

AV30MX-2 User Manual



1 Important safety instructions

1. Please read carefully prior to product installation or operation.
2. Read these instructions.
3. Keep these instructions.
4. Heed all warnings.
5. Follow all instructions.
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 manufacturer's instructions.
9. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
10. The unit should only be connected to 120-240VAC, 50-60 Hz power supply. Use only the power adapter that is sold with the unit.
11. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point they exit from the apparatus.
12. Only use attachments/accessories specified by the manufacturer.
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 properly, or has been dropped.

2 Approvals

This equipment has been tested and found to be compliant with the limits for Class A Digital device pursuant to part 15 of the FCC rules, and in compliance with the EN55022 and EN55024 EMC standards.

3 Warnings

3.1 Explanation of Warning Symbols

3.1.1 Lightning Bolt



The lightning bolt within 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 electrical shock to person.

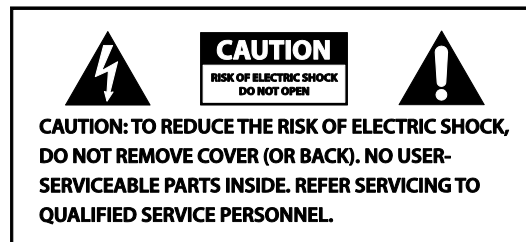
3.1.2 Exclamation Point



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

3.2 Warnings

WARNING: TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DANGEROUS HIGH VOLTAGES ARE PRESENT INSIDE THE ENCLOSURE. DO NOT OPEN THE CABINET. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.



3.3 User Responsibility

3.3.1 Radio Interference

This product has been tested and complies with the EMC directive, and with FCC part 15 Class A. If this product is not used in accordance with these operating instructions, it may cause interference with to other equipment, such as radio and television receivers.

3.3.2 Maintenance

Clean regularly with a soft cloth to remove dust and debris. Also check that there is adequate ventilation for convection cooling.

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5 Welcome

Your Stewart Audio AV Series amplifier is the result of years of experience in the design and manufacture of quality amplifiers. As such it provides a combination of performance and operational benefits that simply cannot be found in conventional amplifiers.

5.1 Features

- Sub Compact 1/4 rack package
- Two channel stereo amplifier with built-in mixing capabilities
- Optimized to drive 4Ω and 8Ω loads.
- Music and fire alarm muting
- Clean full-range dynamic power
- Signal Detect trigger for sleep & wake up
- Multiple mounting options
- External inline power supply
- Class D convection cooled

This product is proudly manufactured in the United States.

5.2 Unpacking and Visual Inspection

Every Stewart Audio product is carefully tested and inspected before leaving the factory and should arrive in perfect condition. If any damage is discovered, please notify the shipping carrier immediately. Save the packing materials for the carrier's inspection and for any future shipping.

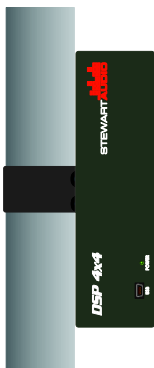
5.3 Installation and Setup

5.3.1 Mounting

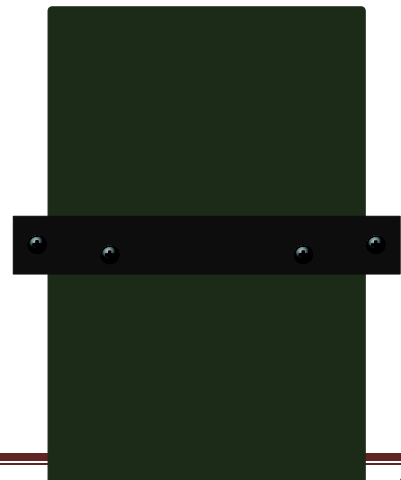
There are a number of different mounting options for the AV30MX/PMX-2 to meet a variety of installation requirements.

5.3.1.1 Pole Mounting

The AV30MX-2 has mounting holes on both the top and side of the unit which can be used with the AV-Pole bracket available from Stewart Audio.



Part Number: AV-Pole



5.3.1.2 Universal Mounting

The AV30MX-2 also has a universal bracket available which allows the unit to be mounted against a wall or under a table. Two screws are included in the kit which will affix the bracket to the top of the unit. Once this is done, two holes are available for mounting the unit where desired.



CAUTION: Use only the screws provided in mounting the brackets to the unit. Do not over tighten.

5.3.2 Product Dimensions

Part Number: AV-Bracket



5.3.3 Cooling Considerations

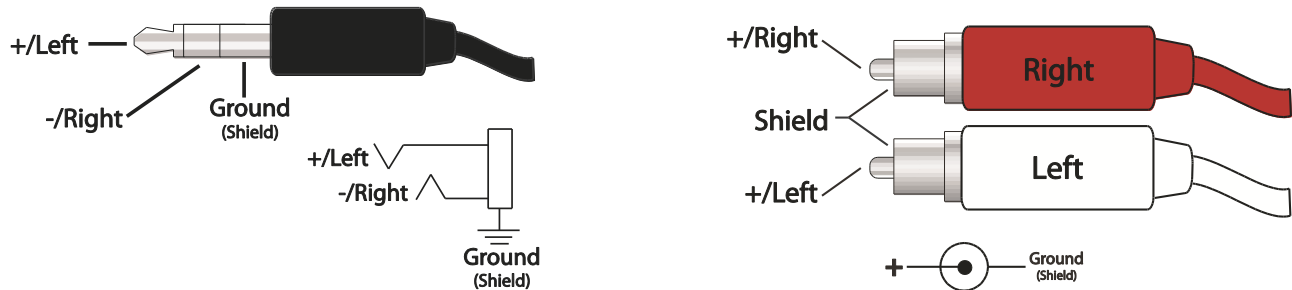
Because the AV30MX-2 is cooled by convection with no fans, the amplifier must be given adequate space to allow for proper airflow. Do not stack the amplifiers on top of each other or mount it in a way that other equipment will block airflow around the case.



CAUTION: Inadequate air flow can cause the amplifier to overheat and potentially become damaged. Be sure to provide plenty of air space to allow for convection cooling.

5.3.5 Input Connections

Your AV30MX-2 has two independent stereo inputs which are then mixed into the final output. Input 1 will accept a stereo 3.5mm jack while input 2 will accept stereo RCA phono plugs. Both inputs should be stereo, unbalanced, and line-level. **Note that the input sensitivity is 0.5V (-6dBV). Do not overdrive the amplifier!** The AV30MX-2 does not include a pre-amplifier. Refer to the diagrams below for proper wiring for the 3.5mm and RCA inputs.



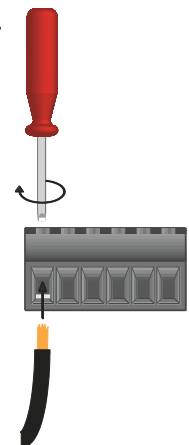
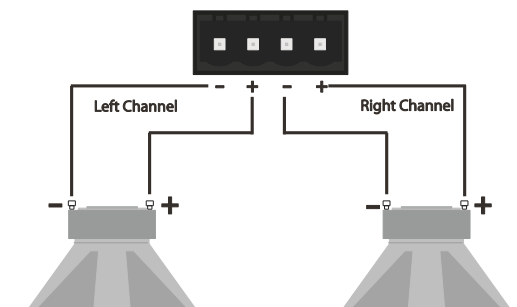
5.3.6 Output Connections

Stewart Audio recommends using high-quality, heavy-gauge speaker wire and connectors to send the output signal of your amplifier to the speakers. Use the following table as a guideline when selecting your wire gauge.

Distance	Wire Gauge
Up to 25 ft (up to 8 m)	16 AWG
25-40 ft (8-12 m)	14 AWG
40-60 ft (12-18 m)	12 AWG

Speaker leads connect by means of terminal block connectors supplied with the unit. Strip speaker leads 1/4" (6.4mm) and insert into connector observing proper polarity. With a small, flat-blade screwdriver, tighten the screw until the leads are held securely in place. Inspect for possible shorts or broken wires.

The AV30MX-2's two stereo inputs are mixed and then sent to the left and right speakers. The expected speaker setup is a 8Ω or 4Ω configuration (not to exceed 30W per side). Refer to the following diagram as a reference for connecting your speakers.



6 Controls and Indicators



1. Speaker output connector: 3.5mm Eurostyle connector (refer to [Section 5.3.6](#)).
2. Remote mute connector: 3.5mm Eurostyle contact closure. Short terminals for mute; open to unmute. **Note: Amplifiers with a serial number prefix SF conform to this mute convention. Older models with the serial number prefix SC require +5 to +12VDC to mute.**
3. Power connector: 3.5mm Eurostyle connector. Use only power adapter supplied with unit. **Be careful not to insert this connector into the Mute connector location!**
4. Input 2 level control: Fully clockwise is full power.
5. Input 1 level control: Fully clockwise is full power.
6. Input 2 connectors: RCA phono. 0.5V_{rms} provides full output power.
7. Input 1 connector: 3.5mm. 0.5V_{rms} provides full output power.
8. Power indicator: LED illuminates when power is applied.
9. Clip indicator LEDs: If either LED is illuminated, reduce the input signal level of that channel.
10. Signal present indicator: LED illuminates when a signal is present at any input.

6.1 Sleep Mode

When no input signal is detected for a period of approximately 5 minutes, the amplifier will enter sleep mode to reduce power. The AV30MX-2's Signal Sense Technology will power up the unit when a signal is subsequently detected.

6.2 Level Controls

There are 2 level controls to adjust the level of the input signals. The level 1 control adjusts both the left and right signal levels on input 1. Similarly, input level control 2 adjusts the left and right level of input 2 signals. Be certain to monitor the clip indicators when adjusting the input levels.

6.3 Remote Mute

The AV30MX-2 can be remotely muted (such as muting during a fire alarm by grounding the mute terminal. Leaving this terminal open will unmute the outputs. **Note: Amplifiers with a serial number prefix SF conform to this mute convention. Older models with the serial number prefix SC require +5 to +12VDC to mute.**

7 Technical Specifications

Maximum output (30Hz – 20kHz)	
Stereo	▪ 30W @ 4Ω or 8Ω per channel
Frequency response (+0, -3dB)	▪ 30Hz – 20kHz
Bandwidth (±3dB)	▪ 30Hz – 30kHz
THD + Noise	▪ <0.1% @ 1W
Signal to noise ratio	▪ >100dB
External mute	▪ +5 to +12VDC (3.5mm connector)
Slew rate	▪ 30V/msec
Input sensitivity	▪ 0.5V (-6dBV)
Standard voltage gain	▪ 28 (26.5dB)
Input impedance (unbalanced)	▪ 10kΩ
Current draw	
Sleep	▪ 5 mA
Idle	▪ 10 mA
1/8 power	▪ 150 mA
Class	▪ D
Input connectors	▪ 3.5mm stereo; Dual RCA
Output connectors	▪ 5mm Euro block
Power supply	▪ External in-line (Universal AC to +48VDC)
Cooling	▪ Convection; no fans
Controls	▪ 2 independent input level controls; mute
LED indicators	▪ Power; signal present; clip (2)
Construction	▪ Aluminum enclosure
Dimensions	
Height	▪ 1.25 inches (32mm)
Width	▪ 4.35 inches (111 mm)
Depth	▪ 3.2 inches (81 mm)
Weight	▪ 0.37 lbs. (0.16 kg)
Warranty	▪ 3 years

Stewart Audio reserves the right to change features and specifications without notice.

8 Troubleshooting

No power LED indicator

- Check that the amplifier is plugged into a live outlet. After you have ensured that it is not an AC power issue, disconnect any speakers. If the amplifier turns on after a few seconds delay, then the problem is in the output connection. Check wiring and speakers for short circuits.

No output on one or both channels; Power indicator is lit.

- Check that level controls are not turned down. Check that input and output connections are secure. Ensure signal present LED is flashing to denote a signal. If there is no signal detected check signal source and that level controls are set high enough.

Amplifier overheats and/or shuts off.

- Review [Section 5.3.3](#) on proper cooling considerations. Check the signal lights on the rear of the amplifier to see if the signal is overdriving (the signal light flashes red frequently). Overdriving the amplifier for extended periods of time can cause a thermal shutdown.

Output sound is distorted or cracking.

- Check all cables for damage or loose connections and reduce the input signal level at the mixer or preamp level. Replace the cables and loudspeakers temporarily to see if this resolves the problem.

9 Warranty Information

9.1 Warranty Summary

All Stewart Audio products and accessories, unless excluded in this summary, are covered by a 3-year limited warranty on parts and labor from the date of purchase. In order to be eligible for warranty repairs, the products and accessories must have been purchased through an authorized Stewart Audio dealer and submitted by the original purchaser. This warranty is only valid in the country in which the product was purchased.

9.2 Eligibility Requirements

Stewart Audio warrants against all malfunctions which come as a result of component or manufacturer defect. The product is also covered from all failures which arise during the warranty period (3 years from date of purchase) that are not a result of misuse. The following actions will void your warranty:

- The power cord or AC plug has been damaged through misuse.
- The product has been exposed to moisture or extreme temperatures.
- The product has been dropped, items have been dropped on the product, or the enclosure has been damaged.

- The product has been opened by the operator.
- The product was improperly packaged when sending to the factory for repair, resulting in damage.
- Any of the precautions or instructions found in this manual were not followed.

Damages resulting to the product which are not covered under this warranty can be factory-repaired at cost to the customer. Use the contact information below to initiate the repair process.

9.3 Non-warranty Repairs

An estimate for all non-warranty repairs will be provided to the customer once the unit has been shipped to the factory. The customer is responsible to approve this estimate within 7 days. If the repairs are not approved within 14 days, Stewart Audio reserves the right to consider the unit scrap and may discard it. Payment for non-warranty repairs must be submitted to Stewart Audio before the product will be returned to the customer.

All returns to the factory for service must be accompanied by a Return Authorization (RA) number. One can be obtained by contacting Stewart Audio at (209) 588-8111 or via e-mail at support@stewartaudio.com.

NOTE: Any defective products received without an RA number will be returned to sender at their expense.

If Stewart Audio is unable to contact the sender in 14 days, the merchandise will be considered scrap and may be disposed of.

9.4 Shipment Instructions

- If Stewart Audio requests that you ship the defective product back to their service center, please refer to the guide below. To ensure prompt warranty service, be sure to follow all instructions.
- Return Authorization (RA) is required for product being sent to the factory for service.
- See packing instructions in [Section 9.5](#).
- Ship the defective product using a method which provides for order tracking or order confirmation. The service center is located at the following address:

Stewart Audio
14335 Cuesta Court Suite C
Sonora, CA 95370

- Use a bold black marker and write the RA number on three sides of the box.

Record the RMA number for future reference. The RA number can be used to check the repair status.

9.5 Packaging Instructions

Should Stewart Audio request that you ship your product to their service center, these instructions must be followed in order to ensure safe delivery. If they are not followed, Stewart Audio assumes no responsibility for damaged goods and/or accessories that are sent with your unit.

1. Please write the RA number on three sides of the box. Include the Stewart Audio RA number inside the box and a brief description of the problem.
2. You will be advised during the RA process what accessories should be included with the product (power supplies, connectors, cords, etc.). This is dependent on the failure assessment.
3. When shipping your product, it is important that it has adequate protection. We recommend you use the original packing material when returning the product for repair. If you do not have the original box, see number 4.
4. If you provide your own shipping pack, use materials adequate to prevent damage during transit. Make certain that the product is NOT free to move within the package, as this is the most common cause of damage.
5. Securely seal the package with an adequate carton sealing tape.
6. Do not use light boxes or “peanuts”.

NOTE: Damage caused by poor packaging will not be covered under warranty.

10 Accessories

The following amplifier accessories are available from Stewart Audio. All part numbers shown are Stewart Audio part numbers.

<u>Mounting Brackets</u>	
AV-POLE	Pole-mount bracket for AV Series amplifiers
AV-BRACKET	Universal mounting bracket for AV Series amplifiers