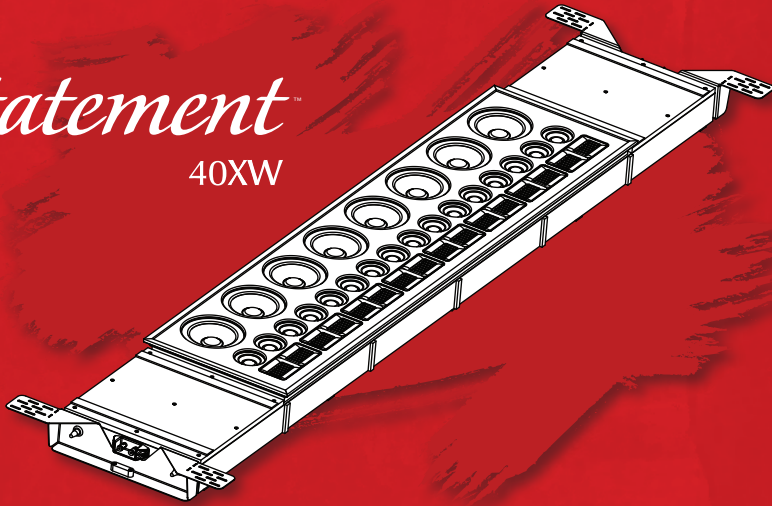


# MARTIN LOGAN®

*“State-of-the-art **Truth in Sound**—from extreme home theater to transcendent 2-channel listening, the Masterpiece™ CI Series offers the biggest, boldest, and most lifelike performance possible. A tribute to the acoustic achievements of MartinLogan’s original iconic masterpiece, our electrostatic speakers.”*

## Statement 40XW



### FLAGSHIP PERFORMANCE IN-WALL SPEAKER

- **Forty** drivers
- **Sixteen** Folded Motion® XT Obsidian tweeters
- **Sixteen** 3.5-inch mid-range drivers
- **Eight** 6.5-inch woofers
- Unidirectional carbon fiber multi-section cones with a Nomex® backer
- Line source configuration with controlled dispersion sound radiation
- Vojtko™ crossover network constructed from audiophile-grade components
- Phenolic baffle
- Sealed back box
- Surface mount grille

**Benefits of Statement 40XW's Line Source Configuration.** Designing an in-wall speaker with performance on par with MartinLogan's most ambitious floorstanding hybrid electrostatic speakers is an immense challenge. The power and effortlessness of electrostatic speakers is breathtaking—a living manifestation of *Truth in Sound*. The *Statement 40XW* is MartinLogan's answer—a triumph of engineering delivering a seamless melding of authoritative, accurate bass and mid-range with lightning-fast thin-film tweeters. Each channel features 40 drivers, including eight unidirectional carbon fiber multi-section cone woofers with a Nomex® backer, 16 matching 3.5-inch midrange drivers, and 16 exquisite Folded Motion XT Obsidian tweeters.

The use of 16 tweeters, 16 mid-range drivers, and eight woofers significantly contributes to the effortless sonic presentation of the *Statement 40XW*. All drivers, even superb drivers such as the carbon fiber cones and thin-film tweeters used in the speaker, begin to exhibit distortion when pushed hard. By using a large number of drivers operating in perfect unison, the movement required from each driver is a fraction of what it otherwise would be while still achieving impressive levels of overall output. The combination of such inherently high-resolution drivers and the reduction in demands on each results in a highly accurate and distortion-free performance during even the most demanding sonic passages.

Additionally, with large line source designs, as seating positions move further away from the speaker, sound levels don't drop off as quickly as they do with smaller, less efficient speakers. The ability of the *Statement 40XW* to deliver higher levels of sound over much greater distances results in an extremely uniform sound pressure throughout large rooms—especially beneficial in substantial home theaters with multiple rows of seating.

**Controlled Dispersion Sound Radiation.** When properly designed, line source speakers share significant benefits with hybrid electrostatic speakers, and the *Statement 40XW* delivers, most notably, by bringing controlled dispersion to a discreet

in-wall speaker. The sound we hear from a loudspeaker is a combination of direct radiation from it to our ears, and reflections off of room surfaces—walls, floor, and ceiling. How our brains process this information is far from simple. Depending on the angle of incidence to the ears and the arrival-time difference between direct and reflected sound, reflections can blur detail and stereo imaging.

The combination of the natural 80-degree horizontal dispersion pattern of Folded Motion XT tweeters and the 53-inches of vertical dispersion provided by the line source arrangement of 16 tweeters, minimizes side-wall, floor, and ceiling reflections whose short arrival times tend to interfere with the perception of the direct sound.

# Statement 40XW Technology

## Folded Motion® XT Obsidian

**Tweeters.** MartinLogan's signature Folded Motion tweeter utilizes an extremely low mass diaphragm that "squeezes" air, thus demanding significantly less excursion than the typical 1-inch dome tweeter. Its crimped design allows for a much larger surface area (compared to that of a regular 1-inch dome tweeter), controlled dispersion characteristics, and vanishingly low distortion. It's a miracle of audio engineering that's able to deliver much of the high-frequency detail and speed of a large, dynamic electrostatic panel in a small space. Folded Motion XT tweeters, advanced thin-film transducer technology even further, with a 40% larger radiating surface and 80x30-degree controlled dispersion. This tweak increases audible bandwidth without sacrificing details and minimizes distortion to an unprecedented level while increasing efficiency and the tweeter's already lightning-fast response time. The result—superior realism and alarming specificity that is aurally astounding, and only by MartinLogan. *Statement 40XW's* Folded Motion XT Obsidian tweeters feature a black diaphragm.

## Powerful Mid-Frequency and Bass Drivers Featuring Unidirectional Carbon Fiber Multi-section Cones With a Nomex® Backer.

Custom built, low-distortion drivers pair high-power magnet structures with unidirectional carbon fiber multi-section cone diaphragms with a Nomex® backer to deliver massive excursion and

sound output, preserve minute bass details and maximize power handling capability, all without a hint of distortion. The use of unidirectional carbon fiber yields a cone that is twice as strong as steel with a sixth of the density, providing exceptional rigidity without adding excessive weight. The multi-section design of *Statement 40XW's* drivers serves to reduce resonant modes within the driver, allowing for a smoother response. Nomex® backers improve overall driver performance by damping the cone to prevent deleterious ringing and reduce break up modes—a crucial requirement for extremely rigid cone materials. These exceptional woofers ensure a smooth, non-resonant response necessary for seamless blending with the extreme accuracy of high-resolution Folded Motion tweeters.

To deliver accuracy in the critical midrange, mid-frequency drivers feature a specially engineered "stiff" suspension. Stiffening the suspension (the spider and surround) raises the driver's resonant frequency and optimizes its performance to achieve a natural roll-off and inherently operate within an ideal range for a mid-frequency reproduction (as opposed to a comparably sized woofer).

Each cone includes a concave dust cap that adds additional strength and rigidity while further reducing break up modes. An inverted surround design maximizes clearance behind the grille cover to enhance driver excursion, clarity, and linearity.

## Proprietary Vojtko™ Crossover

**Networks.** Carefully hand-built using only the most exceptional polypropylene and polyester capacitors, custom wound and large steel laminate low-DCR inductors, and double thick PCBs, *Statement 40XW's* crossover employs MartinLogan's proprietary Vojtko topology for vanishingly low distortion and seamless driver integration. This precision-tuned network preserves even the most microscopic sonic nuances while handling the full dynamics of any source.

**Phenolic Baffles.** *Statement 40XW* utilize baffles constructed from incredibly dense and durable phenolic resin polymer—an exceptional, acoustically superior substrate. Phenolic resin polymer, the same material used in the Neolith cabinet, offers extraordinary material consistency that naturally minimizes acoustically deleterious resonances and vibrations.

**Sealed Back Box Enclosures.** The most significant benefit of a built-in, acoustically inert and sealed back box is predictable volume and a construction methodology that removes the variables of the wall cavity size and construction quality from the acoustic equation, guaranteeing a consistent, accurate

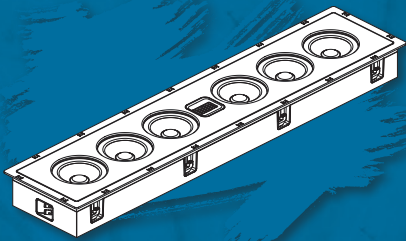
performance, regardless of installation. By maintaining complete control over driver performance, crossover design, and cabinet construction, *Statement 40XW* can achieve an emotionally engaging experience on par with the rarified performance of the world's most exceptional floorstanding speakers. This sealed design also helps keep sound from leaking through the wall to unintended areas of the home, while also providing predictable airspace for the woofers to perform their best.

**Surface Mount Installation.** *Statement 40XW* incorporates a reinforced back box that embeds into the wall and a surface mounted grille that installs even with the finished wall surface. This platform decouples the drivers from the wall surface while maintaining a clean aesthetic with a high level of fit and finish. The speaker is designed to work with either 1/2- or 5/8-inch wall board in new construction or retrofit installations.

**Spring-Loaded Binding Posts.** Spring-loaded binding posts feature a large 4.5mm wire access hole and connect via banana plug, pin, or 10AWG bare wire.

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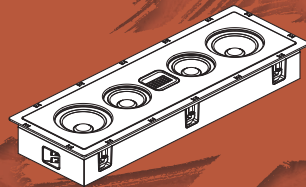


## *Monument*<sup>™</sup>

7XW

### IN-WALL SPEAKER

- **Seven** drivers
- **One** Folded Motion<sup>®</sup> XT Obsidian tweeter
- **One** 6.5-inch mid-range driver
- **Two** 6.5-inch woofers
- **Three** 6.5-inch passive radiators
- Unidirectional carbon fiber multi-section cones with a Nomex<sup>®</sup> backer
- Vojtko<sup>™</sup> crossover network constructed from audiophile-grade components
  - Phenolic baffle
  - Sealed back box
  - Die-cast aluminum mounting-lock system
- Pre-install brackets (sold separately)

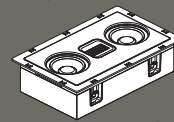


## *Tribute*

5XW

### IN-WALL SPEAKER

- **Five** drivers
- **One** Folded Motion<sup>®</sup> XT Obsidian tweeter
- **Two** 5.5-inch woofers
- **Two** 6.5-inch passive radiators
- Unidirectional carbon fiber multi-section cones with a Nomex<sup>®</sup> backer
- Vojtko<sup>™</sup> crossover network constructed from audiophile-grade components
  - Phenolic baffle
  - Sealed back box
  - Die-cast aluminum mounting-lock system
- Pre-install brackets (sold separately)

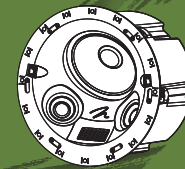


## *Icon*<sup>™</sup>

3XW

### IN-WALL SPEAKER

- **Three** drivers
- **One** Folded Motion<sup>®</sup> XT Obsidian tweeter
- **Two** 5.5-inch woofers
- Unidirectional carbon fiber multi-section cones with a Nomex<sup>®</sup> backer
- Vojtko<sup>™</sup> crossover network constructed from audiophile-grade components
  - Phenolic baffle
  - Sealed back box
  - Die-cast aluminum mounting-lock system
- Pre-install brackets (sold separately)



## *Sistine*<sup>™</sup>

4XC

### IN-WALL SPEAKER

- **Three** drivers
- **One** Folded Motion<sup>®</sup> XT Obsidian tweeter
- **Two** 5.5-inch woofers
- Unidirectional carbon fiber multi-section cones with a Nomex<sup>®</sup> backer
- Vojtko<sup>™</sup> crossover network constructed from audiophile-grade components
  - Phenolic baffle
  - Sealed back box
  - Die-cast aluminum mounting-lock system
- Pre-install brackets (sold separately)

MARTIN LOGAN<sup>®</sup>

# Masterpiece™ CI Technology

## Folded Motion® XT Obsidian

**Tweeters.** MartinLogan's signature Folded Motion tweeter utilizes an extremely low mass diaphragm that "squeezes" air, thus demanding significantly less excursion than the typical 1-inch dome tweeter. Its crimped design allows for a much larger surface area (compared to that of a regular 1-inch dome tweeter), controlled dispersion characteristics, and vanishingly low distortion. It's a miracle of audio engineering that's able to deliver much of the high-frequency detail and speed of a large, dynamic electrostatic panel in a small space. Folded Motion XT tweeters, advanced thin-film transducer technology even further, with a 40% larger radiating surface and 80x30-degree controlled dispersion. This tweak increases audible bandwidth without sacrificing details and minimizes distortion to an unprecedented level while increasing efficiency and the tweeter's already lightning-fast response time. The result—superior realism and alarming specificity that is aurally astounding, and only by MartinLogan. Masterpiece CI Series Folded Motion XT Obsidian tweeters feature a black diaphragm.

## Powerful Mid-Frequency and Bass Drivers Featuring Unidirectional Carbon Fiber Multi-section Cones With a Nomex® Backer.

Custom built, low-distortion drivers pair high-power magnet structures with unidirectional carbon fiber multi-section cone diaphragms with a Nomex® backer to deliver massive excursion and

sound output, preserve minute bass details and maximize power handling capability, all without a hint of distortion. The use of unidirectional carbon fiber yields a cone that is twice as strong as steel with a sixth of the density, providing exceptional rigidity without adding excessive weight. The multi-section design of Masterpiece CI drivers serves to reduce resonant modes within the driver, allowing for a smoother response. Nomex® backers improve overall driver performance by damping the cone to prevent deleterious ringing and reduce break up modes—a crucial requirement for extremely rigid cone materials. These exceptional woofers ensure a smooth, non-resonant response necessary for seamless blending with the extreme accuracy of high-resolution Folded Motion tweeters.

To deliver accuracy in the critical midrange, mid-frequency drivers feature a specially engineered "stiff" suspension. Stiffening the suspension (the spider and surround) raises the driver's resonant frequency and optimizes its performance to achieve a natural roll-off and inherently operate within an ideal range for a mid-frequency reproduction (as opposed to a comparably sized woofer).

Each cone includes a concave dust cap that adds additional strength and rigidity while further reducing break up modes. An inverted surround design maximizes clearance behind the grille cover to enhance driver excursion, clarity, and linearity.

*Tribute 5XW and Monument 7XW* feature passive radiators constructed from the same high-strength, low mass material as the woofers—unidirectional carbon fiber multi-section cone diaphragms with a Nomex® backer. These passive radiators ensure shockingly powerful, dynamic, and distortion-free bass from a small, unobtrusive, sealed enclosure.

## Proprietary Vojtko™ Crossover

**Networks.** Carefully hand-built using only the most exceptional polypropylene and polyester capacitors, custom wound and large steel laminate low-DCR inductors, and double thick PCBs, Masterpiece CI Series crossovers employ MartinLogan's proprietary Vojtko topology for vanishingly low distortion and seamless driver integration. This precision-tuned network preserves even the most microscopic sonic nuances while handling the full dynamics of any source.

**Phenolic Baffles.** *Monument 7XW, Tribute 5XW, and Icon 3XW* utilize baffles constructed from incredibly dense and durable phenolic resin polymer—an exceptional, acoustically superior substrate. Phenolic resin polymer, the same material used in the Neolith cabinet, offers extraordinary material consistency that naturally minimizes acoustically deleterious resonances and vibrations.

**Sealed Back Box Enclosures.** The most significant benefit of a built-in acoustically inert and sealed back box is predictable volume and a construction methodology that removes the variables of the wall cavity size and construction quality from the acoustic equation, guaranteeing a consistent, accurate performance, regardless of installation. By maintaining complete control over driver performance, crossover design, and cabinet construction, Masterpiece CI in-wall and in-

ceiling speakers can achieve an emotionally engaging experience on par with the rarified performance of the world's most exceptional floorstanding speakers. This sealed design also helps keep sound from leaking through the wall to unintended areas of the home, while also providing predictable airspace for the woofers to perform their best.

## Die-cast Aluminum Mounting-Lock System.

A simple, yet robust die-cast aluminum mounting-lock system maximizes strength while allowing quick, trouble-free installation. Pocketed screw holes help hold the drill steady, making installation a snap. When not in use, mounting locks are secured within a self-contained housing. When moved into place, they couple the chassis firmly to the ceiling or wall, increasing the rigidity of surfaces. If ever removed, the locks retract and latch back in their housings. Each speaker includes a full-size installation template featuring quick-reference instructions, and die-cut guides for marking the cutout hole.

**Spring-Loaded Binding Posts.** Spring-loaded binding posts feature a large 4.5mm wire access hole and connect via banana plug, pin, or 10AWG bare wire.

**Pre-Installation Brackets** are available for every model in the Masterpiece CI Series, except for the *Statement 40XW*, which requires unique considerations for installation.

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