Powered Mixer
MODEL #3208

One of a family of four powered mixers in the Fender Pro-Sound line, the 3208 is a state-of-the-art mixing console of high quality combined with a powerful and rugged amplifier. The 3208 achieves performance in all respects as good as separate components, allowing its use in even the most demanding professional applications.

FEATURES

Each of the eight input channels features balanced transformerless Lo-z and Hi-z inputs and a channel "insertion" point. The insertion point is effectively "move-able" between pre and post EQ positions by the use of the front panel "pre-post insertion" control.

Input channels have three band, five frequency, input EQ (mid-band switchable 750Hz, 1.5kHz, 3.0kHz), signal present and peak LEDs, a trim control with 40dB range to optimize pre-amp gain and a pan control between the main output buses plus two monitors, one effects buss and a 60mm slide fader.

The effects bus is normaled through an internal spring reverb, but accessible as an echo send and return on the rear panel. Lo-z XLR mic connectors carry 48 volt Phantom power selected through an on/off switch on the rear of the mixer.

The meter panel carries four Vu meters with "peak" LEDs, these meters monitor main and monitor outputs, while the power amp output is monitored by two clip LEDs. Under the clip LEDs are the switches for the power amplifier "AGC" (Automatic Gain Control), for each amp channel.

Four nine band graphic equalizers, two main, two monitor, a program and effects return input and pan control and the four master faders complete the front panel controls.

Extensive system interstage patch points allow the rearrangement of many of the features of the mixer to allow specific requirements to be met. All input and output levels and impedances are matched and suitable for this purpose.

The mixer section of the 3200 series is of the highest quality with very low distortion and noise, allowing the use of this kind of product for professional sound contracting and high quality live sound reinforcement.

The built-in amplifiers are of essentially the same design as the highly acclaimed Fender 2224 and 2244 series power amplifiers. These amplifiers are designed to produce their rated power into highly reactive and low impedance loads, and are provided with forced-air cooled heat dissipators. Delivering in excess of 200 watts per channel into 4 ohms with great sonic accuracy, the amplifiers exceed the specs and performance of many of the best "separate" products available. The "AGC" limiting circuit effectively eliminates clipping, without degrading the quality of the signal.

The 3200 series has exceptional stability even well beyond its normal intended operational limits, allowing its successful use in high demand situations. High headroom and correct internal grounding procedures add to the overall sonic performance of the line.

Packaged in a compact enclosure and fitted with unique "pointer" type color-coded knobs and BNC connectors, for optional panel light, the powered mixer presents itself as an attractive and professional product that will give many years of reliable service.

The 3200 series powered mixers are supplied with an extensive 73 page "Owners/Applications" manual that is a most valuable resource for the user and operator in not only the operation of the 3200 series but all aspects of sound reinforcement. For the sound contractor this manual offers an effective means of training the operator and assuring the best operation of a system as it was designed and installed.
**Block Diagram, Model 3208**

**Frequency response:**
- Power amplifier: 20Hz to 20kHz, +0, −5dB @ 200 watts output.
- Mixer: 20Hz to 20kHz ± 2dB.

**T.H.D.:**
- Power amplifier: Less than 0.1%. 20Hz to 20kHz at 200 watts output.
- Mixer: Less than 0.1% from 20Hz to 20kHz at +18dB output at pre-amp out. Typically 0.85%.

**Hum and Noise:**
- Mixer: EIN = −129dBm, 20Hz−20kHz. 150 termination.
- Power amp: Greater than 100dB (signal to noise ratio).
- Crosstalk: −60dB @ 1kHz, between all signal paths.
- C.M.R.R.: 60dB at 1000Hz (external noise rejection).

**Channel Equalization:**
- High: ±15dB @ 1kHz, shelving.
- Mid: ±12dB @ 750, 1.5, 3kHz. Peaking and dipping.
- Low: ±15dB @ 100Hz, shelving.

**Graphic Equalization:**
- 4 illuminated VU.
- Program Left and Right.
- Monitor 1 and 2.

**Indicators:**
- Channel Signal present and peak.
- Vu meter peak @ 10dB before clip.
- Phantom on.
- Power Amplifier Clip. AGC Operation, LEDs.

**Voltage Amplification:**
- 101dB, ±2dB (maximum).
- Lo-z input to Power Amp out.

**“0” Vu reference:**
- +4dB at Pre-Amp out.

**Maximum Input level:**
- Lo-z Input Greater than +10dB.
- Hi-z Input Greater than +24dB.

**Power Output:**
- 200 watts into 4 ohms, per channel.

**Phantom Power:**
- 48 volts DC on pins 1 and 3 of Lo-z (mic) input. Rear panel switch. Silent turn on.

**Power Requirements:**
- 120 volts (±10%) 60Hz.

**Safety Listing:**
- UL.

**INPUT IMPEDANCE AND LEVEL**

<table>
<thead>
<tr>
<th>INPUTS</th>
<th>MAX. VOLTAGE GAIN (20 LOG VOL)</th>
<th>SOURCE TYPE</th>
<th>ACTUAL IMPEDANCE</th>
<th>INPUT VOLTAGES NOMINAL</th>
<th>MAX BEFORE CLIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>INSERTION (INPUT)</td>
<td>34dB</td>
<td>61dB</td>
<td>Lo OR Hi-Z LOW LEVEL LINE</td>
<td>50kOhms</td>
<td>−18dB (30mV)</td>
</tr>
<tr>
<td>HI-Z IN</td>
<td>0dB</td>
<td>0dB</td>
<td>Hi-Z MIC OR LINE INSTRUMENT DIRECT</td>
<td>20kOhms (BAL)</td>
<td>−30dB TO +6dB (3mV TO 135V)</td>
</tr>
<tr>
<td>LO-Z IN</td>
<td>0dB</td>
<td>0dB</td>
<td>Lo-Z MIC OR LOW LEVEL 500-Ohm LINE</td>
<td>50kOhms (BAL)</td>
<td>−50dB TO −54dB (2.65mV TO 26.5mV)</td>
</tr>
<tr>
<td>LR DIRECT IN</td>
<td>0dB</td>
<td>0dB</td>
<td>Lo OR Hi-Z LINE</td>
<td>10kOhms (12V)</td>
<td>+4dB (0.3V)</td>
</tr>
<tr>
<td>LR-TO-LO IN</td>
<td>0dB</td>
<td>0dB</td>
<td>Lo OR Hi-Z LINE</td>
<td>10kOhms (12V)</td>
<td>+4dB (0.3V)</td>
</tr>
<tr>
<td>LO DIRECT</td>
<td>34dB</td>
<td>61dB</td>
<td>Lo OR Hi-Z LINE</td>
<td>50kOhms</td>
<td>−18dB (30mV)</td>
</tr>
<tr>
<td>EFF RETURN</td>
<td>34dB</td>
<td>61dB</td>
<td>LO OR Hi-Z LINE</td>
<td>50kOhms</td>
<td>−18dB (30mV)</td>
</tr>
<tr>
<td>EFF DIRECT</td>
<td>34dB</td>
<td>61dB</td>
<td>LO OR Hi-Z LINE</td>
<td>50kOhms</td>
<td>−18dB (30mV)</td>
</tr>
<tr>
<td>PGM AUX IN</td>
<td>34dB</td>
<td>61dB</td>
<td>LO OR Hi-Z LOW LEVEL LINE</td>
<td>50kOhms</td>
<td>−18dB (30mV)</td>
</tr>
<tr>
<td>MON 1, 2 DIRECT IN</td>
<td>34dB</td>
<td>61dB</td>
<td>LO OR Hi-Z LOW LEVEL LINE</td>
<td>50kOhms</td>
<td>−18dB (30mV)</td>
</tr>
<tr>
<td>MON 1, 2 AUX IN</td>
<td>34dB</td>
<td>61dB</td>
<td>LO OR Hi-Z LOW LEVEL LINE</td>
<td>50kOhms</td>
<td>−18dB (30mV)</td>
</tr>
</tbody>
</table>

**OUTPUT IMPEDANCE AND LEVEL**

<table>
<thead>
<tr>
<th>OUTPUTS</th>
<th>LOAD TYPE NOMINAL</th>
<th>ACTUAL OUTPUT IMPEDANCE</th>
<th>OUTPUT VOLTAGES NOMINAL</th>
<th>MAX BEFORE CLIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>INSERTION</td>
<td>10K-Ohm LINE</td>
<td>1000-Ohms</td>
<td>−10dB (245mV)</td>
<td>+20dB (7.75V)</td>
</tr>
<tr>
<td>LR LINE</td>
<td>10K-Ohm LINE</td>
<td>100 Ohms</td>
<td>+4dB (1.23V)</td>
<td>+20dB (7.75V)</td>
</tr>
<tr>
<td>LR PRE AMP OUT</td>
<td>10K-Ohm LINE</td>
<td>100 Ohms</td>
<td>+4dB (1.23V)</td>
<td>+20dB (7.75V)</td>
</tr>
<tr>
<td>LR POWER AMP OUT</td>
<td>4-Ohm (MINIMUM)</td>
<td>LOUDSPEAKER</td>
<td>200-WATTS MAX INTO 4-Ohm</td>
<td>+4dB (1.23V)</td>
</tr>
<tr>
<td>EFF OUT</td>
<td>10K-Ohm LINE</td>
<td>1000-Ohms</td>
<td>+4dB (1.23V)</td>
<td>+20dB (7.75V)</td>
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<tr>
<td>MON 1, 2 OUT</td>
<td>10K-Ohm LINE</td>
<td>1000-Ohms</td>
<td>+4dB (1.23V)</td>
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</table>

**Dimensions:**
- Depth 675mm (26.6")
- Width 680mm (26.7")
- Height 185mm (7.3")
- Weight 27 kg (59.4 lbs)

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