

AMERICAN PRO

GREY-4 GREY-8 GREY-12

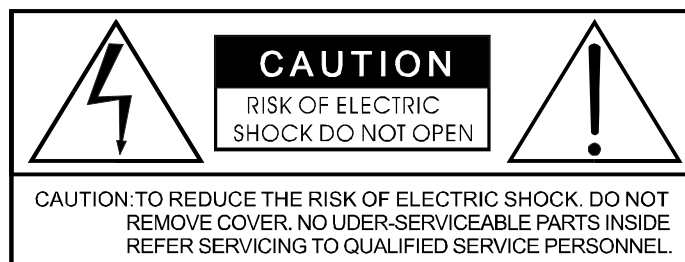


PROFESSIONAL AUDIO MIXER

Contents

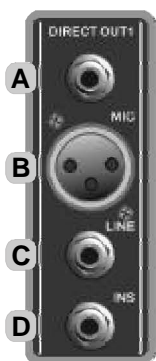
Before operating, please read this manual completely.

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<http://www.americanpro-audio.com>

Mono input channels



It has three specifications, include four channels, eight channels and twelve channels.



- A. The input signal can send to the track recorder or effect equipment through direct output.
- B. You can use low-cost HIGH IMPEDANCE mics, but the level of background noise will be higher. If you press the 48V switch down (beside the phones jack) this socket provides a suitable powering voltage for professional condenser mics (this is also known as Phantom Power).
- C. This jack is to be connected with various external auxiliary signals. Mono Channel.
- D. This is a pre-fade break in the signal path which can be used to feed a dynamics or mastering device. The signal is sent from the tip of the jack plug and the return path comes back in on the ring of the jack plug.
- E. This knob sets how much of the source signal is sent to the rest of the mixer. Too high, and the signal will distort as it overloads the channel. Too low, and not be able to get enough signal level to the output of the mixer. Setting the knob to the "U" mark gives unity gain for the LINE input. Note that some sound equipment, particularly the intended for domestic use, operates at a lower level (-10dBV) than professional equipment and will therefore need a higher gain setting to give the same output level. See 'Setting Up & Troubleshooting' on page 20 to learn how to set SENS correctly.
- F. Pressing this switch activates a steep 18dB per octave filter which reduces the level of bass frequencies only. Use this in live PA situations to clean up the mix, reducing stage rumble or 'popping' from microphones.
- G. Equalization on the Spirit M Series is split onto three bands. The HF control provides 15dB of cut or boost (gain adjustment) for frequencies above 12 kHz - ideal for adding crispness to cymbals vocals, etc. Or for removing unwanted hiss or vocal sibilance. Two swept mid frequency controls enable frequencies from 240Hz to 6 kHz to be adjusted, offering 15dB of cut or boost at the selected frequency. To add punch to drums and bass or to remove hums and rumbles, adjust signals below 60Hz with the LF control, which features ± 15 dB of gain adjustment (cut or boost).
- H. These are used to set up separate mixes for FOLDBACK EFFECTS or recording and the combination of each AUX Send is mixed to the respective Aux Output at the rear of the mixer. The sends are always PRE - FADE which is most appropriate for Fold back or Monitor feeds, but note that the Line inputs on pairs of Mono channels may be used as alternative stereo inputs if post-fade sends are essential for effects.
- I. Pan, Muting PFL and Direct pre
- J. The 100mm potentiometer allows more than 20dBu level signal. The green signal lamp means it has connected with the input. It will cause the smooth-wave distortion when the PEAK means the signal has exceeded +17dBu.

Stereo input channels



All the specifications have four channels; connect the stereo sound source of the circuitry level and electronic musical instrument.

- A. This socket sends out the signals from aux bus.
- B. There are four groups return input of the stereo signal, they input as CD, MD etc.
- C. This jack is to be connected with stereo various external auxiliary signals.
- D. The GAIN control sets the input level to the channel, allowing matching to a wide range of line level sources.
- E. Equalization on the Spirit M Series is split onto two bands. The HF control provides 15dB of cut or boost (gain adjustment). Or for removing unwanted hiss or vocal sibilance. The high and low frequency controls enable frequencies is 12 kHz and 60 Hz.
- F. These are used to set up separate mixes for FOLDBACK EFFECTS or recording and the combination of each AUX Send is mixed to the respective Aux Output at the rear of the mixer. The sends are always PRE-FADE which is most appropriate for Flodback or Monitor feeds, but note that the Line inputs on pairs of Mono channels may be used as alternative stereo inputs if post-fade sends are essential for effects.
- G. Pan, Muting PFL and Direct pre
- H. The 100mm potentiometer allows more than 20dBu level signal. The green signal lamp means it has connected with the input. It will cause the smooth-wave distortion when the PEAK means the signal has exceeded +17dBu.

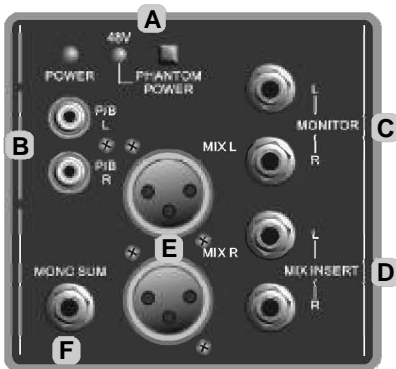
Master section



Master section

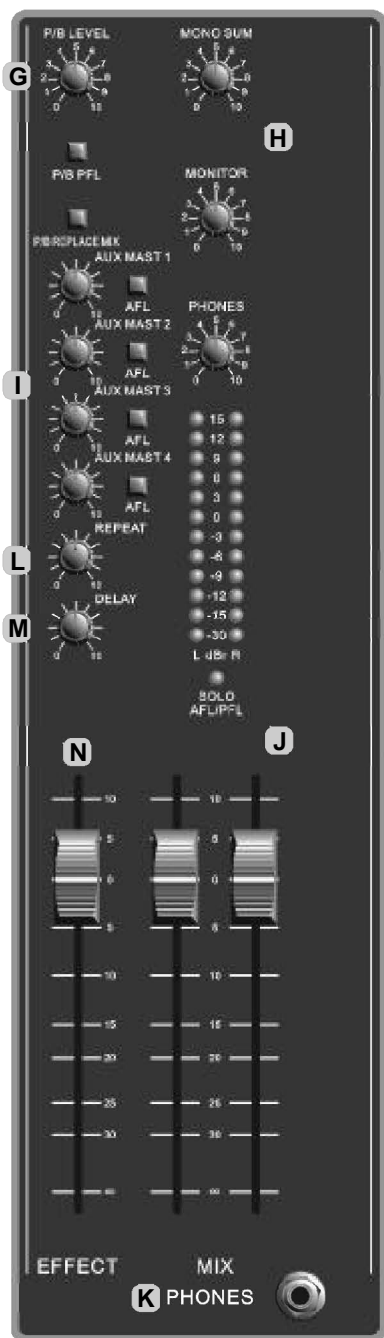
Each M Series Mixer has four channels of the stereo. It composes one stereo signal through (A) the potentiometer to adjust after each level. And through (B) the return master to adjust the right level: come back to the master. You can use the (MUTE) (C) switch to dispose if the come back signal is passing after the effect dispose. The PEAK will supervise three work points; it includes the EQ and FADER. If the lamp which indicates the input signal level of this appliance (regardless of output) when GAIN volume is adjusted.

Master section



The function of M series main MIX include some center main control, stakeout of the level and main output of the stereo etc.

- A.** This slide-switch turn the master phantom power on and off.
- B.** The input of 2 tracks record or other (P/B).
- C.** The monitor output of the record room.
- D.** Insert the outside signal to the master.
- E.** These sockets send line level signals from the mixer to external devices (for example: EQ or a power amplifier)
- F.** It can send to the two sides' sound box or other use through the mono output. Such as audiphones, translators etc.
- G.** The control of (P/B). Generally, the master connected this P/B to monitor the playback through use the P/B PFL switch and P/B volume. An other use is the mixer's enactment with out affect when play music in the middle of perform. Insert the P/B (Replace Mix) to the CD player or other music so that they will represent the master through press the controls of P/B. The operator can adjust the MIC of the stage and ensure send to the loud-box without error.



- H.** Mono Sum, Monitor, Phones. The output of the monitor will be cut when the headphone insert after the jack.
- I.** This socket sends out the signals from aux bus.
- J.** 3-colour peak reading BARGRAPH METERS are provided to monitor the four Subgroup outputs and the selected. Monitor + Phones source (2TK, Mono, Mix or Groups), giving you a constant warning of excessive peaks in the signal which might cause overloading. Aim to keep the signal within the amber segments at peak levels for best performance. Similarly, if the output level is too low and hardly registering at all on the meters, the level of background noise may become significant. Take care to set up the input level for best performance. When any PFL or AFL switch is pressed, the L & R meters automatically switch to show the selected PFL/AFL signal on both meters, in mono.
- K.** This is the output jack of the headphone.
- L.** This is used for adjusting frequency of echo repeat. Since too much echo repeat may cause a howl. Please adjust frequency properly.
- M.** This is used for adjusting the time interval of echo repeat. The middle position (5) may be most effective.
- N.** This is used for adjusting frequency of echo repeat. Since too much echo repeat may cause a howl. Please adjust frequency properly.

Specifications

Frequency response

Mic/Line Input to any Output..... +/-1 dB 20Hz-20kHz

T.H.D

Mic Sensitivity +30dBu, +20dBu@ all Outputs<0.008%@1kHz

Noise

Mic input E.I.N (maximum gain, measured 22Hz, unweighted).....-128dBu

Aux and Mix Outputs (8ch.routed. faders down, 22Hz,unweighted) <-84dBu

Crosstalk

Channel Mute<90dB 20Hz-10kHz, <80dB 10kHz-20kHz

Fader Cut-Off (ref. Fader 0dB) < 90dB 20Hz-10kHz, <80dB 10kHz-20kHz

Routing Isolation<90dB 20Hz-10kHz, <80dB 10kHz-20kHz

Input&output impedances

Microphone Input~2k Ω

Mono Channel Line Input.....>40k Ω

Stereo Input (Stereo Mode).....>30k Ω

Stereo Returns.....>10k Ω

Headphones Output..... ~40 Ω

All Other Audio Outputs 75 Ω

Input & output levels

Microphone Input Maximum Level+12dBu

Mono Channel Line Input Maximum Level..... +38dBu

Stereo Input Maximum Level+21dBu

Headphones Output(into 200 Ω)..... 150mVV

All Other Audio Outputs+21dBu into 10k Ω

Filter

HP.....100Hz, 18dB/octave

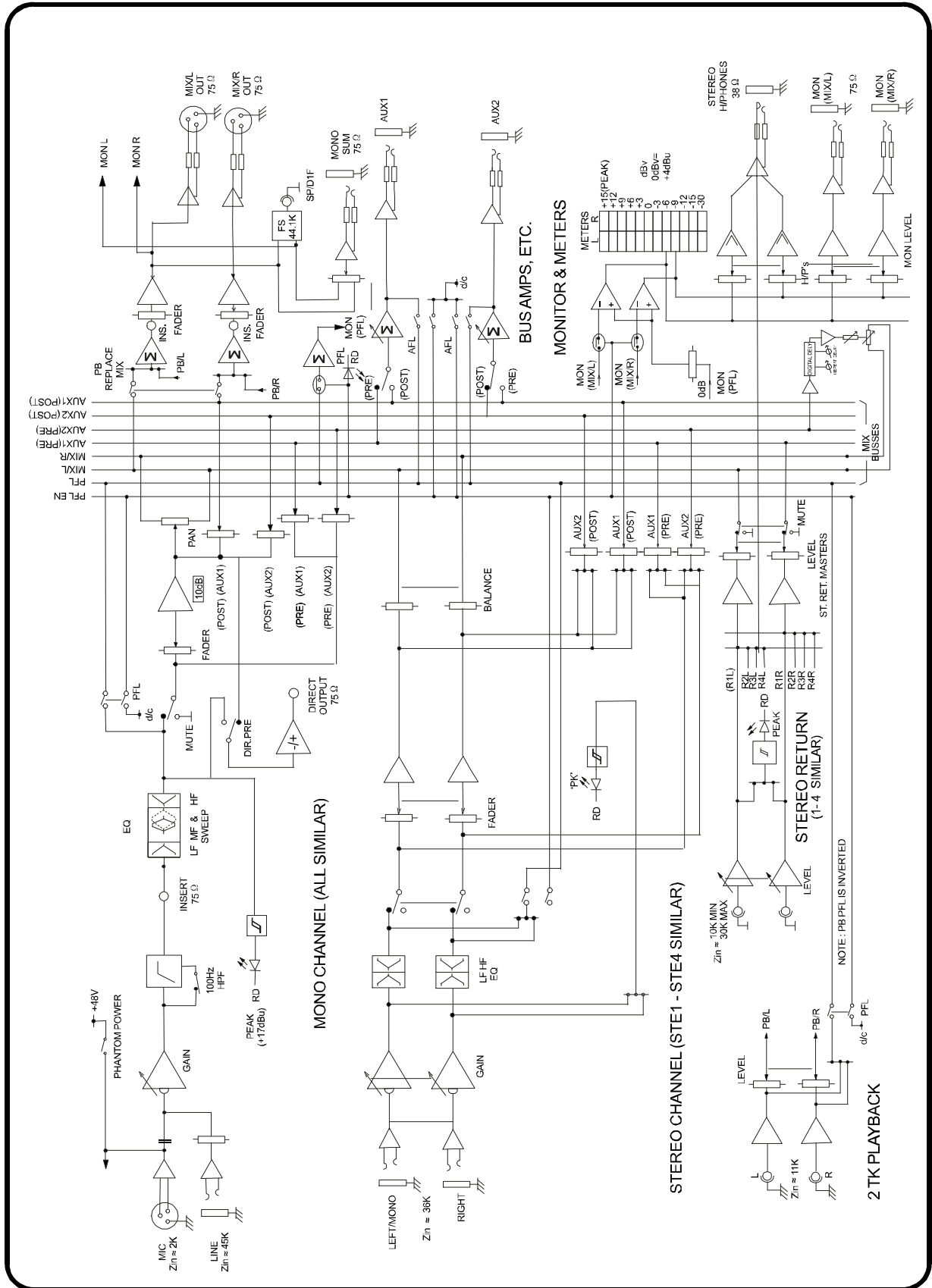
EQ

HF 12 kHz, +/-15dB

MF.....240Hz-6 kHz, +/-15dB

Lf.....60Hz, +/-15dB

System block diagram



Warning and attention

**Read all the instructions before using the product.
And should be keep for future reference.**

1. Do not use this product near water (e . G., Near a bathtub, washbowl, kitchen sink, in a wet basement, near a swimming pool, etc.)
2. The product should be located so that its location or position does not interfere with its proper ventilation. (E .g., put in the bed, sofa, footcloth or surface.) That will plug up ventilation, and block air flow.
3. The product should be located away from heat sources such as radiators, heat vets, or other devices (including amplifiers) that product heat.
4. The product should be connected to a power supply only of the type described in the operating instructions or as marked on the product.
5. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
6. The product should be clean with the user-maintenance instructions.
7. Unplug this apparatus when unused for long periods of time.
8. Avoid the object and liquid influx the product.