

FABRICOATER



OPERATING INSTRUCTIONS

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The Fabricoater Portable Flock Unit



MAIN FEATURES

- Battery operated
- Light & simple to use
- 3 sizes of applicators available

How Flocking Electrostatically Works

The object or surface to be coated is arranged electrically to be the opposite polarity to the charging electrode, so causing the fibres to be attracted towards it, until its pre-treated adhesive coated surface is totally coated. Due to the electrostatic lines of force created between the applicator and the object surface, the flock fibres are caused to penetrate 'end on' into the adhesive covering, thus giving a high density pile effect of up to 150,000 fibres per square inch, dependant upon the denier of the flock used.

The Uses For Flock

Originally, the flock finish was used to provide solely a **decorative effect** to a wide variety of items. This is now only one purpose of the flock finish. Some of the other advantages of flock are as follows:

Reduction of condensation – caravan, boats, floor safes, air conditioning systems.

Reduction of mechanical noises/rattles – plastic car parts.

Sound insulation – loud speakers, microphones.

Improved feel to surfaces – inside surface of fibreglass

Heat insulation – photocopier parts, sauna stoves.

Non-reflective surface – jewellery, display trays, camera equipment.

Masking unattractive substrates – chipboard, MDF, fibreglass, vacuum formed plastics.

Method of Application

Flock is loaded into the hopper of a plastic fibre applicator head. The applicator is provided with an internal conductive electrode that is charged by a miniature high voltage generator to a negative potential of approximately 35KV DC.

The Flock Finish

Flock is precision cut lengths of nylon or rayon fibres, which vary in length from 0.5 to 3mm at a variety of deniers. When applied by electrostatic means, an attractive seamless fabric-like coating is created, which can cover almost any surface. The type of flock selected is dependant upon the article and the finish required e.g.: suede or velvet. The range of colours that are available is extensive and flock manufacturers are even able to custom make special shades.



The Adhesives

A wide range of adhesives are available, the choice of which being dependant upon the surface to be coated and, the wear and treatment to which the finish is to be subjected. Adhesives suitable for coating metal, wood, paper, hardboard, plaster, brickwork and a wide variety of plastics etc, are obtainable, in addition to flexible adhesives for use on fabric and textiles, some of which being capable even of standing up to washing, scrubbing and dry cleaning. For best results, it is usual to use pigmented adhesives to match as near as possible the colour of the flock being used. Most adhesives are capable of being applied by roller, brush or spray and where two-pack adhesives employing a hardener are used, an open time of approximately two hours is achieved, allowing ample working time for the actual flock spraying process.

Technical Specification

High Voltage DC output	– 35KV negative
Current	– 40 micro amps
Power supply	– 4.5 VDC
Overall length	– 450mm
Weight	– 700 gm (<i>without batteries</i>)
	– 980 gm (<i>with batteries</i>)

FABRICOATER FLOCK EQUIPMENT

IMPORTANT READ AND UNDERSTAND THESE OPERATING INSTRUCTIONS BEFORE USING THE FABRICOATER



THIS EQUIPMENT MUST NOT BE OPERATED BY ANY PERSON THAT IS FITTED WITH A 'PACEMAKER' DEVICE OR HAS A HEART CONDITION.



REMEMBER – electricity and water do not mix!
Keep the Fabricoater clear of all known liquid sources.



IMPROPER USE CAN CAUSE ELECTRIC SHOCK

RESPIRATORY & EYE PROTECTION must be worn while applying or handling loose flock. Disposable respirators should be CE marked and should also be marked with disposable respirators standard EN 149: 2001. The masks should provide protection to at least FFP2 level.

- **NEVER** use as a 'STUN GUN' or 'IMMOBILSER'
- **NEVER** look into the applicator when the unit is switched on.
- **NEVER** touch the electrostatic charging plate in the flock applicator when the unit is switched on. The charging plate will hold a charge for up to one minute after the Fabricoater has been switched off.
- **ENSURE** that the HT cable is kept clean to ensure no leakage of static charge.
- **NEVER** use near paints, adhesives or powders which are flammable. If in doubt please consult the manufacturers' data sheet.
- **DO NOT** wear rubber gloves or rubber soled shoes when operating the Fabricoater unless an earth strap is worn.



IT IS RECOMMENDED THAT AN EARTH STRAP IS WORN

This will assist in the dissipation of static charges from the operator, limiting the chance of shock from charge build up.

- **ALWAYS** wear eye & respiratory protection when operating the Fabricoater.
- **NEVER** drop the Fabricoater as damage may occur which could compromise its safe operation.
- **AVOID** allowing the Flock Applicator to Discharge / Arc to Earth / Ground. Serious damage to the high voltage generator may result. If necessary, use the optional Decay Probe.



DO NOT dispose of this equipment with normal waste. Under the WEEE directive (Waste Electrical and Electronic Equipment Directive – Directive 2002/96/EC), electrical equipment should be returned to the manufacturer for possible recycling. Please return equipment to Campbell Coutts Ltd for recycling or disposal.

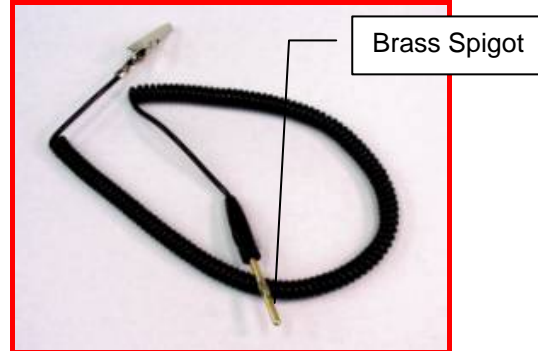
FABRICOATER FLOCK EQUIPMENT OPERATING INSTRUCTIONS

CHANGING BATTERIES

1. Remove aluminium end cap (by first pulling out the brass earth / ground spigot from the fabricoater body).



End Cap



Earth Lead

2. Insert 3 size 'D' 1.5v batteries. The positive terminals of all three batteries should point towards the Black Plastic Fabricoater Body. The negative terminal of the last battery will then make contact with the spring of the end cap.
3. Replace the end cap and retain in position with the brass earth / ground lead spigot.

FILLING FLOCK APPLICATOR

4. Remove Mesh Front carefully to avoid damaging the mesh
5. **IMPORTANT** - Take care not to accidentally depress the Yellow Push-button Switch whilst filling the flock container. This would activate the unit, creating a severe risk of electric shock. **Safety Glasses** should be worn to eliminate possible eye hazards due to flock fibres emanating from the applicator head.

IMPORTANT - In certain circumstances, the aluminium charging plate may retain electrostatic charges, even after use.

Before replenishing the applicator with flock, it is always 'Best Practice' to dissipate these charges. To do so, remove mesh front and hold the crocodile / alligator clip to the charging plate. A small 'electric arc' may be observed at this point. This arc is not harmful if safety advice has been followed.

6. The applicator is now ready to receive flock. We suggest that the applicator only be filled to about 2/3rds of its capacity to allow effective electrostatic charging.
7. Select an appropriate mesh size for the applicator. Generally speaking if the flock being used has a length of 1.0mm or less, then use the finer mesh and if it is more than 1.0mm long use the larger mesh. If the flock intended for use is prone to "balling" use a finer mesh. It may be necessary to experiment with the mesh size to get the best flow of flock. Ensure that the applicator mesh is replaced firmly in position.

When using two or more flocks of different lengths, always apply the longest flock first and end with the shortest flock.

FLOCKING

Preparation of flocking area

Ensure that work area is clean and clear of any and all flammable substances. Also that provision has been made to contain any excess flock. Ensure that the surface to be flocked is clean (to enable a good contact for the adhesive).

IMPORTANT - When the Fabricoater is in use it should only be held by the polished aluminium handle and never by the black plastic body forward of the Red 'Power On' Indicator. This is to ensure the operator is properly earthed / grounded and to avoid risk of electrostatic shock to operator.

NEVER HOLD THE UNIT BY THE BLACK PLASTIC BODY AND/OR APPLICATOR CONTAINER DURING OPERATION – RISK OF ELECTROSTATIC SHOCK!!

8. Cover the area to be flocked with a suitable / recommended adhesive. The adhesive must remain wet during the flocking process, so only coat an area that can be flocked before the adhesive starts to dry.

Guidelines for Adhesive Application

If the adhesive has not formed a heavy enough deposit, the durability of the flocking will be impaired, thus it is imperative that a sufficient amount of adhesive is applied.

If the adhesive is absorbed by the substrate too much, then it may prove necessary to prime the area to be flocked prior to the application of the adhesive. To prime the area, it is usually sufficient to apply a thinned down layer of the adhesive and allow it to cure/set. Once that has been done, you can apply a heavier deposit of the adhesive (in a non-thinned down state) to flock into.

If you are screen-printing it is advisable to use as much adhesive as possible. The adhesive must be wet when you are flocking into it.

If it is a large area that you are flocking, then apply adhesive to a section of it to start with. It is essential that you do not flock right up to the edge of that section, as you will need to leave a border of "un-flocked" wet adhesive to add the new section of adhesive onto. You will be recoating the border of "un-flocked" adhesive with fresh adhesive when you apply the adhesive for the next section. By allowing this border for each section, you will be able to seamlessly apply the flock to the whole area.

9. Connect the crocodile / alligator clip on the earth / ground lead, to the adhesive coated object. The clip should make contact with the adhesive or, if the item to be flocked is non-conductive, flat and thin (e.g. t-shirt, wallpaper, greetings card, etc) a metal plate can be placed below / behind the object and the crocodile / alligator clip connected to that.
10. Point the applicator head at the object to be flocked. The applicator head can be pointed in any direction (up, down, left, etc) whilst flocking, but if a lot of flocking is to be carried out with the applicator head downwards, it is recommended that an optional "fingered" charging plate should be fitted, as the flock may lose contact with the charging plate, resulting in the flock not being charged enough to provide a sufficiently flocked finish.

FLOCKING (continued)

11. Depress the Yellow Push Button to switch the unit on. This will allow the flock to be charged. It may be necessary to agitate the flock by gently shaking the unit. Flock fibres should now come from the applicator head and cover the object.

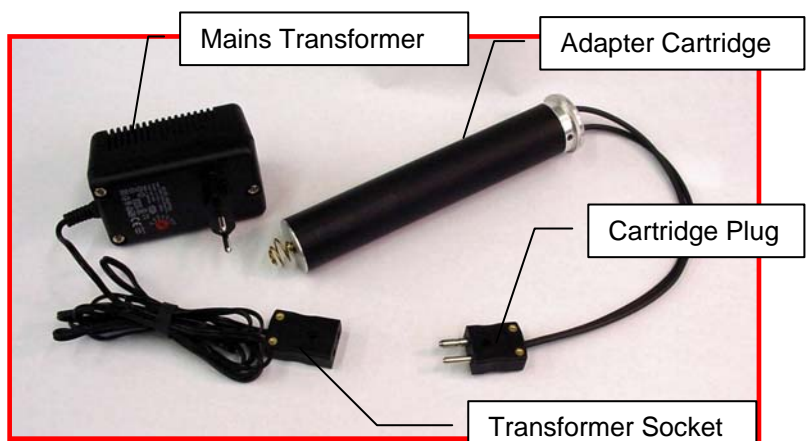
The distance between the applicator mesh and the object to be flocked should be approximately 125mm / 150mm (5-6 inches) maximum.

12. Once flock has been applied to desired level, release the yellow "ON" button and put the hand applicator down.
13. Gently shake the excess flock from the flocked area, but do NOT touch the "flocked" area.
14. Follow instructions given by your adhesive manufacturer as to how to set/cure the adhesive.
15. Once the adhesive has set, excess flock may be removed more vigorously and the "flocked" area may be touched.
16. If the Fabricoater is required for prolonged use, a mains adaptor and transformer are available and recommended.

Contact Campbell Coutts Ltd sales department on 02380 613700 for further information.

INSTRUCTIONS WHEN USING THE OPTIONAL MAINS ADAPTOR

1. Remove batteries and spring end cap.
2. Insert Adaptor Cartridge.
3. Retain Aluminium cartridge cap by re-inserting brass earth / ground lead spigot.
4. Connect Transformer socket to the cartridge plug.
5. Plug in the mains transformer to the nearest mains socket.



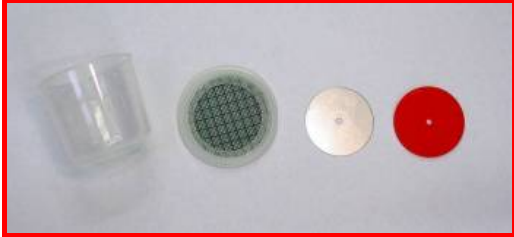





The output voltage is factory set at 6 volts (6v) dc.









NEVER tamper with the red, transformer voltage selector button.
An increase in output voltage will damage the Fabricoater unit.

6. Switch on mains supply and follow points 4 –15 in the main operating instructions.

FABRICOATER SPARES & ACCESSORIES

Description	
	<p>Hand held portable battery powered <u>FABRICOATER</u> complete with 4" square pot assembly fitted with a coarse mesh and earth strap</p>
	<p>FA/MA - Fabricoater mains adaptor kit</p>
	<p>FA/1P - Small round 0.25 ltr pot complete with red support disk, charging plate and fine mesh front</p>
	<p>FA/2P - Medium square (0.8 ltr/4" sq.) pot complete with red support disk, charging plate and coarse mesh front</p>
	<p>FA/3P - Large square (1.8 ltr/5"sq.) pot complete with red support disk, charging plate and coarse mesh front</p>
	<p>FA/9P - Right angle applicator head complete with adaptor disk, charging plate and coarse mesh front</p>

FABRICOATER SPARES & ACCESSORIES

	<p>FA/M1F - Fine mesh for medium 3" round pot</p> <p>FA/M1C - Coarse mesh for medium 3" round pot</p>		<p>FA/5 – End cap with retaining spring</p>
	<p>FA/M2F - Fine mesh for medium 4" sq. pot</p> <p>FA/M2C - Coarse mesh for medium 4" sq. pot</p>		<p>FA/6 - Earthing Cable Complete with Crocodile Clip and Spigot</p>
	<p>FA/M3F - Fine mesh for large 5" sq. pot</p> <p>FA/M3C - Coarse mesh for large 5" sq. pot</p>		<p>FA/7 – Push button sealed switch (yellow)</p>
	<p>FA/4 – Retaining nut for flock applicator</p>		<p>FA/8 – Spare battery retaining spring</p>

Declaration of Conformity

for the

DCA Electropray Fabricoater

Manufactured by:

Campbell Coutts Ltd, Unit 7 Tower Industrial Estate,
Tower Lane, Eastleigh, Hampshire SO50 6NZ, England

Statement of Conformity

Based on test results using appropriate standards,
the product is in conformity with
Electromagnetic Compatibility Directive 89/336/EEC
and Low Voltage Directive 73/23/EEC

ROHS Compliant

Complies with Directive 2005/95/EC

The Conformity is indicated by the symbol

