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F18 Direct Servo subwoofer

18" sealed audiophile sub with 900WRMS amplifier

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Performance & Specifications

F18 is designed to be compatible with other sealed subwoofers from our product lines. With 12hz and high damping setting, its frequency response is very similar to that of F15HP/E15HP. In the following are the plots for both frequency response and phase response. Phase alignment is very important when integrating multiple subs. It is our objective that all of our sealed subwoofer models have similar low end frequency response and phase response.

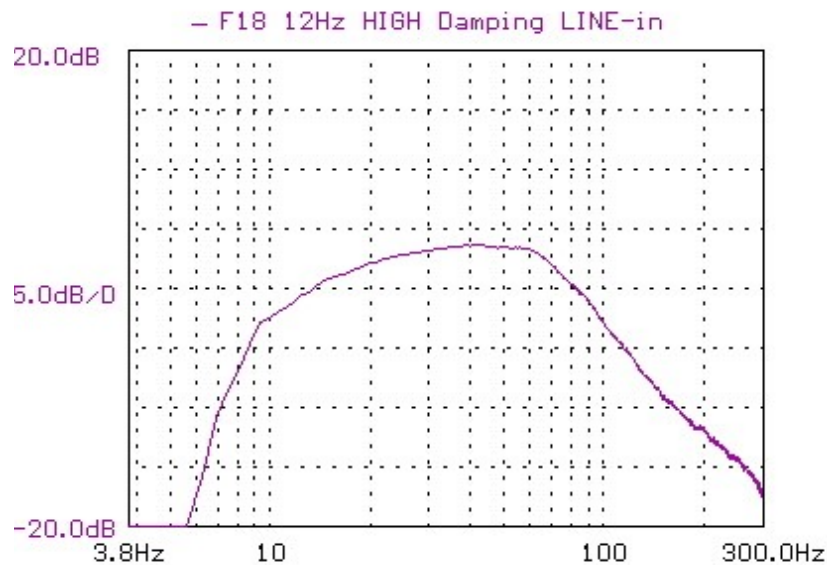


Fig 1.0 - F18 Frequency response chart with line-in 12hz high damping

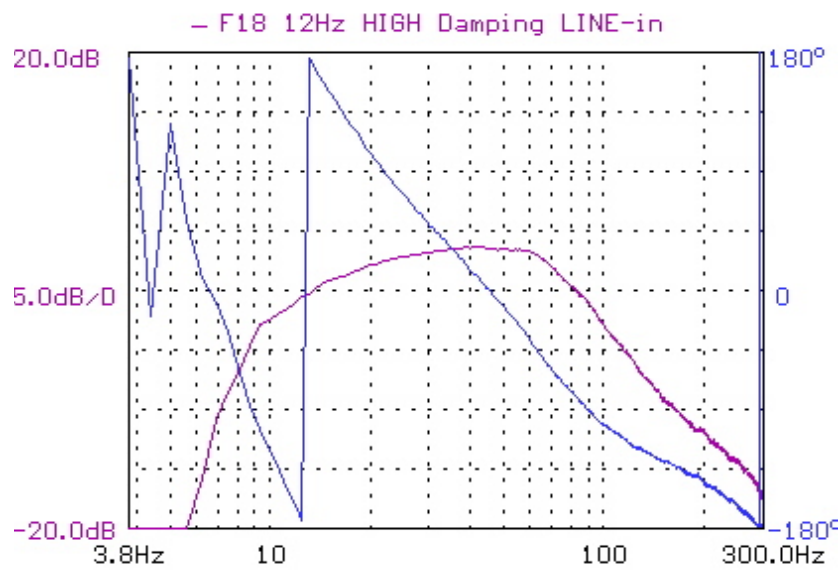


Fig 1.2 - F18 Frequency and phase response chart with line-in 12hz high damping

The high (low) damping setting has the most gradual (steep) roll-off. For movies, we recommend mid damping or low damping.

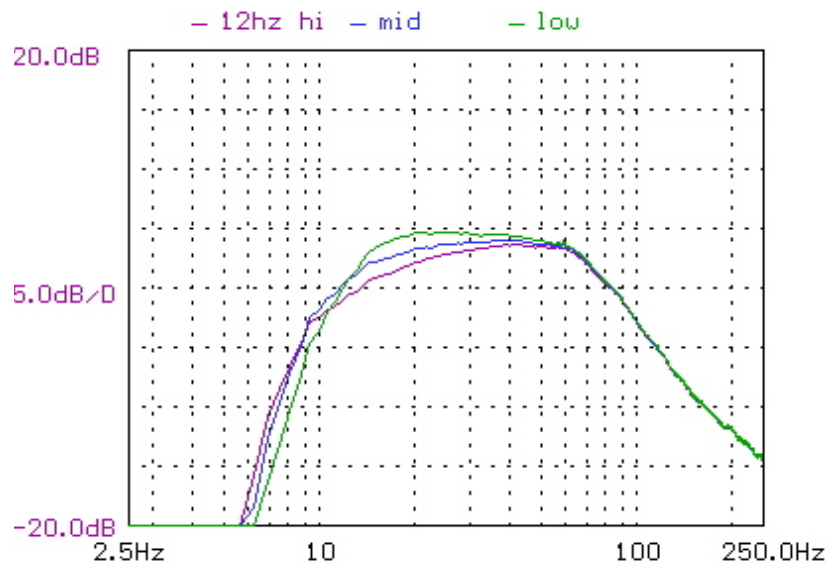


Fig 1.3 - Comparison of F18 Frequency response of all 3 different damping settings at 12hz

F18 also has a rumble filter with -6db @10hz. This is suitable for playing the intro scene in movie Edge of Tomorrow. Fig 1.3 shows the frequency response of this rumble filter. Rumble filter should be turn on for maximum SPL playback at all times.

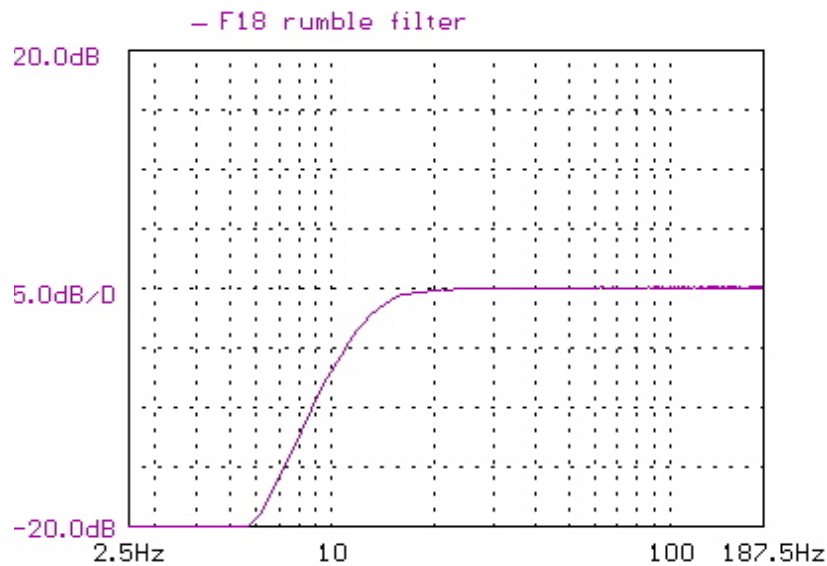


Fig 1.3 - F18 Frequency response of the selectable rumble filter

Integration

One important aspect of getting a correct integration is [phase alignment](#). We have written a guide on how to achieve a phase aligned subwoofer. [More >](#)

Specifications

Driver	DS1820 18" high excursion with custom sensing coil
Driver materials	One piece black anodized dish aluminum with rubber surround Cast aluminum basket
Amplifier	Multiple aluminum flux de-modulation shorting rings 900W RMS Hypex class-D patented servo controlled
Dimensions	20-1/2"(W) x 20-1/2" (H)x 21"(D) - (23" D with grille and heatsink)
Shipping Weight	133 lbs (115lbs gross)
Frequency Response	14 - 200 Hz (0db/-2db) with LFE inputs 10 - 250Hz (+/-3db) with LFE inputs 14 - 90 Hz (-2 dB @ 14 Hz) with LINE IN inputs
Crossover slope	Selectable 12 or 24 dB / octave (PEQ and XLR versions)
Crossover range (Low pass)	25 - 100Hz
Rumble Filter (High pass)	12 Hz 18 dB / octave (-6db @10hz)
Phase response	90 degrees phase shift at 20 Hz (measuring mic has 18 degrees shift)
Phase adjustment	0 - 180 degrees continuously variable
Bass damping factor settings	high (Q=0.5), med (Q=0.7), and low (Q=1.1)
Finishes	Available in black oak and black matte vinyl
Warranty	5 years warranty on driver and 3 years on electronics 45 day satisfaction guarantee