

SPX2000

Digital Multi-effect Processor



SPX2000



Rear Panel



New-generation SPX effect unit with 24-bit 96-kHz processing and advanced REV-X reverb algorithms.

- Superb sonic quality with 24-bit/96-kHz processing throughout.
- 96-kHz DSP LSI with 32-bit internal processing (58-bit accumulator).
- 24-bit, 128-times oversampling AD and DA converters achieve 106 dB dynamic range and flat response from 20 Hz to 40 kHz at the 96-kHz sampling rate.
- REV-X reverb programs deliver the richest reverberation tone and smoothest decay available.
- In addition to a large range of ambience programs, including many that use the acclaimed REV-X reverb algorithms, the SPX2000 includes popular SPX programs such as gate reverbs, delays, pitch effects, modulation and other special effects.
- Other advanced algorithms – such as Multi-band Dynamic Processors – are inherited from the DM series Digital Production Consoles.
- Professional analog and digital audio I/O and control connectors.
- SPX2000 Editor software provides a common operating environment and interface for the SPX2000 and Yamaha digital mixing consoles.

OPTION

FC5
Foot Switch



GENERAL SPECIFICATIONS

Memory bank	PRESET: 97, USER: 99, CLASSIC: 27
Sampling frequency rate	Internal : 44.1kHz, 48kHz, 88.2kHz, 96kHz External: Normal rate: 44.1kHz (-10%) to 48kHz (+6%) Double rate: 88.2kHz (-10%) to 96kHz (+6%)
Signal delay	Less than 426µs INPUT to OUTPUT (@fs=96kHz)
Total harmonic distortion**1	Less than 0.05%, 20Hz to 20kHz @+14dBu into 600Ω (@fs=48kHz) Less than 0.05%, 20Hz to 40kHz @+14dBu into 600Ω (@fs=96kHz)
Frequency response	20Hz - 20kHz, +1, -3dB, @+4dBu into 600Ω (@fs=48kHz) 20Hz - 40kHz, +1, -3dB, @+4dBu into 600Ω (@fs=96kHz)
Dynamic range	106dB typ. AD+DA
Hum & noise level (20Hz to 20kHz), Rs=150Ω	-80dB residual noise
Crosstalk (@1kHz)	-80dB input to output
Power requirements	Japan: AC100V 50/60Hz, 25W North America: AC120V, 60Hz, 25W Other Areas: AC230V, 50/60Hz, 25W
Power consumption	25W
Dimensions (W x H x D)	480W x 45H x 372.5Dmm
Weight	4.0kg

*1 Total harmonic distortion is measured with a 18dB/Oct filter @80kHz.
*2 Hum & noise level is measured with a 6dB/oct filter @12.7kHz; equivalent to 20kHz filter with infinite dB/Oct attenuation.

ANALOG INPUT AND OUTPUT SPECIFICATIONS

Terminal	Level SW	Input Level VR.	Impedance	For use with nominal	Level		Connector
					Nominal	Max. before clip	
INPUT [L, R]	+4dBu	Nominal: 0dB	10kΩ	600Ω Lines	+4dBu	+24dBu	XLR3-31 type* TRS Phone Jack*
	-10dBu	Max: +10dB			-10dBu	+10dBu	
OUTPUT [L, R]	+4dBu	-	75Ω	600Ω Lines	+4dBu	+24dBu	XLR3-32 type* TRS Phone Jack*
	-10dBu	-			-10dBu	+10dBu	

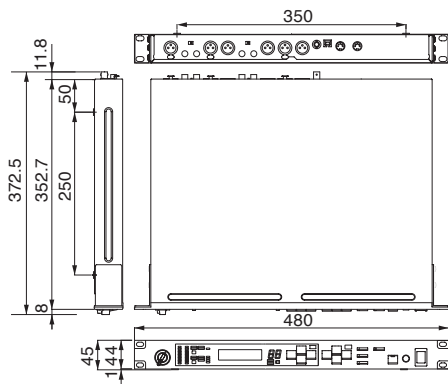
DIGITAL INPUT AND OUTPUT SPECIFICATIONS

Terminal	Format	Data Length	Level	Connector
AES/EBU (IN)	AES/EBU	24bit	RS422	XLR3-31 type
AES/EBU (OUT)	AES/EBU	24bit	RS422	XLR3-32 type

CONTROL I/O SPECIFICATIONS

Terminal	Format	Level	Connector
TO HOST	USB	USB 1.1 0	B Type USB Connector
MIDI	IN	MIDI	DIN Connector 5P
	OUT - THRU		DIN Connector 5P
WORD CLOCK	IN	TTL/75Ω	BNC Connector
FOOT SW	-	-	Phone Jack**

DIMENSIONS



unit : mm

EFFECT PROGRAM NO. LIST

No.	EFFECT NAME	CLASSIFICATION	LCD COLOR	No.	EFFECT NAME	CLASSIFICATION	LCD COLOR				
1	REV-X LARGE HALL	HALL	CYAN	52	GOOD OL P CHANGE	PITCH EFFECTS	MAGENTA				
2	REV-X MED HALL										
3	REV-X SMALL HALL										
4	REV-X TINY HALL										
5	REV-X WARM HALL										
6	REV-X BRITE HALL										
7	REV-X HUGE HALL										
8	AMBIENCE										
9	STEREO HALL										
10	VOCAL CHAMBER										
11	BRIGHT HALL										
12	BREATHY REVERB										
13	CONCERT HALL										
14	REVERB FLANGE										
15	REVERB STAGE										
16	REV-X VOCAL PLT	PLATE		61	SYMPHONIC	MODULATION					
17	REV-X BRIGHT PLT										
18	REV-X SNARE PLT										
19	VOCAL PLATE										
20	ECHO ROOM 1										
21	ECHO ROOM 2										
22	PRESENCE REVERB										
23	ARENA										
24	THIN PLATE										
25	OLD PLATE										
26	DARK PLATE										
27	REV-X CHAMBER	ROOM		78	DYNA FILTER	FILTER	YELLOW				
28	REV-X WOOD ROOM										
29	REV-X WARM ROOM										
30	REV-X LARGE ROOM										
31	REV-X MED ROOM										
32	REV-X SMALL ROOM										
33	REV-X SLAP ROOM										
34	FAT REFLECTIONS										
35	BIG SNARE										
36	BAMBOO ROOM										
37	REFLECTIONS										
38	STONE ROOM										
39	CONCRETE ROOM										
40	REVERSE PURPLE			GATE REVERB				79	M. BAND DYNA		
41	FULL METAL GATE										
42	REVERSE GATE										
43	DRUM MACH. AMB S	DRUM MACHINE REVERB		80	MULTI FILTER	DISTORTION					
44	DRUM MACH. AMB L										
45	ELECT. SNR PLAT										
46	MONO DELAY	DELAYS	WHITE	81	FILTERED VOICE	MULTIPLE					
47	120 BPM MONO DDL										
48	120 BPM X-DDL										
49	STEREO DELAY										
50	DELAY LCR										
51	KARAOKE ECHO										
82	DISTORTION										
83	AMP SIMULATOR										
84	DIST → FLANGE										
85	DIST → DELAY										
86	REV → CHORUS										
87	REV → FLANGE										
88	REV → SYMPHONIC										
89	REV → PAN										
90	DELAY → ER 1										
91	DELAY → ER 2										
92	DELAY → ER 1										
93	DELAY → ER 2										
94	DELAY → REV										
95	DELAY → REV										
96	RESO DRONE	SAMPLING		97	FREEZE						
97	FREEZE										

CLASSIC BANK

No.	EFFECT NAME	LCD COLOR	No.	EFFECT NAME	LCD COLOR
1	REV1 HALL	GREEN	14	TREMOLO	GREEN
2	REV2 ROOM				
3	REV3 VOCAL				
4	REV4 PLATE				
5	EARLY REF1				
6	EARLY REF2				
7	DELAY LR				
8	STEREO ECHO				
9	STEREO FLANGE A				
10	STEREO FLANGE B				
11	CHORUS A				
12	CHORUS B				
13	STEREO PHASING				
15	SYMPHONIC				
16	GATE REVERB				
17	REVERSE GATE				
18	REVERB & GATE				
19	PITCH CHANGE A				
20	PITCH CHANGE B				
21	PITCH CHANGE C				
22	PITCH CHANGE D				
23	FREEZE A				
24	FREEZE B				
25	PAN				