



**For Use With Included Hand Ratchet ONLY!
Do NOT Use With Power Tools
As This Could Damage The Viper™ Unit
and Void Your Warranty!**



Warning!



**Magnets are powerful! Use caution when removing the ratchet/
socket from the Viper™ unit - as the force needed for removal
could lead to personal injury and/or damage to the vehicle if the
ratchet/socket were to hit the dash, etc.**



**Always wear safety gloves and safety glasses
when using cut-out wire and the Viper™ removal tool!**



**There are many makes and models of vehicles that you could
encounter and with these, the amount of scenarios that you
could run into are too numerous to mention. We have done
our best to give an accurate in use directive while keeping it as
simple as possible. Please keep in mind that there may be times
when you have to position/adjust the units differently for a
particular make/model or scenario encountered.**

Windshield Removal With The Viper™

Vehicle Prep:

- Remove wipers and cowling to give proper access to the bottom of the windshield
- Remove the rearview mirror
- Identify any clips and/or stops

It is recommended to use the Snake Eyes™ boroscope unit (SE545) prior to removal to help locate problem areas such as clips, stops and thick accumulations of urethane. You can then mark these areas with a grease pencil as a reminder to be prepared when you get to that point in the removal.

The Snake Eyes™ can also be used to diagnose rust on the pinchweld. If your shop will repair the rusted spots, this will save time as well as help you with your up front estimates. If you don't do rust repairs you will know ahead of time and can refer the customer to a body shop.



Inserting The Wire Starter:

Starting from the area that you feel will best suit you (either the drivers side or the passengers side) insert the wire starter tool from inside the vehicle through the adhesive bead at the bottom area of the windshield.



Note: To avoid damages to the painted area it is recommended to place a piece of tape on the exterior of the pinchweld.

Starting The Wire/Line:

Insert the end of the cutting wire/line through the eye of the wire starter and pull it into the inside of the vehicle, allowing enough slack so that you can place your Viper™ (VT1136) Unit in the appropriate working place.



Placement Of Wire Around Windshield:

From the outside of the vehicle begin to introduce the wire underneath the bottom corner molding (closest to where you inserted the wire to begin with).

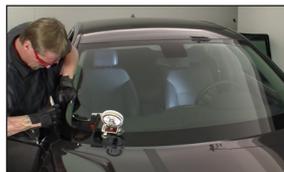
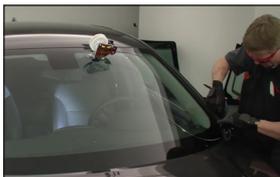


Now load your spool of wire onto the Venom™ Wire Dispenser (Additional Item - WDD167, Does Not Come With Viper™ Kit) and place it onto the windshield.



Continue to insert the wire from the Venom™ under the moulding all the way around the windshield until you are where the wire was inserted through the urethane.

Note: In some cases you might need to tape over the molding so that the wire does not pop loose.



Getting Started With the Viper™

Clean the inside of the windshield to make sure that the Viper™ will stick to the glass and hold vacuum when applied.

Insert the wire into the hole on the pulley of the Viper™ unit.

When starting the removal from the passenger side, wind the wire on the Viper™ in a counter-clockwise motion 2-3 times.

Install the Viper™ on the windshield, slide the dash protector in place and begin the removal process.

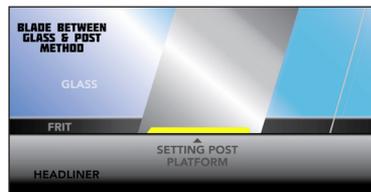
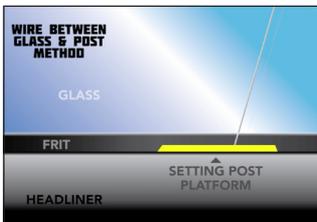


Windshield Setting Pins:

Be aware that most vehicles have setting pins installed from the factory (up in each corner) to allow the installer or robot to place the glass in the perfect spot during construction of the vehicle.

There are two methods to cut behind the setting posts -

1. Apply pressure to the wire where it is closest to the urethane and while using the Viper™, cut behind the setting pin where it is attached to the windshield.



2. Use a blade such as the BFE1401, to cut the bond between the setting pin and the windshield prior to continuing the removal with the Viper™.

Removal Process - Cutting Out The Windshield:

Begin cutting -

Start the ratcheting action slowly and apply light pressure.

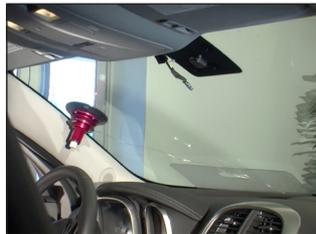
After the initial cut and getting past the corners (in most cases the urethane is thickest in the corners where all the body seams are formed together), you can speed up the ratcheting action as needed.

Make sure that the dash protector is always in the correct position and apply light pressure on the wire against the glass.



As you make your way around the windshield, you will have to reposition the Viper™ unit as needed for the proper cutting angle.

Repositioning the Viper™ is very simple. Simply release the vacuum and keep a light grip on the Viper™ as you pull and let the wire unwind to accommodate your new position.



Approaching the A-pillar -

If you prefer to remove the A-pillar trim panels do so at this time. If you choose to leave the mouldings in place then use the headliner protector (HP564 - Not Included). Slip it into place and make sure that when cutting, the wire is between the glass and the protector at all times.



About halfway up the A-pillar you will need to reposition the Viper™ in order to complete the cut up the A-pillar and to start across the top.



Once you reach the top corner, you most likely will encounter the clip/setting pin that was mentioned earlier on. At this point, you will use one of the two methods listed to cut the clip/setting pin.



Once the clip/setting pin is cut, you can then continue cutting across the top of the windshield. Be sure to take special care not to get hungup on the wiring harness for the rearview mirror.

When you begin to notice the wire starting to feed from the Venom™ wire dispenser, this means that there is not enough tension being created to cut through the urethane.

At this point, you will switch the wire from the Venom™ to the mini anchor (MAC1125)

To do this, first pull enough wire from the Venom™ so that when you cut the wire you have enough wire to reach into the vehicle. Cut the wire, then insert the wire under the windshield through the already cut area.



Attach the wire to the mini anchor making sure that the tab is pointed towards the original entry point of the wire.



Once you reach the next corner, you most likely will encounter another clip/setting pin. At this point, you will use one of the two methods listed to cut the clip/setting pin.



Once the clip/setting pin is cut, you can then continue cutting across the top of the windshield.

Approaching the A-pillar -

If you prefer to remove the A-pillar trim panels do so at this time. If you choose to leave the mouldings in place then use the headliner protector (HP564 - Not Included). Slip it into place and make sure that when cutting, the wire is between the glass and the protector at all times.



A little ways down the A-pillar you will need to reposition the Viper™ in order to continue the cut at the proper angle.

When nearing the end of the removal it is important to remember to reposition the mini anchor and the Viper™ so that the wire from the mini anchor is now **under** the wire from the Viper™.



Continue cutting down the A-pillar until the wires cross making the final cut and the wire simply reels back into the vehicle. The removal is complete. You can now remove the mini anchor and Viper™ unit and proceed to lift out the windshield and prep for replacement.



You can see there's no damage to the body, and an added benefit is that the urethane is trimmed down to the proper height.



Quarter Glass Removal With The Viper™

Vehicle Prep:

- Remove all trim panels surrounding the work area
- Identify any clips/setting pins and cut

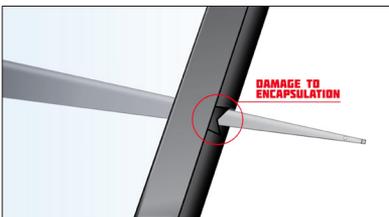


Inserting The Wire Starter:

Place the Venom™ Wire Dispenser (Additional Item - WDD167, Does Not Come With Viper™ Kit) on the outside of the quarter glass.

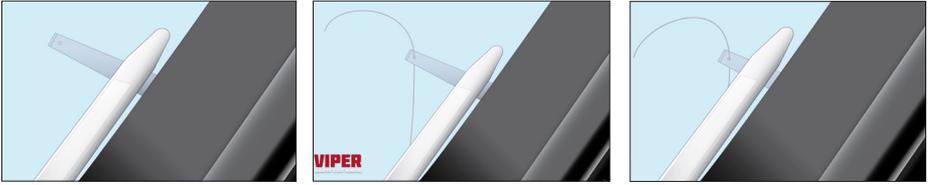
Many vehicles will have an encapsulation around the quarter glass which will make it impossible to insert the wire starter from inside the vehicle (as many technicians are used to) without damaging the encapsulation. For these cases, you will need to insert from the outside of the vehicle.

To do so, insert the wire starter under the lip of the encapsulation and push through the urethane until you can clearly see the starter hole inside the vehicle.



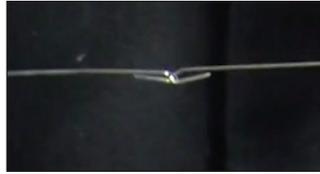
Starting The Wire/Line:

Use an installation stick to gently push out on end of the wire starter. Take an approximate 24" section of wire and insert it into the starter hole on the wire starter then pull through to the outside of the vehicle.



Make a small bend in the end of the wire. Then take the wire from the Venom™ wire dispenser and make the same bend. Attach the two ends of the wire and crimp together.

Then pull the crimped section of wire back into the inside of the vehicle.



Placement Of Wire Around Quarter Glass:

Pull excess wire from the Venom™ wire dispenser and begin threading the wire underneath the moulding around the outside of the quarter glass.

Place moulding tape at the exit point of the wire on the moulding for added protection while pulling.

Go ahead and place moulding tape on the glass and body as well so that when the last cut is made, the glass will stay in place.



Getting Started With the Viper™

Clean the inside of the quarter glass to make sure that the Viper™ will stick to the glass and hold vacuum when applied.

Insert the wire into the hole on the pulley of the Viper™ unit.

Depending on what direction you are cutting dictates which direction you will wind the wire on the Viper™. When cutting towards the back of the vehicle, wind the wire in a clockwise motion 2-3 times.



Install the Viper™ on the quarter glass at the furthest spot from the wire insertion point.



Removal Process - Cutting Out The Quarter Glass:

Begin cutting -

Start the ratcheting action slowly and apply light pressure to the wire.

When you encounter the clips, make sure that the wire stays between the clip and the body of the vehicle.

As you make your way around the quarter glass, you will have to reposition the Viper™ unit as needed for the proper cutting angle. You want as much room between the Viper™ and the body of the vehicle as possible for ease of cutting.

Repositioning the Viper™ is very simple. Simply release the vacuum and keep a light grip on the Viper™ as you pull and let the wire unwind to accommodate your new position.

When you begin to notice the wire starting to feed from the Venom™ wire dispenser, this means that there is not enough tension being created to cut through the urethane.

At this point, you will switch the wire from the Venom™ to the mini anchor (MAC1125)

To do this, first pull enough wire from the Venom™ so that when you cut the wire you have enough wire to reach into the vehicle. Cut the wire, then push out slightly on the cut area of the glass and feed the wire to the inside of the vehicle. Attach the wire to the mini anchor making sure that the tab is pointed towards the original entry point of the wire.



As you begin cutting again, keep in mind that the glass is now loose, so slow and easy movements are required. If not, you could pop the glass out too soon causing damage to the glass and/or body of the vehicle. Be sure to keep an 80° or less angle at all times from the Viper™ thru the urethane to the mini anchor cup. The lower degree of angle increased cutting action and makes cutting easier.



Towards the end of the removal, the mini anchor may move slightly due to the torque being produced by the Viper™ - this is normal.

Continue cutting until the wires cross making the final cut and the wire simply reels back into the vehicle. The removal is complete. You can now remove the mini anchor and Viper™ unit and proceed to lift out the quarter glass and prep for replacement.



WARRANTY INFORMATION

All Equalizer® auto glass removal tools are warranted for one year to be free of factory defects. Warranty does not apply to abuse, misuse, or normal wear and tear. Warranty also does not apply to accessories or damage caused where repairs have been made or attempted by unauthorized persons. 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 or simply need to send it in for repair, send the **entire** tool to:

EQUALIZER INDUSTRIES, INC.
ATTN: Repair Department
2611 OAKMONT DRIVE
ROUND ROCK, TEXAS 78665

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.

If you have any questions about your tool, call us toll free at 800.334.1334, fax us at 512.388.4188 or email to repairs@equalizer.com or sales@equalizer.com

EQUALIZER® SERIAL NUMBER

KEEP THIS FOR YOUR RECORDS



Scan to watch instructional video
for quarter glass removal.



Scan to watch instructional video
for windshield removal.



Scan to watch instructional video
for back slider removal.

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: VT1136 VIP1138

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 _____

Warranty Registration Now Available Online! Visit www.equalizer.com and click on the Support drop down menu to complete.



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