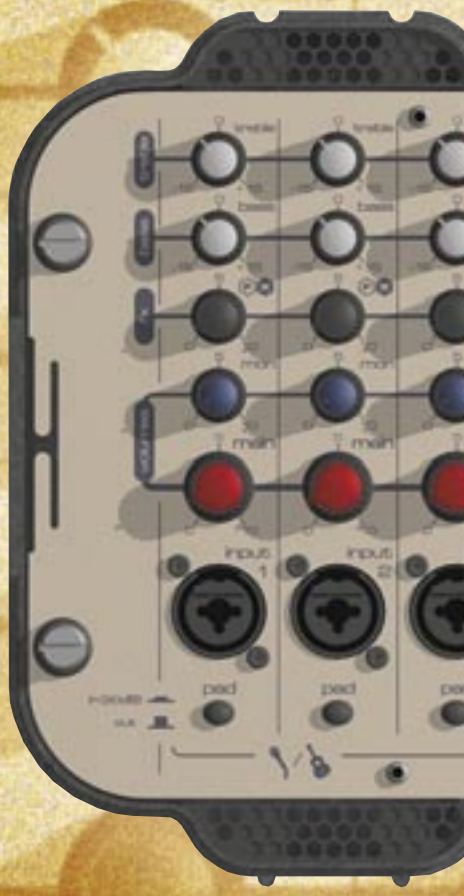
On the 'Rac



In this Playmusic exclusive, Simon Croft gets his hands on the brand new GigRac mixer amp from Soundcraft

Why should I want one?
It's a great choice for a compact mixer/amp that combines features with affordability. It's easy to lug as well.

GigRac 300
SRP: £352.50
www.soundcraft.co.uk
Tel: +44 (0) 1707 665000

GigRac 300 main features
- **1 x 300w /4 Ohms**
- **8 x microphone inputs (4 with 48v phantom power and pad switches)**
- **4 x stereo compatible inputs**
- **7 band graphic equalizer**
- **2 band EQ per channel**
- **8 x high quality 24 bit digital effects**
- **1 x monitor send per channel**
- **1 x effects send per channel**
- **Neutrik XLR/Jack Combi connectors**
- **Neutrik Speakon connectors**

In this month's *Giggers Guide to Live Sound* (see p70) I reveal that I once attempted to use a cheesy tape recorder microphone for vocals in a pub gig. What I don't reveal was what I attempted to use for the PA itself – a knackered old guitar combo that emitted loud crackles if you went anywhere near the knobs. It was a total disaster.

Having learned my lesson the hard way, I later bought not only a 'proper' mic but a mixer/amp and a pair of 2x12 columns. The amp weighed a ton for its mere 100W output and there was a loud hum when you got the volume past half way. It cost so much, I had to get my Mum to act as guarantor so I could buy it on credit. But it sounded sort-of okay, and at least we got gigging.

One of the reasons I'm telling you all this is so to reinforce the idea that none of us are born knowing about live sound systems, and it's not normally something you learn at school either. You have to find out by asking other people, looking to see what bigger bands do and making some silly mistakes along the way.

The other reason I'm telling you about my early attempts at PA is so you can appreciate how much Soundcraft has packed into its GigRac system and how great the quality is compared to the pile of old tosh I started out with. Believe me, buying a GigRac won't turn out to be a mistake. (Unless you're looking for a motorbike, of course. In which case, wrong mag, wrong review. Sorry mate.)

I should mention at this point that GigRac will soon be more than one amp, in fact soon that name will apply to a whole range. The first one off the block, the mixer/amp we're reviewing, is the GigRac 300 but there are bigger and more powerful siblings on their way soon. As the name implies, the GigRac 300 offers 300W of mono power, while the forthcoming GigRac 600 will have a stereo amp offering 300W a channel.

Something they will have in common is Soundcraft's innovative approach to the mixer/amps casing. It's actually a very strong polypropylene moulding and when the lid's on, the whole unit is well protected against the kind of in-van disasters that take knobs off the front panel. The other common mishap that afflicts amps tends to involve golden liquid served in pint glasses. Again, GigRac is well protected, especially when the lid's on, which is also good news when you've got to get out of the gig and it's

raining. Alternatively, the unit is a standard 19", so if you do want to rack it with the rest of your gear, all you have to do is undo four screws.

At that point, the GigRac casing would make a very good accessory box, especially as it's tough and has a shoulder strap. Actually, it still makes a good accessory box when the amp is in it. Soundcraft has cleverly thought to put rubber strapping across the inside of the lid, which gives you enough space to safely store a couple of mics and a few cables as well.

What's it got?

Loosen the strap, take off the lid and you can see what the GigRac 300 has to offer: eight mic channels, digital effects and a graphic equaliser for the system as a whole. Actually, as you start to dig in you realise there is a lot more besides.

For a start off, four of the mic inputs have 48V phantom power available to them, a welcome inclusion now that there are more and more condenser microphones available that are designed to be robust enough for use on stage. These inputs all have 'pad' switches, a sensible inclusion as condenser mics usually have quite high output levels and the pad cuts the input level by 20dB to prevent overload.

At first glance, you might think that all the mic inputs are on XLRs. You be right but that's only part of the story because the unit is fitted with Neutrik Combi connectors that allow you to plug either XLRs or jacks into the same sockets. This arrangement saves a lot of space, compared to providing both types of connector separately for every channel.

Both the XLR and jack inputs are balanced – which makes for the best rejection of interference from lighting rigs, the local cab company etc etc – and can also harness the phantom power.

Given that balanced connections and phantom power require three-pin connections, you might wonder how this is done. The answer is TRS (tip, ring, sleeve) jacks, of the type for find on many stereo headphones. Personally, I'd recommend using the robust, locking XLR rather than a jack plug any time but the point is the choice is there anytime you need it.

Of the four input channels that do not have phantom power, two are fitted with a pair of RCA (phono) sockets each, and it's worth explaining what's going on here. The idea is that you can plug in a stereo source, such as a CD player into either (or both) of the channels.

Although the sockets are marked L and R, this doesn't mean the channel is stereo. It's a mono amp on this unit, remember, so all that's happening is that the left and right channels are safely combined as a mono input. If it's up to you to provide some background music between sets, or you have a presentation to make that involves material on CD, it's a handy feature to have.

The final two input channels have additional jack sockets that will accept stereo inputs. Again, these will be 'summed' to mono, making them a handy place to plug in keyboards, drum machines, or any other kind of line-level input that happens to involve a jack plug.

Each of the channels is equipped with two-band EQ. You might say that's just fancy talk for Treble and Bass controls but these are intelligently designed shelving circuits that kick in at 12kHz for the high frequency control and 80Hz for the low frequency. With 15dB cut or boost on either control, that's plenty to add a bit of sparkle to an otherwise dull-sounding mic, put a bit of roundness into the low end of an acoustic guitar, or cut some low end to cut low frequency rumble out of vocal mics. If you really want mid-range boost, cutting the high and low frequencies will take you there.

What else can it do?

Each channel is also fitted with another couple of level controls, which are really additional mixes. One of these feeds the internal digital effects unit and the other feeds the monitor mix.

Soundcraft is part of the Harman group, a collection of pro audio manufacturers that also happens to include Lexicon, one of the most respected digital effects manufacturers in the world. (Come to think of it, I can remember when they were pretty much the *only* digital effects manufacturer in the world.)

I'm not sure that Soundcraft are saying officially that the GigRac contains a Lexicon effects unit. What I can tell you from a common-sense angle is that they didn't bother looking in the telephone book for a company that *might* be able to design a digital effects section. Why would they?

Similarly as the Harman group also includes BSS, which makes processing for major sound reinforcement companies and Crown, a US-based power amp manufacturer, it's fair to figure that

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Soundcraft didn't have to scratch their heads too much when it came to designing the graphic EQ and the on-board amplifier.

Anyway, the deal is that the GigRac digital effects section offers eight different types of effect, and you control how much of that effect you get on each channel. So if you want a bit of reverb on guitar, a touch more on the lead vocal and more again on backing vocals, it's there for you.

Soundcraft is primarily a mixer manufacturer and that experience can be seen in the fact that the monitor mix and the main mix have their own outputs on the front panel. This is in addition to the main, powered outputs on the back of the unit.

So, having set up a monitor mix on the GigRac, you can send that mix to its amplifier and speakers – or perhaps better still, as many powered monitors as you need. While some sort of on-stage monitoring is much better than having the sound of the PA bounce back to you from the walls of the venue, the ability to create a separate monitor mix is better again. For example, you will probably want the monitor mix to have vocals at a much higher level if you are miking up the back line amplification for the main mix.

Because the GigRac 300 also has a line-level output for the main mix, it would be easy to increase the power of your system by adding another amp and more speakers. Obviously, if you outgrow the eight mic channels, you may need to rethink your whole system but there's a fair amount of open options otherwise.

The main and monitor outputs are balanced – again, a good feature – but there are also a couple of RCAs on the main outputs, if you'd like to record your gigs.

That scheme could fall down if you don't put everything through the PA but I've got an idea you could try, using a four-track recorder. You could do worse than take the mix from the GigRac onto the first two tracks, then use a pair of mics on or above the stage area to fill in the instruments. It might not give you recordings to match Thin Lizzy's seminal *Live and Dangerous* but it would give you a reasonable chance to find to find out how you really sound on stage.

Meanwhile, using the GigRac turns out to be 'live and safe'. Round the back of the casing, you find the power input, mains on switch and two Speakon connectors. Oddly enough, they go to your speakers.

All right, let's look at the power rating of the GigRac 300. As stated earlier, it is 300W, albeit into 4 ohms. At 8 ohms, it gives out less power. If you were buying a guitar amp, you might feel that 8 ohms was a more meaningful rating but listen up people, you'll get your 300W.

In most small PA systems, you'll be using two speaker cabinets, right? They normally say '8 ohms' on the back, right? Okay, when you plug those two cabinets into the GigRac 300, they produce a collective impedance of 4 ohms and you get the full 300W you paid for. Geddit?

Cut to the chase

I've got this far and there's already loads I haven't been able to write about. How about the 7-band graphic equaliser that you can use on the main mix or the monitor out? There's also a set of bargraph LEDs that indicate the amplifier output level and a headphone monitor jack.

In case you're not getting the gist here, I want to make it clear that the GigRac 300 offers a lot for the money – and it's quality gear. Soundcraft has been designing mixing systems for a long time but it's clear that the company has done more than draw on its past experience. GigRac has features – including the casing – that show Soundcraft has taken a fresh look at what users want from a mixer amp.

The company also has the benefit of being part of a group that makes world-class equalisers, digital effects and amps, so a lot of expertise has gone into the whole package.

Talking of packages, another member of the Harman group is speaker manufacturer JBL. As a result, you can buy the GigRac 300 as part of a deal that includes a pair of JBL EON 1500 speakers. Like GigRac, these employ high-density moulded cabinets, so the whole package will be lightweight as well as nigh-on indestructable. This one's recommended. **PM**