



SERVICE manual

PMX-1100

Stereo Preamp Mixer



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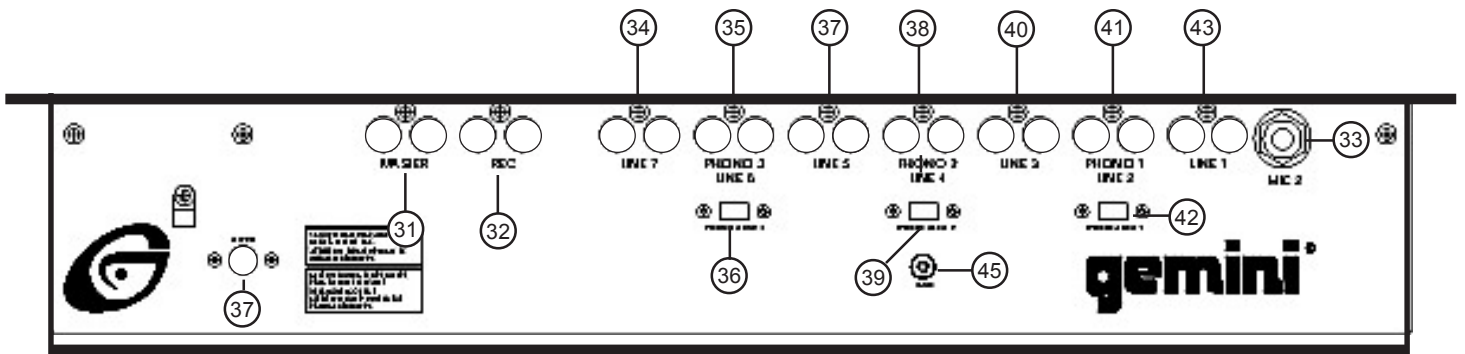
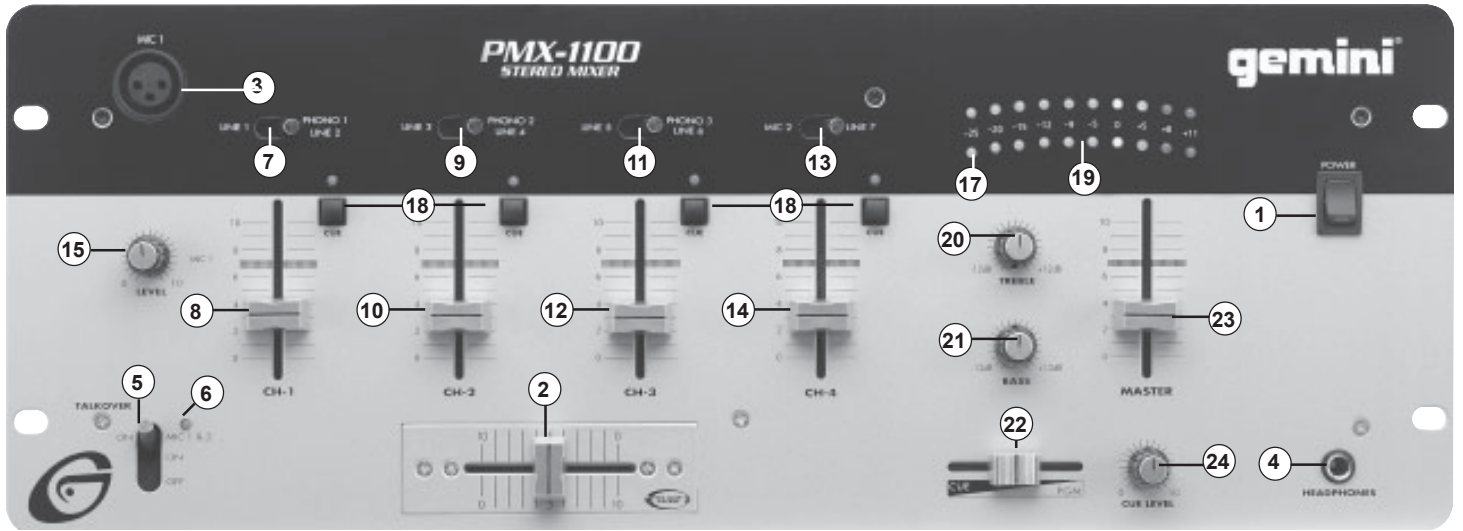


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Introduction

Congratulations on purchasing the Gemini PMX-1100 mixer. This state-of-the-art mixer is backed by a three year warranty, excluding crossfader and channel slides. Prior to use, we suggest that you carefully read all the instructions.

Features

- 4 Stereo Channels
- State of the Art Cue Section
- 3 Phono/Line Convertible, 4 Line, and 2 Mic Inputs
- Talkover
- Master and Record outputs
- Master Treble and Bass Controls

Cautions

1. All operating instructions should be read before using this equipment.
2. To reduce the risk of electrical shock, do not open the unit. There are NO USER REPLACEABLE PARTS INSIDE. Please refer servicing to a qualified service technician.

In the U.S.A., if you have any problems with this unit, call 1-732-738-9003 for customer service. Do not return equipment to your dealer.

3. Do not expose this unit to direct sunlight or to a heat source such as a radiator or stove.
4. This unit should be cleaned only with a damp cloth. Avoid solvents or other cleaning detergents.
5. When moving this equipment, it should be placed in its original carton and packaging. This will reduce the risk of damage during transit.
6. DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.
7. DO NOT USE ANY SPRAY CLEANER OR LUBRICANT ON ANY CONTROLS OR SWITCHES.

Connections

1. Plug in the 15V AC Adapter (37).
2. Make sure that the **POWER (1)** switch is in the off position. The **POWER LEDS (17)** will be off.
3. The PMX-1100 is supplied with 2 sets of output jacks. The **MAIN OUTPUT (31)** jacks are unbalanced and used to connect to your main amplifier. The **REC OUTPUT (32)** jacks can be used to connect the mixer to the record input of your recorder enabling you to record your mix.
4. The **MIC 1 (3)** input (found on the front panel) accepts an XLR connector, and accepts balanced & unbalanced microphones. The **MIC 2 (33)** accepts a 1/4" connector and balanced & unbalanced microphones.
5. On the rear panel are 3 stereo **PHONO/LINE (35, 38, 41)** inputs and 4 stereo **LINE (34, 37, 40, 41)** inputs. The **PHONO/LINE SWITCH (36)** enables you to set the (35) input to Phono or Line. The **PHONO/LINE SWITCH (39)** enables you to set the (38) input to Phono or Line. The **PHONO/LINE SWITCH (42)** enables you to set the (41) input to Phono or Line. The phono inputs will accept only turntables with a magnetic cartridge. A **GROUND SCREW (45)** for you to ground your turntables is located on the rear panel. The stereo line inputs will accept any line level input such as a CD player, a cassette player, etc.

6. Headphones can be plugged into the front panel mounted **HEADPHONE (4)** jack.

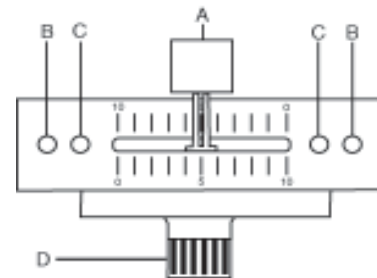
Operation

1. **POWER ON:** Once you have made all the equipment connections to your mixer, press the **POWER SWITCH (1)**. The power will turn on and the **POWER LEDS (17)** will glow.
2. **CHANNEL 1:** Switch # (7) allows you to select the **PHONO 1/LINE 2 (41)** or the **LINE 1 (43)** input. The **CHANNEL SLIDE (8)** controls the input level of this channel.
3. **CHANNEL 2:** Switch # (9) allows you to select the **PHONO 2/LINE 4 (38)** or the **LINE 3 (40)** input. The **CHANNEL SLIDE (10)** controls the input level of this channel.
4. **CHANNEL 3:** Switch # (11) allows you to select the **PHONO 3/LINE 6 (35)** or the **LINE 5 (37)** input. The **CHANNEL SLIDE (12)** controls the input level of this channel.
5. **CHANNEL 4:** Switch # (13) allows you to select the **LINE 7 (34)** or the **MIC 2 (33)** input. The **CHANNEL SLIDE (14)** controls the input level of this channel.
6. **CROSSFADER SECTION:** The **CROSSFADER (2)** allows the mixing of one source from CHANNEL 2 into another source from CHANNEL 3. The **CROSSFADER (2)** in your unit is removable and if the need arises can be easily replaced. Crossfader units are available in three varieties. Part # RF-45 (which is identical to the crossfader supplied with the mixer) has a 45 mm travel from side to side. Part # RF-30 is available with a 30 mm travel distance. Also available is the PSF-45 with a special curve designed for scratch mixing. Just purchase one of these crossfader units from your Gemini dealer and follow these instructions:

1. Unscrew the outside **FADER PLATE SCREWS (B)**.

Do not touch the **INSIDE SCREWS (C)**.

2. Carefully lift the fader and unplug the **CABLE (D)**.
3. Plug the new fader into the cable and place it back in the mixer.
4. Screw the fader to the mixer.



7. **OUTPUT CONTROL SECTION:** The level of the **AMP OUT (31)** is controlled by the **MASTER (23)** slide. The **Master TREBLE (20)** and **BASS (21)** controls allow you to adjust the output of channels 1 - 4.

NOTE: The RECORD OUT (32) has no level control. The level is set by the channel slides of the selected channel.

8. **TALKOVER SECTION:** The purpose of the talkover section is to allow the program playing to be muted so that the MIC can be heard above the music. The **MIC/TALKOVER SWITCH (5)** controls MIC 1 and has three settings. When the **MIC/TALKOVER SWITCH (5)** is in the bottom position, the MIC and talkover are off. When the **MIC/TALKOVER SWITCH (5)** is in the center position **MIC 1** is on, the **MIC INDICATOR (6)** will glow, but talkover is off. When the **MIC/TALKOVER SWITCH (5)** is in the top position, **MIC 1** and talkover will be on and the volume of all sources except the MIC input are lowered by 16dB. The **MIC LEVEL (15)** controls the level of **MIC 1**.

9. CUE SECTION: By connecting a set of headphones to the **HEADPHONE (4)** jack, you can monitor any or all of the channels. Press the **CUE ASSIGN (18)** buttons for channels 1 - 4 to select the channel or channels to be monitored and their respective LED indicators will glow. Use the **CUE LEVEL (24)** control to adjust the cue volume without effecting the overall mix. By moving the **CUE PGM PAN (22)** control to the left you will be able to monitor the assigned cue signal. Moving the control to the right will monitor the PGM (program) output. Rotating to the right will monitor the PGM (program) output.

10. DISPLAY: The **DISPLAY (19)** indicates the **MASTER** output left and right levels.

Specifications

INPUTS:

MIC 1.....1.5mV 2kOhm balanced
 MIC 21.5mV 2kOhm balanced
 Phono @ 1kHz.....2mV 47kOhm
 Line.....100 mV 27kOhm

OUTPUTS:

Amp/Booth.....0 dB 1V 400Ohm
 Max.....20V Peak to Peak
 Rec.....225mV 5kOhm

GENERAL:

Bass.....± 12dB
 High.....± 12dB
 Frequency Response.....20Hz - 20KHz +/- 2dB
 Distortion.....less than 0.02%
 S/N Ratio.....better than 80dB
 Talkover Attenuation.....16dB
 Power Source.....adapter - 115V/15V AC 0.5A
230V/15V AC 0.5A
 Dimensions.....19" w x 3" d x 7" h (483 x 76 x 178 mm)
 Weight.....6.25lbs (2.84 kg)

PARTS LIST:

ICs

Item	Designators	Description	Part #
1	IC7, IC2, IC6, IC5, IC4	INTEGRATED CIRCUIT NJM2068LD	074-145
2	IC15	INTEGRATED CIRCUIT NJM4556L	074-113
3	IC12, IC11, IC8	INTEGRATED CIRCUIT NJM4558LD (M5218AL, BA4558N)	074-104
4	IC3, IC1	INTEGRATED CIRCUIT NJM4558DD	074-163
5	IC16	INTEGRATED CIRCUIT NJM7812FA	074-107
6	IC17	INTEGRATED CIRCUIT NJM7912FA	074-114
7	IC10, IC14, IC13, IC9	INTEGRATED CIRCUIT LB1403N (BA6124)	074-022

Diodes

Item	Designators	Description	Part #
1	D26, D27	RECTIFIER DIODE 1N4002 (1N4003, 1N4004)	079-027
2	D6, D7, D8, D9, D10, D11, D12, D13, D14, D15, D16, D17	LIGHT EMITTING DIODE (GREEN) 3.15Φ	080-104
3	D1, D2, D3, D4, D5, D22, D23, D24, D25	LIGHT EMITTING DIODE (RED) 3.15Φ	080-091
4	D18, D19, D20, D21	LIGHT EMITTING DIODE (YELLOW) 3.15Φ	080-103

Electrical Parts

Item	Designators	Description	Part #
1	SW8, SW6, SW4, SW2	LEVER SW 4P2C P=18	082-019
2	SW9, SW7, SW5, SW3	PUSH SWITCH 2P2C L=12.5	083-080
3	J11, J1	PHONE JACK 6.3	092-078
4	SW1	LEVER SW 4P3C P=24	082-022
5	X-FADER	RAILGLIDE VR 45mm X-FADER 100KB×2	072-113
6	VR8	SLIDE VR 30mm L=15 CUE FADER 20KB×2	072-092
7	VR7, VR6	ROTARY VR 14 _⌀ (F) L=22.5 CH-TONE 20KW×2 CC	071-230
8	VR1	ROTARY VR 11 _⌀ (F) L=22.5 BOOTH CUE VOL 50KA	071-114
9	VR9	ROTARY VR 14 _⌀ (F) L=22.5 CUE 50KA×2	071-166
10	SW10, SW11, SW12	SLIDE SWITCH 2P2C	081-004
11	VR3, VR2, VRV4, VR5, VR10	SLIDE VR 45mm L=20 CH VOL MASTER 50KA×2	072-035
12	J2, J3, J4, J5, J6, J7, J8, J9, J10	2P RCA JACK P=14	161-160

Other

Item	Description	Part #
1	DC JACK 2.5Φ	092-074
2	POWER SWITCH UL	083-099
3	PHONE JACK XLR DJ MIC	092-108

Mechanical Parts

Item	Description	Part #
1	PANEL CONTROL	FACEPPMX1100
2	PANEL REAR	034-124
3	COVER BOTTOM	032-123
4	SWING LEVEL	023-674
5	KNOB PUSH (SMALL)	002-531
6	BUSHING FOR KNOB (SMALL)	002-532
7	KNOB SLIDE (SMALL)	002-726
8	KNOB SLIDE (BIG)	002-724
9	KNOB ROTARY (A)	003-109
10	KNOB INLAY (SILVER)	148-312
11	TRIMVR	003-736
12	PAD FOOT	049-206
13	GIFT BOX	255-230
14	OWNER'S MANUAL	257-016
15	POLYFORM	153-224
16	POLYFOAM PLATE 140mm×180mm×58mm	153-223
17	WARRANTY CARD	156-089
18	GND SCREW	146-710

