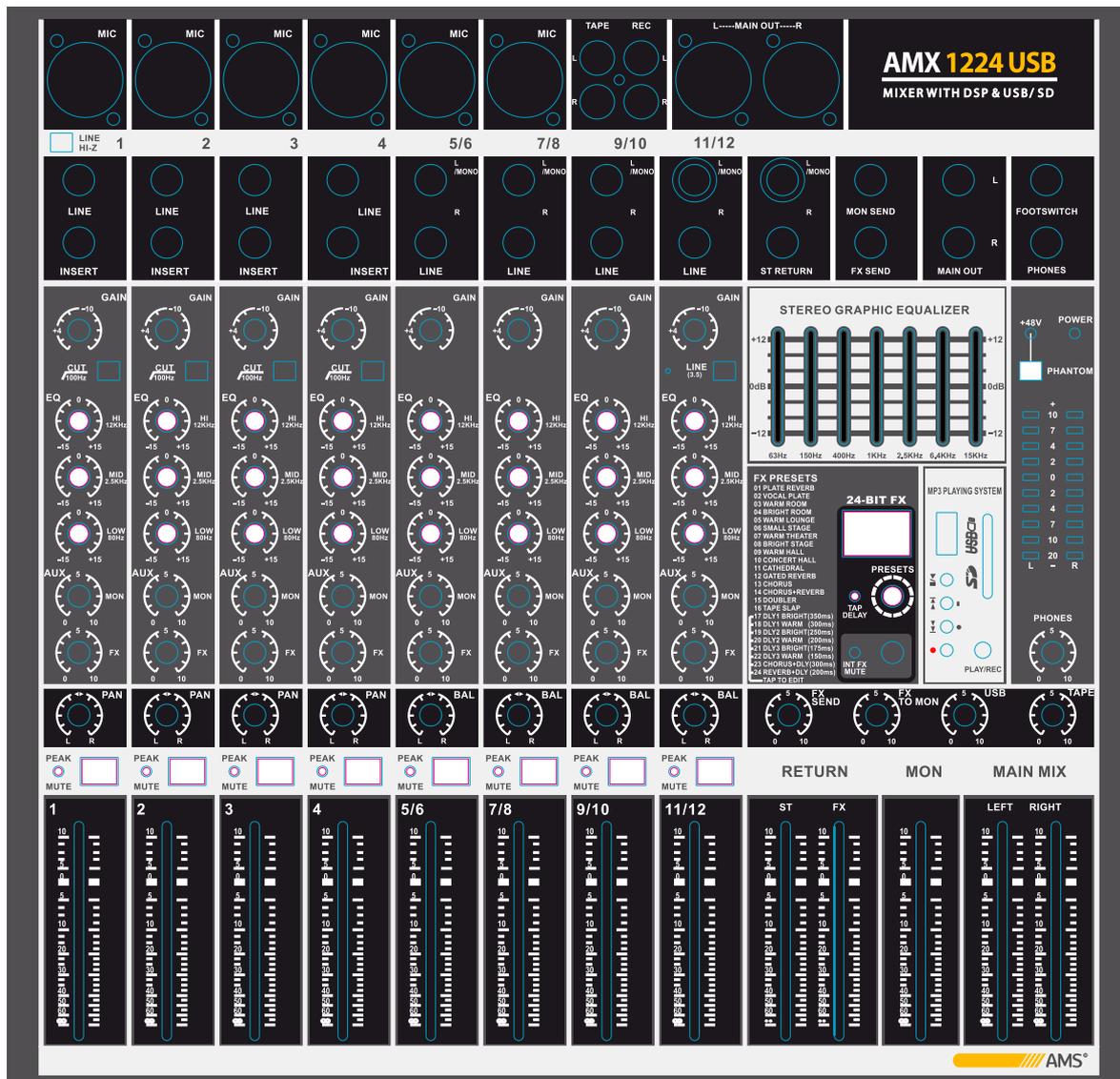


AMS

AMX 1224 USB



USER MANUAL /MANUAL DE USO

Ultra low noise 12,16,20 - Channel Mic / Line Mixer

- ▲ 4.8.12 Mono and 4 stereo Input Channels with silver plated XLRs and balanced Line Inputs
- ▲ Ultra-low noise discrete Mic Preamps with +48 V Phantom Power
- ▲ Extremely high headroom - offering more dynamic range
- ▲ Balanced Inputs for highest signal integrity
- ▲ Ultra-musical 3-band EQ on all mono channels
- ▲ Peak LEDs on all channels with MUTE function
- ▲ 2 Aux Send per channel for external effects and monitoring
- ▲ 24-Bit of the effect system inside
- ▲ Separate Master Mix, Headphone Outputs
- ▲ 2-Track Inputs assignable to Master Mix
- ▲ Highly accurate 10 segment Bargraph Meters

SAFETY INSTRUCTIONS

CAUTION: To reduce the risk of electrical shock, do not remove the cover (or back). No user serviceable parts inside; refer servicing to qualified personnel.

WARNING: To reduce the risk of fire or electrical shock, do not expose this appliance to rain or moisture.



This symbol, wherever it appears, alerts you to the presence of uninsulated dangerous voltage inside the enclosure - voltage that may be sufficient to constitute a risk of shock.



This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Read the manual.

A. INPUT CHANNEL SECTION

1. MIC INPUTS

You can plug in almost any kind of mic that has a standard XLR male mic connector.

2. LINE/HI-Z SWITCH

To connect a guitar directly to the mixer without using a DI Box, press this switch in first; then connect the output from the guitar to channel 1's 1/4 TRS input..

3. LINE INPUT

The unbalanced Mic input is provided for the use of an unbalance mic and is designed to accept an unbalanced high impedance input signal. (This use for connection Deck, Turntable, Keyboard etc..)

4. INSERT

The INSERT is a break point in the input channel signal path. It allows the signal to be taken out from the mixer, through an external equipment such as a compressor, and then back to the mixer to continue the final mix output.

5. GAIN

For setting preamplifier gain of corresponding channel to present the overdrive/distortion at high level inputs or unwanted back ground noise because of low input drive.

6. LOW CUT

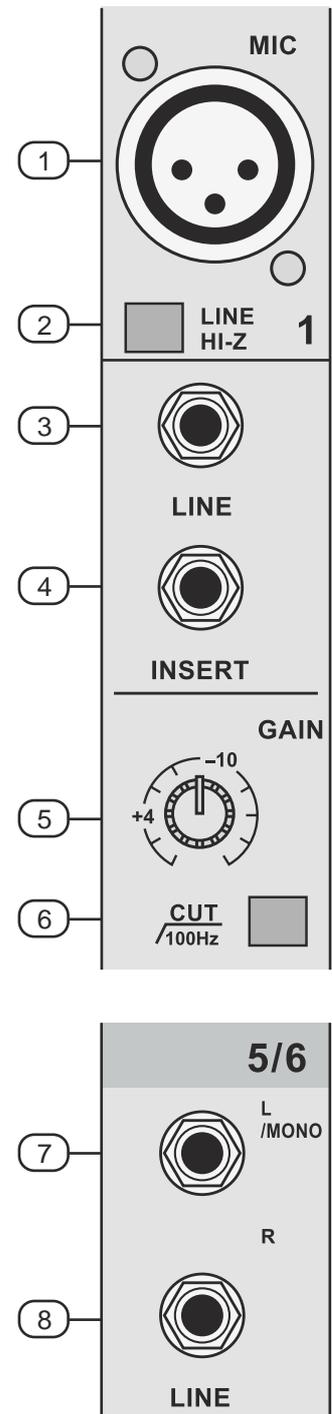
Each channel with a mic input has a low cut switch that cuts the bass frequency below 100Hz, at a rate of 18dB per octave. All mic inputs are affected, as well as the line inputs of the mono channels.

7. MONO LINE INPUTS

These 1/4" jacks share circuitry (but not phantom power) with the mic preamps and may be driven by balanced or unbalanced sources.

8. STEREO LINE INPUTS

These 1/4" jacks may be driven by stereo or mono, balanced or unbalanced sources.



9. HI EQ

This control gives you up to 15dB boost or cut above 12kHz, and it's flat at the detent.

10. MID EQ

This knob provides 15dB of boost or cut, centered at 2.5KHz, also flat at the center detent.

11. LOW EQ

This control gives you up to 15dB boost or cut below 80Hz. The circuit is flat at the center detent position.

12. AUX MON

These knobs tap a portion of each channel's signal to set up a nice monitor mix feeding stage monitors, independent of the main mix.

13. AUX FX

These knobs tap a portion of each channel's signals to set up a nice FX mix feeding the internal FX processor, and to feed external processors via the FX output.

14. PAN

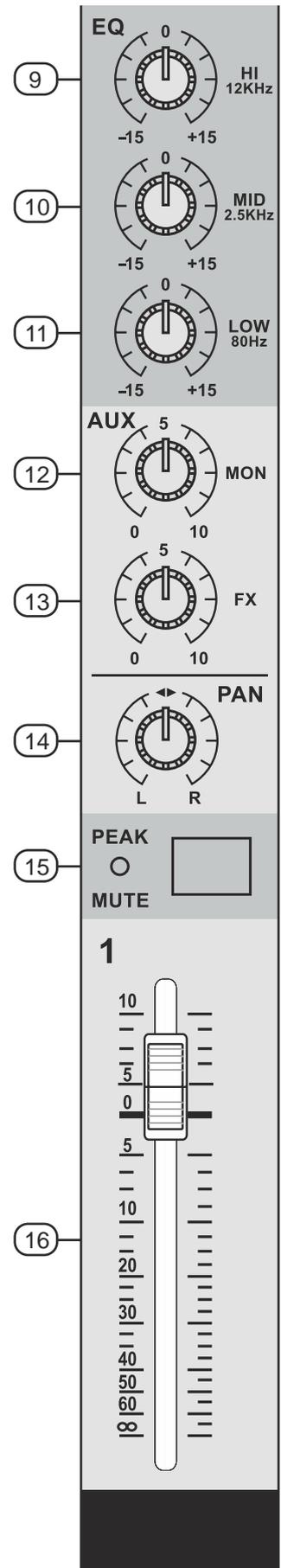
To balance the signals of the left/right of the corresponding channel.

15. MUTE / PEAK

Press this switch in to mute the channel in the main mix. Press the switch up to use as PEAK, this LED indicates a signal level at the insert return point, premaster fader, it illuminates at approximately 5dB below clipping.

16. CHANNEL FADER

These faders control the channel's level from off, on up to 10dB of additional gain. The mono channels have mono faders, and the hybrid and stereo channel use stereo faders.



B. MASTER SECTION

17. LINE SWITCH (3.5)

Press this button while connecting the LINE IN port for the stereo input signal.

18. BAL

The BAL control sends continuously variable amounts of the post fader signal to either the left or right main buses. In the center position equal amounts of signal are sent to the left and right busses.

19. STEREO GRAPHIC EQ

This 7-band graphic equalizer adjusts the main mix output.

20. PHANTOM SWITCH

Press in this switch to add phantom power to all the XLR microphone inputs of the mixer, the LED turns on when it's working.

21. POWER LED

This LED comes on when the mixer is plugged into the AC mains supply, and the rear panel power switch is on.

22. METERS

These meters have 2 columns of 10 LEDs each, they indicate the stereo signal strength of the main mix after the main fader.

23. PRESET DISPLAY

This display show the number of the currently selected effects preset..

24. PRESET AND TAP DELAY

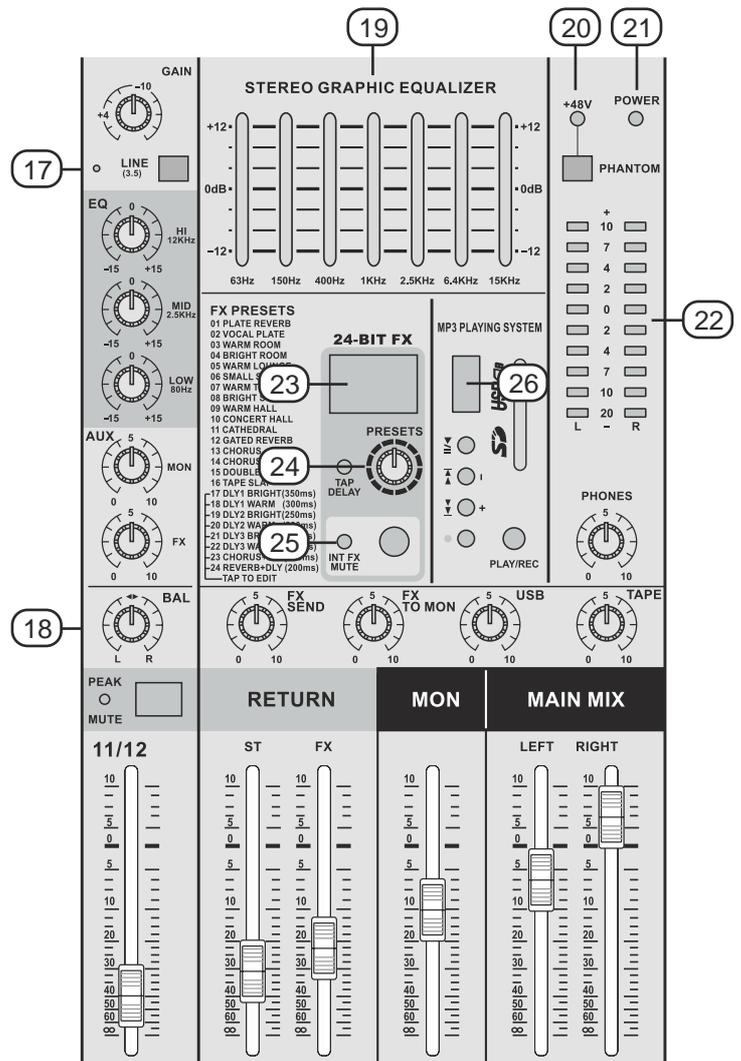
Rotate this knobs to increase or decrease the number of the preset. When you stop the rotation, that preset will be loaded.and become operation.. The current preset number is show in the display. The knob also offers a tap delay function for the preset 17 to 24. The LED will flash in time with the new tap delay time.

25. INTERNAL FX MUTE and LED

When engaged, the internal effects processor is muted,and the adjacent LED will come on..The footswitch connection become disabled and the footswitch can't be used to mute or un-mute the effects.

26. USB / S.D. JACK

This is USB / SDCARD Jack.



27. MP3 PLAYING SYSTEM

PLAY/PAUSE: ►/|| (PLAY/PAUSE Button)
Push this button to PLAY/PAUSE, while pushing it continually to change the playing mode: MP3 or WAV.

PREV: ◀◀ (PREV Button)
Push this button for the previous song, while pushing it continually to reduce the volume.

NEXT: ▶▶ (NEXT Button)
Push this button for the next song, while pushing it continually to increase the volume.

REC: ● (Recording Button)
Push this button for the recording, push it again to end this recording. (only in WAV format)

When it's playing, the LED flashes in green, when it's recording, the LED flashes in red & green.

28. PHONES LEVEL

This controls the volume of the headphones output from off to maximum gain.

29. FX SEND

Use this knob to control the level of the signals going into the internal effects processor.

30. FX TO MON

This knob adds the output of the internal FX processor to the stage monitor mix.

31. USB LEVEL

This control adjusts the signal level of the two channels coming in from the computer, via the USB port, relative to the mix of the other channels.

32. TAPE LEVEL

This knob controls the input level of the signals entering the tape inputs.

33. STEREO RETURN FADER

Use this fader to adjust the level of any audio coming into the stereo return inputs from external processor or other equipment.

34. FX RETURN FADER

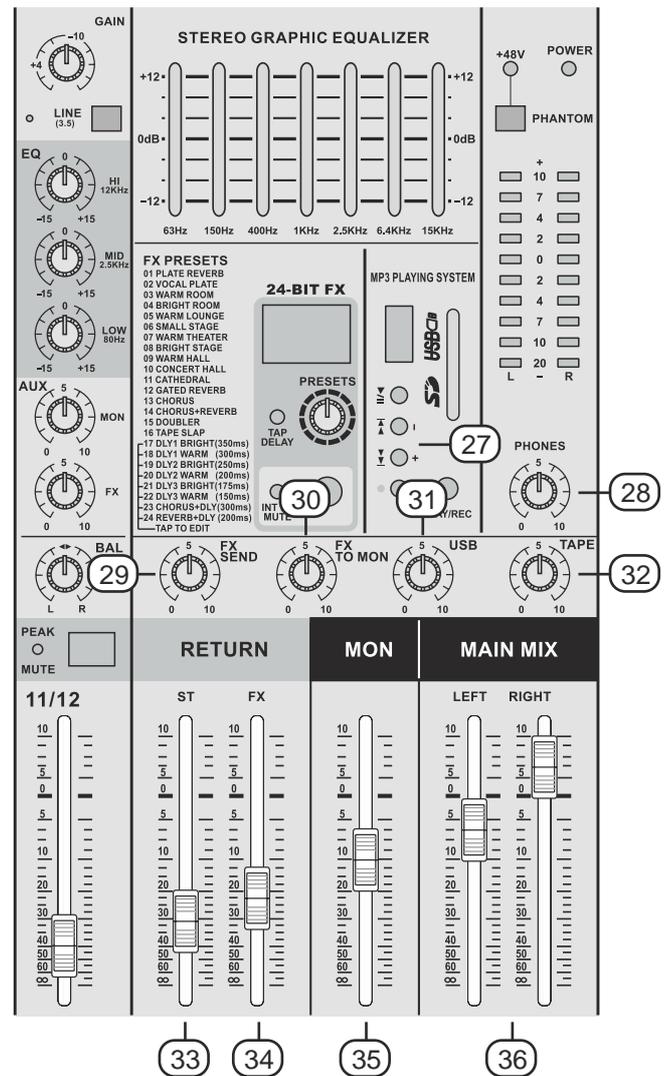
Use this fader to adjust the level of the stereo output from the internal FX processor being added to the main mix.

35. MONITOR FADER

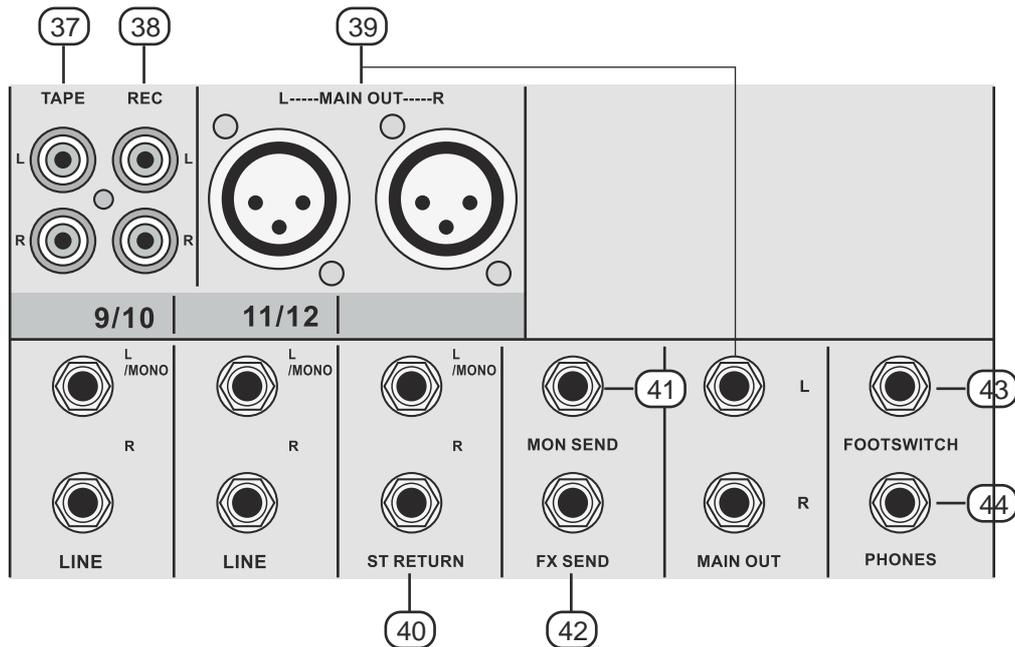
This fader controls the overall level of the monitor send signal sent out to the stage monitors.

36. MAIN FADER

This fader controls the level of the main mix and affects the meters and main line-level outputs.



C. MIXER OUTPUT SECTION



37. TAPE

These stereo unbalanced RCA inputs are designed to work with semi-pro as well as pro player/recorders.

38. REC

These stereo unbalanced RCA outputs allow you to record the main stereo mix onto a tape deck, hard disk recorder, automatic CD burner, computer, etc.

39. XLR AND 1/4 JACK MAIN OUT

In this product, the final confirmed sound can be send to main amplifier through XLR & 1/4 jack.

40. STEREO RETURN

This is where to connect the outputs of parallel effects devices. The circuits will handle stereo or mono, balanced or unbalanced signals.

41. MON SEND

The monitor mix could be adjusted in level using the aux mon controls. These tap a portion of each channel's signal to provide a 1/4" TRS output here to feed external stage monitors.

42. FX SEND

This 1/4" TRS line-level output may be used to feed an external effects processor. The output from this jack is an exact copy of what goes into the internal FX processor,

43. FX FOOTSWITCH

This 1/4" TRS connector is where to connect a footswitch. This will allow you to mute or un-mute the internal effects.

44. PHONES

This 1/4" TRS stereo jack will drive any standard headphone to very loud levels.

D. POWER SECTION

45. POWER CONNECTION

This is the AC power connector

46. POWER SWITCH

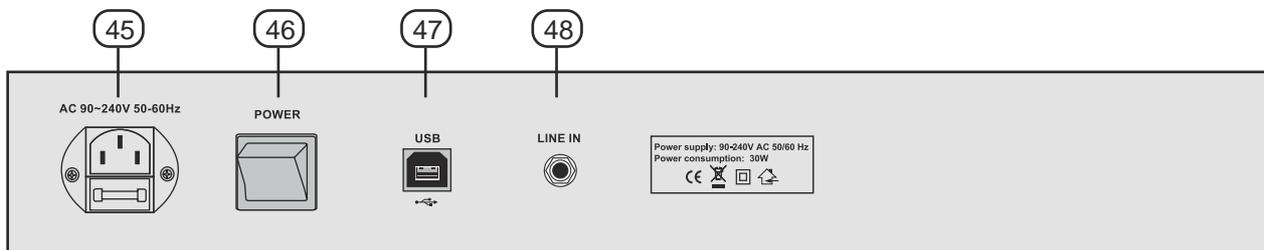
Press the top of the rocker switch to turn on the mixer.

47. USB PORT

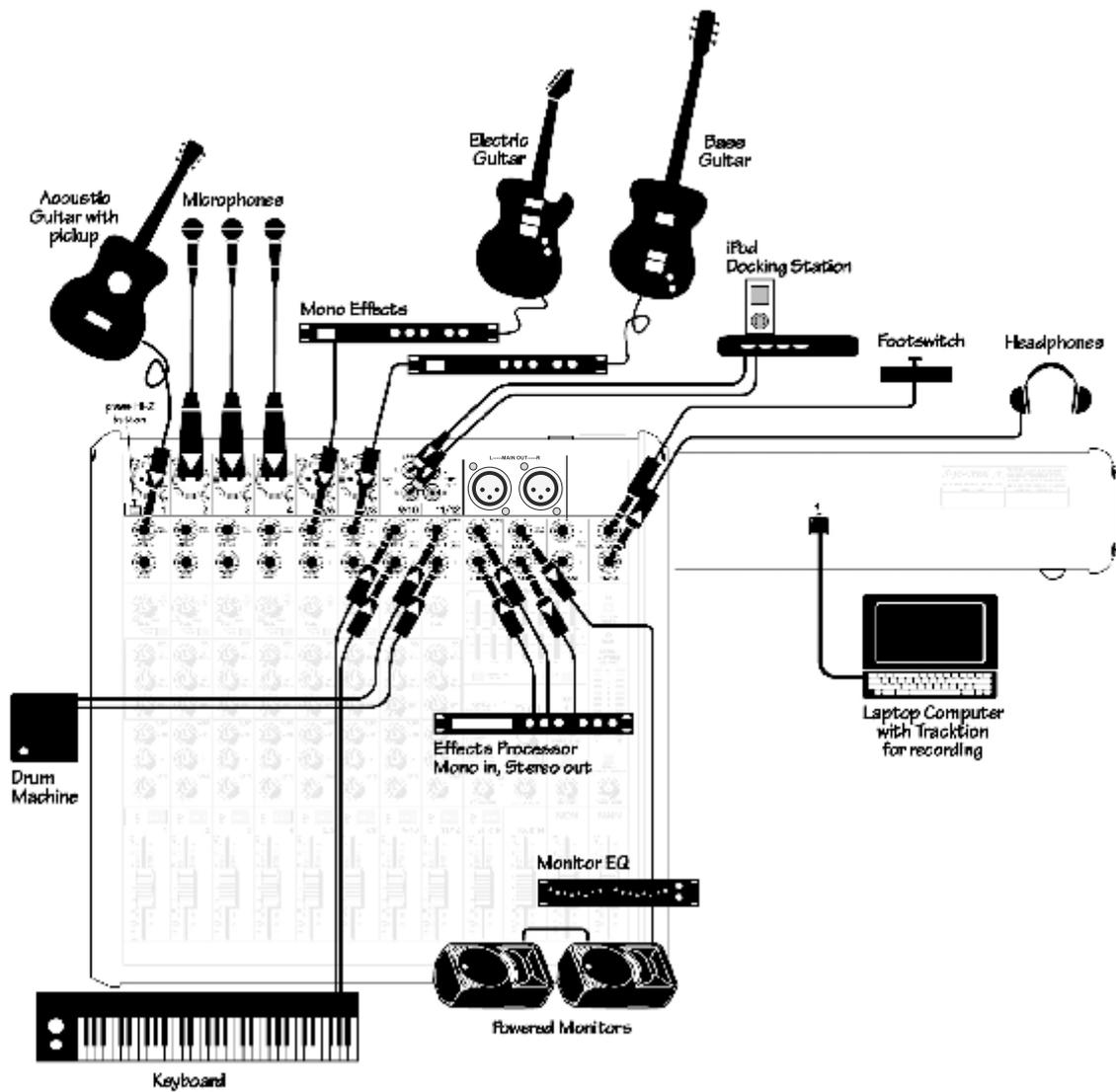
The USB interface allows digital audio to transfer to and from a computer.

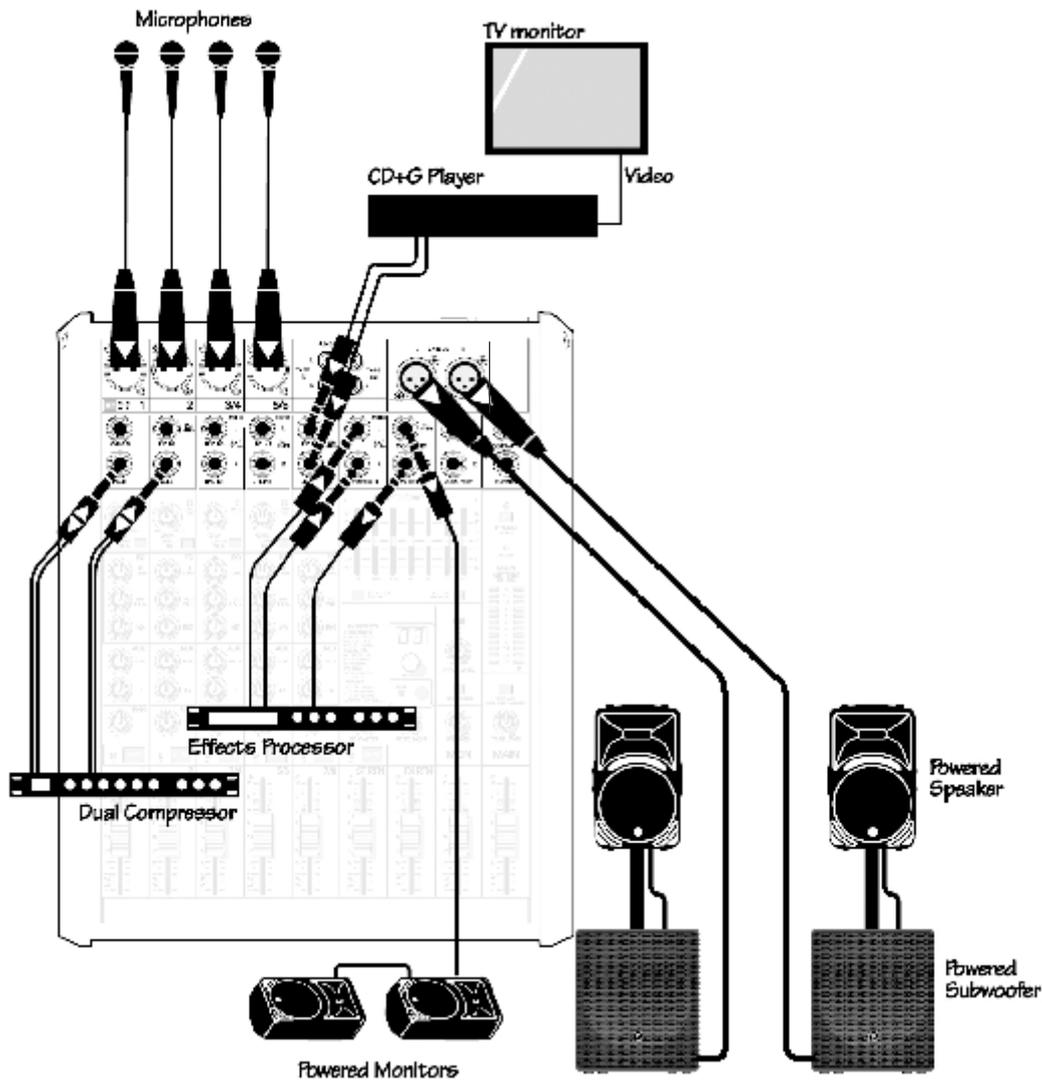
48. LINE IN

This is the input 3.5 jack, controlling the signal to the right stereo channel.



HOOKUP DIAGRAMS





E. APPENDIX

Specifications

Noise

20Hz—20kHz, 150Ω source impedance

Equivalent input noise

(Mic in to insert send out, max gain)

-125dBu

Residual output noise

(All outputs, master levels off, all channel levels off)

-95dBu

(All outputs, master levels unity, all channel levels off)

-80dBu

All outputs, master levels unity, one channel levels unity)

-80dBu

Distortion

20Hz-20kHz

THD+N, SMPTE IMD

(Mic input to main output) <0.5% @ 4dBu output

Common Mode Rejection Ratio

1kHz

(mic input to insert send output) 60dB gain at unity

Frequency Response

20Hz-30kHz

(mic input to any output,gain at unity)+0dB/-3dB

Crosstalk

20Hz-20kHz

Adjacent Inputs -90dB@1kHz

Inputs to outputs -90dB@1kHz

Fader off -75dB@1kHz

Mute switch/Break switch mute -90dB@1kHz

Maximum Levels

All inputs +22dBu

Main mix XLR +28dBu

All other outputs +22dBu

Impedance

Mic in 3K Ω

Channel insert return 10k Ω

Ch 1 instrument input 1M Ω

All other inputs 20k Ω

Tape out 1.1K Ω

Phones out 25 Ω

All other outputs 120 Ω

Channel EQ

Low cut 100Hz,-12dB/Octave

High shelving ± 15 dB@12kHz

Mid peaking ± 15 dB@2.5kHz

Low shelving ± 15 dB@80kHz

Digital Effects

I/O Mono input/stereo output

Number of presets 16

Meters

Main L/R mix

Two columns of 12 segments each:

OL(+20dBu),+15,+10,+6,+3,0(0dBu),12,-4,-7,-10,-20,and -30



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