

## SETTING UP YOUR GAUGE WIZARD FOR AN MGA

By Colyn Firth

**Setting up the MGA Pre-Set.** (Gauge wizard may have already selected this Pre-Set for you)

(If your gauge was not accurate before you bought a Gauge-Wizard, then it will most probably be similarly inaccurate if you use the MGA Pre-Set)

### Switch on

Hold down Button B for 4 flashes. The LED will mirror this with 4 flashes.

(This has selected Bank One of the pre-programmed Pre-Sets)

Then Press down Button D for 1 flash. The LED will mirror 1 flash.

This will be followed by 1 long LED flash to show that the MGA Pre-Set 1 has been accepted.

(If you make a mistake in the programming, just switch the ignition off and back on again and start again)

If your setting your unit to the MGA Pre-Set doesn't give you an accurate gauge then you will have to go through the procedure of emptying your fuel tank and then refilling it in 2 ½ gallon steps (or 11.4 litre steps). So, you will need 10 gallons (imperial) of fuel and an accurate measuring jug.

***Make certain the car is on level ground before you start.***

(I found a clear plastic 20 litre container and carefully filled it with 2 ½ gallons of fuel, then I marked the level)

***TAKE EXTREME CARE WHEN POURING FUEL INTO THE FUEL TANK, IT IS SAFER TO WORK OUTDOORS AND ALWAYS KEEP A FIRE EXTINGUISHER HANDY. ALSO, ALWAYS SCREW THE CAPS BACK ON TO ALL FUEL CONTAINERS EACH TIME YOU USE THEM***

**Manually inputting the Tanks Sender Unit values at each fuel level.**

Switch on.

***REMEMBER TO COMPLETELY IGNORE THE POSITION OF THE NEEDLE ON THE GAUGE DURING THIS PROCESS.***

*If you make a mistake with the any of the inputs (number of LED flashes for example), just switch off the ignition, switch it back on and then re-do the input.*

**To set for Empty**

(Starting with a completely empty tank)

Press A and hold down for 1 flash of the LED. When you release the button the LED will mirror 1 flash.

(This has recorded the tank sender units resistance for empty)

**To set for ¼ full**

Pour 11.4 litres (or 2.5 gallons) into the tank

Press A and hold down for 2 flashes. On release the LED will mirror 2 flashes.

**To set for ½ full.**

Pour another 11.4 ltrs into the tank. (5 gallons or 22.8 ltrs in total)

Press A and hold for 3 flashes. On release the LED will mirror 3 flashes.

**To set for ¾ full.**

Pour another 11.4 ltrs into the tank. (7.5 gallons or 34.2 ltrs in total)

Press A and hold for 4 flashes. On release the LED will mirror 4 flashes.

**To set for FULL.**

Pour another 11.4 ltrs into the tank (10 gallons or 45.6 ltrs in total)

Press A and hold for 5 flashes. On release the LED will mirror 5 flashes.

**This completes the programming of the Gauge Wizard to the Sender unit.**

## **PART 2.**

### **Using the Gauge Wizard to set the needle positions on the FUEL GAUGE to show exactly correct from empty, through to full.**

(make sure you have set the Sender Unit values before you set the needle positions on the gauge.)

(Remember that if you make an incorrect input, you can cancel it by switching the ignition off and back on, then you can start again)

#### **To set for Empty.**

Press D and hold for 1 flash. The LED will mirror 1 flash.

The gauge needle will then move to its currently set Empty position.

If the needle position does not stabilise on the correct Empty Position, then hold down either button A or B continually until the needle settles to the Empty Position.

*(Holding down button A moves the needle one way and B moves it the other way)*

To save this setting Press Button C by one quick press and the LED will then show a long flash to show that this has been accepted.

#### **To Set for ¼ Full**

Press D and hold for 2 flashes. The LED will mirror 2 flashes.

Hold down Button B or A until the needle settles on the ¼ full position.

Press Button C one quick press and the LED will show 1 long flash to show this has been accepted.

#### **To set for ½ Full**

Press D and hold for 3 flashes. The LED will mirror 3 flashes

Then hold down Button B or A until the needle settles on the ½ full position.

Press Button C one quick press and the LED will show 1 long flash to show this has been accepted.

**To set for  $\frac{3}{4}$  Full**

Press Button D for 4 flashes and the LED will mirror 4 flashes.

Then hold down B or A until the needle swings to the  $\frac{3}{4}$  position.

Press Button C one quick press and the LED will show one long flash to show it has been accepted.

**To set for Full.**

Press Button D for 5 flashes and the LED will mirror 5 flashes.

Then hold down Button B or A until the needle settles on to the Full position.

Press Button C one quick press and the LED will show one long flash to show this has been accepted.

**To set the Low Fuel Light.**

Press Button D for 7 flashes and the LED will mirror 7 flashes.

Then hold down Button B or A until the needle swings to  $\frac{1}{4}$  position. (approx. 40-50 miles range left)

Press Button C one quick press and the LED will show one long flash to show this has been accepted.

**To set the Flashing Fuel Light.**

Press Button D for 8 flashes and the LED will show 8 flashes.

Hold down Button B or A until the needle swings to the  $\frac{1}{8}$ <sup>th</sup> full position, (approx. 20-30 miles range left) Press Button C one quick press and the LED will show one long flash to show this has been accepted.

**To set the amount of Anti-Slosh that you prefer.**

First select the Anti-Slosh option by Pressing B and holding it down for 1 flash. The LED will mirror 1 flash.

The unit is now waiting for your input.

Press button D and hold down to select the amount of anti-slosh you want.

1 flash means zero anti-slosh. The available range is between 2 and 8 flashes.

2 flashes will give a very low anti-slosh. 8 flashes will give the maximum anti-slosh.

The LED should mirror the number of flashes that you have selected to confirm your choice.

The LED will automatically give one long flash to show the programming has been accepted.

*(If you are using the flashing low fuel-light I would recommend using the maximum 8 anti-slosh level. Otherwise the movement of the fuel in the tank will cause your low fuel light to illuminate sometimes even though you may have half a tank full of fuel remaining.)*

### **Wiring up the unit.** (Based on my MGA which is Negative Earth)

On the back of the fuel gauge there are 3 green wires connected to one terminal, these are all +12v ignition controlled live feed.

The second terminal has a single green/black wire which comes from the sender unit.

Split this green/black wire and connect the end coming from the sender unit to the green wire on the Gauge-Wizard unit.

Connect the other split end of the green/black wire (from the single wire on the gauge) to the blue wire on the Gauge-Wizard unit.

The black wire on the unit connects to earth.

The red wire on the unit is connected to an ignition controlled positive supply.

### **To connect an LED Low Fuel light**

Connect the negative side of the LED to the **orange** wire on the Gauge-Wizard and its positive side to the +12v switched live.

### **Information**

The Gauge Wizards MGA pre-set assumes that your sender unit measures 0 to 68 ohms.

My new sender units resistance range is 0.5 to 72 ohms which is very close to the correct 0 to 70 ohms , but this slight difference was still enough to prevent the needle on the gauge from ever dropping below  $\frac{1}{4}$  on the gauge.

(My old sender unit measured 15 to 98 ohms and with that, the gauge needle never dropped very far below  $\frac{1}{2}$  full )