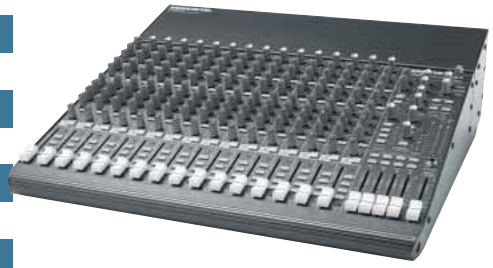
CR1604-VLZ®

LIVE/RECORDING CONSOLES



1. GENERAL CONFIGURATION. The mixer shall accommodate 16 line and/or 16 microphone signals, channels 1–16; and shall include 16 Send/Return channel Inserts; 8 channel Direct Outputs, channels 1–8; 4 stereo pairs of Aux Return inputs; 2 stereo pairs of Main Mix outputs; 1 Main Mix Mono output, 1 stereo pair of Control Room outputs; 4 Submaster outputs; 6 Aux Send outputs; and 1 stereo Headphones output. The mixer shall be capable of placement on a table or installation in a standard 19-inch rack mount via rack rail brackets (included); shall be fitted with 1 rocker-type Power switch; 1 3-pin power receptacle with user-replaceable 5x20mm fuse drawer; 1 BNC socket, providing 12VDC for fitting an external lamp (not included); and shall be entirely self-contained.

2. MIXER INPUTS. CHANNELS 1–16: Each channel shall include an electronically balanced microphone input, using an XLR-3-F-type connector, accepting nominal levels from –60dBu to +14dBu via a rotary Trim control. Phantom power shall be globally-controlled via a rocker-type switch. 16 Balanced/unbalanced (bal/unbal) line inputs shall be wired in parallel, using 1/4" TRS phone jacks, accepting nominal levels from –40dBu to +22dBu. Each channel shall include a pre-fader Insert point, using 1/4" TRS phone jacks (tip=send, ring=return, sleeve=ground), delivering and accepting nominal levels from –10dBV to +22dBu. OTHER INPUTS: The mixer shall include 8 bal/unbal Aux Return inputs, forming four stereo pairs, using 1/4" TRS phone jacks, accepting nominal levels from –10dBV to +22dBu; and 1 stereo pair of Tape In jacks, using unbalanced RCA-type phono jacks, accepting nominal levels from –10dBV to +22dBu.

3. MIXER OUTPUTS. MAIN OUTPUTS: The mixer's Main Mix stereo outputs shall be fitted in two ways: Using symmetrically balanced (also accepting unbalanced) 1/4" TRS phone jacks, delivering nominal levels from –10dBV to +28dBu; and using unbalanced RCA-type phono jacks, delivering nominal levels from –10dBV to +22dBu; and the Main Mix Mono output shall be fitted with one symmetrically balanced (also accepting unbalanced) 1/4" TRS phone jack, delivering nominal levels from –10dBV to +28dBu. OTHER OUTPUTS: Input channels 1–8 shall each include a post-fader Direct Output, using bal/unbal 1/4" TRS phone jacks, delivering nominal levels from –10dBV to +22dBu. The mixer shall include 4 Submaster outputs, using bal/unbal 1/4" TRS phone jacks, delivering nominal levels from –10dBV to +22dBu; 1 stereo pair of Control Room outputs, using bal/unbal 1/4" TRS phone jacks, delivering nominal levels from –10dBV to +22dBu; 6 Aux Send outputs using bal/unbal 1/4" TRS phone jacks, delivering nominal levels from –10dBV to +22dBu; and 1 stereo Headphones output, using an unbalanced 1/4" TRS phone jack (tip=left, ring=right, sleeve=ground).

4. MIXER INPUT SECTION. In addition to the controls listed in section 2 (MIXER INPUTS), each channel shall include 4 rotary Aux Send controls and 1 Shift switch, providing up to 15dB gain, routing signals to Aux Sends 1, 2, 3 and 4 when the Shift switch is disengaged, and to Aux Sends 1, 2, 5 and 6 when the Shift switch is engaged; 4 rotary equalization (EQ) controls: ±15dB fixed 12kHz shelving gain, ±15dB midrange peaking gain, 100Hz – 8kHz midrange frequency, and ±15dB fixed 80Hz shelving; 1 rotary Pan

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control, 4dB attenuation panned center; 1 Mute switch; 1 dual-mode solo switch (AFL or PFL, globally switched); 3 output Assign switches, delivering the channel's signal, relative to its Pan setting, to the Main L-R Mix, Submasters 1–2 and Submasters 3–4; and 1 channel Fader, providing up to 10dB above unity gain. Additionally, each channel shall include two LED indicators; a –20/Solo LED acting as a Signal Present indicator by flickering and as a channel Solo indicator by glowing steadily; and an OL/Mute LED, acting as an overload indicator by flickering and as a channel Mute indicator by glowing steadily.

5. MIXER OUTPUT SECTION. The mixer shall have 1 Main Mix stereo fader, providing up to 10dB gain; 4 Submaster mono faders, each providing up to 10dB gain; independent left and right Assign to Main Mix switches for each Submaster; 1 Control Room/Phones level rotary stereo control, providing up to 10dB gain; 1 Source Matrix, including 4 switches to deliver any combination of stereo signals to the Control Room, Phones and Meters, including Main Mix, Submasters 1–2, Submasters 3–4 and Tape, which shall be replaced by solo signals resulting from the engagement of any Solo switch; 1 rotary stereo Tape In level control, providing up to 20dB gain; 1 Tape to Main Mix switch; 1 Solo Mode switch to globally determine solo type (pre-fader listen or after-fader listen, in place); 1 rotary stereo Solo level control, providing up to 10dB gain; 4 rotary stereo Aux Return level controls, providing up to 20dB gain; two Effects to Monitor rotary controls, providing up to 15dB gain, delivering summed Aux Return 1 or 2 signals to Aux Send 1 or 2, respectively; an Aux Return 3 Assign switch, used in conjunction with a 1–2/3–4 switch, delivering Aux Return 3 signals to one output pair, including Main Mix, Submasters 1–2 and Submasters 3–4; an Aux Return 4 to Control Room/Phones Only switch; a global Aux Return Solo switch with associated LED; 2 rotary Aux Send Master controls for Aux Sends 1 and 2, providing up to 10dB above unity gain; a Solo switch with associated LED for each of Aux Sends 1 and 2; a blinking master Solo indicator LED, a Level Set LED, indicating a PFL solo condition, a Power indicator LED; and a Phantom Power indicator LED.

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, +10dB and 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, ±1LED.

7. PHYSICAL CONFIGURATION. The mixer shall be made of steel and aluminum, painted dark gray and black with light gray graphics. The mixer shall weigh 20 lbs, 0 oz (9.1 kg). Included 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. Additionally, the jackfield portion of the mixer, referred to as the Pod, shall be adjustable in three different positions; Desktop Mode (stock configuration), with jackfield connections to rear; Rack Mount mode, with the Pod mounted to the bottom of the main assembly; and Roto-Pod mode, requiring a RotoPod-VLZ (not included), with jackfield connections on top. Dimensions of the mixer shall be, in Desktop Mode, 4.9" (124mm) in height, 17.4" (442mm) in width and 17.9" (455mm) in depth; in Rackmount Mode, 9.3" (236mm) in height, 17.4" (442mm) in width and 12.8" (325mm) in depth; in Roto-Pod Mode, 6.6" (168mm) in height, 17.4" (442mm) in width and 17.4" (442mm) in depth.

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), any input to any output, +14dBu, less than 0.005%; Equivalent Input Noise (EIN), microphone input to insert send, –129.5dBm; Common Mode Rejection (CMR), microphone input to insert send, maximum gain, 1kHz, –85dB; Typical Main Output noise, all channels assigned, odd channels panned left, even channels panned right, –83dBu; 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, microphone inputs, 1.3 kΩ; Channel Insert return, 2.5 kΩ; All other inputs, greater than 10 kΩ; Output impedance, Tape Out, 1.1 kΩ; All other outputs, 120Ω.

The mixer shall be a Mackie Designs CR1604-VLZ.

Because Mackie Designs constantly endeavors to improve its products with new components and manufacturing methods, all specifications and descriptions are subject to change without notice.

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