m3

MUSIC WORKSTATION/SAMPLER

XPANDED

Supplementary Guide



EDS Enhanced Definition Synthesis

TouchView Graphical User Interface

KARMA KAY ALGORITHMIC REALTIME MUSIC ARCHITECTURE

KKS KORG Komponent System

REMS

USB2.0

GENERAL MIDI

KORG

Ⓔ ②

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Main features of the M3 XPANDED

PCM expansion options added, and multisamples updated

Approximately 384 Mbytes* of multisamples from PCM expansion options have been added. This increases the total to a maximum of 640 Mbytes*, which is 2.5 times as much as the original M3's 256 Mbytes* of preset multisamples.

* These capacities indicate the size when converted to 16-bit linear data.

The multisamples of the following PCM expansion options can be used.

- EX-USB-PCM01: Brass and Woodwinds 1 (approximately 128 Mbytes*)
- EX-USB-PCM02: Brass and Woodwinds 2 (approximately 128 Mbytes*)
- EX-USB-PCM03: Stereo Grand Piano (approximately 128 Mbytes*)

In order to use all of these multisamples simultaneously, you'll need to install the optional Korg EXB-M256 sample memory expansion board (sold separately). If this is not installed, you can use only one of these titles at a time.

The 256 Mbytes* of preset multisamples and drum samples of the original M3 have also been updated.

EX-USB-PCM01: Brass and Woodwinds 1

EX-USB-PCM02: Brass and Woodwinds 2

EX-USB-PCM01/02 Brass & Woodwinds is a PCM expansion option for the M3 containing brass and woodwind sounds that were created with painstaking attention to detail and playability.

- Approximately 256 Mbytes* (when converted to 16-bit linear) of PCM memory is provided to create 128 new programs and 32 new combinations. This new data covers a broad range of sounds, suitable for everything from orchestration to popular music.
- Top of the line instruments were sampled with variations to cover every musical need; for example, flutes include piccolo and alto flute, trumpets include piccolo trumpet as well as cornet, and clarinet sounds also include bass clarinet.
- Numerous variations of performance techniques have been sampled, including: dynamics, trills, falls, growls, and staccato on each instrument. In addition, the M3's EDS synthesis engine has been used to create programs that deliver sounds that are richly expressive, even when a single note is played. This would be difficult to produce simply by playing back sampled data. For example, in programs that contains a breath sound with legato, the breath sound is emphasized for the first note but it's removed from subsequent notes that are played legato, providing a more natural performance. There are also numerous variations, such as different types of vibrato, and different attacks which are suitable for staccato playing.

EX-USB-PCM03: Stereo Grand Piano

EX-USB-PCM03: Stereo Grand Piano is a sound library created using a single-point stereo recording of a top-class full concert grand piano. It uses four-level velocity splits to ensure rich and natural sound, and allows a high degree of expressive power.

- Approximately 128 Mbytes* of PCM data contains 7 programs and 2 combinations, covering a range of sounds appropriate for any production in styles ranging from classical to rock and jazz.
- One-point stereo recording was used to preserve the stereo image. From the attack on the strings to the decay, a natural stereo image has been lavishly captured. The natural resonances of the strings when the damper pedal is held down has also been recorded. These sounds are used by the M3's EDS synthesis engine to faithfully reproduce the full natural decay of the vibrating strings decaying to silence, as well as the subtle sounds of pedal control.

Updated multisamples and drum samples

The 256 Mbytes* of preset multisamples and drum samples on the original M3 has been updated. In particular, stereo piano and vintage keyboard sounds have been updated to deliver even more realistic piano sounds that include a monaural piano often used in band ensembles as well as the Korg SG-1 sampling grand beloved by artists, in addition to PCM data capturing the sounds of tape-type samplers.

New and updated programs and combinations

Together with the 512 preloaded programs of the M3 v.1 and the 512 programs added in M3 v.1.2, as well as the 32 vocoder programs, this gives you a total of 1,216 (EDS) preloaded programs and 416 preloaded combinations.

☞ Refer to "Playing the programs of PCM expansion option" (page 5) in this guide.

The programs have been organized by instrument type to make it easy to compare sounds in the same category.

Added functions in Sequencer mode

Sequencer mode has been enhanced by a new Track View page, Piano Roll screen, and the capability to edit MIDI system exclusive data. This lets you produce tracks even more efficiently then before.

☞ Refer to the explanations for “Additional sequencer functionality” (page 11) in this manual and “M3 XPANDED Parameter Guide” (PDF).

KARMA Version 2.2

KARMA 2.2 is a major new release, including support for
User GEs, new control over Scene change and Module quantization, the ability to switch KARMA GEs seamlessly while KARMA is operating, and other improvements.

8 banks of 128 User GEs (for a total of 1024 GE memory locations) have been added. You can also save and load .KGE files, which contain KARMA GEs and Template Data. GEs may be created, edited, and uploaded to the M3 XPANDED using the optional KARMA M3 Software (PC/Mac), available separately from Karma-Lab (www.karma-lab.com).

☞ Refer to “Expansions to KARMA the function” (page 13) in this manual and “M3 XPANDED Parameter Guide” (PDF).

More effect preset data

Preset data has been added to the effect preset functions that allow you to save variations of parameter settings for each effect.

A total of 700 immediately usable effect presets by professional sound creators is now available.

☞ Refer to “M3 XPANDED Parameter Guide” (PDF) page 102 “Using Effect presets” and “M3 XPANDED Voice Name List” (PDF).

More preset patterns

We have added 149 realistic drum patterns.

This increases the 522 preset patterns of the original M3 to 671, giving you more variety for the Drum Track function, for song production with the sequencer, and when using the RPPR function.

☞ Refer to “M3 XPANDED Parameter Guide” (PDF) page 4, 28, 140, 219, 275, 277, and to the “M3 XPANDED Voice Name List” (PDF).

Improved user interface

The velocity values of note-on events is now shown by a realtime meter. In addition, you can now use knobs and sliders in the display by dragging them (Touch Drag operation).

☞ Refer to “Improvements to the user interface” (page 12) in this guide.

Added functions to load Korg PCM expansion option data

Media mode now has a function that lets you load or unload Korg PCM expansion option data.

☞ Refer to “Loading PCM expansion option multisamples” (page 7) in this guide, and to “M3 XPANDED Parameter Guide” (PDF) page 413 (0-7: EX-USB-PCM).

Convert data from the M3 (system v.1) or M50

The M3 XPANDED allows you to load PCG files or SNG files that were saved by the M3 (system v.1) or the M50; multisample numbers and other settings will be converted appropriately. (For the M50, only common functions are supported.)

☞ Refer to M3 XPANDED Parameter Guide (PDF) page 657 “Compatibility with the M3 (system v.1) and M50.”

Playing the programs of PCM expansion option

About the new programs and combinations

EX-USB-PCM01/02

- 79 programs using EXPCM01
- 44 programs using EXPCM02
- 5 programs using both EXPCM01 and 02
- 32 combinations using the preload programs, EXPCM01 programs, and EXPCM02 programs

EX-USB-PCM03

- 8 programs using EX-USB-PCM03
- 2 combinations using the EX-USB-PCM03 preloaded programs

Note: Programs/combinations that use PCM expansion option multisamples will have EX1, EX2, EX1&2, or EX3 at the end of their names.

These programs/combinations will not sound correctly unless the corresponding multisamples are loaded.

Programs using the updated multisamples

The 512 preloaded programs of the original M3 v.1 and the 512 programs added by M3 v.1.2 have been rearranged together with the EX-USB-PCM03 programs, and are all included.

However, some of the programs/combinations that use updated multisamples may sound slightly different.

Quick Start

1. **Connect the USB device containing the KEP file to the USB A connector of the M3 XPANDED.**

Note: The KEP file on the USB device must be located in the root directory.

2. **Power-on the M3 XPANDED.**

The M3 XPANDED's display will show a red progress bar while the system data is being loaded. When the system data has finished loading, a blue progress bar will be shown while the EX-USB-PCM03 is auto-loaded. During this process, the title of the EX-USB-PCM that is loading will be shown at the bottom of the display.

Note: By default, EX-USB-PCM03 will be loaded automatically.

Note: Never disconnect the USB device containing the KEP file while the data is being loaded.

3. **Let's listen to a program that uses EX-USB-PCM03. Press the MODE PROG switch to enter Program mode.**

4. **Select Bank INT-A 000: Stereo Grand 4-Way 1 EX3.**

This is a program that uses the EX-USB-PCM03 multisamples.

If a different program is selected, highlight "Program Select," and then press the BANK SELECT I-A switch, numeric key 0, and the ENTER switch in that order.

Use the keyboard and pads to play the program.

Locations INT-A020 through 022 also contain EX-USB-PCM03 programs.

Note: Programs/combinations that use PCM expansion option multisamples will have EX1, EX2, EX1&2, or EX3 at the end of their names.

These programs/combinations will not sound properly unless the corresponding multisamples are loaded.

5. **Next, let's listen to a combination that uses EX-USB-PCM03.**
Press the MODE COMBI switch to enter Combination mode.

6. **Select bank INT-A 000: Towards The Sun EX3.**

This is a combination that uses the EX-USB-PCM03 multisamples.

If a different combination is selected, highlight "Combination Select," and then press the BANK SELECT I-A switch, numeric key 0, and the ENTER switch in that order.

Use the keyboard and pads to play the combination.

Locations INT-B016 also contain EX-USB-PCM03 combinations.

7. **If you want to hear programs or combinations of the other PCM expansion options (EX-USB-PCM01 and EX-USB-PCM02), load the multisamples in the EX-USB-PCM page or the Load page.**

If the optional EXB-M256 (sold separately) is not installed, you'll need to unload the EX-USB-PCM03 multisamples before you can load EX-USB-PCM01 or EX-USB-PCM02.

If the optional EXB-M256 is already installed, you can load all three sets of multisamples (EX-USB-PCM01, EX-USB-PCM02, and EX-USB-PCM03) without having to unload the EX-USB-PCM03 multisamples.

Refer to the following sections.

☞ page 7 "Loading in the EX-USB-PCM page"
☞ page 7 "Loading in the Load page"
☞ page 8 "Removing (unloading) PCM expansion option multisamples"

The tables below show the numbers of the programs/combinations that use the PCM expansion options. You'll need to load the appropriate multisamples before listening to these sounds.

Programs/combinations that use the PCM expansion options

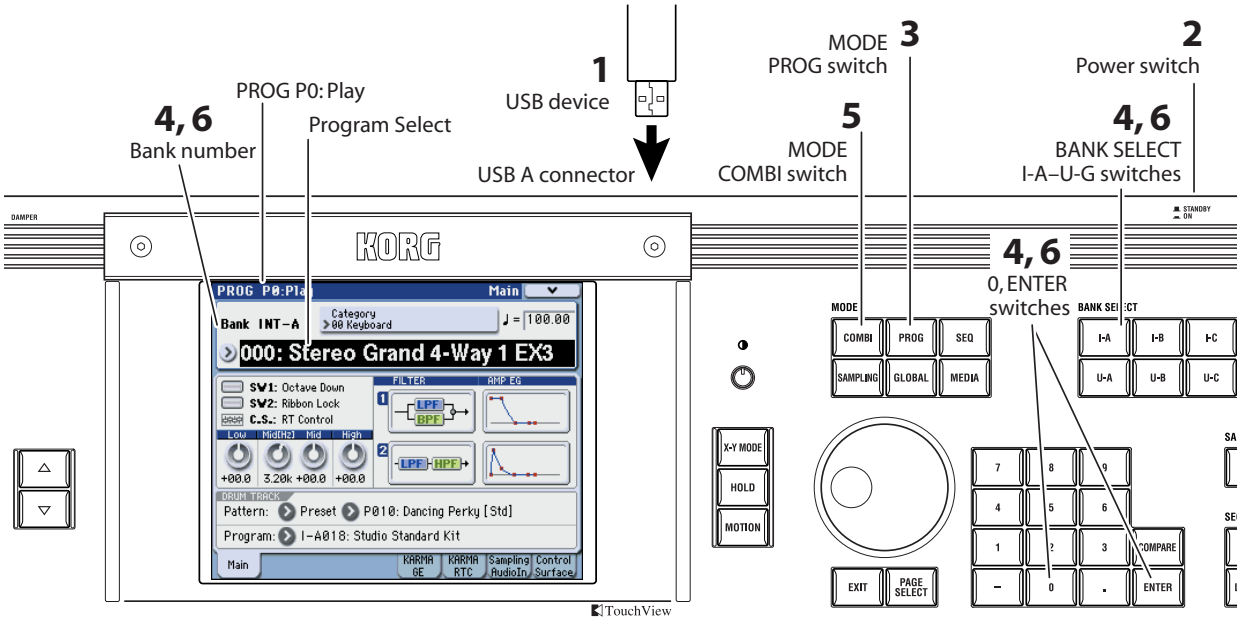
Program

EX-USB-PCM03	INT-A000, 020...022, 028, 038...040
EX-USB-PCM01, 02	USER-E000...127

Combination

EX-USB-PCM03	INT-A000, INT-B016
EX-USB-PCM01, 02	USER-E000...031

Note: EX-USB-PCM01 and 02 programs/ combinations are stored in the USER-E bank. Press the BANK SELECT U-E switch to select the USER-E bank.



Loading PCM expansion option multisamples

In order to use programs of the EX-USB-PCM01, 02, and 03 PCM expansion options, you'll need to load the corresponding multisamples.

Note: An M3 XPANDED in which the separately sold EXB-M256 option has not been installed will be able to load only one of the three sets of multisamples (EX-USB-PCM01, 02, or 03). If the separately sold EXB-M256 option is installed, you'll be able to load and use all of the EX-USB-PCM01, 02, and 03 multisample sets. In order to take full advantage of the PCM expansion options, we recommend that you install this.

Loading in the EX-USB-PCM page

1. **Connect the USB device containing the KEP file to the USB A connector of the M3 XPANDED.**

Note: The KEP file on the USB device must be located in the root directory.

2. **Press the MODE MEDIA switch to enter Media mode.**
3. **In the lower right of the display, press the EX-USB-PCM tab to access the EX-USB-PCM page.**

The upper line will show the usage of RAM1 and RAM2. RAM2 is available if the separately sold EXB-M256 option is installed.

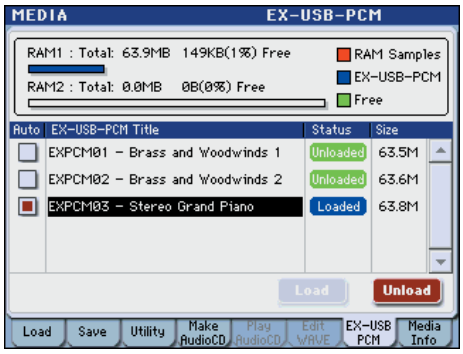
The titles of the EX-USB-PCM data are shown in "EX-USB-PCM Title."

4. **Select the EX-USB-PCM that you want to load, and press the Load button.**

The Load button will be available if you select an EX-USB-PCM whose "Status" is Unloaded. When you press the Load button, a confirmation message will appear; press the OK button to load the data.

This button can't be selected if RAM memory capacity is insufficient, or if you selected a title whose "Status" is Loaded.

When loading is completed, "Status" will change to Loaded. The bar that indicates the RAM usage in the upper line of the display will change from green (Free) to blue (EX-USB-PCM), verifying that the EX-USB-PCM has been loaded into RAM memory.



Note: If there is free space in both RAM1 and RAM2 (if the EXB-M256 is installed), the data will be loaded starting with RAM1.

If the Load button is not active, you'll need to unload multisamples (☞ page 8 "Removing (unloading) PCM expansion option multisamples"). Alternatively, you can delete samples or multisamples in the Sampling mode (☞PG page 345, page 347).

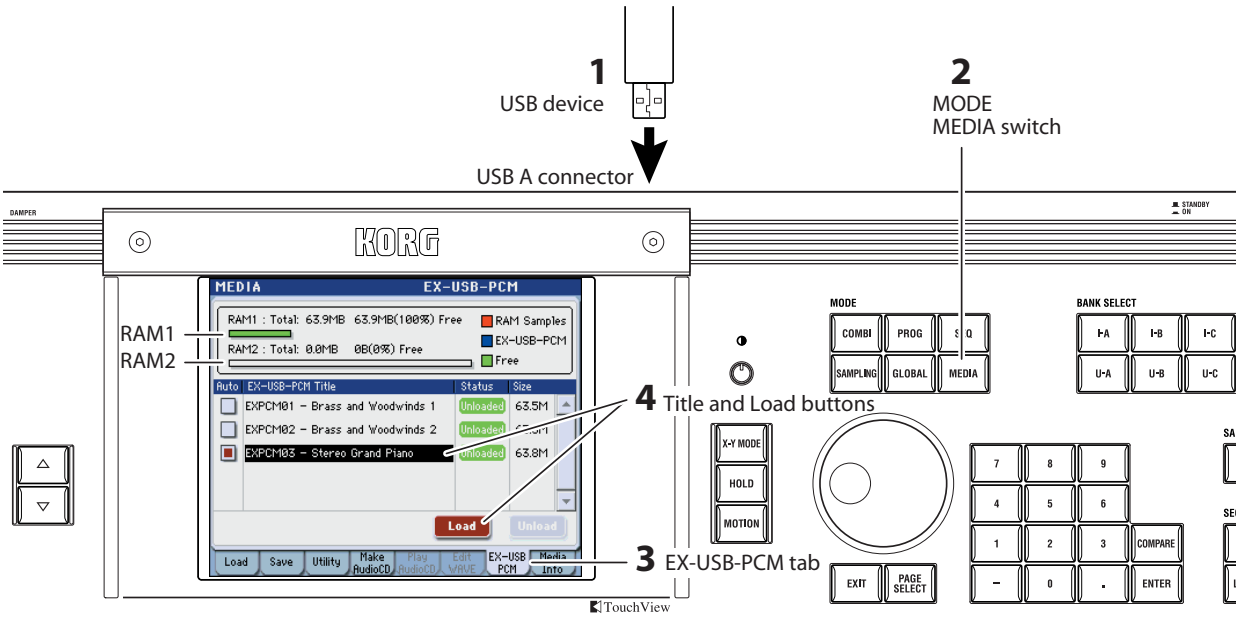
The PCM expansion option multisamples will disappear from the internal RAM memory when you power-off the M3 XPANDED. You'll have to load them the next time you power-on the M3. However, you can use the Auto Load function so that the multisamples will be loaded automatically when the power is turned on. (☞ page 9 "EX-USB-PCM Auto Load function")

Loading in the Load page

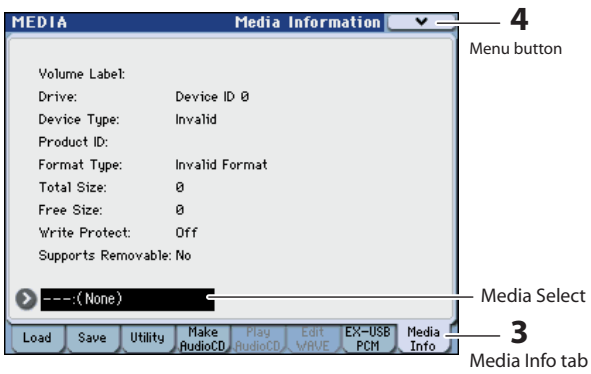
As an alternative to loading them in the Media mode EX-USB-PCM page as described above, PCM expansion option multisamples can also be loaded from the Load page etc. of the same mode.

Normally you'll use this method when you need to load an EX-USB-PCM that's not listed in the EX-USB-PCM page.

1. **Connect the USB device containing the KEP file to the M3 XPANDED's USB A connector.**



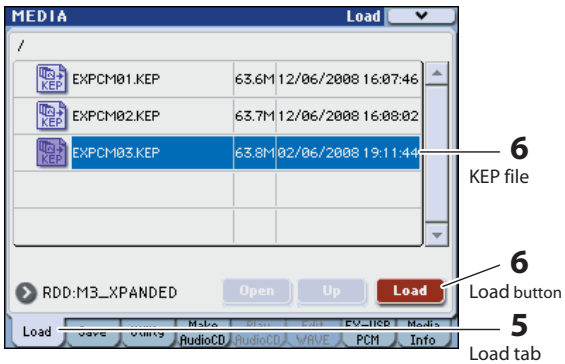
2. **Press the MODE MEDIA switch to enter Media mode.**
3. **In the lower right of the display, press the Media Info tab to access the Media Info page.**



4. **In the upper right of the display, press the menu button, and then press "Scan USB device" to detect the USB device.**

Note: If more than one USB device is connected to the USB A connectors, use "Media Select" to select the device that contains the file you want to load.

5. **In the lower left of the display, press the Load tab to access the Load page.**
6. **Select the KEP file that you want to load, and press the Load button.**



7. **A dialog box will appear. Press the OK button to load the data.**

If you load an EX-USB-PCM that is not shown in the EX-USB-PCM page, the title will be added to the list at this point.

About KEP files

Files with an extension of KEP (**K**org **E**X **P**CM) handle expansion PCM data. This is a dedicated format for the Korg M3 XPANDED.

KEP files contain PCM data and parameter data. The PCM data will be loaded into RAM memory (RAM1, RAM2*). The parameter data will be loaded into the system area of internal memory. (*: Available if the EXB-M256 is installed)

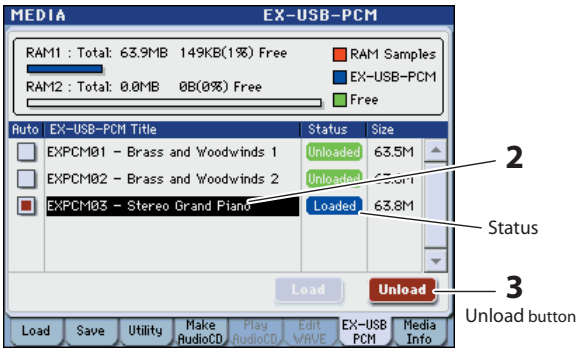
You can make settings so that the KEP file data will be loaded automatically when you power-on the M3 XPANDED. (☞ page 9 "EX-USB-PCM Auto Load function")

Removing (unloading) PCM expansion option multisamples

Multisamples from a loaded KEP file can be removed (unloaded) from the M3 XPANDED's RAM memory. By unloading the loaded multisamples, you can make room to load other PCM expansion option multisamples or to record your own samples.

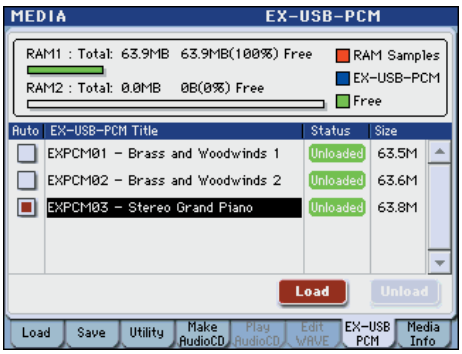
1. **Press the MODE MEDIA switch to enter Media mode, and in the lower right of the display, press the EX-USB-PCM tab to access the EX-USB-PCM page.**
2. **Press a loaded EX-USB-PCM to select it.**

The "Status" column shows the currently-loaded EX-USB-PCM titles.



3. **Press the Unload button. A dialog box will appear, so press the OK button to unload the data.**

The "Status" will change to Unloaded. The bar in the upper part of the display that indicates the RAM usage will change from blue (EX-USB-PCM) to green (Free), verifying that the EX-USB-PCM has been removed from RAM memory.



4. **If you want to load a different title, select the EX-USB-PCM that you want to load, and press the Load button to load it.**

As desired, load or unload EX-USB-PCM01 and 02 so that you can try out their programs and combinations.

EX-USB-PCM Auto Load function

When you power-on the M3 XPANDED, this function can automatically load EX-USB-PCM data (KEP files) from a USB device connected to the USB A connector.

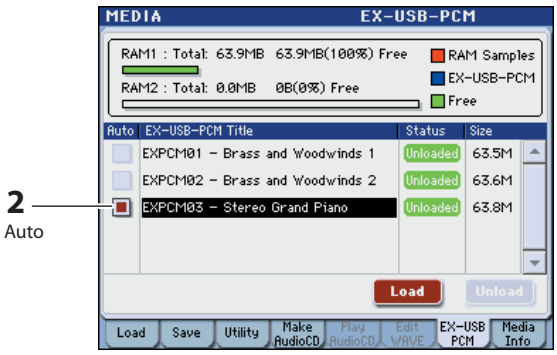
Note: The KEP file on the USB device must be located in the root directory.

Auto Load setting

1. **Press the MODE MEDIA switch to enter Media mode. In the lower right of the display, press the EX-USB-PCM tab to access the EX-USB-PCM page.**
2. **Select the EX-USB-PCM that you want to be loaded automatically when the power is turned on. Select the "Auto" box located at the left of the "EX-USB-PCM Title."**

The number of items you can select will depend on the capacity of RAM1 and RAM2 (if the EXB-M256 is installed) and on the size of each EX-USB-PCM. If the size of the EX-USB-PCM exceeds the free space in RAM memory, the box will be grayed-out and cannot be selected.

This completes the settings.



Using the Auto Load function

1. **Connect the USB device containing the KEP file to the USB A connector of the M3 XPANDED.**
2. **Power-on the M3 XPANDED.**

The M3 XPANDED's display will show a red progress bar while the system data is being loaded. When the system data has finished loading, a blue progress bar will be shown while the KEP file is auto-loaded. During this process, the title of the KEP file that is loading will be shown at the bottom of the display.

Note: Never disconnect the USB device containing the KEP file while the data is being loaded.

Note: Once the Auto Load has finished, there is no need for the USB device to be connected unless you will need to load other data.

Listening to the demo songs of PCM expansion option

The M3 XPANDED contains demo songs that use programs from the newly added PCM expansion options.

EX-USB-PCM03	S000, S001, S002
EX-USB-PCM01, 02	S008... S015

These demo songs will not play correctly unless the multisamples of the corresponding PCM expansion options are loaded. You must load the multisamples before playing the demo songs.

Quick start

1. **In Media mode, load the PCM expansion option multisamples.**

Load the multisamples as described on page 7 "Loading PCM expansion option multisamples" and page 8 "Removing (unloading) PCM expansion option multisamples."

2. **As described in the "M3 Operation Guide" section "Listening to the demo songs" (OG page 5), load the demo songs in Global mode.**
   Select a song that uses the multisamples of the PCM expansion option in Sequencer mode.

These songs have EX1, EX2, EX1&2, or EX3 at the end of their name.

3. **Press the SEQ switch to return to Sequencer mode, and press the SEQUENCER START/STOP switch to play back the song.**

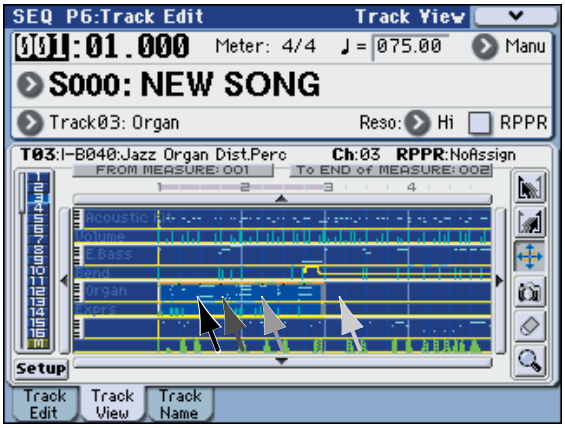
Additional sequencer functions

A Track View page and Piano Roll screen have been added to Sequencer mode. In addition, you now have the ability to edit MIDI exclusive data.

Track View editing

By dragging in the display with your finger or a stylus, you can specify a region of measures or move, copy, or delete data. This allows a more intuitive style of editing.

☞ Refer to “M3 XPANDED Parameter Guide” (PDF) page 246 “6-2: Track View.”

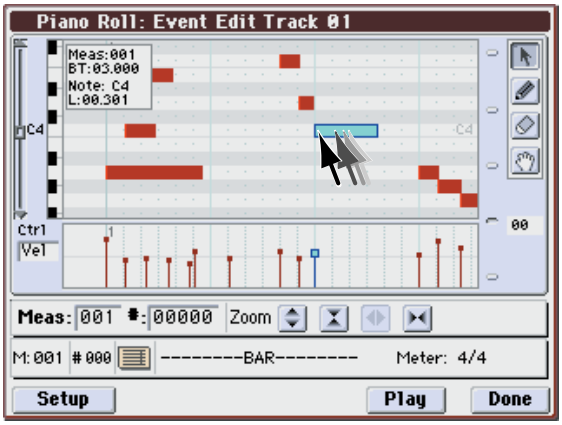


(The arrows in the screen above indicate using a finger or stylus.)

Piano Roll editing

You can now edit notes, velocities, and control changes in the Piano Roll screen. By selecting and dragging an event with your finger or a stylus, you can edit its pitch or timing, delete it, or add events.

☞ Refer to “M3 XPANDED Parameter Guide” (PDF) page 291 “Piano Roll.”



(The arrows in the screen above indicate using a finger or stylus.)

Editing MIDI system exclusive data

In the Event Edit dialog box you can now edit MIDI system exclusive data such as recorded parameter changes or master volume.

☞ Refer to “M3 XPANDED Parameter Guide” (PDF) page 289 “Event Edit.”

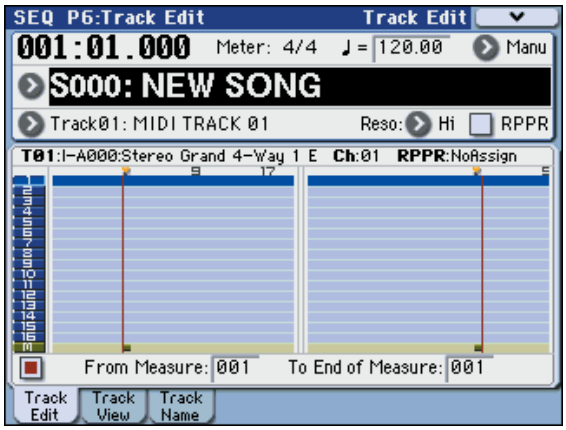
The menu commands “Create Exclusive Data” and “Erase Exclusive Data” have also been added. These commands let you create or erase universal system exclusive messages and M3 parameter change messages in the specified region of a MIDI track.

☞ Refer to “M3 XPANDED Parameter Guide” (PDF) page 302 “Create Exclusive Data” and “Erase Exclusive Data.”

Additional functions for chasing the location

In the Track Edit page, the currently-playing location indication will now follow the graphic track indication in realtime, making it easier to see whether events exist in each track.

Select the “Link From Measure to current location” check box located in the lower left.



Improvements to the user interface

Velocity meter

In Combination and Sequencer modes, the note-on velocity is shown in realtime by meters. This is a convenient way to check the timbre or track that you're working on.

Each time you press the Vel Mtr (Velocity Meter) button, the velocity meters for the tracks will toggle between visible and hidden. This setting is remembered even when the power is off.

- These meters show the velocity values of note-on messages received from the keyboard, MIDI IN, KARMA, drum track, or sequencer. (If multiple note-on messages are received simultaneously, the highest velocity will be shown.)
- Since these meters show the note-on velocity values, they will not reflect settings of the volume sliders or changes in the audio signal level produced by the filter, amp, EG, LFO, EQ, or effects. Nor will they be affected if settings such as KeyZone or VelZone indicate that sound is not actually being produced by the note-on message.
- According to the Play/Mute or Solo settings, tracks in play mode are shown with blue meters, and muted tracks are shown with yellow meter.



Touch Drag editing

You can edit a value by dragging a knob or slider in the display.

Note: There will be a brief time interval before the arrow appears and the control responds. Use the Touch Drag function to make approximate settings for the knobs and sliders.

Note: It is convenient to use a commercially available stylus pen for operating small components in the display.

Knobs

When you touch a knob, a left/right arrow will appear. In this state, drag left/right to use the knob and change its value.

If the knob is a panner, dragging to the 12 o'clock position will set the knob to C064, and dragging to the 6 o'clock position will set it to RANDOM.

Sliders

When you touch a slider, an up/down arrow will appear. In this state, drag up/down to use the slider and change its value.





Pages and parameters where this is available

Examples in Combination/Sequencer

- P0: Mixer - Pan knobs, Volume sliders
- P0: KARMA RTC - sliders
- P0: Sampling - Recording Level sliders
- P0: Control Surface - various sliders
- P2: Trim/EQ - various knobs
- P7: IFX Setup - Pan knobs
- P8: MFX/TFX - various knobs, etc.

All knobs and sliders in each mode are also supported.

Track View and Piano Roll

The new Track View page and Piano Roll dialog box in Sequencer mode allow you to specify a region of measures or move/erase notes by operations such as dragging.

☞ Refer to page 11 "Additional sequencer functions" in this guide.

Expansions to KARMA function

KARMA 2.2

KARMA 2.2 is a major new release, including support for

User GEs, new control over Scene change and Module quantization, the ability to switch KARMA GEs seamlessly while KARMA is operating, and other improvements.

User GEs and GE Creation/Editing

The M3 XPANDED now supports User GEs, with 8 banks of 128 User GEs each (for a total of 1024). You can also save and load .KGE files, which contain KARMA GEs and Template Data. GEs may be created, edited, and uploaded to the M3 XPANDED using the optional KARMA M3 Software (PC/Mac), available separately from Karma-Lab (www.karma-lab.com).

Quantized/Delayed Scene Changes

Scene changes may now be quantized to various metric divisions, from a 16th-note triplet up to 4 bars. (Previously, all scene changes were quantized to the next 16th-note). The larger values ensure perfect timing for Scene changes at measure boundaries, and allow you to select Scenes well in advance. This makes it easier to time Scene changes during live performance, and also means that you can be playing with both hands when the change actually occurs.

In Combi and Sequencer modes, this quantization also applies independently to all five layers (Master and Modules A through D). The new Scene Status display shows any pending Scene changes (those that have been selected, but which have not yet completed).

For more information, see "Quantize Window" on page 168 of the Parameter Guide, and "7-1-7: Scene Matrix" on page 167 of the Parameter Guide.

Adjustable Quantize Window per Module

Previously, all Modules that had the Quantize Trigger setting turned On would be quantized to the nearest 16th note. While this allowed intricate DJ-style performances, it could also make it difficult to trigger Modules in perfect time during normal performance, especially at faster tempos. Now, you can select a Quantize Window independently for each Module-for example, use a 1/4-note or 8th-note value for less chance of a timing error, or a 16th-note when fancier retriggering effects are desired. Triplet-based values are also provided for retriggering triplet-based grooves "off- beat."

Even more powerfully, the Quantize Window is also a destination in the Perf RTP page, so that you can change it in real-time from the Control Surface. For example, you could change it during live performance to allow quick re-triggering in a breakdown section, then set it back to a quarter note for more relaxed triggering during the rest of the song.

For more information, see "7-1-8: Trigger" on page 89 of the Parameter Guide, and "7-2-2: Perf Real-Time Parameters" on page 92 of the Parameter Guide.

* KARMA® (Kay Algorithmic Realtime Music Architecture) Technology has been licensed from Stephen Kay, and is protected by U.S. Patents 5,486,647, 5,521,327, 6,084,171, 6,087,578, 6,103,964, 6,121,532, 6,121,533, 6,326,538, 6,639,141 7,169,997 and 7,342,166. Other patents pending.
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* KARMA Technology can be located on the internet at: www.karma-lab.com.

Appendices

Changes to the operation guide

In conjunction with the update to M3 XPANDED, the following changes have been made to the content of the operation guide.

☞ OG all pages

Compared to the M3 (version 1), the M3 XPANDED updates a wide range of functionality for programs, combinations, demo songs, multisamples, sequencer, and KARMA. Please be aware that for this reason, screen shots and other aspects of the included operation guide may differ from the actual instrument.

☞ page 34

The operating requirements of M3 Editor/Plug-In Editor have changed due to the upgrade. For details on the most recent software operating requirements, refer to the latest version of the "M3 Editor/Plug-In Editor Owner's Manual" (page.1).

☞ page 38

Program bank contents

Bank	Prog. No.	Explanation	
INT-A…E	000…127	Factory Programs.	With the factory settings, these banks contain a wide variety of preloaded programs that use multisamples, effects, and KARMA.
INT-F	000…127	EXB-RADIAS Programs.	This can be selected if the optional EXB-RADIAS is installed.
G (GM)	001…128	GM2 main programs.	These banks contain 256 GM programs and nine GM drum programs that are compatible with the GM2 sound map. The programs of these banks are read-only. Bank G contains the GM programs. G lets you select 128 programs numbered from 001–128, and g(1)–g(d) lets you select nine drum programs. You can't write (save) data to these banks.
g(1)…g(9)	001…128	GM2 variation programs.	
g(d)	001…128	GM2 drum programs.	
USER–A…E	000…127	Factory Programs.	For these banks you can switch the bank type between EDS and EXB-RADIAS. Programs cannot be saved in a bank of a differing type. Specify the bank type using the Global mode menu command "Set Prog User-Bank Type" (See PG page 398). For USER-A...E, refer to the "Explanation" of INT-A...E, above. USER-F is recommended as the bank for user sampling.
USER–F, G		Initialized Programs.	

☞ page 41, page 42

INT-A016: Real Suit E.Piano
↓
INT-A003: Real Suit E.Piano

☞ page 48, page 49

INT-B045, "Smooth Operators."
↓
INT-A120, "Smooth Operators."

☞ page 66

Combination bank contents

Bank	Combi. No.	Explanation
INT-A…C USER-E	000…127 000…031	Factory Combinations.
INT-D…G, USER-A…D, F, G	000…127	Initialized Combinations.

☞ page 120

We recommend that you use bank USER-F as the program bank for Sampling mode.

☞ page 201

In "About the data loaded with All Preload PCG," the Program, Combination, and Demo Song settings have changed for "If the EXB-RADIAS is not installed."

- Program:
  Bank I–A ... I–E, U–A ...U–D (000...063), U-E
- Combination: Bank I–A ... I–C, U–E (000...031)
- Demo Song: S000–S005, S008...S015
  Only when executing All (Preload PCG and Demo Song)

For page 224 "Specifications," refer to page 16.

Added messages

File contains unsupported data

Meaning: You've attempted to load a file format that the M3 doesn't support. (For example - 24-bit WAV, AIFF, etc.)

File unavailable

Meaning: The data in the KEP file was invalid. It is possible that the KEP file has been corrupted.

- Restore the backed-up KEP file into a USB device.

Not enough sample memory

Meaning: There is insufficient sample memory (for sample parameters or sample waveform data).

- Delete samples to increase the amount of free memory.
- Use the Media mode EX-USB PCM page to unload a loaded PCM expansion option title, or use Sampling mode to delete unneeded sample data.

This title is already loaded

Meaning: You've attempted to load an PCM expansion option title that was already loaded.

M3 System Software Version Information

M3 Version 1.2 Overview

Version 1.2 of the M3 system software adds 512 new programs to your M3 Music Workstation/Sampler.

These sounds place a particular emphasis on keyboard instruments, including distinctive vintage electric pianos, as well as gorgeous acoustic pianos. They also include a wide range of guitar, brass, strings, and synth sounds. We hope these new sounds will inspire you take your music to the next level of creativity.

This addition brings the M3's EDS programs to a total of 1,321 (1,056 preloaded programs and 265 GM2-compatible programs).

In conjunction with this update, please make the following changes to the indicated pages of the included "Operation Guide."

Total number of programs and program bank structure

The 512 new programs have been added to banks USER-A through USER-D. Thus, banks USER-A through USER-D will now contain preloaded programs.

☞ "M3 Operation Guide" page 38, "Program bank contents" table

USER-A - USER-D: Preloaded programs
USER-E - USER-G: Initialized programs

☞ "M3 Operation Guide" page 224, "Sound Engine / The Number of" table

User programs: 1,664 programs / 1,184 preloaded (EDS: 1,056 + RADIAS: 128)

Regarding the data loaded by All Preload PCG

The "All Preload PCG" menu command will now load the 512 new programs, in addition to the original program data.

☞ "M3 Operation Guide" page 201, "If the EXB-RADIAS is not installed"

- Program: Bank I-A, I-B, I-C, I-D, I-E (000...031), U-A, U-B, U-C, U-D

M3 Version 1.1 Overview

In addition to adding new features and functions, this update also includes various improvements and resolves certain minor operational issues.

M3 Version 1.1 provides the following new features.

EXB-FW Support

This M3 Version 1.1 O.S. update (or higher) is required in order to use the EXB-FW FireWire option (sold separately). In addition, the M3 Editor/Plug-In editor must be at version 1.5 or later in order to use the EXB-FW option. For details on the operating requirements for a computer to run the latest M3 Editor/Plug-In Editor and the installation procedure, please refer to "M3 Editor/Plug-In Editor owner's manual."

By installing the EXB-FW FireWire option, the M3 can be used as an audio/MIDI interface with your computer via FireWire cable.

EXB-RADIAS Support and Enhanced Virtual Patch Functionality

The M3 Version 1.1 O.S. update (or higher) is required in order to use the EXB-RADIAS MMT Synthesis Option. In addition, the EXB-RADIAS must be at version 2.0 or later.

* If the start-up display does not indicate EXB-RADIAS system software version "EXB-RADIAS (V2.0)" or later, please download and install the latest system software - available free of charge from the Korg website (http://www.korg.com/M3).

To enhance the operation of your EXB-RADIAS, twenty-seven virtual patch destination parameters have been added. This allows you to use a controller or EG/LFO to produce even more versatile modulation.

For more details, refer to "EXB-RADIAS owner's manual" (page 28).

Additional velocity curve added

A new velocity curve (#9) has been added. Compared to the standard curve #4, this new velocity curve softens the response of gently-played notes. This allows velocity control with broader dynamics for sounds like an acoustic piano. This setting is recommended for the RH3 graded hammer action of the M3XP-88.

For more details, please refer to the "M3 Parameter Guide" (page 372).

Specifications and options

Specifications

The underlined portions describe specifications that have changed from the M3 to the M3 XPANDED.

Operating temperature	±0 – +40 °C

KYBD-61/73/88 keyboard assembly

System	KKS (KORG Komponent System)	
Keyboard	88	88 key Real Weighted Hammer Action (RH3) * The key weight of the RH3 keyboard differs in four stages across the pitch range (with low notes being heavier, and high notes being lighter), delivering a playing feel similar to that of a grand piano.
	73	Semi weighted
	61	Semi weighted
Controllers	Joystick, Ribbon Controller, SW1/SW2.	
Interface	TO MODULE (for connection with the M3XP-M sound module), TO MODULE (2nd) (73-key and 88-key only)	

M3XP-M sound module

System		EDS (Enhanced Definition Synthesis)	
		MMT (Multi Modeling Technology) sound generator can be added by installing the optional EXB-RADIAS	
Sound Engine		Maximum Polyphony	120 voices max, single mode 60 voices max, double mode * The actual maximum polyphony will vary depending on oscillator settings such as stereo multisamples and velocity crossfading.
		Preset PCM	256 Mbytes (when calculated as 16-bit linear data) 1,077 multisamples (including seven stereo), 1,609 drum samples (including 116 stereo)
		PCM expansion options	EX-USB-PCM01: Brass and Woodwinds 1 approximately 128 Mbyte (when calculated as 16-bit linear), 59 multisamples (including five stereo) EX-USB-PCM02: Brass and Woodwinds 2 approximately 128 Mbyte (when calculated as 16-bit linear), 47 multisamples EX-USB-PCM03: Stereo Grand Piano approximately 128 Mbyte (when calculated as 16-bit linear), 10 multisamples (including five stereo) These can be used by loading them into RAM memory. The standard 64 Mbyte RAM memory allows only one title to be loaded. If the EXB-M256 (option) is installed, the three titles can be used simultaneously.
		PCM RAM	64 Mbyte is standard (512 bytes used by the system), expandable to 320 Mbytes by installing the EXB-M256 (option)
	Programs (EDS)	Oscillator	OSC1 (Single), OSC1+2 (Double): Stereo multisamples are supported 4 velocity zones per oscillator, with switching, crossfades and layers.
		Filters	Four types of filter routing (single, serial, parallel, 24 dB) Two multi-mode filters per voice (low pass, high pass, band pass, band reject)
		Driver	Per-voice nonlinear driver and low boost.
		EQ	Three bands, with sweepable mid.
		Modulation	For each voice, two envelope generators (Filter & Amp), two LFOs, two key tracking generators (Filter & Amp), and two AMS mixers In addition, pitch EG, common LFO, and two common key tracking generators
	Combinations	16 Timbres	Up to sixteen timbres, keyboard and velocity split/layer/crossfade, and modifications to the program setting via the Tone Adjust function
		Master Keyboard functionality	These allow you to control external MIDI devices
	Drum Kits	Stereo and mono drumsamples. 4-way velocity switches with crossfades and adjustable crossfade shapes (Linear, Power, Layer).	
	The number of … -Combinations -Programs -Drum Kits	User Combinations	1,792 Combinations/ 416 Preload
		User Programs	1,664 Programs/ 1,344 (EDS: 1,216 + RADIAS: 128) Preload
		User Drum Kits	144 Drum Kits/32 Preload
		Preset Programs	256 GM2 Programs + 9 GM2 Drum Programs

Sampling	Open Sampling System	
	16bit/48kHz: Stereo/Mono Sampling	
	Sampling time (RAM)	RAM1: 64 Mbytes (installed as standard) allows up to approximately 11 minutes 39 seconds of mono sampling or approximately 5 minutes 49 seconds of stereo sampling. 512 bytes are used by the system.
		RAM2: 256 Mbytes (when the EXB-M256 is installed) allows up to approximately 46 minutes 36 seconds of mono sampling or approximately 23 minutes 18 seconds of stereo sampling.
		RAM1+RAM2: Total 320 Mbytes, allowing up to approximately 58 minutes 15 seconds of mono sampling or approximately 29 minutes 7 seconds of stereo sampling. (Continuous sampling across RAM1 and RAM2 is not possible.)
	Sampling time (MEDIA)	Maximum sampling time to a USB storage device is a maximum of approximately 80 minutes for one sample file, for either mono or stereo. This occupies approximately 440 Mbytes for mono, or 879 Mbytes for stereo.
	Number of samples/ multisamples	4,000 Samples/1,000 Multisamples (Max. 128 indexes per Multisample.)
	Sample directly from audio CDs (CD-DA)	
	Load AIFF, WAVE, AKAI (S1000/S3000), SoundFont 2.0, KORG Format sample data	
	Time Stretch, Time Slice, Crossfade Loop, and other standard editing features.	
Effects	5 Insert Effects	In-line processing; stereo in - stereo out.
	2 Master Effects	Two effects sends; stereo in - stereo out.
	1 Total Effect	For overall processing on the main outputs, such as compression, limiting, and EQ; stereo in - stereo out.
	3-band Track EQ	High, low, and sweepable mid band. Per Program in Program Mode, per Timbre in Combination mode (16 total), and per Track in Sequencer mode (16 total).
	Effects types	170 types (Usable for insert, master, or total effects. However, double-size effects cannot be used as the total effect.)
	Modulation	Dynamic Modulation, two common LFOs
	Effects Control Bus	Stereo side-chaining for limiter, gates, vocoders, etc.
	Effects Presets	Up to 32 per Effect/ 700 Preset
	AUX bus	Two internal buses for sampling and routing audio to the EXB-RADIAS
X–Y control	X–Y MODE	TouchView display can be used as an X–Y controller. Hold function provided.
	X–Y MOTION function	X–Y Control finger movements can be recorded in realtime, and memorized for each program, combination, or song.
	Program mode	Oscillator volume, synth parameters, and effect parameters can be controlled.
	Combination, Sequencer modes	Timbre/track volume, synth parameters, and effect parameters can be controlled.
KARMA	KARMA Modules	1 Module in Program Mode; 4 Modules in Combination and Sequencer Modes, plus Master control module
	GE	2,093 Presets, 1,024 User GE
	Controllers	ON/OFF, LATCH, MODULE CONTROL, KARMA SLIDERS 1–8, KARMA SWITCHES 1–8, KARMA SCENES 1/5–4/8 (8 scenes)
	KARMA Wave Sequence Control (change Multisamples via the KARMA engine), Freeze Randomize function, Time Signature Control, Auto RTC (Real Time Control) setup.	
Drum Track	Preset patterns	671 patterns (Held in common with sequencer preset patterns.)
	User patterns	1,000 patterns. Patterns created in Sequencer mode can be converted to drum track user patterns.
	Trigger Mode / Sync / Zone settings can be specified	
Sequencer	16MIDI Tracks & 1 Master Track	
	128 Songs	
	Resolution: 480 ppq (parts per quarter-note)	
	Tempo: 40.00–300.00 bpm (1/100 bpm resolution)	
	Up to 210,000 MIDI events	
	16 preset/16 user template songs	
	Cue List function	20 cue lists. Songs can be arranged consecutively or repeatedly in up to 99 steps. A cue list can be converted back into a song.
	Patterns/RPPR	671 Presets /100 User Patterns (per Song) RPPR (Realtime Pattern Play/Recording): 1 set per Song.
	Format	Korg (M3) format, SMF (formats 0 and 1) supported
	In-Track Sampling function, Auto Song Setup function	

Media		Load, Save, Utility, Make Audio CD, Play Audio CD		
		Data Filer functionality (Save and Load MIDI System Exclusive Data)		
		CD-ROM/R/RW (UDF Format read/write), Record & Play audio CDs (CD-DA), ISO9660 Level 1		
		WAVE file editing functionality		
		CD-ROM/R/RW can be used if a commercially-available USB drive is connected.		
Controllers		Pads 1–8	Velocity-sensitive drum pads and chord triggers.	
			PAD MODE switch - selects velocity-sensitive or fixed-velocity operation, CHORD ASSIGN switch	
		Control Surface	CONTROL ASSIGN Switches	MIXER (T1–8, T9–16, INPUTS), REALTIME CONTROL, EXTERNAL, TONE ADJUST, KARMA
			RESET CONTROL Switch	
			8 Switches	MIXER: PLAY/MUTE (SOLO)
				REALTIME CONTROL: IFX1–5, MFX1, MFX2, TFX on/off
				EXTERNAL: External mode. External MIDI control.
				TONE ADJUST: Control the Tone Adjust functions
				KARMA: KARMA control
			8 Sliders	MIXER: Volume
				REALTIME CONTROL: Realtime modulation
				EXTERNAL: External mode. External MIDI control.
				TONE ADJUST: Control the Tone Adjust functions
				KARMA: KARMA control
			* In External mode, the eight sliders, eight switches, and eight pads can be used as MIDI controllers. 128 setups can be stored. (102 are preloaded. These allow you to control software synthesizers or DAW software.)	
		Drum Track	Switches = ON/OFF	
		KARMA	Switches = ON/OFF, LATCH, MODULE CONTROL (Master/A/B/C/D), SCENES 1/5–4/8	
		X–Y control	Switches = X–Y MODE, HOLD, MOTION	
User Interface		Display	5.7 inch Touch View Color Graphical Interface Color 320 x 240 pixel display, X–Y control function	
		MODE	Switches = COMBI, PROG SEQ, SAMPLING, GLOBAL, MEDIA	
		Value Controllers	Switches = △/▽, 10-key numeric keypad, -, (.), ENTER, COMPARE, VALUE Slider, VALUE Dial	
		BANK	Switches = I-A…G, U-A…G	
		SEQUENCER	Switches = PAUSE, REW, FF, LOCATE, REC/WRITE, START/STOP	
		SAMPLING	Switches = REC, START/STOP	
		TEMPO	Switches = TAP TEMPO, TEMPO Knob	
		Other	Switches = PAGE SELECT, EXIT, VOLUME MAIN Slider, display contrast	
Common specifications		Frequency response	20 Hz–20 kHz ±1.0 dB	10 kΩ load
		THD+N	20 Hz–20 kHz 0.08 %	10 kΩ load (typical)
Audio Outputs	Analog	AUDIO OUTPUT (MAIN) L/MONO, R AUDIO OUTPUT (INDIVIDUAL)1, 2, 3, 4	1/4" TS (Mono), unbalanced, Master Volume slider controls only L/Mono and R	
			Output Impedance	1.1kΩ stereo; 550Ω mono (L/Mono only)
			Nominal Level	+4.0 dBu
			Maximum Level	+16.0 dBu
			Load Impedance	10 kΩ or greater
			Signal to noise ratio	90 dBu (typical)
			Dynamic range	91 dBu (typical)
		Headphone output	1/4" TRS (Stereo), Master Volume slider (link with Main output L/Mono)	
			Output Impedance	33Ω
			Maximum Level	32+ 32 mW @33Ω
	Digital	Optical S/P DIF	Format: 24 bit, S/P DIF IEC60958 EIAJCP-1201	
			Sample Rate: 48 kHz	
			Digital output of the same signals as AUDIO OUTPUT (MAIN) L/Mono, R	
		(Option) EXB-FW	6 channels, 24-bit, 48 kHz Sample rate	
			Digitally output the same signals as AUDIO OUTPUT (MAIN) L/Mono, R and AUDIO OUTPUT (INDIVIDUAL) 1–4	

Audio Inputs	Analog	Audio inputs 1, 2	1/4" TS (Mono), unbalanced	
			MIC/LINE input level switch, LEVEL knob	
			Input Impedance	10 kΩ
			Headroom	12 dB
			Input level range LINE	–29 dBu … +4 dBu or greater (typical)
			Input level range MIC	–54 dBu … –17 dBu or greater (typical)
			Source Impedance	600Ω
	Digital	Optical S/P DIF	Format: 24 bit, S/P DIF IEC60958 EIAJCP-1201	
			Sample Rate: 48 kHz	
		(Option) EXB-FW	2 channels, 24-bit, 48 kHz Sample rate	
Control Inputs		DAMPER (Supports piano-style half-damper pedals as well as standard foot switches)		
		ASSIGNABLE SWITCH, ASSIGNABLE PEDAL		
		TO KYBD (for connection to keyboard assembly)		
MIDI		IN, OUT, THRU		
USB		2 USB 2.0 High-Speed ports (supports 480 Mbps) (TYPE A) with Mass Storage Device support, for connecting external hard drives, flash memory, etc.		
		1 USB (TYPE B), MIDI interface		
(Option) EXB-FW		KORG FireWire Audio/MIDI interface, 2 FireWire connectors		
		MIDI 1-in/1-out, Audio 2-in/6-out		
		Virtualized Hardware		
Power		AC Power Supply terminal, POWER On/Off switch		
Dimensions (W x D x H)		M3XP-M	673 x 202 x 82 mm /26.50 x 7.95 x 3.23 inches	
		M3XP-M + KYBD61	1,016 x 372 x 121 mm / 40.00 x 14.65 x 4.76 inches (with M3XP-M folded down), 1,016 x 372 x 171 mm/ 40.00 x 14.65 x 6.73 inches (with M3XP-M tilted up)	
		M3XP-M + KYBD73	1,189 x 371 x 131 mm / 46.81 x 14.61 x 5.16 inches (with M3XP-M folded down), 1,189 x 371 x 207 mm / 46.81 x 14.61 x 8.15 inches (with M3XP-M tilted up)	
		M3XP-M + KYBD88	1,425 x 442 x 131 mm / 56.10 x 17.40 x 5.16 inches (with M3XP-M folded down), 1,425 x 442 x 207 mm / 56.10 x 17.40 x 8.15 inches (with M3XP-M tilted up)	
Weight		M3XP-M	4.8 kg / 10.58 lbs.	
		M3XP-M + KYBD61	14.1 kg / 31.08 lbs.	
		M3XP-M + KYBD73	17.3 kg / 38.14 lbs.	
		M3XP-M + KYBD88	26.5 kg / 58.42 lbs.	
Power Consumption		M3XP-M	35W	
		M3XP-M + KYBD61		
		M3XP-M + KYBD73		
		M3XP-M + KYBD88		
Accessories		Bracket (M3XP-M only), AC cable, Owner's Manuals (M3 Operation Guide) CD-ROM (M3 M3 XPANDED Parameter Guide (PDF), Voice Name List (PDF), KORG MIDI driver, M3 Editor/ Plug-In Editor etc.)		

Options

EXB-RADIAS	RADIAS Synthesizer Board
EXB-FW	FireWire Board
EXB-M256	256 MB Sample Memory Expansion Board
MA-L	Locking Support
MA-T	Rack Tray
XVP-10	Expression/Volume Pedal
EXP-2	Foot Controller
DS-1H	Damper Pedal
PS-1	Pedal Switch

* Appearance and specifications of this product are subject to change without notice. (October/'08)

IMPORTANT NOTICE TO CONSUMERS

This product has been manufactured according to strict specifications and voltage requirements that are applicable in the country in which it is intended that this product should be used. If you have purchased this product via the internet, through mail order, and/or via a telephone sale, you must verify that this product is intended to be used in the country in which you reside.

WARNING: Use of this product in any country other than that for which it is intended could be dangerous and could invalidate the manufacturer's or distributor's warranty. Please also retain your receipt as proof of purchase otherwise your product may be disqualified from the manufacturer's or distributor's warranty.

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