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CAMARO / FIREBIRD TRACLINK Part# TSC-20
TSC series 82-85 (5-speed)
INSTALLATION INSTRUCTIONS

KIT CONTAINS:

2 rubber bushings
1 steel bushing sleeve with attached washer
1 torque arm with rod ends and rear end bracket
1 main center beam
I hardware pack
1 front support tab

TRACLINK kits require approximately 3 to four hours to install. Although TRACLINK is considered a bolton device for factory stock vehicles, it is reasonable to expect additional time may be required for proper installation, depending on other aftermarket modifications already present on the car.

One of the performance features of TRACLINK is that the pinion angle is fully adjustable. Here at the factory we preset the angle which will work for most applications however different ride heights, various motor/trans combinations etc. may require the adjustment to be changed. We strongly recommend zero degree's measured at the rear end pinion to drive shaft location.

1. Begin installation by elevating the vehicle, as you will be required to be underneath it to install the kit. It is recommended that you support the unibody with jackstands both front and rear. Leave the axle supported with the floor jack for raising and lowering the axle. This will help while installing the TRACLINK.

2. Remove the factory torque arm assembly. To accomplish this, take the bolts out of the factory torque arm mount located at the back of the trans. Remove the entire bracket assembly. The exhaust bracket will also come loose. In the hardware pack there are two 3/8-inch diameter bolts and nuts which replace the factory hardware. Move to the rear of the torque arm and remove the two long bolts that attach it to the rear axle. The arm should now come off.

3. Once the torque arm is removed unbolt the little clamps that hold the brake lines and fuel lines. These lines run down the center of the drive shaft tunnel. Also unbolt the fuel filter from the frame rail. **DO NOT UNDO THE FITTINGS ON THE FUEL LINES OR BRAKE LINES.** Once the lines are loose from the body, move up into the passenger compartment and remove the rear seat cushion

behind the driver seat. Next remove the rear seat belt and bolt. This allows you to obtain clearance to get underneath the carpet in that area.

4. Install the main beam, At this point you will require a 1/2-inch drill motor and drill bit ready to be used. The drill bit should be at least 6 inches long. Slide the main beam into position. To do this lightly pull the fuel/brake lines down away from the floorboard, just enough to slip the main beam over the top and into position. **PROPER POSITION OF THE MAIN BEAM IS ACHIEVED WHEN THE (V) OF THE MAIN BEAM FITS UP INTO THE FLOOR AREA SO THAT THE EDGE OF THE PLATES ARE ABOUT ¼" OF AN INCH AWAY FROM THE UNIBODY SEAM. THE TOP PLATE WILL BE FLAT AGAINST THE FLOOR. THE MAIN BEAM WILL POSITION NEXT TO THE BRAKE AND FUEL LINES. You want the beam to be as close to the lines as possible. ONCE YOU HAVE THE BEAM IN POSITION, PRESS THE (V) PART OF THE MAIN BEAM UP AGAINST THE FLOOR AND DRILL A ½"INCH HOLE. DRILL THE FIRST HOLE LOCATED INSIDE THE TUBE WHICH IS WELDED ON THE (V) PLATE.**

5. It is a good idea if someone helps you at this time – First, you need someone to hold the carpet up so you do not drill into it. Second, someone needs to push the bolts with flat washers installed, down through the holes and hold the bolts for tightening.) Okay! You have drilled the first hole in the floor. Obtain a 1/2-inch bolt with a flat washer from the hardware pack and install them into the hole. The nuts will be on the bottom of the vehicle. Run the nut down until the plate contacts the floor**DO NOT TORQUE THE BOLT YET**. Next drill the hole in the top plate closest to the frame rail (fuel filter location). Place a bolt and washer through the hole and draw up. Next drill the final hole in the top plate and place a bolt with flat washer through it. After all 3 bolts are installed torque them to 70 foot pounds. Proceed to the front crossmember.

6. In your kit you will find a threaded dowel with a 3/16" tab welded to it. This tab will attach at the end of the main beam and bolt to the crossmember. Simply locate a ½" inch bolt 1 inch long and a ½" inch lock washer out of your hardware kit. Place the flat tab on the end of the main beam and loosely install the ½" inch bolt. Look at the position of the dowel where it contacts the crossmember. Mark the location by scribing around the dowel. You will probably have to drop the crossmember at this time because you need to drill a ½ inch hole in the center of your mark. This will allow you to bolt the tab to the crossmember, which supports the main beam. If you can drill the hole without dropping the crossmember, great!!!
   Once the hole in the crossmember is drilled locate another ½" inch bolt 1-1/4" inches long with a large flat washer and lock washer. Torque the tab to the crossmember and the main beam to 70 foot pounds. Move back to the V section and drill the remaining holes in the plates. There will be 4 holes to drill. Place a ½ inch bolt with washer through the holes and torque to 70 foot pound.

7. The main beam is now installed. You may put back the fuel lines and brake lines. The fuel/brake lines sometimes may need to be bent just a little to clear the beam bracing. This does not need tools; just bend them with your hands. **MAKE SURE THE LINES ARE NOT RESTING ON THE BOLT, NUTS, BRACES, OR PLATES. OVER TIME THIS CAN WEAR HOLES IN THE LINES DUE TO VIBRATIONS. (SOLUTIONS: IF YOU FEEL THE LINE WILL HIT SIMPLY TAKE RUBBER HOSE, SLIT IT AND PLACE IT OVER THE LINE. SECURE THE HOSE WITH CLAMPS, DUCT** TAPE, OR TIE WRAPS.) Most likely you will not have to do this because they move out of the way.

8. Next install the new torque arm and place the collar with a large washer welded on it over the end of the arm. You will notice that the collar has a bushing inside it, which allows movement with no bind. You need to put a little grease inside the collar and on the arm shaft at this time. Place one of the rubber bushings (smaller of the two) on the collar first. The rubber cone should be next to the welded washer on the collar. Take the complete assembly and slide the torque arm with the collar up into the round housing on the main beam. Lower the rear end down slightly and slide the rear bracket over the rear end. If the bracket does not want to go on it is probable that the rear end is slightly pitched downward at the pinion. This will make the bracket not line up. As the bracket starts to slide on you may raise the rear end up. This will allow the torque arm to go into place easier. Once the unit is in place, slide the 2 long bolts into position and hand install the nuts. Move to the front collar and slide the other rubber bushing onto the collar, placing the bushing so that the flange indexes into the steel ring on the main beam. Take the only large metal washer in the kit and place it next to the rubber bushing. The convex side of the washer goes on next to the rubber bushing. Take the 1-inch diameter nut and install it on the collar. Run the nut down so that the rubber is indexed into the steel ring. You will draw the nut down until it just about bottoms out on the collar. Install the other 1”inch nut with the grease fitting on the end onto the collar. Tighten this nut until it bottoms out on the collar. Then back the first nut up to the grease-fitting nut and tighten to jam them. Lubricate with a grease gun.

9. Torque the torque arm to the rear end at 100 foot pounds.
   Torque the 2 bolts that hold the torque arm to the torque arm bracket. They are located on the side of the bracket. Torque to 70 foot pounds.

   Take an open-end wrench and tighten down the jam nuts holding the torque arm to the bracket.

10. At this point the unit should be installed. It is now time to install the interior. Make sure the seat belt bolt is tight. The carpet and seat will go back to their position without modifications.

11. Lower the vehicle back on the ground. Recheck pinion angle (You must check the pinion angle with the car on the ground or at least the suspension loaded as if it was on the ground.
    To adjust the pinion angle, simply loosen the jam nuts on the adjuster (bottom of the torque arm) and by rotating the adjuster you can set the pinion angle. Don’t forget to retighten the jam nuts.

TECHNICAL INFORMATION

SUBJECT: VIBRATIONS

1. If you notice a vibration during your test drive through the whole vehicle, this condition is caused by the drive line or pinion angle being nose down or over center and nose up. Both of these conditions will cause a chassis vibration. Solution is to re-adjust the pinion angle.

2. Metal to metal sound over bumps --- generally intermittent.
   This condition is from the length of the torque arm being too long and the taper at the end of the torque arm is hitting the steel collar over bumps (look where the rubber bushings are located). The torque arm will move ¼ to 3/8 of an inch in during bumps. This movement is required for proper suspension operation. If this distance is less than ¼” to 3/8” of an inch you

may experience a thumping sound over hard bumps. This is the torque arm bottoming out on the collar.

Solution: Shorten the length of the torque arm by screwing in the rod ends at the end of the torque arm. You will have to remove the torque arm from the bracket that attaches it to the rear end. Adjust the upper and lower rod end in the same amount and reinstall.

3. Occasional thumping sound going over drive ways and speed bumps.

This is caused by over greasing the pivot at the end of the torque arm. Simply remove the grease fitting located at the torque arm end cap. Drive around the block and reinstall the grease zirk. The excess grease will have purged out and the condition will have gone away.

Installed properly this unit will be quite during normal operations. However during hard acceleration like drag racing off the line you may experience a small thump. This is the traclink activating, forcing the tire into the payment, it is normal, its working. ENJOY!

Other components offered by Global West are:

- Tubular rear lower control arms
- Adjustable panhard rods
- Springs
- Shocks
- Subframe connectors
- Del-a-lum control arm bushings
- Tubular tie rod adjusting sleeves
- Lower steering frame supports
- Fast ratio steering boxes
- Racing and High Performance disc brake kits