Introduction.

This manual describes what precautions should be observed when handling ESD sensitive devices. All printed circuit boards (PCB) supplied by Bever Innovations B.V. must be handled as ESD sensitive devices.

What is ESD?

ESD is short for 'Electrostatic Discharge'. This is a quick discharge of electrical energy from one object to another caused by electrostatic sources. One of the main causes of electrostatic energy are insulating materials such like plastic bags, synthetic clothing, etc. When these materials are moved by shifting or rubbing, they will be statically charged. If the material then comes in contact with a electric conductive material a quick discharge will take place. Also people can be statically charged. This can be noticed when touching a car door in the winter. A shock can be felt which is caused by the electrostatic discharge. However, this is an extreme example and in most cases nothing is felt. When a person is statically charged and touches an electric component or PCB (ESD sensitive device), an Electrostatic discharge will take place which can cause damage to this PCB without notice. To prevent this from happening, some precautions must be observed when handling ESD sensitive devices.

Precautions

All ESD sensitive devices supplied by Bever Innovations B.V. are packed in electrostatic shielding bags (unless they are completely assembled in their dedicated housing). Before opening this package, the following precautions must be observed.

1. Place the package on a ESD work surface mat which is connected to an earth lead.
2. Use a ESD wrist strap which is connected to the same earth lead to make sure you are free of static charges.
3. It is now safe to open up the package and handle the PCB.

NOTE: Before leaving the ESD work surface with the PCB or disconnecting your wrist strap, the PCB must be but back into the electrostatic shielding bag or build into its dedicated housing.

ESD work surface mat with earthing

ESD wrist strap

Symbols.

ESD sensitive symbol.

This symbol is used to indicate that an electrical part is ESD sensitive and may only be handled when the above explained precautions are observed.

ESD safe symbol .

This symbol is used to indicate that a packing material is specifically designed to protect ESD sensitive devices. Opening this package may only be done when the above explained precautions are observed.