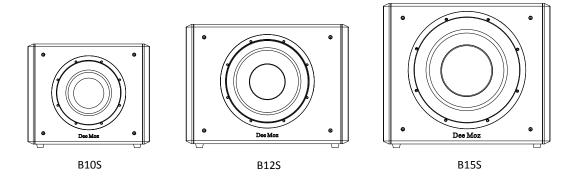


# **Owners'** Guide



# DM Mid-Series Slender Sub™

Dee Moz Mid-Series Slender Subs<sup>™</sup> use custom Class D amps and classic analog filters to deliver deep, balanced and powerful, professional quality bass. For space-limited studios and theaters, these elegant designs can hide stunning power in plain sight.

# **Important Safety Guidelines**

- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings
- 4. Follow all instructions.
- 5. Do NOT use this apparatus near water.
- 6. Clean only with dry cloth.

7. Do NOT block any ventilation openings. Install in accordance with the manufacturer's instructions.

8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus. (including amplifiers) which produce heat.

9. Only use attachments/accessories specified by the manufacturer.

10. Only use with a cart, stand, tripod, bracket, or fittings specified by the manufacturer, or sold with the speakers. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.

11. Do NOT expose this apparatus to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the apparatus.

The graphical exclamation point below right, within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

The lightning flash with arrowhead symbol within an equilateral triangle, below left, is intended to alert the user to the presence of "dangerous voltages" which are of sufficient magnitude to constitute a risk of electrical shock to humans.

#### WARNINGS:

- To reduce the risk of fire or electrical shock, do not expose this apparatus to rain or moisture.

- No naked flame sources ( such as candles) should ever be placed on the product.



WARNING: Do Not Open! Risk of Electrical Shock. Voltages in this equipment are hazardous to life. No user-serviceable parts inside. Refer all servicing to qualified service personnel.



**Subwoofers are a specialty at DM Audio.** Deep, flat and powerful bass that's also low distortion is a vital part of a pro-grade theater experience. Large subs are efficient performers. *We're* certainly fans. But rarely do the biggest fit our smaller homes and apartments. Our Slender Subs were built for the tightest rooms, and they pump up music games and movies like few others their size.

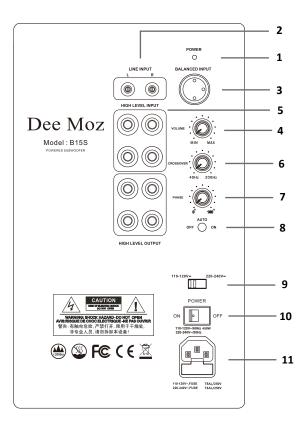
Fantastic as these new subwoofers are, there's no other speaker in your system which demands such care in setup. Rest assured, the effort to optimize your subwoofers will be rewarded with theater sound realism that draws you in.

# **Carton Contents**

- 1 Dee Moz Slender Sub™ 4 Adhesive rubber feet
- 1 Pair of gloves
- 1 Owner's manual

# **Control Features**

- 1 Discreet two color Power LED provides a soft glow to allow adjustment in low light. Red indicates subwoofer is in sleep mode. LED shifts to blue light when input signal is detected.
- 2 Stereo RCA inputs allow all DM Slim Subs to capture deep bass from virtually any audio system with low level two channel output. Our built-in crossover
- 3 Balanced XLR (B15S) or RCA (B10S and B12S) Low Frequency Effects (LFE) inputs for a clear path to your custom Class-D amps. Used when your AVR or processor offers built-in digital bass management.
- 4 Volume: Analog rubberized knob allows simple changes during bass level calibration. No confusing display, just dial-in your levels.





**5 & 6** Speaker level inputs – Often deleted to save costs in today's subs, this feature (and the associated low-pass crossover knob here) integrates seamless bass with any classic stereo system.

**7 Phase control.** A vital tool which can enhance the timing and overall frequency response of your room's bass. B15S gets continuously variable control, the B12S and B10S subs use a basic "flip" switch.

8 "Auto" Power Mode: When "ON" this switch allows the sub to automatically "sleep" when not in use, yet quickly "wake" when a movie or music start. This can save you significantly in electricity. When "OFF" this feature is inactive, and the sub will remain engaged.

**9** System voltage selector – Take this subwoofer virtually anywhere thanks to a simple voltage selector. Still the most effective way to ensure your sub can tap your local power.

**10 "Mains" power switch:** This heavy-duty rocker switch cuts power to your sub's amp while changing input cables, or moving its location.

**11 Grounded power socket with integrated fuse holder:** A dedicated in-line power fuse is a safety standard, and we include a spare fuse for rare occasions where a power surge may blow the fuse while protecting your subwoofer's amp.



**Safety first.** Generally it's best practice to leave the subwoofer unplugged at its power socket until your system is ready for speaker level calibration and room correction routines to be run. Likewise leave it switched off while connecting the recommended LFE input to your AVR (or alternatively to your stereo system via the Right (R) and Left (L) RCA or speaker-level inputs to your stereo )

Your hookup method will dictate where best to set key controls. Most modern surround-sound systems featuring an AV Receiver, may use a single hookup cable, running from to your subwoofer model's LFE jack (RCA or XLR format jacks depending on model). This is both the most simple connection, and provides the easiest and best sounding connection. Other settings: Keep Phase set to 0 degrees and set Volume no more than ½ to ¾'s way to it's maximum setting (full clockwise). The built-in Crossover knob will not affect your subwoofer sound when the recommended LFE input is used.



### **Subwoofer Placement**

**Location, location.** More so than any other speaker in your system, subwoofers demand attention to finding the best location in your room. Many good options exist for large or small rooms with our Slender Subs. Of course the proximity of neighbors or family to your movie, music or gaming room may affect how loud you might play. The next pages will touch on the advantages of corner placement, twin subs (or more than two!), plus what we call "near-field" listening options ... that's where the sub sits right next to your seats!

**Safe handling during installation.** Our subwoofers are heavy, which speaks to quality and design. Use care when picking up and moving, two-persons lifting together is best! Professional installers recommend soft-touch gloves for better grip without marring your black satin finish. The supplied grills can help prevent damage to your sub's woofer.

**Plan for your subwoofer's "level calibration" and room correction.** Adding highperformance subwoofers to your audio system can add many benefits, but the final adjustments can make major improvements in your results. Simple sound pressure level (SPL) meters make it easy to get basic integration done right. Since every brand is different, your AVR operating manual is the best source on setup details

Why bother? Room correction software is among audio's most significant advances in home audio. DIRAC, Audyssey XT and many other AVR brands' dedicated "Auto-EQ" routines often make startling improvements achieving smooth, powerful and balanced response. Insist your installer use these tools before you start playing your favorite movies and music, they are vital to exploiting the full potential of your DM audio system, subwoofers in particular.

Subwoofer tips for the ages: Big room? Big subs. Or more than one. Small room, small sub!

• Very few home theater systems have "too much" bass power. Having one subwoofer turned up too much is a common error however. Of course adding a second, third or even a fourth sub to a large theater space can be done one step at a time.

• **Bass is non-directional, your ears can't "locate" them.** And bass loses power if placed too far away from your prime listening seats.

• Corner locations tend to provide the most balanced (flat) response, and deliver the most power.

• Children or family nearby??? **Consider placing your subwoofer directly next to your main seats**! This allows for a deep, powerful theater or concert-like sound yet with lower volume. This type setup is less likely to disturb those not watching the show.

# Dee Moz

• **Doing a basic "level match" with built in AVR test tones and a simple "SPL meter"** before running room-correction (auto-EQ) tools gives the best results in this critical setup task. Some smart phone SPL meter "apps" are quite good!

• Take time to vary subwoofer locations during your break-in period. Each room has a unique sound, including yours. Subs can sound vastly different simply moving them a meter or less!

**Note**: Re-run your system calibration after any relocation of your sub. Even moving a sub a meter or less can result in profoundly different sound at your seats.

## **Quick Start**

Use these steps to get rolling with bass in minutes

- 1. While the power cord is still unattached, place your sub either in a corner near your front speakers or video display
- Set Volume to ½ level, Phase to "0". Use a single RCA or XLR cable (depending on DM Slender Sub ™ model) to connect your AVR's "Sub Out" jack to the sub's "LFE Input" (Crossover knob setting has no effect in this mode).
- 3. Check your AVR's speaker setup mode. Ensure your room's speakers size and location match the AVR's settings. Set all speakers to "Small" with 80hz filters to start. Use an SPL meter to measure your playback levels using built in AVR test tones.
- 4. Run your AVR's auto-calibration routine. "Auto-EQ" can go by many names, but typically uses dedicated microphone which is moved to several locations near your listening location while it listens to your room's sound and adjusts frequency response and other parameters to enhance performance.



#### Bass and 5.1 or 7.1 surround subwoofer configuration (See Figure 1)

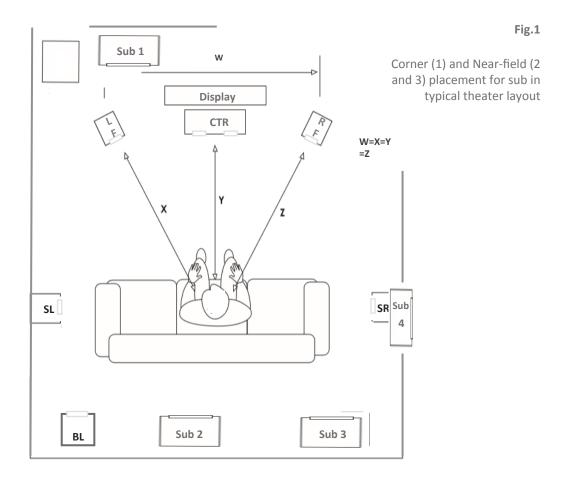
• One to four subs for large 5.1 and 7.1 channel theaters is typical. Room size and your playback level goals will dictate the best path.

- Corners on near your front main speakers (Sub 1 above) often provide the best combination of power and flat frequency response.
- Wiring must be factored in the subs location. Each subwoofer requires electrical power *and* a signal cable be routed from your AVR..



• If subwoofers are hidden behind decorative fabric, front grills should still be used. Ensure nothing touches speaker drivers or vents.

• After final placement ensure your AVR room correction routine, and level calibration settings are made and saved for future use.



#### Some words of wisdom about bass and subwoofer(s).

• **One to four subs?!?** Having multiple subwoofers might seem a bit crazy at first, but for true theater levels of audio, it's anything but crazy, really. Subs 2 and 3 (Fig. 1 above) in our basic theater setup can be run half as hard as a single sub, giving huge improvements in dynamic range, lower distortion and sheer power and impact often impossible with a single sub. At DM we say "space eats bass".

• If your neighbors are close, place your subwoofers closer! As shown above, placing a smaller subwoofer (Sub 3) directly next to your seats can be one of the most effective



sounding systems. This can provide more feel your games and movies but with lower subwoofer output without disturbing others.

• Note to customers using small front and/or surround speakers: Another reason for front wall corners for your subs (Sub 1). If you are able to play your subs a bit louder, using corners up front, near your main speakers and flanking your TV or projection screen, allows a more aggressive, higher frequency, bass management settings in your AVR. This gives your more bass to work with and less stress on main speakers. Regardless, a 100Hz (or higher) AVR bass crossover setting requires subwoofer up front, keeping high bass tones forward.

• Consider a "building-block" approach your theater or game/music room design. Running two subs below full output is far better than one sub being pushed to the maximum. But cost and space might dictate you add more bass "headroom", one upgrade at a time. Nearly no audio upgrade gives as much improvement as multiple subwoofers, your DM installer will ensure any upgrades are properly planned and integrated.



Caution! Turn off your AVR and/or separate amplifiers before making any speaker connections.

**Subwoofer connection pointers:** Your DM subwoofer is equipped with two types of positive (Red) and negative (Black) connection terminals on the rear of the cabinet. These correspond to the positive and negative terminals on your AVR. References to speaker "phase" regard this vital setup requirement (keeping polarity " +/- " matching from AVR to sub and speakers).



# Note: Only ONE connection mode to your DM Audio subwoofer should be used!

**1.** A single LFE cable (either XLR or RCA format) is the latest, most simple and best sounding mode of connecting your sub to a modern surround sound receiver (AVR). (see center panel 1 below, orange RCA cable). This connection *bypasses* subwoofer "Crossover setting", in favor of the Dolby and DTS specified digital bass management in your AVR.

2. If your AV receiver has Right and Left Channel "Pre-Outs" (low level signal output jacks) but NOT a receiver-controlled LFE "Subwoofer out" ... use a two wire RCA "patchcord" to connect Right and Left main channel AVR OUTPUT jacks to matching Right and Left INPUT jacks on your DM sub. This connection should be used if you desire to change the DM sub amp bass filter as with a two channel stereo system.

3. If your AVR or Stereo Receiver has NO low-level "pre-outs", nor LFE / Subwoofer



**Output Jack**: Use the provided "speaker-level" (also called "high-power or high-level) jacks and run a +/- speaker wire lead from your receiver to the Right and Left speaker input jacks of your DM sub (**Note**: Not shown below, one of each speaker-level wire must also go to your main speakers too).

Speaker wire thickness or "gauge" should be greater if you require long runs, but keep consistent throughout your system. Most theaters can benefit from using 12 - 16 gauge oxygen free well insulated copper wire level connections.

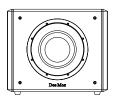
**Do's and Don't of speaker settings and "bass management"** All DM Mid-Series main speakers are designed as pro-grade studio/theater monitors with impeccable sound quality, power and depth designed to integrate perfectly with subwoofers. Your AVR's speaker size selections, plus subwoofer and bass management settings are paramount to achieving theater-quality audio.

• Don't burden main and surround speakers with bass from main channels that's best left to your subwoofers! Configure all DM Mid-Series speakers to "Small" settings with bass management set to 60 -100Hz depending on room size, speaker type and your subwoofer setup.

• After connecting, perform a basic speaker "level matching" routine using a sound pressure level (SPL) meter and your AVR/Processor's built-in test tones. Adjust AVR's subwoofer level and the sub's Volume knob in combination to achieve 75dB (C-Weighted) level from each speaker and sub.

• Determine what type/brand of active room correction routine your AVR or processor features, and ensure it's used. System names such as DIRAC, Audyssey, MCACC, YPAO, are among software addressing the vital function of "listening" to your room (with their dedicated microphones) and making both big and small adjustments, customizing the sound for your room.

## **SPECIFICATIONS**



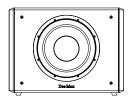
#### Model

Model

Subwoofer Operating bandwidth limit -6dB 25 - 240 Hz Quasi-anechoic Amplifier Crossover adjustment Phase Adjustment Auto Power - On / Off Inputs: Stereo Signal Level + LFE RCA Stereo Speaker Level Dimensions (H x W x D) Net weight

#### **B10S**

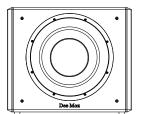
1 x 10" High-excursion RMS 250W, Peak 375W 40 - 200 Hz Variable 0°-180° Phase switch Yes, signal detect Five-way binding Post 370x450x240 mm 15.1 kg



Subwoofer Operating bandwidth limit -6dB 22 - 200 Hz Quasi-anechoic Amplifier Crossover adjustment **Phase Adjustment** Auto Power - On / Off Inputs: Stereo Signal Level + LFE RCA Stereo Speaker Level Dimensions (H x W x D) Net weight

#### B12S

1 x 12" High-excursion RMS 350W, Peak 525W 40 - 200 Hz Variable 0°-180° Phase switch Yes Five-way binding Post 410x557x249 mm 21.8 kg



# Model

Subwoofer Operating bandwidth limit -6dB 20 - 200 Hz Quasi-anechoic Amplifier Crossover adjustment Phase Adjustment Auto Power - On / Off Inputs: Stereo Signal Level Stereo Speaker Level LFE Outputs: Stereo High Level Dimensions (H x W x D) Net weight

#### **B15S**

1 x 15" High-excursion RMS 450W, Peak 675W 40 - 200 Hz Variable 0°-180° infinitely Variable Yes RCA Five-way binding Post Balanced XLR Five-way binding Post 480x570x260 mm 29.7 kg