

1642-VLZ3

The 1642-VLZ3 continues the evolution of the Mackie VLZ mixers. With improved XDR2™ mic preamps, a re-designed mix bus, and optimized active EQ on every channel, the 1642-VLZ3 is packed with premium features and maximum flexibility.

The 1642-VLZ3 is equipped with eight mono mic/line channels (channels 1-8), two mono mic/stereo line channels (channels 9-12), and two stereo line input channels (channels 13-16). In addition, there are four subgroup outputs, a stereo main out, and a mono main out.

The eight mono mic/line channels have an input Gain control with 60 dB of gain, phantom power, a sharp 18 dB/octave, 75 Hz Low Cut filter, a 3-band EQ with sweepable mid, four Aux sends, Pan, Mute, Solo, assign switches, a 60 mm fader, a Direct Out and a Channel Insert jack for connecting an external processor. The two mono mic/stereo line channels have all the same features as channels 1-8 except they are equipped with a 4-band EQ. The two stereo line input channels have the same features as channels 9-12 except the input Gain has 40 dB of gain and there is no Low Cut filter.

The Control Room and Phones sections each have their own level control and outputs. The input matrix selects any combination of Main Mix, Tape In and Subs to create custom headphone mixes, to monitor tape levels, and more.

Aux Send 1 and 2 each have a master level control and a switch on each channel for selecting pre- or post-fader send, whereas Aux Send 3 and 4 are a fixed post-fader send, perfect for effects loops. There are four stereo returns with various routing options for each return.

Other features include a stereo tape input and output, two 1/4-inch stereo headphone jacks, stereo 12-segment LED meters, BNC lamp socket, TRS and XLR stereo output jacks, with a mic/line level switch on the XLR outs.

Above all, the 1642-VLZ3 has superior sound quality, wide dynamic range, tons of headroom and extremely low noise, allowing you to create high-quality professional output. Whether you're tracking in the project studio or laying down the truth in front of a live audience, you can always count on the Mackie 1642-VLZ3 to provide superb sound quality and extreme versatility.

APPLICATIONS

Live sound mixing, houses of worship, clubs, gymnasiums, banquet halls, conference rooms, boardrooms, multitrack studio and field recording, video post-production, multimedia applications, broadcast, and many, many more.



FEATURES:

- Ultra-compact 16-channel mixer featuring Mackie VLZ3's signature low noise, high-headroom design
- 10 studio-grade XDR2™ Extended Dynamic Range mic preamps with:
 - Ultra-wide 60 dB gain range
 - 130 dB dynamic range
 - +22 dBu line input handling
 - Extended low-frequency response
 - Distortion under 0.0007% (20 Hz – 20 kHz)
 - Phantom power for studio condenser mics
- 16 high-headroom line inputs (4 stereo pairs, 8 mono)
- Advanced DC pulse transformer RF rejection
- 60mm long-wearing logarithmic taper faders
- Four aux sends, level, pan, –20 dB/Solo LED and Overload/Mute LED on each channel
- Four stereo aux returns, Eight Direct Outs, Four Group/Bus outputs
- 3-band active EQ with sweepable mid on mono channels
- 4-band active EQ on stereo channels
- 18 dB/octave, 75 Hz low-cut filter on mic channels
- Control room/phones multi-input source matrix with separate level controls
- Balanced 1/4" inputs and outputs (except inserts)
- Rack-mountable design using optional rack ears
- Sealed rotary controls to resist dust and grime
- Multi-voltage power supply for worldwide use
- Rugged steel chassis

1642-VLZ3 SPECIFICATIONS

Noise Characteristics

(Mic in to Insert Send out, max gain)	
150 Ω termination	-129.5 dBu
(20 Hz to 20 kHz bandwidth, 1/4" Main Out, channel gains @ unity gain, channel EQs flat, all channels assigned to Main Mix, odd channels panned left, even channels panned right)	
Main Mix fader @ unity, channel faders down	-86.5 dBu
Main Mix fader @ unity, channel faders @ unity	-86.0 dBu
Signal-to-Noise Ratio, ref. +4 dBu	90 dBu

Frequency Response

(Mic input to any output)	
20 Hz to 40 kHz	+0 dB / -1 dB
20 Hz to 60 kHz	+0 dB / -3 dB

Distortion (THD+N)

(1 kHz @ 35 dB gain, 20 Hz to 20 kHz bandwidth)	
Mic In to Insert Send	<0.0007%

Attenuation and Crosstalk

(1 kHz relative to 0 dBu, 20 Hz to 20 kHz bandwidth, Line In, 1/4" Main Out, Gain @ unity)	
Channel Mute switch engaged	-82 dBu
Channel Gain knob down	-82 dBu

Common Mode Rejection Ratio (CMRR)

Mic In to Insert Send out	
1 kHz	better than -70 dB

Maximum Levels

Mic In	+22 dBu
All other inputs	+22 dBu
Main Mix TRS Out and XLR Out	+28 dBu
All other outputs	+22 dBu

3-Band EQ (channels 1-8)

High Shelving	± 15 dB @ 12 kHz
Mid Peaking	± 15 dB sweep 100 Hz-8 kHz
Low Shelving	± 15 dB @ 80 Hz
Low Cut Filter	18 dB/octave, -3 dB @ 75 Hz

4-Band EQ (channels 9-16)

High Shelving	± 15 dB @ 12 kHz
Hi Mid Peaking	± 15 dB @ 2.5 kHz
Low Mid Peaking	± 15 dB @ 400 Hz
Low Shelving	± 15 dB @ 80 Hz
Low Cut Filter (ch. 9-12)	18 dB/octave, -3 dB @ 75 Hz

Input and Output Impedance

Mic In	2.5 k Ω
Channel Insert Return	2.5 k Ω
All other inputs	10 k Ω or greater
Tape Out	1.1 k Ω
All other outputs	120 Ω

AC Power Requirements

Power Consumption	50 watts
US, JP	100 – 120 VAC, 50 – 60 Hz
Fuse rating	1A slo blo, 5 x 20 mm
EU	200 – 240 VAC, 50 – 60 Hz
Fuse rating	0.5A slo blo, 5 x 20 mm
Operating Temperature	0° – 40°C 32° – 104°F

Physical Properties (packaged product)

Height	21.0 in / 533 mm
Width	20.0 in / 508 mm
Depth	10.0 in / 254 mm
Shipping Weight	26.0 lb / 11.8 kg

Physical Properties (product)

Height	16.7 in / 425 mm
Width	16.6 in / 421 mm
Depth	5.2 in / 131 mm
Net Weight	18.2 lb / 8.3 kg

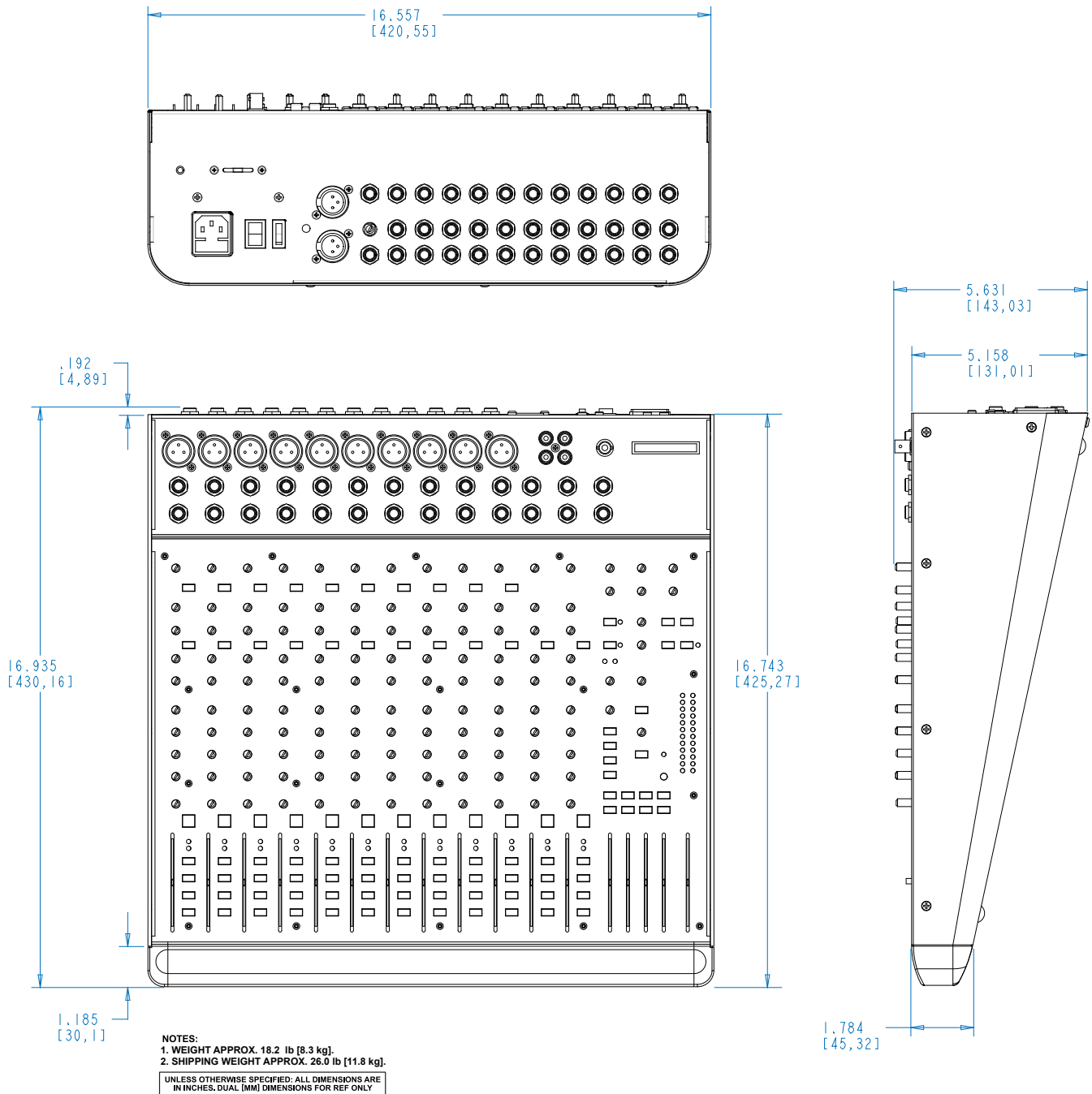
Options

Rackmount Bracket Set	090-291-90
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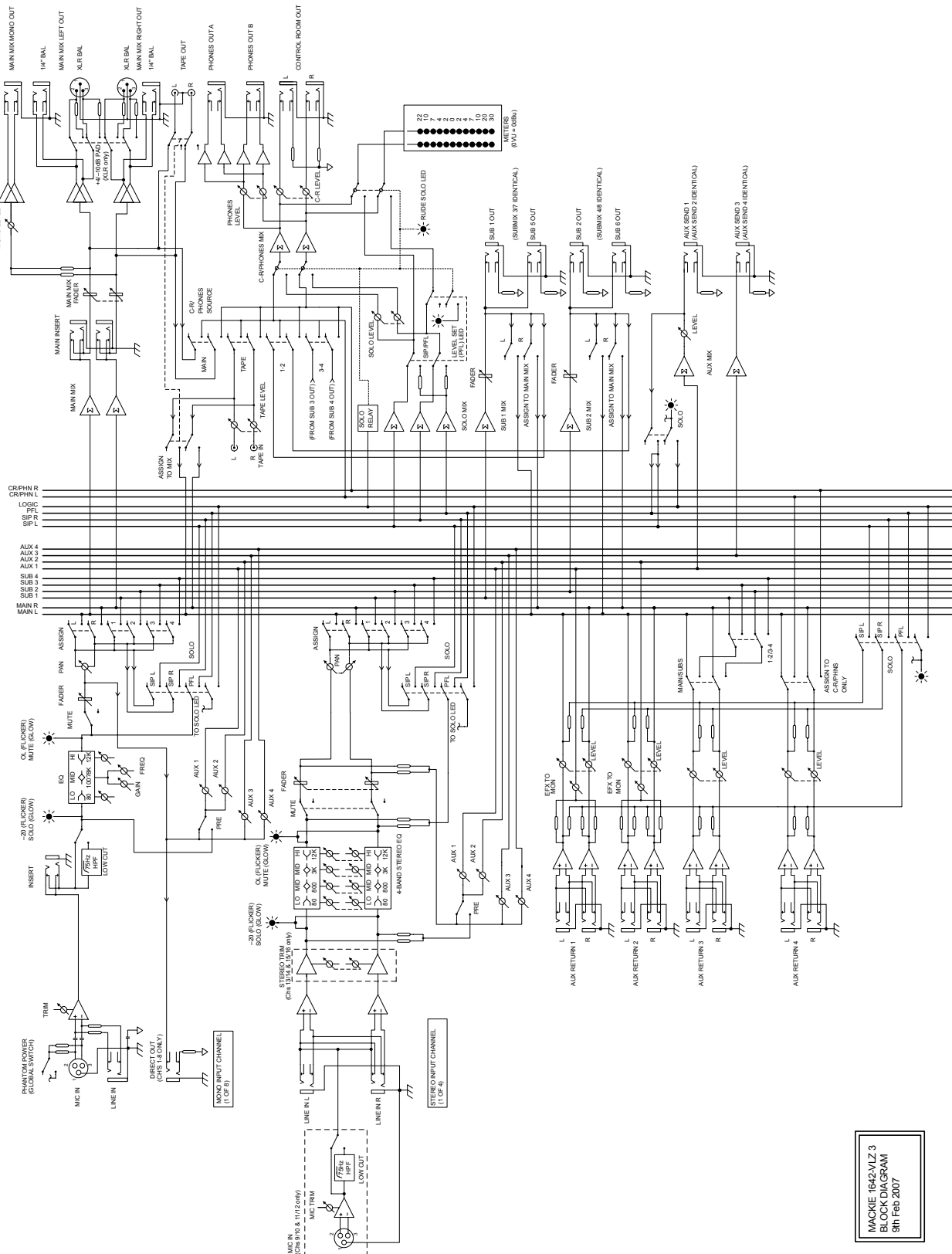
Ordering Information

1642-VLZ3 16-Ch. Compact Recording/SR Mixer, US	P/N 0018455-00
1642-VLZ3 16-Ch. Compact Recording/SR Mixer, EU	P/N 0018455-01
1642-VLZ3 16-Ch. Compact Recording/SR Mixer, JP	P/N 0018455-02

1642-VLZ3 DIMENSIONS

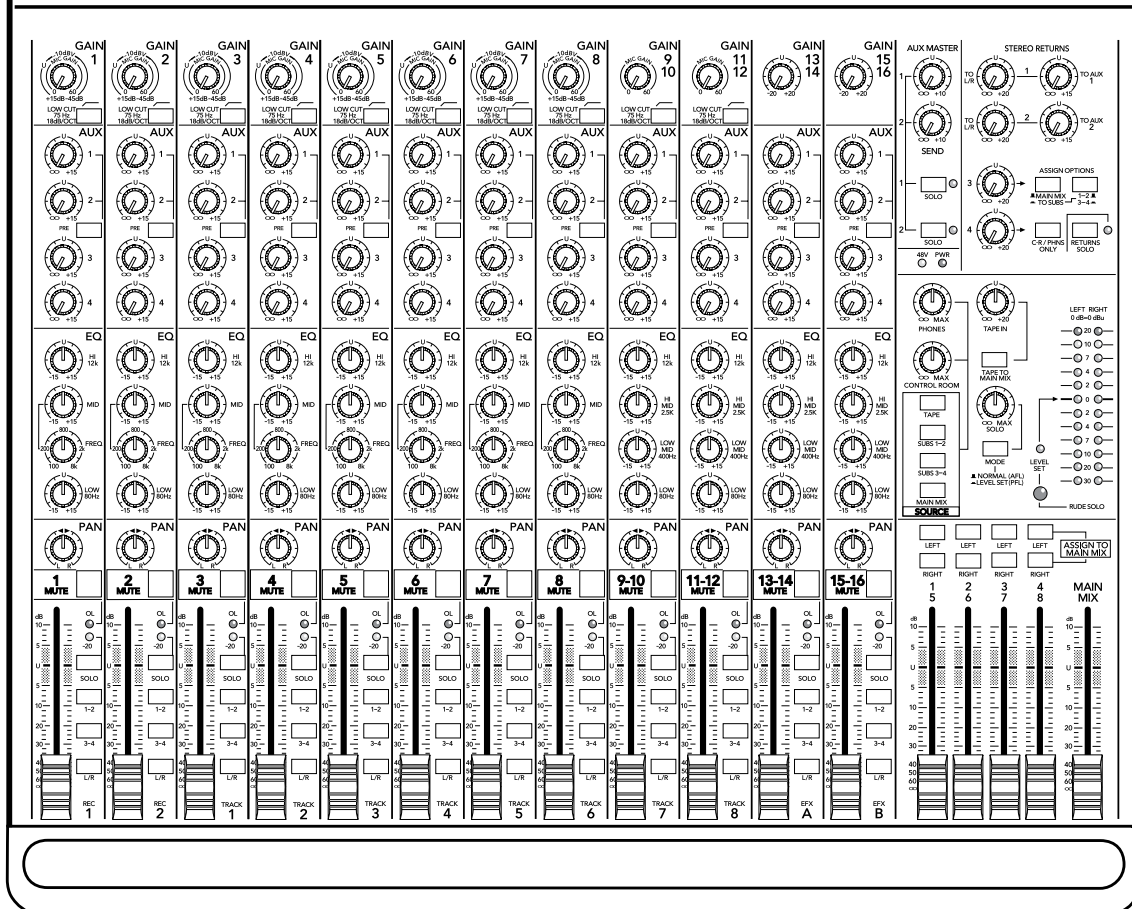
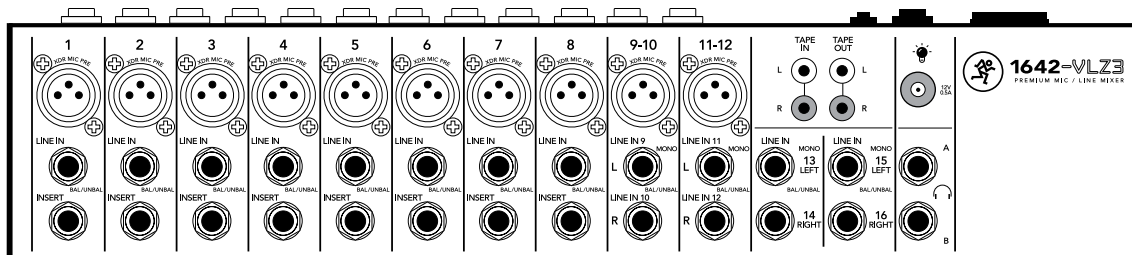
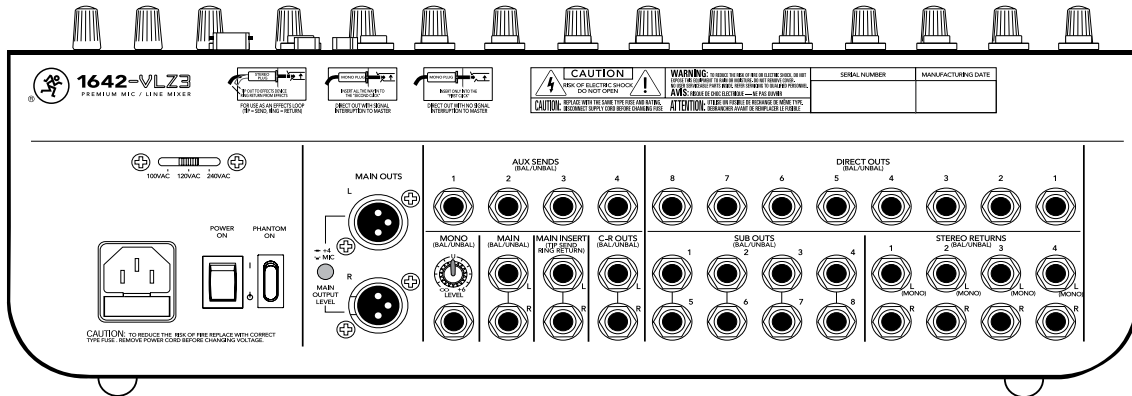


1642-VLZ3 BLOCK DIAGRAM



MACKIE 1642-VLZ 3
BLOCK DIAGRAM
9th Feb. 2007

1642-VLZ3 FRONT AND REAR PANELS



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Part No. SW0774 Rev. B 12/10

Electronic files for this product are available at:

www.mackie.com

Specification Sheet	1642VLZ3_SS.PDF
Owner's Manual	1642VLZ3_OM.PDF

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