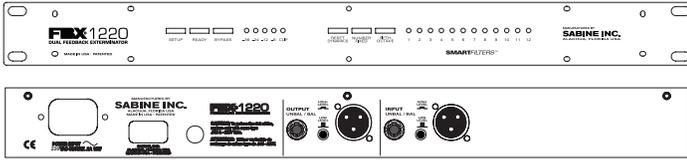


FBX1220

Specifications



The Sabine FBX1220 single channel system solves feedback problems by precise attenuation of very narrow bands of feedback-prone frequencies. The process is automatic, simple to use, adaptable to changing acoustical conditions and relationships, powerful in its application, and has minimal consequences to the audio fidelity of the signal. We call this automatic filter an FBX Feedback Exterminator® filter, or FBX filter for short. The power of the FBX with SMARTFilters lies in its ability to control feedback during the program, not just at setup time. If feedback occurs during that crucial moment of the show, in the middle of the big solo, or just when the worship leader begins the sermon, the FBX places a filter that only kills the feedback, not the sound and power you work so hard to achieve. Think of the FBX as a very advanced set of automatic parametric filters. If you had the time, the filters, and the test equipment, you could find the feedback frequencies, dial in the precise filter location, and make a very narrow filter, just deep enough to remove the offending tone. The FBX does it all for you auto-matically, and it does it faster than any other method.

FBX/PARAMETRIC FILTERS

12 independent digital notch filters per channel, controlled automatically from 40 Hz to 20 KHz.
Filter width: user-controllable - either 1/10 or 1/5 octave*, constant "Q"
Resolution: 1 Hz
Time required to find and eliminate feedback: 0.4 seconds, typical @ 1 KHz
Number of Dynamic vs. Fixed filters per channel: user selectable. Last configuration stored in memory.
Dynamic filter Timer: Resets dynamic filters in 1, 5, 30, or 60 minutes.

INPUT/OUTPUT**

Input/Output Maximum Signal Levels: Balanced +27dBV peak, unbalanced +21 dBV peak
Output Drive: Unit will perform as specified driving a load >600 Ohms
Input Impedance: Balanced or unbalanced >40K Ohms, PIN 2 high
Output Impedance: Balanced or unbalanced 150 Ohms nominal, PIN 2 high
Bypass: True power off bypass
Headroom: +23 dB peak @ 4 dBV nominal input, balanced
I/O Connectors: XLR-3 and 1/4" TRS

PERFORMANCE**

Frequency response: 20 Hz – 20 KHz +/- 0.3 dB
Gain matching: +/- 0.2 dB
SNR - Dynamic Range: >100 dB
THD: .005% at 1 KHz
< 0.01% 20 Hz – 10 KHz
< 0.025% 10 KHz – 20 KHz
Dynamic Range: >105 dB

*Below approximately 200 Hz the feedback filters become slightly wider to increase the feedback and rumble capture speed at these low frequencies.

**Tests performed using an Audio Precision System One model 322 or equal.

POWER INPUT

230 VAC: 200 – 240 VAC 50/60 Hz

FUSE

230 VAC: 0.1 A, 10 W, 0.160 A SB fuse

DIMENSIONS

1-U rack mount; 19 x 1.75 x 6.25 in. nominal (rack mountable);
48.3 x 4.5 x 15.9 cm nominal

WEIGHT

8.0 lbs. (3.6 kg) nominal

OPERATING TEMPERATURE

Safe operating temperature: -15 to +50 degrees centigrade
ambient temperature (5 to 122F)

Architect's and Engineer's Specifications:

The automatic feedback controller shall be a single channel digital signal processor with twelve 1/10- or 1/5- octave filters (selectable). The filters shall be constant Q (filter skirts do not widen as the filters get deeper). The unit may be used on the whole mix, on sub-groups, or on selected insert points. It shall automatically sense feedback and determine its pitch, then assign a digital notch filter to the resonating frequency to automatically eliminate the feedback. The product shall include SMARTFilter technology that effectively distinguishes between music and feedback, and it shall be operational during the program. It shall use two types of user-selectable notch filters: "fixed" or "dynamic." The fixed filters shall remain set on the initial feedback frequencies, while the dynamic filters shall be automatically reassigned new frequencies as feedback occurs during the program. The unit shall include the following: an Active/Bypass button and LED indicator, which allow the user to set the unit to control feedback (active mode) or take the unit out of the signal path so it has no effect on the program (bypass mode); signal level LEDs, which indicate the signal strength relative to the FBX's input clip level; a Setup button so all filters may be re-configured; a Reset Dynamics button to manually or automatically reset the dynamic filters; a Number Fixed button to select the total number of fixed filters to be activated; a Ready button and blue LED indicator, which allows the user to lock fixed filters created during system setup and to limit the total number of active filters; a Fifth Octave button to select wider filters; and a row of filter stage activity LEDs to indicate active filters. It shall include multi-color filter LEDs: amber for unlocked fixed filters, red for locked fixed filters, and green for dynamic filters. The product shall also be provided with a rear-mounted power switch, an A/C power input configured to operate at 230 VAC, and 1/4" TRS and XLR-3 balanced and unbalanced input and output. The FBX1220 shall incorporate a fast and quiet setup mode. The automatic feedback controller shall be the Sabine FBX1220 Feedback Exterminator.

(SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE)