

TECHNICAL INFORMATION

Evidence Vacuum Sweeper Kit

Catalog Nos. 618E1, 618E1220

Application
The collection and containment of microparticle evidence for transportation to the lab for analysis.

INTRODUCTION

The Evidence Vacuum Sweeper Kit is designed and manufactured specifically for the collection and containment of microparticle evidence from the crime scene to the lab for analysis. The kit contains a vacuum, a microparticle filter attachment, microfilters, vacuum extension tube, crevice tool, combination floor and upholstery tool, cleaning tool adapter, and a vacuum hose and adapter—allowing you to process large areas in a short period of time. Also included are vials and bags for evidence collection as well as identification tape. The 618E1220 comes with an Auto Transformer (230V 50/60Hz, 6.5A) packaged separately.



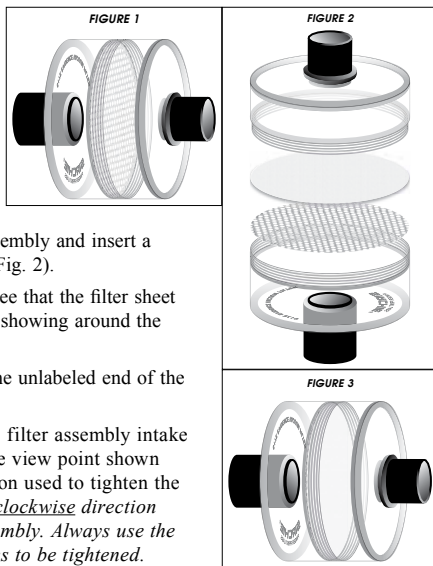
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<p>Hazards/Safety Info</p>	<p>Warning! The vacuum motor may create unshielded sparks—do not use in explosive areas. Potential shock hazard—do not attempt to vacuum liquids as this will also damage motor—dry vacuuming only.</p> <p>Caution! Must be used with 617E filter assembly in place. The PEM01 Monofilament Microfilters are one-time-use only—attempts to reuse will result in cross-contamination of evidence.</p>
<p>618E1 Contents</p>	<p>1- 618E101 Vacuum Sweeper, 1.5hp motor: 618E1—120V~ 60Hz, 6.8A; Auto Transformer for 618E1220 (only)—230V 50/60Hz, 6.5A</p> <p>1- 618E1011 Vacuum Bag (installed)</p> <p>1- 618E1012 Flexible Plastic Hose</p> <p>1- 618E1013 Extension Tube, 20' (50.8cm) long</p> <p>1- 618E1015 Crevice Tool</p> <p>1- 618E1016 Combination Floor and Upholstery Tool</p> <p>1- 618E1017 Hose Adapter</p> <p>1- 618E1018 Cleaning Tool Adapter</p> <p>1- 617E Evidence Filter Assembly</p> <p>50- PEM011 Monofilament Microfilters</p> <p>5- KCP149 Evidence Collection Vials w/caps, 3" x 1.25" (7.6cm x 3.2cm)</p> <p>1- KCP224 Inner Storage Case containing:</p> <p>10-IEB4001 Integrity Evidence Bags, 4" x 7.5" (10.2cm x 19cm)</p> <p>5-IEB75001 Integrity Evidence Bags, 7.5" x 10.5" (19cm x 26.7cm)</p> <p>1-603E Evidence Identification Tape</p> <p>1- 618E1C Black Molded Copolymer Carry Case, textured w/handle and molded inserts; Dimensions: 27.5" x 16.5" x 6.75" (69.9cm x 41.9cm x 17.1cm); Weight: 16 lbs. (7.3kg)</p>

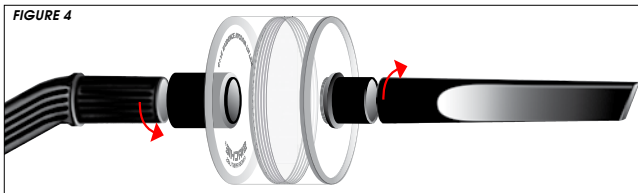
PREPARATIONS

The 617E Evidence Filter Assembly consists of a transparent collection cylinder which unscrews into two parts (Fig. 1). There is a perforated metal plate which rests on a step in the labeled end of the cylinder. The PEM01 Monofilament Microfilter sheet rests on this plate and is clamped in place when the unlabeled end of the cylinder is screwed in.



1. Unscrew the two parts of the Evidence Filter Assembly and insert a fresh microfilter sheet over the perforated plate (Fig. 2).
2. Screw the two parts back together. Take care to see that the filter sheet remains flat on the perforated plate with no gaps showing around the edges of the sheet (Fig. 3).
3. Select the desired cleaning tool and attach it to the unlabeled end of the Evidence Filter Assembly (Fig. 4).
 - 3.1. To attach the cleaning tool, push it onto the filter assembly intake tube and twist it slightly *clockwise* from the view point shown below to tighten it. This is the same direction used to tighten the unlabeled end of the assembly. **Note:** This clockwise direction is dependent on your view point of the assembly. Always use the same direction this end of the assembly uses to be tightened.
 - 3.2. To remove the cleaning tool, pull it from the filter assembly while twisting it slightly *clockwise*. Use a *clockwise* twist to avoid unscrewing the collection cylinder unintentionally.

4. Attach the extension tube (if needed) and the flexible hose (ref. Fig. 4) to the labeled end of the Evidence Filter Assembly. Twist this joint *clockwise* from the view point shown above to tighten it. This is the same direction used to tighten the labeled end of the assembly.



Use this *counterclockwise* twist to avoid unscrewing the collection cylinder. This *clockwise* direction is dependent on your view point of the assembly. Always use the same direction this end of the assembly uses to be tightened.

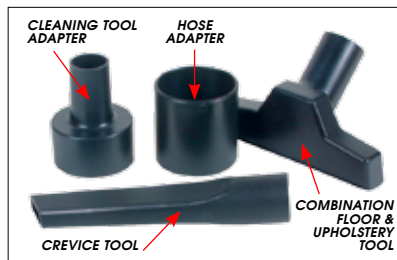
- 4.1. USING HOSE ADAPTER—To attach the hose to the vacuum, place the hose adapter into the suction end of the vacuum (Fig. 5). Insert the large end of the hose into the adapter (Fig. 6).

- 4.2. USING CLEANING TOOL ADAPTER—When working in close quarters, use the cleaning tool adapter in place of the hose adapter and attach the cleaning tool directly (Fig. 7).



OPERATION

1. Plug the vacuum in and turn ON.
2. Proceed with evidence collection. Monitor the amount of evidence collected through the chamber's clear cylinder and replace filters after each item is vacuumed or as needed.
3. Remove the cleaning tool from the filter assembly before unscrewing the collection cylinder.
4. Shake any loose debris in the collection cylinder into one of the vials—cap and seal it. Identify each vial with Evidence Collection Tape.
5. Unscrew the collection cylinder and carefully remove the filter sheet with the collected debris. Fold the sheet if necessary to avoid losing any collected debris. Insert the filter sheet and debris into one of the plastic evidence collection bags and immediately seal it. Identify each bag with Evidence Collection Tape.
6. Data recorded on each vial or bag should include the identification of the area, item from which the sweepings were collected, and the name of the person collecting the evidence.



No. 618E Vacuum Tools and Adapters

Processing Floor Areas

It is recommended that large areas of floor or carpet be done in sections using the combination tool. If too large an area (or a very dirty area) is attempted, the filter will become clogged with debris, and the effectiveness of the vacuum will be impaired. The filter sheet should be replaced before it gets clogged. Some judgment is required, but it is suggested that a 12' x 12' carpet should be divided into quarters and a fresh filter sheet used for each quarter.

Processing Furniture

Chairs, couches, and similar upholstered furniture have exposed areas and concealed crevices. These areas should be done in two separate steps. First, sweep the exposed surfaces with the combination tool attached. Process the arms and backs of furniture since hairs from the arms and head will be found in these areas. Then, replace the filter sheet and attach the crevice tool to collect debris from the hidden areas. Remember to use fresh filter sheets for each piece of furniture to avoid cross contamination of evidence.

Troubleshooting		
Problem	Possible Cause	Solution
Unit does not turn ON	Unit isn't plugged in	Plug in unit
	Power failure	Check circuit breaker
	Power switch not completely engaged	Switch unit OFF/ON again
	Outlet not producing AC current	Try another outlet/check circuit breaker
	Defective power cable	Contact the factory
	Defective ON/OFF switch	Contact the factory

CLEANUP/MAINTENANCE

After all areas of the crime scene have been swept, the filter attachment and vacuum cleaner tools will be contaminated, to a degree, with the debris from the crime scene. Therefore, they should be cleaned before further use.

Interior surfaces of the 617E Evidence Filter Assembly should be wiped with a slightly moistened lint-

free cloth or paper towel. The perforated plate should be flushed with water and dried. Be sure that all parts are completely dry before they are returned to the carrying case.

The vacuum cleaner tools may be washed in lukewarm water and a mild liquid detergent. DO NOT use hot water as this may distort the plastic parts.

The vacuum cleaner bag and secondary filter should be checked periodically. The fine dust which passes through the 617E Evidence Filter Assembly will probably also pass through both the vacuum cleaner bag and secondary filter eventually. To inspect and/or replace the vacuum cleaner bag and secondary filter, follow this procedure:

1. Unplug the vacuum cleaner and detach the hose from the vacuum cleaner tank.
2. Unlatch both retaining clips on either side of the tank. Remove the tank assembly.
3. The secondary filter is a thin sheet on top of the power unit, tucked under four tabs. If necessary, lift it out and brush it clean or replace it with a new one.
4. The bag is located inside the tank. Feel it to determine if any dirt has accumulated. If necessary, replace it as follows:
 - 4.1. Reach up into the tank and grasp the cardboard collar at the top of the bag. Twist and pull to slide it off the plastic inlet tube.
 - 4.2. Reverse this procedure to install a new bag by sliding its collar onto the inlet tube. Then, expand the new bag, pulling the folded bag away from the collar. Be careful not to tear the bag.
5. Reattach the tank and fasten both retaining clips to secure in place.

