

EL84/6BQ5 Test Reports 1998

INTRODUCTION:

OBJECT OF THE TEST

To evaluate current production EL84 against New old Stock items in terms of sound quality and reliability. Thus enabling the working Musician to find the most suitable valves after testing in normal and the hardest situations.

EQUIPMENT USED

The tests were carried out in normal playing conditions using Vox amps.

The test carried out by Greg Fryer, myself and Brian May were to put the valves in the hardest of professional working situations. All valves used in the test were pre Selected to have the same plate current and transconductance. G.E and Mullard EL84 were used as a reference.

Test 1

The amplifiers used were: An original Vox A.C 10 Twin fitted Elac speakers And an original Vox A.C4.

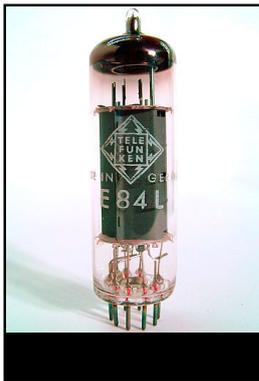
Guitars used were a 1973 Fender Stratocaster and 1980 Yamaha SA 2000S semi acoustic.

Test 2

The second test were carried out by Greg Fryer and Brian May at Brian's home in the summer of 1998 and in rehearsals in preparation for his 1998 world tour.

The Vox A.C30 were fitted with green backs, Vintage 30 and blue speakers and Brians Treble boost was employed. This work led to the development of our Full drive test rig

I would like to take this opportunity to thank Greg and Brian for all their input.



HOW WE TESTED:

EL84/ MULLARD

The Mullard excelled in my initial test and in the tests with Greg and Brian. They provided crisp ringing sustain and huge tight bottom end with clarity which sounded larger than life. This gave the impression of space and immense detail. It never seemed to lose control even when the treble boost was added. Indeed it seemed to get more punchy and dynamic. Bass, middle and treble were all in proportion. We all agreed this was a great valve.

EL84 S.T.R HARMA

This valve has always in my opinion got as close to the Mullard as you could go without buying a Mullard. Rich creamy mid with G.E style sound stage. The bottom end is tighter and deeper than the Sovteks. The valve under normal saturated conditions is always in control. The treble both sweet and clear. Greg and Brian liked these valves for the aggressive edge and musical tone under treble boosted conditions. The Harma S.T.R comes full drive tested and matched on A.C.gain.

EL84/SOVTEK

This is a current production valve which is used by many leading O.E.M including Laney & Peavey. Generally we find that this valve has around half the anode current of a Mullard and the gain is also a lot lower. Sound wise it is better and more reliable than the Chinese valves. In the regularly gigged amp we recommend

you buy two or three sets as they will wear out. It does not have a great deal of bass. When pushed hard tends to go muddy. A great valve for repairers and hobbyists.

EL84M/SOVTEK

The EL84M is a Russian military surplus which is of more robust construction than the standard item. With typical current draw of what we would expect for a military valve. In the amps this valve sounded fine with good balance. Midrange was more detailed than its cheaper relation. With normal drive units the valve sounded aggressive with deep bass. With Brians treble boost the midrange sound became very heavily compressed. This to my ear sounded awful with the green backs, got better with the vintage 30 and sounded aggressive and in your face with the blue speakers.

This sound did not have the refinement of the Mullard or Philips. It did push the solo right out which recessed the bass and top under heavy distortion. It did have a unique mid range honk that Greg and Brian loved. We can recommend this valve.

EL84/6BQ5 G.E U.S.A

The G.E valves have always been a favourite of mine and in the Vox amps showed all the virtues, gain, balance and huge sound. With the treble boost in place the middle thickened up the valve sounded heavy and crisp and did not lose definition. With Greg playing the famous queen runs the valve was extremely touch sensitive. This is a great valve and sounded superb in the Vox A.C.30.

EL84/6BQ5 PHILIPS E.C.G U.S.A

In my own tests this was my favourite EL84. The valve has plenty of bottom end. Sweet clean midrange and the top end brighter than the Mullard. When

pushed with a real tube driver , ibanez tube screamer or standard distortion unit the valve had quality and refinement. Cutting solos just on the edge of mayhem. Which reminds me of the awesome guitar sound of the pistols steve Jones at Finsbury park.

The treble response sweet and clear with plenty of definition.

When Greg introduced the treble boost the valve then did appear to go over the edge. The change happened in the mid range response which seemed to go wild. Please remember that the treble boost adds huge gain at line level and is selected for certain frequencies. This will not cause any musician a problem in any set up. Here we are dealing with a classic trademark sound therefore the Mullard, which excelled in this area got the vote.

We can thoroughly recommend this valve in all applications.

EL84/JJ TESLA

This valve was not part of the test with Greg and Brian. The sound quality is great. A cross between the bright sweet sound of the Philips with the balls of the Mullard. This is not as high gain as the S.T.R and will therefore gives a little more headroom . Nice rich overdrive sound with clear top end response. The balanced presentation make this an ideal choice.

CONCLUSION:

The Mullard was the valve that all three of us agreed was the best overall valve. The G.E also scored very well due to its' big sound stage. These two valves where both considered a true reference. Greg and Brian both liked the Harma S.T.R which in the test we called N.O.S European as we are not 100 % sure of its' origin. This was the closest in terms of tone to the Mullard and also the closest in terms of specification. This is a high gain valve like the Mullard.

The Philips EL84 was the best sounding

in the Vox as its' rich bright sound gave the amp a cleaner edge. When the treble boost applied the valve went into mega distortion. I loved this but the valve did not have the control of the Mullard.

The current production items we tried the JJ/Tesla sounded brighter and cleaner in normal operation than the Sovteks. Both of these valves showed good bass and treble response under normal distorted situations. In treble boost mode the Sovtek EL84M seemed to handle the punishment a little better.

They did sound muddy in comparison to the Mullards but they never lost control and balance seemed better than the JJ. The JJ seemed to go very middley.

Overall many good sounding reliable EL84 on the market which can suit all your playing situations.