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834P phono stage

Primyl Vinyl, Vol. 2 #6 (November/December 1997)

by Bruce Kinch

This, straight away, is a bargain. Tim de Paravicini, the head honcho and designer of all things EAR (formerly Esoteric Audio Research), has for many years been regarded among the UK's foremost tube gurus. He also has had a long-term involvement with analog recording - everything from designing custom microphones to actually mastering LPs. In the EAR 834P we have a product that clearly benefits from those experiences. In absolute terms it isn't cheap (\$895 basic black, \$1195 chrome), but that's relatively inexpensive for the audiophile phono stage category - and it's a bloody import too!

Tube phono circuits are inherently constrained by a thermionic device's noise floor - the "tube rush" one hears when the volume is turned up - and which limits the phono gain to some 40 odd dB, what with RIAA EQ and all. That's plenty for the relatively high output of "moving magnet" cartridges, but inadequate for the much lower output of the typical "moving coil" pickups favored by many audiophiles. Therefore the engineers designing a phono stage are faced with the dilemma of increasing the gain without compromising the sound. Adding an additional tube gain stage can exacerbate the noise problem, so some develop "hybrid" designs, typically using a solid state input stage to amplify the low voltage output before sending it to the tube section, thus improving the S/N ratio. But there is another way, for while the MC cartridge's voltage output is low, the current is surprisingly high. This means a transformer can be used, trading some of that current for voltage gain, and keeping the noise level low. The problem, of course, is that you need a very good transformer. Audiophiles have been arguing the relative merits of transformers vs. active gain stages for years, some finding the transformer more natural sounding, others finding it limiting dynamics or bandwidth.

While several companies (notably Ortofon) have offered outboard transformers as MC step-up devices, EAR is unusual in incorporating them within the unit itself, and this choice seems crucial to the design's performance/price ratio. The unit is small (5"x9"x3.5"), light (around 7 lbs.), and the circuitry is relatively simple: the power supply only has to support the main gain section, and the MC trannies can be simply switched out when MM cartridges are employed. That is not to suggest the power supply is inadequate - the circuit board is essentially split in two (and shielded) from front to back, and the power supply, toroidal transformer and all, takes up half the interior space. On the other side is the audio circuitry, employing three 12AX7 dual triodes (or equivalent) and the step-up transformers, housed in small metal cans almost the size of marshmallows. Component quality seems very good but not boutique; the input/output jacks are gold plated, and the AC cord is standard IEC detachable. The basic black version I auditioned has two front panel controls: a "knob" which is actually an on/off switch, and an Alps pot which allows the user to match the unit's output level to other sources-or drive a power amplifier directly in dedicated analog systems, i.e., without an intermediary preamp. The more expensive, chrome plated version is functionally identical except that the level control is omitted. The black model is also available without level control, for those who use a preamp and wish to avoid having an extra volume pot in the signal path. The MM/MC switch is located on the back panel, between the RCA in/out jacks. There is no provision for balanced connections, or for changing cartridge loading (47Kohms) or capacitance. The relatively compact chassis gives the EAR extra flexibility in placement. In many systems it can be situated adjacent to the turntable, keeping cabling losses to a minimum.

I first used the EAR in MM mode, with the Grado Reference Platinum on the Well Tempered. This little guy puts out a big sound, notably dynamic, with excellent rhythmic punch and drive on rock and jazz. On classical material, it sounded a bit dark and unsubtle, but promising. Stock tubes are either EI (Yugoslavia) or Edicron (the English importer for EI). Time out for tube-rolling, I figured. Sure enough, things opened up a bit with a set of UK Gold Aero MC Phono 12AX7As, but sonics were still a bit threadbare through the upper mids. Swapping those for the readily available Sovtek 12AX7WBs was a major improvement, with much more air and articulation at HF. I was quite happy with the Sovteks, but the field was swept by a set of NOS Telefunken (not the first time that has happened). The sound field was markedly richer, fuller, and natural. Nothing like playing 50s recordings with 50s tubes.

Thus encouraged, I decided to try changing the power cord. I plug any phono stage into an isolated tap of a Power Wedge line conditioner on general principles - RFI and AC grunge can be a problem when you're

talking upwards of 70 dB gain. But sure enough, a filtered and shielded AC cord (I had the JPS Labs version in for evaluation) brought a bit more refinement. Time to switch over to the van den Hul MC-10 Special and engage the transformers, Scottie. The differences between the two setups were obvious through the EAR, but the overall sonic portrayal was essentially retained. I was not aware of any significant reduction of dynamics or tonal aberrations that would point a finger at the transformers, but perhaps the presentation was a bit more "civilized". The sound was silky, detailed, and enticing; staging was very good on depth, but not quite as wide a panorama as perhaps could be. But I quibble. The bottom line here, I feel, is to go for the basic black model and put the difference into better tubes and cables if you can. For reasonable money, you get a true high-end designer original, and a major payback on playback.

Hi-Fi News & Record Review, June 1994

A Real Earful

by Ken Kessler

Maybe, just maybe there is an 'analogue revival' underway, and the arrival of one of the biggest bargains in vinyl playback history isn't a fluke. On top of the latest edition of the Michell GyroDec and power supply, a new (affordable) Grado Signature cartridge, the latest version of Lyra's Lydian moving-coil, the MC Kinnie R03 head-amp from Switzerland and Mobile Fidelity's return to vinyl LP manufacture, Esoteric Audio Research has launched a phono amp for the impoverished. And not only is it ludicrously inexpensive, it's also all-valve. Best news of all? If you're one of those die-hards operating a vinyl-only system, it's available with a volume control, to serve as a one-input pre-amp. But that's jumping the gun.

Called the EAR 834P, this device is as basic as it gets- Tim de Paravicini has said that the secret to good design is not using the most expensive parts for a given goal, but to achieve it with the most cost-effective parts. In other words, the 834P is wholly utilitarian and to hell with the aesthetics and designer-name bits. What it does, too, is contrast nicely with EAR's top-of-the-line, ultra-luxo Yoshino, showing the extent of Tim's versatility.

The 834P is, quite literally, a black box. Measuring 95mm tall including the feet, 124mm wide and 275mm deep including knobs and socketry, the 834P is small enough to reside next to an existing pre-amp without the sacrifice of much additional shelf space. To relieve the blackness of the front panel, there's a rotary on-off control and, if so ordered, a rotary volume control, along with legends in gold paint. The back contains a fuse

holder, IEC mains input, a multi-way earthing post, gold-plated sockets for phono in/out and a press button for m-c or m-m cartridges.

Inside, it's tidy but not bursting with bits; this is a basic design conceived with an eye to cost and simplicity. Three ECC83s make up the valve complement, the unregulated power supply features a small but good-quality toroidal transformer, and the components reside on a main PCB. Output is line level, the m-m input is a standard 47k-ohm and the m-c setting is spec'd at a nominal 5-50ohm impedance, adding a useful 20dB of gain. In the interests of quietness, m-c gain is via transformers.

Most important is the price. If you want to feed this into an existing line input, you can save on the cost of the volume and leave the hi-fi shop a meager 209 poorer. But for 310, you get the volume control as well. My review sample was supplied with volume control so I could try it directly into the power amps; I therefore cannot comment on whether or not there's a sonic difference between the with-or-without versions. Suffice to say, the 834P sounded better when not encumbered by a second pre-amp in the circuit, so I used it straight into a number of single-ended power amps as well as into the GRAAF, Krell KRC and Linn Kairn pre-amps. One other thing: it's worth the extra 30 for the volume-control option (even if you have no intention of directly driving a power amp) because it's handy for matching playback levels between phono and other source inputs.

While the EAR in m-c mode would just about handle the signal from the low-output Transfiguration cartridge, I found it better to stick with medium output types. Denons and Lyras in particular worked very well with it. Depending on your own cartridge and the gain characteristics of your pre-amp or integrated, you might prefer to leave the EAR on m-m setting, the 47k-ohm input being a shade quieter and more open. (This, for younger readers, is the kind of stuff we used to write about all the time, when controversy meant "Should I or should I not use a step-up with my m-c cartridge?" Which led, of course, to a whole generation of cartridge designers producing m-cs which worked straight into m-m inputs.)

So how did it sound? In a word: Wonderful. As with all tube bargains - budget Crofts, some kits, vintage stuff - there's a certain price to pay in absolute detail and background silence. The 834P, though, swings so fluidly and has such wide dynamics that you just don't notice the barely audible background hash. Hell, most surface whoosh is so much louder than the 834P's own noise that the LP will mask it.

What distinguishes the 834P from solid-state phono stages is the sense of openness, scale and three-dimensionality. While it's easy to better the retrieval of detail - this is no Gryphon, no MC Kinnie - it's hard to match the

warmth and the 'analogueness' of the 834P. It's a great soundstager, a strong defender of the analogue argument and (for those who cherish this one aspect of playback above others) the source of some of the sweetest bass I've heard in years. As for vocals, all I can do is s-i-g-h-h-h. [E-h-h-h? – Ed.]

And you know what else this gem does? It answers an old prayer of mine, filling in perfectly for the late, lamented Moscode SuperIt all-tube phono amp, right down to the pocket money price tag. But be prepared to wait for an 834P. I reckon demand could outstrip supply once the word is out.

Positive Feedback, Vol. 7 #1

Highly Biased Output

by Jennifer E. Crock

THE E.A.R. 834P: ONE HECK OF A PHONO STAGE

Nope, I'm not done yet! Every once in a while a real audio gem comes along that represents a really good sound value. Sometimes when I discover such a product I go beyond the usual expectation of purchasing one for my own system. Being in the audio manufacturing business, as opposed to the audio reviewing business, I have a number of my own dealers and a few retail customers with whom I share products of merit. This is only a small part of JENA LABS business, but because it does generate some profit, I want you, the gentle reader, to know about the whole situation and not come back later screaming that I used my position with Positive Feedback to blatantly sell goods. 'Nuff said.

Last year I was introduced to a product through the PF review process that I liked so well that I became a dealer for it. Not only that, I introduced it to two of our cable dealers who have themselves now become authorized outlets for this product. Well, what, says you, is the product? The E.A.R. model 834P and 834P w/level RIAA phono stage preamp.

If you have a CD only system, are satisfied with the sound and the format, go ahead and turn the page. I'll see you over in the Taddeo Digital Antidote 11 review. But if you have a vinyl front end, or are interested in adding one, you might want to read on.

The 834P is robustly built black box a little bigger than a brick. It provides gain and RIAA compensation for either low output MC type cartridges or higher output MM type. Three 12AX7A tubes do the voltage gain, and an honest to goodness real audio input transformer is used in the MC position

to provide low noise matching for the low output associated with this family of cartridge. As implied above, a version of this device can be had which incorporates a built in volume control.

Now, to be honest, the unit without the volume control is a just a little bit better overall, due to expected potentiometer coloration, but the prospect of doing away with normal pre-amp altogether might raise an eyebrow or two. The audio circuits are the same in both versions, so no difference is found outside of the dual section stereo volume pot and its short internal hook up wires. Power enters by the usual IEC socket, and is converted to useable voltage in a low stray field toroidal power transformer. A high quality PC board holds the balance of the parts. RCA jacks are of the molded plastic frame variety that mount directly to the PC board. A small rotary switch on the front panel turns the unit on and off. On the version with volume control, an additional front panel knob is found. From turn on, it will begin operation in about 20 seconds, without any clicks or thumps, but if started from cold it should be left for a few minutes of warm up to fully stabilize before playing music. It really blooms after about an hour. I just leave mine running all the time.

The 834P, like other E.A.R. products is designed by Tim de Paravicini. I have had the pleasure of meeting Tim and really enjoyed talking engineering with him. Audio is a field where almost anybody can throw a few parts together and be in business. This simple act does NOT, however, make them a qualified designer. Rest assured that Tim absolutely does NOT fall into this semi-amateur category. He combines an excellent solid traditional engineering comprehension and plenty of creativity with the good judgment needed to design high value and highly reliable products. This is a rare professional blend, indeed! In addition to home stereo electronics, Mr. de Paravicini also designs and manufactures a complete range of recording electronics which have earned a reputation around the world as being just about the best there is. You may recall that the Water Lily Acoustics recordings which I have highly praised in the pages of this magazine were recorded on equipment built by E.A.R.

A CHARACTER WITH BALANCE

Well, so much for the small talk. You want to know, "how does it sound?" In a word, neutral. Very quiet. Very dynamic. Very dimensional. This is not a device that will shout out to you and say "tubes are in me". It has none of the classic soft tubby and over rich character typical of older, or less expensive modern tube designs. It is solid and firm in the lows and very fast in the top. The mids are liquid and emotional. The frequency spectrum and dynamic expression work in harmony, with no one aspect of the sound standing out as better than the other parts. Conversely, nothing is obviously lacking either. This is one sonically well balanced design!

The synth and cymbals on Lori Anderson's *Sharkey's Day* are hot and really tingly, but never to the point of fatigue. This indicates speed and bandwidth without transient ringing and overload. The hall space on Proprius Label's famous *Contate Domino* is well defined and large. Reverb seems to go on forever and those palpable voices... they just appear from space and demand that you believe. Rough Trade, *For Those who Think Young*, is an interesting album in that on some otherwise pretty good systems it can sound almost flat and 2 dimensional. A really good phono pickup helps with this record, but if the phono stage is in the least bit lacking you never hear the space and dynamics that are hidden. Note that the E.A.R. pulls almost as much space and rolling bass slam out of this disc as does my Vacuum State Research reference preamp - and one of those (custom built all the way, believe me!) would set you back about 30 grand! Vocals are smooth and well placed in space, if recorded well. It even works with both male and female voice, rendering either with a flair. K.D. Lang's "Save Me" on *Ingenue* and Eddie Arnold's "Cool Water" on *Cattle Call* bring tears to my eyes.

Lesser equipment just puts the tunes in the room. This one moves me.

FINE TUNING WITH TUBES

I have seen the 834P shipped with two different brands of tubes. Direct sonic comparison of the two standard varieties reveals only trivial differences, so you need not worry about what brand of tube will arrive in your 834P.

One of the pleasures of owning tube gear is to enhance performance or fine tune the sonic signature by the process of installing specific tubes of known character. Changing the generic tubes to an expensive premium graded variety such as offered by Gold Aero, or installing a set of your favorite NOS brand offers you an easy method of both tuning the basically neutral character of the 834P and expanding on its already abundant sonic virtues.

In my own unit, I am using Gold Aero Platinum grade, Chinese origin tubes, about 1989 vintage, These are the ones with the large silvery colored getter on the side of each plate. These tubes are fast and detailed. They present an incisive soundstage with really excellent localization queues. Bass is rock solid and free of flab or tub. Mids are precise, and topped by nimble highs. The extremely rare Siemens 12AX7A of the 1970s have a similar sound, and are my true favorite, but good luck finding enough of them to weed out the also-rans. One of my customers is using Telefunken diamond bottom tubes in his 834P. These tubes are legendary for their warm and

comfortable treatment of the music. While not as precise in the localization of the soundstage, the music will seem to have a more 'wrap around' or enveloping character. Fatigue from this tube is zero, but there is no real tradeoff in lack of high frequency resolving power. Tubes of this sonic family are the ones to choose if your system has just a tad bit of bright, but you wish to lose nothing in the cure.

I've listened to 834P in direct comparison to several other commercially produced phono stages, some in its own price range of about a thousand dollars, and others up to about twice its price. While not an exhaustive survey of all available phono stages, the 834P easily bested every unit in this price range of those auditioned. These comparisons were not just done at my home, but at several locations in systems of widely varying basic nature. The 834P shined brightly in every application. This direct experience of hearing the 834P in systems with tube and transistor amps, and all types of speakers including electrostatic, planer magnetic, and dynamic cone, leads me conclude that it is basically right, and not dependent on the coloration of some other piece of the audio chain to correct an inherent error.

Is it as good as some of the really high buck gear from say Audio Research, or perhaps some of John Curl's expensive phono stages? Well, not really. But it will stun you how close it comes! For the price of one of these really high end phono stages you can buy the 834P, put in some killer tubes, get yourself a Benz Glider and mount it up to any of the several really good arm/table combinations now on the market and hey, there you are! Great vinyl system for about three or three and a half grand!

Both of the versions of the 834P discussed here currently sell for \$895.00. Just released is a version of the 834P that has a very thick polished chrome front panel that cosmetically matches some of the other E.A.R. equipment. The phono stage so equipped will carry a price of \$1,195.00.

E.A.R. also has a line stage pre-amp. Though it has been out a few years, I have not yet heard it. I have made arrangements to audition one in the near future, and will let you know what I hear when I hear it. Based on my experience with the 834P and the great price/performance value it represents, I have high expectations for this line stage.

SUMMARY

You can read both the lines and between the lines on this. It's no secret, I believe the 834P to be the phono stage steal of the decade. Did I mention that its made in England? The importer, Dan Meinwald, will be glad to give you a dealer list, and to also tell you about the other E.A.R. products.

Other reviews:

SoundStage, April 1998 <http://www.sstage.com/revequip/tony02.htm>

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