

Superior Engineering

Installation Instructions

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PREMIUM 4X4 ACCESSORIES

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Part Description: Toyota Landcruiser 79 series handbrake cam kit

Part Nos: SUP-79HBUP

NOTE: Read and understand these Installation Instructions before beginning the installation process. Retain these installation Instructions for future reference.

It is recommended this item is installed by a Qualified Person.

Kit Includes:

QTY	DESCRIPTION
1	Outer cam plate
1	Inner Cam plate
1	Main Cam plate (ctr)
1	Spacer plate
3	M6x1.25x25mm
3	M6 1.25 Nylok nuts
3	M6 Flat Washers
3	M8x1.25x30mm bolts
3	M8 washers
1	M6 Drill bit

NOTE: Handbrake effectiveness needs to be tested and adjusted after fitting this item.

CAUTION

Please ensure all bolts are tightened to correct torque setting. Recheck in 500km.

Size	Torque (Nm)	Torque (ft-lb)
M6	11	8
M8	25	18
M10	49	36
M12	85	64

1. Remove the handbrake console or surround to allow access
2. Remove the four (4) handbrake assy (handbrake + base cup) mounting bolts, these will be later replaced with the supplied m8 x 30mm bolts
3. With the lever in the DOWN position - Undo and remove the two (2) cable adjuster nuts
4. Bend the cable retainer tab to allow the cable to be removed from the handbrake lever. Remove handbrake lever from vehicle.
5. Using the 6mm drill bit supplied, drill out the 3 formed handbrake cable studs from the lever

assy (cable side) – Fig 2. Drill only deep enough to be pushed or punched out. Sometimes filing or grinding the top flat may help.

6. Using a pin punch tap out the 3 studs to remove the cable guide plates.
7. Loosely assemble the new cable guide plates as shown [fig 5]. The thin flat plate goes against the lever body, then the thick cam guide plate, followed by the outer plate with the bent retaining tab.
8. In the vehicle, place the lever spacer plate on top of the cable base assy. The cable should now run through the center of the plate and will allow added clearance for the modified handbrake lever assy.
9. With the lever in position above the cable and guide pocket and the cam plates loose, slide the cable back into position on the lever assy. Loosely fit the first adjuster nut to the cable.
10. Tighten the 3 - M6 cam guide plate bolts.
11. Lower the lever and bolt back into position using the 4 supplied – M8 x 30mm handbrake mounting bolts and spring washers.
12. Adjust the cable and place the second locking nut back and secure as per manual. [Example adjustment procedure attached below, consult individual vehicle manual for specific details]

Figure 1: Parts included in Kit

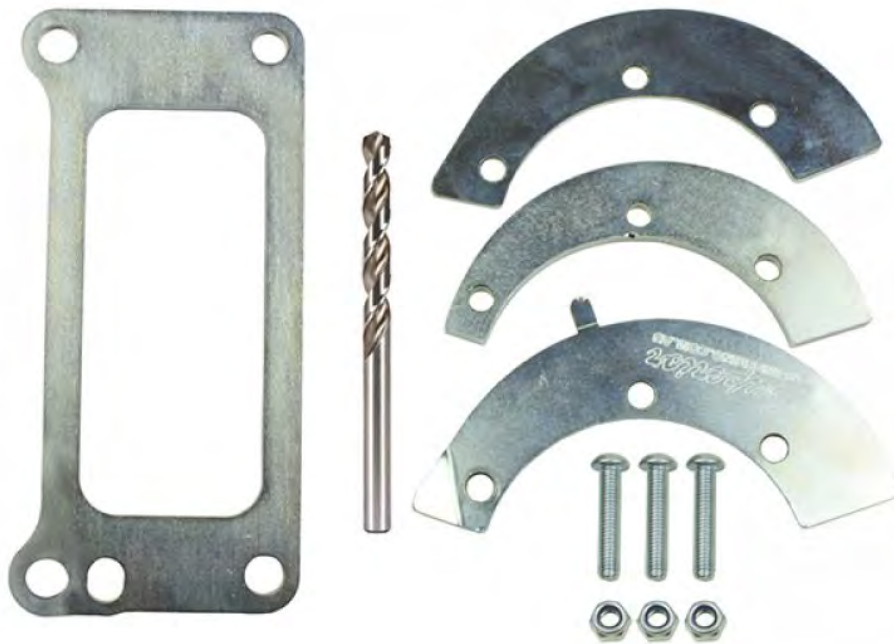


Figure 2: Drill head of STUDS (3)



Figure 3: Grind or file studs to allow plate removal



Figure 4: Use pin punch to remove studs (3)



Figure 5: Mount cam plates into position





PARKING BRAKE LEVER ON-VEHICLE INSPECTION and ADJUSTMENT

1. CHECK THAT PARKING BRAKE LEVER TRAVEL IS CORRECT

Pull the parking brake lever all the way up, and count the number of clicks.

Parking brake lever travel at 196 N (20 kgf, 44.1 lbf): 7 - 9 clicks

If incorrect, adjust the parking brake.

2. IF NECESSARY, ADJUST PARKING BRAKE LEVER TRAVEL

HINT: Before adjusting the parking brake lever travel, make sure that the rear brake shoe clearance has been adjusted. For shoe clearance adjustment, see below .

- (a) Remove the console box.
- (b) Loosen the lock nut and turn the adjusting nut until the lever travel is correct.
- (c) Tighten the lock nut.

Torque: 5.4 N·m (55 kgf·cm, 48 in.-lbf)

- (d) Install the console box.

1. ADJUST BELLCRANK

- (a) Lightly pull the bellcrank in direction "A" until there is no slack at part "B".
- (b) In this condition, turn the adjusting bolt so that dimension "C" will be 0.4 - 0.8 mm (0.016 - 0.031 in.).
- (c) Lock the adjusting bolt with the lock nut.
- (d) Connect the parking brake cable to the parking brake bellcrank and install the clip.
- (e) Install the 2 tension springs.

2. CHECK AUTOMATIC ADJUSTING LEVER

Check that the automatic adjusting lever is properly installed. If it is not incorrect, check for incorrect installation of the rear brakes.

3. CHECK CLEARANCE BETWEEN BRAKE SHOES AND DRUM

- (a) Remove the drum.
- (b) Measure the brake drum inside diameter and diameter of the brake shoes. Check that the difference between the diameters is the correct shoe clearance.

Shoe clearance: 0.5 mm (0.020 in.)

If it is incorrect, check the parking brake system.

