



**Professional Digital Multi  
Effect Processor**

### **Advanced Hardware for Superior Sound**

The latest 20-bit analog-to-digital and digital-to-analog conversion technology-sampling at 44.1kHz. Frequency response extends all the way from 20 Hz to 20 kHz; dynamic range is an extraordinary 106dB; noise and distortion are negligible.

### **Stereo Configuration with Balanced Inputs and Outputs**

A true 2-in/2-out stereo configuration that allows stereo sources to be processed without disrupting the original stereo image. Stereo inputs and outputs are all electronically balanced, with XLR and TRS phone jack connectors.

### **Preset, Internal, and Card Memory**

180 memory locations "on board". 80 of these are read-only memory. The remaining 100 are writable memory locations. Plug-in memory cards hold an extra 100 effect programs each.

### **Three-stage Effect Configuration**

In addition to the main effects, the SPX990 provides programmable pre and post effects that can be used to refine and polish your sound.

### **In-depth Programming Power**

The SPX990 has 4 programmable pre effects, 36 programmable main effects, and 3 programmable post effects.

### **Tempo-based Delay Time Programming**

Delay time parameters can be programmed in terms of tempo or note length. Delay time can also be entered via a footswitch or MIDI clock data.

### **Superior Pitch Precision**

The SPX990 achieves faultless pitch tracking through a new dynamic waveform analysis technique. In addition to the simple parallel pitch tracking the SPX990's "intelligent" pitch change creates appropriate harmony based on a specified key and scale type.

### **External Parameter Control**

The SPX990 allows two selected parameters from each program to be assigned to two external MIDI controllers.

### **MIDI Control**

The SPX990 allows MIDI selection of all programs, and real-time control of up to two selected effect parameters at the same time.

### **4 Pre-Effects**

1. 3-band PEQ \*1, 2. Compressor \*1, 3. Harmonic Driver \*1, 4. Compressor, Dist. and EQ \*3 \*1= 2 IN - 2 OUT, \*2 = 1 IN - 2 OUT, \*3 = 1 IN, 1 OUT

### 36 Main Effects: Reverb, Early Reflections, Delay and Echo, Modulation

REVERB: Reverb \*2, Filtered Reverb \*2, Stereo Reverb \*1, Echo Room \*2; EARLY REFLECTIONS: Thin Early Reflection \*2, Fat Early Reflection \*2, Gate Reverb \*2, Reverse Gate \*2; DELAY and ECHO: Delay L, C, R \*2, Echo \*2, Multi Tap Delay \*2, Stereo Echo \*1, Tempo Mono Echo \*2, Tempo Stereo Echo \*1, Tempo Quad Echo \*1; MODULATION: Flanger \*1, Dual Flanger \*1, FM Chorus \*1, AM Chorus \*1, Phaser \*1, Symphonic \*1 \*1= 2 IN - 2 OUT, \*2 = 1 IN - 2 OUT, \*3 = 1 IN, 1 OUT

### Main Effects continued: Pitch Change, Pan, Complex Effects, Freeze

PITCH CHANGE: Mono Pitch Change \*3, Dual Pitch Change \*2, Triple Pitch Change \*2, Stereo Pitch Change \*1; PAN: Auto Pan \*2, Triggered Pan \*2; COMPLEX EFFECTS: Chorus and Reverb \*2, Symphonic and Reverb \*2, Flanger and Reverb \*2, Reverb (L) / Reverb (R) \*1, ER (L)/ Reverb (R) \*1, Echo (L) / Reverb (R) \*1, Chorus (L) / Reverb (R) \*1, Pan (L) / Pan (R) \*1; FREEZE: Freeze \*3 \*1= 2 IN - 2 OUT, \*2 = 1 IN - 2 OUT, \*3 = 1 IN - 1 OUT

### 3 Post Effects

1. 3-band PEQ \*1; 2. Compressor \*1, Harmonic Driver \*1 \*1 = 2 IN - 2 OUT

## Specifications:

Frequency Response	20 Hz - 20kHz +/-0.5 dB
Dynamic Range	Above 100 dB (typical 106dB)
Hum and Noise	Below -82 dBm (Typical -88dBm)
Distortion	Below 0.005% at max. level 1 kHz
Input/ Number Of Channel	2 (Phone Jack)
Input/ Nominal Level	+4/-20dBm (Switchable)
Input/ Highest Input	+24dBm (Switchable at +4dB)
Input/ Impedance	20 k ohm
Output/ Number of Channel	2 (Phone Jack)
Output/ Nominal Level	+4/-20dBm (Switchable)
Output/ Highest Output	+18dBm (Switchable at +4dB)
Output/ Impedance	150 ohm
A/D Conversion	20 bits
D/A Conversion	20 bits
Sampling Freq.	44.1kHz
Preset Program	1 - 80
User Memory Program	1 - 99,00
Optional Memory Card	1 - 99,00
Front Panel/ Control	Input Level (L,R), Data Entry
Front Panel/ Keys	Function Key x 6, Page Select Key x 2, Memory, Store, Edit, Bypass
Front Panel/ Display	2 ch. 8 segment LED (Level Meter) 6 segment LED (Mode Indicator) 7 segment LED (Memory No.) Memory, Edit, Bypass indicators 24 chara x 2 Line LCD
Front Panel/ Slot	Memory Card
Rear Panel/ Connectors	Input L/R (XLR x 2, Phone jack x 2) Output L/R (XLR x 2, Phone jack x 2) MIDI In, Thru/Out (DIN 5P x 2) Trigger (Phone Jack x 1) Bypass or INC/DEC (Phone Jack x 1)
Rear Panel/ Switch	In/Out Level Switch (+4dB/ -20dB x 2) MIDI Thru/ Out Switch
Power Requirements	US and Canadian Models: 120V, 60Hz British Model:240V, 50Hz General Model:230V, 50Hz
Power Consumption	25W
Dimensions	480 x 46 x 324.4 mm
(W x H x D)	(18-7/8" x 1-13/16" x 12-3/4") (including attachments)
Weight	4.6 kg (10lbs. 2oz)