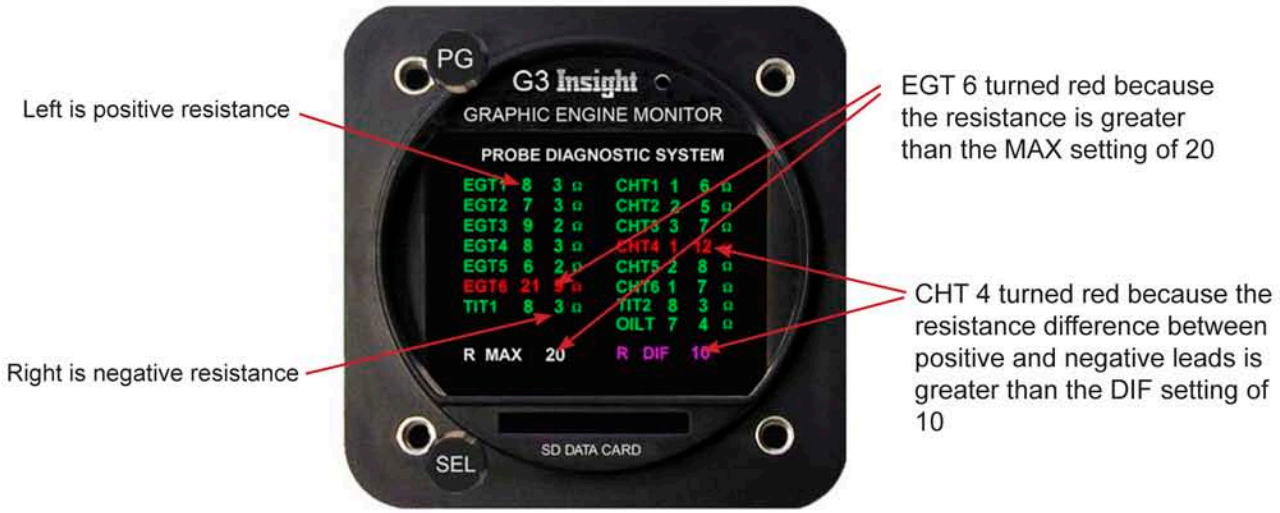
PROBE DIAGNOSTIC Screen



Typical single engine 8 foot harness display setting on G3 above.

The probe diagnosis page indications are in green for normal readings and red for readings that fail the criteria set at the bottom of the screen.

Each temperature probe consists of two wires, a positive lead and a negative lead. The two numbers next to each identifier show the resistance in Ohms of each lead.

For example, the line EGT1 8 3 means the positive lead of the EGT1 probe has 8 Ohms resistance, and the negative lead has 3 Ohms resistance.

When the probe is new, it will have relatively low resistance.

As the probe ages, it's resistance will slowly go up. Eventually, the probe will measure outside the pass/fail criteria you set at the bottom of the screen, and change from green to red, indicating that the probe should be replaced before it fails and leaves you with no temperature reading at all.

One other point to consider is that the longer the wiring to the probes, the higher its resistance.

Every foot of EGT wire adds 1.7 Ohms/ft for the + lead and 0.8 Ohms/ft for the - lead. Every foot of CHT wire adds 0.8 Ohms/ft for the + lead and 1.2 Ohms/ft for the 0 lead.

A 24 ft harness will fail the criteria that an 8 ft harness will pass with. That is why we allow the user to modify the pass/fail criteria on the bottom of the screen.

The meaning of the pass/fail criteria is as follows:

R MAX sets the maximum resistance (in Ohms) that any single lead may have. If the R MAX is set to 20 Ohms a probe with either the positive or negative leads measuring greater than 20 Ohms will be annunciated in RED, otherwise its displayed in GREEN.

R DIF sets the maximum resistance (in Ohms) that the positive lead may differ from the negative lead. If R DIF is set to 10 Ohms, the positive and negative leads need to measure within 10 Ohms of each other to be annunciated in GREEN, otherwise its RED.

Proper setting on G1234 with 8, 10, 14 foot harness should be	**R MAX 20**	**R DIF 10**
Proper setting on G1234 with 20, 24 foot harness should be	**R MAX 25**	**R DIF 15**
Proper setting on G1234 with 30, 35 foot harness should be	**R MAX 30**	**R DIF 20**