

Part # LI-0058; Revision I

Instruction Sheet for part 17-1210V Vented Front Brake Conversion, Series I & 1-1/2 E-Types

Car identification: Series I and (most) Series 1-1/2 E-Types have solid brake rotors that are about 3/8" thick. Series II cars (and some later Series I-1/2) have 1/2"-thick rotors. This kit only fits those cars with 3/8" rotors.

Parts Supplied:

- Two vented brake rotors
- Two alloy brake rotor "hats" to attach vented rotors to existing wire wheel hubs
- Two alloy caliper adapter brackets
- Two Wilwood calipers
- High performance street brake pads
- Twelve 5/16" x 1" coarse-thread bolts – rotor hats to rotors
- Four 3/8" x 1-1/4" coarse-thread bolts – calipers to caliper mounts
- Ten 7/16" x 1-1/4" coarse-thread bolts – rotor hats to spindles/uprights
- Twelve 5/16" Flat Washers
- Twelve 5/16" Flat Washers
- Four 3/8" Flat Washers
- Four 3/8" Lock Washers
- Ten 7/16" Flat Washers
- Ten 7/16" Lock Washers
- Four 3/8" x .032" shim washers – calipers to mounts if required
- Four 3/8" x .020" shim washers – calipers to mounts if required
- Four 1/2" x .020" shim washers – caliper mounts to upright/spindle if required
- Two brass caliper-to-brake-tube fittings
- Two stainless steel brake inlet tubes
- Two cotter pins for spindle nut
- Anti-seize compound packets

Required Materials:

- Factory workshop manual for proper hub removal and replacement procedure.
- Factory workshop manual for wheel bearing removal and replacement procedure (if required).
- Brake fluid
- Brake cleaner

Recommendations:

This would be a good time to replace the front wheel bearings and seals. Two 14-QWB136C wheel bearing kits will provide all required parts.

This would also be an excellent time to replace the three brake flex hoses. Order two 06-7015 (front) and one 06-7016 (SWB rear) or 06-0740 (LWB rear). Or, to further upgrade your braking system and gain a firmer brake pedal feel, order our braided stainless steel brake flex line kit, part number 17-1215 (SWB) or 17-1250 (LWB).

Installation Instructions:

- 1) Raise the front of the car and support safely with jack stands.
- 2) Remove front wheels.
- 3) Starting with the right side, turn steering wheel to full left lock.
- 4) Have a container suitable for used brake fluid ready and disconnect the solid brake hose from the flexible brake hose at the front inside, behind the rotor.
- 5) Repeat on the left side.
- 6) Allow the brake fluid to drain.
- 7) Extract all old brake fluid from both fluid reservoirs. Re-fill the reservoirs with new fluid and flush the system until clean fluid runs from both brake hoses. Failure to flush the system will potentially damage the new calipers and voids all warranties.
- 8) If the front brake flex hoses are to be replaced (highly recommended) remove them now. Ensure that any residual fluid left in the lines is contained.
- 9) Remove the two caliper retaining bolts and retain for re-use.
- 10) Remove the calipers.
- 11) Remove the sheet metal splash guard from the inside of the rotor. This will not be reused.
- 12) Remove the wire wheel hub and rotor assembly from the spindle and separate the rotor from the hub.
- 13) If new wheel bearings have been purchased with the kit, install the races in the hub per factory procedure.
- 14) Ensure that all mating surfaces are clean and free of rust scale, burrs, etc.
- 15) Mount the new rotor to the alloy rotor adaptor ring. To ensure proper orientation, lay the ring on a flat surface with the small shoulder facing up. Place the rotor on the ring so that the rotor vents are visible. Place a 5/16" lock and flat washer on each of the 5/16" x 1" bolts (the lock washer should always be placed against the head of the bolt) and apply anti-seize compound to the threads. Using an "X" pattern, torque each bolt to 16 foot-pounds.
- 16) Mount the rotor/ring assembly to the wire wheel hub using the 7/16" x 1-1/4" bolts along with a lock and flat washer. Again, use anti-seize compound on the threads and torque to 30 foot-pounds using an "X" pattern. The rotor/ring assembly is attached to the hub as per the standard rotor.
- 17) Mount the rotor/ring/hub assembly to the spindle, following the factory procedure for proper wheel bearing adjustment. Do not forget to lock the nut with the supplied cotter pin.
- 18) For now, loosely mount the caliper to the alloy caliper mount bracket using the 3/8" x 1-1/4" coarse-thread bolts along with a flat and lock washer. (When you are ready to make the assembly final, coat the threads with anti-seize compound and torque them to 24 foot-pounds. See "Shimming" below.)

- 19) Install the brass fitting in the caliper using Teflon tape or sealer on the threads. The female inverted flare end should face down. A small sticker covers this port during shipment. (Do not over-tighten; we will not replace a stripped caliper under warranty).
- 20) Mount the caliper with the bleed screws pointing up and connection ports facing the inside of the aluminum adapter bracket
- 21) Mount the caliper (without pads) and adapter bracket assembly to the inside of the suspension upright using the original ½" fine-thread bolts with flat and lock washers. Follow the factory torque specifications.
- 22) **Shimming:** There is a fair amount of potential tolerance “stack” in the wheel bearings and other brake system components. The rotor hat was purposely dimensioned to require shimming (as per factory practice on the original brakes) in some cases. We have included two thicknesses of 3/8” shims for the caliper-to-caliper-mount bolts and one thickness of caliper-mount-to-upright shims. You should not need both and might not need either to properly center the caliper on the rotor. Where you choose to shim is a matter of personal preference. Regardless, center the caliper parting line on the center of the rotor. When done, tighten all relevant fasteners to their final torque.
- 23) Connect the metal brake tube provided to the brass inlet fitting installed in the caliper.
- 24) Install new flex lines (if required) and/or connect to the caliper inlet tube. Do not over-tighten or crimp the lines. Ensure the flex lines are not twisted.
- 25) Clean the rotors with a high-quality brake cleaner.
- 26) Install brake pads and secure with the lock pin. Spread ends of lock pin to retain.
- 27) Repeat the above steps on left side of car with wheels turned to full right lock.
- 28) Fill the brake fluid reservoirs with high-quality brake fluid per the vehicle manufacturer’s recommendations. Silicone brake fluid is not recommended. Be careful not to spill brake fluid on any painted surfaces.
- 29) Bleed both halves of each caliper until a solid pedal is obtained, making sure that the reservoir is kept full during bleeding.
- 30) Clean any spilled brake fluid with brake cleaner, firmly press on the brake pedal several times and inspect all connections for leaks.
- 31) Re-mount wheels and set car back on ground.
- 32) Test drive, re-inspect for leaks and repair as necessary.