

Equalizer®

**AUTO GLASS
CUT-OUT KNIVES**



Equalizer® **Excalibur**®

Air Powered Cut-Out Knife
AEB403 • AEB405



Equalizer®

Auto Glass Cut-Out Knives

All Equalizer® tools are warranted for one year to be free of factory defects. Warranty does not apply to abuse, misuse, or normal wear and tear. We will repair or replace, at our option, any defective part. Tools are repaired and sent back the same day they are received.

**If you feel your tool is covered under warranty,
the entire tool, including all blades, must be returned to:**

**EQUALIZER INDUSTRIES, INC.
2611 OAKMONT DRIVE
ROUND ROCK, TEXAS 78665**

If you want a tool repaired, but are not seeking to have it repaired under warranty, we require that you return the complete tool including the blades.

Equalizer Industries, Inc., reserves the right to refuse to repair, at our expense, any tool which has not been properly maintained as specified in the Users Guide. Particularly important are the following:

1. **KEEP THE BLADES SHARP!!!!** This is the one thing most technicians WILL NOT do and it WILL damage the tool.
2. Use a cutting lubricant. If you are using the short cut method (not recommended by anyone anymore) use only clean water as a cutting lubricant.
3. **DO NOT HIT THE PINCHWELD. THIS WILL DESTROY THE DRIVE MECHANISM OF YOUR TOOL.**

If you have any questions about your tool, call us toll free at 800.334.1334 or fax us at 512.388.4188

EQUALIZER® SERIAL NUMBER _____
KEEP THIS FOR YOUR RECORDS

About Equalizer® Auto Glass Cut-Out Knife Blades...

Our blades are made of a special material. It has rounded edges and the correct Rockwell hardness so it will not bind or buckle inside the sheath. The serrated blades are made of spring steel and sharpened with a unique double-serration method for faster cutting action. The blade is made of mild steel so it will not shatter.



EEB797 • 12" Blade



EEB795 • 8" Blade



EEB793 • 4" Blade



ESB1312 • 12" Serrated Blade



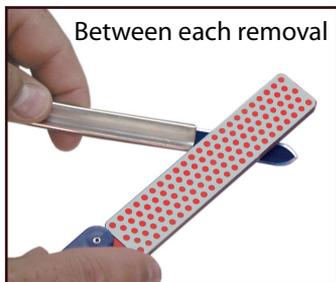
ESB1308 • 8" Serrated Blade



ESB1304 • 4" Serrated Blade

Sharpening the Blade

To sharpen the blade, simply grind the edge on a bench grinder, belt sander, or use a file or honing stone. You do not have to remove the blade to sharpen it. Be sure to disconnect electric tools from the power source, disconnect air tools from air pressure, and remove the battery from cordless tools. The use of any material other than our blades will cause damage to the sheath and drive unit and will void your warranty.



Between each removal



Every ten removals

Keep your blades sharp! This is crucial for effective cutting action and tool longevity. A dull blade will destroy the drive mechanism in your Equalizer® tool. Sharpen the blade between each removal with a diamond file. Be careful to maintain the original sharpening angle.

Every ten removals, re-sharpen the blade on a bench grinder. Keeping a sharp blade will help the tool cut faster, will reduce vibration, increase the life of the tool, and reduce fatigue for the user. Most tool damage is caused because the blade has not been kept sharp. Equalizer® does not warranty tools in these cases.

About Equalizer® Auto Glass Cut-Out Knife Sheaths...

The sheath is a unique patented idea that makes Equalizer® tools work. The sheath is a protective sleeve that surrounds the blade so the blade will not damage the dash or garnish mouldings. The sheath is designed to help you regulate the length of the blade. This is important to keep the blade from hitting the pinchweld on the outside. Sheaths are available in 4-inch, 8-inch and 12-inch sizes. The 4-inch is most commonly used around quarter glasses where there is not much vertical height. The 8-inch is the most commonly used size when removing windshields or back glasses. The 12-inch is useful when reaching far below the dash on vehicles where the windshield extends below the hood.



Before You Begin Cutting...

Spray the entire cutting area and blade with plenty of water. Lubrication is vital for maximum cutting ease. Failure to use water increases cutting friction and will cause tool damage. Periodically spray the blade with water.

RUST PREVENTION

To prevent rust caused by water droplets, place a few drops of oil into the sheath every day and allow it to run down into the blade holder.

General Safety Information

1. Always wear safety glasses and safety gloves when using Equalizer® tools.
2. Do not activate Equalizer® tools until they are in the cutting position. Disengage the tool and let it stop before taking it out of the urethane.
3. The blade is sharp and can cut even when the tool is not running.
4. Do not force the tool. Put light forward pressure on the tool. Let it do the work.
5. Consider your work environment. Do not use or expose power tools to rain or damp weather.
6. Unplug electric tools before servicing and when changing accessories.
7. Stay Alert!! Watch what you are doing. Use common sense.

The Equalizer® Excalibur® is an interior auto glass cut-out knife. It is designed to cut the urethane bonding which holds most modern auto glass in cars. The .020" thick blade reciprocates inside a metal sheath. This sheath protects the dash and garnish mouldings and regulates the depth at which the blade cuts. The blade is exposed only 1/2 inch to 1-1/2 inches on the end, depending on how you adjust the blade. The blade length is adjustable because different cars have different widths of urethane bonding.



Maximum Operating Pressure	90 psi
Air Consumption	8 cfm
Strokes Per Minute	3,200

We recommend using a filter, airline pressure regulator, and lubricator mounted as closely as possible to the tool.

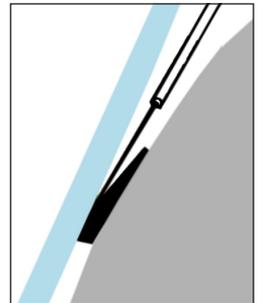


Changing the Blade

A hex screw holds the blade in place. Loosen the screw and pull the blade out of the sheath. Insert a new blade and tighten the screw tightly against the blade. The blade retaining screw is accessible through the side of the base on all Equalizer® tools.

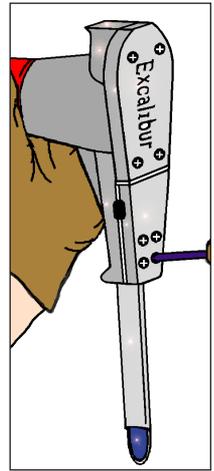
Put The Blade In Correctly

Look at how the blade is installed when you receive your Equalizer® Excalibur® and always put it in the same way. The flat side rides against the glass. This method of installing the blade is important because the unique way the blade is sharpened makes it hug the glass and cut the urethane where it is easier to cut. The only exception to the above is when the glass is encapsulated or has mouldings bonded to the glass. If you are trying to take an encapsulated glass out without breaking it, turn the blade around so the flat side will hug the pinchweld. If you do not do this the blade may cut into the plastic and damage the moulding.



Changing The Sheath

The sheath is held in place by four hex head screws. To change the sheath, loosen the screws and pull the sheath out of the sheath clamp. Insert the new sheath and tighten the screws. Use care not to overtighten the screws and crush the sheath. Crushing the sheath can cause the blade to bind and damage the drive unit.



Caution

When you are changing the blade and sheath at the same time, be sure to put the sheath in and tighten it first, then install the blade. If you install and tighten the blade first, the sheath can bind against it and damage the tool.

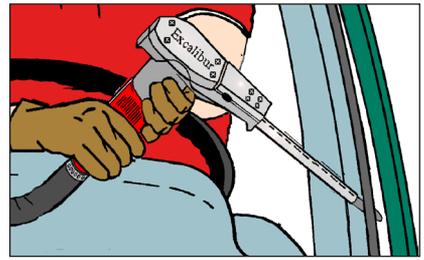
Sheath Maintenance

If urethane or butyl is pulled up into the sheath it can be cleaned by removing the sheath and soaking it in a solvent. Avoid the use of harsh cleaners such as lacquer thinner or similar "hot" cleaners. We recommend soaking the sheath in an upright position so the urethane or butyl will drain out the bottom of the sheath.



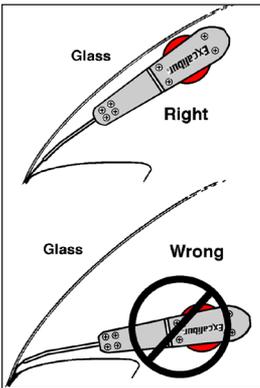
Caution

Keep the sheath clean inside! Failure to do so can put excess strain on the drive unit and damage it. We will not warranty tools damaged in this way!



Plunge Cuts & Cutting

Start the tool with the blade a short distance from the urethane. Then, with the tool running at full speed, push the blade into the urethane. This is called a plunge cut. Grip the tool firmly and do not allow it to kick back. Plunge cutting works better with the tool running at full speed. Plunge cutting is possible because the blade is sharp around the end. After the plunge cut you can cut in either direction because the blade is sharp on both sides.



Proper Tool Use

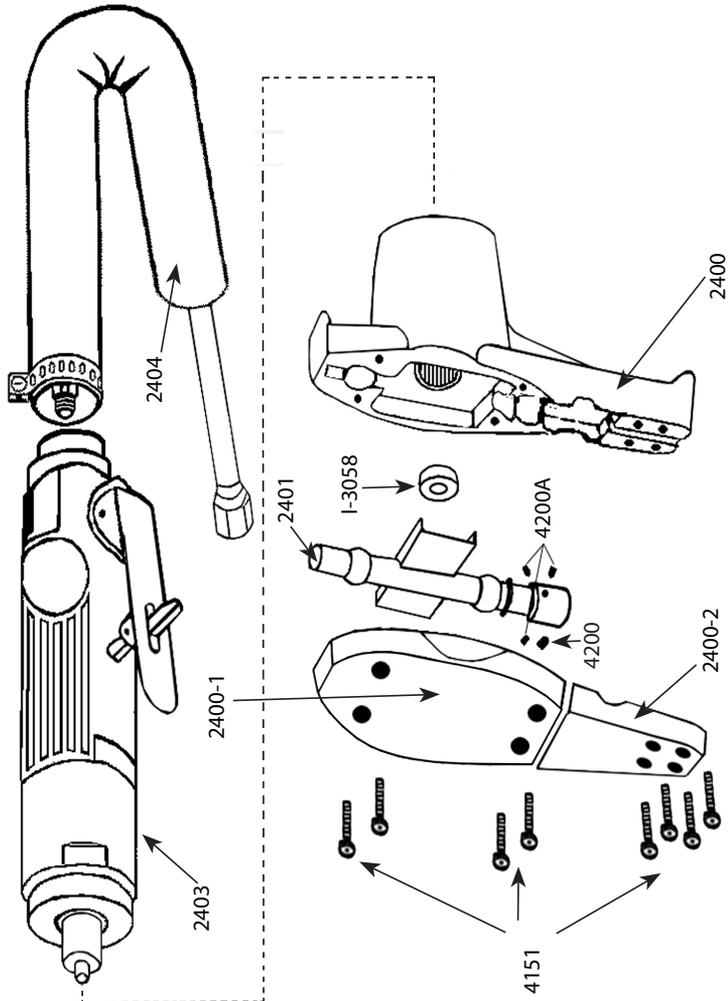
The sheath is curved so the drive unit can be held away from the glass. This curvature keeps the blade from bending as it comes out of the sheath. Not holding the tool so the blade goes straight in and out can cause excessive friction, overheating the blade and causing it to break. **This is extremely important on all blades, but more important on serrated blades. Holding the tool incorrectly can break serrated blades.**

Remove & Replace Windshields, Side Glasses & Back Glasses

Remove and replace windshields without breaking them. Because of the thin blade (it is actually .002" thinner than a normal piece of cut-out wire) you can use your Equalizer® Excilibur® to remove auto glass without breaking it. Keep the blade moving and use Equalizer® Cutting Lubricant. Use a utility knife to cut down to the pinchweld, on the outside, taking care not to let the knife cut into the paint. Use your Equalizer® Excilibur® to cut the glass loose from the urethane. On bonded encapsulated parts, turn the blade over so the flat side is against the pinchweld. If the blade is not turned over it can cut into the plastic encapsulation and damage it.



Models:
AEB403 • AEB405
Equalizer®
Excalibur®



Part No.	Description	Quantity
2400	Casting Body	1
2400-1	Casting Cover	1
2400-2	Casting	1
2401	Plunger Assembly (includes blade holder and all screws)	1
2403	Motor Assembly and Drive Shaft	1
2404	Air Hose and Muffler	1
4200	1/4 X 20 X 5/16 Blade Retaining Screw	1
4200A	10 X 32 X 1/4 Blade Holder Screws	3
4151	Sheath and Head Retainer Screws	8
I-3058	Drive Bearing	1

WARRANTY REGISTRATION

Please PRINT clearly and fill in all of the blanks.

Place in envelope and mail to address on right.



2611 OAKMONT DRIVE
ROUND ROCK, TEXAS 78665

TOOL SERIAL # _____

TOOL TYPE: AEB403 AEB405

DATE YOU PURCHASED THIS TOOL _____

YOUR COMPANY _____

ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____

TELEPHONE NUMBER () _____

YOUR NAME _____

YOUR POSITION _____

PURCHASED FROM _____

THEIR ADDRESS _____

CITY, STATE, ZIP _____



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