

Blackbird Fabworx

Roll bar installation manual – 4 point

Thank you for purchasing a Blackbird Fabworx roll bar.

In this manual you will find the installation instructions for your roll bar model.

This installation manual is confidential and is available to the purchaser and the installer only for the purpose of installing the roll bar.

NOTICE OF LEGAL DISCLAIMER:

All products sold or installed by Blackbird Fabworx are intended for high performance, racing, and off-road use only. Due to the nature of such parts, the unusual stresses placed upon them, and the fact that we cannot control how they are used; there is no warranty of any kind on any Blackbird Fabworx product or service. Blackbird Fabworx expressly disclaims any warranty, either expressed or implied, including all warranties of merchantability or fitness for a particular purpose. Blackbird Fabworx also disclaims any other obligation or liability as a result of products sold and/or installed or any service provided. No representations have been or will be made to the buyer regarding Blackbird Fabworx products, including, but not limited to, their quality or performance. Blackbird Fabworx shall not be held liable for any damages caused by a defect or failure of parts manufactured, sold, installed, or services performed. The company shall not be responsible for any damages, consequential or otherwise, arising from any cause whatsoever. Blackbird Fabworx will not be responsible for labor, transportation, or any other related costs incurred as a result of any part failure or defect. If at any time Blackbird Fabworx requires the services of an attorney in reference to the customer or activities related to the customer, whether legal action is brought or not; the customer agrees to pay all costs involved, including, but not limited to, court costs and attorney fees.

The installation of any product sold by Blackbird Fabworx on any vehicle intended for use on public roads may violate certain U.S. and/or State laws or regulations, including those relating to motor vehicle safety and emissions standards. The purchaser assumes all risks and expenses relating to unlawful vehicle operation on public roads. Blackbird Fabworx shall not be held liable for unlawful vehicle operation.

WAIVER AND ASSUMPTION OF RISK:

Each and every customer of Blackbird Fabworx voluntarily makes and grants this waiver and assumption of risk for itself and its assigns, in favor of the company for the opportunity to utilize the facilities, equipment, materials, and any other asset of the company; and/or to engage in activities or gatherings sponsored by the company; and/or to utilize the labor and materials supplied by Blackbird Fabworx for use in a motor vehicle. The customer will hereby waive and release any and all claims whether in contract or of personal injury, bodily injury, property damage, damages, losses, and/or death that may arise from aforementioned installation, use, or receipt. Customer understands and recognizes that there are certain risks, dangers, and perils connected with the installation and use of high performance, racing, and/or off-road parts. It is fully acknowledged that these risks are understood at the time of purchase.

By installing the roll bar in your car you certify that you have read, understood and agreed to the terms of our legal disclaimer.

Please take the time to read and understand it completely prior to installing the roll bar.

Given that it is a complicated process, we highly recommend having the installation done by a professional.

The installer assumes full responsibility for this installation.

The installation instructions include a tool size or type recommendation for most stages as well as extra notes.

Always use safety goggles and hearing protection when working with power tools.

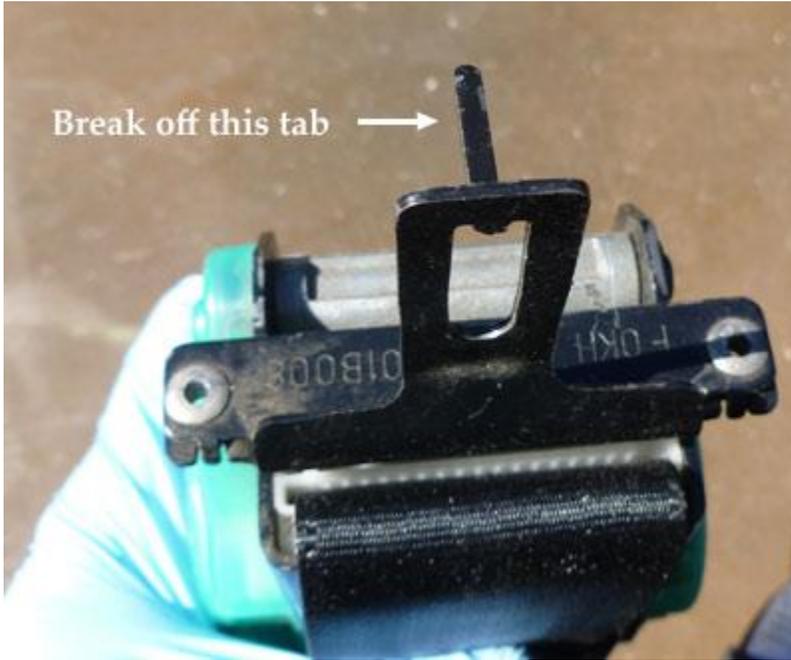
Before starting this installation check that you received all the parts – backing plates (x4), 3/8 grade 8 bolts (1.25" length x12), 3/8 grade 8 washers (x12), 3/8 all metal lock nuts (x12), 7/16 all metal lock nuts (x2), 7/16 washers (x2) and of course the roll bar.

1. Park the car on a level surface
2. Disconnect battery negative terminal
3. Remove seats (14mm, connector on bottom)
4. Remove parcel shelf carpet, carpet behind seats (use a clip puller to prevent breakage)
5. Remove door seals (Phillips screw driver on NA, pull on NB)
6. Remove dead pedal (10 mm)
7. Remove rubber trim from rear door jamb
8. Remove seat belt upper guide cap
9. Remove cockpit brace if any (bolt size varies with years -14, 16 or 17mm)
10. Remove rear wind deflector if any (10 mm)
11. Pull seatbelt guide trim from plastic pillar trim (to be cut and trimmed later)
12. Remove plastic pillar trim (clip puller, Phillips screw driver, note push clips)
13. Remove parcel shelf (10 mm, needle nose for wiring clips of defroster)
14. Pull plastic wiring brackets under the seat belt reels out of the way, this is where the main hoop plate goes (clip puller)
15. In the trunk, remove spare tire (NA), carpeting and floor piece (NB), fuel hoses shield on left side (10mm)
16. Remove seat belt upper guide bolt on both sides, **this bolt will be reinstalled later.**

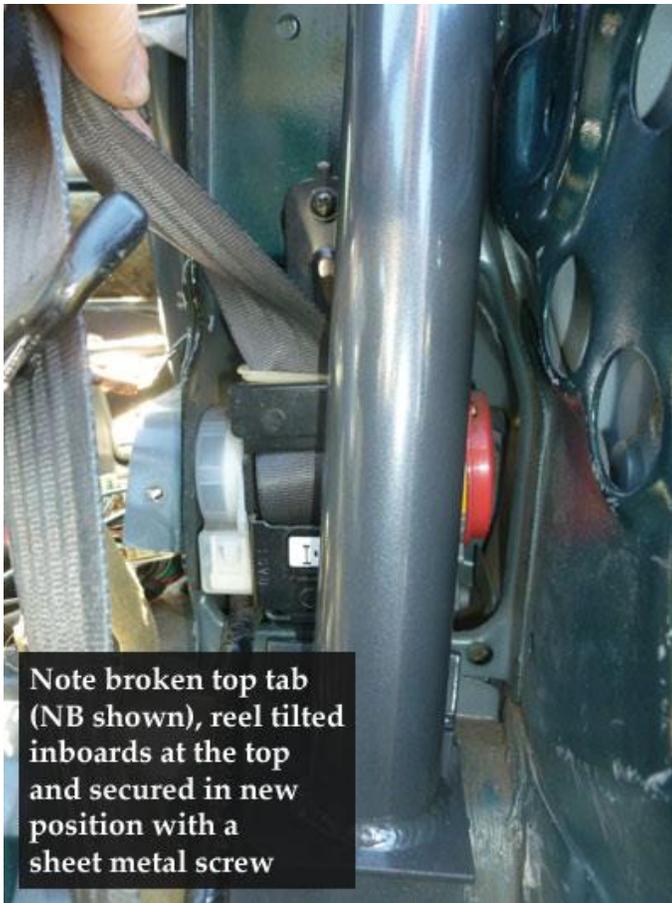


17. Remove both upper and lower bolts holding seat belt reel into place, the lower bolt **will** be reused later and in some cases the upper bolt as well (lower bolt 14, 16 or 17mm, depending on year, upper 10mm or Phillips screw depending on year). The spacer on the lower bolt will **NOT** be reinstalled.

18. The reels will need to be misaligned to allow the retractors to work better. First, break off locating tab by moving it up and down with a plier, then reinstall the reel back in the car by using only the lower bolt tighten it so there's some there light tension on the reel but you can still move it inside the tower with your hand. Next, tilt the reel's upper part inboards until it touches the tower wall and can't be moved any further, mark the location of the hole in the upper tab of the reel on the tower with a center punch, pull reel out of the tower. Drill a pilot hole in the marked location. Clean off shavings.



Reinstall reel back into the tower using the OEM sheet metal screw, tighten it so there's light tension on the reel but it can still be moved in the tower with your hand.



19. Follow the above procedure on both driver and passenger reels. Note in some models there's no extra wiggle room for any tilting on the passenger side reel, in such case simply reinstall the reel back using the upper bolt and tighten it so there's light tension on it but the reel can still be moved with your hand.
20. Using tin snips or your favorite cutting tool, trim the corners of the rear shelf on the car to allow the rear legs of the roll bar to be pushed back all the way, the exact amount of cutting will vary slightly between generations and roll bar models.
21. For cars equipped with ABS only – relocate sensor wiring out of the landing area of the rear legs, normally a few inches forward will do the trick.
22. With an extra set of hands insert roll bar into the car carefully (you don't want to damage that shiny new powder coat!) and move it into position by sliding the rear mounting plates under the mounting flanges of the rear parcel shelf and past all the wiring. When the roll bar is in its position the wiring at the main hoop mounting plates should be inboard of the main hoop and the wiring at the rear legs should be outboard of the rear legs. There should be a small rubber plug on each side of the chassis in the area where the mounting plates of the rear legs go – remove those plugs, they will not be reinstated.
23. Reinstall lower seat belt reel bolts (using the factory bolts which should have a washer on them) through the slot in the main hoop mounting plates, do not reuse the original spacers. Make sure

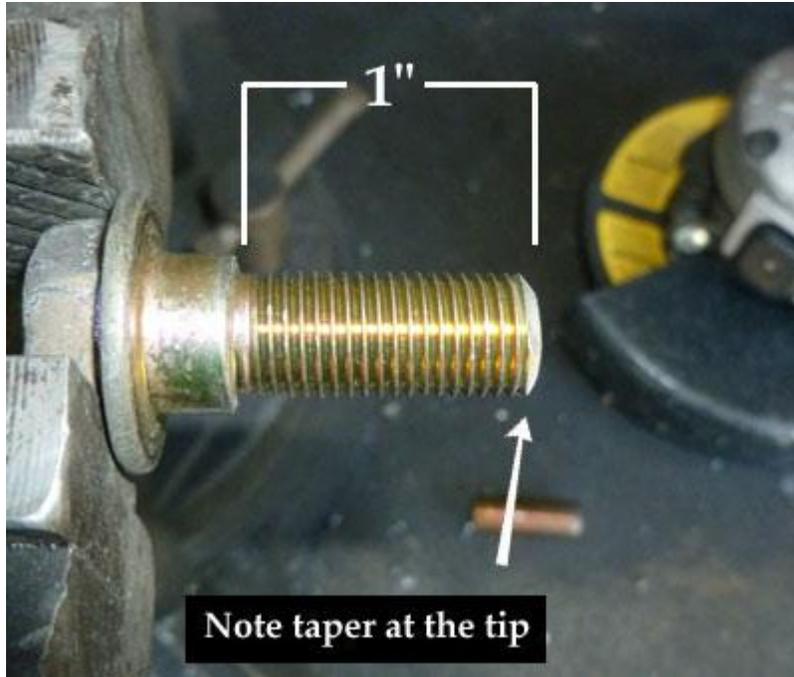
the bar is centered side to side and then tighten the lower seat belt reel bolts down to factory specs and then tighten the smaller screws at the top of the reel all the way. Failure to tighten these screws will induce undesired rattling and may also cause damage to seat belts in case a screw will rattle itself loose and fall into the reel, leading to a possible personal injury or death in an accident.

24. Jack the rear end of the car, remove the rear wheels and set the car on jack stands – never work on a car supported only by a jack!
25. Remove the plastic covers that are at the front of the wheel well (10mm or Phillips depending on year). In newer models you will find at the passenger side a rubber hose with a cylinder shape plastic bit at the top, simply zip tie it out of the way.



26. Apply some silicone around the holes of the backing plates of the main hoop and install them. Thread nuts by hand until they stop (again, deformed side facing out and the nuts should freely turn about 3-3.5 turns before they stop at the deformed part - bolt and nut 9/16", add pics)
27. Looking at the area where the rear legs go from underneath the car, you should be able to see a small part of one of the holes on the mounting plates from the bottom. Use it as a guide to drill the first hole and mark the next two holes using the backing plate as a template.
28. Once all holes are drilled, apply some silicone around the holes of the backing plates of the rear legs and install them. Thread nuts by hand until they stop (and again, deformed side facing out and the nuts should freely turn about 3-3.5 turns before they stop at the deformed part)
29. At this point your roll bar should be fully bolted down and you can reinstall the plastic covers at the wheel wells, the rear wheels and lower the car back on the ground. Torque your lug nuts back to OEM spec.
30. The OEM long bolt of upper seat belt guide (from stage 16) will need to be shortened. There are many tools that are capable of doing the job, the important things that it'll get cut to the correct length and that the threads will not get damaged. We like using a grinder with a cut off wheel

and follow the cutting with a sanding disc to put a small taper on the edge of the bolt to remove the one thread that gets damaged during the cutting process and allow the nut to be installed on it without any damage to the threads. The bolts needs to be cut so there's 1" of THREAD (NOT OVERALL LENGTH) under the shoulder, please see diagram and measure properly prior to



cutting.

31. Your roll bar is shipped with the mounting hardware and in the package you will find two special deformed all metal lock nuts (no nylon ring) at the correct thread pitch for the shortened factory bolts, 7/16-20. The deformed side is the one with the pressing marks. Note that the nut can not be threaded onto the bolt with the deformed side first but threads freely onto the bolt until it stops at the deformed end. If you can not thread the nut freely onto the bolt with the non deformed end, make sure the bolt threads aren't damaged and fix them if needed.
32. Insert the bolt through the upper seat belt guide and into the roll bar tab, thread the nut by hand onto the bolt until it stops - the deformed side should be facing down, the nut will turn about 3-3.5 full turns before it stops). Using 11/16" open end wrench to hold the nut, tighten until there's no free play between the bolt and nut and the roll bar tab and then torque to factory specs. The seat belt guide itself should be free to rotate on the bolt but the bolt and nut should be tight and have no play at all. Note that due to the nature of this special lock nut

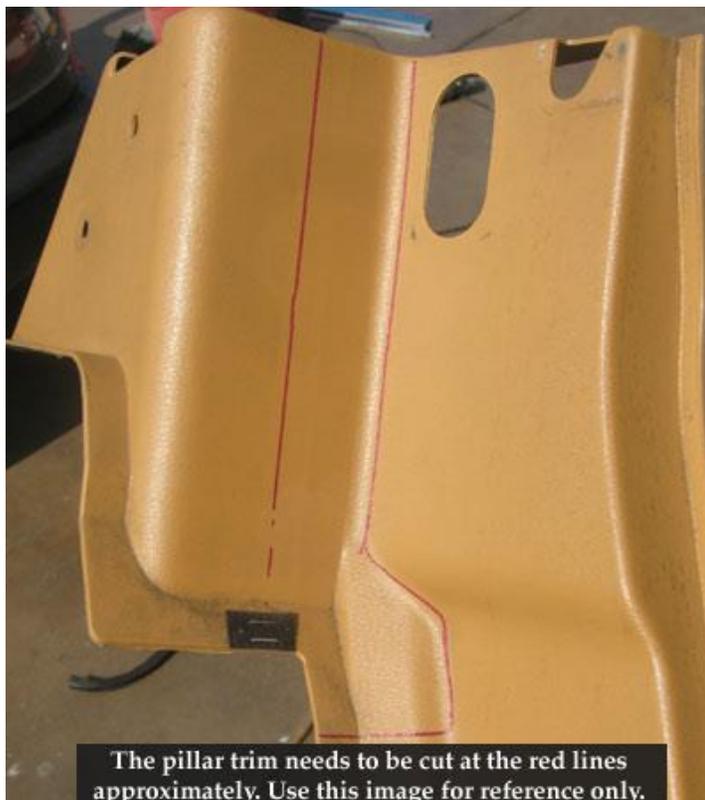
resistance to tightening is normal. Use 7/16" washers as shown. Repeat on both sides.



Installation order -



33. Next steps will be reinstalling the interior which is in a reverse order of the disassembly process, trimming pieces to clear the roll bar as needed. The parts that will need to be trimmed include the two pillar trims, the parcel shelf, parcel shelf and main carpet.



Note that the pillar trim bit will also need to have the hole that the seat belt goes through trimmed for additional width.

34. Reinstall seats (note connectors)

35. Go over entire installation manual and verify that you haven't missed or forgotten anything.

Note that we HIGHLY recommend that you purchase SFI rated roll bar padding and install it on the bar to prevent injury or even death in case of an accident.

Always obey traffic rules and operate vehicle in a lawful manner!