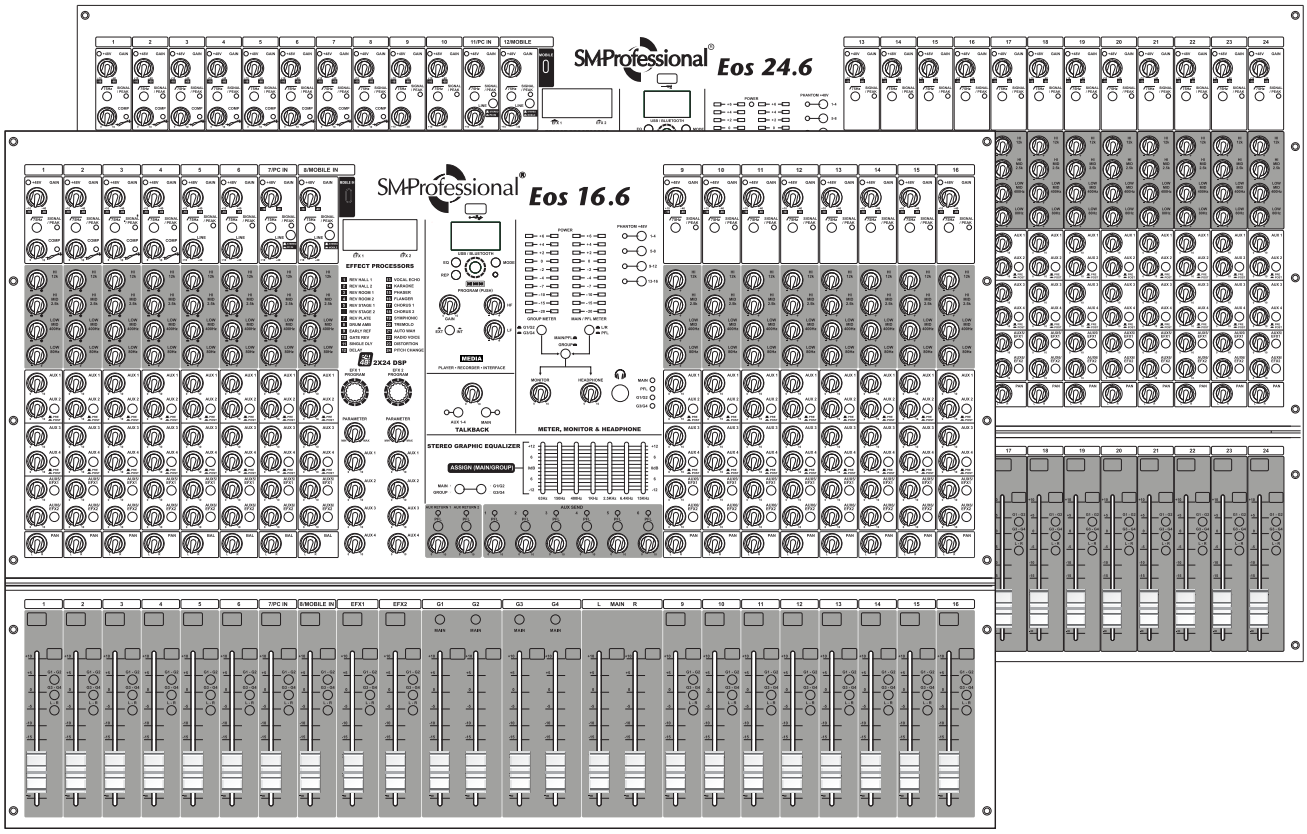
INSTRUCTION MANUAL

SMProfessional®

Eos Series

Premium Mixer



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1. Introduction

Thank you for choosing the SMProfessional Eos Series Mixer.
To ensure maximum performance and safety, please follow this instruction manual carefully.
Please retain this manual for future reference. For any complaint, feedback or testimonials please contact authorised SMProfessional distributor/dealer.
Retain the carton for future use should the product require servicing/maintenance.

2. Product Care Instruction

⚠ DO NOT SWITCH ON YET! READ THIS SECTION FIRST. SAFETY INSTRUCTIONS

- Make sure this product is suitable for use on your local supply Voltage. The voltage is printed on the rear panel. Only use the AC power cord /Mains lead supplied with the product.
- Do not attempt to remove screws or panel. There are no user serviceable part inside
- Do not operate the unit next to heat source such as radiators. If the unit gets damaged or appears to have developed a fault refer to the sevice information section for details
- Do not use your mixer in environments having a high humidity or where liquids or objects may accidentally enter the console.
- Always ensure the Ventilation slot is clear and never remove the main earth to cure a buzz or hum caused by faulty wiring. If external signal processors or effect processor is being used, these should also be connected & switched on before the mixer is powered up.
- In the event that the rear panel fuse blows, replace it only with the same type and rating of fuse (see technical specifications). If a fault occurs that replacing the external fuse does not cure, return the unit to your dealer or to an authorized service agency. Do not attempt to replace the internal fuse yourself, as this could be dangerous and will void the warranty.

3. Features at a Glance

- High-Quality Professional Audio Mixing Console.
- EOS 16.6 – 16 Channels: 16 Mic / 20 Line Inputs.
- EOS 24.6 – 24 Channels: 24 Mic / 28 Line Inputs.
- MON:Ster (mono-stereo) Inputs for full Flexibility.
- One Knob Compressor on 4 Inputs in Eos 16.6 & 8 Inputs Eos 24.6.
- Ultra Low-Noise Preamps with wide headroom and dynamic range.
- 75Hz Low Cut on Mono Channels.
- 4-band EQ on all inputs.
- Stereo AUX Returns.
- Mute, PFL, Group (G1-G4) and Main (L-R) routing per Channel.
- 6 Aux Sends – Aux 1-2 & Aux 3-4 (separate with pre/post selection) and Aux 4-5 (post only).
- PC/Laptop and Mobile Connectivity is switchable on stereo CH-7 & CH-8 in Eos 16.6 and CH-11 & CH-12 in Eos 24.6 respectively.
- Provisions to route EFX to monitor via AUX 1 to AUX 4.
- Aux/EFX switch on each channel – Aux 5 & Aux 6 are routed to EFX1 & EFX2 respectively on each channel through switch selection.
- Mute & PFL self illuminating (with light) switch on each channel.
- PFL also added on Group, Main faders, Aux return & send controls.
- Insert (Send/Return) on first 4 channels in Eos 16.6, 8 channels in Eos 24.6 and Main Output.
- Talkback function for Aux 1-4 & Main mix with selection switch.
- USB port on back - PC interface via separate USB connectors
- Stereo Graphic Equalizer switching between MAIN & GROUP. Metering section simplified.
- Responsive 100mm Faders.
- Phantom selection: Group of 4 channels each & led on each channel
- Balanced XLR and ¼" Jack Main Outputs.
- 4 Sub Groups with individual ¼" outputs.
- Built-in Dual Multi-EFX Processor with 24 DSP presets and editable parameters.
- Built-in USB MP3 Media Player & Recorder with Bluetooth.
- USB audio interface with plug & play connectivity for recording and playback using a PC. Level Control, 2-band EQ with internal/external Media input selection.
- Peak, Comp, LEDs per channel.
- External Media Player (Stereo RCA) and Record Output.
- Headphone & Monitor Output with separate Level Control.
- Dual Assignable 10-Segment LED Meters for Main, Group and PFL Outputs.
- Ergonomically-designed with Great Aesthetics and Metal Side Cheeks.
- Clutter-free rear panel input and output connectivity.

4. Mixer Basics

1. Balanced vs. Unbalanced Inputs - What's the Difference?

An unbalanced cable consists of two connectors with two conductors each, connected by two wires inside the cable - a signal wire and a ground wire. The ground wire serves two functions in this design: it carries the negative part of the audio signal and helps to shield the main positive signal wire from external interference. The downside is that the ground wire itself also acts like an antenna and can pick up noise. Unbalanced cables are generally only good for running signal up to 15 feet.
A balanced cable, in turn, consist of three conductors inside a connector, two signal wires and a separate ground wire. Both wires carry equal and opposite signal in the inputs and any interference imposed on both leads will be subtracted, cancelling out that interference.
The longer the wire, the more noise it is likely to pick up. Hence balanced lines are preferred for longer cable runs.

2. **Equalizer:** An equalizer allows the sound in specified frequency bands to be amplified or reduced to adjust the quality or tone of the sound. The equalizer allows control over several frequency bands.

3. **Low Cut (High Pass Filter):** A High Pass Filter (HPF) is designed to allow through frequencies that are higher than the one that is set. They are usually used to attenuate extra low-frequency signals such as mechanical rumbles and hum.

4. **PFL:** This button send signal from input channels to the headphone as well as bargraph. As this signal is pre-fader, it is possible to listen to the signal or view on bargraph with the fader fully down before it is included in the mains output.

5. **Group Out:** Controls the overall level of any channels routed to the stereo group. This is valuable feature for controlling sets of instrument or sound such as drums mics or backing vocals.

6. **Pan/Bal:** Panning is the distribution of sound signal into two different outputs. In panning, the same signal is distributed to left and right outputs. While in Balance two different signals are routed to the left and right output. The amplitude of the signal depends on the Pan/Bal control position. When control (knob) is at the centre, the signal is divided equally in both left and right outputs.

7. **Insert (Send/Return):** Inserts are used to connect compressors, limiters, equalizer or any other signal processor to the channel. An insert allows you to break into the path of an audio signal and connect a processor. Insert is provided through a ¼" TRS phone jack. To use this feature, a "Y Cable" is needed with one ¼" TS (mono) phone plug connected to the tip of ¼" TRS (Stereo) phone plug with respect to Sleeve/GND and another ¼" TS phone plug connected to the Ring of the ¼" TRS phone plug with respect to Sleeve/GND.

8. **Effects:** A few mixers incorporate built-in effects processing such as reverb, delay, chorus, phasing, etc can be incorporated into a mixing console so that you don't have to invest in external equipment.

9. **Aux:** An Aux bus allows you to send a secondary feed of an input channel's audio signal to another destination, independent of the channel's main output. It can be either pre-fader or post-fader. A pre-fader output is independent of the channel fader, i.e. it stays the same level whatever the fader is set to. A post-fader output is dependent on the fader level. Many mixers let you choose between the two aux modes. It can be used for stage monitoring, external/outboard effects processing, recording and much more.

10. **Media Player:** Some mixers integrate a USB or Bluetooth media player for quick audio playback.

5. One Knob Compression

The SMProfessional Eos Series mixers feature an intuitively-designed and simple one-knob compressor on select inputs. This useful tool helps you control the dynamic range and harness the true benefits of compression without the hassle of setting complex parameters in a simple one-knob interface. To better understand this process, we have compiled a quick primer on dynamic range audio compression.

How does a compressor work?

Compression reduces loud sounds over a certain threshold while quieter sounds remain unaffected.

It consists of the following 4 main elements:

1. Threshold: A compressor reduces the level of an audio signal if its amplitude exceeds a certain threshold.

2. Compression Ratio: The amount of gain reduction is determined by a ratio. E.g. A ratio of 4:1 means that if the input level is 4dB over the threshold, the output signal level is reduced to 1dB over the threshold. The overall gain and output level has been reduced by 3dB.

3. Attack & Release Time: The attack is the period when the compressor decreases gain in response to the increased level. The release is the period when the compressor increases gain in response to reduced level.

4. Make up Gain: Because a compressor only reduces the level of the signal, the ability to add a fixed amount of make-up gain at the output is usually provided so that an optimum output level is produced.

Why use a compressor?

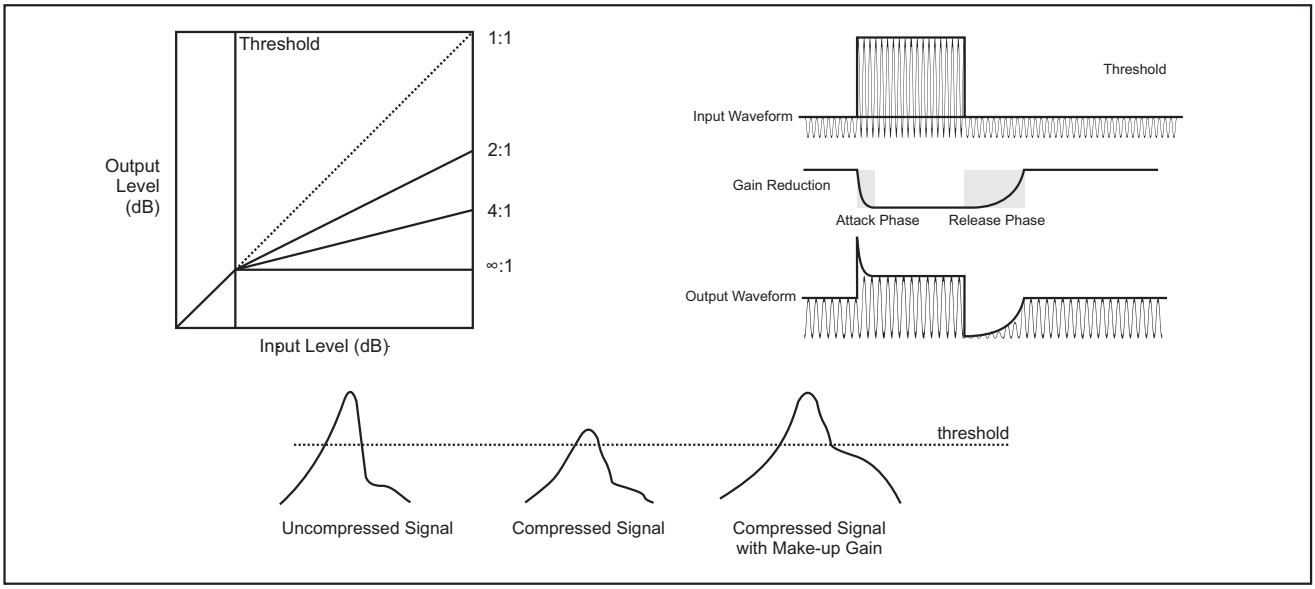
Performances by some instruments and vocals don't always maintain the same volume. Adjusting the volume in real-time so that the audience can comfortably listen is an essential element in mixing

.

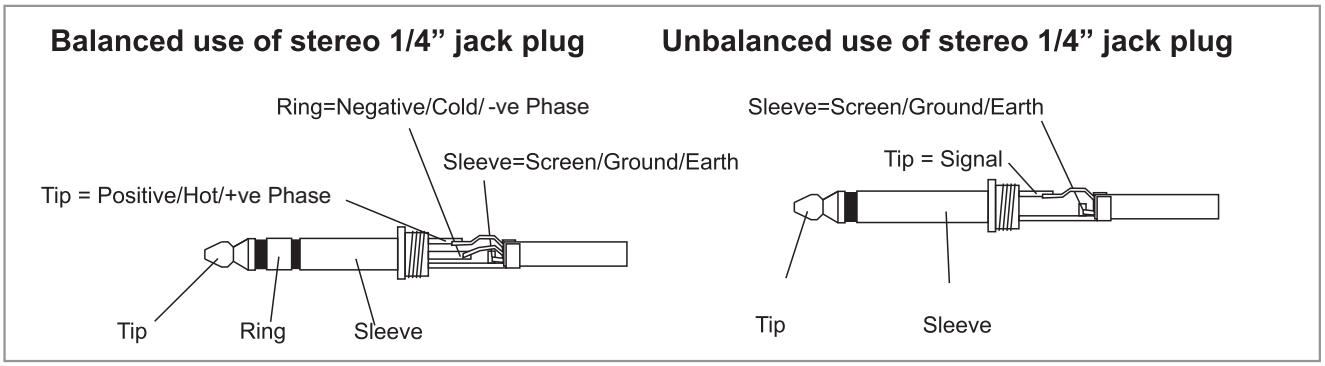
- By using a compressor in the right amount on signals which have a wide dynamic range, the sound will not overload even at louder musical parts, making it possible to mix it at an appropriate volume.
- By using a compressor on a bass guitar, you can achieve a clean and smooth sound, making it easier to introduce it in the mix.
- Using a compressor on a snare drum or other percussive instruments with a sharp attack can bring greater impact to the sound.
- As a compressor is designed to reduce louder sounds, it can be useful in protecting equipment from sudden and sharp spikes in volume.

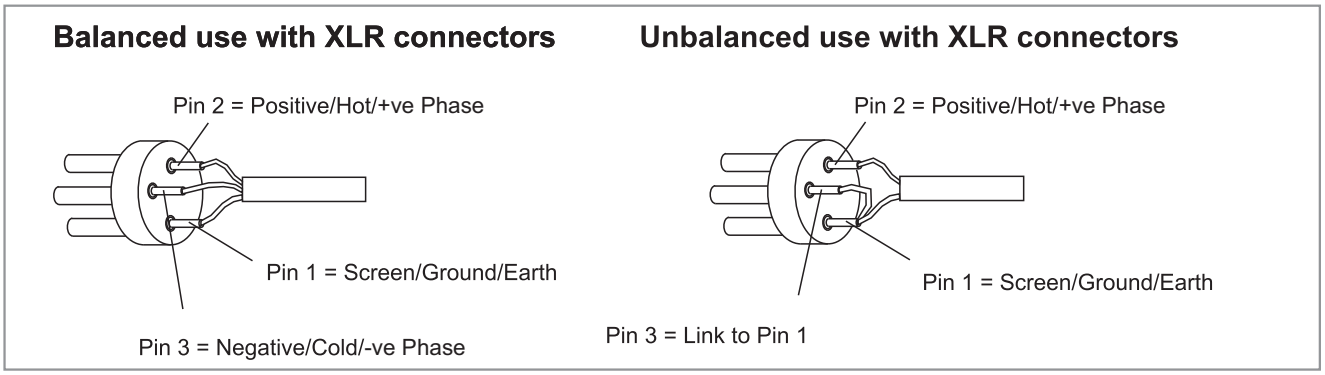
One Knob Compressor by SMProfessional

All the key 3 functions of a compressor i.e. the threshold setting, compression ratio and make up gain are integrated into a single knob solution with the attack and release time being fixed. In a nutshell, SMProfessional's one-knob compression helps you achieve an even, clear and loud signal on-the-fly!



6. Connections





7. Input Section

a) Mono Channel

The input channels of the Eos Series mixer have two connectors; MIC and Line Inputs.

⚠ **Please do not use both inputs at the same time. Doing so may permanently damage the equipment. Please ensure the gain, fader and aux levels are set to a minimum while connecting or disconnecting inputs.**

1. **MIC Input:** This electronically balanced XLR input is designed to accept low impedance balanced signals from microphones.

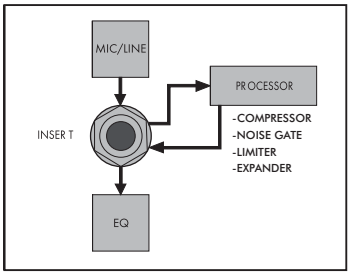
2. **Line Input:** This input accepts line-level balanced or unbalanced signals using ¼" stereo (TRS) jack. The line input is designed for instruments like keyboards, guitars, drum machines and other electronic instruments.

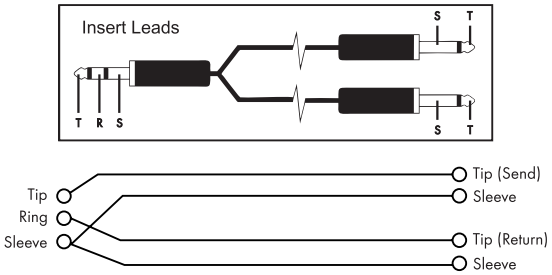
Balanced XLR	
Pin 1	Ground
Pin 2	Hot (+ve Phase)
Pin 3	Cold (-ve Phase)

Balanced TRS	
Tip	+ve Phase
Ring	-ve Phase
Sleeve	Ground

Un-Balanced TRS	
Tip	Signal
Sleeve	Ground

3. **Insert (Send/Return):** This is used to connect external signal processors such as compressors, limiters, noise gates and expanders etc. within the input path (Available for 1-4 inputs in Eos 16.6 & 1-8 inputs in Eos 24.6). A 'Y' cable is required to use the insert feature.





Note: These are TRS (tip, ring, sleeve) ¼" jack that carry both the send and return signal (tip=send/out; ring=return/in; sleeve=ground).

4. **Phantom Power Indicator LED:** Each channel on the Eos Series includes a dedicated Phantom Power LED. When illuminated, this LED indicates that +48V phantom power is active and available on the channel's XLR microphone input, confirming that the input is ready for use with condenser microphones.

5. **Gain Control:** Turn this knob to control gain of both MIC and Line input signals.

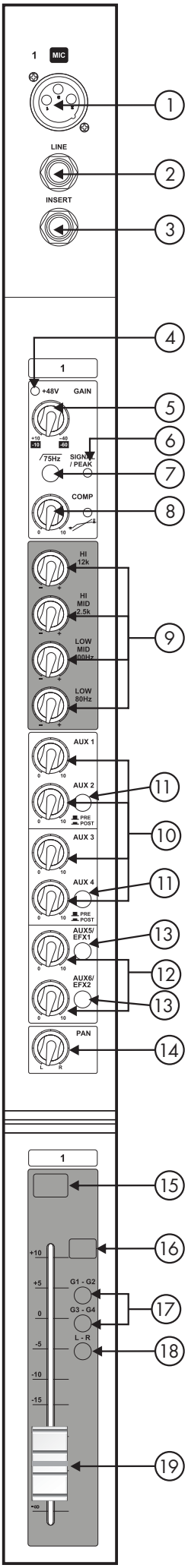
⚠ **Please do not operate at high gain levels as this may lead to audio clipping causing signal distortion.**

MON: Ster (mono/stereo) inputs with provisions for both XLR and ¼" connectors along with separate gain controls. Kindly keep this in mind while using either of the inputs.
(Eos 16.6: CH 5-8 / Eos 24.6: CH 9-12).

6. **Low Cut / High Pass Filter (HPF):** This switch activates the high pass filter and allows you to attenuate unwanted low frequencies. It cuts frequencies below 75Hz by upto -3dB. It can be used to reduce hum noise introduced by the mains power supply, stage rumble, microphone 'popping' and to clean up a muddy mix.

7. **Peak LED:** This LED glows when the incoming audio signal is clipping. Kindly reduce the gain to minimize clipping.

8. **COMP:** Use this knob to adjust the amount of compression applied to the channels. As the (COMP) knob is turned to the right, the threshold, ratio and output gain are adjusted simultaneously.
The Yellow LED glows when audio signal is being compressed Refer to Sec.5 for more details on one knob compression (Eos 16.6: CH 1-4 / Eos 24.6: CH 1-8).



⚠ Note: Avoid setting the compression too high as the resulting higher average output level may lead to feedback.

9. **EQ Section:** The Eos Series Mixer have 4-band equalizers on all inputs. The EQ is designed to be easy yet effective to use. It can be used to cut or boost certain frequencies to achieve a particular tone or to eliminate any unpleasant characteristics. Keeping the knob in the center bypasses the EQ. Turning the knob to the right boosts the corresponding frequency band while turning it left attenuates/cuts it.

HI	±15dB @ 12kHz
HI-MID	±15dB @ 2.5kHz
LOW-MID	±15dB @ 400Hz
LOW	±15dB @ 80Hz

10. **AUX 1, 2, 3 & 4:** These 4 knobs are used to adjust the level of the signal being sent from the channel to the Aux buses. These controls either send the signal directly before the channel fader (Pre-Fader) or the signal after the channel fader (Post-Fader) to the corresponding buses depending on the mode selected. Refer to the next point for more details on Pre and Post Fader Aux.
Tip: The Aux send is used to provide a monitor mix to the artist or to use external/outboard effects processors.

11. **Post-Pre Switch:** This switch is used to select the aux signal as pre or post-fader. In released position the signal is sent pre-fader and in the pressed position the signal post-fader.

12. **AUX 5 and AUX 6:** Can operate either as standard auxiliary sends or as effect (EFX) sends to the built-in dual multi-effects DSP processor. The function depends on the position of the AUX 5/6 – EFX 1/2 switch.

13. **(1) Switch Unpressed:** In this mode, AUX 5 and AUX 6 function as normal auxiliary sends. The AUX send controls route the signal to the main mix output, allowing these buses to be used for general signal routing or monitoring.

    (2) Switch Pressed: When the switch is pressed, AUX 5 and AUX 6 are assigned as EFX 1 and EFX 2 sends. The signal is then routed to both the internal effects processor and the main mix output, effectively providing two separate routing points one for the effects return path and another for the main output mix. These buses operate in Post-Fader mode by default.

14. **PAN:** This knob is used to pan/balance the incoming signal between the left and right output channel. It can also be used to route (assign) the signal to particular group (G1-G2 & G3-G4) outputs as selected by the routing switches.

15. **Mute Switch:** The MUTE switch is a self-illuminated red switch. When pressed, it mutes the channel signal, and the red illumination indicates that the channel is muted

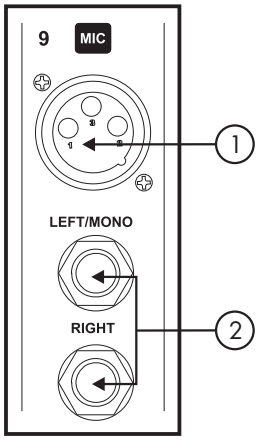
16. **PFL Switch:** The PFL (Pre-Fader Listen) switch is a self-illuminated green switch. When pressed, it allows monitoring of the channel's pre-fader signal through headphones, and the green illumination indicates that PFL is active

17. **G1-G2 & G3-G4 Switch:** This switch is used to route the channel signal to the group (G1-G2 & G3-G4) outputs.

18. **L-R Switch:** This switch is used to route the channel signal to the main (Left/Right) output.

19. **Channel Fader:** This fader is used to set the level of the incoming signal to the Main/Group outputs. It provides a visible indication of channel level. Normal operating position is at "0dB". However, you have an optional headroom of +10dB.

a) Monster Channel



1. **MIC Input:** This electronically balanced XLR input is designed to accept low impedance balanced signals from microphones.

2. **Stereo Input Jacks:** These ¼" TRS jack inputs are used to connect sources such as keyboards, drum machines, synthesizers, tape machines or returns from processing units. The inputs are balanced for high quality sound. Avoid using unbalanced sources to prevent 'hum' being introduced into the sound system. Mono sources can be connected by using the left jack input.
(Eos 16.6: CH 5-8 / Eos 24.6: CH 9-12).
.

3. **Line Gain control pot:** Turn this knob to control gain of Line input signals.
⚠ Please do not operate at high gain levels as this may lead to audio clipping causing signal distortion.

Channel 11 is a dual-function channel that can operate either as a Stereo Line Input or as a PC Input Channel for both recording and playback (Channel 7 in Eos 16.6).

4) Mode Selection: Channel 11 includes a Stereo / PC IN switch located near the channel controls. (Channel 7 in Eos 16.6).

Switch Released: Channel operates as a Stereo Line Input (Monster Channel)

Switch Pressed: Channel switches to PC IN Mode.

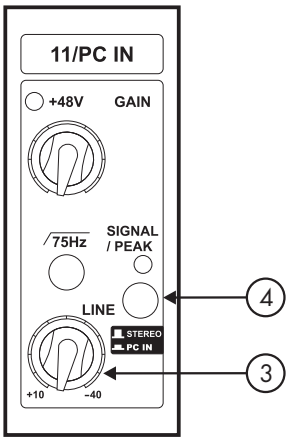
PC IN Operation: When the channel is set to PC IN mode, the mixer communicates directly with your computer through the USB Type-B port on the rear panel.

Connection:

a) Connect your PC or Laptop using a USB Type-B to Type-A cable.

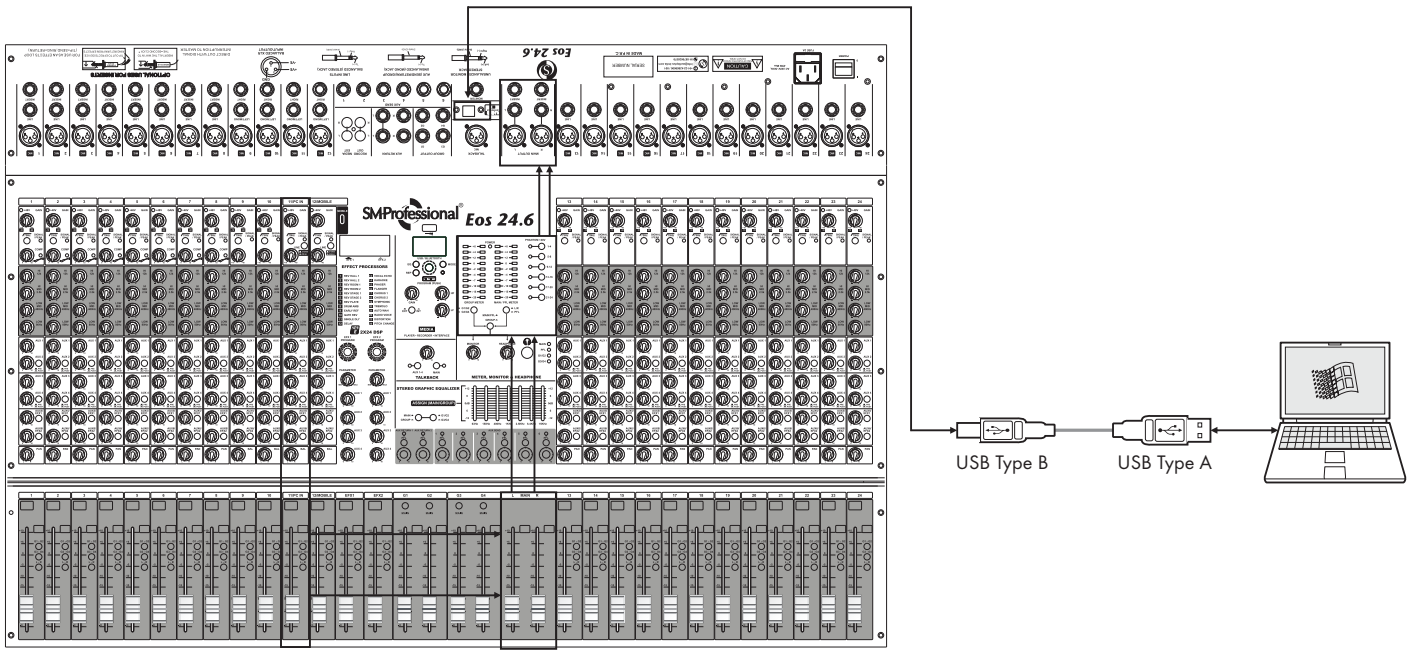
b) Compatible with Windows 7 or above operating systems.

c) The mixer functions as a USB Audio Interface, supporting both Recording (Send to PC) and Playback (Return from PC).

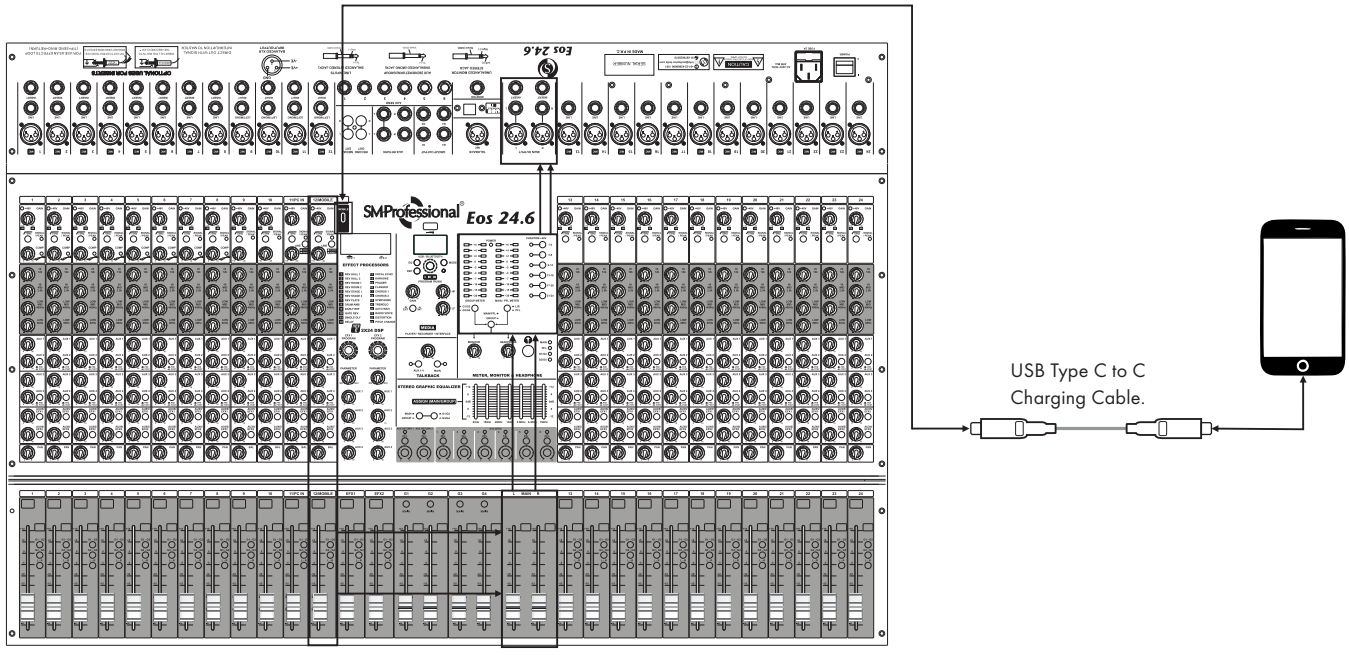


Playback: Audio played from the computer is routed to Channel 11, allowing full control of gain, EQ, and fader (Channel 7 in Eos 16.6).

Recording: The mixer's main output signal can be recorded directly on your PC using any compatible recording software (DAW). The signal level can be monitored on the Main Bar graph Meter for precise visual feedback.



Channel 11 – Stereo Channel/PC IN (Channel 7 in Eos 16.6).



Channel 12 – Stereo Channel/Mobile Input (Channel 8 in Eos 16.6).

Channel 12 can function either as a Stereo Line Input or as a Mobile Input Channel for smart phones and tablets (Channel 8 in Eos 16.6).

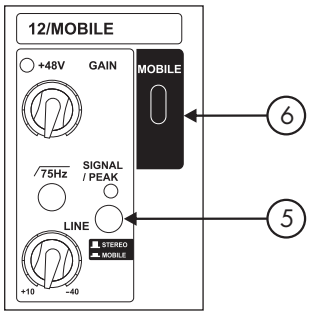
5) Mode Selection: Channel 12 features a Stereo / Mobile switch located on the channel strip (Channel 8 in Eos 16.6).

Switch Released: Channel operates as a Stereo Line Input (Monster Channel).

Switch Pressed: Channel switches to Mobile Input Mode.

6) Mobile Input Operation: In Mobile Input mode, the channel receives audio directly from your mobile device via the USB Type-C port located on the right side of the mixer.

Supported devices: Compatible with both Android and iOS devices.



Platform	Requirement	Notes
Android	USB Type-C with data support	Most recent phones/tablets (Only C connector)
iOS	USB-C iPhone/iPad (MFi-certified)	Only latest models like iPhone 15+ or iPad Pro

Connection: Connect using a USB Type-C to Type-C cable only (adapters or converter cables are not recommended).
Audio from the mobile device is routed to Channel 12, where gain, EQ, and fader controls are fully functional. The output level can be monitored on the Main Bar graph Meter (Channel 8 in Eos 16.6).

TROUBLESHOOTING GUIDE

CHANNEL 11 – STEREO / PC INPUT (USB TYPE-B) (Channel 7 in Eos 16.6).

1. No Sound from PC to Mixer

Checkpoint	Details / What to Do
Check Mode	Ensure Stereo/PC IN switch is PRESSED. If released, channel stays in Stereo Line mode and PC audio will not be heard.
USB Connection	Use a USB Type-B to Type-A (MALE) cable. Try another USB port. Avoid hubs or long cables.
PC Sound Settings	Windows — Sound Settings — Output — USB Audio Device (Mixer). Set volume to 70% or higher. Ensure no app blocks the audio device.
DAW / App Output	In DAW/Zoom/OBS–select Mixer USB Audio as the audio output device.
Gain / Fader	Raise Channel 11 Gain, Channel 11 Fader, and Main Fader. Check if the Channel mute switch is on (Channel 7 in Eos 16.6).
Bargraph Meter	If PC audio is received, bargraph shows movement. No movement = no signal entering the mixer.

2. PC Not Receiving Recording Signal

Checkpoint	Details / What to Do
PC IN Mode	Ensure switch is pressed.
Recording Device	Windows – Sound – Input – USB Audio Device (Mixer).
DAW Recording Settings	Use USB Audio Input for recording. Arm the track.
Mixer Output Level	Ensure Main Mix, Main Fader, Channel Fader, and EQ are set properly.

3. Distorted Audio / Noise

Checkpoint	Details / What to Do
PC Output Volume	Set PC volume to 50–70% to avoid clipping.
Channel Gain	Lower gain to eliminate clipping.
USB Cable Quality	Use a high-quality, shielded USB cable. Avoid damaged or loose cables.

CHANNEL 12 – STEREO / MOBILE INPUT (USB TYPE-C) (Channel-8 in Eos 16.6)

1. No Sound from PC to Mixer

Checkpoint	Details / What to Do
Check Mode	Ensure Stereo/Mobile switch is PRESSED. Otherwise input stays in Stereo Line mode.
Cable Compatibility	Use USB Type-C to Type-C data/charging cable. Avoid: adapters, Type-A converters, charging-only cables, OTG adapters.
Mobile Device Settings	Android: Select "Use USB for–Audio Output" when prompted. iPhone/iPad: Use an MFi-certified USB-C cable.
Mobile Volume	Raise volume to 70% or higher.
Gain / Fader	Increase Channel 12 Gain, Channel 12 Fader, and Main Fader. (Channel-8 in Eos 16.6)
Main Bargraph	No LED movement = mobile device not sending signal.

2. Mobile Device Not Detected

Checkpoint	Details / What to Do
Try Another Cable	Many USB-C cables are charge-only. Use a data-capable cable.
Restart Mobile Device	Restart with mixer connected.
Disable OTG Mode (Android)	OTG can block USB audio. Turn OTG Off.
USB Conflicts	Disconnect other USB devices that may interfere.

3. Audio Distorted or Low

Checkpoint	Details / What to Do
Mobile Volume	Set volume to 50–80%.
Mixer Gain	Lower gain if clipping occurs.
Mobile Sound Enhancements	Disable EQ, Bass Boost, Dolby, and all sound effects on the phone.

8. Effects Section

The Eos Series Mixer integrates a dual high-quality DSP-based effects processor with a high-resolution 24-bit/48kHz sampling rate and 24 easily-editable parameters available to help users get creative while mixing.

1. **Display:** It displays the selected preset number.

2. **Presets:** This is a list of all presets available.

3. **EFX 1 & 2 Program:** This knob is used to select one of the 24 internal effects.

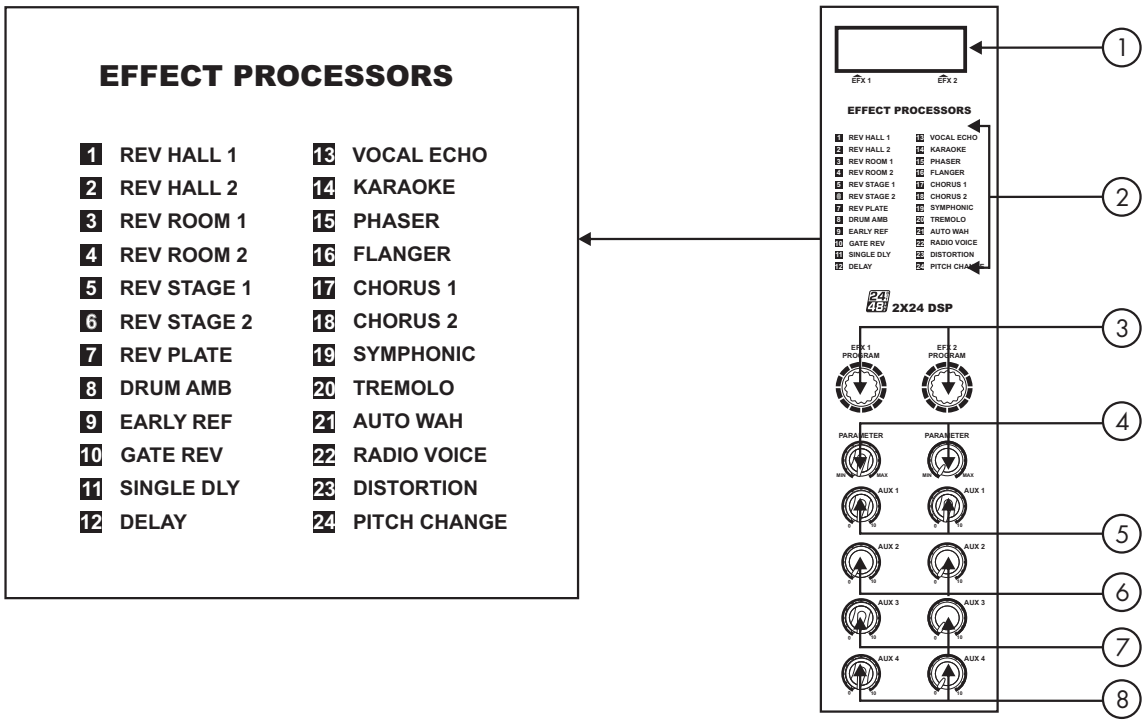
4. **EFX 1 & 2 Parameter:** This knob is used to adjust the parameters of the selected effect.

5. **AUX 1:** This knob is used to route/send signals from the built-in effects processors to the Aux 1 output.

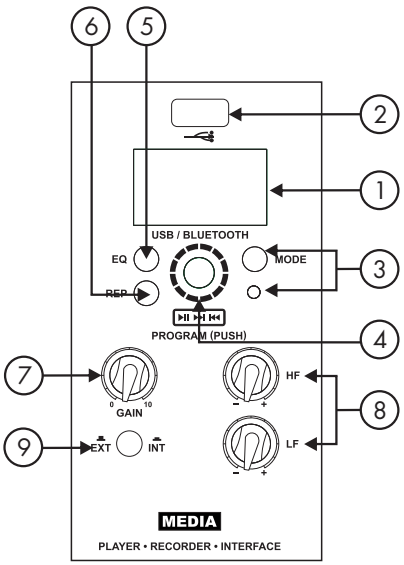
6. **AUX 2:** This knob is used to route/send signals from the built-in effects processors to the Aux 2 output.

7. **AUX 3:** This knob is used to route/send signals from the built-in effects processors to the Aux 3 output.

8. **AUX 4:** This knob is used to route/send signals from the t-in effects processors to the Aux 4 output.



9. Media Player, Recorder and Bluetooth Section



1. **Display:** It displays useful information while operating the media player, recorder and Bluetooth section.

2. **USB:** Use this to insert a flash-based storage device (pen drive) for MP3 playback and recording.

3. **Mode Switch & LED:** This switch is used to select between Bluetooth and USB (playback & recording) mode. The LED glows and blinks when switching between the modes.

4. **Program:** This rotary push knob is used to toggle between the various parameters of the media player, recorder and Bluetooth section. Push the knob to select the required parameter.

5. **EQ:** This switch is used to select one of the six DSP-based EQs built into the media player.

6. **Rep:** This switch is used to repeat the track that is being played currently.

7. **Gain:** This knob is used to set the level of the input signal of the media player (internal and external) to the main output.

8. **2-Band EQ:** This 2-band EQ can be used to either cut or boost high or low frequencies.

9. **Ext-Int:** This switch is used to select between media/ext (stereo RCA on the rear panel) input.

How to record?

1. Insert a flash-based storage device (pen drive) into the USB slot.
2. Long press the "Mode" switch until the display shows "rEC" and the LED blinks a few times.
3. Recording begins as soon as the mode is activated.
4. The recording output is dictated by the master output level.
5. The recorded files are saved in a folder name "GF_REC" on the storage device in .mp3 format. The files are saved as "GREC0000.mp3", "GREC0001.mp3" and so on.

Terms of Use: SMProfessional respects intellectual property rights and we request our users to do the same.
Please use MP3 downloads only from sources which you have legally purchased.
PLEASE DO NOT USE PIRATED MUSIC OR PROGRAMS.

Disclaimer: Your acceptance and use of this product will be treated as your agreement to the following clause:
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Setting Up Bluetooth Connection

- Long press mode switch to switch from USB to BT mode.
- From your phone or any of the Bluetooth device turn Bluetooth ON & search for device "SMProfessional". Pair and connect to it.
- Now any music or audio you play on your device will be played through, Media player the music can be controlled (Play, Pause, Volume+ & Volume -, Reverse & Forward) by either your device or controls on the panel.

Reconnecting Your Device

If you move out of range or turn off the Bluetooth feature on your mobile device, the Bluetooth Receiver will get disconnected from your device. To reconnect, click on the device name "SMProfessional" on your paired device list.

Changing Connected Device

If you want to switch from one device to another, follow these steps:

1) End the existing Bluetooth connection from your device by either disconnecting within your "settings" or turning off Bluetooth.
2) The "SMProfessional" Bluetooth can now be connected to a different BT device.
3) Follow the directions in ''Setting up your Bluetooth Connection''.

⚠ **ATTENTION:** Please ensure that there isn't any obstruction between Bluetooth Transmitter (Mobile phones) and Receiver (Eos 16.6 / Eos 24.6).

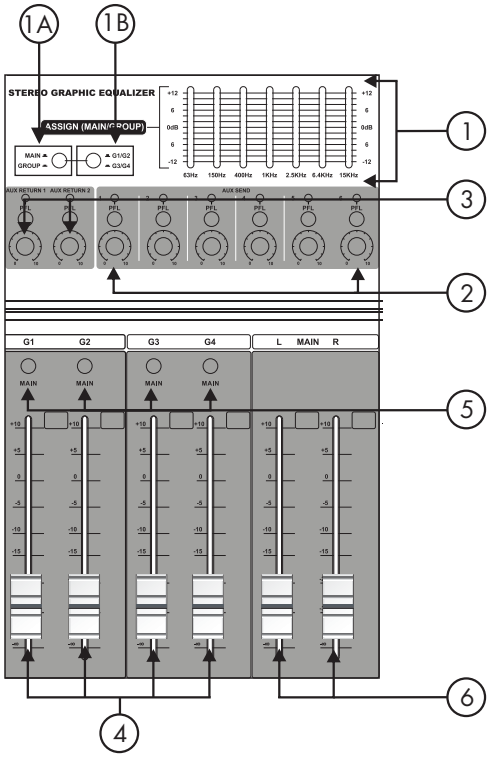
Out of Range or Lost Signal

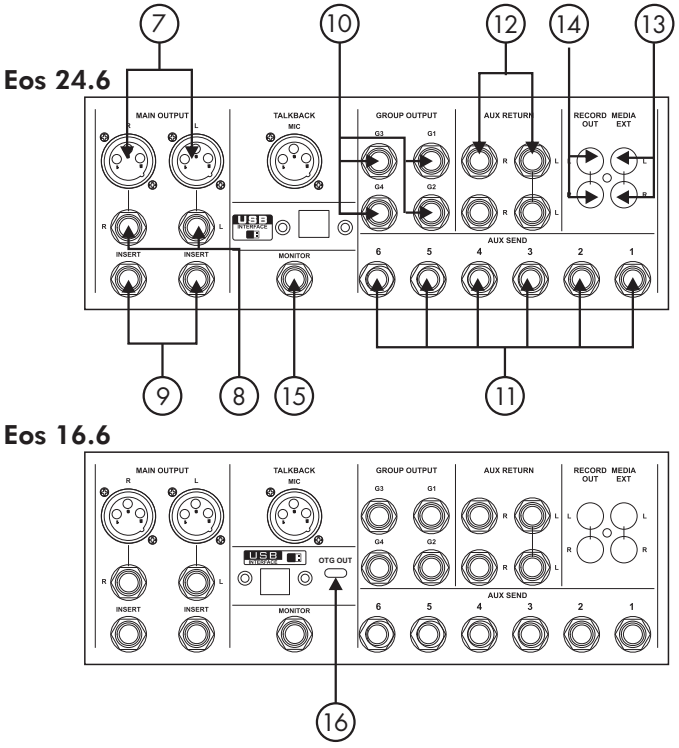
If the music device (Mobile phones) is out of range (beyond 17 feet) of the Bluetooth Receiver (Eos 16.6 / Eos 24.6) or if there is something blocking the Bluetooth signal, which shall be indicated by loss of audio or audio intermittency. To avoid a lost connection, move the music device back into range (within 17 feet), or reduce obstruction between the receiver and your smart phone. The connection will automatically be reestablished & audio signal will be through. If the connection does not restore you will need to establish it again as mentioned in ''Setting up your Bluetooth Connection''.

Troubleshooting Bluetooth Connection

PROBLEM	POSSIBLE SOLUTION
Paired Bluetooth device does not connect	Already connected to other BT device. Disconnect from it and pair & connect again.
	Make sure USB mode is selected on Eos 16.6 / Eos 24.6 Mixer
No or poor audio from Bluetooth connection	Move your BT device away from devices that generate electromagnetic interference, such as microwave ovens, cordless phones, WIFI networks or other Bluetooth device.
	Make sure that the BT module on the Eos 16.6 / Eos 24.6 Mixer Mixer is not muted (paused) and the volume is up.
	Make sure your Bluetooth transmitting device is playing audio and the volume is down.
	Your Bluetooth device may be out of the specified range, try moving it closer to the speaker.
	Make sure that you work within the Bluetooth range of 17 feet, taking care that there is no metal or human body interference.
Cannot pair the speaker with your Bluetooth device	Make sure you select "SMProfessional" in the pairing list on your device to finalize the connection. (required by some devices)
	Your Bluetooth device may be out of range-try moving it closer to the speaker.
	Already paired to other BT device. Unpair from it and then pair & connect again.

10. Output Section





1. 7-Band Stereo Graphic Equalizer: The 7-band stereo graphic equalizers can be used to make tonal changes to the master (main L/R) or the subgroup or monitor outputs. The EQ range is as follows: ±12dB @ 15kHz / 6.4kHz / 2.5kHz / 1kHz / 400Hz / 150Hz / 63Hz.

Assign (Main/Group):

1A. MAIN/GROUP: When the switch is pressed, the equalizer is assigned to the Main L/R output. When the switch is unpressed, the equalizer is assigned to the Group output.

1B. G1-G2/G3-G4: When the switch is unpressed, the equalizer is assigned to G1–G2. When the switch is pressed, the equalizer is assigned to G3–G4.

.

2. Aux Send: This control is used to adjust the overall level of signals that have been sent to the AUX bus by the controls on the individual input channels. The signals can be accessed via the Aux 1, 2, 3, 4, 5 and 6 output on the rear panel.

3. Aux Return: This knob is used to adjust the level of signal received from an external effect processor via the Aux return ¼" jack located on the rear panel. The incoming signals are routed to the master output. If a mono source is used, plugging it into the left input automatically feeds the signal to both the left and right output.

4. Group Faders: These faders adjust the level of the signal sent to the Group outputs.

5. Main Switch : This switch is used to route the group output to the main L/R output.

6. Main (L/R) Output Faders: These are used to control the main output level.

7. Main Out (XLR): This is used to connect the main output using balanced XLR connectors. The output level is determined by the master fader. This is a servo balanced output so you can connect either balanced or unbalanced cables without affecting the output level.

8. Main Out (Jack): This is used to connect to the main output using balanced ¼" stereo connectors. The output level is determined by the master fader.

9. Insert (Send/Return): This is used to connect external signal processors such as Compressors, Limiters, Noise Gates and Expanders etc. within the output path. A 'Y' cable is required to use the insert feature. Refer to Pt. 3 Sec. 7 for insert cable wiring diagram.

10. Group Output: These ¼" jacks can be used to provide signal for a separate set of PA system without affecting the main (L/R) output.

11. Aux Sends: These ¼" jacks are used to send the signal to external devices such as effects units or stage monitors.

12. Aux Returns: This ¼" jack inputs are used to accept return signals received from external effect processors. The level of signal is determined by the Aux Return level control knob. The incoming signals are routed to the master output. If a mono source is used, plugging it into the left input automatically feeds the signal to both the left and right output.

13. Media Ext: This stereo RCA input is provided to connect external audio devices such as CD Player, iPods, MP3 players and Laptops etc. The input level of this can be controlled by the Gain level knob in the media player section (Refer to Pt. 7 of Sec. 9).

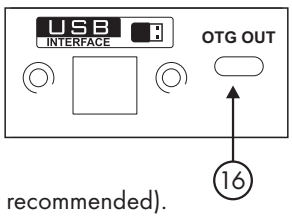
14. Record Output: This stereo RCA output is provided to record a master mix onto a recording medium. The output level is determined by the main L/R fader. Else, the input level on the recording medium can be used to set the level.

15. Monitor Out: This ¼" jack is used to connect to the external monitor of your choice. The output level is determined by the monitor control (Refer to Pt.9 Sec.11).

16. OTG Out: It is used to send audio out for further processing.

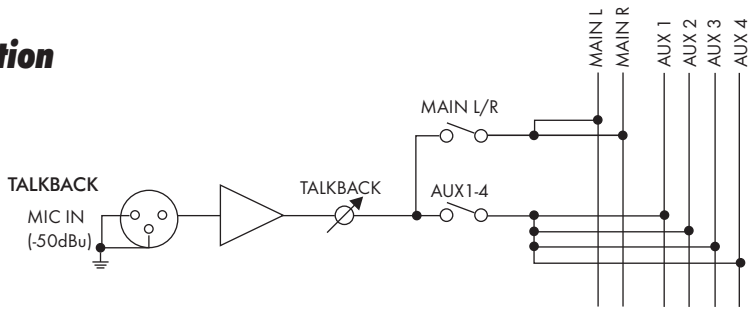
Supported devices: Compatible with both Android and iOS devices.

Platform	Requirement	Notes
Android	USB Type-C with data support	Most recent phones/tablets (Only C connector)
iOS	USB-C iPhone/iPad (MFi-certified)	Only latest models like iPhone 15+ or iPad Pro



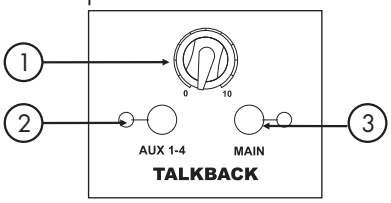
Connection: Connect using a USB Type-C to Type-C cable only (adapters or converter cables are not recommended).

11. TalkBack Section



Use the talkback function to send instructions mainly from the operator to musicians and studio staff. This section adjusts the level of the microphone signal received from the TALKBACK MIC IN jack, and determines the bus to be output.

1) **Talkback knob:** Adjusts the talkback level.
2) **AUX1-4 switch and indicator:** Turning this switch on sends the signal from the TALKBACK MIC IN jack to the AUX1 to AUX4 buses.
3) **MAIN switch and indicator:** Turning this switch on sends the signal from the TALKBACK MIC IN jack to the MAIN L/R bus.



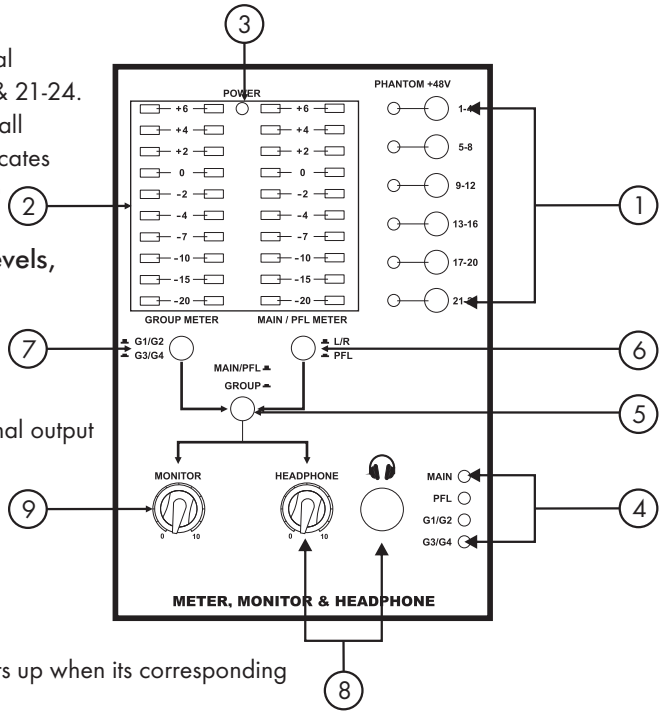
12. PFL, Monitoring, Metering & Others

1. **Phantom Supply Switches and LEDs:** The Eos 24.6 has a global phantom power supply split between CH 1-4,5-8,9-12,13-16,17-20 & 21-24. These switches are used to turn on +48V phantom power supply for all channels when using condenser microphones. The adjacent LED indicates that phantom power is ON. (In Eos 16.6 CH 1-4, 5-8, 9-12 & 13-16)
   ⚠ **WARNING: Do not switch ON Phantom Power before connecting a microphone. Make sure the gain levels, channel faders and output levels are turned down.**

2. **LED Level Meter:** These 2 sets of dual 10-segment 3-colour LED meters are provided to monitor signal levels as selected in the Meter & Headphones section. The '0' segment corresponds to nominal output level.
   Tip: Keep the signal within the Yellow LED at peak levels for best performance.

3. **Power:** This LED glows when power is supplied to the mixer.

4. **MAIN/PFL/G1-G2/G3-G4:** Each has an individual LED that lights up when its corresponding switch is pressed in the Metering Output section.



5. **MAIN/PFL & GROUP:** This is used to route the audio signal to the headphone and monitor output as required. In the released position, the "MAIN/PFL" signals are routed (Refer Pt. 6 of sec. 11). In the pressed position, the "GROUP (G1/G2 or G3/G4)" signals are routed (Refer Pt. 7 of sec. 11).

6. **L/R & PFL:** This switch is used to route the selected signal (L/R/PFL) to the LED meter (Right Hand Side) as well as the monitor and headphone audio output. In the pressed position, channels with "PFL" activated are routed. In the released position, the "L/R" (master output) signals are routed.

7. **G1/G2 & G3/G4:** This switch is used to route the selected signal (G1/G2 or G3/G4) to the LED meter (Left Hand Side) as well as the monitor and headphone audio output. In the pressed position, "G3/G4" signals are routed. In the released position, "G1/G2" signals are routed.

8. **Headphone Jack & Control:** This is used to monitor the routed signal using headphones. Insert high-quality, high-impedance headphones with a ¼" jack input for best results. Use the adjacent knob to control the volume level as required.

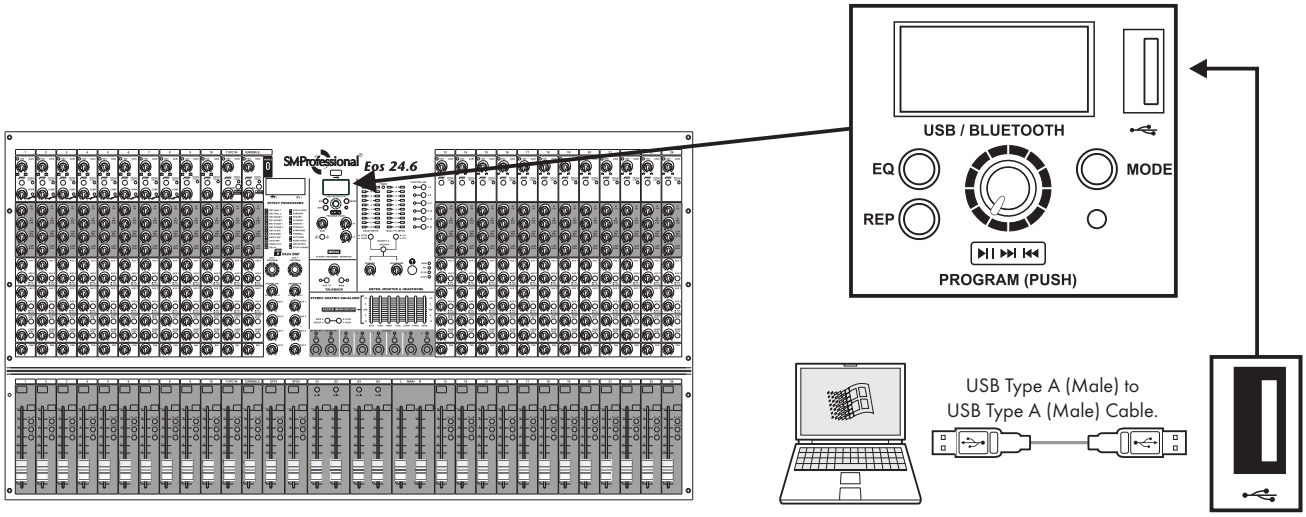
9. **Monitor:** This is used to control the volume level of the dedicated ¼" monitor output provided on the rear panel (Refer Pt.15 Sec.10).

13. Using USB Audio Interface

The Eos Series Mixer has a built-in USB audio interface with plug & play connectivity for recording and playback using a PC/laptop and DAW (Digital Audio Workstation). The audio interface is class-compliant and does not require any device drivers to be installed. With this feature, users can connect multiple inputs, record them and get creative with their mixes. The Eos Series Mixer is an ideal choice for musicians, podcasters, content creators, YouTubers, e-learning trainers, audio conferencing and host of different applications.

Requirements

1. SMProfessional Eos 16.6 / Eos 24.6 Mixer.
2. USB Type A (Male) to USB Type A (Male) Cable.
3. PC/Laptop Running Windows 7 or Above.



Note

- The mixer cannot be bus-powered via USB. Always use the included power adaptor to supply power to the mixer.
- Although the USB interface in this mixer is class-compliant and no separate drivers are required, some PCs/Laptops may require basic WDM audio drivers to be installed. Kindly check with your PC / laptop manufacturer for any assistance on this. SMProfessional cannot be held responsible for any performance and incompatibility issues faced by the customers due to this.
- Kindly switch off Phantom power supply before connecting or disconnecting the mixer from the PC/Laptop to avoid damages to any connected condenser microphones.

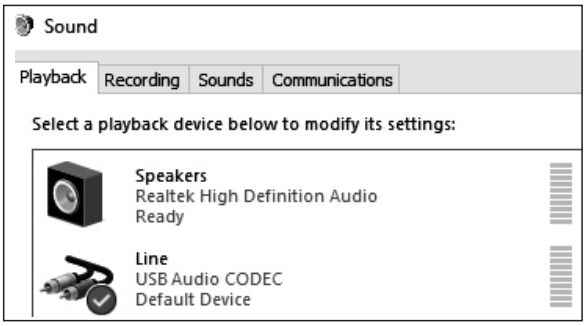
Installation Steps:

1. Connection:

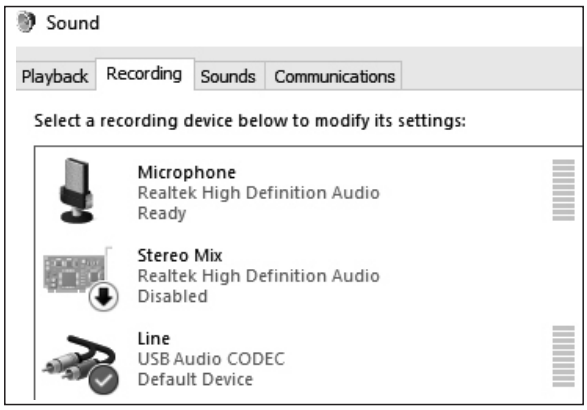
Connect your mixer to a PC/Laptop using a USB Type A (Male) to USB Type A (Male) cable as shown in the diagram above. This enables a stereo signal to be sent to and from your mixer and PC/Laptop. The signal sent from the mixer to the PC/Laptop is the same as the master bus. The audio returning from the computer into the mixer appears directly in the master output.

2. Audio Device Settings:

Find the audio device **"USB AUDIO CODEC"** (if you are using the rear panel audio interface using a USB Type A (Male) to USB Type B (Male) Cable) OR **"MP3-Audio"** (if you are using the front panel audio interface using a USB Type A (Male) to USB Type A (Male) Cable) in your PC/Laptop's hardware/device manager and change the input and output settings as required (However, some legacy PCs/Laptops (Windows 7 and Older) may display it differently) For best results, we recommend making the Eos 24.6 as your default audio device while recording and playback. For any further assistance, please go through the documentation of your PC/Laptop.

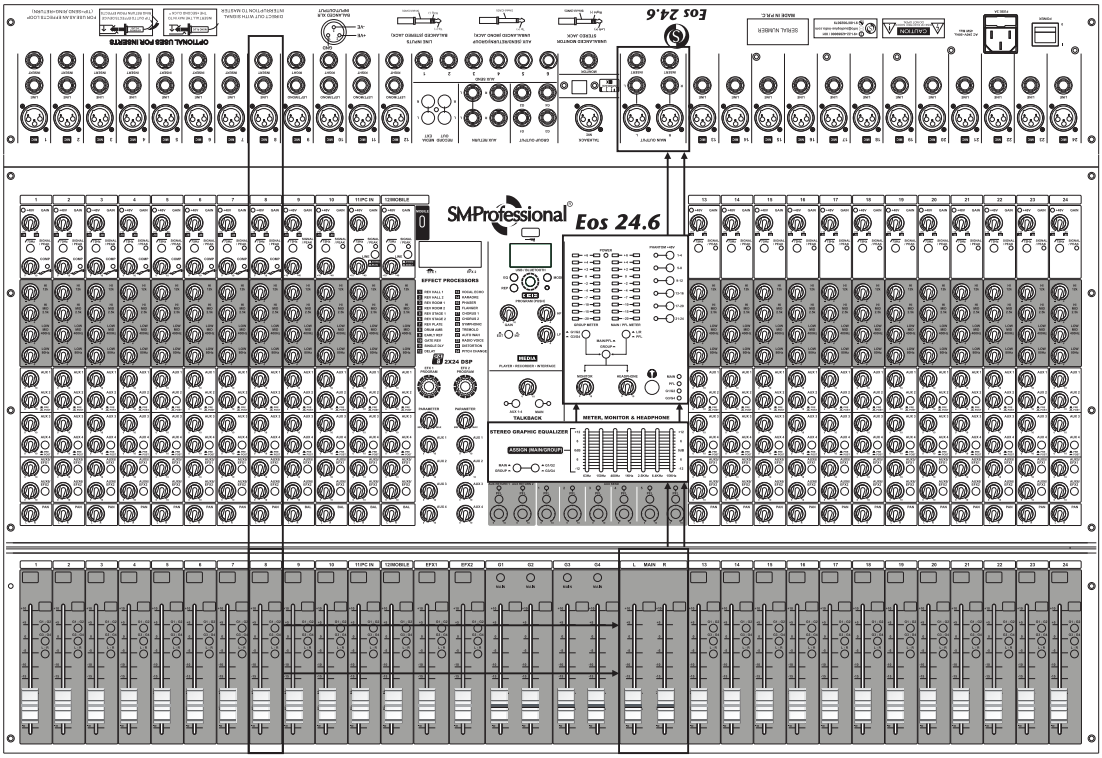




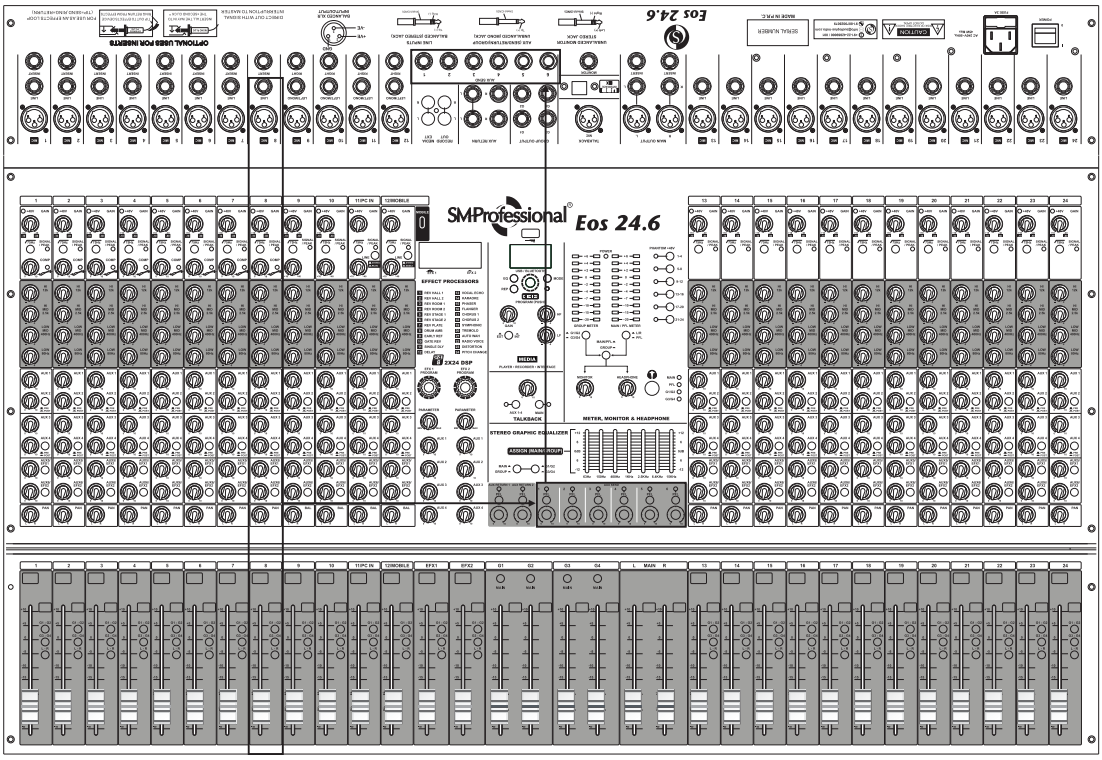


14. Signal Routing

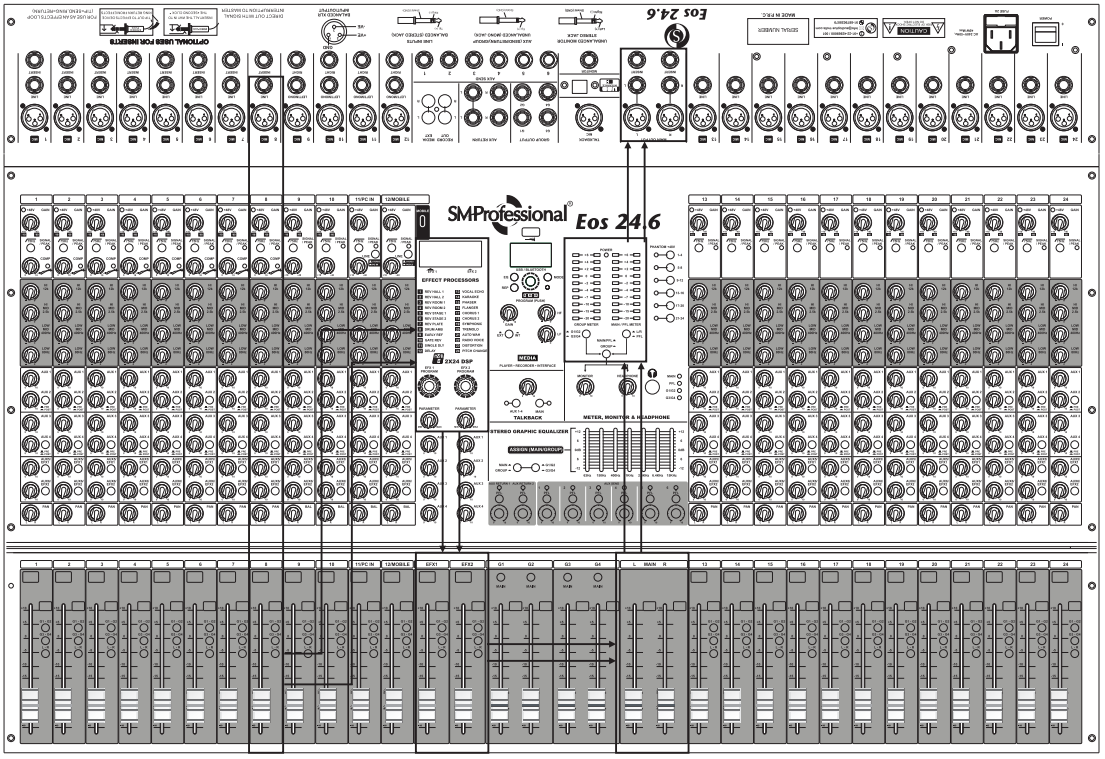
a) Mic/Line routing



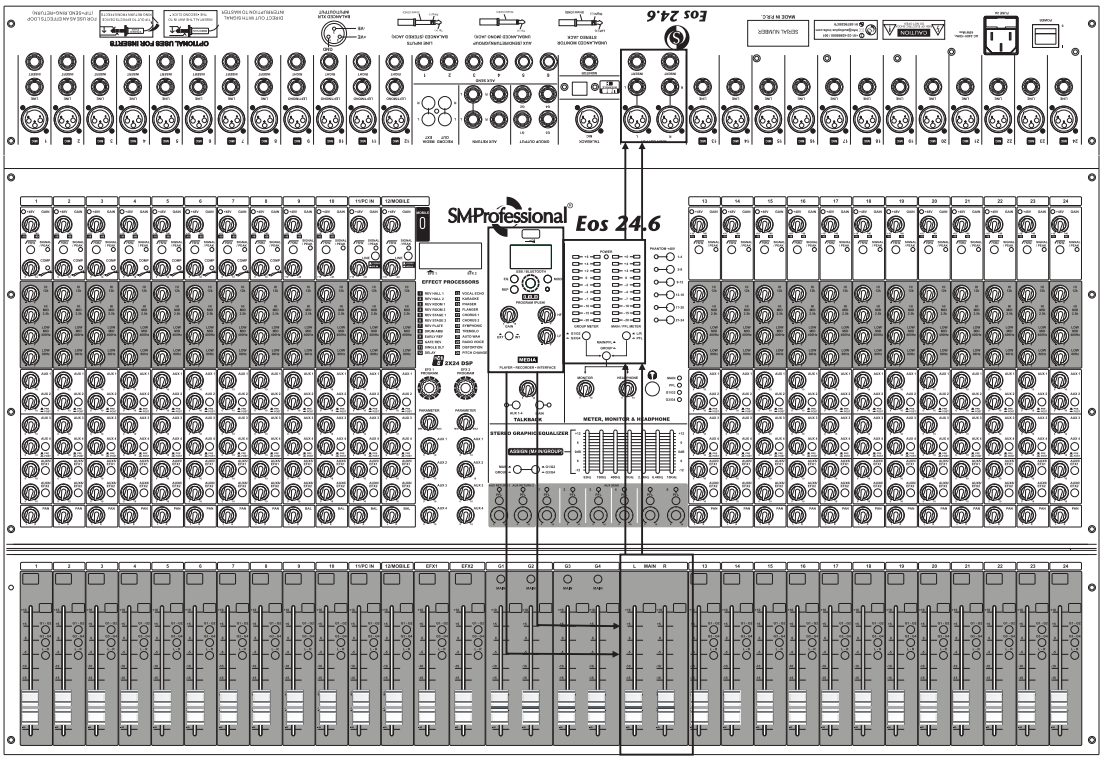
b) AUX routing



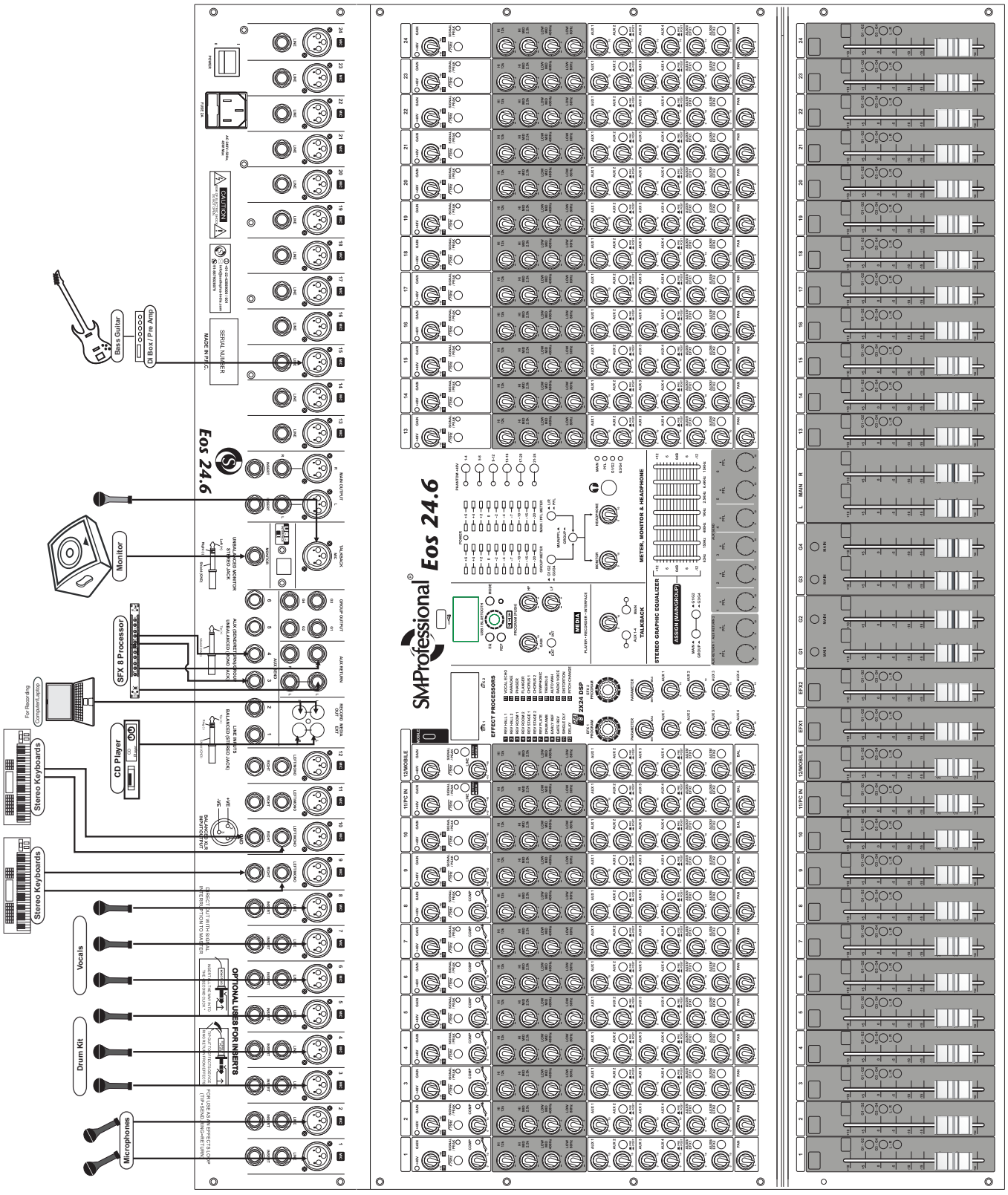
c) Effects



d) Multi-Media player



15. Set-Up Diagram



For Your Records

- Model No.....
- Serial No.....
- Dealer's Name.....
- Dealer's Phone No.....Fax No.....
- Date of Purchase.....

Note

16. Technical Specification

Models	Eos 16.6	Eos 24.6
Nominal Gain (Mic / Line / Stereo Line)	60dB / 40dB / 20dB	
Max Gain (Mic / Line / Stereo Line)	80dB / 60dB / 40dB	
Input Output Levels		
Input Sensitivity		
Mic (Gain Min / Gain Max)	-10dBu / -60dBu	
Line (Gain Min / Gain Max)	+10dBu / -40dBu	
Stereo Line (Gain Min / Gain Max)	+10dBu / -20dBu	
Aux Return (Nominal / Max)	-10dBu / +30dBu	
External Media In (Nominal / Max)	0dBu/+30dBu	
Clip Indication	5dB prior to true clip	
Output Levels		
Main Output, Group Output, Aux Send, Record Out (Nominal / Max)	0dBu (0.775V RMS) / +20dBu (7.75V RMS) Max	
Insert In/Out (Nominal / Max)	0dBu (0.775V RMS) / +20dBu (7.75V RMS) Max	
General		
Mic Input Impedance	5 KΩ Balanced	
Line Input Impedance	20KΩ Balanced / 10KΩ Unbalanced	
Frequency Response	20Hz-20kHz (+0 / -1dB)	
Total Harmonic Distortion	< 0.02%	
Cross-talk	-80dB	
Hum & Noise		
MIC EIN (Equivalent Input Noise)	-128dB	
Main Out/Group Out	-80dB	
Aux Send	-70dB	
Record Out	-77dB	
Equalization		
Mono MIC (Hi / Hi-Mid / Low-Mid / Low)	±15dB @ 12kHz / 2.5kHz / 400Hz / 80Hz	
Stereo Line (Hi / Hi-Mid / Low-Mid / Low)	±15dB @ 12kHz / 2.5kHz / 400Hz / 80Hz	
7-Band Stereo Equalizer	±12dB @ 15kHz / 6.4kHz / 2.5kHz / 1kHz / 400Hz / 150Hz / 63Hz	
Low Cut	-3dB @ 75Hz	
Miscellaneous		
Effects	2 x 24Effects (EFX1 & EFX2) with Parametric Control	
Phantom Supply	+48V	
Power Supply	150V-240V / 50Hz	
Fuse	2A 250V AC	
Power Consumption	35W Max	45W Max
Dimensions (W x D x H) mm	710 x 540 x 170	940 x 540 x 170
Net Weight (Kg)	12.7	14

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A1/A2, Giriraj Industrial Estate, Mahakali Caves Road, Andheri (East), Mumbai - 400 093. India
Tel.: +91-22-42869000 / 001 WhatsApp.: +91-8879028079 E info@audioplus-india.com
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