

For details please contact:



# CFE000

MUSIC PRODUCTION SYNTHESIZER

Integrated Sampling Sequencer

Real-time External Control Surface

Modular Synthesis Plug-in System



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JQA-1868  
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MODULAR SYNTHESIS  
PLUG-IN SYSTEM

# Audio Phrases, MIDI Patterns, Sample Loops . . . MOTIF Puts All the Pieces Together!

Musical inspiration can come from just about anywhere—a simple guitar riff, an arpeggiated synth sequence, a sampled vocal phrase. . . Such musical ideas, known as motifs, are the building blocks of all musical creation. Yamaha's MOTIF Music Production Synthesizer gives you the power to put your motifs together and freely arrange them in ways never before imagined.

The concept behind MOTIF is simple: Make the music creation process as easy and intuitive as possible, from conception to final creation. MOTIF achieves this by providing you with a vast palette of onboard sounds, extensive real-time control, and an integrated approach to sequencing that allows you to seamlessly record, edit, arrange and process both MIDI data and audio samples using a unified set of editing tools and functions. Thanks to this streamlined approach to music making, getting your motifs into the keyboard and putting the pieces together is easier than ever. It doesn't matter where you start. With MOTIF, you can freely record MIDI and audio phrases into the sequencer and combine and arrange them any way you'd like—tweaking the groove, changing the tempo, and adding effects all along the way. And where you end. . . well, that's entirely up to you!

**MOTIF — it's the shortest distance between inspiration and creation.**



# Great Sound

MOTIF was developed to be the best sounding synth on the market—period. Its astounding 84 MB wave ROM (when converted to 16-bit linear format) contains many of the best waveforms from Yamaha's highly acclaimed S80, 9000 Pro and EX Series synthesizers. Plus there's a wealth of new and improved waves, including many of the drums from the brand new RS7000 Music Production Studio, to give you the most complete range of sounds ever available in one keyboard.

## Superb Sounding Voices—and Tons of Them!

From incredibly realistic stereo acoustic instruments like pianos, drums, strings and brass to never-before-heard dance sounds and lush ambient textures, the breadth of MOTIF's sonic palette is absolutely stunning. There's even a convenient General MIDI set for playing back Standard MIDI Files. And with room for up to 3 Modular Synthesis Plug-in System expansion boards and advanced integration capabilities (a selection of optimum voices for each Modular Synthesis Plug-in System board is already stored in MOTIF's OS), MOTIF can expand as your needs grow.



## Outstanding DSP Effects

Yamaha has long been a world leader in digital signal processing technology, and MOTIF boasts one of the most advanced DSP chips ever available in a keyboard. Two sets of Insertion Effects—one with over 100 effect types and the other with 24—can be applied individually to each voice part. In addition, you can mix in your choice of Reverb, Chorus and a Variation Effect with separate levels for each track. And if you install an effect processing plug-in board, such as the PLG100-VH Vocal Harmony plug-in board, you'll also have a special Plug-in Insertion Effect at your disposal. There's even a 5-band Master Equalizer function, which lets you fine tune your sound to achieve a professional-sounding mix every time.



## Keyboard Action for Professional Musicians

True piano players can appreciate playing on a synthesizer with realistic hammer action. Yet, conventional weighted keyboards, although ideal for piano sounds, are not practical for playing voices such as drums and basses because the lower keys generally have a heavier touch. The MOTIF8's Balanced Hammer Effect keyboard, however, has been specially designed to accommodate the need for both weighted feel and quick response across the entire length of the keyboard, so you can enjoy smooth keyboard action regardless of which voice you play. Likewise, the keyboards of the MOTIF6 and 7 use Yamaha's highly acclaimed synth-weighted keyboard, which delivers the superb, responsive action demanded by professional musicians.

## Category Search Function

MOTIF features an improved Category Search function, giving you quick access to the sounds you want. Simply select a voice category, such as pianos or strings, and you'll be able to browse through all the related voices one by one. A new Favorites category has been added, into which you can store the voices you use most.



### MOTIF Voice Categories

Ap	A.PIANO	Ld	SYN LEAD
Kb	KEYBORD	Pd	SYN PAD/CHOIR
Or	ORGAN	Sc	SYN COMP
Gt	GUITAR/PLUCKED	Cp	CHROMATIC PERCUSSION
Ba	BASS	Dr	DRUM/PERCUSSION
St	STRINGS	Se	SE
Br	BRASS	Me	MUSICAL FX
Rp	REED/PIPE	Co	COMBI

# Total hands-on control

Designed for contemporary music production, MOTIF gives you extensive control over every step of the production process—not just within the keyboard itself, but externally as well.

## Extensive Real-time Control

MOTIF sports 4 physical slider and 4 physical knobs on its front panel, which work as 16 virtual knobs and 16 virtual sliders when used with the keyboard's expanded real-time control functions. In any mode, you can readily edit the Reverb, Chorus, Pan, Cutoff, Resonance, Attack, Release and EQ as well as 4 user-assignable parameters. In Mix mode, these sliders and knobs work in conjunction with the Track Select buttons to give you all the capabilities of a 16 channel digital mixer. With MOTIF you can really get your hands on your music.



In Mix mode, MOTIF's knobs and sliders function as a 16-channel digital mixer.



Remote Control



USB Cable

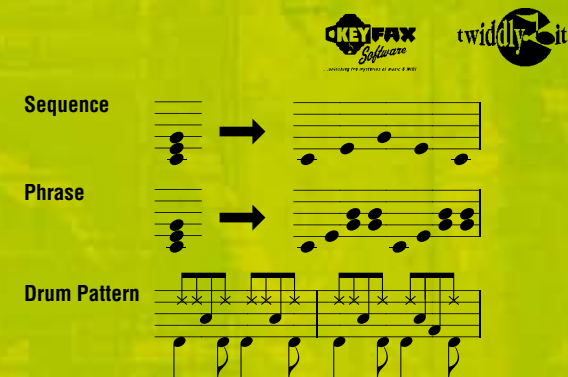
## Real-time External Control Surface

For those who use popular software-based sequencers, MOTIF is a dream come true. By placing the unit in Remote Control mode, you'll be able to control your favorite sequencing software, including Logic Audio®, Cubase VST™, Cakewalk Pro Audio™ and Pro Tools®, right from MOTIF. Mute your tracks, control the sequencer transport, mix both MIDI and audio tracks with the keyboard's knobs and sliders—all without ever picking up a mouse!

Simply press the Remote Control button and MOTIF's knobs, sliders and sequencer transport buttons will control the music production software on your computer (Logic Audio®, Cubase VST™, Cakewalk Pro Audio™ or Pro Tools®)

## Interactive Arpeggiator

MOTIF's newly designed arpeggiator lets you add even more expression to your playing. On top of an extensive range of rhythmic sequences, it also features "human" patterns such as the strumming of a guitar or the trilling of a flute. Instead of trying to duplicate these performances with complicated algorithms, MOTIF creates them by using real MIDI data recorded by real musicians. There's even a velocity window, which can be set to trigger an arpeggiated sequence depending on how hard you play the keyboard. This opens up unprecedented possibilities for real-time performance; for example, while playing a lead guitar voice, you could trigger a sampled MIDI guitar phrase on the fly. Because the arpeggiator is integrated into MOTIF's system, you can easily integrate arpeggio performances into your sequences and even import new arpeggios from SMF files. MOTIF even includes many of KEYFAX software's high-quality Twiddly Bits MIDI samples.



## Master Mode

MOTIF's Master mode provides 128 Master Programs for you to store Voices, Performances, Patterns, or Songs. Master Programs can also contain settings for using MOTIF as a 4-zone MIDI master controller. This makes it easy to set up a complete live gig or studio session without having to move from mode to mode.

# The Heart of MOTIF: the Integrated Sampling Sequencer



In this age of digital production, cutting and pasting different sections of music and audio together is an integral part of the music making process. MOTIF presents a totally new approach to this method of song building with its Integrated Sampling Sequencer (ISS)—an intuitively designed recording system that seamlessly combines the audio sampling and MIDI sequencing processes, giving you unprecedented freedom for creating music.

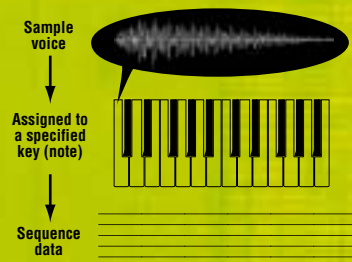
## Integrated Sampling Sequencer

With conventional sampling/sequencing workstations, composing songs can be a long and cumbersome process because these keyboards usually separate audio recording from MIDI recording (i.e., Sampling mode and Sequencer mode). MOTIF, on the other hand, lets you sample audio directly into your sequencer at any point. Simply press the Integrated Sampling button, select a destination track and record—MOTIF will automatically store the audio as a Sample Voice and record the necessary note data into the assigned sequencer track!

MOTIF has two distinct ways of recording audio phrases into the sequencer: **Sample with Note** and **Slice with Sequence**.

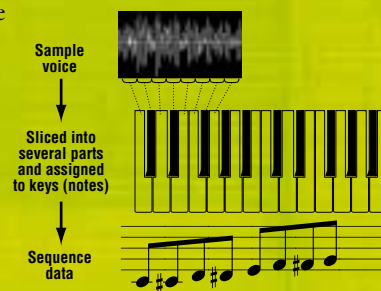
### Sample with Note

Sample with Note is ideal if you simply want to add audio phrases to your song. In this mode, you can record vocal and guitar phrases directly into your sequence while listening to playback of any MIDI tracks you've already created. After recording the audio phrase, the Integrated Sampling Sequencer will automatically create a sample voice, map it to the keyboard and put a MIDI note in the sequence at the appropriate time. If you would like to play the same audio phrase later in the song, you can simply trigger it with a MIDI note instead of having to sample it again and use up valuable sample RAM. When you make your final arrangement, your phrases will play back in perfect time.



### Slice with Sequence

Slice with Sequence takes the Integrated Sampling Sequencer concept even further. In this case, when you record audio phrases, MOTIF will analyze the recorded audio sample, slice it into pieces (based on amplitude peaks and divisions of the beat) and then generate an extremely accurate MIDI sequence to perfectly re-trigger each of the pieces. This is the key to MOTIF's seamless integration of audio sampling and MIDI. Once this process has completed, you can change the tempo of your sequence without changing the pitch of the recorded audio sample, or use grids to change the clock, gate and velocity values of notes within a sampled drum loop, for example. Simply put, you have all the flexibility of MIDI with the accuracy and realism of audio sampling!

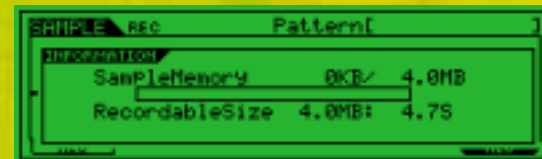


### Resampling

MOTIF also has a Resampling function, which allows you to record the audio signal of MOTIF's stereo outputs. Use this function to record a group of voices in Performance mode or record the output of the sequencer—in other words, turn MIDI data into sampled audio phrases. By using the "Punch In and Out Sample by Measure" feature, you can automatically create perfect sample loops every time.

### Large Sampling Capacity, Wide Compatibility

MOTIF comes standard with 4 MB of sampling memory and can be increased up to 64 MB using standard PC SIMMs for a maximum total sampling time of 6 minutes and 20 seconds (stereo, 44.1kHz). In addition to recording samples with the Integrated Sampling Sequencer, you can import samples in AIFF and WAVE format. MOTIF also provides comprehensive import functions for Akai S1000/S3000 and Yamaha A3000/A4000/A5000/SU700 samplers, including the ability to read sample maps and voice parameters. This instantly expands the sound library for MOTIF to hundreds of commercially available sample CD-ROMs.



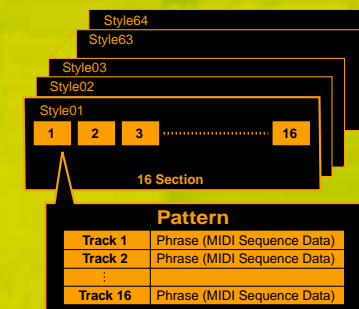
## Song Mode

Song Mode lets you record MIDI and sample data in linear fashion from beginning to end (the way analog tape machines worked). With a 111,000 MIDI note capacity and a maximum total sampling memory of 6 minutes and 20 seconds in stereo at 44.1kHz (with two 32 MB SIMMs installed), MOTIF can easily handle this linear production approach, which is popular with more traditional kinds of music. To facilitate song arrangement in this mode, you can use Scene Memory to recall track settings such as mute, solo, volume and panning.



## Pattern Mode

This mode lets you easily create the sections of your song (Verse, Chorus, Bridge, Breaks, etc.) as individual elements without having to decide on a final arrangement. Pattern Mode features 16 Sections, each of which is composed of 16 Phrases. Each phrase can have its own loop length, which means that you can have a 4 bar drum phrase, a 16 bar bass phrase and a 32 bar piano phrase all in the same Section, for example. Phrases can be up to 256 measures in length.



## Real-time Pattern Chain Record

Once you've recorded all your MIDI and audio sample parts, you can arrange your song in real-time using MOTIF's Section, Mute and Song Scene buttons to instantly hear the different possibilities. Even better, you can record these performances as Pattern Chains and then edit them with detailed event editing or convert them to linear song formats like SME. If you've ever used a groove-oriented box such as the RM1x, you know how this hands-on approach to song creation and remixing can inspire new ideas.



MOTIF6

MOTIF7

MOTIF8

TRACK02

# Unprecedented expandability

Whether you use MOTIF at the center of your MIDI studio or as part of a larger setup, its extensive expansion capability makes it easy to upgrade to meet the exact needs of your production environment.

## Built-in USB MIDI Interface



MOTIF is ready to connect to your iMac, G4 or newer G3 Macintosh computer as well as any USB-equipped Windows® PC (Windows® 98 or later).

## SmartMedia™ Card Slot



Easily store your samples on a SmartMedia™ card and transfer them to your personal computer for editing. This storage method also makes it easy to save and load Standard MIDI Files. SmartMedia™ card capacities up to 128 MB are supported.

## SCSI Port for Connection to External Storage Devices



Connect an external ZIP™, MO, or hard drive to MOTIF for easy storage of large amounts of sample data as well as for convenient file exchanging with your computer. By connecting a CD-ROM drive, you'll be able to load data from sampling CDs directly into MOTIF. MOTIF's SCSI interface has been newly designed to provide the fast loading times expected by professional musicians.

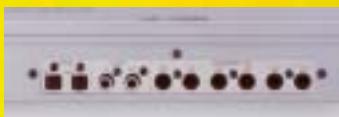
## Modular Synthesis Plug-in System Slots x 3



MOTIF is equipped with 3 expansion slots, allowing you to customize it with the exact combination of synthesis you need—whenever you need it!

Unlike conventional synthesizer expansion systems, Yamaha's Modular Synthesis Plug-in System lets you upgrade MOTIF with completely new synthesizer or sound processing "engines." Each expansion board is equipped with a full-fledged synthesizer or digital effects processor, so not only do you get more sounds and effects, but also more polyphony and additional multi parts—without taking any processing power away from the keyboard itself. The plug-in voice data of every PLG Series expansion board is already stored in the keyboard's ROM, so you'll have a great selection of additional sounds the moment you install any new plug-in board.

## Digital I/O / Multi-Out Expansion



The new AIEB2 interface board expands MOTIF with 6 assignable outputs in addition to its 4 standard outputs (main stereo outputs + 2 assignable outputs) for a total of 10 outputs. This board also adds digital inputs and outputs to MOTIF.

## Connect to the Future of MIDI and Audio — mLAN

Yamaha's mLAN is the future of MIDI and audio interfacing, making it possible to link together all your digital audio and MIDI data through a single high-bandwidth cable. MOTIF is ready for both the present generation of mLAN expansions and future mLAN products, so you'll be able to stay current with future possibilities.



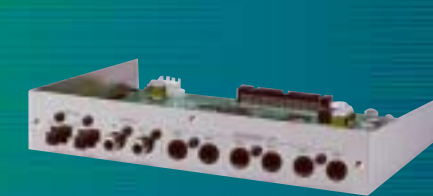
## EXPANSION BOARDS

### mLAN Expansion Board mLANSE



The mLANSE is an expansion board for compatible Yamaha digital musical instruments. It provides the interface hardware and connectors required to connect the instrument in which it is installed to an mLAN network.

### I/O Expansion Board AIEB2



The AIEB2 high gain Digital I/O / Multi-Out Expansion Board gives you 6 assignable analog audio outputs with 24-bit DA conversion as well as both optical and S/PDIF digital outputs.

### Analog Physical Modeling Plug-in Board

#### PLG150-AN

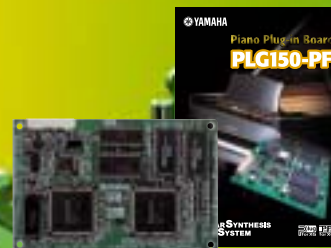
The PLG150-AN is a powerful analog physical modeling synthesizer similar to Yamaha's acclaimed AN1x. On top of a full array of EGs, filters, and LFOs, it also has distortion and a 3-band EQ.



### Piano Plug-in Board

#### PLG150-PF

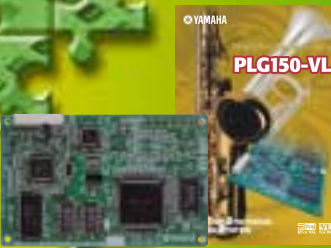
The ultimate expansion board for serious piano players, the PLG150-PF is loaded with hundreds of superb piano and keyboard voices. Multiple PLG150-PFs can be installed to provide up to 192 notes of piano polyphony.



### Virtual Acoustic VL Plug-in Board

#### PLG150-VL

Virtual Acoustic synthesis digitally simulates the physical characteristics of acoustic instruments and provides extensive real-time control to create incredibly expressive, natural-sounding voices.



# MODULAR SYNTHESIS PLUG-IN SYSTEM

### Advanced DX/TX Plug-in Board

#### PLG150-DX

Get the classic sounds of Yamaha's renowned DX-7 synthesizer. The PLG150-DX features the same 6-operator, 16-note polyphonic FM tone generation system that took the synthesizer industry by storm.



### XG Tone Generator Plug-in Board

#### PLG100-XG

This plug-in board upgrades MOTIF to full XG MIDI specifications. It provides over 400 voices, 12 drum kits and 32 additional notes of polyphony.



### Vocal Harmony Plug-in Board

#### PLG100-VH

Use this plug-in board along with a microphone to add powerful harmony and vocoder effects to your voice. Harmony notes can be recorded in a sequencer track for automated playback—ideal for live performance.



# Bundled Software and Accessories

## Tools for MOTIF6/MOTIF7/MOTIF8



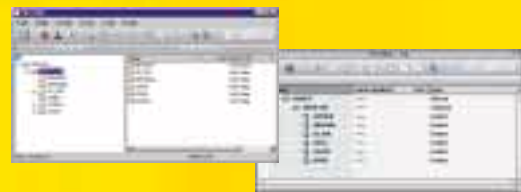
### Voice Editor for MOTIF

With the included Voice Editor, you can edit MOTIF's voices and effects in full detail through an easy-to-understand graphical user interface on your computer. This software can also function as a voice librarian, allowing you to store an unlimited number of voices right on your Mac or PC.



### File Utility

The File Utility lets you use your computer to access and manage data stored on SmartMedia™ and any SCSI devices connected to MOTIF. Through convenient computer control, you can browse, delete and rename files on a memory card or disk, and convert Standard MIDI Files from format 1 to format 0.



## Modular Synthesis Plug-in System Demo Song Collection



Also bundled with MOTIF is an audio CD containing demo songs of Yamaha's Modular Synthesis Plug-in System boards. If you're thinking about adding plug-in boards to your MOTIF, this CD makes a great reference.

### MODULAR SYNTHESIS PLUG-IN SYSTEM

### TWE Wave Editor



Yamaha's TWE wave editing software lets you edit any audio samples recorded with MOTIF with precision accuracy on your computer screen. Using a SmartMedia™ card or other removable storage device such as a Zip™ drive, simply import the samples you want to edit and use TWE's comprehensive editing functions to alter and enhance them to your liking. Then bring the new audio back into MOTIF and mix it with your MIDI tracks.

### Cutting-edge Dance Loops from e-LAB

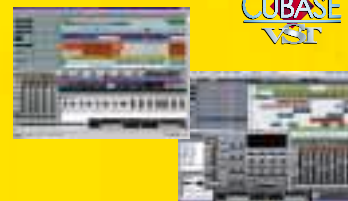


Produced by e-LAB, Sweden's world-renown dance loop maker, this special sampling CD is packed with audio samples covering the entire dance music spectrum, from hard driving break beats to chilled out ambient vibes. All samples on this CD have been carefully selected for use with the Slice function of MOTIF's Integrated Sampling Sequencer.

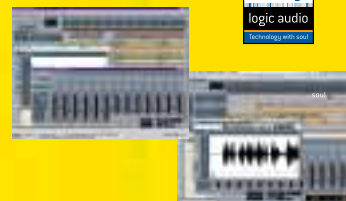
### Software Sequencer Demos

Even if you don't yet own a sequencing software package, you can still experience the power of using MOTIF with a professional computer sequencer—right out of the box. A bundled software CD-ROM includes demo versions of Cubase VST™ and Logic Audio®, so you can try them out and see which one is best for you.

#### Cubase VST™



#### Logic Audio®



## ACID™ Xpress for Yamaha



### ACID™ Xpress



MOTIF comes bundled with a full working version of ACID™ Xpress, loop-based music production software from Sonic Foundry. Also included are 25 wave file loops for ACID that you can import into MOTIF for use in your original music.



# Specifications

## MOTIF6 / MOTIF7 / MOTIF8

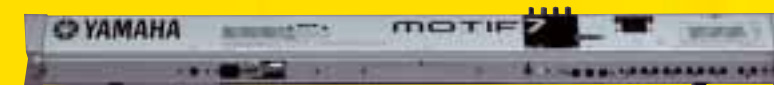
<b>Keyboards</b>	MOTIF8 MOTIF7 MOTIF6	88 keys, Balanced Hammer Effect Keyboard (Initial Touch/Aftertouch) 76 keys, FS Keyboard (Initial Touch/Aftertouch) 61 keys, FS Keyboard (Initial Touch/Aftertouch)
<b>Tone Generator</b>	Synthesis Type	AWM2, Modular Synthesis Plug-in System
	Polyphony	62 Notes (Expandable with Modular Synthesis Plug-in System boards)
	Multitimbres	16 parts (internal) + 3 or more Plug-in Board parts (1 for each Single Plug-in Board; 16 for Multi Plug-in Boards), A/D Input
	Voices	Preset: 384 normal voices + 48 drum kits GM: 128 normal voices + 1 drum kit User: 128 normal voices + 16 drum kits Plug-in Preset Bank: 64 (for AN, PF, DX), 192 (for VL) Plug-in User Bank: 64 (for each Plug-in Slot)
	Performances	User: 128 (up to 4 parts)
	Filter	21 types
	Effects	Reverb x 12 types, Chorus x 25 types, Insertion 1 x 25 types, Insertion 2 x 104 types, Variation x 25 types (available for Performance/Song), Master Equalizer (5 bands), Plug-in Insertion (available when the PLG100-VH is installed in slot 1)
	Expandability	3 Slots for Modular Synthesis Plug-in Boards
<b>Sampler</b>	Maximum samples	256 Waveforms (Multi Samples) 128 Key Banks per Waveform 8,192 Key Banks
	A/D Conversion	20-bit, 64x oversampling
	D/A Conversion	24-bit, 128x oversampling
	Sampling Frequencies	44.1kHz, 22.05kHz, 11.025kHz, 5.5125kHz (Stereo/Mono) • Sampling frequencies of 48kHz, 44.1kHz, and 32kHz can be input digitally when the AIEB2 is installed. • A sampling frequency of 44.1kHz (fixed) can be input digitally when the mLAN8E is installed.
	Sampling Memory	4MB, expandable to 64MB (32MB SIMM x 2 Slots) Note: The original 4MB are disabled when a pair of 32MB SIMMs is installed.
	Maximum Sample Length	Mono: 32 MB, Stereo: 64 MB
	Maximum Sample Time	(With two 32MB SIMMs installed) 44.1kHz: 6 min. 20 sec., 22.05kHz: 12 min. 40 sec., 11.025kHz: 25 min. 20 sec., 5.0125kHz: 55 min. 40 sec. Figures are for both mono and stereo samples.
	Sample Format	Original format, WAV, AIFF, A3000/4000/5000/SU700 format (loadable only via SCSI), AKAI S1000/S3000 format (loadable only via SCSI)

<b>Sequencer</b>	Memory Capacity	Approx. 111,000 notes
	Note Resolution	480ppq
	BPM (Tempo)	1 – 300
	Recording Mode	Real-time replace, Real-time overdub (Except for Pattern Chain), Real-time punch (Song only), Step (Except for Pattern Chain)
	Tracks	Pattern Mode: 16 phrase tracks Pattern Chain Mode: Pattern track, Tempo track, Scene track Song Mode: 16 sequence tracks (Loop on/off can be set for each track), Tempo track, Scene track
	Patterns	User Patterns: 1024 (64 styles x 16 sections) Measures: 256 maximum
	Phrases	Preset Phrases: 128 Drum Phrases User Phrases: 256 per style
	Songs	64 songs
	Arpeggiator	Preset 1 x 128 types, Preset 2 x 128 types, User x 128 types MIDI Sync, MIDI Transmit/Receive Channel, Velocity Limit, and Note Limit can be set.
	Scene Memory	5 per Song
	Sequence Format	Original format, SMF format 0, 1 (Format 1 load only)
<b>Others</b>	Master	User: 128
	Sequence Software	controllable via the Remote Control function • For Windows® Cubase VST™ 5.0, Logic Audio® Platinum 4.6, Cakewalk Pro Audio™ 9.0, Pro Tools® V5.0 • For Macintosh® Cubase VST™ 5.0, Logic Audio® Platinum 4.6, Pro Tools® V5.0
	External Memory	Smart Media™ (3.3V) Card capacities up to 128MB are supported.
	Connectors	OUTPUT L/MONO, R (1/4" Jack), ASSIGNABLE OUTPUT L, R (1/4" Jack), AD INPUT L, R (1/4" Jack), PHONES (Stereo 1/4" Jack), FOOT CONTROLLER 1, 2, FOOT SWITCH x 2 (SUSTAIN, ASSIGNABLE), BREATH, MIDI IN/OUT/THRU, SCSI, USB, OPTICAL OUTPUT, AC INLET
	Dimensions, Weight	MOTIF8: 1,458(W) x 465(D) x 166(H) mm, 28.0 kg (57 3/8 x 18 1/4 x 6 1/2", 62 lbs.) MOTIF7: 1,255(W) x 397(D) x 135(H) mm, 18.1 kg (49 3/8 x 15 5/8 x 5 1/4", 39 7/8 lbs.) MOTIF6: 1,048(W) x 397(D) x 135(H) mm, 15.8 kg (41 1/4 x 15 5/8 x 5 1/4", 34 3/4 lbs.)
	Accessories	Tools for MOTIF6/MOTIF7/MOTIF8 CD-ROM x 1 (incl. e-Lab audio data) Modular Synthesis Plug-in System Demo Songs Collection Audio CD x 1 ACID™ Xpress for Yamaha CD-ROM x 1

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MOTIF6



MOTIF7



MOTIF8

