



320 DSP SOUND EFFECTS
12-CHANNEL PROFESSIONAL MIXER

AMX7374
OWNER'S MANUAL



Thank you for purchasing the **Audio2000's®** 320 DSP sound effects 12-channel professional mixer! For the best results and the utmost satisfaction from your new unit, please read this manual thoroughly, and retain it for future reference. For more information, please visit our website (www.audio2000s.com).

CONTENTS

Warning.....	1-2
Precautions.....	3
Package Contents	4
Features.....	4
Functions and Controls.....	5-7
Specifications.....	8
Troubleshooting.....	9
Service Information.....	10

WARNING

* TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

* THIS APPLIANCE SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING WATER AND THAT NO OBJECT FILLED WITH LIQUIDS SUCH AS VASES SHALL BE PLACED ON APPARATUS.



This 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.

CAUTION

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**

Warning: To reduce the risk of electric shock, do not remove cover (or back) no user-serviceable parts inside. Refer servicing to qualified service personnel.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT SAFETY INSTRUCTIONS

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) 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.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) 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.



S3125A

- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) 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.
- 15) Grounding or Polarization: This product may be equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
- 16) Ventilation slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
- 17) The MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

PRECAUTIONS

On Safety

- * Operate only on designated AC power supply (120V AC in North America).
- * Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- * Unplug the unit from the wall outlet or set the Master switch to OFF if it is not to be used for several days.
- * To disconnect the cord, pull it out by the plug. Never pull the cord itself.

On Installation

- * Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes.
- * Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

On Repackaging

Do not throw away the carton and packing materials. They make an ideal container in which to transport the unit. When shipping the unit to another location, repack it as it was originally packed at the factory.

PACKAGE CONTENTS

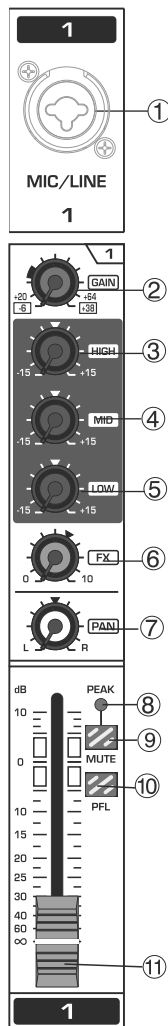
Items	Quantities
AMX7374 320 DSP Sound Effects 12-Channel Professional Mixer	1
AC Power Supply Cord	1
Owner's Manual	1

FEATURES

1. 12-Channel Audio Mixer
2. Built-in USB Interface to Computer for Recording and Music Playing Applications
3. Built-in 320 DSP Sound Effects 32-Bit Processor with 24-Bit AD-DA Converter
4. 320 DSP Sound Effects Processor with 4-Memorys Setting Buttons
5. Built-in Bluetooth Interface
6. Built-in MP3 Player Supporting a Variety of Music Formats
7. USB Record Buttons for Recording to USB Flash Drive
8. Microphone / Stereo Line Inputs
9. Ultra-Musical 3-Band EQ on All Channels
10. Input Level Control Faders on All Channels
11. MUTE and PFL Control Buttons on FX, MP3, and All Channels
12. FX and PAN Controls on All Channels
13. Dual-LED Displays for DSP and USB
14. Peak LED Indicators on All Channels
15. FX Level Control Fader and MP3 Level Control Fader
16. MAIN OUT Stereo XLR Jacks and SUB OUT Stereo 1/4" Jacks
17. MAIN OUT Level Control Faders and SUB OUT Level Control Fader
18. FX OUT 1/4" Output Jack and RETURN 1/4" Input Jack
19. CD/TAPE Input/Output Stereo RCA Jacks
20. RETURN and CD/TAPE Level Control Knobs
21. PHONES Stereo 1/4" Output Jack and PHONES Level Control Knob
22. High-Accuracy Level Indicator
23. Phantom Power (+48V) Button and LED Indicator
24. POWER On LED Indicator
25. Sealed Rotary Control Knobs to Resist Dust and Grime
26. Rugged Steel Chassis
27. Multi-Voltage Power Supply for Worldwide Use

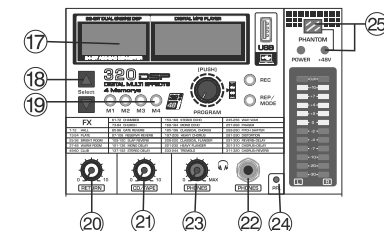
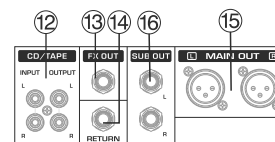
FUNCTIONS AND CONTROLS

CHANNEL INPUT

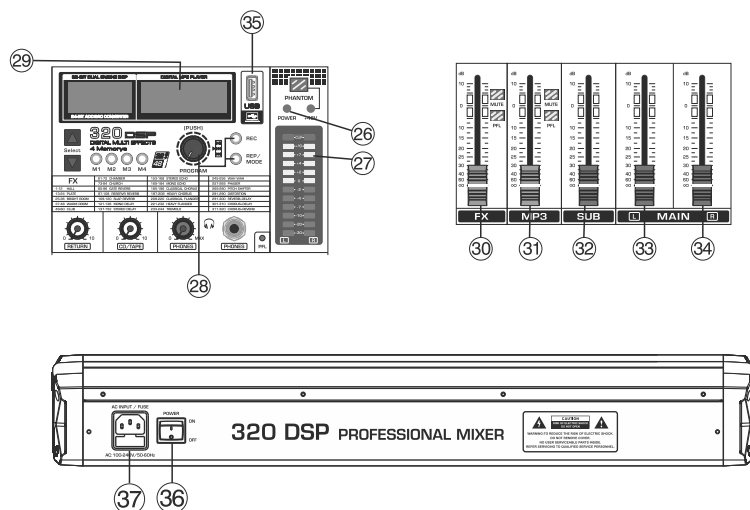


- 1. [MIC/LINE] Input Jack** --- This is a balanced XLR input jack. This XLR input jack is to be connected to a microphone, a musical instrument, or an audio device through a balanced XLR cable.
- 2. [GAIN] Control Knob** --- This knob is used to raise or lower the gain level of the input signal. There are two sets of gain control dB numbers. The lower sets of dB numbers are for the microphone signal level control while the higher sets of dB numbers are for the audio signal level control. When the audio level is higher than a predetermined threshold, the [PEAK] LED indicator (refer to numeral 10) will keep blinking until the audio level goes below the threshold.
- 3. [HIGH] Treble-tone Control Knob** --- This knob is used to adjust the gain for the input signal band centered at 12.5KHz in the range from -15dB to +15dB.
- 4. [MID] Alto-tone Control Knob** --- This knob is used to adjust the gain for the input signal band centered at 2.5KHz in the range from -15dB to +15dB.
- 5. [LOW] Bass-tone Control Knob** --- This knob is used to adjust the gain for the input signal band centered at 80Hz in the range from -15dB to +15dB.
- 6. [FX] Control Knob** --- This knob is used to adjust the level of the signal routed from this channel to the reverberation line. This signal level will vary according to the settings of the channel attenuators (HIGH, MID, LOW). The signals from the stereo channel (R and L) will be mixed before being routed to the reverberation line.
- 7. [PAN] Control** --- This control determines how much of the input signal is sent to the left and right channels. When the knob is centered at 12 O'clock, the input signal is sent equally to the left channel and the right channel with a -3dB attenuation. Turn this control fully counter-clockwise to send 100% of the input signal to the left channel. Turn this control fully clockwise to send 100% of the input signal to the right channel.
- 8. [PEAK] LED Indicator** --- This PEAK LED indicator will keep blinking when the input signal level is higher than a predetermined threshold. When the PEAK LED indicator is blinking, adjust the gain control knob (refer to numeral 2) to a lower gain level until the PEAK LED indicator stops blinking to maintain the sound quality.
- 9. [MUTE] Button** --- Press this knob down to silence the input signal (preventing the input signal from being sent to the main output).
- 10. [PFL] Pre-Fade Listen Button** --- Press this knob down to monitor (or listen) the channel's audio at the point before the audio level fader.
- 11. [LEVEL] Control Fader** --- This level control fader is used to raise or lower the audio volume of the signal from this channel.

- 12. [TAPE / REC] INPUT/OUTPUT Jacks** --- These input/output jacks are stereo RCA jacks. The input jacks (TAPE) allow for the connection of a playback device, such as a CD player. The output jacks (REC) are to be connected to an external recording device.
- 13. [FX OUT] Jack** --- The FX OUT output jack is an unbalanced 1/4" jack. This FX OUT output is the sum of the FX signals sent from each channel. If a particular channel's FX control knob (refer to numeral 6) is fully turned down, that channel is not contributing to the FX OUT output signal. A signal processor can be placed between the FX OUT output jack and the RETURN input jack (refer to numeral 14 below) as an external signal processor.
- 14. [RETURN] Jack** --- The RETURN input jack is an unbalanced 1/4" jack. The RETURN input jack can be utilized alone as an input jack connecting to an external sound source. Typically, this RETURN input jack is used to receive the signal returned from the FX OUT output jack via an external effect device (such as reverb, delay, etc.).
- 15. [MAIN OUT] Stereo Output Jacks** --- These are stereo main output jacks, including a left balanced XLR male jack and a right balanced XLR male jack. These jacks are to be connected to a power amplifier or active speakers.
- 16. [SUB OUT] Stereo Output Jacks** --- The SUB OUT output jacks are 1/4" TS jacks, one for the left channel and another for the right channel. If both left channel and right channel are connected, the SUB OUT output jacks will be stereo. If only the left channel jack is connected while the right channel jack is left open (not connected), the signals from the left channel and the right channel will be combined and sent from the left channel jack.
- 17. [32-BIT DUAL ENGINE DSP] Display**
- 18. [▲▼] Select Buttons** --- These buttons are used to select the desired sound effect from the built-in 320 DSP sound effects. Press the "▲" button to raise the sound effect number. Press and hold the "▲" button to raise the sound effect number in a fast manner. Press the "▼" button to lower the sound effect number. Press and hold the "▼" button to lower the sound effect number in a fast manner.
- 19. [M1/M2/M3/M4] Memory Buttons** --- There are four memory numbers, M1 through M4, for memorizing pre-selected sound effect numbers. Use the select buttons ("▲▼" refer to numeral 18) to select the desired sound effect number on the display (refer to numeral 17). Once the desired sound effect number has been selected, press and hold any of the memory buttons (M1 through M4) until the selected sound effect number on the display stops flashing. This desired sound effect is then memorized in this pressed memory number. For example, after the selected sound effect number 289 is memorized in M1, the sound effect number 289 can be selected by pressing button M1 at any time.
- 20. [RETURN] Level Control** --- This control is used to adjust the signal level to the RETURN input jack (refer to numeral 14).
- 21. [CD/TAPE] Level Control** --- This control is used to adjust the CD/TAPE signal level (refer to numeral 12).
- 22. [PHONES] Stereo Output Jack** --- This is a 1/4" TRS jack for the stereo monitoring earphones.
- 23. [PHONES] Level Control** --- This control is used to adjust the earphone volume.
- 24. [PFL] LED Indicator** --- This PFL LED indicator will be turned on if any of the PFL buttons on MP3, FX, and channels 1-12 is pressed.
- 25. [PHANTOM] Button/LED Light** --- When one or more condenser microphones are connected to the XLR [MIC] input jacks (refer to numeral 1), press this PHANTOM button to turn on the 48V phantom power to the condenser microphones via the XLR [MIC] input jacks. When the 48V phantom power is turned on, the +48V phantom power LED light will be turned on and stay on.



- 26. [POWER] LED Light ---** This power LED light will stay on after the main power is turned on.
- 27. Stereo Signal Level Meter ---** This is a stereo signal level meter configured with twelve LED lights for each channel.
- 28. MP3 Controls ---**
- [PROGRAM PUSH] Control Knob: Press this knob to start playing the music from the USB device connected to the USB interface. Press this knob again to have the music paused. When the music is paused, press this knob again to continue the music from where it was paused. When the music is in progress, turn this knob to move the music track up or down.
 - [REC] Button: When music is in progress, press and hold this button for a few seconds to start recording. When the recording is in progress, press this button to stop recording and have the recorded music replayed. When the recorded music is being replayed, press this button to switch to replay the first USB music track. When the USB music is being replayed, press this button to switch to replay the first recorded music.
 - [REP/MODE] Button: Press this button to switch between USB [USB] and BLUETOOTH [BT]. When the Bluetooth [BT] source is selected, the device code is "KG-08A". When the USB [USB] source is selected, the music replay will start from the USB device first track. Press and hold this button to go to the repeat mode and to have the same music track repeated. Press and hold this button again to repeat the entire tracks in the USB device. Press this button to leave the repeat mode and go to the Bluetooth.
- 29. [DIGITAL MP3 PLAYER] Display ---** This display shows the information of the input source and the music replay status.
- 30. [FX OUT] Level Control Fader ---** This level control fader is used to raise or lower the FX OUT output level.
- 31. [MP3] Level Control Fader ---** This level control fader is used to raise or lower the MP3 output level (refer to numeral 28).
- 32. [SUB] Level Control Fader ---** This level control fader is used to raise or lower the SUB output level.
- 33. [MAIN - L] Level Control Fader ---** This level control fader is used to raise or lower the level of the MAIN output left channel.
- 34. [MAIN - R] Level Control Fader ---** This level control fader is used to raise or lower the level of the MAIN output right channel.
- 35. [USB] Interface ---** The USB input source can be a USB flash drive or a computer.
- 36. [POWER] Switch ---** This is an ON/OFF power switch.
- 37. [FUSE HOLDER/IEC MAINS RECEPTACLE] ---**The console is connected to the mains via the cable supplied, which meets the required safety standards. Blown fuses must only be replaced by fuses of the same type and rating. The mains connection is made via a cable with IEC mains connector. An appropriate mains cable is supplied with the equipment.



SPECIFICATIONS

Frequency Response		20Hz-20KHz $\pm 1\text{dB} + 4\text{dB}_{\mu}$ @1KHz
Total Harmonic Distortion		<0.5% @+4dB μ (22Hz - 22KHz)
Channel		12-CH
Input Channels	MIC/LINE	12(XLR+6.35Jack)
	MP3	1
	USB Sound Card	2.0Type-A
	Bluetooth	1
Output Channels	REC/RCA	1
	Main/XLR	L/R
	Phones/6.35Jack	1
	SUB	L/R
Auxiliary	FX (OUT)	1
	Return(IN)	1
Input Channel Function	MUTE/PFL	MUTE and PFL for each channel
	EQ/3-Band	HIGH : Gain/ \pm 15dB, Frequency :12KHz shelving MID : Gain/ \pm 15dB, Frequency :2.5KHz shelving LOW : Gain/ \pm 15dB, Frequency :80Hz shelving
	Peak LED	LED turns on when post EQ signal reaches 3dB below clipping level
Level Meter		2 \times 12-segment LED meter , (CLIP,+10,+7,+4,+2,0,-2,-4,-7,-10,-20 ,-30dB)
Effects/FX		320 Digital Effects
Phantom Power Voltage		+48V
Power Source (50-60Hz)		AC 100-240V
Power Consumption		30W

TROUBLESHOOTING

On the basis of the following checks, you will be able to rectify a number of problems yourself without difficulty. If the problem cannot be remedied after the following checks, please consult your dealer.

PROBLEM	POSSIBLE CAUSES	SOLUTIONS
Power can not be turned on	Power Supply cord was not connected or was not connected securely.	Securely connect the power supply cord to the mixer DC input and/or the AC power outlet.
	The power supply cord is defective.	Replace the power supply cord.
	The AC power outlet has no power.	Connect the power supply to an AC power outlet with proper power.
	The AC power source is from an AC power extension cord and the power switch of the extension cord is not turned on.	Turn on the power switch of the AC power extension cord.
No output sound	The power is off.	Turn on the power.
	The stereo level fader was turned to minimum.	Adjust the stereo level fader to have an optimal output level.
	The output audio cable is missing or defective.	Connect, repair or replace the audio cable.
One channel no sound	The gain control knob to the channel was turned to minimum.	Adjust the gain control knob to that channel to have an optimal output level.
	The level control knob to the microphone channel was turned to minimum.	Adjust the level control knob to that channel to have an optimal output level.
Microphone no sound	No phantom power to the condenser microphone.	Turn on the phantom power.
	The gain control knob to the microphone channel was turned to minimum.	Adjust the gain control knob to that microphone channel to have an optimal microphone output level.
	The level control knob to the microphone channel was turned to minimum.	Adjust the level control knob to that microphone channel to have an optimal microphone output level.
Distorted sound	The amplitude of the input signal is over the threshold.	Adjust the gain control knob to lower the input gain.
	The amplitude of the main output signal is over the threshold of the connected amplifiers or active speakers.	Adjust the stereo level fader to lower the main output level.

SERVICE INFORMATION

SHIPPING DAMAGE

If the shipping carton is found to be damaged, notify the delivery company immediately. Save the damaged carton as evidence for the delivery company to inspect. It is the responsibility of the shipper to file a claim with the delivery company for any damaged that occurs during shipping. In the case that the shipping carton is in good condition but the unit is damaged or defective, call H & F Technologies, Incorporated, U.S.A. at 805-523-2759.

WARRANTY PERIOD

For the period of one (1) year from date of original retail or online purchase for parts and 90 days for labor (the Warranty period) from an authorized **Audio2000'S®** dealer, H & F Technologies, Incorporated, U.S.A., warrants that products distributed by H & F Technologies, Incorporated in the U.S.A. that fail to function properly under normal use due to manufacturing defect when installed and operated according to the owner's manual instructions enclosed with the unit will be repaired or replaced with a new or reconditioned product with comparable value, at the discretion of H & F Technologies, Incorporated, without charge to you for parts or actual repair work. Parts supplied under this warranty may be new or rebuilt at the option of H & F Technologies, Incorporated.

This Warranty period for retail or online customers commences upon the date of retail sale, online sale, or the time that the product is first put into use, whichever occurs first.

This Warranty is valid for 90 days for parts and labor from the date of purchase on any product which is used in any trade or business, or in an industrial or commercial application.

PRODUCT

This warranty covers the product during the warranty period with the proof of purchase only. In the event service is required, call H & F Technologies, Incorporated at 805-523-2759 for a Return Authorization number (RA number) and the product must be delivered within the Warranty period, transportation prepaid by the product owner from within the United States. You will be responsible for removal and installation of the product. H & F Technologies, Incorporated will pay for the standard shipping cost for returning the product to you within the continental United States for all necessary repairs or replacements which are covered by the warranty.

No liability will be accepted for damages or loss directly caused from the use of this product. H & F Technologies, Incorporated's liability shall be limited to the repairs or replacements of this product if found to be defective.

WHAT'S NOT COVERED

- 1) Any damage to the products resulting from alteration, modifications not authorized in writing by H & F Technologies, Incorporated, misuse or abuse, neglect, accident, improper installation, damage due to lightning or due to power surges, subsequent damage from leaking, damaged or inoperative batteries or the use of batteries not conforming to those specified in the owner's manual instructions.
- 2) The cost of parts or labor, which would be otherwise provided without charge under this warranty, obtained from any source other than a H & F Technologies, Incorporated Authorized Service Company or other designated location. This warranty does not cover defects or damages caused by the use of unauthorized parts or labor, or from improper maintenance.
- 3) Normal wear and tear of this product, including but not limited to headset and lapel microphones, earphone ear cushions, microphone clip, and microphone mesh grille.
- 4) Any product that has been used as a rental unit.