Repair and replacement of the Volkswagen Rabbit Convertible and Cabriolet top and frame

Katherine Helmetag
Brian O'Connell

Table of Contents

Introduction

So you have decided to install your convertible top yourself. Your friends are probably wondering if you:

A: are stupid
B: are cash poor
C: have nothing better to do
or
D: all the above

We're going with D, because that's what we were when we first started working on our convertible tops. Back then, there was no information readily available for the enthusiast to work from, so we jumped into the jobs with both feet. After making mistakes and redoing things, we realized that a concise, complete, and accessible text on convertible top work would make things easier for those enthusiasts brave enough to tackle this work.

Convertible top installation is not so much difficult, but it is complex and requires many small and detailed steps. It is on par with changing the head gasket on an overhead cam engine. It is occasionally heavy work and will require a helper in certain instances. At the time of writing, a full top install with headliner and pad cost an average of $600 at a reputable shop. This is no small change, and when the cost of materials is tacked on, it can quickly top the $1000 mark.

The jobs covered in this manual are the installation of the top skin, the padding, the headliner, and the convertible top frame and rear window frame. Removal will also be covered when it differs substantially from the reverse of installation.

An important safety note: The convertible top frame is heavy. The frame alone weighs about 20kg. It also closes with a bang, and can cause some damage to fingers and scalps if it collapses unannounced. The way to prevent this is to secure the top frame in a partially open position referred to in this text as the "safety position". To fix the top in the safety position, get a broomstick or other length of sturdy wood, T-rail, box beam, or et cetera. Open the top frame so that the forward section of the frame is pointing up to the sky (vertical). Wedge the support between the floor of the car or the rear strut brace and the top frame. Secure the support to the top frame with a locking pliers. This will prevent (in most circumstances) the top frame from collapsing during the work described in this book.

We hope that you will find this text helpful and use it to enjoy your Volkswagen more fully. Note that there is some overlap in the sections. This work was compiled from two standalone how-tos and we felt it best to leave the overlapping segments in position for workflow.

General list of tools used in convertible top replacement

You toolbox will likely acquire some new hardware in this process. Here is a general list that will cover the work you will be doing.

Hammer
Center punch
10mm ratcheting wrench
13mm ratcheting wrench
Heavy duty stapler and 3/8 or ¼ galvanized staples (air or electric recommended)
#2 Phillips screwdriver
#2 slotted screwdriver
#1 slotted screwdriver
Razor knife and blades
3M Hi-Tack 76 or 90 spray adhesive or 3M Fast Tack liquid trim adhesive (recommended)
Clear silicone sealer such as GE Silicone II
1 inch wide by ¼ inch thick closed cell foam tape
Carburetor cleaner
Rags and paper towels
Measuring tape
Plastic bag or divided bin to store fasteners
Flat steel anvil or large flat punch
Drill and bits
Six (or more) spring clamps
Four foot length of broom stick or 1x2
Two large locking pliers
Needle nose pliers
Flat-nosed pliers
Diagonal cutter
Masons' twine
Long hemostats
WD-40
Neutral lubricant
Scraper
Pop riveter and rivets
Ratchet and metric sockets
Loctite ® 248 threadlocker
Two 12" lengths of 2x4

Removal of the complete convertible top assembly

This will guide you through removing the entire top as a unit. It also includes all of the steps necessary to remove the stripped frame if needed.

Open the boot. Look up and find the tabs that the headliner is secured with. Pull the headliner off the tabs and let it hang in place.

Remove the rear seat by unscrewing the two screws that hold it down. These are right in front of it. Slide the seat bench forward and pull it out. Set it aside.

Remove the rear seatback by unscrewing the two screws at the base of it. Open the boot and pull the release button, and then the release cord. Lift and pull the seatback out. Set it aside.

Remove the window knob by prying up the cover and unscrewing it. Remove the interior card by pulling the door trim away from the edge and prying the fasteners loose. They will pop out. The seat belt trim may have a little holding knockout that will have to be pried up.

Under the rear edge of the interior card, you will see the edge of the rear bolster trim. There are three Phillips screws. Remove them.

Following the curve of the bolster, remove the two remaining screws. Pull the top release handle off its lever. Remove the bolster trim.

Separate the window frame from the body as described in “removal of rear window frame”.

With the bolster trim out, look carefully at the frame mounting. The top should be fully closed but released at this time. Note which bolt is visible and mark it with the pen. Raise the top to the safety position (half way up).

The frame mounting is a cluster of 3 bolts, a fourth bolt holding the gas shock, and a fifth bolt perpendicular to those two called the locator bolt.

Remove the gas shock bolt. Remove the locator bolt. Take the nut off the rear tension cable.

Get out of the car and remove the screws from the “shells” where the boot snaps on.

Get back into the car. Take out the two unmarked bolts by first loosening all three bolts. When you have removed two bolts from each side, lower the top. Remove the last bolt. The top will pop a bit. Since the tension cable is loose on both sides, begin to pull the top out of the channel. Work from each side toward the back. You will likely need to pull on the corded part of the top – give it a good yank. Peel the top back.

The rear headliner tabs are secured with a fitting that is screwed and bolted into place. One screw and three bolts. You can see the screw and one bolt here.

And another bolt here.

The removed headliner fitting is here. Note the plastic rod that is in the headliner tab.

Now, using a helper, gently lift the entire top off the car. Try not to scratch your paint. The entire top assembly weighs close to 80 pounds.

Your top and frame are now removed.

Removal and replacement of the rear window

When the window has been cracked or the defroster or gasket compromised, a new window or gasket can be installed in the following manner. This instruction will be referenced in the section on removing and replacing top skins.

Latch the top frame into the locked position.

Position a helper on the outside of the car. Place the hands on the upper driver's side corner of the window frame outside of the gasket.

From inside of the car, push on the glass at the very edge in the driver's upper corner. The glass and gasket will slowly push through the frame. Work it out of the frame by continuing to push around the edges until the glass is nearly free.

Have the helper "catch" the glass so that it does not tumble to the ground.

Turn the glass and detach the wiring for the defroster with the gasket. The gasket has small plastic female clips that attach to the male spade connections cemented to the glass. Be gentle! The remainder of the gasket should slide off the glass. Occasionally the gasket is sealed with plumbers' putty or glazing compound. If so, this will take a bit more work.

If the glass is intact and will be reinstalled, slide it through the opening and lay it on the parcel shelf. Clean the edges of it thoroughly using a razor blade or scraper.

If a new glass is to be installed right away, slide the new glass into the opening with defroster lines down. Lay it on the parcel shelf. Otherwise, set the glass aside until it is time to install it.

If the old gasket is to be reused, clean it thoroughly and check it for tears and other problems. Be careful not to get water into the defroster wiring. A dab of dielectric grease on the opening of the connector will help prevent this.

If a new gasket is to be used, check it for tears.

Place the gasket on the window and work it around the edge. Make sure to line up the defroster connections and insert the spade connectors properly.

Wrap a length of masons' (nylon) twine around the outside of the gasket for three wraps. This will assist in insertion of the gasket into the frame. The twine will wrap in the outside groove that pinches the window frame.

Tilt the glass with the gasket on it and slide it gently up into the window frame so that the gasket is seated at the top. Push the defroster wires through to the interior of the car.

From inside of the car, begin unwrapping the twine. The twine will pull the gasket edge through the frame and seat it properly. Remove all of the twine.

The window is now installed in the frame.

Installation of the convertible top frame

Prepare the top frame by cleaning it and repairing any failed welds. Check the locking pins and all joints for motion and cleanliness. Remove any corrosion and paint as required. The joints may be sprayed with a very small amount of silicone spray or other non-reactive lubricant to improve motion and reduce corrosion.

Assemble the fasteners. If available, stainless steel fasteners are recommended for the convertible top. The main, locating, and gas shock (if so equipped) hardware are most critical as these are generally the first to suffer from damage due to water penetration. Do not be tempted to scrimp here, your top will eventually have to be replaced again one day. Note that top frames may be equipped with one or two gas shocks. Early frames from 1981 and before have single shocks, 1982 and later have shocks on both sides of the frame. Most 1981 and earlier tops have mounting points for a second shock, and this is a wonderful upgrade if you wish to do it.

Assemble the tools. A ratcheting 13mm wrench is recommended for installation of the locating bolts. 13mm and 17mm sockets are required for the remaining hardware. Loctite 248 threadlocker is suitable for securing the fasteners.

Remove the back seat, the back door cards, and the rear bolster trims if not already removed. Remove the parcel shelf.

Place a 12” section of 2x4 on top of each of the side rails of the parcel shelf.

Lift the top frame onto the car. A helper is useful here. Swing the gas shocks (if equipped) to the rear of the car. Lay the top frame into the car so that the rails rest on the blocks of 2x4 and the main mounting points generally align with the mounting holes.

Locate the mounting holes and thread in the rear and lower bolts. Tighten them only until the split washer begins to compress. They will be torqued later, after the locating bolts are inserted and tightened.

Depress the locking tabs (a helper is good) and lift the front edge of the frame to open it. Have the helper insure that the gas shocks do not become trapped under the parcel tray wings. The top should be opened halfway, to the point that the forward section is pointing roughly straight up. Place a broomstick in the assembly to lock it safely in this position. Locking pliers may be used to secure the broomstick to the frame.

Thread the third (forward) bolts into the main mounting points. Again, tighten until the split washer begins to compress.

Identify the locating flaps at the rear of the main mounting points. These are hinged and may require the frame to be rocked forward a bit to insert and thread in. Thread the locating bolts in and tighten to 40ft-lbs.

The frame now is located in the chassis properly, but not secured. Tighten the main mounting point bolts to 60ft-lbs.

If you will be installing a top shortly, you may choose not to install the gas shock mounting bolts. It is recommended to flex the mounting hardware into the proper position and locate it to insure that it fits properly. The gas shock hardware must be removed to secure the rear cable of the top skin.

The gas shocks are secured by rotating them forward and flexing the mounting hardware so that the bolt can be inserted. The gas shock hardware will fit under a notch in the mount and has a metal flap that prevents the shock from contacting the locating bolt. Thread this bolt in and tighten to 40ft-lbs.

The top frame is now installed and may be released from the safety position.

Removal of rear window frame

This can occur in two ways, as part of a full top/pad/headliner replacement or independently of the headliner and pad. The top skin must be separated from the window frame to work on the window frame.

To remove the window frame independently of the headliner and pad, remove the four bolts (two each side) from the base of the frame. This can be done from inside of the car or outside, depending on whether there is a top skin installed or not.

When the frame is free of the body, pull it towards the front of the car and release the tension on the straps at the top of it.

Push the straps toward the rear of the car and remove the plastic rods from the ends of the straps. Pull the straps through the frame to remove them. The frame can now be removed from the car.

To remove the frame as part of a complete top replacement, proceed as above and also remove the straps from the top frame at the third bow.

Installing the rear window frame

Prepare the rear window frame by removing the glass and seal. Remove any staples and bits of top skin. Check the straps that attach the window frame to the top frame for fraying or damage.

Open the top frame partially to the safety position.

Install the parcel shelf.

Lay the top frame on the parcel shelf with the holes for the rear defroster wires on the bottom. The hinges for the window frame should be fully extended with the window frame facing out.

Align the holes in the hinges with the holes in the body and install the bolts holding the window.

If the headliner is installed, the straps for the window frame should be hanging from the rear bow. Thread them through the window frame and insert the steel rods into the end loops. Pull the straps tight to the window frame to seat the steel rods.

If the headliner is not installed, remove the straps from the window frame as noted in the removal section and attach them to the top frame. Thread them through the rear bow, and wait until the headliner is installed to attach them to the rear window frame prior to installing the top skin. Do not forget to attach the little black trims to the rear bow after headliner installation.

Removal of top pad and headliner

The top skin must be removed before the top pad can be removed, and makes removal of the headliner much easier. In theory, it is possible to remove the headliner without removing the top, but we recommend that the top skin be removed first.

Remove the top skin from the top. If desired, the rear window frame can be separated from the car and remain with the top skin. See the section on working with the rear window frame for details.

The headliner and top pad are installed concurrently, and must be removed in steps.

Begin by removing the staples that secure the headliner to the rear bow. Under the headliner, you will find the staples that secure the top pad. If you are changing out the top pad shell, remove these staples. Remove the staples securing the rear headliner straps to the rear bow.

Release the headliner wings from below the parcel shelf wings. There are several metal tabs that hold the headliner in place.

Working in the body of the car, remove the brackets securing the rear headliner straps to the body. Remove the plastic rods from the strap loops and pull the straps through the brackets.

On the sides of the rear bow, drill out the rivets securing the top pad shell to the frame (if removing the top pad shell).

At the front of the frame, remove the foam from the top edge of the frame.

Free the forward wire from its clips at the leading edge of the top frame and remove the forward wire from the pad liner.

The pad liner is now freed and may be removed from the car. You may wish to vacuum any stray pad material from the headliner at this time as it will otherwise end up in your interior!

To finish removing the headliner, remove the screws securing the headliner to the latches inside of the car.

Unscrew the pad liner support straps from the bows of the frame, and peel the headliner flaps from the bows.

The headliner is now freed from the frame and may be removed from the car.

Installation of the headliner and the padding shell

Begin by laying out the headliner and padding shell. There are several types of padding shells, ranging from fully factory with authentic materials to just a big swath of canvas or nylon trigger. The ones with vinyl edges will work the best in the Cabriolet roof. Examine the padding shell and locate the rear tabs and the forward tube. The tabs will attach to the rear bow, and the tube to a wire at the front of the frame. The headliner will have two straps at the rear that will attach to the rear bow and the body of the car.

Open the top frame and secure the latches.

Move the headliner to the car. Lay it out on the parcel shelf with the wings and straps accessible. Pull the forward panels up and over the roll bar and spread the fabric out as if installed.

At this time, it will be necessary to check the fit of all of the components. The headliner straps and the sides of the pad shell will determine the location of the rear bow and must be aligned.

Lay the pad shell out on the top frame as if installed. Using locking pliers or spring clamps, affix the pad shell in position at the front of the frame. Stretch the sides back to the rear bow and locate the holes on the sides that the rear tabs on the pad shell will be riveted to. Wrap the tabs around the rear bow and secure with spring clamps or locking pliers. Thread the front wire through the front tube on the pad shell and use a spring clamp or locking pliers to fix it in position at the center of its attachment point. This will insure that the base of the pad shell can be stapled as required to the rear bow. The rear edge of the rear bow should be 55” from the wire along the centerline of the car.

Now, stretch the tops of the headliner straps to the rear bow. There should be very little slack in the top pad and headliner strap linkage. Using a spring clamp or locking pliers, pinch the headliner strap in position. Check the center of the pad shell and insure that it can be stapled to the rear bow.

There are small straps on either side of the top frame that are attached to metal loops on the rear bow. These straps will thread through a knit loop on the headliner. Thread the straps through the headliner and screw them down to the corners of the fourth bow. The straps will form a small loop in front of the fourth bow.

Fold the rear straps over so that the foam and strap are fully covered by the headliner material. Take the rear strap bracket and insert the looped end of the headliner strap up through the bottom of the slot. Insert the plastic rod into the loop and pull the strap taut. Trim any excess strap material to the edge of the bracket. The strap will wrap around the back of the bracket and come up into the passenger cavity.

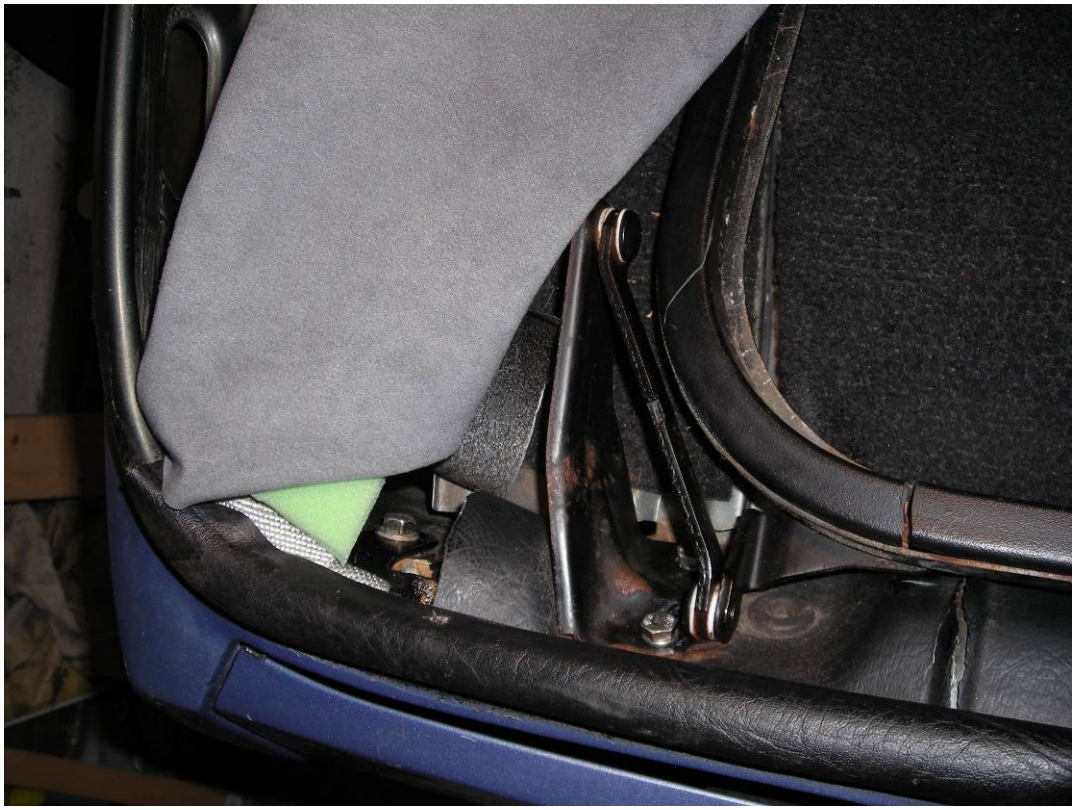
Check the fit quickly using some spring clamps. You will be rewarded with a great peek at the near future from the inside of the car!


Rabbit

Install the bracket using three screws and washers. Check that the straps are long enough. If not, they will have to be lengthened. The straps can be lengthened with either three inch webbing (stock) or two inch webbing. Be sure to choose a webbing that is less thick than seatbelt material. Anything heavier will cause fitment problems with the brackets. Racing harness webbing works quite well.

Fold the webbing over at an angle similar to that of the existing webbing and stitch three rows of stitching approximately ¾" above the fold. Cut the turned webbing one quarter inch past the stitching and seal the edge with a flame if using synthetic webbing. Cut the fold off four inches above the fold and seal the cut edges if required. Stitch the small length to the main webbing so that the original fold is to the front of the new fold using three rows of stitching. This can be done by placing the sewing machine on the parcel shelf. Allow sufficient extra length to allow fitment of the tabs. Install as directed.

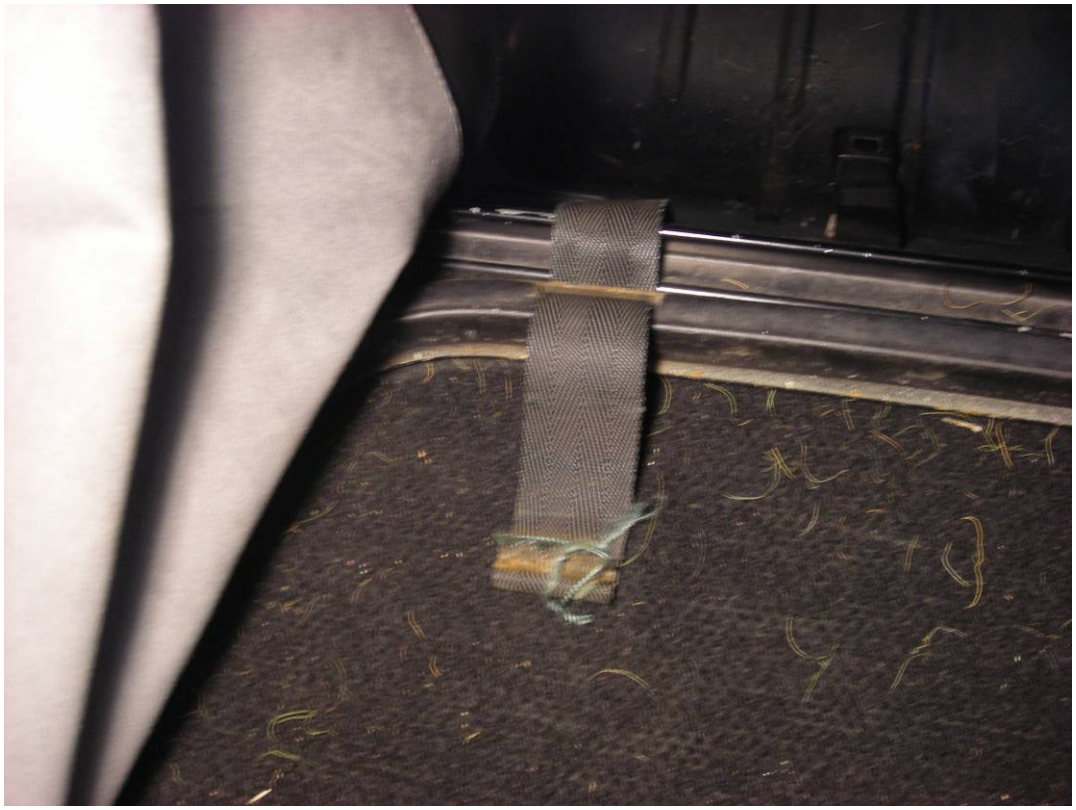

BERNINA
MICHIGAN
JUN



Using your stapler, staple the straps to the rear bow. On some top frames, there are indentations indicating the location of the strap. If your frame is not so equipped, align the outside edge of the strap with the edge of the stapling material. Hammer down any high staples.

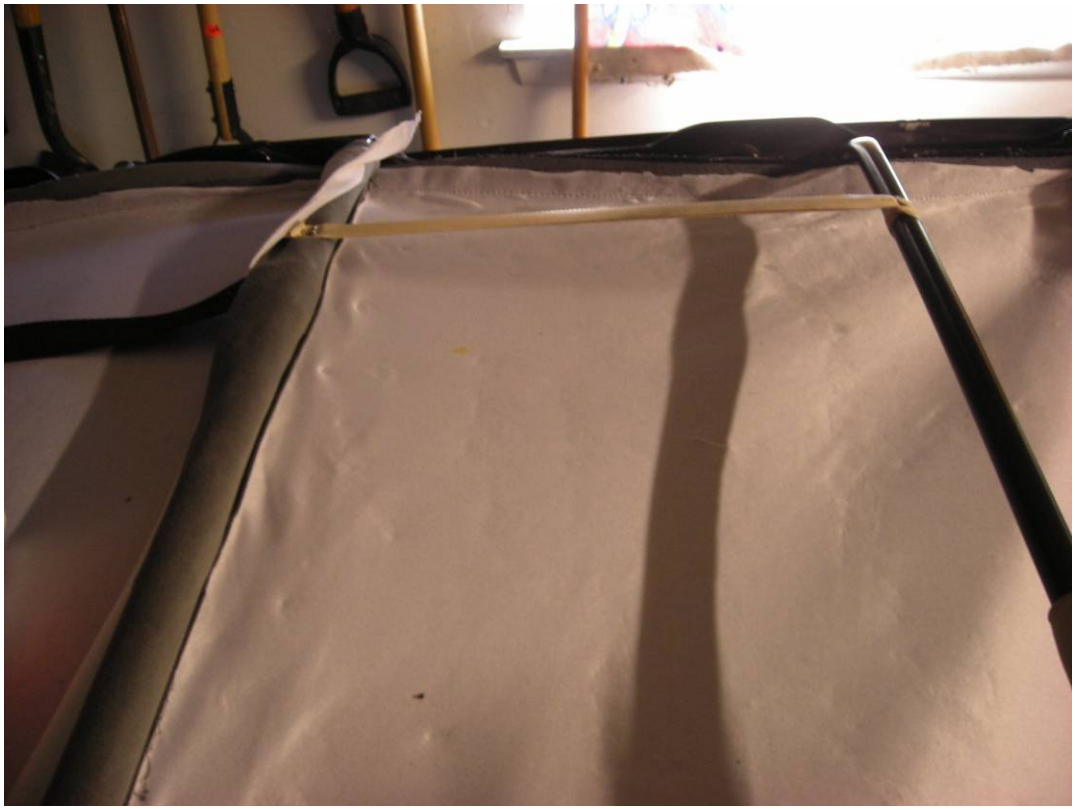
Wrap the headliner around the rear bow and secure it at the corners and center with spring clamps. Secure the headliner to the front of the frame with spring clamps. Insure that there is sufficient material in the front to screw into the front edge.

Thread the rear window straps through the bows. Make sure they are securely attached at the forward mounts.



If the forward straps are screwed into place, unscrew them. These straps are from the first to the second bows. Working to the back, apply contact cement to the second bow and the headliner flap. When ready, attach the headliner flap to the bow. The side seams of the headliner should line up with the screw holes in the bow. The seam of the headliner should be tight to the base of the bow. Check the interior for looks.

When the headliner is properly set, screw in the forward straps.



Working to the front, apply contact cement or adhesive to the third bow and to the headliner flap in the corresponding position. When ready, attach the headliner flap to the bow.

If the original or replacement springs are to be used with the side cables, prepare the cables by swaging a loop onto the end of a length of 1/16” vinyl-covered steel or stainless steel cable. Attach the spring to this loop and thread the plastic tube over it, exposing the other end of the spring. This end will be secured to the frame by the wire at the front of the padding shell. Side cable manufacture is covered later in this manual.

Now move to the forward wire. Insert it into the forward fold of the pad lining. You will have to trim the lining to make room for the securing prongs. Begin securing the wire at the center of the frame. Pull it over the prongs and push it down to seat. If using the springs with the side cables, insert the forward wire through the spring ends prior to seating it in the mounting holes at the sides of the frame. If not using the springs, simply seat the wire ends. Press or hammer the prongs down over the wire and flatten them.

Insert the padding into the shell if it is not already there. Align it with the wire at the front or the rear bow and trim as needed.

Pull the lower shell material to the rear bow and staple it in place starting from the center and working to the edges. Locate the rear tabs at the sides of the pad shell and rivet them to the rear bow, folding them over for strength.

Staple the top layer of the pad shell to the rear bow. Place the staples with ½” spacing.

At the front edge, cut a piece of 1/8” thick foam about 4” wide and the width of the top frame less four inches. Cement this piece of foam over the padding material and the top frame to pad the area over the wire and insure a smooth transition. Then cement the top fabric of the padding shell to the front of the frame.

Lastly, pull the front tabs of the padding shell forward and cement them to the outer front corners of the frame, stretching the padding shell gently to fit.

Now to the rear of the frame for the trimming.

Pull the headliner forward so that there is sufficient material to catch in the retaining bar at the front and use spring clips to hold it into position. Adjust the fit so that there is no buckling or tightness in the top when closed. Close the frame.

Pull the headliner to the back of the rear bow and fold it up over the rear bow so that it can be stapled down. Working from the center, staple the headliner to the bow. Space the staples evenly and maintain tension.

Locate the slots for the rear window frame straps. Slit the headliner and liner to allow the straps through. This is not so easy, a thin piece of steel or a butter knife will help out a lot. After threading the straps through, install the trims on the rear bow. The straps will thread into the rear window frame and be retained with small plastic pins.

To install the rear window frame, apply the reverse of the removal directions! Best is to fit the straps first, then bolt in the lower mounts. Volkswagen has made it quite easy with plenty of give and flexibility in this setup.


girl!

Finally, install the screws that secure the headliner to the latches at the front of the frame.

The final steps of headliner installation involve the forward retaining bar and corner trims, and these are covered in the top skin procedure.

You are half way to a completely new top now……

Now, we turn it over to Brian, who will walk you through the top skin procedure.

Working with the convertible top skin

To get to installation, removal is required. You may also wish to fabricate your own side and rear cables. Do this ahead of time, or order the appropriate cables from a parts supply.

Removal of the convertible top skin

Open and close your top and look at the attachment points. We will refer to them many times during the procedure.

Close the top and remove the two corner trims from the front edge of the top.

Release the rear window from the top by cutting the top skin around the window about one inch outside of the window frame. Be careful at the top to avoid cutting the straps that connect the window frame to the top frame. Using a knife, cut the vinyl top skin only, take care not to damage the window seal! Cut the top skin from the upper corner down around and above the rear bead all the way to the other side. This frees the top skin from the car. Pull it over the headliner at the corners to avoid cutting anything other than the top skin.

Pull the top skin towards the front of the car. Cut the black vinyl ties on the sides and continue to pull the top skin off the car to the front.

Cut or pull the top off from the front lip of the top frame.

Remove the rear side window glass upright seal by inserting a flat bladed screwdriver between the seal and the seal tray in the middle of the tray. Be careful not to tear or puncture the rubber,

Pry back on the blade gently and the seal will lift out of the tray. Remove the seal entirely by grasping it at the middle and pulling upwards to release it from the stop at the bottom and top stops.

Remove the screws holding the tray to the frame.

Insert the flat screwdriver between the seal tray and the frame and pry it off. Do it in easy steps the entire length or you will bend the tray. There will be some old sealing foam between the tray and the frame, this will be replaced.

Repeat for the forward seal.

You do not have to remove the B-Pillar seal for this procedure. It is in your best interests to leave it alone.

Open your trunk, lower the rear seat back and remove the parcel shelf. Detach the headliner from the metal fingers by bending the metal fingers open and pulling it off. There are three or four fingers to a side.

Remove the headliner welting from the top frame cover by unscrewing it from the latches inside of the car. This will give you some working room.

Open the top fully.

Remove all the screws that hold the forward retainer and trims. There should be about 10 screws. Remove the trims.

Remove the two screws from the front A pillar seal lip

Carefully pry out the front seal in the middle, and then pull about ¼ inch to the front to release it out of the holding clip. CAREFULLY work the front out, it is usually glued to the tray in the front, use a flat blade in the tray between the seal and tray.

Remove the four additional screws and pry the seal tray off the frame in the same manner as you did the rear.

Use an ice scraper or other soft tool to remove all of the old foam from the frames and seal trays.

On the leading part of the front frame, you will need to carefully pry from the back the first two nylon keepers to remove them. Take the old vinyl off the front frame, removing as much off the tray as you can.

Using carb cleaner on a paper towel wipe down the frame to get all the goo off. This will insure a good seal when you button it up.

Pull the old headliner off the rear trays, the front frame and the leading windshield frame.Clean all the goo with carb cleaner. We are going to tell you this over and over and over.

Drill out the rivets in the front and rear of the frame.

Make sure that you test fit your trays back to the frame and adjust as necessary as you want them to lay flat.

Now open the top fully and latch it.

Removing the Rear Window

Remove the defroster connectors and the plastic covers on them

From the outside of the car, lift up the outer edge of the Seal insert your flat blade between the window seal and the window frame at the rear, start at the corner.

While you are gently prying up and out on the seal in a rocking motion gently reach around the frame and un-do the seal from the inside lip.

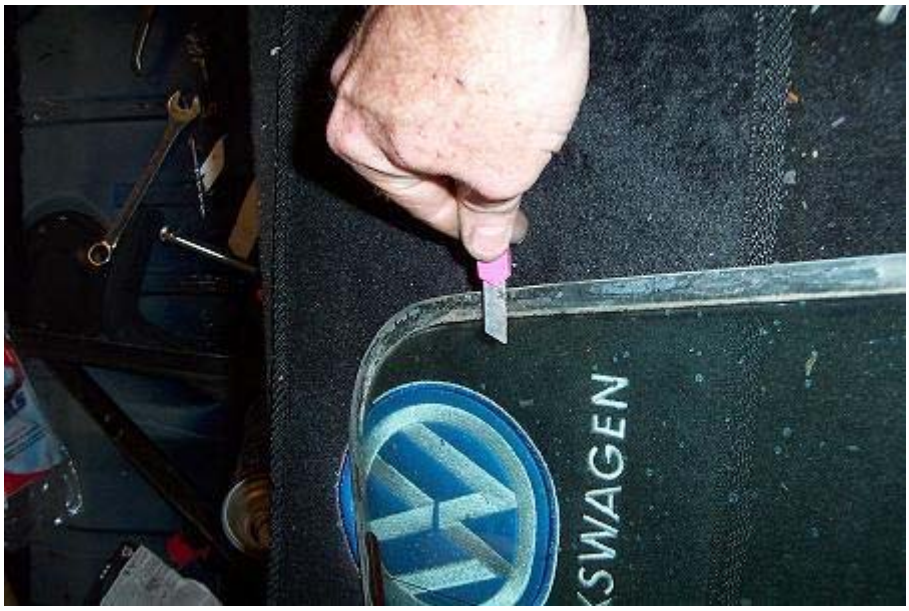
Using a rocking motion with the screwdriver you will get the window out remember unwind the defroster wires gingerly out of the gasket remove the plastic covers off the wire ends

The window will pop right out, you may have to work your flat blade down and around a bit.

Remove the gasket from the window glass and clean the hell out of it, if there is plumbers putty you have to remove all traces.

Do not forget to clean the inside grove where the glass is, cleanliness is a must.

Scrape off the crud from the glass and then clean with carb cleaner to remove all traces of the crud



Return the gasket to the glass, the holes for the defroster wires are on the bottom and the sides. Work the gasket by holding 30 to 60 degrees off the glass the gasket will slide right back on.

Now set the assembled rear widow aside.

Using your flat Jewelers screwdriver pry up every one of those 120 to 200 staples, after they are up, remove them with your large flat pliers, after you remove 50 of them you can probably zip the remainder of the vinyl with the staples out.

Carefully inspect the frame for broken staple bits, and remove as needed.

Clean the tray of any and all rust, sand smooth Spray with a rust destroyer/primer, let dry and paint, remember to use a mask to prevent overspray on your headliner

.

Open the top halfway up, and use the broomstick and vice grips to lock it in that position.

Remove the struts by removing the clips and the washers, and place in the cable tray, you will need the room

Now is a good time to test your struts, with a Phillips Screwdriver inserted into one of the holes use it as a fulcrum and try to compress it against the floor, it should compress and then shoot back, if it doesn't compress then it is bad, if it is really slow or bent then

it is bad.

Now using your 10mm offset ratchet remove the nut off the rear cable You can get to it from the top use your finger to gauge how many threads are out, you will need to tighten it back to that spot.

Loosen the nut, and after about 5 or six clicks, to will spin freely off. Place the nut in the cable tray and with your hemostats or needle nose pliers remove the cable out of the tray on both sides the nut turns down to loosen and up to tighten Lefty Loosey, Righty Tighty.

With the ends of the cable out remove it from the cable tray with the beading.

Wow all that just to remove the top….. remember that installation is the reverse or removal.

You will need to remove the rear cable from the remainder of the top, I usually can rip it out…

Remove the Side cable bits from the front frame, and bend the finger up and remove the spring off the rear frame. Bending it at about 90 degrees is a good thing.

Clean your rear cable and spray the hell out of it with wd40.

Measure your rear window, make sure that the bottom edges are the same length from the cable tray, if they are within a eighth of an inch that is ok, if they are more than that then you will need to adjust it.

The Rear Window Frame has to be square, measure the frame from the diagonals. It has to be about 1/16 of and inch off or less… bend the corners as needed think rectangle versus a parallelogram,

If your window frame isn't the same distance between the top edge of the lower part of the frame to the top of the cable tray, adjust the thing… it has to be equal distance.

Take the time now to oil all pivot points on your top, I start with WD-40 and then open and close the top a few times, then switch to regular motor oil, then continue to open and close it a few times.

Take your closed cell foam and place it on the bottom of the seal trays.

Look at your pig tail seals, that the rear upright frame mates with when the top is up, if it is cut or split along the body you need to glue it back in place, cover the edge with silicone sealer, as that is part of the water tight seal.

Since I last left you your top needs to be in the half up position and locked with the

broom safety

Find the center of the cable tray and mark it with a sharpie on the lip of the body. I measure between the corners of the trunk

Find the center of the rear cable sheath mark it with a sharpie.

Loosen the Safety and close the top frame.

If you are installing the padding, you will need to drill out the rivets that hold it at the front and rear of the frame, then carefully remove it off the front lip of the front frame remove all the staples that holds it at the back, Working from the rear fold it over the

windshield

You will find the front secured by a steel rod with a few finger holders, careful bend them up at 45 degrees, then pry the bar out of the side holders, cut the padding strap on the bottom…..

Now toss that sucker away

To install the padding fold it over the hood shiny cloth down so that the steel rod is pointing fingers up.

Place the steel rod in to the keepers and bend the two middle fingers through the cloth

back over it.

Spin the rod 90 degrees and force end of the rod into the slots and the rest the rod back into the fingers.

Tighten all the remaining fingers by forcing the rod securely into the fingers and smacking with a hammer.

Place the vinyl padding support in the notch in the front bar and around the bar in the back

Now work the padding strap back through the rod, and over lap the cut ends and sew back together with a couple of wire ties pointy edges down, or remove the covers of the nuts on the side frame and remove the bar and rerun the strap, my cable tie is easier……

Now lay the pad over the top frame and square it to the rear and center it left to right.

Unlatch the top, and place newspapers or material on the seal and over the windshield, then close the top

Apply adhesive to the front steel lip, and the back of the material and foam lip of the pad. Allow to dry as indicated.

when dry place the horse hair to the rear of the front bar and then glue the foam to the steel bar on the front, smoothly followed by the cloth get it smooth and make sure it lays flat..

Allow another 16 minutes to cure.

At the rear of the pad you will need to staple the pad to the frame

You can pop-rivet the strap or nylon wire-tie it in to the hole either works well, just make sure that the sharp end of the wire-tie in on the inside.

Then lock the top down.

Stretch the cloth to the back fold the bitter end under and staple in about ten places to the rear of the frame. Make sure that you seat the staples.

You can do the same for the front rivet too.

Your top pad is now installed and looks sharp..

Installation of the top skin

Place your top on the car, take the pocket and place it over the front lip and drape it into position.

Find the two boot tabs and cut them loose and put in your pocket so you will know where they are.

Fine the center of the top measure between the seams and divide in half and measure over or if you have the notch for center then cool

Place a small mark right above the bead.

Measure the distance between the outside edges of your boot hooks mine was 22 inches,

Place one mark at 11 inches from center on both sides, this will insure that your boot fits tight at the hooks.

Now find where the cable exits the outside of the top and enters the inside, as you have to make a relief cut to the seam, do not cut the seam.

Starting from about 3 inches past the corners you will need to trim all the excess material off the entire back of the top

You have to go past the corner by 3 inches 4 is good too ok 3 to 4 inches.

DO NOT CUT THE STITCHES AND DO FOLD THE MATERIAL BACK SO YOU DON'T CUT THE OTHER SIDE OF THE TOP.

From this

To this

Raise the frame half way and safety it.

Retrieve the side cables, springs, and tubes. The

Tie the other end to the pull string, and pull from the rear of the string, if there isn't a pull string as in the case of my Cabrio World Top, but my AAAbest one had it. Then you will have to do a fish line to pull the cable end back through.

Take the free end and feed it through the side frame, then attach that loop to the spring, cover with the vinyl tube now pull on the bottom of the spring and hook onto the finger then bend the finger down.

Pick up your rear cable and measure it find the total length subtract the sheath, and divide in half and that is what you should have on both sides of the sheath, you can use a little electrical tape to make sure that the cable don't slip and get off center it is terrible to find out that you have installed it and that your cable wont reach the holder on one side… (don't ask how I know this).

You can install the ends of the cable in the tray and tighten the nut about 3 spins too. Be sure to take the boot tabs out of your pocket and place them through the cable prior to tightening the nuts if you got one side nutted, then install them on the other and slide the one tab over.

Take your grease and lubricate the inside of the rear cable tray all the way around, a little goes a long way.

Take your grease and from the rear bead lay it on the top about a ¼ inch from the bead to the bead.

Line up your center marks fold the rear cable into the top and pinch it and insert it into the cable tray it pops right in with no strain or pain. Easy isn't it.

Work for the center to the outer sides. Place the boot tabs seam inside into the marks and then pulling on the bead with the palm of your hand run it around the corner pulling it as you go and the boot tab you will find will pop in to place, you may have to pinch the bead in to the tray a bit but if you work it, pulling the bead around the corner it will just li fold into place.

Sorry couldn't take pics while I was doing it and I dropped the camera batteries and crap shot all over.

Where the cable goes from the outer top to the inside you have to fold up the material so that it passes the relief cut the cable will bisect the cut and the top will lay flat.

Here is where the spring clamps work well to hold the corners in tight. You can use small vice grips but you have to pad the jaws.

Place the hemostats on the cable bolt notch and clamp.

Pulling the hemostats to the front of the car tighten the nut as far as you can with your fingers. Move everything to the other side and repeat.

After all the basic tension is gone place the Hemostats on the notch and then using the

10mm offset tighten the nut about halfway to the measure that you took before loosening, Repeat on the other side.

As you are tightening it you may have to pinch the side together a bit. As it gets tighter, the lubing that you did will pull the material and the cable tighter DO NOT OVER TIGHTEN YOU WILL SNAP THE CABLE.

When you are happy with the way it looks and the measurement is about the same you are done with the rear cable and it should only have taken you about 35-40 minutes.

Now replace the struts on the pivots strut on the inside and the washer on the outside.

Take the flap on the rear window frame and fold it over , and spray with hi-tack, then spray the rear window frame and allow to dry. Do both sides.

Now press the side flap on the frame get so that the edge of the top is next to the frame and get it smooth and flat.

Find the holes for the nylon screw fasteners, and punch the hole out with a Phillips screwdriver then insert the nylon and tap into place with a hammer.

Take the seal tray and position it and screw it into place you did already install the foam when you were removing it if not put new foam on and cut to fit, make sure that the tray is at the outer most edge of the top this will insure that the seal will totally center to the glass.

Do the other side now.

Take your razor knife and run it along the inside frame to cut the excess material peal it off then spray carb cleaner on a rag and remove the excess glue.

Close the top and it should look like this

Open the top and latch it open

Work the vinyl in to the front edge so that the seam will curl a bit, when the curl is at 50 degrees move the vinyl and find a screw hole and then mark the top. Use a nail to pierce the top in all 8 holes the insert one screw through the bar at a time work from the middle to the ends alternately

Notch out for the locks

Close the top and see if the seam lies flat, it not then open and reposition it to get the seal to lay flat on the seal. You don't have to remove all the screws to get the seam tight \ you may need to only loosen one or two screws pull the material one way or another

Take the flap out from under the edge, and spray Hi-Tack on the metal frame and the vinyl allow to dry.

Force the flap onto the metal and get the edge seated trim even with the latch.

Now the little top piece needs to be glued with silicone

Locate the holes for the nylon fasteners punch with a Phillips Screw driver you will need to trim out the front one as it is 2 layers thick, then insert the round nylon in the leading hole and the square one in the second hole.

Place the seal tray on the frame and make sure that it lays flat. Adjust as needed.

Locate the screw holes and insert the 4 screws not tight but loose

Screw the front screw into the hole a few turns

After all the screws are in a bit move the seal tray to the outer most edge that you can then tighten the screws down remove the leading screw (round.nylon).

After the seal tray is mounted you have to place a bit of silicone on the leading edge

Spray the tray with a bit of WD-40, spray the seals bottom lip.

To insert the seal place the front edge towards you into the tray then slightly pinch it and force it in to the back of the tray and it should pop in

Do about ¾ of it then slide it as far to the rear of the tray, this should allow the front to pop in and leading edge should be in the centered in to the front hole and screw it down with the bigger screw.

Wipe off the oozing silicone.

Now insert the lower seal in to the tray

Let’s turn our attention to the rear window.

Mark the inner part of the frame on the top.

Now make an X cut

DO NOT GO TO THE EXTREME CORNERS

Now Measure the bottom of the frame to the top bead, make sure that the frame is still square.

HINT: Most folks loose the ability to pull equally on the material to keep the Frame Square and Parallel to the bead…your hands get tired, so you have to Measure the distance, and get BOTH sides of the bottom at the same height. Do this by stapling a few staples near the corners to set them at the same distance Measure and RE-Measure to get it right. Remove the staples and re-adjust you have to get this correct….

Second pull the material the same amount…shoot a staple then move over a few inches and shoot another… after the material is the same tension and the window is square, you can go back and pick up the remaining staples that you skipped.

Pulling the material tight shoot one or two staples into the corners then measure again, get it right, you can remove the staples and either pull it tighter or looser the difference should only be 1/8 of an inch. Once you are happy, start stapling from the outside edges back to the center.

To get the corner to lay flat you will need to make a relief cut or two.

I staple the sides next then go back to pick up the corners. You don't have to pull the top part of the frame as tight…

Where you are finished stapling make sure that the staples are firmly seated, and that if you run your finger along the tray it isn't a snaggy motion, but a smooth one. If the staples aren't seated smack them home with your anvil or punch they have to be well seated and smooth, if one or two bend over just smack them harder

When you are done you can trim off the excess even with the inner frame.

Lay a bead of silicone over the staples and into the lip of the frame. This will seal the holes for the staples, and provide a water barrier for the rubber after the window is installed.

Take your masons twine and wind it into the inner lip of the gasket on the window so that you have 2 wrappings.

Here is where you need a helper.

Insert the glass and gasket into the lower bit of the frame with the strings on the inside and press it firmly in all the way around, with the flat of your hands keep pressure on the glass, then have your helper slowly unwind the string, it will pull the gasket in to the

inside of the car and seat it firmly on the inside lip. Wipe off any excess silicone that may ooze either on the inside or the outside.

The glass should be square. With the top latched and the front seal should seal flat to the top.

Replace the two side cover pieces, you may have to trim the tube a bit I find that if I have ½ inch removed from the top the plastic cover will lay flat , insert the rear screw (longer of the two) it has the snap for the boot then replace the front screw (shorter screw). The snap goes to the back.

Now from the inside of the car

Place the defroster wires back into the holes in the gasket and then under the gasket and back out and connect to the defroster terminal then place the plastic cover back on.

With a Flashlight reach in to the trunk and pull the headliner onto the hooks and with a needle node bend to you the metal fingers then smack with the hammer.

Replace the parcel shelf, raise the seat now clean your finger prints and marks off the top with Whestley's Bleach White and a brush,,,,, Clean the rear window inside and out, pop a brew or two and you are done.

If you do a test drive and there is more noise than ever at speed you may need to adjust the J-hooks tighter.


ACY 6637


ACY 6637

Creating your own cables

Side cables keep the top from pulling away from the frame when opening and closing.

Eight feet of 1/16” stainless or galvanized or stainless steel cable and eight feet of 1/16” ID vinyl hose
Or
Eight feet of vinyl-covered steel cable
Six 1/16” cable ferrules

Note that there are apparently two lengths of side cables found in various tops. Early tops use a 41 ¾” cable with the springs, and a 40” cable without the springs. Later tops use a 39” cable with springs and a 37 ¼” cable without springs.

Cut the steel cable in half. Cut the vinyl tube into two 35” sections. Insert the cable in to the vinyl tube. Vinyl-coated cable may be used if available. If so, strip one end of the cable bare about 2 ½”.

Insert one end of the bare cable into the ferrule. Allow about 2” to make the loop. Loop the cable back into the ferrule with no ends exposed and swage it. This loop will go to the front of the top frame.

Pull the vinyl tube back to the ferrule.

If not using springs, separate two links from the flat brass chain. Insert a centering punch into the loop of one link and expand the hole to fit over the forward stud on the top frame.

Thread the end of the cable through the non-expanded end of the chain and form a loop. Secure the loop with a ferrule and swage it. If not using springs, measure the cable to length and form a loop as above, swaging a ferrule to secure it.

The finished cable is ready to install.

Index