ECC83,12AX7 Test Reports 1998-2002

INTRODUCTION:

OBJECT OF THE TEST

To establish the best sounding ECC83/12AX7 of both New Old Stock and current production variety.

EQUIPMENT USED

The amplifiers used were: 70 's Fender twin reverb fitted with J.B.L's. A 70's Fender twin reverb fitted with original Fender blue back speakers. A Mesa/Boogie mark 4 combo. Marshall 100 super lead into 4 x 12 cab. Fender Princeton reverb 2. Vox AC10 with Elac speakers

Guitars used where a 1973 Fender Stratocaster, 1980 Yamaha SA 2000S semi acoustic and a 1980 Gibson Les Paul Standard.

Audio tests were carried out using a Croft Micro Audiophile pre amp.

A Leak stereo 20 power amp trough Tannoy 15' super reds. The source was Thorens TD150 Grace & Supex & A.R. Legend, Linn arm & Denon Cartridge.

The tests were carried out to provide in real working and playing situations how the valves performed. The test rig use to select the valves prior to evaluation was our own custom designed unit click here for picture.

Valves were selected for low microphony, low noise and gain rated Click for more info

Mullard ECC83 & Mullard M8137 Box anode, R.C.A 7025 & Telefunken ECC83 Where used as the reference.

The test reports have been updated on 1st September 2000. We used the same equipment with the addition of a Fender pro junior and the same reference valves for evaluation. All the valves tested where selected to the same specification as our original test samples. The new valves tested where, The French Mazda 12AX7 military grey plates, The French Mazda 12AX7 military silver plates, The Tesla N.O.S E83CC/ECC803S Telefunken replica new old stock valves. The only new current production item being the Sovtek 12AX7LPS.

Update

The test reports have been updated to include the new current production valves that have come to the market place since our last tests which was concluded in September 2000.

The same audio equipment was used and the valves were all selected to be as close as possible on plate current and transconductance. We also used in addiction to our normal amps some Jensen equipped Fender pro.

I would thank all the people who helped in this review and as a collective group shall be known as the tone rangers.

The new valves which have come on the market since our last are as follows

ECC83 E.I Silver plate 2001 production

ECC83 E.I Grey plate 2002 production

ECC83 E.I.Elites

ECC83S JJ/TESLA 2002 production

ECC83-STR HARMA (Selected ECC83S)

12AX7 SVETLANA 2002 production Distributor selected

12AX7A-C RUBY SELECT new China production

12AX7 EH SOVTEK 2001 and 2002 production

12AX7 LPS SOVTEK 2000, 2001 & 2002 production

7025 HARMA

We decided in the spirit of acting fair that the HARMA STR ECC83 which is a selected low noise drive tested version of the JJ/Tesla ECC83S and the HARMA 7025 which is a selected low noise drive tested version of the Sovtek 12AX7 EH would not be included in these test reports.

HOW WE TESTED:

ECC83/12AX7 MAZDA GREY PLATE

A French military valve that is noted for it's Mullard Tone. In audio application these valves were detailed , lively and very balanced. Plenty of bass slam in these babies. In guitar amps these rocked. The valves are very high gain, yes more gain than the famous Mullard ECC83. The distorted tone was rich and fat . Treble response was clear even when really distorted. The valves were supremely quiet, however due to the immense gain special selected version would be needed if your amp has a cascading gain pre amp section.

ECC83/12AX7 MAZDA SILVER ANODE

A French military valve with special silver plates made for special application military use.In audio amps the valve displayed a slight treble forwardness. This gave the impression of less bottom end thump when compared to the Mazda grey plates. A Fantastic detailed performer the sound stage was big . The valve was again very quiet which shows how well made they are. The gain on these valves are somewhat less than the grey plates but still in the medium to high gain bracket.

This valve was amazing in Fenders. That sweet rich out of phase sound with a strat just jumped out of the speakers. The valve was more percussive than the siemens E83CC and with a sweet alnico speaker the guitar sung. It's compression was quite late giving bags of clean

headroom. For that sweet Fender tone these have no equal.

ECC83/E83CC/ECC803S TESLA

This valve was the Czech replica of the famous Telefunken ECC803S. The valve has the large "A" frame getter and thick grade glass which eliminates microphony. The valve also retains the gold pins and plate structure of the Telefunken. This valve is not the same as the new JJ/Tesla E83CC. The first thing that strikes you is that it is very quiet and the valve displayed no microphonics whatsoever. Beautiful on female vocal as it has a super midband, very fast and dynamic. We dug out our private stash of real Telefunken ECC803S and noticed that these were identical in every way including the sound (except for the diamond mark). The valve is not as high gain as the Mazda Grey or the RFT. Sonically this was excellent. Rich bottom end silky smooth treble and nice balanced. In Guitar amps the sound stage was big, no rings, no pops just your guitar. This valve seemed very neutral not colouring the sound in any way. When pushed into distortion the valve sounded rich with super late compression. This valve is super it just does what it is supposed to do nothing more nothing less.

ECC83/12AX7WA SOVTEK

Low to medium gain double triode with the same sound quality and less gain than the WB. When distorted did not have the detail or balance of n.o.s valves. The valve seemed to be pushing everything through the mid band. When pushed hard the sound compressed very early. Good for general repairs.

ECC83/12AX7WB SOVTEK

Low to medium gain double triode with low microphonics. Clear bright sound earlier distortion than WA. The valve lacked clarity and definition of new old stock valves. Same sound as WA however far better than the Chinese 12AX7. No snap crackle and pop.

ECC83/12AX7WB SILVER ANODE SOVTEK

This is the early silver anode WB as used by Groove tubes. Many of our customers tell us these have a better sound than the current production type. We found that they sounded identical to the current WB but we found generally that they had higher gain than the modern item. This resulted in the distortion happening a little earlier, therefore we found these to be a good choice for guitarist on a budget.

12AX7-EH SOVTEK 2001-2002 PRODUCTION - Updated Oct 2002

The original trade name for this was the WX and has now been in full production under the 12AX7 -EH designation. The valve is a short plate version of the L.P.S but Sovtek have cunningly given the valve an upper midrange kick which is not harsh but gives the the valve a crisp biting tone which I love.The valve does have a treble forwardness which gives old vintage amps more clarity but also sounds nice in Fenders for that big clean sound. The bass is fat and tight and the valve produces the goods over all styles of music. In A/C filament tests hum was eliminated by the use of a spiral filament. so no problems here. The EH has also done the most giging hours out of any of the tubes that we tested due to the fact that it was the first to be launched. It has passed these tests with flying colours. Consistancy was no problem as the valves performed well form each production batch. The Sovtek 12AX7-EH has all the hallmarks of a great valve. Low micrphoney, high gain and plenty of bite. The people at Sovtek have listened to their customers and produced a valve that has a distintive sound. The engineering is also solid and the design has proved very consistant. Sovtek also seem to have the funding to correctly develop a product and bring it to the market place in good shape. A shame Svetlana and E.I cannot do this. This is to put it simply a great sounding Valve.

ECC83/12AX7LPS SOVTEK

The new Sovtek 12AX7LPS valve is now in full scale production in Russia. The valve is of medium to high gain and has a special spiral filament. This filament greatly reduces hum when operated in amplifiers with AC heaters. This is certainly the best 12AX7 that Sovtek have come up with. On the plus side in audio you get more detail in the treble register. The valve is open and has very balanced presentation and importantly the valve has life and sparkle not muddy like the WA or WB. Over long periods the valve was easy on the ear again unlike the other Sovteks we have listened too. Bass response was fine, not as deep or thundering as the Mullard , Brimar or JJ/tesla but one could easily pick out the bass line. The minus points were on vocals as they were not as refined as the new old stock tubes. In Guitar amps we noticed that the level of microphonics were higher than the WB, This would be also be consistent with the higher gain of the tube. The valve gave a bright and clean sound but not as sharp as the G.E. When the valve distorted it retained it's control and sounded sweet. Overall this is a very good sounding valve that provided a good choice for audio or guitar.

12AX7-LPS SOVTEK 2000-2001 & 2002 - Updated Oct 2002

This was the forunner of the 12AX7EH and was the first valve by Sovtek to use the spiral filament. The valve has long plates which is a reminder of the old Mullard and Amperex valves of the late 1950's. The long plate did provide higher microphonics than the 12AX7-EH. This was far better than the E.I and Svetlana 12AX7A and had less background noise than the Ruby.The have also does not have the upper midrange kick of The 12AX7EH instead has a smoother more refined sound. This does result in a lack

of the bite and attack that the EH does have. So you have to decide whether this is a good thing or not. The valve did reproduce great clean sounds and worked very well in the Fender pro. Bass was as tight as the EH the plenty of bottom end warmth .This also gave a much flatter response and made this valve a better choice for audio circuits. Indeed the valve along with the JJ/Tesla ECC83S was the two best for audio and performed well in the Leak and Croft amplifiers.All the production items performed the same which was goods news as it shows that Sovtek have really go to grasp with quality control and consistancy. Overall a great valve which is highly recommended.

ECC83/12AX7 Sylvania

Classic American valve which was fitted by all the great 60's amplifier companies such as Ampeg, Fender & Gibson. This valve produces a rich warm sound with excellent balance. When distorted produces a fat sound with plenty of drive without loss in top end clarity. In the Fender amps the valve produced a clean bright response which was great for finger picking. Single coils sounded full with no harshness and plenty of detail. In the Boogie a sweet clean sound was easily attained which was crisp and clear. Once you rocked the Boogie the Sylvania valves produced a classic rock sound with a little mid forwardness which I liked. In the Boogie we found that due to the high gain nature of the amp low microphony selected valves produced the best results. Early 1960's production ideal choice for all vintage Fenders.

ECC83/12AX7WA Philips-JAN

American military low noise valve made in the famous Sylvania plant in emporium. It retains the classic warm solid sound of the early Sylvania but has less drive. This proved useful in the Boogie as the lower gain of the valve gave less microphonics. Mid range was very musical with all the clarity of the Sylvania.the bottom end was superb and in comparison to the Sylvania sounded a little tighter and better defined which was welcomed in the Marshall amps. The bass was not as deep as the Mullard but the Philips did have that instant British style tone. In the Fender amps all the tone that you would expect was there. This is a superb valve and an instant upgrade for all modern amps.

ECC83/12AX7WA G.E-JAN

This is a rugged American military spec valve of immense quality. This is the same valve that was standard in 70's Fenders. The G.E valve is famous for it's big crisp sound stage and bright top end response which breathes life into Fenders. This valve really supplied that authentic Fender twang. The valve was brighter than the other American valves and also worked really well in the vox by giving it a clearer top end response. When the valve distorts it has a rich harmonic feel and chime. Even under heavy Boogie distortion the bass and mid range detail was also superb. Thoroughly recommended.

ECC83/Mullard

The legendary British valve which is the most sought after ECC83/12ax7 type of all time. The key is the way the valve distorts. It reproduces exactly what is driven into it with great musicality. It combines smooth drive with balanced low microphonics. The Mullard reproduces every subtle detail with a rich sound stage. When overdriven the valve had a 3 d effect which made the valve really sing. This sounded amazing in the Boogie. The noise level even at full saturation were very low. The bass response has great kick without loss of definition. We came to the conclusion that this was going to be a hard act to follow.

ECC83/M8137 Mullard BOX ANODE

The special military grade Mullard is one of the lowest noise and distortion types ever built with a superb box style anode plate. Raved about by vacuum tube valley and quite rightly so. The sound stage is detailed and relaxed and it handles complex music with ease. If you want the best audio valve then this is it as it has less distortion than the standard ECC83 Mullard. The mid band is superb with vocal rich and clear. Now very rare and sought after. For audio, stamps on the Telefunken ECC83 and leaves it for dead.

ECC83/E83CC Siemens

Original German valve with extra mica support at the top of the valve and ribbed anode plate. Well balanced with large sound stage with low distortion. Relaxed and very detailed. The valve had a real percussive ability which was great for Fender style picking. Bass & treble where in correct proportion. The valve also had a superb mid band response which was not as detailed as the Mullard but crisper than the U.S valves. Superb in audio applications on acoustic or Spanish guitar as this gave the impression that the guitar was being played in the same room. Super in the noise department and was as quiet as the box anode Mullard. This valve can be highly recommended for audio or guitar.

ECC83/TELEFUNKEN

The classic German low noise ECC83 which provided a superb rich sound stage. The valve was electrically well balanced but did not have mid range honk or bite of the Mullard ECC83. The midrange detail of the m8137 also left the tele in the shade when we used it in an audio test. The valve shares all the Siemens strong points and does everything exceptionally well. Clarity is perfect with no fuzz or bass distortion. This is an all-time classic valve and has a very high regard in audio circles.

ECC83/R.F.T

German valve that I have seen also branded Brimar, Siemens & Telefunken.

This tube was also used for a long period by Marshall. The valve has a rich bass response with great drive. Very low in microphonics due to thick glass envelope. The valve also distorts earlier than the U.S.A types. The valve does show less treble response than the U.S.A types which lends the valve to be used in a more rock style set up. The rich harmonic distortion make this a great valve in Marshall. Boogie and Vox amps. It showed rich sustain with plenty of bass crunch. Mid range was clear and detailed. Defiantly for the rockers and blues players.

ECC83/CV4004 Brimar

British military spec with half flange anode. Instant British rock sound. Exceptional balance and sound staging with great drive. Has not good the rich harmonic distortion or the unique 3d effect of the Mullard and under full distortion does not appear to have the same bite. The presentation is relaxed and musical which all the new ECC83 types do not match. It does everything it should do excellently.

ECC83/TUNGSRAM

Hungarian valve which is identical in construction to the Mullard. It has additional internal supports which greatly reduces microphonics. Good balance with clean top end response. The valve sounded vibrant in the Fenders and was low in noise. This is very important in old Marshall if you want to make the amp cut through by increasing the presence control setting without all that hiss. The Tungstram does need around 48 hours run in to get the best out of it. The valve had more headroom than the R.F.T. and was as quiet as the Mullards.

ECC83/12AX7 CHINESE

This valve tended to be fitted by all the major amp manufactures when it was in production. On the plus side the valves have good gain and low microphonics, which suited the Boogie and the Marshall amps . The drawback is its complete lack of tone. This gave the wasp in a jam jar trade mark sounds. The treble was fizzy and the bass response gave a hazy distortion. The music sounded like a vale was placed in front of the speaker. The valves also after small amounts of gigging tended to sound harsh and brittle. Therefore we do not recommend this type.

12AX7A-C RUBY SELECT - Updated Oct 2002

This is a new production valve which is made on refurbished machinery that was used by the Bejing factory that manufactured the old Chinese valve up until the early 90's. Ruby claim to have bought the machinery and designs and have the valves produced under contract. Indeed we have bought some of the same product from a trade source. These were poor in terms of microphonics. So we decided to try the Ruby select as we have tried the Svetlana Selected and The E.I Elites which were both supposed to be selected valves as this seemed fair. I never liked the old Chinese 12AX7 as I felt it sounded hard and harsh due to a vey steep upper midrange peak in the frequncey response . Reliabilty was also an issue as the batches sufferd from microphonics and inconsistancey. The valve did have a number of followers who always felt that it had good crunch tone. This is why it was fitted by Mesa Boogie, Marshall, Fender and many other name manufactures. So I was very interested and sceptical when I tried the new Chinese product with The Ruby branding.

The first thing that really struck me was the gain This valve has bags of it. The nasal upper midrange peak which dominated the old Chinese 12AX7 was not as harsh or as bright. The midrange still does have a kick but in all samples tested sounded smoother and flatter when compared to the old product. This kick is only a bad thing when it gives that brittle metalic sound The Ruby did not display this negative trait. The bass was nice and tight with no marked difference over the old Chinese product. The valve was also low in the microphonics and better than the Svetlana and E.I valves by a mile.

The Valve did have a lot of background hiss due to the very high gain. The E.I , Ruby and Sovtek E.H were the highest gain valves Tested(The Harma S.T.R 7025 is a very high gain but is selected for this purpose so It would unfair to comment here on this valve). The Sovtek EH did peform better than the Ruby 12AX7A-C in this respect with the E.I c

CONCLUSION:

The first thing I will say is that under these tests the unanimous conclusion was that the new old stock valves offer better sound quality than the current production types. The second thing is that tonality is in the ears of the listener and you may find that a current production item has exactly what you are looking for. So try as many valves as you can until you find the sound you are looking for.

Guitar valves

The Mullard ECC83 was the clear winner as its own superb character shone through. Detail, sustain and perfect balance where second to none but what won the day was its' superb 3 d distortion character which not even the Mazda grey plate could match.

The runner up was a very close race. The RFT had a great rock tone and Mullard style gain. The valve could be made to distort very easily and was really at home in the Marshall and Boogie amps. This is ideal for the rock player as bass crunch is there in abundance. The Tungstram was also close. This valve had detail, balance and large sound staging. This was a good all round valve with less balls than the Mullard or the R.F.T. The R.F.T & Tungstram are exceptional valves and

will work well in any situation.

The Siemens E83CC was the runner up in our last test report up by virtue of its percussive nature in the top register. Some people thought this was due to its treble forwardness. The silver anode Mazda was definitely better for finger picking as it seemed to jump out of the Fender amp and demand attention. The Siemens still retains that position as it was a better balanced valve for audio use.

The Tesla E83CC/ECC803S was the best all rounder as it is very well made and it will let the music sing through with no additions. The valve had detail, balance and finesse. The valve is are rare as the Telefunken and for use in valve microphones is a dream as super low noise.

The Mazda 12AX7 grey plate are Mullards on hyper drive. Mass gain, this is the most powerful valve in terms of output we have ever measured. It is a great rock valve but just does not have the Mullards unique distortion character or freedom from microphonics. Superb in vintage amps were you need a little more bite.

The G.E where considered to the most American sounding due to its bright nature. I love the sound stage and crisp distortion of this valve and it is certainly a great all round valve with low microphony.

The Sylvania and Philips valves all showed a similar sound quality. The Sylvania valves where of higher gain and higher drive than the Philips. This would led to if the valves where unselected to microphony in critical driver positions. The Philips seemed to be tighter in the bass area but retains the classic mid band warmth. This I love and I must say it really sounds good in Fender amp.

The Brimar CV4004 is a classic British sounding valve. Refined and well balanced and does every thing it should very well. The valve is not aggressive as the Mullard, G.E. or the R.F.T.

The current production items in terms or pure sound quality the Tesla JJ and the New Sovtek 12AX7 LPs are top of the bunch. The E.I valves also sound good but are just so appalling in the microphony department that in our opinion it is unusable in guitar amp. Many dealers advertise these as tested and low noise. They may be low noise compared to each other but I have never found any that are true low noise low microphony when compared to a Mullard, Siemens, Telefunken & Brimar.

The current Tesla JJ valves are higher gain than the early production years and are used heavily by Groove tubes & Mesa Boogie. The valve generally has a good rich sound with a forward presentation. When pushed really hard the valve can sound a little rough around the edges. The valve has less top end sparkle than some of the new old stock tubes but has plenty of bite. The audio boys may look for a brighter top but this is the best sounding current production ECC83/12AX7 for rock guitar around.

The Sovtek valves are certainly low on microphonics. This is why they are used by more o.e.m than any other valve. The WB and LPs are the best for guitar. The LPs seems to be cleaner and sharper than the other Sovteks. What you lose in low microphonics you get back double in terms of gain. This provides more crunch , more dive and more musical than any other Sovtek before.

The Sovteks do tend to suffer from a little mid range fuzz when pushed and lack the mid range detail of N.O.S valves. The LPs goes a long way to redress the balance. They offer exception valve for money and are available in quantity.

Audio valves

Here we are looking for the ultimate detail, fast dynamics and musical involvement. One valve has it all.

The winner is the Mullard M8137 box anode. This simply sounded more involving and musical than the Telefunken or the Siemens. The Mullard ECC83 was also close and is a testament to how well made the Mullards are.

The Mullard just had the most detailed mid band with close mic work easily heard through the speakers. The German valves were all very neutral as was the Tesla E83CC/ECC803S New old stock. The R.F.T just lacking the top end richness and sharpness and bottom end clarity of its' West German cousins. The M8137 showed less distortion than The Mullard ECC83. Both these valves had that bit more detail in the midrange which makes them stand out from the pack.

Two dark horses both of which made late claims to get into the ratings.

The G.E 5751 is simply a superb valve which showed all the G.E character but with lower distortion levels than the G.E 12AX7.

This I feel is next audio valve which a few years from now will get more and more sought after and more expensive. The valve was specially balanced for identical triode section and has a lower amplification factor (70 mu) when compared to a ECC83/12AX7 (100 mu). The valve had a musical and pleasing sound.

The Mazda grey anode and silver anode are fantastic sounding audio valves. The silver plate is a more musical more detailed G.E type sound. It also seems to handle any music with authority. The grey plate is The Mullard ECC83 before they came of age.

Not Quite the Mullard but very close.

The Tungstram is a superbly rich and musical valve . The valve is low noise and has a very sweet treble. Which is full of depth and definition.

Well there you have it our exhaustive tests and re evaluation which took the best part of six month. We then did the process again over 3 months from April to August 2000 as the Mazda, Tesla and Sovteks needed to be included. These are meant as a guide to point you in the right direction. The simply rule to remember is that all the valves do sound different and it may the least expensive valve that meets your needs. Once you have found your preference always get some spares because in life three things are certain, death, taxes and N.O.S valves will dry up.

Happy listening

Derek Rocco.

September 2000

ECC83 CURRENT PRODUCTION TEST REPORTS CONCLUSION
OCTOBER 2002

Well the results were not as we expected with the real stars in the guitar amps being the SOVTEK 12AX7-EH, JJ/TESLA ECC83S and RUBY 12AX7A-C. The also rans being the E.I & SVETLANA The good news is that the gulf between NEW OLD STOCK and CURRENT PRODUCTION ITEMS has closed. The downside is that unless Svetlana and E.I gear up and improve production then these two items will not survive and we will have less choice.

The SOVTEK 12AX7 EH and RUBY 12AX7A-C are both suited to hard rock/metal. The Sovtek has more bite and more aggression With more treble response than any other valve tested. Chords sounded thick and the bass response was tight. The only downside with this is that a lot of American custom built amps seem to have to much treble response and the Sovtek will make it sound bright. Under full distortion the Sovtek maintained its character and did not go ragged or lose control. The bright punch remained and in the Marshall super leads gave the amp more top end clarity. In Fenders it provided that bell like chime that the Ruby did not possess. In the regular Marshall Boogies Fenders the Sovtek 12AX7 EH sounded great and would be my choice.

The RUBY 12AX7A-C was the joker in the pack and the results that we found were not as expected. The even soundstage and tight presentation makes this a great metal tube. The tube has Immense gain but sounds a lot more compressed than the SOVTEK EH. The Valve has also lost that prickly spike that I hated about the old Chinese product. The SOVTEK EH had more treble attack but again this maybe a
good thing or not depending on what you want from the amp. This tight response made this an ideal metal valve and for those classic rock riffs the valve sounded great in old Marshall super leads. The old crunch sound which a lot of people liked and which they put up with the upper mid harshness was
still there just without the hardness.
Under full distortion the valve started to compress a little more which made it sound the tightest of the group. It did lose some of the clarity and definition that it had when not fully saturated.The valve did not have that bell like clarity that I always look for this is possibly down to the compression when over driven. The Valve displayed more background noise than the SOVTEK EH. This was no more than measured previous Chinese valves but if it is going to bother you then do not buy the this valve.
This I feel is an important new valve that gives players another option so therefore we have decided to stock the Ruby. If Ruby can select out the poor valves and supply us with consistent quality then I do not foreseen any problems.

The JJ/TESLA ECC83S was a vast improvement over the old ECC83 and was the most neutral sounding
of all the valves on test. This sounded tight and together and was very well balanced. The bass was deep but it did not appear as tight as the Sovtek or Ruby. The valve appeared more laid back and under full distortion still had a clear tone. The valve worked well with all styles of music particularly Blues and Country. It also can be used to tame down hard sounding amps. So If you need every last drop of gain from your amp you will need to look at the SOVTEK EH, 7025 HARMA or the RUBY . This is an excellent
valve that provides a clear tone ideal were versatility is the main requirement.

The ECC83 E.I grey plate and Elites were a big disappointment because the valve does sound good.
On the positive side the tone is big and rich with a nice ringing sustain. The problem is that too many are microphonic and too many go microphonic very quickly. So if you wish to try this check the dealer warranty conditions on this valve particularly and buy from someone who is prepared to offer some safe guard against problems. I could not offer any warranty on the E.I valves as too many fail our microphonics test. So currently we could not give any warranty on the microphonics so will not stock this valve currently.

The SVETLANA 12AX7 was the valve that I put my money on to be the best of the group but I lost my wager. The consistency is very poor as the valves varied quite considerably on selected items. The low level microphonics is a

problem and this should be not be an issue from a factory with Svetlana reputation. The main backer of the Svetlana Factory R G INTERNATIONAL has WITHDRAWN ITS SUPPORT so this does give rise to a uncertain future and funding to correctly develop this tube. The big shame is that for warmth and smoothness the JJ/ECC83S is better. In the gain stakes it is blown away by
the the SOVTEK EH and RUBY. In writing this I want this product to be improved and offer something different so It has a future and we as customers have more choice. So when this valve has been improved let me know about it and I will review it and stock it if these problems can be over come. Until them I cannot recommend it

The SOVTEK LPs is a strong contender as it has a smooth mid range response. It is full sounding and has less brightness than The EH . The valve is not as refined in the mids as the JJ/TESLA but is a little tighter in the bass.The SOVTEK LPs is higher in microphonics than the JJ so for me this is
why the JJ/ECC83S gets my vote in the guitar amps. In the audio tests the two clear contenders were the SOVTEK LPs and the JJ/TESLA ECC83S.
These valves were more refinded and musical than the other valves tested. I feel that the choice of valve will depend on the system. The SOVTEK has tighter bass and the JJ/TESLA has the most mid detail.
As microphonics was not an issue the SVETLANA did put in a credible performance. It was not as clear as the The SOVTEK or JJ and did not have the same dynamic response. The E.I gave the biggest sound stage and sounded good on rock music but was not a detailed as the the JJ or SOVTEK LPs This was the most noticeable on female vocal and strings.

The best two guitar valves did not perform well in the audio stakes. The RUBY suffered from background noise which I felt was annoying whist listening to quiet musical passages. The compression of the valve did not really let the music be as dynamic as I would have liked and all the other valves out performed it in this department. The EH faired better but is really a guitar tube due to the upper mid kick. The LPs and JJ simply performed better.

So Since our last tests concluded in September 2000 these new valves show the commitment of factories to produce a product that forms the backbone of the music industry. So as we see the price of NOS valves increasing and availability declining it is great to have so many new products to review
in the space of 2 Years.

Keep up the good work

Derek Rocco

November 2002