

Problem solved (Was: Transformer question)

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Thanks to everyone who replied to this. The problem has now been solved – intermittent fault in the probe lead. Grrrrr!!!!
New probe leads now give the correct readings.

<tnnurseNOUCE99-C4311E.14353225092004@singer.cent.gla.ac.uk>,
T N Nurse <tnnurseNOUCE99@hotmail.com> wrote:

> *I have a 50 watt valve amp which seems to have blown its
> output transformer. A new one is on order, but I was puzzled
> by some of the reading I got off it and wondered if someone
> could give an explanation. All the measurements were made
> with the transformer *_completely out of circuit_*, both primary
> and secondary.*
>
> *The transformer is from a push-pull standard guitar amp (Trace
> Elliot 50 watt combo, 2 EL34s) and one of the valves was glowing
> red hot before the fuse popped. Checking the bias voltages, I
> had around -46v on the grid of each of the EL34s, so that was
> a reasonable figure. I then removed the output transformer
> and did some resistance measurements on it. When measure from
> the centre tap to either of the primary outer connections, the
> reading was 69 ohms for each. But when I measured across the
> primary outer connections, instead of the expected 138 ohms,
> I got an open circuit. I rechecked it numerous times but with
> the same result. I even removed the cables from their connector
> and measure across the bare wires, but still the same result,
> 69 ohms from the centre tap to the outers, but open circuit
> between the outers.*
>
> *On the basis of these bizarre reading, I assumed the transformer
> is faulty and ordered a new one, but can anyone offer an
> explanation as to why I got such resistance readings? I have a
> vague recollection of similar results on a small 15 watt amp I
> repaired many years ago and replacing the transformer fixed it
> and it went on to give good service, but I would like to know
> what is actually going on. Anyone?*