Soundcraft
At the heart of live sound

Ever since 1973, Soundcraft live sound mixing technology has been at the heart of thousands of memorable concert and festival performances. Soundcraft products are relied upon daily by discerning sound engineers to deliver the performances of leading artists the world over. GigRac benefits directly from everything we've learned in 30 years in the business, so when you're on stage with a GigRac, you're always in good company.

Texas: On tour with Soundcraft

Soundcraft

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For all the latest GigRac news and information, visit:

www.gigrac.com

Part No: ZL0612

GIGRAC

PROFESSIONAL POWERED MIXER

GIGRAC 300 / GIGRAC 600

GREAT SOUND MADE EASY

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GIGRAC

Creating a great live performance sound just got easy.

Available in two models (GigRac 300 and GigRac 600), GigRac combines a fully-featured 8 channel mixer with studio-quality digital effects and potent power amplification in a portable package that sets up in minutes.

Combination jack/XLR sockets make it possible to plug virtually any type of microphone into GigRac, along with electric guitars, basses, electro-acoustic guitars and other 'electric' instruments.
And these inputs are balanced, just like a studio mixing console, so noise and interference are kept to a minimum.

Comprehensive channel controls include Bass and Treble for tone shaping, an FX send to control the amount of signal sent to the digital FX processor, and separate Main and Monitor volume controls which allow you to create independent band and audience mixes.

Just like a professional mixing console, +48V phantom power on channels 1-4 enables you to use high quality condenser microphones with GigRac.

GigRac has eight high-quality digital effects programmes built-in, ranging from stunning reverbs to fat delays.

The switchable 7-band graphic equaliser section lets you optimise the tonal quality of your mix to suit the acoustics of the venue.

The amplifier assignment switch featured on the GigRac 600 provides an additional level of flexibility with the option to power both the Main and Monitor mixes with the internal power amplifiers.

10-segment precision LED metering gives you a clear indication of how hard the amplifier is working, allowing you to achieve the best results.

Amplifier overload warning LED(s) enable you to precisely control the volume of your performance.
And protection circuitry means you'll never have to worry about distortion.

The Monitor volume controls can be used to create an independent headphone mix.

Some high-output microphones and other devices can overload a mixer's inputs, causing distortion. With GigRac it's no problem, thanks to the Pad switches which reduce the level of problem input signals by 20dB.

Stereo RCA/phono inputs make it easy to plug in a CD, MiniDisc or MP3 player.

Stereo jack inputs allow connection of stereo keyboards, samplers, sound modules and MIDI file players, along with other audio equipment such as effects processors.

Master Main and Monitor level controls provide independent control over the volume your audience hears, and the volume of your own monitor mix on stage.

You might want your audience to hear your voice bathed in digital reverb, while you hear it 'dry' through your monitors. That's why GigRac's digital effects controls enable you to turn the effects On or Off, and to add different amounts of effects to the Main and Monitor mixes.

Simply connect a footswitch and it's easy to turn GigRac effects On and Off during the performance. And the FX bus output gives you the flexibility to connect an external effects processor which can then be plugged back into a spare channel or into the submix input.

The front panel monitoring section offers an additional range of output options to the power amplifier outputs on the rear of the unit, providing an almost limitless range of monitoring options. You can even record your performance via the dedicated RCA/phono outputs.

Professional sound
No experience necessary

Even if you've never touched a PA system before, you'll be creating a great live sound for you and your band in minutes with GigRac.

GigRac is built into a tough, portable, protective case, and it can also be rack-mounted.

Packed with professional features like combined jack/XLR inputs, precision mic preamps, superbly musical equalisation, studio quality digital effects, graphic EQ and independent Main and Monitor mixes, GigRac is also refreshingly easy to set up, leaving you free to concentrate on your performance.

With GigRac, the amplifier is built-in, with both 300 and 2 x 300 Watt versions available. Just plug in your mics, instruments, speakers and monitors, and you're ready to go.

GigRac lid with storage space for microphones and cables.

And while you're waiting to make it big, you can relax in the knowledge that GigRac comes from Soundcraft, the name behind the live sound mixing consoles used on many of the world's major tours and festivals.

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Everything you need for perfect performance sound

Professionally equipped input channels

Soundcraft equalisation (EQ) is a legend amongst professional sound engineers and renowned the world over for its precision and musicality. At the top of all 8 GigRac input channels you'll find a classic Soundcraft 2-band EQ section comprising of treble and bass rotary controls, allowing sophisticated tone shaping of the microphone or instrument connected.

Next comes an FX control, used to set the signal level sent from each channel to the GigRac's digital effects processor (see Studio Quality Effects). The higher the FX send level, the more of the effect is added to the sound of that channel. For example, you may want a lot of reverb on the vocal mics plugged into channels 1 and 2, less on the vocal mics plugged into 3 and 4, and less still on the instruments plugged into the remaining channels. With GigRac, you're in control.

Beneath the FX controls are the blue and red Monitor and Main channel level controls. These control the individual volume levels of all eight channels in 2 separate overall mixes: Monitor being what you and the band hear on stage via your monitor speakers and Main being what the audience hears via the main speakers. It's important to have independent Monitor and Main mixes as performers often need to hear certain elements of the mix louder (for example a keyboard or main instrument for reference), whereas the audience would require a balanced mix. The overall volume level of the Monitor and Main mixes is controlled via the master volume controls to the right of the channel strips.

All 8 GigRac input channels have combined balanced jack/XLR input sockets to accommodate the widest possible range of microphones and instruments, and to minimise distortion and noise. The Pad switch at the bottom of channels 1 to 4 is used to reduce the level of particularly high input signals which could cause distortion by overloading the input.

Channels 5 and 6 of the GigRac feature alternative stereo RCA/phono inputs beneath the combined XLR/jack connector, making it easy to plug in a CD, MD, MP3 or MIDI file player. Perfect for playing pre-recorded backing tracks or music before and after your performance, this facility also makes GigRac ideal for use in a wide variety of other applications including fitness clubs, hotels, outdoor events, etc.

Channels 7 and 8 have an additional single jack input designed to be used in conjunction with the combined XLR/jack connector. This allows direct connection of stereo keyboards, samplers and other audio devices.

7-band graphic EQ

Even with the same setup, a performance can sound very different from one venue to the next. The way in which sound waves reflect and interact with surfaces and objects within a room (the acoustics) change the tonal quality of the overall sound, boosting some frequencies (sometimes to the point of feedback) and reducing others.

That's why the GigRac is equipped with a graphic equaliser, designed by the Soundcraft sister-company and world leaders in professional signal processing, BSS Audio. The graphic EQ enables the operator to boost and cut frequencies at 7 points to 'tune' the overall sound to suit the acoustics of the particular venue.

It's a process that professional sound engineers are familiar with as they tour from venue to venue. And because GigRac's so easy to use, a little practise is all you'll need to achieve professional results too.

Studio quality effects

GigRac has a total of 8 studio-quality digital effects built-in, adding a professional finish to your performance. You can select from 5 reverbs, a chorus/reverb and 2 echo/delays, used to 'thicken' vocal performances.

Crucially, GigRac allows the digital effects to be added individually to the Main and the Monitor mixes, so you can hear the mix 'dry' on headphones and via monitors, while the audience hears the Main mix complete with stunning digital effects. And by connecting a footswitch, it's possible to turn the effects On and Off during a performance.

If you want to use an external effects processor, it's easy to connect via the FX outputs on the front panel. The FX send level controls on the channel strips can then be used in the usual way and the output of the external processor can be plugged into either a channel or the submix input.

Sophisticated monitoring

To help achieve optimum volume levels, the GigRac uses a precision, 10-segment, front panel LED meter display, just as you'd find on a professional live sound mixing console. And a further indication that the volume level is too high is provided by an amplifier overload warning LED(s).

A pair of RCA/phono outputs are perfect for recording the Main mix onto an external DAT or CD recorder, or for recording your performance on computer using an appropriately-equipped soundcard.

GigRac is packed with a comprehensive and flexible range of monitoring options. You can plug in a pair of headphones for precision-listening during soundchecks and there are independent outputs for both the Main and Monitor mixes for the connection of additional 'powered' speaker cabinets.

A brief live-sound glossary

Bus: a route by which signals from one or more sources are added and sent to one or more destinations. For example, GigRac's FX bus sends the FX send level from each channel strip to the digital effects unit and also to the FX bus out socket.

Condenser microphone: requiring power from a DC voltage (phantom power), condenser microphones generally have a warm sound with a wide frequency response, making them ideal for use on vocals and acoustic instruments.

dB: abbreviation for 'decibel'. This is the industry standard method and term for representing the ratio of different audio levels.

Dynamic microphone: robust microphones that do not require power, so can plug into most mixers. They can handle higher sound pressure levels, making them ideal for use on drums, etc. Dynamic microphones also tend to feed back less (see below).

Feedback: sound from a loudspeaker picked up by the microphone feeding it, and re-amplified out of the same loudspeaker only to return to the same microphone to be re-amplified again, and so on. Each time the signal becomes larger until the system feeds back, producing a 'squeal'. This happens at particular frequencies called feedback frequencies.

Phantom power: a system of providing +48 volt power from the mixer to a condenser microphone, sharing the same cable as the audio signal.

Reverb: short for reverberation. The sound remaining in a room after the source signal is stopped. It is caused by the sound reflecting from the walls and surfaces in the room.

Speakon: a registered trademark of Neutrik for their original design loudspeaker connector, now considered an industry standard.

XLR: an industry standard, 3-pin connector, used extensively in professional audio.

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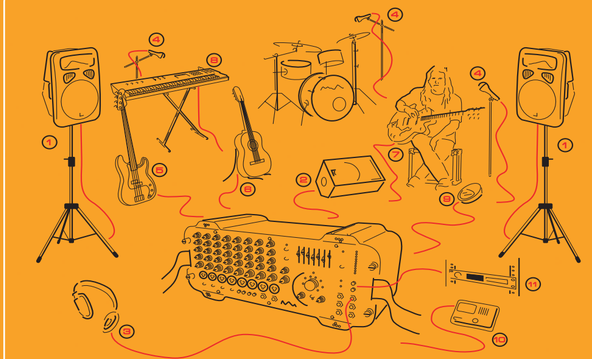
Typical Specifications

Noise	EIN 150Ω 20 -22kHz	-123 dBu
	Main out (Level control mid)	-78 dBu
	Mon out (Level control mid)	-80 dBu
	Amp out	-57 dBu
Crosstalk	Main cutoff	-80 dB
	Mon cutoff	-80 dB
Frequency Response	20 – 22kHz rel 1kHz Line in to Main out	+0.2/-2.5 dB
THD+N	Mic I/P –20dB Pad 0dBu I/P at Main out (22Hz-22KHz)	0.15%
	Mic I/P to Amp Out @ full power (22-22KHz)	0.15%
Inputs Ch1 – Ch4	Mic Input Impedance	5.5 kΩ
	Line Input Impedance	30 kΩ
	Max Input Mic (20dB pad)	-3.5 dBu
	Max Input Line(20dB pad)	10 dBu
	Max Mic gain to Main out	60 dBu
Inputs Ch5 – Ch8	Mic Input Impedance	2.4 kΩ
	Line Input Impedance	40 kΩ
	Max Input Mic	-18 dBu
	Max Input Line	3 dBu
	Max Mic gain to Main out	50 dBu
Outputs	Max out Main / Mon	18 dBu
	Power Output GigRac 300	300W ref 4Ω
	Power Output GigRac 600	2 X 300W ref 4Ω
Connectors (All Jacks 1/4")	Mic	Balanced XLR connectors
	Line	Jack / RCA phono
	FX bus	Jack
	Submix in	Jack
	Main out	Jack
	Mon out	Jack
	Record out	RCA phono
	Phones	Jack
	Speakers	Speakon / Jack
Dimensions (Cased, inc. lid)	Width x Height x Depth	495 x 222 x 322mm / 19.5 x 8.75 x 12.7 inches
Weight	GigRac 300	11.5kg / 25.3lbs
	GigRac 600	12.7kg / 27.9lbs

Plugging In

GigRac accommodates inputs from a wide variety of sources, making it ideal for use in applications as diverse as live music, churches, schools, outdoor events, meetings and conferences, and health and fitness clubs.



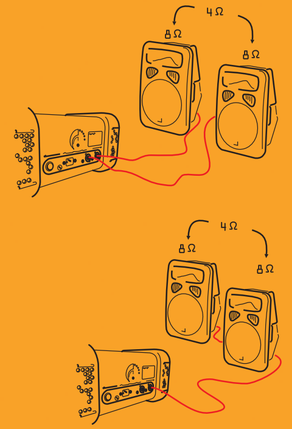
1. F.O.H. SPEAKERS
2. MONITOR SPEAKER
3. HEADPHONES
4. MICROPHONE
5. BASS GUITAR
6. ACOUSTIC GUITAR
7. ELECTRIC GUITAR
8. SYNTHESIZER / PIANO
9. FX BYPASS FOOTSWITCH
10. CD / MINIDISC PLAYER
11. RECORDING UNIT

Plugging Out

All the power of the GigRac 300 can be used to amplify either the Main mix (typically) or the Monitor mix (if you are using self-powered speakers for the audience). The GigRac 600 can be switched from the front panel to deliver full power to the Main mix, or split the power between the Main and Monitor mixes to power both main and monitor speakers.

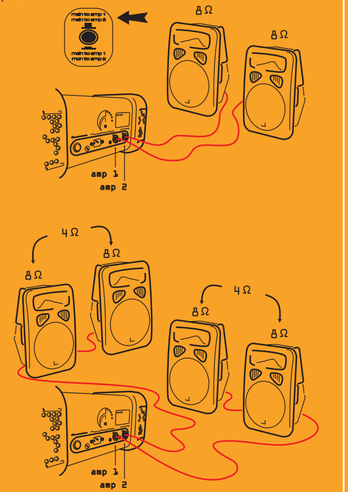
GIGRAC 300:

The GigRac 300 contains a high-quality 300 Watt internal amplifier. Each speaker output can be used to power a single 8Ω speaker. Alternatively, one of the two output connectors may be used to connect to two 8Ω speakers that have been 'daisy-chained' together.



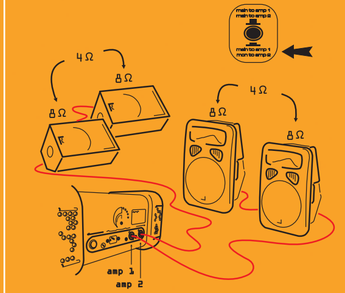
GIGRAC 600, CONFIG 1:

The GigRac 600 incorporates two 300 Watt internal amplifiers. With the front panel amplifier assignment switch in the Up position, the Main mix is sent to both amplifiers. Each speaker connector can be used to power a single 8Ω speaker, or two 8Ω speakers in parallel - a total of four speakers.



GIGRAC 600, CONFIG 2:

With the front panel amplifier assignment switch in the Down position, the Main mix is sent to amplifier 1 and the Monitor mix is sent to amplifier 2. The Main mix connector can be used to power a single 8Ω speaker or two 8Ω speakers in parallel, while the Monitor mix connector may power up to two wedges in parallel.



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