

Fusion FUS.010-02301-11

FUSION FM-S10SB Marine Subwoofer User Manual

Model: FUS.010-02301-11 | Brand: Fusion

INTRODUCTION

Thank you for choosing the FUSION FM-S10SB Flush Mount Marine Subwoofer. This 10-inch, 400W subwoofer is engineered for marine environments, featuring a square grille, sealed water-resistant construction, and a polypropylene cone with a rubber surround. It is designed to deliver high-quality bass while withstanding harsh marine conditions, meeting IP65 water and dust resistance standards and complying with ASTM standards for UV stability and salt/fog resistance.

This manual provides essential information for the safe and effective installation, operation, and maintenance of your FUSION marine subwoofer. Please read it thoroughly before installation and keep it for future reference.

SAFETY INFORMATION

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

- **Power Disconnection:** Disconnect the vessel's power supply before beginning any installation or wiring.
- **Correct Wiring:** Ensure all wiring is correctly connected and insulated to prevent short circuits and electrical hazards. Refer to the wiring diagram in the installation section.
- **Ventilation:** Ensure adequate ventilation around the subwoofer to prevent overheating.
- **Mounting Location:** Choose a stable and secure mounting location that can support the weight of the subwoofer and is free from obstructions.
- **Water Exposure:** While the subwoofer is water-resistant (IP65 rated), avoid direct high-pressure water jets or submersion.
- **Professional Installation:** If you are unsure about any aspect of the installation, consult a qualified marine electronics installer.
- **Volume Levels:** Prolonged exposure to high volume levels can cause hearing damage.

Proposition 65 Warning: This product can expose you to chemicals which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

WHAT'S IN THE BOX

Verify that all components are present before beginning installation:

- FUSION FM-S10SB Flush Mount Marine Subwoofer
- Installation Material (screws, mounting template if applicable)
- Instruction Sheet (this manual)

SETUP AND INSTALLATION

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

1. Choosing a Mounting Location

Select a flat, stable surface on your vessel that can accommodate the subwoofer's dimensions (9.84 x 5.51 x 5.04 inches) and provide sufficient clearance behind for wiring and air circulation. The subwoofer is designed for flush mounting.

2. Preparing the Mounting Surface

1. Using the provided mounting template (if included), mark the cutout area on the chosen surface.
2. Carefully cut the opening using appropriate tools. Ensure the cut is clean and precise to allow for a snug fit.
3. Drill pilot holes for the mounting screws as indicated by the template.

3. Wiring the Subwoofer

The FM-S10SB features a dual 2-ohm voice coil. Ensure your amplifier is compatible with this impedance. Proper wiring is essential for sound quality and to prevent damage to the subwoofer or amplifier.

- **Parallel Wiring (1 Ohm):** Connect the positive terminals of both voice coils together, and the negative terminals of both voice coils together. Connect the combined positive to the amplifier's positive output and the combined negative to the amplifier's negative output. This configuration presents a 1-ohm load.
- **Series Wiring (4 Ohms):** Connect the positive terminal of one voice coil to the negative terminal of the other voice coil. Connect the remaining positive terminal to the amplifier's positive output and the remaining negative terminal to the amplifier's negative output. This configuration presents a 4-ohm load.

Use marine-grade wiring of appropriate gauge for your power requirements. Ensure all connections are secure and protected from moisture.

4. Mounting the Subwoofer

1. Carefully insert the subwoofer into the prepared cutout.
2. Secure the subwoofer using the provided mounting screws. Do not overtighten, as this can damage the mounting flange.
3. Ensure the grille is properly aligned and seated.



Image: Front view of the FUSION FM-S10SB Marine Subwoofer, showcasing its black square grille and flush-mount design. The grille features a dense pattern of small circular perforations for sound output and protection.

OPERATING THE SUBWOOFER

The FUSION FM-S10SB subwoofer is a passive component and requires an external amplifier to operate. Once installed and wired correctly, its operation is controlled by your marine audio system's head unit and amplifier settings.

- **Amplifier Settings:** Adjust the gain, crossover frequency (low-pass filter), and phase settings on your amplifier to optimize the subwoofer's performance with your main speakers. A typical low-pass crossover setting for a subwoofer is between 60Hz and 100Hz.
- **Volume Control:** Control the overall system volume through your head unit. Avoid pushing the subwoofer to distortion, which can cause damage.
- **Break-in Period:** Allow a short break-in period (approximately 10-20 hours of normal use) for the subwoofer's suspension to loosen, which can improve its long-term performance.

MAINTENANCE

To ensure the longevity and optimal performance of your FUSION marine subwoofer, follow these

maintenance guidelines:

- **Cleaning:** Regularly wipe down the grille and surrounding surfaces with a soft, damp cloth. For stubborn dirt, use a mild soap solution and rinse thoroughly with fresh water. Avoid abrasive cleaners or solvents.
- **Inspection:** Periodically inspect the subwoofer for any signs of wear, corrosion, or damage to the cone, surround, or grille. Check wiring connections for tightness and corrosion.
- **UV Protection:** While the grille is UV-resistant, prolonged exposure to direct sunlight can still affect its appearance over time. Consider using a cover when the vessel is not in use for extended periods.
- **Winterization:** If storing your vessel in freezing temperatures, ensure the subwoofer is protected from extreme cold and moisture.

TROUBLESHOOTING

If you experience issues with your FUSION FM-S10SB subwoofer, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No Sound from Subwoofer	No power to amplifier Incorrect wiring Amplifier in protect mode Head unit settings	Check amplifier power connections and fuse. Verify all wiring connections (power, ground, signal, speaker) are correct and secure. Check amplifier for fault indicators; disconnect power, wait, and reconnect. Ensure subwoofer output is enabled and volume is up on head unit.
Distorted Sound	Amplifier gain too high Incorrect crossover settings Damaged subwoofer	Reduce amplifier gain. Adjust low-pass filter on amplifier. Inspect subwoofer cone and surround for physical damage.
Weak Bass Output	Incorrect phase setting Low amplifier gain Subwoofer wired out of phase	Adjust phase switch on amplifier (0° or 180°). Increase amplifier gain gradually. Double-check speaker wire polarity.

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

SPECIFICATIONS

Feature	Detail
Model Name	FM-S10SB
Model Number	FUS.010-02301-11

Feature	Detail
Speaker Type	Subwoofer (Component)
Subwoofer Diameter	10 Inches
Power Handling (RMS)	120 Watts
Power Handling (Peak)	400 Watts
Frequency Response	30-2000 Hz
Sensitivity	87 dB
Voice Coil	Dual 2-ohm
Construction	Sealed, Water-Resistant
Cone Material	Polypropylene with Rubber Surround
Grille Type	Square, UV-Resistant
Water/Dust Resistance	IP65 Rated
Environmental Compliance	ASTM standards for UV stability and salt/fog resistance
Recommended Sealed Box Volume	1.41 cu. ft. (approx.)
Product Dimensions (L x W x H)	9.84 x 5.51 x 5.04 inches
Item Weight	15.5 ounces (0.44 Kilograms)
Connectivity Technology	Wired
Mounting Type	Flush Mount

WARRANTY AND SUPPORT

Warranty Information: Your FUSION FM-S10SB Marine Subwoofer comes with a Full Warranty. Please refer to the warranty card included with your product or visit the official Fusion website for detailed terms and conditions regarding warranty coverage, duration, and claims procedures.

Customer Support: For technical assistance, troubleshooting beyond this manual, or warranty inquiries, please contact Fusion customer support. Contact information can typically be found on the Fusion website or on the product packaging.

Online Resources: Visit the official Fusion website for the latest product information, FAQs, and additional support resources.