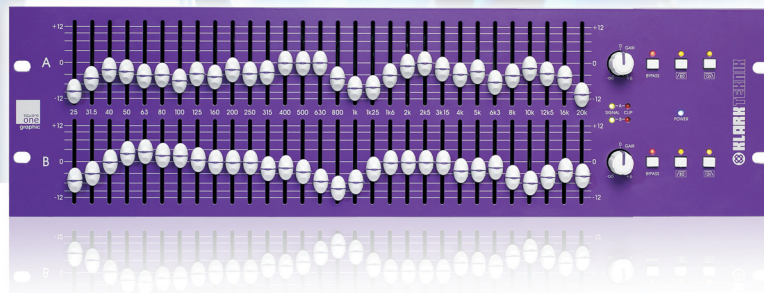


Equalizers

SQ1G

Dual 30 Band, $\frac{1}{3}$ Octave Analogue Graphic Equaliser with Enhanced Proportional-Q Response



- ⊗ Enhanced Proportional-Q equalisation provides both smooth contouring EQ and High-Q notches
- ⊗ Fixed 80 Hz high-pass and 12 kHz low-pass filters per channel with bypass switches
- ⊗ Long-throw 45 mm oil-damped faders with dust covers for increased accuracy and reliability
- ⊗ Channel bypass switch
- ⊗ Power-off bypass relays
- ⊗ Electronically balanced inputs and outputs on both Neutrik* XLR and $\frac{1}{4}$ " TRS connectors
- ⊗ Rugged 3U rackmount chassis for durability in portable applications
- ⊗ Auto-ranging universal switch-mode power supply
- ⊗ 3-Year Warranty Program*
- ⊗ Designed and engineered in England

The SQ1G is the latest evolutionary step in a process of design refinement that goes back over 40 years to the earliest **KLARK TEKNIK** graphic equalisers. The enhanced Proportional-Q response recaptures that of the classic single channel DN27 graphic equaliser using modern solid-state design and manufacturing technologies, and the SQ1G features dual channel 30 band graphic equalisation with fixed high-pass and low-pass filters per channel. The SQ1G provides the essential features for corrective equalisation and filtering in a cost-effective package, without compromise on audio performance, and is ideal for both Front of House and stage monitoring applications, where both the gentle contouring and surgically precise high-Q notches uniquely made possible by the Proportional-Q response enhance intelligibility as well as eliminating sub-sonic rumble, room and speaker resonances and standing waves.

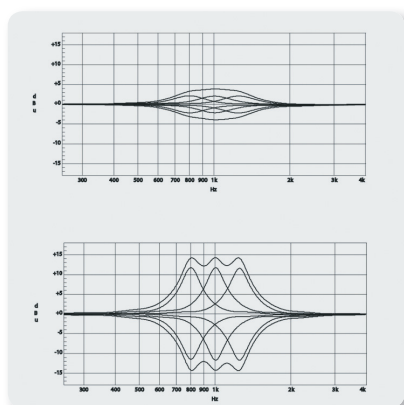


*All third-party trademarks are the property of their respective owners. Their use neither constitutes a claim of the trademark nor affiliation of the trademark owners with MUSIC Group. Product names are mentioned solely as a reference for compatibility, effects and/or components. Warranty details can be found at music-group.com.

Equalizers

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Proportional-Q Response



Enhanced Proportional-Q Response

KLARK TEKNIK's enhanced Proportional-Q equalisation offers key advantages over the more numerous Constant-Q graphic equalisers on the market. A Constant-Q response boosts or cuts an increasingly wide band of frequencies, resulting in more of the frequency spectrum being lost when using a Constant-Q equaliser to eliminate problem frequencies. If the response of a Constant-Q equaliser is made narrower to compensate, the result is ripple in the frequency response when small amounts of boost and cut are applied.

In contrast, with a Proportional-Q response, at low amounts of cut or boost the width of the filter is relatively broad allowing for gentle contouring of the frequency spectrum, but becomes progressively narrower as the amount of boost or cut is increased, giving a more "focused" response ensuring that problem frequencies can be attenuated quickly and effectively. At the same time, the enhanced Proportional-Q equalisation response used on SQ1G minimises interaction between adjacent frequency bands, allowing subtle tonal correction without frequency response ripple, so that more of the musical content is preserved.

Comprehensive Filter Control

SQ1G augments the Proportional-Q graphic equalisation section with fixed high- and low-pass filters for corrective control of the audio spectrum. The 80 Hz 12 dB/oct high-pass filter is invaluable for the smooth rejection of unwanted low and subsonic frequencies, particularly relevant for use with modern compact wedge monitors. The 12 kHz 12 dB/oct low-pass filter can be used to improve intelligibility by tailoring the upper frequency response to match that of typical wedge monitor speakers.

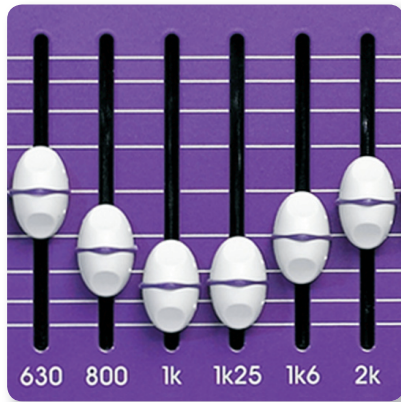
A channel gain control is provided with range from $-\infty$ to +6 dB. In the event of sudden on-stage feedback, this control can be used to immediately mute the signal path whilst the cause is established.



Equalizers

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High Resolution Faders

The SQ1G graphic equaliser section features centre-detented long-throw 45 mm precision oil-damped faders which allow a high degree of control over the ± 12 dB range. A channel bypass switch is also provided for easy comparison of the graphic equaliser setting with the direct signal. The faders also feature protective covers to inhibit the ingress of dirt and dust, to maximise their working life in demanding environments.

Electronically-balanced Inputs and Outputs

SQ1G has electronically-balanced inputs with excellent common-mode rejection and the electronic servo-balanced outputs have high-drive capability to cope with long cable runs. Although equalisers are more generally used on console inserts, the SQ1G is fully capable of being used in-line with cables running the long distances between the Front of House mix position, the main stage and the delay towers in festival PA systems. Power-off bypass relays preserve the signal path in the event of a power failure.



Built for the Road

Featuring a rugged steel 3U rackmount enclosure, the SQ1G is designed for the rigours of live concert touring. Premium Neutrik XLR connectors, plus parallel-connected $\frac{1}{4}$ " TRS connectors, are used to ensure reliable audio connections, night after night.

Equalizers

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Graphic Equaliser with Enhanced
Proportional-Q Response

Auto-Ranging Universal Switch-Mode Power Supply

SQ1G features a universal power supply, which is auto-voltage sensing for use on a worldwide basis.



You Are Covered

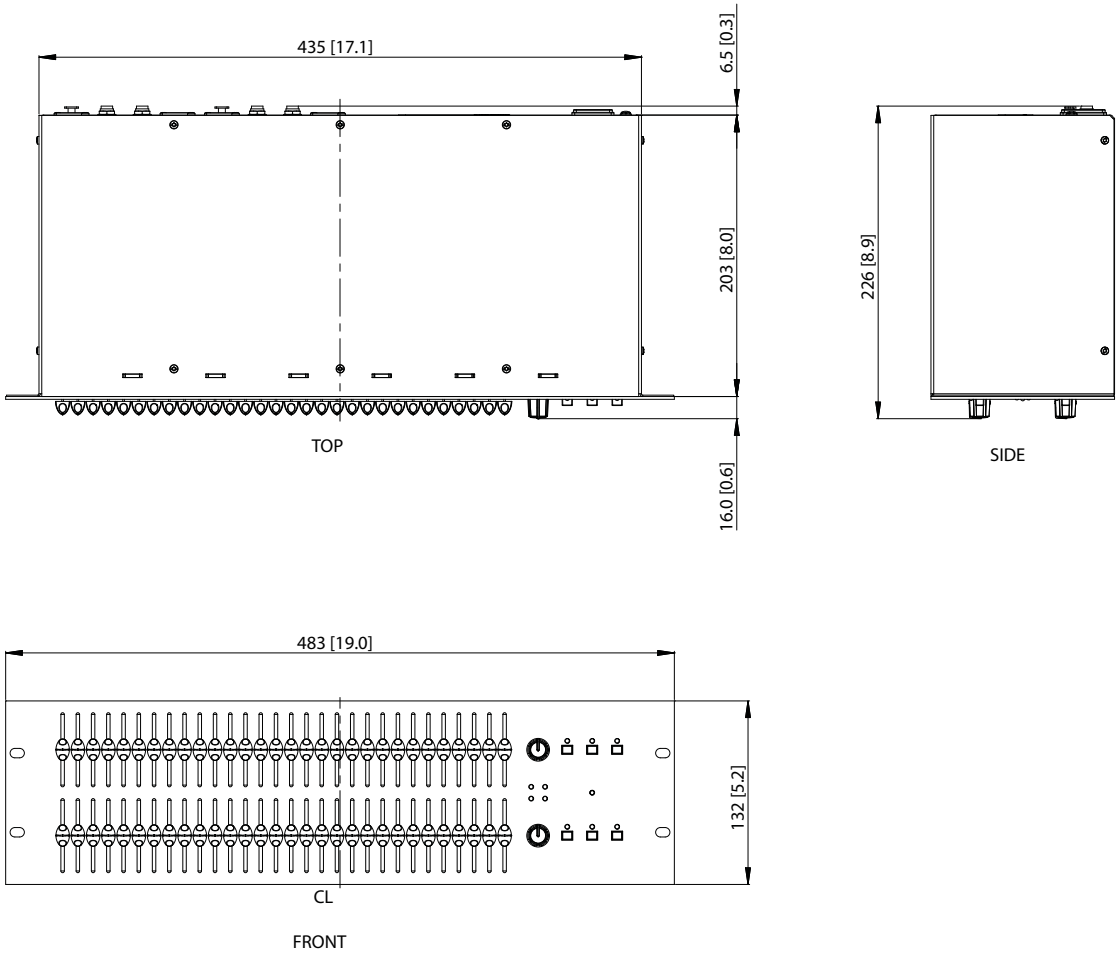
We always strive to provide the best possible Customer Experience. Our products are made in our own [MUSIC Group](#) factory using state-of-the-art automation, enhanced production workflows and quality assurance labs with the most sophisticated test equipment available in the world. As a result, we have one of the lowest product failure rates in the industry, and we confidently back it up with a generous [3-Year Warranty](#) programme.

Equalizers

SQ1G

Dual 30 Band, 1/3 Octave Analogue
Graphic Equaliser with Enhanced
Proportional-Q Response

Dimensions



Equalizers

SQ1G

Dual 30 Band, 1/3 Octave Analogue
Graphic Equaliser with Enhanced
Proportional-Q Response

Technical Specifications

Technical Specification

Inputs	2
Type	Electronically balanced (pin 2 hot)
Impedance	20 k Ω
Maximum input level	+22 dBu
Outputs	2
Type	Electronically balanced (pin 2 hot)
Minimum load impedance	600 Ω
Source impedance	<60 Ω
Maximum output level	+22dBu into >2k Ω

Performance

Frequency response relative to signal at 1kHz	± 0.5 dBu 20 Hz - 20 kHz
EQ out	± 0.5 dBu
EQ in (flat)	± 0.5 dBu
Distortion (THD+N)	< 0.005% @ 1 kHz +4 dBu
Dynamic range	>112 dB (20 Hz - 20 kHz unweighted, ± 12 dB range)
Overload indicator	+19 dBu
Gain control	$-\infty$ to +6 dBu
Equalisation	30 Bands
Centre frequencies	To BS EN ISO 266:1997 25Hz-20kHz, 1/3 octave tolerance $\pm 5\%$
Maximum boost/cut	± 12 dB
High pass filter slope	12 dB/octave
Low pass filter slope	12 dB/octave

Terminations

Audio	3-pin XLR and 1/4" TRS
Power	3-pin IEC

Power Requirements

Voltage	100 to 240 VAC, 50 to 60 Hz
Consumption	<25W

Dimensions

Width	483 mm (19.0")
Depth	203 mm (8.0")
Height	132 mm (5.2")

Weight

Net	4.4 kg (9.7 lbs)
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Equalizers

SQ1G

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Architecture & Engineering Specifications

The graphic equaliser shall provide the function of graphic equalisation for each of two channels with a proportional-Q response with ± 12 dB of boost and cut at 30 $\frac{1}{3}$ octave centre frequencies from 25 Hz - 20 kHz to BS EN ISO 266:1997. A graphic equalisation section bypass switch shall also be provided for each channel.

The graphic equaliser shall use centre-detented slide potentiometers with 45 mm travel arranged to give a graphical display of frequency plotted against level. The slide potentiometers shall have protective covers to inhibit the ingress of dirt and dust.

The graphic equaliser shall have one second order (12 dB/oct) high-pass filter per channel with fixed 80 Hz corner frequency.

The graphic equaliser shall have one second-order (12 dB/oct) low-pass filter per channel with fixed 12 kHz corner frequency.

The graphic equaliser shall have a channel gain control with range from $-\infty$ to +6 dB per channel.

The graphic equaliser shall have a power-off bypass facility, which shall allow it to return automatically to the bypass condition in the event of power supply interruption.

The graphic equaliser shall feature 2 line-level electronically-balanced inputs and 2 line-level electronically-balanced outputs on industry-standard XLR connectors and $\frac{1}{4}$ " TRS connectors.

The graphic equaliser shall include an auto-ranging universal switch-mode power supply for use on a worldwide basis.

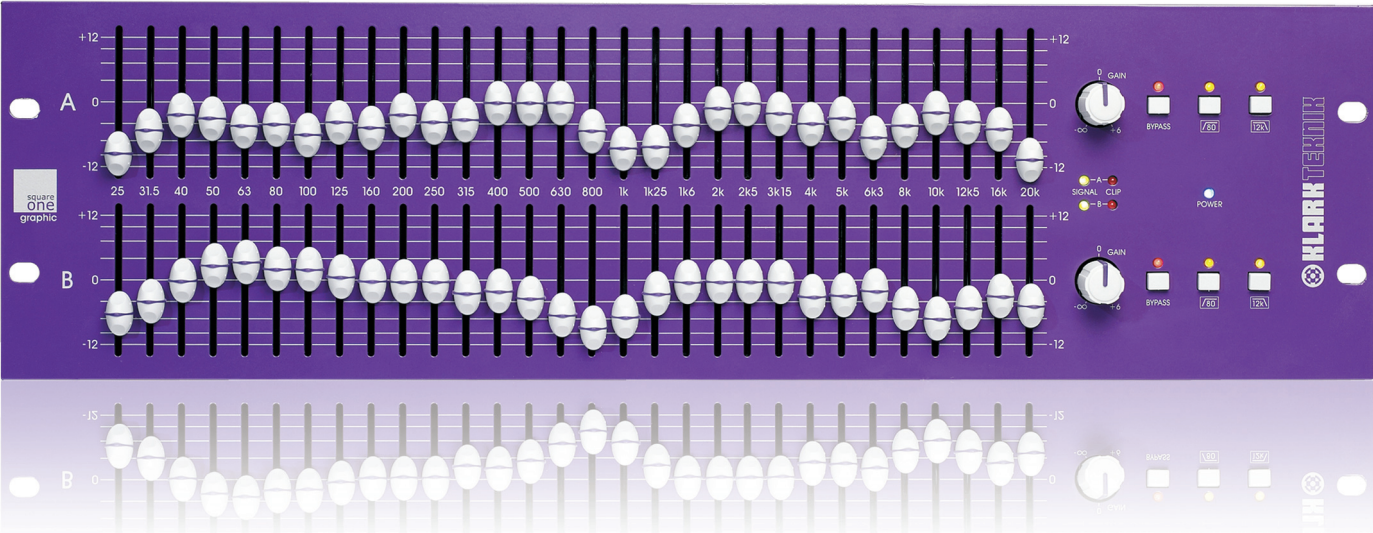
The graphic equaliser shall be housed in a standard 3U 19" rackmount chassis, and shall be 483 mm wide x 203 mm deep x 132 mm high (19.0" x 8.0" x 5.2"), with nominal weight 4.4 kg (9.7 lbs). The graphic equaliser shall be installed in a rack frame or road case capable of safely supporting its weight. Input, output, and power connections shall be made at the rear panel of the graphic equaliser. Installers shall allow adequate space at the rear for connection and disconnection of input, output, and power connections. The power requirements shall be 100 to 240 VAC, 50 to 60 Hz.

The graphic equaliser shall be the [KLARK TEKNIK SQ1G](#) and no other alternative shall be acceptable.

Equalizers

SQ1G

Dual 30 Band, 1/3 Octave Analogue
Graphic Equaliser with Enhanced
Proportional-Q Response



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