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The time has come. Yamaha’s new synthesizer flagship is here: MONTAGE.

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.

If you liked the DX and MOTIF, get ready to love MONTAGE.

The name MONTAGE represents a completely new generation of Yamaha Music Synthesizers, that we want to bring you closer with this document.

It starts with a list of features that is made up of official marketing texts and our supplements.

This is followed by detailed chapters about the major new features of MONTAGE.

**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.
MOTION CONTROL SYNTHESIS ENGINE

The Motion Control Synthesis Engine unifies and controls two iconic Sound Engines: AWM2 (high-quality waveform and 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.

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 SEQUENCES

Motion Sequences are tempo-synchronized, completely customisable control sequences that can be assigned to virtually any synthesizer parameter and provide incredible new ways of creating 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: FM-X and AWM2 modernised 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.

MONTAGE is much more than an incremental specification increase – powered by technology advances, MONTAGE is exponentially more powerful than MOTIF XF.

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**

FM-X is 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.

**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.

**SIDECHAIN**

Automatically control the dynamic behaviour of one Part from another. Sidechain is very popular in modern dance music where a pad or other sustain part is “keyed” to the kick drum. When the kick drum plays, it ducks down the sustained part creating a “pumping” rhythmic effect.

**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 modernised to take advantage of the Motion Control Synthesis Engine.

**COMPATIBILITY**

MONTAGE is directly compatible with MOTIF ES / XS / XF Voices. Yamaha is developing an FM converter to make it compatible with Voices from the classic FM synths DX7, DX7II, TX802, and TX816 as well.

**BÖSENDORFER**

As part of the MONTAGE introduction, Yamaha is pleased to offer an incredible Bösendorfer Imperial Premium Grand Piano download for FREE to all MONTAGE owners. Please check yamahamusicsoft.com for details.

**PURE ANALOG CIRCUIT**

MONTAGE features professional, stereo balanced outputs with “Pure Analog Circuit” digital to analog conversion. PAC improves the quality of signal after being converted from digital to analog 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

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.

LIVE SET

Live Set lets you organise 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 organisation scheme for Performances.

SEAMLESS SOUND SWITCHING

MONTAGE features dual insert effects on every one of its 16 Parts. When using a Performance with eight or fewer Parts, Seamless Sound Switching (SSS) is possible. Seamless Sound Switching 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.

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 colour touch screen.

EIGHT ROTARY ENCODERS AND FADERS WITH STEP LADDER LED

The eight rotary encoders are always in the right position for you to turn the selected parameter up or down. No need to search for the “catch” or “latch” point, just turn the knob.

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

KEYBOARD

MONTAGE is available in three different configurations:

• MONTAGE 6 and 7 feature the premium FSX semi-weighted synthesizer action with aftertouch in 61 and 76 keys respectively.

• MONTAGE 8 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!

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. Easy!
A/D INPUT

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

8-PART PERFORMANCES

EXPANDED ARPEGGIATOR

A newly developed Performance Mode combines all the new features of MONTAGE 'under one roof'. Whether live, in the studio, or for sound design: Everything takes place in the Performance Mode.

Eight Parts are available for a live performance and provide direct access for spontaneous adjustments. All eight Parts can be simultaneously controlled by the Arpeggiator, which represents a significant enhancement compared to the MOTIF series.

EIGHT LIBRARY BANKS FOR AN IMMENSE STOCK OF SOUNDS

The storage concept was also lifted onto a new level for MONTAGE. The so-called Library allows the user to “freeze” complete User Banks and to use them similar to Presets. Up to eight Library Banks are available in addition to the User Bank. That means direct access to 9 x 640 Performances and 16 x 256 live set slots!

SCENES

Within a Performance eight Scenes ensure a considerably increased flexibility. Such a Scene can store, for example, Motion Sequences or the current value of the Super Knob. Even the assignment of the Arpeggios to the Parts are part of a Scene.

Moreover, Mixing parameters like Part Volume, Part Mutes, Effects units and parameters for the Amplitude Envelope can be stored in a Scene.

AUDITION - THE ON-BOARD "PRESENTER"

A stock of sounds so great as in MONTAGE requires good managing tools. Among other things, it is important, of course, to sensibly allocate Categories. Nonetheless, there are - especially with the new controller features such as the Super Knob and Motion Sequences - Performances which intention is not opening up at first glance. Not only at this point the “Audition” function comes into play. Press the [AUDITION] button (top right of the panel) and you get to hear a demo sequence of the current Performance. Regardless of whether you are currently in Performance Mode or in Live Set: Whenever you turn on Audition, you will hear the demo sequence. You can even change the Performance without interrupting the demonstration at any time.

COMPATIBILITY TO THE MOTIF XF SERIES

MONTAGE contains all Preset Voices of the MOTIF XF as Single Part Performances. In addition, MONTAGE can also load files (".X3A") of the MOTIF XF including User Waveforms. All Voices are then converted to Single Part Performances.
THE MOST IMPORTANT FEATURES COMPARED TO THE MOTIF XF SERIES

• Waveform-ROM expanded from 741 MB to 5.67 GB!
• 2,370 new Waveforms, 6,347 total in ROM
• 1.75 GB Flash-ROM built-in
• 1,920 Preset Performances
• 640 User Performances
• 5,120 Library Performances
• Seamless Sound Switching „SSS“ for Performances with up to eight Parts
• Dual Insert Effects for all 16 Parts (no SSS then)
• 256 Preset Live Set Slots, 2,048 User & 2,048 Library Live Set Slots
• 10,000 Arpeggios
• Eight Arpeggio Parts simultaneously
• Eight Scenes per Performance
• Masterkeyboard functions for each Performance
The user interface of MONTAGE is basically very similar to that of the MOTIF series. Experienced users will thus find their way very fast. Of course new or modified functions require appropriate adjustments.

The most striking innovations in the overall picture are the 7" TFT Colour Wide-VGA touch display and the backlit buttons. The lighting of the button is dimmable. In addition to simply being on or off, this is used to indicate whether the button has a function in the current mode at all. Name additions such as "Perf.-XY ... AF1 / AF2" are now a thing of the past - a feature that greatly contributes to the clarity. The display is easy to read from different angles and responds sensitively to your finger tip. Many functions are accessible via the display and the buttons / knobs in parallel.

On the top left of the user interface the buttons and gain controls for the audio input can be found.

To the right of it the Controller panel is located, with switches, knobs, and sliders that largely correspond to the MOTIF series. Of course, some are assigned to new MONTAGE functions. The major new feature here is the visual display of the controller settings by red LEDs.

Another new feature compared to the MOTIF series is the series of ten buttons below the sliders. It begins on the
left with the switch [ARPEGGIO ON / OFF]. By arranging it to the far left, the access to this important switch is now much faster and at a safer distance. To the right of it the switch [MOTION SEQ ON / OFF] is arranged. Below each slider there is a Scene button. In each of the eight Scenes, different assignments, such as Motion Sequence, Super Knob, Arpeggio Select Number or even complete Mixings can be stored, which are then retrieved with the push of a button.

Whenever you select a parameter or value in the display, which can be generally controlled by means of a controller, the button [CONTROL ASSIGN] lights dimmed, thus indicating the readiness of an assignment. Press and hold the button in such a state and then use the desired controller. The assignment will immediately be confirmed in the display and the display calls up to the Control Assign display where extra parameters in this context are available.

The Assign-1/2 buttons and two other for controlling the Motion Sequences are now located in between the keyboard and modulation wheel.

In between the controller panel and the display the Super Knob can not be overlooked.

Two buttons are used for reaching the end positions. Below the Super Knob the known sequencer controls are arranged. Among them is a pair of buttons with double assignment [OCTAVE / TRANsPOSE].

Right next to it there is something completely new: The button [CONTROL ASSIGN]. This makes assigning controllers a breeze.

The area to the right of the display contains the well-known combination of data wheel and the buttons for cursor control, data change, the buttons [ENTER] and [EXIT]. Direct to the right of it five buttons are arranged: [PERFORMANCE], [UTILITY], [EDIT], [STORE], and [SHIFT]. The first three are also assigned with sub-functions.

The keypad on the far right looks quite similar to that of the MOTIF series. Even though some features have remained the same, there are significant changes, associated with the data structure as well as new features in MONTAGE.

Four overarching buttons change the function of the buttons, depending on mode and functionality.

The direct selection of Performances using Bank and Number buttons is omitted, instead the Performances are selected exclusively through Categories from the user interface. Pressing the button with the label [CATEGORY] switches immediately to the relevant menu (no matter in which menu level you possibly happen to be).

The upper button group (PART) is completely assigned to the Main Category. The top row of the ELEMENT area serves the Sub Category (if any). With the eight buttons of the bottom row the first eight Performances shown in the display can be selected directly. The buttons [MUTE] and [SOLO] are used to switch the display pages. Of course, everything can also be selected from the touch screen.
If the [PERFORMANCE CONTROL] button is active, the upper 16 buttons are occupied like as it’s known from the MOTIF series: Parts can be selected to be soloed or muted.

The next row with the label “MOTION SEQUENCE SELECT” selects one of eight pre-programmed Motion Sequences. The bottom row [ARP SELECT] chooses one of the also up to eight (new!) Arpeggios of a Performance (in the MOTIF series this was the done via the F1 to F5 buttons below the display).

The button [PART CONTROL] takes you to an expanded area where you can select the Parts 1 to 16 by using the upper 16 buttons - including the eight Parts 9 to 16 of each Performance. With the bottom 16 buttons additional Part settings such as ARP and Motion Sequence ON / OFF are available.

These partially extensive assignments may seem a little complex at first. That is where the backlit buttons help by ensuring a considerably better overview.
PERFORMANCE BASICS

MONTAGE Performances consist of 16 Parts maximum.

Up to eight Parts can be used as Layer Parts with all the Performance’s features. The Factory Performances exclusively use the actual Performance Parts 1 - 8. The “Kbd Ctrl” function is always enabled for these Parts. Thus, by default all Parts function as Layer or Split Parts.

If required you can add the Parts 9-16 in the “Mixing” display as additional Mixing Parts by using the “Part 1 - 16” function.

Each Part uses one of these Part Modes:

• AWM2 Normal
• AWM2 Drum
• FM-X

The “Tag Flag” on the right of the Performance name identifies whether a Performance exclusively uses AWM2 Parts, only FM-X Parts, or AWM2 and FM-X Parts combined.

The Part Edit display is different depending on the used Part Mode.

EDIT COMMON – FM-X

In the COMMON display of the FM Mode the "Algorithm" can be selected in the top left below the "General" tab. This indicates that this Part is an FM Part.

EDIT COMMON – AWM2 NORMAL

In the COMMON display of AWM2 Normal Mode the tab "Pitch" is available in the top left below the "General" tab. By the way: The AWM2 Normal Mode corresponds to a Normal Voice of the MOTIF.

EDIT COMMON – AWM2 DRUM

In the COMMON display of AWM2 Drum Mode, the tab below "General" in the top left is blank. This Mode corresponds to a Drum Voice of the MOTIF.

Drum Parts can also easily be recognised by their Category "Drum / Perc".
The respective Part Mode is fixed and cannot be changed by selecting another Mode. If another Mode is desired for a Part, you can either select a Part of another Performance with the desired Mode, or choose one of these Single Part Performances from the Category "Init":

- Init Normal
- Init FM
- Init Drum

With the Performances of the Category "Init" it is possible to conduct a sound programming from scratch.

The editing of AWM2 elements takes place as you are used from the MOTIF series. The parameters are compatible. However, any edits will be saved in the Performance, because in MONTAGE there is no subordinate Voice Mode.

But unlike on the MOTIF or other Yamaha synthesizers Performances in MONTAGE are selected from Categories.

To do so, first the button [CATEGORY] is pressed and then the appropriate Category (eg, PIANO, KEYBOARD, ORGAN...) is selected.

By setting filters such as "Bank" and "Attribute" the selection can be limited, for example, "USER" and "FM-X" only shows all User-FM-Performances.

An individual organisation of Performances in Banks is possible by using LIVE SETS (see chapter "Live Set").

The selection of sounds using Category Search is done on two levels:

**COMMON**

When COMMON is active, complete Performances are selected. The name of the Performance is displayed in large letters in the display.

When selecting the Categories the top of the display reads "Performance Category Search". The available range of Performances has a blue background.

**PART**

When you want to select a sound for a Part via Category Search, only Part 1 of another Performance is selected for the currently active Part. While these were the Voices on the predecessor MOTIF, in MONTAGE instead "Single Part Performances" are selected. This is Part 1 of a freely selectable Performance. With Multi Part Performances, the other Parts are ignored. It is possible to audition the selected Performance Part 1 before it is taken over by pressing ENTER.

The available range of Single Parts (Part 1) of the Performances a green background is selected.
PERFORMANCE BANKS

In MONTAGE the following Performance Banks are available.

**Preset**
These are the Preset Voices of the MOTIF XF as converted MONTAGE Performances (Single Part) and the new MONTAGE Preset Performances (Single Part and Multi Part).

**User**
Up to 640 User Performances (Single Part and Multi Part) can be stored here. It is also possible to load the 512 User Voices of a MOTIF XF All-file, in which case even 128 locations remain free for further User Performances.

**Library 1 - 8**
A library is a copy of an entire User Bank and thus contains up to 640 Performances.

Such a Library is created by storing the User Memory content - ie the Performance Banks, User Waveforms, Samples, and User Arpeggio Patterns - as a Library file.

Up to eight Library files can be loaded into the Library Banks 1 - 8.

Read more about this feature in the section "Library files".

You can learn from this list, that the term "Bank" is used in MONTAGE in a different sense than in previous Yamaha synthesizers, where a Bank consisted of 128 sounds normally. The number of Performances in a MONTAGE Bank is not precisely defined. Even the - already very extensive - Preset Bank can be further enhanced by subsequent firmware updates. However, for the User Bank and the Library Banks there is a max limit of 640 Performances per Bank.

Another important difference with previous Yamaha synthesizers is that there is no Voice Mode in MONTAGE. So, to have a huge sound stock available for the programming of new Performances or creating Mixings for songs, a new concept was developed for MONTAGE in which the Performance Mode is used both for single sounds (Single Part Performances) as well as for layered sounds up to complete Song Mixings (Multi Part Performances).

An important aspect of this concept is that only Part 1 of a Performance can be used as a single sound in every other Performance.

So, while in the MOTIF the Voices where available as individual sounds for Performances and Mixings, in MONTAGE these are the Single Part Performances, meaning Part 1 of any Performance. This Part 1 is also relevant for the categorisation of the Performance. For example, if the Category for Part 1 is set to PIANO, the whole Performance appears in the Category PIANO.

Since Part 1 of complex Multi Part Performances with many Parts does not necessarily needs to be suitable for the use in other Performances, MONTAGE features a vast variety of general-purpose Single Part Performances.

As already mentioned above, a part of the Preset Bank is occupied by the Preset Voices of MOTIF XF. These appear in as Performances in MONTAGE. The first Part of these Single Part Performances corresponds to a MOTIF Preset Voice, which can contain up to eight Elements.

The new MONTAGE Performances also contain numerous Single Part Performances, so that the total selection of individual sounds goes far beyond the offer of the MOTIF.

In the Performance Category Search display Single Part Performances are displayed in green font colour with blue background, Multi Part Performances are displayed with blue font colour and also a blue background.

However, if the Category Search is performed for a Part via the Search function, the Performances appear with green font colour and green background, as already mentioned above.

The rule of thumb: Green letters always indicate 'Single Part'. When selecting Performances (blue background), Single Part Performances appear green. When selecting within Performance Parts (green background), the colour green indicates that only the first Part of another Performance can be selected. So, here also the first Parts of Multi Part Performances appear in green colour, because only its first Part can be used.
To be able to select Performances either as a complete Multi Part Performances or as a Single Part Performance (only Part 1) via MIDI, every Performance has two Bank and Program Select addresses (MSB / LSB / PGM):

- Performance Multi Part MSB/LSB/PGM
- Performance Single Part MSB/LSB/PGM

The MSB / LSB / PGM address of the current Performance is shown in the Information display.

**EXAMPLE: SHOW THE INFO DISPLAY FOR PERFORMANCES**

- Use CATEGORY SEARCH to select the Performance "Gate of Eden" (Preset Bank, Category "Musical FX"). When selecting the COMMON Mode must be active. If a Part is selected when you are using the Category Search, not a complete Performance, but only a Part is selected
- Leave CATEGORY SEARCH with “Exit”
- Tap on the Performance name "Gate of Eden" in the top of the display
- On the left of the display tap on "Property". You will now see the adjacent display
- At the bottom of this Info display (Bank Select and Program Change No.) the address with which you can call up the Performance (Multi Part) via MIDI is shown

- Press [EXIT] to exit the Info display
- Now tap on the Part name called "Gate of Eden" (below the virtual Cutoff Knob)
- Again, tap on "Property" on the left of the display. You will see this display
- At the bottom of this Info display (Bank Select and Program Change No.) the address with which you can call up Part 1 of the Performance (Single Part) via MIDI is shown
KEYBOARD CONTROL AND LIVE PERFORMANCES

The "KBD Control" (Keyboard Icon) function is available in the Performance Main display for eight Performance Parts and can be used as a Layer switch.

All Parts that have Keyboard Control (KBD Ctrl) activated are simultaneously playable from the keyboard (Single, Layer & Split) when Part 1 (MIDI CH 1) is selected.

If needed, KBD Control can be deactivated. In contrast to muting it with [MUTE] the sound is not abruptly cut off due to Seamless Sound Switching (SSS) when switching off KBD Control for a Part. This is an important aspect in the use of more extensive Multi-Part Performances, when you are dynamically switching between different sounds of that Performance.

The simplest application is to disable "KBD Control" for all Parts 1 - 8. Using the Part Select buttons the eight Parts can then be alternately selected, without having the sound cut off abruptly.

You can go one step further, if in addition to several individual sounds also layered sounds are needed.

EXAMPLE: LIVE PERFORMANCE WITH ONE LAYER AND MULTIPLE SINGLE SOUNDS

Imagine, you need the following instruments or combinations of sounds for a song:

- Piano + Strings
- Organ
- Synth Lead
- Synth Comp

Set the Parts as follows:

- Part 1 = Piano KBD Control on
- Part 2 = Strings KBD Control on
- Part 3 = Organ KBD Control off
- Part 4 = Synth Lead KBD Control off
- Part 5 = Synth Comp KBD Control off

Now, press the Part Select buttons 1-8 successively.

- When the Parts 1 and 2 are selected, the layered sound of Piano & Strings is played
- When the Parts 3, 4, and 5 are selected, solely the sound that is assigned to this Part is played

If the Piano and Strings sounds should be played individually in the course of the song, just turn off "KBD Control" for these two Parts. You can use the Part Select buttons 1 - 5 then to select which of the five individual sounds is to be played. If you want to expand the Layer sound - for example, Piano / Strings / Organ playing together - turn on KBD Control for Part 3 (Organ).

According to this principle extensive Live Performances can be created. Of course it also possible, to create Split sounds.

If the eight Performance Parts are not enough for extremely complex sound configurations, the Performance can be extended by a further eight Parts in the Mixing display. However, Performances that use more than eight Parts can’t use Seamless Sound Switching.

Even with song productions using an external sequencer, switching "KBD Control" on or off makes sense.

Multi Part Performances normally send MIDI events on multiple MIDI channels. If a Performance uses eight Parts, the external sequencer thus receives the same data on the MIDI channels 1 - 8. This is necessary, because the Performance Parts are automatically assigned to receive MIDI on the channels 1 - 8.

However, it may be desirable to record the lines for the Parts independently. In this case, KBD Control should be either turned off for all Parts, so only the selected Part sends MIDI data. Or the desired number of Parts is set to KBD Control on, if a layered sound is to be recorded.

Using the KBD Control function a Layer Performance can therefore be instantly converted into a Multi Part Performance in which the Parts can be played and controlled independently.

Of course, the Parts with the setting KBD Control off further receive the data of their MIDI channel.
ORGANISATION OF PERFORMANCES WITH USER WAVEFORMS

Basically, every Performance can use User Waveforms, regardless of whether it is located in the User Bank or one of the Library Banks. Each file type (User or Library) contains a self-contained data structure. Performances and Live Sets are loaded into the User or Library Bank, User Waveforms are installed on the Flash Memory. The management of the Flash Memory is done automatically.

As long as Performances use their associated User Waveforms only within their file, everything works without the need to observe anything. But: When a Performance of a Library Bank uses User Waveforms and is stored subsequently to an editing process as a new User Performance, then the Library containing the corresponding User Waveforms has necessarily to be loaded when you want to use this User Performance. Waveforms are not copied automatically when you save. This way, unwanted double storage of User Waveforms is prevented.

LIVE SET

A Live Set is a “Playlist” for Performances, an individual compilation of the Performances existing in MONTAGE.

In Live Set the following Banks are available:

- Live Set Preset Bank
- Live Set User Bank 1 to 8
- Live Set Library Bank 1 to 8

In each Bank up to 256 Performances can be organised in so-called “Slots”.

16 Performances are displayed in each of the 16 display pages of a Bank.

The compilation of the Live Set Preset Bank is already done at the factory and can not be changed.

The Live Set User Banks, however, can be put together completely individual.

In MONTAGE Live Set are thus a maximum of 17 Live Set Banks (1 x Preset, 8 x User, 8 x Library) conceivable which may include a total of 4,352 (!) Performance allocations. That should do for every gig.

The User Banks of Live Set can contain both Preset Performances and User Performances.

The Live Set Banks are part of a User file and thus are overwritten when loading an MONTAGE User file. When you load a User file in the MOTIF-format Live Sets are maintained on the other hand.

When a new Library file is saved, the Live Set allocations are automatically redirected to the Library Performance Banks.

It is left to the user for what purpose he uses the Live Set function. The primary intention is, as the name implies, the compilation of Performances for live playing on stage. So, if you are involved in several recording or live projects, they can each have their own Live Set Bank assembled.

The changing of the Performances also works seamlessly in the Live Set. So you could easily prepare multiple Performances for a song and change them in the required order.

It is also conceivable to use Live Set for individual Banks, like some sort “Best Of” selections.

SELECTING LIVE SET BANKS AND PAGES

All 256 assigned Performances of a Live Set Bank can be selected either on the respective pages on the touch screen or by using the 32 buttons of the matrix on the right on the front panel ([PIANO / 1] to [ARP SELECT 8]).

With the left half of the button matrix the 16 Performances of a Live Set Page can be selected. With the right half the 16 Pages of a Live Set Bank are selected.
Thus, a direct access to the 256 Performances of a Live Set Bank is possible by using the button matrix. The [MUTE / SOLO] buttons of the Part section are used to switch between the Live Set Banks, while the Live Set Pages can be changed with the [MUTE / SOLO] buttons of the Element section.

To select the last Performance on Page 5 within a Bank for example, press the buttons DRUM / PERCUSSION (= the fifth button on the right half) and Element 4 (the last button on the left side).

**EXAMPLE: INSERTING A PERFORMANCE IN A LIVE SET USING THE [SHIFT] BUTTON**

Enable the Performance mode and select the Performance that you want to add to a Live Set.

- Press the button [SHIFT] and then additionally the button [LIVE SET]
- The display changes to the Live Set User Bank and jumps directly to the first available Slot of the Live Set Pages
- The Slot is marked by a flashing border
- Tap on the Slot to assign the Performance to it
- If desired you can assign a name for the corresponding Slot by tapping on “Slot Name”. Use the field “Color” to also assign a colour, in order to make relationships visually recognisable

If you would rather like to use a different Slot, you are free to change the Page and select the Slot you want. Switching the Page and choice of Slots works like described above with the help of the button matrix. Hit the [ENTER] button to confirm this operation. Both the User Bank and every single Live Set Page can have individually assigned a name in the boxes from the top of the display.
MASTERKEYBOARD FUNCTIONS

Experienced users know and appreciate the MOTIF Master Mode. Its functionality is also implemented in MONTAGE. To use the Master keyboard functions, they have to be activated globally in the Utility settings.

- Press [UTILITY]
- Select „Setting“ > „Advanced“ > „Zone Master“
- If necessary, change the value from OFF to ON

Thus the conditions are given in order to make appropriate adjustments. The Master Mode of the MOTIF series is limited to eight Zones. In MONTAGE, all 16 Parts (!) may be provided with Master settings. This means that you can configure each Part individually.

The procedure is as follows:

- Enable the Performance Mode
- Press [EDIT]
- Select the Part to be edited with the [PART SELECT] button
- Tap „Part Settings“ > „Zone Setting“ on the display
- Set „Zone“ to ON

This gives you the option to set the MIDI Transmit channel, a Keyboard Range, and parameters such as Note Shift and Transpose. Furthermore, MIDI Program Change commands (including MSB / LSB), MIDI Volume and Panorama can be sent.

Save the Performance by pressing [STORE]. Of course, the settings remain stored in the Performance even if “Zone Master“ in the Utility Settings was switched to “OFF“. Live keyboardists will very much appreciate that the Masterkeyboard functionality is now available in every Performance. In conjunction with Live Sets MONTAGE can truly become the central master position of a keyboard setup.
An outstanding feature of MONTAGE is Motion Control. It is comprised of the following components:

- **Super Knob**
- **Controllers**
- **Motion Sequence**
- **Arpeggio**
- **Envelope Follower**
- **Side Chain Modulation**

The figure “Motion Control - Conceptual Diagram” explains the complex interaction of the different components. Multidimensional sound changes affect the Tone Generator which can also process the sound with effects. All used components of Motion Control are running in sync with the Tempo and can even be controlled by external audio signals.

**SUPER KNOB**

The Super Knob is a completely new feature of MONTAGE, which automatically controls all Assignable Knobs of the Common Part simultaneously.

Accordingly, no parameters are assigned directly to the Super Knob. All assignments to the Assignable Knobs of the Common Part are effective for the Super Knob.

The Common Part himself can - if desired - make use of the parameter assignments made in the Parts. In the result there is a huge potential of parameters to choose from for the Super Knob.

The first step for programming the Super Knob is usually the assignment of parameters in the Part Control Assign Page.
In the second step, a part of the assigned parameters can then be routed to the Super Knob. This is done in the display "Common> Control Assign", where the Common Assignable Knobs (Source) are assigned to the desired Part Assignable Knobs (Destination).

But before you are venturing into a Super Knob programming, you should first look at the appropriate settings of Preset Performances. Here is an example with a relatively simple Super Knob programming.

**EXAMPLE: PRESET PERFORMANCE “PERCUSSIVE DANCE 1” (CATEGORY “SYNCOMP”)**

This is a Single Part Performance with a simple, easily understandable function of the Super Knob.

- Press successively [EDIT] and [COMMON]
- Select "Control" > "Control Assign"
- At the top left of the display activate "Autoselect"
- Turn on ASSIGN (the button left of the Super Knob), so that the Assignable Knobs are active
- Move the Knobs 1-8 one after the other. The Display Filter switches automatically to the corresponding page. You can determine for each Common Assignable Knob, whether and which Part Assignable Knobs are assigned

You will notice the following assignments:

- Source = Common Assignable Knob 1
- Destination = Part 1 Assignable Knob 1
- Source = Common Assignable Knob 2
- Destination = Part 1 Assignable Knob 2
- Source = Common Assignable Knob 3
- Destination = Part 1 Assignable Knob 3

The first three Assignable Knobs of Part 1 are thus routed to the Super Knob.

- Stay in EDIT mode and select Part 1
- Determine which parameters are assigned to the Part Assignable Knobs by observing the "Mod / Control > Control Assign" values in the Common Part
- To do so, move the Knobs, to which you have determined a Super Knob allocation in the previous step

You will notice the following assignments:

- Assignable Knob 1 = Cutoff
- Assignable Knob 2 = Filter Resonance
- Assignable Knob 3 = Volume

These visible destination parameters for each assigned Knob are the parameters that are controlled by the Super Knob.

The Super Knob starts with the value 0, ie the far left. With increasing movement to the right the “Cutoff” is decreased and “Resonance” slightly increased. To avoid distortions when the Filter is closed and the Resonance on a high value, the Part volume is slightly lowered.
MOTION SEQUENCE

With the Motion Sequencer complex sound controls can be carried out on the basis of parameter assignments in the Control Assign displays.

The Motion Sequencer works similarly to a conventional multi-track step sequencer, but with the difference that here no notes, but in the Control Assign assigned sound parameters can be controlled in real time. The Motion Sequencer can be used independently of or in addition to the Arpeggiator and synchronised with all Tempo-dependent processes in MONTAGE.

The Motion Sequence function is present in each Performance Part. The Common Part and the Parts 1-8 all have up to four Lanes available. However, a maximum of eight Lanes can be used within a Performance.

A Lane can be virtually regarded as a Track of the Motion Sequencer, which controls the parameters that were assigned to it in Control Assign. Each Lane has its own set of parameters. Each of the four Lanes available in a Part contains eight Sequences. So, in one Part a total of 32 individual Sequences can be included.

In PLAY mode, the display "Motion Control > Motion seq" conveys an overview of the Lanes used in a Performance. For each Part there is a global Motion Sequence Part Switch ("PartSw"), which is set to ON for all Parts per default. The respective Lanes 1-4 are activated to the right of the PartSw. For example, if the Lanes 1-3 of a Part are set to ON, at the top of the display "Active 3/8" appears. Therefore there are three of eight available Lanes active.

If eight Lanes are already active, one of these Lane must be turned OFF before another can be activated.

The Motion Sequence parameters of the Parts are available in EDIT mode from the display "Motion Seq" with the two sub-pages "Common" and "Lane".

The display "Common" shows the Knob parameters which are related to the areas Arpeggio and Motion Sequence. These are used for changing global parameters in real time and play no role in the programming of Motion Sequences.

The display "Lane" shows in a matrix the settings for the Motion Sequence functions of each Part.

The Lanes can be switched on and off using "LaneSW". These switches are identical to the Lane Switches in the Overview Page in PLAY mode as described above.

"MS FX" determines whether the global parameters Amplitude, Shape, Smooth, and Random are active or not to be controlled with the Motion Seq Knobs.

"Trigger" can be activated for each Lane when the Motion Sequence is to be started by pressing the [MOTION SEQ TRIGGER].
"Sequence Select" selects the Motion Sequence Numbers 1 - 8. When switching the Sequence all Lanes are switched simultaneously. If you are not in EDIT mode, you can switch the Sequences with the MOTION SEQ SELECT buttons 1-8.

To edit the selected Sequence of a Lane simply press "Edit Sequence" at the bottom of the Lane Page.

There, the Sequence can be programmed similar to a conventional step sequencer.

The number of Steps can be set with the parameter "Cycle". The default setting "Cycle = 8" offers eight Steps.

For each Sequence with "Pulse A" and "Pulse B" two different curves can be selected. These can be played back either forward or backwards (reverse) and - depending on the selected curve - be modified by one (Prm1) or two parameters (Prm1 + Prm2).

**Arpeggiator**

The Arpeggio functions of MONTAGE have been largely taken over from the MOTIF XF. However, there are the following enhancements:

On the MOTIF XF there were five ARP SELECT numbers for each Voice or Part, which were selected by the five sub-function buttons (SF1-5). On MONTAGE there are eight ARP SELECT numbers selectable with the [ARP SELECT] buttons in the bottom row of the button matrix. In addition, the ARP SELECT numbers can also be assigned to the Scenes 1 - 8.

The number of Arpeggio Types has been increased from 7,881 (MOTIF XF) to 10,000 (MONTAGE).

There is a new group of special Arpeggio Type for musical styles like Dance / Electronic, which are marked with the suffix "2Trk". These 2-Track Arpeggios contain a switch, which is dependent on the number of keys you play.

If you press one keyboard key, only Track 1 of the Arpeggio is played. This includes an authentic Dance / Electronic phrase, for example, a typical step sequence, or sequences that may include chord changes.

However, if you press more than one keyboard key, a conventional Arpeggio is played, which is also suitable for playing chords.
SCENES

With the Scenes 1-8 certain settings of the Parts can be stored like a snapshot in digital mixers.

The illumination of the Scene buttons indicate whether a Performance uses Scenes or not. Dimly lit buttons indicate that Scenes can be selected. The current Scene is characterised by a fully lit button.

In the Preset Performances the Scenes are mainly used for a common switching of MOTION SEQ SELECT and ARP SELECT. With these, a Performance can be arranged similar to a music production.

With these steps you will quickly understand how the Scenes work:

- Select a Performance which uses Scenes - you can see from the illumination of the Scene buttons
- In the Performance Play Mode select the display “Scene”
- Play the Performance and try the Scenes 1-8 to get to know the arrangement that is realised with these Scenes

Each time you switch to another Scene you can see on the display that the Motion Seq Select and the Arp Select numbers change.

ENVELOPE FOLLOWER

An interesting feature that can also be settled in the broader sense in the field of Motion Control, is the Envelope Follower. With this function parameters of a Part can be modulated by the output of another Part. In this way, movements or rhythmic sequences of a Part can be transferred to other Parts.

The setting of the Envelope Follower takes place by selecting the appropriate parameter assignation in the Part display "Mod / Control > Control Assign".

For this purpose there are EnvFollow 1-18 available as a Source.

The numbers 1-16 correspond to the Parts 1-16, the numbers 17 and 18 mean the A/D Parts L + R.

In the Scene display you can set the Arp Select numbers 1-8, but not the Arp Types themselves. In order to determine which Arp Types are assigned to the respective Arp Select numbers in a Part, you have to select the desired Part in EDIT Mode and call up the display “Arpeggio > Individual”.

In the graphic below, all parameters which can be saved in a Scene are summarised.
SIDE CHAIN MODULATION

The Side Chain Compression effect has long been extremely popular in music styles like Dance / Electronic - in MONTAGE this effect is easy to implement using the compressor effects with their Side Chain Modulation parameters.

In Side Chain Compression (also called "ducking" or "pumping") the signal of a track is turned down in volume when the level of other tracks - ie the modulating signal - rises. For example, a bass drum signal is often fed to the Side Chain Input of a compressor.

The following insert effects of MONTAGE feature a Side Chain Input:

- VCM Compressor 376
- Classic Compressor
- Multiband Comp
- Ringmodulator
- Dynamic Ringmodulator
- Dynamic Filter
- Dynamic Phaser
- Dynamic Flanger

The Side Chain modulation is activated for a Part by selecting the Part that is to be used as a modulation source in the "Side Chain" parameter in the Insert Effect Page. This will be mostly the Drum Part.

A typical application of Side Chain modulation is the rhythmic level reduction of a trance synth pad by a bass drum that is played exclusively on the four beats ("four on the floor"). The resulting sound is often referred to as "pumping pad".
The expanded FM synthesis used in MONTAGE is referred to as “FM-X”.

**FM-X PART FEATURES**

What distinguishes an FM-X Part in MONTAGE from the classic FM tone generation in the DX7?

The main enhancements over the DX7 are:

- 8 Operators (DX7 = 6 Operators)
- 88 Algorithms (DX7 = 32 Algorithms)
- 7 Spectral Forms (DX7 = only sine)
- Spectral Skirt (Broadening the Harmonic Curve)
- Spectral Resonance (Shifting the Harmonic Peaks)
- Frequency Envelope Generator
- Comprehensive Controllers
- Random-controlled Panorama
- Filter with multiple types
- Additional Common LFO
- 3-Band and 2-Band EQ
- Multiple FM Parts can be used in a Performance
- Insert and System Effects
- Motion Sequences
- Intuitive sound editing with sliders, buttons, and knobs
- Sound control using the Super Knob
- Sound can be modulated by other Parts or external audio signals using the Envelope Follower
- Combination with AWM Parts and Drum Parts
- Arpeggiator with 10,000 Arpeggio Types
- FM stereo sounds possible when using two or more Parts
THE MONTAGE WAY
OF DOING FM SYNTHESIS

With MONTAGE Frequency Modulation becomes a completely new experience. Due to the touch screen and the intelligent arrangement of parameters any dive in deep menu levels is omitted.

For example, you can easily make a choice from the 88 Algorithms by using a clear matrix. If you select "Part Settings > Algorithm > Search Algorithm" from the Part Edit display (Common), you get the opportunity to narrow down the search for the number of Carriers and Modulators. The horizontal selection "Carrier" determines the number of Carrier Operators while "Chain" (vertical) indicates the index for the Modulators. A discreet background-image contributes significantly to this clarity by indicating how many Algorithms correspond to the selection made.

The presentation and editing of Envelope parameters for example is solved appealing and comfortable. Value changes are possible by selecting the appropriate field and using the buttons and the Data Wheel, moreover, another tap on the field opens a numerical entry window.

Parameters such as Spectral From and Spectral Skirt bring "analog feel" into the world of Sine-based FM tone generation. A wide selection of Filter Types, LFOs and EQs for each FM X Element also help to shape the sound according to your wishes.
WHAT IS FM?

The FM synthesis was already developed in 1967 by the American scientist Prof. Dr. John Chowning of Stanford University, but not published until 1973. A year later the Yamaha Corporation bought the patents to the then revolutionary synthesis method. In 1983 the Yamaha DX7 was introduced and put the synthesizer world upside down - pushing even synth legends like Moog or Oberheim to the background.

Countless music productions were decisively influenced by the sound of the DX7, whose strengths lay mainly in completely new electric pianos, synth basses, harps, organs, and metallic synth sounds. The dynamics of these sounds were the benchmark for all future digital sounds.

FM is short for “Frequency Modulation”. Here Oscillators are modulated by other Oscillators whose Volume and Frequency critically characterise the sound. In the Yamaha terminology the Oscillators of FM synthesis are called Operators. The simplest interconnection is that one Operator as Carrier is modulated by another Operator as the Modulator. But, since the FM tone generator of MONTAGE, however, features a total of eight Operators for a sound, the Algorithms (that determine how the Operators are linked) are often much more complex.

When editing Voices the Volume and Frequency of the Operators play an important role. The Volume of the Modulator determines the modulation intensity. The higher it is, the more harmonics are added to the Carrier’s signal. With increasing count of harmonics the sound gets brighter. The basic sound of the Carrier Operator - a pure sine wave - is transformed by simple modulations to a sine wave that’s enriched with harmonics.

Using further modulations and corresponding Frequency settings then create square waves, sawtooth waves or complex sound spectra which can not be produced with conventional analog synthesizers. In addition, the sound is characterised by multi-stage Envelope Generators that are present for each Operator.

After the ground breaking success of the DX7 the FM synthesis has been implemented in a large number of Yamaha synthesizers.

Some popular examples are: TX7, TX816, DX21, TX81Z, DX27, DX100, FB01, DX7II, TX802, V50, SY77, SY99, FS1R, DX200, PLG150-DX, reface DX.
Storing and managing large amounts of sounds for MONTAGE is extremely simple thanks to the support of USB drives as storage media.

STORING USER FILES

The entire user data can be saved as User files with the extension ".X7U" on a USB memory stick. A User file includes the following data:

- **Performance**: max. 640
- **Curve**: max. 32 (for Control Assign + Motion Sequence)
- **Arpeggio**: max. 256
- **Motion Sequence**: max. 256
- **User-Waveform**: max. 2,048
- **Micro Tuning**: max. 8
- **Live Set**: max. 2,048

In addition to the Preset and User Banks there are eight Library Banks available, which can be loaded as Library files (extension ".X7L"). The difference to the User Bank is merely that the Performances of the Library Banks can not be edited.

LIBRARY FILES

A Library file is a copy of a complete User Bank.

The Library file is created by string a User Bank - ie all User Performances, User Waveforms, Samples, and User Arpeggio Patterns - as a Library file. Subsequently, the Library file can be loaded into the instrument, whose Performances can then be used like user-created Presets. The first Library file is automatically loaded into the Library Bank 1, the next in the Library Bank 2 etc.
The full contents of User Memory (incl. User Waveforms and Samples) can be saved as a Library with these steps:

• Press [UTILITY]
• Select the display "Contents" > "Store / Save"
• Select the Content Type "Library" at the top of the display
• Tap on "[Save As New File]"
• Enter a name and confirm with "Done"

Right afterwards the saved Library file can be loaded with these steps into a Library Bank:

• Press [UTILITY]
• Select the display "Contents" > "Load"
• Select the Content Type "Library" at the top of the display
• Select the previously saved Library file (extension ".X7L")

IMPORTANT NOTE:

If you are editing a Performance from a Library Bank, it can only be stored as a new User Performance. It is not possible to directly store it in the Library Bank. For this reason, in addition to the Library file you should always store the same memory contents of the User Bank as a User file. If it is later necessary to change Performances of a Library or to add Performances to it, this has to be done in the User Bank the Library was made from. Subsequently, the modified User Bank must be saved as a Library file and the changed Library to be reloaded again.
The sequencer functions of MONTAGE are enormously helpful to record the inspiration you just have with the instrument - with a simple push on a button. Or prepare backing tracks which you can then embed in your live performance.

**SONG RECORDING (DIRECT PERFORMANCE RECORDING)**

The Song features are accessible by selecting the Play / Rec function (from the Performance Main Page). The button [RECORD] in the Sequencer Transport block is always active and immediately switches to a MIDI Record Mode. The display offers a few settings such as Tempo, Time Signature, Position selection and Quantisation. By default the Tempo is taken from the active Performance and all Parts are set in the Play Mode. The Playback button starts the recording. This functionality is known from the MOTIF series as "Direct Performance Recording", to quickly and easily realise recordings of your performance. All operations of controllers such as Super Knob, Knobs and Faders, Scene parameters, Assign and Motion Sequence buttons are recorded. A resulting recording is automatically saved as "New Song **", the number * varies depending on the number of already saved recordings. Every important recording should be saved as a MIDI file (format 0). This is directly possible from the Record display. It requires a connected USB storage device. If the MIDI file is to be processed further in a DAW, you should extract the parts by their MIDI channels after having imported the file onto a MIDI Track of your DAW. If the Performance is active in MONTAGE you should be able to playback the file instantly. Only the “Arp Play Only” parameter must be disabled for the corresponding Parts.

**SONG PLAY INCLUDING STANDARD MIDI FILES**

MONTAGE can load and play back Songs and Standard MIDI files from a USB storage device. The following steps are required:

- Enable the Performance Mode
- Optional: Select an INIT Performance
- Select Play / Rec on the display
- Select “MIDI”
• Tap on "Song Name" and then "Load"
• Tap on "Content Type" and then ".mid File"
• Locate the MIDI file on your USB device and select it

With this procedure, the MIDI file is loaded into the current Performance and the RAM memory. This way up to 64 files can be loaded that are kept in memory and are available even after the instrument was shut down. The selection is made via the Content Type "Song&Perf". General MIDI files are played correctly.

PLAYBACK OF AUDIO FILES FROM A USB DEVICE

Audio files can be directly played back from a connected USB storage device, the file has to be in .WAV format. The following procedure is required:
• Enable the Performance Mode
• Select "Play / Rec" on the display
• Select "Audio"
• Tap on "Audio Name" and then "Load"
• Locate the audio file to your USB device and select it
• Start the playback

After a tap on the fields of Position and Volume these can be changed with the dial. During playback, the screen and several buttons are locked. The selected Performance is, however, active, as are the Scene buttons, Super Knob, and Controllers.
## SPECIFICATIONS

**Keyboards**

- MONTAGE8: 88 keys, Balanced Hammer Effect Keyboard (Initial Touch/Aftertouch)
- MONTAGE7: 76 keys, FSX Keyboard (Initial Touch/Aftertouch)
- MONTAGE6: 61 keys, FSX Keyboard (Initial Touch/Aftertouch)

**Tone Generator block**

- **Tone Generator**: Motion Control Synthesis Engine
  - AWM2: 8 Elements
  - FM-X: 8 Operators, 88 Algorithms
- **Polyphony**: AWM2: 128 (max: stereo/mono waveforms)
  - FM-X: 128 (max.)
- **Multi Timbral Capacity**: 16 Parts (internal), Audio Input Parts (A/D1, USB1)*
  - *1 stereo Part
- **Waveforms**: Preset: 5.67 GB (when converted to 16-bit linear format), User: 1.75 GB
- **Performances**: Approx. 1,900
- **Filters**: 18 types
- **Effect System**: Reverb x 12 types, Variation x 76 types, Insertion (A, B, C) x 76 types, 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 block**

- **Note Capacity**: Approx. 130,000 notes
- **Note Resolution**: 480 ppg (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.)

**Others**

- **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), [PHONE3] (6.3 mm, standard stereo phone jack), A/D INPUT/L/MONO/[FR] (3.5 mm, standard phone jack)
- **Dimensions, Weight**:
  - MONTAGE8: 1,450 (W) x 470 (D) x 160 (H) mm (57-1/16" x 18-1/2" x 6-5/16")
  - 29 kg (63 lbs., 15 oz.)
  - MONTAGE7: 1,244 (W) x 396 (D) x 131 (H) mm (49" x 15-9/16" x 5-3/16")
  - 17 kg (37 lbs., 8 oz.)
  - MONTAGE6: 1,037 (W) x 396 (D) x 131 (H) mm (40-13/16" x 15-9/16" x 5-3/16")
  - 15 kg (33 lbs., 1 oz.)
- **Accessories**: AC Power cord, Owner’s Manual (this book), Cubase AI Download Information

Specifications and descriptions in this owner’s manual are for information purposes only. Yamaha Corp. reserves the right to change or modify products or specifications at any time without prior notice. Since specifications, equipment or options may not be the same in every locale, please check with your Yamaha dealer. Visit the web page for information on the latest Owner’s manual.