

Changing your gearing

The engineers at Land Rover did an excellent job of matching the engine power to gearing for off road conditions and back road driving. If your Land Rover is a country truck that seldom sees more than 50 MPH roads the stock gearing just can't be beat.

However, if your Land Rover gets used on the freeway frequently or you drive long highway miles you have learned that the stock gearing is not best for those conditions. Your engine over revs for long drives and fuel mileage suffers.

Currently you have three options for making your Land Rover perform better under highway conditions. You can change your differential gear ratio, install an overdrive or a high ratio kit into your transfer case.

Which option is best for you depends on the type of driving you do, the weight of your Land Rover and condition of your engine.

We have tried to provide you with enough information about your options to make an informed decision. For those of you who live by gear ratio numbers we have provided those as well.

If you would like to change your gearing but still have questions please call us or better yet, e-mail us at britpac@aol.com with your questions. Our experts will help guide you through the selection process.

4.1:1 Diff Ratio An interesting Alternative

Sometimes stock Rover gearing is just a little low for your highway driving and the high ratio transfer kit gearing is just too high for your engine to push. That is when an intermediate step could be just right.



15.9 % RPM Reduction in all gears

The 4.1 ring and pinion provides a 15.9% RPM reduction which is slightly over half way between the stock 4.7 ratio and the high ratio transfer case's ratio. That 15.9% makes a big difference at highway speeds without being too tall for your available power when off roading.

Another advantage is that the entire drive train slows down, so there's less overall noise and vibration.

2 sets required for a conversion. Order "411" Spacer (required for series carriers) RD03A



The ratios - by the numbers:

Below is a comparison of popular gearing options for series Land Rovers. The overall gear ratios at the axle and RPM at 65 MPH were calculated with the transmission in fourth gear.

Type	T-case ratio	R&P ratio	Overall at axle	RPM at 65 MPH*	% change from stock
Stock	1.15:1	4.7:1	5.4:1	3682	0
4.1 R&P	1.15:1	4.1:1	4.7:1	3212	15.9
Roverdrive**	1.15:1	4.7:1	4.3:1	2956	28
Hi ratio kit	0.87:1	4.7:1	4.09:1	2791	31.8
3.54 R&P	1.15:1	3.54:1	4.06:1	2774	32.8

* RPM at 65 MPH calculated for 32 inch diameter tires. RPM varies by tire diameter.

** The Roverdrive factory does not provide actual ratio numbers. The ratio listed in the chart was calculated from their stated 28% change from stock. The overdrive