




Foot Grounders Grounding, Testing and Maintenance

Description

Charleswater'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, and quality control. Foot grounders quickly and effectively drain the static charges which collect on personnel during normal, everyday activities.

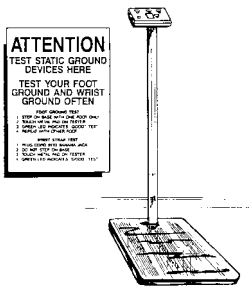
General Guidelines

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 resistivity of less than 10^{10} ohms.
4. A current limiting one or two megohm resistor in series with the contact strip is recommended but not required. Models 70004, 70007, 70021, 70022, 70023, 70030, 70031, and 70050 are  listed.

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.

Charleswater has a tester designed to properly test foot grounders. For more detailed information on this tester, ask for technical bulletin PPE-5011.E.



If you obtain a fail reading from the tester you should stop working and test the foot ground and contact strip individually to find out which item has failed. Replace the foot grounder or replace the bad component if possible. Retest the system before beginning work.

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 strip must be kept clean.

The rubber portion of the foot grounder should be cleaned using Charleswater's Rezstore™ Antistatic Surface & Mat Cleaner or "Static-Wipes" wipers. An alternative would be to clean using isopropyl alcohol. The Charleswater cleaning products are specially formulated for cleaning ESD control components and are silicone free. This is critical as silicone is an insulator. Charleswater ESD cleaners should not be used to clean the nylon polyester grounding tab.

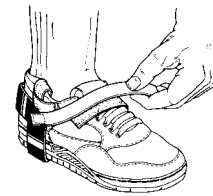
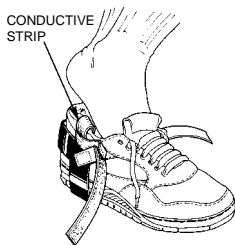
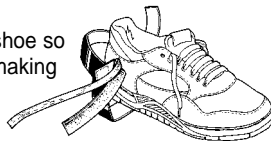
Foot Grounders can be safely hand or machine washed on gentle cycle. Mild detergents, such as Woolite® or a liquid dish washing product and warm water are recommended. However, care must be taken to ensure that these detergents are silicone free.

Installation

STANDARD AND NON-MARKING HEEL GROUNDERS

Charleswater models 70004, 70007, and 70030 heel grounders are designed for use on standard shoes. All Charleswater foot grounders can be easily adjusted to fit the individual wearer. Charleswater heel grounders have a dissipative lining that will not mark white or light colored shoes. Models 70004, 70007, and 70030 have a current limiting one megohm resistor in series with the contact strip.

1. Place the foot 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.

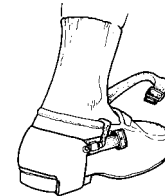
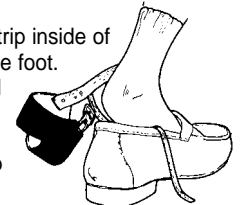


3. Fasten hook and loop straps together, securing foot grounder firmly on shoe.
4. Test each foot grounder to confirm proper installation.

HEEL GROUNDER WITH SNAP-LOC FASTENING SYSTEM

The Charleswater model 70050 heel grounders are equipped with a Snap-Loc quick release fastening system. These heel grounders have a cup and lining that will not mark shoes or floors. These models have a molded exterior 1 megohm resistor.

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.



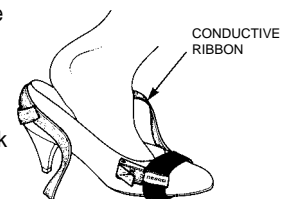
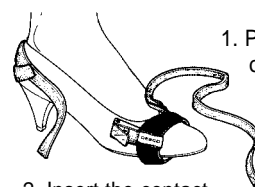
2. Fit the heel cup snugly to shoe and connect the Snap-Loc fastener together. Adjust elastic strap for comfortable fit. Tuck excess elastic strap behind itself.

3. Test each heel grounder to confirm proper installation.

STANDARD TOE GROUNDERS

Charleswater models 70008 and 70031 toe grounders are designed for use on heeled shoes. Charleswater toe grounders have a lining that prevents marking on white or light colored shoes. Models 70008 and 70031 have a current limiting one megohm resistor in series with the contact strip.

1. Place the toe 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.



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

4. Test each toe ground to confirm proper installation.

FULL COVERAGE GROUNDERS

The Charleswater models 70021, 70022, and 70023 full coverage grounders are designed for use on standard shoes. They can be easily adjusted to fit the individual wearer. They have a brick red lining that will not mark most footwear. These foot grounders have a discrete one megohm resistor built into the contact strip.

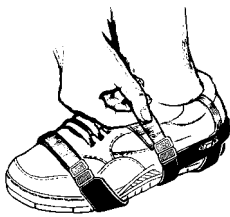


1. Place the full coverage grounder on the shoe so that the brick red lining is making contact with the shoe.

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



3. Fasten velcro straps together, securing full coverage grounder firmly on shoe.

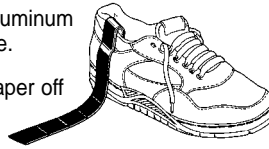


4. Test each full coverage grounder to confirm proper installation.

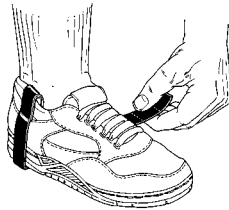
DISPOSABLE FOOT GROUNDERS

The Charleswater models 70000 and 70002 disposable foot grounders are designed for applications where the use of permanent foot grounders is not economical or practical. They are constructed so that it may be used once and then discarded.

1. Fold and clip aluminum strip to top of shoe.



2. Strip release paper off of pressure-sensitive adhesive.



3. Pull strap snugly down and under heel.

4. Step firmly onto pressure-sensitive adhesive and tear off excess material at serration.

5. Test each foot grounder to confirm proper installation.

NOTE: This product is 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 wrist straps, 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

Charleswater expressly warrants that for a period of one (1) year from the date of purchase, Charleswater foot grounders and components will be free of defects in material (parts) and workmanship (labour). Within the warranty period, a unit will be tested, repaired or replaced at Charleswater's option, free of charge. Call Customer Service at 00 44 (0) 1892-665313 for a Return Material Authorisation (RMA) and proper shipping instructions and address. Include a copy of your original packing slip, invoice, or other proof of date of purchase. Warranty repairs will take approximately one week.

Warranty Exclusions

THE FOREGOING EXPRESS WARRANTY IS MADE IN LIEU OF ALL OTHER PRODUCT WARRANTIES, EXPRESSED AND IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH ARE SPECIFICALLY DISCLAIMED. The express warranty will not apply to defects or damage due to accidents, neglect, misuse, alterations, operator error, or failure to properly maintain, clean or repair products.

Limit of Liability

In no event will Charleswater or any seller be responsible or liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product. Before using, users shall determine the suitability of the product for their intended use, and users assume all risk and liability whatsoever in connection therewith.