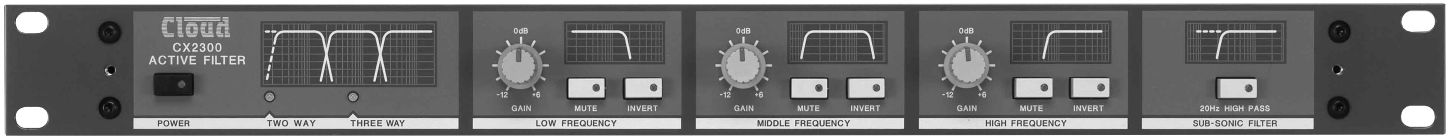


CX 2300



The Cloud CX2300 2/3 Way Stereo Active Crossover has been designed without compromise to operate with very low levels of noise and distortion as part of a high quality professional sound system. The 18dB/octave close tolerance filters are available in 82 frequencies to suit any combination of transducers. The CX2300 also features a switchable 20Hz high pass filter to provide added protection to LF drivers. A high degree of security is provided by using fixed frequency plug-in filter cards together with a tamper proof cover for the front panel. Once the unit has been correctly installed, no unauthorised adjustments can be made thus maintaining system integrity and reliability.

APPLICATION

The CX2300 has been designed for stereo applications where the system has the identical amplifier and loudspeaker components on both channels, the use of a common set of controls for both channel simplifies installation and reduces set up time. The CX2300 can be utilised in 2 or 3 way mode in any sound system that requires an active filter. It is particularly suited to applications that require accurate and stable fixed frequency crossover points such as Club and PA systems where there is a need to ensure that after the unit has been installed an set up that no unauthorised adjustments are made.

FILTER CARDS

The filter frequency is determined by the installation of plug-in cards, each card contains two high pass and two low pass filters. One filter card contains all the circuitry for one frequency transition on both channels. For two way systems, one card is required; for three way systems, two cards are required. Special filter cards are available for systems that require overlapping crossover frequencies. The 18dB/octave close tolerance filters are available in 82 frequencies as detailed (see filter frequency table).

FRONT PANEL CONTROLS

Gain

All three bands have their own stereo gain controls with a range of -12dB to +6dB.

Mute switch

This switch allows each individual band to be muted, this can very helpful when setting up.

Invert switch

It is often not practical to align the diaphragms and voice coils of the many drivers such that they are all coincident and in addition, both equalisation and filter circuits can cause small amounts of phase shift. The phase reverse switch can be used to introduce a phase shift of 180 degrees, this will then allow subjective analysis to determine the optimum setting of any band relative to the others.

20Hz High pass filter

The ported reflex bass enclosure is used extensively in professional sound systems and a characteristic of this design is that the cone of the LF driver is not loaded below the tuned frequency of the enclosure and some form of excursion protection must be provided to prevent the driver from possible physical damage. The 20Hz high pass filter in the CX2300 can be used to provide this protection at the rate of 18dB/octave.

TAMPERPROOF COVER

To prevent unauthorised adjustment of the settings a Tamperproof cover is supplied with each CX2300. Special recessed "Allen" cap screws are used to secure the cover and "One time" locks are also provided. This will discourage unauthorised adjustment and will also provide evidence if there has been unauthorised access to the controls.



INPUTS/OUTPUTS

All inputs and outputs are balanced and XLR type connectors are used throughout.

Filter frequencies table

40Hz	50Hz	60Hz	70Hz
80Hz	90Hz	100Hz	110Hz
120Hz	125Hz	130Hz	140Hz
150Hz	160Hz	170Hz	175Hz
180Hz	190Hz	200Hz	210Hz
220Hz	225Hz	230Hz	240Hz
250Hz	260Hz	270Hz	275Hz
280Hz	290Hz	300Hz	325Hz
350Hz	375Hz	400Hz	425Hz
450Hz	475Hz	500Hz	525Hz
550Hz	575Hz	600Hz	625Hz
650Hz	675Hz	700Hz	725Hz
750Hz	775Hz	800Hz	900Hz
1kHz	1.1kHz	1.2kHz	1.3kHz
1.4kHz	1.5kHz	1.6kHz	1.7kHz
1.8kHz	1.9kHz	2kHz	2.25kHz
2.5kHz	2.75kHz	3kHz	3.25kHz
3.5kHz	3.75kHz	4kHz	4.25kHz
4.5kHz	4.75kHz	5kHz	

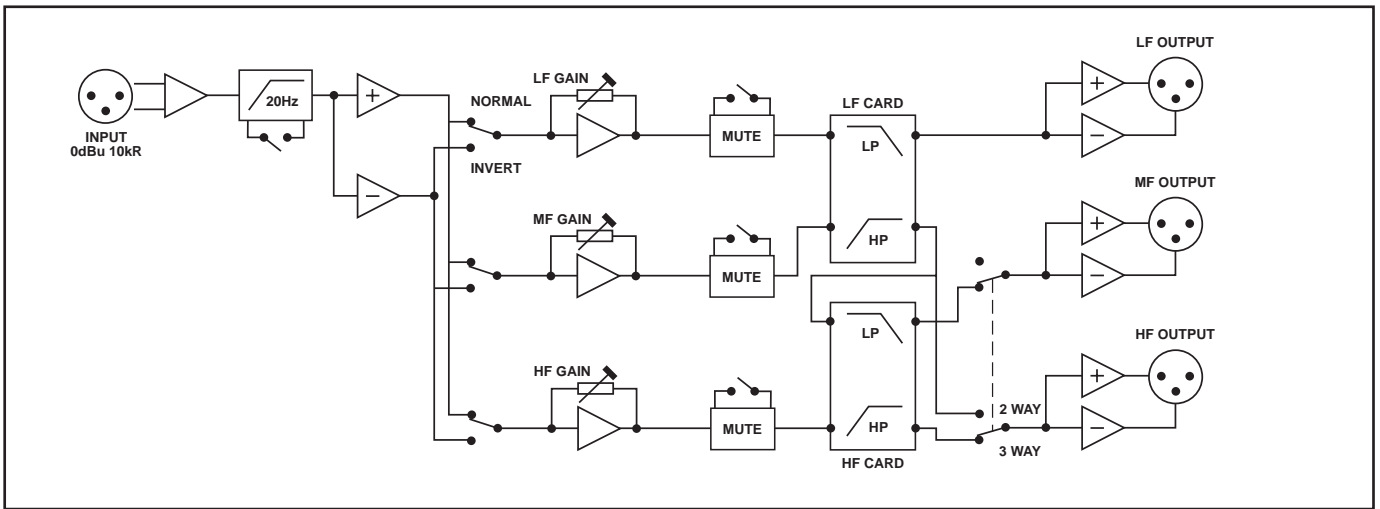
Technical Specifications

General Specification

Power consumption	7.5VA
Power requirements	230V \pm 10% / 115V \pm 10% 40-60Hz AC
Fuse rating	230V - T50mA or 115V - T100mA
Width	482.6mm (19" rack mtg)
Height	44.0mm (1U)
Depth	175.0mm
Weight	3.5kgs including packing

Technical Specification

Frequency response	20Hz - 20kHz \pm 0.25dB
Distortion (THD+N)	0.005% typ 20Hz - 20kHz 0dBu
Nominal input level	0dBu
Headroom	26dB
Input impedance	10k Ω balanced - 5k Ω unbalanced
Common mode rejection	-65dB / 10kHz
Crosstalk	-70dB / 10kHz
Gain range	+6dB / -12dB
Sub-sonic filter	-3dB 20Hz 18dB/oct Butterworth
Crossover filter	18dB/oct Butterworth
Nominal output level	0dBu balanced / -6dBu unbalanced
Minimum load impedance	600 Ω
Maximum output level	+26dBu balanced / +20dBu unbalanced



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