SOPRA™
User manual

English

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Connections

Sopra connectors provide reliable, multi-purpose contacts for stripped cables (up to 4mm diameter), fork terminals or banana connectors. It is imperative to respect the connector polarity of both the loudspeaker and the amplifier. The connector marked "+" must be connected to the positive output on the amplifier and the connector marked "-" must be connected to the negative terminal (fig. A). Stereo image and bass perception would be seriously compromised if these conditions are not respected. Choose good quality cables with a cross-section appropriate to their length: your retailer will be able to advise you.

Positioning

These loudspeakers have been designed to deliver the most faithful reproduction of all kinds of music or home cinema programmes. Nonetheless, we recommend following these simple rules to optimise their performance and to guarantee good tonal balance and a realistic sound image.
The loudspeakers should be positioned symmetrically, facing the listening area, ideally forming an equilateral triangle with it. However, these distances may be adjusted to find the ideal compromise according to the design of your interior (fig. B).
The loudspeakers should be positioned at the same height, in the same horizontal plane. Ideally, the tweeter should be positioned at the same height as the listener's ears in the usual listening position (fig. C).
Do not position your loudspeakers too close to a corner of the room and do not place them too close to a wall. This will induce some unwanted room resonance and artificially increase bass response. On the other hand, if the bass level is considered to be insufficient, you could try moving the loudspeakers nearer a wall to re-balance the bass level (fig. E).

Optimisation

For perfectionists, here is a formula for optimal positioning:
If A is the distance from the centre of the woofer to the nearest floor or wall, B is the distance to the next closest floor or wall, and C is the greatest distance (A < B < C), the equation $B^2 = AC$ defines the ideal loudspeaker position.

• Example:
If the centre of the woofer is 20" (50cm) away from the rear wall (A) and 24" (60cm) above the floor (B), then the side wall will be ideally 28" (72cm) away [$C = B^2 / A$ = 28" (72cm)] (fig. D).

Recommendations for use

The behaviour of the loudspeakers depends on the acoustics of the listening room, on the correct positioning of the loudspeakers within the room, and on the position of the listener.
It is possible to tweak each of these parameters to obtain or improve a desired effect.
Stereo perception is imprecise and poorly centred: try moving the loudspeakers closer together and/or have them facing the listening point:
The sound is harsh, aggressive: the acoustics of your listening room are probably too reverberant. Consider using sound-absorbing materials (carpets, upholstered furniture, tapestries, curtains, etc.) and sound-reflecting materials (furniture) to absorb or diffuse resonance.
The sound is "flat", strangled: there are too many sound-absorbing materials in the room, the sound is soaked up, it has no relief. Look for the best compromise between sound-absorbing and sound-reflecting materials in your room. In general, aim to have a reflective wall behind the loudspeakers for the sound to develop correctly. The wall behind the listening area, on the other hand, should ideally be sound-absorbing to avoid rear reflections "contaminating" the stereo image.
Furniture can be strategically placed near the side walls of the room to diffuse sound waves and ensure certain frequency ranges are not excited, particularly in the midrange (suppression of flutter echoes).

Spikes

Sopra floorstanding loudspeakers are equipped with decoupling spikes built into the glass base. These spikes give the floorstanding loudspeakers very good stability, particularly on uneven floors. The height of the spikes supplied can be adjusted to ensure the 4 spikes rest evenly on the floor to prevent any wobbling. Once the height of the spikes has been adjusted correctly, lock them in place using the locking nuts (fig. F). Four spike pads are also supplied to protect soft floors such as parquet, etc. (fig. G).

Fastening Sopra N°1 loudspeaker to the stand

We recommend fastening the Sopra N°1 loudspeaker to the stand using the four screws supplied with the stand (fig. H).

Foam Bung for Bass Tuning (Sopra N°1)

This foam bung allows you to make some fine adjustments to the bass performance of your loudspeakers. The Sopra N°1 loudspeaker has been designed to reproduce deep bass in an even manner for a "free space" position. If you position your loudspeakers close to a wall, bass frequencies are further enhanced. Similarly, some rooms have an acoustic that exaggerates low bass. The foam bung allows you to reduce the amount of energy from the port tube to reduce bass levels and improve damping in such situations. It is advised that you use the foam bung for both loudspeakers. To do so, insert the foam bung into the port tube as shown in Figure I.

Loudspeaker choice

Your loudspeakers have been developed to be used in Stereo and Home Theater configurations. If you already use Sopra loudspeakers at the front and want to move forward to Home Theater, it is paramount to use the Sopra Center unit and surround Be loudspeakers.
You can also use in-wall Electra IW 1002Be or Electra 1002-Be when environment limitations do not allow you to use Surround Be loudspeakers.
The SW1000 Be subwoofer perfectly completes any Sopra multichannel configuration.

Sopra Center loudspeaker positioning

The Sopra Center loudspeaker must be placed within close range of the screen for realistic dialogue reproduction. If a standard projection screen is used, the center unit must be placed right under the screen for optimal performance. If a perforated, acoustically transparent screen is used, the center unit can be placed behind, at the lower half of the screen. (Fig. J)

Surround Be loudspeakers installation

Securely fasten the fixation rails onto the wall using the provided plugs and then insert the Surround Be (Fig. K).

Surround Be positioning

As it is detrimental to perception, avoid placing the surround loudspeakers too far back in the listening area. The best location can be obtained when Surround Be loudspeakers form a 120° to 160° angle with respect to the listener. (Fig. L). Place Surround Be loudspeakers sufficiently high, (between 50cm and 90cm) above the listener's ears.

Surround Be Bi/Twin Modes

This speaker features a double Bi/Twin operating system allowing it to be used either in standard bipolar mode (Bi) or in double monopolar mode (Twin). Adequately defining parameters on the three positions mode selector and on the double input connector, (providing one or two power amplifier connection capabilities for each speaker) enables Surround Be to implement 5.1 or 7.1 configurations using only one pair of surround loudspeakers. (Fig. M)
This selector authorises the loudspeakers to work together or divided in two groups (❶ and ❷), carrying different information to both the front and rear of the listening area (Fig. N). The three position mode selector allows you to choose between the "Bipolar mode" and two "Twin modes" (Front ❶ and Front ❷), according to the speaker direction (Fig. O).

Safe pactice

The three position mode selector has been developed to suppress any short-circuit risk or connection error when two amplifiers are simultaneously connected to Surround Be. In order to ensure the best performance under the chosen configuration, we strongly recommend that you carefully follow the mode selector connection and setting instructions.

Turn off any amplifiers connected Surround Be during each mode selector operation!

Bipolar mode (5.1)

Set the right and left surround loudspeakers back selector to Bipolar position. Always connect the amplifier to right and left Surround Be Input ❶ (Fig. P).
Note: in "bipolar mode", the loudspeakers work together towards the front and rear of the listening area, in order to cover it in a smooth and consistent manner.
Note: Input ❷ is always inoperative when the selector is set in the Bipolar position.

Twin mode (7.1)

Left loudspeaker: set the selector to Front ❶ position. Connect the surround side channel to input ❶ and the surround back center channel to input ❷ (Fig. Q).
Right loudspeaker: set the selector to Front ❷ position. Connect the surround side channel to Input ❶ and the surround back center channel to Input ❷ (Fig. Q).
Note: the side channel is always connected to input ❶ for both left end right loudspeakers and the center channel always to input ❷. This approach permits switching the selector from Bi mode to Twin mode without wiring modification.
Note: Twin mode allows back and side surround information to be carried simultaneously to a single surround loudspeaker, dividing it into two parts, beaming towards the front and rear of the listening area.
Note: surround side channel information will be carried to the front while center channel information will be carried towards the rear of the listening area, courtesy of the two sets of separated connectors.

Bi/Twin mode (7.1)

Back center speaker: when a third back center loudspeaker is added to the system, Surround Be side channels are to be set to "Bi mode" while the surround center channel is to be set to "Twin mode". Set the selector to Front ❶ position. Connect the left back surround channel to input ❶ and the right back surround channel to input ❷ (Fig. R).

Break-in period

The speaker drivers used in Sopra loudspeakers are complex mechanical components which require a certain time to adapt to operate at their best and to become acclimatised to the temperature and humidity of the listening environment. This break-in period varies depending on the climate and may last a few weeks. To reduce the break-in period, we recommend operating the loudspeakers for approximately twenty consecutive hours. Once the loudspeakers' characteristics have totally stabilised, you will be able to enjoy your Sopra loudspeakers' performance to the full.

Special precautions

The only maintenance required for the Sopra loudspeakers is dusting with a dry cloth. If your loudspeaker becomes dirty, we recommend simply cleaning it with a damp cloth.
Never use solvents, detergents, alcohol-based or corrosive products, scrapers or scourers to clean the surface of a loudspeaker.
Keep the loudspeakers away from sources of heat.

Choosing the right amplifier

It is not an excess of amplifier power that can damage your loudspeakers and speaker drivers but a lack of power. Moreover, if the volume is turned up too high, the amplifier saturates and generates parasite signals that may damage the tweeter. The dynamic capacity and definition of Sopra loudspeakers are sufficient to reveal the strengths and weaknesses of whatever amplifier is connected. Your retailer will be able to help you choose the amplifier best suited to your tastes and budget.

Conditions of guarantee

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