

episode<sup>®</sup>  
commercial

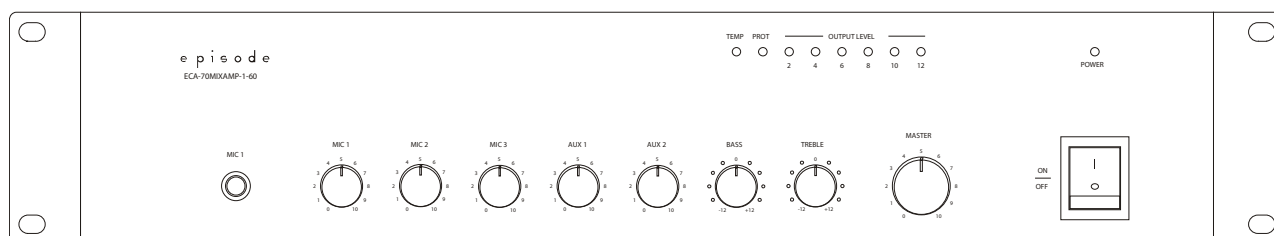
engineered by  
**Snap**  
av

## OWNER'S MANUAL

## ECA COMMERCIAL AMPLIFIER

### ECA-70MIXAMP-1-60

100V / 70V / 4Ω Amplifier

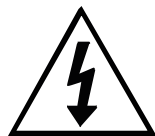


## Important Safety Instructions

**WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

1. Read and follow all instructions and warnings in this manual. Keep for future reference.
2. Do not use this apparatus near water.
3. Clean only with a dry cloth.
4. Do not block any ventilation openings. Install according to manufacturer's instructions.
5. Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
6. Do not override the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades - one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
7. Protect the power cord from being walked on or pinched particularly at plug, convenience receptacles, and the point where it exits from the apparatus.
8. Only use attachments/accessories specified by the manufacturer.
9. Use only with a 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.
10. Unplug this apparatus during lightning storms or when unused for long periods of time.
11. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when the 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.
12. DO NOT EXPOSE THIS EQUIPMENT TO DRIPPING OR SPLASHING AND ENSURE THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, ARE PLACED ON THE EQUIPMENT.
13. TO COMPLETELY DISCONNECT THIS EQUIPMENT FROM THE AC MAINS, DISCONNECT THE POWER SUPPLY CORD PLUG FROM THE AC RECEPTACLE.
14. THE MAINS PLUG OF THE POWER SUPPLY CORD SHALL REMAIN READILY OPERABLE.

**CAUTION: TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of un-insulated 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 (servicing) instructions in the literature accompanying the appliance.

## Table of Contents

<b>Important Safety Instructions .....</b>	<b>2</b>
<b>Overview .....</b>	<b>4</b>
<b>Features .....</b>	<b>4</b>
<b>Front Panel .....</b>	<b>5</b>
<b>Rear Panel .....</b>	<b>6</b>
<b>Installation .....</b>	<b>7</b>
Positioning the Amplifier .....	7
Rack Mounting .....	7
Standard Connections .....	8
Microphone Input Pinouts .....	8
Advanced Connections .....	8
Cascading Amplifiers .....	8
<b>Specifications .....</b>	<b>9</b>
<b>Troubleshooting .....</b>	<b>10</b>
<b>Contacting Technical Support .....</b>	<b>10</b>
<b>Warranty .....</b>	<b>11</b>

## Overview

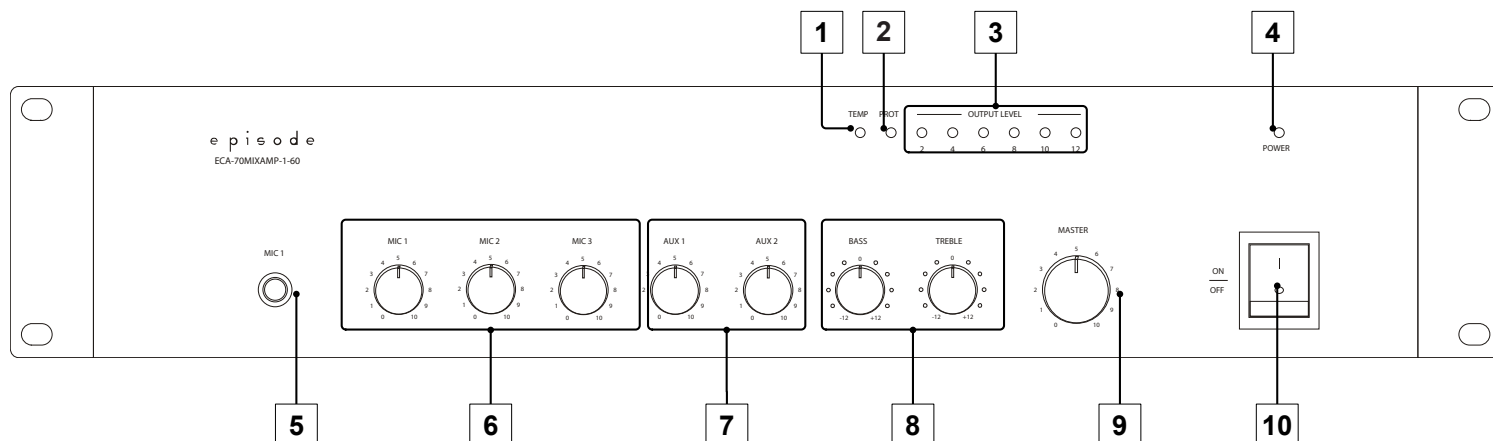
Episode® is one of the most highly-regarded brands of amplifiers available today. We appreciate your business and we stand committed to providing our customers with the highest degree of quality and service in the industry.

The Episode® ECA-70MIXAMP-1-60 Commercial Amplifier Mixer is a superb choice for a variety of commercial applications requiring multi-source background music. It has been designed with advanced mixing features and produces 60W RMS, providing the best value and quality for your commercial audio needs.

## Features

- 60 Watts RMS, 1 Channel
- Low-Frequency filter protection
- Power level meter
- Set screw type output terminals for secure, easy connections
- (2) Auxiliary Source Inputs
- Mixed preamp output for additional amplification
- Individual input volume and master output volume
- Current limiter, short circuit and thermal protection
- (1) Front facing unbalanced ¼ inch microphone input with adjustable ducking, tone, and volume
- (2) Balanced XLR microphone inputs with input gain, output volume control and phantom power options
- (2) Unbalanced RCA Microphone Inputs
- (2) Unbalanced ¼ inch Microphone Inputs
- 2 Constant Voltage Speaker Options: 100V and 70V
- 4-16 Ohm speaker output capable
- EMC Emergency Audio Input, mutes all other inputs except Mic 1 when signal is active

## Front Panel



### 1. Temperature Protection Indicator

If temperature in amplifier gets too high for safe operation it will disable output and LED will light red. LED off indicates normal operation. If problem recurs, See Troubleshooting section.

### 2. Fault Protection Indicator

In the event of a short, overload, or improper impedance at speaker connection, this LED will light red and outout will be disabled. LED off indicates normal operation. If problem recurs, see Troubleshooting Section.

**Note:** When amp is turned on and off, the Protection LED will turn on for a moment while unit is booting. This is normal.

### 3. Output Level Meter

Master volume output level. Note: if amp is in protection mode, LEDs will still represent levels of input signals.

### 4. Power LED

BLUE – Amplifier is On

### 5. ¼ Inch Microphone Input

Primary unbalanced microphone input.

### 6. Microphone Volume Control

(3) volume knobs for adjusting each microphone volume level before it is effected by the master Volume.

### 7. Auxiliary Volume Control

(2) volume knobs for adjusting each source input volume level before it is effected by the Master Volume.

### 8. Bass / Treble Adjustments

Adjusts the tone for the amplifier outputs.

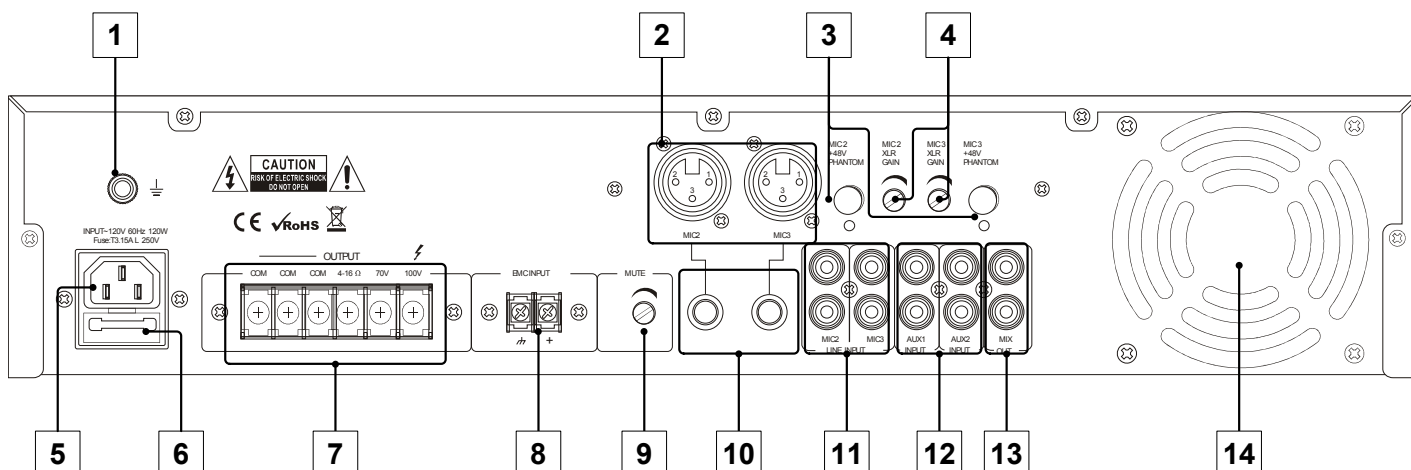
### 9. Master Volume Control

Adjusts main output volume.

### 10. Power Switch

Toggle power on and off.

## Rear Panel



### 1. Ground Lug

Attach grounds from other equipment in system for common ground point.

### 2. XLR Microphone Inputs 2 and 3

Balanced microphone inputs.

### 3. Microphone 2 and 3 Phantom Power Switches

Latching toggle switch for controlling phantom power to microphone. Switch in- Phantom power on, switch out-off

**Note:** LED below each switch indicates state: LED will be lit if Phantom Power is on.

### 4. XLR Connection Gain

Sets pre amp gain of signal from balanced inputs 2 and 3.

### 5. IEC Power Cord

Detachable power cord

### 6. AC Fuse

Replaceable main power fuse

### 7. Speaker Output Connector

Spade terminal connections for 70V, 100V, or 4-16Ω speakers attenuated by Master Volume.

**Note:** Output level is effected by Input gain, Bass, and Treble controls.

### 8. EMC Connection

Unbalanced connection from emergency alarm system. Signal on this input will mix with other inputs. Ducking for input effected by Mute level.

### 9. Mute

Set level of ducking when signal is sensed on EMC input or on Microphone Input 1. Set to minimum for no ducking, max to mute all other sources completely. 0-30dB cut.

### 10. 1/4 Inch Microphone Inputs 2 and 3

Unbalanced TS style 1/4 inch input for microphones.

### 11. RCA Microphone Inputs 2 and 3

Unbalanced RCA Left/Right input for microphones.

### 12. Auxiliary Stereo RCA Source Inputs

Unbalanced RCA stereo input for audio sources.

### 13. Mix Line Output

Unbalanced RCA stereo line level variable output.

**Note:** Output level is effected by Source and Mic gain, and Bass and Treble controls.

### 14. Cooling Fan

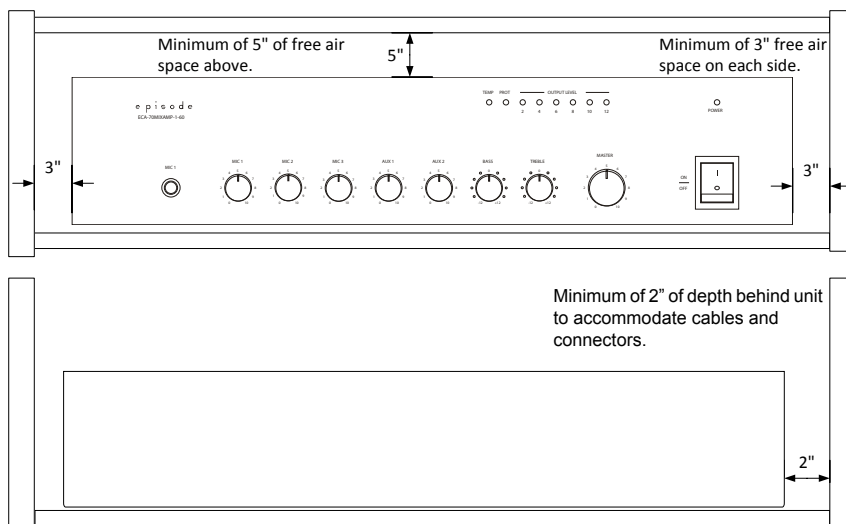
Built in fan turns on to cool amplifier when needed.

## Installation

### Positioning the Amplifier

Episode amplifiers are designed to help deliver a great audio experience that makes your music come alive for years to come. However, where you place the amplifier can have a large effect on the performance that you receive and the life of the unit.

- Be sure that the unit is in a well-ventilated area that provides adequate cooling.
- Do not block the cooling vents located on both sides of the unit.
- Do not place the unit on carpeting or any similar material.
- Do not install the unit near a source of heat, or in an extremely humid or wet location.
- If your installation lacks good air flow (such as solid cabinet doors or wall-mounted racks), it may be necessary to create ventilation to allow outside air into the space.
- Allow a minimum of 5" of free air space above the unit.
- Allow a minimum of 3" of free air space on either side of the unit. (Does not apply to rack mounting)

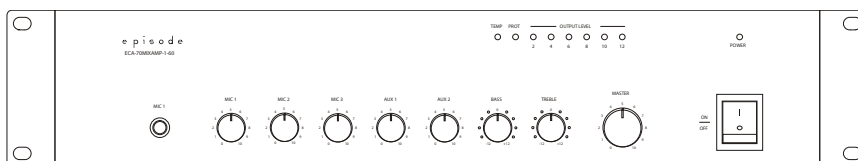


### Rack Mounting

1. Remove the amplifier's four feet from the bottom of the chassis.

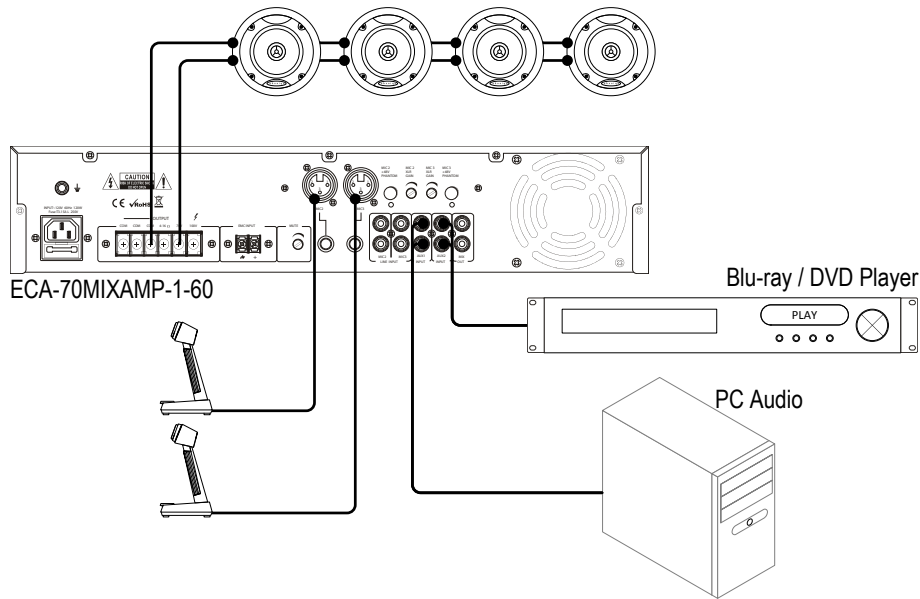
**Note:** DO NOT place the screws back into the chassis. Without the feet, the length of the screw may touch internal components and affect the performance of the amplifier.

2. Attach the included rack-mount ears to the front sides of the amplifier chassis.
3. Securely mount the amplifier into an equipment rack. The amplifier will occupy 2U of rack space.
4. Even though the amplifier produces very little heat, it is always wise to leave ventilation between components.

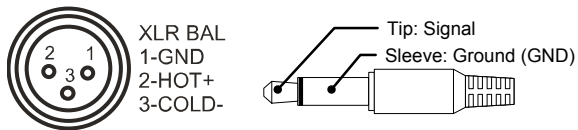


## Standard Connections

While the ECA-70MIXAMP-1-60 can be used in a variety of configurations, the diagram below shows the basic application.



## XLR Pinouts



## Advanced Connections

### Cascading Amplifiers

Multiple ECA-70MIXAMP-1-60 can be used in a system where more audio distribution is needed. This is achieved by using the Unbalanced Mix Out to the additional amplifiers.

1. Connect the Mix Out to the Aux 1 input of the second amplifier.
2. Repeat for additional amplifiers.
3. Adjust the tone of Amp 1 and then adjust the additional amps in order (Amp 1, Amp 2, and etc.).



## Specifications

<b>Rated Power Output</b>	60 watts
<b>(1) ¼ Inch Front Microphone Input</b>	5mV/600Ω unbalanced ¼ inch mono
<b>(2) XLR Microphone Inputs</b>	±2.5mV/2K Ohms balanced XLR input with optional Phantom Power
<b>(2) ¼ inch Rear Microphone Inputs</b>	5mV/600Ω unbalanced ¼ inch mono
<b>(2) RCA Microphone Inputs</b>	775mV/10k Ω Unbalanced Line Level RCA Left/Right
<b>Phantom Power</b>	+48v for Mic 2 and 3 XLR
<b>2 Auxiliary RCA Inputs</b>	350mV/10k Ω Unbalanced Line Level RCA Left/Right
<b>EMC Input</b>	775mV/10K Ohms unbalanced mono spade terminals
<b>Signal To Noise Ratio</b>	MIC 1, 2, and 3 ≥ 60dB; AUX 1 and 2 ≥ 73dB
<b>Frequency Response</b>	50Hz~16KHz
<b>Crosstalk</b>	≤50dB
<b>Controls</b>	
<b>Bass</b>	±10dB at 100Hz
<b>Treble</b>	±10dB at 10KHz
<b>Speaker Output Impedance</b>	
	4-16 ohm: Minimum 4Ω, Maximum: 16Ω
	70 volt Total Impedance: 81.6Ω
	100 volt Total Impedance: 166.7Ω
<b>Total Heard Distortion</b>	<0.5% at 1KHz using 1/3 of rated power
<b>Operating Conditions</b>	
<b>AC Mains Input</b>	120V AC
<b>Dimensions(DxWxH inches)</b>	(includes ears, connections, & knobs) 19x13.2x3.5
<b>Power Consumption</b>	120 watts
<b>Weight</b>	15.7lbs

## Troubleshooting

<b>Amp will not turn on.</b>	<ul style="list-style-type: none"> <li>Power cable to the amplifier is incorrectly connected or plugged into an outlet that does not have power. Check connections and verify power on the outlet.</li> <li>Main Power Fuse is blown. Replace fuse and ensure power outlet is providing the correct power and polarity for the amplifier.</li> </ul>
<b>TEMP LED is lit.</b>	<ul style="list-style-type: none"> <li>Amplifier is overheating. Install per instructions in manual, "Positioning the Amplifier".</li> </ul>
<b>PROT LED is lit</b>	<ul style="list-style-type: none"> <li>Short circuit on input or output. Verify all wiring and connections.</li> <li>Too much current is being drawn on speaker output. Calculate load attached to amp and configure so that impedance or wattage output is within specification.</li> </ul>
<b>Hum or buzzing sound is heard.</b>	<ul style="list-style-type: none"> <li>Check RCA input cables by removing them one at time (powering down the amplifier before disconnecting) and checking to see if a connection or cable is to blame.</li> </ul>
<b>No audio from speakers.</b>	<ul style="list-style-type: none"> <li>If output meter is active, then amplifier is processing signal but output is in protection. See section above, "PROT LED is lit."</li> <li>If output meter is not active, then the amplifier is not receiving audible signal. Verify correct source operation and input wiring. Turn Input or Master volume up to an audible level.</li> <li>Amplifier is in temperature protection. See section above, "TEMP LED is lit."</li> </ul>
<b>No sound from microphone input</b>	<ul style="list-style-type: none"> <li>Set the phantom power switch to the correct mode for microphone. Verify wiring configuration and power requirements with microphone manufacturer.</li> </ul>

**Note:** If any of the troubleshooting methods listed above do not resolve the issue, please contact our Technical Support department.

## Contacting Technical Support

Phone: (866) 838-5052

Email: [Techsupport@snapav.com](mailto:Techsupport@snapav.com)

## Warranty

### 5-Year Limited Warranty

Episode® Amplifier Products have a 5-Year Limited Warranty. This warranty includes parts and labor repairs on all components found to be defective in material or workmanship under normal conditions of use. This warranty shall not apply to products which have been abused, modified or disassembled. Products to be repaired under this warranty must be returned to SnapAV or a designated service center with prior notification and an assigned return authorization number (RA).

