MACKIE. 1202-VLZ™ PRO

MIXER

1202-VLZ PRO

12-Channel Mic/Line Mixer

Introduction

THE 1202-VLZ PRO is the updated, upgraded version of Mackie's classic 12-channel compact mic/line mixer. The unit incorporates Mackie's new ultra-high quality XDR™ (Extended Dynamic Range) mic preamps with the best RFI rejection of any compact mixer design. Added benefits include maximum freedom from ground loops and impeccable sonic performance that meets or exceeds the specs of esoteric, outboard mic preamplifiers. The XDR design is the only compact mixer mic preamp that is totally impedance independent: frequency response does not change even with extremely long cable runs or exceptionally high-impedance mic inputs.

To greatly reduce the effects of wind noise and mic thumps, each of the four mic channels has a sharp, 18dB/octave, 75Hz Low Cut filter.

Mute/Alt 3-4 effectively creates a second stereo bus. The Mute button on each channel mutes that channel in the Main Mix, but also acts as a router to the 3-4 stereo bus, greatly increasing signal routing flexibility.

The EFX to Monitor feature allows routing of reverb or other effects signals back into a monitor mix via Aux Send 1. Aux 1's Pre/Post switch can be set for pre-fader/post-EQ use, which is beneficial for stage monitor mixes, or post-fader/post-EQ for use with external effects. It also has a level control for added flexibility.

Control Room/Phones has its own level control, outputs and input matrix for selecting any combination of Main Mix, Tape In and Alt 3-4 to create custom headphone mixes, to monitor tape levels, and more. A separate switch routes this multi-source signal back into the Main Mix.

Because of its many features and durability, the 1202-VLZ PRO can be used for extra studio-grade preamps, as aux inputs for a mixing console, or as an impedance- or level-matching audio toolkit.

Features

- **4 low noise, high headroom XDR™ (Extended Dynamic Range) XLR mic inputs with the best RF rejection of any compact mixer available and maximum freedom from ground loops**
- **4 balanced/unbalanced mono line inputs**
- **4 pairs of balanced/unbalanced stereo line inputs**
- **48V global phantom power**
- **3-Band EQ (12kHz, 2.5kHz, 80Hz)**
- **75Hz, 18dB/octave Low Cut filters on Channels 1–4**
- **PFL Solo on all channels**
- **Very Low Impedance (VLZ) architecture**
- **EFX to Monitor switch**
- **Alt 3-4 extra stereo bus**
- **Balanced inputs and outputs (except RCAs, phones and inserts)**
- **Balanced XLR Main L/R outputs with mic/line level switch, plus 1/4" (TRS) Main L/R outputs**
- **60dB Gain on Channels 1–4**
- **Global Aux 1 Pre/Post-Fader switch**
- **Level Set LED and marker**

Applications

- Live sound mixing: small churches, clubs, school auditoriums, school sports centers, conference centers, boardrooms, trade shows, presentations
- Studio and field recording
- Multimedia applications: A/V presentations, video post production, CD authoring
- Broadcast: live remotes, ENG, ad production

RELATED PRODUCTS

RM1202-VLZ Rack-mount brackets (not included), 1402-VLZ PRO 14-Channel Mic/Line Mixer, 1604-VLZ PRO 16-Channel Mic/Line Mixer, 1642-VLZ PRO 16-Channel Mic/Line Mixer, SRM450 Active 2-Way SR Loudspeakers, M•800/M•1400i/M•1400/M•2600 Power Amplifiers, C300 passive 2-way SR Loudspeakers

1202-VLZ PRO 12-Channel Mic/Line Mixer

Specifications

Mic Preamp

Equivalent Input Noise (20Hz–20kHz):	
150Ω	–129.5dBu
50Ω	–131.0dBu
0Ω	–134.5dBu
Frequency Response:	
–1dB	5Hz–100kHz
–3dB	3Hz–192kHz
IM Distortion (4 to 1 ratio SMPTE)	
35dB gain	0.0008%
Harmonic Distortion (20Hz–20kHz)	
35dB gain	0.0007%
Gain	
Max	+60dB
Min	0dB or Unity
Max Input	+22dB
Input Impedance	1.3kΩ
Common Mode Rejection	› 90dB
Common Mode Rejection Ratio	› 140dB

Main Mix Noise[1]

Main Mix down, ch. Gain down:	–104dB
Main Mix @ unity, ch. Gain down:	–90.5dB
Main Mix knob @ unity, ch. Gain @ unity:	–88.5dB

Total Harmonic Distortion (THD)[2]

	0.005%

Attenuation (Crosstalk)[3]

Main Mix knob down:	–85dBu
Channel Mute/Alt 3-4 switch engaged:	–84dBu
Channel Gain knob down:	–83dBu

Frequency Response[4]

20Hz to 60kHz:	+0dB/–1dB
20Hz to 100kHz:	+0dB/–3dB

Maximum Levels

Mic input:	+22dBu
Tape input:	+16dBu
All other inputs:	+22dBu
Main Mix XLR outputs:	+28dBu
All other outputs:	+22dBu

Impedances

Mic input:	1.3kΩ
Channel Insert return:	2.5kΩ
All other inputs:	› 10kΩ
Tape output:	1.1kΩ
All other outputs:	120Ω

EQ

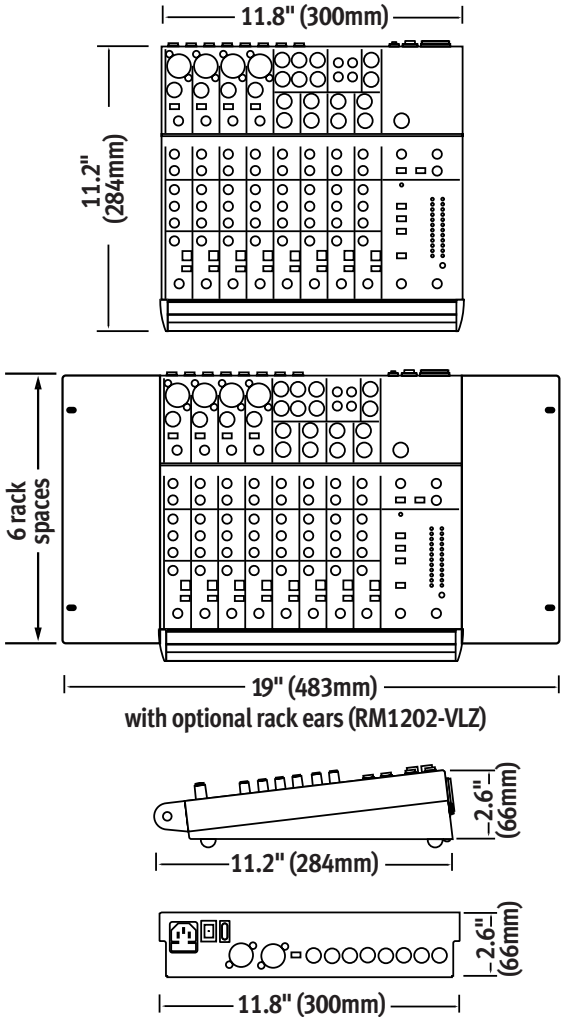
High Shelving:	±15db @ 12kHz
Mid Peaking:	±12dB @ 2.5kHz
Low Shelving:	±15db @ 80Hz

Power Consumption

	120VAC, 50/60Hz, 25 Watts

Physical

Weight:	6 lbs. 8 oz. (3 kg)
Dimensions:	11.8" x 11.2" x 2.6" (300mm x 284mm x 66mm)



Specifications footnotes:

1) 20Hz–20kHz bandwidth, 1/4" Main out, channels 1–4 Trim @ unity gain, channel EQs flat, all channels assigned to Main Mix, channels 1 and 3 Pan left, 2 and 4 Pan right. Reference +4dBu.
2) 1kHz @ +14dBu, 20Hz–20kHz.
3) 1kHz relative to 0dBu, 20Hz–20kHz bandwidth, Line in, 1/4" Main Out, Trim @ unity.
4) Any input to any output.

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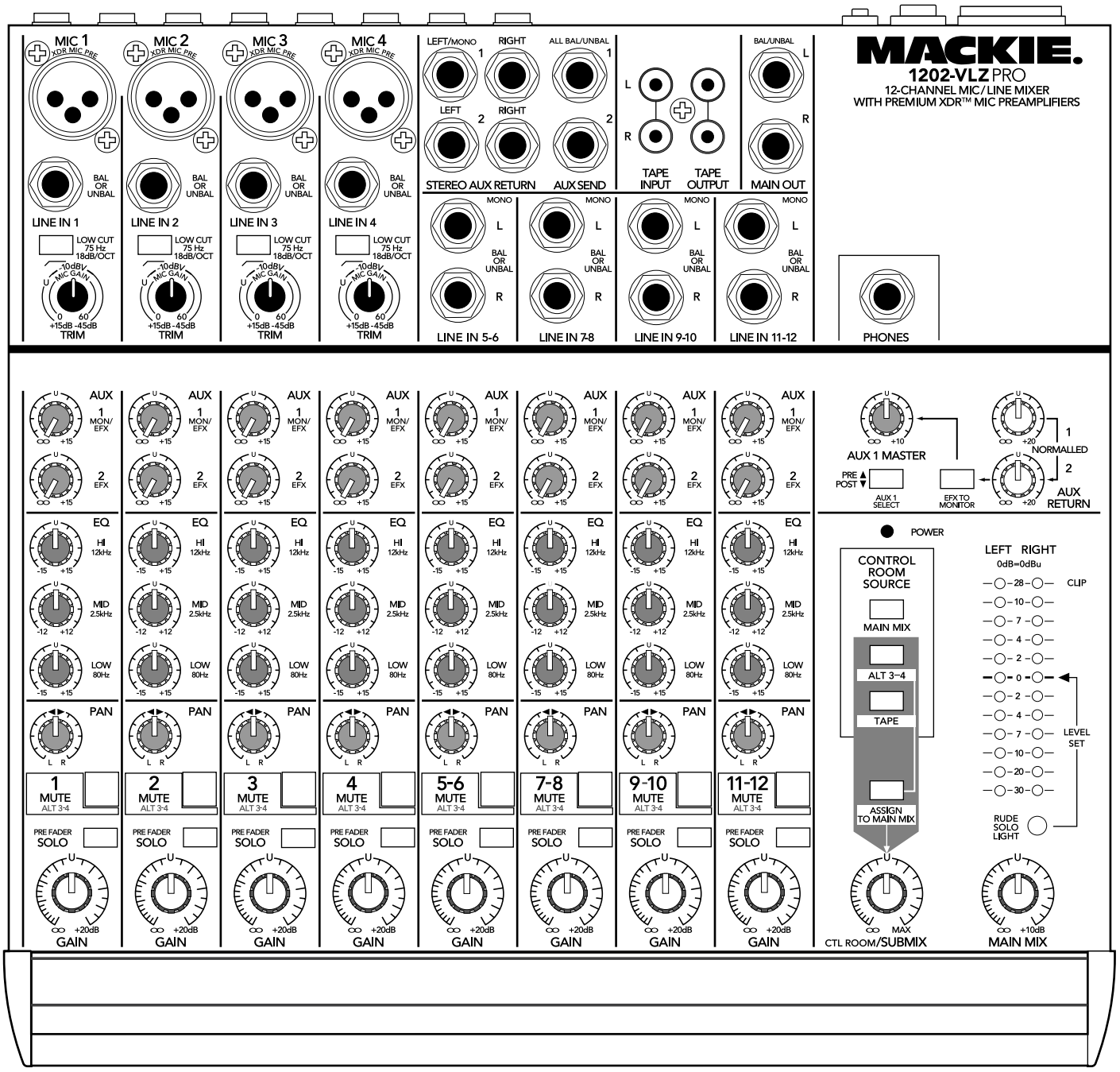

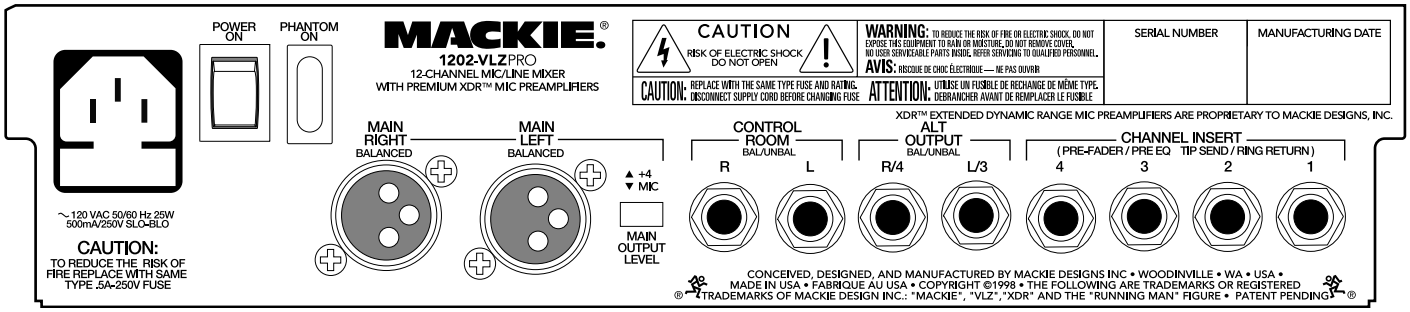

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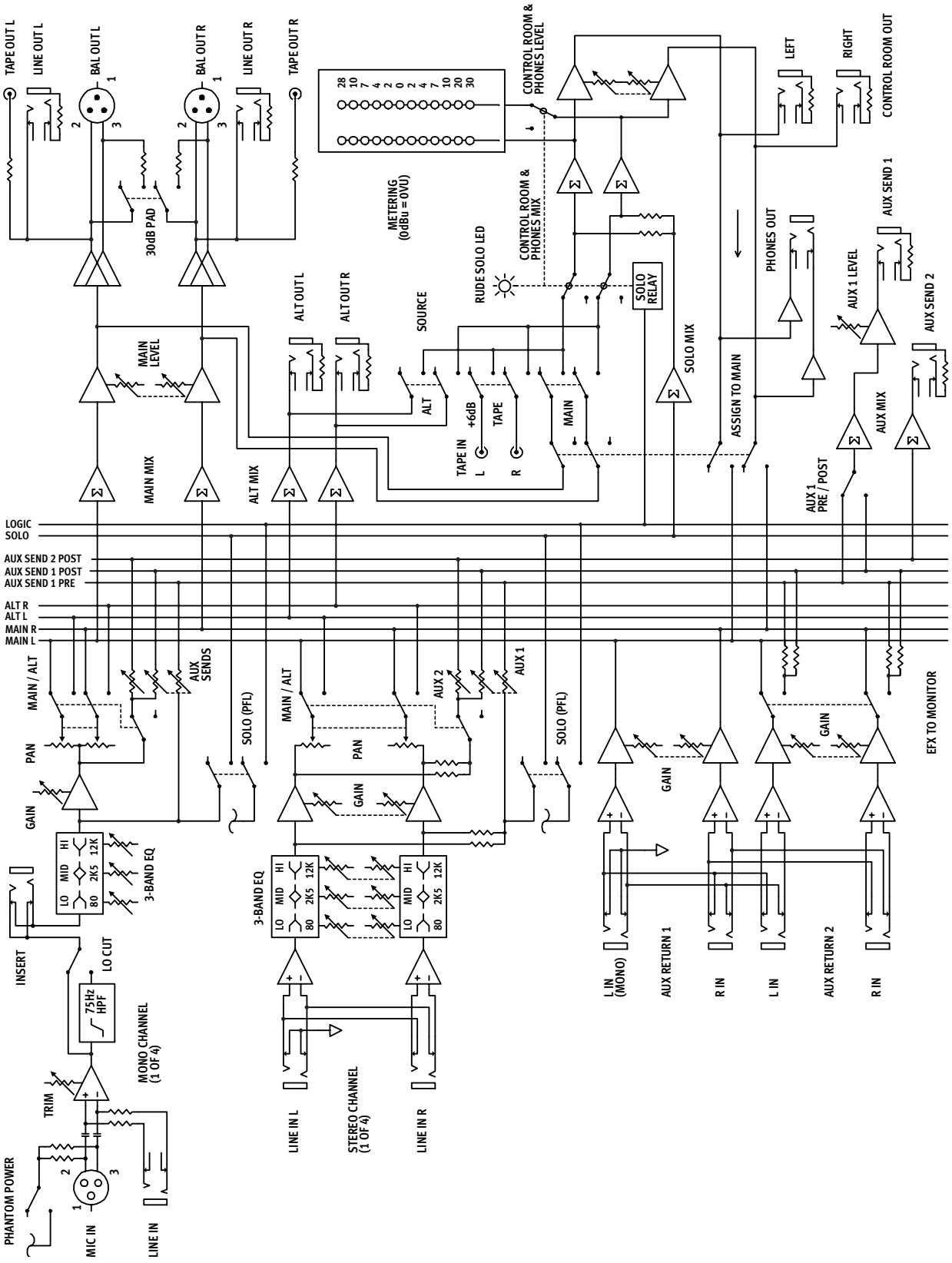

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Architect' and Engineer's Specifications

1. GENERAL CONFIGURATION. The mixer shall accommodate 4 microphone signals: mono channels 1–4; 12 line signals: mono channels 1–4 and stereo channels 5–12; 2 stereo pairs of Aux Return inputs; 4 Send/Return channel Inserts; 2 stereo pairs of Main Mix outputs; 1 stereo pair of RCA-type Tape Inputs; 1 stereo pair of RCA-type Tape Outputs; 1 stereo pair of Control Room outputs; 1 stereo pair of Alt 3-4 outputs; 2 Aux Send outputs; and 1 stereo headphone output. The mixer shall be capable of placement on a table or installation in a standard 19-inch rack mount (using optional rack rail brackets) and shall be entirely self-contained.

2. MIXER INPUTS.

MONO CHANNELS 1–4: The mixer shall include 4 XDR electronically balanced mic inputs, using XLR-3-F-type connectors, accepting nominal levels from –60dBu to +4dBu via 4 rotary Trim controls. 48V phantom power shall be available via a globally-controlled rocker-type switch. 4 balanced or unbalanced line inputs shall be wired in parallel, using 1/4" TRS phone jacks, accepting nominal levels from –45dBu to +4dBu. The mixer shall include 4 channel Inserts using 1/4" TRS phone jacks (tip=send, ring=return, sleeve=ground), delivering and accepting nominal levels from –10dBV to +4dBu.

STEREO CHANNELS 5/6, 7/8, 9/10 and 11/12: The mixer shall include 8 bal/unbal line inputs, forming 4 stereo input pairs, using 1/4" TRS phone jacks and accepting nominal levels from –10dBV to +4dBu.

OTHER INPUTS: The mixer shall include 4 bal/unbal Aux Return inputs, forming two stereo pairs, using 1/4" TRS phone jacks and accepting nominal levels from –10dBV to +4dBu. The mixer shall include 1 stereo pair of Tape In jacks, using unbalanced RCA-type phono jacks, accepting nominal levels from –20dBV to +4dBu.

3. MIXER OUTPUTS.

MAIN OUTPUTS: The mixer's Main Output stereo pairs shall be fitted in three ways: Using balanced XLR-3-M-type connectors, maximum output of +28dBu, including 1 Main Output Level switch to provide 30dB attenuation (XLR outputs only); using bal/unbal 1/4" TRS phone jacks, delivering nominal levels from –10dBV to +4dBu; and using unbalanced RCA-type phono jacks (labeled TAPE OUT) delivering nominal levels from –10dBV to +4dBu.

OTHER OUTPUTS: The mixer shall include 1 stereo pair of Alt 3-4 outputs using bal/unbal 1/4" TRS phone jacks, delivering nominal levels from –10dBV to +4dBu; 1 stereo pair of Control Room outputs using bal/unbal 1/4" TRS phone jacks, delivering nominal levels from –10dBV to +4dBu; 2 Aux Send outputs using bal/unbal 1/4" TRS phone jacks, delivering nominal levels from –10dBV to +4dBu; and 1 stereo Headphones output using an unbalanced 1/4" TRS phone jack (tip=left, ring=right, sleeve=ground).

4. MIXER INPUT SECTION. Each channel shall include 1 rotary Trim control; 1 Low Cut filter (HPF), providing an 18dB per octave curve starting at 75Hz; 2 rotary Aux Send controls, providing up to 15dB above unity gain; 3 rotary equalization (EQ) controls: +15dB @ 12kHz shelving, +12dB @ 2.5kHz peaking and +15dB @ 80kHz shelving; 1 rotary Pan control, 4dB attenuation panned center; 1 Mute/Alt 3-4 switch, to be used as a channel mute or to route the signal to the alternate stereo bus (Alt 3-4); 1 PFL (Pre-Fader Listen solo) switch; and 1 rotary channel Gain control, providing up to 20dB above unity gain. Note: The stereo channels (5/6, 7/8, 9/10 and 11/12) shall not include the Trim or Low Cut controls.

5. MIXER OUTPUT SECTION. The mixer shall have 1 rotary Main Mix control, providing up to 10dB above unity gain; 1 rotary Control Room/Phones control, providing up to 10dB above unity gain; 1 Source Matrix including 3 switches to deliver any combination of stereo signals to the Control Room, Phones and Meters, including Main Mix, Alt 3-4 and Tape, which shall be replaced by any solo signals resulting from the engagement of any channel's PFL switch; 1 Assign to Main Mix switch to deliver the Source Matrix signals to the Main Mix; 2 rotary Aux Return level controls, providing up to 20dB above unity gain; 1 rotary Aux Send 1 Master control, providing up to 10dB above unity gain; 1 Aux Send 1 global Pre/Post switch; 1 EFX to Monitor switch, allowing Aux Return 1 signals to be delivered to Aux Send 1 via the Aux Return 2 level control; and 1 blinking red Solo LED, to indicate a solo condition.

6. METERING. The mixer shall include 1 stereo 12-segment LED meter with points at –30, –20, –10, –7, –4, –2, 0, +2, +4, +7, +10 and 28dB (clip). The source signals for the meters shall be the same signals selected in the Source Matrix, and a solo condition shall replace the Source selection with the soloed channel(s). The meters shall be calibrated so that a 0dBu signal at the Control Room output shall be indicated as 0dB on the meters, ±1dB.

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7. PHYSICAL CONFIGURATION. The mixer shall be made of steel, painted dark gray with light gray graphics. The mixer's dimensions shall be 2.6" (66mm) in height, 11.8" (300mm) in width and 11.2" (284mm) in depth, as viewed horizontally. The mixer shall weigh 6 lbs, 8 oz (14.3 kg). Optional RM1202-VLZ rack-mount brackets shall allow the mixer to be mounted in a rack system, with either the chassis top or the control knobs' tops to be flush with the rack rail.

8. SPECIFICATIONS. In addition to specifications already cited, the mixer shall meet or exceed the following specifications: Frequency response: microphone input to any output, 20Hz to 60kHz, +0dB/–1dB; Total Harmonic Distortion (THD): 1Khz @ +14dBu, 0.0007%; Equivalent Input Noise (EIN): microphone input to insert send, –129.5dBm: Common Mode Rejection (CMR): microphone input to insert send, maximum gain, 1kHz, better than 90dB; Typical Main Output noise: all channels assigned, channels 1 and 3 panned left, channels 2 and 4 panned right, main mix @ unity, channel gain @ unity, –86dBu; Signal to Noise ratio: ref +4dBu operating level, 90dB; Attenuation: ref. 0dB @ 1kHz, Main Mix level control down, –85dBu; channel Mute engaged, –84dBu; channel Gain control down, –83dBu; Input impedance: microphones input, 1.3kΩ; channel Insert return, 2.5kΩ; all other inputs, greater than 10kΩ; Output impedance: Tape Out, 1.1kΩ; all other outputs, 120Ω.

The mixer shall be a Mackie Designs 1202-VLZ PRO.

FILES FOR DOWNLOADING

1202VLZP.PDF	this specification sheet
1202AE.TXT	text version of Architect's and Engineer's Specifications for insertion into proposals

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16220 Wood-Red Rd NE, Woodinville, WA, 98072
ph 425.487.4333, fax 425.487.4337,
e-mail: sales@mackie.com, web: www.mackie.com

UK 2 Blenhiem Ct., Hurricane Way, Wickford, Essex, SS11 8YT, ph + 44 1268 571212, fax + 44 1268 570809, e-mail: mackie.uk@rcf-uk.com
FRANCE Rue de la Guerlande, 71880 Chatenoy-le-Royal, ph 03.85.46.91.60, fax 03.85.46.91.60, e-mail: rcf.commercial @wanadoo.fr **ITALY** Via G. Ferraris 2/A, 42029 S. Maurizio (RE), ph +39.0522.354111, fax +39 0522 551875, e-mail: mackieitaly@rcf.it
GERMANY Kuhlmannstrasse 7, 48282 Emsdetten, ph +49.2572. 96042.0, fax +49.2572.96042.10, e-mail: oversch@rcf-deutschland.de