

Vehicle:	Toyota Yaris GR Gen 2
Product:	Gear Shift Assembly
Part number:	ATMSYGR42



Kit Contents:

1x AIRTEC Motorsport Gear Shifter Assembly	1x AIRTEC Motorsport Gear Knob
4x M8x20mm Button Head Bolts	1x 5mm Allen Key
4x M8 Spring Washers	1x 2mm Allen Key
4x M4x12mm Grubscrews	1x 1.5mm Allen Key
4x M3x5mm Grubscrews	1x Bottle of Thread Lock
4x Aluminium Spacers	1x 3D Printed Shifter Surround

Tools Required:

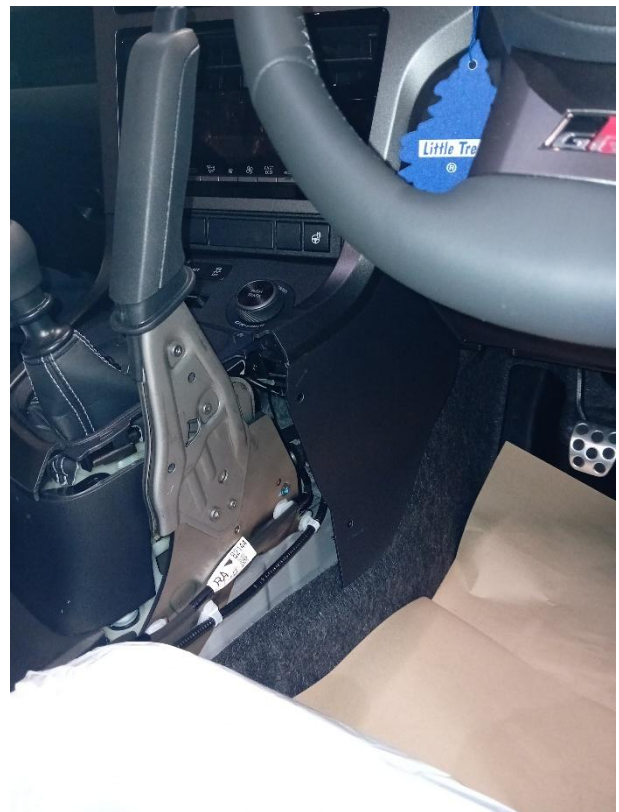
Ratchet and Socket Set	Trim Removal Tool
White Grease	Flat-Head Screwdriver
10mm Spanner	Phillips Head Screwdriver
Small Hammer	

PLEASE THOROUGHLY READ THESE INSTRUCTIONS AND MAKE SURE YOU ARE FAMILIAR WITH THE STEPS BEFORE CARRYING THEM OUT

Instructions:

1. If your vehicle is fitted with the vertical handbrake option, begin by removing the plastic push fittings that secure the plastic trim surround from the handbrake lever. You can then remove the trim and the gaiter by lifting them over the lever.

If your car has the normal handbrake lever, move to Step 2.



2. Now unscrew the gear knob and remove the white plastic securing clip at the bottom of the gear lever's thread to allow the spring free.



3. Pull upwards carefully but firmly on the console surrounding the gear lever to release the trim clips securing it. Lift it over the lever and disconnect the wiring plugs from the back.



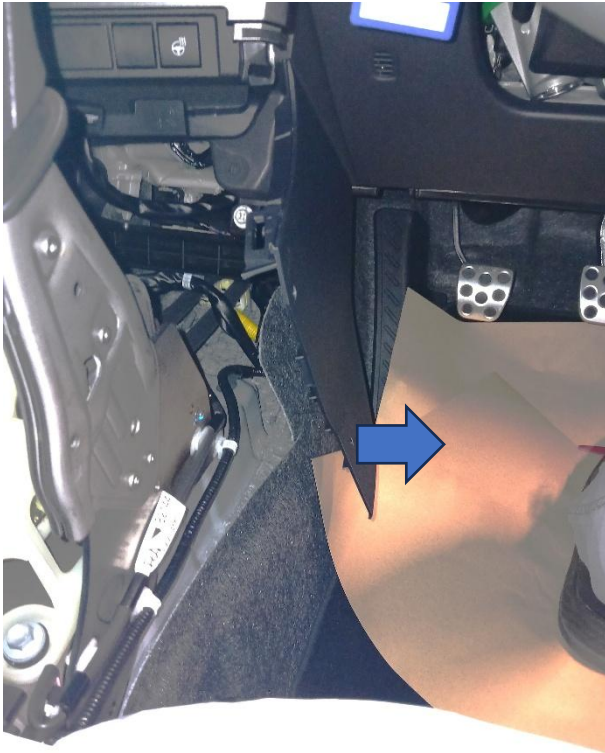
4. Remove the rear shifter casing panel by undoing the bolts securing it in place.
Please note: For models with a vertical handbrake, only the side opposite the handbrake will be secured.



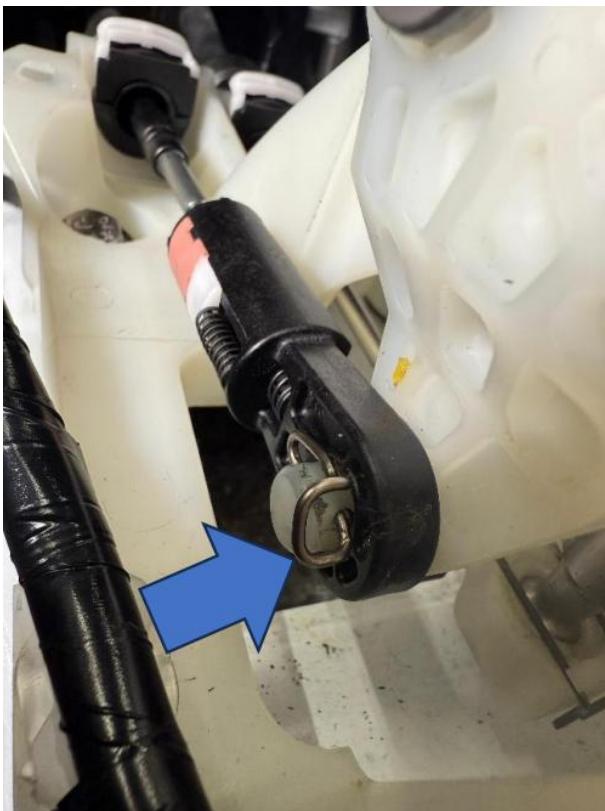
5. Pull upwards carefully but firmly on the rear section of the centre console to release the trim clips securing it in place. Once released, disconnect the plastic push fitting securing the wiring to the underside of the console, then pull the panel up and over the handbrake to release it.



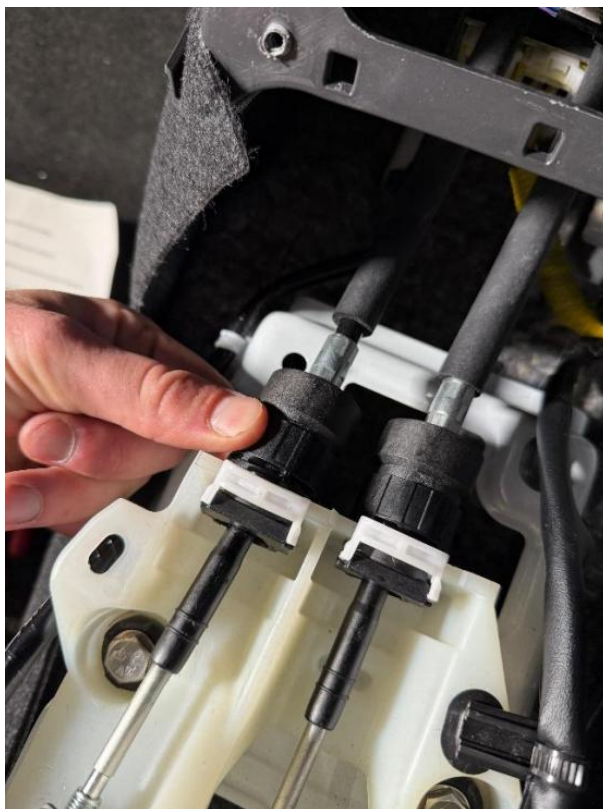
6. Detach the remaining panels surrounding the gear shifter by pulling outwards to release the trim clips.



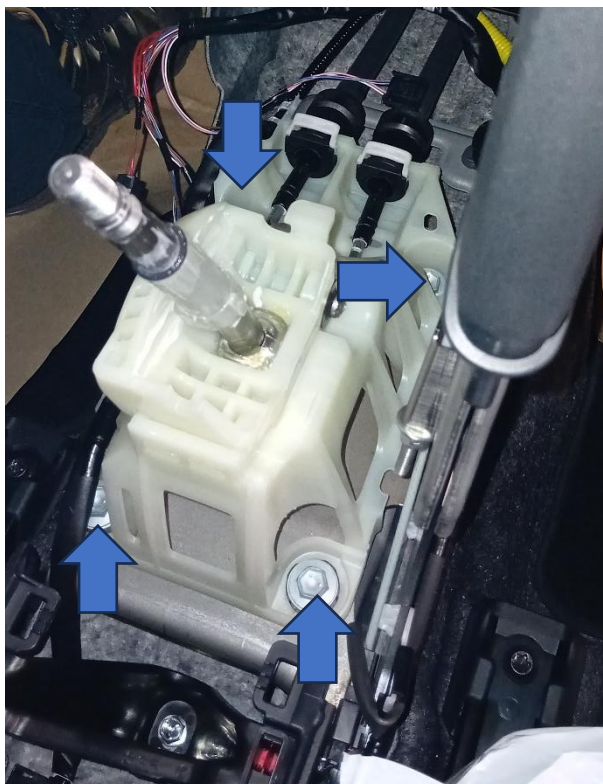
7. Now with the gear shifter fully exposed, locate the R-Clip securing the outside gear cable and remove it. To remove the cable attached to the central lever, place a pair of closed pliers inside the clip and gently open them to release the clip and move it back allowing the gear cable to drop.



8. Where the gear cables connect to the original gear lever housing unscrew them by twisting them clockwise as you look at them. When it is loose enough for the cable to lift up, push the white connector down; this will hold the connectors in the unlocked position, making reinstallation easier.



9. The gear lever assembly can now be removed. Detach the wiring clips from the base of the lever, then undo the four 10mm bolts and lift the assembly out of the car.

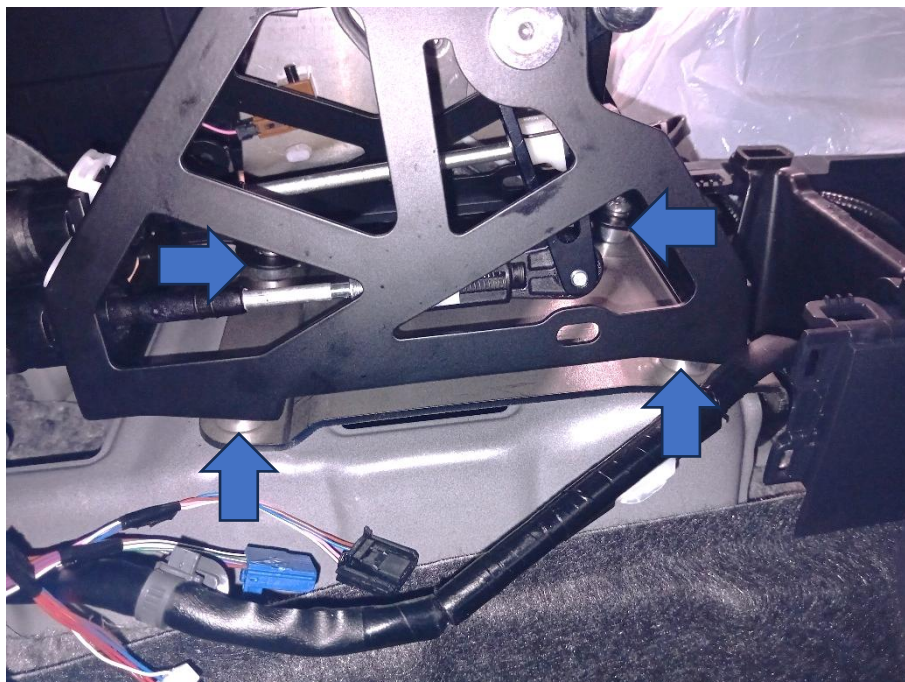


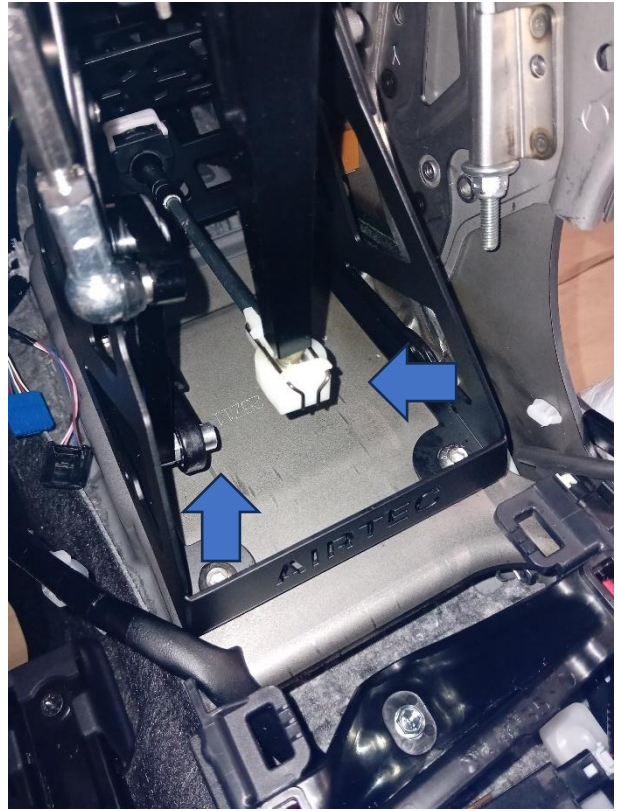
10. With the assembly out of the car use a flat-blade screwdriver and a small hammer to carefully remove the plastic cup from the bottom of the gear lever. You can then install it onto your new AIRTEC Motorsport shifter.

Please note: we recommend applying white grease to the ball joint before installing.



11. Install the shifter section into the car using the supplied bolts and spring washers. The supplied spacers should be placed between the shifter and the vehicle, with a bolt running through the centre of each. Proceed to connect the cables to the shifter arms, securing the pivoting cable with the R-clip removed in step 7. Secure the cables to the side of the frame using the supplied cable ties.





Shifter Adjustment

Once the shifter is installed and the gear cables connected it will need setting up. Follow this guide to understand how to adjust the shifter for perfect selection of all gears.

STEP 1 – CENTERED

First, ensure the lever is perfectly centred in the gate by checking it easily moves up and down to select both 3rd and 4th gears with no sideways resistance. If there is **any** form of sideways movement required of the gear lever to engage 3rd or 4th gears, then loosen the rear-facing Allen Key bolt as shown, **but do NOT unscrew more than two turns under any circumstance.**

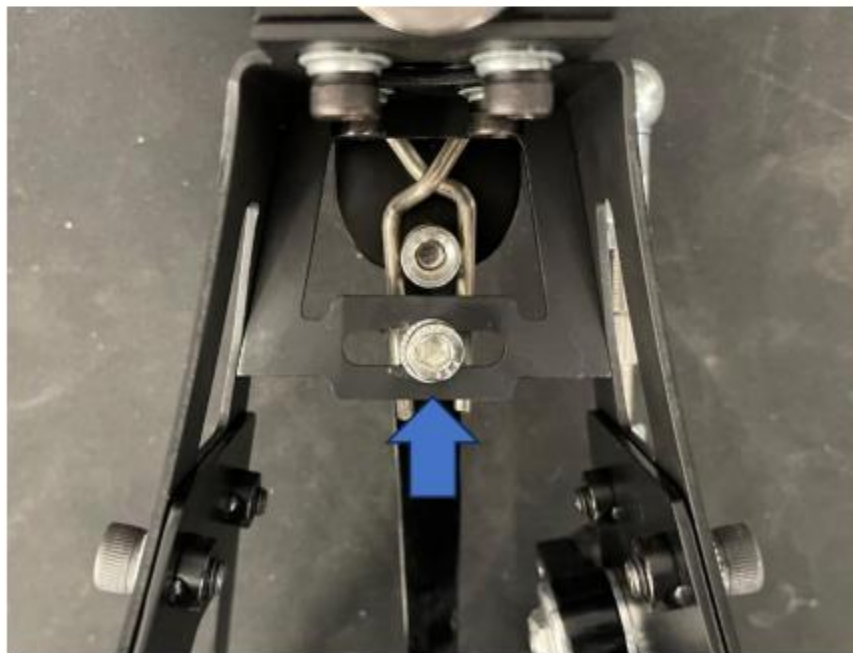
Once loose, gently move the lever over to centre it, re-tighten the bolt and check for resistance again. Repeat this process until there is no sideways resistance.



Side view of bolt to adjust with Allen Key in place.



Rear view of bolt to adjust with Allen Key in place.



There is adjustment in the bracket to move the bolt left and right.

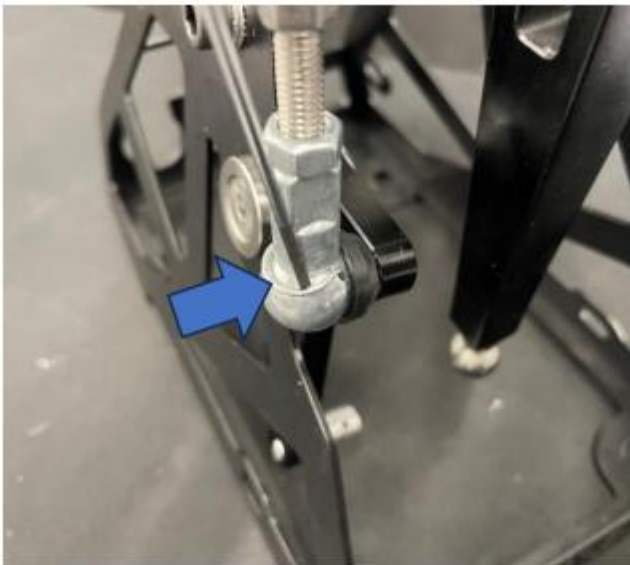
STEP 2 - PRE-LOAD

Secondly, check there is no pre-load on the gear linkage. To do this, use a small flat-blade screwdriver to carefully release the locking spring clip from the bottom ball joint - **be careful not to lose this clip**.

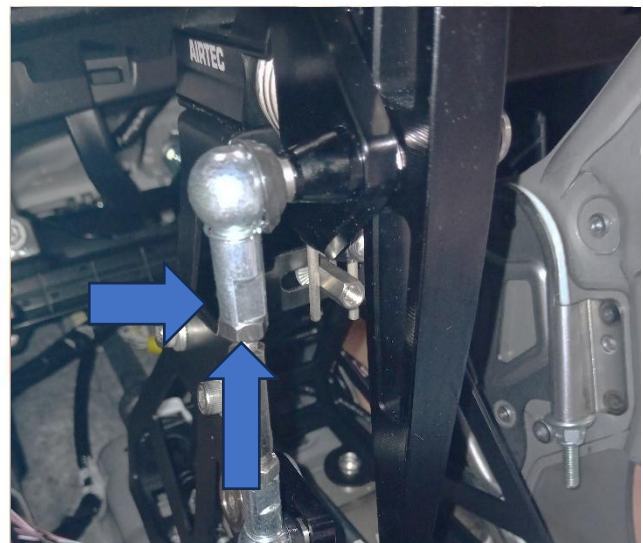
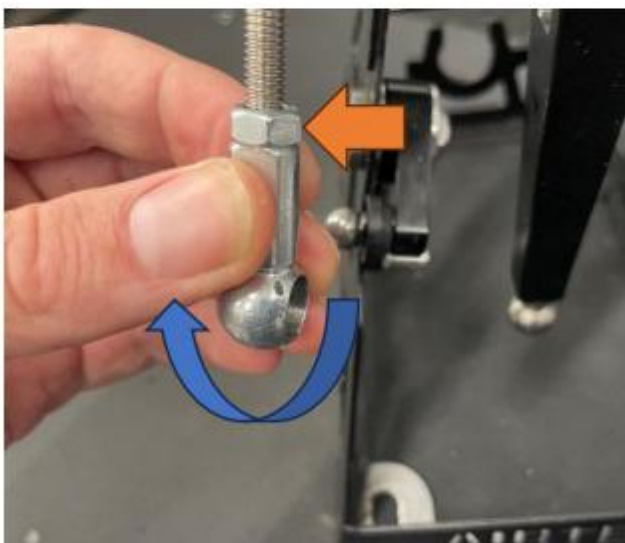
The ball joint should separate from the linkage arm without the gear cable moving backwards or forwards and should fit back onto the linkage arm without moving backwards or forwards. If you have to push or pull the linkage arm to get the ball joint on, then it will need adjustment.

To do this, loosen the one of the lock nuts and wind the adjuster in or out until the ball joint lines up perfectly and the gear cable does not move when attaching it. You can then tighten the lock nuts fully using 8mm and 10mm spanners.

Please note: Each end of the adjuster is an opposite thread, so one side is a right-hand thread and one is a left-hand thread.



Carefully release the spring clip and pop the ball joint apart. The two parts should line up perfectly without moving up or down to disconnect or reconnect. If you have to push or pull the linkage arm, it will need some adjustment.



Loosen the lock nut (orange arrow) and then wind the adjuster up or down until the ball joint lines up perfectly. You can then use 8mm and 10mm spanners or tighten the lock nuts up and stop the adjuster moving position.

STEP 3 – SETTING TRAVEL LIMITS

Use the supplied grub screws to limit how far the gear lever can travel left-to-right and for reverse gear.

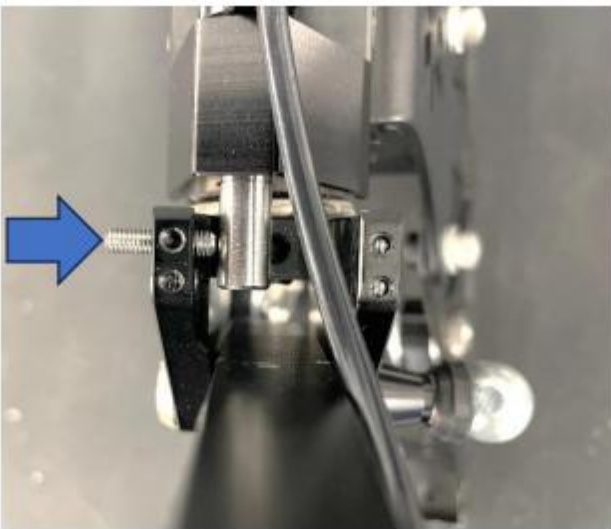
First select reverse gear and wind a supplied grub screw using the supplied Allen Key in one of the upper holes. If reverse is next to first or second gear, use the **right-hand** upper hole. If reverse is next to fifth or sixth gear, use the **left-hand** upper hole.

Wind the grub screw in until it touches the centre bar – **then unwind half a turn so there is a small gap. Please note: You MUST leave a small gap, it should not touch.**

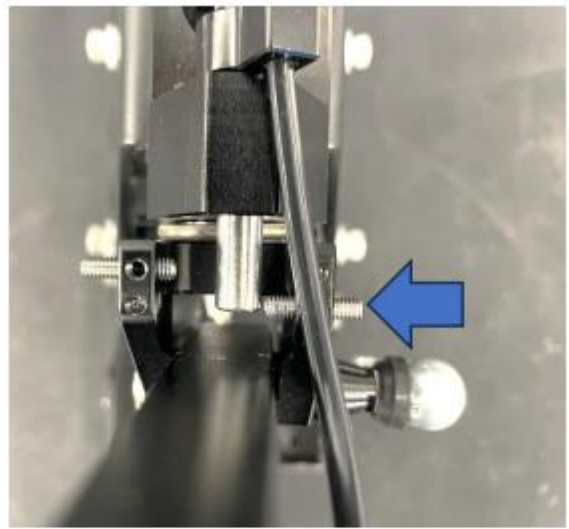
Then select first gear and wind another grub screw in the **lower right-hand hole** and repeat the process.

Then select sixth gear and wind another grub screw in the **lower left-hand hole** and repeat the process.

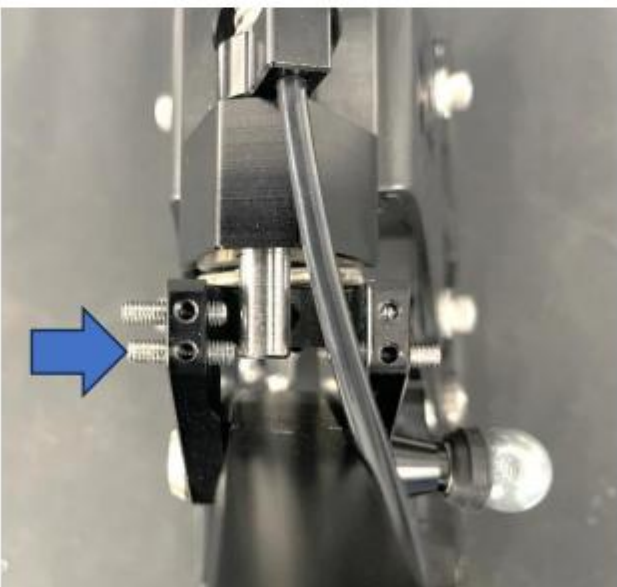
Once they have been set, ensure you can select reverse gear by lifting the gear lever's safety collar enough to pull the centre bar back to clear the lower grub screw.



Select reverse, insert a grub screw until it reaches the centre bar and unwind half a turn.



Select first, insert a grub screw in the lower right hole until it reaches the centre bar and unwind half a turn.



Select sixth, insert a grub screw in the lower left hole until it reaches the centre bar and unwind half a turn.



When you lift the lever's reverse collar the centre bar should move back to allow reverse to engage.

STEP 4 – LOCKING IN POSITION

Finally, once you have set all your grub screws, use the smaller supplied grub screws to lock them in place. Before doing so, apply a good amount of the supplied thread lock into the top thread hole and to the grub screw itself before winding them in.



Apply a good amount of Lock Thread to each of the holes.



Use the supplied Allen Key to screw in the top grub screws.

12. To reinstall the centre console, the upper shifter frame will have to be temporarily detached. To do this, disconnect the lever from its cable, remove the securing clip from the upper ball joint and disconnect the ball joint. Take care to not lose this securing clip. Then, remove the four bolts securing the upper shifter frame at the sides.



13. Remove the gear gaiter by unclipping it before refitting the centre console in reverse of removal.



14. Reinstall the shifter lever through the centre console. Ensure that the side bolts are properly secured and thread locked in place and that the ball joint is secured using the clip removed in Step 12.



15. Finally, check all of the fixings are secure and that the shifter correctly selects all gears. Then clip the supplied surround in over the shifter to finish.

