Titan Wilwood 4-Pot Rear Installation Guide

T1 (Beetle) / Type 14 (Karmann Ghia) / Type 3 (Variant), Type 34 (Razor Edge), T181 / 182 (Trekker / Thing)

Welcome to the Limebug's 'Titan' Wilwood Rear Disk Brake Kit.

Enclosed Step-by-Step Guide to Installation / Operation of this system.

Contents

Step 1: Caliper Mount

1. Remove the existing rear brake system including backing plate and handbrake cables.

2. Install the Rear Caliper Mounting Brackets in place of the original backing plate.

   Note: The caliper mounting bracket is designed to face the rear of the vehicle in order for the E-Brake mechanism to function effectively

3. Re-install the Bearing cap and secure the 4x Original M10 bolts.

Step 2: Installing the Disk Brakes

Fit the rear disks onto the driveshaft of the vehicle. Be aware the following:

- Swing Axle – Short Axle models need No Additional Shims/ Spacers
- Swing Axle – Long Axle models require for the addition of a 10mm outer Spacer, and 5mm Inner (In some cases)
- IRS – 2mm Inner Shim with 10mm Outer Spacer

Step 3: Disk Alignment – Caliper Install

Once the disk is seated correctly, install the Caliper and use the supplied M10 Allen Headed bolts to fix the caliper in place. At this point spin the axle to confirm the axle is true and the disk is evenly spaced between the two caliper halves.

Once confirmed re-fit the hardware securing the Caliper to the below specification:

Recommended torque to 40 ft-lb.
Secure Installation with 6mm of thread Loctite 271

Finally complete the installation with the Driveshaft Castle Nut to 217ft/lbs, align with the hole in the driveshaft then secure with the Split Pin (lock pin) to complete the disk assembly.

Step 4: Brake Pads – Handbrake Cable Install

Remove the supplied brake pads keeping away from dirt/ grease. Apply a small coating of Copper Ease (Anti-Seize) to the rear faces of the pads. Remove the securing clips from the head of the calipers and install the pads using the locating pins with the E-brake lever arms at the fully retracted position.

Follow these steps to begin setting up the handbrake cable:

1. Install the Ring End of the cable into the caliper hook vertically, then lever it down horizontal to secure.

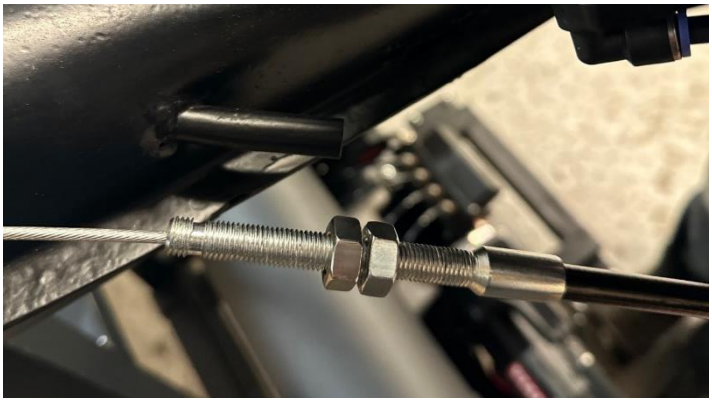
2. Install the return spring along the cable and push to seat between the two lever arms of the caliper.

3. Next determine the length of the conduit between the caliper and inlet to the chassis, this is a short steel pipe protruding from either side of the chassis rails. Be aware the position of this tube differs from model year and for IRS and Swing Axle models. (pictured).

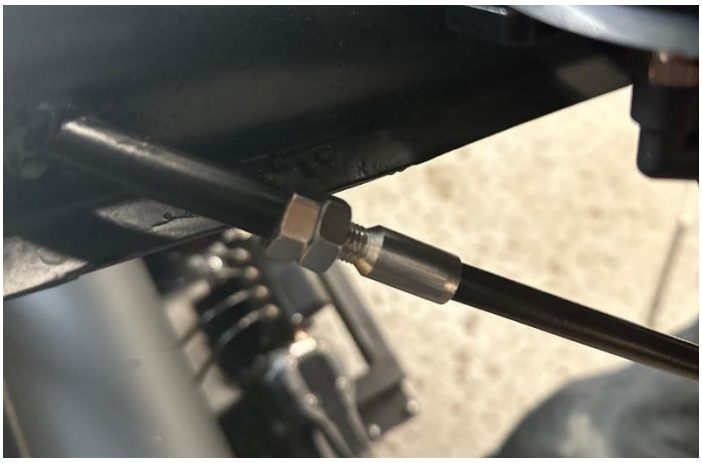
   The black conduit needs to allow for movement of the suspension, so ensure (especially at the vehicles highest point) axle lowest point the cable will not snag or become over stretched at the limits.

4. At this point it is best to run a drill (25/64)/9.8mm drill up the above tube to clear debris and ensure good clearance for the threaded guide.

5. Next connect the metal guide to the cut conduit and insert cable through the assembly with the 2x jam nuts per side.



6. Install the assembly then adjust the nuts to shorten the overall length of the conduit (this is essential for carrying out the handbrake cable bite point later on.



Step 5: Handbrake Lever

Please follow the appropriate instructions for your handbrake lever style below:

- Early Style (Twin Tube welded to the sides of the handbrake lever

    1. Remove the rubber boot covering the handbrake lever cables.
    2. Install the machined aluminium adapter over the top of the handbrake.
    3. Thread the cables through the body of the adaptor and factory tubing as pictured below, be sure to check that the handbrake cable is looped under the guide channels below the pivot point also.
    4. Pull the cable until movement can be detected from the handbrake arms. *Remember this setup should be carried out AFTER the hydraulic setup is primed in order set an accurate baseline for the caliper position.*
    5. Now tighten both jam grub screws down onto the cable. Trim the excess around 4” (100mm) spare, loop round under the aluminium adapter and back in to the inlet side.
    6. Refit the rubber boot cover.
    7. Optional apply additional Loctite 271 to the thread if required

- Late Style (Rocker Style, floating mounting on a centrally mounted pin)

    1. Remove the rubber boot covering the handbrake lever cables.
    2. Install the machined aluminium adapter over the top of the handbrake.
    3. Thread the cables through the holes in the supplied threaded bar pictured, inserted into the aluminium adapter pictured, be sure to have a washer between the nut and aluminium adapter.
    4. Pull the cable until movement can be detected from the handbrake arms. *Remember this setup should be carried out AFTER the hydraulic setup is primed in order set an accurate baseline for the caliper position.*
    5. Now tighten both jam nuts down onto the cable. Trim the excess around 4” (100mm) spare, loop round under the aluminium adapter and back under the cable.
    6. Refit the rubber boot cover.
    7. Optional apply additional Loctite 271 to the thread if required

Step 6: Final Adjustment

Now both handbrake cables are fully installed and seated, simply spin the wheels of the vehicle with the handbrake in the off position, and increase the length of the conduit until binding can be felt at the wheel.

Now back the nut off by one full turn, then jam the second nut up against it to secure.

The handbrake mechanism is now calibrated. Be sure to carry out a shake down run in a safe and clear environment to ensure all mechanical aspects are working as intended.