specifications

X-VCA

frequency response	+0/-1dB **20Hz–20kHz ref 1kHz @ +4dBu**—any input to any output
THD	any output <.01% THD **20Hz–20kHz @ +15dBu out**
noise	mic ein better-than -128dBu **20Hz–20kHz**—150ohm source, 60dB gain
	bus output noise less-than -80dBu—output fader @ 0dB, **24 channels routed**
	residual output noise less-than -90dBu—output fader at minimum
crosstalk	channel mute >90dB channel routing >80dB
	channel fader attenuation >90dB aux send attenuation >75dB
phase shift	< +/- 30 degrees, **20Hz–20kHz**—mic-in to main-out
inputs	mic-in XLR 4k ohm balanced—max voltage gain to left/right balanced out = 98dB
	line-in TRS >10k ohms balanced
outputs	left/right/mono—group, aux, matrix—monitor-out **all 100 ohms balanced**
	headphones to drive > eight-ohms
insert	send 50 ohms ground-compensated on TRS jack
	return >10k ohms balanced on TRS jack
nominal output level	+4dBu max level **+26dBu balanced into >1k ohms**
input channel eq	high freq +/-15dB frequency range **1kHz–20kHz** Q variable 3.0–0.7 **switchable to shelving**
	high-mid freq +/-15dB frequency range 400Hz–8kHz Q variable 3.0–0.7
	low-mid freq +/-15dB frequency range 100Hz–2kHz Q variable 3.0–0.7
	low freq +/-15dB frequency range 40Hz–800Hz Q variable 3.0–0.7 **switchable to shelving**
output features	all group-outputs feature: compressor with threshold, ratio and gain controls—plus soft-knee and response switches
	downward expander/gate with adjustable threshold and ratio controls
	linking between odd/even group-pairs preserves stereo-imaging and allows for ducking effects
	main-outputs feature: five-band output eq: **high and low bands**—adj freq **three mid-bands**—adj freq and Q
	left/right/mono switchable high-pass filter—40Hz @ -24dB/octave
	adjustable RMS output-limiters with threshold control and eight-segment gain reduction meter
channel metering	five-segment LED ladder with VU-type response—displays pre-fader signal level
	top red-LED warns of impending overload anywhere within the channel, lowest green-LED shows signal-present
master metering	thirteen mechanical VU-type meters with LED-illumination
	eight-meters showing group-outs
	three-meters showing main-outs (left/right/mono), and two dedicated solo-meters
signal generator	pink-noise generator can feed the talk-back section
construction	chassis is powder-coated **14-gauge galvanized steel** with internal-bracing
	modules are powder-coated **18-gauge galvanized steel** with baked-epoxy screening
dimensions and weights	see dimension-drawing
warranty	one-year parts and labor—US and Canada only

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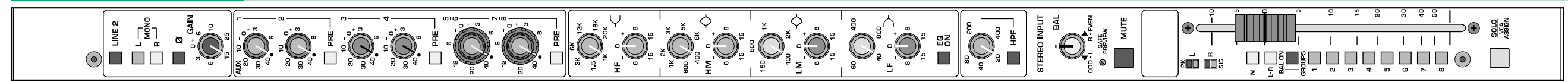v. 1.1 D7000021 **4/10/00**

modules

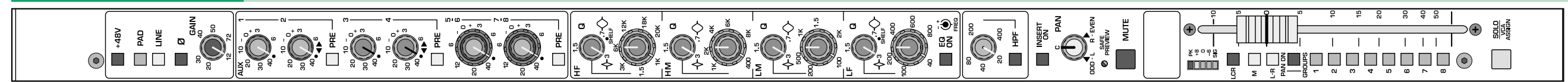## master module block
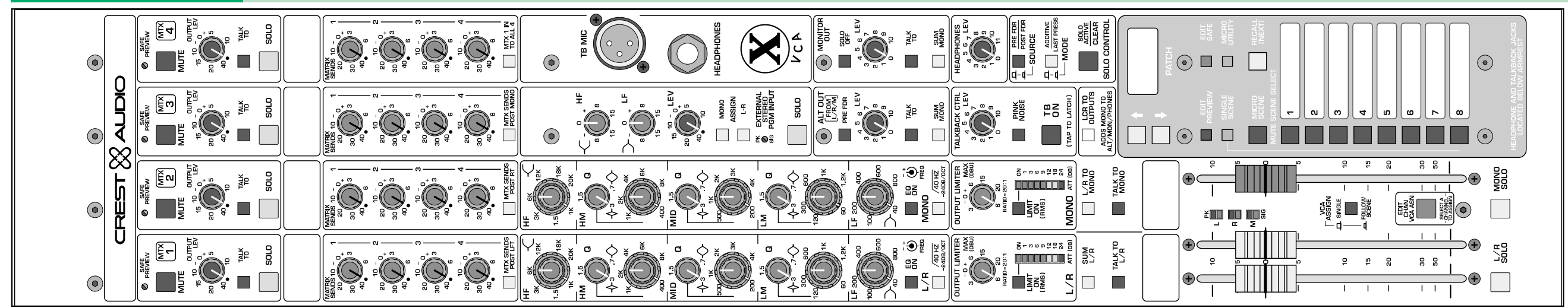
group module pair
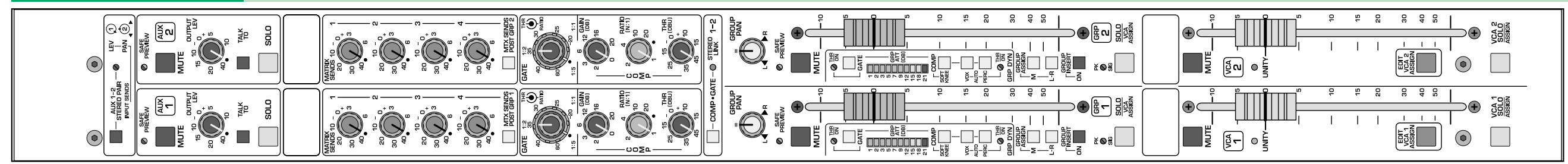
## stereo input module


mono input module

rear view X-VCA

| master | groups | stereo inputs | mono inputs |

X-VCA
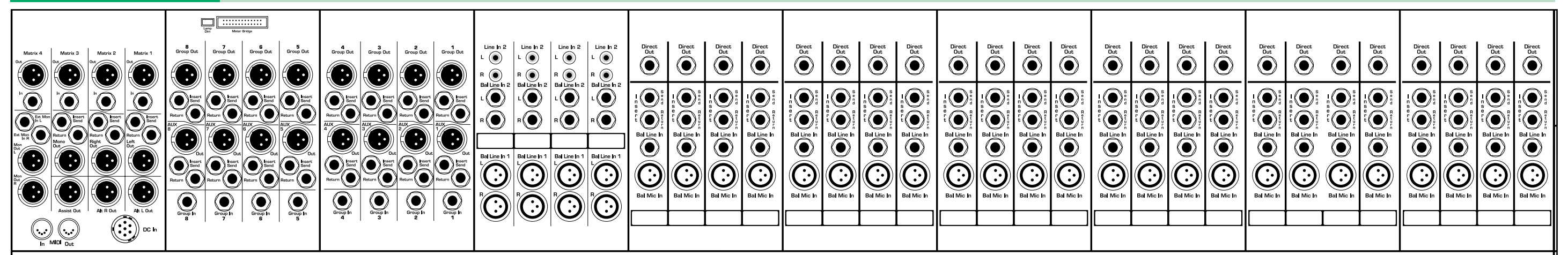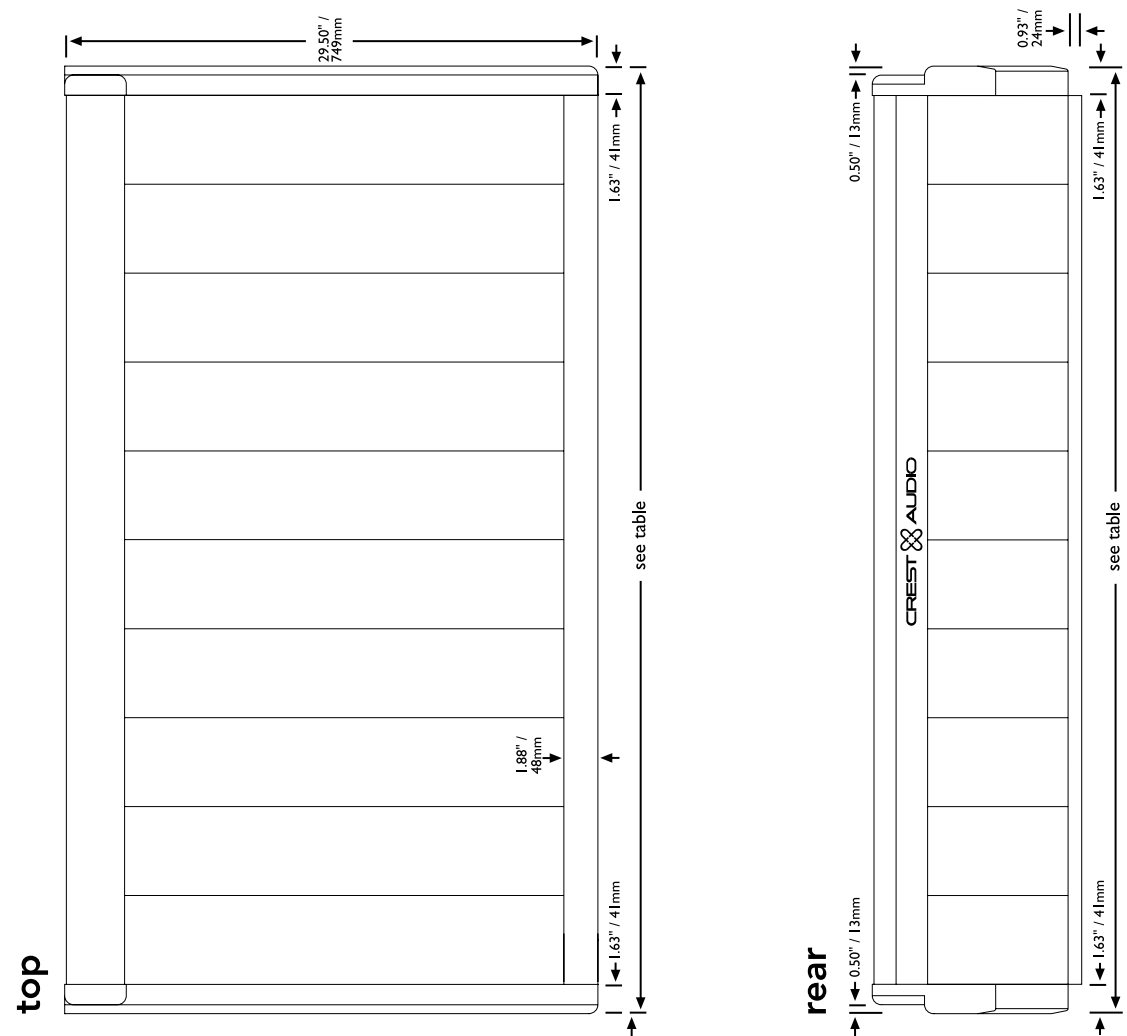
frame	dimensions	weight
40	52.5 x 29.5 x 11.6 in 133.5 x 75 x 29.5 cm	139 lbs 63 kg
48	62.25 x 29.5 x11.6 in 158 x 75 x 29.5 cm	165 lbs 75 kg
56	72.13 x 29.5 x 11.6 in 183 x 75 x 29.5 cm	190 lbs 86 kg
64	81.97 x 29.5 x 11.6 in 208 x 75 x 29.5 cm	217 lbs 99 kg

frame size = total number of modules in a console
(inputs + groups + master + etc)

side

top

rear
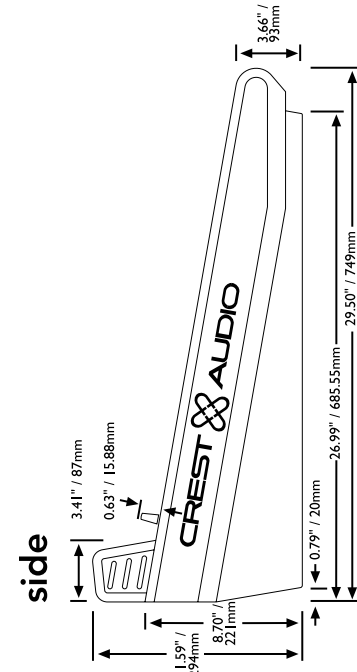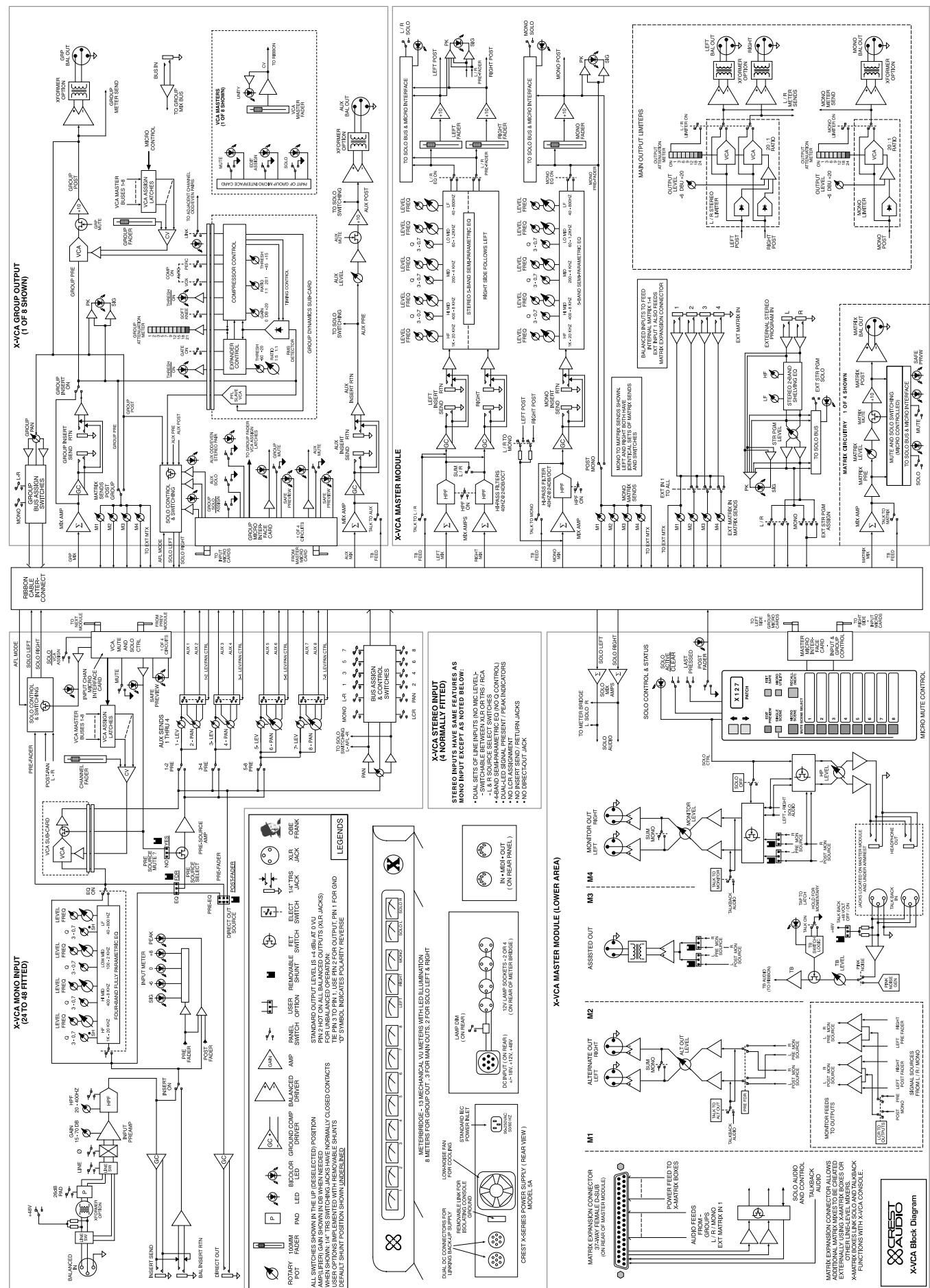
X-VCA console

description

Simplicity of operation may be desirable in a generic console designed for users of all levels, but for the experienced professional, such products often fail to provide necessary professional features. Rather than employing a least-common-denominator approach, X-VCA includes those features most-desired by veteran front-of-house engineers. Full-parametric eq is provided on all mono input channels. Stereo full-facility input channels are used for effect-returns on faders, and eight-channels of dynamics are provided on group channels. Full-VCA control is provided, not only on input channels, but also on group channels for maximum control of complex mixes. Auxiliary sends may be switched between mono or stereo operation. Five-band eq and RMS-limiters are provided on the stereo and mono outputs, helping to maintain control of maximum signal-levels when strict noise ordinances are enforced.

sound fundamentals

Even in the most demanding environments, the sonic performance of the X-VCA is sure to please discriminating sound engineers and audiences alike. The X-VCA's circuitry delivers both extended headroom and low-noise: exclusively employing the latest-generation of integrated circuits and studio-grade proprietary-design microphone pre-amplifiers. VCA-elements are the best available from THAT Corporation. The X-VCA console has exceptional phase-shift performance, exhibiting less than +/-30 degrees-of-shift from input to output—significantly better results than most consoles, regardless of price.

built to defy murphy's law

X-VCA consoles are manufactured to the same exacting quality-standards as all Crest Audio console products. Each input channel has its own discrete vertically-mounted circuit board, for greater impact resistance and serviceability. All circuit boards employ plate-through double-sided glass epoxy construction—providing greater strength and integrity. The console's road-worthy external frame is fabricated from 14-gauge galvanized steel.

X-Series power supplies utilize amplifier-engineering technology to deliver stable voltages and long-term reliability, and provide built-in facilities for a redundant back-up supply—ensuring that the show will always go on.

features

- eight VCA-masters control input and group channels —VCA assignment may be stored via the microprocessor control system
- four-band eq and variable high-pass filter on all input channels
- mono inputs have full-parametric eq, while stereo inputs are sweepable in all four bands
- eight-channels of dynamics include variable-ratio COMPRESSOR/LIMITER and DOWNWARD EXPANDER (gate)
- output eq and RMS-limiters on primary stereo and mono outputs
- multiple outputs, including ALTERNATE OUTPUT, MATRIX 1–4 (option for additional external matrix outputs) and dedicated ASSISTIVE LISTENING OUTPUTS
- direct-output on all mono input channels
- five-segment level indication on all mono input modules, with variable intensity SIGNAL PRESENT indicator and multiple sample point PEAK indicator
- stereo solo system features switchable AFL/PFL mode and LAST-PRESSED functions, with master SOLO CLEAR switch
- discrete bus assignment to groups, left/right and mono outputs
- true LCR panning available on mono input channels
- separate ground-compensated insert sends and balanced returns
- fully-balanced primary outputs and balanced mic and line inputs

wide range of configurations

X-VCA consoles are supplied with either 24, 32, 40, or 48 mono input channels, plus four full-featured stereo line-input channels—which can also serve as effect-returns. These standard configurations include Master and Group modules—all other inputs may be ordered as mono-mic/line or stereo-line, in four-channel blocks.

microprocessor-based muting system

The X-VCA's straightforward microprocessor-based muting system was co-developed with JL Cooper, and combines muting flexibility with ease of operation. Eight manual-mute groups are provided, each with a dedicated activation-switch, any number of which may be activated at one-time. The system includes 128 MIDI-based sequential scene mutes that can work alone, or in conjunction with the manual mute groups. Scene mutes can be controlled via external MIDI signals, and each of the 128 mute scenes may be preset to issue a MIDI program-change command to an external device. Each of the 128 mute scene locations can be used to store and recall VCA channel-assignments, in addition to channel mute memory.