

P.O. Box 247, 4320 Aerotech Center Way

Paso Robles, CA 93447

Telephone: (800) 350-2223 Fax: (805) 238-4201 PAGE 1 OF 3 Page Rev. Date: 03-14-18

P/N: 716938

FJ60/62 34 & 38 MM CLUSTER PIN 4:1 GEAR SET

KIT CONSISTS OF:

<u>No.</u>	<u>Qty</u>	<u>Description</u>
1.	1	CLUSTER GEAR
2.	1	19 SPLINE INPUT GEAR
3.	1	LOW RANGE GEAR
4	1	HIGH RANGE GEAR

The 4:1 low gear set offers you some gearing options without swapping axles or drivetrain and requires no drive shaft modifications. The kit does not include bearings or new seals. We do offer a rebuild kit, P/N 401419.

We recommend obtaining a Toyota service manual for the proper disassembly procedures and the proper torque speciations during reassembly.



Follow the service manual procedure to remove the transfer case from the transmission. Thoroughly inspect the transfer case to determine the condition. Overhaul if necessary to insure the quality of your new gear installation.

The installations of the 4:1 gears requires some machining to the rear half of the Toyota transfer case. The machining should be performed at a machine shop to ensure the proper case clearance is obtained without removing to much case material and weakening the case.

This gear set is designed for the 38MM cluster pin case, however; we offer a stepped cluster pin that works for the 34MM case and uses this same gear set. The cluster pin kit for the 34MM case is **P/N 716934**.

Note: This Gear set will also alter your high range ratio. The high range ratio will now result in a 10% underdrive

Cluster gear clearance: The large end of the cluster is 6.665" in diameter. The case needs to be clearance for this gear. The back half of the case requires modifications. Measuring from the mating surface of the rear case half, 1.30" deep and a clearance diameter of 6.685" is what needs to be clearanced for the gear. The gear interferes with the two lower bosses.

Low gear clearance: This gear requires a bit more modifications to the rear case half for gear clearance. The gear diameter needs to clear 7.353" all the way to the bottom of the case half. The modifications to the case for this gear removes material , several of the internal bosses, and from the shift rail boss.

SPECIAL NOTE: The components packaged in this kit have been assembled and machined for specific type of conversions. Modifications to any of the components will void any possible warranty or return privileges. If you do not fully understand modifications or changes that will be required to complete your conversion, we strongly recommend that you contact our sales department for more information. This instruction sheet is only to be used for the assembly of Advance Adapter components. We recommend that a service manual pertaining to your vehicle be obtained for specific torque values, wiring diagrams and other related equipment. These manuals are normally available at automotive dealerships and parts stores.



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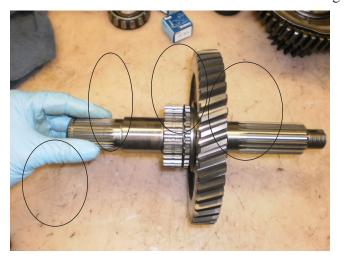
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Lower two bosses that need to modified for the cluster gear.







The photos show the case at different angles with the modification to fit the new gear set. Notice the two bosses for the cluster gear only need to be 1.30" down from the case half surface, while the low speed gears need the modification down to the bottom of the inner case.

34MM cases must have material added to the outside areas of the case. The case must be taken to a welding shop and heliarced. The if this is not done the machine operation will break through. Advance Adapters will not weld or have this procedure done. We will machine cases that have been welded.

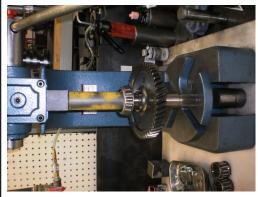
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The case half will need to have material added to the outside to prevent break through.

clearance for the cluster gear.

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