



VICTORIA POLICE

VICTORIA FORENSIC SCIENCE CENTRE
FINGERPRINT BRANCH

MODULE FIFTEEN

**POWDERING
OF
EXHIBITS**

POWDERING OF EXHIBITS

The use of powders to develop latent fingerprints is the most common and successful medium used at routine scenes of crime.

When powdering it is important to take precautions against accidental contamination of floor coverings, furniture etc especially when using black powder. On most occasions placing sheets of newspaper under the area being treated can facilitate this. Complaints have been made in the past over damage being done with powder applied by members. Extreme care is therefore necessary to prevent the risk of a claim for damages being lodged against the member or the Police Force.

WHAT COLOUR POWDER

The first and most important consideration before commencing a latent crime scene examination is determining the colour of the powder to be applied. This is determined by the colour of the background surface you are applying the powder to. In most cases white powder is used on dark coloured surfaces, and black powder on light coloured surfaces. However, there are exceptions to this rule that should be noted.

Multicoloured surfaces

White powder (eg. drink cans)

Chromed metal

White powder

Clear glass

White powder

The choice of powder is usually easy to determine, however difficulty is sometimes experienced with metallic paint on some motor vehicles. Where there is doubt regarding the colour of the powder to use, always apply white powder in the first instance. The latent can then be re-

powdered with black to darken it should there be any difficulty in obtaining a photograph. Alternatively, if possible, the member can place two of his/her own fingerprints on an area of the article **not subject examination** and powder one with black the other with white powder and take a photograph. This will then show which is the most suitable powder to use for the examination.

HANDLING OF EXHIBITS

Portable articles requiring examination should be handled carefully to avoid possible destruction or damage being caused to the latent(s) by the member's own fingers. Holding the article at the corner, edges, top or bottom is usually best.

OBLIQUE LIGHTING TEST

All articles being examined with the powder and brush method should usually be examined before powdering commences. If the article is turned so the light strikes it at different angles, (oblique lighting test) you may be able to see the undeveloped latent fingerprints. By doing this you are prepared for the fingerprints when you commence to powder.

POWDERING - General

The fragile nature of latent fingerprints should always be borne in mind. Great care therefore needs to be taken when powdering to ensure latents are not lost through careless application of powder.

Generally latent fingerprints developed with powders are found on hard non-absorbent surfaces such as glass, painted surfaces, polished timber and metal, however, it is not uncommon to develop latents on porous surfaces. (*See also NINHYDRIN*)

Both the brush and powder used have a fine soft texture and if used correctly, will produce the best results possible.

Ensure you have sufficient powder on your brush. The amount of black powder required is less than white. A good habit to adopt when using black powder is to gently tap the brush against the inside of the powder container before applying it to the surface to be examined.

POWDERING

(Using a Squirrel haired Brush)

Start at the top of any vertical surface and work your way across and down at the same time. The brushing itself is conducted by gently rolling the brush across the surface, by rotating the brush with the fingers. Rolling the brush restricts any damage that may be sustained to the ridge structure of the latent print. The shoulder of the brush is the area that should make contact with the article being examined. The aim is to cover the surface in one go, without the need to go over the same area a second time (ie. no ZORRO marks).

POWDERING

(Using a Fibreglass Brush)

See attached instruction sheet

POWDERING

(Cleaning out a Latent Fingerprint)

Once a latent fingerprint has been developed on an article it is sometimes necessary to clean the excess powder from the print itself. A photograph should always be taken of the developed latent before re-powdering or removing the excess powder in case the latent is lost after subsequent brush application. A small brush is supplied to assist with "cleaning out" excess powder. When cleaning out the very tip of the brush is used lightly following the flow of the

Ridge structure to prevent any unnecessary damage.

CARE OF BRUSH AND POWDER

Use each brush for one colour and that colour only. This prevents the spoiling of the two powders by having them mixing together and ensures sharper contrast against the various backgrounds when developing latent fingerprints.

White powder has a tendency to tamp down through constant pressure from the brush being pushed into the container. When this occurs tap the edge of the white powder container against a hard surface. The powder will then return to its original state.

Brushes become dirty through constant use.

Squirrel Haired brushes can be cleaned by washing them in warm soapy water. Place the hairs on the brush back to their original shape and leave to dry. **Do not wash Fibreglass Brushes.**