

MIX 502 | MIX 802 | MIX 1202



Owner's Manual

MIX SERIES MIXER



Important Safety Instructions

For your own safety you should read through this chapter at first completely!



Risk of electrical shocks!

- Only connect the device to a properly wired and earthed mains power socket with mains voltage of 230 V ~ /50 Hz.
- Do not operate the device if the power cord or the mains plug are damaged.
- Never submerge the device in water. Wipe it with a slightly moistened cloth only.
- Do not expose the device to rain and never use it in a damp or wet environment.
- Make sure that the power cord never becomes wet or moist during use.
- Under no circumstances may you open the device housing. Should you do so your safety would not be assured and the warranty will become void. There are no operational components whatsoever inside, only really high voltage that can give you a deadly shock!
- Do not place objects containing fluids, e.g. flower vases or beer bottles, on or near the device.
- Always operate the device only on a correctly earthed socket, never sever the power cord's earth wire. Otherwise a LIFE THREATENING situation exists!
- Notice regarding disconnection from mains-power:
To completely disconnect the device from mains power, you must pull the plug from the power socket. For this reason the device should be placed in a position where unobstructed access to the power socket is assured at all times, so that in an emergency you will be able to immediately pull out the plug. To eliminate the risk of fire you should completely disconnect the power plug from the power socket when the device is not going to be used.
- Always grasp the power cord by the plug. Do not pull on the cord itself and never touch the power cord with wet hands as this could result in a short circuit or an electrical shock. Do not place the device, speakers or anything else on the power cord and make sure that it does not become clamped. Never tie knots in the power cord and do not bind it together with other cables. Lay the power cord so that no one can step on or stumble over it. A damaged power cord can cause a fire or an electrical shock. Check the power cord from time to time. Should it become damaged contact our customer service department to have it replaced.
- Never manipulate the power cord of the plug. If a power cord is provided with an earth lead, this is mandatory to ensure safe operation!

Risk of fire!

- Never leave the device unattended during operation.
- Never cover the ventilation slots of the device while it is on. Do not place the device in locations that are subject to direct sunlight. If you do, it may overheat and become irreparably damaged.
- Do not operate the amplifier on surfaces that restrict normal airflow around the device, for example, a bed, sofa, carpet or similar surfaces.
- Do not place open fire sources, such as candles, on the device.
- Never operate the amplifier in the vicinity of heat sources such as cookers, heating elements or other heat producing installations.
- Before a storm and/or a thunderstorm with a risk of lightning, please disconnect the device from the electrical power source.

Risk of personal injury!

- Keep children away from the power cord and the device. Children frequently underestimate the dangers of electrical devices.
- Provide a stable location for the device.
- Do not operate the device if it has sustained a fall or is damaged. Have the device checked or, if necessary, repaired by qualified technicians.
- Don't expose yourself to excessive sound pressure levels. Even a SPL of just 90dB may damage your hearing.



Cleaning and Maintenance

- Never immerse the device into water or any other liquid! Never let any liquid get into the housing. This would damage the device or cause a short circuit.
- Disconnect the unit from the mains before any cleaning. Clean the surface of the housing with a damp cloth. Never use cleaning agents that contain petrol, solvents, or any aggressive substance. They could damage the housing's surface.

Introduction

Thank you for purchasing the MIX series mixing console. This series include four mixers (MIX 502/MIX 802/MIX 1202). There is 2-band EQ on all mono channels (MIX 502), and 3-band EQ on mono channels and stereo channels (MIX 802/MIX1202). These mixers are really ideal for small club gigs.

Please read this manual carefully so you can take advantages of all the features of the MIX series. Thank you again for making the right choice in purchasing the T.MIX MUSIC GEAR.

Features

MIX 502

- ▶ 1 mono inputs with gold plated XLR and balanced TRS jack
- ▶ 2 Inputs with balanced TRS jack stereo
- ▶ 2-band EQ on mono channel
- ▶ 2-Track IN/OUT (CD/TAPE)
- ▶ Balanced TRS jack outputs

MIX 802/MIX 1202

- ▶ 2 mono inputs (4 for MIX 1202) with gold plated XLR and balanced TRS jack
- ▶ 4 (2 for MIX 802) inputs with balanced TRS jack stereo
- ▶ GAIN control and +48V phantom power for mono inputs
- ▶ 3-band EQ on all mono channels (MIX 1202) and stereo channels (MIX 802)
- ▶ 3-band EQ (plus 75Hz low cut filter) on all mono channels (for MIX 1202)
- ▶ Peak LED in each channel
- ▶ 2-Track IN/OUT (CD/TAPE) with discrete switches for routing to Control Room and to Main Mix

Useful Data

Please write your serial number here for future reference.:

Serial Number:

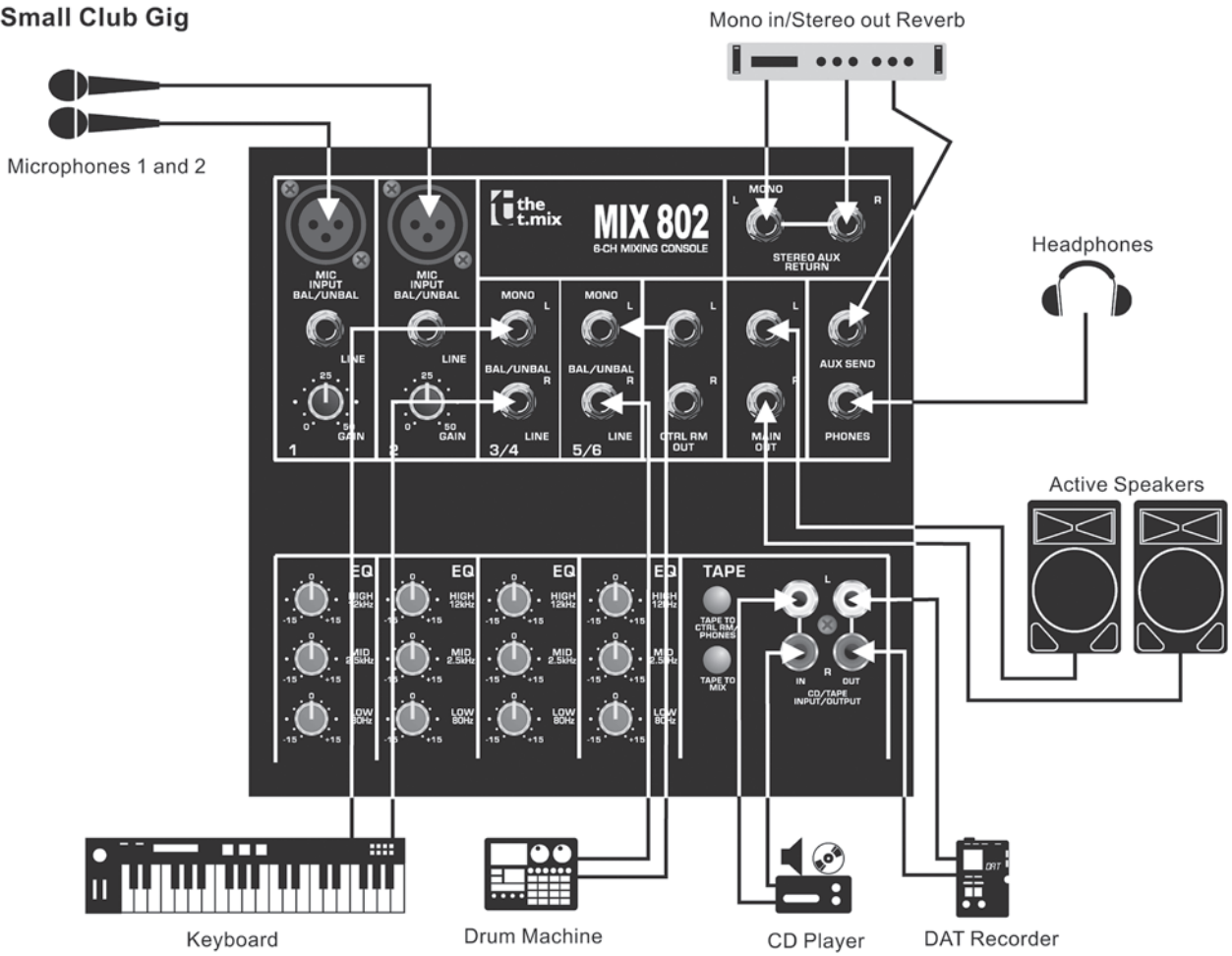
Date of Purchase:

Purchased at:

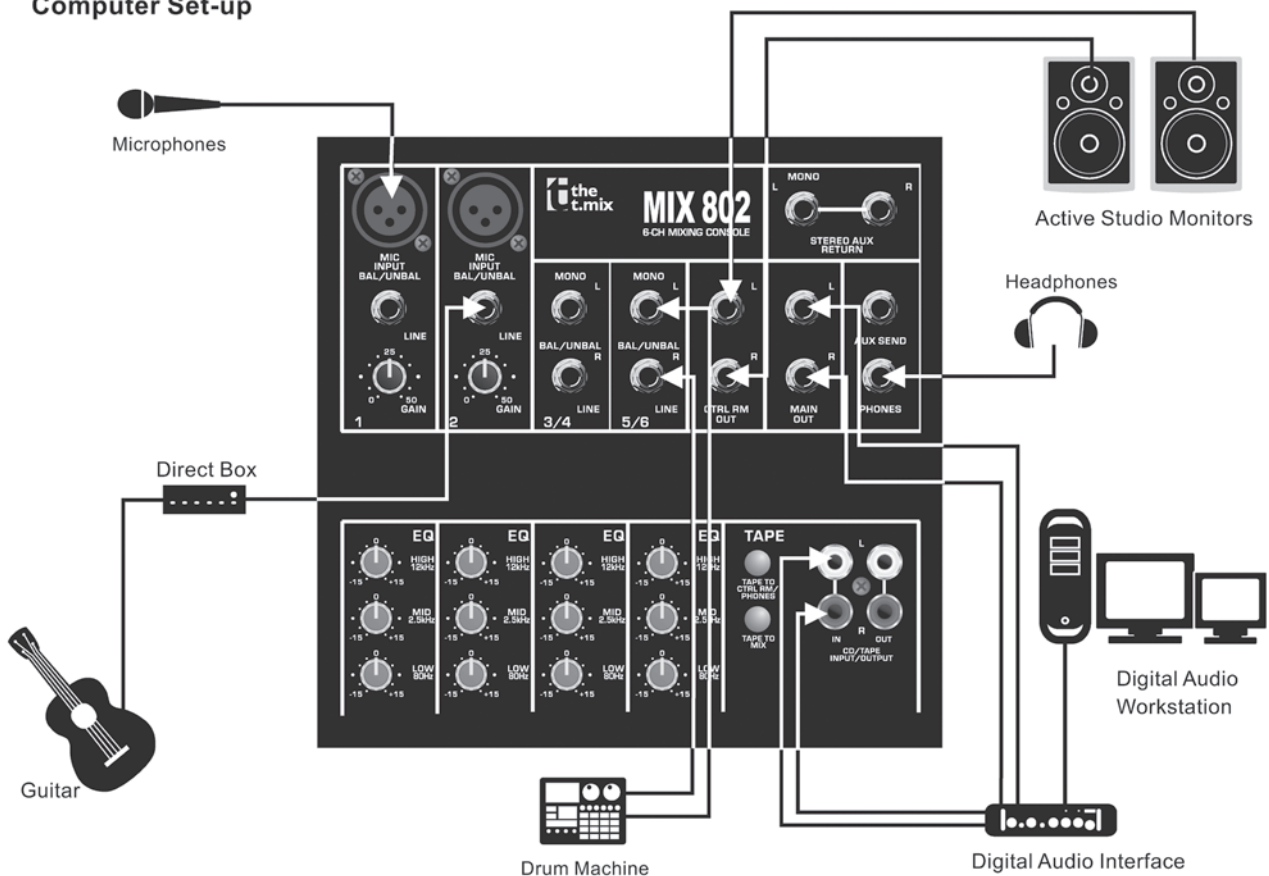
Hookup Diagrams

When connecting equipment be sure to have all units switched off before. All volume controls must be turned down. Please check these hookup diagrams to learn how to connect your mixer to other devices.

Small Club Gig



Computer Set-up

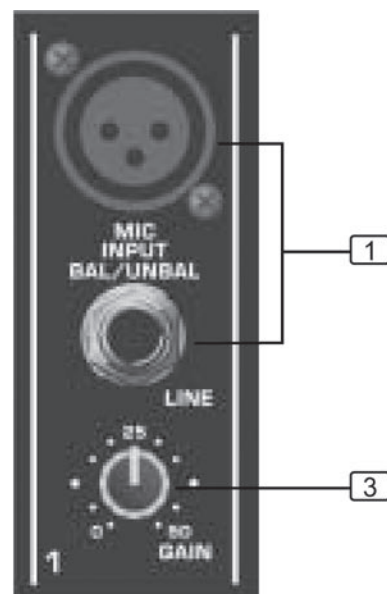


Control Elements

Mono MIC Input ①

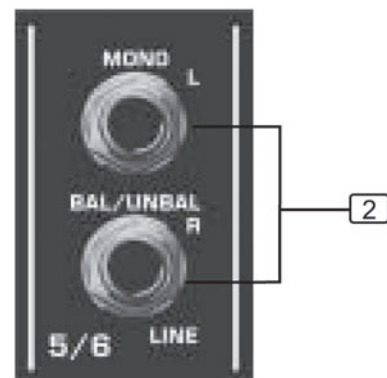
The MIX series is equipped with one or more low-noise microphone preamplifiers with optional phantom power providing up to 50dB of amplification. You can connect almost any type of microphone. Dynamic microphones do not need phantom power. Use phantom power only with condenser microphones but make sure that the phantom power switch is disengaged before connecting the microphone. Phantom power will not damage your dynamic microphones but it may damage tube or ribbon microphones so make sure to read the microphone instructions manual before engaging phantom power switch. The input is also equipped with 1/4" TRS balanced and TS unbalanced LINE IN plug, you can connect with line-level instruments, such as synthesizers, keyboards, drum machines or effect devices.

NOTE: Never try to connect a line-level signal to the XLR MIC input when the phantom power is engaged, doing this you may seriously damage your equipment.



LINE INPUTS ②

They are organized in stereo pair and provided with 1/4" TRS sockets. It is used to connect the stereo device, plug both the left input and the right input. Using the left input if connect a mono input signal to the STEREO INPUT, the signal will appear on both sides.

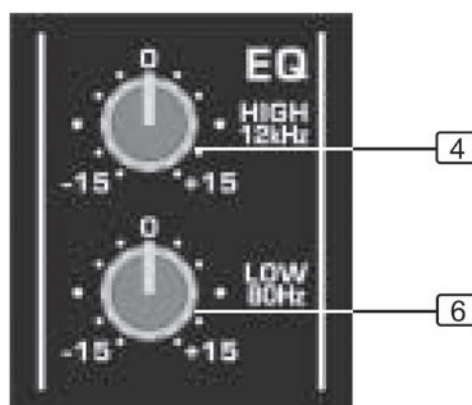
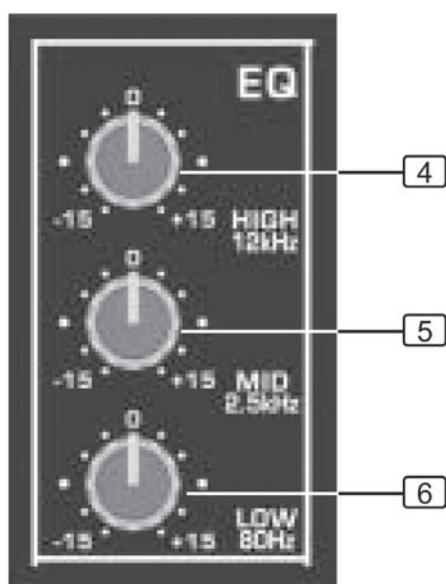


GAIN CONTROL ③

This GAIN control is used to control the input sensitivity of the MIC and LINE inputs. The adjustable range goes from 0 dB to 50dB.

EQUALIZATION

The MIX series has 3-band EQ on all mono channels (except MIX 502 has 2-band EQ). And only the MIX 802 has EQ controls on stereo channels. All bands provide up to 15 dB boost or cut.



HIGH ④

This is the treble control. You can use it to get rid of high frequency of the human voice. The gain range goes from -15 dB to +15 dB with a centre frequency of 12 kHz.

MID EQ (except MIX 502) ⑤

This control provides 15 dB boost or cut at 2.5 kHz. It can affect most fundamental frequencies of all musical instruments and human voice.

LOW EQ ⑥

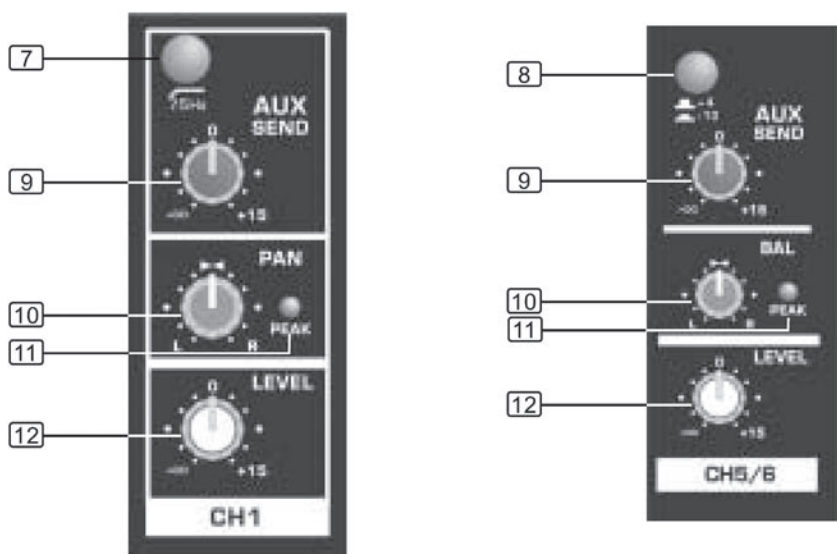
This is the bass control. It is used to boost male voice, kick-drum or bass guitar. Your system will sound much bigger than what it is. The gain range goes from -15 dB to +15 dB and the center frequency is 80 Hz.

75 Hz Low-Cut Switch (MIX 1202 only) ⑦

By pressing this button you will activate a 75Hz low frequency filter that cuts the bass frequency below 75Hz. You can use this switch to reduce the hum noise caused by the mains power supply, or the stage rumble while using a microphone.

+4/-10 Switch (MX 1202 only) ⑧

These switches are used to select the input sensitivity of the line inputs on the stereo channels. +4 dBu is suitable for professional audio devices and -10 dBV is suitable for general devices. If not sure to use which setting, try +4 dBu first, then change it to -10 dBV if the volume is too small to be satisfied.



AUX Send (except MIX 502) ⑨

This control is used to feed the mono input of parallel effects devices or the input of a stage monitor amplifier via the AUX SEND output jack. All the channel controls (except PAN / BAL) will affect the AUX signal. The signal is tapped off after the LEVEL control. The output from an external processor can come back via the STEREO AUX RETURN inputs (on the MIX 802) or stereo channel (MIX 1202), and be added to the main mix.

PAN/BAL 10

Abbreviation of PANORAMA control for mono channels, for the stereo channels, always says, BALANCE control. You can adjust the stereo image of the signal via this control. For mono MIC/LINE channels, keep PAN control in centre position and your signal will be positioned in the middle of stage that is to say the mono signal appears equally in both sides. Turn this control fully counterclockwise and the signal will be present only on the left speaker and vice-versa. For stereo channels, by rotating the BAL control, you can attenuate the signal of left or right. It means if turn the control to left, the right channel will be attenuated; if turned to right, the left channel will be attenuated.

PEAK LED 11

When this LED blinks, it warns you that you are reaching signal saturation and possible distortion. From this LED you can adjust the correct level, not too strong to cause distortion and not too weak to be lost in noise.

LEVEL 12

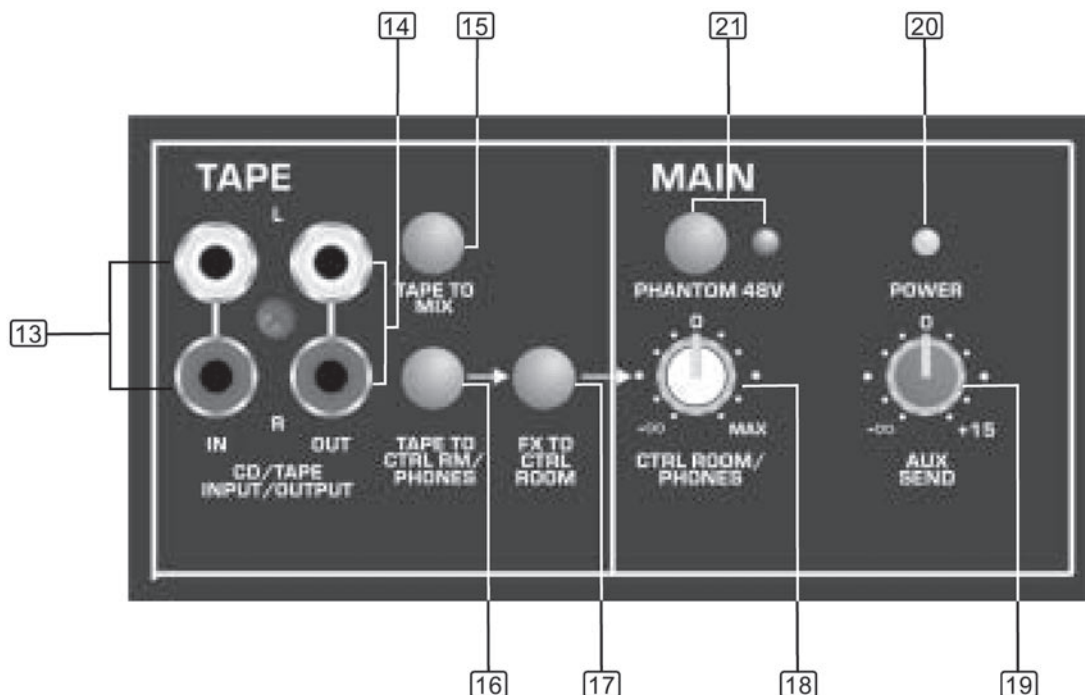
This control will adjust the overall level of this channel. If you set the LEVEL control in max, it's usually a sign that your GAIN is set too low. If set the LEVEL control in min, your GAIN may be too high.

CD/TAPE INPUTS 13

Use the Tape Input if you wish to listen to your mixer from a Taper Recorder or DAT. When the TAPE TO MIX switch is pushed in, the signal coming from Taper Recorder will assign to main mix; when the CD/TAPE switch which on the front panel is engaged in the signal can also be assigned to the CONTROL ROOM/PHONES outputs. If you connect a mono device, you will need a „Y-splitter“ RCA adapter.

TAPE OUTPUTS 14

These RCA jacks will assign the main out signal to a tape recorder or DAT. The TAPE OUT level is affected by MAIN MIX control.



TAPE TO MIX Switch 15

Connect a CD or Tape Deck to the CD/TAPE inputs, and push down this switch to add the CD/TAPE signal to the main mix. The volume level is controlled by MAIN MIX control.

TAPE TO CTRL RM/PHONES Switch (TAPE TO PHONES on MIX 502) 16

Switch is used to select the signal source for the CONTROL ROOM outputs, PHONES, and METERS. Release this switch, they all receive the main mix signal tapped after the MAIN MIX control. Engage this switch, they all receive the CD/TAPE Input signal. Turn down the CTRL ROOM/PHONES control (just PHONES on the MIX 502) before engaging.

FX TO CTRL ROOM Switch (MIX 1202 only) 17

Engage this switch to monitor the aux send signal in the Control Room/Phones outputs.

CTRL ROOM/PHONES Control (PHONES control on the MIX 502) 18

This control is used to adjust the signal level going to the CONTROL ROOM/PHONES outputs. And it won't affect the Main Mix output.

MASTER AUX SEND Control (except MIX 502) 19

This knob is used to determine the master AUX SEND levels. The adjustable range is from - to +15 dB. When the external effect unit connected to mixer has no input gain control, you can get a further +15 dB gain available from these AUX SEND outputs.

POWER LED 20

This LED lights up when the power switch is turned on.

PHANTOM 48V Switch and LED 21

This +48VDC Phantom Power switch only apply to the XLR microphone inputs. Never connect microphones when the phantom power is on already. The LED near to this switch will light up when the phantom power is switched on.

NOTE: Turn down all output levels before operating this switch to avoid the possibility of „pop“ in your speakers. Do not use phantom power with tube or ribbon microphones, as this may cause damage.

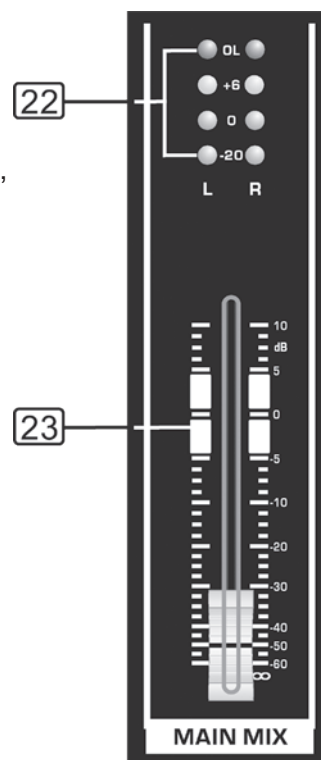
METERS 22

This stereo LED meter will indicate the level of the overall output signal.

MAIN MIX 23

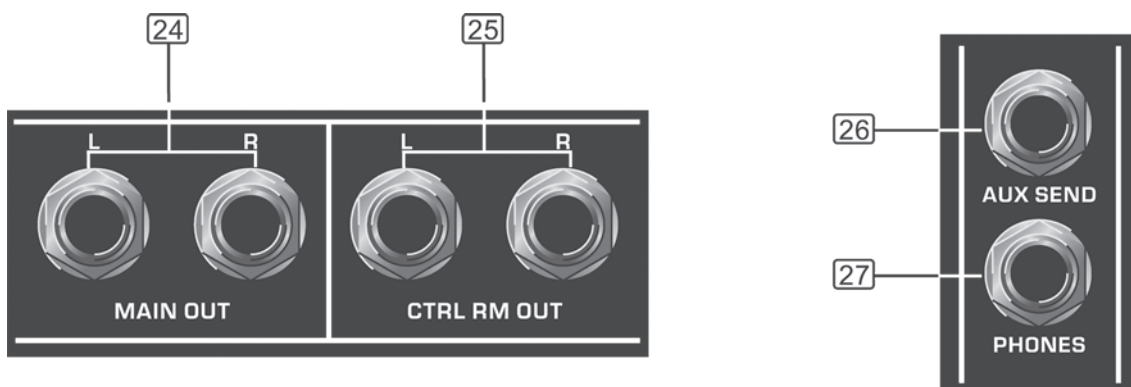
This control sets the level of main mix signals sent to the Main Outputs, Tape Outputs, CONTROL ROOM, PHONES, and LED Display. On the MIX 502 and MIX 802, this is a rotary control; on the MIX 1202, this is a fader.

Note: When connecting a speaker to the speaker output jacks, please pay more attention to the level setting for avoiding damaging the speaker. Generally speaking, the faders will be positioned between 0 dB and the +5 dB.



MAIN OUT 24

These 1/4" TRS jacks represent the end of the mixer chain, where your fully mixed stereo signal enters the real world. Connect these outputs to the inputs of your amplifiers, powered speakers, or serial effects processor (graphic equalizer, for example).



CTRL ROOM OUT 25

These 1/4" TRS are used to assign the control room signal to the studio monitor speakers. They can also be used to provide another main mix output, or to monitor the CD/TAPE Inputs (when engage the TAPE TO CTRL RM/PHONES switch), or to monitor the aux send signal (MIX 1202 only with FX TO CTRL ROOM switch is engaged)

AUX SEND OUT 26

These 1/4" TRS are used to send out the signal from the AUX bus to external device such as effects equipment. Each channel has an AUX SEND control knob that adjusts how much of that channel's signal appear at each of the output. This output is affected by the channel LEVEL, but not MAIN MIX control.

PHONES OUTPUT 27

This jack is used to send out the mix signal to a pair of headphones, and the signal is the same as the CTRL RM OUTS outputs. The level is controlled by the CTRL ROOM/PHONES knob. You can listen to the Main Mix, the CD/TAPE, or the AUX SEND (MIX 1202) depending upon the position of the TAPE TO CTRL RM/PHONES switch and FX TO CTRL ROOM switch.

Rear Panel





POWER IN 28

This connection is where you connect the supplied external AC power supply to provide AC power to the mixer. Connect the external power supply to your mixer first, then plug the power supply into a suitable and properly rated AC outlet.

NOTE: Make sure you use the correct external power supply cable of providing 18.5 VACx2 at 150 milliamperes.

Installation Tips

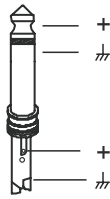
1. Speakers should be placed in a position that allows for unobstructed sound projection. In many instances is beneficial for speakers to be elevated on tripod stands to achieve maximum dispersion and reach.
2. Use professional advice or service when hanging and installing speakers. Please take precautions to secure them to prevent them from falling and hurting someone. Care should be taken as to not damage the cabinet or its components. Please comply with all pertinent Regulations. 
3. Use quality cables. Using quality cables will ensure the best possible sound.
4. For best results match the speakers to a good amplifier that matches the wattage and impedance of your speakers. Proper amplification power results in good quality audio and longer component life. Check out the power requirement for your cabinet.
5. Avoid pointing a microphone directly at an amplified speaker doing so, could cause feedback possibly damaging speaker components and your hearing. 

Enjoy the sound!

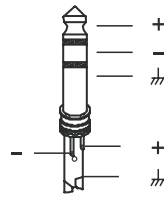
Wire Connections

Either the 1/4" TRS phone jack or XLR connector can be wired in balanced and unbalanced modes, which will be determined by the actual application status, please wire your system as the following wiring examples:.

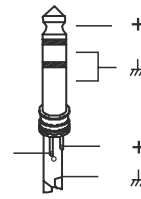
1/4 phone jack



TS type, unbalanced

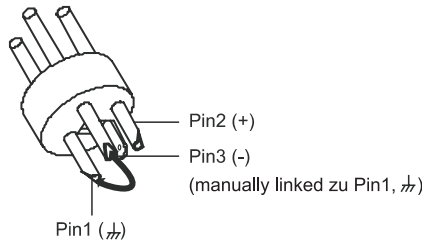


TRS type, balanced

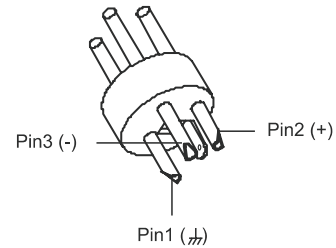


Stereoklinke, unbalanced

XLR connector



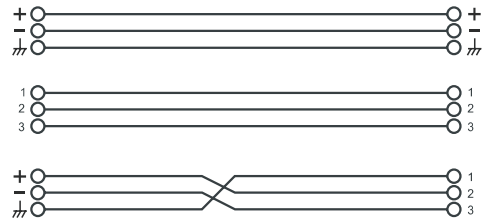
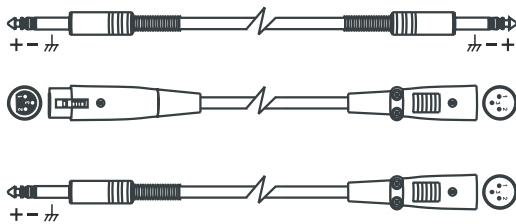
XLR type, unbalanced



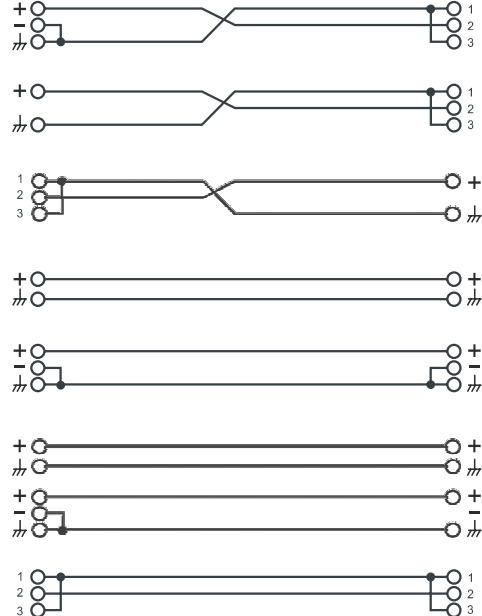
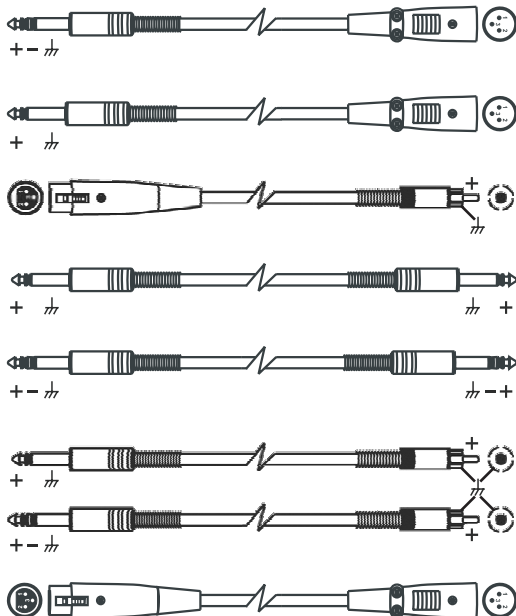
XLR type, balanced

For these applications the unit provides 1/4" TRS and XLR connectors to easily interface with most professional audio devices. Follow the configuration examples below for your particular connection.

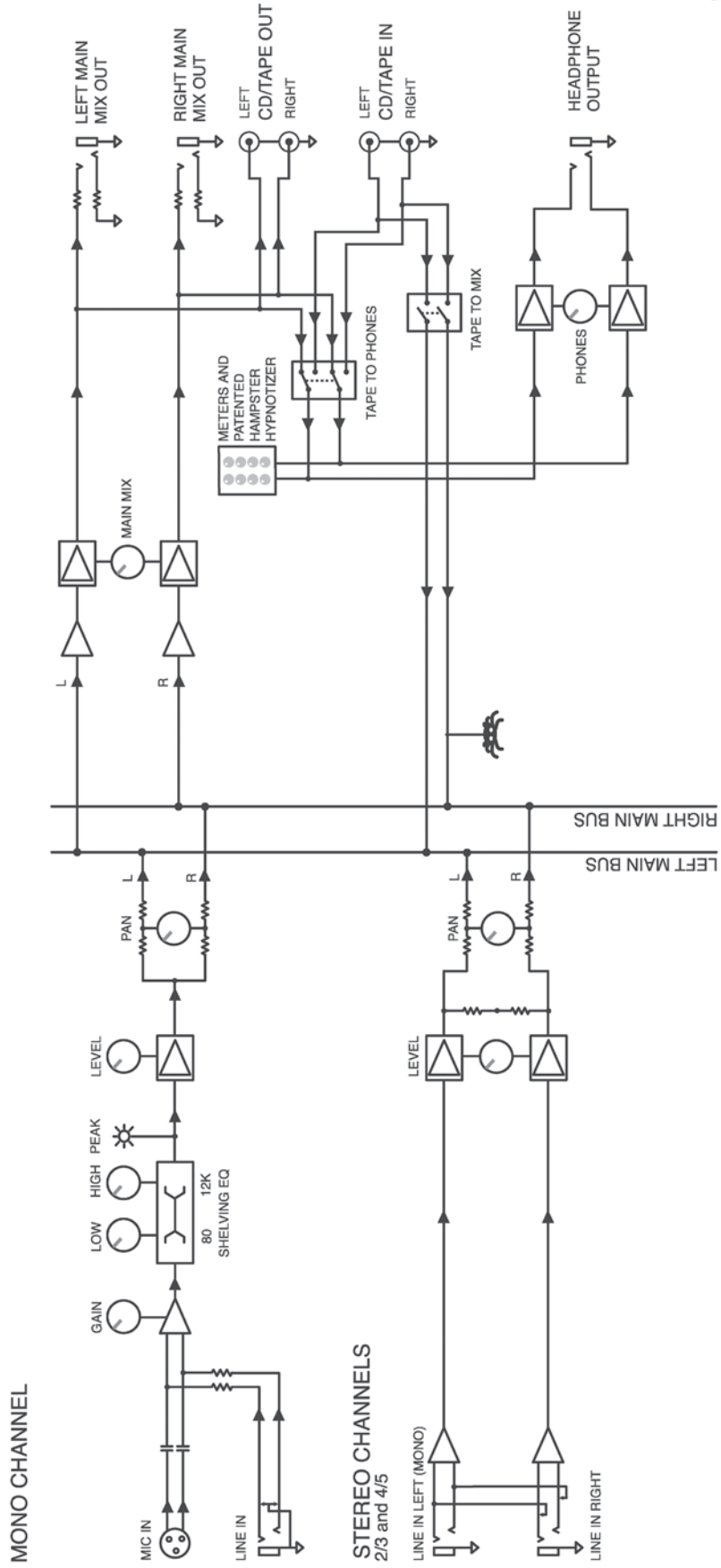
• balanced

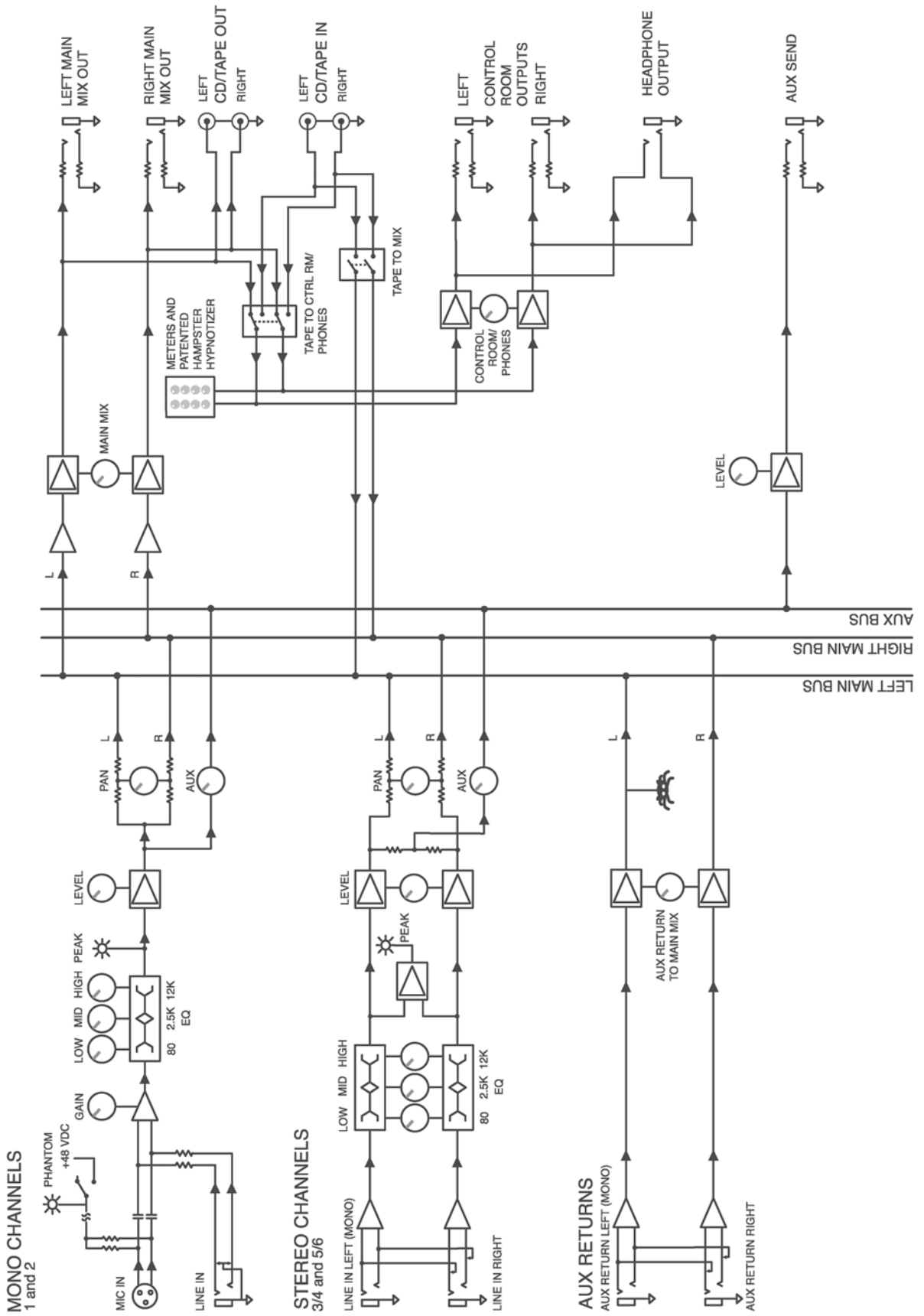


• unbalanced

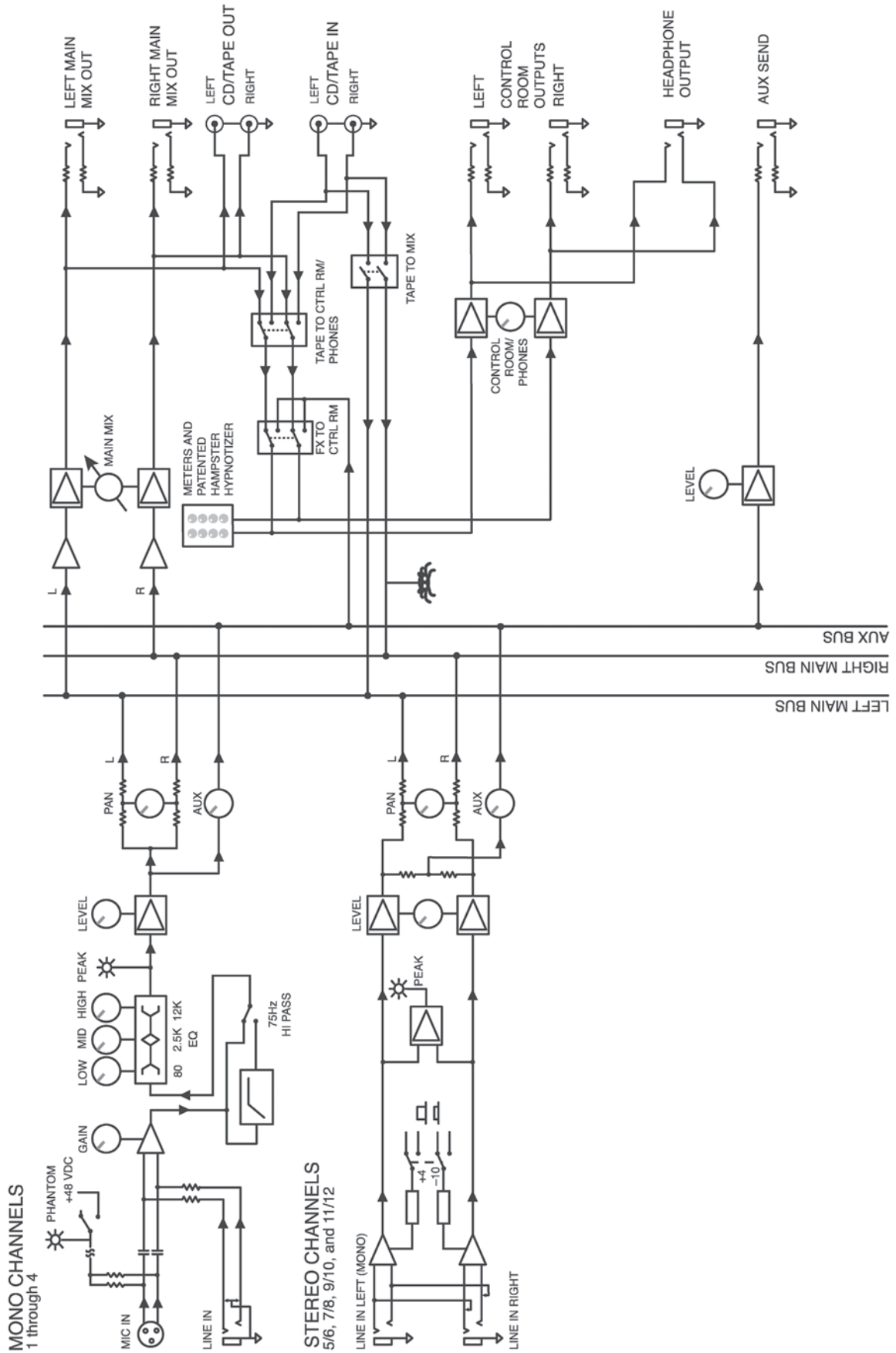


MIX 502





MIX 1202



Technical Specifications

Frequency Response	Mic Input to any Output (Trim at 0 dB)	
	+0, -1dB	10 Hz to 150 kHz
	-3 dB	10 Hz to 200 kHz
Distortion	THD and SMPTE IMD	20 Hz to 20 kHz
	Mic Input to Main Output	<0.005% @+4 dBu Output
Noise	20 Hz to 20 kHz BW (150 Ohm source impedance)	
	Equivalent Input Noise (EIN)	-129 dBu
	Residual Output Noise	
CMRR	Main, Ctrl Room, Phones	-106 dBu
	Mic In	60 dB@1 kHz, Gain@maximum
Crosstalk	Adjacent Inputs or Input to Output	-90 dB@1 kHz
	Input Gain Control Range	0 dB to 50 dB
Equalization	Phantom Power	+48 VDC
	High	+/-15 dB@12 kHz
	Mid (except for MIX 502)	+/-12 dB@2.5 kHz
Mixer Rated Output	Low	+/-15 dB@80 Hz
	Main, Aux, Control Room	+4 dBu
Max. Eingangspegel	Maximum Rated Output	+22 dBu
	Mic Input	+12 dBu, Gain @+10 dB
	Line Input	+30 dBu, Gain @+10 dB
Maximum Input Levels	Tape Input and Aux Return	+22 dBu
	Mic Input	2.6 k Ω , balanced
	Line Input	20 k Ω , balanced
	Stereo Aux Returns	20 k Ω , balanced
Output Impedance	CD/Tape In	24 k Ω , unbalanced
	Main	240 Ω , balanced 120 Ω , unbalanced
	Ctrl Room, Aux Sends	120 Ω
	Tape Output	1 k Ω
VU Meters	Phones Output	25 Ω
	Main Left and Right (4-segment)	Clip (+18), +6, 0, -20 (0 LED=0 dBu)
AC Power Requirements	External Power Supply Output	2x18.5 VAC@150 mA (3-pin AC power connection)
	External Power Supply AC Input	
	U.S.	120 VAC, 60 Hz
	Europe	240 VAC, 50 Hz
	Japan	100 VAC, 50/60 Hz
	Korea	220 VAC, 60 Hz
Physical	Dimensions (W x H x D)	
	MIX 502	41 x 133 x 203 mm (1.6" x 5.2" x 8.0")
	MIX 802	(203 " x 5.2" x 1.6") x 133 x 41 mm (8.0
	MIX 1202	41 x 272 x 259 mm (1.6" x 10.7" x 10.2")
	Net Weight	
	MIX 502/MIX 802	0.7 kg (1.6 lb)/1.2 kg (2.7 lb)
	MIX 1202	1.4 kg (3.1 lb)/1.8 kg (3.9 lb)

Our products are subject to a process of continual further development. Therefore modifications to the technical features remain subject to change without further notice.

Disposal

Never throw the device into the regular household waste at the end of its useful life. This product is subject to the European Directive 2002/96/EC.



- Never throw the device into the regular household waste at the end of its useful life. This product is subject to the European Directive 2002/96/EC.
- Dispose of the device through an approved disposal centre or at your community waste facility.
- Observe the current existing regulations. In case of doubt contact your disposal facility.
- The packaging is certified via a dual system. Take all packaging materials to an environmentally friendly disposal facility in compliance with the local regulations.



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