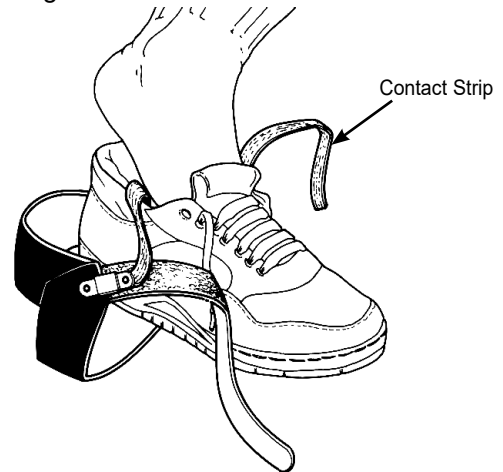


Figure 6. D-Ring Heel Grounder - Contact Strip

3. Pull the strap through the d-ring and clinch down for a snug, comfortable fit.

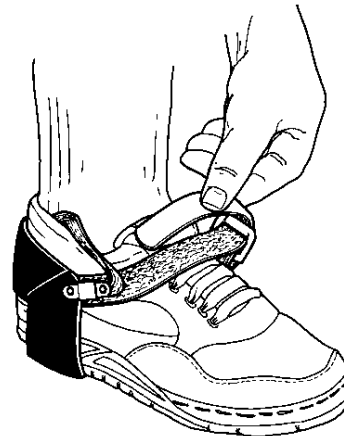


Figure 7. D-Ring Heel Grounder - Fastening

4. Test each heel grounder to confirm proper installation.

### Heel Grounders with elastic Straps and Clip Fasteners

These heel grounders are equipped with a clip fastener, a quick release fastening system.

1. Insert the contact strip inside of the shoe and under the foot. Make sure that a solid contact is made between the sock and body. Cut contact strip to desired length.

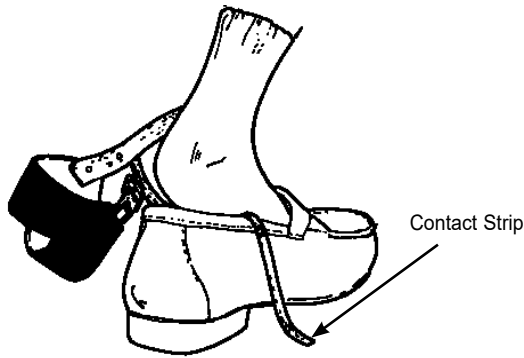


Figure 8. Heel Grounder with elastic Strap and Clip Fastener - Installation

2. Fit the heel cup snugly to shoe and connect the clip fastener together. Adjust elastic strap for comfortable fit. Tuck excess elastic strap behind itself.

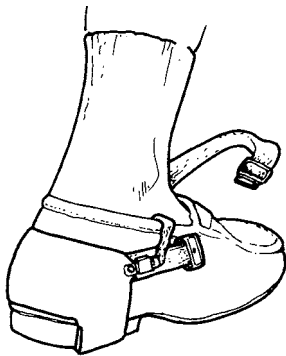


Figure 9. Heel Grounder with elastic Strap and Clip Fastener - Fastening

3. Test each heel grounder to confirm proper installation.

### Toe Grounders with stretchable Hook-and-Loop Straps

Toe grounders are designed for use on heeled shoes and can be easily adjusted to fit the individual wearer.

1. Place the toe grounder on the shoe so that the lining is making contact with the shoe.

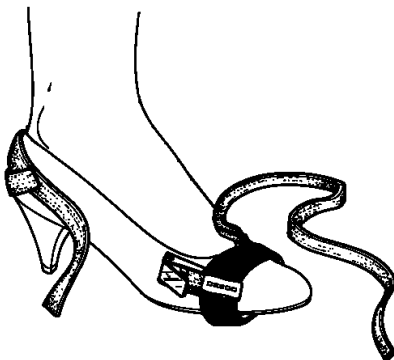


Figure 10. Toe Grounder with stretchable Hook-and-Loop Straps - Installation

2. Insert the contact strip inside of the shoe and under the foot. Make sure that a solid contact is made between the sock and body. Cut contact strip to desired length.

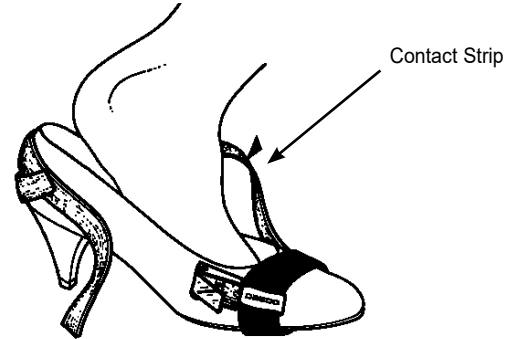


Figure 11. Toe Grounder with stretchable Hook-and-Loop Straps - Contact Strip

3. Pull fabric strap through cam and lock in place. This will secure toe grounder firmly on shoe.

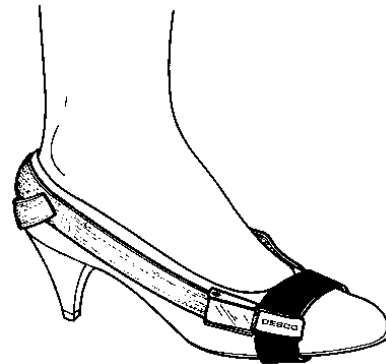


Figure 12. Toe Grounder with stretchable Hook-and-Loop Straps - Fastening

4. Test each toe grounder to confirm proper installation.

### Full coverage Foot Grounders

The full coverage foot grounders are designed for use on standard shoes. They can be easily adjusted to fit the individual wearer. They have a lining that will not mark most footwear. These foot grounders have a discrete one megohm resistor built into the contact strip.

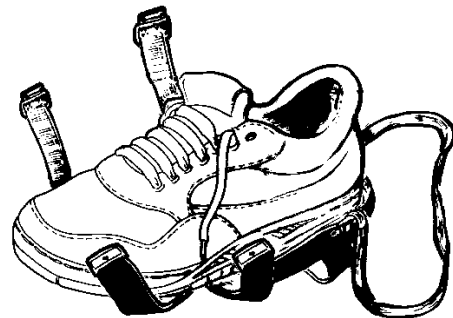


Figure 13. Full Coverage Foot Grounder - Installation

1. Place the full coverage grunder on the shoe so that the lining is making contact with the shoe.
2. Insert the contact strip inside of the shoe and under the foot. Make sure that solid contact is made between the stockinged foot and contact strip. Cut contact strip to desired length.

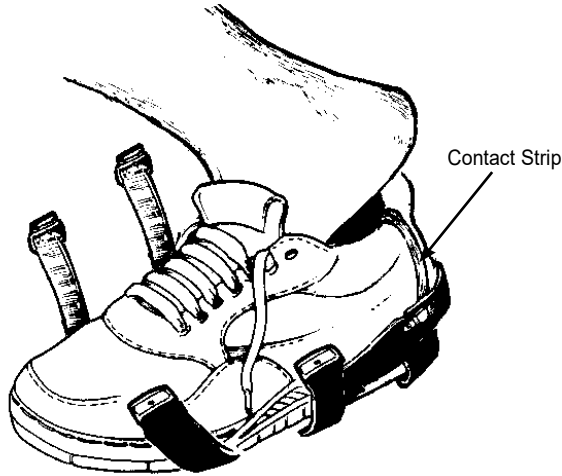


Figure 14. Full Coverage Foot Grunder - Contact Strip

3. Connect the clip fastener together. Adjust elastic strap for comfortable fit. Tuck excess elastic strap behind itself.

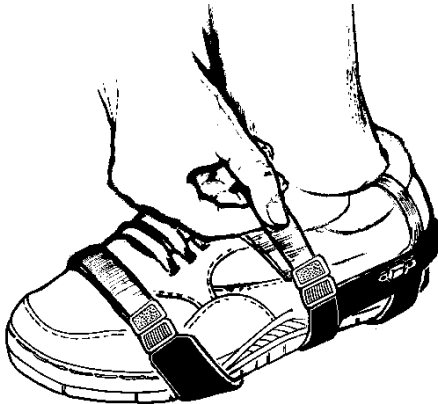


Figure 15. Full Coverage Foot Grunder - Fastening

4. Test each full coverage foot grunder to confirm proper installation.

### Disposable Heel Grinders

The Desco Europe disposable heel grinders are designed for applications where the use of permanent foot grinders is not economical or practical. They are constructed so that they may be used once and then discarded.

1. Remove shoe. Wipe any excess dirt from underside of heel. Remove release paper from heel grunder.
2. Apply the adhesive end to underside of heel of the shoe. Wrap the tape snugly around the outside of the shoe.

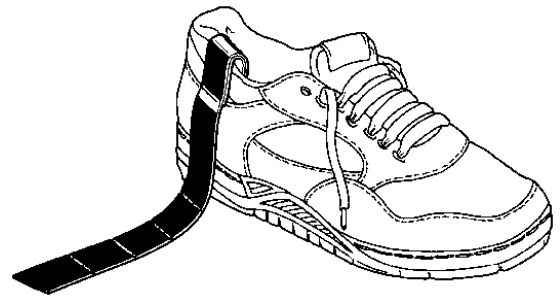


Figure 16. Disposable Heel Grunder - Installation

3. Insert the non-adhesive end of the heel grunder inside the shoe so that the black dot is well over the middle of the heel area facing upwards.
4. Put the shoe on.

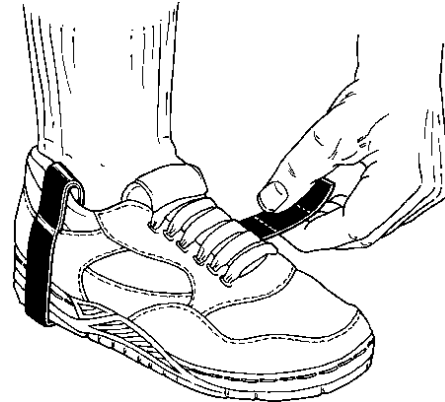


Figure 17. Disposable Heel Grunder - Fastening

5. Test each heel grunder to confirm proper installation.

**NOTE:** Foot grinders are not recommended for use on equipment with operating voltage exceeding 250 VAC.

**CAUTION:** The ESD Series is for electrostatic control. It will not reduce or increase your risk of receiving electric shock when using or working on electrical equipment. Follow the same precautions you would use without foot grinders, including:

- Make certain that equipment having a grounding type plug is properly grounded.
- Make certain that you are not in contact with grounded objects other than through the ESD Series.

### Limited Warranty, Warranty Exclusions, Limit of Liability and RMA Request Instructions

See the Desco Europe Warranty - [DescoEurope.com/Limited-Warranty.aspx](http://DescoEurope.com/Limited-Warranty.aspx)