



FRENCHFLAIR
AUDIO

AS SERIES

Filtering & Equalization

Rev. F/En 02/2021



Amplifications

The electro-acoustic components of the AS-3, AS-5, AS-8, AS-S10 and AS-S24 have been carefully chosen and the products been developed in order to give the ideal performance within the amplification powers and frequency bands as shown below:

Model	AS-3	AS-5	AS-8	AS-S10	AS-S24
<i>Recommended Frequency range</i>	110-20kHz	80-20kHz	70-20kHz	45-250Hz	32-130Hz
<i>Recommended amplification power (amplifier power)</i>	60 to 120W	200 to 400W	200 to 400W	400 to 1600W	900 to 3000W



Low level amplifiers, when used at their maximum power capabilities, lead to an important signal quality loss, and a deterioration of the signal sent to the loudspeakers. The signals may cause minor to major destruction of the loudspeaker components.

X-over

FrenchFlair Audio products have been developed to bring a high level of audio performance when used with the majority of amplifiers and/or processors of the pro audio market, when these units correspond to the technical characteristics edited and recommended by FrenchFlair Audio.

In order to respect the usable frequency range of our loudspeakers, FrenchFlair Audio suggests the following filtering parameters:

Recommended X-overs		
	High-pass	Low-pass High-pass
AS-3 (no Sub)	-	110Hz
AS-3 with AS-S10	45Hz	130Hz (>24dB/oct)
AS-5 (no Sub)	-	80Hz-110Hz*
AS-5 avec AS-S10	45Hz	110Hz (>24dB/oct)
AS-8 (no Sub)	-	65Hz-80Hz**
AS-8 with AS-S24	32Hz	85Hz

* - 80 Hz is recommended for a stand-alone use with an amplifier power of 200W maximum.

- 110 Hz is recommended for an amplifier power of up to 400W. We strongly recommend the use of an AS-S10 subwoofer when the AS-5 speaker is driven at a level of up to 400W.

** Same thing applies to the AS-8 at the mentioned frequencies.

Equalization recommendations

The following equalization recommendations result from acoustic measurements and listening tests. Using the lowest amount of processing possible, these suggestions are made for the loudspeakers and their amplification to offer high quality sonic experience.

The following equalization parameters are to be added to X-over settings that are shown in the previous section.

AS-3

The AS-3 is particularly dedicated to vocal reproduction.

The following equalization offers smoother response for back-ground music applications:

Filter priority	parameters			
High	PEQ	1.9kHz	-6.0dB	BW=3.50 oct/Q=0.40
Medium	Low-Shelf	1.0kHz	+2.0dB	BW=1.00 oct/Q=1.41
Medium	Hi-Shelf	6.8kHz	+1.0dB	BW=2.41 oct/Q=0.53

AS-5

The AS-5 loudspeaker offers a natural balanced frequency response.

We do not recommend a particular set of parametric equalization points.

At FrenchFlair Audio, we listen to our speakers with the following EQ points:

Filtering priority	parameters			
Medium	PEQ	1.0kHz	-3.0dB	BW=1.70 oct/Q=0.80
Low	PEQ	4.0kHz	-5.0dB	BW=0.2oct/Q=7.0
Low	PEQ	2.5 kHz	+3.0dB	BW=0.2oct/Q=7.0

AS-8

The AS-8 is capable of high sound pressure levels. Smoothing the upper vocal and musical frequency range may be obtained with a few EQ points as follows:

Filtering priority	parameters			
High	PEQ	1.7kHz	+4.5dB	BW=0.38oct/Q=3.8
High	PEQ	1.25 kHz	-3.0dB	BW=0.53oct/Q=2.7
Medium	PEQ	6.7kHz	-3.0dB	BW=0.57oct/Q=2.5
Medium	PEQ	12.0 kHz	+4.5dB	BW=0.57oct/Q=2.5

AS-S10

Use with AS-3:

- No equalization recommended
- No delay recommended

Use with AS-5:

- No equalization recommended
- Delay of + 0.3ms

AS-S24

Use with AS-8:

- No equalization recommended
- No delay recommended



Equalization suggestions are subjective by nature. FrenchFlair Audio could not be held responsible for low quality sound resulting from other filtering parameters or inadequate to the environment within which the products are being used.