

MUSIC SYNTHESIZER
Modular Synthesis Plug-in System

S80

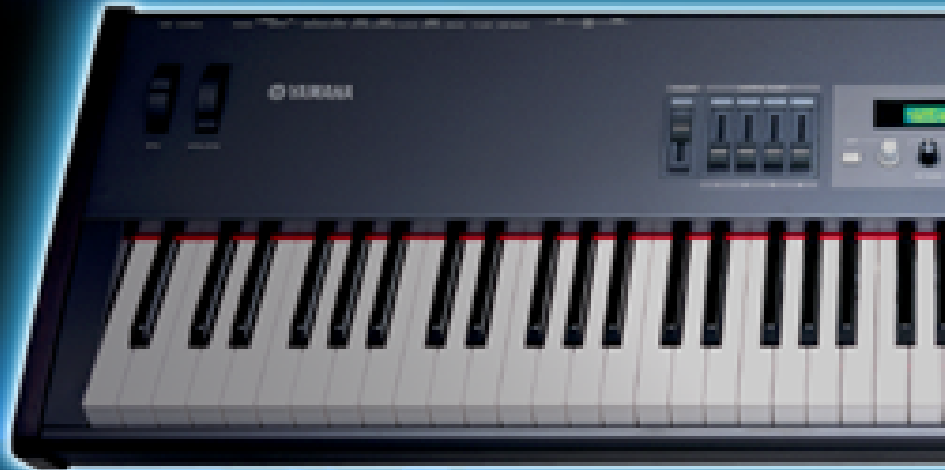


O n - S t a g e P e r f o r m a n c e

Whether you play in small clubs or large concert halls, the S80 is your ideal on-stage music partner. It's loaded with the most commonly used sounds for live playing—including a huge selection of pianos, organs, brass, strings and more. And by simply inserting a SmartMedia™ card into the back of the keyboard, you'll have an entire extra bank of voices and performances available at your fingertips. Putting the S80 in Master Keyboard mode will give you direct control of each voice part during your performance. Plus the Quick Access buttons make it easy to quickly find your favorite sounds on stage.

On-Stage Performance

Inspiration for



Project Studio

The S80 offers powerful support for a project studio. Not only does it provide you with a solid foundation of top-quality multi-timbral voices, it also gives you absolute control over your outboard MIDI equipment and allows simple computer connectivity through its built-in PC serial port interface. Plus, with its Modular Synthesis Plug-in System, the S80 is able to expand as your studio needs grow.

P r o j e c t S t u d i o

P r o f e s s i o n a l S t u d i o

Comprehensive MIDI capability. Superb voice quality. Unparalleled expandability. All these features make the S80 the instrument of choice for professional recording studios. Music producers will appreciate the ability to fully control external MIDI gear from one easy-to-use keyboard. And studio musicians are sure to fall in love with the S80's expressive voices and authentic piano action.

Professional Studio



Your Music Scene



Singer/Songwriters

The S80 offers complete musical inspiration for aspiring singer/songwriters. Its wide selection of expressive voices and straightforward user interface make it easy to get lost in musical thought, instead of getting lost in the manual. Plus its full keyboard and superb weighted action will make those used to playing on an acoustic piano feel right at home. And with the addition of the optional Vocal Harmony Plug-in Board, adding professional-sounding backup to your singing is a snap.

S i n g e r / S o n g w r i t e r s

Full-Size Keyboard with True Piano Action

For musicians who are used to playing on a real piano, the touch of the keyboard on the S80 is a dream come true. Engineers at Yamaha took great care in designing the keyboard to deliver the same feel and expression as that on a top-class acoustic piano. As a result, the S80 responds to the finest dynamics of your playing, from the lightest pianissimos to firmly struck fortissimos.

Top-Quality Selection of Essential Voices

In developing the S80, Yamaha was determined to satisfy the discriminating ears of true keyboard players. Consequently, its onboard sounds are some of the best available on the market today. All the essential voices you use most—organs, brass, strings, guitars and basses and, of course, a complete collection of pianos (including stereo-sampled pianos!)—are packed into the S80's wave memory. Also included is a full array of high quality drum sounds. And to ensure maximum expression and performance, the S80 features a dynamic digital effects processor and an incredible 64 notes of polyphony.

Quick Access

Looking for a particular organ sound to fit the mix? The intuitive Quick Access feature gives you instant access to specific categories of voices, such as pianos, guitars, and strings. With Quick Access, you can quickly find the type of sound you want without having to scroll through the keyboard's onboard voices one at a time.

Multi-Mode Resonant Filters

Resonant filters add dynamics and realism to a keyboard's sound and are a critical feature for any keyboard worthy of being called a synthesizer. The S80 takes the filter concept to whole new level by giving you 12 types of "multi-mode" resonant filters. Multi-mode filters allow you to assign a combination of filters to a voice; a low pass and high pass filter, for example. Not only does this provide you with more expressive, authentic-sounding voices, but it also adds more depth and punch to synthetic timbres as well.

Ultimate MIDI Control

The S80 gives you complete control over your MIDI setup. Four assignable data sliders and five assignable data knobs are provided for realtime control over any MIDI parameter. Pitch and modulation wheels are also provided, as well as 4 programmable keyboard zones and channel aftertouch. Entire MIDI setups can be stored in any of the keyboard's 128 memory locations for instant recall in the studio or on stage.

Arpeggiator

For added musical inspiration, the S80 is equipped with a MIDI arpeggiator—a feature not found in most 88-key synths. Along with standard arpeggiator sequences, such as Up, Down, and Up & Down, a wide variety of melodic phrase sequences and drum sequences are also included. Arpeggiator ON/OFF can be conveniently controlled via footswitch or MIDI control change.



A/D Input

Use the A/D input jack to input external audio sources, such as a microphone, guitar, or drum machine, into the S80. An A/D processor converts the analog signal to a digital signal, allowing you to take advantage of the S80's built-in digital effects, such as reverb and compression. And by installing the optional PLG100-VH Modular Synthesis Plug-in Board, you can have the S80 back up your singing performance with impressive three-part vocal harmony.

PC Serial Port Interface

The built-in TO HOST interface lets you connect the S80 to a personal computer, so you can take advantage of the wide variety of music software available on the market, including Yamaha's own XGworks music sequencing package and various voice editors for the PLG Series Modular Synthesis Plug-in Boards. The PC interface supports both Mac and PC platforms.

Playback Sequencer

The S80 features a built-in song sequencer that is capable of playing back Standard MIDI Files. By storing MIDI files onto a SmartMedia™ card, you can build up a library of up to one hundred songs, any of which can be instantly called up at the touch of a button. What's more, songs can include keyboard setups and performances, and can even be programmed for chained playback—extremely useful for playing live.

Modular Synthesis Plug-in System

The Yamaha Modular Synthesis Plug-in System is a whole new approach to keyboard expansion. Unlike conventional expansion boards, which only give you extra PCM samples, the PLG Series Modular Synthesis Plug-in Boards add a complete synthesizer or sound processing engine to the S80. As well as new synthesis capability, you also get more polyphony, extra multi-timbral capability, and new digital effects—in other words, you get a totally new synthesizer or effect processor at a fraction of the cost! Two expansion slots are provided on the S80, allowing you to customize the keyboard with the exact synthesis power you need.

Support Software Available on CD-ROM

Yamaha offers an CD-ROM that contains valuable support software for the S80. Applications include XGworks lite V3.0 music sequencing package, synthesizer editors, a card filer that allows you to easily manage all your SmartMedia™ data, and more—everything you need to take advantage of the S80's extensive music-making capabilities.

Windows/Macintosh hybrid CD-ROM. Included software applications may not be available for both platforms.



SmartMedia™ Storage

The S80 lets you conveniently store your voices and performance setups on ultra thin and compact SmartMedia™ cards. As well as giving you a much larger data storage capacity than a floppy disk, SmartMedia™ can also be used as an external memory bank for instant access to a wider selection of sounds.





Analog Physical Modeling Plug-in Board **PLG150-AN**

Reproduce the fat and funky sounds of vintage analog synths! This board gives you a synth engine similar to the one featured in Yamaha's amazing AN1x Analog Physical Modeling Synthesizer. On top of its full array of wave algorithms, resonant filters, LFOs, and envelope generators, it also has distortion and a 3-band equalizer. With the PLG150-AN, project and professional studios alike will be able to produce the killer synth sounds featured in today's hot dance tracks.

Tone Generator Type	AN (Analog Physical Modeling Synthesis)
Polyphony	5 notes
Voice	256 Preset 128 User
Effect	Guitar Amp. Simulator (Distortion), 3-Band EQ, XG Part EQ
Interface	Plug-in Connector (15-pin digital I/F connector)
Dimensions (W) x (D) x (H)	138.5 x 89.0 x 8.5 mm (5 9/16" x 3 5/8" x 3/8")
Weight	65g (2.3oz)



Piano Plug-in Board **PLG150-PF**

For the serious piano player, this Plug-in Board is loaded with hundreds of painstakingly sampled piano and keyboard voices—from concert grands and uprights to electric pianos and harpsichords. Two piano boards can be used together, effectively doubling piano polyphony to an incredible 128 notes! For professional recording studios that demand authentic piano sound but don't want to bother with a real piano, an S80 loaded with the PLG150-PF makes a perfect solution.

Tone Generator Type	AWM2
Polyphony	64 notes
Voice	136 Preset
Effect	Reverb, Chorus, Insertion, 2-Band EQ
Interface	Plug-in Connector (15-pin digital I/F connector)
Dimensions (W) x (D) x (H)	138.5 x 89.0 x 8.5 mm (5 9/16" x 3 5/8" x 3/8")
Weight	72g (2.5oz)



Virtual Acoustic Plug-in Board **PLG150-VL**

The Virtual Acoustic Modular Synthesis Plug-in Board lets you create incredibly expressive, natural-sounding voices by digitally simulating the physical characteristics of acoustic instruments. Thanks to its fabulous synthesis architecture, extensive realtime performance control of the voices is possible, making it the ideal Plug-in Board for keyboard soloists.

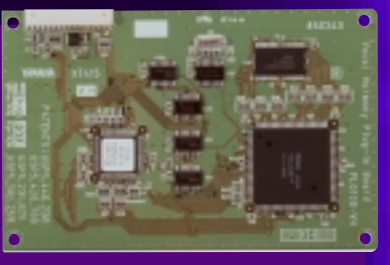
Tone Generator Type	SVA (Self-oscillating Virtual Acoustic Synthesis)
Polyphony	1 note monophonic
Voice	256 Preset 70 User
Interface	Plug-in Connector (15-pin digital I/F connector)
Dimensions (W) x (D) x (H)	138.5 x 89.0 x 8.5 mm (5 9/16" x 3 5/8" x 3/8")
Weight	56g (2.0oz)



Advanced DX/TX Plug-in Board **PLG150-DX**

Add the classic sounds of Yamaha's world-famous DX-7 synthesizer to the S80. The PLG150-DX features the same 6-operator, 16-note polyphonic FM tone generation system that took the synthesizer industry by storm. This board is a must-have for performing keyboard players and producers of contemporary music.

Tone Generator Type	FM Synthesis
Polyphony	16 notes
Voice	912 Preset 64 User
Effect	Part EQ, Lowpass, Highpass
Interface	Plug-in Connector (15-pin digital I/F connector)
Dimensions (W) x (D) x (H)	138.5 x 89.0 x 8.5 mm (5 9/16" x 3 5/8" x 3/8")
Weight	63g (2.2oz)



Vocal Harmony Plug-in Board **PLG100-VH**

The PLG100-VH adds powerful harmony or vocoder effects to your voice by simply plugging a microphone into the S80's A/D input and playing chords on the keyboard. Harmony interval changes can be recorded in a sequencer track for automated playback—a dream tool for performing vocalists or for singer/songwriters who want to compose and record songs at home.

Maximum Harmony	3 voices
Effect	Vocoder Harmony, Detune Harmony Chordal Harmony, Chromatic Harmony
Voice Control	Gender change (male → female, female → male) Vibrato, Volume, Pan, Detune
Interface	Plug-in Connector (15-pin digital I/F connector)
Dimensions (W) x (D) x (H)	138.5 x 89.0 x 8.5 mm (5 9/16" x 3 5/8" x 3/8")
Weight	53g (1.9oz)



XG Plug-in Board **PLG100-XG**

This Plug-in Board gives you over 400 professional-quality sampled voices and 21 drum kits as well as 32 additional notes of polyphony. Plus it fully supports XG MIDI specifications, so you can use it to play back XG SMF MIDI song files from an external sequencer or the S80's internal sequencer. Home recording hobbyists in particular will find this Plug-in Board an indispensable addition to the S80.

Tone Generator Type	AWM2
Polyphony	32 notes
Voice	Preset normal: 480, drum kits: 12
Effect	Reverb, Chorus, Variation
Connector	Plug-in Connector (15-pin digital I/F connector)
Dimensions (W) x (D) x (H)	138.5 x 89.0 x 8.5 mm (5 9/16" x 3 5/8" x 3/8")
Weight	56g (2.0oz)

S80 Specifications

FUNCTIONS

Keyboard	88 Keys/Initial Touch/Aftertouch	
Tone Generator	AWM2	
Multitimbre	16 + 1 (A/D) + 2 (Plug-in)	
Polyphony	64 Notes	
Effect	Reverb: 12	
	Chorus: 23	
	Insertion Effects: 92	
	Insertion Effects for Plug-in Boards: 24	
	Master Equalizer: 4	
Voice	Preset Bank	normal: 256, drum kits: 8
	User Bank	normal: 128 (Internal) + 128 (External) drum kits: 2 (Internal) + 2 (External)
	Plug-in 1, 2 User Bank	normal: 64 (Plug-in 1), 64 (Plug-in 2)
Performance	User Bank	128 (Internal) + 64 (External)
	4 Zones (Master Keyboard Settings)	
	19 Parts (16 + Plug-in 1 + Plug-in 2 + A/D) *Part Layers: Max. 4	
Arpeggiator	128 Types (MIDI Sync, MIDI TX, RX, Velocity Rate, Gate Time Rate, Unit)	
Sequencer	SMF Playback (Format 0) Direct Play Only	
Expandability	2 Slots for Plug-in Boards	
Other	Quick Access Program Change (8 Categories)	
	[A.PIANO], [E.PIANO], [ORGAN], [GUITAR & BASS], [STRINGS], [BRASS], [SYNTH], [OTHERS]	

EXTERNAL MEMORY

Card	SmartMedia™	3.3V
------	-------------	------

CONTROLLERS

Pitch Bend Wheel	1
Modulation Wheel	1
Assignable Sound Control Slider	4
Volume Slider	1
Assignable Knob	5
Data Entry/Page Knob	2
A/D Gain	1

CONNECTORS & TERMINALS

OUTPUT	Phone Jack x 2
INDIVIDUAL OUTPUT	Phone Jack x 2
A/D INPUT	Phone Jack x 1
BREATH CONTROLLER	1
FOOT VOLUME	1
FOOT CONTROLLER	1
SUSTAIN	1
FOOT SWITCH	1
MIDI	IN/OUT/THRU
TO HOST	Mini Din x 1
PHONES	Stereo Phone Jack x 1

DIMENSIONS, WEIGHT

1329 (W) x 371 (D) x 157 (H) mm, 24.3kg
52 5/16" x 16 5/8" x 6 3/16", 53 lbs. 8oz.

ACCESSORIES

CD-ROM x 1

Descriptions and photographs in this brochure are for informational purposes only.
Specifications are subject to change without notice.
SmartMedia is a trademark of Toshiba Corporation.



For details please contact:



YAMAHA

YAMAHA CORPORATION
P.O.BOX 1, Hamamatsu Japan