

KICKER KMA600.6 (48KMA600.6)

Kicker KMA600.6 Marine Amplifier User Manual

Model: KMA600.6 (48KMA600.6)

1. INTRODUCTION

Thank you for purchasing the Kicker KMA600.6 Weather-Resistant Full-Range Amplifier. This amplifier is designed to deliver superior sound quality and power in marine environments, featuring robust construction and advanced technologies to ensure reliable performance. This manual provides essential information for the proper installation, operation, and maintenance of your amplifier.

Please read this manual thoroughly before attempting installation or operation to ensure optimal performance and safety.

2. SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the amplifier or vessel:

- Disconnect the vessel's battery before making any electrical connections.
- Ensure all wiring is properly routed and secured to prevent pinching or damage.
- Use appropriate gauge wiring for power and ground connections as specified in the installation section.
- Install the amplifier in a location that allows for adequate ventilation and is protected from direct water exposure, even though it is weather-resistant.
- Do not operate the amplifier if it has been submerged in water or shows signs of physical damage.
- Seek professional assistance if you are unsure about any installation or wiring procedures.

3. PACKAGE CONTENTS

Verify that your package contains the following items:

- Kicker KMA600.6 Marine Amplifier
- Mounting Hardware (screws, washers)
- Owner's Manual

4. FEATURES

The Kicker KMA600.6 amplifier incorporates several key features for enhanced performance and durability:

- **Conformal-Coated Circuit Boards:** Designed to repel moisture and protect internal components from the marine environment.
- **316L Stainless-Steel Hardware:** Utilizes no-rust hardware for long-lasting durability in harsh conditions.
- **Compact Footprint:** Small design allows for flexible installation in various locations.
- **Built-In Variable Crossovers:** Provides precise control for matching speaker performance and optimizing sound output.
- **Superior Sound Quality and Added Power:** Delivers clear, powerful audio performance across all channels.

5. SETUP AND INSTALLATION

Proper installation is crucial for the performance and longevity of your amplifier. Follow these steps carefully:

5.1 Mounting Location

Choose a dry, structurally sound location that allows for adequate airflow around the amplifier. Avoid mounting directly in sunlight or near heat sources. Ensure the mounting surface is flat and secure.

5.2 Wiring Connections

Before making any connections, disconnect the vessel's battery. Refer to the diagrams below for proper wiring.



Figure 1: Power and Speaker Output Terminals. This image shows the left side of the amplifier with terminals for Ground (GND), Remote (REM), +12V power input, and six speaker output channels (AMP1, AMP2, AMP3).

5.2.1 Power Connections

- **+12V (Power):** Connect a direct wire from the positive terminal of the vessel's battery to the +12V terminal on the amplifier. Use appropriate gauge wire (e.g., 4-gauge for this amplifier) and install a fuse holder within 18 inches of the battery.
- **GND (Ground):** Connect a wire of the same gauge as the power wire from the GND terminal to a clean, unpainted metal surface of the vessel's chassis or a dedicated ground bus bar. Ensure a solid, low-resistance connection.
- **REM (Remote Turn-On):** Connect a wire from the remote turn-on output of your head unit or marine stereo to the REM terminal. This wire signals the amplifier to turn on when the stereo is active.

5.2.2 Speaker Connections

Connect your speakers to the designated speaker output terminals (AMP1, AMP2, AMP3). The KMA600.6 is a 6-

channel amplifier, supporting three stereo pairs or various bridged configurations. Ensure correct polarity (+ to + and - to -) for all speakers.

5.2.3 Input Connections

Connect the RCA outputs from your head unit or marine stereo to the RCA input jacks on the amplifier. The KMA600.6 features inputs for AMP1, AMP2, and AMP3.



Figure 2: Input and Control Panel. This image displays the right side of the amplifier, showing RCA inputs (AMP1, AMP2, AMP3), Input Level switch, Gain controls, Crossover (X-OVER) switches, Frequency (FREQ) knobs, and Bass Boost controls.

5.3 Initial Setup and Adjustments

After all wiring is complete and verified, reconnect the battery and proceed with initial adjustments:

- **Input Level:** Set the Input Level switch (LO/HI) according to your head unit's output voltage. Use "LO" for typical RCA outputs (low-level) and "HI" for speaker-level inputs (high-level).
- **Gain Control:** Turn the gain knobs (AMP1, AMP2, AMP3) to their minimum (counter-clockwise) position. Gradually increase the gain while playing music until you hear slight distortion, then back off slightly. This matches the amplifier's output to your head unit's signal.
- **Crossover (X-OVER):** Use the X-OVER switches to select the desired filter type (OFF/HP/LP).
 - **HP (High Pass):** Allows frequencies above the set point to pass, typically used for full-range speakers to protect them from low bass.
 - **LP (Low Pass):** Allows frequencies below the set point to pass, typically used for subwoofers.
 - **OFF:** Disables the crossover.
- **Frequency (FREQ):** Adjust the frequency knob for each channel to set the crossover point.
- **Bass Boost:** Use the Bass Boost knob to add a low-frequency boost if desired. Use sparingly to avoid distortion.

6. OPERATING INSTRUCTIONS

Once installed and initially configured, the KMA600.6 amplifier operates automatically with your marine stereo system. When your head unit is turned on, the amplifier will power up via the remote turn-on wire. Adjust volume and basic tone controls through your head unit.

For fine-tuning, refer back to the gain, crossover, and bass boost settings on the amplifier. Make small adjustments and listen carefully to the sound output to achieve your preferred audio balance.

7. MAINTENANCE

The Kicker KMA600.6 amplifier is designed for durability in marine environments. Regular maintenance is minimal but important:

- **Cleaning:** Periodically wipe down the amplifier's exterior with a soft, damp cloth to remove salt, dirt, or grime. Do not use harsh chemicals or abrasive cleaners.
- **Connection Check:** Annually inspect all power, ground, remote, and speaker connections for corrosion or looseness. Tighten any loose connections and clean any corrosion.
- **Ventilation:** Ensure that the area around the amplifier remains clear of obstructions to allow for proper heat dissipation.

8. TROUBLESHOOTING

If you experience issues with your KMA600.6 amplifier, consult the following table before contacting support:

Problem	Possible Cause	Solution
No Power / Amplifier Not Turning On	Blown fuse; Loose power/ground/remote wire; Faulty remote turn-on signal; Amplifier in protection mode.	Check and replace fuse; Verify all power, ground, and remote connections are secure; Test remote wire for 12V signal; Disconnect power for 30 seconds to reset amplifier.
No Sound Output	No input signal; Loose speaker wires; Amplifier gain too low; Muted head unit.	Check RCA input connections; Verify speaker wire connections and polarity; Increase amplifier gain; Ensure head unit is not muted and volume is up.
Distorted Sound	Gain set too high; Speaker impedance mismatch; Damaged speakers; Clipping from head unit.	Reduce amplifier gain; Verify speaker impedance matches amplifier's capabilities; Inspect speakers for damage; Reduce head unit volume.
Humming or Noise	Poor ground connection; RCA cable interference; Ground loop.	Ensure ground connection is clean and secure; Reroute RCA cables away from power wires; Install a ground loop isolator if necessary.

9. SPECIFICATIONS

Detailed specifications for the Kicker KMA600.6 amplifier:

Specification	Value
Model Number	KMA600.6 (48KMA600.6)
Number of Channels	6
Output Power	6 x 100 Watts (RMS)
Voltage	14.4 Volts (Maximum Supply Voltage)
Item Dimensions (L x W x H)	12 x 20 x 7 inches
Item Weight	7.73 pounds

Specification	Value
Material	Metal
Mounting Type	Surface Mount
UPC	713034020387
Date First Available	November 13, 2020

10. WARRANTY AND SUPPORT

The Kicker KMA600.6 amplifier comes with a Manufacturer Warranty. This includes a **2 Year Parts and 2 Year Labor** warranty, applicable for Carry In Service available through Kicker Direct or HookedOnTronics for any 12V Car or Marine Service.

For technical support, warranty claims, or service inquiries, please contact Kicker customer service or visit their official website. Retain your proof of purchase for warranty validation.

For more information, you may visit the official KICKER store on Amazon:[KICKER Store](#)

© 2025 Kicker. All rights reserved. Specifications are subject to change without notice.