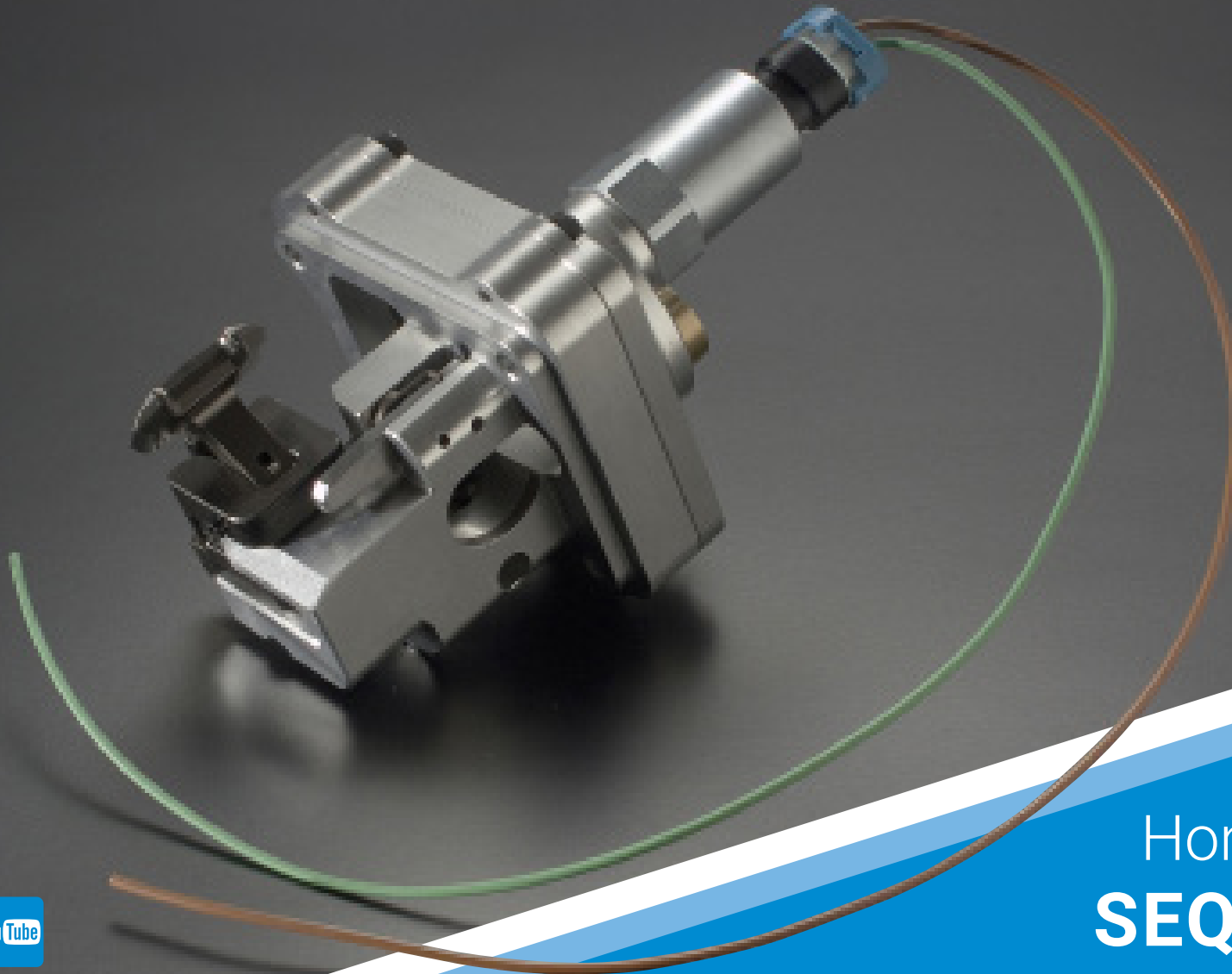




PFITZNER

Performance Gearboxes

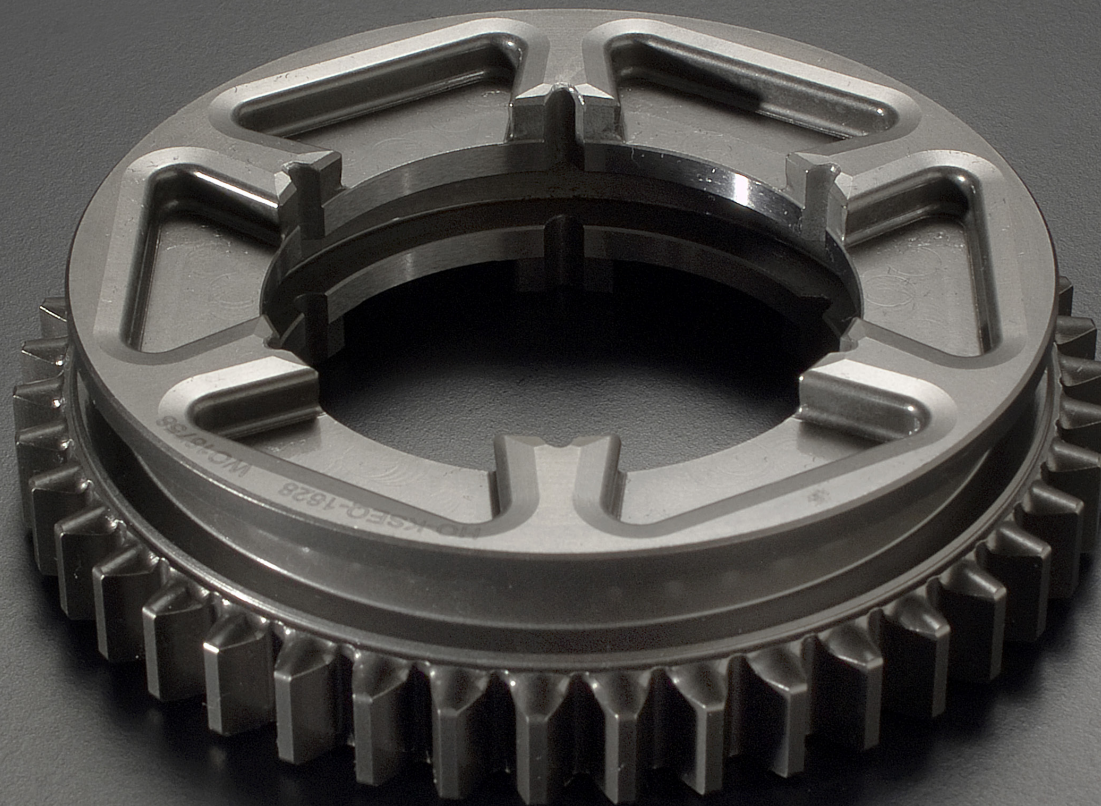


#coolgearsforcoolcars

Honda K-Series
SEQUENTIAL

RETRO FIT ASSEMBLY DOCUMENT

- 03 Before You Start**
- 04 Key Features**
- 05 Loom Wiring**
- 06 Assembly**
- 17 Contact & Ordering**



PLEASE NOTE

1. This kit is designed to retro fit a PPG H Pattern gearset to a Sequential shift.

Shift Pattern: R-N-1-2-3-4-5-6

2. We recommend replacing all bearings, seals and crown wheel bolts when fitting this kit. The gearset should be crack tested and inspected before reassembly.
3. We recommend Motul Competition 75w/140 gear oil. Fill to manufacturer's specifications.



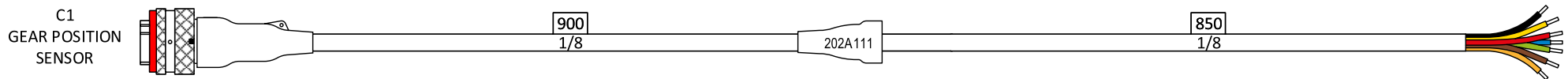
A complete gearset and sequential kit with shifter

HIGH-PERFORMANCE HONDA K-SERIES SEQUENTIAL TRANSMISSION SYSTEM HIGHLIGHTS:

- 42mm gearstick throw for lightning-fast gear changes.
- Low-friction shift cable with integrated heat shield ensures durability.
- Mil-Spec Autosport Connector for precise gear sensing in demanding motorsport environments.
- Dual output gear position sensor provides redundancy for enhanced reliability.
- Integrated load cell, meeting PPG specifications, guarantees performance under extreme conditions.
- Mil-spec wiring loom with Autosport Connector ensures secure connections for optimal data transfer.
- Seamless retrofit for H-Pattern dog kits, including new dog rings for a comprehensive upgrade.
- Electronic reverse lockout with an easily installable solenoid integrated into the gear knob.
- Retrofit kit accommodates 4, 5, & 6-speed kits, offering versatility in application.
- New brace for 6th gear in 5-speed dog kits, alongside customizable gear ratios and final drives.
- Proven reliability through hundreds of hours of in-house R&D in various racing scenarios.
- Optional LCD display for advanced real-time monitoring and customization.
- Expandable configuration with 5th and 6th gear options for existing 4-speed kits.
- Preassembled actuator and shifter streamline installation for efficiency.
- Comprehensive installation manual included for a straightforward setup process.
- Universal fit for all K-Series Gearboxes, both FWD and AWD, ensuring broad compatibility.
- Australian-made with precision to ISO 9001:2015 Standards, with each part undergoing rigorous QA checks.

LOOM WIRING

- Black Wire: Channel 1 0v – Pin 1
- Yellow Wire: Channel 1 signal – Pin 2
- Red Wire: Channel 1 5v – Pin 3
- Blue Wire: Channel 2 0v – Pin 5
- Green Wire: Channel 2 signal – Pin 6
- Brown Wire: Channel 2 5v – Pin 7
- Orange Wire: Not used (filler wire only) – No Pin Connection



SOLENOID WIRING

- Green Wire: Earth
 - Brown Wire: Connect to 1 wire of the Switch
- Other Switch Wire = 12v



Drawing not to scale. Connectors shown may not represent actual connectors specified. All dimensions in millimeters. Dimension datums are centre of transition, face of straight connectors and connector centre line of 90 degree connectors. Clocking of 90 degree boots refers to Connector face, keyway at 12 o'clock, loom leg behind shows time.

1. The back housing will need to be machined to allow the PPG actuator to be fitted, (*Figure 1*) outlines the clearance required.

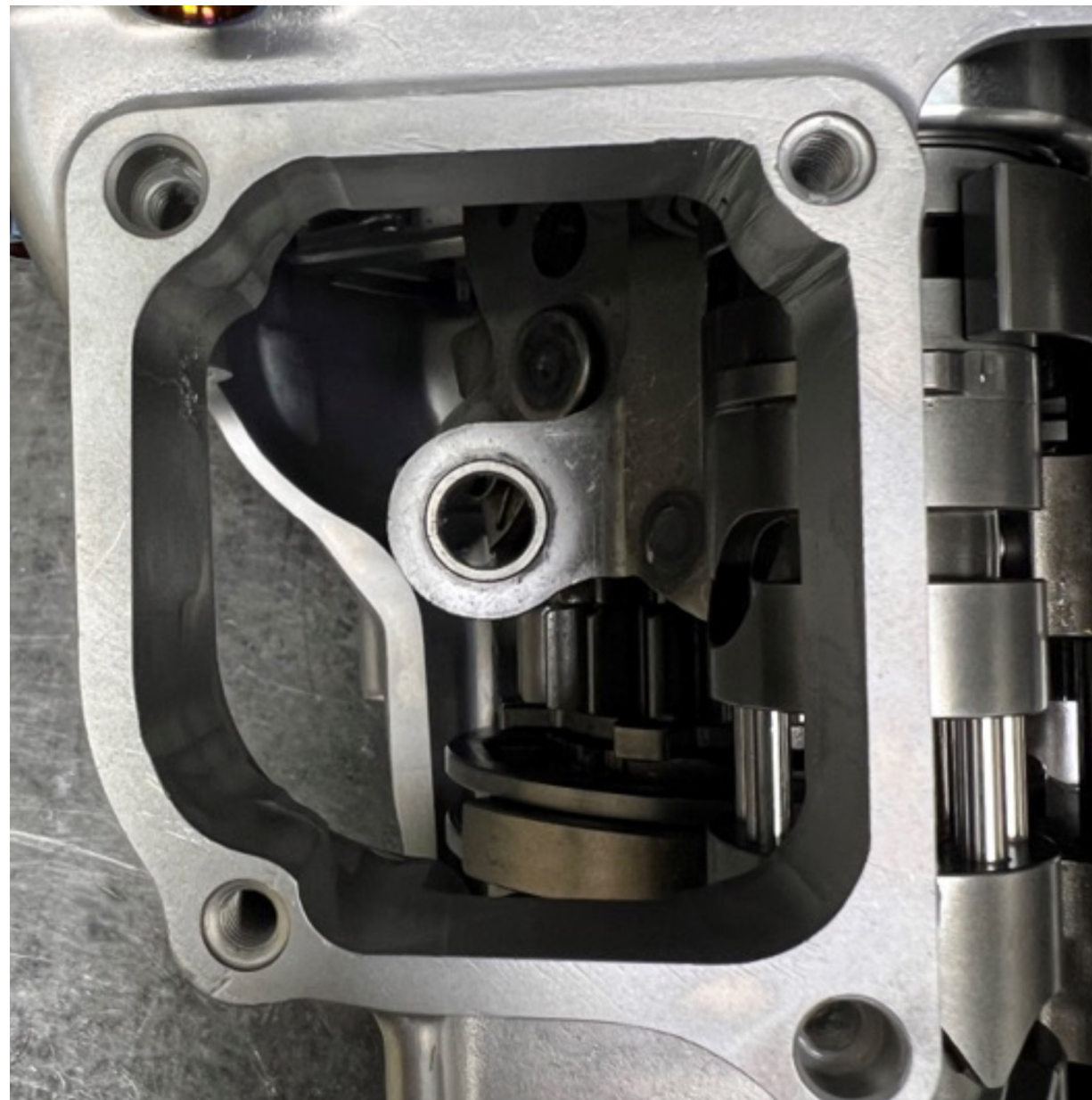
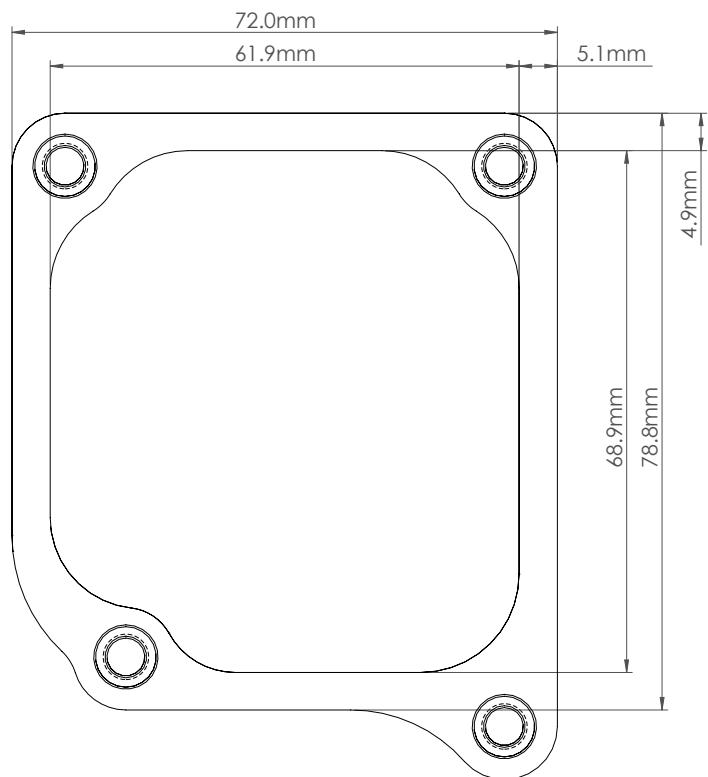


FIG 1

2. The sequential kit is supplied with new dog rings, the gearset will need to be stripped and the new dog rings will need to be fitted.
3. Fit the differential into the housing.
Fit the 1st/2nd selector rail to the gearset (*Figure 2*) and then offer this up to the Bell Housing (*Figure 3*).
4. Fit the gear position sensor holder to the housing (*Figure 3*).

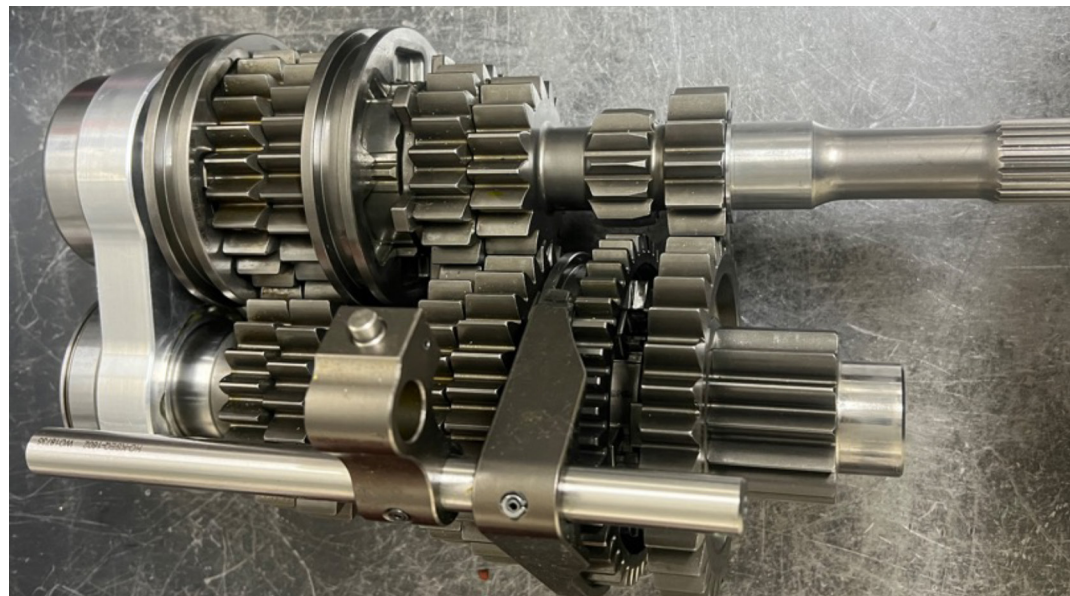


FIG 2



FIG 3

5. Fit the 3rd/4th and 5th/6th forks to the gearset. If your running a 1st to 4th set you will only have the 3rd/4th fork. *(Figure 4)*.
6. You can now fit the selector barrel, line the dogs up correctly for 2nd gear so you are able to fully select 2nd gear, push the other forks to the side so they don't interfere, and slide the selector barrel into the gear position sensor holder. *(Figure 5)*.
7. Fit the 3rd/4th & 5th/6th fork into the barrel tracks, if running a 1st to 4th you will only have the one fork.

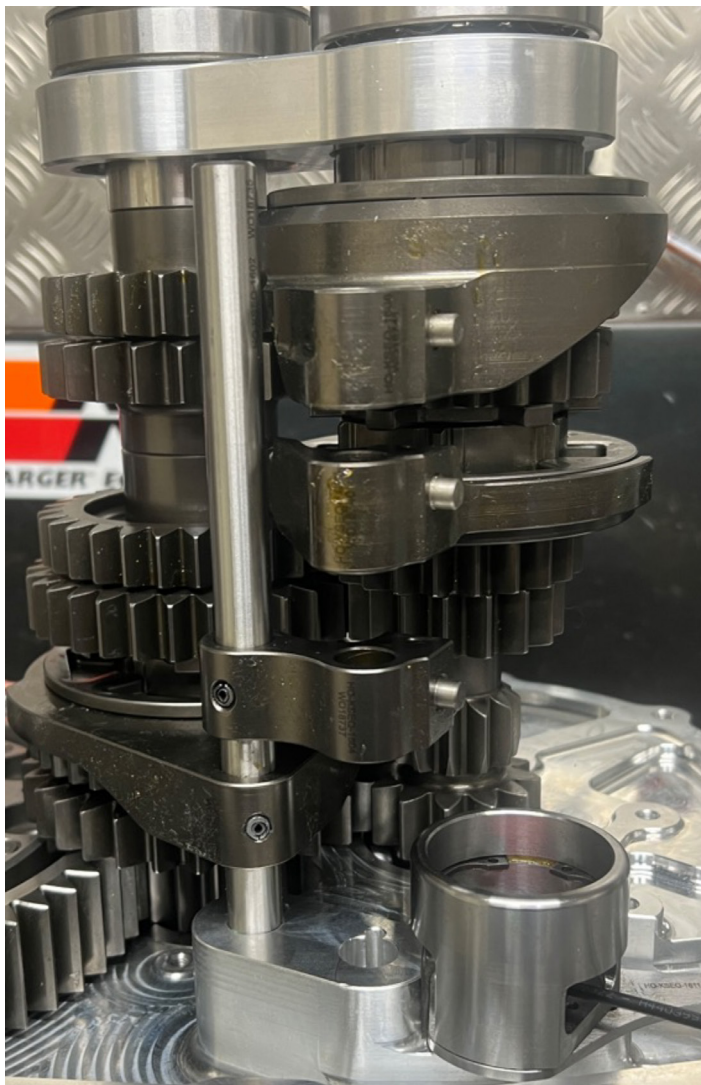


FIG 4



FIG 5

8. The kit is supplied with a new detent spring for the reverse selector. This will need to be fitted. Once the spring is replaced fit the selector mechanism to the housing and fit the reverse idler assembly (*Figures 6 & 7*).



FIG 6

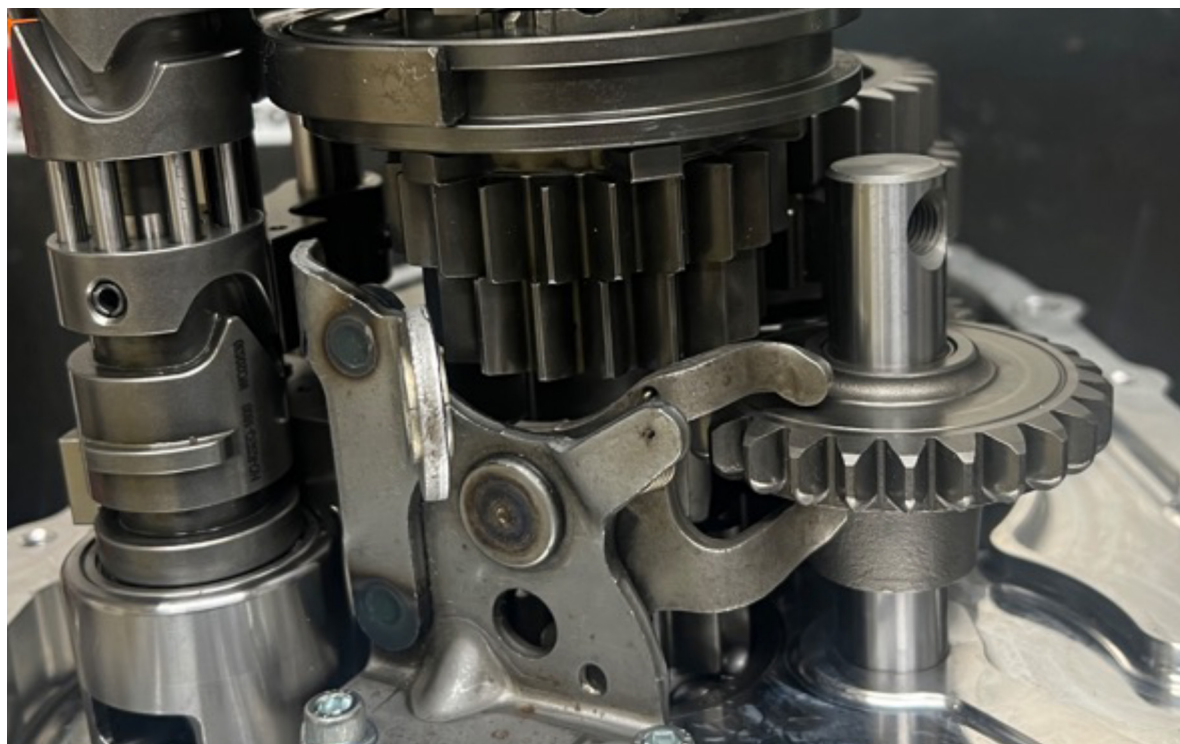


FIG 7

8. Fit the reverse selector finger to the selector barrel the finger will sit over the reverse selector mechanism. Fit the selector rail through all the forks (*Figure 8*).



FIG 8

9. When you're at this stage you will need to check the gear position sensor is reading in the correct voltage range. The sensor is adjustable. You need to ensure the sensor doesn't cross over from 4.5v to .05v after 5th gear.
10. You will need to fit the back housing don't silicone it at this stage and leave the detent out, plug the loom into the gear position sensor (*Figure 9*).
11. Manually turn the barrel over and select reverse gear, hook a multi meter up to the loom. The Yellow wire is the signal wire, the black wire is the earth. Reverse should read around .05v (*Figure 10*).
12. Now you will need to rotate the barrel in the other direction until it goes past 5th gear and bottoms out. The sensor should read around 4.5v. (*Figure 11*).
13. If the sensor goes past this point and goes back down to 0v you will need to adjust the sensor. There are two screws on the sensor loosen these and rotate the sensor (*Figure 12*).
14. Repeat the above process until the correct voltage range is achieved.



FIG 9



FIG 10



FIG 11



FIG 12

15. You can now fit and seal the rear housing. The kit is supplied with a new detent plunger, spring and two spacers, as well as two blanking plus for the unused detent provisions (*Figures 13, 14 & 15*).



FIG 13



FIG 14



FIG 15

16. The actuator assembly can now be fitted apply some sealant to the housing and fit the actuator base. You will need to feed the gear position sensor wire through the actuator housing. You will need to rotate the shaft in order to feed the plug through. (Figure 16).

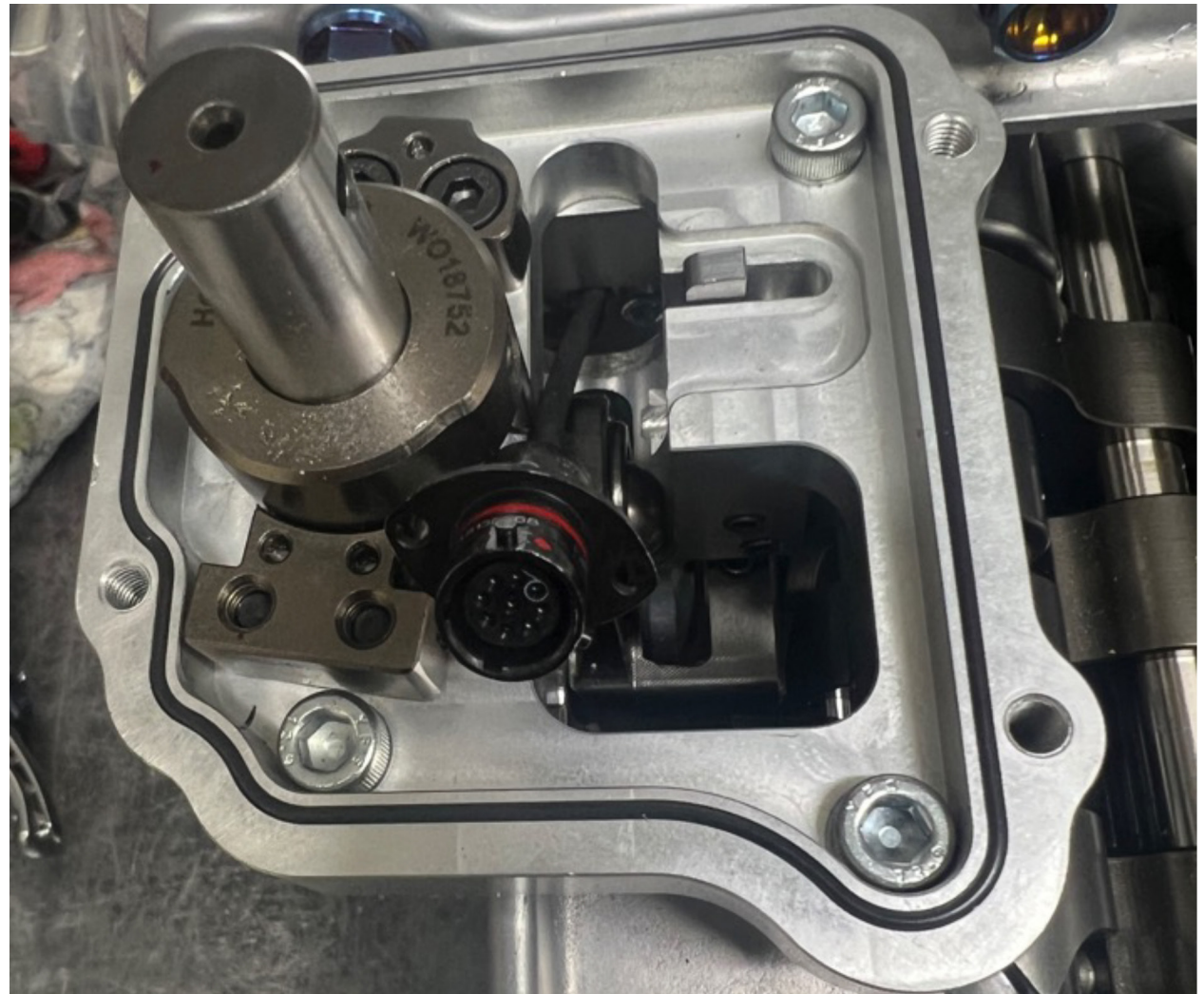


FIG 16

17. The kit is supplied with a nut plate and 2 x 2.5 x 10 mm counter sunk screws. These are to secure the gear positions sensor plug to the actuator lid. Apply a small amount of sealant to the plug, fit the nut plate to the back of the plug and feed the plug through the lid. Secure the plug with the 2 screws. (Figures 17, 18 & 19).



FIG 17



FIG 18



FIG 19

18. Lubricate the sealing O-ring and fit the top lid with the M5 x 16 bolts supplied in the kit. *(Figure 20).*
19. There is a reverse lockout solenoid fitted to the top of the actuator. This will need to be wired up through the switch on the shifter in order to be able to select reverse and neutral *(Figure 20).*



FIG 20

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14a Watervale Drive, Green Fields
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