

Important Safety Instructions



This symbol, wherever used, alerts you to the presence of un-insulated and dangerous voltages within the product enclosure. These are voltages that may be sufficient to constitute the risk of electric shock or death.



This symbol, wherever used, alerts you to important operating and maintenance instructions.

Please read.



Protective Ground Terminal



AC mains (Alternating Current)



AC mains (Alternating Current)

ON:

Denotes the product is turned on.

OFF:

Denotes the product is turned off.

WARNING

Describes precautions that should be observed to prevent the possibility of death or injury to the user.



CAUTION

Describes precautions that should be observed to prevent damage to the product. Disposing of this product should not be placed in municipal waste but rather in a separate collection.

WARNING

Power Supply

Ensure that the source voltage (AC outlet) matches the voltage rating of the product. Failure to do so could result in damage to the product and possibly the user. Unplug the product before electrical storms occur and when unused for long periods of time to reduce the risk of electric shock or fire.

External Connection

Always use proper ready-made insulated mains cabling (power cord). Failure to do so could result in shock/death or fire. If in doubt, seek advice from a registered electrician.

Do Not Remove Any Covers

Within the product are areas where high voltages may be present. To reduce the risk of electric shock do not remove any covers unless the AC mains power cord is removed. Covers should be removed by qualified service personnel only.

No user serviceable parts inside.

Fuse

To prevent fire and damage to the product, use only the recommended fuse type as indicated in this manual. Do not short-circuit the fuse holder. Before replacing the fuse, make sure that the product is OFF and disconnected from the AC outlet.

Protective Ground

Before turning the unit ON, make sure that it is connected to Ground. This is to prevent the risk of electric shock.

Never cut internal or external Ground wires. Likewise, never remove Ground wiring from the Protective Ground Terminal.

Operating Conditions

Always install in accordance with the manufacturer's instructions.

To avoid the risk of electric shock and damage, do not subject this product to any liquid/rain or moisture.

Do not use this product when in close proximity to water.

Do not install this product near any direct heat source. Do not block areas of ventilation. Failure to do so could result in fire.

Keep product away from naked flames.

IMPORTANT SAFETY INSTRUCTIONS

Read these instructions

Follow all instructions

Keep these instructions. Do not discard.

Heed all warnings.

Only use attachments / accessories specified by the manufacturer.

Power Cord and Plug

Do not tamper with the power cord or plug. These are designed for your safety.

Do not remove Ground connections!

If the plug does not fit your AC outlet seek advice from a qualified electrician.

Protect the power cord and plug from any physical stress to avoid risk of electric shock.

Do not place heavy objects on the power cord. This could cause electric shock or fire.

Cleaning

When required, either blow off dust from the product or use a dry cloth.

Do not use any solvents such as Benzol or Alcohol.

For safety, keep product clean and free from dust.

Servicing

Refer all servicing to qualified service personnel only.

Do not perform any servicing other than those instructions contained within the User's Manual.

PORTABLE CART WARNING



Carts and stands - The component should be used only with a cart or stand that is recommended by the manufacturer.

A component and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the component and cart combination to overturn.

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INTRODUCTION

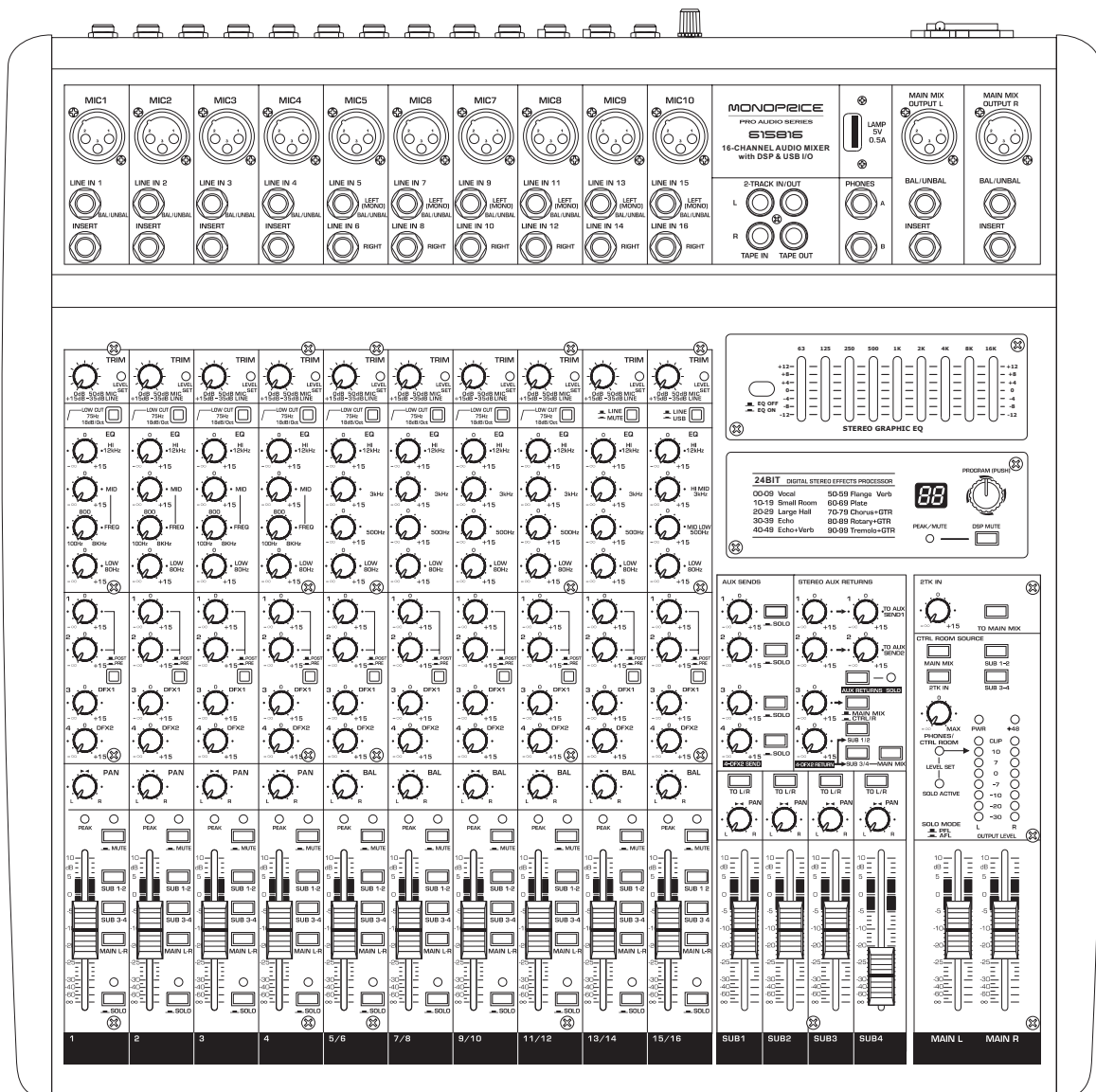
Thank you for purchasing the MONOPRICE 615816 16-Channel Audio Mixer with DSP and USB! This mixer features ten mono MIC inputs, each with a 3-band EQ, and six Stereo Line-level inputs, each with a 4-band EQ, making it ideal for use as a fixed PA mixer or a portable mixer for live performances.

For best results, please read this manual carefully, paying extra attention to the safety warnings and guidelines. Please keep this manual in a safe place for future reference.

FEATURES

- 10 MIC input with gold plated XLR and balanced TRS jacks.
- 6 Stereo input channels with balanced TRS jacks.
- Ultra-low noise discrete MIC preamps with +48 V Phantom Power.
- SUB1-2, SUB3-4 & MAIN L-R signal assignment switches.
- 4 AUX Sends per channel: 2 PRE/POST faders switchable for monitoring application effects & sound processor input; 2 POST faders as external send or for internal digital DFX.
- 3-band EQ with sweepable MID on mono inputs; 4-band EQ on stereo inputs.
- Channel insert and Direct Outputs on each mono channel plus Main Insert for flexible connection of outboard equipment
- 2-TRACK IN assignable to Main Mix, Control Room/ Headphone outputs.
- USB port for input/output to a PC.
- 24-bit digital effects processor with 100 presets.
- True stereo 9-band graphic equalizer on the output.
- Includes rack mount adapters for use with a standard 19" equipment rack.

Quick Start

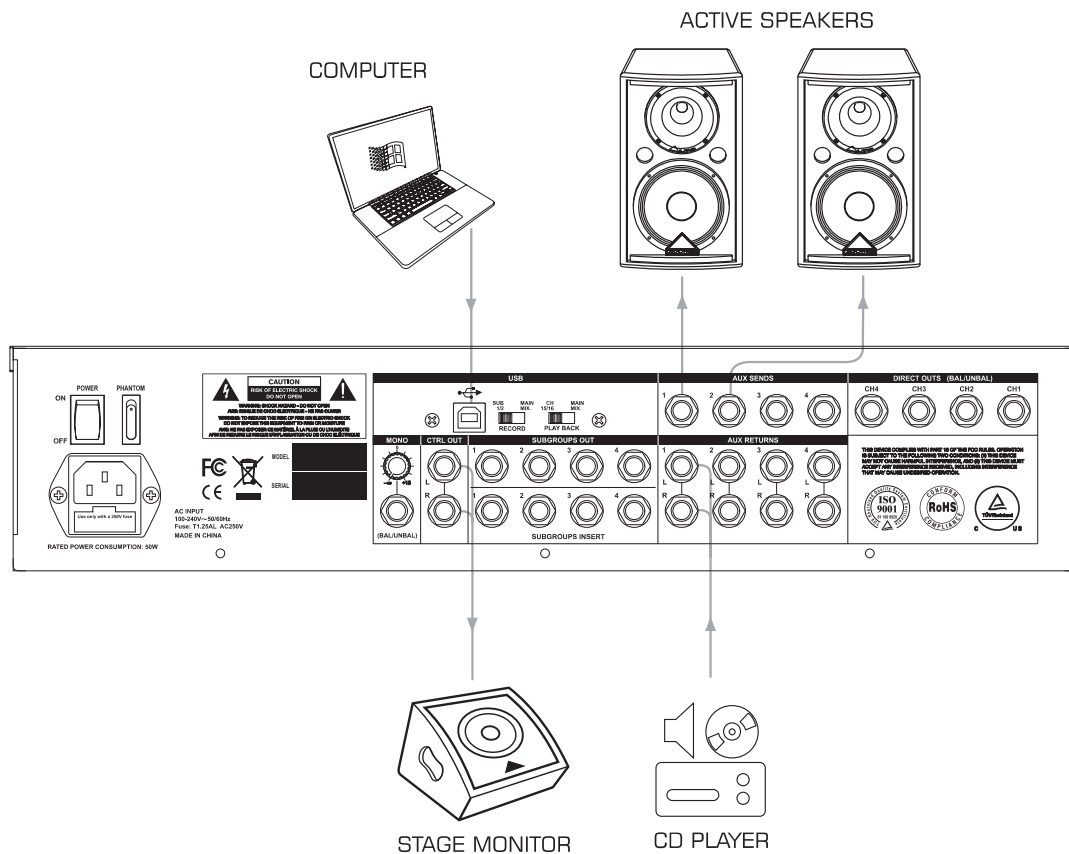
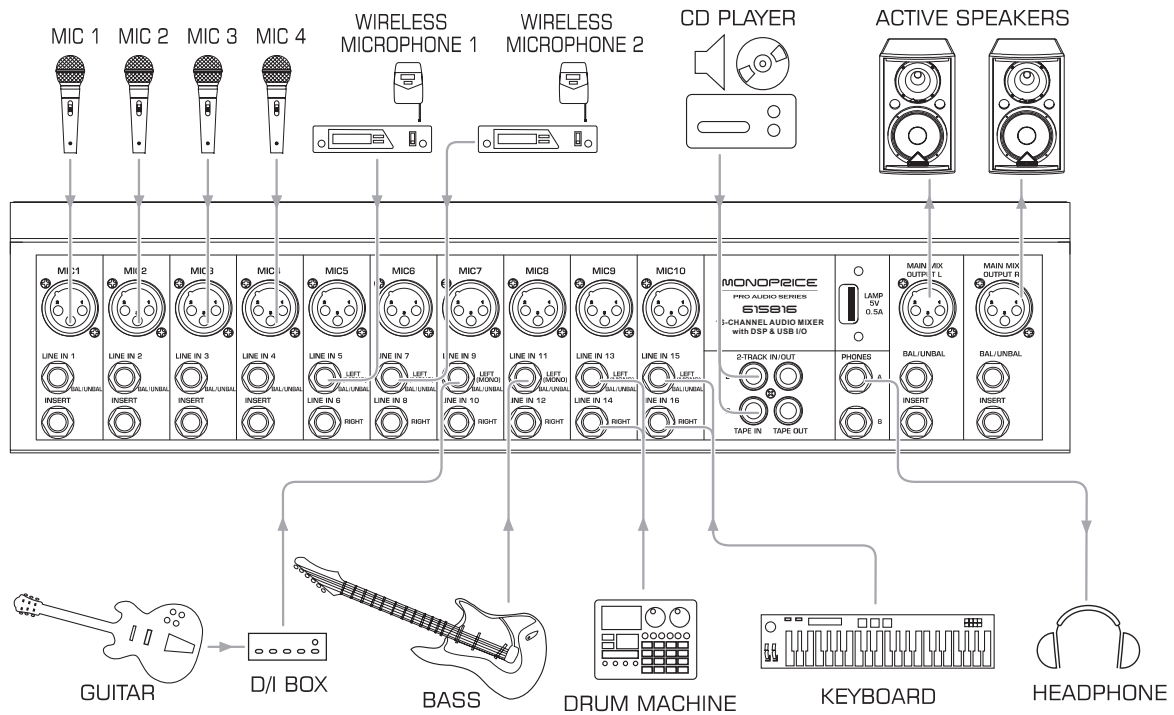


This example Quick Start connection assumes the use of a single microphone and a stereo keyboard.

- a. Plug the microphone into Channel 1 MIC IN.
- b. Turn down the AUX and LEVEL controls on the input channel.
- c. Put the EQ control in the center position.
- d. Turn on the mixer.
- e. Sing or speak into the microphone with normal volume and adjust the channel LEVEL control to half.
- f. If you like, you can adjust the EQ at this stage.
- g. The LED on the Master LED meter should flash only occasionally, otherwise you will hear distortion. If this LED is not active and you still hear distortion, please turn down a little the input LEVEL control or reduce the output level of your source instrument.
- h. Connect your stereo keyboard to one of the stereo line inputs and adjust the level and EQ settings per steps e-g above.
- i. The following page shows example connections for multiple instruments and microphones.

Quick Start

EXAMPLE MULTI-INSTRUMENT CONNECTION DIAGRAM



Controls and Connections

1- MONO MIC/LINE Channels

Your mixer is equipped with 10 low-noise microphone preamplifier inputs with optional phantom power, 50 dB of gain, and over 115 dB signal-to-noise ratio. You can connect almost any type of microphone. Dynamic microphones do not need phantom power. Use phantom power only with condenser microphones, but make sure that the phantom power button is disengaged before connecting the microphone. Phantom power will not damage your dynamic microphones, so you can safely mix the use of condenser and dynamic mics. Use switch (48) to activate/deactivate phantom power. These channels are also equipped with 1/4" TRS balanced/unbalanced LINE-IN plugs to connect line-level instruments such as keyboards, drum machines and effect devices.

2- MONO Channel INSERT

The INSERT connection is used to connect external sound processors, such as compressors, equalizers, etc. This 1/4" TRS jack carries both the signal sent out to the processor and the return signal. If the processor uses a single bidirectional 1/4" TRS jack you can make the connection using a standard 1/4" TRS cable. If the processor has separate 1/4" TS inputs and outputs, you will need to use an Insert Splitter Cable, which is wired as shown in the diagram on page XXX.

3- STEREO INPUTS

These are channels 5 through 16. They are organised in stereo pairs and provided with both XLR sockets and 1/4" TRS phone jacks. If you connect only the left jack, the input will operate in mono mode, that is the mono signal will appear on both input channels. You can use these inputs with a stereo keyboard, drum machine, etc.

4- TRIM (Mono Channel)

Each TRIM control for the four mono channels has two legends, one for use with MIC inputs (0 ~ 50dB) and the other for use with the line level inputs (+15 ~ -35dB). To avoid signal distortion, set this control so that the PEAK LED (17) blinks only occasionally.

5- TRIM (Stereo Channel)

Each TRIM control for the six stereo channels has two legends, one for use with MIC inputs (0 ~ 40dB) and the other for use with the line level inputs (+20 ~ -20dB). To avoid signal distortion, set this control so that the PEAK LED (17) blinks only occasionally. Note that the TRIM controls for the stereo channels have a center detent.

6- LEVEL SET LED

When illuminated, this LED indicates the presence of an audio signal.

7- LOW-CUT Button

Pressing this button activates a 75Hz low-cut (aka high pass) filter, which attenuates frequencies below 75Hz with an 18dB per octave slope. You can use this filter to eliminate 60Hz power line hum or stage rumble from a microphone.

8- LINE/MP3 Button

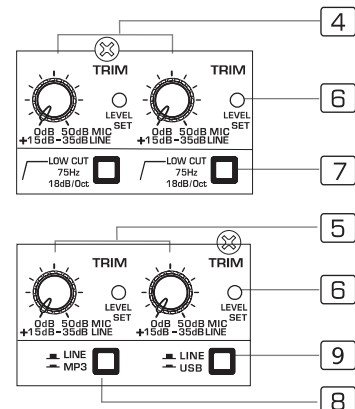
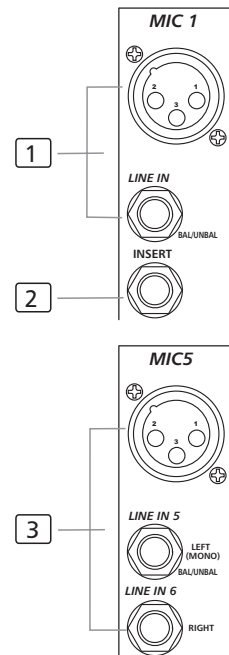
This button is intended for use with the optional MP3 module installed. The Monoprice 615816 mixer does not use the MP3 module and therefore the MP3 position will produce no output. Leave this button in the LINE position.

9- LINE/USB Button

This button toggles between the standard line-in inputs and the input from the USB interface for the stereo Channel 15/16.

EQUALIZER

Each of the four mono channels has a 3-band equalizer with an adjustable mid-range frequency setting. The high frequency EQ is at 12KHz and the low frequency EQ is at 80Hz. The middle frequency is adjustable from 100Hz to 8KHz. Each of the six stereo channel pairs has a 4-band equalizer, with adjustments on the 80Hz, 500Hz, 3KHz, and 12KHz frequency bands. Each EQ band has a range of -8 ~ +15dB.



Controls and Connections (cont.)

10- HI

This is a high-shelf filter that boosts or attenuates all frequencies above 12KHz. Boosting these frequencies can add transparency to vocals and guitar, and can make cymbals sound crisper. Attenuating these frequencies can reduce the sibilance in a human voice or the hiss from tape playback.

11- MID-FREQ

This peaking filter boosts or attenuates signals at the frequency selected with the FREQ knob. This control affects the upper male and lower female vocal ranges, as well as the harmonics of most instruments.

12- HI-MID

This peaking filter boosts or attenuates signals at the 3KHz band. It is useful for controlling the tone of the human voice.

13- MID-LOW

This peaking filter boosts or attenuates signals at the 500Hz band.

14- LOW

This low-shelf filter boosts or attenuates all frequencies below 80Hz. Boosting these frequencies can add more punch to bass drum and bass guitar notes, and can make vocals sound deeper or more "macho". Attenuating these frequencies can be useful in removing low-frequency vibrations and resonances.

15- AUX SENDS Level Control

These four knobs control the level of the signals sent to the AUX bus. AUX 1 and AUX 2 can be configured to control the level before (pre) or after (post) it goes to the fader control. AUX 3 and AUX 4 always control the level post-fader. Note that when the Digital Signal Processor (DSP) is active its output is assigned to AUX 4.

16- PAN/BAL Control

For the mono channels, this control is called "Pan" (panorama), and determines how much of the signal is sent to the left and right channel outputs. When set completely to the left the entire signal is sent to the left channel output, with nothing being sent to the right channel output. When set to the middle an equal amount of signal is sent to each output channel. For the stereo channels this control, is called "Balance", and determines the relative output levels of the left and right channel signals sent to the outputs.

17- PEAK LED

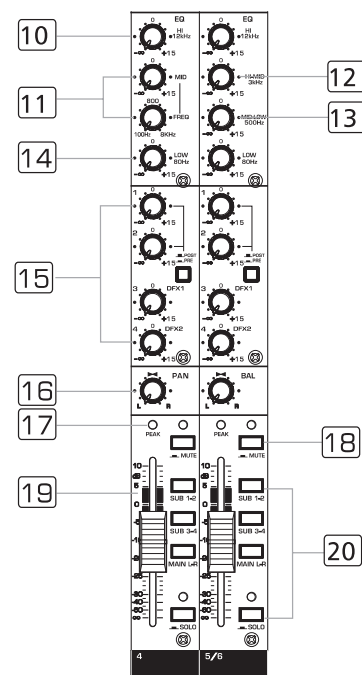
The level of the audio signal in the mixer is monitored at several different stages and sent to the Peak LED circuitry. The Peak LED illuminates when the signal is reaching a saturation level, which can produce distortion. You should adjust the levels so that the Peak LEDs blink only occasionally.

18- MUTE Button & LED

Each channel has a MUTE button, which mutes all audio output on that channel, except for the INSERT send and the SOLO output (in Pre-Fade Listen mode). When MUTE activate the mute LED illuminates.

19- FADER

The fader controls the overall output level for the channel and determines the amount of signal sent to the main outputs."



Controls and Connections (cont.)

20- ASSIGNMENT Controls

Each channel has four push buttons labeled: SUB1-2, SUB3-4, MAIN L-R, and SOLO. The first three buttons are signal assignment switches. Pressing the SUB1-2 button routes the signal to Subgroup 1/2. Similarly, pressing the SUB3-4 switch sends the signal to Subgroup 3/4 and pressing the MAIN L-R button sends the signal to the MAIN MIX L/R. The PAN control determines how much of the signal is sent to each channel in the group. For example, with SUB1-2 active, panning all the way to the left sends all of the signal to Subgroup 1 and nothing to Subgroup 2. Pressing the SOLO switch replaces all other signals on the Headphone/Control Room output with the Solo'd signal. The SOLO function is a way of checking a signal without sending it to the main output. This is useful for checking a signal and adjusting its EQ and level settings before sending it to the main mix. When the SOLO button is selected the corresponding SOLO LED illuminates. The SOLO switch never affects any mix other than the Control Room mix.

21-Master AUX SENDS Controls

These four controls are used to determine the master AUX SEND levels, which can be varied from -8 to +15 dB. The boost provided by these controls can be used to increase the gain of external effects units, which have no input gain of their own. The AUX 4 level control determines the level of the signal from the Digital Signal Processor, when it is active.

22- SOLO Button

These SOLO buttons perform the same function as the SOLO buttons on the individual channels. When the SOLO switch is activated it sends the output from the selected SUB channel to the Control Room/Phones output and Meter display.

23- Master STEREO AUX RETURNS Controls

These four controls determine the level of effects received over the stereo AUX RETURN lines. The output can be boosted up to +15dB and attenuated to -8. The boost is useful for increasing the signal level of low level effects.

24- TO AUX SEND1/2

These controls affect the level of the AUX RETURN signal sent to the AUX SEND output. The AUX SEND 1 control affects the level of the AUX RETURN 1 signal sent to the AUX SEND 1 bus, while AUX SEND 2 controls the level of the AUX RETURN 2 signal sent to the AUX SEND 2 bus. The adjustable range is -8 ~ +15dB.

25- AUX RETURNS SOLO Button

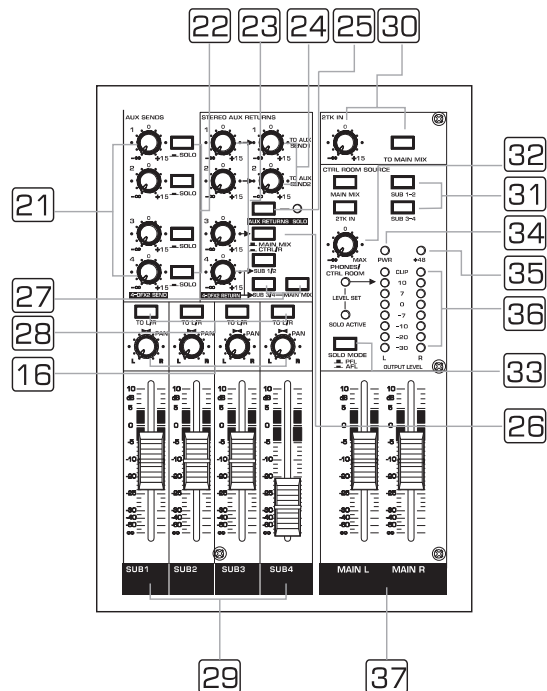
These buttons have the same function as the individual channel SOLO buttons. When one of the SOLO buttons is activated it routes the signal from the corresponding AUX RETURN channel to the CTRL OUT and PHONES outputs, and to the METER display. When selected the corresponding SOLO LED is illuminated.

26- MAIN MIX & CTRL/R Button

This button determines the routing for the AUX RETURN 3 signal. When the button is up the AUX RETURN 3 signal is sent to the MAIN MIX bus. When the button is down the AUX RETURN 3 signal is sent to the CTRL/R output.

27- SUB1-2/SUB3-4/MAIN MIX Buttons

These three buttons determine the routing for the AUX RETURN 4 signal. When activated the signal is sent to the corresponding bus. Any, none, or all three of the buttons can be activated at the same time.



Controls Elements

28- SUBGROUPS ASSIGN TO MAIN MIX

These four buttons (labeled "TO L/R") are used to send the output of each of the four SUB channels to the MAIN MIX. This allows you to use the SUB channel fader to control the level of the output sent to the MAIN MIX. Use the PAN knobs to determine how much of the signal gets sent to left and right MAIN MIX channels.

29-SUBGROUPS Fader

These faders control the output levels of each of the four SUB groups. The faders have an adjustable range from -8 to +10dB. Any individual channel that is assigned to the subgroups and is not muted will be assigned to the SUB OUTS.

30-2TK LEVEL & TO MIX Button

When depressed, the button routes the 2TK output to the MAIN MIX left/right output. The knob allows you to adjust the level of the 2TK input signal.

31-Control Room Source

These four switches allow you to monitor any or all of the MAIN MIX, SUB1-2, SUB3-4, and 2TK IN signals via the Phones and Control Room outputs, and the Meters display.

※Note: When any SOLO button is engaged that SOLO signal will replace all other signals for the Control Room and Phones outputs and the Meter display.

32-PHONES/CTRL ROOM Knob

Use this knob to control the level of the PHONES and CTRL ROOM outputs.

33-SOLO MODE Button

This button determines whether the SOLO signal will be output before (PFL = Pre-Fader Listen) or after (AFL = After-Fader Listen) the Fader level control.

※Note: The SOLO function can never effect the MAIN MIX at the recording output and is unaffected by a channel's MUTE switch."

34-POWER LED

This LED indicates when the power is ON.

35-PHANTOM LED

This LED indicates when the phantom power is switched ON.

36-LED METER

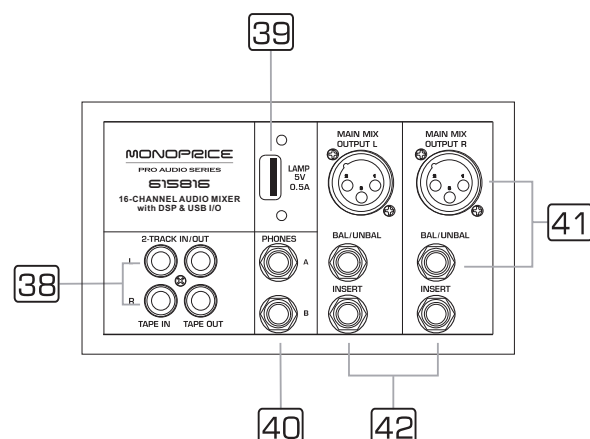
The stereo, 8-segment LED meter indicates the signal level sent to the CTRL ROOM and PHONES outputs.

37-MAIN MIX LEVEL Fader

These two fader controls set the amount of signal sent to either the MAIN MIX or TAPE outputs.

38- 2-TRACK IN/OUT

- TAPE IN: Connect this to the output from your tape or DAT recorder.
- TAPE OUT: This output sends the MAIN MIX to a tape or DAT recorder.



Controls and Connections (cont.)

39- USB LAMP socket

This USB socket produces a 5 VDC, 500mA power output for use with USB powered mixer lamps or to power other low-power USB devices.

40- PHONES Jacks

These two mono signal outputs are ganged together to serve as the MAIN MIX output. You can connect a balanced XLR cable, a balanced TRS cable, or an unbalanced TS cable to the L and R outputs.

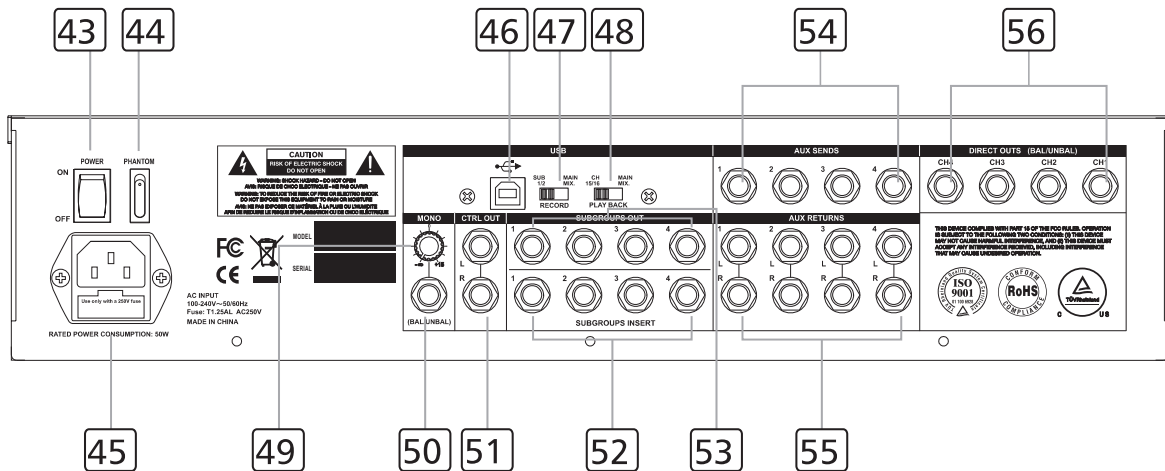
41- MAIN MIX OUTPUT

The MAIN MIX is output over balanced XLR and 1/4" TRS jacks. The 1/4" jacks can also accept unbalanced TS cables. This output is controlled by the Main Mix level.

42- MAIN INSERT

The INSERT connection is used to connect external sound processors, such as compressors, equalizers, etc. This 1/4" TRS jack carries both the signal sent out to the processor and the return signal. If the processor uses a single bidirectional 1/4" TRS jack you can make the connection using a standard 1/4" TRS cable. If the processor has separate 1/4" TS inputs and outputs, you will need to use an Insert Splitter Cable, which is wired as shown in the diagram on page XXX. The INSERT signal is taken out after the EQ and is returned to the MAIN MIX before the MAIN MIX fader.

REAR PANEL



43- POWER Switch

This switch is used to turn the main power on and off.

44- The +48V phantom power is available to the XLR microphone inputs only. Ensure that phantom power is OFF and that all faders are at their minimum positions before connecting any microphones of any type. Phantom power is used by condenser microphones, but will have no effect on dynamic mics, so it is safe to mix the use of both types of microphones in your performance or recording.

45- AC Inlet with FUSE Holder

Plug the supplied AC power cord into this panel connector. The connector and plug used are IEC 60320 standard type C14 for the panel and C13 for the plug. Do not bypass the plug's grounding by modifying the cable or using a "cheater plug". If the fuse blow, replace it with the same type only.

Controls and Connections (cont.)

46- USB PORT

Use a standard USB cable to connect the mixer to a PC or Mac. When used in Output/Record mode, it connects with the SUB1-2 or MAIN MIX outputs. When used in Input/Playback mode it connects with the Channel 15/16 or MAIN MIX outputs.

47- USB RECORD Switch

Use this switch to select whether the outgoing record signal over the USB connection is taken from the SUB1-2 or MAIN MIX outputs.

48- USB PLAYBACK Switch

Use this switch to select whether the incoming playback signal from the USB connection is sent to the Channel 15/16 or MAIN MIX sections.

49- MONO Level Control

This knob sets the level of the mono mix output signal, which can be varied from - to +15 dB.

50- MONO OUTPUT Jack

This 1/4" TRS jack can be used for balanced or unbalanced connections. The mono output signal is the sum of the left and right channels of the MAIN MIX.

51- CTRL OUT Jacks

This stereo pair is the CONTROL ROOM output and can be used to drive a pair of powered studio monitor speakers. These 1/4" TS jacks can be used for unbalanced connections.

52- SUBGROUPS INSERT

The INSERT connection is used to connect external sound processors, such as compressors, equalizers, etc. This 1/4" TRS jack carries both the signal sent out to the processor and the return signal. If the processor uses a single bidirectional 1/4" TRS jack you can make the connection using a standard 1/4" TRS cable. If the processor has separate 1/4" TS inputs and outputs, you will need to use an Insert Splitter Cable, which is wired as shown in the diagram on page XXX. The returned signal is inserted before the subgroup fader.

53- SUBGROUPS OUT Jacks

These outputs can be used to connect to a second mixer in a complicated PA or studio recording system. These 1/4" TS jacks can be used for unbalanced connections.

54- AUX SENDS Jacks

These outputs are from the AUX bus and can be used for external effects devices or studio monitors. These 1/4" TS jacks can be used for unbalanced connections.

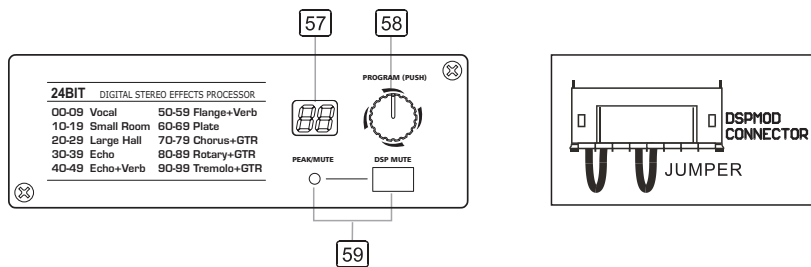
55- AUX RETURNS Jacks

These stereo pairs can be used to return a stereo signal from an external effects device. They can also be used as additional auxiliary inputs. These 1/4" TS jacks can be used for unbalanced connections.

56- DIRECT OUTS

These four outputs are taken directly from the four Mono MIC channel (1-4) inputs. These 1/4" TRS jacks can be used for balanced or unbalanced connections.

Optional Modules



function

57- DSP Preset Display

This digital display indicates which of the 100 DSP presets is currently selected.

58- DSP Preset Selector Knob

Use this knob to increment or decrement the currently selected DSP preset number. Use the legend to the left to identify the effect groups. Each specific effect within an effect group is slightly different from the others. Once you have selected the number of the DSP effect to use, press the knob to set the selection.

59- DSP Mute & Peak LED

Use the switch toggle the DSP effect on/off. The Peak LED illuminates when the input signal to the DSP is too strong. It also illuminated when the DSP module is muted.

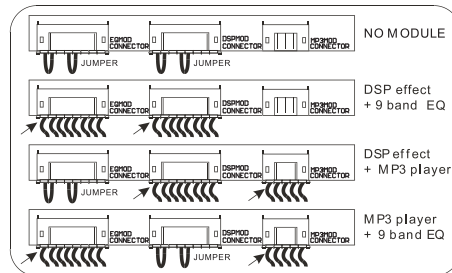
Preset list for DSP effect

| NO. | Preset | Description | Parameter |
|-------|--------------|---|---|
| 00~09 | Vocal | Simulates a small space with slight reverb | Rev.delay time: 0.8~0.9s Pre-delay: 0~45ms |
| 10~19 | Small Room | Simulate a bright studio room | Decay time: 0.7~2.1s Pre-delay: 20~45ms |
| 20~29 | Large Hall | Simulates a large acoustic space of the sound | Decay time: 3.6~5.4s Pre-delay: 23~55ms |
| 30~39 | Echo | Echo/Delay effect | Delay time: 145~205ms |
| 40~49 | Echo+Verb | Echo & Reverb combination | Delay time: 208~650ms Decay time: 1.7~2.1s |
| 50~59 | Flanger+Verb | Flanger effect & Reverb combination | Decay time: 1.5~2.9ms Rate: 0.8Hz~2.52Hz |
| 60~69 | Plate | Simulate classic bright vocal plate | Decay time: 0.9s~3.6s |
| 70~79 | Chorus+GTR | Guitar Effect: Chorus | Rate:0.92Hz~1.72Hz |
| 80~89 | Rotary+GTR | Guitar Effect: Rotary | Modulation depth: 20%~80% |
| 90~99 | Tremolo+GTR | Guitar Effect: Tremolo | Rate : 0.6Hz~5Hz |

Optional Modules

615816 offer two positions for modules assemblage, meanwhile there are three selected modules, of which you can select two or one or none. On the right of the front panel there are two pieces module covers. Open the top module pane l cover, you can see there are three interfaces. The left one is EQ MOD module interface, the middle one is DSP module interface and the right one is MP3 player module interface.

(DO NOT MISTAKE THE CONNECTOR INTERFACE, OR IT WILL DESTROY YOUR MODULES AND MIXER)



Note:615816 can simultaneously install two kinds of option modules. Two DSP modules can be at same time installed together, while the EQ module and USB modules are not allowed to take such operations.

9-band EQ module install

Take out the short circu wire which connects 9-band EQ module interface. Plug in the 9-band EQ module connection wire to the EQ MOD CONNECTOR . Fix the 9-band EQ module at one of the two module places with the two attached screws (Safekeeping the short circuit wire. Put the short circuit wire back into the EQ MOD CONNECTOR when you take out the 9-band EQ module, or the output will be cut)

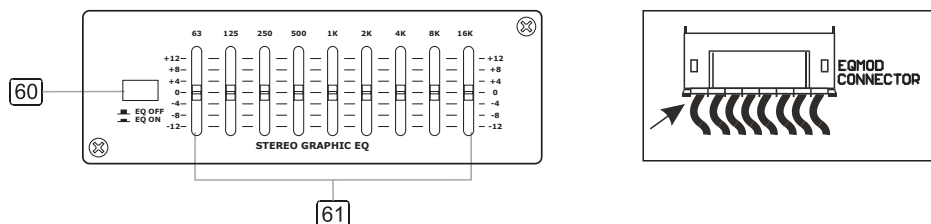
9-band EQ module install function

60- EQ Switch

Press the EQ switch to add the 9-band stereo equalizer to the MAIN MIX.

61- STEREO GRAPHIC EQ

Use these nine sliders to boost or attenuate the output signal at the specified frequency band by up to 12dB. With all sliders in the middle position the output is unchanged.



DSP module install

Take out the short circuit wire which connects DSP module interface. Plug in the DSP module connection wire into DSP MOD CONNECTOR. Fix the DSP module panel at one of the two module places with the two attached screws (Safekeeping the short circuit wire. Put the short circuit wire back into the DSP MOD CONNECTOR when you take out the DSP module, or it will make distortion)

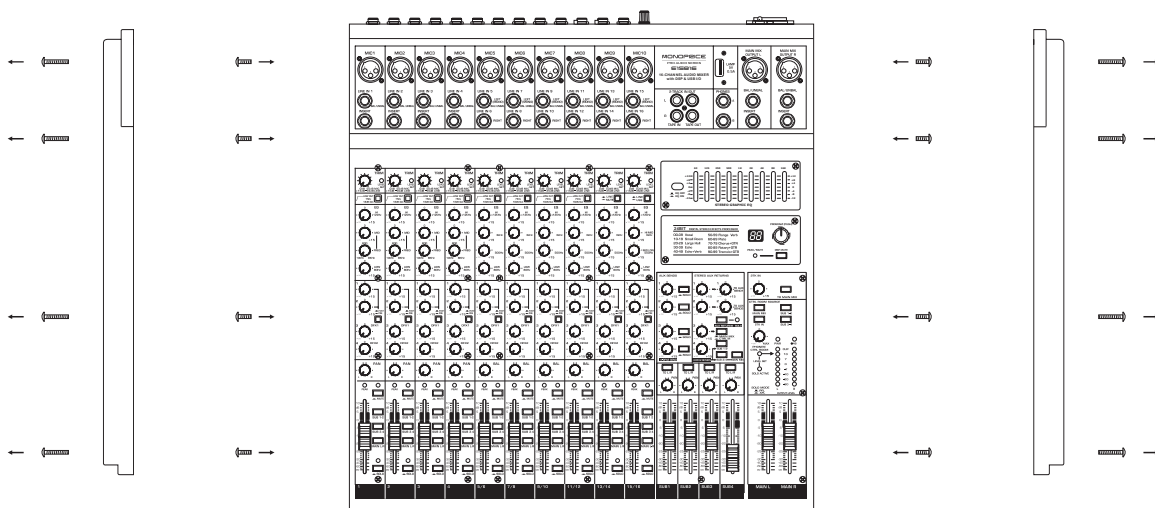
Installation & Connection

Ok, you have got to this point and you are now in the position to successfully operate your 615816. However, we advise you to read the following section carefully to be the real master of your own mixer, Not paying enough attention to the input signal level, the routing of the signal and the assignment of the signal will result in unwanted distortion, a corrupted signal or no sound at all. So you should follow this procedure for every single channel:

1. Turn down all input and output gain controls.
2. Connect phantom powered microphones before switching on the +48 Volt phantom power switch.
3. Set the output level of you 615816 or the connected power amplifier at no more than 75%.
4. Now, set the CONTROL ROOM/PHONES level at no more than 50%, In this way, you will be able to hear later what you are doing connecting a pair of headphones or a pair of powered studio monitor speakers.
5. Position EQ controls on middle position.
6. Position panoramic (PAN/BAL) control on center position.
7. With a pair of headphone or studio monitor speakers are connected, apply a Line Level input signal so that the PEAK LED does not light up.
8. Increase the input gain properly for maintaining the good headroom and ideal dynamic range.
9. Depending on the actual application, turn slowly the input and output level controls for obtaining the maximum gain before distortion.
10. Now repeat the same sequence for all input channels. The main LED meter could move up into the red section. In this case you can adjust the overall output level through the main mix control.

Rack Mounting

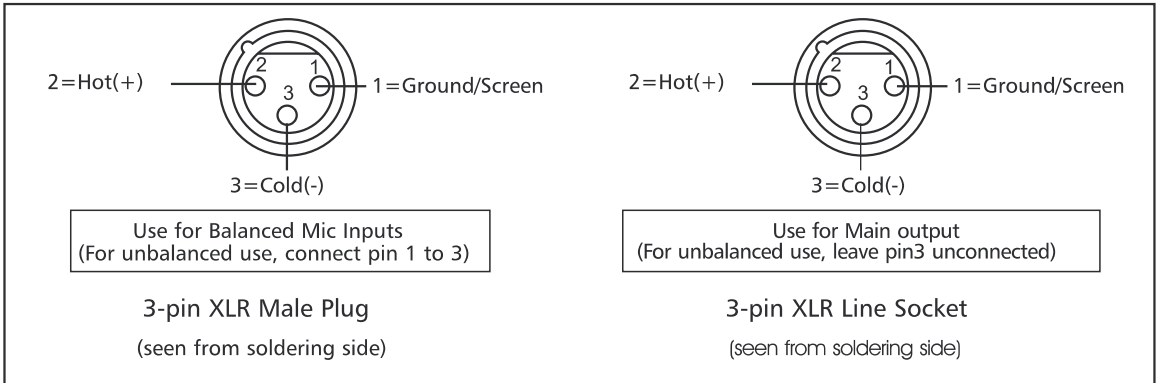
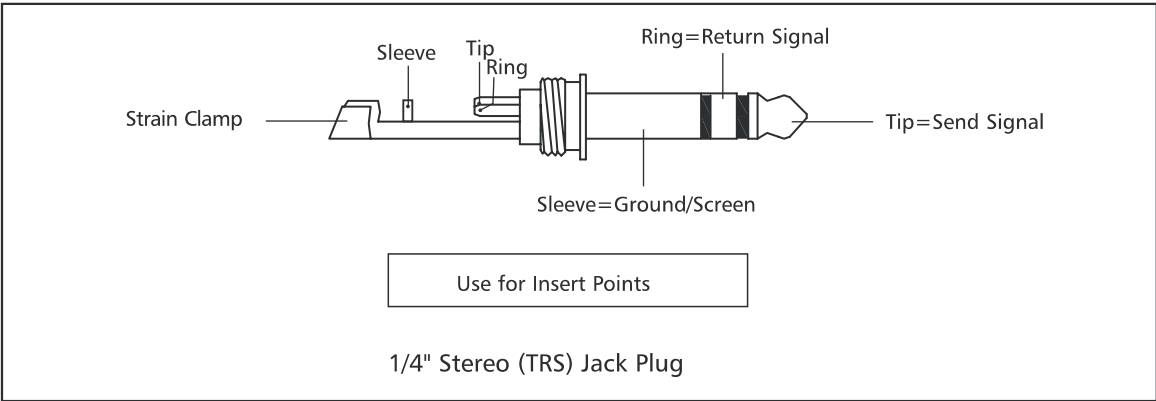
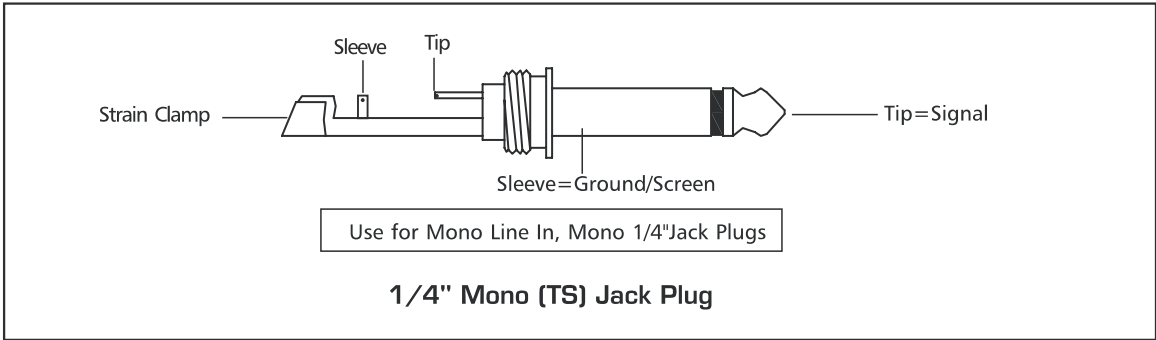
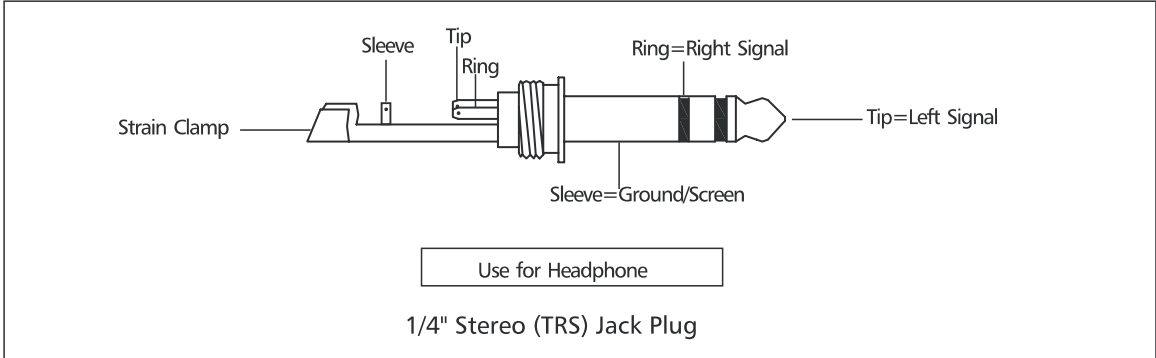
This mixer comes with a set of rack mount adapters, which allow you to mount the mixer vertically within a standard 19" wide equipment/relay rack.



Installation & Connection

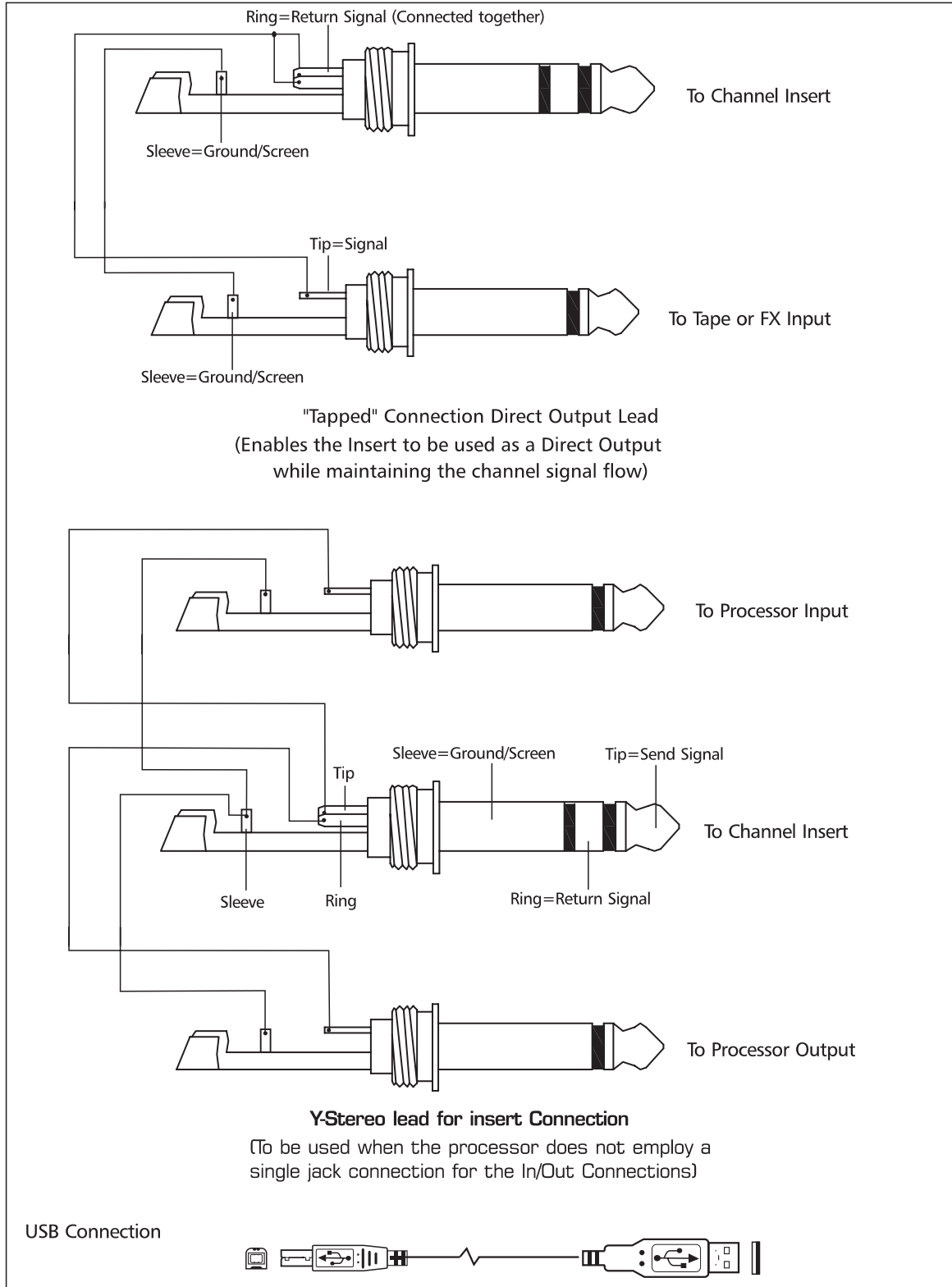
Audio Connections

The following diagrams illustrate the connector wiring for each type of input or output.

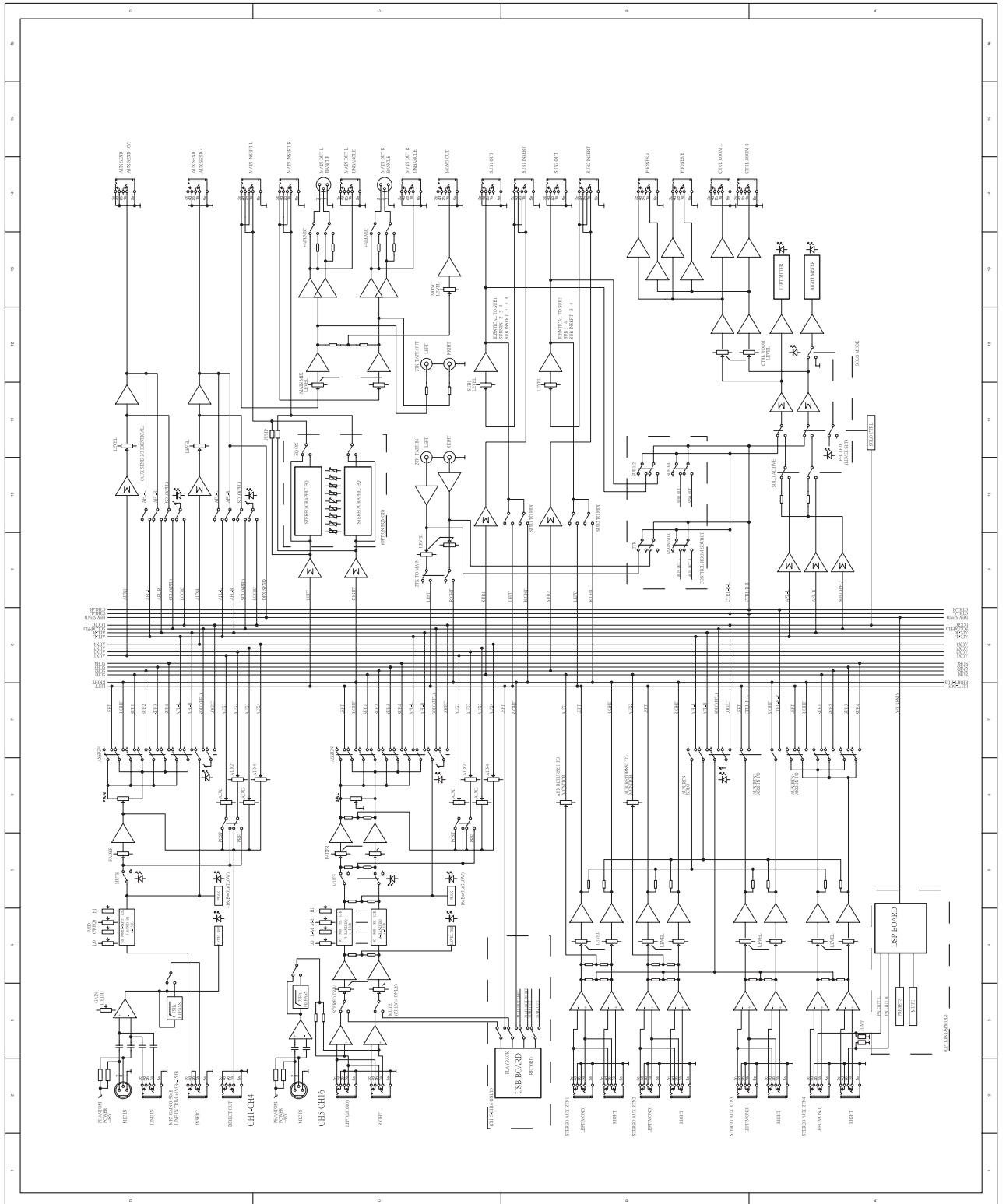


Installation & Connection

The following diagrams illustrate the special wiring requirements for the INSERT connections. The "Tapped" cable is used to obtain a signal output at the INSERT point without changing the signal. The "Y" cable is used to connect the INSERT to an external processor with separate input and output connections.



Block Diagram



Technical Specifications

| | | |
|------------------------------|--|--------------------|
| Mono Input Channels | | |
| Microphone Input | Electronically balanced, discrete input configuration | |
| Frequency Response | 10 Hz to 55 kHz, +/-3 dB | |
| Distortion (THD & N) | 0.005% at +4 dBu, 1 kHz | |
| Gain Range | 0 dB to 50 dB (MIC) | |
| SNR (Signal to Noise Ratio) | 115 dB | |
| Line Input | Electronically balanced | |
| Frequency Response | 10 Hz to 55 kHz, +/-3 dB | |
| Distortion (THD & N) | 0.005% at +4 dBu, 1 kHz | |
| Sensitivity Range | +15 dBu to -35 dBu | |
| Stereo Input Channels | | |
| Line Input | Balanced/Unbalanced | |
| Frequency Response | 10 Hz to 55 kHz, +/-3 dB | |
| Distortion (THD & N) | 0.005% at +4 dBu, 1 kHz | |
| Impedances | | |
| Microphone Input | 1.4 kOhm | |
| Channel Insert Return | 2.5 kOhm | |
| All Other Inputs | 10 kOhm or greater | |
| Tape Out | 1 kOhm | |
| All Other Output | 120 Ohm | |
| Equalization | | |
| Hi-shelving | +/-15 dB @12 kHz | |
| Mid bell (Mono) | +/-15 dB -frequency range 100 Hz~8 kHz | |
| Hi-Mid (Stereo) | +/-15 dB @ 3 kHz | |
| Mid-Low (Stereo) | +/-15 dB @ 500 Hz | |
| Low-shelving | +/-15 dB @ 80 Hz | |
| Low Cut Filter | 75 Hz, 18 dB/Oct. | |
| Main Mix Section | | |
| Noise (Bus Noise) | Fader 0 dB, Channels Muted: -100 dBr (ref.: +4 dBu) | |
| | Fader 0 dB, all input channels assigned and set to UNITY Gain: - 90 dBr (ref.:+4 dBu) | |
| Max Output | +22 dBu Balanced XLR | |
| | +22 dBu Unbalanced, 1/4" jacks | |
| AUX Returns Gain Range | -∞ to +15 dB | |
| AUX Sends Max Out | +22 dBu | |
| Power Supply | | |
| Main Voltage | USA/Canada | 100-120 VAC~60 Hz |
| | Europe | 210-240 VAC~ 50 Hz |
| | U.K./Australia | 240 VAC~ 50 Hz |
| Power Consumption | 50 Watts | |
| Fuse | T1.25 AL | |
| Main Connection | Standard IEC Receptacle | |
| Physical | | |
| Dimensions (WxDxH) | 18.5" x 15.8" x 1.5"/4.5" (471 x 400 x 38/115 mm) | |
| Net Weight | 14.2 lbs (6.45 Kg) | |
| DSP Section | | |
| A/D & D/A Converters | 24-Bit | |
| DSP Resolution | 24-Bit | |
| Type of Effects | Vocal, Small Room, Large Hall, Echo, Echo+ VerbFlange+ Verb, Plate, Chorus+ GTR, Rotary+ GTR, Tremolo+ GTR | |
| Presets | 100 | |
| Controls | 100-Position PRESET Selector | |
| | DSP MUTE SWITCH with PEAK LED Indicator | |