

Fitment instructions

4 speed ford toploader and g force/ tex racing 101

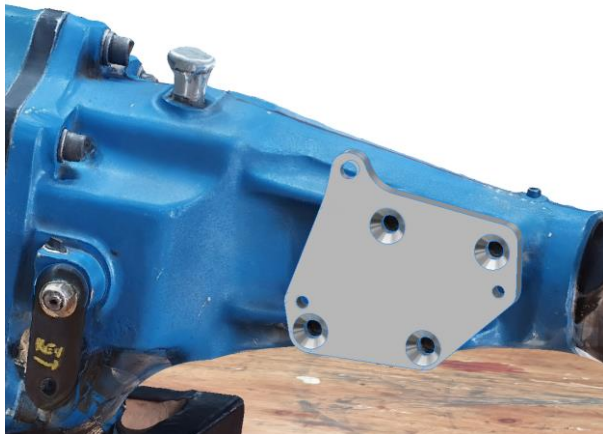


These shifters are design to fit what they are sold for only but it should be possible to modify to suit other 4 speed boxes by changing the mounting bracket push rods and shift arm lengths and angles, although this is possible its not something we can assist with so unless you have a solid understanding of geometry please don't try.

Fitment is straight forwards with only special attention needed to check the throws are correct.

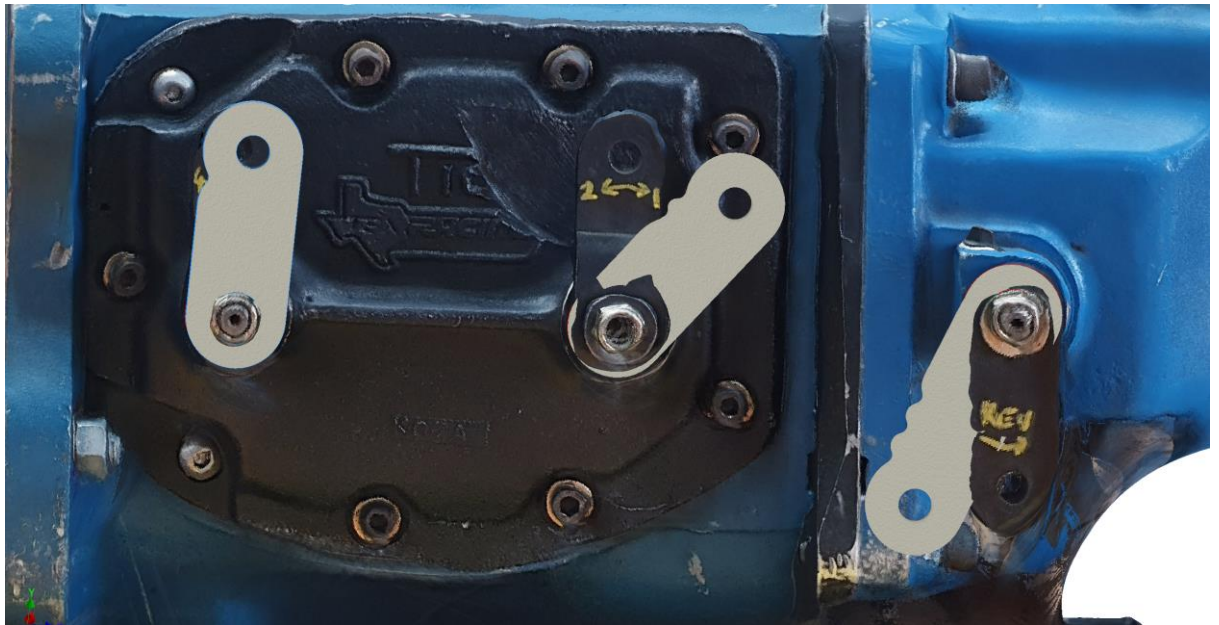
Remember that all gearboxes with dog gears need the input shaft turned as you shift of they will not go in gear most of the time.

1. Remove all factory shifter parts
2. Fit mounting bracket to the gearbox, take care to check the thread matches when doing this



3. Fit shift arms to the gearbox, take note of the number and orientation of grooves on each shift arm. 1 on the front arm , 2

on the second , 3 on the third when counting from the left.



4. Use the m10x25 countersunk bolts to attach the shift lever and reverse lock out lever.



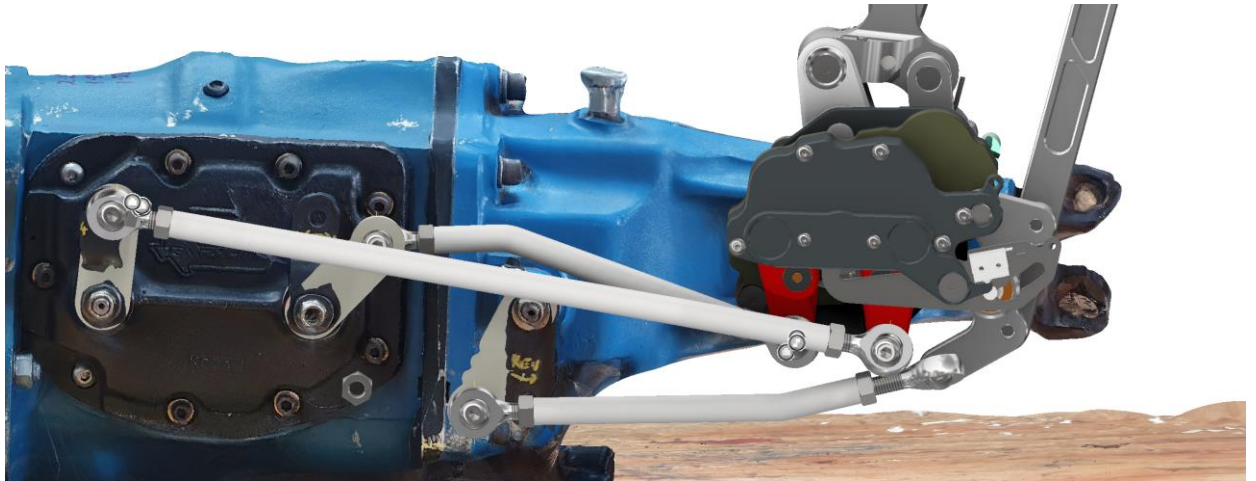
5. Bolt the shifter to the mounting bracket, there are 2 bolts from the front which may require you to shift gears to access, and

one bolt from the rear.



6. Fit the push rods, start with just the 1/2 rod fitted with the rod ends and locking nuts bolt up the shifter end of the rod only and with the shifter and gearbox in neutral (half way between 1 and 2) adjust the length of the rod until it matched the gearbox shift arm. Now shift the gearbox and shifter to 1st gear and check rod is still the correct length then repeat in 2nd gear. This step is very important of it could cause problems if the throw is too long or too short. If the throws of the shifter and gearbox match do up the bolts and repeat for the 3/4 gears. If they do not match we have adjustable arms that can work out this problem. Please take care with this, these gearboxes have been around for many years with many variations wo we cant be sure

what we will find out there.



7. Fit the reverse gear rod, the fitment of this is less critical but on the shifters with the reverse lock out mechanism pictured above you will have to adjust so it operates correctly. When the lever is pushed forwards to select reverse the arm will raise to block rotation of the main shift cam. This also activated the reverse switch.
8. Check that it shifts through all gears and functions correctly
9. If you have a question please ask.

Gear position sensor and indicator fitment

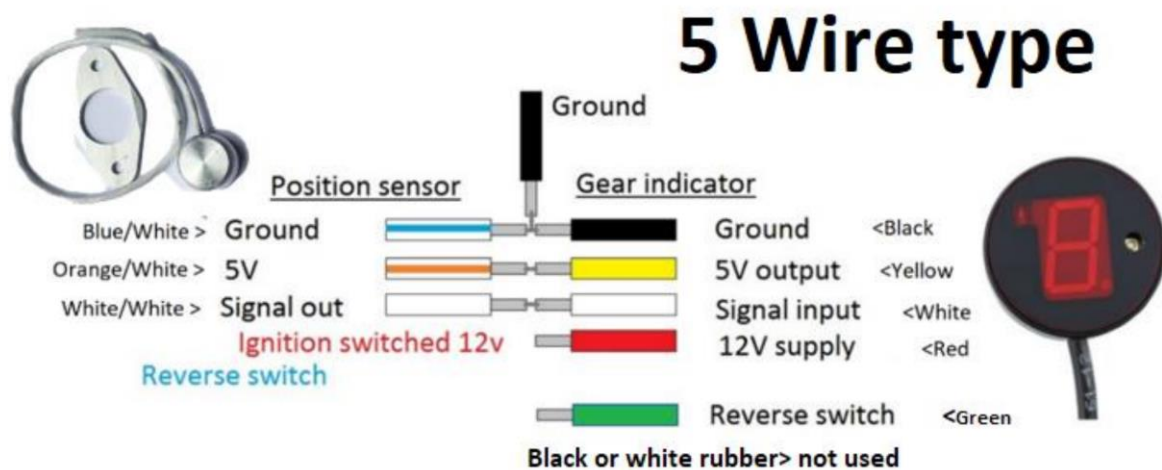
The sensor should be mounted so that it does not cross 0V while in operation although as long as 0V doesn't line up with any gears it will function fine. To determine the correct position it is best to use a multimeter between the white signal wire and ground to ensure the sensor is positioned so it will not cross the zero spot in operation where the output will instantly jump from a low to high voltage. The sensor is secured with the supplied 4mm screws.

This is an analog 5V sensor any more than 5V will break it. The output will change with position. Internally it is not a resistor but a hall effect sensor that reads off a magnet inside the shifter.

If you are wiring this to an aftermarket ECU or dash you will need there instructions for this, we cannot advise on how to program other peoples products.

Mount the gear indicator in the desired position using double sided tape or the gauge cup adapter and connect all wires as detailed below. Wire Colours Black = Ground Red = 12v (ignition switched maximum 18 V) Yellow = 5v output for position sensor White = Signal input (signal output from sensor) Green Wire Green = Reverse input.

5 Wire type



Programming

1. Hold the programming button down before and during turning the power on this will put the gear indicator into programming mode. The programming button can be accessed through the 4mm hole on the front of the gear indicator. This should be done with a nonconductive object to prevent any accidental damage.
2. The gear indicator will now pulse the gear it is waiting to be entered starting with neutral.
3. Select the gear displayed on the shifter/transmission then press the program button to set the position in the gear indicator. Its best

to do this with the engine running and to release the clutch slightly each time to ensure the gear is fully engaged,

4. Once you have programmed the number of gears your transmission has turn off power to the gear indicator for all the settings to be saved.

5. Reverse can be displayed by either a high or low power (under 1V=low, over 4V= high) on the green wire this will come from the reverse switch .The reverse input will override all other gear position displays. The reverse switch has 3 wires, test them with the multimeter to work out what's happening and wire so that 12v goes to the Green wire when reverse is selected.

To select positive or negative trigger press the program button for 1 second any time at least 5 seconds after power on and the input trigger behaviour will switch. When you select positive trigger, the display will flash "P" with you select negative trigger the display will flash "N". If you're not sure what to do and you definitely have a reverse switch wire that changes when reverse is selected just try pushing the button at least 5 seconds after power on and see what happens.

Trouble shooting

Gear indicator does not light up: Check that there is at least 10v between the black and red wires.

I program the gear indicator, but it does not save: Check that the sensor output changes with gear position (measure between black and white wires). Check that the Yellow wire to the sensor has between 4 & 5 volts (measure between black and yellow wires).

Gear indicator only shows "R" or "A": This is the same letter the "A" is the closest we can get to an "R" on the seven-segment display. The "R" will mean that the reverse input is triggered so invert its

behaviour by pressing the program button for one second at least 5 seconds after power has been switched on.