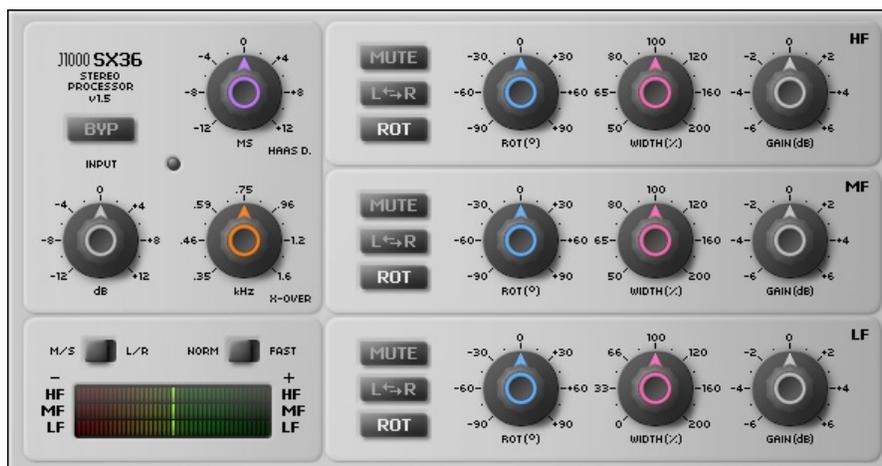


SX36 v1.5

THREE-BAND STEREO PROCESSOR



INTRODUCTION

SX36 is a three-band stereo processor. It separates input audio into low, mid and high frequencies and let's you manipulate their stereo properties - width and panning or rotation. Two crossover points are always at the same distance and their range of operation is limited so you never have to worry about overlapping or going to unusable extremes of spectrum. Visual metering is done separately for each range and can be switched between correlation (M/S) and panning (L/R) mode.

- Three spectrum ranges with stereo and gain controls;
- Choice between rotation and classic panning for each range;
- LF width control has extended range that goes to zero;
- Second order (12dB/octave) crossover to preserve spectrum continuity;
- Channel delay based on Haas effect ("Haas delay");
- Simple correlation and panning meters with two speeds of operation;
- 32-bit internal precision with zero latency and low CPU consumption;

USAGE

First thing you should adjust whenever you use SX36 is it's X-over frequency. This single knob (orange) determines both crossover frequencies. Lower crossover point is always at $F/4$, while higher is at $F*4$. For example, when X-over knob is in default position (750Hz) lower crossover point is at 188Hz ($750/4$), while higher is at 3kHz ($750*4$). Other way to look at it is that central frequency always lies in the middle of MF range. You can start by muting MF range and finding optimal position that produces balanced LF and HF ranges. That way you separate input audio into three roughly equal parts. Then, you can adjust stereo width, panning or rotation for each of them. Difference between panning and rotation is that former attenuates left or right channel, while latter rotates signal so that L/R gradually becomes M/S (or S/M). Rotation is default because it allows more creative approach than panning, often resulting in more interesting stereo image. You can flip input channels for each range with L<=>R buttons. Purple knob is channel delay based on Haas effect. By delaying one channel from 0 to 12ms you get the effect similar to panning toward the other channel. Take notice that bypass button deactivates stereo processing and haas delay, while crossover remains active, so you can judge applied processing for low, mid or high frequencies separately. Red/green meters show correlation and blue ones show stereo panning. You can change their speed with norm/fast switch. Small LED indicator turns orange at -3dBFS and red at 0dBFS. Use CTRL+mouse for fine adjustment of every knob and double-click to reset them to default positions.