

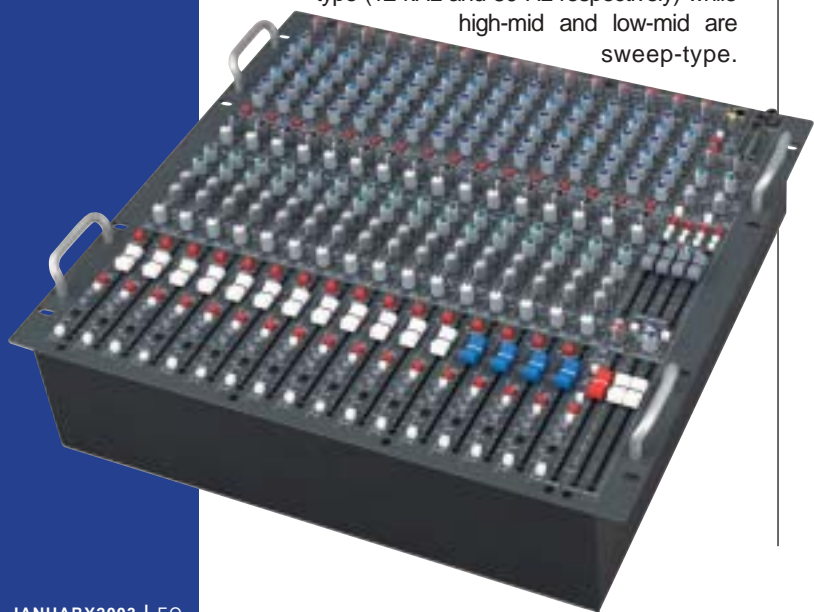
Crest X-Rack XR20 Rack Mount Mixer

The performance of a full-size desk in a compact package

The XR20 Rack from Crest Audio is a compact mixer intended for use in live sound, fixed installation, broadcast, and production applications. Each of the XR20's 12 mono and four stereo channels features phantom power, 4-band EQ, and access to six aux sends. In addition to the main L/R output bus, the XR20 has discrete mono and four subgroup outs. The main stereo and mono outputs employ rear-panel XLR connectors, while the subgroup outs use balanced TRS outputs. All of these buses feature TRS insert points. A rear-panel IEC receptacle provides AC to the XR20's internal power supply; the unit is powered using a nearby switch. Though some folks might not like the idea of a rear-panel power switch, it prevents accidental turn-off from damaging other system components.

On the XR20's rear panel are balanced TRS line and XLR mic inputs with a phantom power switch for each channel. The 12 mono channels have balanced TRS direct outs and TRS inserts. Although the stereo inputs lack direct outs and insert points, they provide dual line and mic inputs with phantom power, and include the same EQ, aux send, and assign capabilities as the mono channels. The XR20's aux sends appear on balanced TRS and XLR outputs, with TRS inserts. For linking another XR mixer there are +4 dBu bus inputs to the L/R, mono, and subgroup buses. DIN connectors for "Solo Link" allow the solo function of one mixer to mute channels on the other.

Each channel strip includes pad, gain, high-pass filter (18 dB/octave at 70 Hz), and the 4-band EQ with bypass switch. High and low bands are fixed, shelf-type (12 kHz and 80 Hz respectively) while high-mid and low-mid are sweep-type.



CREST X-RACK XR20

MANUFACTURER: Crest Audio, 16-00 Pollitt Drive, Fair Lawn NJ, 07410. Tel: 201-909-8700. Web: www.crestaudio.com.

SUMMARY: 20-channel, 4-bus rackmount mixer.

STRENGTHS: Extensive I/O. Plenty of headroom. Stereo channels accommodate mic as well as line inputs.

LIMITATIONS: Phantom power switches are on the rear panel. Group faders aren't pan-able. No polarity reverse

PRICE: \$2,200

Maximum boost or cut for each band is 15 dB. Directly below the EQ is the aux send section consisting of one stereo (aux 1/2) and four mono sends (aux 3, 4, 5 and 6); these may be switched pre- or post-fader in pairs. As you'd expect, there are bus assign switches for L/R, Group 1/2, and Group 3/4, as well as an assign for the mono bus — a welcome addition for situations requiring a center fill for vocals. A 100-millimeter fader, mute and PFL switches, and a bicolor LED (green for signal present, red for peak) round out the inputs.

The output section of the XR20 squeezes in 100-mm faders for L/R and mono, 60-mm faders for the subgroups, and rotary pots for tape in, aux master, monitor, and alt L/R outputs. Subgroup faders may be assigned to L/R, 1/2, 3/4 or mono, but don't have pan controls. In most applications this won't be a problem, but if you assign a series of channels to one group (keyboards for example), you can't move that group to say, three o'clock in the L/R mix. The sub outs each use a bicolor LED — more than sufficient for making sure group level is below clipping. Left and right meters are multicolor LED ladders ranging from -24 to +9 in three dB steps.

A highlight of the XR20 is the mic preamp. Providing up to 70 dB of gain, the pre's are quiet and have an extended low-end. Miking a finger-picked acoustic guitar with a low-output ribbon mic was not a problem for the XR20, which added little (if any) audible noise when cranked up for the requisite gain. Kick drum and floor toms came through with a bottom that can shake the rafters, given a willing set of racks and stacks. A pad is available on the pre but there's enough headroom that — even with a mic inside a kick drum — the pad was unnecessary. Midrange and high-frequency response was clean and clear, allowing snare and cymbals to be in your face without being harsh.

The XR20's EQ is very effective, making it easy

to add snap to toms or snare with a bit of boost at 3 kHz. The frequency range on the low-mids goes down to 100 Hz — allowing the bottom end to be bumped up while using the low-frequency band or the high-pass filter to reduce rumble. The high-pass filter was also useful for reducing mechanically transmitted noise in vocal mics while barely affecting the vocal sound. The high-frequency band removed sibilance from a female vocal without making it dull. In other situations, boosting the high frequencies brightened a vocal without adding noise, though boosting near 6 kHz on the high-mid control added some hiss.

The XR20 has extensive monitor routing with independent stereo headphone (front-panel, 1/4-inch TRS) and monitor outs (rear-panel, RCA or 1/4-inch TRS). Not to be confused with the main L/R outs, the monitor outs would likely feed a pair of nearfield speakers for situations where speakers are preferred over headphones for cueing. The monitor section can tap signal from the L/R,

Specifications

FREQUENCY RESPONSE20 Hz to 20,000 Hz, +0/-1 dB
THDLess than 0.01%, 20 to 20,000 Hz
NOISE-128 dBu (mic input, 60 dB gain, 20 to 20,000 Hz); -85 dBu (bus)
PHASE SHIFTLess than ± 30 degrees, 20 to 20,000 Hz, mic in to main out

mono, group 1/2, group 3/4, tape in, or aux 1-2 buses, as well as a solo'd signal. When "Solo Off" is engaged, the monitor outs can be used as another zone output. Default signal to the headphones is the L/R bus, but the phones can be switched to follow the monitor output routing. An additional switch routes the tape input to the phones.

Since the XR20's stereo inputs may serve as effect returns, the "Sum to Mono" switch is very useful. "Sum to mono" automatically routes a mono signal to the left and right inputs, avoiding "one-sided delay." One feature I did miss was a polarity reverse switch on the channel; it would be wise to keep a

polarity-reverse cable on hand for multi-miking a source.

The XR20 from Crest Audio is what most small-format mixers aspire to be. It may appear compact but the XR20 has more in common with Crest's large-format consoles than it does with "budget" mixers — including modular construction for easy maintenance, and the headroom you'd expect from a full-size desk. Audio performance is excellent making it a smart choice for a high-end keyboard rig or a small touring in-ear monitoring system, as well as a compact house mixer. With its smooth EQ, versatile routing, and a ton of features, and the Crest XR20 is one very cool mixer. ■