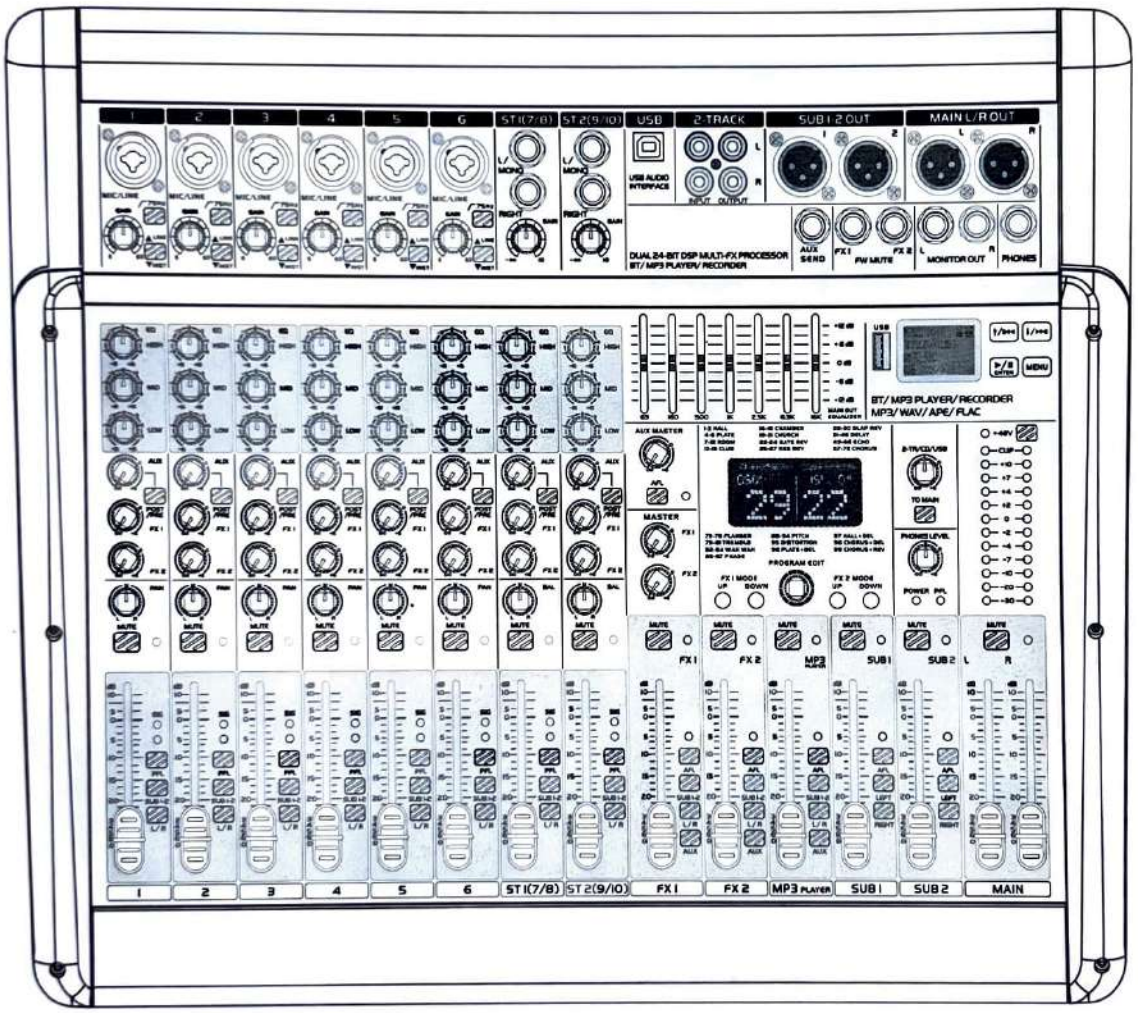
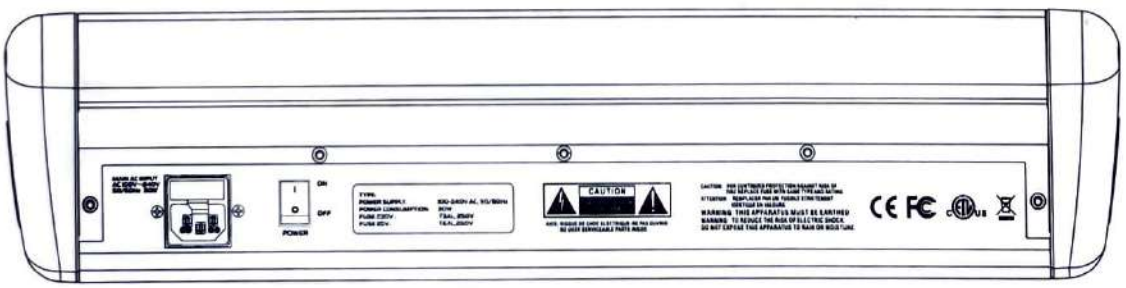




USER'S MANUAL

Limited One Year Warranty

For this product, we guarantee that there are no defects either in the materials or in the craftmanship for a period of one year from the purchasing date of the original buyer. To ensure the high level of performance and reliability for which this equipment has been designed and manufactured please read this manual before use. In the event of a failure, notify and return the defective unit to us as soon as possible, or to our authorized agent, for repair under warranty subject to the following conditions:

Conditions of Warranty

1. This device has been installed and operated in accordance with the instructions in this manual.
2. This device has not been subject to misuse either intended or accidental, neglect, or alteration other than as described in this manual, or as approved by us.
3. Any necessary adjustment, alteration or repair has been carried out by us or our authorized agent.
4. The content of the warranty does not include the wear and tear of the faders.
5. The defective unit is to be returned carriage prepaid to us or our authorized agent with proof of purchase.
6. Units to be returned should be well-packed to avoid transit damage.

In certain territories, the terms may vary. Check with our agent for any additional warranty that may apply.

Important Safety instructions

PRECAUTIONS: Please read the following instructions before proceeding.

Read instructions: Read and retain these safety and operating instructions for future reference. Adhere to all warnings printed here and on the console. Follow the operating instructions printed in this User Guide.

Do not remove cover: Operate the console with its underside cover correctly fitted. Disconnect mains power by unplugging the power cord if the cover needs to be removed for setting internal options. Refer this work to competent technical personnel.

Power Sources: Connect the console to a mains power outlet only of the type described in this User Guide and marked on the rear panel. Use the power cord with sealed mains plug appropriate for your local mains supply as provided with the console. If the provided plug does not fit into your outlet consult your service agent for assistance.

Power cord routing: Route the power cord so that it is not likely to be walked on, stretched or pinched by items placed upon or against it.

Grounding: Do not defeat the grounding and polarization means of the power cord plug. Do not remove or tamper with the ground connection in the power cord.

Warning: This equipment must be earthed.

Water and moisture: Do not expose the device to rain or dampness, use it in damp or wet conditions, or place containers on it containing liquids which might spill into any openings.

Ventilation: Do not obstruct the rear and top ventilation openings, or position the console where the air flow is impeded. If the console is to be operated in a flight case, plinth or other furniture, ensure that it is constructed to allow adequate ventilation.

Heat and vibration: Do not locate the console in a place subject to excessive heat or direct sunlight to prevent fire hazard. Locate the console away from any equipment generating heat and excessive vibration.

Servicing: Switch off the equipment and unplug the power cord immediately if it is exposed to moisture, spilled liquid, objects fallen into the openings, the power cord or plug become damaged, during lightening storms, or if smoke, odour or noise is noticed. Refer servicing to qualified technical personnel only.

Installation: Install the console in accordance with the instructions printed in this User Guide. Do not connect the output of power amplifiers directly to the console. Use audio connectors and plugs only for their intended purpose.

General Precautions

Damage: To prevent damage to the controls and cosmetics avoid placing heavy objects on the control surface, scratching the surface with sharp objects, or rough handling and vibration.

Environment: Protect from excessive dirt, dust, heat and vibration when operating and storing. Avoid tobacco ash, smoke, drinks spillage, and exposure to rain and moisture. If the console becomes wet, switch off and remove mains power immediately. Allow to dry out thoroughly before using again.

Cleaning: Avoid the use of chemicals, abrasives or solvents. The control panel is best cleaned with a soft brush and dry lint-free cloth. The faders, switches and potentiometers are lubricated for life. The use of electrical lubricants on these parts is not recommended. The fader and potentiometer knobs may be removed for cleaning with a warm soapy solution. Rinse and allow to dry fully before refitting them.

Lifting: To avoid injury to yourself or damage to the equipment take care when lifting, moving or carrying the console.

Transporting: The console may be transported as a free-standing unit or mounted in a purpose built flight case. We recommend that the console is surrounded by shock absorbent foam to protect it from damage during transit. Always use adequate packing if you need to ship the unit. Protect the controls to avoid damage when moving the console.

Hearing: To avoid damage to your hearing do not operate any sound system at excessively high volume. This also applies to any close-to-ear monitoring such as headphone and IEM transducers. Continued exposure to high volume sound can cause frequency selective or wide range hearing loss.

Important Mains plug wiring instructions

The console is supplied with a moulded mains plug fitted to the AC mains power lead. Follow the instructions below if the mains plug has to be replaced. The wires in the mains lead are coloured in accordance with the following code:

TERMINAL		WIRE COLOR	
		European	USA/Canada
L	LIVE	BROWN	BLACK
N	NEUTRAL	BLUE	WHITE
E	EARTH GND	GREEN & YELLOW	GREEN

The wire which is colored Green and Yellow/Green must be connected to the terminal in the plug which is marked with the letter E or with the Earth symbol. This appliance must be earthed.

The wire which is colored Blue/White must be connected to the terminal in the plug which is marked with the letter N.

The wire which is colored Brown/Black must be connected to the terminal in the plug which is marked with the letter L.

Ensure that these color codes are followed carefully in the event of the plug being changed.

Introduction

Welcome the latest generation of the popular powered mixing consoles. We have tried to keep this user guide brief and to the point. Please read it fully before starting. Included is information on installing, connecting and operating the console, panel drawings, system block diagram and technical specification. For further information on the basic principles of audio system engineering, please refer to one of the specialist publications and resources available from bookshops, audio equipment dealers and the internet.

Whilst we believe the information in this guide to be reliable we do not assume responsibility for inaccuracies. We also reserve the right to make changes in the interest of further product development.

Contents

Introducing the mixer

This is a an analogue mixing console for professional audio applications. Whether out on the road touring, in a small meeting room, a bar or earning it's keep in rental stock, the mixer provides the perfect solution to provide simple and convenient connections, and quickly form a sound amplifying system. Engineered to the same exacting standards as our top of the range consoles it ensures the highest reliability and finest sonic performance.

The Range:
10 CH: 6 mono mic/line, 2 stereo
12 CH: 8 mono mic/line, 2 stereo
16 CH: 12 mono mic/line, 2 stereo

Introducing brief functions:

- 10, 12, 16 channel frame
- LR main mix
- 3 Aux sends
- Recording
- 2 group stereo channel inputs
- Responsive 3 band, MF sweep EQ
- 75Hz channel high pass filters
- Individual phantom power
- Channel and master meters
- Per channel pre/post fader aux switching
- Mutes on all fader masters
- 60mm dust protected faders
- 2-Track monitoring and replay to LR
- Headphones and local monitor outputs
- Dedicated stereo, peak-retaining monitor meters
- Electronically balanced XLR outputs with +26dBu drive capability
- Preamp +34dBu maximum input capability for mic or line
- Ultra low noise mix head amp design
- Built-in USB audio interface, which can directly connect PC/MAC to record or replay
- Bluetooth / MP3 player/recorder with concise human-machine interactive interface
- 7-band graphic EQ
- DUAL 99-mode parameters-adjustable DSP effect processor.
- Internal power supply
- Metal jacks, gold-plated XLRs, sealed pots and switches

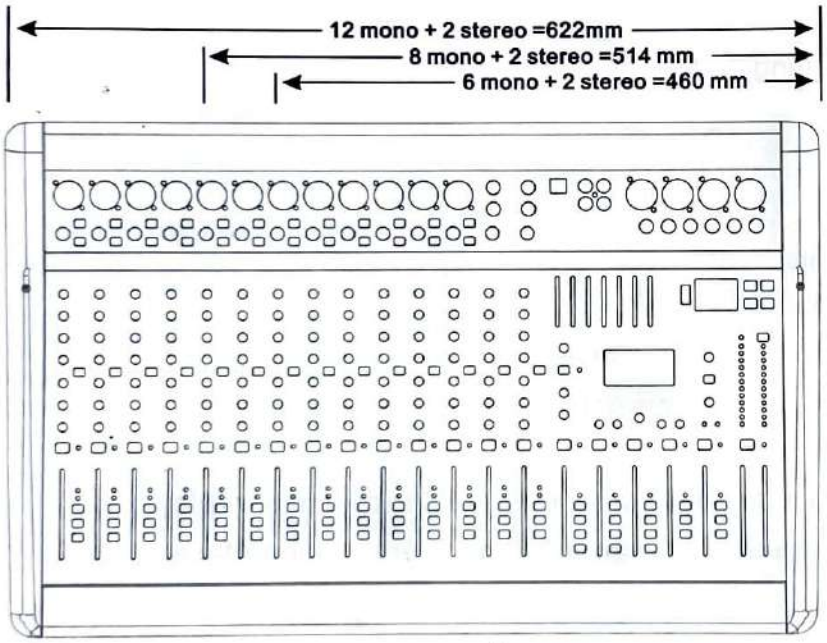
Installing the console

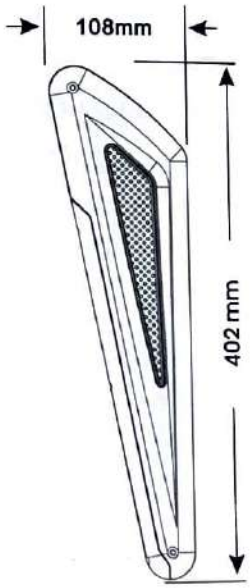
This mixer has a space saving, compact chassis design. Plastic side this series mixers are equipped with a handle type, metal plate also can choose distribution can be installed in a standard cabinet. This is convenient both in saving the occupied space, and in reducing the size, complexity and weight of flight casing for on-the-road use. The control surface has a 10 degree slope for optimum visibility during operation.

Free Standing The console has rubber feet fitted for free standing operation on a flat surface. Make sure the surface is well supported, stable and big enough for the console to sit securely on all its feet. Allow enough space behind the console for access to its connectors.

Flight Casing The console is shaped for easy flight casing. Make sure it is supported on all sides using suitably thick, shock absorbent foam intended for this purpose. Ensure no part of the case or its lid touches the controls or connectors. If you include a rear "doghouse" to house the connections make sure the cables can be supported in a way that prevents putting stress on the console connectors. To prevent transit damage through inadequate protection, we recommend you have the flight case supplied or approved by a professional, specialist equipment case manufacturer.

Do not obstruct the ventilation openings on the top and rear surfaces. Ensure adequate air flow around these surfaces. To avoid audible hum, buzz or other performance degradation, do not place equipment that radiates strong electromagnetic fields such as mains power supplies, amplifiers and computers next to or directly underneath the console.





Mixing console type

Connecting Power

Read and understand the Important Safety Instructions printed at the start of this guide, and the warnings printed on the rear of the console. Check that your local mains supply voltage is the same as that marked on the rear of the power unit. Check that the correct mains lead with moulded plug has been supplied. Make sure that the IEC mains plug is pressed fully into the panel socket on the unit before switching on.

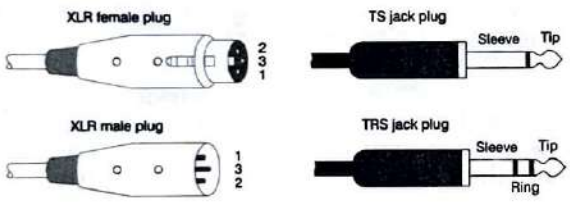
Grounding

The connection to ground in an audio system is important for two reasons:
1. SAFETY: To protect the operator from high voltage electric shock, and
2. AUDIO PERFORMANCE : To minimize the effect of ground (earth) loops which result in audible hum and buzz, and to shield the audio signals from interference. For safety it is important that all equipment grounds are connected to mains ground so that exposed metal parts are prevented from carrying high voltage which can injure or even kill the operator. Do not disconnect the ground connection in the mains lead. It is recommended that the system engineer check the continuity of the safety ground from all points in the system in cluding microphone bodies, turntable chassis, equipment cases, rack metalwork and so on.

Switching the console on and off
It is good practice to turn power amplifiers off before switching the console and any other connected equipment on or off. This prevents any unexpected clicks or thumps when the equipment is powered up.

Audio Connections

This mixer uses professional grade 3 pin XLR and 1/4" TRS (3 pole) jack sockets. To ensure best performance, we recommend that you use high quality audio cables and connectors, and take time to check for reliable and accurate cable assembly. It is well known that most audio system problems are due to faulty or sub standard interconnecting leads. The following plugs may be used to connect audio to the console:



Dealing with Ground Loops, Buzz and Interference
For optimum performance all audio signals should be referenced to a solid, noise-free ground (earth) point, frequently referred to as the "star point" or "clean earth".

A ground loop is created when potential differences exist between grounds at different points in the system, and the signal has more than one path to ground. In most cases ground loops do not result in audible problems. Should you experience hum or buzz caused by a ground loop, check first that each piece of equipment has its own separate path to ground. If so, operate ground lift switches on connected equipment in accordance with the instruction manuals. Alternatively disconnect the cable screen at the destination end only. This breaks the offending loop while keeping the signal shielding down the length of cable.

WARNING: For operator safety, do not remove the ground (earth) connection in the power lead of the console or connected equipment.

To avoid interference pickup keep audio cables away from mains power units and cables, lighting cables, thyristor dimmer units, computer equipment and mobile phones. Where this cannot be avoided, cross the cables at right angles to minimize interference.

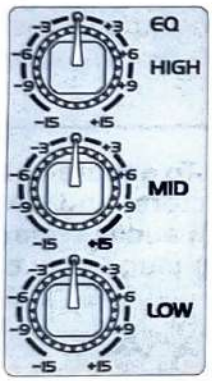
The MONO input channel

Mike/Line/Guitar input jacks of MIC channel
The jacks are used to connect microphones or other audio devices in support of cannon plugs and 6.35 plugs. These jacks are used for microphone or line level signals. If you use XLR jack, it can give a massive headroom for the channel's preamp with +34dBu maximum input power. Two inputs are both balanced, but they can handle unbalanced signals when required. MIC XLR jack feeds microphones requiring phantom power such as condensers via 6k8 ohm resistors to provide +48V DC powerto pins 2 and 3.

Warning: When +48V phantom power is selected, do not connect the unbalanced sources or cables to the XLR input. To avoid loud clicking sound, always turn the channel off by pressing MUTE when switching on or off the +48V power, and when plugging or unplugging cables.

GAIN
Adjusts the input sensitivity to match the connected source to the internal 0dBu operating level of the channel. It provides a variable range of 40dB, from +0 to +40dB gain (MIC), or from -20 to +20dB (LINE). In coordination with the monitor system and the main level meters, adjust the gain knob for a metering average of " 0 " for the channel with loudest moment lighting " +6 " .

Important instructions for the channel's level setting: Use PFL to set the gain control and to determine the correct level of the signals going through each channel. The main LR meters provide high-definition display for the channel's signal level. Use the fader to balance each signal in the mix. To ensure optimum gain structure, we do not recommend the way of mixing by setting the fader to " 0 " position and using gain control to mix.

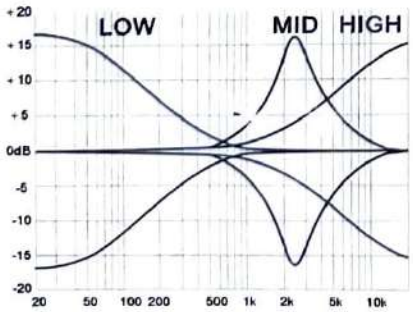


LOW CUT HPF
Switches in the channel high pass filter. This attenuates frequencies below 75Hz by 12dB per octave. The filter is pre-insert, pre-EQ. Select the HPF to reduce low frequency noise such as microphone popping, stage noise and tape transport rumble. The curve is shown in the picture on the next page.

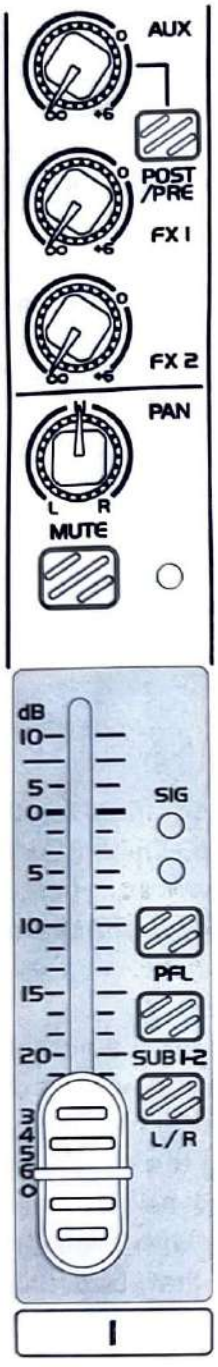
INST/Line input shifter
The switch is used to shift the connections to different sound sources of the input channels. Switched up, the input channel can be connected directly with a high-impedance audio device such an electric guitar or a bass. Switched down, it can be connected to a low-impedance sound device.
Warning!
In operation of the switch, all level output control (such as channel volume knobs, monitor output knobs and earphone knobs) should be set up to the minimun position. Because this operation will cause a sudden impact sound, which can damage the external devices, and the hearing of the personnel on site.

EQ
A responsive 3-band EQ (equalizer) provides independent controls for 3 frequency bands. The HIGH and LOW bands are shelving filters, which affect respectively the high frequencies above 12 KHz and the low frequencies below 80 Hz. The MID band is a bell shaped peak/dip filter, which affect the frequencies centering near 2.5KHz.

All frequency bands can increase or decrease up to 15dB, and have a center detent position of 0dB. The overlapping frequency range allows you to deal with the challenging sound source problems with ease when using frequency band combinations.



The MONO input channel



AUX SENDS
These rotary controls adjust how much channel signal will be mixed to the aux out. Each of the 3 auxes has its own control knob, which adjusts the gain from a closed zero to +6dB. The unity gain 0dB is marked at the 3 o'clock position. FX send is post-fader. AUX is controlled by a switch, which can be selected pre-fader or post-fader.

Pre-fader AUX SENDS will not be affected by the movement of the channel faders. They are generally used to send signals to stage monitor. AUX SENDS may also be used in some special applications, such as recording, zone feeds, clean feeds and aux subs or center speakers.

POST/PRE
When you press down the button, the pre-fade channel signal will be sent to the related aux bus. When you loosen the button, the post-fade signal will be sent.
AUX SENDS are controlled by the POST/PRE switch.

FX1/FX2 sends
The two aux send the pre-fader signal to the built-in effect processor.

PAN
Positions the channel signal between L/R in the stereo mix.

MUTE
Press this button to shut off the channel signal. This will affect the signals sent to LR and SUB 1-2 mix, and post-fader aux sends. When the channel is muted, the red indicator lights. When the phantom power is turned on, and a device is plugged or unplugged, the channel is normally set muted.

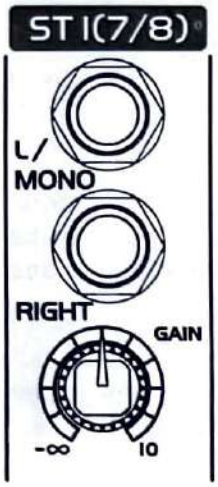
SIG INDICATOR
When the channel's pre-fade signal reaches +6dB, the indicator lights.

PFL MONITOR
Press down PFL button to monitor the pre-fade signals of the channel, without affecting the main output signals. The mixer's PFL/AFL active red indicator turns bright, and the monitor LR level meters show the amplitude of the channel's signal level. The yellow indicator of the PFL switch lights to show this channel's PFL has been chosen.

SUB 1-2/ L/R
When you need to mix a channel's signal to SUB 1-2 or/and L/R buses, you can do this merely by pressing down this switch. Surely, if it's not pressed down, the channel signal will not be distributed to these two groups of buses.

FADER
A high-quality 60-mm smooth travel fader with protective dust cover controls the channel volume of the main LR mix and SUB 1-2 mix, and the signals of the post-fader AUX SENDS. The fader provides a biggest boost from the normal working level 0dB upward to +10dB.

The STEREO input channel



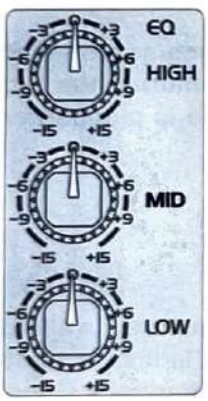
STEREO LINE INPUT

Left input signal can be input in parallel connection via the right input jack to feed signals to the left and right of the stereo channel. Simply put, the left and right channels will both have signal outputs if only the left channel jack has been plugged. This can be used for plugging in a mono sound source device.

GAIN CONTROL

Adjusts input sensitivity to match the connected sound source. The internal operating level of the channel is 0dBu. In coordination with the moni-tor system and the main level meters, adjust the gain knob for a metering average of " 0" for the channel with loudest moment lighting " +6 " .

Important instructions for the channel's level setting: Use PFL to set the gain control and to determine the correct level of the signals going through each channel. The main LR meters provide high-definition display for the channel's signal level. Use the fader to balance each signal in the mix. To ensure optimum gain structure, we do not recommend the way of mixing by setting the fader to " 0 " position and using gain control to mix.

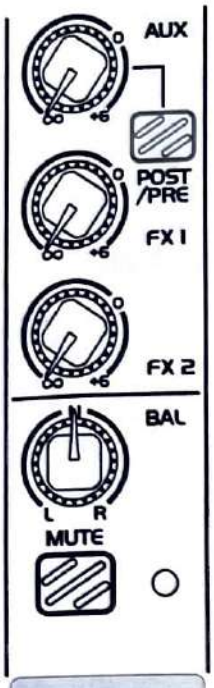


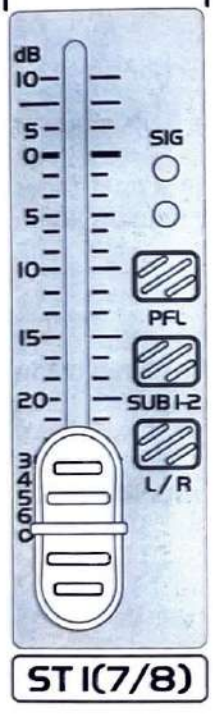
EQ

A responsive 3-band EQ (equalizer) provides independent controls for 3 frequency bands. The HIGH and LOW bands are shelving filters, which affect respectively the high frequencies above 12 KHz and the low frequencies below 80 Hz. The MID band is a bell shaped peak/dip filter, which affect the frequencies centering near 2.5KHz.

All frequency bands can increase or decrease up to 15dB, and have a center detent position of 0dB. The overlapping frequency range allows you to deal with the challenging sound source problems with ease when using frequency band combinations. Before using EQ, check that you are using the best type and placement of microphone. At the beginning, set the EQ as flat, and operate only as really needed to boost or cut. When dealing with problem frequencies, attenuate the frequencies where possible rather than boosting the frequencies.

The STEREO input channel





ST I(7/8)

AUX SENDS
These rotary controls adjust how much channel signal will be mixed to the aux out. Each of the two auxes has its own control knob, which adjusts the gain from fully off to +6dB. The unity gain 0dB is marked at the 3 o'clock position. FX send is post-fader. AUX is controlled by a switch, which can be selected pre-fader or post-fader.

Pre-fader AUX SENDS will not be affected by the movement of the channel faders. They are commonly used to send signals to stage monitor. AUX SENDS may also be used in some special applications, such as recording, zone feeds, clean feeds and aux subs or center speakers.

POST/PRE
When you press down the button, the pre-fader channel signals will be sent to the related aux bus. When you loosen the button, the post-fader signals will be sent. AUX SENDS are controlled by the POST/PRE switch.

FX1/FX2 sends
The two aux send the pre-fader signal to the built-in effect processor.

BAL
Balances the signal level between the left and right of the stereo channel.

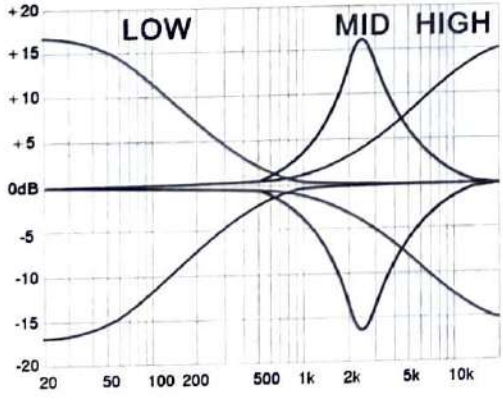
MUTE
Press this button to shut off the channel signal. This will affect the signals sent to LR and SUB 1-2 mix, and post-fader aux sends. When the channel is muted, the red indicator lights. When a device is plugged or unplugged, the channel is normally set muted.

SIG INDICATOR
When the channel pre-fade signal reaches +6dB, the indicator lights.

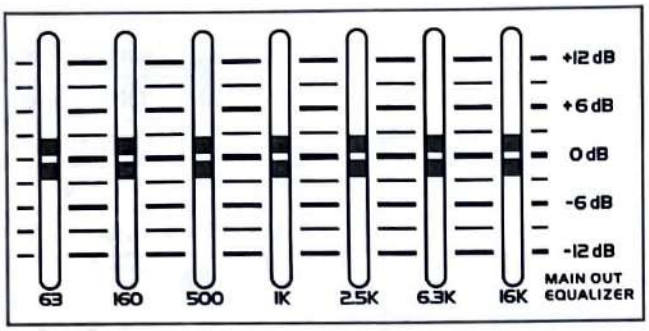
PFL MONITOR
Press down PFL button to monitor the pre-fade signal of the channel, without affecting the main output signal. The mixer's PFL/AFL active red indicator turns bright, and the monitor LR level meters show the amplitude of the channel's signal level. The yellow indicator of the PFL switch lights to show this channel's PFL has been chosen.

SUB 1-2/ L/R
When you need to mix a channel's signal to SUB 1-2 or/and L/R buses, you can do this merely by pressing down this switch. Surely, if it's not pressed down, the channel signal will not be distributed to these two groups of buses.

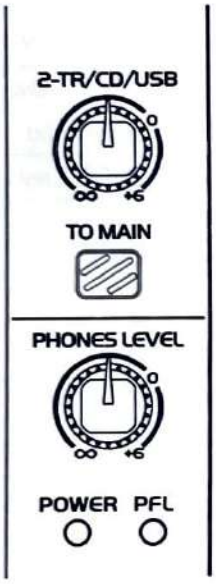
FADER
A high-quality 60-mm smooth travel fader with protective dust cover controls the channel volume of the main LR mix and SUB 1-2 mix, and the signals of the post-fader AUX SENDS. The fader provides a biggest boost from the normal working level 0dB upward to +10dB.



Equalizer/AUX return/SUB/2-Track/Phones



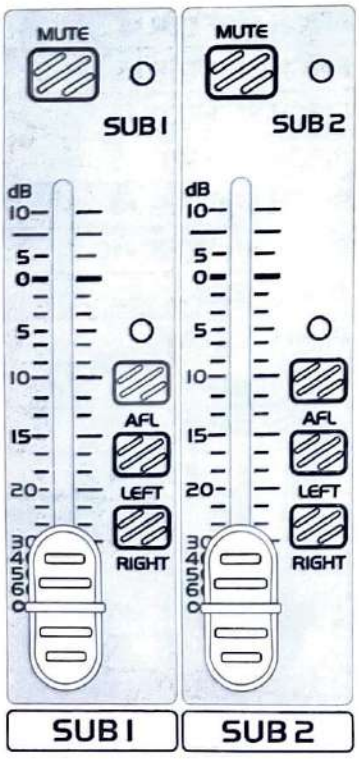
7-band Graphic Equalizer
Its adjustment range covers the entire audio scope. It modifies and embellishes the sound coloration, lifts the sound quality and timbre, restrains the sound feed-back, and improves the indoor amplification.



2-TR/CD Level
Adjusts the volume of a 2-track device or CD replay. The key on the lower left can add it to the main channel L/R when pressed down.

PHONES LEVEL
Adjusts the volume of the monitor headphone.
Use a proper volume to avoid the damage to your hearing.

POWER: Power indicator. It lights to show working starts
PFL/AFL: Monitoring condition indicator. When the light turns on, the consoleis under the monitoring condition, with the main level meters showing the signal level of the monitor channel, and the channel signal is monitored from the headphone monitor output.



SUB 1-2 CONTROL SECTION

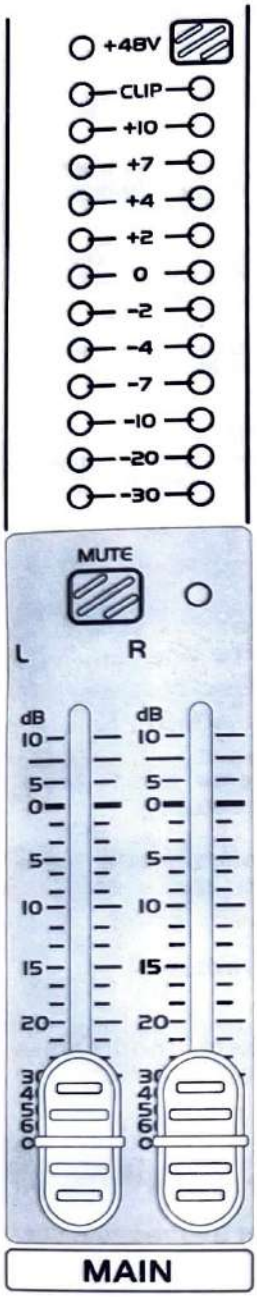
MUTE
Press this button to shut off the channel signal.

AFL MONITOR
Press down PFL button to monitor the pre-fade signal of the channel, without affecting the main output signal. The mixer's PFL/AFL active red indicator turns bright, and the monitor LR level meters show the amplitude of the channel's signal level. The yellow indicator of the AFL switch lights to show this channel's PFL has been chosen.

LEFT/RIGHT keys are the ones to control SUB 1-2 output signals, which can be combined to the main channel L/R output.

FADER
A high-quality 60-mm smooth travel fader with protective dust cover controls the channel volume . The fader provides a biggest boost from the normal working level 0dB upward to +10dB.

Main mix & Meter



+48V Phantom Power Switch

+48VDC switch supplies power to the channel's XLR input, providing power for the microphone requiring phantom power or DI-BOX. The power currents are restrictive, providing power to the XLR socket's pin 2 and pin 3 of the mono input channel via 6k8 ohm resistors.

Warning: When selecting phantom power, do not connect unbalanced sources or cables to the input. To avoid big clicking sound, mute the channel when turning on or off the +48V power.

Main Level Meters

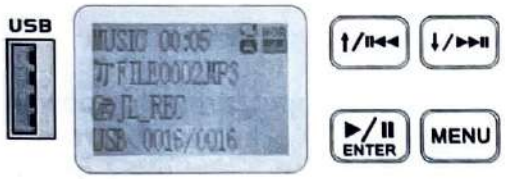
In normal condition, it shows the output level of the main mix signals. When any channel's PFL/AFL button is pressed down, it switches to show the signal level of that channel.

Main Mix Control Section

MUTE: Press the MUTE button, the red indicator lights and the main output is shut off.

FADER: Adjusts the output level of the main mix, providing a normal boost from 0dB to +10dB.

BT/MP3_player/recorder



BT/ MP3 PLAYER/ RECORDER
MP3/ WAV/ APE/ FLAC

The MP3 Player / Recorder controlled keyboard;
The MP3 Player / Recorder LCD display;
The MP3 Player / Recorder USB port;

Mp3 audio signal volume knob:
Adjust the audio signal level from the MP3 player;

MUTE
Press this button to shut off the channel signal.

AFL MONITOR
Press down PFL button to monitor the pre-fade signal of the channel, without affecting the main output signal.

AUX / SUB 1-2 / L/R routing assignment key
When you need to mix a channel's signal to AUX/SUB 1-2 or/and L/R buses, you can do this merely by pressing down this switch. Surely, if it's not pressed down, the channel signal will not be distributed to these two groups of buses.

FADER
A high-quality 60-mm smooth travel fader with protective dust cover controls the channel volume of the aux,main LR mix and SUB 1-2 mix.

Bluetooth / Mp3 player/recorder operation instructions:
1. Definition of keys
A. Shortly press: the previous one/choose upward or left; Long press: reduce the volume.
B. Shortly press: the next one/choose downward or right; Long press: increase the volume.
C. Menu key;
D. Play/Pause/Confirm key

2. System setup:
When there is no USB disk inserted, shortly press any key and enter the main menu items, shortly press the choose key, select the "system setup" key, press "play confirm key"to do the system setup.
The list is as follows:
A. Backlight time: After there is not any operation, the backlight will turn off automatically after some certain time. This selection item is for you to choose the time you need to turn off.
The default is not turn-off.
B. Language selection: display of two menus with Chinese and English.
C. Contrast: Adjust the contrast degree of the display screen, and suit different light environment.

3. Start the blue-tooth connection:
When there is no USB disk inserted, shortly press any key, and enter the main menu item. Shortly press the selection key, and select the "blue-tooth mode"item. Press the "Play confirm key" to connect. The blue-tooth name of this module is BT_SPEAKER.

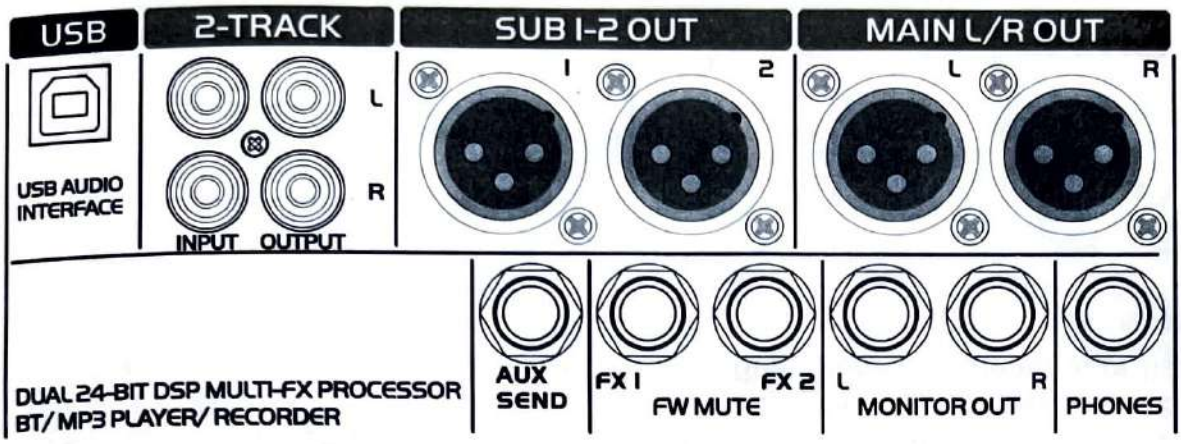
4. Music mode:
When the USB disk is inserted, start to play the music automatically.Under the interface of playing music, shortly press "menu"key, a couple of setups under the music mode will pop up.
A.Circulation mode: there are multiple modes such as all circulation, single circulation and random play to be chosen.
B.EQ mode: there are a couple of balance modes such as nature, rock, pop and classic modes to be chosen.
C.Master disc directory: do the reading of audio files in the file folder, you can choose the music promptly.
D.Delete the file: delete the audio file currently played.

5. Record mode:
Under the interface of playing music, long press the "menu" key, and enter the recording work mode:
A.Shortly press "Play" key, start the recording or pause the recording;
B.Long press "Play" key, finish the recording and save the recording file, automatically quit and return to the play interface;
C.Recording file format: MP3/48Khz sampling/128Kbs bit rate.

6. Connect the computer. In the main menu, select and confirm the "Connecting computer" item.
Use the USB cord to connect with the USB port of the computer. It can be used as the USB sound card to play the music.

7. Any setup changes will be stored and memorized at the time of switch-off.

Main output sections



USB audio interface

For connecting to a computer using the included USB 2.0 cable. When connected to a computer, the computer supplies power to the mixer and audio data can be sent between the mixer and computer.

2-TRACK IN and OUT

RCA input and output connects popular recording and playing equipment, such as CD, MiniDisc, computer and cassette player. The rated line level is -2dBu. 2-track sends are normally post-fader and after LR mix, regardless of how the setting of mode switching is. 2-track returns can be used for monitoring mono or stereo recording, or serve as a simple input of replay content and backg-round music.

SUB 1-2 OUT

Sub-group output is digital balanced XLR jack. The output signals are generally used for zone amplification, monitoring, recording or subwoofers and so on.

L OUT/R OUT

The console's main mix output is digital balanced XLR jack. L and R output usually sends signals to the indoor PA (public address) system for live sound mixing, or to a 2-track recorder for studio mixing.

AUX SENDS OUTPUT (AUX SEND)

Unbalanced TRS jack outputs AUX SEND AUX signals, which is for sending to monitor, effects devices such as echo and delay, and special mixing requirements.

EFFECT PROCESSOR FOOT MUTE SWITCH JACK (FW MUTE)

Connect a standard footswitch to the footswitch connector; use this to switch the effects processor on and off. A flashing dot at the effects module display indicates if the effects processor is muted via the footswitch.

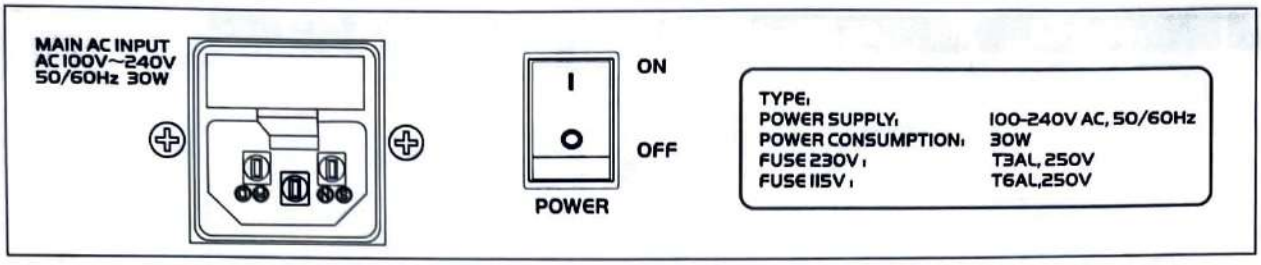
MONITOR OUT

Unbalanced TRS output is post-level and post monitor-signal. These jacks are used for sending signals to the local speakers or other monitor systems.

PHONES

Unbalanced TRS jack. You can insert a headset, listening on a local monitor output. We recommend that you use closed headphones of 30 to 600 ohm impedance. Please note: Adjust the volume to avoid hearing damage

Rear panel function



Mains Receptacle

This is an integrated receptacle containing a power switch and a built-in fuse. Before power connection, check carefully that your local power supply voltage is consistent with the one marked on the mains unit of this console, and examine that a mains cable is supplied with an appropriate plug. In the meantime, before switching on, make sure that the IEC mains plug has been inserted into the mains receptacle on the rear panel of this console.

Radiating Fan Openings

Do not obstruct these two ventilation openings and other vents around the console's body, or position the console where the air flow is impeded. If the console is to be operated in a flight case, plinth or other furniture, ensure that it is constructed to allow adequate ventilation. Do not let any objects enter these two ventilation outlets. This will leave the cooling fan unable to work normally, damaging the console or even causing fire.

SPECIFICATIONS

Maximum input level	MIC +24dBu Line +24dBu Other Line +20dbu
Maximum output level	XLR +26dBu TRS +20dBu
Master meters	12 segment -30dB to CLIP
Channel meters	1 LED signal indication
Frequency response	20Hz to 30KHz 0.5dB
CMRR (MIC 1kHz)	>75dB
THD+N	<0.01% (Channel to mix out)
Crosstalk at 1kHz	Fader shutoff >85dB Mute shutoff >85dB Inter channel >82dB
Noise, rms 22Hz to 22KHz	EIN -122dBu Residual output noise <-90dBu L/R main mix noise <-82dBu Aux mix noise <-82dBu
MONO EQ	HF, shelving, +/-15dB, 12KHz MF, peak/dip, +/-15dB, 2.5KHz LF, shelving, +/-15dB, 80Hz
Stereo EQ	HF, shelving, +/-15dB, 12KHz MF, peak/dip, +/-15dB, 2.5KHz LF, shelving, +/-15dB, 80Hz
Mono channel	XLR balanced, pin 2 hot, 2K ohm, Sensitivity -60 to +14 dBu TRS balanced, tip hot, 10K ohm, Sensitivity -40 to+14 dBu XLR, phantom +48V
Stereo channel	TRS balanced, 20K ohm, Sensitivity -40 to +14 dBu
2-track return	RCA, unbalanced, 4K ohm, -2 dBu
2-track send	RCA, unbalanced, <75 ohm, -2 dBu
DSP effect processor	24-bit sigma-delta,64/128-times over sampling, rate 40KHz
L/R output	XLR balanced, pin 2 hot, <75 ohm, +4 dBu, Max.+26 dBu
SUB 1-2 output	XLR balanced, pin 2 hot, <75 ohm, +4 dBu, Max.+22 dBu
FX/AUX output	TRS unbalanced, tip hot, <75 ohm, -2 dBu, Max. +18 dBu
Headphones	TRS, tip L, ring R, 30 to 600 ohm headphones recommended
Max. Power input power	Mixing console type 6/8/10 CHANNEL 40watts

Dimensions	10 CHANNEL	12 CHANNEL	16 CHANNEL
Width	460mm	514mm	622mm
Depth	402mm	402mm	402mm
Height	108mm	108mm	108mm

Net weight	10 CHANNEL	12 CHANNEL	16 CHANNEL
	4.9kg	5.4kg	6.6kg

System block diagrm