(Gen 1) T-2 Front Disc Brake Install

Our goal is to make the install a breeze. Please read the entire guide. If you have a tech question, you can text us here.

1. Loosen the lug nuts 1/4 turn before jacking the vehicle up.
2. Jack up the front end and place on jack stands.
3. Remove wheels and place them under the vehicle as an additional fail-safe.
4. The dust caps will be reused with these disc brakes so you will need to remove with care. On the driver's side, you will need to remove the cir-clip holding the speedo cable and save. There are several techniques in removing these dust caps, our favorite is with an oversized set of channel locks. Grab each edge and rock the cap up and down until it falls off. Repeat on the passenger side.
5. In between the lock nuts is a lock tab that will need to be bent over to remove the spindle nuts. Save all the nuts, lock tabs and thrust washer as you will be re-using them again.
6. Once removed, it is time to pull off the old drum. Do not try and pry it off. Adjust the brake shoe adjusting stars with a brake spoon to give you slop in the drum to wiggle off. Tap the drum on the edge with a rubber mallet until the drum falls off.
7. Ensure you have a container to catch the brake fluid once you start this step. Remove the bleeder on the back side of the backing plate and loosen/remove the brake line. Remove the 4 bolts on each side and remove the backing plates.
8. If you are using the stock or drop drum spindle, it is time to clean, wire brush and repaint the spindle and knuckle. Lightly chamfer and steel wool the spindle to remove any light rust. Clean all grease/ residue with a quality brake parts cleaner.
9. If you are using a stock spindle, attach the caliper mounting plate to the backing plate holes with the supplied flat head Allen hardware using the supplied Loctite with the caliper facing the rear of the vehicle. Torque to 35 ft. lbs after initial tightening in a cross pattern.
10. For 1955-63 kits, you will need to remove the old thick inner seal spacer and install the thinner inner bearing spacer on the spindle. The side with the beveled inner edge is installed facing the caliper plate. 1964-67 kits including the Brazilian Bus, do not require the spacer.
11. It is time to verify you ordered/have the right parts to install the brakes this go around. Remove your bearings from the package and test fit the inner and outer bearings before packing them. Did they fit? If yes, proceed with the installation. Did they not? Call/text us 1-623-518-3537.
12. Once the proper bearing fit has been verified make sure that the bearing race seats in the hub are clean and free of any dirt or shavings from machining. Clean/ chamfer as necessary then start the bearing races and press them home to the bottom of the seats thin side up. Be careful not to damage the races. The PRO's use these bearing race install tools but a large socket of the appropriate outside diameter can work. Extreme

force should not be necessary. Pay attention so the races press/ drive in straight as a cocked race can damage the hub. If a race wants to press in unevenly STOP! Find and correct the cause of the problem. Even a tiny shaving in the race seat can cause rotor "wobble" if not detected and removed and will result in unsatisfactory braking performance or wheel wobble.

13. Once the races are properly installed and seated to the bottom of the seat, it's time to pack the bearings with grease and install them in the races. The PRO's use this tool to make this happen. Once placed in the rotors, remove any grease or oily residue on the rotors.
14. Tap the seal in dry. Once the seal is in and is not popping back out, grease the seal, both inner and outer. This will prevent the seal from burning off.
15. Now install the rotor with bearings on the spindle. Install the notched washer and then the nut (as originally supplied with your drum brakes). Adjust wheel bearing end play by spinning the hub/ rotor while tightening the spindle nut. Once you are not able to spin the rotor any longer, back the nut off 1/4 turn.
16. Install the lock tabs on early cars or tighten the 6mm Allen head screw on later T-2's.
17. Then install the outer nut until tight and bend the lock tab over it. Install the dust caps and speedo cable to finish off the hub installation.
18. You are now ready to test-fit the brake caliper. There is an assortment of washers/ shims supplied with the kit. Please do your best to center the caliper cutout on both the top and bottom of the caliper, and the pads contact the rotor dead flat to the surface; IE, it doesn't contact the top of the pad to the rotor while not contacting at the bottom of the pad or vice versa. Thus the brake caliper must be installed in parallel with the brake disc.
19. Once it is determined that the caliper is spaced such that this has been achieved the caliper can be fixed to the mounting plate with the appropriate shims using the supplied Loctite and torque to 35 foot pounds. Pay attention that the caliper fixing screws (8mm Allen head) neither sticks out the opposite side of the mounting plate and contact the rotor nor do too few threads go into the mounting plate to hold the caliper securely. Too far in is easily corrected with a washer under the bolt head not in far enough to be safe requires a longer fixing screw of the same type which should be easily available at any local parts or hardware store in a pinch. Be sure to use fasteners of the "hardened" type as supplied with the kit.
20. Slip the cotter pin out of the caliper. Install the pads into the calipers (friction sides facing the rotor of course!) and reinstall the pin assembly making sure it's in all the holes in both caliper and pads. Bend the end outwards to each side.
21. Next, it's time to address the brake lines. There is a sticker over the hole where the supplied stainless steel brake line needs to be installed. You will need to place the same teflon tape on the fitting to ensure proper sealing properties.
22. Pull off the wires that go to the master cylinder switch(s). Using your large crescent wrench just loosen the switch(s). Now with your 11mm wrench, break the metal lines loose that go into the master cylinder

23. With your 13mm wrench and socket loosen the two bolts that hold the master cylinder to the bracket. Take the bolts out.
24. Unthread the lines by hand and pull the master cylinder down and out. Be careful where you set it; as it still will have a lot of fluid in it.
25. The new supplied master cylinder will need to be cleaned and painted to avoid rusting.
26. Lube the bottom of the reservoir and push it into the cups.
27. Place the boot onto the new master cylinder and then slide the aluminum ring over the boot with the large inside diameter towards the master cylinder. Loosely line up the bolt holes and bolt it up to the bracket.
28. Do not tighten; bend the lines around and hand thread into the master cylinder. It is important that the two metal lines that go to the front wheel are threaded in the end of the master cylinder farthest away from the plunger. The rear line and the switch should go into the holes closest to the master cylinder push rod. Note the brake switch will now be coming out of the side of the master instead of the nose of it.
29. Once the lines have been hand tightened into the cylinder go ahead and tighten the two bolts that hold the cylinder in place. Now go back with your 11mm wrench and tighten the brake lines.
30. Install the brake light switch with the threads coated in sealant. Place a small amount of grease on the inside of the master cylinder where the push rod will be pushing against.
31. Put your wires back onto the brake switch.
32. Check the rod that goes into the master cylinder from the pedal. It should have an 1/8 inch of play before you can feel the rod make contact with the plunger. Note if there is no play - the plunger will not come back far enough to let the fluid into the cylinder - If it has too much play you will be pushing the pedal down a ways before the master cylinder even does anything. This measurement is really important here so spend some time and get it right. To adjust the rod use either a 13mm or 14mm wrench and loosen the jam nut on the rod. Now with your vise grips adjust the rod in or out until it feels right. Holding the rod still: tighten the jam nut.
33. Fill with dot 3 brake fluid and leave the cap off while bleeding the brakes.
34. Common knowledge in bleeding disc brakes tells you to bleed the furthest away. When working with a disc brake master, like the one supplied, you need to bleed the first circuit to be able to bleed the second circuit completely. Start with the right side front, left side front, right side rear and finish with left side rear. Remember to check and top off the fluid frequently. *NOTE*: Wilwood calipers are designed for "either side" fitment; therefore ONLY the TOP bleeder valves are used. The PRO's use a Brake Bleeder Tool like this.
35. When only installing front disc brake application, properly adjusting the rear brakes will give you an even nicer pedal feel. Tip - Tighten the adjustment stars until the rear drums do not move. Pump up the brakes 3-5 times and you will notice that the drum will turn again. Adjust them tighter until the drum does not move again. Then pump them up again. Repeat these step until the drum does not move after pumping them up. Then back them off so that the drum will turn and not drag. Doing this process will

center the shoe in the drum and allow the shoe to wear evenly. After doing these steps to correctly adjust your brake shoes make sure to adjust your e-brake cable as well.

36. Install the front tire/ wheel assemblies. Once the road wheels are installed and torqued remove the car from the Jack stands. *IMPORTANT: BEFORE DRIVING OFF press the brake pedal slowly to the floor and release repeating until the caliper pistons have moved out of their bore into driving position (firm brake pedal at or about normal height)

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Pad and Rotor Bedding:
Bedding is a "real conditions" heat cycle and the final step in preparing the pads and rotors for service. All pads especially cast iron rotors operated at sustained high temperatures will provide longer service life and smoother braking when adequately bedded. Bedding can be done either in the vehicle or on a unique bedding dyno that can realistically duplicate the torque loads, pressure, and temperature that will be realized in the vehicle.

Rotor Bedding:
Rotor bedding is an essential element to high-level performance and durability. It is most critical with cast iron rotors. Cast iron is exceptionally well suited to use as a brake rotor. Still, it can be susceptible to thermal stress distortion and even cracking if subjected to rapid changes in temperature when it's new. The cracking sound you may hear when pouring a favorite beverage over a glass of ice is thermal shock. A proper bedding cycle will gradually bring the rotors up to temperature, allowing them to cool slowly and entirely to "season" and relieve any remaining stresses from the casting and machining processes. With some compounds, a layer of pad material may also be embedded in the rotor face. It is essential that this "transfer layer" be deposited slowly and smoothly. Otherwise, pedal pulsing and compromised friction values can result.

The bedding process is the final "heat cure" for the pads. This final bedding cure differs from an oven heat cure in that the oven heat cure does not include the pressure torque and elevated surface temperatures necessary to condition the pad for service properly. With the rotors, new pads must be gradually brought to temperature and then slowly cooled. If the pads are put into hard service right from the start, damage from fractures or accelerated deterioration due to extreme temperature variations between the surface and the body of the pad can occur. Overall poor performance with the potential for rotor damage is often the result.

Bedding Steps: Once the brake system has been tested and determined safe to operate the vehicle, follow these steps for bedding of all pad materials and rotors. Begin with a series of

8-10 light stops from approximately 30 MPH down to 15 MPH allowing 20-30 seconds for cooling between each stop. Progress to a series of 8-10 moderate stops from around 45 MPH down to 30 MPH allowing the 20-30 second cool down period between each stop. Proceed with a series of 8-10 hard stops from 55-65 MPH down to 25 MPH allowing 20-30 seconds of cool-down time between each stop. Drive at a moderate cruising speed with the least brake contact possible until most of the heat has dissipated from the brakes. Avoid sitting stopped with the brake pedal depressed to hold the car in place during this time. Park the vehicle and allow the brakes to cool to ambient air temperature.

Notes:
A more positive feel from the brakes should develop during the bedding process. This is an indication that the bed in the process is working. If any brake fade is observed during the hard stops, it may indicate that the brakes have been more than adequately heated. Begin cooling the brakes with light driving and without brake contact immediately.

Bolt Pattern Removal:
If you plan on changing these, understand the torque settings. You will need a 5/16" Allen socket to remove these bolts. You must add blue Loctite and torque to 75 ft lbs when installing the new one.

Front Rotor Replacement:
If you replace your rotors, you will need a 7/32" Allen socket . When installing, you must use blue Loctite and torque to 33 ft-lbs.

Tips
You get done installing your brand-new disc brake kit, bleed it out, and the pedal is not there. Pump it up a few times, and it gets harder and harder. Guess what? It still has air in the system.

Here are some things to check when you have a spongy pedal with disc brakes.

Make sure your bleeders are on top of the brake lines. Air rises to the top and can not be bled out the bottom.

Loose connections with your new stainless brake hoses

Tools you need