

Technical Datasheet

Van de Graaff Generator

Specifications:

Size :

Height - 95cm

Length - 40cm

Width - 39cm

Unit weight : 5kg

Shipping Size :

Height - 96cm

Length - 40cm

Width - 40cm

Shipping weight : 18kg

Packaging type :

Flightcase

Power connector :

13A mains plug

Suggested for set up :

1 person

Duration of effect :

Suggested 2-3 mins per person

Additional information :

The standard dome supplied with the Van de Graaff is 350mm. A larger dome is available but must be requested in advance.

A Van de Graaff generator is an electrostatic generator which uses a moving belt to build up very high amounts of electrical charge on a hollow metal globe. Primarily used in science fairs and TV shows many effects can be demonstrated (contact us for ideas) but most commonly used to make peoples hair stand on end.

THIS ITEM CANNOT BE DRY-HIRED UNLESS SUITABLE EXPERIENCE CAN BE PROVEN. IT CAN ALWAYS BE HIRED WITH AN MTFX TECHNICIAN TO INSTALL AND OPERATE IT.

How to set up a Van de Graaff generator for hair-raising effects

1. Place the generator on a low stand or table. There is no scientific reason for this but it does make the effect more comfortable for the user as it will mean they do not have to bend down.
2. Place a small plastic (or other insulating material) stool on the floor in front of the generator for the user to stand on.
3. Earth the machine and surrounding metalwork.
4. Power on the generator.

Creating the hair raising effect

1. Invite user to step onto the stool and place their hand on the dome (Fig 5).
2. The operator will then hold down the button on the controller unit for the duration of the effect (Fig 6).
3. The users hair will stand on end and other electrostatic effects may be experienced (some people also feels minor shocks to their hand)
4. At the end of the effect release the button on the controller and touch the probe to the dome to de-energise it. Do not let the user remove their hand from the dome or step off the stool until the generator has been de-energised or a static shock will be experienced (Fig 7)



Fig 1. Van de Graaff Generator



Fig 2. Control unit



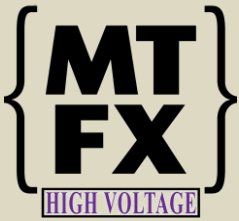
Fig 3. Earthing point



Fig 4. Power switch



Fig 5. Users hand on dome



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Safety

1. As this is a High-Voltage effect it may only be operated by qualified and authorised technicians. If the equipment is provided as a dry-hire you will be asked to provide evidence of your training/experience that qualifies you to operate the unit.
2. Whilst in operation do not allow the user to release their hand from the dome, step down off the stool, or touch any object or person, otherwise a static shock will result.
3. After unplugging wait 60 seconds before handling wire or plug.
4. Avoid setting up near metal objects or areas of high humidity.
5. Only use the Van de Graaff generator indoors. The generator may cause electrical interference with nearby items.
6. Ensure the user removes any electronic devices including watches, phones and credit cards before use.
7. MTFX recommends utilising a release form for all users to sign before using the generator. A sample form is available on request which you can tailor to your own specific requirements.
8. The effect is dependent on humidity and temperature conditions, also the globe being clean and internal brushes being set correctly.



Fig 6. Control button



Fig 7. Discharging



Fig 8. The effect

DO NOT ALLOW ANY USER

- **with electrical devices such as pacemakers or electrical cardiac implants**
- **with epilepsy, heart conditions or related illnesses**
- **who is pregnant, or may be pregnant**
- **who is under the age of 14**

TO USE THE VAN DE GRAAFF GENERATOR