

PART #	DESCRIPTION
51012	22-23 TUNDRA REAR BOX KIT

COMPONENTS INCLUDED

(1) 150128 22 TUNDRA REAR UPPER BRAKELINE BRACKET (1) 150129 22 TUNDRA REAR LOWER BRAKELINE BRACKET (1) 150131 22 TUNDRA REAR UPPER LINK BRACKET DRV (1) 150132 22 TUNDRA REAR UPPER LINK BRACKET PASS	(1) 154172 REAR TRACK BAR BRACKET (1) 154173 22 TUNDRA REAR SWAY BAR LINK MNT DRV (1) 154174 22 TUNDRA REAR SWAY BAR LINK MNT PASS (2) 154189 22 TUNDRA REAR FOAM AXLE PAD 6"
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HARDWARE INCLUDED

51012H HARDWARE KIT

(1) 159690 SLEEVE 1.000 X 0.561 X 1.580 CZINC (2) 159691 SLEEVE 1.250 X 0.561 X 2.715 CZINC (2) 290024 WASHER .939" X .505 X .505 (2) 605011 5/16-18 X 0.750 HHCS GR8 YZINC (2) 605015 5/16-18 NYLOCK NUT GR5 CZINC (4) 605016 5/16 SAW FLAT WASHER GR8 YZINC (1) 605101 3/8-16 X 1.000 HHCS GR8 YZINC (1) 605121 3/8-16 NYLOCK NUT GR8 CZINC (2) 605133 3/8-16 SAE FLAT WASHER GR8 YZINC (1) 605202 7/16-14 X 1.250 HHCS GR8 YZINC (1) 605220 7/16-14 NYLOCK NUT GR8 YZINC	(2) 605300 1/2-13 X 1.000 HHCS GR8 YZINC (4) 605301 1/2-13 X 1.250 HHCS GR8 YZINC (6) 605321 1/2-13 NYLOCK NUT GR8 YZINC (12) 605330 1/2 SAE FLAT WASHER GR8 YZINC (2) 605443 9/16-12 X 4.500 HHCS GR8 YZINC (1) 605445 9/16-12 X 3.000 HHCA GR8 YZINC (6) 605455 9/16 FLAT WASHER YZINC (3) 605450 9/16-12 C-LOCK NUT GR5 CZINC (2) 605926-BLK 5-1/2 X 0.14 NYLON CABLE TIE, BLACK
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TOOLS REQUIRED

JACK JACK STAND RATCHET EXTENSIONS TORQUE WRENCH HAMMER / DEADBLOW HAMMER PLIERS 1/2 SOCKET / WRENCH 9/16 SOCKET / WRENCH	5/8 SOCKET / WRENCH 3/4 SOCKET / WRENCH 13/16 SOCKET / WRENCH 7/8 SOCKET / WRENCH 8MM SOCKET / WRENCH 10MM SOCKET / WRENCH 17MM SOCKET / WRENCH 19MM SOCKET / WRENCH
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TECH NOTES

1. ESTIMATED INSTALL TIME: 3-4 HOURS.
2. NOT COMPATIBLE WITH AVS EQUIPPED TRUCKS.
3. NOT COMPATIBLE WITH AIR RIDE EQUIPPED TRUCKS.
4. NOT COMPATIBLE WITH TRD PRO



WARNING!

**** READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION! IF THESE INSTRUCTIONS ARE NOT PROPERLY FOLLOWED SEVERE FRAME, SUSPENSION AND TIRE DAMAGE MAY RESULT TO THE VEHICLE!**

**** ICON VEHICLE DYNAMICS RECOMMENDS THAT YOU EXERCISE EXTREME CAUTION WHEN WORKING UNDER A VEHICLE THAT IS SUPPORTED WITH JACK STANDS.**

**** ICON VEHICLE DYNAMICS RECOMMENDS ALL INSTALLATION TO BE PERFORMED BY A PROFESSIONAL SHOP/SERVICE TECHNICIAN. PRODUCT FAILURE CAUSED BY IMPROPER INSTALLATION WILL NOT BE COVERED UNDER ICON'S WARRANTY POLICY.**

INSTALLATION

1. Place truck on flat ground, engage parking brake, block tires.
2. Remove the track bar before lifting the vehicle, as the track bar is under less load now and is easier to remove. Use a 19mm.

3. Lift rear of vehicle and place jack stands under the frame. The floor jack can be used under the axle for future steps. Do not work under an unsupported vehicle. Remove rear tires. Removing the spare tire can make this easier, refer to owners manual.

4. Remove the rear shocks, using a 17mm for the lower mounting stud, and a 8mm and 19mm for the upper bushing mount. Support the rear axle so it does not drop. [FIGURE 1 & 2]

FIG.1



FIG.2



5. Loosen and remove the brake line brackets from the frame and passenger upper link mount using a 10mm. [FIGURE 3 & 4]

FIG.3



FIG.4



6. Using a 10mm, loosen and remove the brake line clamp from the backside of the center of the axle. The clamp will need to be spread and removed from the line, then flipped over and reattached. The same will need to be done for the clamp that is attached to the backside of the passenger upper link mount. [FIGURE 5 & 6]

FIG.5



FIG.6



7. Remove the E-locker wiring bracket from the frame using a 10mm.

8. Install the upper ICON brake line drop bracket onto the frame using the OEM hardware. Torque the bolt to 80 in/lbs. Then secure the OEM brake line bracket to the ICON bracket using a 5/16-18 x .750 bolt, washers and nylock nut. Torque to 10 ft-lbs. [FIGURE 7]

FIG.7



9. Install the ICON lower bracket line riser to the upper link mount using the OEM hardware and torque to 80/in lbs. Then secure the OEM brake line bracket to the ICON bracket using a 5/16-18 x .750 bolt, washers and nylock nut. Torque to 10 ft-lbs. [FIGURE 8 & 9]

FIG.8



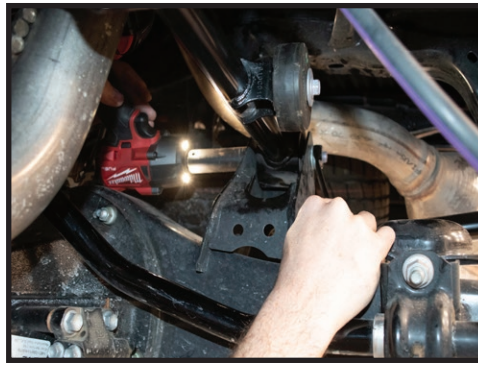
FIG.9



10. Slowly lower the axle down to free the coil springs. Set them aside, they will be reused if spring spacers were ordered. The left/right springs are the same. You can label them if you feel the need to.

11. Remove the upper link from the axle mount using a 19mm. Loosen the bolt and not the nut. The nut has small tangs that dig into the mount and act as a locking nut. If you loosen the nut, it will become damaged. [FIGURE 10]

FIG.10



12. Loosen the frame side pivot also. You can leave the bolt in place if you are not installing Icon links. [FIGURE 11]

FIG.11



13. Install the upper link bracket from the kit as shown. Using the supplied 1/2-13 x 1.25" bolts with washers and nylock nuts on the lower holes. Use the longer sleeve (2.715") to put in place of the link and the 9/16-12 x 4.5" bolt with washers and c-lock nut to secure the spacer and bracket. Reinstall the upper link into the new mounting position using the factory hardware. Torque the 1/2" bolts to 80 ft-lbs. Torque the 9/16" bolt to 110 ft-lbs. If ICON links were installed torque the OEM bolts to 110 ft-lbs now. If OEM links are installed, wait until the truck is under its own weight to torque, as the bushings can be damaged if torqued now. [FIGURE 12 & 13]

FIG.12

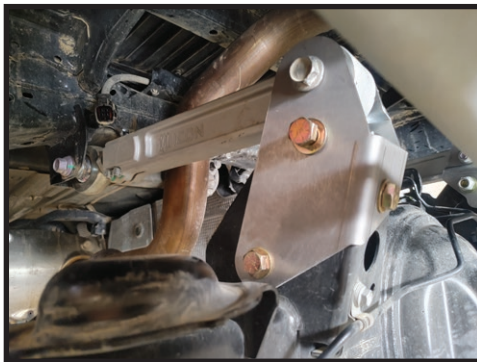


FIG.13



14. Install the trackbar bracket as shown. Use the 7/16-14 x 1.25" with washer and nylock nut. The bolt goes in from the top and the nut will need to be held with a pliers through the slot in the back of the axle mount. Depending on the truck, a pry bar might be needed to open the slot up and allow the nut to fit. Use the 3/8-16 x 1" bolt, washers and nylock nut to secure the bracket to the front side of the axle mount.

Use the OEM bolt and the remaining sleeve (1.580") and loosely secure it into the factory position. Then use the 9/16-12 x 3" bolt, washers and c-lock nut to secure the track bar into the ICON bracket. Torque the 9/16 bolt to 110 ft-lbs. Torque the 7/16" bolt to 50 ft-lbs. Torque the 3/8" bolt to 30 ft-lbs. Torque the OEM bolt to 110 ft-lbs (Icon track bar can be torqued now, OEM trackbar needs to be torqued once the truck is under its own weight). [FIGURE 14 & 15]



FIG.14



FIG.15

15. Loosen and remove the sway bar links from the frame mounts using a 17mm. Then remove the mount from the frame using a 17mm. The bolts will be reused. [FIGURE 16 & 17]



FIG.16



FIG.17

16. Install the new sway bar link mounts to the frame as shown. Use the OEM hardware and torque to 70 ft-lbs. Torque the Sway bar link nut to 50 ft-lbs. [FIGURE 18 & 19]



FIG.18



FIG.19

17. Loosen the lower link bolt at the axle, leave the bolt in place and remove the nut. The bolt has to be loosened or the nut may be damaged if rotated while tight. Slide the supplied bump stop bracket over the bolt and axle, reinstall the nut. Install the supplied 1/2-13 x 1.25" bolt with washer through the slotted hole in the bracket. Install the 1/2" black washer along with the gold washer and nylock nut. Torque to 70 ft-lbs. Torque the OEM bolt to 90 ft-lbs. [FIGURE 20 & 21]

FIG.20



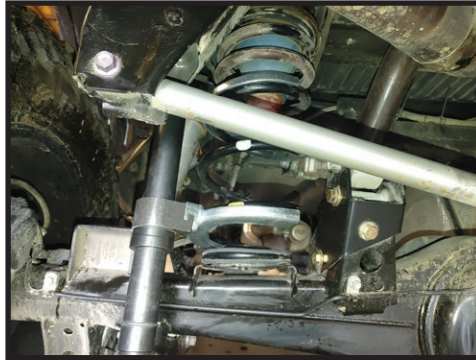
FIG.21



18. If the ICON coil springs were purchased, install those now. Refer to those instructions.

19. If spring spacers are to be used, install those now. They are identical left to right. Use the supplied 7/16-14 x 1.25 bolts and washers. The nut plate will be placed on top of the coil bucket. Tighten the bolts to 50 ft-lbs. Install the coil bumpstop into the coil and insert the coil spring back into position. Be sure the lower pig tail fits into the axle perch correctly. [FIGURE 22]

FIG.22



20. Install the new ICON shocks now, refer to the instructions included with the shocks.

21. Install wheels and tires.

22. Lower vehicle to the ground and torque the remaining bolts, if OEM links or trackbar were retained.

VERIFY ALL FASTENERS ARE PROPERLY TORQUED BEFORE DRIVING VEHICLE.

RETORQUE ALL NUTS, BOLTS AND LUGS AFTER 100 MILES AND PERIODICALLY THEREAFTER.

ICON VEHICLE DYNAMICS LIMITED LIFETIME WARRANTY

ICON Vehicle Dynamics warrants to the original retail purchaser who owns the vehicle on which the product was originally installed. ICON Vehicle Dynamics does not warrant the product for finish, alterations, modifications and/or installation contrary to ICON Vehicle Dynamics instructions. ICON Vehicle Dynamics products are not designed, nor are they intended to be installed on vehicles used in race applications, for racing purposes or for similar activities. (A "race" is defined as any contest between two or more vehicles, or a contest of one or more vehicles against the clock, whether or not such contest is for a prize). This warranty does not include coverage for police or taxi vehicles, race vehicles, or vehicles used for government or commercial purposes. Also excluded from this warranty are sales outside of the United States of America and Canada.

ICON Vehicle Dynamics' obligation under this warranty is limited to the repair or replacement, at ICON Vehicle Dynamics' discretion, of the defective product. Any and all costs of removal, installation or re-installation, freight charges and incidental or consequential damages are expressly excluded from this warranty. Items that are subject to wear are not considered defective when worn and are not covered.

ICON Vehicle Dynamics components must be installed as a complete kit as shown in our current application guide. Any substitutions or exemptions of required components will immediately void the warranty. Some finish damage may happen to parts during shipping and is not covered under warranty.

This warranty is expressly in lieu of all other warranties expressed or implied. This warranty shall not apply to any product that has been improperly installed, modified or customized subject to accident, negligence, abuse or misuse.