



Heathkit TC-2P Tube Checker

Jan Buiting

I came across this gem in an unexpected place, namely a flea market for vintage motorcycle parts! Standing between heaps of pistons, wheels and engine parts, the owner claimed it was "some kind of electrical instrument" capable of testing "well, a lot of things I guess". When the small case was opened I immediately recognised a Heathkit tube tester that had definitely seen better days. Once I had intimated to the owner that I had no idea what the instrument was actually supposed to do, plus that it was ramshackle, grimy, grossly incomplete and so on, I paid 10 pounds, closed the lid and walked away in exuberance.

Rising damp

My TC-2P (build: approx. 1962) was badly affected by moisture, probably as a result of having been stored in a damp cellar for years. The control panel had large blots of what looked like calcium deposits. Fortunately, these were easy to remove by

first loosening them up with a soft toothbrush and then rubbing with just a touch of car wax. I purposely left one area untouched. All knobs and the moving coil meter were removed and the control panel lacquer soon appeared in all its former glory. On the inside, however, more serious problems were seen. The mains cord (110 VAC) had gone as crusty as cornflakes and was now a real hazard. The same for the tiny power on/off slide switch which was totally blocked by white stuff. All easy to clean and repair, however.

The most troublesome part was the moving-coil meter, of which the needle appeared to be stuck. On closer inspection I discovered that the meter's anchor/coil assembly (a wonder of precision assembly), had been eaten way by corrosion hence was beyond repair. An alternative was found in the use of another vintage 1-mA meter from which I removed the scale plate, replacing it with the still intact Heathkit plate with its delightfully simple **BAD - ? - GOOD** print. Having drilled four holes in the control panel I mounted the 'new' meter. It worked a treat.

The wheel-operated tube selection chart in Heathkit tube testers

is a notorious item because it is easily damaged by all too frequent as well as infrequent use! In my case, the part of the chart that had been horizontal for years had dried up and gone so rigid it was in danger of rupturing when I attempted to turn the wheel. The chart was disassembled; rolled off and on again; creases and a small tear were repaired. Today it can be turned again but not to the extremes. This problem was solved by downloading the chart from the Internet and referring to printed pages to find the various settings for a specific tube I want to test. This also allows me to use updates of the chart for later (post-1965) tube types.

Practical use

In the mid 1970s, a friend and fellow radio amateur occasionally allowed me to use his mighty TT-1 tube checker to see which tubes in my collection were still any good! As it turned out, precious few!

Working with a tube tester soon becomes second nature. Using the rolling chart, finding the pin-out codes and moving the controls and levers to match the tube you want to test needs to be done with care, else you get very strange

results when the TEST switch is finally pulled down! Most people will at least smile when I demonstrate the TC-2 testing the 'quality' of a couple of tubes plugged into the various sockets and then watching the meter indication — youngsters are bewildered if you test a large tube like the 807. The TC-2 Assembly and Operation Manual is a fine example of no-frills US-style instructions on kit assembly at home. I have no idea how many TC-2's were sold but the occasional look at Ebay USA tells me a genuine TC-2P is a rare find at the price I paid.

Anyone have a set of spare plastic caps for the lever switches?

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Web pointers

www.jogis-roehrenbude.de/Roehren-Geschichtliches/Roe-Pruefer/Heathkit-TC-2/Heath-TC-2.htm
<http://bama.sbc.edu/heath.htm>

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