

**MX88** 

**ESSENTIAL** 

KNOWLEDGE

INFORMATION

ABOUT

THE

MX88

MUSIC

SYNTHESIZER





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### PIANO TOUCH

The MX88 features a Graded Hammer Standard (GHS) weighted action. GHS weighted action has a heavier response in the low keys and a lighter response in the high keys. This provides acoustic piano feel and response.

Special matte black key tops absorb moisture and remain tactile after extended use, perfect for long practice or performance sessions.

### FULL CONCERT GRAND PIANO VOICE

The Full Concert Grand piano in the MX88 comes directly from the MOTIF series. With a powerful focused low-end, highly detailed midrange and pristine high-end, the Full Concert Grand piano is perfect for any style of music in any environment. Coupled with the responsive GHS action and an explicitly adapted velocity curve, the MX88 is a highly expressive musical instrument designed by Yamaha, a manufacturer of world-class concert grand pianos for over 100 years.

### SYNTH SOUND

Don't sacrifice sound for portability - get an MX88! The MX88 is a lightweight and portable music synthesizer with 88 full-sized, touch-sensitive keys and over 1,000 Voices from the legendary MOTIF.

# SOUNDS FOR THE MODERN PIANO PLAYER

Beyond acoustic piano, MX88 features an impressive selection of keyboard Voices. Choose from authentic re-creations of classic tine and reed electric pianos or FM Electric Pianos from the popular Yamaha DX7.

There's also a selection of classic tonewheel organs with rotary speaker effect. Or punchy and percussive Clav sounds when you want to get funky. This makes MX88 a perfect choice for the stage, studio or worship service.

### REALISTIC STRINGS, GUITARS, BASSES, AND DRUM KITS

Amazing recreations of orchestral strings, woodwinds, pipe organs, brass and more make the MX88 an inspirational tool for orchestrators, educators, and producers. For the aspiring producer, the highly expressive and playable acoustic and electric guitars, basses, tonewheel organs, and drum kits offer a powerful and professional sonic pallete.

### MOTIF SOUND ENGINE

The MOTIF Sound Engine is a powerful synthesizer technology for making sound. Each Voice has up to eight Elements. These Elements can be layered for thick, fat sound, or zoned so a different Element plays in different parts of the keyboard. You can also switch between Elements by velocity for extreme dynamics or randomize Elements for anything from subtle variation to experimental sound.

There's also multiple Filters and sophisticated Envelope Generators (EG) for Pitch, Filter, and Amplitude plus Low Frequency Oscillators (LFO.) This combined with a sophisticated control matrix and Virtual Circuitry Modeling effects make the MX88 a powerful synthesizer.



### FM ESSENTIAL IOS APP

FM Essential is a FREE 4-Operator FM synthesizer for iOS. The standard version features 10 Voices but connecting the MX88 Music Synthesizer (via Apple Lightning to USB Camera adapter – not included), unlocks a full 271 FM Voices from classic '80s to cutting-edge modern EDM.

FM Essential also features built-in effects, EQ, drum phrases and a step sequencer for automating your control changes.

# VCM (VIRTUAL CIRCUITRY MODELING) EFFECTS

Virtual Circuitry Modeling re-creates the sound and behavior of vintage effects and high-end studio signal processors by modeling the circuits down to the original analog component level.

### 128-NOTE POLYPHONY

128 notes of polyphony ensures dropout-free performance playing live or with full 16-track sequences.

### CONNECTIVITY

The MX88 is more than a great-sounding synthesizer; it's the hub of your studio! Featuring an integrated, "plug and play" USB audio and MIDI interface along with DAW Remote control capabilities; the MX88 is the perfect recording centerpiece.

### AUDIO/USB INTERFACE

The MX88 lets you record and playback stereo audio to and from your computer or iOS device, perfect for recording the MX88 into your DAW and listening to your mixes through speakers or headphones. There's also a 16-channel MIDI interface for using the MX88 as both a keyboard controller and tone generator.

### DAW REMOTE

Control your DAW transport and mixer and interact with software-based instruments and effects directly from the MX88 front panel controls.

### CUBASE AI

Building on the same core technologies found in Steinberg's Cubase advanced music production software, Cubase Al is a special compact version offering all the basic tools for recording, editing and mixing everything from the basic idea to the final masterpiece. Cubase Al offers powerful yet easy-to-use software tools for a large range of music styles — exclusive to customers of select Steinberg and Yamaha hardware.

### WORKS WITH IOS

Thanks to integrated class-compliant USB audio and MIDI, MX88 works with a variety of iOS music-making Apps.

### CUBASIS LE

Cubasis LE is the compact version of Steinberg's streamlined, multitouch sequencer for the iPad, providing the same look and feel of its bigger brother Cubasis. Specially designed for quick and easy operation, Cubasis LE makes recording, editing, and mixing a breeze. Cubasis LE places touch-intuitive production tools in your hands, opening a new world of possibilities for your creativity.



# HIGHLIGHTS OF THE MX88



The tone generation system of the MX88 is based on the excellent sound engine of Yamaha's MOTIF series, which represents the standard of synthesizer workstations since 2001.



The MX88 features a Graded Hammer Standard (GHS) weighted action. GHS weighted action has a heavier response in the low keys and a lighter response in the high keys. This provides an authentic acoustic piano feel.



Connect the MX88 with your iOS device to unlock the full version of the new iOS synth app "FM Essential": Control and play a 4 Operator FM Synth on your iOS device directly from your MX88.



**MX88** contains more than 1,000 Voices from the successful MOTIF series - realistic instrument sounds like acoustic piano, electric piano, strings, brass, and synth/electronic sounds.



The integrated USB audio / MIDI interface allows both MIDI and audio connection via a single USB cable to the computer.



Instantly generate Layer and Split Performances using the huge selection of premium Voices - by a simple press of a button.



Connect the MX88 with your iOS device to unlock the full version of the Steinberg iOS DAW Cubasis LE.



The Virtual Circuitry Modeling technology (VCM) allows excellent studio effects like Vintage Compressor, EQ, Wah, Flanger, Phaser, etc.



In the Remote mode you can use the knobs and buttons of the MX88 to comfortably control selected functions of external DAW applications.



The Digital Audio Workstation ("DAW") Cubase AI software is included and provides the basis for the integration into a computer music production systen and the use of the MX88 as a VST instrument.



The compact size and low weight of the MX88 makes it a perfect mobile keyboard for all purposes.



The "AUX in" audio input allows playback of external audio signals from portable audio players.



Thanks to Class Compliancy you simply have to connect the MX88 to your iOS device to be able to transfer MIDI and Audio data without any hassles.



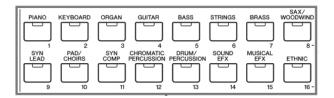
The 128 voices of polyphony allow you to play very complex Performances and to use the MX88 as a Tone Generator for complete song productions and liveplaybacks.



## QUICK GUIDE: FIRST STEPS

### PLAYING SINGLE VOICES

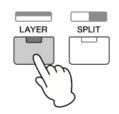
- While holding the SHIFT button press the SELECT button to run a "Quick Reset" for the activation of the "Default Mode".
  - LAYER and SPLIT are now set to off, the MX is in SINGLE mode, in which only a single Voice can be played.
- Use the dial or the INC / DEC buttons to browse through the 25 Voices of the Preset Category PIANO (AP).
- Use the Voice Category buttons 1 16 to select other Voice Categories and the dial or the INC / DEC buttons to select the Voices of the respective Category. The selection of Voices in the MX88 is solely done using Categories instead of Voice Banks.



Use the Cursor buttons (up / down) to switch from Part
1 to 2 and vice versa, to alternately play two different
Voices. The sound is not cut off when switching Voices.
This is especially important when playing live and
having to change sounds within songs.

### LAYER PERFORMANCES

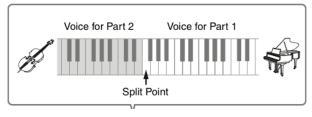
 Stay in the "Default Mode" and press the LAYER button.
 Now you can play both the two Voices assigned to the Parts 1 and 2.



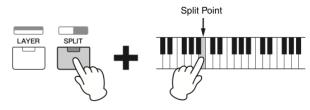
- Select other Voices for the Parts
   1 and 2 as you like by doing so you are creating new
   LAYER Performances.
- Press the SELECT button to leave the "Default Mode".
- Use the dial or the INC/DEC buttons to select the Performance "003 Sirius". In this Performance the LAYER function is already enabled.
- Press SELECT again. You can now see in the display that
  the Voices "003 AmbSyn pad" (Part 1) and "065 Trance
  Line" (Part 2) are assigned to this Performance. Part 2 is
  played with an Arpeggio. In addition the first key press
  starts a RHYTHM PATTERN, which uses the Drum Voice
  in Part 10.
- Press SELECT once more and try some more LAYER
   Performances, for example, 005, 006, 007, 009, 011,
   etc. You can recognise the LAYER Performances by the light in the LAYER button.

#### SPLIT PERFORMANCES

- Do another "Quick Reset" for the "Default Mode" by pressing the SHIFT and the SELECT buttons.
- Press the SPLIT button. In the "Default Mode" the Voices "001 CncrtGrand" (Part 1) and "081 Amb Pizza" (Part 2) are now mapped on the keyboard as a SPLIT. The left part of the keyboard plays the Arpeggio Voice "Amb Pizza", the right the piano sound. The Split Point is initially located at B3/C4.



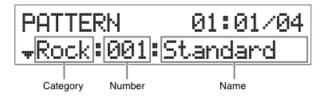
 You can change this Split Point by pressing and holding the SPLIT button and playing the desired key.



- Transpose Part 1 for the left hand by one octave up:
   EDIT 02:Part ENTER 01:Play Mode ENTER cursor down NoteShift = +12.
- Press the SELECT button to leave the "Default Mode".
- Use the dial or the INC/DEC buttons to select SPLIT Performances, for example, 004, 008, 010, 015, 021, etc. You can recognise the SPLIT Performances by the light in the SPLIT button.

### RHYTHM PATTERN

Each Performance has a Rhythm Pattern assigned to it.
 Press the RHYTHM PATTERN button to select a different
 Pattern. There is a total of 208 Patterns to choose from,
 which are divided into six categories.



- Start the Rhythm Pattern with PLAY, stop it with STOP.
- Activate the "Key On Start" function by pressing the PLAY



- button while holding the STOP button. Now the Rhythm Pattern starts as soon as a keyboard key is played. In many Performances this is already set by default.
- Press the TEMPO button to set a different tempo in the range of 5 - 300 BPM. The tempo is also true for the Arpeggiator.

### COMPLEX LIVE PERFORMANCES

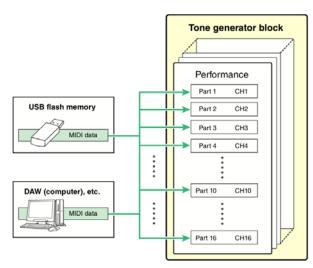
- Enable PART SELECT to create a complex live Performance in which you can quickly switch between multiple Voices during the song without abrupt transitions.
- You can select from up to 16 Voices by using the Voice Category buttons 1 - 16 or by using the cursor buttons without "cutting off" the previous sound.
- Select the Voices you need for certain Song and assign them to the Parts. You can use the cursor buttons (up and down) to switch between selecting the Voice Category and the Voice number. With INC/DEC or the dial you can select the Voice Category or the Voice.
- Enable the Insert Effects for the Parts with the most important Voices. This is possible for a maximum of four Parts and is done in the Part Edit (Screen 01:Play Mode). It is especially recommendable for organ and electric guitar sounds to activate the Insert Effect.
- Store the Performance by pressing STORE.



In combination with a computer and the included software the MX88 is designed as a comprehensive "All-In-One" music production system, which is composed of various hardware and software components that will be discussed in the following.

### MULTI-SETUP

The multi-timbral use of the MX88 takes place in the Performance mode. The 16 Parts of a Performance can be controlled by MIDI data either from an external DAW (computers, etc.) via a MIDI/USB connection or directly from a USB stick ("USB flash memory"). The Receive Channels 1 - 16 are assigned to the corresponding Parts 1 - 16.



The function PART SELECT offers a direct access to all 16 Parts of the MX88. It is thus possible to configure a Multi for a complete multi-track production directly on the instrument.

# BUILT-IN MIDI/AUDIO USB INTERFACE AND AUDIO INPUT (AUX IN)

A USB Audio/MIDI interface is integrated in the MX88. Thus, a single USB cable allows both MIDI and Audio connections to the computer without any additional hardware.

The audio output signal of the MX88 can be routed as a stereo signal to the computer and recorded in audio tracks.

The audio output of the computer can be routed to the MX88. Its volume is controlled by the parameter DAW level (UTILITY - DAW Level - General) and eventually output to the stereo out or the headphones out (Phones) of the MX88.

So, with the MX88 no additional Audio/MIDI interface is required for MIDI recording (internal sounds) and audio recording of the MX88.

To connect the MX88 to the computer it is necessary to install the latest Yamaha Steinberg USB driver which can be downloaded here:

### http://download.yamaha.com

In addition, the MIDI connection in the MX88 has to be set to USB, which is already the case in the factory setting. The setting can be made here:

UTILITY - 02:MIDI - ENTER - MIDI IN/OUT = USB

### REMOTE MODE

In the Remote mode the controls of the MX88 can be used to control selected functions of external DAW applications (Cubase, Logic Pro, Digital Performer, Sonar).

To use the Remote Control function with Cubase the installation of MX Remote Tools is required. The MX Remote Tools can be downloaded here:

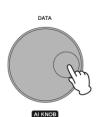
### http://download.yamaha.com

To use the Remote Control function with Logic Pro, Digital Performer, or SONAR several specific settings must be done in the DAW (see Reference Manual, page 33).

The DAW that is to be controlled is specified on the MX88 in UTILITY - "04:Remote" with the parameter "DAW Select".

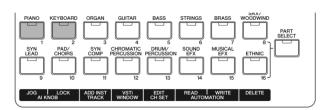
The Remote mode is activated by pressing the button DAW REMOTE.

In Remote mode, the STOP and PLAY buttons of the MX88 work as DAW transport controls.



The [DATA] dial of the MX works as Al KNOB in the Remote mode.

The Al KNOB (Advanced Integration Knob) can control any parameter in the main window of Cubase and plug-ins when they are selected with the mouse pointer.



Numerous functions of the DAW software can be controlled using the Voice Category 1 and 2 buttons (selection of Remote Control Templates) and 9 - 10 (see caption).

Of particular interest are the special Al Knob functions JOG and LOCK.

When JOG is activated, the time-position of the sequencer is controlled by the Al Knob. This allows a convenient control of the transport functions in conjunction with STOP and PLAY buttons.

Upon activation of LOCK the Al Knob controls the last DAW or VSTi parameter that's been selected with the mouse. So this parameter can be further controlled by the Al Knob, even if the mouse has chosen a different parameter in the meantime.

In Remote Control mode the MX88 features over 50 templates for a variety of popular VST instruments. On selecting a template the knobs of the MX88 are automatically assigned to the VSTi's parameters.

For instance when controlling the VSTi HALion Sonic the Quick Controls can be controlled using the MX88's knobs.

### SONG PLAYBACK (MIDI AND AUDIO)

Standard MIDI files (format 0) or audio files in WAV format (44.1 kHz/16 bit stereo) can be directly played back from a USB flash drive, that is connected to the USB TO DEVICE interface of the MX88. This function is set from the EXT. SONG display.

During playback, the currently selected Performance can be played. The "PART SELECT" function can also be used, so sound changes can be implemented, too.

### **EXAMPLE:**

Playing a Lead-Voice to an audio playback

- 1. First run a "Quick Reset" to activate the default mode using SHIFT/SELECT.
- 2. Press PART SELECT and choose some Voices that are suitable as lead sounds for your audio playback for some Parts (eg, Parts 1-4). You can use the cursor keys (up and down) to toggle between selecting the Voice Category and Voice Number. With INC/DEC or the dial you can select the Category or the Voice.
- 3. For the audio playback copy an appropriate WAV file (44.1 kHz/16 bit stereo) onto an USB stick. Do not use any folders, as the MX88 can only load files from the root directory of the USB stick.
- 4. Plug the USB stick into the USB TO DEVICE slot of the
- 5. Press EXT. SONG and select the desired WAV file from the USB stick.

- 6. Use the Cursor down button to navigate to the parameter "WAV Volume", which default state is set to 100. However, for a normalised WAV file this setting should be significantly reduced as a rule, in order to have the audio playback in the right volume balance with the Lead Voice.
- 7. Start the playback of the WAV file with the PLAY button and play one of the Lead Voices you have selected in step 2. Activate the "PART SELECT" function to select other Parts in order to achieve sound changes for the Lead Voice. You also might re-adjust the parameter "WAV Volume".

Basically, it is also possible to play Standard MIDI files in GM or XG format, because the MX88 features all the GM Voices. But as a rule, it is recommended to optimise the GM songs to perfectly fit with the MX88. In particular, you should prepare a Part (which is not used for playback) with a suitable Voice for your own performance.

### CLASS COMPLIANCE

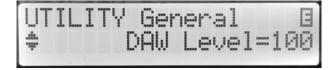
Thanks to the Class Compliance and with the support of a Lightning to USB Camera Adapter MIDI and Audio data can be



transmitted in parallel and bidirectionally between the MX88 and an App that is running on a compatible iPhone or iPad.

Immediately after the connection between iPhone / iPad and the MX88 the audio signal of the iPhone / iPad is routed to the stereo outputs and the headphone output of MX88. The input volume can be controlled via the following menu:

UTILITY > 01:General > ENTER >  $[ \leftarrow ] (4x) > DAW Level$ 



The other way round you are able to record the audio signal of the MX88 with any compatible iOS App. It can be both two separate mono channels and the stereo signal you can record.



# THE 2-PART ARPEGGIATOR

The Arpeggiator automatically plays preset arpeggio phrases, riffs, and drum patterns based on the notes played on the keyboard. The MX88 features 999 Arpeggio Types, divided into 15 Categories.

A maximum of two independent Arpeggiators can be used. The Part parameter "Arp Select" determines which Parts are to use the two available Arpeggiators.

Besides the classic arpeggio functions the MX88 also features a chord recognition - depending on the Arpeggio Type. This means that musical ideas and smaller arrangements can be performed live using re-harmonisation (chord recognition). The factory Performances make good use of this feature.

The MX88 thus becomes an extremely creative and powerful source of inspiration and a composition help.

Arpeggio playback can also be transmitted via MIDI OUT, which allows the recording of Arpeggio data with an external sequencer. This requires that the parameter "MIDI Out" (EDIT - Part) is set to "on".

# KNOBS AND CONTROLLERS

Using the knobs A - D, the most important sound parameters can easily be changed in real time. The knob movements can be used as a continuous tone modulation and recorded with external sequencers.

But also for the processing of sounds the knobs offer greater comfort than editing in EDIT mode. Parameter changes produced with the knobs are automatically reflected in the corresponding EDIT screen (Common or Part).

Use the KNOB FUNCTION button to toggle between the three rows of the parameter matrix, which is indicated by the green LEDs.

If the PART 1-2 LINK button is activated, the knobs control the Voices of Parts 1 and 2 simultaneously. When the button PART 1-2 LINK is deactivated, the knob movements are effective only for the currently selected Part.



## IOS APP: FM ESSENTIAL

# Yamaha has developed a new iOS App: FM Essential!



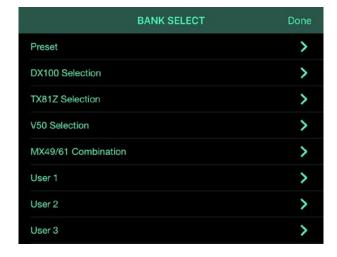
You can download the App for free from the App Store, although with limited features. When an MX88 is connected via a Lightning to USB Camera Adapter to the App, the full functionality is automatically unlocked.

In unlicensed state FM Essential provides 64 Presets. These can be edited extensively, but they can

not be saved.

When a MX88 is connected, seven Voice Banks are available.

Besides the three "Best of" compilations from Yamaha's most successful 4-OP FM classics there are three User Banks for your own creations with 64 memory locations each. In addition, there is a Bank with the name "MX88 Combination". This is prepared for layer-sounds with the MX and contains 15 Voices. When you select one of these Voices, a BulkDump is sent to the MX88 which sets the appropriate Performance on the instrument..





Use the so-called "Ball Controller" to perform an "Easy Edit" by altering a selection of parameters. You might know this controller from the Synth Book App and the AN2015 contained therein. For each Preset a custom combination of parameters and values was assigned to this XY control pad, which are then set in a certain ratio. With a flick of the finger, these values and

ratios can then be changed. This can certainly result in surprising sound experiences.

As cosmetic feature you can change the appearance of FM Essential to match the colour of your MX.



### REMOTE CONTROL

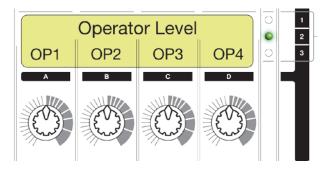
As its name suggests you can use the [DAW REMOTE] mode to control various functions in a DAW using the controllers of the instrument. FM Essential, however, can also be controlled without using the Remote mode. First of all you can use the buttons [INC / YES] and [DEC / NO] to switch through the Voices in the App. For this purpose, the MX88has to be in the Performance Select mode (button [SELECT] is active).

The Knobs C and D of the MX88 let you control the Ball Controller - among others.

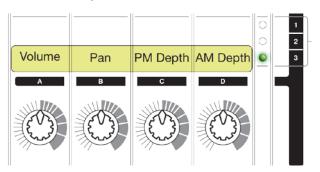


As printed on the instrument the Knobs A and B are assigned to Cutoff and Resonance.

In the [KNOB FUNCTION] position 2, the Knobs control the Level of the Operators.



The Knob position 3 controls Volume, Pan, and the Intensity of the Pitch and Amplitude Modulation.



Below the Ball Controller an Arpeggiator with 64 Types and a switchable Hold function is available. At the top of the right side the Groove department is located. When using an iPhone there are separate views for "FM" and "DRUM".

There are five Banks of 16 Drum Groove variants. The Tempo can be set in the settings.



Below the Drum Pads, there is the possibility of limiting the keyboard to a certain "Scale". 25 Scales can be adjusted to a selectable key. These Scales are also addressed by the keyboard of the connected MX88. In addition, from the keyboard you can switch to one of 20 Chord Pad Sets. Each Set contains a compilation of eight chords from simple to complex.

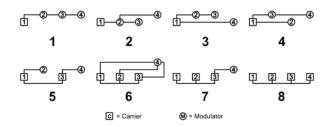


### DETAILS

FM Essential offers a "Full Size" FM Tone Generator on the basis of four Operators. There are four Tone Generator models available: FM Original (FM Essential), V50, TX81Z, and DX100.



The Operators can be linked in eight Algorithms.



Each of the four Operators has its own Feedback Loop with adjustable level.



Each Operator features an Amplitude Envelope, a Pitch EG can affect the signal of all Operators together. There is also an LFO working for all Operators, its modulation intensity - divided by Amplitude and Pitch - can be regulated separately for each Operator.

A resonant Low-Pass Filter, adjustable Portamento and Modulation round off the set of parameters in addition to some general settings such as Mono / Poly, Transpose and Pitch Bend Range.

At the end of the FM Tone Generator a dual Effect Unit and a 3-Band Equalizer refine the sound. Both Effect Slots are arranged in parallel. They feature 15 Effect Types,







several Reverb variants, Chorus, Distortion, Tremolo, and some more. Each Effect has two adjustable parameters and a dry / wet control.



There are 16 Scenes available for the Controller Ball, which is a very interesting addition.



After hitting the "SCENE" button the 16 Scenes appear above. To assign a specific position of the Controller Ball to a Scene, tap once on the Scene - the button of the selected Scene starts flashing. After adjusting the desired settings on the Controller

Ball the selected Scene flashes with a bright filling to indicate that the assignment is completed and this Scene contains data. You can now select and program another Scene. Scenes that are already in use can also be reassigned in the same way.

If you tap and hold on one of the Scenes, the iOS routine for Cut / Copy / Paste and "All Clear" appears. Individual Scenes can be deleted by selecting "Cut" and then leaving the Scene area.



It is possible to run the Scenes as a sequence, which is a very cool function. When the Start button is hit, the Scenes are sequentially activated in sync with the Tempo. There are a few examples in the Presets.

Tap on "RESET" to quickly move the Controller Ball back to its starting position at any time.

FM Essential provides a "small", but smart FM Tone Generator as a useful complement to the MX88. Here every synthesizer fan with a somewhat tighter budget may well follow her or his inspiration. Due to the possibility of digital recording without analog conversion in conjunction with Cubase Al or Cubasis LE small productions are feasible in good quality.

# CUBASIS LE

IOS APP CUBASIS LE

Version 1.9.8 64-bit



Now that the MX is compatible with iOS and quite flexible due to its portability, the bundle with the iOS version of Cubase LE is a very useful addition.

Cubasis LE can be downloaded for free from the Apple App Store and installed on a compatible iPad. The current system requirements can be found in the description in the App Store. After starting Cubasis LE, a demo song is loaded first. Prior to activation you can only play back this song and make a few small adjustments.

An optical indication of the demo version is always visible.

To activate all functions, simply connect your MX88 via USB to the iPad after having started the App. The acitvation is not possible using a Bluetooth MIDI connection.

Immediately after recognizing the Instrument ID of your MX88 the message: "Cubasis LE activated" is shown in the display.

You can then immediately start exploring Cubasis LE.





It is especially interesting that in addition you are entitled to purchase an upgrade to the full version of Cubasis as an inapp purchase at a significantly discounted price.

The regular price for Cubasis is 49.99 EUR. But you can get the upgrade from Cubasis LE for 29.99 EUR.

As soon as an MX88 is connected to the iPad via USB/ Lightning, it will be recognised as an Audio Device. You can control that under "Audio" in the Setup.



By default a newly created Audio Track is configured in mono. With a tap on the routing of the channel, you can switch to the Stereo Input 1/2. This is where the audio signal of the MX88 is transmitted to Cubasis LE. The output of Cubasis LE is automatically routed to the MX88.



Cubasis LE is immediately ready for recording your performance. MIDI and Audio can be recorded separately or together in one go.



# PICTURES FRONT





# PICTURES REAR



# SPECIFICATIONS

| Keyboard             | MX88                   | 88 keys, weighted action Graded Hammer Standard keyboard (Initial touch)                                    |
|----------------------|------------------------|---|
| Tone Generator Block | Tone Generator         | AWM2  |
|                      | Polphony               | 128 notes   |
|                      | Multi-timbral Capacity | 16 parts (Internal)   |
|                      | Wave                   | Approx. 166 MB (when converted to 16-bit linear format)   |
|                      | Voice                  | Preset: 1,000 Normal Voices + 60 Drum Kits  |
|                      |                        | GM: 128 Normal Voices + 1 Drum Kit  |
|                      |                        | User: 128 Normal Voices + 8 Drum Kits   |
|                      | Performance            | User: 128 (16 parts)  |
|                      | Effect System          | Reverb x 9 types (42 presets), Chorus x 17 types (88 presets),  |
|                      |                        | Insertion Effect x 48 types (267 presets) x 4, Master EQ (5 bands)  |
| Sequencer block      | Sequence Play          | SMF Format 0 (playback only)  |
|                      | Tempo (BPM)            | 5 -300  |
|                      | Rhythm Pattern         | 208 Patterns  |
|                      | Song                   | 3 Demo Songs  |
|                      | Arpeggio               | 999 types   |
| Others               | Sequence software      | For Windows: Cubase 8 or later, SONAR X2 Producer   |
|                      | compatible with the    | For Mac: Cubase 8 or later, Logic Pro X, Digital Performer 9  |
|                      | Remote Control         | Functions to be controlled differ depending on the software   |
|                      | function               |   |
|                      | Controllers            | Pitch Bend Wheel x 1, Modulation Wheel x 1, Assignable Knob x 4,  |
|                      | D                      | [DATA] dial x 1   |
|                      | Display                | 3 digit LED + 20 x 2 line character LCD (backlit)   |
|                      | Connectors             | OUTPUT [L/MONO]/[R] (standard phone jack), [PHONE] (standard stereo   |
|                      |                        | phone jack), [FOOT CONTROLLER], [SUSTAIN], MIDI [IN]/[OUT],   |
|                      |                        | USB [TO HOST] (Class Compliant support), USB [TO DEVICE], [AUX IN], DC IN                                   |
|                      | Power Consumation      | 9 W   |
|                      | Power Consumption      |   |
|                      | Dimensions, Weight     | 1,320 (W) x 405 (D) x 168 (H) mm, 13.9 kg   |
|                      | Accessories            | AC adaptor (PA-150B or an equivalent recommended by Yamaha), Owner's Manual, Cubase Al Download Information |
|                      |                        | Owner's Manual, Cubase Ai Download Information  |

# **ACCESSORIES**

### SUSTAIN PEDALS



### **FOOTCONTROLLER**



FC7

Footcontroller

### GIGBAG







MX88 ESSENTIAL KNOWLEDGE GUIDE

