

USERS INSTRUCTION MANUAL (ENGLISH)

INTRODUCTION

This patented windshield tool is the original internal cut method, which successfully removes urethane set windshield glass including vehicles with urethane set mouldings, encapsulated mouldings and/or where the urethane adhesive is located away from the edge of the glass, or hidden far below the dashboard area. The blade reciprocates against the surface of the glass on the inside of the vehicle, quickly and efficiently cutting the urethane adhesive around 100% of the glass perimeter. Force is eliminated and urethane set mouldings remain installed.

GENERAL GUIDELINES AND REMOVAL INSTRUCTIONS

FITTING OF BLADES TO AIR TOOL

When installing blades into the air tool, always disconnect the air line. To fit blade, using the 4.0mm hex key provided, unscrew the cone point retaining screw in the blade chuck. Insert the blade as far as it will go into the chuck, view through inspection hole and re-tighten retaining screw. Re-connect air line ready for use.

ALL BLADES CAN BE FITTED IN THE MANUAL HANDLES

The same blade chuck is fitted into the WK7 and WK7L handles.

RANGE OF BLADES

A small and comprehensive range of blades are available to service the majority of installations.

CONTROLLER CAP

The controller cap allows the depth controller arms to be attached and adjusted and is designed to be held flat against the glass surface. This guarantees the blade is also held flat and hugging the glass surface for efficient cutting and operator control. (Refer Diagram A and B).

DIAGRAM A

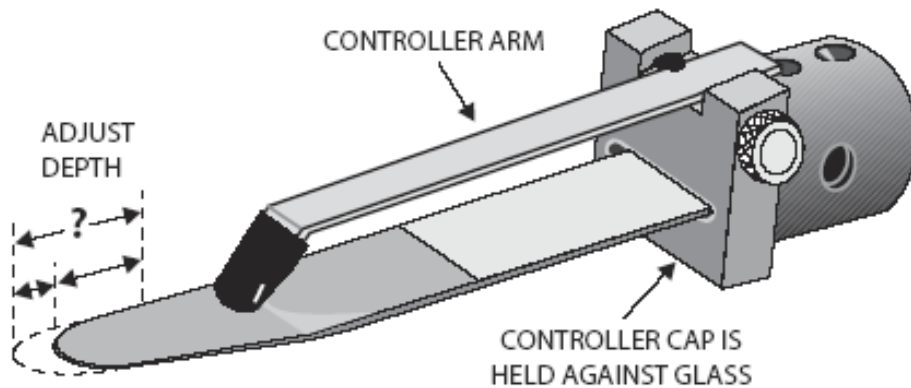


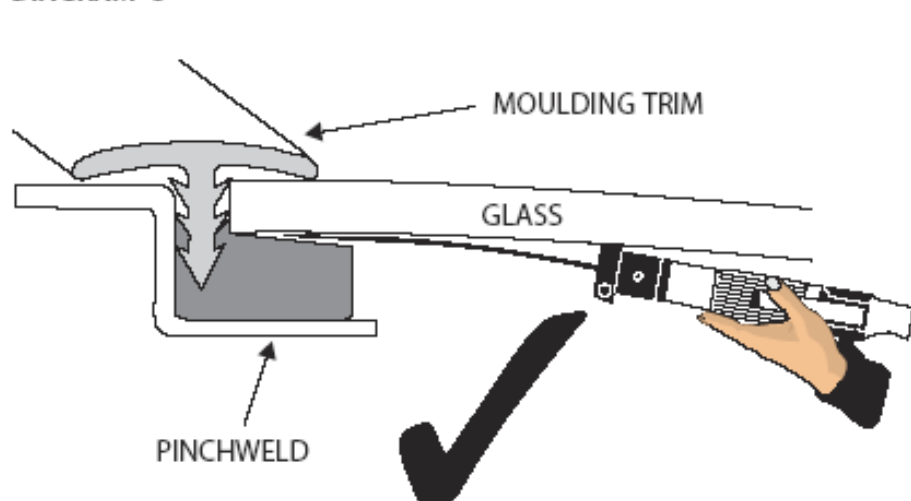
DIAGRAM B



CORRECT CUTTING PROCEDURES

Diagram C shows the correct method to operate the air tool. The controller cap and blade are flat against the glass and the operator's hand is placed under the tool to allow the back of the air tool to also operate as close to the glass as possible.

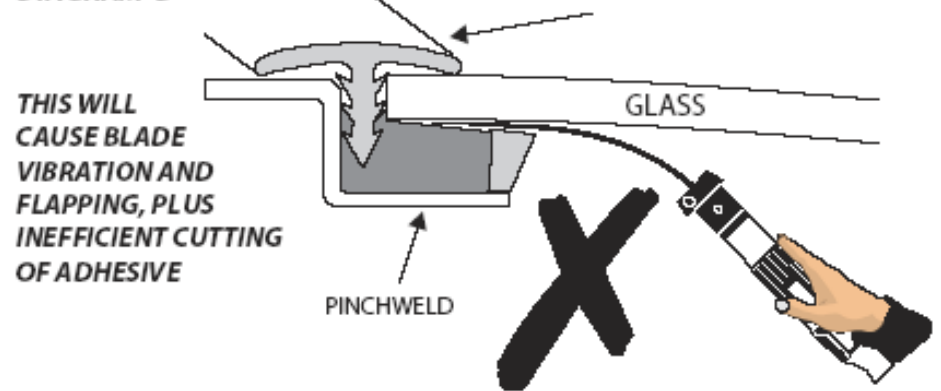
DIAGRAM C



INCORRECT CUTTING PROCEDURES

Diagram D shows the air tool being used incorrectly. The blade is being forced into an unnatural bent position and the hand is placed on top of the air tool. This will cause blade vibration and "flapping", plus inefficient cutting of the adhesive.

DIAGRAM D



CUTTING PROCEDURE USING THE RECIPROCATING AIR POWER TOOL

Position the tool and blade against the glass. Start the tool and adjust power. Depress the Speed trigger and hold on to maximum. Proceed to cut the urethane adhesive as recommended below:

1. On adhesives that are sometimes small and/or the softer type, hold the tool and blade at 45° and apply some pressure to encourage and create continuous cutting using the tip and side of the blade, **OR**
2. Hold the tool and blade at 90° and use in a sawing motion while moving from left to right.

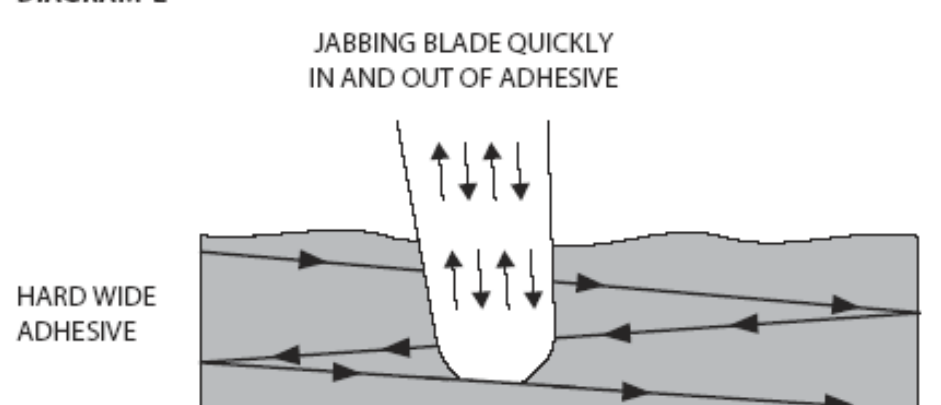
With harder type adhesives, especially on curved glass, it is recommended that jabbing the air tool and blade quickly in and out of the urethane adhesive and with a combination of adding lubrication is most effective, especially where adhesives are hidden below dashboard areas.

EXTRA HARD AND/OR WIDE ADHESIVE

When cutting extra hard and/or wide adhesives, make sure blades are sharp and cutting lubrication is applied. With the tool and blade operating in a straight line, apply the tip of the blade directly at the adhesive and combined with a quick jabbing action, move from left to right over a short distance, progressively cutting through the adhesive. Ensure separation is complete before moving on to next section. (Refer Diagram B and E).

Do not force blades deep into adhesive or unnecessary jamming may result. Remember to depress speed/power trigger to maximum to allow the air tool and blade cutting tip to OPERATE CONTINUOUSLY while cutting all urethane adhesives.

DIAGRAM E

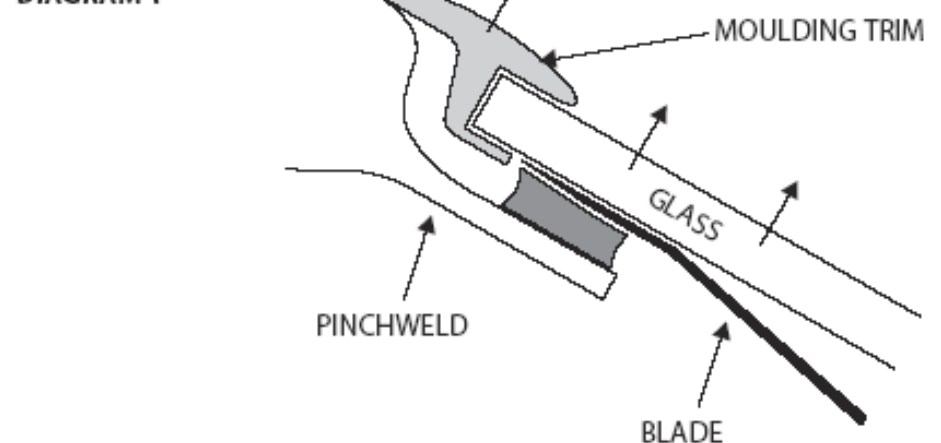


URETHANE SET MOULDING REMOVAL

When bonded mouldings are present, always carry out the normal internal cut of glass, then apply one of the following steps:

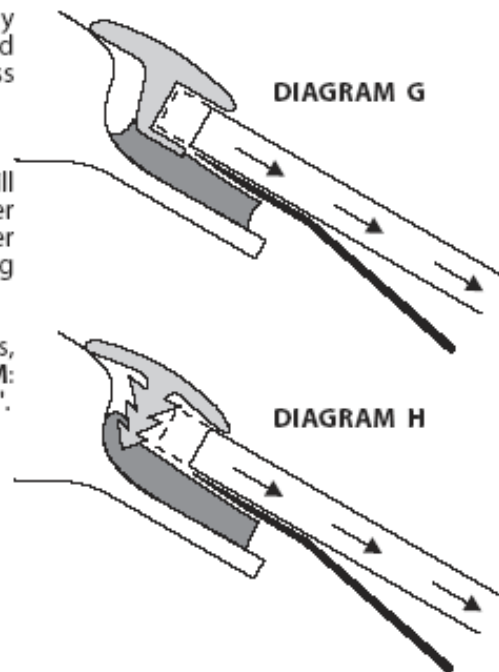
1. Lift glass out with mouldings still attached to glass (Refer diagram F).

DIAGRAM F



USERS INSTRUCTION MANUAL (ENGLISH)

2. Check that the glass is totally free from the moulding and adhesive, then slide the glass down & out of the moulding (Refer Diagram G and H).
3. The mouldings and glass will now be loose and free after cut-out allowing an easier release of any remaining urethane stringers.
4. For encapsulated mouldings, refer to Diagrams F, L and M: "Encapsulated Glass Removal".

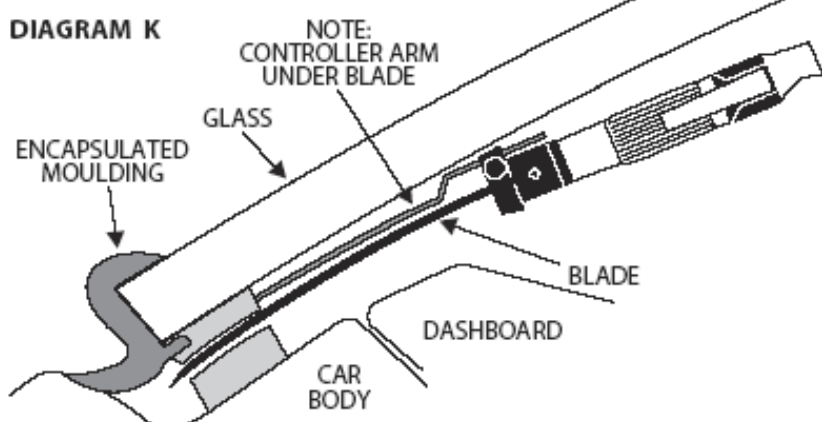
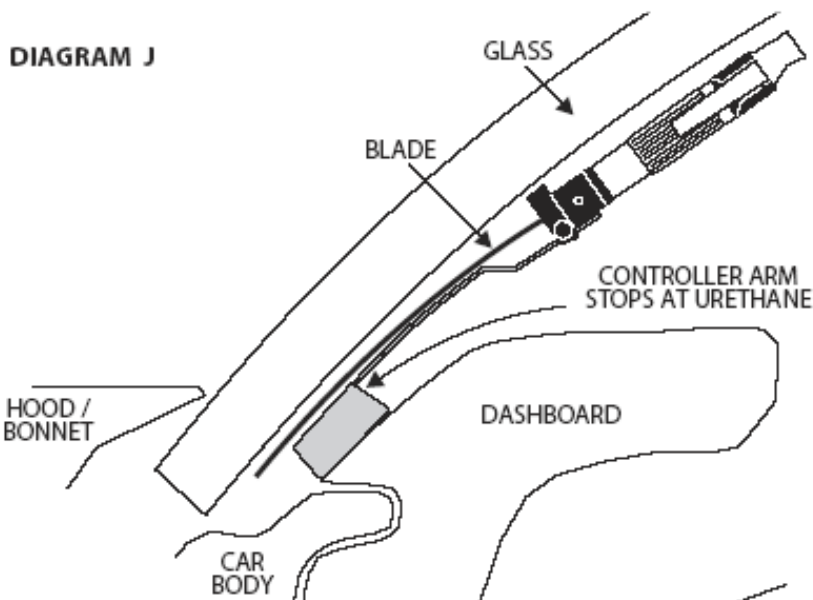
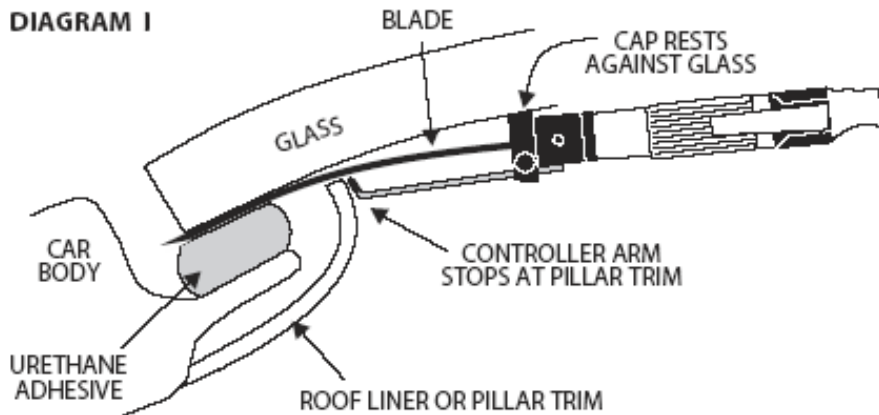


UNDAMAGED GLASS REMOVAL

When operating in high risk areas or corner regions, or removing laminated glass, distribute the cutting action around the complete corner or risk area to create a gradual separation. Do not create leverage or force the blade into adhesive, which may cause pressure points. Do not push or force the glass until the internal cut out is 100% complete. Always carry out a final check with a hand held blade to ensure separation.

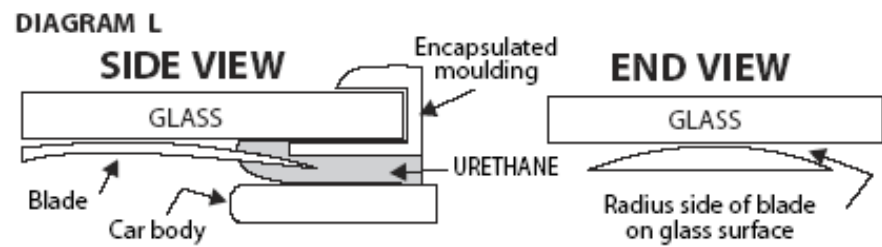
REGULATING CUTTING DEPTH WITH DEPTH CONTROLLER ARMS

A range of controller arms are provided with each kit to be used either underneath or on top of the cutting blades. They can be quickly attached into the air tool controller cap and adjusted to regulate the blade cutting depth to avoid damage to the pinchweld, mouldings and glass etc. (Refer Diagram I, J, K and M - "Encapsulated Glass Removal").

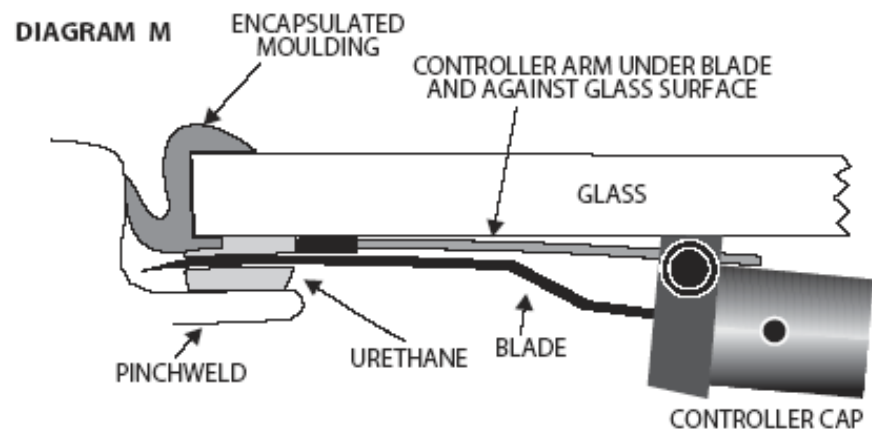


ENCAPSULATED GLASS REMOVAL - REVERSE "R" BLADES

For encapsulated glass removal, the specially designed "R" (orange) blades, (or the WK1 or WK2 blades with radius side toward glass) are generally used. Using these blades, the radiussed side is held toward glass. In this reverse mode, the blade now cuts away from the glass - up and over the encapsulation. (Refer Diagram L).



Where necessary, controller arms can be fitted to the controller cap, so that the controller arm steers the blade over the top of the encapsulated moulding, also controlling the depth of penetration and avoids blade tip hitting the pinchweld and/or moulding flaps or tails. (Refer Diagram K and M).



SHARPENING OF BLADES

The best cutting results are obtained with sharp blades. The procedure for sharpening the blades is as follows:

1. Sharpen blades from radiussed (machined) side only.
2. Keep the flat side of the blade smooth to allow sliding motion on the glass surface.
3. If the blade cutting edge is damaged, it needs to be re-shaped on a belt sander then polished smooth and stone sharpened.

WARNING: COURSE GRINDING OR BLUNT BLADES WILL ADVERSELY AFFECT PERFORMANCE AND EFFICIENCY

REMOVING VEHICLE SIDE BODY PROTECTION MOULDINGS, EMBLEMS, BADGES AND NAME PLATES

Use blade similar to auto glass removal with the flat side of the blade operating against the painted panel surface. Use of lubrication is recommended and important

NOTE: Lubrication is important and recommended to lubricate cutting blades and protect painted surfaces.

DIAGRAM N

REMOVING BONDED MOULDINGS FROM FLAT PANELS:
Operate flat side of selected blade against panel surface.

REMOVING BONDED MOULDINGS FROM RECESSED PANELS:
Start from one end of moulding using long flat blade and work along panel surface progressively separating moulding from panel.

DIAGRAM O



USERS INSTRUCTION MANUAL (ENGLISH)

REMOVING DOUBLE SIDED TAPE AND/OR URETHANE FROM BODY PROTECTION MOULDINGS AFTER REMOVAL FROM VEHICLE

NOTE: DO NOT USE LUBRICATION

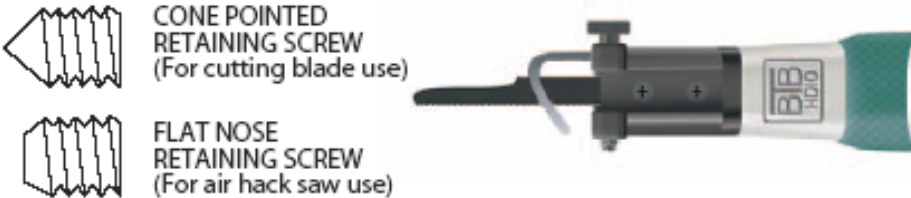
Adjust the air tool power and speed as necessary. Secure the moulding on a flat surface. With the radiussed (ground) side of the blade facing down on the tape/urethane, tilt the blade to an appropriate angle and proceed to trim away tape/urethane until a clean prepared surface remains.

WARNING: Always use blades in a direction away from the operator's hands.

AIR HACKSAW

To convert the tool into an air hacksaw, the following steps should be taken:

1. Disconnect air line
2. Remove cone point retaining screw
3. Insert air hacksaw blade
4. Fit flat nose retaining screw and tighten
5. Re-connect air line



GENERAL HINTS AND TIPS

The power and speed of the air tool can be controlled by the operator, providing a safe, powerful cutting action when needed, or a gentle and precise cutting action for delicate work.

BLADE VIBRATION

When a blade vibrates or flaps against the glass, refer to the following points 1, 2 and 3 and also Diagrams C and D.

1. Check blade tip is flat against the glass
2. Ensure blade is held firm against the glass and angle is correct
3. When cutting below dashboard, keep tool and blade in straight line where possible

CUTTING LUBRICANT

Lubrication is important for blade movement. Always lubricate the internal cutting area and the external cutting edge where possible.

COMFORT FOR THE TECHNICIAN

For the majority of front windshield cut-outs, the operator stands comfortably in the doorway of the vehicle and observes from the external side of the glass. Only the operator's arm(s) need enter to reach into the vehicle interior (Refer Diagram B).

PROTECT GLASS SURFACE

Scratches to ceramic or UV bands may result from the back of the cutting blade rubbing against the surface. To avoid this, ensure the blade is dry, then apply a small pad of Velcro® to the offending section of the blade.

BLADE REPLACEMENT

If the shape and length of the blade tip reduces from repeated sharpening, blade replacement may be necessary to regain efficiency.

When sharpening or re-sharpening the blades, do not overheat the blade.

WARNING: Before using the Automotive Glass Removal kit, read SAFETY GUIDE DATA.

AIR TOOL TECHNICAL DATA

FREE SPEED (BPM).....	6,500
STROKE LENGTH (mm).....	6
NOISE (dBA).....	77-79
AIR INLET (mm).....	5 (1/4"NPT)
Max. AIR PRESSURE (BAR).....	6.2
AIR CONSUMPTION (L/min).....	140
WEIGHT (Kg).....	1.15
OVERALL LENGTH excluding air hose (mm).....	260

SAFETY GUIDE DATA (WHEN USING THE AUTOMOTIVE GLASS REMOVAL KIT)

IMPORTANT

- To reduce the risk of injury, everyone using, installing, repairing, maintaining, changing blades on or working near this tool must read and understand the Users Instructions Manual and view the Training Video before using the Automotive Glass Removal Kit.
- The most important safety device for this or any tool is "yourself". Your care and good judgement are the best protection against injury.

OPERATOR SAFETY

- Always wear impact resistant eye protection such as safety glasses or goggles.
- Special care is needed when handling the automotive glass removal blades as the cutting edges are very sharp.
- For protection of hands and fingers, the use of protective gloves is recommended.
- Always use blades and sharpen blades in a direction away from the operator's hands.
- Ensure blade retaining screw is tight when securing blades in the air tool.
- Do not bend blades in an incorrect manner or use them for purposes other than which they are designed, as blade breakage could occur (Refer to Users Instruction Manual).
- The Automotive Glass Removal Air Tool, blades and accessories must not be modified.
- When cutting urethane adhesives, always use the recommended cutting lubrication to avoid heat build up and possible toxic smoke.

AIR TOOL OPERATION

- Always shut off the air supply and disconnect the air tool from the air supply when changing blades, making repairs, or when the tool is not in use
- For maximum performance, the air tool should be oiled daily (Mobil DTE16M is supplied, a lighter grade Mobil DTE 13M or 11M are recommended for colder climates). If recommended oil is not available, use multi-purpose fine grade air tool oil.
- Do not exceed recommended maximum air tool operating pressure (6.2 Bar)
- Minimum to maximum air tool power is obtained by turning the air control valve (B12).
- Do not operate the air tool at high speed when not in use.
- Do not start the air tool until the tool and blade are in the correct operating position.
- Maintain a balanced body position and secure footing when operating tool.
- Only use recommended blades or accessories in the air tool.
- This tool should only be used and repaired by qualified technicians.
- Only use air tool in accordance with manufacturer's specifications and approved applications.

VEHICLE SAFETY

- Remove all loose dirt, grit or debris from edges of glass before proceeding with cut-out (air is recommended for blowing away debris)
- Cover the vehicle roof, hood or bonnet, interior seats and carpets with protective covers.
- If necessary, remove internal and external trimmings or mouldings, or apply protective/masking tape to protect paintwork and trims.
- Prior to cut-out, locate and identify fittings on the glass such as electrical connections, heater elements, rain sensors etc.

WORKPLACE SAFETY

- Never direct air at yourself or anyone else
- Care should be taken when disconnecting air supply, as whipping hoses can cause serious injury.
- Always check for damaged or loose hoses or fittings.
- Be aware of excess hoses left on the floor or work surface area.