YAMAHA

MUSIC SYNTHESIZER

MONTAGE

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SHARING PASSION & PERFORMANCE

Music in Motion

Welcome to the new era in Synthesizers from the company that brought you the industry-changing DX and the hugely popular Motif.

Building on the legacy of these two iconic keyboards, the Yamaha MONTAGE sets the next milestone for Synthesizers with sophisticated dynamic control, massive sound creation and streamlined workflow all combined in a powerful keyboard designed to inspire your creativity.
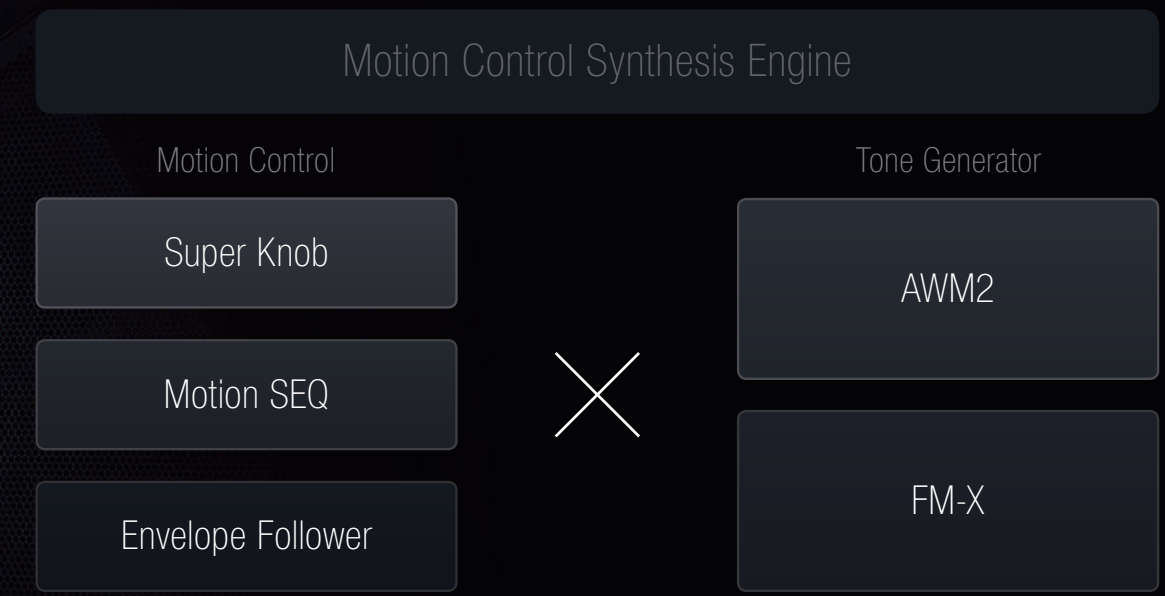
Motion Control Synthesis Engine

Motion Control Synthesis Engine unifies and controls two iconic Sound Engines: AWM2 (high-quality waveform and subtractive synthesis) and FM-X (modern, pure Frequency Modulation synthesis.) These two engines can be freely zoned or layered across eight parts in a single MONTAGE Performance.

Interact with MONTAGE Performances using Motion Control: a highly programmable control matrix for creating deep, dynamic and incredibly expressive sound. With Motion Control, you can create new sounds not possible on previous hardware synthesizers.

Motion Control Synthesis Engine

Motion Control	Tone Generator
Super Knob	AWM2
Motion SEQ	
Envelope Follower	FM-X

Sophisticated Dynamic Control

Music is expression. MONTAGE adds a new level of expression with the Motion Control Synthesis Engine. This engine allows a variety of methods to interact with and channel your creativity into finding your own unique sound.

○ Super Knob

Create dynamic sound changes from radical to sublime with the Super Knob. The Super Knob can control multiple parameters simultaneously resulting in anything you can imagine.

For example: change your listening position from right in front of an instrument to in the back seat of a concert hall. Or radically change the character of a Performance from atmospheric and mellow to rhythmic and edgy.

The Super Knob can even be assigned to a second FC7 foot controller making it easy to manipulate the sound when playing with both hands.

○ Motion SEQ

Motion Sequences are tempo-synchronized, completely customizable control sequences that can be assigned to virtually any synthesizer parameter and provide incredible creative new ways of programming sound.

Motion Sequences also have dedicated controls on the front panel making it easy to manipulate and change in real-time, providing incredible interactivity and expression.

○ Envelope Follower

The Envelope Follower converts audio into a control source for control of virtually any synthesizer parameter. For example, a drum loop could drive effects parameters for a cool rhythms or a vocal recording could control multiple parameters for a "talking" synthesizer. The audio can even be a "live" source through the A/D input.

Massive Sound Creation

MONTAGE features two Iconic Sound Engines modernized for amazing sound playback and complex sound design.

◯ AWM2

Powered by proprietary Yamaha technology for data compression and sound playback, AWM2 allows tremendous data compression without sound quality loss for unparalleled, realistic sound reproduction.

• 128-Note, Stereo polyphony

Experience rich stereo sound without halving the available number of notes.

• Waveform Capacity

MONTAGE features nearly 10 times the waveform capacity of the MOTIF XF, allowing more samples per instrument for incredibly realistic and nuanced sound.

• Integrated Flash Memory

MONTAGE includes 1.75 GB of user flash memory with high speed reading/writing for your own custom samples or synth libraries from yamahasynth.com.

◯ FM-X

An amazingly sophisticated pure synthesizer engine capable of producing classic '80s or cutting-edge, EDM sound with incredible dynamic range, power and fidelity. MONTAGE features an 8-operator FM architecture and 128-note polyphony, allowing for a massive array of sound design options.

◯ Content

Every instrument needs great content to inspire your creativity. MONTAGE features a huge range of incredible sounds like a brand-new Yamaha CFX Premium Grand Piano, detailed new strings and woodwinds and select content from the DX and TX family, all modernized to take advantage of the Motion Control Synthesis Engine.

• Compatibility

MONTAGE is directly compatible with Motif XF Voices. Yamaha is developing an FM converter to make it compatible with DX7 series Voices as well.

• Bösendorfer Piano

As part of the MONTAGE introduction, Yamaha is pleased to offer an incredible Bösendorfer Imperial Premium Grand Piano.
Please go to yamaha.com/montage

◯ Effects

From high definition reverbs to incredibly detailed Virtual Circuit Modeling (VCM) effects, MONTAGE is loaded with DSP innovation, power and, most importantly, sound quality. Use effects like Beat Repeat, Vinyl Break or Bit Crusher to get a modern EDM sound. You can even add a compressor with sidechain for a modern "ducking" effect. Or go retro with vintage effects like Analog Delay, VCM Phaser or a variety of Amp Simulators. Piano players will appreciate piano-focused effects like Damper Resonance for a super-realistic piano experience and the HD reverbs that let you put yourself in any performance space.

◯ Pure Analog Circuit

MONTAGE features professional balanced outputs with "Pure Analog Circuit" (PAC). PAC improves the quality of signal after being converted to analog from digital for clear harmonic reproduction and even frequency response. The result is an output capable of reproducing MONTAGE's internal content expressively with power and clarity.

Streamlined Workflow

How do you want to integrate your instrument with your system? How do you want to organize the onboard content? How do you want to interact with the instrument while you play? MONTAGE answers these questions and more with a flexible, streamlined workflow.

◯ USB Audio/MIDI Connection

Connect MONTAGE to your computer with a single USB cable and capture every nuance of your creativity into your DAW. MONTAGE's powerful USB driver can send 16 and receive 3 channels of STEREO 24-bit/44.1kHz digital audio to/from your computer or iOS device (MONTAGE is class compliant, no driver needed!), no other hardware required!
The USB connection also features full MIDI support of 16 channels.
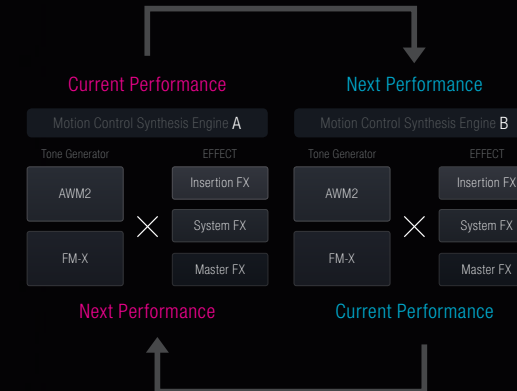
* MONTAGE supports the sampling rate up to 192kHz.

◯ SSS (Seamless Sound Switching)

Seamless Sound Switching (SSS) lets you change performances seamlessly without any cut-off in envelope or effects. This is perfect for live performances where you end one song and start another without stopping.

* This function is only available for Performances that have a maximum of 8 parts.

Current Performance — Next Performance

Motion Control Synthesis Engine **A**	Motion Control Synthesis Engine **B**
Tone Generator / EFFECT	Tone Generator / EFFECT
AWM2 / Insertion FX	AWM2 / Insertion FX
/ System FX	/ System FX
FM-X / Master FX	FM-X / Master FX

Next Performance — Current Performance

◯ A/D Input

The A/D input processes external audio sources with your instrument's DSP. Use mics, guitars or any line source as an input and process with the internal effects. You can even use these sources with the Envelope Follower or Sidechain for a truly unique sound.

◯ Physical Control

MONTAGE features a comprehensive set of physical controls for intuitive music making and sound creation.

• Touch Screen

Select and change parameters directly with the new color touch screen.

• Eight Rotary Encoders and Faders with Stepladder LED

Stepladder LEDs next to the faders indicate position making it easy to see where your current mix position is.

• Keyboard Action

MONTAGE is available in three different configurations:
- MONTAGE6 and 7 feature the premium FSX semi-weighted synthesizer action with aftertouch in 61 and 76 keys respectively.
- MONTAGE8 features an 88 key, fully-weighted Balanced Hammer action with aftertouch. This provides equal resistance for each key across the keyboard and is perfect for playing a variety of instruments from acoustic piano to electric piano, synth sounds, organ and more!

◯ LIVE SET

Live Set lets you organize your Performances however you want without copying, changing order or renaming. When a Performance is selected, you can easily register it to a Live Set. This is perfect for playing gigs or even creating your own organization scheme for Performances.

◯ Direct Control Assignment

Direct Control Assignment assigns controls at the touch of a button. Simply select a parameter, hit the Direct Control Assignment button and move the controller to control that parameter. It's easy!

Cubase AI bundle

MONTAGE is bundled with Cubase AI, Steinberg's professional music production application that offers integrated recording and editing.

CUBASE AI DOWNLOAD VERSION

Message from Engineer

The MONTAGE has an immense set of impressively high-quality sounds, exceptional playability, and a sophisticated, stylish design—making this long-awaited instrument destined to be long-loved as well.

Product Planning

Our planning concept for the MONTAGE was based on the idea of providing fine-tuned appeal as a controller of sound, as synthesizers were originally meant to do. Although DAWs offer exceptional power in terms of controlling sound, they present difficulties in controlling the sound of real-time performances with emotion, since they are basically sound production tools. The Motion Control concept was rooted in our desire to make instruments freer and more dynamic, as well as more interactive and emotional. Motion Control is a new way to express sound through multi-dimensional and rhythmical changes in sound. The Super Knob lights up in different colors with the changing sound, and the LED lights on the eight knobs come alive. The emotions of the player rise to create the ultimate sound, as the player and instrument engage in a dialogue accompanied by sound and light. This is the kind of musical instrument we've been aiming for.

With the MONTAGE we decided not to compromise—we've made the "bread-and-butter" sounds of the MOTIF series that have received critical acclaim even better. We've also equipped the MONTAGE with a revitalized FM tone generation—the new-generation FM-X—which delivers real synthesis in a synthesis that has taken FM synthesis to a whole new level.

All of this is part of the appeal of a next-generation synthesizer from Yamaha that balances tradition with revolutionary sound: the MONTAGE.

Hardware Engineering

—Refinements in the audio output circuitry—

During the development of the MONTAGE hardware we focused on improving the performance of the audio output circuitry. We devoted a great deal of time and effort to its design, seeking advice from a variety of people as we built prototypes and conducted audio tests in a repeating cycle that let us establish the direction we wanted to take. The resulting circuitry delivers more natural harmonic content and a greater clarity in the mid- to high- frequencies, allowing us to realize a distinctively crisp, clear tone.

Reviewing the pattern used on the printed circuit board produced enhancements that led to a better signal-to-noise ratio, which, in combination with the low noise connections from the MONTAGE (made possible with a TRS balanced audio output circuit) improves the sound conveyed to the listener still more.
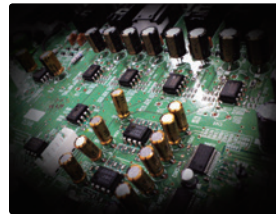
Mechanical Engineering

For the external design of the MONTAGE, we worked to realize the intentions of the designer and the producer as faithfully as possible, while meeting a slew of requirements for productivity, ease of use, safety, and more. Moreover, the MONTAGE was designed specifically to offer the player a greater feeling of precision.

For the first time in more than a dozen years, we've used extruded aluminum for the control panel, and shaped the plastic on the left and right arms—which are covered with a coating referred to as "peach-skin"—with multiple curves to give the instrument a dynamic form. We've also renovated the primary controllers to make them fit the hand better and to make them look more beautiful, even when turned off.

Although a curvier form is more challenging to design, we paid special attention to minutiae such as the spacing between the button areas, and the fitting edges between the left and right arms, panel, and keyblocks to offer a feeling of precision throughout. We hope that you'll appreciate the thought that went into the design of the MONTAGE.

Software Engineering

—User experience design, from a musical instrument standpoint—

From the outset, the issue of what form the ideal user interface for a musical instrument should take weighed heavily in our minds as we developed the MONTAGE. In recent years, technology such as smartphones and tablets have rapidly become commonplace, and touch panels have gained wide acceptance thanks to the intuitive operation they allow. That said, when we considered the need for a musical instrument to respond quickly and positively during use and performance we realized that physical buttons and knobs are something that a touch panel cannot easily replace.

Frankly, it is easier to develop a product that uses only a touch panel, or only physical buttons. However, when we actually played the finished MONTAGE, we realized that our concept of offering the best of both worlds by using both a touch panel and physical knobs and buttons was spot-on. In addition to usability tests, we have gathered opinions from a number of musicians as well. We'd like you to get your hands on the MONTAGE and put it to good use.

Technology Development

The FM-X tone generator equipping the MONTAGE is an evolved version of the FM tone generator in Yamaha's FS1R. We've enhanced the tone generator LSI control to allow for fluid changes in sound via Motion Control. In order to ensure smooth response, the MONTAGE has been given 128-note polyphone and features fine-tuned processing algorithms. A hardware-based LFO is used, to achieve greater stability in LFO modulation. The combination of the FM-X tone generator with AWM2 tone generation, effects, and Motion Control allows the MONTAGE to bring a wholly-new sound to life—one that we sincerely hope you will enjoy.
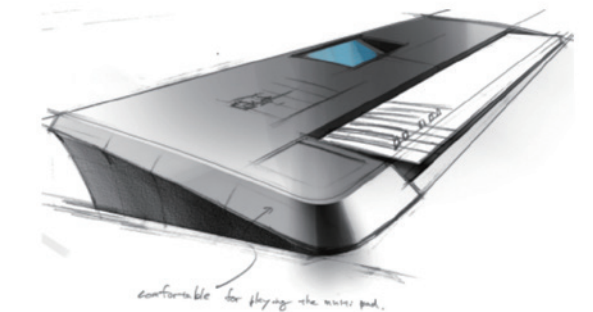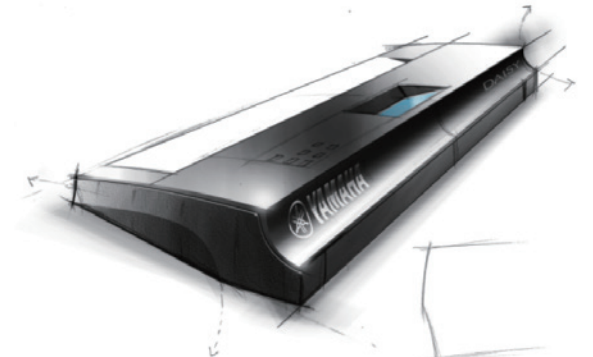
Sound Engineering

With the MONTAGE we've gone back to the beginning, asking ourselves the question, "what kind of sound content should a new-generation flagship synthesizer have?" The two core goals we set ourselves in developing the sounds for the MONTAGE were (1) to fully refine the array of standard acoustic sounds that received such acclaim in the MOTIF series; and (2) to allow new sonic expression through our new concept, Motion Control. We spent a full three years in creating our new CFX piano sound, which offers outstanding quality. Although the FM tone generator that formed the basis of the newly-evolved FM-X offers some signature sounds that are truly legendary, we have also created sounds for the MONTAGE that are in tune with the times. These sounds let you use the Motion Sequencer, Arpeggio and Super Knobs together, amassing an expressive power that is leaps and bounds ahead of any hardware synthesizer to date. In addition to the regular assortment of well-known standards, all of the new sounds are designed specifically for performance, and careful attention has been paid to how they match your playing on the keyboard itself. We hope that the new sounds of the MONTAGE will inspire you to create new music.

Product Design

Our goal when we took on the design of the MONTAGE was to realize the ultimate feeling of unity between the keyboardist and their audience.

The dynamic character lines of the keyboard that extend outwards to the left and right from the front of the instrument seem to flow towards the audience, giving a sense an acceleration to the perceived intentions of the player. Conversely, the concave shape of the rear of the keyboard expresses a feeling of smooth and definite acceptance of the excitement of the audience, presenting the MONTAGE as a medium through which the player and the audience can experience the feeling of being as one. This concave aesthetic is also evident in the conveniently-placed Super Knob, as well as in the slider knobs and each of the buttons, and in the flanges around the LCD. These features have been designed to improve the sense of connection between your fingers with the instrument, and make it easier to operate.

We're sure that the power of the MONTAGE—as well as the form and details that give it a feeling of speed—will bring you the greatest level of performance and satisfaction possible.

Panel Controls & Terminals

Top Panel

1. Pitch Bend wheel
2. Modulation wheel
3. Ribbon Controller
4. [ASSIGN 1] and [ASSIGN 2] buttons (Assignable switches 1 and 2)
5. [MOTION SEQ HOLD] (Motion Sequencer hold) button
6. [MOTION SEQ TRIGGER] (Motion Sequencer trigger) button
7. [MASTER VOLUME] slider
8. A/D INPUT [GAIN] knob
9. A/D INPUT [ON/OFF] button
10. Knob Function [TONE]/[EQ/FX]/[ARP/MS] button
11. [MULTI] (Multi Part control) button
12. [ARP ON/OFF] (Arpeggio on/off) button
13. [MOTION SEQ ON/OFF] (Motion Sequencer on/off) button
14. Knobs 1 – 8
15. Control Sliders 1 – 8
16. SCENE [1] – [8] buttons

17. [ASSIGN] button
18. KNOB POSITION [1] and [2] buttons
19. Super Knob
20. SEQ TRANSPORT button
21. OCTAVE [-] and [+] buttons
22. [CONTROL ASSIGN] button
23. Touch panel LCD
24. Data dial
25. [INC/YES] button
26. [DEC/NO] button
27. Cursor buttons
28. [EXIT] button
29. [ENTER] button
30. [PERFORMANCE] button
31. [UTILITY] button
32. [EDIT] button

33. [STORE] button
34. [SHIFT] button
35. [LIVE SET] button
36. [CATEGORY SEARCH] button
37. [PERFORMANCE CONTROL] button
38. [PART CONTROL] button
39. [AUDITION] button
40. PART [COMMON] button
41. ELEMENT/OPERATOR [COMMON] button
42. Number A [1] – [16] buttons
43. Number B [1] – [8] buttons
44. Number C [1] – [8] buttons
45. PART [MUTE] button
46. PART [SOLO] button
47. ELEMENT/OPERATOR [MUTE] button
48. ELEMENT/OPERATOR [SOLO] button

Rear Panel

1. [STANDBY/ON] switch
2. [AC IN] (AC Power Cord Socket)
3. [USB TO DEVICE] terminal
4. [USB TO HOST] terminal
5. MIDI [IN], [OUT], [THRU] terminal
6. FOOT SWITCH [ASSIGNABLE]/[SUSTAIN] jacks
7. FOOT CONTROLLER [1]/[2] jacks
8. ASSIGNABLE OUTPUT (BALANCED) [L] and [R] jacks (TRS balanced output)
9. OUTPUT (BALANCED) [L/MONO] and [R] jacks (TRS balanced output)
10. [PHONES] (Headphone) jack
11. A/D INPUT [L/MONO]/[R] jacks

Specifications

		MONTAGE 8	MONTAGE 7	MONTAGE 6
Size/Weight				
Dimensions	Width	1,450 mm (57-1/16")	1,244 mm (49")	1,037 mm (40-13/16")
	Height	170 mm (6-11/16")	131 mm (5-3/16")	131 mm (5-3/16")
	Depth	460 mm (18-1/8")	396 mm (15-9/16")	396 mm (15-9/16")
Weight	Weight	29 kg (63 lbs., 15 oz.)	17 kg (37 lbs., 8 oz.)	15 kg (33 lbs., 1 oz.)
Control Interface				
Keyboard Action	Number of Keys	88	76	61
	Type	Balanced Hammer Effect Keyboard	FSX Keyboard	FSX Keyboard
	Initial Touch	Yes	Yes	Yes
	Aftertouch	Yes	Yes	Yes
Tone Generator				
Tone Generator		Motion Control Synthesis Engine AMW2: 8 Elements FM-X: 8 Operators, 88 Algorithms		
Polyphony		AWM2: 128 (max.; stereo/mono waveforms) FM-X: 128 (max.)		
Multi Timbral Parts		16 Parts (internal), Audio Input Parts (A/D*1, USB*1) *1 stereo Part		
Wave		Preset: 5.67 GB (when converted to 16-bit linear format), User: 1.75 GB		
Performance		Approx. 1,900		
Filter		18 types		
Effect System		Reverb x 12 types, Variation x 76 types, Insertion (A, B) x 76 types*2, Master Effect x 15 types		
		*2 A/D part insertion x 71 types <Preset settings for parameters of each effect type are provided as templates> Master EQ (5 bands), 1st part EQ (3 bands), 2nd part EQ (2 bands)		
Sequencer				
Note Capacity		Approx. 130,000 notes		
Note Resolution		480 ppq (parts per quarter note)		
Tempo (BPM)		5 – 300		
Performance Recorder	Songs	64 songs		
	Tracks	16 Sequence tracks, Tempo track, Scene track		
	Recording type	Real time replace, Real time overdub, Real time punch in/out		
Sequence Format		MONTAGE original format, SMF formats 0, 1		
Arpeggio	Part	8 Parts simultaneous (max.)		
	Preset	Approx. 10,000 types		
	User	256 types		
Motion Sequencer	Lane	8 + 1 Lanes (max.)		
Other				
Live Sets		Preset: 128 and more, User: 2,048		
Controllers		Master Volume, AD Input Gain knob, Pitch Bend wheel, Modulation wheel, Ribbon Controller, Control Sliders x 8, Knobs x 8, Super Knob, Data dial		
Display		7" TFT Color Wide VGA LCD touch screen		
Connectors		[USB TO DEVICE], [USB TO HOST], MIDI [IN]/[OUT]/[THRU], FOOT CONTROLLER [1]/[2], FOOT SWITCH [ASSIGNABLE]/[SUSTAIN], OUTPUT (BALANCED) [L/MONO]/[R] (6.3 mm, Balanced TRS jacks), ASSIGNABLE OUTPUT (BALANCED) [L]/[R] (6.3 mm, Balanced TRS jacks), [PHONES] (6.3 mm, standard stereo phone jack), A/D INPUT [L/MONO]/[R] (6.3 mm, standard phone jacks)		
Power Consumption		27 W		
Accessories		AC Power cord, Owner's Manual, Cubase AI Download Information		

Options

Foot Pedal	Foot Switch	Foot controller	Keyboard stands
FC3A FC4A	FC5	FC7	LG-800

Lineup

For more information, Get the most out of your Yamaha Synth!