

OWNER'S MANUAL



MX10IB3-SG (LED)

Marine Subwoofer
with Blue LED Illumination

Thank you for choosing a JL Audio Marine Subwoofer.

*With proper installation, your new speaker will deliver
years of listening pleasure.*

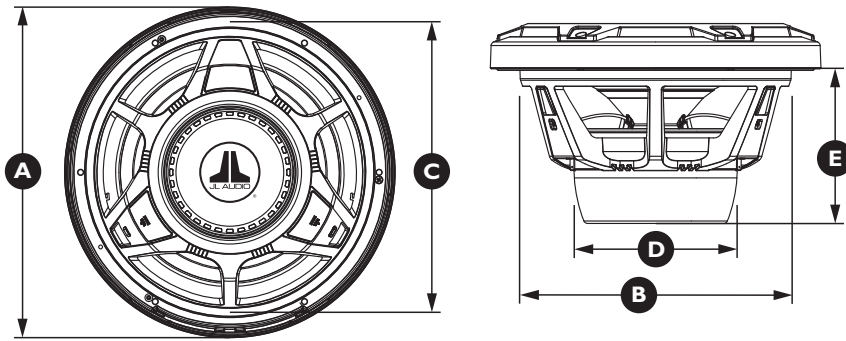
*We strongly recommend that you have your subwoofer
installed by your authorized JL Audio dealer.*

*The installation professionals employed by your dealer have
the necessary tools and experience to properly install this product.*

*If you prefer to perform your own installation,
please read this instruction manual completely
before beginning the process.*

JL AUDIO®
Ahead of the Curve™

PHYSICAL SPECIFICATIONS



Subwoofer Physical Specifications	MX10IB3-SG (LED)
Nominal Diameter:	10 in. / 250 mm
Overall Diameter (A):	10.75 in. / 273 mm
Mounting Hole Diameter (B):	8.875 in. / 225 mm
Bolt Hole Circle (C):	9.706 in. / 247 mm
Motor Overmold Outer Diameter (D):	5.29 in. / 134 mm
Mounting Depth (E):	5.12 in. / 130 mm
Net Weight:	6.5 lbs. / 2.94 Kg
Driver Displacement:	0.04 ft ³ / 1.13 litres

Subwoofer Parameters	MX10IB3-SG (LED)
Free Air Resonance (Fs):	41.84 Hz
Electrical "Q" (Qes):	0.806
Mechanical "Q" (Qms):	11.751
Total Speaker "Q" (Qts):	0.754
Equivalent Compliance (Vas):	1.29 ft ³ / 36.53 litres
One-way, Linear Excursion (Xmax)*:	0.42 in. / 10.7 mm
Efficiency (1W/1m)**:	87.23 dB SPL
Effective Piston Area (Sd):	50.68 in ² / 0.0327 m ²
DC Resistance (Re):	3.957 ohm
Nominal Impedance:	4 ohm
Infinite Baffle Use:	Yes (Preferred)
Enclosure Use:	Yes (Sealed Only)
Power Handling (continuous):	175W

* Xmax specifications are derived via one-way voice coil overhang method with no correction factors applied.
 ** Efficiency (1W/1m) is not an accurate indicator of a subwoofer's output capability and should not be used as a comparison to other subwoofers to determine which one is "louder"!

Due to ongoing product development, all specifications are subject to change without notice.

We recommend the use of this speaker in a bi-amplified system using high-quality satellite speakers and amplifiers. We do not recommend the use of this subwoofer with a passive crossover (coil), as this type of device will adversely affect performance.

INCLUDED PARTS

- One Polymer Subwoofer Grille with integrated blue LED lighting
- Six #8 x 1 1/2-inch (38 mm) pan-head stainless-steel screws for speaker mounting
- Six #8 stainless-steel washers for speaker mounting
- One 150mA fuse (type 3AG)
- One in-line fuseholder (type 3AG)
- Logo Badges (Sport-Grille Models Only)
 - One Pair Black (White, Titanium/Black & Chrome Models)
 - One Pair Red (White, Titanium/Black & Chrome Models)
 - One Pair Titanium (Titanium/Black Models Only)
 - One Pair White (White Models Only)
 - One Pair Blue (Chrome Models Only)

!! CAUTION

While these speakers are designed to be water and spray resistant, they are not designed to be submerged or to withstand high-pressure water spray. Please exercise care when washing your boat to avoid damaging your speakers. Do not install on submersibles, personal watercraft or any other vessel likely to be under water at any time.

Prolonged exposure to sound pressure levels in excess of 100dB can cause permanent hearing loss. This high-performance speaker can exceed this level. Please exercise restraint in its operation in order to preserve your ability to enjoy its fidelity.

When installing speakers in your vessel, it is extremely important to secure them firmly. This applies not only to the speakers themselves, but also any structures they are mounted to. If not firmly attached, the speakers can become dangerous projectiles in a collision. Please review the mounting information carefully and use the supplied marine-grade hardware to mount this product.

!! WARNING

It is vital that your speaker is connected as shown in this manual. Failure to connect as shown will result in damage to your speakers which is NOT covered under warranty.

!! WARNING

Do not attempt to remove the lighting LEDs or the grille from the speaker! The LEDs are permanently fixed to the grille and their wiring is permanently attached to the speaker frame. Attempting to remove the grille or LEDs will damage the speaker and this damage will not be covered under warranty.

BEFORE YOU BEGIN INSTALLING

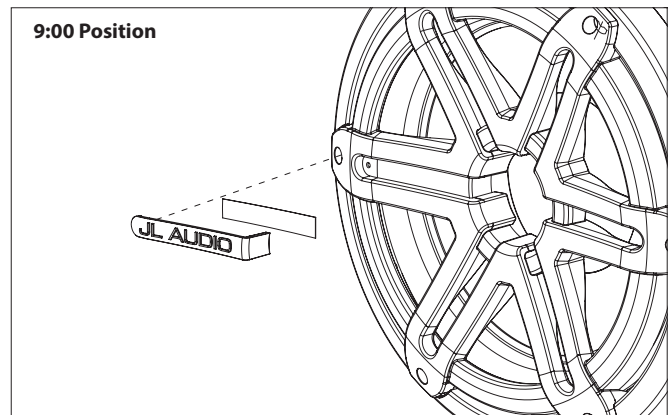
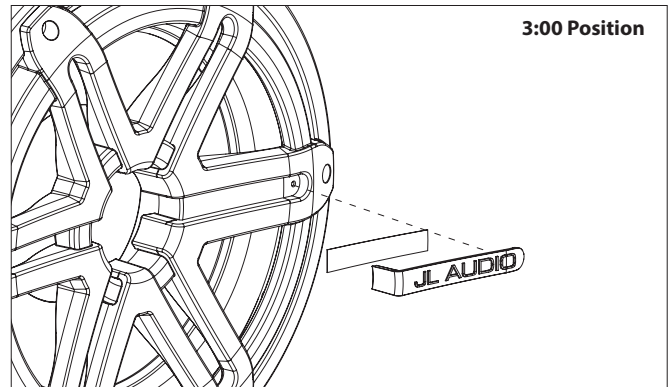
- Check with your local waterway authority for any regulations regarding the use of accent/speaker lighting on your vessel.
- Turn off the audio system. It is also advisable to disconnect your battery system whenever performing installation work.
- Before cutting, drilling or inserting any screw, check clearances on both sides of the planned mounting surface. Also check for any potential obstacles, such as wiring harnesses, fuel lines, hydraulic lines, etc. Check both sides of the vessel before cutting any holes.
- If you are running cables through bulkheads, drills holes for the cable and use a urethane or plastic grommet to protect the wire from chafing in the hole. Make sure that the cables will clear any mechanical devices in the boat and secure them with wire ties.
- Wear protective eyewear at all times and a dust mask and gloves when drilling or cutting.

INTERCHANGEABLE LOGO BADGE

Interchangeable Logo Badges for Sport Grille model subwoofers are included to further customize your installation. The design of the Sport Grille allows for the JL Audio logo to be added in your choice of included colors and oriented in the manner that best suits your installation.

NOTE: A left and a right badge of each color is included. These two different orientations ensure the “JL Audio” Logo will read correctly wherever positioned (most commonly the 3:00 or 9:00 position).

Remove the adhesive backing from the badge and affix the badge to the grille using the small positioning hole as a guide. See diagram below.

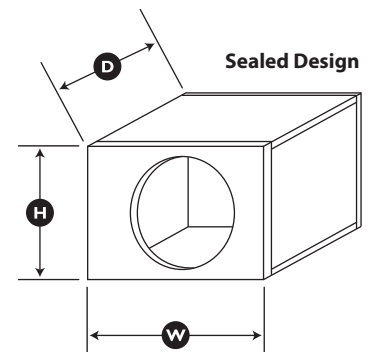


ENCLOSURE SPECIFICATIONS

The MX10IB3 subwoofer is designed for infinite-baffle operation with a large volume of air behind it (at least 2 cu. ft. / 56.6 l). For best performance, the installation location/compartament must remain unoccupied and free of boating equipment (safety gear, life jackets, etc.). If you decide to build a dedicated enclosure, you may refer to the suggested design below.

Subwoofer	Recommended Sealed Design				
	Volume (net int.)	External Dimensions (Width x Height x Depth)	F3 (Hz)	Fc (Hz)	Qtc
MX10IB3	2.0ft ³ 56.6 litres	18 in. x 18 in. x 14.5 in. 457 mm x 457 x 368 mm	42.9	53.66	0.967

NOTE: The MX10IB3 Marine Subwoofer is not recommended for use in Ported Enclosures.



The enclosure recommendations listed are external dimensions which assume the use of 3/4" (19mm) thick material. If you are using 5/8" (16mm) thick material, subtract 1/4" (6.5mm) from each dimension. Do not use any material with a thickness of less than 5/8" (16mm) as this may compromise the rigidity of the enclosure.

All enclosure volumes listed are net internal volumes! Box volume displacement, port displacement and brace displacement must be added to obtain the final gross internal volume. All enclosure dimensions listed have already taken this into account.

LED WIRING CONSIDERATIONS

- Do not connect the speaker's LED lights to the vessel's navigational lighting circuits.
- Connect the BLUE (+12V) lead to a switched +12V supply. For short-circuit protection, install a supplied fuseholder onto the speaker's BLUE (+12V) LED power connection lead. Connect the YELLOW (GND) lead to negative ground or to the NEGATIVE battery post. See LED Wiring at right.
- If installing additional subwoofers, connect all BLUE (+12V) leads together (parallel) with a fuseholder installed onto EACH. Connect all YELLOW (GND) leads to negative ground or to the NEGATIVE battery post.
- We recommend activating the speaker's LEDs thru a cabin/interior lighting circuit that supplies +12V via an existing switch. If an existing switched circuit is not available, you may install a dedicated toggle/rocker style switch that will supply positive (+12V) power. Fuse this connection according to how many LED circuits you have (LED circuits x 150 mA).
- We recommend a minimum of 16AWG wire size for each speaker's LED connection circuit.

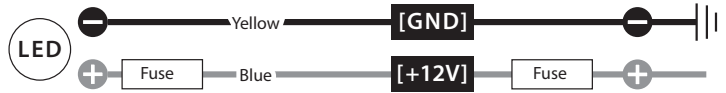
LED WIRING

Individually fuse each BLUE (+12V) lead and wire together (parallel) to a fused, switched +12V activation circuit.

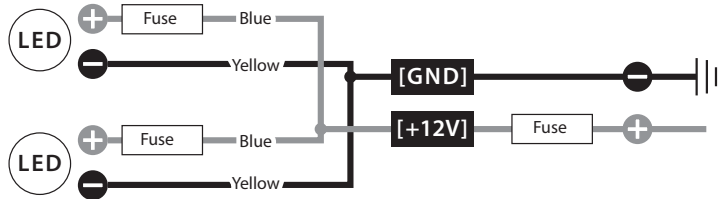
Wire all YELLOW (GND) leads together (parallel) and connect to negative ground or to the NEGATIVE battery post.

We recommend fusing the +12V connection point according to how many LED circuits you have (LED circuit quantity x 150 mA).

Example: Single speaker LED circuit connection.



Example: One speaker pair of LED circuits connected in parallel.



INSTALLATION PROCEDURE

Once a mounting location has been established, run speaker cables from the amplifier outputs to the mounting locations. Now is also a good time to run wires to the speaker location for LED activation.

Diagram A (right) shows the typical installation procedure into a fiberglass panel using the supplied hardware. Always follow proper safety procedures when working on a vessel. Use eye-protection at all times and a dust mask and gloves when cutting.

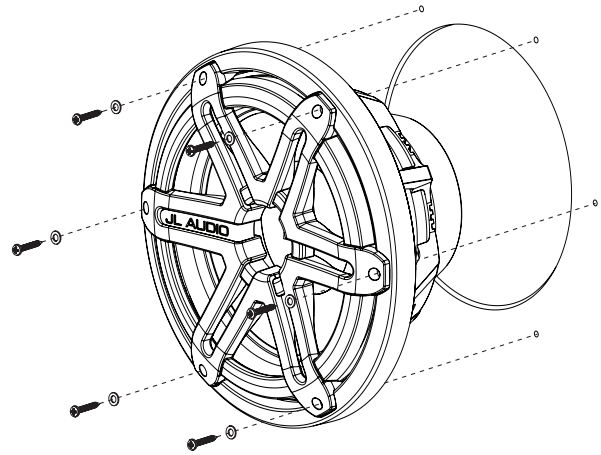
- 1) Choose a flat mounting surface that has sufficient depth and air space behind it to accept the subwoofer.
- 2) Cut a 8.875-inch (225 mm) diameter hole.
- 3) Run the speaker cable to the mounting location.
- 4) Place the woofer in the hole and mark the screw hole locations using a sharp, pointed tool.
- 5) Remove the woofer and drill a pilot hole (see Pilot Hole Recommendation chart below) in each of the screw locations. It is also advisable to use a hand-driven countersink tool on each hole to further inhibit gel-coat cracking of fiberglass panels.
- 6) Connect the speaker wires and place the woofer, with its grille in place, into the opening (for Sport Grille models, pay attention to where the logo badge will added).
- 7) Connect the LED activation wires to the LED circuit leads. See LED Wiring at left.
- 8) While holding the speaker firmly in its mounting location, evenly snug the mounting screws in a criss-cross pattern, then hand tighten in a criss-cross pattern.

Non-standard installations may require different hardware.

Always use marine-grade, stainless-steel fasteners to ensure a secure, reliable installation.

If you have any questions about the installation or setup of your subwoofer not covered in this manual, please contact your dealer or technical support.

DIAGRAM A



#8 SCREW: PILOT HOLE RECOMMENDATIONS

Fiberglass Thickness	Recommended Pilot Hole Drill Size
0.125 in. (3.18 mm) or less	7/64 in. (2.78 mm) pilot hole
foam core / fiberglass sandwich	7/64 in. (2.78 mm) pilot hole
larger than 0.125 in. (3.18 mm)	1/8 in. (3.18 mm) pilot hole

INSTALLATION NOTES

INSTALLATION NOTES

RECOMMENDED CONTINUOUS (RMS) POWER RANGE FOR ONE SUBWOOFER DRIVER:



MEDIUM GRAY (MINIMUM):

From a reliability standpoint, this zone represents a very comfortable operating power range for each driver. This level of power will not stress the woofer but will not extract all of its performance potential, either.

Use of less than the minimum power level will not damage the woofer, but may result in unsatisfactory performance.

LIGHT GRAY (OPTIMUM):

This zone represents the best compromise between long-term reliability, high-output and low-distortion performance. This power level is lower than the woofer's continuous power rating (as published in its specifications), but you will still be taking advantage of the woofer's, low-distortion performance range without undue risk of failure.

DARK GRAY (MAXIMUM):

Slightly more SPL will be gained by pushing the power into this zone, but typically not more than 2dB, compared to the light gray zone. The subwoofer driver is designed to operate safely up to this power range, but not beyond. Operate with caution.

BLACK (WARRANTY VOID):

We do not recommend operating woofers at this level of power. In this zone, there is a very high probability that the driver will fail due to excessive heat and/or mechanical stress.

Subwoofer drivers operated at these levels of power are NOT covered under warranty.

When designing systems with our drivers, it is very important to achieve a good power match between the subwoofer amplifier and the subwoofer driver's capabilities. The power levels listed in the above chart represent continuous (RMS) amplifier power per woofer and assume that the user will regularly make full use of that power without drastically overdriving the amplifier(s). Make sure you factor system impedance and the total number of subwoofers into your calculations. Adhering to these power recommendations will result in systems that are both reliable and enjoyable.

JL AUDIO LIMITED WARRANTY (USA)
Marine Subwoofer Components

JL AUDIO warrants this speaker to be free of defects in materials and workmanship for a period of **two (2) years** from the original date of purchase.

Damage caused by the following is not covered under warranty: accident, misuse, abuse, product modification or neglect, failure to follow installation instructions, unauthorized repair attempts, misrepresentations by the seller. This warranty does not cover incidental or consequential damages and does not cover the cost of removing or reinstalling the unit(s). Cosmetic damage due to accident or normal wear and tear is not covered under warranty.

This warranty is not transferable and applies only to the original purchaser of the product from an authorized JL AUDIO dealer. Warranty is voided if the factory-applied product serial number is removed or defaced.

Should service be necessary under this warranty for any reason due to manufacturing defect or malfunction, JL AUDIO will, at its discretion, repair or replace the defective product with new or remanufactured product at no charge.

Any applicable implied warranties are limited in duration to the period of the express warranty as provided herein beginning with the date of the original purchase at retail, and no warranties, whether express or implied, shall apply to this product thereafter. Some states do not allow limitations on implied warranties, therefore these exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

If you need service on your JL AUDIO product:

All warranty returns should be sent to JL AUDIO freight prepaid through an authorized JL AUDIO dealer and must be accompanied by proof of purchase (a copy of the original sales receipt.) Direct returns from consumers or non-authorized dealers will be refused unless specifically authorized by JL AUDIO with a valid return authorization number. Warranty expiration on products returned without proof of purchase will be determined from the manufacturing date code. Coverage may be invalidated as this date is previous to purchase date. Return only defective components. Non-defective items received will be returned freight-collect. Customer is responsible for shipping charges and insurance in sending the product to JL AUDIO. Freight damage on returns is not covered under warranty. Always include proof of purchase (sales receipt).

For Service Information in the U.S.A. please call:

JL Audio customer service: (954) 443-1100 during normal business hours (Eastern Time)

JL Audio, Inc

10369 North Commerce Parkway, Miramar, FL 33025

International Warranties:

Products purchased outside the United States of America are covered only by that country's distributor and not by JL Audio, Inc.