

## Arc Audio FD2200

# Arc Audio FD2200 2-Channel Car Amplifier User Manual

Model: FD2200

## 1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Arc Audio FD2200 2-Channel Car Amplifier. Please read this manual thoroughly before attempting to install or operate the amplifier to ensure proper function and safety.

## 2. SAFETY INFORMATION

Always observe the following safety precautions:

- Disconnect the vehicle's battery before making any electrical connections.
- Ensure all wiring is properly routed and secured to prevent damage or short circuits.
- Avoid installing the amplifier in locations exposed to direct sunlight, excessive heat, moisture, or dust.
- Use appropriate gauge wiring for power and ground connections to prevent overheating.
- Consult a professional installer if you are unsure about any aspect of the installation.

## 3. PRODUCT OVERVIEW

The Arc Audio FD2200 is a high-performance 2-channel car amplifier designed to deliver clear and powerful audio. It features robust construction and advanced protection circuits.



*Image 1: Arc Audio FD2200 2-Channel Car Amplifier. This image displays the top view of the amplifier, showcasing its black and silver casing with the Arc Audio logo and model number.*

## Key Features:

- 12dB stereo crossover with x10 range switch (55Hz to 5.5KHz)
- High/low/full range selector switch
- Mono/stereo/bridged select feature
- 18dB bass control at 45Hz
- Protection against reverse voltage, over voltage, speaker short, and thermal overload
- Heavy-duty construction

## 4. SETUP AND INSTALLATION

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Proper installation is crucial for optimal performance and safety. It is recommended to have this amplifier installed by a qualified professional.

### 4.1 Mounting Location

Choose a mounting location that is:

- Dry and well-ventilated.
- Protected from direct sunlight and excessive heat.
- Secure and free from vibrations.
- Accessible for wiring and adjustments.

### 4.2 Wiring Connections

Follow these guidelines for electrical connections:

1. **Power (B+):** Connect a fused power cable directly from the positive terminal of the vehicle's battery to the amplifier's B+ terminal. Ensure the fuse is located within 18 inches of the battery.
2. **Ground (GND):** Connect a short, heavy-gauge ground cable from the amplifier's GND terminal to a clean, unpainted metal surface on the vehicle's chassis.
3. **Remote (REM):** Connect a remote turn-on wire from your head unit's remote output to the amplifier's REM terminal.
4. **RCA Inputs:** Connect RCA cables from your head unit's pre-amp outputs to the amplifier's RCA input jacks.
5. **Speaker Outputs:** Connect speaker wires from the amplifier's speaker terminals to your speakers. Observe correct polarity (+ to + and - to -).

## 5. OPERATING INSTRUCTIONS

Once installed, the amplifier requires proper configuration for optimal audio performance.

### 5.1 Gain Adjustment

The gain control matches the amplifier's input sensitivity to the output of your head unit. Start with the gain set to minimum and slowly increase it until you hear distortion, then back off slightly.

### 5.2 Crossover Settings

Use the 12dB stereo crossover with the x10 range switch to set the desired frequency range for your speakers. The high/low/full range selector switch allows you to choose the appropriate mode:

- **High Pass:** Filters out low frequencies, suitable for full-range speakers or tweeters.
- **Low Pass:** Filters out high frequencies, suitable for subwoofers.
- **Full Range:** Allows all frequencies to pass through, typically used for full-range speakers without a separate subwoofer.

### 5.3 Bass Boost

The 18dB bass control at 45Hz can be used to enhance low-frequency output. Use this feature sparingly to avoid distortion and potential speaker damage.

### 5.4 Mono/Stereo/Bridged Select

This switch allows you to configure the amplifier for different output modes:

- **Stereo:** Standard 2-channel operation for two speakers.
- **Mono:** Combines both channels into a single output, typically for a single subwoofer.
- **Bridged:** Combines the power of both channels into a single, higher-power output, usually for a single, high-power subwoofer. Refer to the specifications for bridged power output.

## 6. MAINTENANCE

The Arc Audio FD2200 amplifier requires minimal maintenance to ensure long-term performance.

- Keep the amplifier clean and free from dust and debris. Use a soft, dry cloth for cleaning.
- Ensure adequate ventilation around the amplifier to prevent overheating. Do not block cooling fins.
- Periodically check all wiring connections for tightness and corrosion.

## 7. TROUBLESHOOTING

If you experience issues with your amplifier, refer to the following common problems and solutions:

| Problem           | Possible Cause  | Solution  |
|-------------------|---|---|
| No Power/No Sound | Blown fuse, loose power/ground/remote wire, amplifier in protection mode. | Check fuses (battery and amplifier). Verify all power, ground, and remote connections are secure. Check for short circuits in speaker wiring. |

| Problem               | Possible Cause   | Solution  |
|-----------------------|--|---|
| Distorted Sound       | Gain set too high, improper crossover settings, poor quality input signal. | Reduce gain. Adjust crossover settings. Check RCA cables for damage.  |
| Amplifier Overheating | Inadequate ventilation, impedance too low, prolonged high-power operation. | Ensure proper airflow around the amplifier. Verify speaker impedance matches amplifier capabilities. Reduce volume or operating time. |
| Noise/Hissing         | Ground loop, poor quality RCA cables, improper gain setting.               | Ensure a solid ground connection. Use shielded RCA cables. Adjust gain.   |

If the problem persists after attempting these solutions, contact Arc Audio customer support or a qualified service technician.

## 8. SPECIFICATIONS

The following are the technical specifications for the Arc Audio FD2200 amplifier:

- **Output Power (RMS):**
  - 100 Watts x 2 @ 4 ohms
  - 185 Watts x 2 @ 2 ohms
  - 360 Watts x 1 @ 4 ohms (bridged)
- **Transient Distortion:** <0.1% @ 4 ohms
- **Frequency Response:** 20Hz - 20KHz
- **Signal-to-Noise Ratio (A-weighted):** >98dB
- **Bass Boost:** +18dB @ 45Hz
- **Input Sensitivity:** 250mV - 2.5V
- **Crossover:** 55Hz - 5.5KHz variable 12dB
- **Fuse:** 45A x 1
- **Dimensions (with endcaps):** 10 3/8" x 16 3/4" x 2 3/8"
- **Dimensions (without endcaps):** 10 3/8" x 13 1/2" x 2 3/8"
- **Item Weight:** 12 pounds
- **Voltage:** 12 Volts (DC)

## 9. WARRANTY AND SUPPORT

Arc Audio products are designed for reliability and performance. For warranty information, please refer to the warranty card included with your product or visit the official Arc Audio website. For technical support or service inquiries, please contact Arc Audio customer service directly.

**Contact Information:**

- **Website:** [www.arcaudio.com](http://www.arcaudio.com) (Example link, actual link may vary)
- **Customer Service:** Refer to the website for current contact methods.

