

# **LYINTL**

## **OWNER'S MANUAL**

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### **PROFESSIONAL MIXER**



# Index

Before operating, please read this manual completely.

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## Specifications

Maximum Output Level: 19dBm (1KHz, THD=0.5%)

Residual Noise: -75dB

Signal to Noise Ratio: 71dB

Equivalent Input Noise: -12dBm

Headphone Power: 40mw (1KHz, THD=0.5%, 200Ω)

Equalization:

Low: 80Hz±15dB

Mid: 2.5KHz±15dB

High: 12KHz±15dB

Gain Control:

Mono: -55dB~0dB

Stereo: -10dB~0dB

Frequency Response: 20Hz~20 KHz (+1dB,-3dB)

THD+N: ≤0.05%(1KHz,0.775V)

Power Input: AC220v~240V/50~60Hz

Dimensions: 8 channel: 330mmx400mmx90mm

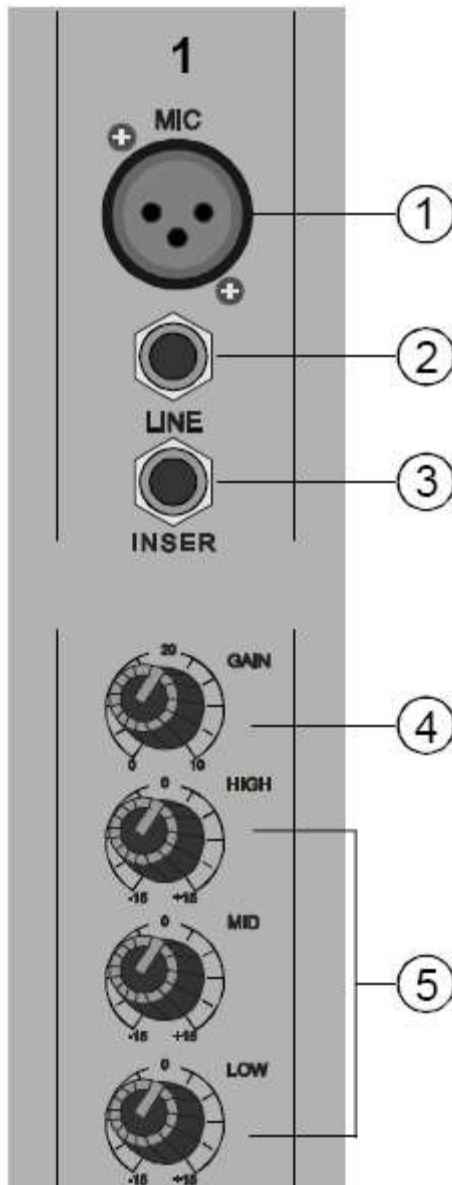
12 channel: 445mmx400mmx90mm

16 channel: 560mmx400mmx90mm

8 channel (Cabinet): 425mmx200mmx88mm

12 channel (Cabinet): 437mmx200mmx300mm

## Input Module



### 1. MIC

These are to be connected with microphone XLR jack are used for the balanced signal. +48V phantom power available on each input Mic socket.

### 2. LINE

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

### 3. INSERT

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

### 4. GAIN

This rotary knob adjusts the channel signal level. Too high: the signal will distort as it overloads the channel. Too low: the level if back hiss will be more noticeable and you may not be able to get enough signal level to the output of the mixer. Proper trim setting allows the mixer to work in the best operating level. Adjusts the trim when signal presents to the highest level without triggering the peak LED. That is the most appropriate position.

### 5. EQUALIZERS

These equalizers are designed to suit different room acoustics, feedback control and improve the live PA sound. No amount of equalization will correct the frequency response curve of a poor loudspeaker. Always begin with all control in the "O" position and avoid excessively cutting/boosting large segments of the peculiar frequency which would limit the system dynamic range or increase the possibility of the unpleasant feedback sound.

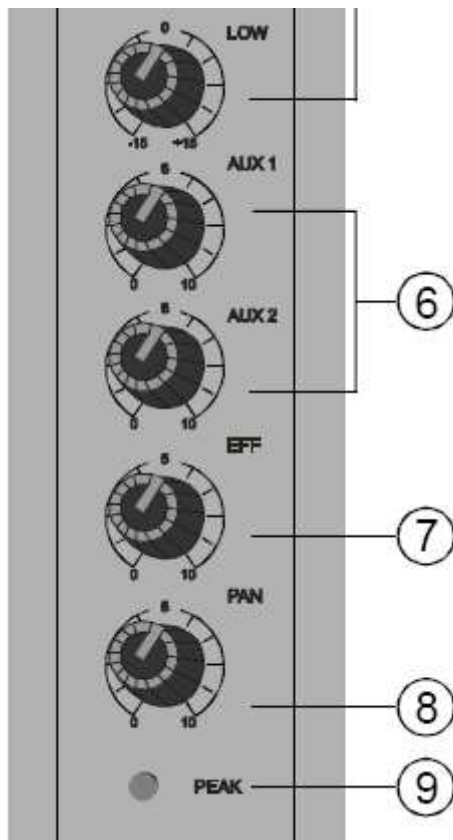
### HIGH

Turn to the right to boost high frequency, adding crispness to cymbals, vocals and electronic instruments. Turn to the left to cut this frequency, reducing sibilance or hiss. The control has a shelving response that gives 15dB of boost or cut at 12KHz.

### MID

The knob provides 15dB of boost or cut at 2.5kHz. just like the HF EQ knob. The mid band covers the range of most vocals, listen carefully when you use this control to find how particular characteristics of vocal or guitar signal can be enhanced or reduced. Set the upper knob in the "O" position when not required.

## Input Module



### LOW

The control has shelving response that giving 15dB of boost or Cut at 80Hz. Adding warmth to vocals or extra punch to guitars, drums and synths but turn to the right, turn to the left to reduce stage rumble, hum or to improve a mushy sound.

### 6. AUX 1

This rotary fader sends out the channel signal to auxiliary bus 1. The signal is pre-fader so that the aux send to be independent of the fader: this is suitable for feedback or monitor.

### AUX 2

This rotary fader sends out the channel signal to auxiliary bus 2. The signal is pre-fader so that the aux send to be independent of the fader, this is suitable for feedback or monitor.

### 7. EFF

This rotary fader feeds the channel signal to the external effect the signal is post fader. This is very helpful for simultaneously adjust the level of the processed signal.

### 8. PAN

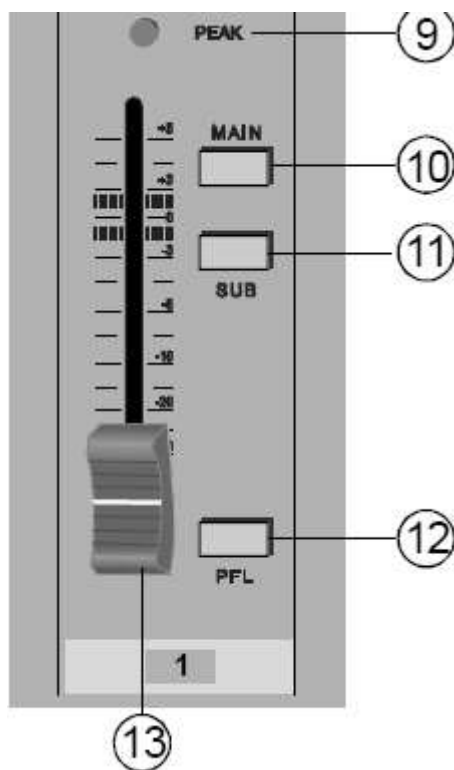
This rotary control determined the assignment of signal forth the channel to left and right or 1 and 2 groups. When the pan pot is set centrally signal is sent equally to all selected groups and master. Turning the control anticlockwise send relatively more signal to the left master and to the SUB1 Turning the pot clockwise sends relatively more signal to the right master and to SUB2. The

pan pot may thus be used to adjust the position of signals in the stereo image.

### 9. PEAK

This red LED (light emitting diode) illuminates when the channel approaches an overload situation. the LED is activated 3dB before the onset of clipping (distort). The input GAIN control should be adjusted So that the LED does not flash except on the highest level. brief transients. Using excessive amounts of boost on the channel equalizer may cause distortion on the channel: if this happens turn the input GAIN control down.

## Input Module



### 10. MAIN

This switch routes signal from the channel to the stereo masters. The relative amounts of signal sent to the left and right is determined by the position of the PAN pot. When the switch is depressed signal from the channel is sent to masters.

### 11. SUB

This switch routes signal from the channel to output groups 1 and 2. The relative amounts of signal sent to the two groups is determined by the position of the PAN pot. When the switch is depressed signal from the channel is sent to groups 1 and 2. When the switch is in the raised position the signal feed to groups 1 and 2 is disconnected.

### 12. PFL

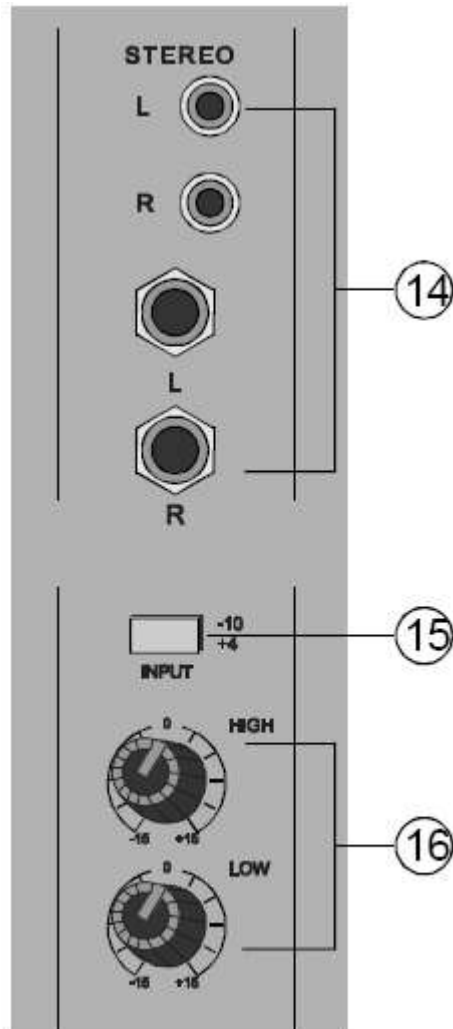
Pressing this Pre-Fader listen switch routes pre-fader signal from the channel to the headphone monitor outputs on the front and rear panels of the console. At the same time all other signals are automatically disconnected from the monitor Section, allowing the PFL signal(s) to be listened to in isolation. This feature allows the operator to listen to a signal on the headphone, checking that it is clean and undistorted before fading the signal up.

### 13. FADER

The channel fader is a 60mm travel audio fader. It adjusts the level of signal sent from the channel to the groups, stereo masters.

To allow the optimum range of control the fader should be run close to the 0 position on the scale. The input GAIN control should be set to allow this.

## Stereo Input Module



### 14. L /R PIN JACK

This used for connection into line level equipment. (Tape machines etc.)

### L/R STEREO INPUT

These light impedance inputs accept 2-pole phone jacks. Use these inputs for keyboards, drum machines, synths, tape machine or processing units, if the source signal is mono please plugs into the left channel socket only.

### 15. -10 /+4 SWITCH

The stereo input channel accepts 1/4" phone jacks. It provides two input sensitivities. The -10dB should be selected for amateur type machine or HIFI systems, most professional equipment user input and output level of +4dB. This switch allows you to match the sources connected to the stereo input channel to either standard, which is important to ensure the best possible sound quality, start with the switch +4, if you can't achieve an enough signal level, select to -10dB.

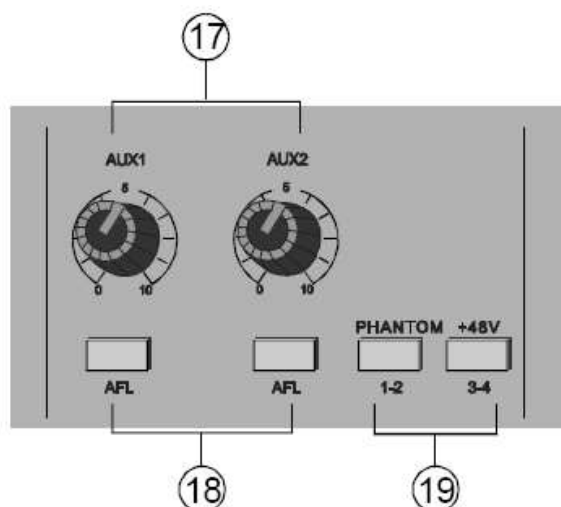
### 16. HIGH

The control has shelving response that giving 15dB of boost or cut at 80Hz. Adding warmth to vocals or extra punch to guitars, drums and synths bu turn to the right, turn to the left to reduce stage rumble, humor to Improve a mushy sound.

### LOW

Turn to the right to boost high frequency, adding crispness to cymbals, vocals and electronic instruments. Turn to the left to cut this frequency, reducing sibilance or hiss. The control has a shelving response that gives 15dB of boost or cut at 12 KHz.

## Master Section



### 17. AUX1 AUX2

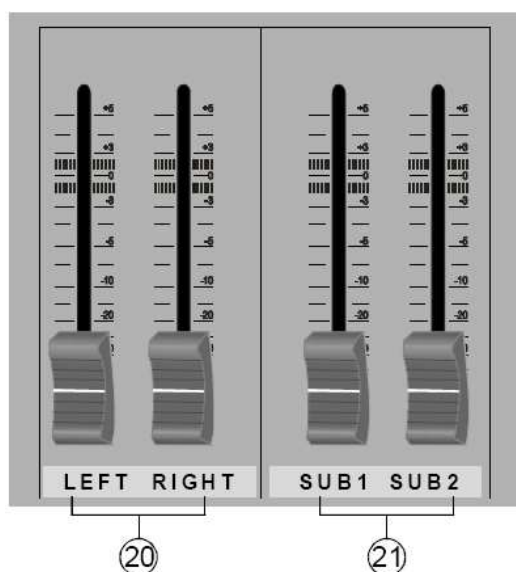
This rotary control adjusts the level of signal sent for, the auxiliary bus to the auxiliary output. For optimum performance this should be set to around 7 or 8 on the scale, and the input level often effects unit being fed from the aux output should be adjusted to operate with this level of signal.

### 18. AFL

Pressing this after fader listen switch routes post-fader (i.e. LEVEL control) signal from the aux master to the headphone monitor outputs on the front and rear panels of the console. At the same time all other signals are automatically disconnected from the monitor section, allowing the AFL signal to be listened to in isolation.

### 19. PHANTOM +48V

This slide-switch turns the master phantom power on and off. 1-2, 3-4 is applies 48V DC across 1-2 and 3-4 each microphone input channels connectors for remote powering of condenser microphones.



### 20. OUTPUT MASTER FADERS

#### LEFT/RIGHT

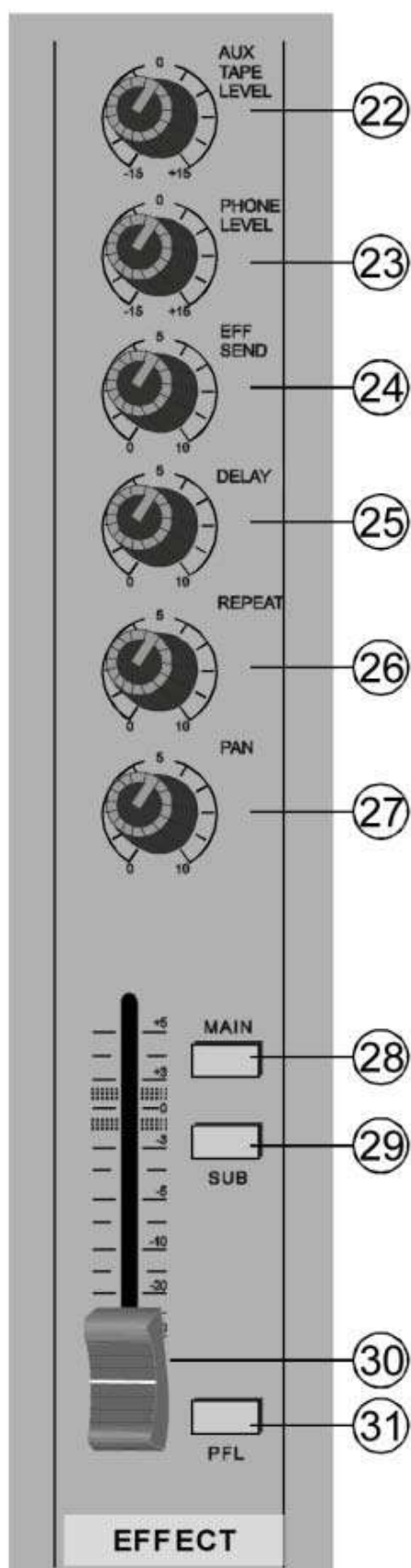
This is a master fader for adjustment of volume of right/left output.

#### 21. SUB1/SUB2

Using by this control, you can adjust SUB1, SUB2 outputs level.



## Effect



### 22. AUX TAPE LEVEL

You can adjust the volume of AUX IN or PLAY signal by this when connecting AUX IN or PLAY.

### 23. PHONE LEVEL

This rotary fader controls the output level to the control room and headphone.

### 24. EFF SEND

This is used for adjusting volume of echo sound. When sending echo sound to send jack in EFFECTS panel.

### 25. DELAY

This is used for adjusting the time interval of echo repeat. The middle position (5) may be most effective.

### 26. REPEAT

This is used for adjusting frequency of echo repeat. Since too much echo repeat may cause a howl. Please adjust frequency properly.

### 27. PAN

Using by this control, you can adjust echo sound and external effectors' sound between left and right.

### 28. MAIN

This switch routes signal from the effect to the stereo master, when the switch is depressed signal from the channel is sent to masters.

### 29. SUB

This switch routes signal from the effect to groups 1 and 2. When the switch is depressed signal from the channel is sent to group 1 and 2.

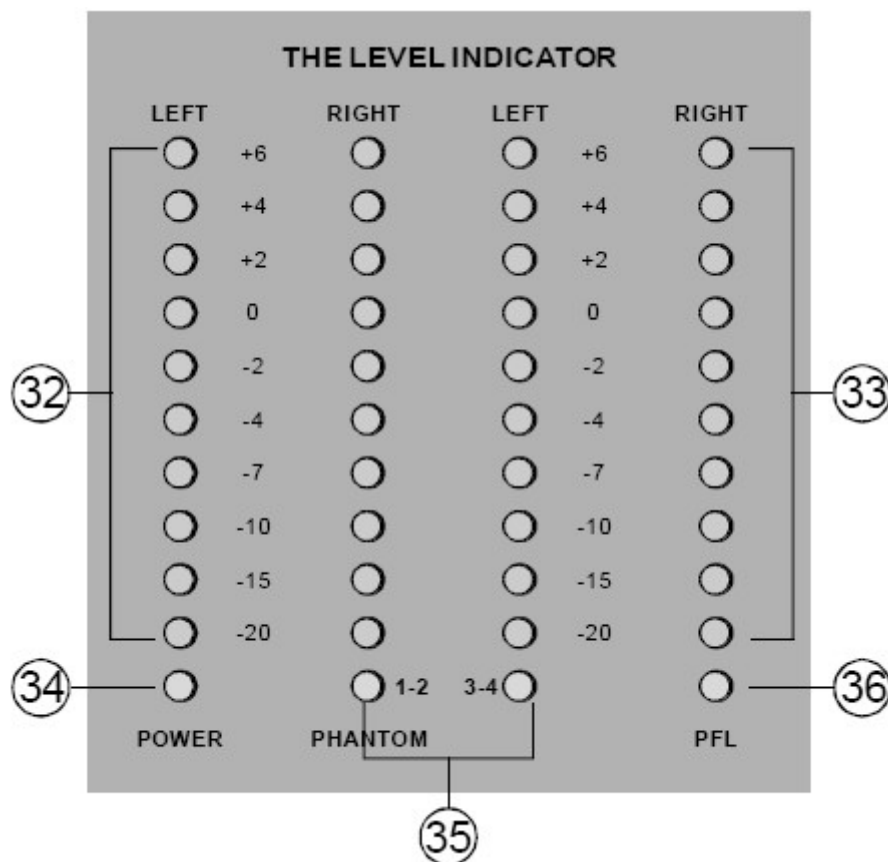
### 30. EFFECT FADER

Using by this control, you can adjust signal level of echo repeat and external effectors' volume.

### 31. PFL

When you want to monitor echo sound and external effectors' sound, you can adjust this control through the headphone.

## Meter Pod



### THE LEVEL INDICATOR

The meter pod hoses the four level meters together with the AFL/PFL indicator LED and the power supply status indicators.

#### 32. Operating levels

Output levels should adjust so that signals average 0dB on the meters, and peak at +3dB.

#### LEFT/RIGHT

This pair of 10 element barograph displays monitors the output levels of the stereo master outputs.

#### 33. SUB1 SUB2

These 10 element barograph displays monitor the output levels of the two group outputs.

#### 34. POWER Indicator LEDs

This LED illuminates when the console is switched in and indicates the status of the + and -17 volt DC power rails of the console.

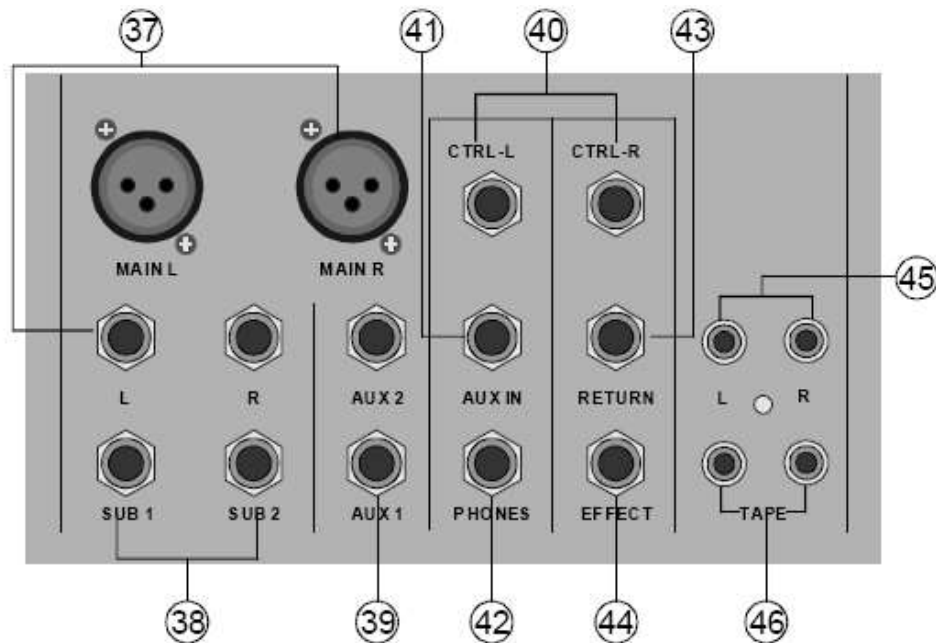
#### 35. PHANTOM

1-2, 3-4 This LED illuminates when the phantom power is switched on. Phantom power is switched on and offers all channels collectively by a switch on the rear panel of the console.

#### 36. PFL/AFL

This is illuminated whenever any PFL or AFL switch on the console is depressed (i.e. AFL or PFL active).

## Output Connectors



### 37. BALANCED OUTPUT (MAIN L/R)

These sockets send line level signals from the mixer to external devices (for example: EQ or power amplifier).

### L/R JACK UNBALANCED OUTPUT

These are jacks to send the finally mixed outputs to the other appliance (amplifier or EQ).

### 38. SUB1 SUB2 OUT

The terminal to be output with the volume control against inputting signal into SUB 1-2 board.

### 39. AUX1 AUX2 OUT

This socket sends out the signals from aux bus.

### 40. CTRLRM L/R

This jack is to be connected with the input jack of monitor amplifier when using separate monitor amplifier.

### 41. AUX IN

This jack is to be connected with various external auxiliary signal.

### 42. PHONES JACK

This is used for monitoring the master signal and individually monitoring each channel with PEL/AFL switch.

### 43. EFFECT SEND

This is used for adjusting volume of echo sound when sending echo sound to send jack

### 44. RETURN

This is used for adjusting frequency of echo repeat. Since too much echo repeat may caused a howl. Please adjust frequency properly.

### 45. RECORD PIN JACK

This jack is to be connected with cassette deck when recording the mixed output.

### 46. PLAY PIN JACK

This jack is to be connected with cassette deck when playing back.

## Power



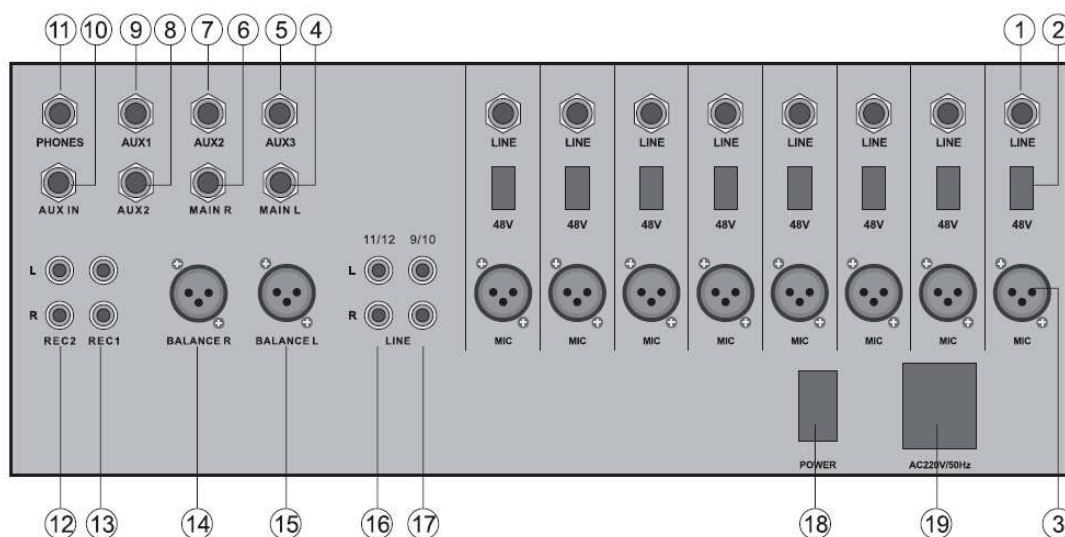
### 47. POWER SUPPLY INPUT SOCKET

Connect the power supply unit to this socket. Make sure the power supply unit is not plugged into mains before connecting to the mixer.

### 48. POWER ON/OFF SWITCH

This switch turn on and off the power of the unit.

## Rear Panel



### 1. LINE

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

### 2. PHANTOM SWITCH

This slide-switch turns the master phantom power on and off.

### 3. MIC

These are to be connected with microphone XLR jacks are used for the balanced signal.

### 4. MAIN L

Unbalanced left output of main audio signal

### 5. AUX 3

Unbalanced AUX audio signal output of SUB1

### 6. MAIN R

Unbalanced right output of main audio signal

Unbalanced AUX audio signal output of SUB2

#### 8. AUX 2

AUX2 audio signal output

#### 9. AUX 1

AUX1 audio signal output

#### 10. AUX 1

AUX audio signal input

#### 11. Phone

Audio signal output for monitor headphone

#### 12-13. REC1/2

Recording stereo signal output

#### 14. BALANCED R

Balanced main audio signal audio output –Right channel

#### 15. BALANCED L

Balanced main audio signal audio output –Left channel

#### 16-17. LINE R/L

Stereo signal input right/left channel

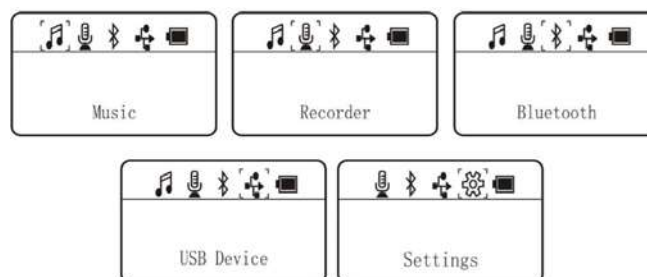
#### 18. POWER

Mixer power on/off switch

#### 19:AC220V/50Hz power input jack

## USB Recording Module

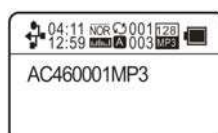
USB recording module menu include 5 sub-menu



Operation method:

- Press “ ◀ / ▶ ” to select the sub-menu.
- Press “ ▶ ” to enter the sub-menu.
- Press “ ≡ ” to exit current menu and back to previous menu.
- Hold and press “ ≡ ” 3 seconds back to the main menu

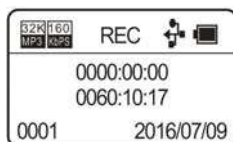
- ① Music: The device will play the audio file (mp3 format) automatically when USB flash disk connected USB interface, and user can select the audio file by press key “ ◀ / ▶ ”



Function key instruction:

Function Key	Instruction
PLAY/PAUSE ►	Short press: Play/Pause
	Long press: Sub-menu switch interface (MSC/REC/BT/SYS/UDI)
PREV ◀	PREV / V-: Short press for previous audio file, long press for decrease volume
NEXT ▶	NEXT / V+: Short press for next audio file, long press for increase volume
MENU ≡	Built-in sub-menu: U-disk folder/EQ/Play mode
	Long press: Enter recording mode

- ② Record: In this interface the record module can record the audio of the system, press key “►||” to start recording, please key “►||” again to pause recording, press “≡” to exit recording and play the record file automatically.



The record file will save in the folder named “Record”, the file format is \*.mp3

- ③ Bluetooth: In this interface user can use other Bluetooth device ( such as mobile phone) to connect it and play the audio, system Bluetooth device name “MP3-BT”

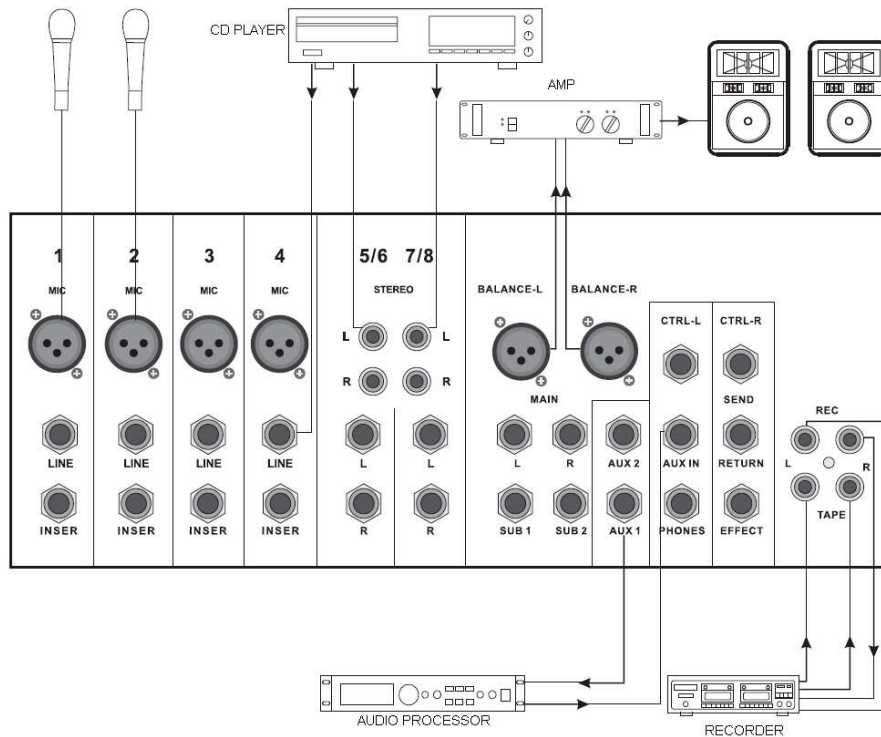


In Bluetooth interface, user can enter the Bluetooth function by press key “≡” and check all Information with key “◀ / ▶”

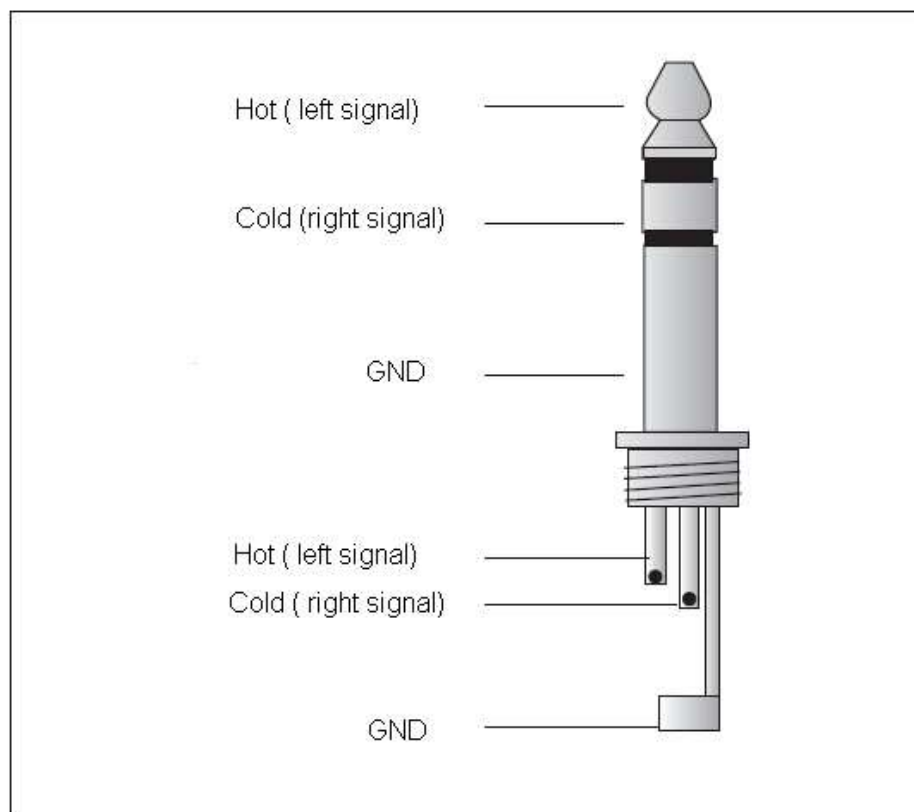
- ④ UDI: User can connect computer or other devices to USB interface to play the audio file
- ⑤ Setting: User can set the system function by press key “◀ / ▶” in this interface
- ✓ Language: To set display language
  - ✓ Contrast: The set LCD display contrast (Level 0-15)
  - ✓ Version: To display device version
  - ✓ Exit

# System connection

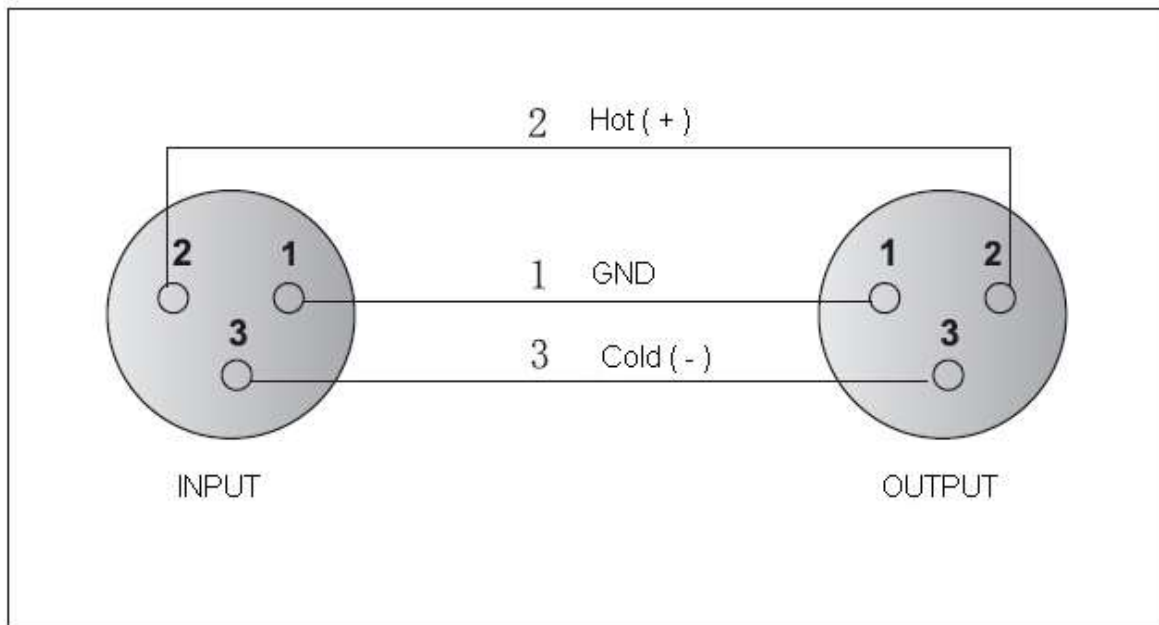
## 1. Connection of mixer function key



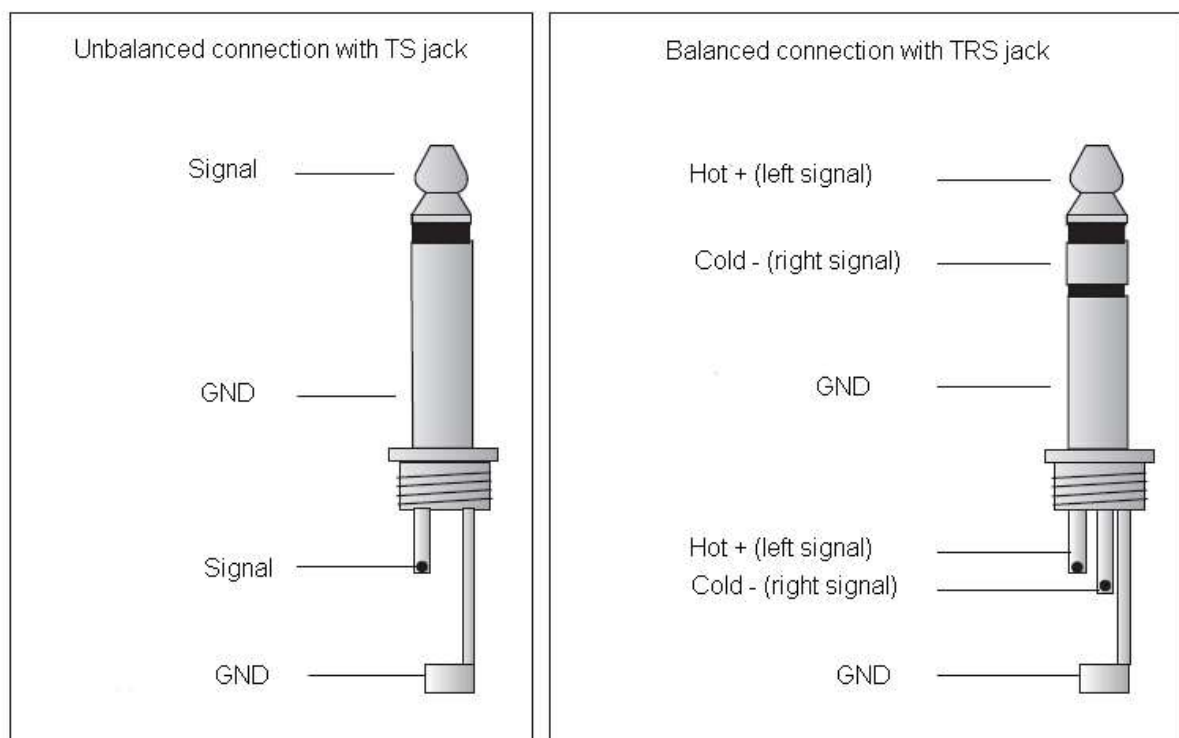
## 2. Connection of headset jack



### 3. Balanced input connection

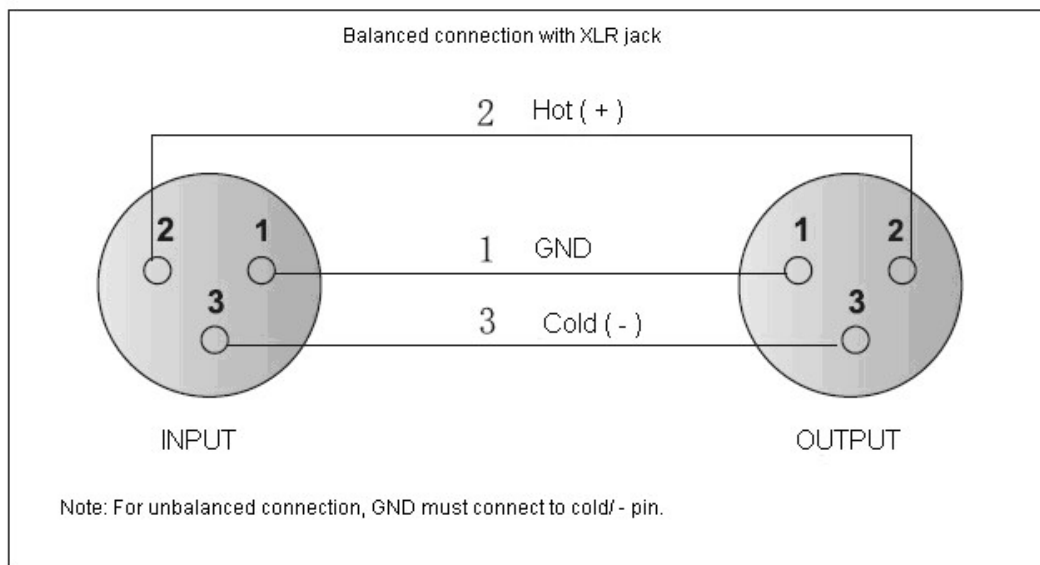


### 4. Different type of connector



**Note:** If balanced(TRS) jack connect to unbalanced (TS) jack, hot (+) terminal can not connect to cold (-) terminal.





## Usually Set Up

Even if you do not like to read manual, please read this section.

This procedure is very important, even if you do not like to read manual. Please read this section. After you connected up the system, you are ready to set the initial set up for every input channel, the matching of every input trim to the signal source is crucial. Every detail will affect the final output of the mixer. Basically, the input sensitivity adjustment, channel fader, groups and output fader is the main factors. You should try to set only as much microphone trim as required to achieve good balanced between signals. If the input gain is set too low, you will not get enough gain on the faders to push the signal up to adequate level, if the input gain is set too high, the channel fader will need to be pulled down in compensation, but leave the greater risk of feedback because a small fader movements will have a very significant effect on output level. Certainly, the limited fader travel path will not successful in the mixing procedure. Please use the following set up procedure, do not use the old way: turning the output up until they clip and then backing off

Follow the procedure for each channel in use

- Set all faders and gain controls all the way off.
- Phantom powered microphone should be connected before the +48V is switched on.
- Set power amplifier level to 70%.
- Set the CTRL RM level and Headphone level to about 50%.
- If you want to hear what you are doing later, plug your headphone into the phone output socket, or hook up your control room amplifier system to the Control Room outputs.
- Set EQ control at center position.
- Set PAN and BALANCED knobs at center position.
- You need a headphone to continue.
- Apply a typical performance level signal monitoring the level on the LED meter.
- Adjust the input gain until the meter show in the amber section with occasional peak to the first red LED at maximum source level. This allows enough headroom to accommodate peak and the

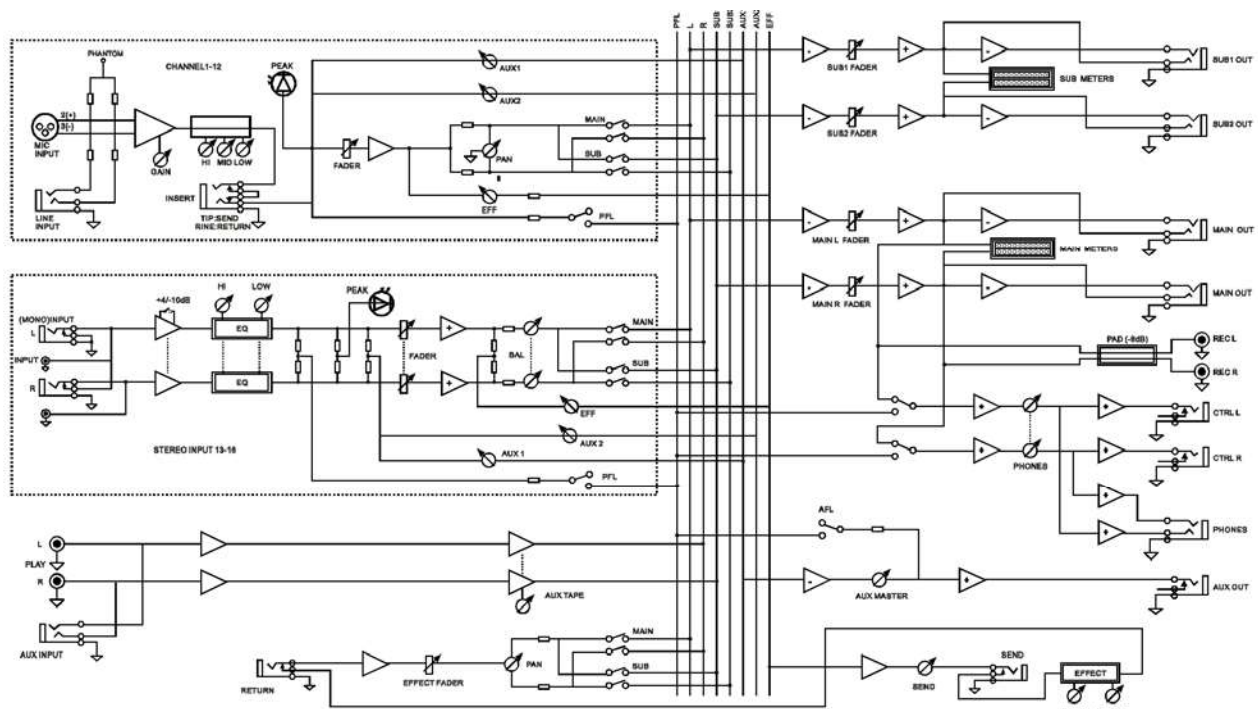
maximum level for normal operation; you can listen to them through your headphone.

- For +4 line level audio signals, slide the +4/-10 switch to +4.
- For -10 sources. slide the +4/-10 switch to -10.
- For microphone source, the gain control adjustment will depend on what kind of the microphone you use, normally turn the gain clockwise around 2-3 o'clock. But please ask the singer to perform alive, do not whisper. If they did not wake up while you are doing the sound check when they are back to alive, you might drive the mixer overload or produce the feedback, because you Set the gain too high during the initial set up.

Most often mistakes in audio installation are incorrect and deflective audio

- Repeat this procedure on every other channel, when more channels are added to the mixer. the meters LED may move up to the red section. adjust the overall level using the Pilaster faders if necessary.

## System Diagram



## Safety Precautions

CAUTION:

**TO REDUCE THE RISK OF ELECTRIC SHOCK.D0 NOT REMOVE COVER (OR BACK).NO USER SERVICEABLE PARTS INSIDE.REFER ALL SERVICING TO QUALIFIED SERVICE PERSONNEL.**

Keep this mixer away from dust anti dirty environment: cover the unit whit not in use.Using a soft dry brush anti occasional wipe with a damp cloth, do not use any other solvents, which may cause damage to paint or plastic parts. Regular rare and inspection will be rewarded by a long life and maximum reliability.

1. Check the AC voltage before connecting the AC plug. This product is equipped with a 3-wire grounding type plug; this is a safety feature and should not be defeated. Proper grounding is a must practice to prevent electric shock hazard to the operator, the microphone user and the musicians who wired to this unit.
2. Before switch on the main power, keep all the output faders all the way down to prevent damaging or excessive noise caused by bad level adjustment wrong wiring, defective cables, or bad connection.
3. Always turn on the power before the power amplifier, turn off the mixer after the amplifier.
4. Always turn off the power before connecting and disconnecting the unit.
5. Never use solvents to clean the unit, clean with a soft dry cloth.