

This is a write up for guys who's speedometers are out with bigger tyres, this solution will work for both scenarios, faster GPS than speedometer or faster speedometer than GPS.

This might be common knowledge to some of you but nobody seemed to know whom I spoke to and the only solution was the speedo correction gadget that you put on your speedo cluster (like what Thys can do) but with that gadget, my cruise control does not work correctly it is extremely jerky because it wants to be 100% correct on the speedo.

When I received the parts ordered from partsouq, it took me roughly 15-20 minutes for complete job.

Here is my scenario:

Nissan Patrol 4.8 GRX Y61 Auto with 37" Tyres, 4.66 Gear ratios and reduction gears.

With the above combination when I was driving 100km/h on my speedometer my GPS speed was actually around 78km/h GPS

It seems that the 4.8GRX comes with a 14 teeth speedometer gear standard. But rather check and confirm this with your Patrol.

Standard Gear 14 Teeth

Speedo error around 25%

24.72% to be precise (see calc below)

$$\text{Percentage Difference} = \frac{\text{Absolute Difference}}{\text{Average of the Two Values}} \times 100$$

$$\text{Absolute Difference} = |100 - 78| = 22$$

$$\text{Average} = \frac{100 + 78}{2} = 89$$

$$\text{Percentage Difference} = \frac{22}{89} \times 100 \approx 24.72\%$$

So 24.72% of 14 teeth = 3.4608

Number of teeth required = between (17 or 18) $(14+3.4608) = 17.46$ teeth

Of course if your speedo is reading lower than the actual GPS speed then you need to remove teeth.

You can then just use your info with calculation above

Now for the 4.8 guys that knows the speedo pinion gear unit, that gear is fasten to the steel shaft, and you cannot buy this separately or remove that gear from the steel shaft for a 4.8 with it's current sender.

So you need to buy this sender unit



and circlip 32744-OP515 or 32744-35F00



You can buy other gears loose for it.

Like the 17 teeth



32743-VB015 15 Teeth
32743-VB016 16 Teeth
32743-74P17 17 Teeth
32743-74P18 18 Teeth

Here is the steps:

1 Assemble the unit(25010 – VB000) you bought from partsouq by putting on



the gear(32743-74P17) or the gear that will work for your application.



and the circlip(32744-OP515 or 32744-35F00)



2) then under you Patrol locate the pinion speedo gear Housing(sender) – on your transference



2b) Using a 10mm socket - remove the screw on the side of the housing(sender) and slowly pull the housing(sender) out. Warning - you might loose and have gear oil drip so place a cup or bucket under the gear box. Mine leaked so little, it was about 50 ml because I was on a flat surface.

3) Remove the old sender and gear also unclip the complete unit.



4) Push the new sender back into the transfer case and screw in the bolt (don't over tighten).



5)Remember to also connect the wire to your speedo cable that you took the other sender out of.

So now my when my Speedometer reads 100 km/h I am at 96 km/h True speed which is perfect for me and I can use my cruise control.

