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## Quad 33 and 303 pre/power amplifiers

Author: Jochen Reinecke Photography: Rolf Winter

### Three wins

**They can be played by two or three: the Quad 33/303, reissued after 57 years (!).**

**And they were able to convince three very strict critics in the test.**

**Report on an experience of the third kind.**

As a typist in the hi-fi guild, there are some subjects you particularly look forward to. For example, when it comes to devices that you could only dream of as a teenager. My piano teacher, who was the cantor of our church congregation in his main job and fully lived up to the cliché of the hi-fi freak (full beard, huge glasses, pipe with stinky tobacco), owned the original versions of the Quad 33/303 in addition to a Tandberg tape machine and a Thorens record player - and even as a pupil I was fascinated by the sound of these devices, but also by their unusual appearance. Back then, my teacher would occasionally play Beethoven's piano sonatas and J.S. Bach's English suites on his system, which I was practicing so that I could learn how to play them correctly. And even back then I could already feel, listening devoutly, that the quality of the teacher's hi-fi set-up was completely different from my parents' ugly Uni- versum compact system from the Quelle catalog.

Now the brand new pre-end station wagon from Quad is available in the Full expansion at my home. Full configuration means that the 303 power amplifier - unlike its predecessor - can be used in both mono and





can be operated in stereo mode. *Image hifi* me with two of them so that I can use them as mono blocks. The recognition value is extremely high, especially with the Quad 33 preamplifier: it still comes in an unusual jewel case format, in an ice-grey housing with dark grey controls and orange control knobs. But there are also some new features: the wooden housing (for 33 and FM3) is a thing of the past, as are the DIN sockets for connecting sources; there are now four RCA inputs (3 x high level, 1 x phono MM/MC) and even a balanced XLR high level input. The Quad 33 also has one balanced and one unbalanced preamplifier output as well as a fixed level output. The inner workings have also been significantly revised, as vinyl was the main playback source when the Ur 33 was launched. And therefore the amp offered, among other things

various bandpass filters to reduce background noise from the sound plate reproduction. The bass, treble and slope controls have been replaced by bass, balance and tilt controls. Tilt? No, the Quad 33 is not a pinball machine. The tilt control influences both ends of the frequency spectrum at the same time - either by attenuating the bass and boosting the treble or vice versa. If you like, the control turns or tilts the reproduced frequency range on a 700 Hz axis (in six 1 dB steps), making the overall sound balance slightly warmer or cooler without causing selective boosts at certain frequencies. This sound control is controlled by a microprocessor, but Quad attaches great importance to the fact that the signal path is as analog as ever - and therefore the volume control is also carried out in the classic way via an Alps motorized potentiometer.





The circuit design has also been revised. The power supply is now a low-noise toroidal transformer with a sophisticated filtering unit and a total of five regulated power supplies. The dedicated headphone amplifier is also a completely new development, according to Quad.

Let's take a look at the output stage. This also looks very similar to its predecessor. At first glance, there are only two differences: firstly, there is now a stand-by switch on the front, and secondly, the cooling fins are slightly thicker and no longer sharp-edged. At the rear, the DIN input socket has of course also been replaced by one balanced and one unbalanced input. There is also a small push switch for switching between stereo and bridge mode.

Although the original Class AB design has been retained, it has been carefully revised and equipped with a 200 VA toroidal transformer that was specially developed for the new 303. Quad has opted for a feedback topology in the new 303 for the most linear, undistorted reproduction possible. In addition, the operating voltage of the transistors is extremely tightly controlled so that they always at the optimum operating point. The original 303 delivered 45 W per channel into 8 ohms; Quad has deliberately increased the power only slightly in order to maintain the continuity of the circuit design. The new Quad 303 pushes out 50 watts per channel into eight ohms and 70 watts into four ohms - in stereo mode, of course. When bridged, it can deliver up to 140 watts per channel into eight ohms. That should be enough for the majority of domestic applications.

Above: Clean circuit board layout with symmetrical construction and a practical mix of SMD and through-hole components. On the left a 200 VA toroidal transformer for the preamp power supply, on the right the motorized potentiometer for the volume control

Below: Quad offers four analog inputs and three outputs, including an aux output with a non-volume-controlled line signal. Incidentally, the USB connection is not a digital input, but a future option: firmware updates can be installed here when the opportunity arises





But as we all know: snooty performance data alone doesn't say anything about how it sounds. This task now falls to me - and I have not only relied on my ears for this report, but also on the input of my three most important in-house hi-fi critics: dog, wife, bitch. Well, you might say: Has Reinecke been smoking? No, he hasn't. I'll explain! The dog is a nine-year-old Bearded Collie who is so good-natured that he has completely forgotten how to bark. My listening room is his favorite retreat because there's a comfy sofa - and when I'm not listening to music there for work, he has the room all to himself. Over the years, the walking Flokati has also become accustomed to music; can tolerate an orchestral double whammy just as easily as cat music by Radiohead. He only leaves the room if he doesn't like the sound of the components. So if he stays put, that's a good sign. Then there's the wife. The best wife of all. Not only does she indulge her husband's hi-fi quirks, she also likes listening to music herself. However, she prefers to listen upstairs in the living room, because my listening room is already a man cave filled with technology. However, she occasionally visits me there - and like the dog, she quickly again if she doesn't like the sound of the system. Sometimes she stays for a moment. And - very, very rarely - she is spontaneously so impressed that she goes to get a bottle of wine and two glasses and we spend a few enjoyable hours in the listening room, during which we pass each other the iPad and play each other high-resolution music via Qobuz.

Last but not least, the bitch who is actually Harbeth

30.2 XD is called. With this loudspeaker, the pros and cons are closely intertwined. It can (even if, strangely enough, hardly any Harbeth owner freely admits this) sound dull, flabby, toothless and mid-range if driven incorrectly. But it can also, if the upstream electronics are right, perform thrillingly, juicy, pithy, spacious - in fact, simply fantastic.

You may have guessed it already: Quad 33/303 the exceptionally rare case where dog, wife and bitch gave their immediate placet. The dog licked his paws contentedly, the Harbeth rejoiced - and the listening session with the wife only ended in the early hours of the morning. Because what is on offer here is simply a sensation in terms of sound, per se. And it's even more incredible when you consider the asking price. I had already been listening to the Quads with great pleasure for a few weeks without knowing the price. My gut feeling had told me that I would have to pay at least 6000 to 8000 euros for the preamplifier and two power amplifiers. Well, puff cake! Quad is asking 1490 euros for the 33 and the 303. So if you like, you can enjoy the sweet honey of this sound with a preamp and stereo power amp for less than 3000 euros - and if you have enough money, you always order a second power amp for bridged operation later. So what's so special about these things? An attempt at a description.

In my listening notes there are many adjectives and lots of exclamation marks: Sparkling clean! Transparent! Broadband! Dynamic! Flow! Control! And that's exactly how it is. Let's take the album *An Awesome Wave* by alt-J (Infectuos Music INFECT134CD, Europe 2012, CD). There are two tracks here that I like to use to a sound system: "Tessellate" offers abrupt bass drum attacks, with a hard stopped, fizzy noise mix over the bass drums at the same time. This has to start and stop at exactly the same time via a good chain - if this is not the case, then something is wrong with the dynamics and tempo. The Quad combination accelerates from a standstill and leaves no rubber marks on the asphalt. And it's the same with the abrupt fading of bass drum and noise carpet. Impressive. In the track "Fitzpleasure", on the other hand, extraordinarily rhythmic and rugged verses alternate with expansive instrumental passages, where guitar pickings with long reverb are countered by ultra-precisely played tom-toms.

The guitars flood the room via the quad combo with a wide and subtle resonance, while the toms bounce around like rubber bullets. You can't help but crouch down in your chair! Dynamics can therefore be ticked off, it can only be done more quickly if you spend a lot of money; you'd have to add at least twice as expensive a Bryston power amplifier to beat that. Yes, I hate say it: Not even my Valvet monoblocks (pair: 6200 euros) offer substantially more.

The stability and deep bass are also delightful. With "Love Comes Tumbling" by U2

(Album: *Wide Awake In America*, Island Records 90279-1A, USA 1985, via Qobuz), for example

the song is carried almost continuously by Adam Clayton's imaginative and well-composed bass lines. The actual songwriting itself is rather unremarkable, with both verse and chorus getting by for long stretches with two scrabbled chords. But in the instrumental bridges, the bass really tells a story. Clayton demonstrates the full range of his art: from classic walking bass and cleverly placed dotting to slapping and singing on the highest string. If a hi-fi chain passes this through well, you sit breathlessly in front of it - and if not, then it leaves you breathless.

the song is cold. Quad also delivers the goods here.

Let's switch acoustic: the ballad "Poi- son Oak" by Bright Eyes (album: *I'm Wide Awake, It's Morning*, Saddle Creek LBJ-72, USA 2005, CD) relies entirely on acoustic guitar and the fragile voice of Conor Oberst in its first half. After a few seconds, the quads you goose bumps all over: The rather sloppily played guitar manifests itself believably and apparently in its original size, every wooden note is recognizable here, nothing is nasal. And Conor Oberst's style is reproduced in a highly authentic way.

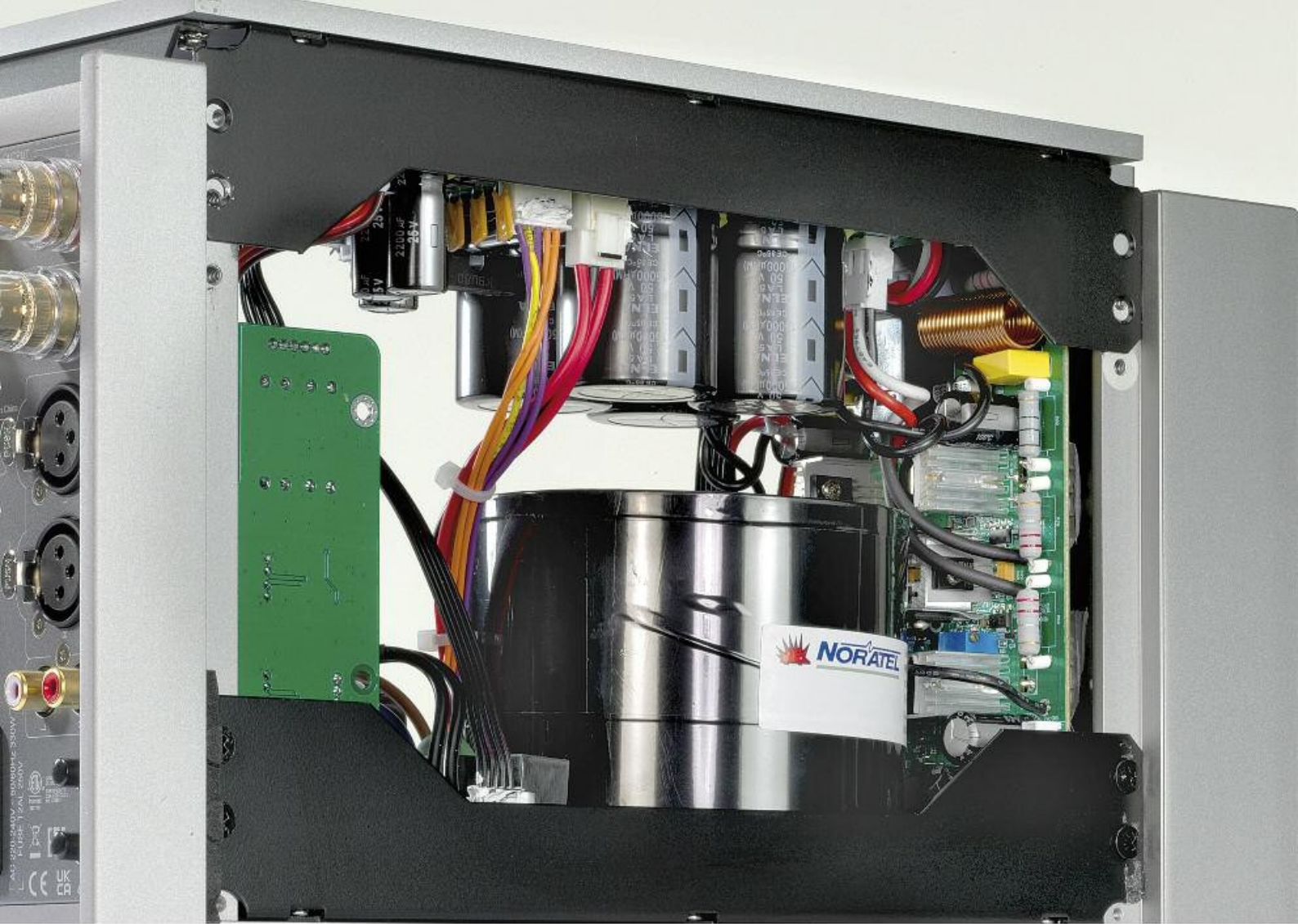
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## Players

**Record player:** Rega Planar 6 with Ortofon Super OM 40 **CD player:** C.E.C. CD5, Rotel CD 11 Ken Ishiwata Tribute **Strea-mer/DAC:** Cambridge Audio CXN (V2) **Preamplifier:** Tsakiridis Alexander Phono **Power amplifier:** Valvet A4MKII Monos, Abacus Electronics Ampollo Dolifet **Integrated amplifier:** Audio Note UK Cobra, Marantz PM7000N **Loudspeakers:** Harbeth 30.2 XD, ProAC K-1, Bowers & Wilkins 706 S3, Audes Maestro 116, Audio Note UK AX- Two **Cables:** Boaacoustic Evolution Black.xlr, in-akustik Exzellenz II (NF), Analog Tools CU-Line (LS) **Accessories:** Adam Hall AHPCS10 power conditioner/mains filter, bFly-audio device feet and Talis speaker feet, Auralex Gamma V2 device bases

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Previous Double page: Quad shows how a power amplifier can be cleverly constructed even with an unusual enclosure shape: The circuit boards are distributed on all sides of the enclosure, separated into compartments. A toroidal transformer from the Norwegian specialist Noratel stands in a thick "pot" on the bottom. The electrolytic capacitors hang from the ceiling, so to speak. On the top right are switching relays that switch the amp from standby to working mode. The bottom right photo shows the rear connection panel, where there is one balanced and one unbalanced input, switchable via a small push button; another switch switches the amplifier from stereo to bridged mono mode. Last but not least, as with the preamp, there are also 12 V trigger connections for switching a chain on and off in concert

given. When a pedal steel guitar is added quietly and discreetly for the first time, a nocturnal, sinister atmosphere is immediately created, somewhere out on a highway - and when Oberst rebels towards the end of the song and lets out all his emotions in a breaking voice, you can reach for a handkerchief without feeling ashamed.

And there's more: stereophonic playback via the Quads is great fun, but can also - depending on the music material - quickly turn spooky. This can be heard on Pink Floyd's track "Paranoid Eyes" (Album: *The Final Cut*, CBS CK 38243, USA 1983, CD). Here, the band uses one of its central stylistic devices - namely the fusion of music with radio play-like background noises. In one verse, Roger Waters sings "You put on your brave face and slip over the road for a jar - Fixing your grin as you casually lean on the bar" - and these same bar noises can be in the background: Laughter, clinking glasses, the recurring clack of a billiard ball. It all floods the room, so real that you can almost the cigarette smoke and beer fumes. Later, when the words "You believed in their stories of fame, fortune and glory", an army trumpet is blown softly in the background, the hairs on your forearms immediately stand up - because the trumpet seems to be playing many meters behind the wall of the listening room.

Someone comes up with a question. The gentleman with the colorful bow tie, please? No! The Quads are no dazzlers. There are sometimes components or loudspeakers that make a deep impression at the beginning, but - I'll say it a little nastily - end up being better effects units and then reveal themselves to be one-trick ponies after a few weeks. That's definitely not the case here. I time, a lot of time, with the Quads, and I actually liked them even better at the end of the listening session than at the beginning. They don't add anything, but they don't take anything away either, they offer - or so it seems to me - pretty exactly what was intended during the recording.

There's another audience question, the lady in the flowered dress please? Yes, good question. Would you like to know whether the quads can do everything and whether other components are no longer needed? No, of course not. The built-in phono preamp, for example, is good considering the price class, but I like my Alexander Phono MC from Tsakiridis even better because it offers a little more richness of sound and a slightly more sonorous tuning. My Valvet monoblocks, on the other hand, still have a long way to go in the bass range.

half an octave further down with completely unchanged level and stability. My Audio Note Cobra (4900 euros) an iota smoother and rounder in the highs than the Quad combo - but in return has significantly less horsepower under the hood and would therefore not be suitable for driving speakers with a low efficiency - such as the B&W 703 S3, which was also a guest here for a few days and felt much more in its element with the Quads. And of course, a really big power amplifier from Bryston or Pilium can deliver even more sheer power, control and authority, especially with large listening equipment.

But I would like to repeat myself once again and say it very clearly: with bridged power amplifiers, the Quad combo mercilessly all comparable combos up to 6000 euros that I know of. I have spontaneously decided to buy it (yes, I'm even thinking about buying a second set-up and storing it for any grandchildren who may appear later) and I'm already dreading the moment when I have to send the test objects to the publisher for photography.

If anyone asks me in the future whether you absolutely have to invest the equivalent of a mid-range car in hi-fi to be happy, then I will say with a clear conscience: No. Quad erat demonstrandum.

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### Preamplifier Quad 33

**Principle:** Transistor preamp **Inputs:** 3 x Cinch high level, 1 x XLR high level, 1 x Cinch phono (MM, MC) **Outputs:** Pre Out Cinch, Pre Out XLR, Fixed out Cinch **Frequency response:** 20 Hz - 20 kHz ( $\pm 0.2$  dB) **Distortion (THD):** <0.0005 % (Line, XLR), <0.002 % (Phono MM/MC) **Signal-to-noise ratio:** >108 dB (XLR), >82 dB (Phono MM), >74 dB (Phono MC) **Special features:** Tilt tone control **Dimensions (W/H/D):** 25.8/8.29/16.5 cm **Weight:** 4 kg **Warranty:** 3 years **Price:** 1490 euros

### Quad 303 power amplifier

**Principle:** Transistor power amplifier (Class AB) **Inputs:** RCA, XLR **Frequency response:** 20 Hz - 20 kHz ( $\pm 0.2$  dB) **Distortion (THD):** <0.003 % **Signal-to-noise ratio:** >108 dB (XLR) **Special features:** Stereo and bridge mode switchable **Dimensions (W/H/D):** 12/17.6/32.5 cm **Weight:** 8.4 kg **Warranty:** 3 years **Price:** 1490 euros (unit)

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