

AIRTEC MOTORSPORT Fitting Instructions

Vehicle:	Ford Focus Mk2 RS & ST
Product:	Gear Shift Assembly
Part number:	ATMSFO169 / ATMSFO197



Kit Contents:

1x AIRTEC Motorsport Gear Shifter Assembly	1x M4x8mm Set Screw
1x AIRTEC Motorsport Shifter Surround Panel	4x M3 x 5mm set screws
2x Low Profile M6x25mm Bolts	4x M4 set screws x 4
2x Hex Head M6x20mm Bolts	3x Allen Keys: 1.5mm/2mm/5mm
4x M6 Washers	1x Thread Lock

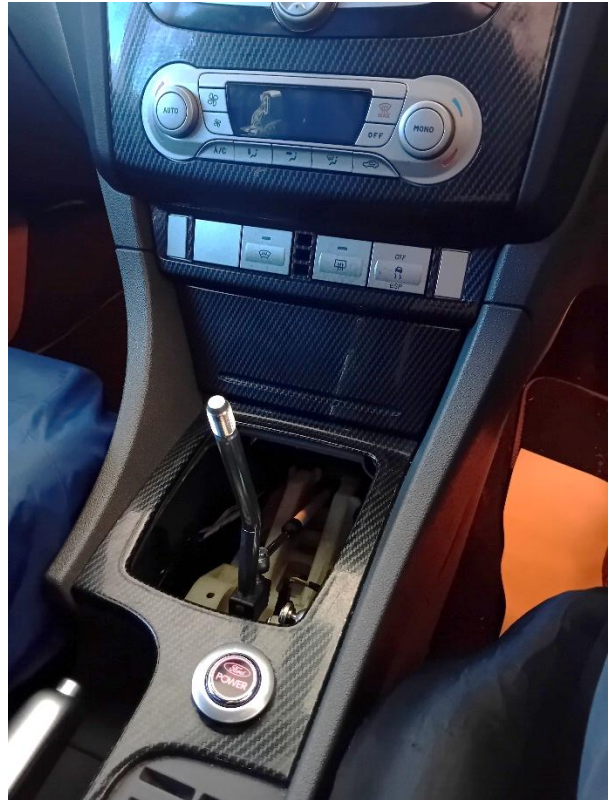
Tools Required:

Ratchet and Socket Set	Trim Removal Tool
T20 Torx Socket	4mm Allen Key

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

Instructions:

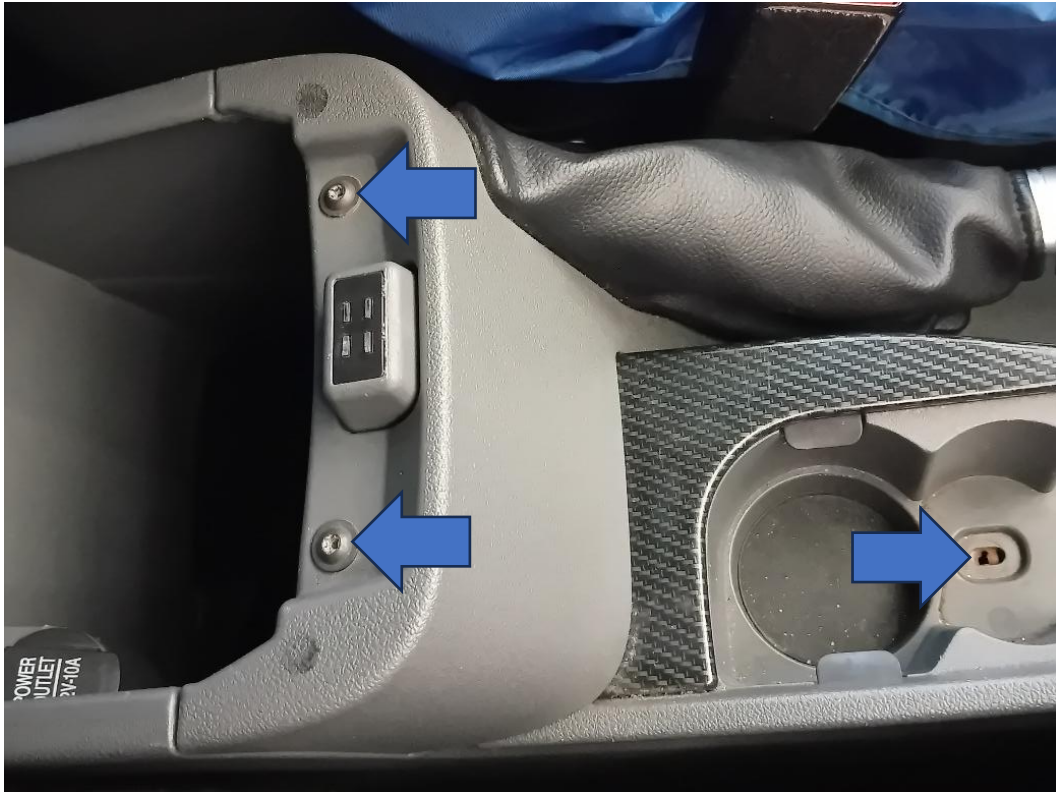
1. Start by unclipping the gear gaiter from the centre console. Then unscrew the gear knob to remove it from the lever, as shown.



2. Remove the engine start button by popping it out of the centre console from underneath and then unplug it.



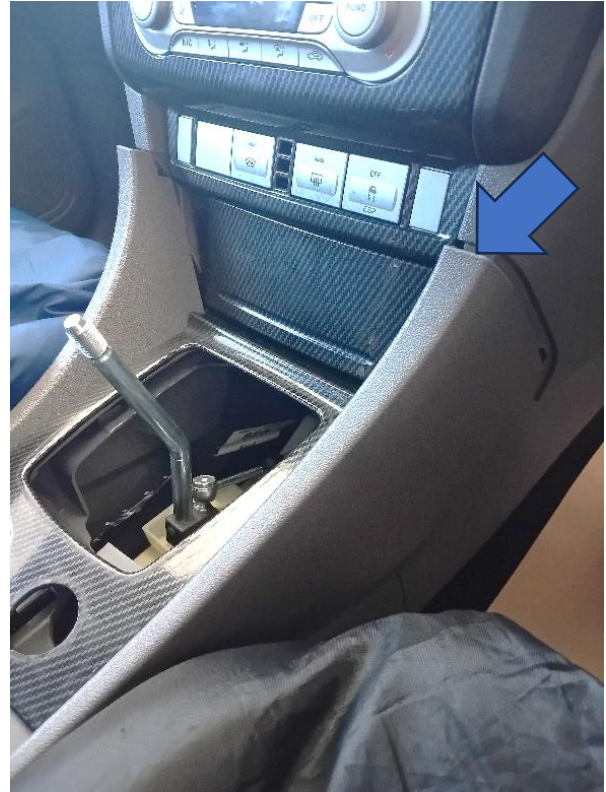
3. Remove the two T20 Torx bolts located under the armrest, as well as the single T20 Torx bolt under the cover in the cup holder



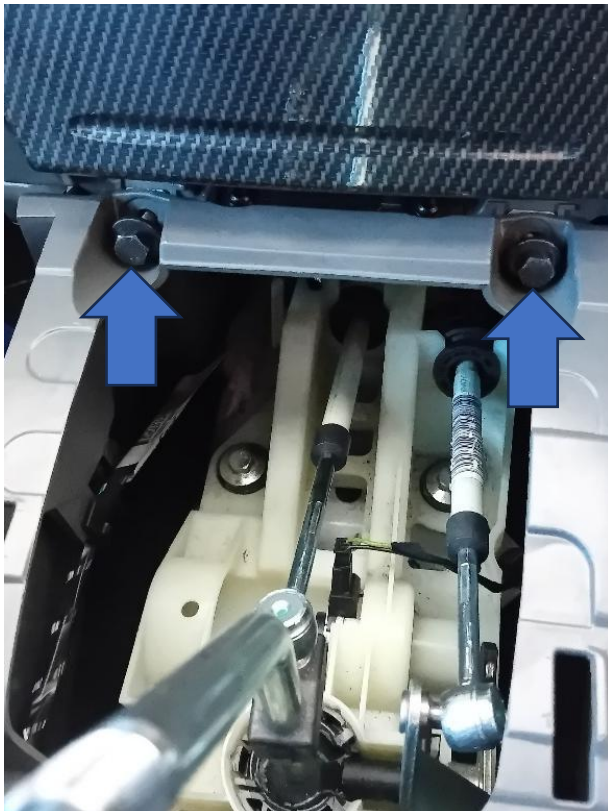
4. Now unclip the hand brake lever trim panel and disconnect the hand brake gaiter from the lever. You can then lift the panel over the handbrake to remove it from the car.



5. Pull the two tabs in the cupholder to disconnect the rear portion of the top panel, then gently pull on the front column sections to disconnect them and allow the panel to be removed.



6. Remove the four 10mm bolts (two at the front and at each side down by the seat rail) securing the remaining centre console structure.



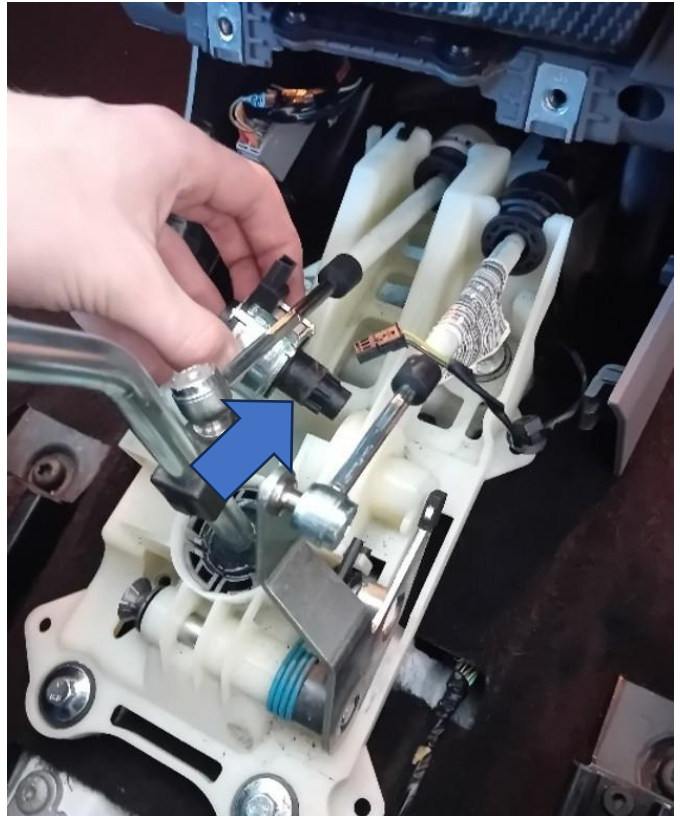
7. Disconnect the front panel sections that hook onto either side of the centre console.



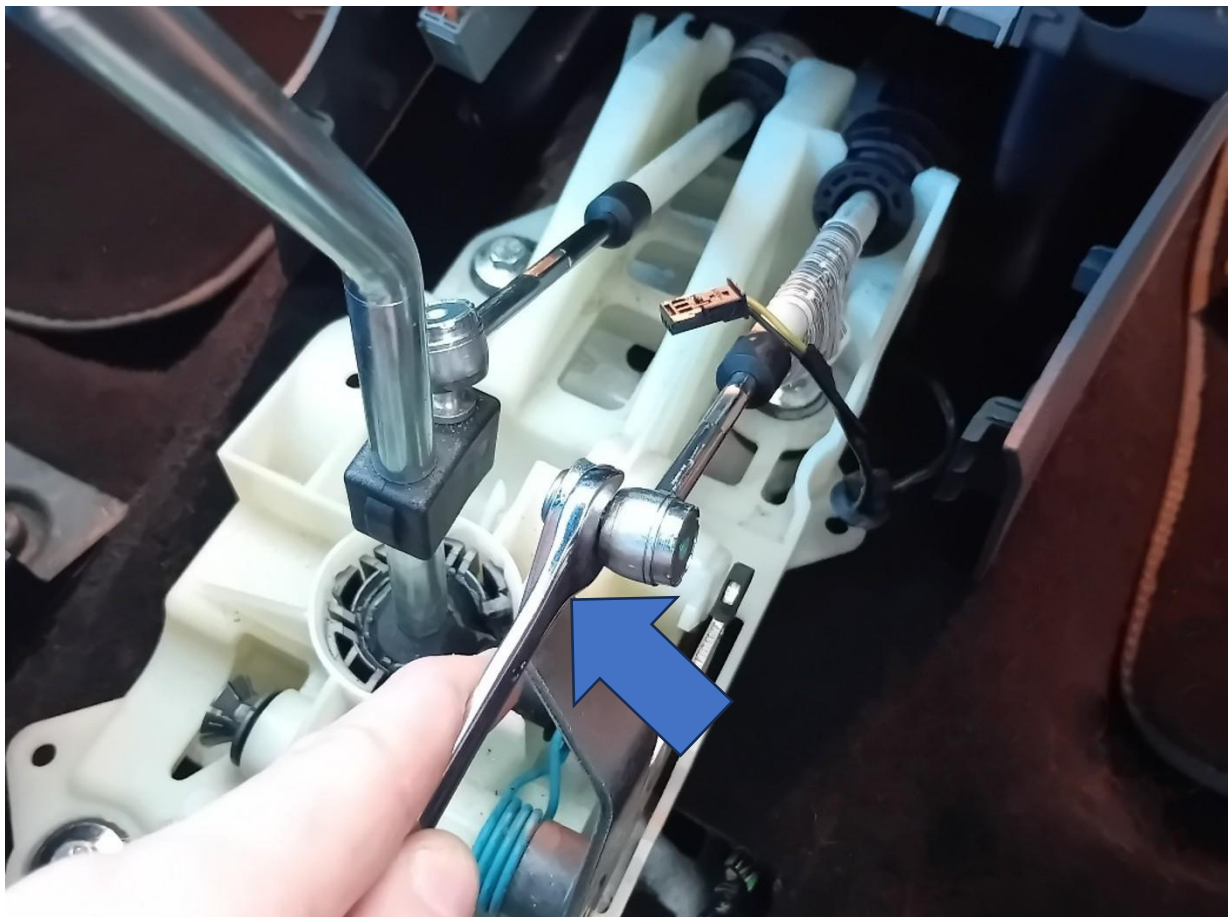
8. Disconnect the wiring plug on the left-hand side of the console and then remove the remaining trim to expose the original shifter mechanism.



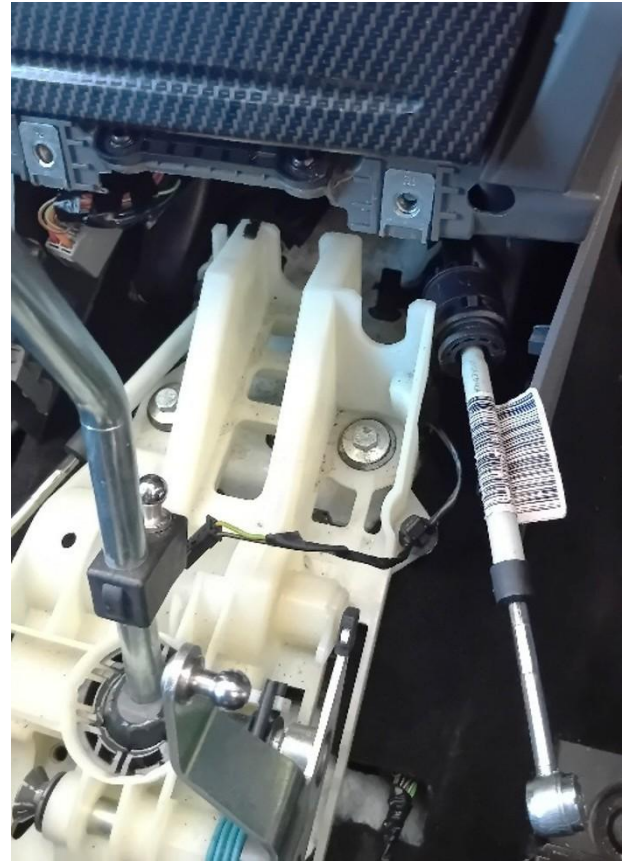
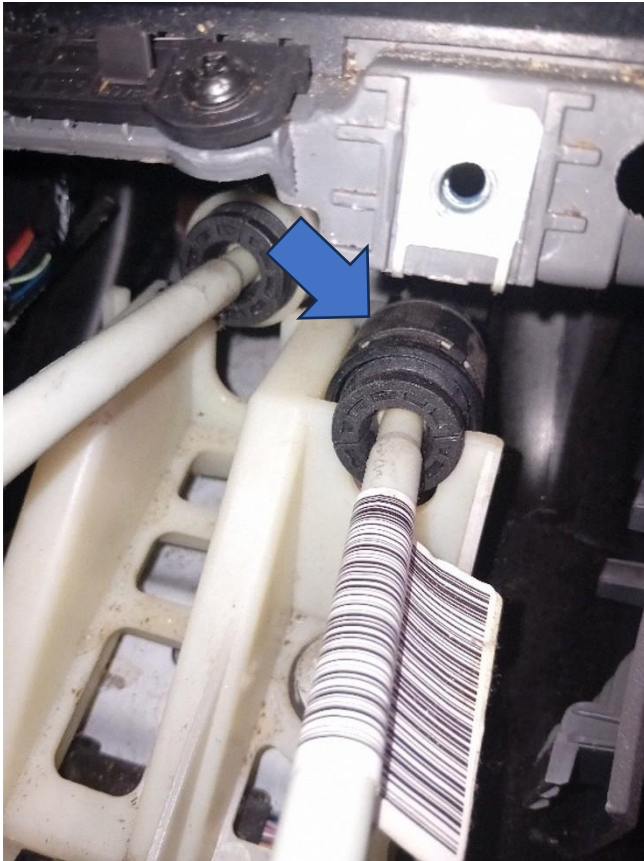
9. Remove the plastic pin securing the wiring harness to the shifter. You can then disconnect the electrical connector and remove the sensor.



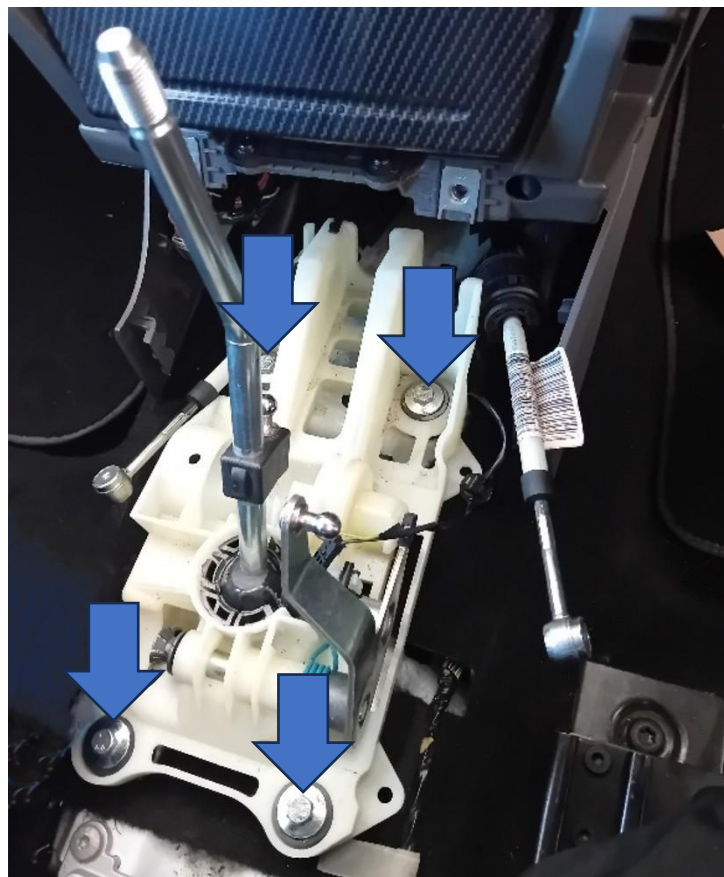
10. Use a 10mm open end spanner to pry the gear cables from the shifter's ball joints.



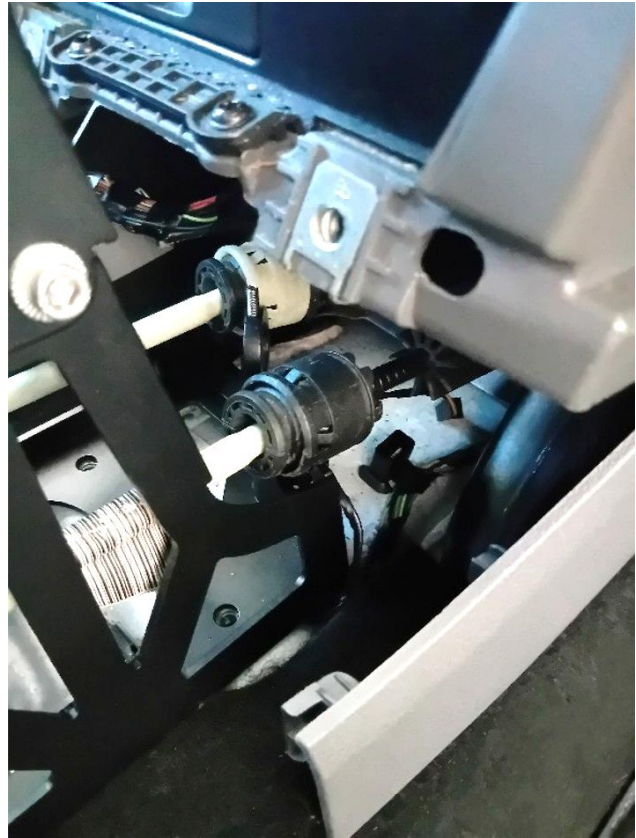
11. Now disconnect the shifter cables by pulling the front section of the cable connection block towards the front of the car and then lift the cable out its slot.



12. Now undo the four 10mm bolts attaching the shifter to the floor and remove it from the car.



13. Place the AIRTEC Motorsport shifter in position and place the cables in approximate position. **Do not insert the cables into the slots yet**, as this will put tension on the shifter and make fitting difficult.



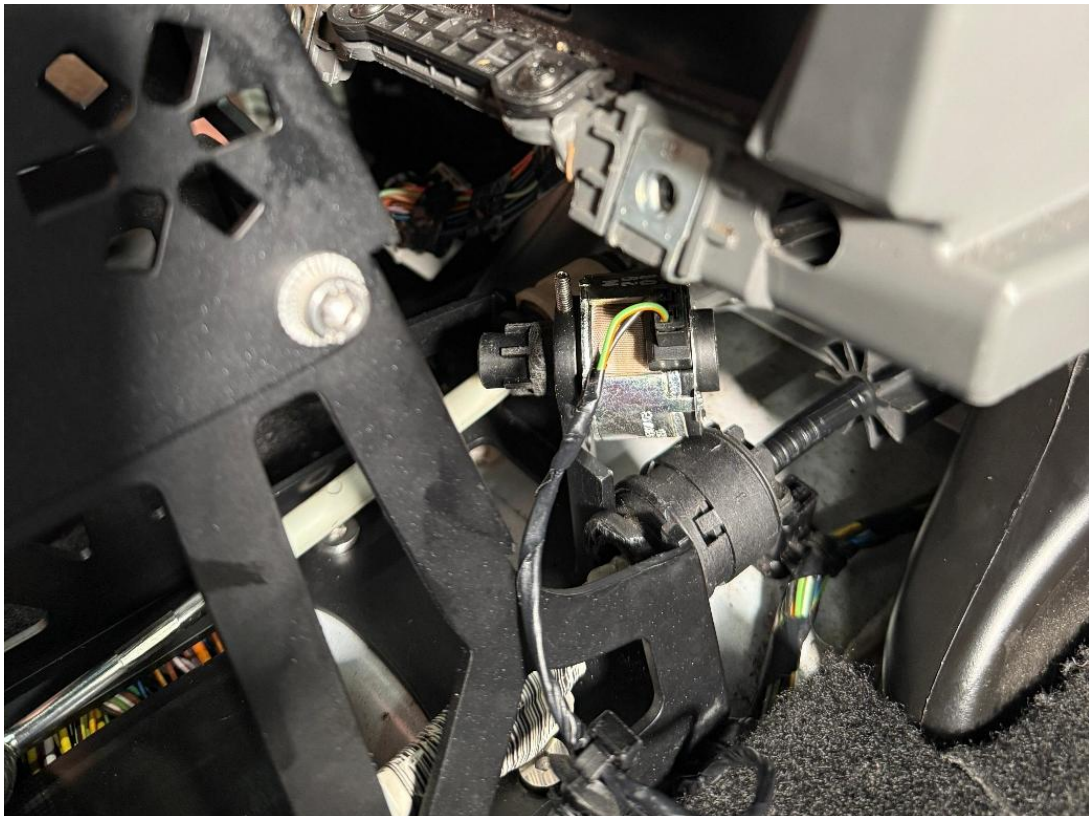
14. Now bolt the shifter in place using a 4mm Allen Key for the two low profile M6 bolts with washers provided in the kit underneath the gear cables (blue arrow). Use the standard M6 bolts with washers supplied at the rear (orange arrows). **Ensure bolts are thread locked to prevent loosening.**



15. Insert the cable connection blocks into the guide slots. Ensure that the locking mechanism goes over the lip on the shifter and that the cables lock into place securely.



16. Insert the sensor removed in Step 9 into the hole between the cable guides. Lock it in position using M4x8mm set screw provided and thread lock it in place. Then reconnect the wiring loom.



17. Now connect the cables to the ball joints on the new pivoting arms (orange arrows) and carefully read the following detailed steps to set it up.



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**.

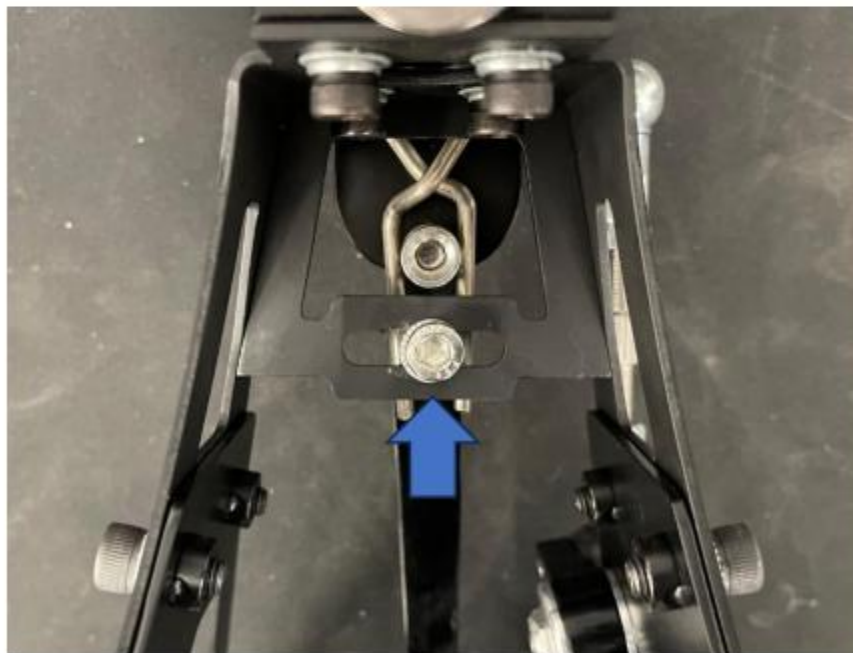
Once loose, gently move the lever over to centre it, re-tighten the bolt and check for resistance again. Repeat this process until there is no sideways resistance.



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.

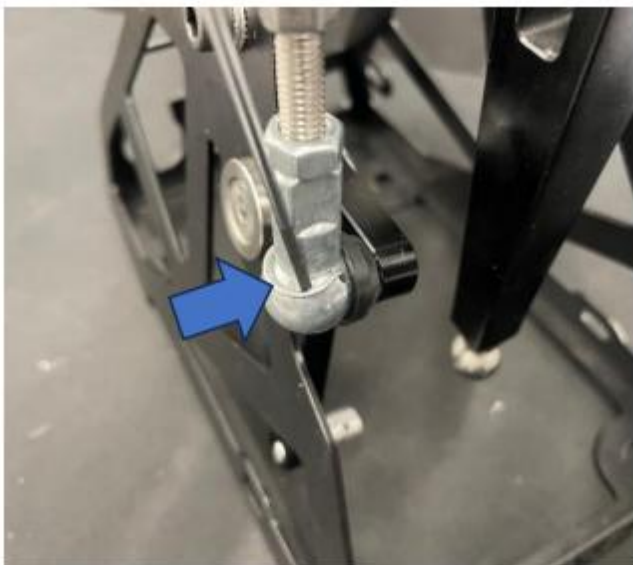
STEP 2 - PRE-LOAD

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**.

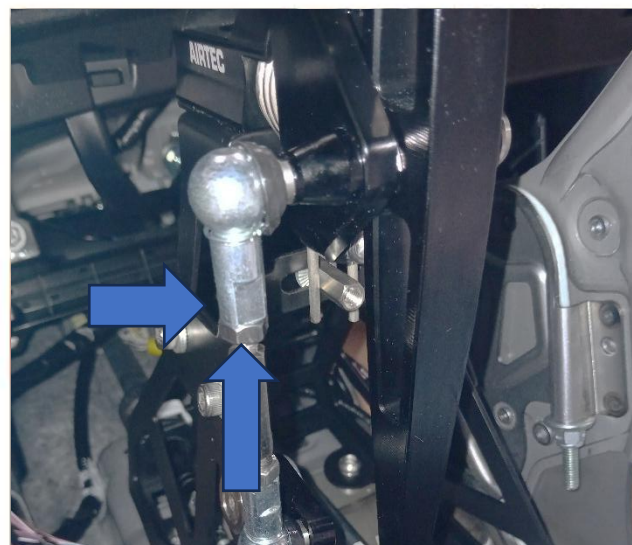
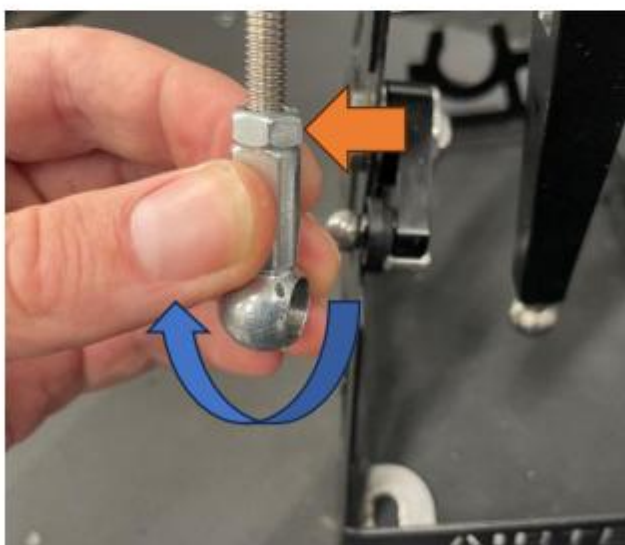
The ball joint should separate from the linkage arm without the gear cable moving backwards or forwards and should fit back onto the linkage arm without moving backwards or forwards. If you have to push or pull the linkage arm to get the ball joint on, then it will need adjustment.

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.

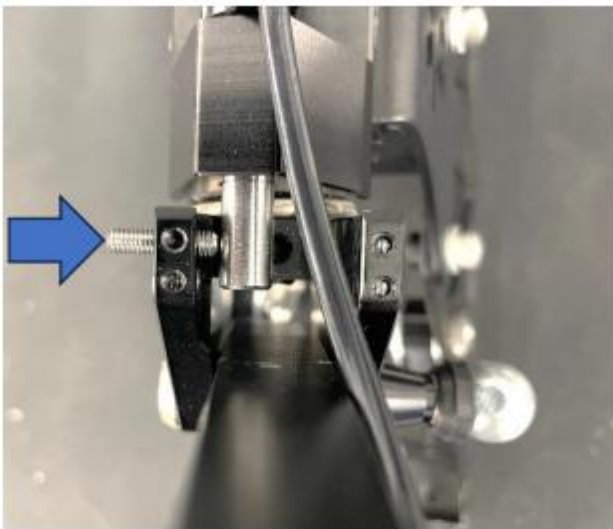
First select reverse gear and wind a supplied grub screw using the supplied Allen Key in one of the upper holes. If reverse is next to first or second gear, use the **right-hand** upper hole. If reverse is next to fifth or sixth gear, use the **left-hand** upper hole.

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.**

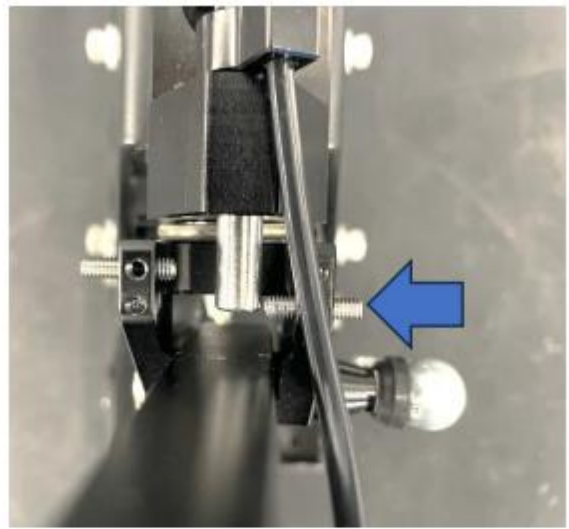
Then select first gear and wind another grub screw in the **lower right-hand hole** and repeat the process.

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.



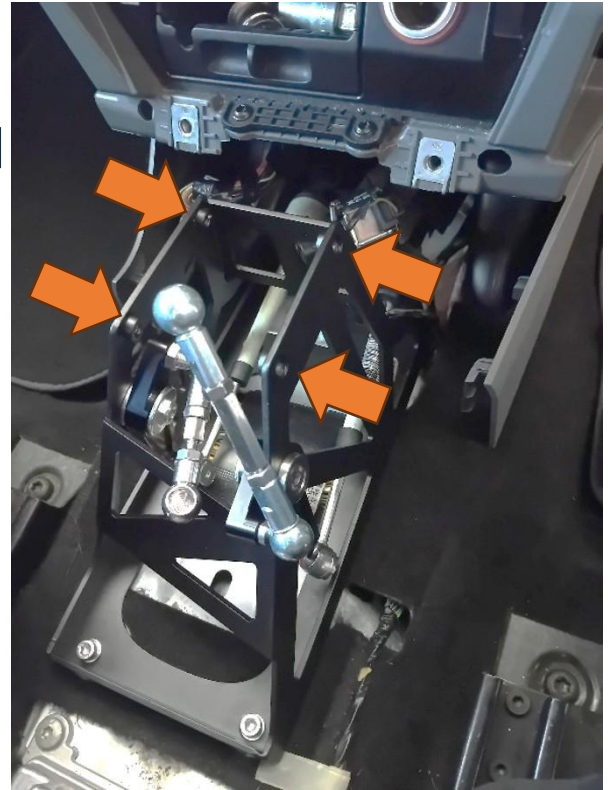
Apply a good amount of Lock Thread to each of the holes.



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

18. In order to refit the centre console, you now need to temporarily remove the top section. It will not affect the any of the adjustments made when setting it up in the previous steps.

To remove the top section, undo the retaining clips from the ball joints (blue arrows) and disconnect the linkages. You can then remove the four bolts (orange arrows) connecting the upper frame to the lower frame to detach the top of the shifter.



19. You can now reassemble the centre console sections in reverse of removal.



20. Finally, reattach the top of the shifter through the centre console. Ensure that the ball joint end caps are secured with the retaining clips and then refit the side bolts making sure they are thread locked to prevent loosening.

