

Geartronics TFT-GPI – Revision 1.0

Programmable Gear Position Indicator

The TFT gear indicator is a colour gear display unit that can be used with any sequential gearbox using a 3-wire potentiometer or hall-effect barrel position sensor. Any gear order can be accommodated with up to 7 forward speeds plus neutral and reverse. The display is also capable of displaying gearbox oil temperature (with a suitable sensor) which includes an over-temperature warning. Programming the unit is achieved by a simple and intuitive on-screen menu using 3 buttons.



Wiring

Power loom:	Red:	+12v ignition supply
	Black:	Chassis ground
	Yellow:	Low-side output – active when reverse is selected
Sensor loom:	Red:	+5v sensor supply
	Black:	Signal ground
	White:	Gear position Signal (0-5v)
	Orange:	Temperature sensor signal (Uses standard Bosch Motorsport sensor)

Programming

To enter the on-screen setup menu, press and hold the “Set” button for 3 seconds. Use the Up & Down buttons to step through the menu options. Press the Set button to select a menu item, the item will then change to black text on a white background, at which point the options can be changed by using the up & down buttons. After you have made your selection press the Set button and the text will change back to white on a black background. Step down to “Done” and press the Set button to go back to the main menu. To exit the menu, step down to “Done” and press the Set button. At this point, all changes will be permanently saved to the internal memory.

As a minimum, you will need to set the gear order, the number of gears, and then sample the gear positions. You can also change the colour of the gear number and, separately, the colour of the temperature digits.

The display brightness can be changed by pressing the Up & Down buttons at any time when not in setup mode.

Molex 'Micro-fit 3.0' connector pinout

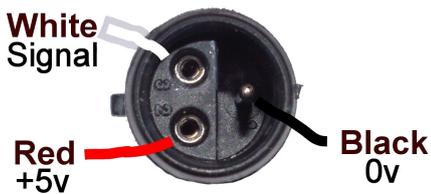
Temp Sensor Input	Sensor Ground	+5v Sensor Supply	CAN-L For future use	CAN-H For future use	Cut request Output For future use
+12v Supply	Power Ground	Gear Position Signal	Flatshift Input For future use	Blip output For future use	Reverse Low-side Output

Viewed looking at wire side of connector looking into the display

Note: Greyed out pin functions are reserved for future use. Future software updates will implement CANbus mini-dash functionality and a fully closed-loop Flatshift function.

Standard sensor pinout for Quaife gearboxes using miniature Sureseal connector

- 1 – Ground (black)
- 2 – 5v (red)
- 3 – Signal (white)



Display & menu examples

