

# Nexo PS series

## PA system

Founded in Paris in the late '70s, Nexo's mission has always been to provide cutting-edge sound reinforcement solutions, and their PS series of compact PA speakers and speaker-management systems certainly lives up to Nexo's reputation.

### Mike Crofts

The Nexo PS series is a well-established line of versatile, portable, install and in-fill speakers that have built up a reputation for sound quality and ruggedness. The range has now been updated with the introduction of the new R2 models and associated controllers. The latest PS series consists of three full-range speakers and three subwoofers, all designed to work together in the correct combinations and in conjunction with the appropriate active controller. The full-range cabinets are available in 8-, 10- or 15-inch two-way configurations, and the matching subwoofers use 12-, 15- or 2 x 15-inch drivers.

The demo system I tested included a pair of PS10-R2 full-range speakers, with a single LS600 sub, and a Nexo NXAMP 4x4 to drive them all. It's important to note that the PS10-R2

speakers form part of a complete system and are designed to work only in conjunction with the proper controller or Nexo integrated controller/power amp — to do otherwise does not deliver anything like their full performance and will almost certainly invalidate the Nexo warranty!

### Features and figures

Taking a closer look at the PS10-R2, the first thing I noticed was that the cabinets are 'handed'; in that the left and right cabinets were shaped differently — something that would be useful in critical stereo stage-monitoring applications, for example. The enclosures are made from Baltic birch ply and finished in a tough black coating that appears to have a good resistance to scuffing and scratching. They are equipped with very strong steel grilles, which cover the whole front surface and are well recessed and securely fitted. All the hardware aspects of these little cabinets say 'quality', including the heavy duty pole mounts and rigging slots, and at 14kg and measuring only about 20 x 12 x 10 inches, they are very easy to handle and stow in a vehicle.

Being a passive design, the back panel is very simple, containing only a pair of Speakon connectors, which are wired in parallel for feed-through use. The panels also display a couple of useful pieces of information, one of which is a symbol telling you not to throw them in a dustbin, and the other says "1+/- sub, 2+/- PS", which means that it's the number 2 set of Speakon contacts that are connected to the drivers so that, if required, a single four-wire cable can be used to feed both the PS10-R2 and LS600 sub using a suitable connecting cable. I'm embarrassed to say that

this caught me out the first time I tried to use the PS system — to cut a long story short, I was intending to use the PS10-R2s as monitors and had tried to use a pair of my common or garden two-way Speakon leads, which are all wired up on the 1+/- pins, and when I finally looked in the manual I found out why there was nothing happening. Inside the cabinet is a 10-inch driver with a shielded neodymium magnet structure and a one-inch exit compression driver mounted on a rotatable waveguide assembly.

The PS10-R2 can be driven with an amplifier of up to 1250 Watts, its sensitivity is 99dB (max) and the peak SPL is 132dB at 1m (measured with limited-band pink noise, not calculated).

### Versatile horn

The HF horn assembly is interesting, as it is an asymmetrical design, and therefore offers a choice of four mounting positions depending on the application. In 'normal' mode, for front-of-house use, the HF dispersion is not only asymmetrical relative to the horizontal (vertical coverage is five degrees less above the horn axis than below, directing more energy





Though extremely compact and light in weight, the LS600 is capable of a peak SPL of 138dB.

impressive that it weighs mere 30kg (another neodymium driver within, of course) and is small enough, at approximately 27 x 17 x 20 inches, to be an ever-so-easy one-person lift and carry.

The side handles are simple shaped cut-outs which I don't normally like, but this is so small and light that it really doesn't need anything more substantial. Adding the LS600

downward then up towards the ceiling), but the horizontal angle varies also, with a narrow 55-degree dispersion at its uppermost limit widening to a 100-degree angle at the lowest point. It is in this way that Nexo have addressed the age-old problem of needing wide, short-throw performance for listeners close to the stage, combined with long-throw, narrow dispersion aimed at those further away — and with the PS-R2 series they've done it with a single speaker.

For applications where the cabinet must be mounted on its side, or for stage monitor work, the horn would be rotated to match the requirement (by removing the front grille and unscrewing it — there's a sticker on the horn edge that indicates which is the 'wide' side). This really is one of the most versatile designs in a portable full-range speaker I've ever come across.

### LS600 subwoofer

The LS600 is the particular sub designed to work with the PS10-R2, and the recommended setup is to use one LS600 with a pair of PS10-R2 speakers, or two subs for extra bottom end coverage. The LS600 is a single 15-inch design using a special, extra-long-excursion driver mounted in a Baltic birch ply cabinet. When you consider that one of these subs can produce a peak SPL of 138dB it's all the more

to the PS10-R2 rig takes the system response down to a tummy-rumbling 38Hz, and it has a mounting socket designed to take the weight of one or two of the top boxes.

The connector plate has, like the PS10-R2, just a pair of Speakon connectors wired in parallel, and bears a warning that these speakers should only be operated under the management of the appropriate Nexo controller. It almost goes without saying that I was unable to detect any signs of weak construction or finish, and the sub is, despite its light weight, a very solid little unit.

### Control centre

I've mentioned that the PS speakers are designed to work as part of a system, which includes a dedicated controller — in this case the PS10 TD Controller-R2. The demo system supplied by Nexo's UK & Ireland Sales Manger Gareth Collyer didn't include a TD Controller as such, but did include a Nexo NXAMP 4x4, which is, in effect, a controller containing all the DSP programmes for a range of Nexo speaker systems combined with a Yamaha-powered, four-channel power amp capable of delivering a massive 4kW per channel. Without going into any great detail (there's a full download of the tech spec and manual on the Nexo website) my understanding of the TD Controller is that it has three main functions: firstly to apply the exact equalisation curve to extract optimum performance from each model of speaker, secondly to monitor amplifier input and output levels and thus provide overall system protection, and thirdly to assess the heat generated by the drivers to guard against mechanical failure. Gareth had already programmed the amp for the speaker setup I was using, and

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## Tech Spec

### NXAMP 4x4

- Active speaker-management system with peak limiting, thermal protection, adjustable crossovers, array EQ and delay.
- Four balanced XLR inputs with XLR link outputs.
- Four Speakon outputs plus mains 1 and 2 outputs.
- Maximum output power: 4 x 600W @ 8Ω, 4 x 900W @ 4Ω, 4 x 1300W @ 2Ω.
- Frequency response: 10Hz - 20kHz (±0.5dB).
- Input impedance: 20kΩ.
- THD + N: 0.1% typical.
- Dimensions (WDH): 480 x 457 x 178mm.
- Weight: 24.5kg.

## Tech Spec

### PS10-R2

- Two-way passive PA speaker.
- Baltic birch ply construction.
- 10-inch LF driver, one-inch HF driver.
- Frequency response: 65Hz - 20kHz (±3dB), 58Hz - 21kHz (-6dB).
- HF dispersion: 50 to 100 degrees horizontal x 55 degrees vertical.
- Sensitivity: 99dB SPL (1W @ 1m).
- Peak SPL: 132dB @ 1m.
- Impedance: 8Ω.
- Dimensions (WDH): 316 x 277 x 515mm.
- Weight: 14kg.

his advice was simple — just turn the amp up full and don't clip in the mixer. The NXAMP 4x4 (there's also a 2x4 version available) is a hi-tech beast that can be remote controlled, updated via an RS232 port, has digital input capability, and can, of course, be used in conjunction with just about any Nexo speaker system. What appeals very much is the thought that I could run any size of speaker rig to suit the occasion, but I'd only ever need the one amp, which at 16kW should be up to most venues.

### Fire up the 4x4

Before taking the PS system out on its first proper job, I rigged it up in our loading bay



## Performing Musician

Nexo PS10-R2 **£1377**  
 LS600 **£1659**  
 NXAMP 4x4 **£7596**  
 (each)

Though not cheap by any stretch of the imagination, the quality of sound from this system is absolutely commensurate with the price, and for such a compact rig it kicks out a surprisingly high level of sound.

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▲ Both the LS600 and PS10-R2 have two Speakon connectors wired in parallel.



▲ Build quality on all of the cabinets is exemplary, from the Baltic birch ply cabinets to the pole mounting and rigging sockets.

» just to confirm that everything was working as it should. I was using the correct speaker cables this time (the set supplied by Gareth) and within a few minutes I was up and running. Programming the NXAMP is very easy, and there's front-panel access to various parameters including gain, array EQ, delay, and input/output patching, but I was playing safe and decided to stick with Gareth's recommended programme, which was number 89 in the current release version — running the PS10-R2s in wide-band mode and using the LS600 for low-end extension. The amp has a startup routine that delays the output relays for a few seconds, and I performed another stupid act which impressed upon me how much power these speakers can unleash: I had changed the programme to hear how the PS10-R2s sounded in crossover mode, and was in the process of switching back to preset 89... Unfortunately I had entered the control mode by means of powering off the amp and switching it on again (which is one way of entering the programme change menu), and I forgot about the delay relays, so when I didn't hear the CD track playing straight away I gave my desk faders a quick push upwards at the exact moment when the relays kicked in, and being three feet in front of this rig when it suddenly opened up at full chat is one of the most frightening things I can remember, and not something I will forget — or hopefully repeat — in a hurry. I now know what they mean when they talk about 'bang for your buck' and believe me, this rig can produce an awful lot of bang.

## Try out

I took the system out on a couple of gigs to see what it was like to use in anger — the

first was an outdoor event in a nearby town centre location, with sound required for various performers on a mobile trailer stage and an audience expected to be around a thousand. I had some reservations about using something so physically small at an event like this, where the sound would have to project clearly and have the ability to cope with anything from bands and dance groups' backing CDs to children's choirs and announcements. I have to admit that I also took along the rig I would normally have been using, as a backup just in case the Nexo didn't cope or I had any problems configuring it. As it happened, I had absolutely no problems with the Nexo system. I did what Gareth had advised, and just turned the amp channels up to maximum and kept an eye on the mixer levels. We had initially placed the PS10-R2s on tripod stands on the stage, with the LS600 sub placed centrally on the ground in front next to the power amp. For various reasons (which had nothing whatever to do with the PS10s) we moved the full-range speakers down to ground level and extended the stand heights to clear the audience, and I have to say that the results were very impressive right from the start. I played our usual CD test tracks, and the sound was crystal clear with plenty of really warm, solid bass. Projection was good, with the vocals carrying easily to the back of the expected audience area (about 30 to 40 metres for the main target area) and excellent clarity was maintained over a wide horizontal angle even though the enclosed street venue was contributing quite a lot in the way of reflections. With the street pretty empty at this point, and with shopping still in full swing, I didn't feel able to explore what the system could really do so I saved that for later. With a very good crowd packed in and the event well under way I had plenty of opportunity to push the levels up, and the level of output was astonishing for such a compact three-box system. The vocal range was especially crisp and clean with a mid-range fullness that belied the physically small dimensions of the PS10s, and what was most impressive was the ability of this rig to operate at such a high level without compromising clarity or dynamic performance. No matter what we threw at it, the little Nexo rig just pumped out quality sound all night, and when it came to packing away afterwards it was quick and easy with just the three boxes and an amp to deal with.

## Do it again

I was really pleased that I had another gig lined up that would suit the Nexos, and it was only a few days later in a hotel ballroom venue at the MK Dons' excellent new stadium. The occasion was an end-of-conference party for a corporate client, and I was there with the live band who were playing the main slot in between a dance display and a late disco finish. The band sound requirements weren't

## Tech Spec

### LS600

- **Passive subwoofer.**
- **Baltic birch ply construction.**
- **Single 15-inch driver.**
- **Frequency response: 40Hz - 110Hz (±3dB), 38Hz - 120Hz (-6dB).**
- **Sensitivity: 101dB SPL (1W @ 1m).**
- **Peak SPL: 138dB @ 1m.**
- **Impedance: 8Ω.**
- **Dimensions (WDH): 688 x 528 x 435mm.**
- **Weight: 30kg.**

a challenge (kit, bass, keys, guitar, sax and two vocals), but the venue was large and they were expecting a big sound. The band's set was the climax of the afternoon's build-up, with company awards and lots of whoo-ing — all a bit enthusiastic and very 'up for it', so it was important that the band started with a big impact and raised the atmosphere another step or two... You know what I mean. We had a very limited setup time, having to squeeze in between the end of the conference proper (one of those celebrity motivational speakers shouting about success and winning...) and the dance group displays, so I was again very happy with the simplicity of the PS system. As we were setting up, the gear came in for a bit of covert scrutiny from the other interested parties (the AV company who were covering the conference, the dance people and the disco guy, all of whom had their own rigs set up at the same time!) and I will admit to feeling a tiny bit smug about wheeling in a Nexo system and treating everybody to a quick demonstration of what it sounded like, ie. very loud and very high quality. A nice feeling, to be honest... I need hardly say that the band's set sounded great, with the PS speakers belting out loud and clear and the LS600 providing all the low-end punch you could have wished for.

## Last word

Looking back on these two gigs — particularly the second one, where I was a bit more familiar with the rig — one thing that really sold this system to me was its ability to deliver the goods, with knobs on, whatever the situation. I had used it on two very different jobs, and both times I just turned it up full and worked the desk, and both times it did the business with no fuss or tweaking needed — I'd describe the PS rig as live sound 'plug and play for grown ups'. I enjoyed my all-too-brief time as a Nexo user, and I'd say that this compact rig would consistently deliver excellent, no-compromise results across a huge range of live-sound applications. It punches way above its weight (and size) and is one of the easiest to handle, best-sounding and most powerful portable sound rigs I've had the pleasure to drive. ■ PM