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› [Power Acoustik](#) /

› Power Acoustik MOFO-154X Subwoofer User Manual

## Power Acoustik MOFO154X

# Power Acoustik MOFO-154X 15-Inch Subwoofer User Manual

Model: MOFO154X

## INTRODUCTION

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This manual provides essential information for the proper installation, operation, and maintenance of your Power Acoustik MOFO-154X 15-Inch Dual 4-Ohm VC 3000 Watt Pro Subwoofer. The MOFO-154X features a composite sandwich poly/paper cone with aluminum stiffeners to prevent cone flex during high excursion, and a new dustcap design for voice coil cooling. It is built with a cast aluminum basket for enhanced durability and increased low-frequency output.

## PRODUCT OVERVIEW

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An angled view of the Power Acoustik MOFO-154X 15-inch subwoofer, showcasing its black cone, blue accents on the surround, and the robust cast aluminum basket.

### Key Features:

- **2.5" Dual 4-Ohm 4-Layer Voice Coil:** Designed for high power handling and flexibility in wiring configurations.
- **Royal Blue Finish with Diamond Cut Accents:** Aesthetic design elements.
- **Die Cast Aluminum Voice Coil Heatsink:** Aids in heat dissipation for improved performance and longevity.
- **Non-Pressed Pulp Cone:** Provides a balance of rigidity and light weight for accurate sound reproduction.
- **Polyether Foam Surround:** Durable and flexible material allowing for high excursion.
- **Nickel Plated 8ga Compression Wire Terminals:** Ensures secure and efficient electrical connections.
- **Dual Poly-Cotton Spiders:** Contributes to linear cone movement and stability.
- **Die-Cast Aluminum Frame:** Robust and rigid frame minimizes resonance.
- **Vented Pole Piece:** Further assists in cooling the voice coil.

### WHAT'S IN THE BOX

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- Car Subwoofers - Sub driver only

## SPECIFICATIONS

| Attribute                    | Value                                                                                           |
|------------------------------|-------------------------------------------------------------------------------------------------|
| Brand                        | Power Acoustik                                                                                  |
| Model Name                   | MOFO154X                                                                                        |
| Speaker Type                 | Subwoofer                                                                                       |
| Subwoofer Diameter           | 15 Inches                                                                                       |
| Speaker Maximum Output Power | 3000 Watts                                                                                      |
| Impedance                    | 2 Ohm (Dual 4-Ohm Voice Coil, configurable to 2 Ohm or 8 Ohm)                                   |
| Frequency Response           | 80 Hz (Upper limit for subwoofer operation)                                                     |
| Material                     | Aluminum (Frame)                                                                                |
| Product Dimensions           | 18.25"D x 18.25"W x 11.25"H                                                                     |
| Item Weight                  | 1.12 ounces (Note: This weight is for packaging, actual product weight is significantly higher) |
| Mounting Type                | Flush Mount                                                                                     |
| Connectivity Technology      | RCA (Refers to line-level signal input to an amplifier, not direct subwoofer connection)        |
| Recommended Uses For Product | For Music Players                                                                               |
| Vehicle Service Type         | Car                                                                                             |

## SETUP

### 1. Enclosure Selection and Construction:

The performance of your MOFO-154X subwoofer is highly dependent on the enclosure it is installed in. Consult with a professional or use specialized software to design an appropriate enclosure (sealed, ported, or bandpass) that matches the subwoofer's Thiele-Small parameters and your desired acoustic output. Ensure the enclosure is robustly constructed from high-quality materials (e.g., MDF or Baltic Birch plywood) and properly sealed to prevent air leaks.

### 2. Wiring the Voice Coils:

The MOFO-154X features dual 4-ohm voice coils, offering flexibility in wiring configurations to achieve different final impedances. Common configurations include:

- **Series Wiring (8 Ohms):** Connect the positive terminal of one voice coil to the negative terminal of the other. The remaining positive and negative terminals become the amplifier inputs. This configuration results in a higher impedance, suitable for amplifiers stable at 8 ohms.
- **Parallel Wiring (2 Ohms):** Connect both positive terminals together and both negative terminals together. These combined

terminals become the amplifier inputs. This configuration results in a lower impedance, suitable for amplifiers stable at 2 ohms.

Always ensure your amplifier is stable at the chosen impedance. Incorrect wiring can damage both the subwoofer and the amplifier.

### 3. Mounting the Subwoofer:

Mount the subwoofer securely to the enclosure using appropriate screws. Ensure a tight seal between the subwoofer frame and the enclosure baffle to prevent air leaks, which can degrade sound quality. The flush mount design allows for a clean, integrated appearance.

### 4. Connecting to Amplifier:

Connect the subwoofer's terminals to the amplifier's subwoofer output terminals using high-quality speaker wire. Observe correct polarity (positive to positive, negative to negative) to ensure proper phase and optimal sound performance. The nickel-plated 8ga compression wire terminals provide a secure connection for heavy gauge wire.

## OPERATING

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### 1. Amplifier Matching:

Select an amplifier that can provide sufficient power (RMS wattage) to the subwoofer at the chosen impedance. The MOFO-154X is rated for high power handling, but exceeding its maximum power rating can cause damage. Refer to the subwoofer's specifications for recommended RMS power ranges.

### 2. Setting Amplifier Gain:

The amplifier gain control should be set to match the output voltage of your head unit. Do not use the gain control as a volume knob. Incorrect gain settings can lead to distortion and potential damage to the subwoofer. It is recommended to set the gain using a digital multimeter or by ear, carefully listening for any signs of distortion.

### 3. Crossover Settings:

Utilize your amplifier's or head unit's low-pass filter (LPF) to ensure the subwoofer only reproduces low frequencies. A typical LPF setting for a 15-inch subwoofer might be between 60Hz and 80Hz, but this can vary based on your vehicle's acoustics and personal preference. Avoid sending full-range audio signals to the subwoofer.

### 4. Break-in Period:

Allow a break-in period of approximately 20-30 hours of moderate listening before operating the subwoofer at high volumes. This allows the suspension components (surround and spider) to loosen up and reach their optimal compliance, improving overall performance and longevity.

## MAINTENANCE

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The Power Acoustik MOFO-154X subwoofer requires minimal maintenance. Periodically inspect the subwoofer for any signs of damage to the cone, surround, or spider. Ensure all wiring connections remain secure. Keep the subwoofer clean and free from dust and debris. Use a soft, dry cloth for cleaning. Avoid using harsh chemicals or abrasive materials.

## TROUBLESHOOTING

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| Problem | Possible Cause | Solution |
|---------|----------------|----------|
|---------|----------------|----------|

| Problem                 | Possible Cause                                                                                                                                                                                                            | Solution                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No Sound from Subwoofer | <ul style="list-style-type: none"> <li>◦ No power to amplifier</li> <li>◦ Loose or incorrect wiring</li> <li>◦ Amplifier in protect mode</li> <li>◦ Head unit settings</li> <li>◦ Damaged subwoofer voice coil</li> </ul> | <ul style="list-style-type: none"> <li>◦ Check amplifier power, ground, and remote turn-on connections.</li> <li>◦ Verify all speaker wire connections are secure and correct polarity.</li> <li>◦ Check amplifier fuses. Disconnect power, wait, then reconnect.</li> <li>◦ Ensure subwoofer output is enabled and volume is up on head unit.</li> <li>◦ Test subwoofer with a known good amplifier. If still no sound, voice coil may be damaged.</li> </ul> |
| Distorted Sound         | <ul style="list-style-type: none"> <li>◦ Amplifier gain set too high</li> <li>◦ Clipping from head unit</li> <li>◦ Incorrect crossover settings</li> <li>◦ Damaged subwoofer</li> <li>◦ Poor enclosure design</li> </ul>  | <ul style="list-style-type: none"> <li>◦ Reduce amplifier gain until distortion disappears.</li> <li>◦ Lower head unit volume.</li> <li>◦ Adjust LPF to prevent higher frequencies from reaching the subwoofer.</li> <li>◦ Inspect subwoofer for physical damage (e.g., torn surround, rubbing voice coil).</li> <li>◦ Ensure enclosure is properly sized and sealed.</li> </ul>                                                                               |
| Subwoofer Overheating   | <ul style="list-style-type: none"> <li>◦ Underpowered amplifier</li> <li>◦ Amplifier clipping</li> <li>◦ Improper impedance match</li> <li>◦ Prolonged high volume use</li> </ul>                                         | <ul style="list-style-type: none"> <li>◦ Ensure amplifier provides sufficient RMS power.</li> <li>◦ Correctly set amplifier gain to avoid clipping.</li> <li>◦ Verify subwoofer wiring matches amplifier's stable impedance.</li> <li>◦ Reduce listening volume or take breaks during extended high-volume playback.</li> </ul>                                                                                                                                |

## WARRANTY INFORMATION

The Power Acoustik MOFO-154X Subwoofer comes with a **Limited Warranty**. Please refer to the official Power Acoustik website or the original purchase documentation for specific terms, conditions, and duration of the warranty. Keep your proof of purchase for warranty claims.

## SUPPORT

For further assistance, detailed technical specifications, or troubleshooting, please refer to the official User Manual PDF available online:

[Download User Manual \(PDF\)](#)

You can also visit the Power Acoustik official website for product support and contact information.

