

# GROTTO™

High-Resolution Subwoofer System

GROTTO™

Minimalist Styling.  
Maximum Performance.



Grotto™ 15



Grotto™ 12



**The original Grotto™ subwoofer used trickle down technology from MartinLogan's flagship subwoofers to deliver clean, powerful, and articulate bass in a decor friendly design. The all new Grotto series carries on that legacy and takes it to the next level. Its subtle appearance belies the raw performance concealed beneath its grilles.**

Grotto series subwoofers offer a unique combination of understated, minimalist styling and impressively powerful, yet articulate performance. Utilizing our largest, and most powerful Hybrid Woofer Systems to date, Grotto 12 and Grotto 15 pack an incredible feature list and massive power into a classy, room friendly design, making them an ideal choice for those looking for a high performance, high output subwoofer that won't look out of place.

The Hybrid Woofer System used in the Grotto series, pairs either a 12" or 15" active aluminum woofer with two equally sized, custom-designed aluminum passive radiators. This driver layout provides the massive surface area necessary to achieve the increased output and lower distortion of a ported design while maintaining the more compact sizing and tighter bass typically associated with a sealed design.

Powering the Hybrid Woofer System is the brain of MartinLogan's powerful Magnitude® MT-2kW amplifier, capable of delivering up to 2000 watts of peak power (1000W RMS), and the brains of the Ultra High Resolution Vojtko DSP Engine, a best-in-class 500MHz DSP with 64bit processing. With their high output, low distortion Hybrid Woofer Systems paired with powerful and precise amplification and processing, Grotto series subwoofers have the ideal recipe for highly detailed and powerful bass performance even in larger rooms.

## GROTTO 12

### Application

Subwoofer

### Frequency Response

22-120 Hz  $\pm 3$  dB (Anechoic via LFE input)

### Low Frequency Transducer

Triple 12" [25.4cm] Hybrid Woofer System consisting of 1x high-excursion, aluminum cone in a cast aluminum basket with 2x aluminum cone passive radiators for enhanced low frequency output.

### Amplifier

MartinLogan Magnitude MT-2kW Amplifier: 2000W peak (1000W continuous)

### Digital Signal Processing

Ultra High-Resolution 500MHz Vojtko DSP Engine with 64bit processing

### Cabinet

Sealed 1" thick MDF cabinet with center brace and reinforced MDF woofer baffles

### Controls (on backplate)

Level: Interactive LED Backlit Knob, Min–Max

Tone Sweep: Sweep Start and Pause (with status light)

Power Mode: On, 12v Trigger, Auto

Wireless Audio Pairing Button (for included MartinLogan wireless transmitter)

### Controls (via Bluetooth)

Level: -40 to 12dB (Min–Max)

Low-Pass Filter (Frequency): 35–120Hz (1° Increments)

Low-Pass Filter (Order): Bypass, Third, Fourth

Phase: 0–180° (1° Increments)

Phase (Polarity): Normal, Inverted

Preset Listening Modes: Movie, Music, Night

20–30Hz Level:  $\pm 10$ dB

Anthem Room Correction (ARC Genesis): On, Off

Tone Sweep (120-20Hz): On, Off, Pause (Frequency)

### Inputs

Line Level: Left, Right, and LFE

XLR: LFE

Speaker Level: Left and Right (requires banana plugs)

### Wireless Input

Integrated Wireless Receiver  
Wireless Transmitter Included

### Outputs

RCA Sub Out (combines and repeats all incoming signals to an additional subwoofer)

### Power Draw

Max: 1000W

Standby (Wireless Enabled): < 2W (Transmitter and Subwoofer combined)

Standby (Wireless Disabled): 0.5W

### Feet

Integrated Anti-Vibration Feet (carpet spikes included)

### Weight

82.5 lbs (37.4 kg)

### Dimensions (HxWxD)\*

17.8" x 17.9" x 17.9"

(45.2cm x 45.4cm x 45.4cm)

### Finish

Gloss Black

## GROTTO 15

### Application

Subwoofer

### Frequency Response

20-120 Hz  $\pm 3$  dB (Anechoic via LFE input)

### Low Frequency Transducer

Triple 15" [25.4cm] Hybrid Woofer System consisting of 1x high-excursion, aluminum cone in a cast aluminum basket with 2x aluminum cone passive radiators for enhanced low frequency output.

### Amplifier

MartinLogan Magnitude MT-2kW Amplifier: 2000W peak (1000W continuous)

### Digital Signal Processing

Ultra High-Resolution 500MHz Vojtko DSP Engine with 64bit processing

### Cabinet

Sealed 1" thick MDF cabinet with dual center braces and reinforced MDF woofer baffles

### Inputs

Line Level: Left, Right, and LFE

XLR: LFE

Speaker Level: Left and Right (requires banana plugs)

### Wireless Input

Integrated Wireless Receiver,  
Wireless Transmitter Included

### Outputs

RCA Sub Out (combines and repeats all incoming signals to an additional subwoofer)

### Power Draw

Max: 1000W

Standby (Wireless Enabled): < 2W (Transmitter and Subwoofer combined)

Standby (Wireless Disabled): 0.5W

### Feet

Integrated Anti-Vibration Feet (carpet spikes included)

### Weight

118 lbs (53.5 kg)

### Dimensions (HxWxD)\*

20.5" x 21.8" x 21.8"

(52.2cm x 55.4cm x 55.4cm)

### Finish

Gloss Black

## Hybrid Woofer System – The Ultimate Compact Powerhouse

Utilizing state-of-the-art Klippel analysis, all Grotto Series drivers are specially engineered for massive output capability and low distortion. Grotto 12 and Grotto 15 use our largest, most powerful Hybrid Woofer Systems, pairing either dual 12" or dual 15" passive radiators with a matching 12" or 15" active woofer. This driver layout delivers the best of both worlds; the increased output and lower distortion of a ported design, and the more compact sizing and tighter bass that sealed designs are known for. To ensure quick response, high output, and solid reliability, the active woofer is made of aluminum, known for its light weight, high strength, and excellent heat dissipation, all ideal qualities for such a high power application. Our design team did not want to skimp on the quality of the passive radiators either. So even though they do not receive direct power, they too are made of aluminum to properly blend both acoustically and visually with the active driver.

## Magnitude MT-2kW Amplifiers Redefine Grotto Performance

MartinLogan's proprietary Magnitude Amplifiers unleash the full potential of the custom engineered Grotto woofers. The highly advanced Magnitude MT-2kW delivers up to 2000w Peak (1000w RMS) of low distortion power for concussive impact, and effortless musicality. This ultra efficient Class-D amplifier delivers massive power with incredible precision and control, driving Grotto 12 or Grotto 15 with nearly endless reserves of clean power even during the most demanding situations.

## Advanced Vojtko DSP Engine: Elevating Subwoofer Performance

Just like their smaller siblings in the Abyss and Dynamo series, Grotto 12 and Grotto 15 subwoofers utilize the cutting-edge, ultra-high-resolution Vojtko DSP engine, named after MartinLogan's Chief Audio Technologist. Featuring a best-in-class 500MHz DSP with 64-bit processing, the Vojtko DSP engine controls all aspects of subwoofer performance in real-time. This level of computing power enables advanced features like wireless app control, integrated wireless signal connection, and other advanced DSP functions with complete audible transparency, allowing MartinLogan engineers to fine-tune performance for maximum output and fidelity. Thanks to the computational power of this sophisticated DSP engine, Grotto subwoofers are also compatible with the award-winning Anthem Room Correction system.

## Reduced Vibration, Enhanced Bass

Solid bass performance is a critical component of any audio system, and helps provide visceral impact to your entertainment. Both Grotto models feature integrated anti-vibration feet to improve bass performance by reducing floor and wall vibrations. By dramatically reducing the energy transfer between the subwoofer and the floor, unwanted room rattles and buzzes are removed, leaving tighter, cleaner bass and improved system clarity and dynamics. As a less intrusive alternative to acoustic room treatments, the integrated anti-vibration feet can also aid in minimizing noise complaints by reducing vibration transfer into adjoining rooms. Out of the box, these robust anti-vibration feet are safe for all flooring types, and optional carpet spikes are included to further improve performance on carpeted floors.

## Fine-Tune Your Subwoofer Settings with MartinLogan's Intuitive App

By far the most convenient way to adjust a subwoofer, MartinLogan's Subwoofer Control app for iOS and Android devices allows you to easily adjust settings such as Volume, DSP Mode, Phase, and many others right from the comfort of your seat for ultimate control and ease of tuning.

## Optimize Bass Performance with Award-Winning Anthem Room Correction

Grotto subwoofers are compatible with the award-winning Anthem Room Correction system. This highly advanced software measures subwoofer performance in your room and then performs custom equalization, tuning, and calibration to achieve the highest levels of bass impact and accuracy possible for your specific installation. Requires an ARC Calibration Microphone and a PC or Mac computer (sold separately).

\*Product height includes feet, other dimensions are cabinet only.  
Specifications are subject to change without notice.