



# Testing testing

**Neville Roberts** finds out how the valves in his system are holding up with this updated valve checker from Orange

**B**ack in 2014, I reviewed the Orange Amplification DIVO VT1000 Valve Tester (HFC 389) and was very impressed. This is a fully automatic and portable tester using an inbuilt processor to perform a very comprehensive range of tests (over 20, including mutual conductance) quickly and accurately at the press of a button or two.

The VT1000 was able to test most of the common preamp and driver valves, such as double triodes, power tetodes and output pentodes. However, directly heated power triodes were not supported, the MKII appear to correct this omission.

Like its predecessor, it requires no knowledge of valve theory and has just one octal and two nine-pin sockets to accommodate the different valve types. Simply insert the valve into the correct socket, select the type from a list with the up/down controls and press the 'OK' button to start the process. The list of valves is conveniently printed above a row of

15 LEDs, which are also used to show the relative gain or quality. For testing 300Bs and other valve types, including the EF86 pentode, the 6SN7 double triode and rectifier valves EZ80 and GZ34, an expansion module is available for an additional cost. This plugs into the power valve socket and contains the appropriate base for the valve to be tested. For this review, I use the MKII with a 300B expansion module.

The MKII has significantly enhanced algorithms in its internal processor compared with the VT1000 and has a much larger internal database of valve data. It has higher quality sockets and improved grid leakage detection, together with thermal runaway and digital microphony tests for preamp valves.

## Performance

I start by testing a 12AU7 double-triode indirectly heated valve from one of my monoblock amps. The whole set of tests takes about two minutes and the row of LEDs flash to

show the progress. The two halves of the valve are checked simultaneously, and when the tester has finished, it either displays the green 'Good' or amber 'Worn' LED, together with two matching numbers to show the relative gains of each half of the triode, or a single value that shows the two halves are perfectly matched. If the valve fails the tests, a red LED is illuminated and a number on the row of LEDs shows a code that is described in the supplied manual. I select the 12AU7 test using the left and right buttons and then press 'OK'. After a couple of minutes, I am pleased to see that the green 'Good' LED is illuminated, showing it has passed the tests, and a single LED above the number '13' is lit on a scale showing the relative gain and indicating that the two halves are perfectly matched.

Another new test with the MKII is the microphony test, which is suitable for double triodes. This involves the tester warming up the valve and measuring its outputs while the valve is tapped with a high-precision pencil, specifically provided for this purpose. If the valve is noisy, the LED lights flash when the valve is tapped to clearly show if there is a problem.

I then fit the 300B expansion module into the tester sockets and use it to test one of my Psvane 300B triodes by selecting the 'Expansion' option from the list of tests and pressing the 'OK' button. Two minutes later, a single LED is lit indicating a relative gain of '10', together with the 'Good' green LED showing that the valve has passed the test.

## DETAILS

**PRODUCT**  
Orange Valve Tester MKII

**ORIGIN**  
UK

**TYPE**  
Valve tester

**WEIGHT**  
340g

**DIMENSIONS**  
(WxHxD)  
110 x 60 x 55mm

### FEATURES

- Testable valves: EL34; 6CA7; 6L6; 6V6; 6V6GTA; KT66; KT77; KT88; KT120; 6550; 5881; EL84; 6BQ5; ECC81; 12AT7; ECC82; 12AU7; ECC83; 12AX7; 12BH7
- Expansion modules (£195 each): 3000B; 6SN7; EF86; EZ80; GZ34

**DISTRIBUTOR**  
Orange

**WEBSITE**  
orangeamps.com

## Conclusion

This is a first-rate and extremely comprehensive tester that is really easy to use. Together with the expansion modules it can check most of the valves that you're likely to encounter in your system and so is highly recommended for valve fans ●



## OUR VERDICT

### SOUND QUALITY

★★★★★

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**LIKE:** Easy to use with a comprehensive range of tests

**DISLIKE:** Nothing at the price

**WE SAY:** An essential piece of test equipment for any valve equipment connoisseur

### OVERALL

★★★★★