Onyx Blackjack PREMIUM 2X2 USB RECORDING INTERFACE

Onyx Blackjack

The Mackie Onyx Blackjack is a 2x2 USB Recording Interface featuring our boutique Onyx preamps in a sleek, user-friendly design.

Blackjack is equipped with two combo jacks for XLR, TRS or TS connection, built-in DIs, phantom power and true analog hardware monitoring of inputs for zero-latency tracking in mono or stereo.

The USB connection provides bus-power to the Blackjack, eliminating the need for another cable run. Plus, it is Mac/PC friendly and ready for most major DAWs right out of the box. No DAW? No problem. Blackjack comes standard with Mackie's Tracktion 3^{TM} Music Production Software so you can get started recording right away.

Blackjack comes in a sleek, powder-coated all-metal chassis that literally smashes the competition. Furthermore, the convenient 25° desktop angle keeps cables out of the way while allowing full-view of all controls at all times.



APPLICATIONS

Multitrack studio and field recording, video post-production, multimedia applications, broadcast, and many, many more.



FEATURES:

- Two boutique-quality Onyx mic preamps with class-leading fidelity and dynamic range
- High-headroom design with ultra-low noise and distortion
- Professional 24-bit recording/playback via 2x2 USB
- High-end Cirrus Logic® AD/DA converters with 114 dB dynamic range (A-weighted)
- True analog hardware monitoring of inputs, in mono or stereo, for easy zero-latency recording
- Compatible with most major DAWs
 - Pro Tools® 9
 - Logic®
 - SONAR[™]
 - Cubase®
 - Ableton® Live
 - Final Cut Pro®
 - ...and more
- Built-in DI on each input for direct connection of guitars, basses, etc.
- 48V phantom power for use with studio-quality condenser microphones
- USB bus-powered, eliminating need for separate power cable
- Separate studio monitor and headphone outs with independent level control
- Sleek, ergonomic "Built-Like-A-Tank" desktop design
- Includes Tracktion 3[™] Music Production Software for Mac or PC

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BLACKJACK SPECIFICATIONS

Noise Characteristics

Equivalent Input Noise (EIN), mic input to USB record (A/D), 150 Ω source impedance, 22 Hz to 22 kHz:

60 dB (max) gain: -124.0 dBu

Equivalent Input Noise (EIN), mic input to USB record (A/D), 40 Ω source impedance, A-weighted:

60 dB (max) gain: -126.0 dBu

Direct Monitor Output Noise

Monitor and To Mon levels unity/max: -95.0 dBu, 22 Hz to 22 kHz

USB Record (A/D) Noise Floor/Dynamic Range (From mic input/min gain, 1 kHz -60 dBFS):

-112.0 dBFS Noise, A-weighted, -101 dBu equivalent mic input noise at unity gain (11 dBu = 0 dBFS)

-110.0 dB Dynamic range, A-weighted, (relative to -2 dBFS/+9 dBu)

USB Playback (D/A) Noise Floor/Dynamic Range (Monitor Output, Monitor level unity/max, To Mon off/min; 1kHz –60 dBFS):

-97.0 dBu Noise, A-weighted, -107 dBFS equivalent digital noise, 106 dB Dynamic Range (relative to +9 dBu)

Frequency Response

Mic to Monitor Outputs (direct monitor analog-only path, stereo), unity gain:

15 Hz to 50 kHz +0 dB / -0.2 dB

Line to Monitor Outputs (direct monitor analog-only path, stereo),

unity gain for 1/4" TRS input: 10 Hz to 25 kHz +0 dB / -1.0 dB

USB Through (Indirect monitor A/D+D/A), mic input to monitor output, unity gain (To Mon off/min):

44.1 kHz sample rate:

15 Hz to 21 kHz +0 dB / -0.2 dB

48 kHz sample rate:

15 Hz to 22 kHz +0 dB / -0.2 dB

Distortion (THD+N)

Mic to monitor (direct monitor analog path, stereo), 1kHz, 22 Hz to 22 kHz bandwidth:

+4 dBu in, min/unity gain, +4 dBu out: <0.002%

Line to monitor (direct monitor analog path, stereo), 1kHz, 22 Hz to 22 kHz bandwidth:

+4 dBu in, unity gain, +4 dBu out: <0.002%

Hi-Z to monitor (direct monitor analog path, stereo), 1kHz, 22 Hz to 22 kHz bandwidth:

+0 dBu in, unity gain, +0 dBu out: <0.004%

Phones, 1 kHz, 22 Hz to 22 kHz bandwidth:

7mW into 600 Ω : <0.003%

Mic to USB Record (A/D), 1 kHz, 22 Hz to fs/2 bandwidth:

+4 dBu in, unity gain, -7 dBFS record: <0.002%

USB Playback to Monitor Out (D/A), 1 kHz, 22 Hz to 22 kHz bandwidth (To Mon off/min, Monitor unity/max):

-6 dBFS playback, +4 dBu out: <0.002%

Attenuation and Crosstalk

1 kHz, 20 Hz to 20 kHz bandwidth:	
To Mon or Monitor knob off/min:	<-100 dB
1 kHz, 22 Hz to 22 kHz bandwidth:	
Any channel to any other:	<-80 dB

Common Mode Rejection Ratio (CMRR)

Mic input, 150 Ω termination	
1 kHz:	>50 dB

Maximum Levels

Mic input, gain at min (0 dB):	+10 dBu
Mic input, gain at max (60 dB):	–50 dBu
Line input, gain at min (-15 dB):	+25 dBu
Instrument input, gain at min (-15 d	B): +8 dBu
Monitor Output at unity/max:	+10 dBu
Phones at unity/max:	8mW into 600 Ω (1% THD+N)

USB

Format:	USB 1.1
Sample rates available:	44.1 kHz, 48 kHz
Mackie Driver Buffer Sizes:	128, 256, 512, 1024
Resolution:	24-bit
Audio Class 1.0 compliant at 44.1 kHz / 48 kHz, 24-bit	
A/D:	114 dB typical dynamic range, 24-bit, A-weighted, 10 Hz to 20 kHz BW
D/A:	114 dB typical dynamic range, 24-bit, A-weighted, 10 Hz to 20 kHz BW

Meters

Bi-color channel meters: Red overload, +7 dBu (-4 dBFS) Green signal present, -20 dBu (-31 dBFS)

Input and Output Impedance

Mic input:	3 k Ω balanced
Line input:	18 kΩ balanced
	9 k Ω unbalanced
Hi-Z input:	1 M Ω balanced
Phones output:	25 Ω
Monitor outputs:	300 Ω balanced
	150 Ω unbalanced

BLACKJACK SPECIFICATIONS CONTINUED...

Phantom Power

P48 specification compliant. 48VDC, 10mA max per mic

AC Power Requirements

USB Bus powered, high-power device (5V, up to 500mA)	
Operating Temperature	0° - 40°C
	32° - 104°F

Physical Properties (packaged product)

Height	4.94 in / 125.5 mm
Depth	6.38 in / 162.1 mm
Width	9.25 in / 235 mm
Weight	1.8 lb / 0.8 kg

Physical Properties (product)

Height	2.80 in / 71.2 mm
Depth	4.32 in / 109.6 mm
Width	6.57 in / 167 mm
Weight	1.5 lb / 0.7 kg

Ordering Information

Blackjack Premium 2X2 USB Recording Interface, US P/N 2034521-00

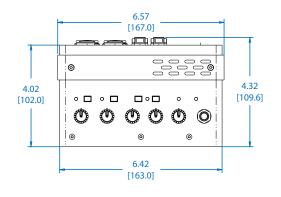
PREMIUM 2X2 USB RECORDING INTERFACE

BLACKJACK DIMENSIONS

NOTES:

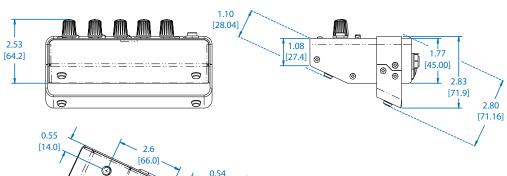
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UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN INCHES DUAL [MM] DIMENSIONS FOR REF ONLY





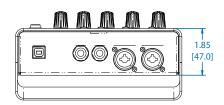




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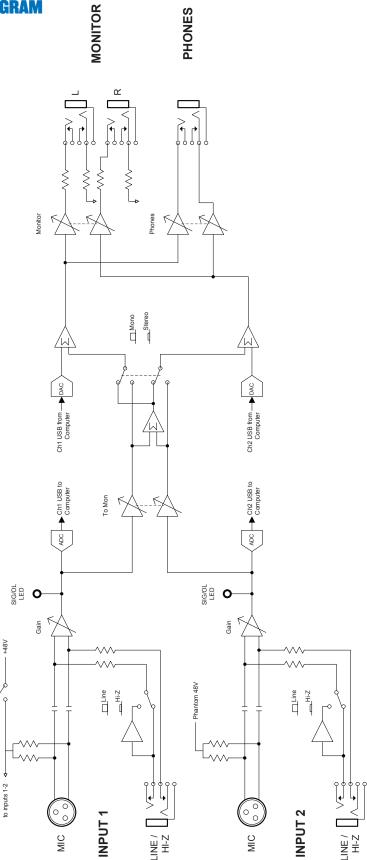
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MACKIE Onyx Blackjack PREMIUM 2X2 USB RECORDING INTERFACE

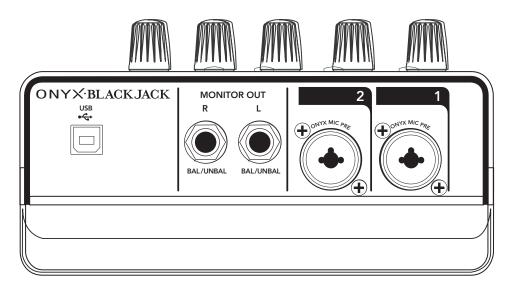
BLACKJACK BLOCK DIAGRAM

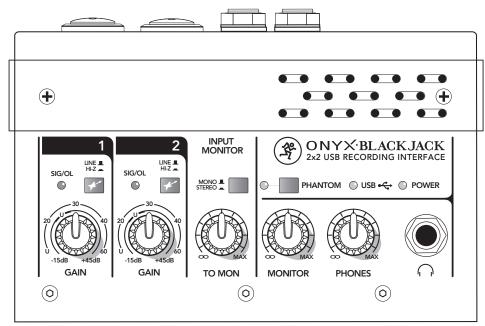
Phantom 48V



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BLACKJACK FRONT AND REAR PANELS





Electronic files for this product are available at: www.mackie.com

Specification Sheet	Blackjack_SS.PDF
Owner's Manual	Blackjack_OM.PDF

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