Studio Monitors

FOCAL®
PROFESSIONAL

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PROFESSIONAL

Listen to your music, not to your speakers!

These few words embody the philosophy of Focal-JMLab, the French manufacturer of acoustic loudspeakers and transducers. From their very beginning on the drawing board in Research & Development at Focal, our professional monitors are designed to deliver one thing, at any cost: the absolute acoustic truth.

Founded in 1979, Focal is today comprised of two geographically separated facilities. The cabinet factory, in Bourbon-Lancy, ensures a custom-tailored production that favours manual labour for the most complex and precise work. The second facility is Focal's headquarters which are based in Saint-Etienne. It combines the R&D laboratory, production and administrative departments on a 17000m^2 site, where more than 200 people work on a common goal: the absolute finest sound. Focal established itself as an innovation leader in the pursuit of a unique principle: total control of development and production. This enables the company to constantly progress, while being sure there's perfect control during the manufacturing process. Focal has registered many patents, such as the "W" composite sandwich cone or the pure Beryllium inverted dome tweeter. These exclusive technologies have brought major progress to the professional audio world in terms of neutrality, definition and precision in reproduced sound.

It's fundamental for a sound engineer to entirely trust what he or she hears, either in music production, postproduction or broadcast.

Our products are designed from the start to be professional tools that exactly reproduce the sound signal, without improving or damaging it. Focal Professional monitors guarantee the reproduction of all the micro-details, the precise staging of instruments and voices, with no coloration or distortion. These basic elements allow the engineer to directly access the source equipment and electronics and ensure optimum transfer quality onto public audio equipment.

> For over 35 years Focal has been developing and manufacturing loudspeakers for the home, speaker drivers for the car, monitor speakers for recording studios and more recently headphones. Market leader in high-fidelity, Focal's worldwide reputation is well known: our brand is recognised everywhere for its sound quality and its numerous technological innovations.

They have chosen Focal

DAVID KUTCH

(Mastering engineer - Alicia Keys, Natasha Bedingfield, Al Green Erykah Badu, Estelle, Outkast, John Legend, Jennifer Lopez, Justin Bieber...)
www.themasteringpalace.com

“Forget all about my gear and toys, the most critical element in my studio is my loudspeaker... To me, there's no better nearfield loudspeaker than the Solo6 Be, whatever the prices of other monitors.”

ANTOINE CLAMARAN

(DJ : Gold, Back again,...) - www.antoineclamaran.com

“After trying various brands, Focal SM9s finally met all my expectations. Very precise and perfectly balanced over the whole audio spectrum, they enable me to produce with very high quality control.”

JEFF JULIANO

(Sound engineer - James Blunt, John Butler...) - www.jeffjuliano.net

“The Twin6 Be monitors are the best that I've used in terms of studio-to-consumer listening translation. They really translate: what I hear in the studio is what the outside world hears, in my experience. The Twin6 Be is the first powered monitor that I've heard that you don't have to be afraid of hearing in the mid-range. You get the mids really kicking and it's fine. Listening back to mixes I've done on the NS10s through the Focal Professional, it kind of scares me because I hear top-end distortion that I wasn't hearing in the NS10s, I was so used to using them, I thought I knew them. With the Focal Professional there wasn't a learning curve, it actually spooked me at first.”

CHEMICAL BROTHERS

www.thechemicalbrothers.com

“We've been searching for a midfield speaker to compliment our monitoring system at Rowlands Audio Research for a while now. We've tried all the competition and the only ones that truly delivered what we needed were the Focal SM9's. They are the perfect bridge between our main monitors and the nearfields.”

ARMAND AMAR

(Composer - Home, Amen, Indigènes) - www.armandamar.com

“The SM9 equip the composing room as well as the mixing and sound editing studios in 5.1.
Which seduced us the most and convinced us to choose these monitors:

- The precision in the entire spectrum but also in high and low frequencies
- Comfortable at both low and high volume
- A very good space sensation and a good stereo image rendering
- An impressive transiants rendering.”

INDRA Q

(Sound engineer - Kotak, Alexa, BIP, Gigi, RAN) - twitter.com/IndraQ

“The mix translated very well to the other systems. With Twin6 Be & Sub6, now I have both worlds in just a click of a footpedal. Near-field or a full-range system. Bliss!”

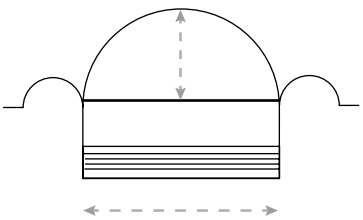
Exclusive

Focal Professional monitors reveal the slightest details and ensure a better transfer quality than other monitors. How do they achieve this?

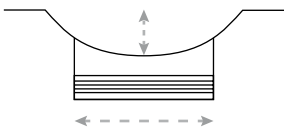
Inverted dome tweeter

The inverted dome tweeter - a Focal hallmark - is perhaps the perfect transducer. This design permits very high-efficiency, precision and energy.

The particular advantage of the inverted dome tweeter is the optimization of the mechanical coupling between the voice coil and the dome. The voice coil is fixed at mid-height on the dome and uniformly moves the cone entire surface. The positive dome is only joined at its edge, causing it to be inactive beyond 16kHz for a flexible surface. The inverted dome directly radiates into the air, with maximum efficiency, which is translated by an extremely precise soundstage. The dome's response curve is clearly more linear than that of any positive dome. It provides better space dispersion and very low directivity, contrary to ribbon tweeters.



Classical dome (1'')



Inverted dome (1'')

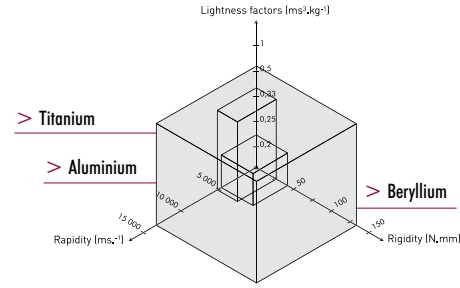
The inverted dome tweeter offers unequalled dynamics, enabling sound engineers to very precisely control compression. The image precision (height, width and depth) is outstanding and makes the positioning of each element very easy, as well as allows one to exactly assess the reverb tails.

Beryllium

Due to its incredible rigidity, Beryllium represents the ultimate material for a tweeter dome. Focal, after two years of research and development, produced a world first: a pure Beryllium inverted dome, able to cover more than five octaves (1000Hz-40kHz).

You may ask yourself why do we strive for an extended response at 40kHz, if the human ear can only hear up to 20kHz? If you can extend frequency response, you will improve the perception of transients and other micro details.

As well, the linearity of the speaker's response curve is mainly a function of three opposite parameters: lightness, rigidity and damping. To this day, only one material permits a joining of these parameters: Beryllium. For domes with identical masses, Beryllium is seven times more rigid than Titanium or Aluminum, the latter two well known for their rigidity. This results in a sound wave propagation three times faster than Titanium and two and a half times faster than Aluminum. In the end, the linearity of the frequency response curve, the acoustic transparency and the impulse response of the Beryllium tweeter are maximized and offer near-perfect sound.



> Comparison of Beryllium with Titanium and Aluminum. Beryllium is the lightest, the most resistant and has the highest sound speed.

> "W" composite sandwich cone mounting.

"W" composite sandwich cone

The "W" composite sandwich cone permits total optimization of the frequency response curve, thanks to the total control of three key parameters: lightness, rigidity and damping. At Focal, the letter "W" means Glass/Glass, as it usually has two sheets of woven glass tissue that are "sandwiched" onto the structural foam core.

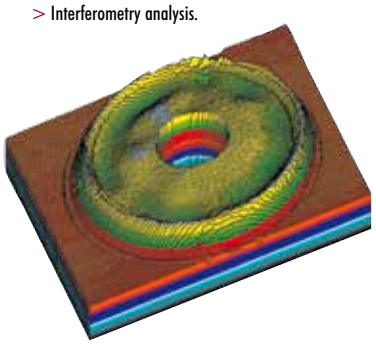
The glass tissue benefits from the incredibly fine weaving of very long fibres. This choice offers a mass and a size clearly inferior to those in Aramid fibers or other Kevlar fabrics, which generate coloration in the midrange. It's also important to note that the molecular bond between the resin and the glass is greater than that obtained with Aramid fibres.

The cone structure is more homogeneous and its behavior in flex is much more superior.

These unique characteristics of lightness and rigidity provide control of the signal transmission speed inside the material. Adjusting the thickness of the structural foam allows a very precise control of the "W" cone's damping. The variation of the number of glass fibre sheets and the thickness of the central foam can easily optimize the cone's behaviour according to the desired frequency range. When listening, the sound of the "W"cone is entirely transparent, has an excellent phase response and has a very low distortion rate (rigidity 20 times higher than Kevlar or Aramid fibre).

> "W" composite sandwich cone.

> Interferometry analysis.



technologies

SM9 Line

The SM9 was born out of a simple idea: create the most sonically transparent monitoring system ever built. The SM9 features a frequency response from 30Hz to 40kHz with a SPL max of 116dB. This monitoring speaker establishes itself as a reference thanks to the precision of the stereo image, its capacity to reproduce each of the micro-details of the audio signal, as well as unconditional respect of the original dynamics.

Two monitors in one!

One of the major SM9 innovations lies in the fact of offering 2 monitoring speakers in only one and unique cabinet. The activation of this monitor is made by setting off the FOCUS mode on the side panel. The 2-way monitor (Beryllium tweeter + 6$^{1/2}$" (16,5cm) "W" woofer) offers a frequency response from 90Hz to 20kHz, permitting to check the mix transfer quality on systems with limited frequency response in the bass frequencies such as:

- TV sets
- Computers
- Cars
- iPod® docks or any multimedia system

This monitor also permits to check the midrange register, very hard to equalize and balance in terms of sound level compared to the other information contained in the audio signal.

The "nec plus ultra" of Focal drivers

The SM9 line is a sheer product of Focal technologies and innovation.
The new pure Beryllium inverted dome tweeter, specially developed for the SM9 line, offers unprecedented linearity and ability to reveal micro-information. This is due to an entirely new magnet structure that achieves a mind-boggling 2.1 Tesla of magnetic flux. This has a profound effect on the tweeter's ability to reproduce micro-dynamics, which helps the engineer to dial-in compression and reverb.

The new 6$^{1/2}$" (16,5 cm) "W" composite sandwich cone midrange driver benefits from great damping characteristics. The derived Impulse Response is simply the best of its class. Midrange and mid-bass frequencies are then reproduced without any masking effect, ensuring perfect neutrality.

The 8" (20 cm) "W" cone bass driver and the 11" (27 cm) "W" cone passive radiator permit to extend the frequency response to 30Hz, without any decay effect nor distortion. Bass is then reproduced with unparalleled clean punch, with no cone distortions, giving the engineer the confidence to make the best decisions over the entire bass register.

Custom-made amplification

The all-new, all-analog amplifiers developed specifically for the SM9 demonstrate the unwillingness to compromise. 600Watts of class AB amplification drives the SM9 on three separate channels, respectively 400W (woofer), 100W (midrange) and 100W (tweeter). These new amplifiers are halfway between class A and class AB in regards to the bias current. This choice perfectly respects the dynamics contained in the original audio signal, guarantee of extremely precise adjustment of the compression ratio, attack and release settings.

Input stage: flexibility in all-analog world

Six detended knobs situated on the back panel allow the engineer or the acoustician to compensate for some room anomalies and optimize the monitor response in the room (see specifications). For studios with optimum acoustic condition, the engineer can bypass these adjustments (except for the low-pass filter) by activating the DIRECT switch on the inside side panel and thus ensure a direct signal between the input and the amplification stages.

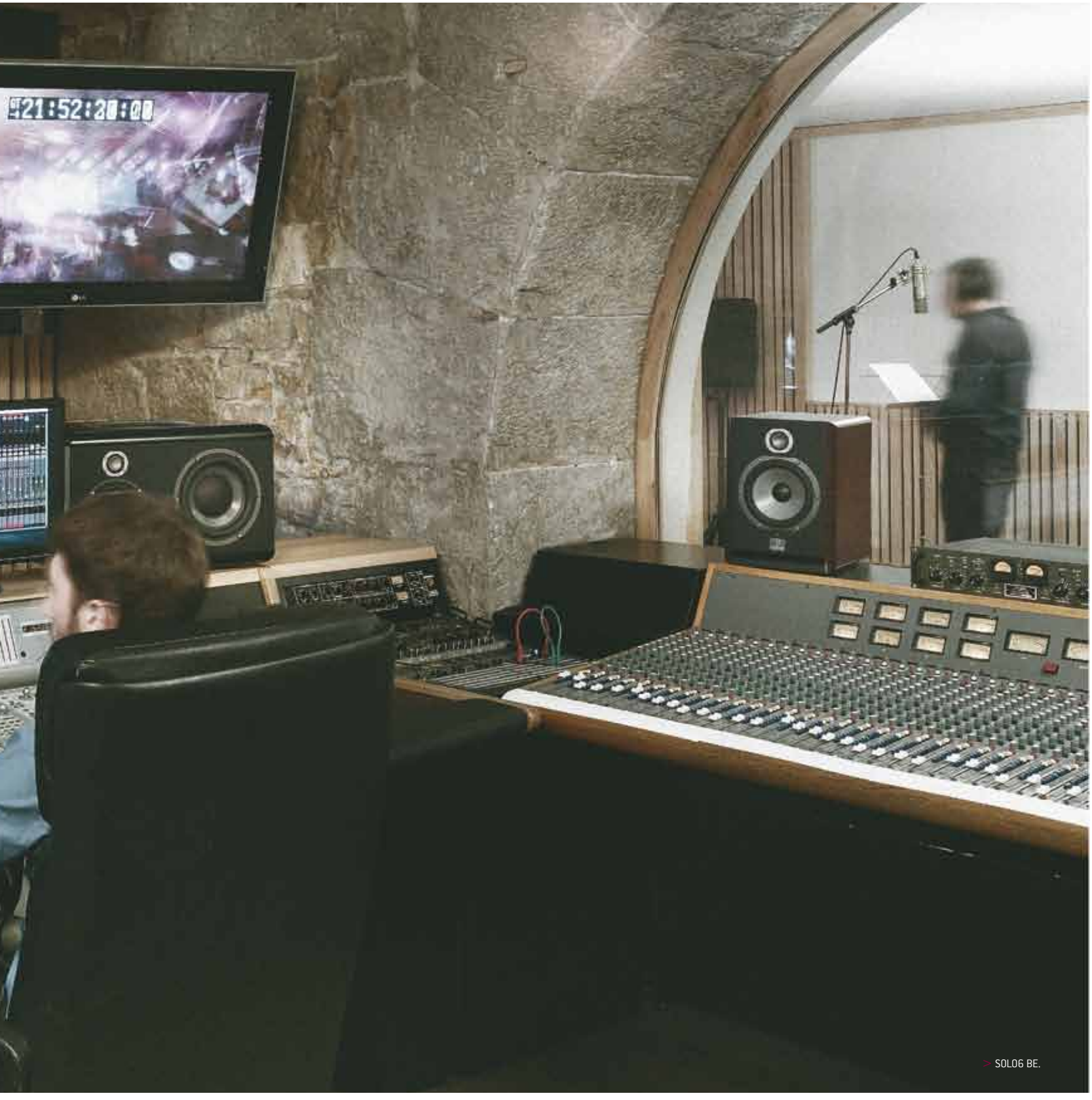
		SM9
Performances		
• Frequency response	- 3-way mode	30Hz - 40kHz (+/- 3dB) 40Hz - 20kHz (+/- 1dB)
	- 2-way mode (Focus)	90Hz - 20kHz (+/- 3dB)
• Maximum SPL	- 3-way mode	116dB SPL (peak @ 1m)
	- 2-way mode (Focus)	106dB SPL (peak @ 1m)
Electronic section		
• Analog input	- Type / Impedance - Connector - Sensitivity	Electronically balanced / 10kOhms XLR Adjustable, +4dBu or -10dBV
• Bass • Midrange • Treble		400W, classe AB 100W, classe AB 100W, classe AB
• Power supply	- Local supply - Connection	230V (3.15A fuse) 115V (6.3A) IEC inlet and detachable power cord
• User controls	- Rear panel	Input sensitivity selector (+4dBu / -10dBV) High-pass crossover (full range, 45, 60, 90Hz @ -6dB) Low frequency shelving (+/- 3dB from 30 to 250Hz per step of 0.5dB) High frequency shelving (+/- 3dB from 4.5 to 40kHz per step of 0.5dB) Low frequency EQ (+/- 3dB per step of 0.5dB @ 50Hz, Q factor = 2) Low-mid frequency EQ (+/- 3dB per step of 0.5dB @ 160Hz, Q factor = 1) Mid frequency EQ (+/- 3dB per step of 0.5dB @ 1kHz, Q factor = 0.6)
	- Side panel	Stand By / On switch Direct switch Focus switch
• Indicators		Power On, clipping and default on front panel LED
Transducters		
• Passive radiator		11WPP52, 11" (27cm) Focal "W" composite sandwich cone piston, extra wide inverted surround radiator
• Subwoofer		8W7571, 8" (20cm) Focal "W" composite sandwich cone driver
• Midrange		6W0452, 6 1/2" (16.5cm) Focal "W" composite sandwich cone driver
• Tweeter		TB872, 1" (25mm) pure Beryllium inverted dome tweeter
Cabinetwork		
• Construction		0.88" (22mm) and 1.2" (30mm) panels with internal braces
• Finish		Black natural veneering top and bottom panels, Black body
• Dimensions (HxLxD)		12.8" x 19.6" x 15.6" (320mm x 490mm x 390mm)
• Weight		77lb (35kg)

> SM9.

Best Studio Monitor 2012 for 100 pro audio magazines.

audiokeese international press award m.i.p.a.

> SM9.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They have chosen Focal

NATHAN CHAPMAN

(Taylor Swift producer) - www.nathanchapman.com

“The first time I heard the Focal Solo6 Be studio monitors I was beyond impressed. They were true and accurate and at the same time didn't sound "boring" like other monitors I have used. Focal monitors are my top choice. Taylor Swift's "Fearless" album is the biggest selling album of 2009 with over 3 million copies sold, the only album to win the Grammy for "Album of the Year" and "Country Album of the Year.”

STEVE OUIMETTE

("Guitar hero®") - www.steveouimette.com

“I needed self-powered monitors and wanted a set that didn’t require a subwoofer, a monitor that had a natural top to bottom, but no hyped frequencies. I definitely get enough low end with the Focals – the balance with the Focal Professional monitors is perfect! With the Focal Professional monitors you can hear everything.”

KEN "POOCH" VAN DRUTEN

(Sound engineer - "Live From The Roxy" Slash, Kiss, Limp Bizkit, Linkin Park, System of a Down, Smashing Pumpkins - Eminem - 3 nominations to Grammy Awards) www.poochresume.evilentertainment.net

“I actually own several types of high-end speakers. I still use them for reference, but I Mix on the Focal Solo6 Be now. This was the first time I used Solo6 Be for a project it came out spectacularly. I was really impressed by these speakers. What I found most interesting with the Solo6 Be was the amount of time I could spend mixing without getting fatigued. I found the Solo6 Be to be very accurate while traveling to other reference speakers. What you put into the Solo6 Be, you get out: very accurate. I have played the Slash mixes for many people and they are great - and of course give me all the credit. They don't know that my secret weapon was the Solo6s. I love my new Focal Solo6 Be and you will have to pry them from my cold dead hands in order to take them away from me...”

DIEGO TORRES

(Singer and composer) - www.diegotorres.com

“My story with Focal started many years ago, where I discovered them for the first time in a studio, when I was working in the United States, among a pile of monitors, there appeared a set of Focals.I really liked the audio they produced, and the way they sounded. Some time later, I found myself working in another studio, in this case at a colleague's, Andreas Calamaro, and was able to work on a daily basis with those Focals. And that is how I felt in love with them, in a certain way, with the audio which ... which Focal provides. I spent the entire pre-production for my last album, more or less in that studio, so I was able to enjoy and appreciate them from day-to-day.”

STUDIO EL PIE

(Alejandro Sanz, Luis Miguel ...) - www.estudioelpie.com

“We love the flat frequency response at different levels of sound pressure. The Twin6 Be are the perfect balance between the warmth of the legendary monitors and the precision of the modern ones.”

OPIUO

(DJ) www.opiuo.com

“For me, one of the most important things is the quality of sound. About 6 months ago, I was introduced to some Focal speakers, from a friend of mine. I haven't looked back, I got a pair of SM9s. Now I feel like I'm in the music instead of hearing this thing kind of coming towards me. I can hear absolutely everything and that's kind of one thing I've never experienced is to be in the music and be part of it... The Focal thing is really taking my music to the next level. It has changed my life.”

SM6 Line


FOCAL
Solo6 Be
Professional Monitoring System
CONTOUR
INPUT
Professional Division
Serial Number
CE

The SM6 line was created for studios in search of monitors that reveal all information in the audio spectrum, without any masking effect. It integrates the best of Focal technologies ("W" composite sandwich cone, pure Beryllium inverted dome tweeter) and offers an unprecedented performance/cost ratio. The Solo6 Be and Twin6 Be monitors stand out in this segment due to their unparalleled transparency, degree of definition and precise sound image. The Solo6 Be and Twin6 Be convey a midbass and bass, which are always controlled for extremely precise measurement of compression. These monitors have been enthusiastically reviewed and the Twin6 Be has been awarded "Best Monitor" in all price categories by the magazine Future Music.

Solo6 Be

The Solo6 Be monitor will surprise you in the very first minutes you spend with it, partly due to its size/extended bass response (40Hz-40kHz (+/- 2dB)). The 6$^{1/2}$" (16,5cm) "W" composite sandwich mid-woofer combines neutrality in the midrange, fullness in the midbass register and bass control. Its compactness and the choice of a large front laminar port guarantee easy integration in studios that need a near field monitor without any acoustic compromise. The user settings on the back of the Solo6 Be, combined with its compactness, make it easy to carry and to adjust according to the acoustics of each studio.

Twin6 Be

The Twin6 Be is the best seller of the Focal Professional range and the most versatile work tool of the SM6 line. It represents the only necessary solution for recording, mixing and mastering. The image precision, treble definition as well as midrange neutrality are at the heart of its reputation. The excellent articulation of the bass and midbass registers, even at very high sound levels, makes it an unavoidable reference for engineers who require absolute transparency. Furthermore, the design of the Twin6 Be permits a high SPL while at the same time offering a stable tonal balance. One of the two 6$^{1/2}$" (16,5cm) woofers works in large band (midrange–bass) whereas the other reproduces from 40 to 150Hz. This creates a bass that preserves all the signal dynamics, without any masking effect in the midrange, thereby keeping all its neutrality and transparency. Additional control of the bass register is accomplished by fine-tuning on the control plate on the back of the Twin6 Be in order to obtain a perfect mirror configuration with its mate. The Twin6 Be can be installed vertically or horizontally to respond to the space requirements of each studio.

Sub6

The Sub6 is a large volume cabinet design, equipped with an 11" (27cm) woofer and a rear laminar port. This configuration guarantees bass linearity whatever the intended SPL. The control board is extremely versatile, with connectivity which allows a 2.1, 2.2 and multichannel use via the L/R inputs and outputs and the LFE. The numerous settings such as the high-pass crossover dedicated to monitors, the adjustable phase and level control provide optimum coupling with the Solo6 Be and the Twin6 Be monitors. And finally, a small, but important point: the footswitch input. It enables one to connect a pedal to deactivate the subwoofer and the high-pass crossovers on the outputs that supply the monitors. This simplifies and greatly improves control during the different stages in monitoring.

> Available in Black or Red finishes - except Sub6, Black only.

		Solo6 Be	Twin6 Be	Sub6
Performances				
• Frequency response		40Hz - 40kHz (+/- 2dB)	40Hz - 40kHz (+/- 2dB)	30 Hz - 250 Hz (+/- 2dB)
• Maximum SPL		113dB SPL (peak @ 1m)	115dB SPL (peak @ 1m)	116dB SPL (peak @ 1m)
Electronic section				
• Inputs	- Type / Impedance - Connector - Sensitivity	Electronically balanced / 10kΩ XLR Adjustable, +4dBu or -10dBV	Electronically balanced / 10kΩ XLR Adjustable, +4dBu or -10dBV	Right, left, LFE Electronically balanced / 10kΩ XLR 3 points socket Adjustable, + 4dBu or -10dBV
• Outputs (towards speakers)	- Type / Impedance - Connector			Right, left Electronically balanced / 50 Ohms XLR 3 points plug
• Bass / Midrange • Treble		150W rms, BASH® technology 100W rms, class AB	2x 150W rms, BASH® technology 100W rms, class AB	350W rms, BASH® technology
• Signal internal treatment and functions	- Subwoofer section - Speaker section			Mono right/left summation LFE + mono low-pass 24dB / octave Phase adjustment Polarity selection switch Switch high-pass filter, cut-off frequency selection 24dB / octave
• Power supply	- Local supply - Connection	230V (1.6A fuse rating) 115V (3.5A fuse rating) IEC inlet and detachable power cord	230V (2A fuse) 115V (4A fuse) IEC inlet and detachable power cord	230V (1.6A fuse) or 115V (3.15A fuse) Removable CEI supply wire IEC inlet and detachable power cord
• User controls and indicators		Input sensitivity selection switch Adjustable tweeter and woofer levels by potentiometers On/off switch, voltage selector	Input sensitivity selector Midrange driver selector (right/left) Adjustable tweeter and woofer levels by potentiometers On/off switch, voltage selector	Adjustable subwoofer level Low-pass cut-off frequency setting Phase adjustment Polarity adjustment Subwoofer switch (mute) 2.1 "Bypass" (external remote control) High-pass frequency selection Releasable high-pass
• Light indicator		Power On LED	Power On LED	Power On LED Subwoofer switch(mute) Released high-pass
Transducters				
• Woofer		6W4370B, $6^{1/2}$" (16.5cm) Focal "W" composite sandwich cone drivers	6W4370B, 2x $6^{1/2}$" (16.5cm) Focal "W" composite sandwich cone drivers	11W7670, 11" (27cm) Focal "W" composite sandwich cone driver
• Treble		TB871, Focal pure Beryllium inverted dome tweeter	TB871, Focal Beryllium inverted dome tweeter	
• Shielding		Integral through cancellation magnets / cans or by magnet design	Integral through cancellation magnets / cans or by magnet design	

Cabinetwork			
• Construction	7 1/2" (19mm) MDF panels	7 1/2" (19mm) MDF panels	7 1/2" (19mm) MDF panels
• Finish	Dark Red natural veneering side panels, Black body	Dark Red natural veneering side panels, Black body	Dark Red natural veneering side panels, Black body
• Dimensions (HxLxD)	13 x 9 7/16 x 11 7/16" (330mm x 240mm x 290mm)	9 13/16 x 19 11/16 x 13 3/8" (250mm x 500mm x 340mm)	14 15/16 x 13 9/16 x 17 5/16" (380mm x 344mm x 440mm)
• Weight	24.2lb (11kg)	30.8lb (14kg)	50.7lb (23kg)

> SOLO6 BE.

CMS Line

The CMS line is particularly dedicated to post-production studios, small listening rooms, radio studios and home studios. The CMS 40, CMS 50, CMS 65 and CMS SUB integrate many Focal hallmarks, such as the Aluminum/Magnesium inverted dome tweeter, the Polyglass cone woofer, as well as neutrality, dynamics, detail and soundstage precision. They also offer numerous control settings to meet the acoustic constraints of small sound rooms. The compact design and the use of a large front port allow for a wall installation from 24" (60cm) without any loss of control in the bass register. Accessories are supplied to ensure the most efficient acoustic integration so that the listener will benefit from 100% of the performance of the CMS. Balanced (XLR) and unbalanced (RCA) inputs are electronically treated to compensate the 6dB difference between these two connections. The compensation ensures an identical sound level for coherent recordings, whatever the location and the equipment used.

CMS 40

The CMS 40 is the most compact monitor of the Focal Professional range. Its size/extended bass frequency ratio ensures excellent versatility. This monitor guarantees ultra-realistic voicing, whilst offering optimum acoustic integration in a small room. Its design permits a listening position from 16" (40cm), even in the least advantageous locations (ex. proximity to reverberating surfaces). The CMS 40 is the perfect tool for post-production and home studios. And even in the biggest and best studios, it proves to be an excellent second monitoring system, allowing one to quickly check how the mix translates onto smaller speakers.

CMS 50

The design of the CMS 50 permits a listening position from 19" (50cm), while still keeping the possibility to place the monitors at a great distance from one another without damaging the soundstage. The 5" (13cm) mid-bass reaches down to 55Hz, while offering a controlled bass and a totally linear midrange. The midrange register of the CMS 50 has unequalled neutrality in its price range. The Al/Mg inverted dome tweeter offers outstanding dynamics and a degree of definition in the treble that allow precise measurement of reverb tails and other effects, which are normally very difficult to assess.

CMS 65

The reference standard of the CMS line, the CMS 65 received the 2008 Excellence Award from Pro Audio Review magazine due to its amazing size/price/performance ratio. Its extended response at 45Hz (-3dB) allows installation without a subwoofer.
CMS 65 monitors are characterized by treble definition, midrange transparency and adjustable control of the midbass and bass registers. The tonal balance is extremely stable, even at very loud volumes, ensuring accurate reproduction when mixing and mastering.

Marcello Giuliani - (Erik Truffaz, Etienne Daho, Henri Salvador, Jacques Higelin, Sophie Hunger, Young Gods, Anna Aaron).

Best Studio Monitor 2009 and 2010
for 100 pro audio magazines.

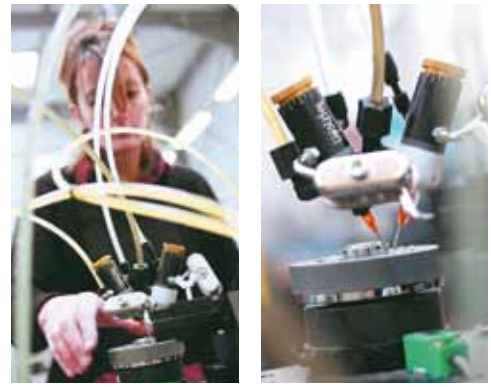
CMS SUB

The CMS SUB is equipped with a 11" (27cm) Polyglass cone subwoofer with a large front laminar port. This design guarantees perfect acoustical integration even into the smallest recording studios. The 11" (27cm) woofer used in the CMS SUB is both very light and extremely rigid for a neutral and distortion-free response. This incredible weight-to-rigidity ratio is obtained by applying a thin layer of hollow glass spheres on top of a cellulose-based cone. The high excursion capabilities of the CMS SUB woofer offer tight and controlled bass, able to reproduce even the most minute detail. The CMS SUB woofer was designed to be extremely efficient, to make the most out of an amplifier headroom, making sure that you can hear the slightest changes to compression settings. The high efficiency of the CMS SUB ensures excellent acoustic coupling with the CMS 50 and CMS 65.

> CMS 65

> CMS 50

> CMS 40

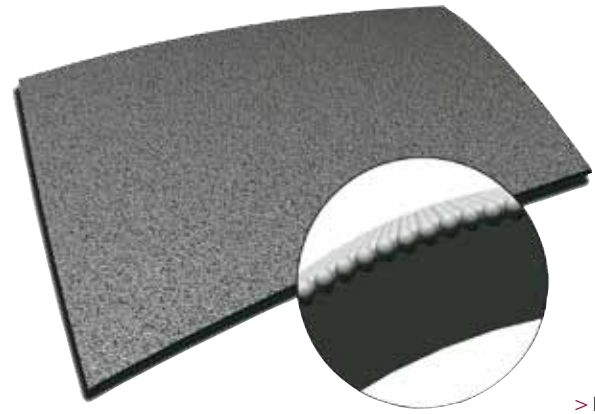


> The manufacturing line, a 100 % Focal design to perpetuate tradition.

CMS technologies

Aluminum/Magnesium inverted dome tweeter

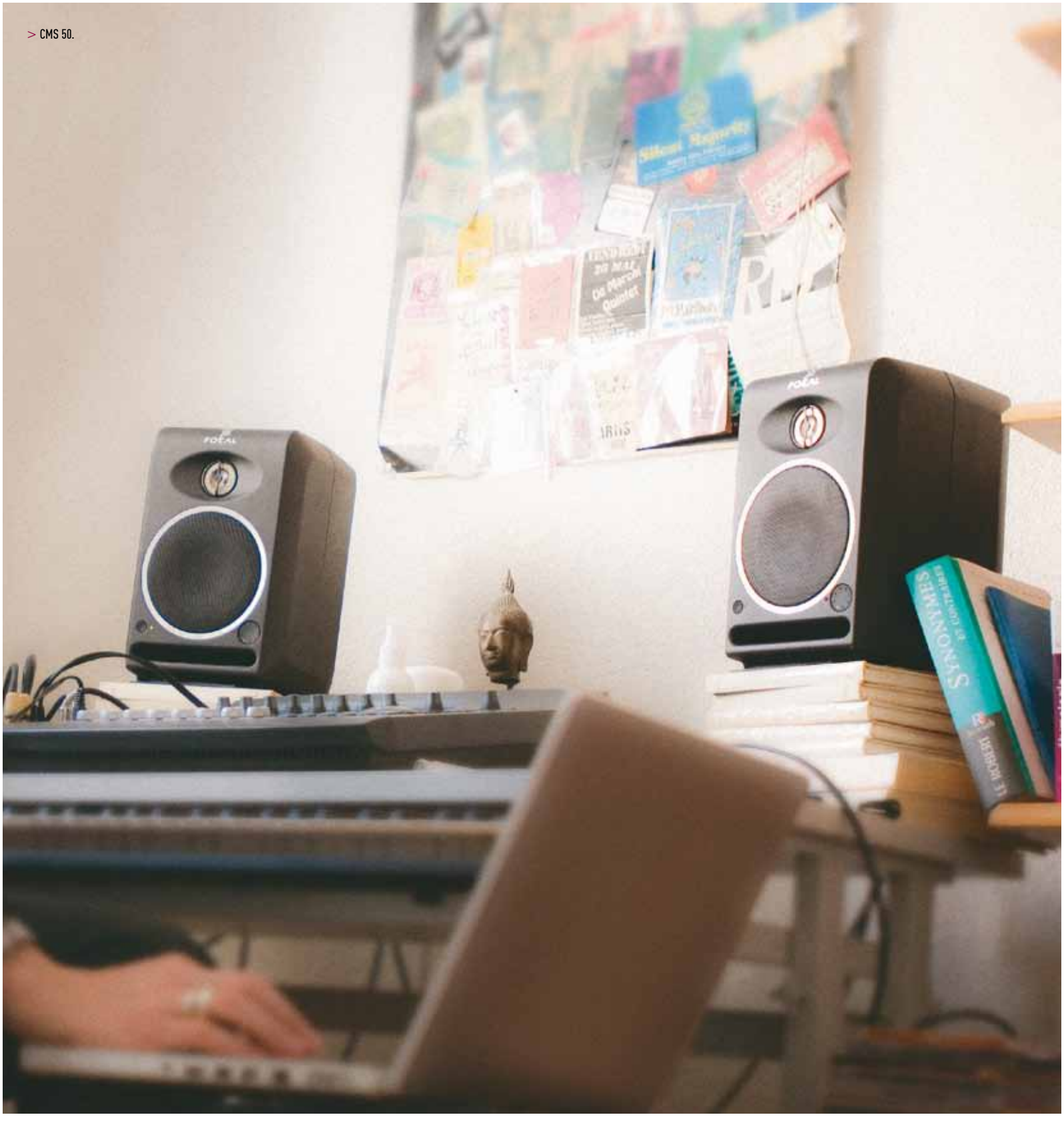
Magnesium possesses great damping qualities, Aluminum great rigidity and the two in alloy can greatly reduce distortion. This unique marriage of metals offers several advantages. The impulse response is incredibly rapid and yet benefits from a very short settlement time and excellent damping. This enables the tweeter to extend its frequency response beyond 28kHz (-3dB)... This configuration produces a precise, analytical sound and an extremely deep soundstage. The frequency response curve linearity is also remarkable in that it ensures perfect neutrality. When listening, the treble frequencies are dynamic and detailed. The Aluminum/Magnesium inverted dome tweeter then combines perfectly with the Polyglass woofer in a perfect tone synergy.



> Polyglass cone.

Polyglass

Polyglass technology, exclusive to Focal, consists in applying molten glass microballs on a cellulose pulp cone. This process combines an excellent paper damping with glass rigidity. The rigidity index exceeds even that of a single skin Kevlar and is almost ten times superior to one of polypropylene. The mass/rigidity/damping ratio adjustment results in outstanding linearity of the frequency response curve, all from the inherent design of the cone. This innovation also greatly increases definition in the midrange.


Silent Majority
IRIS
SYNONYMES

		CMS 40	CMS 50	CMS 65
Performances				
• Frequency response		60 Hz - 28 kHz	55 Hz - 28 kHz	45 Hz - 28 kHz
• Maximum SPL		97dB SPL (peak @ 1m)	107dB SPL (peak @ 1m)	112dB SPL (peak @ 1m)
Electronic section				
• Inputs	- Type/Impedance - Connectors	Balanced 10kΩ / Unbalanced 47kΩ XLR/RCA	20 kΩ balanced/ 47kΩ unbalanced XLR / RCA	20 kΩ balanced/ 47kΩ unbalanced XLR / RCA
• Woofer - Midrange • Treble		25W rms, class AB 25W rms, class AB	80W rms, class AB 50W rms, class AB	100W rms, class AB 60W rms, class AB
• Settings	- Sensitivity - Sound level - High-pass filter - Midrange/bass level (0 - 450Hz) - Treble level (4.5 kHz - 20 kHz) - 160Hz Parametric filter (Q factor= 2) - ON/OFF power supply - Standby / ON	Adjustable, +4dBu / 0 / -10dBV Adjustable, -66 dB / 0dB Adjustable, 0 /-2 / +2dB Adjustable, 0 /-2 / +2dB ON / OFF switch	Adjustable, +4dBu / 0 / -10dBV Adjustable, -66dB / 0dB Adjustable, idle / 45 / 60 / 90Hz (12dB / oct.) Adjustable, 0 / -4 / -2 / +2dB Adjustable, 0 / -4 / -2 / +2dB Adjustable, 0 / -2 / -4 / -6dB ON / OFF switch, voltage selector Standby / ON switch	Adjustable, +4dBu / 0 / -10dBV Adjustable, -66dB / 0dB Adjustable, idle / 45 / 60 / 90Hz (12dB / oct.) Adjustable, 0 / -4 / -2 / +2dB Adjustable, 0 / -4 / -2 / +2dB Adjustable, 0 / -2 / -4 / -6dB ON / OFF switch, voltage selector Standby/ON switch
• Power supply	- Voltage - Connection	220-230V (0.5A fuse rating) 120V (0.8A fuse rating) 100V (1A fuse rating) IEC inlet and detachable power cord	220-230V (1.6A fuse) 120V (3.15A fuse) 100V (4A fuse) IEC inlet and detachable power cord	220-230V (1.6A fuse) 120V (3.15A fuse) 100V (4A fuse) IEC inlet and detachable power cord
• Indicators		Power ON/OFF LED Audio clip LED	ON / OFF LED Standby and ON LED Audio clip LED	ON / OFF LED Standby and ON LED Audio clip LED
Transducers				
• Woofer		4" (10cm) Focal driver, Polyglass cone	5" (13cm) Focal driver, Polyglass cone	$6^{1/2}$" (16.5cm) Focal driver, Polyglass cone
• Tweeter		Aluminum/Magnesium Focal inverted dome	Aluminum/Magnesium Focal inverted dome	Aluminum/Magnesium Focal inverted dome
• Shielding		Integral by cancellation magnet	Integral by cancellation magnet	Integral by cancellation magnet
Cabinetwork				
• Construction		Reinforced and damped aluminum cabinet	Reinforced and damped aluminum cabinet	Reinforced and damped aluminum cabinet
• Finish		Black powdered paint	Black powdered paint	Black powdered paint
• Dimensions with rubber feet (HxLxD) • Dimensions with decoupling table stand (HxLxD) • Dimensions with spikes (HxLxD)		$9^{3/8}$"x$6^{1/8}$"x$6^{1/8}$" (238mmx156mmx155mm) $9^{9/16}$"x$6^{1/8}$"x$6^{1/8}$" (243.2mmx156mmx155mm)	$11^{3/8}$" x $7^{1/2}$" x $7^{15/16}$" (289.5 mmx 190 mmx 201mm) $11^{3/4}$" x $7^{1/2}$" x $7^{15/16}$" (299.5 mmx 190mm x 201mm)	$14^{1/8}$" x $9^{1/2}$" x $9^{1/8}$" (358.5mm x 241mm x 231mm) $14^{1/2}$" x $9^{1/2}$" x $9^{1/8}$" (368.5 mmx 241mm x 231mm)
• Weight		11lb (5.5kg)	17lb (7.7kg)	23lb (10.5kg)

CMS SUB

Performances		
• Frequency response		30Hz - 250Hz
• Maximum SPL		113dB SPL (peak @ 1m)
Electronic section		
• Inputs	- Type/Impedance - Connectors	Left, Right, LFE Electronically balanced / 10kΩ Female 3 pins XLR Variable Output : Left, Right Male 3 pins XLR in parallel on inputs
• Woofer - Midrange • Treble		300W rms, BASH® technology
• Settings	- Sensitivity - Sound level - High-pass filter - Midrange/bass level (0 - 450Hz) - Treble level (4.5 kHz - 20 kHz) - 160Hz Parametric filter (Q factor= 2) - ON/OFF power supply - Standby / ON	Sub level (sensitivity) adjustment Lo-pass frequency adjustment Phase adjustment Polarity switch Mute External Mute (controlled by external footswitch)
• Power supply	- Voltage - Connection	230V (1.6A fuse rating) or 115V (3.15A fuse rating) IEC inlet and detachable power cord
• Indicators		Power ON Mute External Mute
Transducers		
• Woofer		Polyglass, high excursion, 11" (27cm) Focal driver
Cabinetwork		
• Construction		1" (22mm) MDF panels with internal braces
• Finish		Dark grey vinyl
• Dimensions with rubber feet (HxLxD)		17.1" x 14.4"x 17.3" (435.5mm x 366mm x 440mm)
• Weight		50.7lb (23kg)

ALPHA Line

Reveal your Music!

The Alpha range is specifically designed for the music production industry. Right from the early stages of R&D, particular attention was paid to ensure the studio monitors could be integrated into very diverse environments, both in terms of size and acoustic quality. The versatility of the studio monitors was reinforced by the capability of each loudspeaker to reveal the slightest details of the mix for all styles of music. Alpha features Focal technologies such as the Aluminium inverted dome tweeter and the Polyglass cone woofer, resulting in a very precise and wide soundstage. The bass frequencies are always controlled and the midrange frequencies are characterised by remarkable neutrality. As regards the double AB amplification, it ensures the dynamics are respected and allows for high SPL levels, giving endless possibilities. Finally, the bass reflex design with large double front ports enable the studio monitor to be installed near a wall whilst ensuring maximum stability of the tonal balance.

> ALPHA 50.

ALPHA 50

Alpha 50, the most compact of the line, is equipped with a 1" (25mm) tweeter and a 5" (13cm) woofer. It features a 20W amplifier for the tweeter and a 35W amplifier for the woofer, and has a frequency response of 45Hz to 22kHz (+/- 3dB). It is perfectly adapted for confined spaces.

ALPHA 65

Alpha 65 is equipped with a 1" (25mm) tweeter and a $6^{1/2}$" (16,5cm) woofer. It features a 35W amplifier for the tweeter and a 70W amplifier for the woofer, and has a frequency response of 40Hz to 22kHz (+/- 3dB). This model performs just as well with instrumental music as with electronic music, and is characterised by its great versatility.

ALPHA 80

Alpha 80, the flagship of the line, is equipped with a 1" (25mm) tweeter and an 8" (21cm) woofer. It features a 40W amplifier for the tweeter and a 100W amplifier for the woofer, and has a frequency response of 35Hz to 22kHz (+/- 3dB). This model is particularly ideal for producing music which is rich in bass or which requires high power reserves.

Aluminium inverted dome tweeter
Low directivity: keeps the same sound throughout the room

Polyglass cone
Damping and rigidity: neutrality, no distortion

Large front port
Tonal balance is identical at low and high volumes
Low sensitivity to the effect of walls

2 constantly active XLR and RCA inputs
Connect up to 2 audio sources

Adjustable bass and treble levels
Optimal acoustic integration

Automatic standby mode
Reduced power consumption

	ALPHA 50	ALPHA 65	ALPHA 80
Performances			
• Frequency response (+/- 3dB)	45Hz - 22kHz	40Hz - 22kHz	35Hz - 22kHz
• Maximum SPL	103dB SPL (peak @ 1m)	106dB SPL (peak @ 1m)	109dB SPL (peak @ 1m)
Electronic section			
• Input - Type /Impedance - Connectors	- XLR : balanced 10kOhms - RCA : unbalanced 10 kOhms with sensitivity compensation	- XLR : balanced 10kOhms - RCA : unbalanced 10 kOhms with sensitivity compensation	- XLR : balanced 10kOhms - RCA : unbalanced 10 kOhms with sensitivity compensation
• LF amplifier stage • HF amplifier stage	35W, class AB 20W, class AB	70W, class AB 35W, class AB	100W, class AB 40W, class AB
• Auto Standby Mode - Standby - Desactivation of standby	- After about 30 minutes without using the monitor - By signal detection >3mV	- After about 30 minutes without using the monitor - By signal detection >3mV	- After about 30 minutes without using the monitor - By signal detection >3mV
• Power supply - Mains voltage - THE VOLTAGE CAN NOT BE MODIFIED	220-240V (fuse T500mAL / 250V) or 100-120V (fuse T1AL / 250V)	220-240V (fuse T800mAL / 250V) ou 100-120V (fuse T1.6AL / 250V)	220-240V (fuse T1.6AL / 250V) ou 100-120V (fuse T3.15AL / 250V)
- Connection	IEC inlet and detachable power cord	IEC inlet and detachable power cord	IEC inlet and detachable power cord
• User controls - Sensitivity - LF shelving (0 - 300Hz) - HF shelving (4.5 - 22kHz) - Power ON / OFF	Adjustable, 0 or +6dB Adjustable, +/-6dB Adjustable, +/-3dB Power ON/OFF switch on rear panel	Adjustable, 0 or +6dB Adjustable, +/-6dB Adjustable, +/-3dB Power ON/OFF switch on rear panel	Adjustable, 0 or +6dB Adjustable, +/-6dB Adjustable, +/-3dB Power ON/OFF switch on rear panel
• Standby mode power consumption	< 0.5W	< 0.5W	< 0.5W
• Indicators	Power ON/OFF LED - Standby LED	Power ON/OFF LED - Standby LED	Power ON/OFF LED - Standby LED
Transducers			
• Woofer	5" (13cm) drive unit Polyglass cone	6.5" (16,5cm) drive unit Polyglass cone	8" (21cm) drive unit Polyglass cone
• Tweeter	1" (25mm) drive unit, Aluminum inverted dome	1" (25mm) drive unit, Aluminum inverted dome	1" (25mm) drive unit, Aluminum inverted dome
Cabinet			
• Construction	0.6" (15mm) MDF	0.6" (15mm) MDF	0.6" (15mm) MDF
• Finish	Vinyl and Black painting	Vinyl and Black painting	Vinyl and Black painting
• Dimensions with 4 rubber pads (HxWxD)	12.3x8.7x10.2" (313x220x258mm)	13.7x9.9x12.2" (348x252x309mm)	15.6x11.3x13.7" (397x287x348mm)
• Weight	16.1lb (7,3kg)	20.7lb (9,4kg)	28.2lb (12,8kg)

Spirit Professional

The Spirit Professional headphones are the direct result of Focal's historical expertise in the design of high-performance transducers. In line with the monitoring loudspeakers, the Spirit Professional headphones ensure high-quality control of monitoring activities without exception, freeing professionals from the acoustic constraints related to the size of their workstation.

Design: comfort and simplicity

The circum-aural design of the Spirit Professional headphones was chosen to optimize the acoustic coupling to the ear. This monitoring tool for professional recording studios is also suitable for broadcasting or home studios, where the noise level is much higher. This is the reason why these closed-type headphones were the obvious solution.
The frequency of use and the length of time they are used for are two of the most important aspects to take into account when designing professional headphones.
The optimisation of the comfort of the headphones was essential. Thus, the choice to use memory foam for the ear-pieces and the headband ensures a perfect fit regardless of user's morphology. Moreover, the large ear-pieces guarantee a remarkable insulation, whilst reducing the pressure level.

Finally, the Black Textured finish gives the headphones a simplistic look and as well as a shock- and scratch-resistant quality.

Acoustics: neutrality and transparency for total control

The close attention paid to the design of the Mylar/Titanium alloy drivers ensures sound reproduction which respects the original dynamics of the audio signal without distortion, preventing auditory fatigue.
The neutrality of tonal balance combined with the remarkably high-definition enable the reproduction of all audio signals, even at the lowest of listening volumes.
Finally, work on the acoustical load of the transducers has resulted in articulated bass worthy of open-style headphones, but with the advantages of insulation.
The low-impedance OFC coiled cable (13ft/4m) enhances the transparency of sound, an important concept for the brand.

• **Impedance**	32 Ohms
• **Sensitivity**	102dB SPL / 1 mW @ 1kHz
• **THD**	<0,3% / 1kHz / 100dB SPL
• **Frequency response**	5Hz - 22kHz
• **Driver**	Matched $1^{9/16}$" (40mm) Mylar/Titanium
• **Weight**	0.6lb (280g)

> Black Textured finish.


FOCAL





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Focal-JMlab® - BP 374 - 108, rue de l'Avenir - 42353 La Talaudière cedex - France
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Focal-JMlab® - BP 374 - 108, rue de l'Avenir - 42353 La Talaudière cedex - France - Tel. (+33) 04 77 435 700 - Fax. (+33) 04 77 376 587

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