



Equipotential Mat Instructions For Use

- ***This product is to be used by authorised industry trained personnel only.***
- ***The use of this product must adhere to appropriate work practises and or industry standards ensuring compliance to all Workplace Health and Safety Regulations.***
- ***This product may only be installed onto an asset when the asset owner has approved of such installation.***
- ***Failure to follow appropriate work practices and operational instructions or modifications to this equipment can result in product damage and or serious injury.***
- ***These instructions are to be read in conjunction with the Balmoral Engineering terms and conditions published on our website.***

The Balmoral™ Equipotential Mat is designed to assist in de-energised or non-live work practices by eliminating step and touch potential voltages. It does this by establishing an equal voltage potential between personnel using the Mat and the clamped object.

1: In-Use Instructions

1. Prior to commencement of work inspect all components of the equipotential mat for embedded foreign objects, cuts, abrasions, tears, punctures, stray wire or splitting of the material. For further information refer to section “Periodic Visual inspection and care”.
2. Unfurl the Mat and always place it so that the cable is facing up or on the top side and that the Mat is in a relatively flat position.
3. Attach clamp to required grounding point
4. When storing the Mat, place flat on the ground with cable attachment facing towards the ground, roll from opposing side tightly and place into the bag



Note: Occupational Safety and Health Administration 1910.269 states:

“Equipotential zone. Temporary protective grounds shall be placed at such locations and arranged in such a manner that the employer can demonstrate will prevent each employee from being exposed to hazardous differences in electric potential.”

In wet, damp or muddy conditions, care should be taken due to the possibility of slippery conditions.

2: In Service Care

Storage:

- It is recommended that **BALMORAL™** Equipotential Mats should be cared for in the following manner:
 - To prevent premature wear of the materials Equipotential Mats should always be stored & transported in a protective carry bag using Velcro strap to keep its shape

Note: other storage methods may be suitable, however, if these methods have not been approved by Balmoral, then the customer takes full responsibility for their suitability.

- We recommend that Equipotential Mats are stored in a clean stable room temperature environment away from sharp objects, sunlight, ozone, steam and salt water.
- Kept clear of all oil-based products and hydrocarbon derivatives.
- It is recommended that Equipotential Mats in service are transported and stored in a suitable storage device / bag that ensures the above conditions

Use:

- Prior to each and every use, all Equipotential Mats should be visually inspected for any defects. Please refer to section “Periodic Visual Inspection and Care”.
- Should any item be found to have defects, it should be removed from service.
- Any item that becomes soiled or dirty should be cleaned.

Periodic testing

An electrical resistance test should be performed as part of a routine inspection that should be performed at least once every two years to determine that the mat has a low resistance capable of performing in an equipotential system. This testing should be performed in a clean environment. The mat must not exceed the following electrical resistance values:

- Maximum arithmetic mean resistance per unit square: less than 1 ohm
- Maximum local resistance: less than 2 ohms

Because each service environment is different, the sole responsibility for ascertaining the necessity or interval required for periodic electrical tests is with the end user. It is recommended that a risk assessment be performed by the end user to ensure the level of inspection and electrical testing is suitable for their operating environment.

Periodic Visual Inspection and Care:

Before each and every use, the product should be inspected for any loose, missing or non-functioning components. All connections, cables and clamps should be inspected for any defect or loose parts. If this is found to be the case the product should be decommissioned from service. Alternatively, the product can be returned to the manufacturer or authorised Distributor for inspection and possible repair.



- It is recommended that where it is possible or practical to do so, that all Equipotential Mats be periodically inspected, cleaned and then re-inspected. This periodic inspection is recommended to take place every 6 months and should be an adjunct not a replacement for the routine (prior to use) inspection.

To aid visual inspection materials should be:

- Cleaned to remove grime and dirt which may otherwise hide potential defects.
- Ensure tight connection of nuts and lugs. (Recommended torque of at least 20Nm)
- We recommend cleaning with a mild detergent with a soft bristle brush for the mesh and hard bristle brush for the clamp.
- Any item found to be defective, should be removed from service.



Compiled/Updated	Approved	Issued Date	Revision
SW	CD	10-9-25	16

- Defects may take the form of embedded foreign objects, corrosion, cracks, cuts, arcing damage, swelling, seizing of the clamp or fraying of connections.

 DOM 07/25 L-13549 ITEM 181EP



For more product information please visit our website:
www.balmoralengineering.com