AxisVoicebox FLS

FLOORSTANDER



BASIC OPERATING MANUAL

A Word from the Designer

Thank you for purchasing the Axis Voicebox FLS! This loudspeaker combines, in one cabinet, the amazing Voicebox S mini-monitor and a slightly smaller version of the Voicebox EBS Extended Bass System in their own acoustically separate volumes.

The information in this operating manual describes the most appropriate way to set-up the bass extender in the Voicebox FLS (referred to for convenience as the Voicebox FLS BX).

The Voicebox FLS BX is not your typical active subwoofer. It enhances low-frequency information played out by the Voicebox S to give bass playback that is deep, detailed and 'fast', while minimising the excitation of room modes. This approach is unique in the industry.

Best Regards,

John Reilly

It's all about the music!

Connections

You will need either:

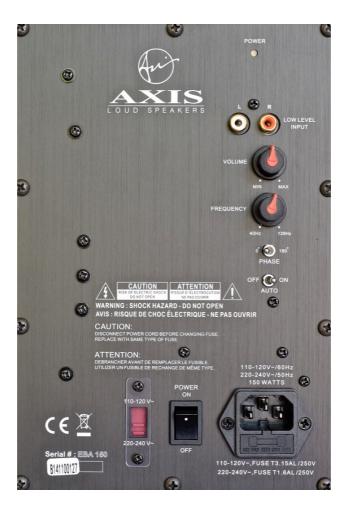
• A preamplifier with two sets of line-level stereo outputs. One set of outputs will be connected to the power amplifiers driving the main speakers. The other set (usually labelled 'Preamp Out') will be connected to the Voicebox FLX BXs;

or

 An integrated amplifier with line-level stereo outputs. These are usually labelled 'Preamp Out', and will be connected to the Voicebox FLS BX.

If your preamplifier or integrated amplifier does not have this extra set of line-level outputs then you can simply connect inexpensive Y-connectors to the amplifier's line-level outputs. Doing this will not degrade the sonic performance of the overall system.

The Voicebox FLS BX contains a 150-watt Class-D amplifier, embedded in the rear of the cabinet. The amplifier's input/control panel is shown in the diagram below.



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First connect the speaker outputs of your amplifier to the inputs at the top of the Voicebox FLS. We will refer to these as your *main speakers*.

The Voicebox FLS BX's amplifier requires AC power. Insert the supplied IEC power cable into the power socket but *do not* switch on yet. Ensure that the correct mains voltage has been set by the red slider switch to the left of the power button.

- Connect the 'left' line-level output of the amplifier to either of the low-level inputs on the back of the 'left' Voicebox FLS BX.
- Connect the 'right' line-level output of the amplifier to either of the low-level inputs on the back of the 'right' Voicebox FLS BX.

Setting Up the Voicebox FLS BX

You are now ready to set up the Voicebox FLS BX and integrate it with the main speakers and the listening room. Remember, the idea is not to just get more volume level from the Voicebox FLS BX, but to get more bass extension in order to get a wider frequency range and more low end detail from the combined system as a whole.

The instructions below are for setting up one Voicebox FLS BX. Repeat the setup process for the other Voicebox FLS BX in the playback system, making sure that only the one that you are setting up is powered on.

Power Up the Voicebox FLS BX

- 1 Ensure that the main system's volume control is turned down.
- 2 Set the 'AUTO' switch to 'ON'.
- 3 Toggle the 'PHASE' switch to 0°.
- 4 Turn the Voicebox EBS' 'FREQUENCY' knob to the centre (12 o'clock) position.
- 5 Turn the Voicebox EBS' 'VOLUME' knob anti-clockwise to the minimum (7 o'clock) position.
- 6 Switch on the Voicebox EBS' amplifier by setting the power button to the 'ON' position.

Initial Setting of the Voicebox FLS BX's 'VOLUME' Control

- 7 Play music. Set your main system's volume control to the level at which you usually listen to music.
- 8 Gradually increase the volume on the Voicebox FLS BX until you can just hear the Voicebox FLS BX working.
- 9 While in the listening position ask an assistant to toggle the 'PHASE' switch to the 180° position. The correct switch position is the one at which there is more bass information.

Integrate the Voicebox FLS BX with the Main Speakers

You will next need to get the right 'stitch' between the main speakers and the Voicebox FLS BX. This 'stitch' is the matching up of the low-frequency end of your main speakers with the upper frequencies of the Voicebox FLS BX, without creating or enhancing low-frequency standing waves in the listening room. Two decisions are needed:

- The frequency cut-off required to match your main speakers.
- The volume you will use for the Voicebox FLS BX. This may be different from the level you initially set (see above), depending on your personal listening preferences.
- 10 Sit in the listening position.
- 11 Turn the 'FREQUENCY' knob clockwise to the highest (5 o'clock) position. Get your assistant to slowly reduce the crossover frequency until you detect a natural balance. Note the position of the 'FREQUENCY' knob.
- 12 Turn the 'FREQUENCY' knob anti-clockwise to the lowest (7 o'clock) position. Again, get your assistant to slowly increase the crossover frequency until you detect a natural balance. Note the position of the 'FREQUENCY' knob.
- 13 The positions from Steps 11 and 12 above are likely to be fairly close together. You may find that a position halfway between the two will give the most pleasing tonal balance.
- 14 Once you feel that the tonal balance is correct then you may adjust the 'VOLUME' level to the position that suits you best.

Suggested Test racks

- Jackson Browne's "Sergio Leone" from The Naked Ride Home CD
- "Limbo Jazz" on Tony Dagradi Trio's Live at the Columns
- Chris Jones' "No Sanctuary"
- Chris Cornell's "Sweet Euphoria" from the Euphoria Morning CD
- Sergio Mendes' "The Look of Love" from the Morning in Rio CD
- Diana King's "Sweeter" from the Think Like A Girl CD
- Shelby Lynn's "Just A Little Lovin'" from the Just A Little Lovin' CD

Conclusion

We suggest that you experiment with speaker position if you have not already done so. It is equally important to ensure that sound reflections of the listening environment are well-controlled. You will be well-rewarded with a most satisfying musical experience.

Specifications

FLS 'S'	
Frequency Response	60Hz – 20kHz ±2dB (on tweeter axis) 45Hz – 20kHz ±2.5dB (1/3 octave pink noise)
Sensitivity	83dB linear for 1W at 1m
Impedance	5Ω
Power Rating	100W RMS
Crossover	18-element electro-acoustic Linkwitz-Riley 4th-order @ 3kHz
Tweeter	50mm metal true ribbon (custom)
Woofer	5.25-inch NOMEX paper cone
Enclosure Type	Ported (bass reflex)
FLS 'BX'	
Frequency Response	30Hz – 150Hz
Crossover Frequency	Variable 40Hz – 120Hz
Driver	7-inch Wavecor aluminium cone
Enclosure Type	Acoustic suspension (sealed cabinet)
Amplifier Type	Active Class D (variable level control)
Input Sensitivity	70mV Level & Crossover Frequency at maximum (full clockwise rotation)
Power Output	150W RMS (4 Ω) 1% THD @ 100Hz (4 Ω) Level & Crossover Frequency at maximum (full clockwise rotation)
Phase	Switchable 0° and 180°
Cabinet	
Material	50mm MDF, internally braced
Finish Options	High-gloss White or Black
Dimensions	1010mm x 180mm x 200mm (H x W x D) Cable sockets on rear add 28mm to the depth
Weight	18kg each (39.7lb.)
Carton Dimensions	1200mm x 580mm x 340mm (contains one pair)
Gross Weight	38.5kg (84.9lb.)

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