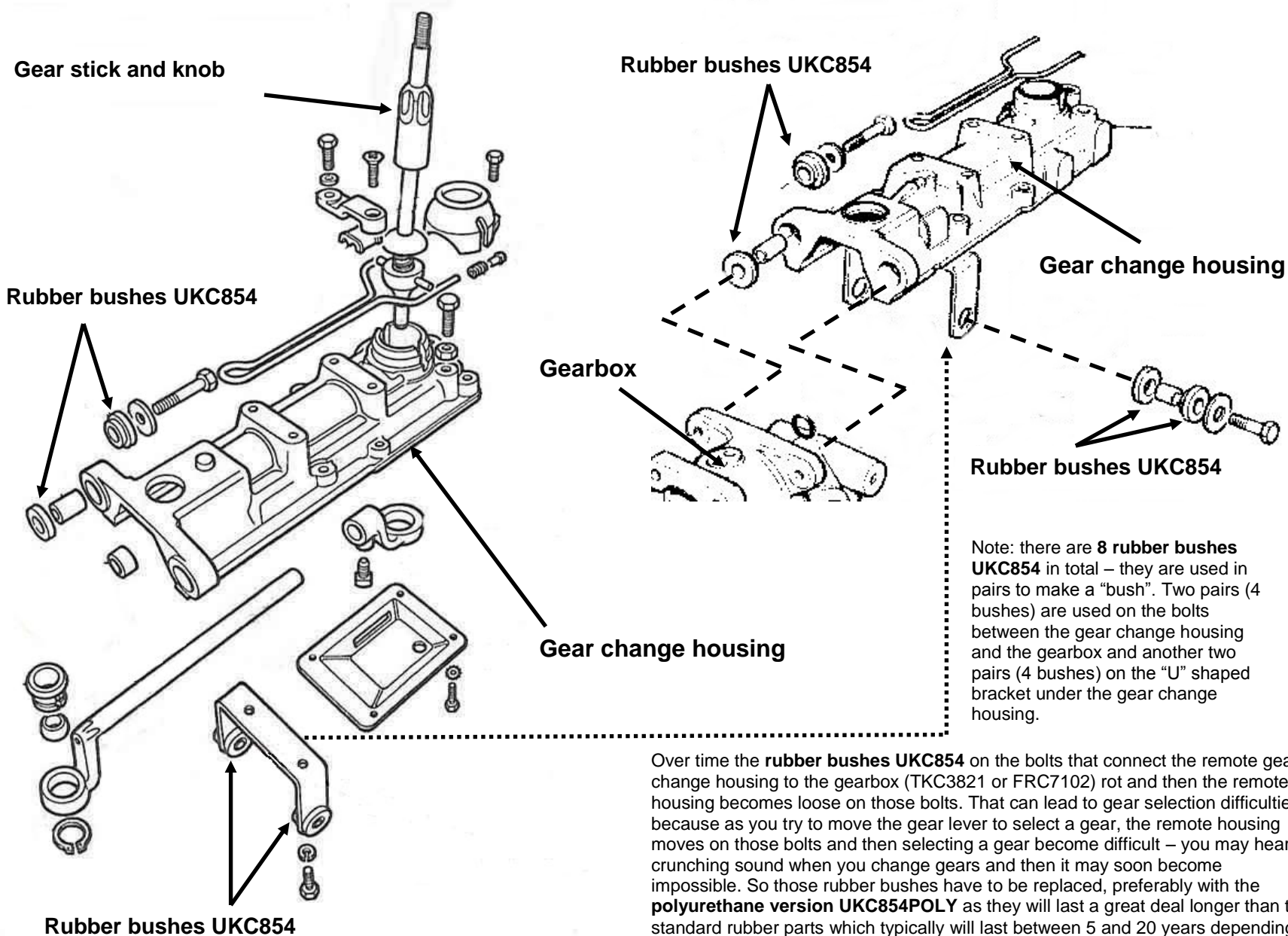


## Where are those rubber bushes on an LT77 and R380 gearbox?



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### Solving crunching gears with an RV8 gearbox

A query posted on the V8BB in February 2012 touched on a topic that will increasingly become an issue for RV8 owners as the mileage builds up on their LT77S or R380 gearboxes. A V8BB posting from **Peter Varley** said "my RV8 started crunching gears when I changed gears, especially on the down shifts. The problem got gradually worse over a couple of days. At first I thought that I had a damaged gearbox but as the RV8 has now done only 30,000kms I thought that maybe I had lost oil from a small leak over time. I drove the car to my local mechanic who said that he would "evaluate the situation" and let me know the outcome. Well to cut a long story short the problem was that the four rubber bushes that hold the gear stick remote assembly to the gearbox had perished thus putting the shift gate out of alignment (crunching gears) and was also touching the prop shaft. He machined up a new set out of neoprene suspension bushes and I was back on the road the same day - now for a good night's sleep not having to worry about removing and repairing the gearbox".

**Geoff King** contributed to the thread saying "wear or disintegration of the bushes between the remote gear change and gearbox is a common problem.

Replacement bushes are available from Rimmer Bros (you need 8) and probably most of our usual parts suppliers. I believe the remote gearchange arrangement for both the LT77 and the R380 is the same and they use the same bushes."

UKC854 Standard Plastic £2.30 (each including. VAT)

UKC854POLY Polyurethane £3.20 (each including. VAT)

[www.rimmerbros.co.uk/Item--i-GRID008967](http://www.rimmerbros.co.uk/Item--i-GRID008967)

Fellow V8 enthusiasts might want to try and see where these bushes are on the gearbox by checking the gearbox manuals on the RV8 Technical Information CD or by trying to find them on the diagrams and descriptions in the manuals for the LT77S and the R380 on the RV8 Parts Manual CD. You soon find that the exploded diagrams of the gearbox really confuses the issue as they show far more parts than necessary but do not detail the rubber bushes. The Rimmer drawings on their website clearly show and lists the part numbers of all the parts that secure the remote assembly onto the gearbox extension but doesn't show the remote itself. So the two diagrams above show the four bolts where the rubber bushes – 8 in total – are used in pairs to make up the "bushes".

Web address

### LT77 gearbox numbering

**Ralph Coulson** has a V8 Roadster conversion with LT77 gearboxes, has provided the following information. He quotes from the definitive MGBV8 conversions book by Roger Williams, "the UK's Ministry of Defence also used the LT77 gearbox in its Freight Rovers. These have D, E, F and G suffixes to indicate the approximate age of the gearbox. The latest box in the Rover SD1 saloon was the "D" suffix". Ralph's gearbox is suffix C and is from a SD1 of 1983 vintage - just to give you a fix on the timescale.

What gearboxes do Ralph Coulson and Geoff King have? Ralph Coulson has a V8 Roadster conversion (in fact the ex Roger Williams car) with an LT77 gearbox serial number 19A.077817.C – so a **C suffix** gearbox. The prefix 19A denotes an SD1 gearbox and the C suffix denotes build standard or series. Geoff King also has a V8 Roadster with an LT77 **D suffix** gearbox which came from a Rover SD1

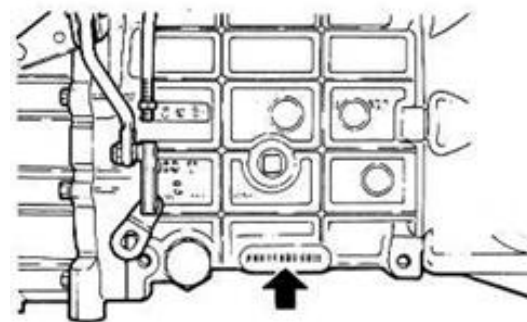
Vitesse. With the help of Ralph Coulson and Geoff King the following information has been gathered.

### LT77 and R380 gearboxes

There are two gearboxes – the LT77 and the later R380. The LT77 gearbox, was originally fitted to the Rover SD1 saloon, and the later LT77S were used from approximately 1982 to 1994. There are many different types of LT77 with many used in the Land Rover range from about 1983 with the suffix D (last digit of the serial number) and were the weakest type. The LT77 was developed through to the suffix H, the LT77S gearbox last used in 1994. There were a number of changes affecting LT77 gearbox internals over the years and many parts are not interchangeable. Therefore it is important to identify your gearbox by the serial number stamped on the left hand side - the vital figure being the suffix A, B, C or D. The R380 gearbox was introduced in approximately 1995 with the suffix J and has now evolved to the suffix L. The gear selection patterns for the two types of gearbox are different - the LT77 which has the reverse gear selected by moving the gearstick left and forward whereas the R380 reverse gear is selected by moving the gearstick right and backwards under 5th gear.

### Where can I find the serial number on an LT77 gearbox?

The gearbox identification number is stamped on flat elongated oval surface next to the drain plug. The first two numbers (prefix) denote the vehicle model



application and the last letter (suffix) denotes the gearbox type.

These 5 speed gearbox require specialist tools and knowledge to dismantle and rebuild them and it is normally beyond the ability of the DIY enthusiast. Specialist LT77/R380 gearbox refurbishers recommend fitting of an exchange gearbox, however they do

stock a full range of components should you wish to rebuild your own gearbox.

Ashcroft Transmissions have a **short video clip** showing where to find the serial number on an LT77.

[www.ashcroft-transmissions.co.uk/index.php?act=viewProd&productId=78](http://www.ashcroft-transmissions.co.uk/index.php?act=viewProd&productId=78)

### LT77 & R380 gearbox specialists:

- Ashcroft Transmissions  
[www.ashcroft-transmissions.co.uk/index.php?act=viewCat&catId=4](http://www.ashcroft-transmissions.co.uk/index.php?act=viewCat&catId=4)
- TM Transmissions  
Geoff King's LT77 gearbox was overhauled by TM Transmissions and Mike Howlett with an R380 gearbox in an MGBGT V8 conversion has used them.  
[www.freewebs.com/tmtransmissions/](http://www.freewebs.com/tmtransmissions/)