

Soundcraft

DELTA DLX

DELTA DLX: THE BEST MADE BETTER

SINCE ITS LAUNCH IN SEPTEMBER 1989, the Soundcraft 200 Delta has become the industry standard in compact professional mixing consoles. In 1990 it won the prestigious British Design Council Award—a testament to its good looks and usability. Often imitated, 200 Delta has never been bettered—until now.

Delta DLX continues the unique tradition of the world's best-selling professional mixing console. Drawing on Soundcraft's unequalled two decades of experience in the design and manufacture of professional consoles, Delta DLX takes the proven and highly-respected Delta design another step forward into new realms of quality, versatility and performance.

Delta DLX is a multi-purpose, 4-bus console retaining all the flexibility and options offered in the original design. The same patented technology as appears in our latest flagship consoles, including the padless mic preamp and active panpot. The same impeccable noise, distortion, crosstalk and CMRR figures as before—a perfect match for digital audio equipment. Then there's the same unique single-piece frame for strength and individual connectors on each module for improved reliability and ease of maintenance. And of course the award-winning industrial design and ergonomics.



New and Improved

Delta DLX will be familiar to anyone who has used the 200 Delta. But there are improvements inside and out. Most obvious are the inclusion of no less than six independent auxiliary sends on the stereo and mono input modules, along with the width control on the stereo input module. The DLX mono input module offers a range of powerful facilities and features. The dual-line input module offers two full-featured identical line inputs on each module—doubling the number of inputs available on any size of console.

The new Delta DLX offers a special combination of new technology underpinned by a well-established, proven design. With up to four groups, it's equally at home in A/V and conferencing applications; in the project studio—particularly in MIDI or disk-based production applications; and in a range of live sound environments.

The fully-modular DLX can be supplied with any combination of input modules: mono, stereo or dual line; in any of the four frame sizes (8, 16, 24 or 32 channels), and with up to four group modules.



Mono Input Module

The Mono Input module (see over) offers a wide range of features plus excellent audio performance.

Phantom power is provided on a front-panel pushbutton at the top of the module, while the renowned padless mic preamp leaps 68dB in a single band. The line input has a seperate connector and is brought in by a mic/line switch, with a sensitivity of +10 to –20dBu. Phase reverse and 100Hz HPF buttons are provided.

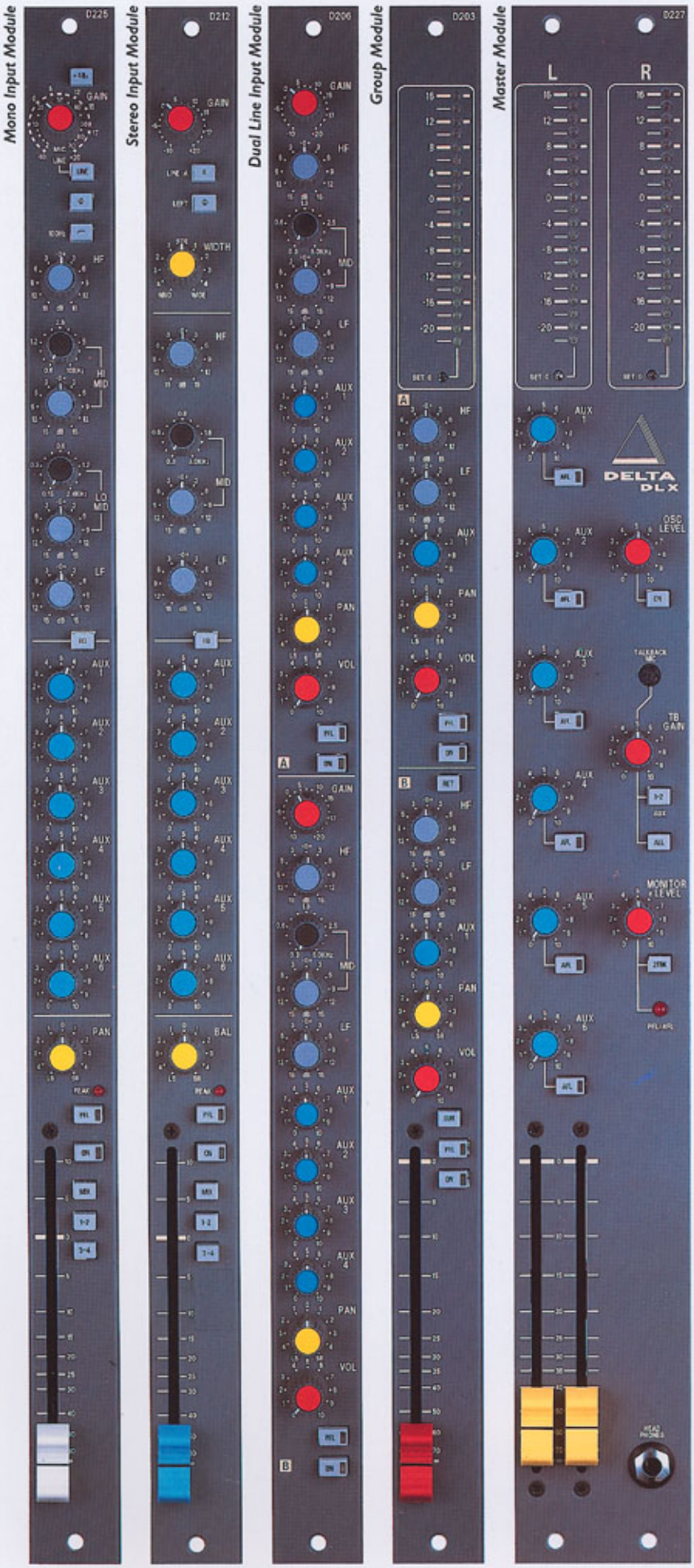
Switchable 4-band EQ is featured, each band offering ±15dB boost and cut, with sweep low and high midrange (600Hz–10kHz and 150Hz–2.4kHz respectively) and carefully-tailored 12kHz HF and 60Hz LF frequencies—including a unique hybrid peaking/shelving LF design allowing bass signals to be boosted without increasing subsonics, minimising loudspeaker distortion and room resonance.

An unbalanced channel insert is provided at a nominal level of –2dBu. Normally post-EQ, it can be set to pre-EQ by means of internal wire links.

Six auxiliary sends are provided for foldback and effects applications. Aux 1 and 2 may be individually selected for pre-EQ, pre-fade or post-fade. Aux 3 and 4 may be individually selected pre- or post-fade (default is pre-fade on aux 1–4). Aux 5 and 6 are post-fade.

The patented active panpot design offers an extremely accurate pan law and precise stereo imaging. Crosstalk is so low that the groups can easily be used as mono sends.





Peak indication is given by a red LED which illuminates when less than 4dB headroom is available at the post-EQ insert send. Full non-destructive PFL monitoring is provided on an illuminated button, while a further illuminated ON button indicates the channel status.

Routing buttons send the channel signal to pairs of groups (1–2, 3–4 or the stereo mix bus) and the overall level is controlled by a smooth, 100mm long-throw fader.

A post-fade direct output is provided at a separate connector on the rear panel, ideal for direct recording of specific signals to individual multitrack channels with a minimum-device signal path for highest quality.

Stereo Input Module

Ideal for a variety of external stereo sources—such as stereo keyboards, CD players or record decks (with optional RIAA preamp) as well as stereo effects returns, cart machines and other broadcast and A/V applications, the Stereo Input Module accepts two separate stereo line input signals via a selector pushbutton. The gain is variable between +10dBu and –20dBu. A stereo width control is provided, offering control from mono, through stereo, to phase-enhanced super-stereo. The balance control sets the relative levels of left and right channels; since it cuts one side completely at full rotation it can be used to direct direct signal to only one group. Phase correction is achieved by means of a button which reverses the polarity of the left input channel.

The 3-band EQ offers ±15dB of boost/cut at 12kHz HF and 60Hz LF (both shelving) plus a peaking sweep midrange variable from 300Hz to 3kHz. The entire EQ section can be switched in or out.

All six aux buses can be accessed from the stereo input module. Aux 1 is jumper-selectable to pre-fade mono, post-fade mono, pre-fade stereo (left) or post-fade stereo (left). Default is pre-fade mono. Aux 2 is jumper-selectable to pre-fade mono, post-fade mono, pre-fade stereo (right) or post-fade stereo (right). The default is pre-fade mono. Aux 3 and 4 are jumper-selectable to pre- or post-fade mono (default post-fade). Aux 5 and 6 are post-fade mono.

Routing, peak indication, channel status and PFL are as fitted to the mono input module, while the fader is a 100mm long-throw stereo type.

Dual Line Input Module

The Dual Line module offers two identical, full-featured mono inputs per channel strip, instantly doubling the number of inputs available on each

channel. The channel outputs are routed direct to the stereo mix bus via a pan control and rotary fader with up to 10dB of gain when turned fully clockwise. The Dual Line input module is ideal for stage submixing as well as effects return facilities.

The input gain control covers a sensitivity range of +10dBu to –20dBu, while the 3-band EQ section is identical to that fitted to the Stereo Input Module. Illuminated PFL and channel status buttons are provided for each module section.

Four aux controls are provided. Aux 1 and 2 may be link-selected pre- or post-fade while aux 3 and 4 controls are post-fade only and may be internally switch-selected to feed either the 3 and 4 or 5 and 6 aux buses. This setting is made individually for input sections A and B.

Group Module

Up to four individual group modules may be fitted to the Delta DLX. This allows for a wide range of output formats from four plus two down to straight stereo with no group modules at all, using only the stereo mix bus facility in the master module.

Each group module has two mono returns (A and B) mounted above the group section. These return to the mix bus and are ideal for multitrack monitoring, but are equally valuable as effects returns. The lower return generally monitors the group output or tape return, switch-selectable. A SUB button routes the return to the group bus and feeds a combination of the group signal and the return to the stereo mix bus via the 100mm long-throw group fader and panpot, allowing full use of the returns along with subgrouping. A pre-fade group insert is provided on the rear connector panel.

A 20-segment LED bargraph display meters either the group output or the lower return, with internally-selectable peak or VU characteristics.

Both returns feature rotary level control plus channel status and PFL illuminated buttons, and both have a send control feeding the aux 1 bus. The 2-band EQ units feature 8kHz and 60Hz centre frequencies with ±15dB boost/cut.

Master Module

This module provides a range of centralised facilities including the main stereo mix bus faders, aux send masters, monitoring, test oscillator, talkback and metering.

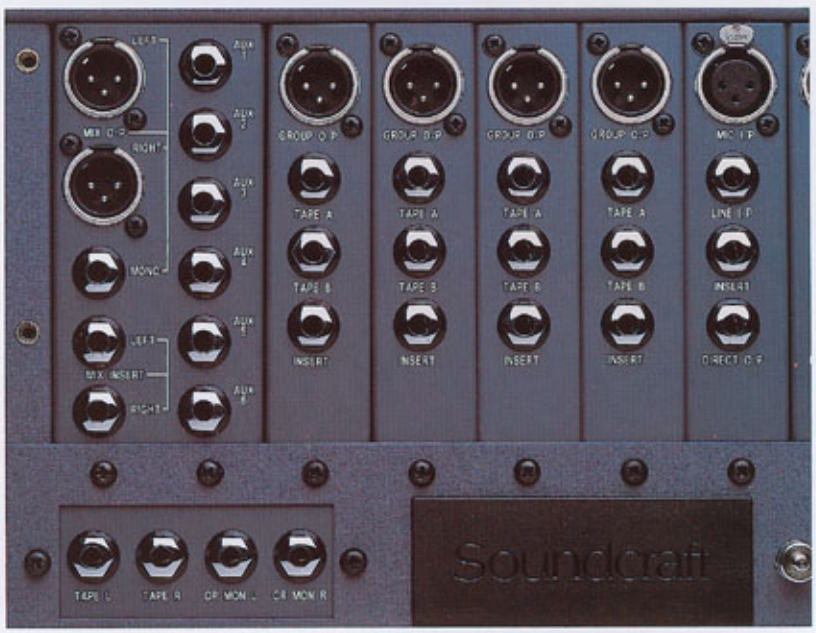
A pair of 20-segment LED bargraphs follow the control room output, and indicate the level of the signal being monitored—either the stereo mix bus or an external stereo input (tape return) audible when the 2TK button beneath the master monitor level control is pressed. Headphone outputs are provided.

A PFL/AFL indicator associated with the main monitor level control shows the operator that the normal stereo bus or tape return signal has been overridden on the monitors by a PFL or AFL selection.

Talkback via the internal mic and associated level control may be made to aux 1 and 2 only or to all buses at once, activated by two pushbuttons. The 1kHz oscillator provided has an associated level control and on/off pushbutton.

The six aux masters are situated on the master module. Each has a calibrated level control and an illuminated AFL button. The aux masters feature a special circuit configuration which maintains headroom even when the aux master controls are set to low levels, thus minimising foldback and echo send distortion.

The stereo mix path features low-noise summing amps, a rear-panel insert point and both mono and balanced stereo outputs, controlled by 100mm long-throw faders.



Rear connector panel. L to R: Master Module, 4x Group Modules, Mono Input Module. Stereo Input Module includes separate left and right jack sockets for inputs A and B; Dual Line Input Module features separate input jack sockets.

DELTA DLX PRELIMINARY SPECIFICATIONS

FREQUENCY RESPONSE

+0.0, –0.5 dB, 20Hz to 20kHz (Any Input to any Output)

TOTAL HARMONIC DISTORTION

(All measurements at +20dBu)	Line Input to Group or Mix Output:	Less than .005% (1kHz); Less than .02% (10kHz)

NOISE

	(20 Hz–20 kHz bandwidth, unweighted)	
	Microphone Input Equivalent Input Noise:	Less than –127.5 dBu (150Ω source)
	Mix Bus Output Noise (16 ch routed):	–80 dBu
	Aux Bus Output Noise (16 ch routed):	–78 dBu

CROSSTALK

(All measurements at 1 kHz)	Channel Muting:	Greater than 95 dB
	Channel Fader Attenuation:	Greater than 80 dB
	Channel Panpot Isolation:	Greater than 90 dB
	Channel Routing:	Greater than 95 dB
	Channel Aux Send Attenuation:	Greater than 85 dB

INPUT & OUTPUT IMPEDANCES

	Microphone Input:	2kΩ balanced
	Line Input:	Greater than 10kΩ balanced
	Outputs:	75Ω

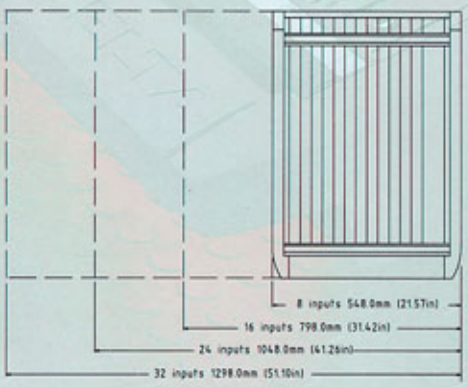
OUTPUT CAPABILITY

	Group & Aux Outputs:	+21 dBu into 600Ω
	Mix Outputs:	+27 dBu into 600Ω
	Group & Mix Inserts:	+21 dBu into 600Ω
	Mono Input Inserts & Direct Outputs:	+20 dBu into 2kΩ

INPUT & OUTPUT LEVELS

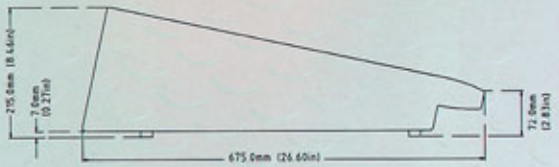
	Microphone Input Sensitivity:	–2 to –70 dBu, variable
	Line Input Sensitivity:	–10 to +20 dBu, variable
	2-Track & Tape Returns:	+4 dBu or –10 dBV
	Mono Input Inserts & Direct Outputs:	–2 dBu, unbalanced
	Group & Mix Inserts:	–8 dBu, unbalanced
	Aux Outputs:	+4 dBu, ground-compensated
	Mix & Group Outputs:	+4 dBu or –10 dBV (Mix Output Balanced)

Soundcraft reserves the right to alter design specifications of its products without prior notice.



RACK-MOUNT OPTION

8-Channel Rack Mount	Length:	483.0 mm	(19.0 inches)
	Depth:	211.0 mm	(8.31 inches)
	Height:	577.0 mm	(22.72 inches)
Blank Plate	Length:	483.0 mm	(19.0 inches)
(fitted above rack)	Height:	88.0 mm	(3.46 inches)



DELTA DLX CONSOLE DIMENSIONS

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