Quaife 'GPIT'
Programmable Gear Position Indicator & Gearbox Temperature Display

The gear position indicator is a universal display unit that can be used with any sequential gearbox with a 3-wire potentiometer (or hall-effect) barrel position sensor. Any gear order can be accommodated with up to 7 forward speeds. The unit also incorporates a 3-digit gearbox temperature display with a programmable temperature warning point. Programming the unit is achieved by the use of a single button on the rear of the unit.

Wiring

Power:	**Red:**	+12v ignition supply
	Black:	Chassis ground
	Yellow:	Reverse relay output (switches to ground when reverse selected)
Gear position:	**Red:**	+5v sensor supply
	Black:	Signal ground
	White:	Signal – connects to potentiometer 'wiper'
Temperature:	**Orange:**	Sensor signal
	Black:	Sensor ground return

The wiring harness and potentiometer are terminated with miniature Sureseal connectors with the following pinout:

1 – Ground
2 – 5V supply
3 – Signal

Programming

In order for the display to show the selected gear, the position of the rotary sensor and hence the selector barrel position must be learned for each gear. This is achieved by entering programme mode by use of the red button on the rear of the unit.

Gently press and hold the button for 3 seconds. The display will flash the repeating sequence 'P 4 5 6 7'. Momentarily press the button when the display is showing the number of *forward* gears, ***not*** including neutral & reverse.

The display will now show 'R'. Select reverse gear (or in the case of gearboxes having a 1N23456 gear order, select neutral) and press the button momentarily. The display will then show 'N'. Select neutral and press the button again. The display will then show '1'. Select first gear and press the button. Continue in this fashion until all gears have been selected. If a temperature sensor is connected, the display will now flash a repeating sequence of 't 1 2 3 4 5'. This allows the setting of the temperature warning point. Selecting '1' will cause the temperature display flash when the gearbox temperature reaches 100ºC, selecting '2' will set the warning point to 105ºC, selecting '3' will set the warning to 110º and so on…