



## SM6 series

*Listen to your music, not to your speakers*



  
**FOCAL**

Professional Division

## Listen to your music, not to your speakers

These few words embody the philosophy of the Focal Professional Division. It is crucial for engineers, be it in music production, post-production or broadcast, to be able to completely trust what they are hearing. Our products are designed from the ground up to be professional tools that reproduce the reality of sound without enhancements or degradations.



## Solo6 Be

The Solo6 Be is an active, 2 way, professional nearfield speaker (2 built-in amplifiers - 150 + 100W RMS), comprised of a 6.5 inch [16.5cm] "W" cone sandwich composite driver, loaded by a large section laminar bass port and a Focal inverted dome pure Beryllium tweeter.

## Specific tools for specific needs

### A speaker that "reveals"

A tracking engineer needs to be able to capture the exact tone of the instrument he's recording with his microphones; he needs to discern the slightest shift in microphone position, EQ, or compression on his monitors.

A mixing engineer needs to be able to place various instruments and vocals in his mix with precision. The smallest details need to come out clearly on his monitors, i.e., reverbs and spaces, and they need to be reproduced at their proper levels without any artificial alteration of the soundstage.

### A speaker that "translates"

The mixing engineer also needs to be able to make sure that his mix sounds as good on other speaker systems in other environments. Usually, when a mix is done, the engineer will make a copy of it and go listen to it in a car or on a boom box, just to make sure that everything sounds the same everywhere. In essence, the engineer wants to make sure his mix translates well everywhere it gets listened to. A completely transparent speaker, that doesn't impart a "color" to the sound, is the best way to insure perfect mix translation.

### Our Speakers "reveal" and "translate" better than others. Why?

Focal Professional Division designs its products from the ground up to fulfill the specific needs of professional sound engineers: to reproduce sound as naturally and precisely as possible. The truth, and nothing but the truth.

Our R&D labs have put all their knowledge and savvy into action to combat any coloration or distortion that could appear throughout all areas of the speaker. Even the slightest coloration can hinder the integrity of the signal's reproduction. It's easy to understand how a self vibrating speaker enclosure can blur the original signal, and the same goes for the drivers, the integrated amplifier, the padding, the finish, etc, etc. We scrutinize each of these elements with the same care to achieve our goal of absolute transparency.







## Twin6 Be

The Twin6 Be is an active, 3 way, professional nearfield/midfield speaker (3 built-in amplifiers - 2x150 +100W rms), comprised of two 6.5 inch (16.5cm) "W" cone sandwich composite drivers, loaded by two large section laminar bass ports and a Focal inverted dome pure Beryllium tweeter. Both 6.5" drivers handle low frequencies but only one of the two (selectable) is passing lo-mid frequencies.



System	Solo6 Be	Twin6 Be	
• Frequency response	40Hz - 40kHz	40Hz - 40kHz	
• Maximum SPL	113dB SPL (peak @ 1m)	115dB SPL (peak @ 1m)	
Electronic section			
• Input	- Type/Impedance - Connector - Sensitivity	Electronically balanced / 10 kOhms XLR Adjustable, +4dBu ou -10dBV	Electronically balanced / 10 kOhms XLR Adjustable, +4dBu ou -10dBV
• LF amplifier stage • HF amplifier stage	150W rms, BASH® technology 100W rms, class AB	150W rms, BASH® technology 150W rms, BASH® technology 100W rms, class AB	
• Power supply	- Mains voltage - Connection	230V (1.6A fuse rating) 115V (3.15A fuse rating) IEC inlet and detachable power cord	230V (2A fuse rating) 115V (4A fuse rating) IEC inlet and detachable power cord
• User controls	Input level switch LF and HF contours (potentiometers) Power ON/OFF switch, mains voltage selector	Input level switch Speaker (left/right) switch LF and HF contours (potentiometers) Power ON/OFF switch, mains voltage selector	
• Indicator	Power on LED	Power on LED	
Transducers			
• Woofer	"W" composite sandwich cone, Focal 6W4370B 6.5" drive unit	2 x "W" composite sandwich cone, Focal 6W4370B 6.5" drive unit	
• High frequency	Focal TB871 Beryllium inverted dome tweeter	Focal TB871 Beryllium inverted dome tweeter	
• Shielding	Integral through cancellation magnets or by magnet design	Integral through cancellation magnets or by magnet design	
Cabinet			
• Construction	19mm MDF panels with internal braces	19mm MDF panels with internal braces	
• Finish	Real red veneer on sides - Black on body	Real red veneer on sides - Black on body	
• Dimensions (HxWxD)	330mm x 240mm x 290mm - (13" x 9.5" x 11.4")	250mm x 500mm x 340mm (9.8" x 19.7" x 13.4")	
• Weight	11kg - (24.2lb)	14kg - (30.8 lb)	



## Sub6

The Sub6 is an active subwoofer (1x350W rms built-in amplifier – BASH technology) for professional monitoring systems. The driver is a 11 inch Focal with a “W” sandwich composite cone loaded by a large section laminar port. It can be used both as LFE channel in a surround system or as a bass or sub-bass complement in a stereo system (2.1 or 2.2). Therefore it includes all the features (with easy settings) to achieve this task, such as a stereo high pass filter (75 or 100Hz) for the left and right satellites, low pass filter (adjustable) with mono summation, phase inverter, phase fine tuning, mute switch, 2.1 bypass with a footswitch remote control (not included), etc...



“W” cone, high excursion Focal 11W7670 11” driver unit included in the Sub6. Featuring a 2.6” voice coil diameter and a 1.6” high, 6.25” diameter dual ferrite. Optimized gap with extended pole piece for very symmetrical field and reduced distortion. Heavy duty spider and surround. Driver’s weight: 8kg...

<b>System</b>		<b>Sub6</b>
• Frequency response		30Hz - 250Hz
• Maximum SPL		116dB SPL (peak @ 1m)
<b>Electronic section</b>		
• Input	- Type/Impedance - Connector - Sensitivity	Left, Right, LFE Electronically balanced / 10k Ohms Female 3 pins XLR Variable
• Output (to satellites)	- Type/Impedance - Connector	Left, Right Electronically balanced / 50 Ohms Male 3 pins XLR
• Amplifier		350W rms, BASH® technology
• Internal processing and functions	- Subwoofer section - Satellite section	Left + Right mono summation / LFE + lo-passed mono sum 24dB/octave variable lo-pass filter / Phase adjustment / Polarity 24dB/octave, defeatable hi-pass filters with selectable frequency
• User controls		Sub level (sensitivity) adjustment Lo-pass frequency adjustment Phase adjustment / Polarity switch / Mute 2.1 bypass (controlled by external footswitch) Hi-pass frequency selection / Hi-pass defeat
• Indicators (LED's)		Power on / Mute / Hi-pass defeat
• Power supply	- Mains voltage - Connection	230V (T1.6AL fuse rating) or 115V (T3.15AL fuse rating) IEC inlet and detachable power cord
<b>Transducers</b>		
• Subwoofer		“W” composite sandwich cone, high excursion Focal 11W7670, 270mm (10.6”) drive unit
<b>Cabinet</b>		
• Construction		22mm MDF panels with internal braces
• Finish		Real red veneer on sides - Black on body
• Dimensions (HxWxD)		380mm x 344mm x 440mm (15”x13.5”x17.3”)
• Weight		23kg (50.7lb)

## Focal manufactures its own drivers with proprietary, patented technologies

Focal is one of the rare companies that manufactures its own drivers, and has for thirty years. It goes without saying that these decades of accumulated experience have allowed us to optimize our drivers' performance. To this effect, Focal uses numerous unique, proprietary, and patented technologies like the "W" Cone, the Be Tweeter...



The second generation Sandwich composite "W" cones alternate between glass film and layers of foam of different densities and widths.

## The "W" Cone

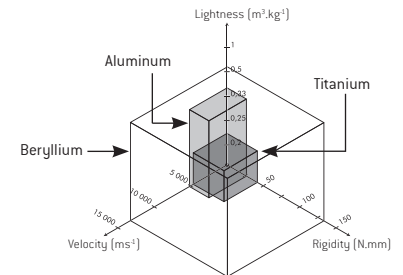
Focal has been developing composite sandwich membranes for the last 15 years. The fruit of that research, the "W" structure (glass/foam/glass) used in the SM series, allows for a truly optimized response - right from the start - thanks to the precise control of the rigidity, the weight and the damping capacity of the cone. The balance between these three fundamental and often contradictory parameters is the very basis of the exceptional sonic neutrality of our speakers.



## The Be Tweeter

Since the very beginning Focal has favored inverted dome tweeters, but the introduction of the pure Beryllium dome, capable of covering five full octaves from 1000Hz to 40kHz, has simply revolutionized high frequency spectrum reproduction. This tweeter's capacity to go as high as 40kHz without any artifacts enables it to reproduce high frequencies with unmatched speed and transparency. At first the pure Beryllium tweeter was only available on the very high-end, digital speakers, of the Focal Professional lines (SM8 & SM11), but is now featured on the new SM6 series, allowing an unprecedented price/performance ratio.

Comparison of Beryllium with Titanium and Aluminum. Beryllium is the lightest, stiffest and has the highest velocity of sound.



## A custom designed amplification stage

Designing an amp to be integrated inside a speaker requires a very different set of rules than for a traditional amp. Speaker size and cooling concerns are often in contradiction with the high quality and high power requirements of a sonically transparent speaker.

Our engineers used the BASH® technology to develop the bass/medium amplification circuit for the SM6 professional line of speakers. This was the only way to exploit the best of class AB style circuits (for exceptional quality) with a class D type yield, which is crucial when housing a 150W rms circuit in such a small space (300W rms for the Twin6 and 350W rms for the Sub6). A pure class AB circuit is sufficient to power the less energy demanding- high frequency tweeter, allowing for an extremely wide bandwidth and exceptional accuracy.

## Our cabinets are made in house, just like our drivers

When our engineers hunted for coloration and distortion in their pursuit of transparent sound they've found cabinet quality to be crucial. Focal has accumulated years of experience and experimentation in this domain. Nothing is left to chance, from the choice of materials to the exact location of internal structural elements - everything is designed with absolute sonic neutrality in mind.

Your distributor



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