VAN STEEL
CORVETTE SUSPENSION BRAKES & STEERING PARTS

T-Arm Removal & Installation Instructions

Tools Needed for the Job

- Vice Grips
- Large Flat Head Screwdriver
- Pry Bar
- Drill with 3/8" & ½" Drill Bit
- Heavy Hammer
- Center Punch
- Parking Brake Screw Driver (PT# PB-36)
- Needle Nose Pliers (11" PT# NN-01)
- Spindle Flange Nut – Socket 1 1/16"
- Torque Wrench
- Dial Indicator

*****IF YOU HAVE A 1963-64 CORVETTE AND YOU ARE CONVERTING TO REAR DISC BRAKES, PLEASE STOP TO READ*****

You **MUST** cut the rear bump stop tabs flush with the side of the frame rail and relocate the rubber bumper inboard. Failure to do so will result in parts failing. On compression the bump stop will hit the caliper and can cause the caliper mounting bracket to brake.

*****Note** that we also have parking brake lines made specifically for 1963 cars. 64-66 cars can use a 1967-82 rear parking brake cable.

Before anything is done, be sure that your side yokes are with spec.

When putting a Corvette on jack stands or on a lift you should always pop the hood, release the t-top locks (if you have them) and pops the doors. This will help relieve stress on the fiberglass.

Removal

1) Once your car is safely on jack stands or a lift, remove the rear tires.
2) Take a set of vise grips and crimp the rubber brake line on the side you are working on.

3) Remove the steel brake line that is on the back side of the caliper at the caliper and where the rubber and hard line meet along with the clips.
4) Remove the caliper.
5) If you plan on keeping your original rotors and don't have a dial indicator, this is the perfect time to mark your rotor and spindle. It's best to use a punch so you can see your marks after the parts are cleaned. This will help with rotor run-out later.
6) Next, you will move to the lower shock mount and remove both nuts.
7) You can take a long screwdriver and pry the lower part of the shock off of the mount.
8) You will have to drive the lower shock mount out. The heavier the hammer the better. Be careful not to mushroom the threads. We recommend a shock mount remover (Prt # SM-01). The old shock mounts will not be re-used in the kit, however, if you ever want to convert back to stock, you will be able to re-use these later on.
9) Disconnect the half shaft, both inboard and outboard. By removing the whole shaft from the car it will make the work a little easier.
10) Now you can loosen the front t-arm pivot bolt nut.
11) Try to remove the alignment shims. You should try to use a pry bar or large flat head screwdriver to work them out. If you can not get the shims out or if your pivot bolt is frozen, you will need to use a sawzall to cut through the shims and bolt in order to remove the t-arm from the car. (It's a good idea to remove the rotor for the extra weight. When the arm is about to become free, be careful that it doesn't fall on you.)

Converting to new arm

Now that the arm is out of the car, here are your next steps to convert it over to the new t-arm.

1) If you have not removed the rotor, now you have to. Your rotor may be riveted to the spindle still. If so, you will need to drill the rivets out.
   a) Take a center punch and center punch the center of each rivet. There are a total of 5 per rotor.
   b) Use a small 1/8" drill bit and drill approx 1/8" deep.
   c) Use a large ½" drill bit and this will spin the head of the rivet off.
   d) After the head of the rivet is removed, you can use your punch and push the rivet all the way though the spindle.

2) Remove your parking brake hardware. There are a total of 4 springs all together. 1 on the top, 1 on the bottom and 1 on the right and left side.
   a) You should use a flat head screw driver and remove the upper spring 1st.
   b) When the upper spring is removed, use your flat head screwdriver and pry the parking brake shoe from under the spindle and you will see the side spring. This spring will have a dish on top of it. You will need a pair of needle nose pliers to remove the spring from the pin holding it by turning the dish or the pin.
   c) Repeat for the other shoe.

3) Now the parking brakes should be removed. 1 pin should have fallen out which is OK. There are 4 nuts that should now be visible. Remove those 4 nuts.
4) You will have to remove the spindle nut, washer and flange.

If you have a bench vice, this will make your job go easier. Place the legs of the bearing support in the vice and tighten it down to hold the t-arm in securely. At this point you can now remove the t-arm from the bearing assembly. You can take a block of wood and a heavy hammer and hit the t-arm below the bump stop (flat part of t-arm) and along the sides of the shield. You may also need to punch the old studs out that hold the t-arm to the bearing assembly to make it easier. Leave the bearing assembly in the vice for your next steps.

Rear Coilover Conversion Instructions *****Please Read*****

You will need to drill out your upper shock mount to accept a ½" bolt that we have supplied you with a reinforcement bracket. (NOTE: This bolt may need to be shaved down to clear the body.)We recommend you weld this bracket in place after everything is assembled and you are certain that everything clears. You can install it without welding it. If you choose to have it welded later on, please note that you SHOULD NOT WELD NEAR THE COILOVER SHOCK. You should remove the shocks and disconnect the battery 1st.

These cars are 25 plus years old and the shock brackets could have been mounted at +/- the mounting point.

After the old t-arm is removed, you're now ready to install the new t-arm. You should also set the bearing support to one side of the vice vs. the center of the vice when you put the coilover arm on. The side you put it toward will depend on which coilover arm you are installing 1st (L or R).We provided you with new t-arm studs so use those. You will need to hammer those in before moving on. Once the new studs are in you can install the t-arm onto the bearing assembly.

1) Install the 4 T-Arm Studs the t-arms and slide the coilover arm into place.
2) Install the 5/8 x 5.5" long bolt and slide the spacer in between the coilover bracket and the bearing support. The spacers are "file to fit" since the bearing support castings can vary.
3) Once the arm is on and spacer is fit, you can install the 4 lock washers and nuts and tighten the assembly up.
4) Reassemble your parking brake shoes and hardware.
5) Install the rotor. You should have marked the rotor and spindle like we mentioned before. Line the 2 marks up. It is important that you still do a rotor run out to

ensure the run out is no too high. (You should install all 5 lug nuts when doing rotor run out with a dial indicator.)

6) Install the spindle flange, washer and nut. Torque the spindle nut to 100ft/lbs.
7) You can remove the 5/8" x 5.5" bolt so you can install the strut rod.

NOTE: If you have adjustable strut rods, you can install the outboard side when you build the assembly and screw the sleeve on later.

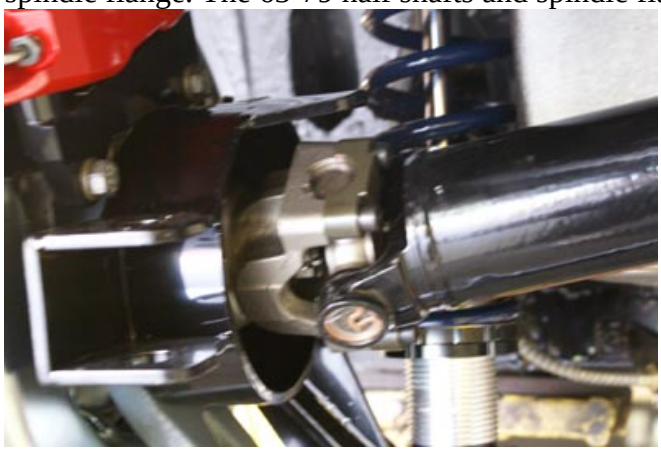
You can opt to remove the rotor to reinstall the t-arm assembly. It will take off a lot of weight. Just make sure the rotor run out is done and it's marked.

Installation of T-Arm

1) You should start by inserting your t-arm pivot bolt though the inner frame rail. Just get it in a ¼" or so. Using long needle nose pliers will help out. We recommend 11" needle nose pliers.

2) Place the t-arm into the frame pocket and push the t-arm bolt through. You will have to shimmy the arm around to make the bolt go all the way through.

3) Bolt your half shafts up. Please Note *** this pic is an 80-82 style half shaft and spindle flange. The 63-79 half shafts and spindle flanges are different.



4) Install the strut rods. (Don't forget the inboard reducing washers.)
5) Re-install the 5/8" x 5.5" Bolt through the bracket, bearing support and strut rod. Placing the spacer in between the coilover bracket and bearing support.

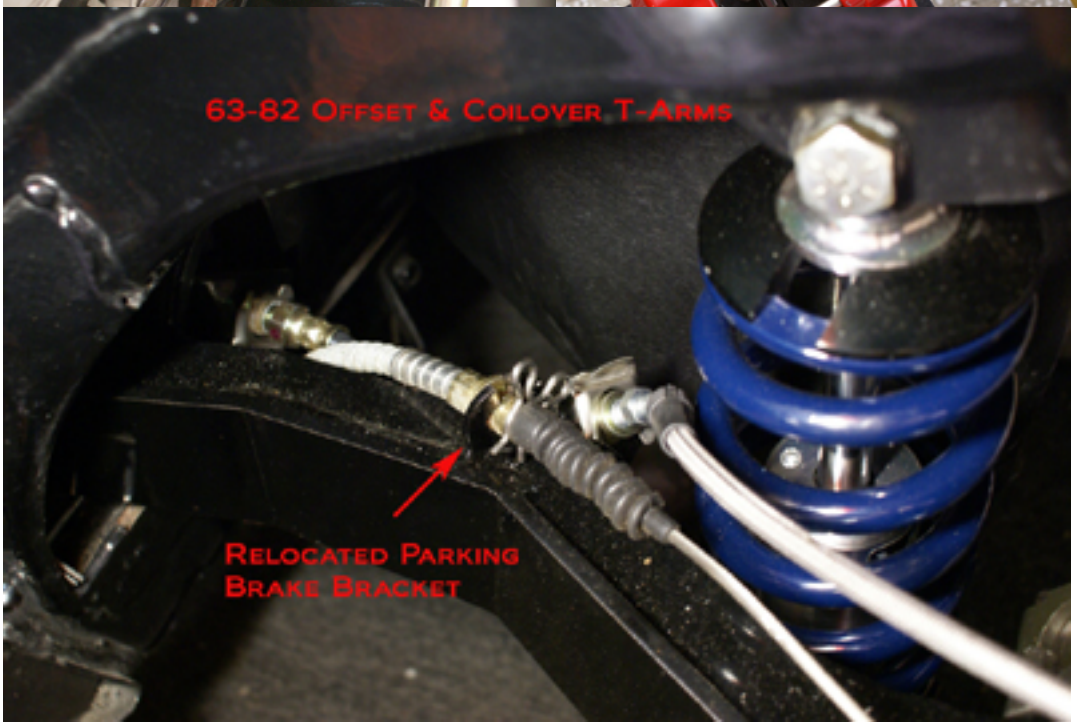
6) Install the upper shock mount reinforcement bracket. Tap it in place with a small hammer and drill out the original mount to accept the ½" bolt supplied. The bracket will look like the OE bracket, only thicker. The opened end of the bracket will open up to the front of the car on one side and the back on the other. Just like OE.

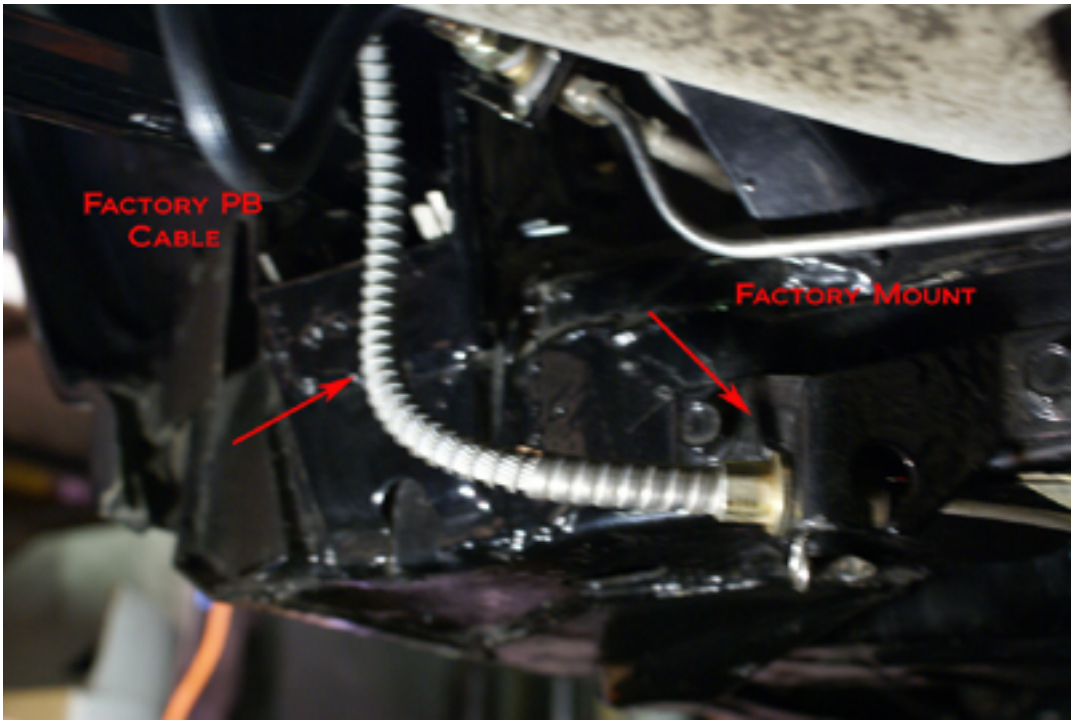
7) Install the coilover shock. Mount the top 1st. We supplied you with a bolt and nord lock, lock washers and thin nyloc nut. Use the nord lock at the head of the bolt. You should have the lower jam nuts on the coilover at its lowest point for ease of installation. Please note** that bushing on top of the coilover will be in a bind. This is because the assembly is in full droop. Note *** Nord Lock lock washers are a 2 piece serrated washer and both piece mate to one another. You will also need to cut the end of the bolt on the inside. This may need to be done to one or both of the bolts. It depends on how the body sits on the frame.

8) Once the top is installed, you should raise the jam nuts at this time to put some tension on the spring. Once there is some tension on the spring, you can install the shock on lower mount w/the supplied bolt, nord lock and nyloc nut. Again the nord lock is at the head of the bolt. Please Note**** The head of the bolt should face the front of the car. The nut will be toward the rear.
9) Install the Parking Brake Cable - You will need to put a tight "S" bend in the cable. We recommend you install the cable on the t-arm 1st. It's going to take some man handling to get it into the triangle bracket on the frame but it will go.


RB-13-SLR-OE
Optional Brake Line


RB-13-SLR-WW
Optional Brake Line


63-82 Offset & Coilover T-Arms
Relocated Parking
Brake Bracket



10) Install the rotor if it has not been done already.
11) Install the caliper with the hard line. This line will need to be tweaked to go around the coilover shock. You can also purchase part number RB-13-SLR-OE which is a long flex line that goes from the brake block to the center of the caliper and uses a short “J” line. This is for stock calipers. If you have Wilwood calipers, you can use part number RB-13-SLR-WW.
12) Connect the rubber flex line and the caliper hard line.
13) If you have a rear sway bar, install it at this time.
14) Now you can make your ride height adjustment using the spanner wrenches that were supplied. Move the car back and forth as well as jounce the car to make sure that nothing binds or rubs.
15) If all clears, jack the car back up, remove the coilover shock and weld the upper reinforcement bracket in place and re-install the coilover.
16) Once the car sits where you want it to, get it aligned.

You should also make an adjustment to your shocks valve. There are 18 settings; we recommend that you start at 5 or 6 clicks to the right which will put you in the middle. You can adjust it to your ride quality after you get a feel for the car. If you have problems, please contact Van Steel on our toll free number or e-mail. Thank you for purchasing our product.

800-418-5397
Outside US 727-561-9199
E-Mail: vansteel@vansteel.com

VAN STEEL

63-82 Alignment Specs

Street Specs

Front

Toe ……1/32” Negative - Total
Camber…….....0 Degrees
Caster…….2.75 Degree Positive
Caster w/offset shaft …….4.75 Degrees Positive
Caster w/Tubular Uppers…6-8 Degrees Positive

Rear

Toe…….1/8” Negative - Total
Camber……..0 Degrees

Advanced Street Specs

Front

Toe……0 Negative - Total
Camber……..1/4-1/2 Degree Negative
Caster……Max Possible
Caster w/Tubular Uppers…7-8.5 Degrees Positive

Rear

Toe……..1/8” Negative - Total
Camber……1/4 – ½ Degree Negative

Track Specs ----Call with Tire Specs 1st

Front

Toe……..1/32” Negative - Total
Camber……3/4 – 2 Degree Negative
Caster…….Max Possible
Caster w/Tubular Uppers…7-8.5 Degrees Positive

Rear

Toe……..3/16” Negative - Total
Camber……3/4 – 1 Degree - **Call**