

BEHRINGER X32 RACK CONNECTIONS & OVERVIEW MANUAL



Digital Mixers

X32 RACK

POWERED BY MIDAS

40-Input, 25-Bus Digital Rack Mixer with 16 Programmable MIDAS Preamps, FireWire*/USB Audio Interface and iPad/iPhone* Remote Control

- 40-input channel, 25-bus, 3U rack-mountable digital mixer for live and installed sound application
- 16 MIDAS-designed, fully programmable mic preamps for audiophile sound quality
- 8 XLR outputs plus 6 additional line in/outputs, phones connector and a talkback section with integrated or external mic
- 32 x 32 channel USB 2.0 audio interface
- iPad* and iPhone* apps for professional remote operation available free of charge—no host PC required
- High-resolution 5" day-viewable Color TFT for easy viewing of workflow components and parameters
- Main LCR, 6 matrix buses and all 16 mix buses each featuring inserts, 6-band parametric EQ's and full dynamics processing, plus 8 DCA and 6 mute groups
- Virtual FX rack featuring 8 true-stereo FX slots include high-end simulations such as Lexicon 480L* and PCM70*, EMT250* and Quantec QRS* etc.
- 40-Bit floating-point DSP features "unlimited" dynamic range with no internal overload and near-zero overall latency (0.8 msec)
- Powerful scene management for convenient handling of complex productions
- 48-channel Digital Snake ready** via dual AES50 ports, featuring KLARK TEKNIK's SuperMAC networking capability for ultra-low jitter and latency



40-Input Channel, 25-Bus Digital Rack Mixer with 16 Programmable MIDAS Preamps, FireWire*/USB Audio Interface and iPad/iPhone* Remote Control

It can be your top-notch studio recording interface today, control a complex theatre production tomorrow, or sit securely in your side-rack while you're mixing your band's club gig from your iPad. The X32 RACK is a revolutionary new product genre that combines finest analog I/O and powerful digital connectivity, with ample processing for 40 channels, 25 buses and up to 152 signal sources.

While every parameter of your mix can be adjusted directly on the X32 RACK through its 800 x 480 graphic UI, networked remote control literally makes room for new possibilities. Several instances of our XControl PC/Mac application, XiControl app for iPad/iPad mini and XiQ app for iPhone/iPod touch allow controlling the mix from exactly the place you find most suitable.

16 MIDAS-design mic preamps provide plenty of inputs—and with its dual AES50 ports, X32 RACK can support up to six S16 digital snakes for massive I/O connectivity.

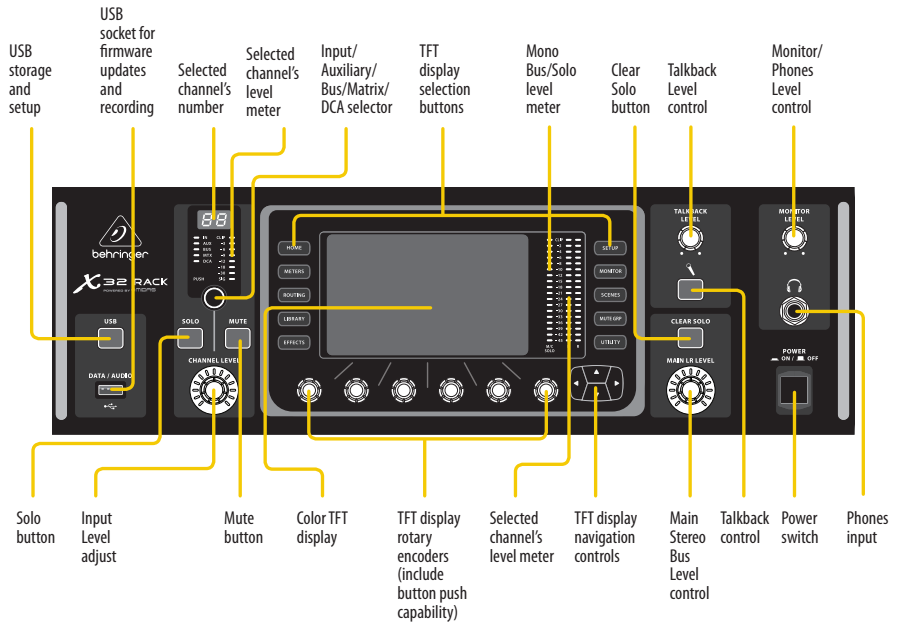
8 powerful stereo FX engines coupled with ultra-flexible routing options make the X32 RACK the ideal choice for handling audio now—and as your needs grow.



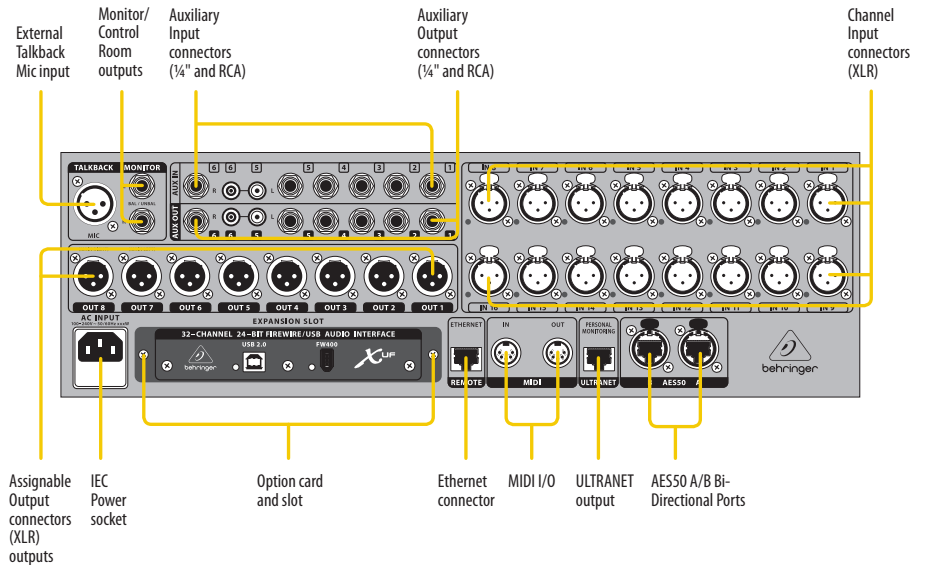


- USB type-A connector providing file storage and uncompressed stereo recordings plus show presets and system updates
- ULTRANET connectivity for BEHRINGER's P-16 Personal Monitoring System**
- Networked remote control for show setups with on-screen software editor via Ethernet
- Built-in expansion port for audio interface cards or digital networking bridges
- MIDI In/Out for remote scene recall or controlling other MIDI equipment
- Future firmware updates, incl. new FX "Plug Ins", downloadable from behringer.com free of charge
- Conceived and designed by BEHRINGER Germany

Front Panel Controls



Rear Panel Input/Output Patchbay

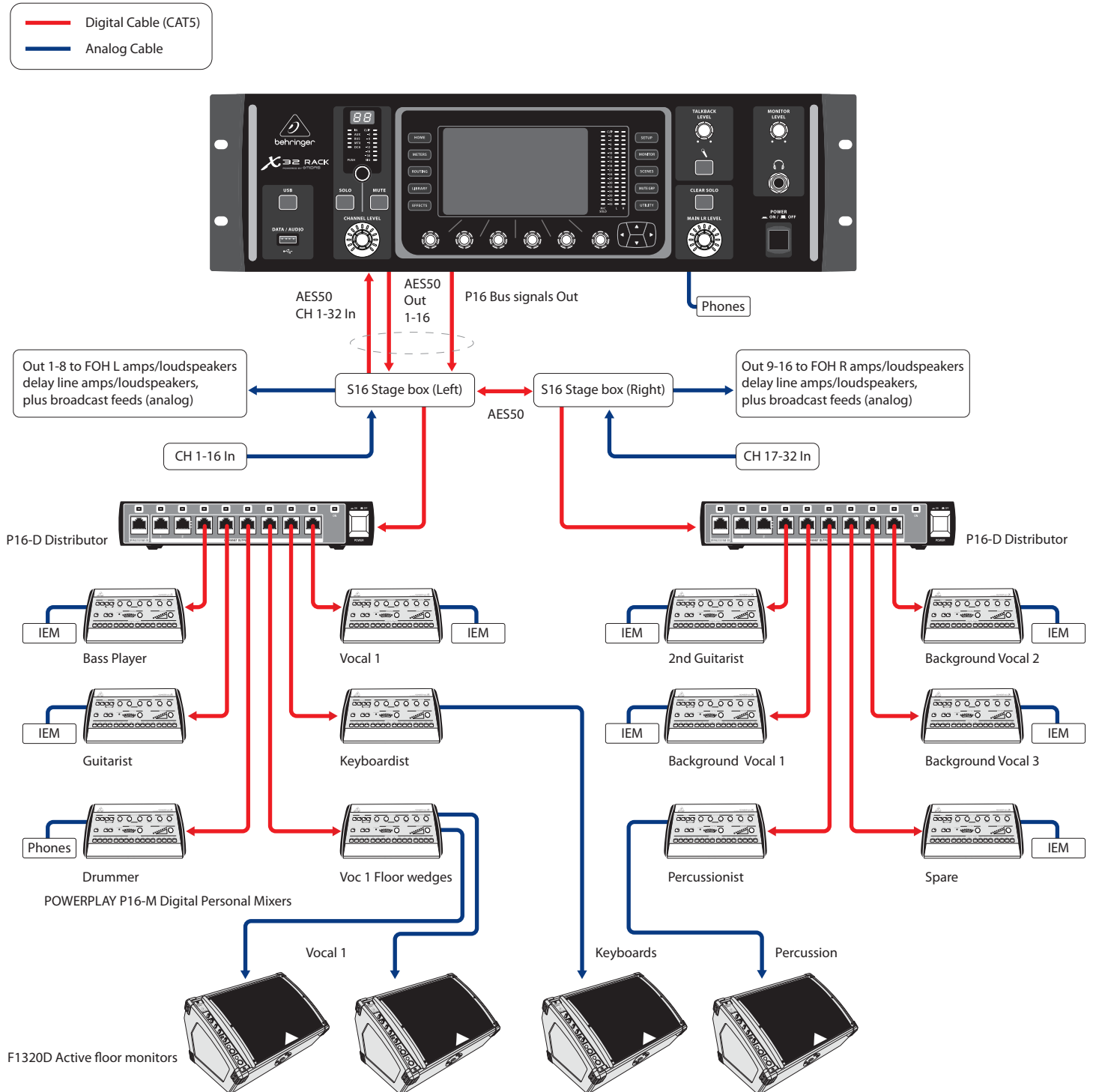


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**P16 Personal Monitoring System and Digital Snake are not included.



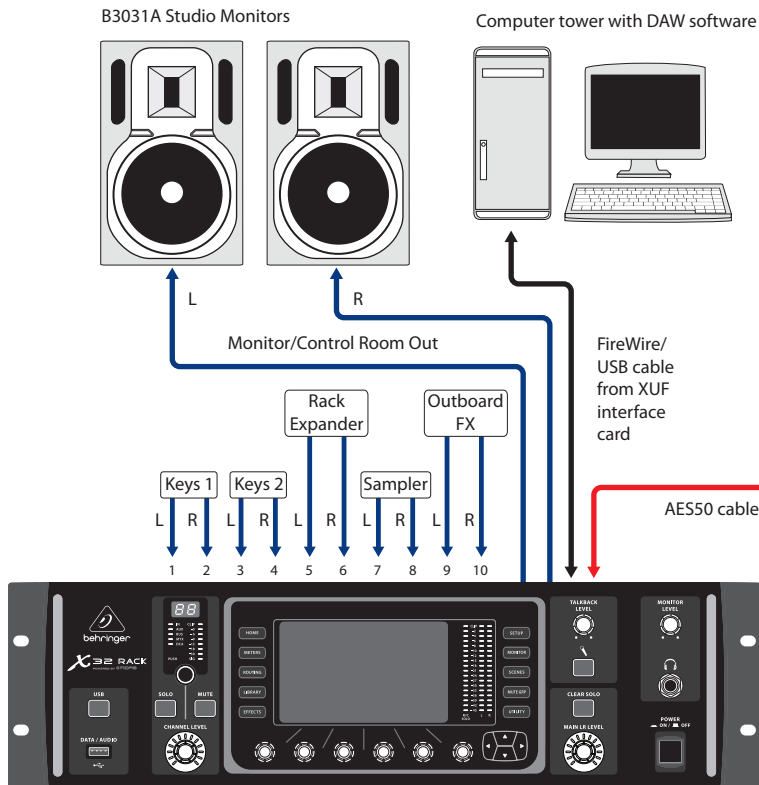
X32 RACK Live Performance Setup with S16 and P16 Monitor System



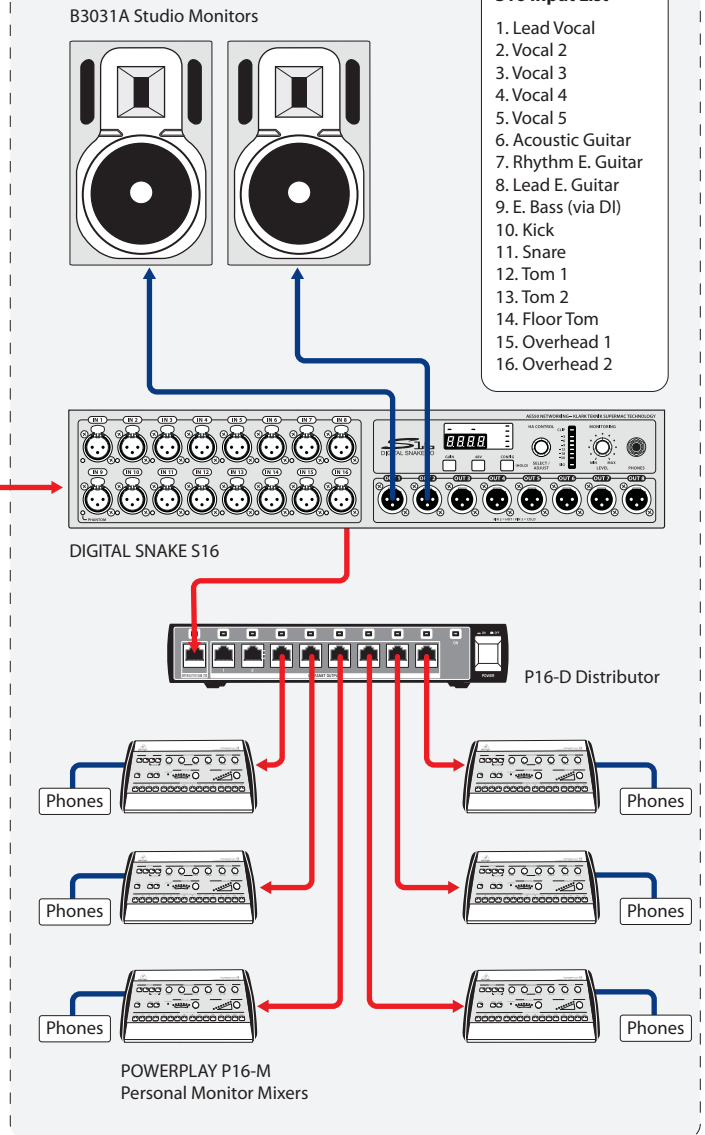


X32 RACK Recording Studio Setup

Control Room



Recording Room





Specifications

Processing

Number of processing channels	32 input channels, 8 aux in channels, 8 FX return channels, 16 buses, 6 matrices, main LRC
Internal effects engines, true-stereo / mono	8 / 16
Internal total recall scenes (inkl. preamp and fader)	100
Signal processing	40-bit floating point
A/D-D/A conversion (Cirrus Logic A/D CS5368, D/A CS4385)	24-bit @ 44.1 / 48 kHz, 114 dB dynamic range
Local I/O latency (local in > console processing* > local out)	0.8 ms
Networked I/O latency (stagebox in > console processing* > stagebox out)	1.1 ms
Total number of accessible input sources / outputs	150 / 158

Connectors

XLR inputs, programmable mic preamps, designed by MIDAS	16
Talkback mic input, XLR	1 ext. (no internal mic)
RCA inputs/outputs	2/2
XLR outputs	8
Monitoring outputs, ¼" TRS balanced	2
Aux inputs/outputs, ¼" TRS, balanced	6/6
Phones outputs, ¼" TRS	1 stereo (in front panel)
Digital AES/EBU output, XLR	—
AES50 ports, SuperMAC	2
Expansion card (optional)	32 channel audio input/output, various standards
P-16 connector, Ultramet (no power supplied)	1
MIDI inputs / outputs	1 / 1
Ethernet, RJ45, rear panel, for remote control	1
USB Type A, top panel, for audio and data export/import	1

Mic Input Characteristics

Preamp Design	MIDAS
THD + noise, 20 dB gain, 0 dBu out	< 0.006% A-weighted
Input impedance XLR, unbal. / bal.	5 kΩ / 10 kΩ
Non clip maximum input level, XLR	+23 dBu
Phantom Power, switchable per input	48 V
Equivalent input noise level, XLR (input shorted)	-128 dBu
CMRR, XLR, @ 20 dB gain (typical)	> 70 dB
CMRR, XLR, @ 40 dB gain	> 80 dB

Input/Output Characteristics

Frequency range, @ 48 kHz sample rate, 0 dB to -1 dB	10 Hz - 22 kHz
Dynamic range, analog in to analog out (typical)	106 dB
A/D Dynamic range, preamp and converter (typical)	109 dB
D/A Dynamic range, converter and output	108 dB
Cross talk rejection @ 1 kHz, adjacent channels	100 dB
Output level, XLR, nom./max.	+4 dBu / +21 dBu
Output impedance, XLR, unbal. / bal.	75 Ω / 75 Ω
Input impedance TRS Jack, unbal. / bal.	20 kΩ / 40 kΩ
Non clip maximum input level, TRS	+16 dBu
Nominal output level, TRS	+4 dBu / +16 dBu
Output impedance, TRS, unbal. / bal.	150 Ω / 300 Ω
Phones output impedance / level	40 Ω / +25 dBm (stereo)
Residual noise level, XLR and TRS	-87 dBu A-weighted

Indicators

Main Screen	5", 800x480, 262k color TFT
Main Meter	-57 dB, -54dB, -51 dB, -48 dB, -45 dB, -42 dB, -39 dB, -36 dB, -33 dB, -30 dB, -27 dB, -24 dB, -21 dB, -18 dB, -15 dB, -12 dB, -10 dB, -8 dB, -6 dB, -4 dB, -3 dB, -2 dB, -1 dB, Clip
Rear Panel	—

Power

Switch-mode autorange power supply	100-240 V (50/60 Hz)
Power consumption	120 W

Physical

Dimensions	1.9 x 1.13 x 0.52" 48.3 x 28.7 x 13.2 mm
Weight	

*incl. all channel and bus processing, excl. insert effects and line delays

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