

TRAKHAMR

INSTALLATION GUIDE

There is a video guide to these instructions located on YouTube. Please find the link at:

<https://www.youtube.com/watch?v=CAYn3Kc6Puk>

Please note that there are a couple small changes to the instructions that differ from the video. Please watch the video then use these instructions as your guide to install the TrakHamr™ Rear Wheel Conversion kit.

You are now ready to remove your stock components.

Pay close attention to not damage any stock components. Some stock parts are reused.

1. When removing swing arm, it is easiest to leave the tire in place to allow the swing arm to roll.
2. Using a jack in the suggested lifting location raise the rear of the slingshot and place a jack stand under the frame rail on each side of the swingarm. You will only need the rear tire barely off the ground here. Don't lift it any higher than needed as this will make it harder to align the rear end assembly later. Be sure to chock the front tires as the e-brake is hooked to only the rear tire.
3. Remove brake line from caliper. Wrap end of line in plastic to avoid fluid dripping on painted parts. Banjo bolt is not re-used. Remove the brake line from the swingarm completely. There are several clamps and one bolt holding it in place. Loosen the brake line all the way to the single bolt on the metal portion of the line. Cut grommets from brake line. Set the line carefully to the side for later use.
4. Remove parking brake cable from caliper.
5. Remove two rear plastic lower covers. The driver's side cover is over your battery. The passenger side covers mounting bolts for the swing arm and right-angle drive that will get removed.
6. Remove belt by loosening adjustment mounts on right angle drive, these are located under the plastic cover just removed. and sliding right angle drive rearward.
7. Remove upper shock mount bolt. Remove lower shock bolt. Now remove shock itself. There is an access thru hole in passenger storage area to get at the upper bolt. Keep the upper bolt handy. It is reused later.
8. Unhook traction control wire located under the swing arm.
9. Remove large swingarm bolt. Requires 22Mm Allen wrench supplied with your kit.
10. Remove swingarm.
11. Remove the u-joint straps from the driveshaft at the right-angle drive.
12. Remove last two right angle drive mount bolts on each side of pulley. The drive is HEAVY, be careful. Now remove the drive and set it aside.
13. Remove drive shaft. ~~Save the 6 cv bolts. They are reused to hold the transmission adapter in place.~~ These bolts are no longer saved. This is a change from the video instructions. There are

new bolts provided with your kit to replace these bolts. Set the driveshaft aside, it is no longer used.

14. Remove e brake cable completely. This requires you to remove the two 13MM bolts that hold the handle in place in order to remove the pin from the cable. Leave the bolts out until later in the assembling process.

You are now ready to start the installation of the TrakHamr™ kit. Go slow, take your time. It will be easier than you think :)

DOUBLE CHECK EVERYTHING

Don't fully tighten and torque bolts until everything is in place.

Here is a complete guide to torque specs by bolt size. Please be sure to torque bolts to spec. Be SURE to recheck all bolts after 100 and 500 miles.

Metric Bolts

Maximum Torque, in foot-pounds, for clean, dry threads

Check your Shop Manual !

Bolt size	Low Grade	Grade 8.8	Grade 10.9	Grade 12.9
6mm	3-5	7	10	12
8mm	8-12	17	24	29
10mm	15-22	33	47	57
12mm	39	59	83	100
14mm	60	101	131	158
16mm	60-94	146	202	247
18mm	60-130	201	283	340
20mm	166-188	285	401	482

US Bolts

Maximum Torque, in foot-pounds, for clean, dry threads

Bolt size - Thread pitch	Grade 2	Grade 5	Grade 8
1/4-20	6	10	12
1/4-28	7	12	15
5/16-18	13	20	24
5/16-24	14	22	27
3/8-16	23	36	44
3/8-24	26	40	48
7/16-14	37	52	63
7/16-20	41	57	70
1/2-13	57	80	98
1/2-20	64	90	110
9/16-12	82	120	145
9/16-18	91	135	165
5/8-11	111	165	210
5/8-18	128	200	245
3/4-10	200	285	335
3/4-16	223	315	370

1. Please carefully unwrap your kit. Take care not to use a knife and scratch the painted and powder coated surfaces.
2. While the rear end is still mounted to the packaging skid go ahead and mount your wheels to the hubs. Take care to use centering tapered lug nuts. If shanked studs are used with custom wheel you will need the hub centering adapters in place. These should be ordered with your kit in the event you use shanked lug nuts as opposed to tapered lug nuts.
3. Once wheels are mounted then remove the metal straps holding the rear end to the packaging skid. When loose lift the rear end off the skid and set onto the tires. You will be able to roll the rear end assembly around the shop at this point to make installation easier.
4. Loosen the center plastic panel on the rear of the slingshot. This will make it easier to access the upper shock mount. Don't remove it completely as the upper support mount must pass through this panel.
5. Remove the bolts from the torsion box of the rear end assembly. Pay close attention to which bolt goes where. Pay attention to the spacers for the axle pivot. These are size specific.
6. Now carefully roll the assembly in place. You will need to tip it down to get the upper shock mount tube in place first then rotate the torsion box into place.
7. Start by lining up the upper shock mount tube into the upper shock mount bracket. You can access this through the center section of the rear plastic you loosened. The bolt goes in through the passenger storage access hole. Use the supplied drift pin to align the holes. This is often the most difficult part of the installation.
8. Once aligned insert the shock bolt you kept handy from earlier and do not tighten it yet.
9. Line up the driver and passenger side swingarm pivot bolt holes. These require the provided spacers be inserted from the outside. Bolts go through to the inside of the torsion box and washers and lock nuts are placed on from inside the torsion box. Don't tighten these yet. It may require that you jack up the rear end to get these to line up. It may also require the use of a non-marring mallet to push the rear end assembly far enough forward for these bolts to line up.
- 10. 2015-2016 ONLY- insert the two driver side upper and lower mounting bolts. These bolts have part of the heads removed to keep them from spinning and to allow full insertion. Washers and lock nuts go on from inside the torsion box.**
- 11. 2017& UP- install the U-Bracket on the lower frame tube on the driver's side. Nuts with lock washers go on from inside the frame tube. Use provided blue Loctite on these threads**
12. Install the upper and lower passenger side torsion box bolts. Washers and locknuts placed inside the torsion box.
13. NOW torque all mounting bolts according to specs for each bolt size.
14. Install the adapter plate on the transmission output coupler. Be sure to use blue Loctite on all these bolts. Use the supplied (6) Allen heads for this adapter.
15. Carefully slide driveshaft through the torsion box. Careful to not damage the paint. Be sure to remove the packing material from around the splined shaft. Placing a rag beneath the driveshaft on the torsion box cut out will help you to keep from scratching the paint.
16. Mount the driveshaft to the rear differential using the u-joint straps. Be sure the u-joint is centered in the coupler. Use blue Loctite on these strap bolts.
17. Extend the driveshaft until the transmission end yoke reaches the adapter plate. There is a centering hub here to help you align the shaft. Make sure the transmission is in neutral to allow you to rotate the adapter. Use the (4) supplied Allen heads here with their supplied spacer sleeves and be sure to use blue Loctite.
18. Insert the new parking brake cable into the stock parking brake cable holder. Route the cable along the frame rails and loosely zip tie it. Use the stock pin through the cable and adjust for tightness. In some cases, it is required to loosen the two Allen set screws on the cable end and

trim the cable for proper brake tension. Once this is attached you can remount the parking brake handle using the two factory bolts. Test the brake for proper tension. The brake activates the rear caliper on the driver's side. Adjustments are made at the cable clamp located near the handle in the tunnel using the two nuts on the cable.

19. Run the factory brake line along the underside of the frame tube to bottom of the differential. You will find a brake manifold in this location. Use the supplied banjo bolt to attach the factory brake line to this manifold. There is one 1/4" 20 bolt to go through the factory brake line mounting tab to the torsion box. You will need to **CAREFULLY** rotate this line to flatten this mounting tab out so it lines up on the underside of the torsion box. **CAREFULLY** so you don't break the line or tab.
20. Plug the new speed sensor cable into the factory speed sensor pick up you unplugged earlier.
21. Now zip tie all three things (parking brake cable, brake line, speed sensor wire) along the underside of the frame rails. Make sure they are out of the way from hitting anything including the driveshaft.
22. Bleed the brake system. The slingshot is a real pain for bleeding the brakes. This process takes time and the use of a vacuum bleeder and a helper is highly recommended. Use the factory manual for instructions with of course the exception of having two bleeders in the rear now. Don't let the reservoir go empty. This will induce air into the system and make it even more difficult to bleed the brakes.
23. Be sure to follow the break in instructions for the new gear set in your rear differential. They are essential to the longevity of the gears and the noise free, trouble free, operation of the dana 36 rear end. They are as follows:

DIFFERENTIAL CARE AND BREAK-IN INFORMATION

NEW GEAR BREAK-IN

All new gear sets require a break-in period to prevent damage from overheating. Any overloading or overheating will cause the gear oil to break down and the ring & pinion will fail. Please follow these guidelines to insure proper break-in.

- After light use for the first 15-20 miles it is best to stop and let the differential cool before proceeding.
- Avoid heavy acceleration during the break-in process.
- RRP's warranty requires at least 500 miles before towing.
- RRP also requires towing for very short distances (less than 15 miles) and letting the differential cool before continuing the first 45 towing miles.
- RRP recommends changing the oil after the first 500 miles. This will remove any metal particles or phosphorus coating that has come from the new gear set.

This may seem unnecessary but it is very easy to damage the differential by loading it before the gear set is completely broken in. the greatest damage results when a new ring & pinion has been run for several miles during the first 500 miles and the oil is very hot.

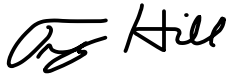
Any heavy use or overloading during the first 500 miles will cause irreparable damage to the gear set that can be determined by inspection of the gear set and will not be warranted by RRP.

POSITRACTIONS

Positraction chatter is normal for limited slip and positraction differentials. Both rear tires must measure the same height from the ground to the top of the wheel in order for the differential to function properly without premature wear. Limited slip additive or friction modifier for limited slip differentials must be used with the oil to reduce positraction chatter in the event that the oil is changed.

24. Once you have tightened all bolts to spec, made sure all lines are properly secured, bled the brakes and adjusted the e-brake cable you are now ready for the final step-
25. Take your new TrakHamr™ to a qualified alignment shop. Tell them to use the alignment specs for a 1994 Corvette. One thing to note that always throws people off is the front passenger wheel of the slingshot sits almost 1" further outward from the center of the sling than the driver's front wheel. It won't change your alignment but as the shop has probably never done an alignment on a Slingshot before it may throw them off. The TrakHamr™ rear end is perfectly centered on the slingshot. Again, use 1994 Corvette alignment specs.
26. Lastly, adjust your suspension to your liking for handling and ride. The spring adjustment is made via the long bolts through the FRP Monoleaf. Tighten these bolts and the spring is stiffer, loosen them to soften the ride. NEVER loosen them beyond the locking portion of the locknut. For the compression dampening use the adjustment knob located on the bottom of the shock. I have found the best all around ride to be 10 clockwise clicks from full soft.
27. Last step, ENJOY YOUR NEW RIDE 😊 please call us with any issues at all. Ride safe, hammer down.

Thanks for your business and support.



Troy Hill

TrakHamr™



Proud to be an American Manufacturer