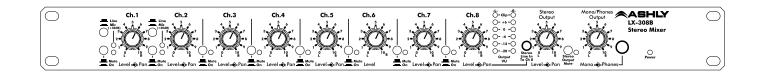


# LX-308B Stereo Line/Microphone Mixer

# **Operating Manual**



# **ASHLY AUDIO INC.**

# Important Safety Instructions Consignes de sécurité à lire attentivement







The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons. The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the device.

Le symbole de la flèche dans un triangle équilateral symbolisant la foudre est prévu pour sensibiliser l'utilisateur à la présence de tension de voltage non isolée à l'intérieur de l'appareil. Elle pourrait constituer un danger de risque de décharge électrique pour les utilisateurs. Le point d'exclamation dans le triangle équilatérale alerte l'utilisateur de la présence de consignes qu'il doit d'abord consulter avant d'utiliser l'appareil.

- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- Follow all instructions.
- 5. To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
- 6. Do not use this apparatus near water.
- 7. Clean only with dry cloth.
- 8. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 9. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus.
- 10. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 11. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 12. Only use attachments/accessories specified by the manufacturer.
- 13. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 14. Unplug this apparatus during lightning storms or when unused for long periods of time.
- 15. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

- Lisez ces instructions.
- 2. Conservez ces instructions.
- Observez les avertissements.
- Suivez ces instructions.
- Pour réduire le risque de feu ou la décharge électrique, ne pas exposer cet appareil pour pleuvoir ou l'humidité.
- 6. Ne pas utiliser l'appareil près de l'eau.
- Le nettoyer à l'aide d'un tissus sec.
- 8. Ne pas bloquer les ouvertures de ventilation, installer selon les consignes du fabricant
- 9. Eloigner des sources de chaleur tel: radiateurs, fourneaux ou autres appareils qui produisent de la chaleur.
- 10. Ne pas modifier ou amputer le système de la mise à terre. Une prise avec mise à terre comprend deux lames dont une plus large ainsi qu'une mise à terre: ne pas la couper ou la modifier. Si la prise murale n'accepte pas la fiche, consulter un électricien pour qu'il remplace la prise désuète.
- 11. Protéger le cordon de secteur contre tous bris ou pincement qui pourraient l'endommager, soit à la fiche murale ou à l'appareil.
- 12. N'employer que les accessoires recommandés par le fabricant.
- 13. N'utiliser qu'avec les systèmes de fixation, chariots, trépied ou autres, approuvés par le fabricant ou vendus avec l'appareil.
- 14. Débrancher l'appareil lors des orages électriques ou si inutilisé pendant une longue période de temps.
- 15. Un entretient effectué par un centre de service accrédité est exigé si l'appareil a été endommagé de quelque façon: si il a été exposé à la pluie,, l'humidité ou s'il ne fonctionne pas normalement ou qu'il a été échappé.

# FCC Compliance

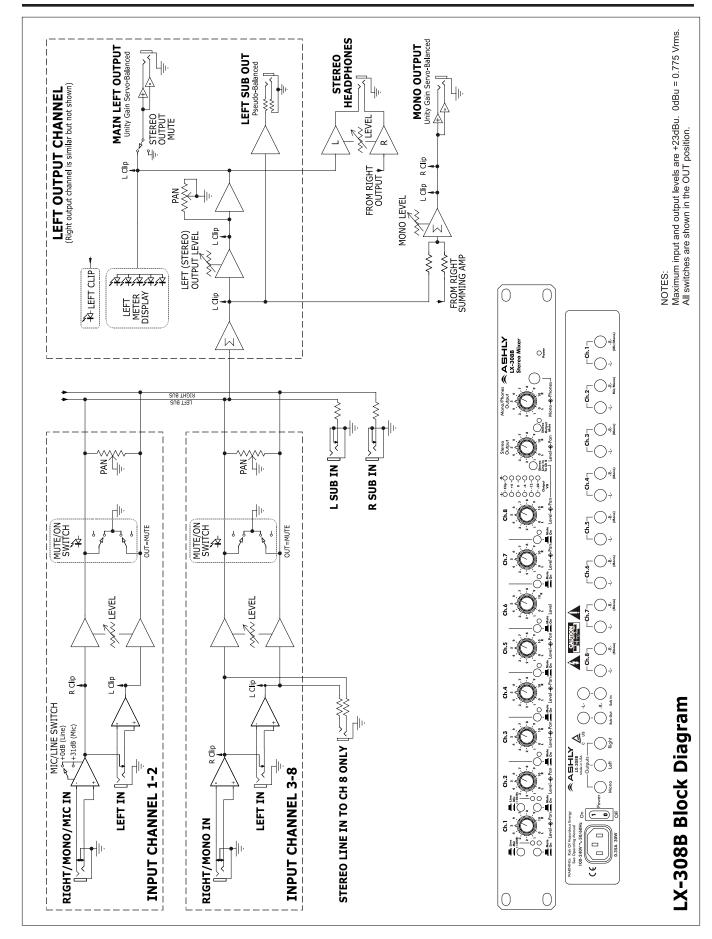
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

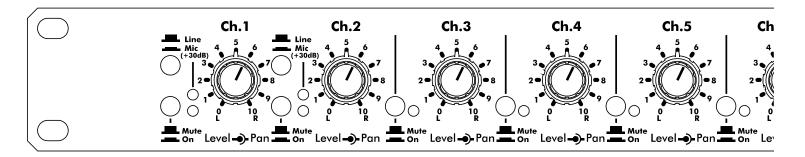
- 1. This device may not cause harmful interference
- 2. This device must accept any interference received, including interference that may cause undesired operation

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in both a commercial and residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.







# INTRODUCTION

Congratulations on your purchase of an Ashly LX-308B eight channel stereo line level mixer. Each channel has on/off switches and peak signal detection. Other features include eight balanced stereo inputs for line level sources, the first two inputs with switchable 30dB gain for low impedance dynamic microphones. An additional 3.5mm front panel input jack is provided on channel 8 for a walk-up portable audio player input. A concentric level and pan control for each input adjusts channel volume and stereo position. Submaster inputs and outputs are provided for cascading two or more mixers. Ultra low-noise summing amplifiers combine the channel signals for the main outputs. A pair of 6-segment LED meter arrays monitor the main output levels. Separate level controls are provided for stereo, mono, and headphone outputs.

#### **UNPACKING**

Every Ashly product is carefully inspected before leaving the factory to ensure flawless appearance. After unpacking, please inspect for any physical damage. Save the shipping carton and all packing materials, as they were carefully designed to reduce to minimum the possibility of transportation damage should the unit again require packing and shipping. In the event that damage has occurred, immediately notify the carrier so that a written claim to cover the damages can be initiated. The right to any claim against a public carrier can be forfeited if the carrier is not notified promptly and if the shipping carton and packing materials are not available for inspection by the carrier. Save all packing materials until the claim has been settled.

### AC POWER REQUIREMENTS

This LX-308B mixer has a universal AC power supply that will perform normally from 100 to 240 volts AC. Use only properly grounded AC receptacles. To reduce the risk of ground loop hum, use a central point for system AC power distribution. The AC line fuse is internal, and should only be changed by a qualified service technician.

#### **SECURITY COVERS**

For installations where it is desirable to protect the front panel controls from tampering or accidental misadjustment, use the Ashly security cover, which is available in both single and double rack space sizes. Installation is simple and does not require removal of the equipment from your rack. See your Ashly dealer for details.

#### FRONT PANEL FEATURES

#### 1 Channel Level

This is the individual channel volume control which feeds a channel to the main mix.

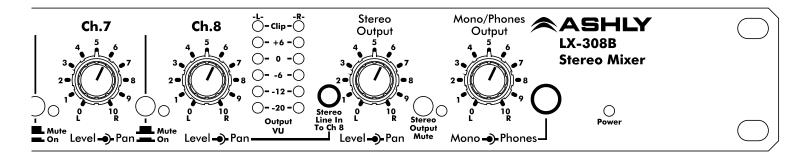
#### 2 Channel Pan

This control adjusts the position of the channel in the stereo mix.

#### 3 Mic/Line Switch

This switch on the first two inputs increases the channel input sensitivity by 30 dB to allow the use of low impedance dynamic microphones.





#### 4 On/Off Switch

This switch on each channel will turn the channel completely off allowing the channel level to remain at its desired setting when the input is not needed.

# **5 Output Meters**

A pair of peak detecting 6-segment LED meters are used to indicate output level. Green LED's are used below 0 VU, yellow above 0 VU, and red LED's indicate clipping. This meter pair monitors the main stereo output (0 VU = +4dBu). The red clipping LED's also monitor the summing amplifiers, making it possible for these indicators to illuminate even with the stereo output level turned off.

#### 6 Stereo Line In to Ch 8.

This front panel 3.5mm stereo jack is for a portable audio device input, and is controlled with the channel 8 input level knob. Channel 8 inputs on the back panel can still be used at the same time as the Stereo Line In jack, sharing the same level control.

#### 7 Stereo Output Level

This is the main master gain which sets the operating level for the entire mixer. This control does not effect the mono output level.

#### 8 Stereo Output Mute

This switch entirely mutes the main stereo output. The headphone and mono output are not affected. This is particularly useful when the LX-308 is used as a sub-mixer.

# 9 Mono Level

This is the master gain control for the mono output, which is the combined signal of the left and right outputs. It has no effect on the stereo output.

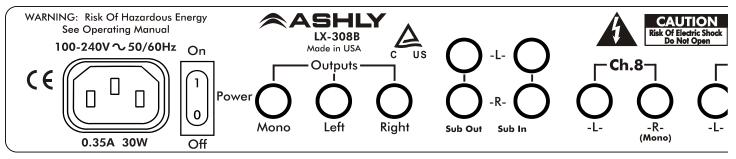
#### 10 Stereo Headphones Level

This adjusts the volume level of the front panel stereo headphone jack.

### 11 Power LED

This LED lights when the unit is turned on. The AC power switch is located on the back panel.





#### BACK PANEL FEATURES

# 1 Inputs

The LX-308B stereo inputs use two balanced 1/4" TRS phone jacks per channel, with (+) signal on the tip, the (-) signal on the ring, and ground on the sleeve. If you wish to drive a mono source into the stereo mix, simply plug your signal into the right channel input. Channels 1 and 2 have switchable 30dB added gain for low impedance dynamic microphones (Right inputs only). Input impedance on mic inputs (ch.1 R & ch.2 R only) is  $1.86k\Omega$ , all other inputs are  $20k\Omega$ .

#### 2 Sub In

The Sub inputs are nominal  $10 \mathrm{K}\Omega$  unbalanced types on 1/4" phone jacks. They feed directly to the mix busses at a nominal +4dBu level and are useful for coupling multiple mixers.

#### 3 Sub Out

The Sub Outputs are unbalanced types on 1/4" phone jacks. Typically, they will feed sub inputs on additional mixers. Nominal operating level is +4 dBu.

#### **4 Main Outputs**

Right, left, and mono outputs are  $200\Omega$  servobalanced on 1/4" phone jacks. Nominal operating level is +4 dBu and maximum headroom is +22dBu.

# **5 Wiring Suggestions**

If low level and high level lines (e.g., microphones and mixer line outputs), or if either of these lines and speaker cables are run parallel for long distances, crosstalk may be significant. In fact, the crosstalk (signal leakage between cables) can cause an electronic feedback loop, oscillation, and possibly damage to the equipment. To minimize crosstalk, physically separate low level (microphone) cables from speaker cables by the greatest feasible distance. At any point where cables meet, run low level cables perpendicular to high level or speaker cables. If low and high level or speaker cables must be run parallel and in close proximity to one another, they should be bundled separately.

#### TROUBLESHOOTING TIPS

#### No Sound

Check the AC power. Is the power switch on and the power LED illuminated? Check the level meters. If they are operating, the problem between the mixer and the later components in the system. If not, check to see you really have an input signal and that it is on the desired channel. Check that you have the master gain controls at the desired operating level.

#### **Distorted Sound**

Something is being overdriven in the signal path. If the clip indicators are active, reduce the channel level controls. If the clip indicators are still active, reduce the input signal level. If the level meters are constantly in the red, reduce the Master gain and increase the gain of components following the mixer. There are many gain adjustments in the mixer itself and probably several others in other system components which makes it possible to overdrive an input section and then incorrectly try to reduce the gain of the output section. The best way to approach setting gains is to establish the operating level of input stages first by setting their gain as high as possible but leaving about 20dB of headroom for loud peaks, then move on to set the master gain to produce a good meter reading. Proceed to set the gain of equalizers, limiters, crossovers, and amplifiers following the mixer in the same manner, always working toward the later stages of the system.

#### **Excessive Noise**

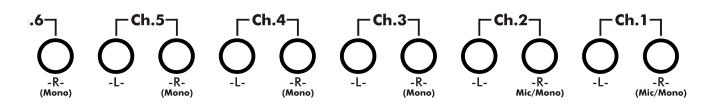
If the noise is in the form of hiss, the problem is usually due to an input stage set up for low gain and then compensating by increasing the master gain. Turn up the channel level controls and reduce the master gain.

#### **Excessive hum**

This is usually caused by "ground loops" in the system wiring. A complex sound system with many sources separated by significant distance and using several power outlets has many opportunities for this problem to occur. If possible, feed everything in the system from one power source with a common ground.

If you need help, get in touch with your Ashly dealer or call an Ashly technical service representative at 1-800-828-6308.





# **SPECIFICATIONS** (0dBu=0.775V)

INPUT IMPEDANCE MIC INPUTS (balanced, Ch.1 and Ch.2 R only) 1.86k Ohm LINE INPUTS (balanced)
DISTORTION THD at +20 dBu, 20Hz-20KHz<0.02% IMD (SMPTE) at +20dBu<0.01%
HUM & NOISE (20Hz-20KHz) residual output noise, all levels at minimum<-100dBu MASTER OUT, MASTER LEVEL and one INPUT LEVEL at nominal (unity gain)<-90dBu
FREQUENCY RESPONSE 20Hz-20KHz ±0.2dB
MAXIMUM LEVELSMAXIMUM INPUT LEVEL+23dBuMAXIMUM OUTPUT LEVEL+23dBu
VOLTAGE GAIN (dB±1) INPUTS or SUB INPUTS to MASTER OUTPUTS (levels at nominal) .0dB INPUT to MASTER OUTPUT (levels at max) .30dB Ch.1 or Ch.2 INPUT in MIC position to MASTER OUTPUTS .61dB SUB INPUTS to MASTER OUTPUTS (master level at max) .15dB
OUTPUTS STEREO OUTPUTS Servo-Balanced, 132 Ohm MONO OUTPUT Servo-Balanced, 132 Ohm SUB OUTPUTS Pseudo-Balanced, 100 Ohm  CROSSTALK

adjacent inputs or input to output at 1KHz . . . . . . <-80dB adjacent inputs or input to output at 20KHz . . . . . <-60dB

# **VU METERS**

# PEAK INDICATORS

activated when internal signal is 3dB below clipping

# WEIGHT

#### **DIMENSIONS**

19" x 1.75" x 9.4" (483mm x 44mm x 239mm)

# POWER REQUIREMENTS

100-240 VAC, 50-60 Hz, 30 watts

\*unless otherwise stated, specification conditions are:

- 150 Ohm source, all levels set at nominal
- outputs into 2.7K Ohm or greater



# LIMITED WARRANTY (USA ONLY)

(Other countries please contact your respective distributor or dealer.)

**For units purchased in the USA**, warranty service for this unit shall be provided by ASHLY AUDIO, INC. in accordance with the following warranty statement.

ASHLY AUDIO, INC. warrants to the owner of this product that it will be free from defects in workmanship and materials for a period of FIVE years from the original-date-of-purchase. ASHLY AUDIO INC. will without charge, repair or replace at its discretion, any defective product or component parts upon prepaid delivery of the product to the ASHLY AUDIO, INC. factory service department, accompanied with a proof of original-date-of-purchase in the form of a valid sales receipt. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

EXCLUSIONS: This warranty does not apply in the event of misuse, neglect, or as a result of unauthorized alterations or repairs made to the product. This warranty is void if the serial number is altered, defaced, or removed. ASHLY AUDIO, INC. reserves the right to make changes in design, or make additions to, or improvements upon, this product without any obligation to install the same on products previously manufactured.

Any implied warranties, which may arise under the operation of state law, shall be effective only for FIVE years from the original-date-of-purchase of the product. ASHLY AUDIO, INC. shall be obligated to only correct defects in the product itself. ASHLY AUDIO, INC. is not liable for any damage or injury, which may result from, or be incidental to, or a consequence of, such defects. Some states do not allow limitations on how long an implied warranty lasts, or the exclusion, or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

#### **OBTAINING WARRANTY SERVICE**

For warranty service in the United States, please follow this procedure:

- 1) Return the product to ASHLY AUDIO, INC. freight prepaid, with a written statement describing the defect and application that the product is used in ASHLY AUDIO, INC. will examine the product and perform any necessary service, including replacement of defective parts, at no further cost to you.
  - 2) Ship your product to:

ASHLY AUDIO, INC. Attention: Service Department 847 Holt Road Webster, NY 14580-9103

> ASHLY AUDIO INC. 847 Holt Road Webster, NY 14580-9103, USA Phone: (585) 872-0010 Fax: (585) 872-0739 Toll Free (800) 828-6308 ashly.com

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