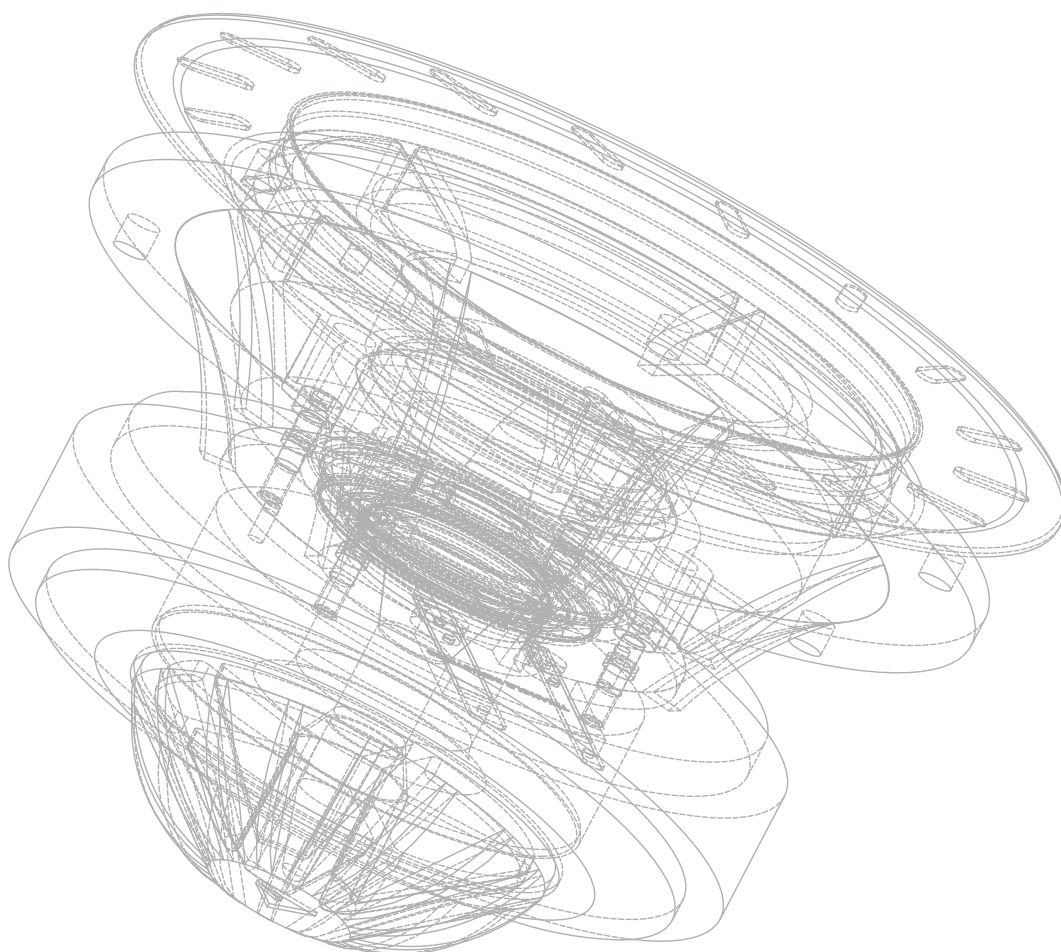




TRIANGLE
MANUFACTURE ELECTROACOUSTIQUE

Magellan
by TRIANGLE



Owner's manual & Warranty



TRIANGLE
MANUFACTURE ELECTROACOUSTIQUE

Magellan
by TRIANGLE

EDITORIAL

A search for the absolute, for a complete, exclusive product, with every detail having been meticulously thought, each component part having been made from the finest possible raw materials, and resulting in a perfect marriage of technology and aesthetics.

An absolute labor of love, with an entire team of men and women putting all their energy into one single, ambitious goal: to provide future owners of this product with the sensation of witnessing a unique moment in time, time and time again.

Marc Le Bihan

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BIRTH OF THE NEW MAGELLAN LINE

CULTURE DE L'EXIGENCE

Continued excellence is the motto of the entire TRIANGLE team and stands both for the quality of the final product as well as for the spirit of the team members.

And it is this passion for excellence which enables us to ensure that the users of our products – regardless of the TRIANGLE line they select – are the proud owners of an exceptional product. Our team's sole ambition is to continually exceed our own extremely stringent requirements, and it is this ambition that paves the way for the continual evolution of our products.

It has already been a few years since the introduction of our first MAGELLAN line.

A quest for the absolute, making it possible for TRIANGLE to hone in on acoustic and psychoacoustic phenomena and thus enabling us to continually go beyond our own limitations.

Since those beginnings, numerous technological advancements have led to the evolution of our full product line.

Below is a summary of the steps we have taken and adhered to since the early days and which have created within our teams an atmosphere of constant creativity.

RESEARCH & DEVELOPMENT

An ambitious program aimed at expanding the capacities of our corporation, was brought to fruition in 2005 with the construction of a new research center measuring over 500 square meters.

The research center was constructed to lay the foundations for what would be essential steps in the development of all future TRIANGLE products. The center needed to provide an ultramodern work area in order for our team of technicians and engineers to be able to express the creativity and passion essential for them to develop and innovative our TRIANGLE products.

THE ENCLOSURE

The MAGELLAN's enclosures stand out through their harmonious and fluid lines, and were designed with the help of the best cabinetmakers we could find.

MAGELLAN's cabinets are finished in exquisite wood veneers, selected for their graining. We then apply 10 layers of varnish, polished between each layer, in order to give the enclosures their uniquely rich and luxurious appearance.

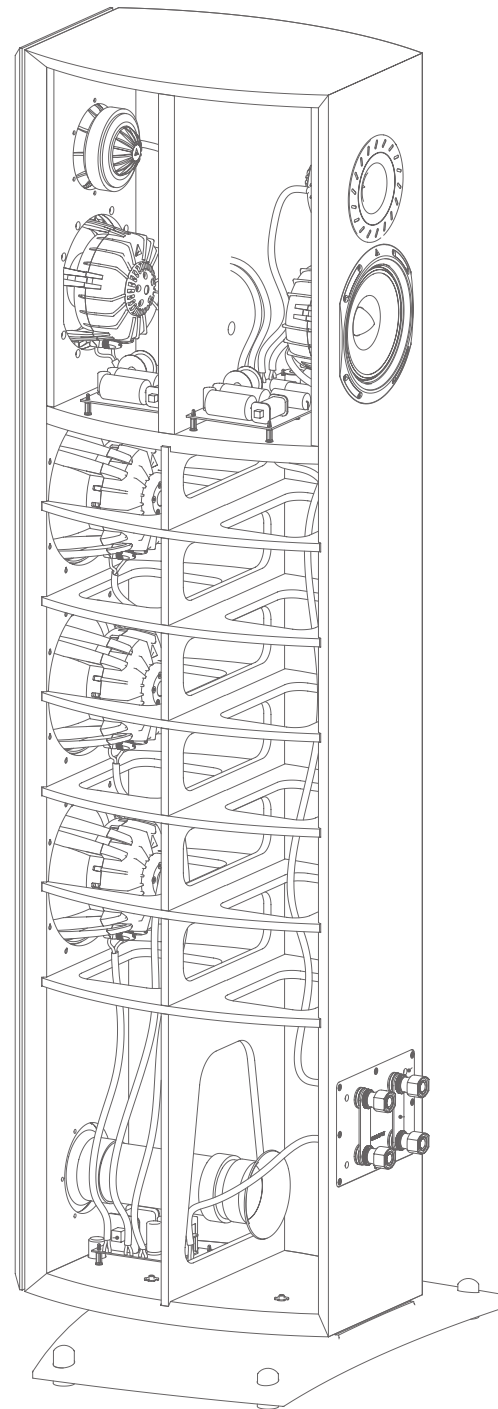
However, a speaker enclosure is much more than just a container for the drivers. Its design plays a major role in the quality of the sound in the low- and mid-frequency ranges. In fact, the volume of air within the enclosure constitutes the drivers' acoustic load, which has to be properly matched to their parameters in order to provide peak sound performance. For example, the 21 cm TRIANGLE drivers used in the MAGELLAN GRAND Concert series require a working volume of 67 liters for the pair. This calculated optimal load will enable the subwoofers to reproduce extremely low-level frequencies, down to 28 Hz, at -3 dB of the reference level.

We decided to put our new MAGELLAN enclosures through an elaborate series of tests to better understand how they handled various vibratory phenomena. One result of this research was that the enclosure itself needed to be made rigid enough to withstand the powerful vibrations generated by the subwoofers at high volume levels. It is essential that the drivers' diaphragms themselves – and not the walls of the enclosures – generate the desired frequencies, as the walls need to remain stable and not add any unwanted coloring or distortion to the overall sound. TRIANGLE relies on CNC machining to generate the precise theoretical shapes required to properly construct the enclosure walls.

We took great care in rigidifying our enclosures, basing the design on exhaustive measurements by means of laser-beam accelerometer. The accelerometer makes it possible to highlight and model any deformation or imperfection in the enclosure walls. We are now able to conduct tests that isolate exactly those areas where the walls need reinforcement.

As a result we can eliminate almost all of the unwanted vibrations while controlling the structural behavior of the enclosures themselves.

In our continued quest for perfection in the MAGELLAN line, we joined forces with a world-renown specialist in mechanical decoupling to develop a sophisticated system that would allow for the midrange to be completely independent of its support baffle.



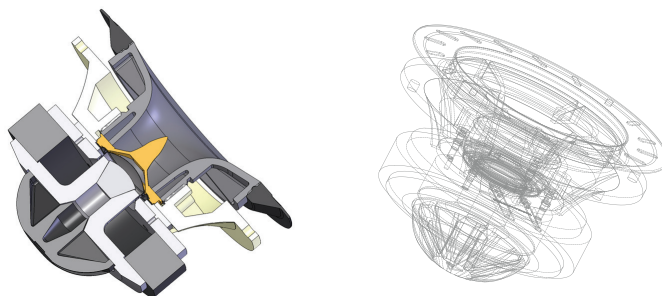
3 NEW LINES OF INNOVATIVE DRIVERS

THE NEW TZ2900_PM TWEETER

This tweeter is an exquisite combination of state-of-the-art mechanics and meticulous tooling. Listeners will enjoy all the nuances of higher-frequency harmonics brought out by their new TZ2900. Extensive audio simulations based on a number of different horn prototypes (approximately 40 different horn shapes were studied) enabled us to develop a new tweeter profile that considerably reduces the directivity of the high frequencies when listening away from the centerline.

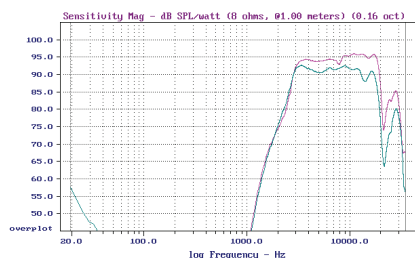
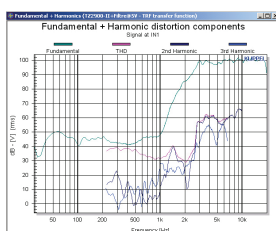
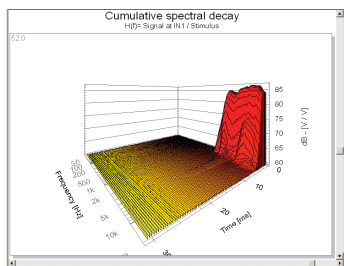
The new TZ2900 tweeter horn, whose form was modeled through extensive computer simulations, presents the ideal profile in relation to its dome's mechanical and acoustic characteristics. This new horn affords the new TZ2900 tweeter an extremely reduced directivity above 15 kHz.

We also added a counter-cap to the motor in order to limit the distortion at the low end of the tweeter's tonal spectrum. This cap contains a duct lined with damping material that reduces reflections in the back waves. This duct is made of titanium, a metal that provides an excellent rigidity-to-weight ratio.



Located just in front of the dome is the phase plug, which has been carefully designed in order to limit the distortion and regulate the upper end of the sound spectrum. Computer simulations were used to find the best designs for these pieces, which were then systematically tested using our rapid prototyping system. The result is a tweeter that is practically free of distortion.

The tweeter provides an exceptionally smooth and fluid musical quality while ensuring accurate reproduction at realistic dynamic levels



GENERAL DESCRIPTION

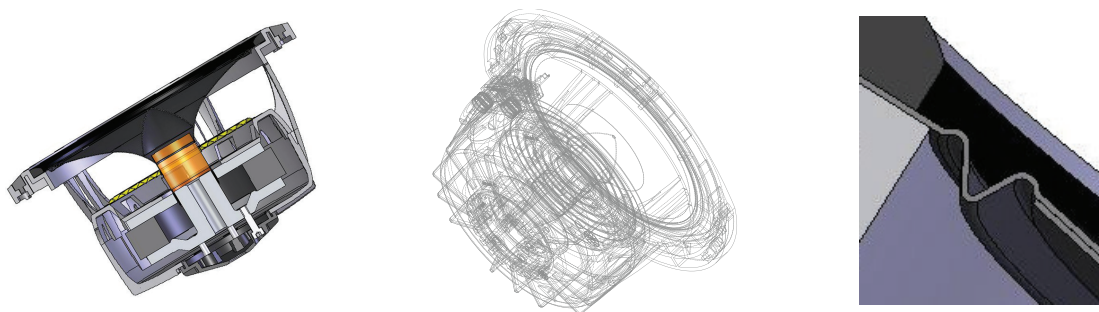
THE T16GM F100 MIDRANGE LOUDSPEAKER

TRIANGLE's extensive research stems from what we have always considered to be a key ingredient in accurate sound reproduction: the MIDRANGE .

The new T16GM F100 is the culmination of the many years of research and development that TRIANGLE has invested in achieving the best in wide- range loudspeaker systems.

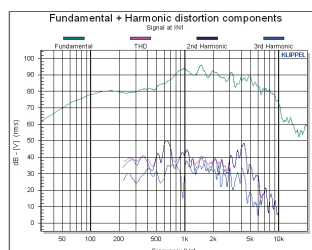
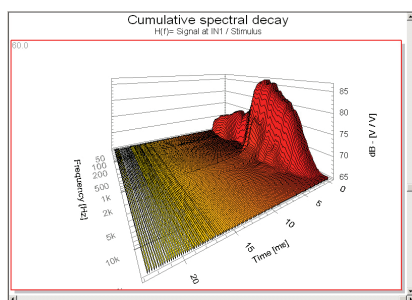
The midrange frequencies are at the crux of musical reproduction. It should be no surprise then that TRIANGLE undertook such an ambitious effort in designing its midrange drivers. TRIANGLE's engineers took it upon themselves to design an electro-dynamic transducer capable of covering with the least distortion and the best possible linearity a frequency band from 70 Hz to 40 kHz.

For the T16GM F100, our R&D efforts focused primarily on the suspension design, as well as the profile and component parts of its diaphragm. This diaphragm uses a new exponential profile and contains cellulose fiber material, in the established TRIANGLE tradition. In our long experience with this material, we have found it by far the best suited to clearly and faithfully reproduce music across a wide range of frequencies.



This new suspension consisting of latex-impregnated textile fibers formed in the shape of two half sine waves, hence the "S" designation, makes it possible to limit the disturbances caused by diaphragm fractionation and non-linearity to around 1000 Hz.

This featherweight diaphragm combines the highly desirable qualities of very fast response, minimum hangover, and unmatched sound transparency.



GENERAL DESCRIPTION

THE T16GM F100 MIDRANGE LOUDSPEAKER (continued)

We also studied the vortex effects caused by the diaphragm at the tip of the cone. In order to prevent this type of aerodynamic disturbance from occurring, we designed an ultra-light anti-vortex polypropylene nose cone covered in specially-formulated latex with high damping characteristics. The result is a light-weight system that can considerably reduce the irregularities at the limits of the range and thereby greatly improve the directivity of the loudspeaker in its higher frequencies.

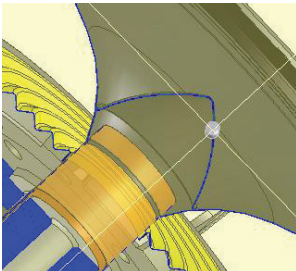
The resulting improvements in audio performance may be surprising.

An in-depth study of the motor and particularly the profile of the pole pieces was undertaken to render the smoothest and most symmetrical lines of force possible in the magnetic field around the voice coil.

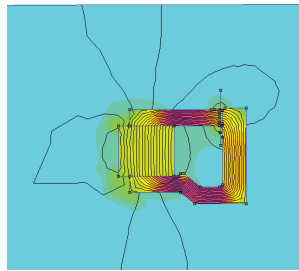
Lastly, we focused our attention on reducing the midrange's general distortion level while maximizing the thermal dissipation capacity. We worked on the power handling capacity in a unique manner, by developing a heat transmission ring located behind the motor yoke. This heat sink provides excellent heat dissipation between the motor and the basket. We consider that this improvement has increased the thermal capacity of the driver by about 10%.

This process is an application of techniques used in high-power computer processor cooling.

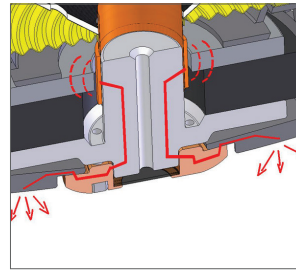
We feel confident that the T16GM F100 midrange driver will soon become the standard by which competitive units are judged.



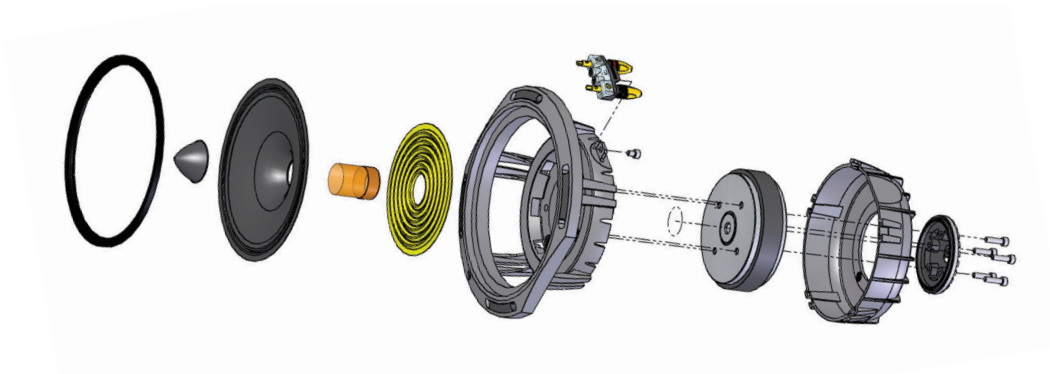
'W' system



Magnetic Field Modeling



The LHS 2 system



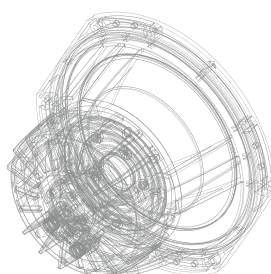
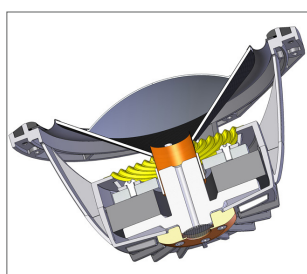
GENERAL DESCRIPTION

THE BASS WOOFER

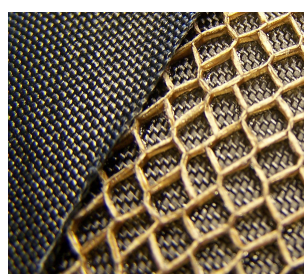
Our requirements for developing the woofers for the MAGELLAN GRAND CONCERT and MAGELLAN CONCERTO were as follows: to obtain a high level of acoustic clarity within the extremely low 28 - 35 Hz frequency range with a minimum of distortion.

In order to achieve this goal, we began our tests using virtual modeling techniques to simulate all of the speaker's possible mechanical and acoustic characteristics for a range of various enclosure volumes. This study led to the creation of a brand new 21-cm loudspeaker (the T21GM).

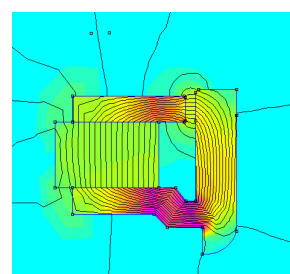
The development of the T21GM itself led to further research into the lower part of the spectrum. The results led to complete re-engineering of the moving parts (voice coil), magnetic motor and basket of the bass woofer.



Computer modeling



Diaphragm Structure



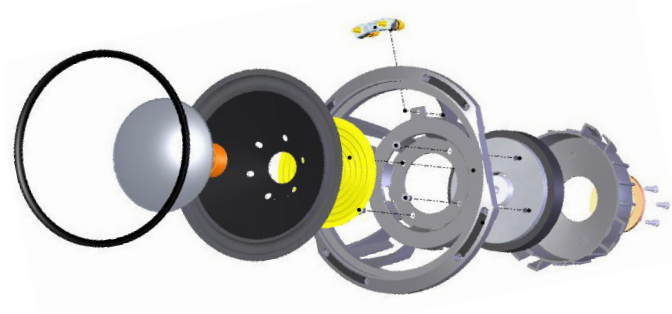
Magnetic Field Modeling

THE DIAPHRAGM

For the T21GM we designed and developed a brand new type of diaphragm, the SVA (Sandwich Verre Alvéolaire, Green Sandwiched Foam). This cone-shaped diaphragm is characterized by a sandwich structure with two glass layers containing a cellular material that provides an optimum combination of mass damping and rigidity to the moving coil.

THE MOTOR

We designed the T21GM motor to significantly decrease the loudspeaker's Total Q factor (Qts). In this way, the MAGELLAN GRAND CONCERT subwoofer can handle extremely low frequencies, down to 28 Hz, within -3dB of the reference level.



In designing the motor we used special hi-purity metals to machine the magnetic motor's pole pieces. The combination of these refinements paved the way for the development of a powerful magnet producing a very homogeneous magnetic field.

GENERAL DESCRIPTION

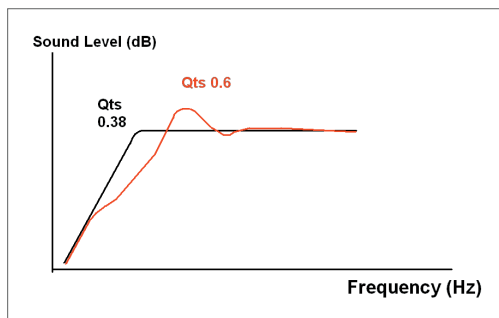
THE BASS WOOFER (continued)

The 4-layer voice coil provides a linear displacement of $\pm 7\text{mm}$.

The LHSTM 2 system, the same that is used in the midrange, is also used on the T21GM order to increase heat handling capacity. This system consists of a heat sink ring in contact with the back of the yoke – the heat conduction ring. This ring collects heat dissipated from the core and the yoke and brings it to a finned cover.

We estimate the resulting increase in power handling capacity to exceed 200 W RMS per subwoofer.

Without an effective heat dissipation system, there is a serious risk of thermal runaway and such an unwanted rise in temperature could considerably affect the driver parameters (see Graph A below)



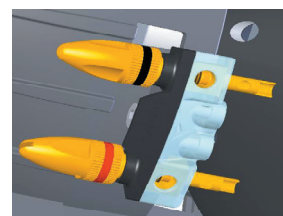
THE BASKET

Research and the development of T21GM basket were undertaken to vastly improve mechanical qualities in terms of both rigidity and damping. The basket's unique design allows for a maximum clearance of the radiating rear surface of the diaphragm. Its side vents improve the damping of the voice coil. The T16GM F100 and T21GM models are also equipped with specific connector blocks that were designed in order to ensure that the cables coming from the filter are uniformly clamped.



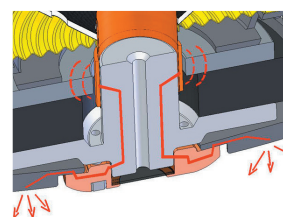
THE CONNECTOR BLOCK

The connector blocks unique to the T16GM F100 and T21GM models underwent a thorough re-design process in order to ensure that the cables coming from the filter are uniformly clamped and have excellent mechanical contact.



LHS 2

The measurements below are for a 21-cm loudspeaker designed and manufactured by TRIANGLE industries. The temperature of the driver motor is measured first without the LHSTM2 system, and a second measurement is taken with the LHSTM 2. We recorded a difference of 20° on average over 120 minutes, with a pink noise registered at 100 watts and filtered with high pass at 80Hz.



	Time in minutes			
	0	30	60	120
Temperature without LHS 2	20	45	50	54
Temperature with LHS 2	20	25	30	34
Temperature Difference in °C	0	20	20	30

FILTERING SYSTEM

RPC - REGULATED PHASE CROSSOVER

The vision behind the development of the new MAGELLAN line was to create very powerful direct drive electro-dynamic drivers for all of the models in the line, regardless of their specific frequency range. Above all, the filter was designed primarily to give the final product the best possible musical characteristics. What makes the filtering circuits in the MAGELLAN line unique is modeling the filter's crossover characteristics to those of the drivers in order to achieve a very steep cutoff and an excellent phasing.

Furthermore, this technique avoids using additional electric components and thereby compromising the signal quality.

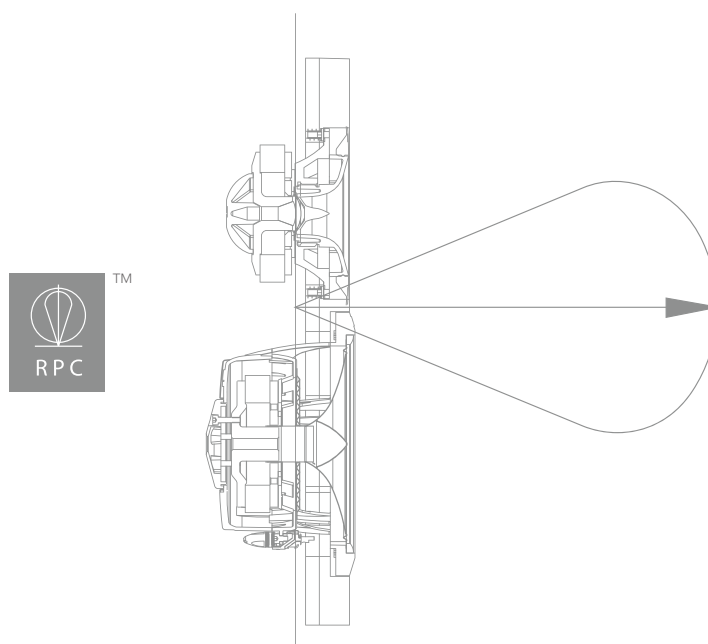
The filtering on the new MAGELLAN line between the tweeter and the midrange is 24dB/octave, and 12dB/octave between the midrange and the woofer.

The filters used on the new MAGELLAN line make the loudspeakers less susceptible to gaps in the sonic spectrum. The loudspeakers' natural frequency responses were modified digitally for a perfect match with its filter's transfer function.

Furthermore, the drivers' impedances were linearized for more efficient performance between the amplifier and speaker. This modified impedance acts almost as a pure resistance, allowing the amplifier to work very efficiently.

The TRIANGLE RPCTM system provides a reduction in both phase distortion as well as speaker directivity. As a result, the position of the listener will have little effect on the listening experience.

The MAGELLAN filtering system is made of high quality electrical components (low inductance ceramic resistors, polypropylene capacitors, large gage windings). The components are carefully selected in order to meet the stringent manufacturing requirements of our end products.



GENERAL DESCRIPTION

DPS 2 - DYNAMIC PULSE SYSTEM

Grand Concert, Concerto and Quatuor (only the tweeter)

TRIANGLE was one of the first manufacturers to turn its attention to symmetric bipolar diffusion, resulting from research into directivity lobes better understand how the human ear perceives sound waves.

As early as 1988, TRIANGLE had already begun incorporating a type of pre-DPS into their innovative Transept II, Zenith II and Elypse systems.

A long interruption in the commercialization of this type of product allowed us to optimize the system, particularly with regards to the driver/filter pairing, to enable perfect phasing of the drivers.

After numerous hours of listening and measuring tests, this configuration demonstrated its adaptability to a variety of listening environments. Conventional systems do not feature a driver in the rear. The sound signal is only radiated towards the front. Positioning the system near the walls will reinforce the low frequencies (the bass sounds). This means that conventional speaker systems suffer from a compromised tonal quality if they are not correctly positioned in the listening area. One way to fix this problem with conventional speaker systems is to place them away from the walls and then to try out different positions in the room, in search of the ideal compromise.

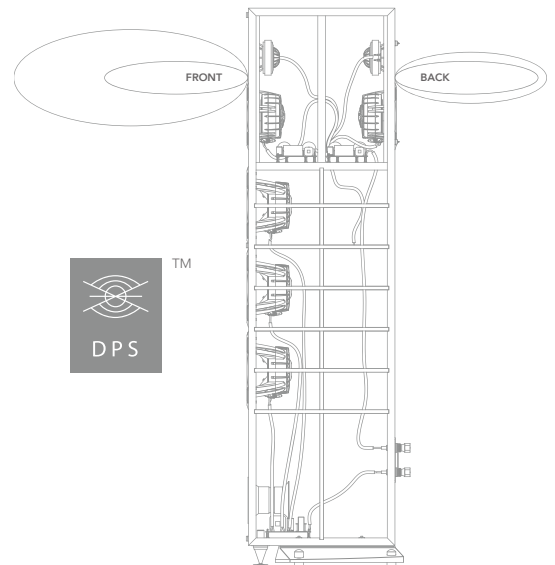
In the DPS 2 system, we were able to improve the sonic quality by reducing the directivity. The directivity is characterized by the difference between the speakers' frequency response in the mid-high range of the centerline and 30° off. The wider the difference, the greater the speaker directivity. A speaker equipped with the TRIANGLE DPS system has front-back sound emission.

The principle of the DPS system, following the example of live music - whether it is a symphony orchestra, a jazz or string quartet - will send out almost as much sound energy to the front as to the back of the emission point.

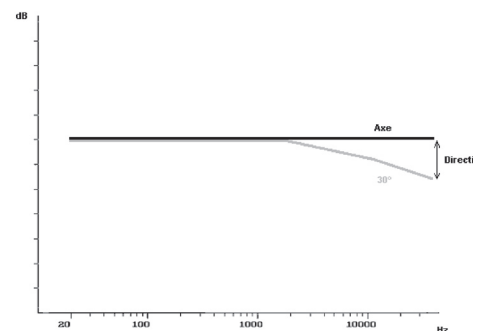
Let's take two speakers, one with the DPS system and one without, both positioned at 40cm from a wall. We will take two measurements at 30° in relation to the speaker centerline. The dotted line represents the measurements taken of the speaker response without DPS while the solid line represents the speaker response with DPS.

As you can see, with the DPS system, we are able to capture the energy outside of the listening centerline, since the frequency response at 30° is flat. The sound volume is spread evenly in front of the listener, instead of being focused into one beam of sound.

Thanks to the DPS system, the speaker is less directive and thus less susceptible to the creation of warm or cold spots in relation to the listening environment. The speaker can be positioned more easily in the room for acoustic reasons and thus produces a deeper and more stable sound image. The balance of tone is preserved as it was when recorded. This means that there is a wider opening of the sound stage without any added coloration of the original signal.



Model and principle of the DPS 2 system

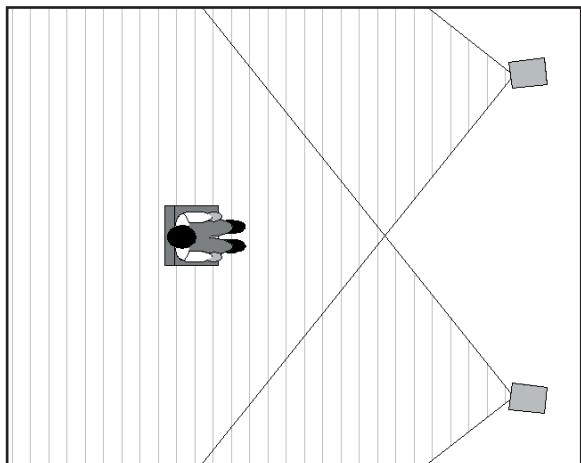


Low directivity at 30° owing to the DPS 2 System

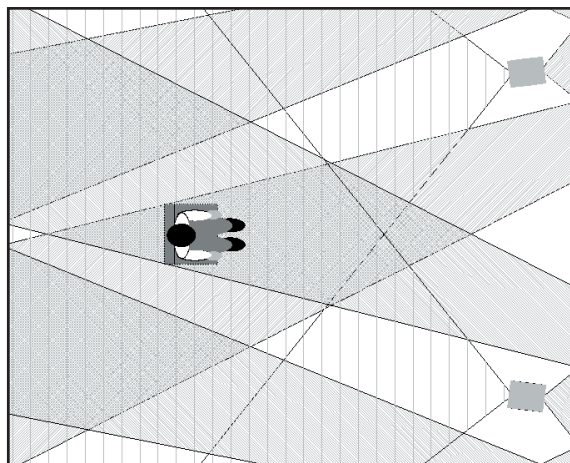
GENERAL DESCRIPTION

So:

- ▶ Sound reproduction becomes holographic while at the same time conserving excellent sound staging precision.
- ▶ The position of the listener is no longer a critical factor in relation to the speaker. Therefore the music is more lively and expressive, and the reproduction becomes more natural.



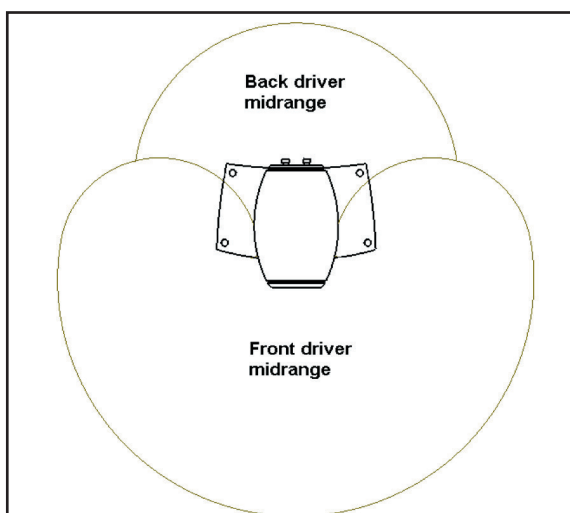
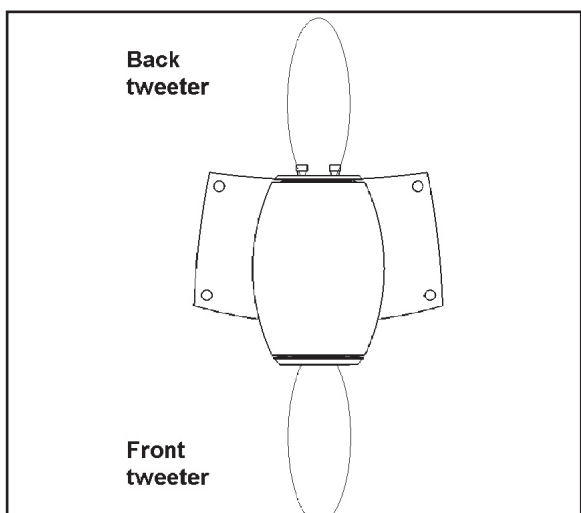
Conventional speakers



Speakers using the DPS system

OPTIMIZING THE SYSTEM

As shown in the two diagrams above, the mids are much less directive than the tweeters. As a consequence, the rear midrange driver needs to be filtered differently so that it does not obstruct the one in front. Its sound waves have to fill in the gap in the polar response in order to achieve a true 360° directivity around the speaker.



CHECK THE CONTENT

Your TRIANGLE loudspeaker has been set up to provide you with great ease of use as well as optimum listening satisfaction. It is a top-of-the-line product from which you will benefit fully when following the recommendations outlined below.

GRAND CONCERT

There are 3 boxes (Woofers 1, Woofers 2 and Medium) plus one case containing the accessories inside box of Woofers 2.

CONCERTO

There is 1 box with inside one case containing the accessories.

QUATUOR ET CELLO

There is 1 packaging with inside one case containing the accessories.

If, despite all the care applied to the packaging of this product, a part should be missing, please contact your dealer. The missing part will be sent to you in a timely manner.

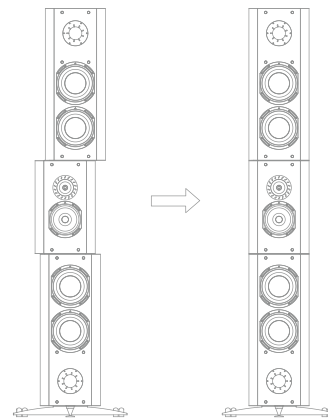
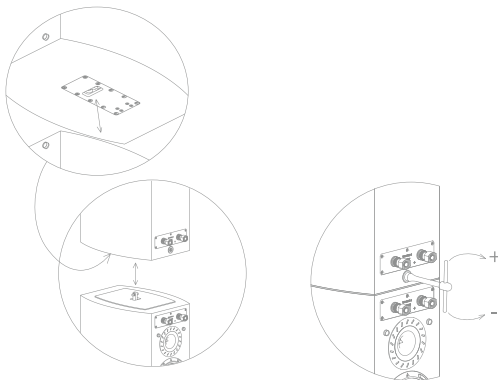
ASSEMBLY & INSTALLATION

Caution: assembly of Grand Concert and Concerto must be done by two people.

ASSEMBLY OF THE 3 DRIVERS ENCLOSURES OF THE MAGELLAN GRAND CONCERTS

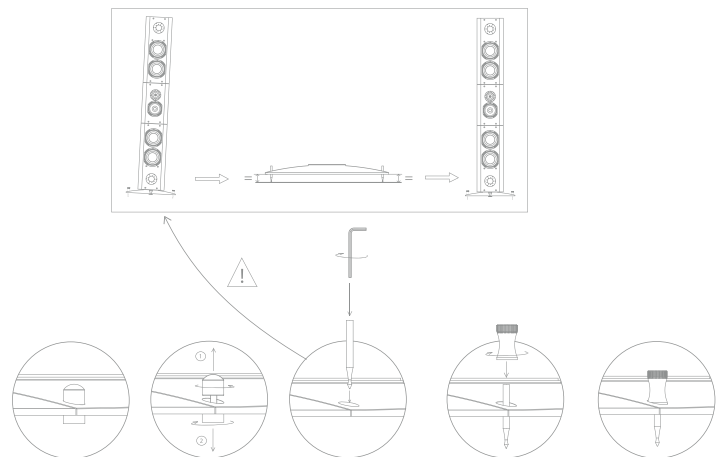
In order to assemble the three separate enclosures must be assembled by Fixocal system. After this, enclosure behaves like a one-piece assembly. Use "T" key (inside accessory box) to make this operation.

Through the Fixocal system each enclosure is assembled perfectly and can be adjusted easily, resulting in an enclosure with perfectly vertical edges.



INSTALLATION ON CARPET (GRAND CONCERT, CONCERTO, QUATUOR AND CELLO)

To increase stability of loudspeaker put on the carpet: You must use adjusting spikes with the counter-nuts on the pedestal to replace part already fixed on the base. The counter-nut prevents movement of the adjusting spikes.



BEFORE THE INITIAL START-UP OF YOUR SYSTEM

BEFORE THE INITIAL START-UP OF YOUR SYSTEM, all components must be off.

Verify all connection patterns. Pay particular attention to the polarity of each connection : the negative poles of the amplifier and loudspeaker together and the positive poles of the amplifier and the loudspeaker together.

POSITIONING

The positioning of a loudspeaker is always a delicate exercise. This step has been simplified by the technology applied during Magellan's design phase. The wide sound dispersion of the loudspeaker (front and rear midrange/treble) limits noise and reflection caused by the surrounding walls.

However, certain situations are to be avoided:

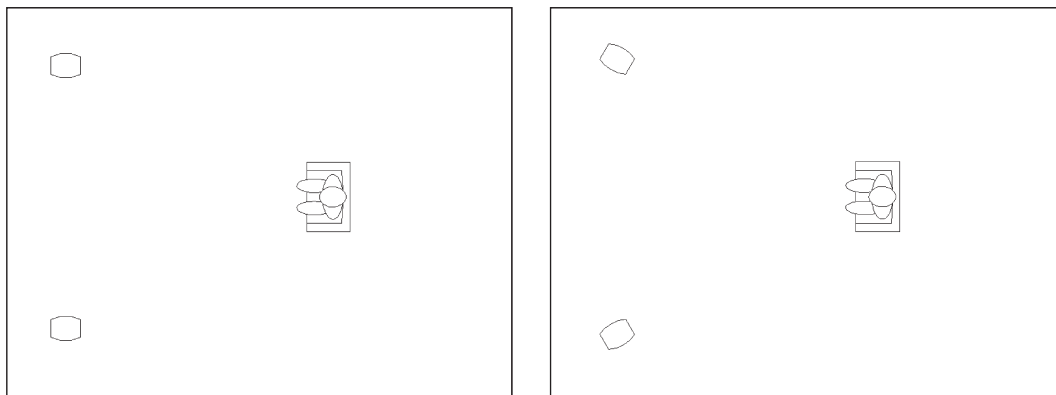
Avoid all rooms that are too reverberating, such as rooms with tiled flooring without carpeting and windows without drapes or curtains.

Your listening zone must not be too close to the loudspeakers: minimum 2m. A minimum distance of 2m is also recommended between the loudspeakers to guarantee an optimum quality stereo effect.

If possible, position the loudspeaker so that the sound is directed down the length of the room.

Avoid placing them in the corners of the room as this increases the possibility of resonance inherent to the room and allow for a minimum space of 40cm between the wall and the loudspeaker.

The 2 following examples demonstrates the 2 extremes for the loudspeakers' acceptance angle.



AMPLIFIER

Plan to use a good quality amplifier (the results will speak for themselves) and one of sufficient power. It is preferable to use a powerful amp in a reasonable fashion, which presents less chance of sound distortion, than to “push” a weak amp beyond its limits and risk seriously shortening the life of your loudspeaker.

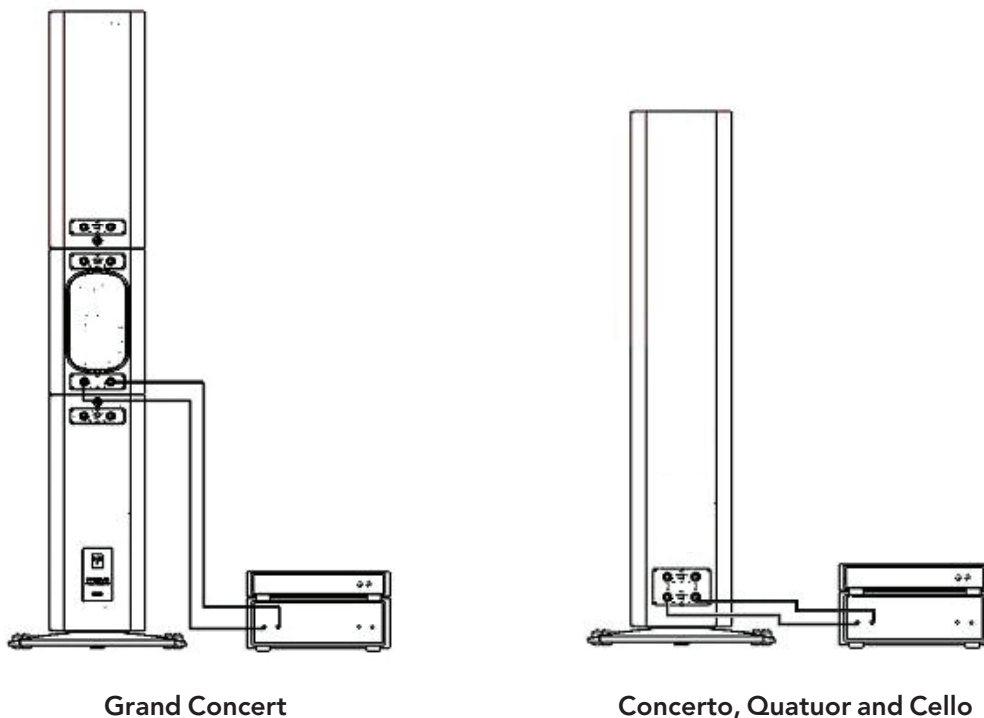
CONNECTIONS

SINGLE WIRING

The loudspeaker must be equipped with its connection plates.

The cable (A) linking the amplifier to the loudspeaker must be connected to the Main In for Grand Concert. Make sure your cable is of sufficient length and that it is specially designed for loudspeaker connection. The TRIANGLE SILVER GHOST cable will provide the best results.

Use identical cable lengths for the left and right channels.

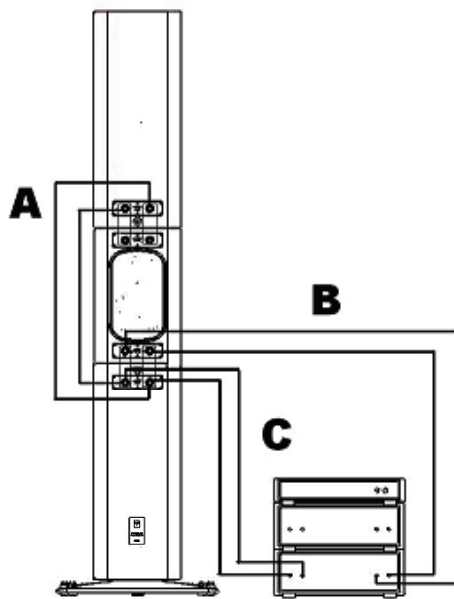


BI-AMPLIFICATION

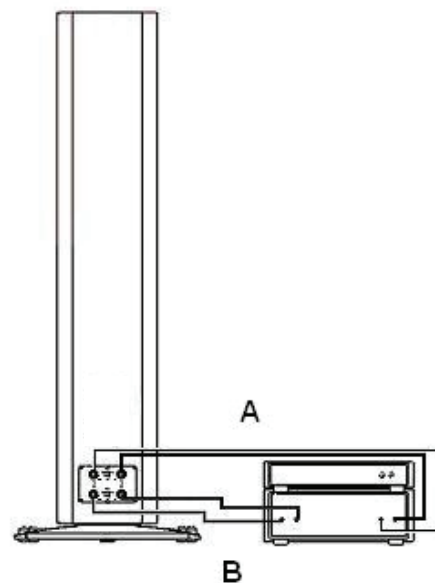
Bi-amplification consists of supplying power to the bass with one amplifier and to the midrange/treble with another amplifier. Therefore, four mono-block amps or two stereo amps are required. The connection plates must be removed from the terminals.

For the Grand Concert, there must be two cables that connect the two amplifiers to the loudspeaker: one cable (B) is connected to the Main In of the midrange/treble terminal and the other cable is connected to woofer 2 (C). A third cable must go from woofer 2 to woofer 1 (A).

For Concerto, there must be two cables that connect the two amplifiers to the loudspeaker: one cable (A) is connected to the Main In of the midrange/treble terminal and the other cable is connected to woofer (B).



Grand Concert



Concerto, Quatuor and Cello

LOUDSPEAKER CARE

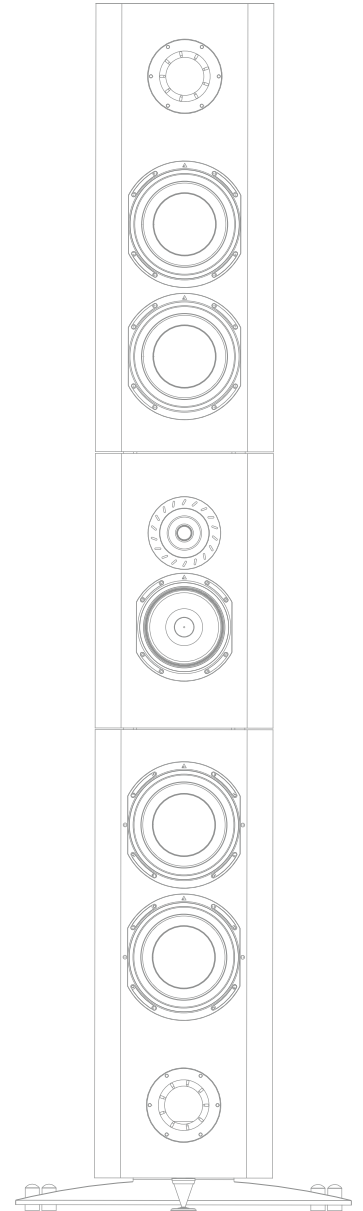
The cloth provided is sufficient to maintain the loudspeaker. However, if you wish to use a polishing product, be sure to apply it to a cloth first and not directly on the loudspeaker's finish.

Be sure never to apply any product to the diaphragms and to use only the cloth to remove dust. Never lean on or apply pressure to the diaphragm as damage could result.

TECHNICAL FEATURES

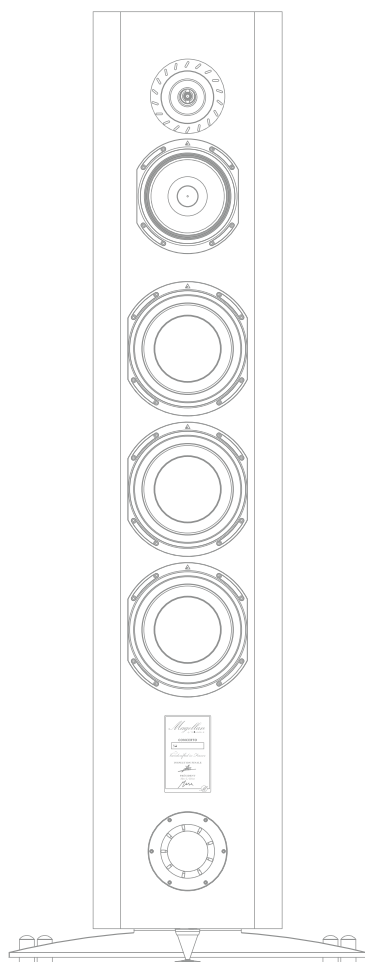
MAGELLAN GRAND CONCERT

Sensitivity	91 dB (2.83 V/1m)
Power handling	400W
Nominal Impedance	4 ohms
Minimum Impedance	2.5 ohms
Frequency Response	28 Hz - 20 KHz
Frequency Cut and Crossover Slope	2.8 kHz with 24 dB/octave and 300 Hz with 12dB
Global Dimensions (H x W x D)	84.6 x 23.6 x 17.7 inches
Weight	220 lbs
SPL Max	116 dB
Connections	Speaker terminals designed by TRIANGLE
Tweeter	2 x TZ2900_PM 1 inch titanium dome tweeters with Ø3.9" ferrite
Midrange	2 x T16GM F100 Ø6.3" copper coil and bushed magnet with Ø3.9" ferrite
Bass	4 x T21GM_MT10 Ø8.3" with voice coil and a Ø4.7" magnet
Loudspeaker	Braced MDF enclosures



TECHNICAL FEATURES

MAGELLAN CONCERTO

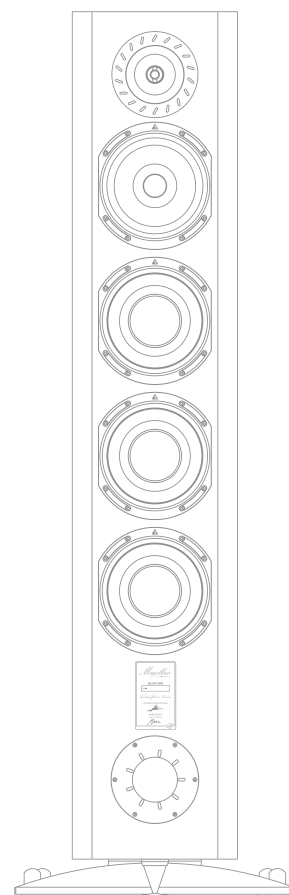


Sensitivity	90 dB (2.83 V/1m)
Power handling	300W
Nominal Impedance	4 ohms
Minimum Impedance	2.5 ohms
Frequency Response	32 Hz - 20 KHz
Frequency Cut and Crossover Slope	2.8 kHz with 24 dB/octave and 300 Hz with 12dB
Global Dimensions (H x W x D)	63 x 23.6 x 17.7 inches
Weight	143 lbs
SPL Max	114 dB
Connections	Speaker terminals designed by TRIANGLE
Tweeter	2 x TZ2900_PM 1 inch titanium dome tweeters with Ø3.9" ferrite
Midrange	2 x T16GM F100 Ø6.3" copper coil and bushed magnet with Ø3.9" ferrite
Bass	3 x T21GM_MT15 Ø8.3" with voice coil and a Ø4.7" magnet
Loudspeaker	Braced MDF enclosures

TECHNICAL FEATURES

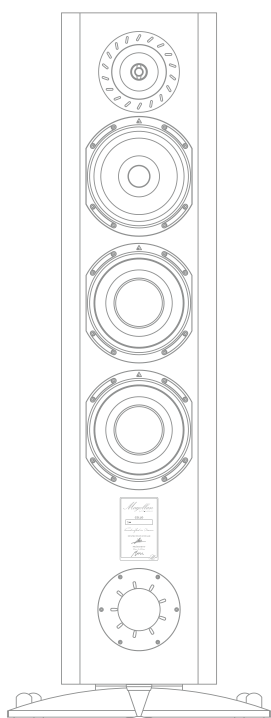
MAGELLAN QUATUOR

Sensitivity	90 dB (2.83 V/1m)
Power handling	260W
Nominal Impedance	8 ohms
Minimum Impedance	3 ohms
Frequency Response	33 Hz - 20 KHz
Frequency Cut and Crossover Slope	2.8 kHz with 24 dB/octave and 400 Hz with 12dB
Global Dimensions (H x W x D)	52.7 x 16.7 x 14.6 inches
Weight	99 lbs
SPL Max	113 dB
Connections	Speaker terminals designed by TRIANGLE
Tweeter	2 x TZ2900_PM 1 inch titanium dome tweeters with Ø3.9" ferrite
Midrange	2 x T16GM F100 Ø6.3" copper coil and bushed magnet with Ø3.9" ferrite
Bass	3 x T16GM MT15_GC1 Ø6.3" with voice coil and a Ø4.7" magnet
Loudspeaker	Braced MDF enclosures



TECHNICAL FEATURES

MAGELLAN CELLO

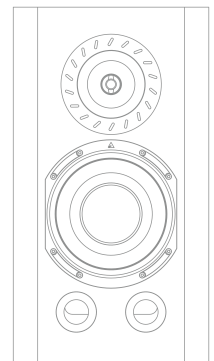


Sensitivity	91 dB (2.83 V/1m)
Power handling	200W
Nominal Impedance	8 ohms
Minimum Impedance	3 ohms
Frequency Response	35 Hz - 20 KHz
Frequency Cut and Crossover Slope	2.8 kHz with 24 dB/octave and 400 Hz with 12dB
Global Dimensions (H x W x D)	44.8 x 16.7 x 14.6 inches
Weight	74.8 lbs
SPL Max	112 dB
Connections	Speaker terminals designed by TRIANGLE
Tweeter	2 x TZ2900_PM 1 inch titanium dome tweeters with Ø3.9" ferrite
Midrange	2 x T16GM F100 Ø6.3" copper coil and bushed magnet with Ø3.9" ferrite
Bass	3 x T16GM MT15_GC2 Ø6.3" with voice coil and a Ø4.7" magnet
Loudspeaker	Braced MDF enclosures

TECHNICAL FEATURES

MAGELLAN DUETTO

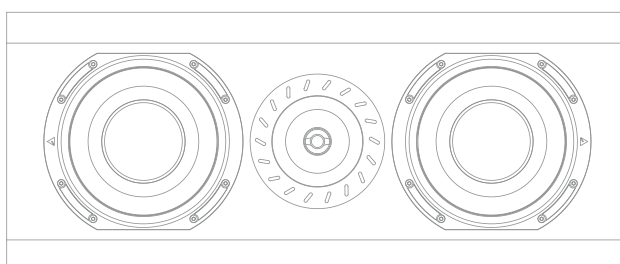
Sensitivity	88 dB (2.83 V/1m)
Power handling	80W
Nominal Impedance	8 ohms
Minimum Impedance	4 ohms
Frequency Response	38 Hz - 20 KHz
Frequency Cut and Crossover Slope	2.8 kHz with 24 dB/octave
Global Dimensions (H x W x D)	18.1 x 10 x 13.8 inches
Weight	35.2 lbs
SPL Max	107 dB
Connections	Speaker terminals designed by TRIANGLE
Tweeter	1 x TZ2900_PM
Midrange/Bass	1 x T16_MT_GC1 Ø6.3" with voice coil and a Ø4.7" magnet
Loudspeaker	Braced MDF enclosures

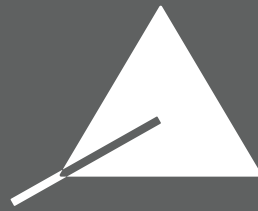


TECHNICAL FEATURES

MAGELLAN VOCE

Sensitivity	91 dB (2.83 V/1m)
Power handling	100W
Nominal Impedance	8 ohms
Minimum Impedance	4 ohms
Frequency Response	50 Hz - 20 KHz
Frequency Cut and Crossover Slope	2.4 kHz with 24 dB/octave
Global Dimensions (H x W x D)	9.8 x 23.6 x 14.8
Weight	42 lbs
SPL Max	109 dB
Connections	Speaker terminals designed by TRIANGLE
Tweeter	1 x TZ2900_PM
Midrange/Bass	2 x T16GM_F72MS_MR1 Ø6.3" with voice coil and a Ø2.8" magnet
Loudspeaker	Braced MDF enclosures





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