

INSTALL INSTRUCTIONS for BUILDINGS

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There are many methods and techniques, these are the recommended steps for installing Clear Focus One Way Vision (OWV) film onto external glass surfaces of buildings, such as shops and offices.

Location: Applicable to all geographical areas in Australia and New Zealand.

Temperature/Humidity: For minimum and maximum application temperatures and humidity levels, please refer to the relevant specification data sheet for the OWV film being installed. Generally, the range will be approximately 15°C to 25°C. See below Pre-Install Notes for further information as to what time of day to install.

Surfaces: Any glass surface for shops and offices.

OWV Films: Applicable to all external Clear Focus One Way Vision films recommended for buildings.

Laminate: It is recommended not to laminate for building One Way Vision applications.

Check List:

- Clean lint free cloth
- Cotton gloves
- Sharp utility knife
- OWV plastic squeegee applicator (150mm wide, felt edge, rounded corners)
- Application tape

Pre-Install Notes:

1. Follow the steps outlined in the SURFACE PREPARATION fact sheet.
2. If solvent ink printed, it is recommended that the OWV film is out-gassed for a **minimum of 3 days** prior to trimming and installation onto a window. If the OWV film is to be overlaminated, then **minimum of 5 days** gassing out is recommended.
3. Overlaminating OWV film which is to be applied to a building window is not necessary.
4. If using a film laminate, it is recommended to over laminate OWV film in the workshop using a roll fed cold press manual or electric laminating machine. If using an acrylic liquid laminate, dilute with water to between 10 to 20 parts water and 1 part laminate. Wait 24 hours after laminating before trimming or applying to a window.

5. For applications onto glass surfaces that are exposed to the weather, deciding the time of day for installation is an important factor. Refer to the following guidelines.
6. It is recommended a minimum of two (2) people work together to apply the OWV film.
7. Do not apply when it is raining, snowing or windy. Dry application method is recommended.
8. Do not apply over cracks, stone chips, scratches or any other type of damaged surface.
9. Do not apply over rubber, silicone, vinyl, canvas or plastic surfaces, such as seals and protruding mounts.
10. Do not leave the uninstalled OWV film in the sun or on the ground prior to installation.

Time of Day Guidelines

Surface preparation is fundamental to whether the OWV film fails over time or not. Please refer to the Surface Preparation Fact Sheet for further information. The other major factor that may cause the OWV film to lift off the surface over time, is the time of day when the film was applied.

The goal is to apply OWV film on a glass window with a surface temperature that is tepid – not cold nor hot. The location (e.g. Hobart compared to Darwin) and the season (winter versus summer) can greatly affect surface temperatures. The building aspect (i.e. faces north, east, south or west) will affect the surface temperature. Other factors such as trees or other buildings blocking the sun can affect surface temperature. Therefore, the time of day is a mechanism which can be used to assist with controlling the surface temperature.

In cold weather, apply OWV film after the windows have warmed up from the sun. Applying film to glass that is too cold may adversely affect the adhesion of the film. In addition, do not leave the OWV film out in the cold weather or on the ground, as it may become brittle.

In hot weather, apply film before the sun heats up the glass, while glass is still cool. Applying film to glass that is too hot can cause the film to stretch during installation. In addition, do not leave the OWV film out in the hot weather or on the ground, as it may melt.

There may be occasions when you are not able to choose the time of day to install, therefore you will need to artificially control the surface temperature. (Such as using heat guns or fan heaters to heat the glass when it is too cold to install or rig up a shade shelter over the glass panel to cool the glass down.)

Install Steps:

Cleaning and Preparation

1. Ensure the surface area has been properly cleaned, following the instructions as per the Surface Preparation Fact Sheet.
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.
3. Trim off excess film, leaving around 20mm bleed on the left and right edges (if applying top to bottom) otherwise top and bottom edges (if applying left to right or right to left).

Position and Measure

4. Determine whether the film has been cut square, that is: straight edges on all four sides and 90 degree angles in all corners. If not, then trim the film to be square. This is essential to ensure the film does not go off on a tangent when applying to the glass panel.
5. Locate the horizontal and vertical centres of the trim area on the OWV film, and also on the glass panel. Mark these centre points with application tape, both on the OWV film and on the glass panel. Draw a line along the tape spanning the film and the surface. These lines will be used to line up the film when applying. Score the tape at the window/film edge.
6. 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.
7. 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.
8. Fold back the liner approximately 15 to 30cm (depending in the size of the graphic).



9. 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.



10. Wearing cotton gloves, use your hands to press the corners and edge in place. Alternatively, you may use a squeegee applicator.

Apply – DRY METHOD

11. OWV should be applied dry, that is, do not use water or any other lubricant whilst applying.
12. Please note that rubber and silicone edges will chemically react with the adhesive on OWV films. For all installations, we recommended to seal the edges. Please follow the manufacturer's instructions of the edge sealing product. If using a spray adhesive, then spray 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.
13. Working from top to bottom (or side to side if panel is landscape), continue by peeling away more of the liner 15 to 30cm at a time, and squeegee the film onto the glass surface using an applicator squeegee. It is vital that there is minimal tension where the film and the window make contact, otherwise the film will tunnel and crease. To assist in decreasing the tension, do not hold the unapplied OWV film at an angle, rather let it drape down the window. It may be necessary to crease the liner so the film can drape more easily. For the squeegee, the wider the straight edge, the easier it will be to apply, minimising the potential for tunnels and creases.



14. Continue in this manner until the liner is completely removed and window graphic is in place. Do not rush this process. Take time and effort to minimise tunnelling or bubbling. If they appear, then peel back that section and reapply carefully with more pressure. Keep the unapplied portion of the film at a slight angle to the glass. If at an acute or obtuse angle, or even at right angle, this increases the risk of the OWV film tearing.
15. If there is a mount or other type of protruding object on the glass panel, make small cross slits over the mount, so that the mount can protrude through the OWV. Do not trim around the mount at this stage, as this will be performed after the entire graphic has been applied.
16. A heat gun is not recommended, as this will permanently damage the OWV film, even if the film is overlaminated. If OWV is being applied in cold weather and there is a need to heat the glass surface, then with a low heat setting and no closer than 30cm, aim the heat gun onto the glass in stroke movements, prior to the OWV film being applied.



Trim

17. Remove all application tape used during the installation steps above.
18. Using a sharp utility knife, carefully trim away any unneeded portion of the graphics, such as excess OWV film around the edges of the panel, and if necessary, protruding objects such as mounts. The squeegee can be used as a straight edge in conjunction with the knife, to assist with keeping the cut aligned to the edge of the glass panel.
19. Please note that rubber and silicone may chemically react with the adhesive on OWV films. It is recommended for the OWV film to be trimmed so that no part of it touches the rubber seal.

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, bridging the one way vision film and the glass surface.



Finishing

1. Re-squeegee the entire graphic with firm pressure. Ensure there are no bubbles or tunnels. If necessary, pin prick the edge of a bubble and squeegee the air out. Be sure to squeegee the edges firmly in place.



Multiple Panels/Graphics

1. If installing more than one panel, properly align the next graphic in relation to the adjoining panel(s). In the case of graphics that must be seamed together, install the two pieces so that the edges of the film butt against each other, with the holes aligned. Do not overlap the two films. Remember to edge seal the join.



Post-Install Notes:

1. Do not wash or clean the installed OWV film for at least 1 week after installation.
2. Be aware that in temperatures outside the minimum and maximum application range, it may take longer for the adhesion to build strength.
3. Check the installation for lifting or bubbling 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. Depending on the climate and how much direct sunlight the applied OWV film receives, it may take 2 to 4 weeks for squeegee marks to disappear.