

CUSTOM INTEGRATION | 2019



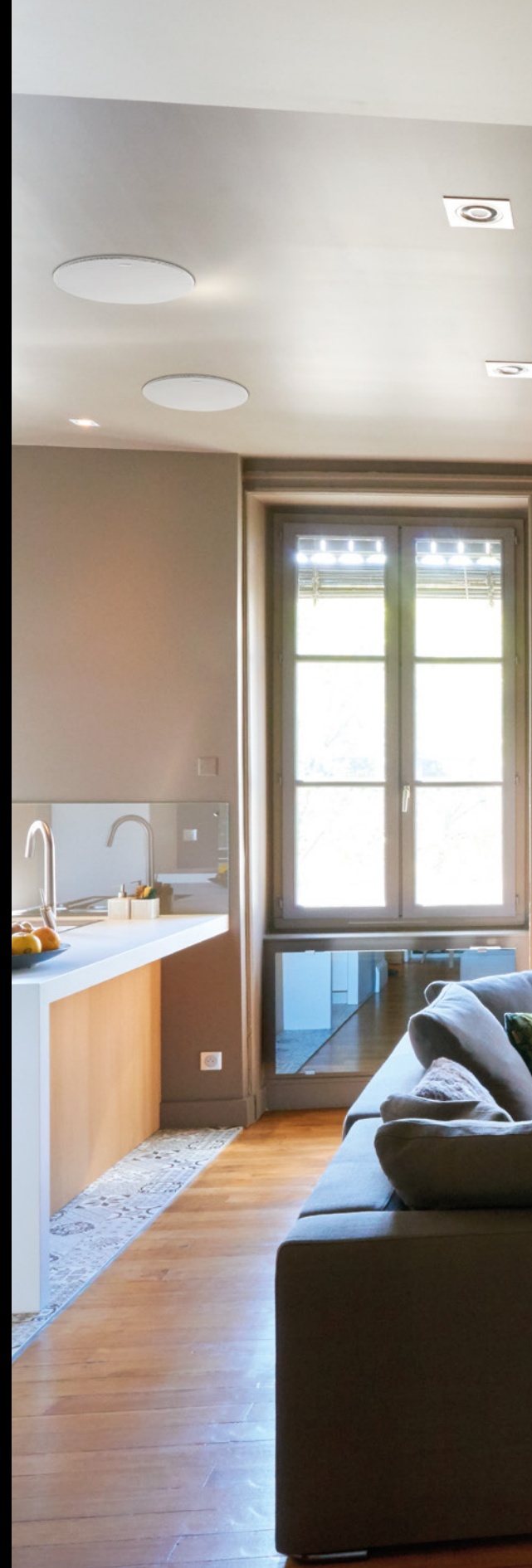


We, Focal,  
strive to create sound  
equipment that honours the artist's  
musical creation and empowers you to  
feel a new dimension of the music. We want  
every nuance to be revealed with precision and  
purity. To do this, we push the limits of the current  
boundaries in sound technology, and go beyond  
the traditional approach, thinking differently.  
With Focal, let the sound thrill your senses  
until you go beyond the usual perception  
of music and discover new fields  
of emotion.

LISTEN BEYOND



# “INVISIBLE SOUND”

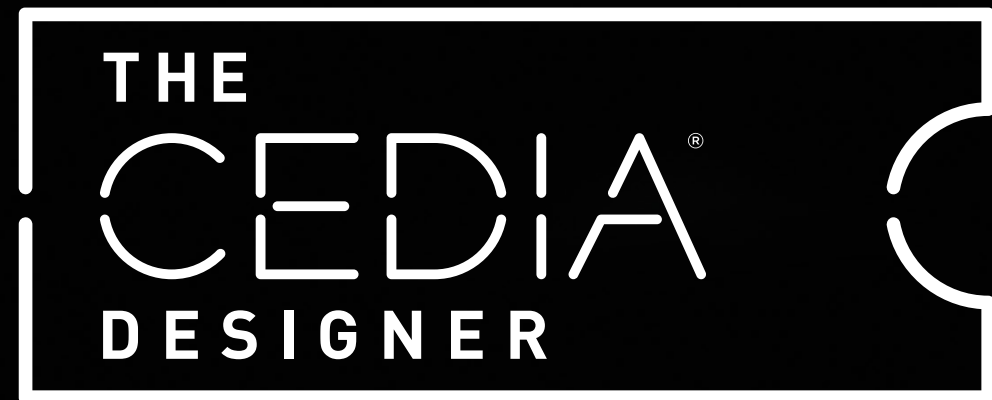


For four decades, Focal has been applying its unique sound signature to speaker drivers and high-end loudspeakers. We are known for our innovative approach which has given rise to exclusive technologies, and some of our loudspeakers have become world class references.

The Custom Integration Collection is an opportunity to live an entirely new experience. With an absolute discretion, our in-wall and in-ceiling loudspeakers give a new dimension to your music, whether in a stereo or Home Cinema set-up and create an all-encompassing atmosphere. They will take you beyond sound, and allow you to rediscover the sensations provided by sound with unrivalled purity. This experience is represented by Focal's signature 'Listen Beyond', which embodies the intention to make each moment in life a moment of intense pleasure.

Our philosophy aims at promoting our expertise 'made in France': 100% of Focal products are designed and developed by our engineers, and most of our collections is made in France in our own workshops. All Focal products benefit from innovations which result from on-going research in the field of acoustics. This constant quest plunges the R&D teams further and further into the secret realms of sound and material science. This technological heritage, protected with numerous patents, ensures a sound which is clear, powerful and true to nature; to provide the best loudspeakers in each category.

The art of reproducing music is the art of creating a deeper emotional connection.



# THE CEDIA DESIGNER

An online database dedicated to Home Cinema Systems

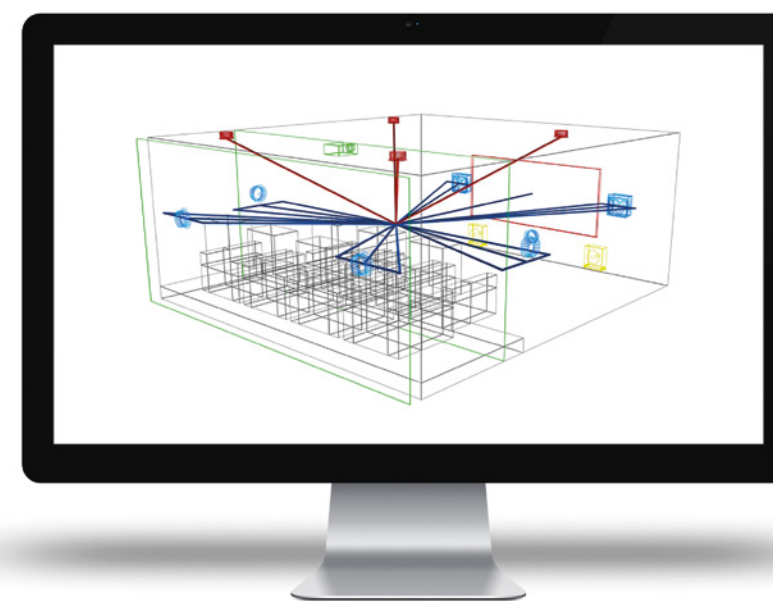
Our CI product ranges are available on The CEDIA Designer (TCD), the multiple award winning global cloud-base design software. Crucially, using TCD allows integrators to confidently design technically perfect immersive multichannel home theatres in a matter of minutes.

This global cloud-based design software brings the entire cinema design process into one place: the user enters in the dimensions of the room and then works methodically through the entire cinema design. TCD specifies the precise location of the loudspeakers, screen, seating, projector, provides amplification and processor requirements, calculates the RT60 value, and much more. TCD offers high-end integration options that it calculates in regard to optimise a system for bespoke acoustic environment.

**And this is on this database that you can now find not only Focal Custom Integration speakers but also high-fidelity Sopra & Kanta loudspeakers as well as audio-video processor and amplifier Astral 16.**

For more information about The CEDIA Designer's subscription options and to create an account, visit the website: <https://thecediadesigner.org>

For TCD software updates and news, follow The CEDIA Designer on Twitter, Facebook, LinkedIn and Instagram.





# INTEGRATION

For more than fifteen years, Focal has offered top of the range Custom Integration products. Our project: to bring the full intensity of the Focal experience into your home with ultimate discretion. To do this, we offer the best loudspeakers for in-wall and in-ceiling systems. And this goes for all the rooms in your home, whether installed in your walls, ceiling or even outdoor. We have done this by preserving all the qualities which have contributed to the success of our products: speaker driver science and innovation, research and development, and manufacturing in France in Saint-Étienne.

The **Electra 1000 Be II** offers a high-end experience with all the exclusive technologies inherited from the Utopia line, such as the pure beryllium inverted dome tweeter or the W composite sandwich cone, providing unrivalled acoustic quality for exceptional moments of pleasure...

The **300 Series** represents the revival of custom install products. Besides the sound quality, the products in the 300 Series line feature a very innovative quick install system which doesn't require tools. Give a new ambiance to your living space...

The **100 Series** line provides a concrete solution for your sound system at home or at work. Exceptionally discreet, music becomes part of your everyday life indoor or outdoor.

Ultra high-end electronic solution, **Astral 16** is a 16-channel audio-video processor and amplifier which guarantees maximum enjoyment from your high-fidelity and in-wall or in-ceiling loudspeakers and an incredible sound experience at home.

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The loudspeakers disappear,  
and sound reveals itself

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# ELECTRA

The loudspeaker disappears,  
and sound reveals itself

The Electra range embodies technological excellence at the service of the absolute finest sound: Focal's core values in just a few words. This product offer is a truly compact and invisible alternative for a traditional audio system for your home. The sophisticated design of this line enables it to compete with high-end loudspeakers. It inherits its characteristics and performance from Focal Home Classic line, in particular Utopia. The source of the sound's clarity and the finesse of the details is beryllium, a robust material used for the tweeter.

These sound reinforcement solutions are built-in systems which perfectly integrate your interior, and are designed to provide high-definition audio without altering the original architecture. Sound spatialisation was studied closely in order to deliver exceptional acoustics to your environment, regardless of the listening position within the room.

Perfect for meeting the expectations of music lovers and cinema enthusiasts, the 3-way in-wall Electra Be loudspeakers can be installed horizontally or vertically.

It is possible to use them as in-wall loudspeakers or mounted to the wall thanks to the on-wall frames sold separately (see picture below). You can enjoy a system that adapt to all kind of configurations included an exceptional Home Cinema installation.



MADE IN  
FRANCE





# ELECTRA



Music at its best is invisible. With the Electra line, technological excellence meets ultimate discretion. Let yourself be stunned by every detail and experience movies with a Home Cinema system, without seeing it.

Refined detail and exceptional sound: Electra allows you to immerse yourself into a Home Cinema experience with a difference.

## TECHNOLOGIES



### 'W' SANDWICH CONE

The 'W' composite sandwich cone was designed to ensure a perfect optimisation of the frequency response curve thanks to the total control of three key parameters: lightness, rigidity and damping. In terms of sound, the 'W' composite sandwich cone provides totally transparent sound and very low distortion.



### BERYLLIUM TWEETER

The rigidity of beryllium is so high that it's the only metal that can scratch glass. This is why it is the material of choice for tweeter cones! Its price - 50 times more expensive than gold - means that it's reserved for those with the highest expectations in terms of acoustics. Today, the beryllium tweeter has been integrated into our top end lines.

## HIGH-END

## SUBTLETY

## KEY POINTS



**READY-TO-PAINT**  
The grille is ready to paint to ensure optimal integration into your home.



**MAGNETIC GRILLES**  
Magnetic grilles, so that they are easy to mount to the loudspeakers.



**EDGELESS**  
Edgeless, built-in loudspeakers, making them even less noticeable.



**EXCELLENCE**  
In the Electra line: the music will reveal all its secrets and all its nuances.

# Electra IW1003 Be

**6 1/2" (16.5CM) MIDBASS**  
 'W' cone woofer.  
 Exclusive composite sandwich.  
 Unequalled rigidity and neutrality.

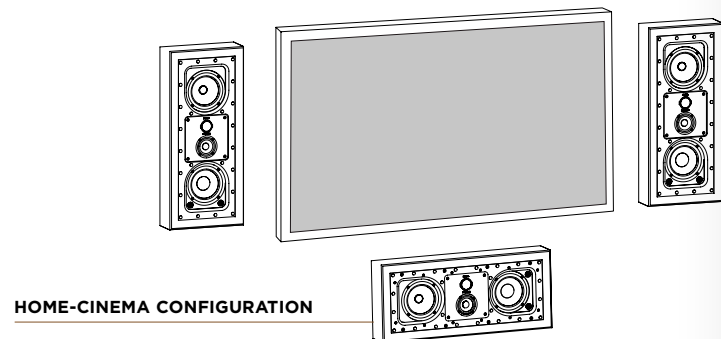
**6 1/2" (16.5CM) PASSIVE RADIATOR**  
 'W' cone.  
 Very low bass distortion.  
 Excellent power handling.

**PURE BERYLLIUM IAL TWEETER**  
 Ultra-wide response from 2kHz to 40kHz.  
 High-efficiency: 95dB / 1W / 1m.

**3" (8CM) MIDRANGE**  
 'W' cone.  
 Exclusive composite sandwich.  
 Optimised phase geometry.



**ADJUSTABLE ALUMINUM MIDRANGE AND TWEETER SUPPORT**  
 For vertical and horizontal use.



HOME-CINEMA CONFIGURATION



	<b>Electra IW1003 Be</b>	<b>Electra IW1002 Be</b>	<b>Electra IW1002</b>	<b>Electra IC1002</b>
<b>Type</b>	In-wall 3-way	In-wall 2-way	In-wall 2-way	In-ceiling 2-way
<b>Speakers</b>	6 1/2" (165mm) 'W' Passive radiator 6 1/2" (165mm) 'W' Woofer 3" (80mm) 'W' Midrange 1 1/16" (27mm) Be IAL inverted dome Tweeter	6 1/2" (165mm) 'W' Midbass 1 1/16" (27mm) Be inverted dome Tweeter	6 1/2" (165mm) 'W' Midbass 1" (25mm) Al/Mg inverted dome Tweeter	6 1/2" (16.5cm) 'W' Midbass 1" (25mm) Al/Mg inverted dome Tweeter
<b>Frequency response (±3dB)</b>	49Hz - 40kHz	60Hz - 40kHz	60Hz - 30.5kHz	60Hz - 30.5kHz
<b>Sensitivity (2.83V/1m)</b>	90dB	88dB	88dB	88dB
<b>Nominal impedance</b>	8Ω	8Ω	8Ω	8Ω
<b>Amp. recommended power</b>	25 - 240W	25 - 150W	25 - 150W	25 - 150W
<b>Adjustments</b>	Tweeter: -3dB / 0dB / +3dB Midrange: -3dB / 0dB / +3dB	Tweeter: -3dB / 0dB / +3dB	Tweeter: -3dB / 0dB / +3dB	Tweeter: -3dB / 0dB / +3dB
<b>Dimensions (H x L x D)</b>	27 9/16" x 11 3/4" x 4" (700x298x102mm)	16 3/8" x 11 3/4" x 4" (415x298x102mm)	16 3/8" x 11 3/4" x 4" (415x298x102mm)	Ø10 x H3 3/4" (Ø253 x H96mm)
<b>Cut-out dimensions (H x L)</b>	26 3/16" x 10 5/16" (664x262mm)	14 15/16" x 10 5/16" (379x262mm)	14 15/16" x 10 5/16" (379x262mm)	Ø8 1/16" (221mm)
<b>Depth from wall</b>	3 7/8" (99mm)	3 7/8" (99mm)	3 7/8" (99mm)	3 5/8" (92mm)
<b>Weight</b>	22lbs (10kg)	13.6lbs (6.2kg)	13.6lbs (6.2kg)	4.6lbs (2.1kg)
<b>Packaging</b>	Per unit	Per unit	Per unit	Per unit

Optional mounting kits are available for each product to facilitate the mounting in new-builds.







# 300 SERIES

MADE IN  
FRANCE

## A source of inspiration...

The loudspeakers of the 300 Series line are the fruit of more than three years of research and development. Installation has been completely re-designed. Disregarding the past and the systems currently on the market, our engineers started from scratch with just one challenge in mind: being able to install our product without tools!

Our engineers explored numerous possibilities, each one more creative than the other, and built an inestimable amount of prototypes before coming up with the EQI system (Easy Quick Install). Now, thanks to these ingenious systems, the products in this line can be installed in less than a minute!

Throughout our history, sound quality has always been fundamental! All the speaker drivers are equipped with a natural flax sandwich cone with superior acoustic qualities, and are made at our production workshops in Saint-Étienne.

The products of the 300 Series line are extremely versatile and can be used for: hi-fi systems, built-in Home Cinema systems, or to enhance classic hi-fi systems, particularly the loudspeakers from the Aria 900 line.

The flagship product of the line, 300 IWLCR6, represents an innovation in the optimisation of sound coverage, regardless of the loudspeaker's position within the room. An acoustics study into the sound quality and precision of the stereo image was carried out, which proved to be a true innovation for cinema buffs.



> 300 ICW6



## EASY QUICK INSTALL

Easy Quick Install system.  
No tools required.



# 300 SERIES



The built-in loudspeakers of the 300 Series were designed to be invisible and give a new dimension to your music, whether in a stereo or Home Cinema set-up. The ultimate goal was to make installation easier without requiring tools. The design

of these loudspeakers ensures excellent sound coverage throughout your home. Through its precise and natural sound, this line is ideal for creating an all-encompassing atmosphere; opening up a world with an unprecedented depth of emotion.

## PRECISION



## DETAILS

## TECHNOLOGIES



### FLAX CONE

The 'F' cone is composed of very high-quality flax fibres inserted between two thin glass fibre layers. It satisfies all the criteria required for high-fidelity cones: light, to ensure good dynamics, rigid to control the bass, and it offers excellent damping properties to produce sound that is both neutral and natural.



### AL/MG TWEETER

This unique solution combines multiple advantages. The impulse response highlights the very short settling time and the ultra-fast damping. The linearity of the frequency response curve is also remarkable and ensures perfect neutrality.

## KEY POINTS



**READY-TO-PAINT**  
The grille is ready to paint to ensure optimal integration into your home.



**MAGNETIC GRILLES**  
The grilles are magnetic, so that they are easy to mount to the loudspeakers.



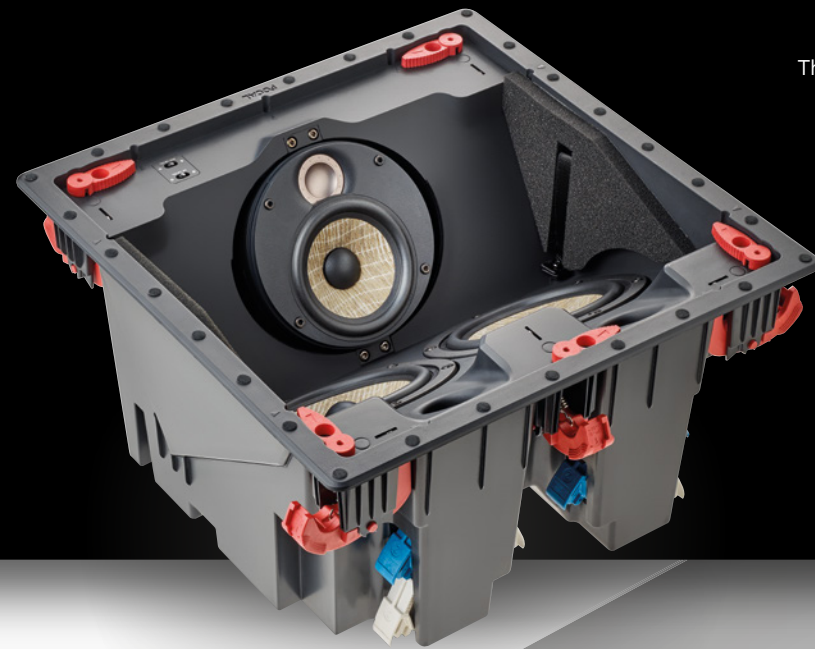
**EDGELESS**  
Edgeless, built-in loudspeakers, making them even less noticeable.



**ADJUSTABLE TWEETER**  
The tweeter can be adjusted horizontally and vertically to target the listening point.



# 300 ICLCR5



The 300 ICLCR5 is equipped with a left/centre/right channel selector to mechanically direct the sound towards the listening point, making it perfect for Home Cinemas. For in-ceiling loudspeakers, the dedicated 300 ICLCR5 is equipped with an adjustable tweeter housing for directing sound towards the listening point with precision. The tweeter level is also adjustable so that it can be set according to the room's acoustics, and the upper midrange can also be adjusted.

# 300 IWLCR6

**6 1/2" (16.5CM) FLAX CONE WOOFER**  
Controlled and articulated bass, for optimal fidelity.

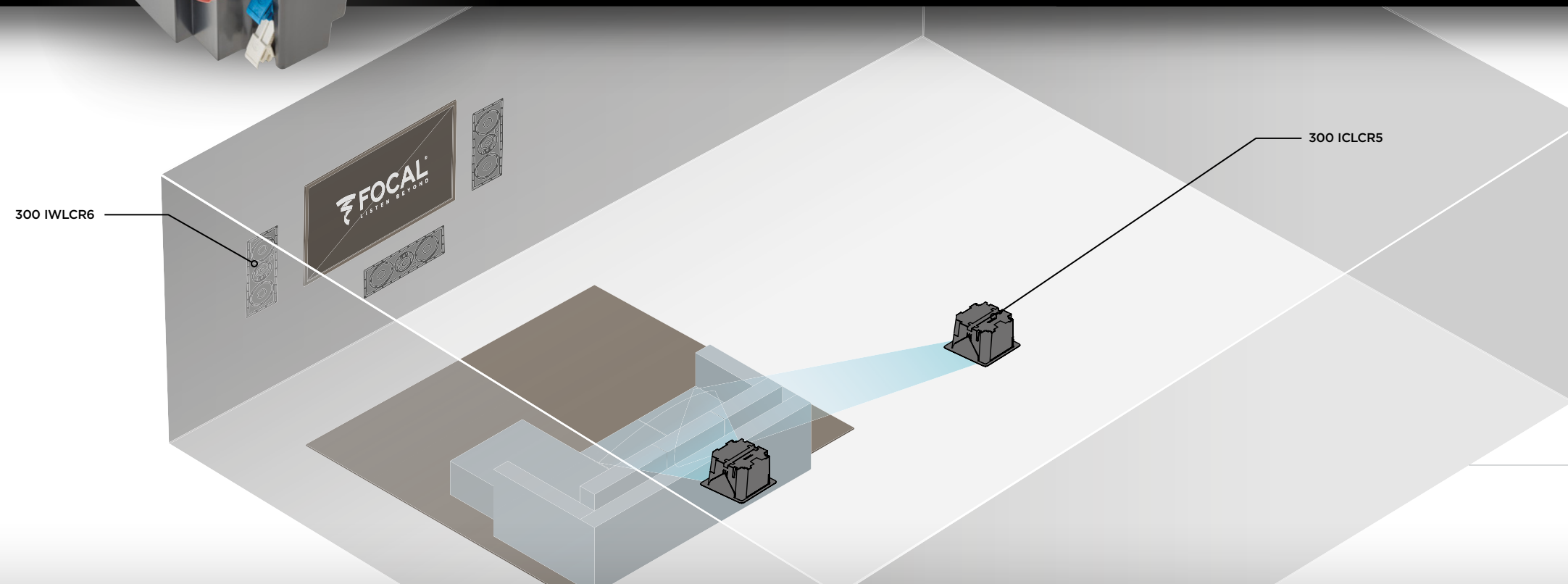
**4" (10CM) FLAX CONE MIDRANGE**  
Neutrality, intelligibility and definition of vocals.

**1" AL/MG INVERTED DOME TWEETER WITH PORON® SUSPENSION**  
Treble with extreme definition and precision.

**ADJUSTABLE TWEETER LEVEL**  
(-3dB, 0dB, +3dB) and midrange level (-2dB, 0dB, +2dB).  
The best performance, regardless of the acoustic environment.

**ADJUSTABLE MID-TREBLE PLATE**  
0-90° adjustable in 90° steps.

**EASY QUICK INSTALL : EASY AND QUICK TO INSTALL WITHOUT TOOLS**  
System compatible with walls of a width of 0.5" to 1.2" (12 to 32mm).



300 IWLCR6

300 ICLCR5

5.1 CONFIGURATION





### 300 ICLCR5

### 300 IWLCR6

### 300 IW6

<b>Type</b>	In-ceiling 3-way	In-wall D'Appolito 3-way	In-wall 2-way
<b>Speakers</b>	2 x 5" (13cm) Flax woofers 4" (10cm) Flax Midrange 1" (25mm) Al/Mg inverted dome Tweeter	2 x 6 1/2" (16.5cm) Woofers 4" (10cm) Flax Midrange 1" (25mm) Al/Mg inverted dome Tweeter	6 1/2" (16.5cm) Flax cone woofer 1" (25mm) Al/Mg inverted dome Tweeter
<b>Frequency response (±3dB)</b>	55Hz - 28kHz	40Hz - 28kHz	55Hz - 28kHz
<b>Sensitivity (2.83V/1m)</b>	91dB	92dB	90dB
<b>Nominal impedance</b>	8Ω	8Ω	8Ω
<b>Amp. recommended power</b>	50 - 150W	50 - 150W	25 - 130W
<b>Adjustments</b>			
<b>Dimensions (H x L x D)</b>	14 9/16" x 14 9/16" x 7 11/16" (370x370x195mm)	23 5/8" x 8 11/16" x 3 7/8" (600x220x98mm)	12 3/4" x 8 11/16" x 3 7/8" (323x220x98mm)
<b>Cut-out dimensions (H x L)</b>	13 3/8" x 13 3/8" (340x340mm)	22 3/8" x 7 1/2" (568x191mm)	11 1/2" x 7 1/2" (292x191mm)
<b>Depth from wall</b>	7 1/2" (190mm)	3 11/16" (93mm)	3 11/16" (93mm)
<b>Weight</b>	16.3lbs (7.4kg)	12.4lbs (5.65kg)	4.9lbs (2.25kg)
<b>Packaging</b>	Per unit	Per unit	Per unit



### 300 ICW8

### 300 ICW6

### 300 ICW4

<b>Type</b>	In-wall/In-ceiling 2-way coaxial	In-wall/In-ceiling 2-way coaxial	In-wall/In-ceiling 2-way
<b>Speakers</b>	8" (21cm) Flax Midbass 1" (25mm) Al/Mg inverted dome Tweeter	6 1/2" (16.5cm) Flax Midbass 1" (25mm) Al/Mg inverted dome Tweeter	4" (10cm) Flax Midbass 1" (25mm) Al/Mg inverted dome Tweeter
<b>Frequency response (±3dB)</b>	48Hz - 28kHz	65Hz - 28kHz	80Hz - 28kHz
<b>Sensitivity (2.83V/1m)</b>	90dB	89dB	88dB
<b>Nominal impedance</b>	8Ω	8Ω	8Ω
<b>Amp. recommended power</b>	25 - 150W	25 - 130W	25 - 100W
<b>Tweeter Adjustments</b>	-3dB / 0dB / +3dB	-3dB / 0dB / +3dB	
<b>Dimensions (H x L x D)</b>	11 3/4" x 11 3/4" x 5" (299x299x127mm)	9 5/8" x 9 5/8" x 4 1/8" (244x244x105mm)	7 9/16" x 7 9/16" x 3 7/8" (192x192x98mm)
<b>Cut-out dimensions (Ø)</b>	10 25/64" (264mm)	8 1/2" (216mm)	6 3/8" (163mm)
<b>Depth from wall</b>	4 51/64" (122mm)	3 15/16" (100mm)	3 5/8" (93mm)
<b>Weight</b>	7.05lbs (3.2kg)	5.29lbs (2.4kg)	2.6lbs (1.3kg)
<b>Packaging</b>	Per unit	Per unit	Per unit



# 100 SERIES

## Musicality with utmost discretion

The 100 Series is mostly dedicated to the home audio market. These loudspeakers set themselves apart through the high-performance audio and the compact size considering their SPL.

The range is destined for small -to medium-sized rooms, and for three types of use: multiple loudspeaker systems (hallways, living rooms...), stereo systems (bedrooms, kitchens...) and Home Cinema systems. Dedicated products for listening in outdoor settings complete the offer.

The 100 Series line is composed of:

- 3 coaxial loudspeakers (in-wall or in-ceiling): 100 ICW5, 100 ICW6 and 100 ICW8,
- 1 coaxial in-ceiling stereo loudspeaker : 100 IC6ST,
- 1 in-ceiling for Home Cinema systems: 100 ICLCR5,
- 2 products specifically intended for in-wall systems: 100 IW6, 100 IWLCR5.
- 1 passive subwoofer and 1 subwoofer amplifier : 100 IWSUB8, 100 IWSUB8 AMPLIFIER
- 2 outdoor loudspeakers: 100 OD6, 100 OD8.

This range of products remains faithful to the three quality criteria of the 300 Series, which are absolutely necessary in order to meet the expectations of today's consumer in terms of sound quality, design and ease of installation.

To meet the requirements in terms of sound quality, the products are innovative and equipped with a compact Aluminium inverted dome tweeter and a Polyglass cone speaker driver. The in-ceiling loudspeakers are equipped with a crossover featuring an innovative architecture which improves off-axis listening. This also significantly reduces the undesired bathroom effect often encountered with this type of product.

Thanks to their compacity (unibody chassis), and round and square frameless grilles, these models perfectly integrate your environment with utmost discretion.





# 100 SERIES



Choose discretion! The hi-fi loudspeaker models are available as in-wall and in-ceiling loudspeakers for your home. The products in this line will provide your interior with unexpected musicality effortlessly. Let yourself be astonished by the new possibilities they open up to you: thoroughly

tested technologies, an efficient design and ideal functions to make them easy to use and perfectly adapted for your interior. With the 100 Series line, you will find the obvious acoustic solution which will prove its worth through its excellent efficiency in this price range.



**DISCRETION**



**EFFICIENCY**

## TECHNOLOGIES



### TROPICALIZED POLYGLASS CONE

This innovation combines the excellent damping properties of paper with the high rigidity of glass. Tropicalizing the cone allows it to be installed in wet places (bathroom...).



### INVERTED DOME TWEETER

The inverted dome tweeter is fully representative of our sound signature. The main advantage is the coupling of the dome with the voice coil: the dome radiates directly in the space, with maximum efficiency. The very slight curve also provides improved space dispersion. This results in an extremely precise soundstage.

## KEY POINTS



**READY-TO-PAINT**  
The grille is ready to paint to ensure optimal integration into your home.



**MAGNETIC GRILLES**  
The grilles are magnetic, so that they are easy to mount to the loudspeakers.



**EDGELESS**  
Edgeless, built-in loudspeakers, making them even less noticeable.



**ADJUSTABLE TWEETER**  
The tweeter can be adjusted horizontally and vertically to target the listening point.



# 100 IC6ST

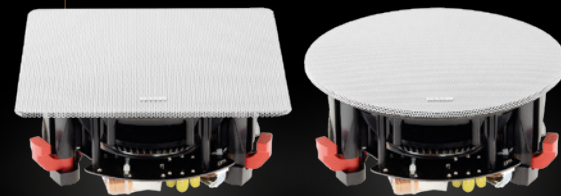
# 100 ICLCR5

## DOUBLE TWEETER

Double tweeter 1" (25mm). Aluminum inverted dome tweeter. Improved sound dispersion.

## 2 GRILLE MODELS

Delivered with square and circular front grilles.



**8" (21CM) PASSIVE RADIATOR**  
Deep frequency response in the low end.  
Deep and articulated bass.

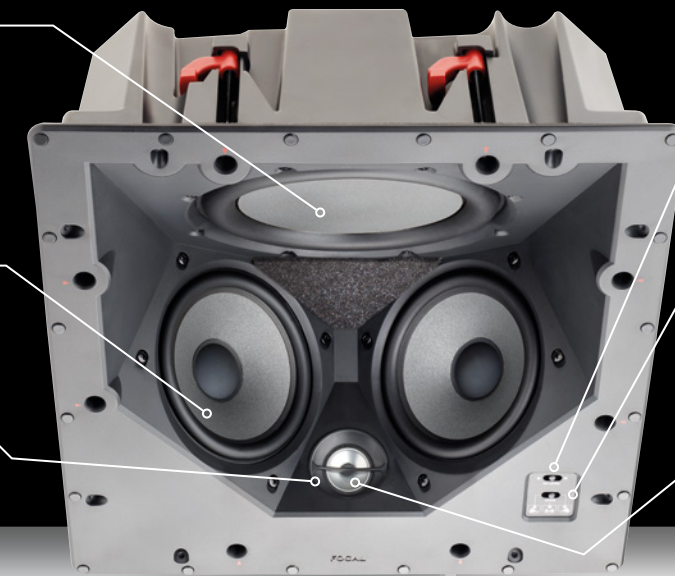
**5" (13CM) POLYGLASS WOOFER**  
Natural midrange without colouration, and rich bass.

**TWEETER ADJUSTABLE**  
Horizontally and vertically for focusing the sound on the listening point.  
Improved sound spatialisation.

**ADJUSTABLE TWEETER LEVEL**  
(-3dB, 0dB, +3dB). Optimisation of the performance according to room's acoustics.

**LEFT, CENTRE AND RIGHT CHANNEL SELECTOR**  
Adapts the loudspeaker's directivity curve to obtain the same sound, regardless of the position within the room.

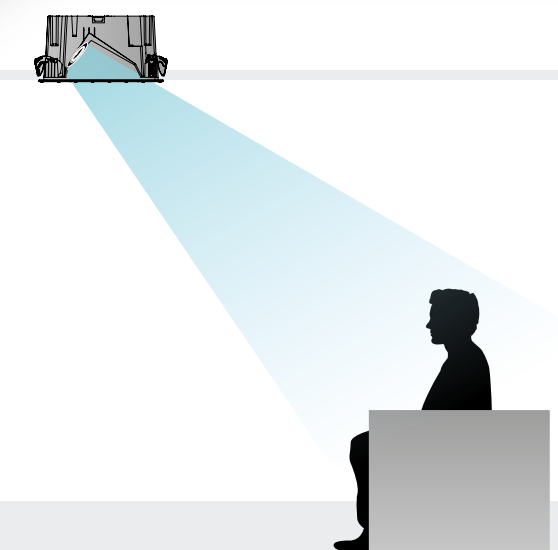
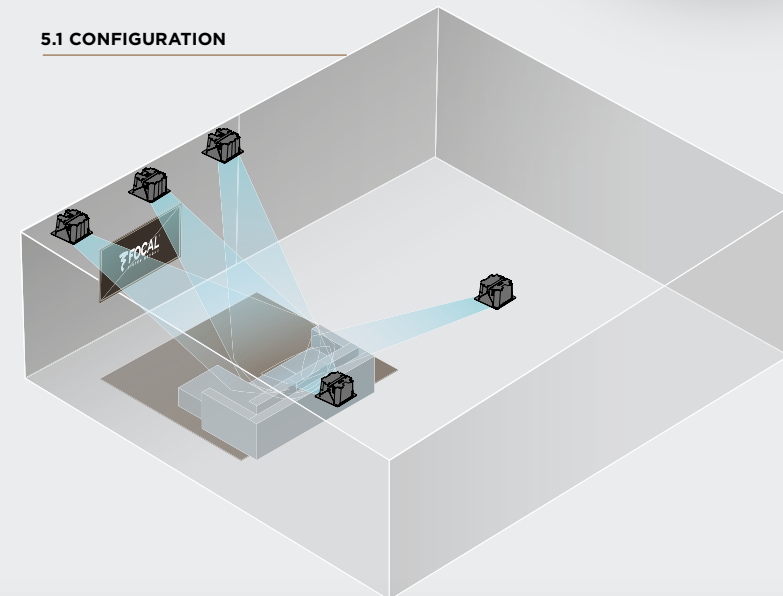
**1" (25MM) ALUMINUM INVERTED DOME TWEETER**  
Improved sound dispersion.



STEREO



5.1 CONFIGURATION





	<b>100 ICLCR5</b>	<b>100 IWLCR5</b>	<b>100 IW6</b>
<b>Type</b>	In-ceiling 2-way	In-wall D'Appolito 2-way	In-wall 2-way
<b>Speakers</b>	2x5" (13cm) Polyglass Woofers 1" (25mm) inverted dome Tweeter 8" (21cm) Polyglass Passive Radiator	2x5" (13cm) Polyglass Midbass 1" (25mm) Al inverted dome Tweeter	6 <sup>1</sup> / <sub>2</sub> " (16,5cm) Polyglass Midbass 1" (25mm) Al inverted dome Tweeter
<b>Frequency response (±3dB)</b>	65Hz - 23kHz	55Hz - 23kHz	60Hz - 23kHz
<b>Sensitivity (2.83V/1m)</b>	92dB	90.5dB	89dB
<b>Nominal impedance</b>	8Ω	8Ω	8Ω
<b>Amp. recommended power</b>	25 - 120W	25 - 120W	25 - 120W
<b>Adjustments</b>	-	-	-
<b>Dimensions (H x L x D)</b>	13 <sup>15</sup> / <sub>16</sub> " x 13 <sup>15</sup> / <sub>16</sub> " x 5 <sup>5</sup> / <sub>16</sub> " (354x354x150mm)	17 <sup>5</sup> / <sub>16</sub> " x 6 <sup>13</sup> / <sub>16</sub> " x 3 <sup>3</sup> / <sub>8</sub> " (440x173x86mm)	11 <sup>3</sup> / <sub>4</sub> " x 7 <sup>11</sup> / <sub>16</sub> " x 3 <sup>5</sup> / <sub>8</sub> " (298x195x92mm)
<b>Cut-out dimensions (H x L)</b>	12 <sup>15</sup> / <sub>16</sub> " x 12 <sup>15</sup> / <sub>16</sub> " (328x328mm)	16 <sup>11</sup> / <sub>32</sub> " x 5 <sup>25</sup> / <sub>32</sub> " (415x147mm)	10 <sup>3</sup> / <sub>4</sub> " x 6 <sup>11</sup> / <sub>16</sub> " (273x170mm)
<b>Depth from wall</b>	6" (152mm)	3 <sup>17</sup> / <sub>64</sub> " (83mm)	4 <sup>15</sup> / <sub>32</sub> " (88mm)
<b>Weight</b>	11.6lbs (5.3kg)	3.89lbs (2.90kg)	4.1lbs (1.85kg)
<b>Packaging</b>	Per unit	Per unit	Per unit



	<b>100 IC6ST</b>	<b>100 ICW8</b>	<b>100 ICW6</b>	<b>100 ICW5</b>
<b>Type</b>	In-ceiling - Stereo 2-way coaxial	In-wall/In-ceiling 2-way coaxial	In-wall/In-ceiling 2-way coaxial	In-wall/In-ceiling 2-way coaxial
<b>Speakers</b>	6 <sup>1</sup> / <sub>2</sub> " (16,5cm) Dual voice coil Polyglass Midbass 1" (25mm) Al inverted dome Tweeter	8" (21cm) Polyglass Midbass 1" (25mm) Al inverted dome Tweeter	6 <sup>1</sup> / <sub>2</sub> " (16,5cm) Polyglass Midbass 1" (25mm) Al inverted dome Tweeter	5" (13cm) Polyglass Midbass 1" (25mm) Al inverted dome Tweeter
<b>Frequency response (±3dB)</b>	60Hz - 23kHz	53Hz - 23kHz	62Hz - 23kHz	65Hz - 23kHz
<b>Sensitivity (2.83V/1m)</b>	89dB	90dB	89dB	88dB
<b>Nominal impedance</b>	2x8Ω	8Ω	8Ω	8Ω
<b>Amp. recommended power</b>	25 - 100W	25 - 150W	25 - 100W	15 - 100W
<b>Tweeter Adjustments</b>	-3dB / 0dB / +3dB	-3dB / 0dB / +3dB	-3dB / 0dB / +3dB	-3dB / 0dB / +3dB
<b>Dimensions (H x L x D)</b>	8 <sup>3</sup> / <sub>16</sub> " x 8 <sup>3</sup> / <sub>16</sub> " x 3 <sup>3</sup> / <sub>4</sub> " (208x208x95mm)	9 <sup>3</sup> / <sub>4</sub> " x 9 <sup>3</sup> / <sub>4</sub> " x 4 <sup>3</sup> / <sub>8</sub> " (248x248x111mm)	8 <sup>3</sup> / <sub>16</sub> " x 8 <sup>3</sup> / <sub>16</sub> " x 3 <sup>3</sup> / <sub>4</sub> " (208x208x95mm)	7 <sup>1</sup> / <sub>4</sub> " x 7 <sup>1</sup> / <sub>4</sub> " x 3 <sup>7</sup> / <sub>16</sub> " (184x184x87mm)
<b>Cut-out dimensions (Ø)</b>	7 <sup>1</sup> / <sub>4</sub> " (184mm)	8 <sup>13</sup> / <sub>16</sub> " (224mm)	7 <sup>1</sup> / <sub>4</sub> " (184mm)	6 <sup>5</sup> / <sub>16</sub> " (160mm)
<b>Depth from wall</b>	3 <sup>9</sup> / <sub>16</sub> " (91mm)	4 <sup>3</sup> / <sub>16</sub> " (107mm)	3 <sup>3</sup> / <sub>4</sub> " (91mm)	3 <sup>1</sup> / <sub>4</sub> " (82mm)
<b>Weight</b>	3.86lbs (1.75kg)	3.86lbs (1.75kg)	3.3lbs (1.50kg)	3.19lbs (1.45kg)
<b>Packaging</b>	Per unit	Per unit	Per unit	Per unit



Optional mounting kits are available for each product to facilitate the mounting in new-builds.





### 100 IWSUB8

Type	Passive subwoofer
Speakers	8" (21cm) Polyglass Woofer
Bandwith (+/-3 dB)	34-140 Hz
Cut-off frequency (- 6 dB)	30 Hz
Nominal impedance	8 Ohms
Recommended amp power	Max 200W / 4 Ohms
Dimensions (L x P x H)	13 <sup>7/8</sup> x 3 <sup>7/8</sup> x 51 <sup>3/16</sup> " (352 x 98 x 1300mm)
Cut-out dimensions (L x H)	13 <sup>7/8</sup> x 51 <sup>3/16</sup> " (352 x 1300mm)
Depth from wall	3 <sup>3/8</sup> " (86mm)
Net weight	32.3lbs (14.6kg)
Packaging	per unit



### 100 IWSUB8 AMPLIFIER

Type	Subwoofer amplifier
Power (continuous)	Max 200W, 150W continuous (4 Ohms)
Minimum load	4Ω
Voltage range	100-120V-60Hz / 220-230V-50Hz
Power consumption	150W
Stand-by power consumption	0.5W
Bandwith	20-250Hz
Subsonic filter	18dB/oct.
Inputs	LFE, Line in L/R
Outputs	Line out L/R and subwoofer power output on speaker terminal
Cord	Detachable IEC power cord
Protection	Dynamic power control, thermal protection, short circuit, fuse, and over-current protection
Dimensions (H x L x P)	1 <sup>3/4</sup> x16 <sup>7/8</sup> x10 <sup>1/8</sup> " (44.5x429x257mm)
Net weight	6.8lbs (3.1kg)
Packaging	per unit



### 100 OD8

Type	Outdoor loudspeaker
Speakers	Aluminum inverted dome tweeter 8" (210mm) waterproof woofer with Polyglass treatment (IP66 certification)*
Sensitivity (2,83V/1m)	88dB
Frequency response (+/-3dB)	60Hz-23kHz
Low frequency point (-6dB)	45Hz
Nominal impedance	8Ω
Recommended amp power	20-150W
Filtering frequencies	2,800Hz
Dimensions (L x P x H) with brackets	10 <sup>3/16</sup> x 11 x 15 <sup>3/8</sup> " (258 x 280 x 390mm)
Net weight with brackets	12.6lbs (5.8kg)



### 100 OD6

Type	Outdoor loudspeaker
Speakers	Aluminum inverted dome tweeter 6 <sup>1/2</sup> " (165mm) waterproof woofer with Polyglass treatment (IP66 certification)*
Sensitivity (2,83V/1m)	87dB
Frequency response (+/-3dB)	65Hz-23kHz
Low frequency point (-6dB)	55Hz
Nominal impedance	8Ω
Recommended amp power	20-120W
Filtering frequencies	2,800Hz
Dimensions (L x P x H) with brackets	8 <sup>13/16</sup> x 10 <sup>1/16</sup> x 12 <sup>9/16</sup> " (224 x 256 x 319mm)
Net weight with brackets	9lbs (4.1kg)

Optional mounting kits are available for some products to facilitate the mounting in new-builds.



\*Established by the International Electrotechnical Commission (IEC), IP codes are international standards used to identify the degrees of protection of products against the ingress of solid or liquid foreign objects. The first digit of the IP code represents the level of protection against the ingress of solid foreign objects, such as dust (0 to 6). The second digit represents the level of protection against harmful ingress of water (0 to 8).



# ASTRAL 16

MADE IN  
FRANCE

The magic of cinema at home!

Focal is proud to introduce Astral 16, an exceptional and versatile audio-video processor and amplifier.

Combining cutting-edge technologies and multiple features, this high-end electronic solution promises an immersive home cinema experience that far outclasses its competition. Like any true conductor who draws the best out of his orchestra, Astral 16 draws the very best out of high-fidelity and in-wall/in-ceiling loudspeakers by perfectly coordinating all the components within a sensational Home Cinema installation.

Integrating a Class D Pascal Audio amplifier, Astral 16 has 16 channels, of which 12 are amplified and 4 are pre-amplified (balanced XLR outputs) and dedicated entirely to audio (filtering, equalization, bass management, etc.). In addition to covering all audio formats (Dolby Atmos®, DTS:X™, etc.), it provides endless configuration options.

Equipped with technology that allows adjustments based on room characteristics (Room calibration, with Dirac Live®) and supplied with a calibrated measurement microphone, Astral 16 can be fine-tuned to suit all possible acoustical environments and desires.

In short, it is fully customizable, and comes with an app available on the App Store (via iPad) to drive the system you want room by room, as well as technical support (Remote Monitoring) for equipment diagnostics at any time. Compatible with Control4, Crestron, Savant and RTI, Astral 16 benefits from the possibilities offered by these leading interface systems to enable perfectly seamless remote control of all your audio & video needs.

This rock-solid foundation is an official invitation to an immersive journey through images and sound of unrivaled quality (sampling frequency supported up to 192 kHz).







A 16-channel audio-video processor and amplifier, Astral 16 guarantees maximum enjoyment from your high-fidelity and in-wall/in-ceiling loudspeakers. 3D Audio and Video and HD Audio compatible, this is an uncompromising listening experience with this very high-end and Made in France electronic solution.

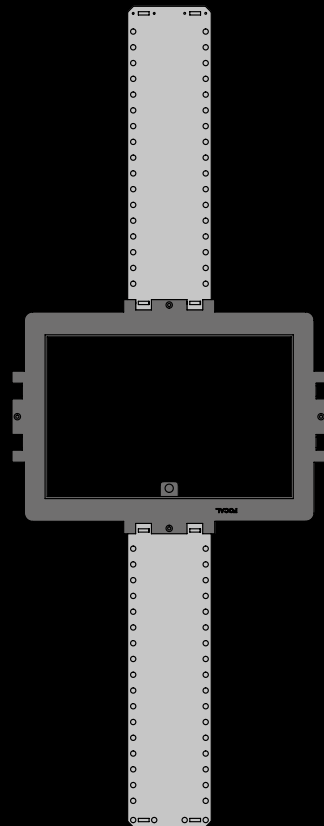
## Astral 16

• <b>Type</b>	16 channel audio-video processor and amplifier	
• <b>Main features</b>	Compatible formats	Dolby Atmos* / DTS:X™ / Auro-3D*
	Room Calibration	Powered by Dirac Live™ : target curve editable from 20Hz to 20kHz for all channels (including subwoofers), phase correction full bandwidth 20Hz-20kHz on all channels (including subwoofers)
	"Remote Monitoring" function	
• <b>Multichannel / Surround Processing</b>	Output channels	16
	Decoding / upmixing channels	up to 16 channels
	Input sampling rate supported	up to 192kHz
	Stereo downmix	
	Bass management	fully flexible
	Multi-subwoofer channels	Unlimited
	Multi-way crossover	(6-12-18-24-36-48dB/oct filter slopes)
	20 Parametric EQ per channel	
• <b>HDMI</b>	HDMI inputs	7: HDMI 2.0 / HDCP 2.2
	HDMI outputs (mirror)	1: HDMI 2.0 / HDCP 2.2 (with eARC) 2: HDMI 2.0 / HDCP 2.2
	Supported video format	Up to 4K UHD
	High Dynamic Range	HDR10 / HLG
	Color Space and Subsampling	4:4:4, 4:2:2, 4:2:0
	Deep Color	12 bpc
	Max resolution supported	4K 60fps 4:4:4 8bpc
	HDMI	3D / 4K / eARC
• <b>Audio Inputs</b>	Digital input	3 x coaxial, 3 x optical
	Analog stereo inputs	4 x RCA inputs
• <b>Amplified Audio Outputs</b>	Amplified main outputs	12
	Analog main outputs, balanced	4 x XLR
	Stereo downmix outputs, balanced	2 x XLR
	Technology	Class D
	Amplified channels	12
	<b>Continuous power output, per channel (0.1%THD)</b>	8Ω / 4Ω / 2.7Ω
	3 channels driven simultaneously	200W / 400W / 650W
6 channels driven simultaneously	200W / 350W / 350W	
12 channels driven simultaneously	200W / 200W	

• <b>Amplified Audio Outputs</b>	<b>Continuous power output, per channel (1%THD)</b>	8Ω / 4Ω / 2.7Ω
	3 channels driven simultaneously	250W / 500W / 725W
	6 channels driven simultaneously	250W / 500W / 500W
	12 channels driven simultaneously	250W / 300W
	SNR (P-rated)	110dB
	THD (from 1W to P-rated -1dB)	<0,03%
• <b>Set-Up Management</b>	Configurable multi-theater management	
	Configurable audio zones management	
	Unlimited Theater and audio zones listening presets	
	Backup and restore of set-up	
	Firmware update via USB/network	
• <b>Control Inputs / Outputs</b>	USB type A	2
	Ethernet	
	Output trigger control	4 (out)
	IR remote ports, in/out	1 / 1
• <b>Control / Custom Installation</b>	Web-based product configurator	
	TCP/IP API based control	
	Focal Remote iPad control application	
	Home automation	Crestron, Control4, Savant, RTI home automation
	Front panel display	TFT 4.3"
• <b>Power Supply</b>	Voltage range	100V to 240V
	Type	SMPS
	Range selection	Universal
• <b>Supplied with</b>	Calibrated measurement microphone and tripod, Dirac Live™ license, 49.2ft (15m) cable with infra-red detector, mounting kit.	
• <b>Dimensions &amp; weight</b>	Net weight - with stands	44.1lbs (20kg)
	Net weight - with accessories for Rack	50.7lbs (23 kg)
	Dimensions with stands (H x W x D)	191 x 479 x 490mm / 7 <sup>1/2</sup> x 18 <sup>7/8</sup> x 19 <sup>5/16</sup> "

# ACCESSORIES

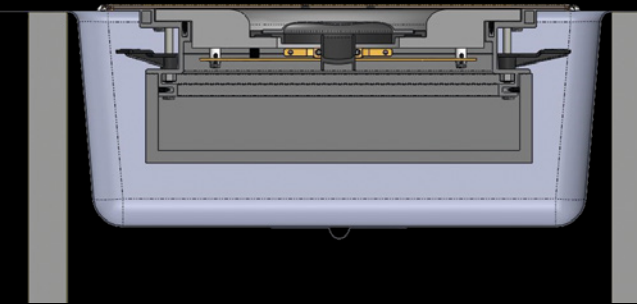
## Mounting Brackets



	Outside dimension	Cut-out dimensions	Depth from wall
<b>Electra IW1002 Be</b>	11 <sup>47</sup> / <sub>64</sub> " x 16 <sup>11</sup> / <sub>32</sub> " (298x415mm)	10 <sup>11</sup> / <sub>64</sub> " x 14 <sup>25</sup> / <sub>32</sub> " (258.5x375.5mm)	3 <sup>57</sup> / <sub>64</sub> " (99mm)
<b>Electra IW1002</b>	11 <sup>47</sup> / <sub>64</sub> " x 16 <sup>11</sup> / <sub>32</sub> " (298x415mm)	10 <sup>11</sup> / <sub>64</sub> " x 14 <sup>25</sup> / <sub>32</sub> " (258.5x375.5mm)	3 <sup>57</sup> / <sub>64</sub> " (99mm)
<b>Electra IC1002</b>	9 <sup>15</sup> / <sub>16</sub> " (252.5mm)	8 <sup>39</sup> / <sub>64</sub> " (218.5mm)	4 <sup>1</sup> / <sub>16</sub> " (103.2mm)
<b>300 ICLCR5</b>	14 <sup>9</sup> / <sub>16</sub> " x 14 <sup>9</sup> / <sub>16</sub> " (370x370mm)	13 <sup>25</sup> / <sub>64</sub> " x 13 <sup>25</sup> / <sub>64</sub> " (340x340mm)	7 <sup>31</sup> / <sub>64</sub> " (190mm)
<b>300 IWLCR6</b>	8 <sup>21</sup> / <sub>32</sub> " x 23 <sup>5</sup> / <sub>8</sub> " (220x600mm)	7 <sup>33</sup> / <sub>64</sub> " x 22 <sup>23</sup> / <sub>64</sub> " (191x568mm)	3 <sup>41</sup> / <sub>64</sub> " (92.5mm)
<b>300 IW6</b>	8 <sup>21</sup> / <sub>32</sub> " x 12 <sup>23</sup> / <sub>32</sub> " (220x323mm)	7 <sup>33</sup> / <sub>64</sub> " x 11 <sup>1</sup> / <sub>2</sub> " (191x292mm)	3 <sup>41</sup> / <sub>64</sub> " (92.5mm)
<b>300 ICW8</b>	11 <sup>49</sup> / <sub>64</sub> " (299mm)	10 <sup>23</sup> / <sub>64</sub> " (263mm)	4 <sup>25</sup> / <sub>32</sub> " (121.6mm)
<b>300 ICW6</b>	9 <sup>39</sup> / <sub>64</sub> " (244mm)	8 <sup>15</sup> / <sub>32</sub> " (215mm)	3 <sup>61</sup> / <sub>64</sub> " (100.3mm)
<b>300 ICW4</b>	7 <sup>9</sup> / <sub>16</sub> " (192mm)	6 <sup>3</sup> / <sub>8</sub> " (162mm)	3 <sup>43</sup> / <sub>64</sub> " (93.4mm)
<b>100 ICLCR5</b>	13 <sup>25</sup> / <sub>32</sub> " x 13 <sup>25</sup> / <sub>32</sub> " (350x350mm)	12 <sup>49</sup> / <sub>64</sub> " x 12 <sup>49</sup> / <sub>64</sub> " (324.2x324.2mm)	5 <sup>63</sup> / <sub>64</sub> " (152mm)
<b>100 IWLCR5</b>	6 <sup>13</sup> / <sub>16</sub> " x 17 <sup>21</sup> / <sub>64</sub> " (173x440mm)	5 <sup>25</sup> / <sub>32</sub> " x 16 <sup>11</sup> / <sub>32</sub> " (147x415mm)	3 <sup>17</sup> / <sub>64</sub> " (83mm)
<b>100 IW6</b>	7 <sup>43</sup> / <sub>64</sub> " x 11 <sup>47</sup> / <sub>64</sub> " (195x298mm)	6 <sup>11</sup> / <sub>16</sub> " x 10 <sup>3</sup> / <sub>4</sub> " (170x273mm)	3 <sup>15</sup> / <sub>32</sub> " (88mm)
<b>100 ICW8</b>	9 <sup>49</sup> / <sub>64</sub> " (248mm)	8 <sup>13</sup> / <sub>16</sub> " (224mm)	4 <sup>7</sup> / <sub>32</sub> " (107mm)
<b>100 ICW6</b>	8 <sup>3</sup> / <sub>16</sub> " (208mm)	7 <sup>1</sup> / <sub>4</sub> " (184mm)	3 <sup>37</sup> / <sub>64</sub> " (91mm)
<b>100 IC6ST</b>	8 <sup>3</sup> / <sub>16</sub> " (208mm)	7 <sup>1</sup> / <sub>4</sub> " (184mm)	3 <sup>37</sup> / <sub>64</sub> " (91mm)
<b>100 ICW5</b>	7 <sup>1</sup> / <sub>4</sub> " (184mm)	6 <sup>19</sup> / <sub>64</sub> " (160mm)	3 <sup>15</sup> / <sub>64</sub> " (82mm)

## Fire BackCan

Allows good soundproofing.  
1<sup>37</sup>/<sub>64</sub>" (40mm) ceramic fiber insulation  
Overall size: 18<sup>13</sup>/<sub>16</sub>" x 18<sup>31</sup>/<sub>32</sub>" (478x482mm)



Compatible with:

Electra	300 Series	100 Series
IC1002	300 ICW4	100 ICW5
	300 ICW6	100 ICW6
	300 IW6	100 ICW8
		100 IC6ST
		100 IW6

## On-Wall Frames

Code	Dimensions (HxLxP)	Compatible
EACCCAOW02 WHO01 WHITE	28 <sup>1</sup> / <sub>32</sub> " x 12 <sup>13</sup> / <sub>64</sub> " x 4 <sup>9</sup> / <sub>16</sub> " (712x310x116mm)	ELECTRA IW1003 BE
EACCCAOW01 WHO01 WHITE	16 <sup>13</sup> / <sub>16</sub> " x 12 <sup>13</sup> / <sub>64</sub> " x 4 <sup>9</sup> / <sub>16</sub> " (427x310x116mm)	ELECTRA IW1002 ELECTRA IW1002 BE
EACCCAOW02 BRO01 BRUT	28 <sup>1</sup> / <sub>32</sub> " x 12 <sup>13</sup> / <sub>64</sub> " x 4 <sup>9</sup> / <sub>16</sub> " (712x310x116mm)	ELECTRA IW1003 BE
EACCCAOW01 BRO01 BRUT	16 <sup>13</sup> / <sub>16</sub> " x 12 <sup>13</sup> / <sub>64</sub> " x 4 <sup>9</sup> / <sub>16</sub> " (427x310x116mm)	ELECTRA IW1002 ELECTRA IW1002 BE





classic loudspeakers



custom install



car audio



headphones & multimedia



studio monitors



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