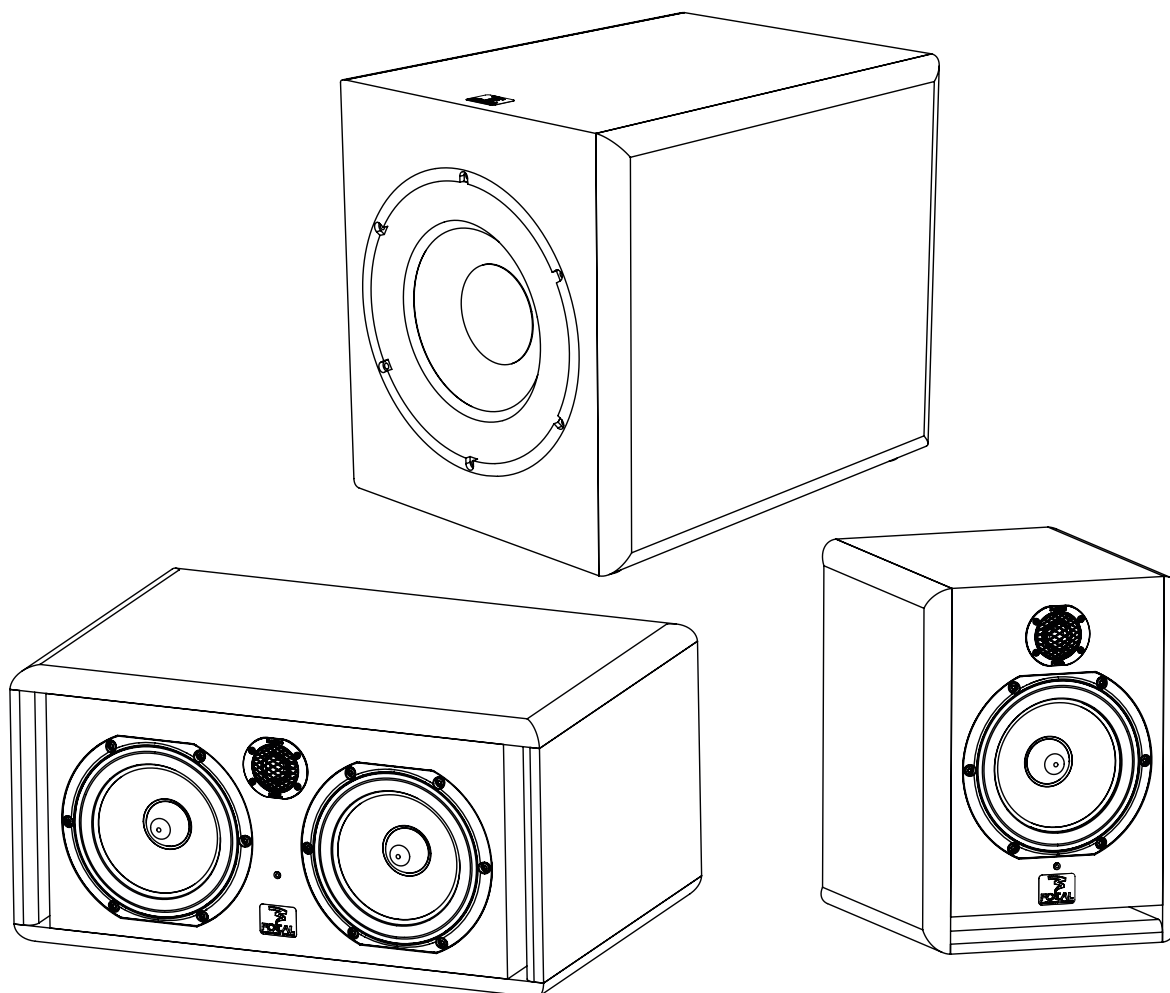


# SOLO6 BE - TWIN6 BE - SUB6

Manuel d'utilisation / User Manual / Gebrauchsanleitung /  
Manuale d'uso / Manual de uso / Manual de utilização /  
Handleiding / Instrukcja obsługi / Руководство по  
эксплуатации / 使用手册 / 사용 설명서 /  
取扱説明書 / دليل المستخدم

EN

FR



# SOLO6 BE : SPECIFICATIONS

User manual

4

EN

## SYSTEM

Frequency response	40Hz - 40kHz
Maximum SPL	113dB SPL (peak @ 1m)

## ELECTRONIC SECTION

Input	Type/Impedance Connector Sensitivity	Electronically balanced / 10 kOhms XLR Adjustable, +4dBu ou -10dBV
LF amplifier stage HF amplifier stage		150W rms, BASH <sup>®</sup> technology 100W rms, class AB
Power supply	Main Voltage Connection	230V (1.6A fuse rating) 115V (3.15A 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
Indicator		Power on LED

## TRANSDUCERS

Woofers	"W" cone, Focal 6W4370B 6.5" drive unit
High frequency	Focal TB871 inverted Beryllium dome tweeter with protective grille
Shielding	Integral through cancellation magnets or by magnet design

## CABINET

Construction	19mm MDF panels with internal braces
Finish	Real red veneer on sides
Dimensions (HxWxD)	330mm x 240mm x 290mm - (13"x9.5"x11.4")
Weight	11kg - (24.2lb)

*All specifications are subject to change.*

# TWIN6 BE : SPECIFICATIONS

User manual

5

NE

## SYSTEM

Frequency response	40Hz - 40kHz
Maximum SPL	115dB SPL (peak @ 1m)

## ELECTRONIC SECTION

Input	Type/Impedance Connector Sensitivity	Electronically balanced / 10 kOhms XLR Adjustable, +4dBu ou -10dBV
LF amplifier stage LF/MF amplifier stage HF amplifier stage		150W rms, BASH <sup>®</sup> technology 150W rms, BASH <sup>®</sup> technology 100W rms, class AB
Power supply	Main Voltage Connection	230V (2A fuse rating) 115V (4A fuse rating) IEC inlet and detachable power cord
User controls		Input level switch Speaker (left/right) switch LF and HF contours (potentiometers) Power ON/OFF switch, mains voltage selector
Indicator		Power on LED

## TRANSDUCERS

Woofers	2 x "W" cone, Focal 6W4370B 6.5" drive unit
High frequency	Focal TB871 inverted Beryllium dome tweeter with protective grille
Shielding	Integral through cancellation magnets or by magnet design

## CABINET

Construction	19mm MDF panels with internal braces
Finish	Real red veneer on sides
Dimensions (HxWxD)	250mm x 500mm x 340mm (9.8" x 19.7" x 13.4")
Weight	14kg - (30.8lb)

All specifications are subject to change.

# SUB6 : SPECIFICATIONS

User manual

6

EN

## SYSTEM

Frequency response	30Hz - 250Hz
Maximum SPL	116dB SPL (peak @ 1m)

## ELECTRONIC SECTION

Input	Type/Impedance	Left, Right, LFE
	Connector	Electronically balanced / 10kOhms
Output (to satellites)	Connector	Female 3 pins XLR
	Sensitivity	Variable
Amplifier	Type/Impedance	Left, Right
	Connector	Electronically balanced / 50Ohms
Internal processing and functions	350 W rms, BASH <sup>®</sup> technology	Male 3 pins XLR
	Subwoofer section	Left + Right mono summation
User controls	Satellite section	LFE + lo-passed mono sum
	Sub level (sensitivity) adjustment	24dB/octave variable lo-pass filter
Indicators (LED's)	Lo-pass frequency adjustment	Phase adjustment
	Phase adjustment	Polarity
Power supply	Polarity switch	24dB/octave, defeatable hi-pass filters with selectable frequency
	Mute	
Indicators (LED's)	2.1 bypass (controlled by external footswitch)	
	Hi-pass frequency selection	
Power supply	Hi-pass defeat	
	Mains voltage	230V (T1.6AL fuse rating) or 115V (T3.15AL fuse rating)
Power supply	Connection	IEC inlet and detachable power cord

## TRANSDUCERS

Subwoofer	"W" composite sandwich cone, high excursion Focal 11W7670, 270mm (10.6") drive unit
-----------	---

## CABINET

Construction	22mm MDF panels with internal braces
Finish	Real red veneer on sides - Black on body
Dimensions (HxWxD)	380mm x 344mm x 440mm (15" x 13.5" x 17.3")
Weight	23kg (50.7lb)

All specifications are subject to change.

# SOLO6 BE - TWIN6 BE - SUB6

User manual

7

Please validate your Focal-JMLab warranty,  
it is now possible to register your product online: [www.focal.com/warranty](http://www.focal.com/warranty)



NE

Thank you for purchasing a Focal product. Welcome to our High-Fidelity world. Innovation, tradition, excellence and pleasure are our values; our one and only aim is to bring you a sound that is rich, pure and true. To get the most out of your product, we recommend that you read the instructions in this booklet, then store it in a safe place to refer to in the future.

## Unpacking

In addition to one loudspeaker and a user manual (such as this one), each Solo6 Be or Twin6 Be carton should contain:

- A power cord.
- A guarantee card.
- A plastic bag containing an information note “Beryllium inverted dome tweeter”, and some adhesive tape to affix on the tweeter in the unlikely event of the dome being damaged.

In addition to one subwoofer and a user manual each Sub6 Be carton include:

- A power cord.
- A guarantee card.
- A grille protecting the drive unit (which it is advisable to remove whenever possible).

Please check that none of these items are missing, and remove all accessories from the carton.

To remove the loudspeaker from its carton without damage, open the end flaps fully and bend them right back. Then remove the upper cushion and lift the loudspeaker out gently. Inspect the speaker for signs of any possible damage. In the unlikely event of this having occurred please inform the carrier and supplier. It is a good practice to keep the packaging in case of future transportation.

## Beryllium

Solo6 Be and Twin6 Be use a tweeter with an inverted dome made from pure beryllium, with the capacity to augment the bandwidth to 40 kHz. In its solid form, beryllium is harmless. However, given its nature, certain precautions should be taken to avoid exposure to unnecessary risks:

- The beryllium dome must never come into contact with abrasive materials.
- If the beryllium dome is damaged in any way, you should cover up the entire surface area of the dome using the protective adhesive strip supplied, as soon as possible. You will find the adhesive strip in the plastic packet containing the leaflet for the tweeter with an inverted dome made from pure beryllium. Contact the retailer to have the tweeter dismantled and replaced by trained personnel at the distributor.
- If the dome is broken, any beryllium particles should be carefully collected using sticky tape and then placed in a hermetically sealed plastic bag and sent back to the retailer along with the loudspeaker.

For more information, please refer to the safe use manual in the box.

You can also address your questions directly to:

**[beryllium@focal.com](mailto:beryllium@focal.com)**

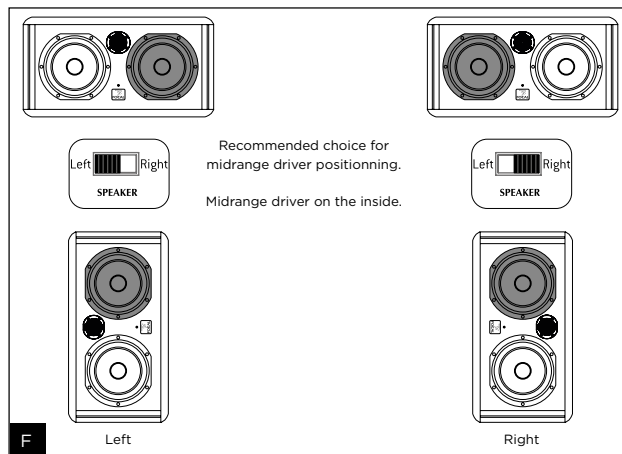
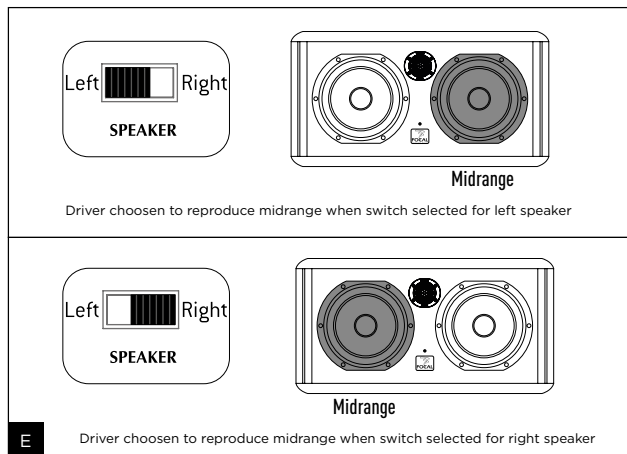
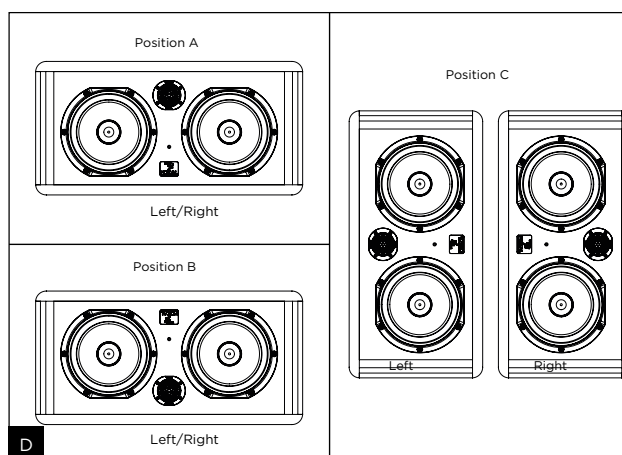
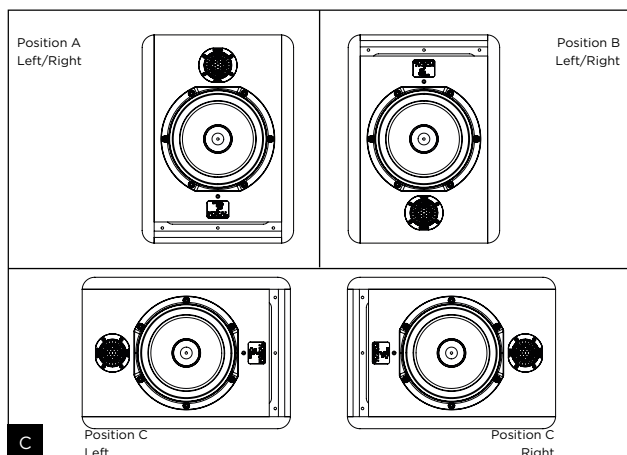
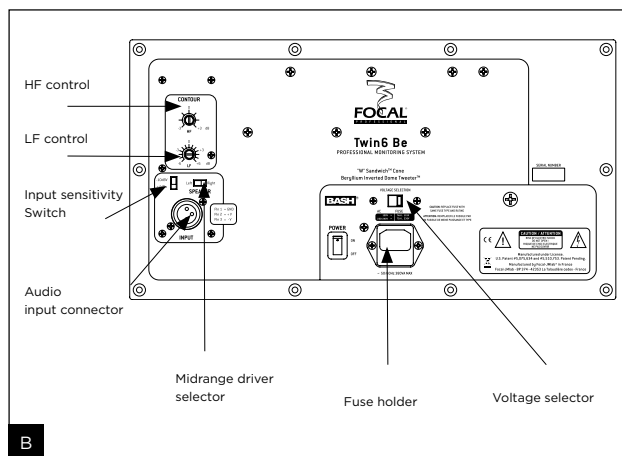
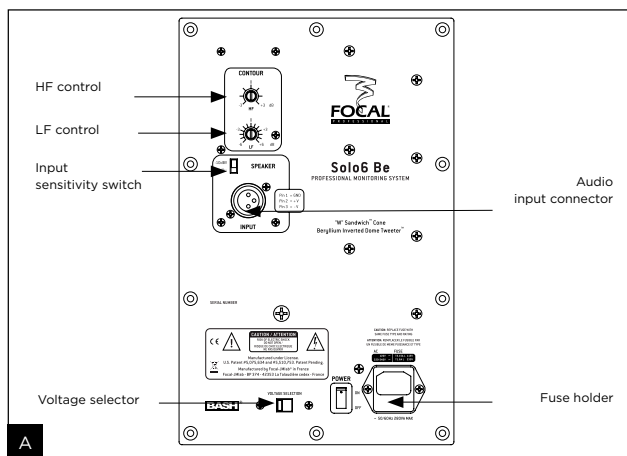
## Conditions of warranty

All Focal loudspeakers are covered by warranty drawn up by the official Focal distributor in your country. Your distributor can provide all details concerning the conditions of warranty. Warranty cover extends at least to that granted by the legal warranty in force in the country where the original purchase invoice was issued.

# SOLO6 BE - TWIN6 BE - SUB6

User manual

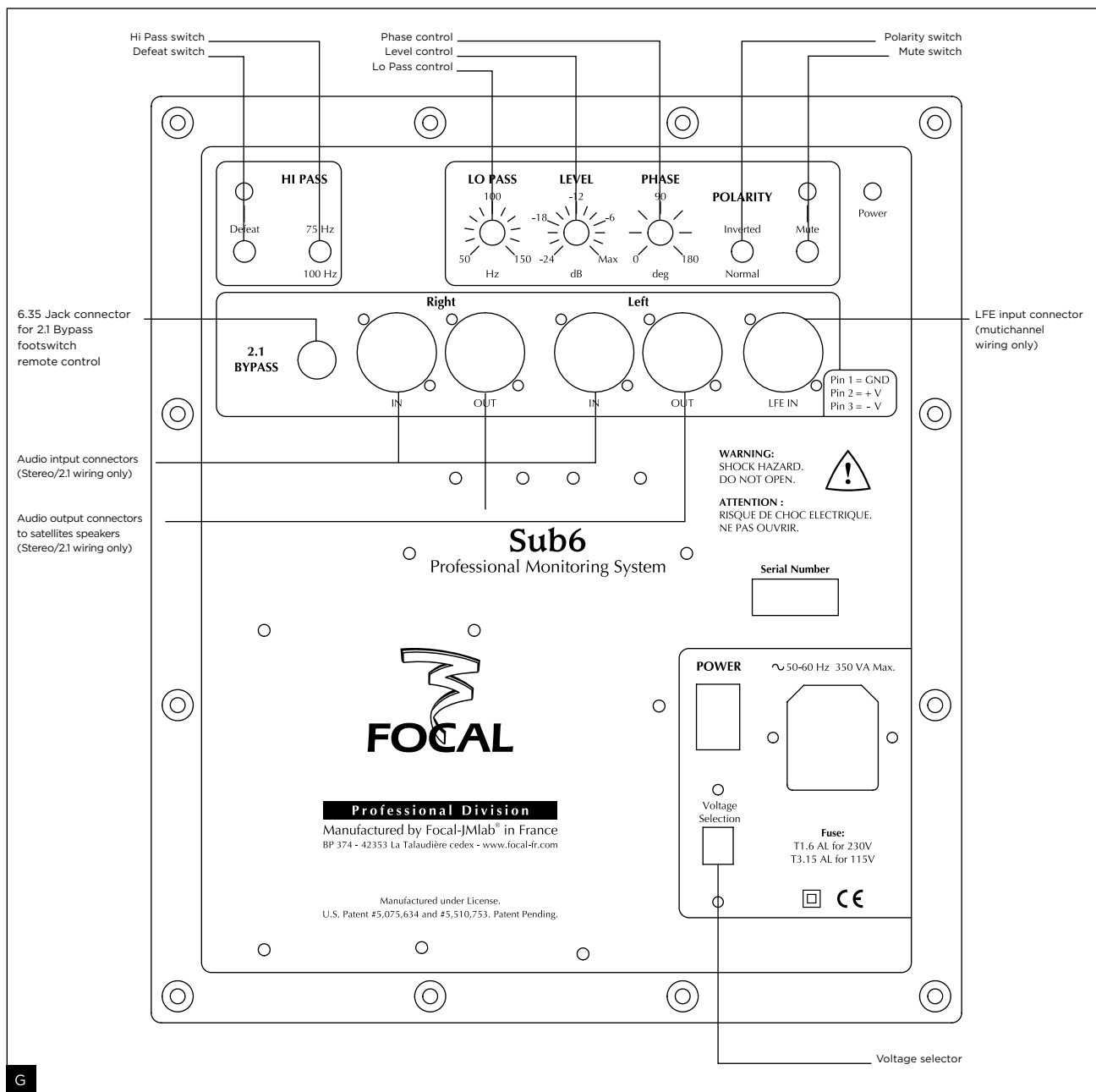
EN



# SOLO6 BE - TWIN6 BE - SUB6

User manual

9



G

NE

# SOLO6 BE - TWIN6 BE - SUB6

User manual

10

EN

## Solo6 Be

Solo6 Be is a two-way active loudspeaker (2 internal amplifiers channels), comprising one “W” cone 6.5” low/mid unit, loaded with a large cross-section laminar port, and an inverted pure Beryllium dome (**fig. A**).

## Twin6 Be

Twin6 Be is a three-way active loudspeaker (3 internal amplifiers channels), comprising two “W” cone 6.5” low/mid units, loaded with two large cross-section laminar ports, and an inverted pure Beryllium dome. The two 6.5” drive units operate at low frequencies but only one of them (either can be selected) will reproduce the midrange (**fig. B**).

## Sub6

Sub6 is an active subwoofer (1 integral amplifier) designed for professional monitoring systems. It uses a 11” drive unit equipped with a “W” composite cone, and loaded by a large cross-section laminar port (**fig. C**).

Sub6 may be used :

- For bass or sub-bass enhancement in stereo + sub setups (2.1 or 2.2). The rear panel of Sub6 allows for the connection of a traditional stereo source (Left In / Right In), while providing hi-passed outputs intended to feed the main speakers (satellites),
- As a LFE channel (Low Frequency Effects) in a multi-channel installation (5.1, 5.2, 6.1...), via a dedicated input of the rear panel.

## Installing

### Mains voltage

After having unpacked the unit, first check that the operating voltage is correctly set (see location on rear panel). If it is not, adjust the selector to the appropriate position. Also check and if necessary replace the fuse, which rating depends on the operating voltage (please refer to technical specifications).

Solo6 and Twin6 must be earthed using the power cord supplied.

### Audio connections: general

The audio signal is to connect to the XLR inlet. This is a balanced input, which use the standard cabling scheme, namely:

- Pin 1 = Ground (shield)
- Pin 2 = In phase voltage (“hot”)
- Pin 3 = Out-of-phase voltage (“cold”)

If the audio source is unbalanced, common practice is to link “cold” and ground pins (pins 3 and 1 respectively). This is generally achieved within the cable.

### Audio connections: Sub6 (**fig. G**)

#### Stereo + Sub setup (2.1 or 2.2):

**Left IN:** this input is intended to receive the signal coming from the left channel of your source (mixing console, or other...).

**Right IN:** this input is intended to receive the signal coming from the right channel of your source (mixing console, or other...).

**Left OUT:** this output is intended to connect to the left main loudspeaker of your system. The signal supplied by this output is internally processed through a high pass filter.

**Right OUT:** this output is intended to connect to the right main loudspeaker of your system. The signal supplied by this output is internally processed through a high pass filter.

**Multichannel configuration: LFE:** this input is intended to feed your Sub6 in a multichannel application (5.1, 5.2, 6.1, ...): this channel is dedicated to low frequencies only.



# SOLO6 BE - TWIN6 BE - SUB6

User manual

11

## Positioning

Solo6 Be and Twin6 Be are designed for near field monitoring and should be placed at a distance between 1 and 3 metres from the listener, pointing towards the listening position. They can be sitting on the console top or placed on appropriate stands. In any way it is recommended that the tweeter is at a height from the floor approximately equivalent to that of the listener's ears. If required it can make sense to place the speakers upside down so that the previous rule is better fulfilled (*fig. C,D*).

Solo6 Be could be used vertically or horizontally depending on the environment, preferably pointing towards the listener (*fig. C*).

By design Twin6 Be's are rather intended for a landscape orientation, though in some situations they could be positioned vertically. As seen in the earlier rear panel description, Twin6 Be has a switch allowing to choose which drive unit is to reproduce the mid frequencies (see below) (*fig. E*). Consequently it will always be possible, as desirable, to configure the speakers in a "mirror" (ie symmetrical) way (*fig. F*). As a general rule having the "midrange" driver on the inside of the cabinet results in better imaging.

Optimal positioning of Sub6 may vary depending on the surface, the shape and acoustic properties of the listening room. You are advised to try various locations so to choose the one giving the best possible and most level sound balance. As a rule of thumb the optimal location will often be in a corner of the room.

# SOLO6 BE - TWIN6 BE - SUB6

User manual

12

EN

## Running in

As in all brand new loudspeaker the drivers need some run in period: they are mechanical elements demanding a little time to settle and adapt to the climatic environment. This period will vary depending of the working conditions and may take up to a few weeks. Avoid pushing the speakers very hard during their first hours of use, but to accelerate the run-in process it is good practice to operate the speakers at moderate levels for 20 hours or so, with programmes having significant low frequency content. Only once the transducers have come to stabilize will you get the optimum performance.

## Solo6 Be/Twin6 Be/Sub6 Controls

### Speaker switch (Left/Right) : only for Twin6 Be

This switch allows the user to select which one of the two 6.5" drivers will reproduce the midrange. By convention, the "Right" position of the switch will select the left hand side driver (when facing the cabinet laying horizontally). Conversely in the "Left" position the right hand side driver (facing the cabinet) will be the one operating in the mid frequencies. It is easy to figure how useful this control is when it comes to get the best possible imaging in any cabinet layout (*fig. E,F*).

### Input switch

The input sensitivity can be adjusted using this two position switch. The +4dBu position is suitable for standard professional audio equipment, while -10dBV position may be used for other types of sources providing a lesser output level.

### HF contour

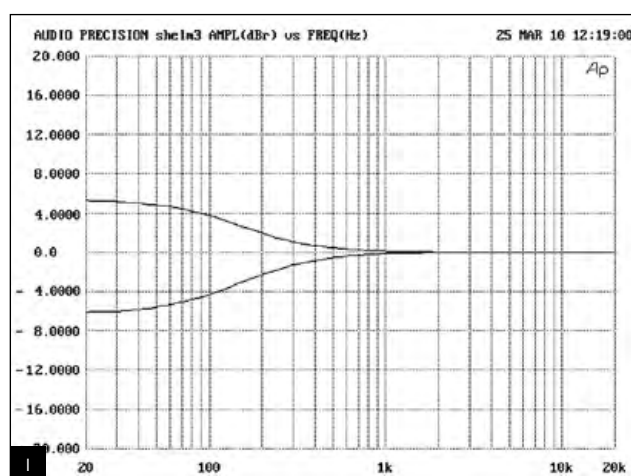
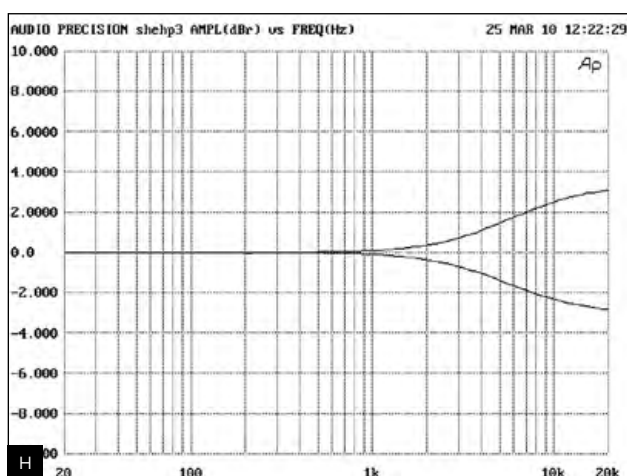
This control allows for a continuous adjustment of the high frequency level; it operates above 5kHz within a  $\pm 3$ dB range (*fig. H*).

### LF contour

This control allows for a continuous adjustment of the low frequency level; it operates below 150Hz within a  $\pm 6$ dB range (*fig. I*). This adjustment is typically useful to deal with possible excessive level of LF energy resulting from acoustic coupling associated with close reflecting surfaces: mixing console, nearby walls...

### Power on indicator

A power on LED is located on the cabinet front panel, near the Focal logo.



### Sub6 controls (fig. G)

#### Level

This adjustment allows to set the sound level of the subwoofer relative to that of the main loudspeakers. It should also be optimised taking into account the actual location of the subwoofer and its acoustic consequences: for example in an angle the 6 dB acoustic gain should be compensated by an equivalent attenuation to maintain the overall balance of the system.

#### Mute

This switch will turn out the output signal of the subwoofer channel (making it silent does not require to switch the power off). When muting the subwoofer the high pass filters used for the main speakers will remain active.

#### Hi Pass

This area is dedicated to the setting of the high pass filters intended for the main speakers in a 2.1 configuration. The "Defeat" switch allows to disable (ie by-pass) these filters. The 75 Hz / 100 Hz switch allows to select the cut-off frequency, in order to optimise the acoustic recombination between the satellites and Sub6.

#### Lo Pass

This potentiometer adjusts the cut-off frequency of the low pass filter on the subwoofer channel, thus setting the upper frequency range to be reproduced by Sub6. The goal is to achieve the smoothest frequency response of the whole system: sub + satellites.

#### Polarity

This switch inverts the signal polarity on the subwoofer channel (ie 180° phase shift).

#### Phase

This potentiometer provides some fine adjustment of the phase on the subwoofer channel. Combined with the polarity switch it can be used to compensate for the spacing between the sub and the main speakers, so to get a coherent soundfield through a proper time alignment of the different sources.

#### 2.1 Bypass

This input allows for plugging in a control footswitch (not supplied) via a ¼" jack connector.

Turning it active will :

- mute the subwoofer channel
- defeat the high pass filters in the satellites signal paths. The satellites will then be fed with full range signals. This facility allows for instantaneous comparison between the 2.1 configuration (with sub) and the traditional stereo setup (without sub) with the same system.

#### Power indicator

Power "LED" indicator.