

# INSTALL INSTRUCTIONS for EMERGENCY EXIT WINDOWS on BUSES

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These are the recommended steps for installing Clear Focus One Way Vision (OWV) ExitVue film onto the external surface of emergency exit windows on buses, coaches and mini buses.

**Location**: Applicable to all geographical areas in Australia.

Temperature/Humidity: Recommended application temperature range is 15°c to 25°c.

Surfaces: External glass / acrylic vertical or near vertical surface of vehicles used as

an emergency exit.

**OWV Films**: Applicable to ExitVue and ExitVue SL.

Laminate: It is <u>strongly recommended</u> not to laminate on any mass transit vehicle

window.

Check List: Two clean lint free cloths

Cotton gloves

Sharp utility knife (e.g. Box cutting knife) 3M Knifeless Tape for perforated vinyls

Measuring tape

Low tack application tape

Plastic squeegee applicator (rounded corners, felt overlay on one edge) or

felt block applicator

#### **Pre-Install Notes:**

- 1. Follow the steps outlined in the SURFACE PREPARATION fact sheet.
- 2. If solvent ink printed, it is recommended that ExitVue is out-gassed for a **minimum of 3 days** prior to trimming and installation onto a vehicle.
- 3. Do not overlaminate.
- 4. It is recommended to apply in a sheltered area, where there is no breeze or direct sunlight. If the window has been in direct sunlight, drive the vehicle into a shaded area and wait until the window has cooled down. If the vehicle has been outside in cold weather, drive the vehicle inside to a workshop area and warm up the window.
- 5. It is recommended a minimum of two (2) people work together to apply the OWV film.

- 6. Do not apply when it is raining or snowing. Dry application method is recommended.
- 7. Do not apply over cracks, stone chips, scratches or any other type of damaged surface.
- 8. Do not apply over rubber, silicone, vinyl, canvas or plastic surfaces, such as seals and protruding mounts.
- 9. Do not leave the uninstalled OWV film in the sun or on the ground prior to installation.

## Install Steps:

# Cleaning and Preparation

- Ensure the surface area has been properly cleaned, following the instructions as per the Surface Preparation Fact Sheet. Essentially, use mild kitchen sink generic brand detergent watered solution then wipe down with 100% IPA using a different cloth. For the corners and edges, do not use circular hand motions to clean, rather use left/right and up/down hand motions. Do not use any other chemical for cleaning.
- 2. Using cotton gloves or a clean lint free cloth, wipe down the printed side of the OWV film, ensuring all finger prints, flecks, dust and any other material are removed.

#### Position and Measure

- 3. OWV film is applied to the exterior side of the window. Locate the horizontal and vertical centres of the trim area on the OWV film, and also on the vehicle window. Mark these centre points with application tape, both on the OWV film and on the vehicle.
- 4. Place the OWV film onto the window and position into desired location. Align the centre marks on the OWV film with the centre marks on the vehicle. Secure the OWV film onto the vehicle with application tape.

#### <u>Apply – DRY METHOD</u>

- 5. If the glass panel is a portrait shape (i.e. height is longer than the width of the glass panel), then work from the top down to the bottom edge.
- 6. If the glass panel is a landscape shape (i.e. glass panel is wider than it is high), then work from the left or right edges to the other side.
- 7. Carefully position the film so that it is properly aligned on all sides. Aligning to the top/bottom and left/right centre marks, ensures the graphic is level. If required to reposition, slowly peel the film off the glass and reposition to properly align. This will not affect the adhesion. It is recommended for one person to position one corner of the film at a time while the other person holds the rest of the film.
- 8. Fold back the liner approximately 15 to 30cm (depending in the size of the graphic).
- 9. Wearing cotton gloves, use your hands to press the corners and top edge (or left edge if going from left to right) in place. Alternatively, you may use a squeegee applicator.
- 10. Please note that rubber and silicone will chemically react with the adhesive on OWV films. For many newer vehicles, the rubber seals are now under the glass, therefore applying the OWV film up to the edge should not be an issue. Irrespectively, for all installations, we recommended to seal the edges. Please follow the manufacturer's instructions of the spray

adhesive. Usually, it is to spray the adhesive around the window edge and you have 15 minutes to install the OWV over the spray adhesive. We recommend spray around 20mm width around all four edges.

However, if using an edge sealing tape, first trim the one way vision film 5mm away from the window edges, then apply the edge seal tape after the OWV film has been fully applied to the whole window, bridging the OWV film and the glass surface.

- 11. With one person holding the OWV face stock loosely (so as to minimise the tension) at a low angle off the windscreen, the other person lightly squeegees the film down onto the window, using a squeegee or felt block, starting from the centre, working towards the edges, in small curved firm slow strokes, ensuring air bubbles do not form. If an air bubble or crease does appear, stop, and peel back the film a little until the air bubble/crease is exposed, then reapply the film using the squeegee, ensuring the air bubble/crease is pressed out toward the edge.
- 12. Repeat steps 8 to 11 until all the OWV film has been applied.
- 13. A heat gun is not recommended, as this will permanently damage the OWV film.

#### Trim

- 14. Remove all masking tape used during the installation steps above.
- 15. Using a sharp blade, carefully cut the OWV film around the edge of the window, and if necessary, protruding objects such as hinges, handles etc. The squeegee can be used as a straight edge in conjunction with the knife, to assist with keeping the cut aligned to the shape of the windscreen. It is recommended for the OWV film to be trimmed so that no part of it touches the rubber seal.
- 16. Score all edges, so that OWV film does not span across or onto neighbouring windows and panels.
- In addition, score at least 50mm in from all edges. Plus, score a grid pattern of 200mm 300mm across the emergency exit. Refer to image below. Red lines represent where to score.



## Edge Seal (if using edge seal tape)

- 18. If using single sided adhesive edge seal tape (as opposed to edge seal spray or liquid), trim the OWV film 5mm away from the window edges, then apply the edge seal tape, bridging the OWV film and the glass surface. The tape is applied on top of the OWV film.
- 19. Do not use single sided edge seal tape for the extra 50mm and 200mm scores. You may use edge seal liquid or spray for these scores. Alternatively, you may use double sided adhesive edge seal tape, and place the tape under the OWV film. Then score the 50mm and 200mm grids. That way, approximately 10mm of tape is holding down the edges of the OWV grid squares, but the tape is scored, so that it will not interfere with the shattering of the glass in an emergency situation.

The main reason to edge seal is to help prevent the edges from lifting when regular aggressive bus cleaning occurs.

#### Post-Install Notes:

- 1. Do not wash or clean the installed OWV film for at least one (1) week after installation.
- 2. Be aware that in temperatures outside the recommended application range, it may take longer for the adhesion to build strength.
- 3. Check the installation for lifting within 2 to 3 hours, and firmly squeegee down the film. If left unattended, the adhesive can dry out, which means that it is unlikely that the film will be able to adhere in this area.
- 4. Check again in 24 hours.
- 5. Never use high pressure cleaning devices to clean the one way vision film. Tepid wax free mild detergent sponged over the film then gently rinsed off. Please refer to the Care and Removal Fact Sheet for further information.