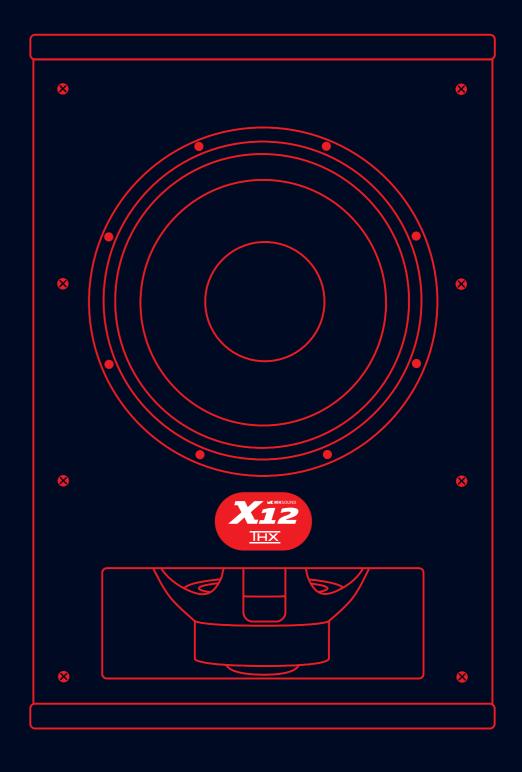
The Choice of Professionals™



## THIS IS THE SUBWOOFER



M&K SOUND X SERIES



### A Message from the Inventors of the Subwoofer

"Creating the next generation of M&K Sound subwoofers was not something we undertook lightly. With a long legacy of market-leading innovation to live up to, we are proud to present the M&K Sound X Series, built to bring new force, authority and clarity to the critical bottom octaves for the listening pleasure of serious music and movie lovers everywhere."

From the very beginning, M&K Sound has been the only speaker company to produce only satellite and subwoofer systems, the optimum configuration for film and music.

Thanks to our state of the art subwoofers and intelligently designed compact monitors, M&K Sound systems deliver all of the subtle nuances and bottom end impact the artists intended for you to experience.

And when it comes down to it, don't we all need a little more bass in our lives?

This is THE subwoofer!



## Why Your System Needs an M&K Sound X Series Subwoofer

Above and beyond the obvious, simplistic answer: "more and better bass", the combination of a well designed and conscientiously constructed subwoofer and main satellite speakers offers worthwhile performance advantages that improve overall system performance in many critical areas that are equally relevant for stereo *and* surround, for movie viewing *and* music listening.

Here's what happens when you physically separate reproduction of low frequency information from the upper and mid ranges. The most widely acknowledged benefit, of course, is improved deep bass extension, higher deep bass output levels and more control and authority, i.e., your system will play deeper, louder, cleaner, tighter bass.

With an M&K Sound X Series subwoofer, bass is exclusively reproduced by a speaker created and optimized for that purpose only. Removing the burden of deep bass from your main speakers provides major improvements in essential parameters such as midrange purity and accuracy. By liberating your main speakers from handling the tremendous demands of low bass, you also increase their effective power handling capabilities significantly, so that they can play louder without distortion.

Because your main amplifier no longer handles deep bass, the amount of power needed to achieve a given output level from your main speakers is greatly reduced (typically -50%).

This ensures that your amp remains well within its safe operating limits with considerable overhead readily available as needed.

Independent placement of subwoofer and satellites allows you to select an optimal position for each specific frequency range. The spot that delivers best bass is almost never the one that also delivers best upper/mid performance.

With no bass vibrations or internal bass pressure waves in your main speaker enclosures, resonances are eliminated for cleaner, clearer mid and high frequencies.

Since they no longer have to reproduce deep bass, your main speaker cabinets can be more compact with enhanced structural integrity for natural, uncolored sound and a narrow front that eliminates baffle diffraction distortion, resulting in more open, natural, three-dimensional sound.

No matter what some manufacturers may try to tell you, according to the immutable laws of physics: Big bass requires a big box.



## **Independent Evaluation**

THX is a set of performance standards originally developed by Lucasfilm Ltd, the movie empire of Star Wars creator George Lucas, to lay out a set of criteria to ensure that the creations of cinematic artists are reproduced exactly as intended. The THX logo immediately became recognized as a seal of approval for quality-conscious cinema-goers around the world.

In 1991, M&K SOUND became one of the first manufacturers to join George Lucas and his Lucasfilm Home THX program for domestic installations.

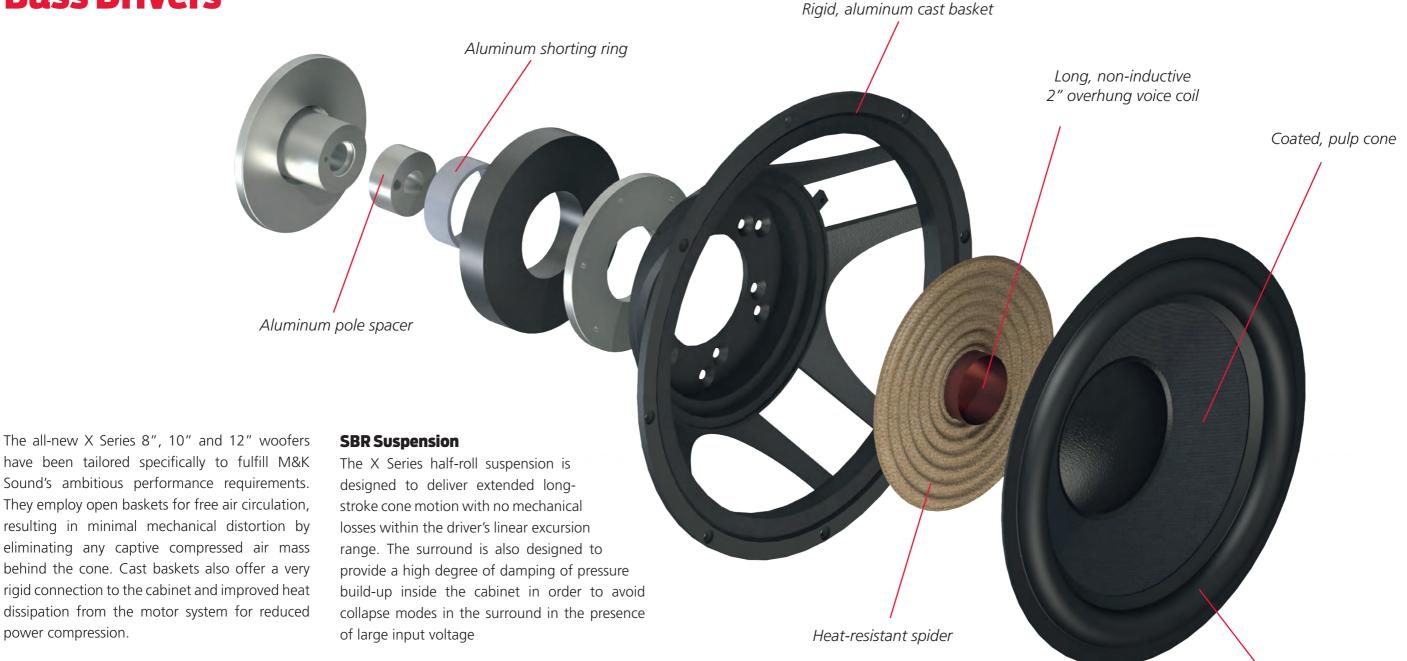
Today, THX is the highest independent quality standard dedicated to the accurate reproduction of audio sources in the home. THX certification attests that the component has been thoroughly evaluated by a fully independent body and found to live up to the strictest quality requirements in the audio industry.

M&K SOUND X Series subwoofers meet and exceed THX specifications to deliver music and movies with natural, effortless realism and power.





### **M&K Sound X Series Bass Drivers**



have been tailored specifically to fulfill M&K Sound's ambitious performance requirements. They employ open baskets for free air circulation, resulting in minimal mechanical distortion by eliminating any captive compressed air mass behind the cone. Cast baskets also offer a very rigid connection to the cabinet and improved heat dissipation from the motor system for reduced power compression.

### **Introducing the Distortion Killers**

The M&K Sound X Series implements aluminum AC shorting rings in the magnet system and aluminum pole spacers above the pole piece. These devices make a significant contribution to the X Series subwoofers' ability to render extraordinary fine dynamic bass detail with high precision at all levels as the drivers maintain full control and respond instantaneously to the incoming signal, for unparalleled accuracy and authority in the bottom octaves.

### **Overhung Voice Coil on Titanium Former**

The non-inductive Titanium voice coil formers effectively eliminate mechanical damping in the moving coil. Titanium formers offer key advantages, including mechanical rigidity and extreme thermal stability. The long coil diameter of 2" ensures long, linear cone motion and extraordinary power handling.

Linear low-loss SBR (Synthetic Butyl Rubber) suspension

# The M&K Legacy

"This is the story of a speaker company that helped shape home theater and even music recording into what it is today."

Home Theater Magazine (USA)

The journey began in 1973, when Steely Dan commissioned M&K Sound to design a studio reference subwoofer and monitoring system for the Pretzel Logic LP mixing sessions. The result was the world's first balanced dual-drive subwoofer. Pretzel Logic became a million-selling Top Ten hit and one of Rolling Stone magazine's 500 Greatest Albums of All Time.

In the following years, as word of mouth spread rapidly throughout the music and movie industries, M&K Sound systems were created for leading studios, as well as home installations for producers, directors, actors and recording artists.

The M&K Sound has been chosen for:

- King Kong
- Star Wars, new trilogy
- Iron Man
- The Incredibles
- The Lord of The Rings Trilogy
- Finding Nemo
- Pirates of The Caribbean
- Chicago
- Black Hawk Down
- Pearl Harbor
- Cast Away
- Wall-E
- And many other major releases



## M&K Sound X Series Amplification and Controls

- Classic M&K Sound analog input section for full-bodied bass with authority and weight
- Class D digital switching power amplifier for fast, precise bass
- Headroom Maximizer for strict control of peak excursions
- No servo controls to cause degrading signal delays
- Variable EQ, phase and crossover adjustments

- Flexible Input/output options for use with M&K Sound active monitors with onboard filters
- Unique throughput options allow you to assemble a complete THX setup, using the lowpass filter in the sub in conjunction with the highpass filter in the monitors, without external bass management from a processor/ receiver.











The acclaimed bass impact of M&K Sound sub-woofers is fully intact in the X Series with overall driver and cabinet tuning integrated with carefully adjusted filters for rock-solid bass all the way down to 20 Hz.

This is a level of performance that is claimed by many, but delivered by only a select few.

To feed the driver clean, fast, efficient and ample power, a switch mode power module has been selected. Capable of delivering 400 Watts continuously and up to 600 Watts peak, the module keeps a firm grip on the specially designed drivers at even the highest output levels.

M&K Sound integrates woofer and amplification to achieve elegance and brute force in a high tech, low profile package that proves definitively that fast, accurate bass and potent muscular bass need not be mutually exclusive.

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## M&K Sound Cabinet and System Tuning

- Identical Front and bottom mounted drivers
- Cabinet assembled from thick, heavy panels with extensive internal bracing for vibration elimination
- Sealed enclosure, the most controlled design approach for extended, room-independent bass

The X Series subwoofers follow the proven M&K Sound concept of front and bottom mounted dual drivers operating in push-pull in a sealed enclosure, introduced in 1988 in the legendary MX-1000 subwoofer and continually refined over the ensuing decades. The unusual front and bottom driver configuration is a clever, non-invasive way to reduce harmonic distortion.

#### **Ideal Sealed Enclosures**

Built from dense MDF panels up to 22 mm thick, the M&K Sound X Series offers an extreme level of structural integrity in mechanical construction. Extensive Internal bracing also contributes to the rigidity of the enclosure.

By employing a Push-Pull Dual Driver configuration in sealed enclosures, M&K Sound X Series subwoofers minimize harmonic distortion and optimize transient/impulse response to achieve an unparalleled level of low frequency authority and realism.

#### **Room-Ready**

M&K Sound X Series subwoofers do not include onboard room correction, because, by design, they interact well with any listening space with proper placement and adjustment. Subwoofer/room interaction - actual in-room bass response measured in real rooms - will be more predictable and smooth.

Many users will already have access to full-range room correction in a preamplifier, surround processor or as a standalone unit. In any case, to be truly effective, room correction should be applied not only at subwoofer frequencies, but across the full audible spectrum. Consult your dealer for guidance.





### Push-Pull Dual Drive

The unique M&K Sound Push-Pull Dual Driver configuration eliminates distortion and delivers 6 dB of additional output for enhanced bass detail, articulation, authority and impact.

With two identical drivers mounted in opposite phase in a push pull configuration, the distortion generated by the drivers, one in-phase and one out-of-phase, effectively cancels itself for significant improvements in overall system harmonic distortion measurements. Essentially, two drivers become one and their non-linear distortion products are eliminated.

### X8 Subwoofer

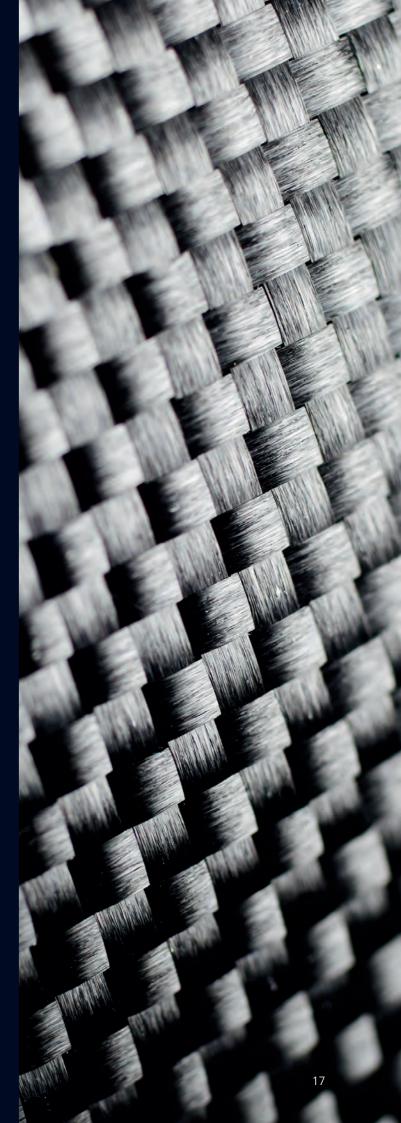
With dual 8" drive units, the X8 provides 100 sq. in. of cone area to move and control air, equivalent to a single 12" driver.

#### X10 Subwoofer

With dual 10" drive units, the X10 provides 156 sq. in. of cone area to move and control air, equivalent to a single 15" driver.

#### X12 Subwoofer

With dual 12" drive units, the X12 provides 226 sq. in of cone area to move and control air or 40% more surface area than the X10 and 126% more surface area than the X8, equivalent to a single 18" driver.



### **Your Choice**

Bass is so much more than explosive special effects, booming cannons in the 1812 Overture, the deafening roar of CGI monsters or even the most riveting, trouser-flapping, shake-your-booty dance beat.

It is the subtle, low-level ambient hum of a packed concert hall just before the first note is played. It is the soft, ominous rumble of thunder off in the distance.

It is all of these things and so much more. The bottom end of the audio spectrum is a crucial component in making the listening experience that much more *real*.

M&K Sound X Series subwoofers bring it all home to you.

Your final choice of X Series subwoofer model will naturally depend on many factors including room size, preferred listening levels, musical and cinematic tastes and, of course, exactly how dedicated you are to the quest for ultimate audio realism.

"M&K is the granddaddy of subwoofer manufacturers" Stereophile Magazine



## Technical Specifications

**X10** 

**X8** 

**X12** 

Amplifier Power	300 Watts RMS / 600 Watts Peak	350 Watts RMS / 650 Watts Peak	400 Watts RMS / 700 Watts Peak
Frequency Response	20 - 200 Hz +/- 3 dB	20 - 200 Hz +/- 3 dB	20 - 200 Hz +/- 3 dB
Total Harmonic Distortion	< 0.5%, 300 Watts, 4 Ohm	< 0.5%, 350 Watts, 4 Ohm	< 0.5%, 400 Watts, 4 Ohm
AC Power Consumption	0.5W standby, 50W average, 400W max.	0.5W standby, 55W average, 450W max.	0.5W standby, 60W average, 500W max.
AC Line Voltage	100-230 VAC 50/60 Hz 5A	100-230 VAC 50/60 Hz 5A	100-230 VAC 50/60 Hz 5A
LFE Input	L/R Line level RCA & L/R XLR balanced	L/R Line level RCA & L/R XLR balanced	L/R Line level RCA & L/R XLR balanced
LFE Passthrough Output	L/R Line level RCA & L/R XLR balanced	L/R Line level RCA & L/R XLR balanced	L/R Line level RCA & L/R XLR balanced
Switchable Lowpass Filters	Fixed 80 Hz / Variable / No lowpass	Fixed 80 Hz / Variable / No lowpass	Fixed 80 Hz / Variable / No lowpass
Phase	0-180 degrees, continuously variable	0-180 degrees, continuously variable	0-180 degrees, continuously variable
Switchable LFE	Optional THX or MK EQ mode	Optional THX or MK EQ mode	Optional THX or MK EQ mode
Dimensions WxHxD	31 x 47 x 42 cm / 12.2 x 18.5 x 16.5 lnch	38 x 56 x 42 cm / 14.9 x 22 x 16.5 lnch	44 x 66 x 46 cm / 17.3 x 26 x 18.1 Inch
Weight	22 kg / 48.5 lbs	28 kg / 61.7 lbs	36 kg / 79.3 lbs

For the complete M&K Sound X Series technical story, please read the X Series—white paper here: www.mksoundsystem.com/whitepaper/x-series

