EVOLUTION   e-Keys37

FC Tested To Comply With
FCC Standards

FOR HOME OR OFFICE USE

Modifications not authorized by the manufacturer may void users authority to operate this device.
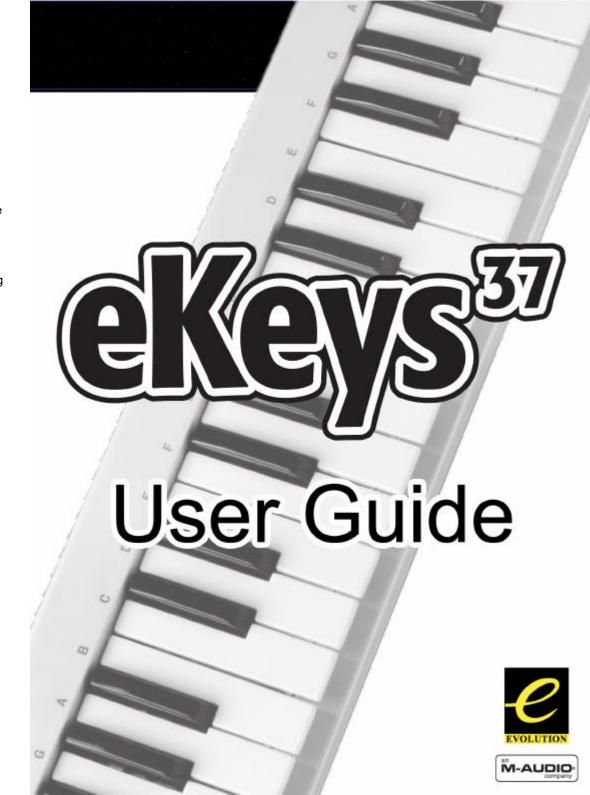
Note:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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eKeys37

User Guide

EVOLUTION

an M-AUDIO company

Introduction

Congratulations on your purchase of the Evolution eKeys computer music package. The package contains the eKeys USB music keyboard along with software covering diverse approaches to learning and making music on your PC computer.

PictureBoard is an exciting tool for general early learning and musical fun. You can play sounds and trigger pictures using the eKeys keyboard which helps to teach essentials such as numbers, animal names and the alphabet. Comes with a huge collection of pictures and soundsets to keep everyone entertained.

Music Teacher contains lessons and practise guides so you can learn from scratch or simply run through a quick refreshment course. Use the software to grade your ability to play both notes and rhythm.

Sound Studio is your complete PC recording studio. Record tracks using both MIDI and audio, and use the extensive editing tools and other features to make professional sounding compositions.

We hope you will have as much fun playing and working with eKeys as we had creating it. Now it is time to unleash your creativity.

What's In The Package?

Your Evolution eKeys package should contain the following items:

- **Evolution eKeys USB keyboard**
- **User Manual**
- **eKeys Installer CD-ROM**

If any of the above listed items are missing, please contact the retailer you purchased the product from.

About The Manual

This instruction manual covers the operation of the eKeys USB keyboard. We do not explain how to set it up, however with third party music software. Most programs will work straight away with the eKeys keyboard.

To learn about the included software PictureBoard, Music Teacher and Sound Studio, please insert the eKeys Installer CD-Rom and click "Software Installation". Once installed you can read more about how to operate these great programs in their respective help menus.

Before You Connect Your Keyboard…

You are probably eager to plug in your eKeys keyboard and get started, but it's sensible to check the installation documentation first.

The single USB cable not only powers the keyboard but also sends MIDI data to and from your computer system.

Windows XP & Mac OS X

If you are using Windows XP or Mac OS X you can now simply plug the keyboard in to an available USB port. Because the eKeys keyboard is class compliant it will work with out any further installation.

Installing Drivers For Windows 98/ME

1.   **Power up your PC.**
2.   **Insert the eKeys Installer CD-ROM.**
     The installer should open automatically. If not, select run from the start menu and type d:\setup.exe where 'd' is your CD-ROM drive, then press ENTER.
3.   **Click on 'install drivers'.**
4.   **Follow instructions on screen.**
5.   **When finished exit setup.**
6.   **Plug in the eKeys.**

Windows will proceed with the installation of a USB driver and a MIDI driver. Please re-start your PC once the installation is complete.

Installing Drivers For Windows 2000

1.   **Power up your PC.**
2.   **Insert the eKeys Installer CD-ROM.**
     The installer should open automatically. If not, select run from the start menu and type d:\setup.exe where 'd' is your CD-ROM drive, then press ENTER.
3.   **Click on 'Driver Installer'.**
4.   **Follow instructions on screen.**
5.   **When finished exit setup.**
6.   **Plug in the eKeys keyboard.**
     Windows will automatically recognise the keyboard and ask for the Evolution Installer CD-ROM.
7.   **Select the CD-ROM drive and click OK.**
     Windows will then ask you to select the CD-ROM drive again for the MIDI driver.
8.   **If Windows reports the drivers have not been digitally signed, click on 'Continue Installation'.**
9.   **Select the drive once more.**
10. **Click OK.**
Please restart your PC once the installation is complete.

Getting Started

Assuming the installation process was completed successfully, it is now time to have a closer look at the eKeys keyboard. However, at the moment, when you press a key you will not hear any sound. This is because when you press a key, the keyboard sends out MIDI data. MIDI data gives instructions on how a sound should play, but in order to hear that sound you need some software which can read this MIDI data, and play sound back accordingly. We have provided such software on the Evolution eKeys Installer CD-ROM.

If you have not done so already, install 'PictureBoard' from the CD-ROM. To do this insert the CD-ROM and click on 'Software Installer'. Make sure 'PictureBoard' is selected for installation. When the installation is complete, open PictureBoard.

PictureBoard is a great piece of software that will play a sound, and trigger an image when a key is pressed.

The piano set should automatically have been opened for you. If not, click on 'Open' and select the 'Piano.MB' file.

Press a key on the keyboard. You should now hear a piano, and see a key on the onscreen keyboard in PictureBoard light up.

If you do not see this, click on the preferences menu and select 'MIDI devices'. Select "USB MIDI in", or if you are a Windows XP user, "USB Audio Device" as the MIDI input.

The Piano set in PictureBoard enables you to play the keyboard like a grand piano. Go on – give it a try!

About the Keyboard

Each white key on the eKeys is labelled with a letter. The letter represents the note you play.

Although the black keys are not labelled, they also have names. The name of a black key will be something like F# or Eb. If a black key is expressed with a # sign, it is referring to the black key above the white note. For example F# refers to the black key above F. If a black key is expressed with a b sign, it is referring to the black key below the white note. For example Eb refers to the black key below E.

So, as an example, the black Key between C and D3 is both C# and Db.

The keyboard is sectioned into **octaves**. There are 12 notes in an octave, 5 black notes and 7 white notes.

Play the bottom key labelled F on the keyboard. This will light up the corresponding key on the onscreen keyboard in PictureBoard. Now press the next F along on your eKeys. The key that now lights up on the PictureBoard keyboard is 1 octave higher.

Setting up the Software

Before you use the software, it's a good idea to set up it up so that it is communicating with the eKeys properly. Once you have set this up, your settings will be saved so that each time you open the software, it will be communicating with the eKeys straight away.

If you have not done so already, install Music teacher v3.0 and Sound Studio II. Open up Music Teacher or Sound Studio II by double-clicking on the icon on your desktop. Play the eKeys keyboard. Can you hear any sound? If so all is good and you can go on to set up the other program.

If not select 'Devices...' from the Options menu ('MIDI Devices' in Sound Studio II). Here you have a list of MIDI inputs and outputs. Make sure the eKeys is selected as the MIDI input device. If you plugged the eKeys straight in to Windows XP and are not using Evolution's drivers, the eKeys will be called 'USB Audio Device'. In all other cases, the eKeys will be called 'USB MIDI in'.

In the MIDI Outputs you should select the output with 'synth' or 'synthesis' in the name. Make sure it is the only MIDI output that is selected. Selected devices are highlighted blue.

Click on 'OK' to save the settings. You should now be able to hear a piano sound when you play the eKeys. If not, go back in to Devices and select the next MIDI output. Click to de-select the previous MIDI output and click 'OK'. Try the eKeys again. Repeat this process for each MIDI output in turn until you can hear sound.

Useful MIDI data

General MIDI Instruments

Piano	Bass	Reed	Synth Effects
0 Acoustic Grand Piano	32 Acoustic Bass	64 Soprano Sax	96 SFX Rain
1 Bright Acoustic Piano	33 Electric Fingered	65 Alto Sax	97 SFX Soundtrack
2 Electric grand Piano	Bass	66 Tenor Sax	98 SFX Crystal
3 Honky Tonk Piano	34 Electric Picked Bass	67 Baritone Sax	99 SFX Atmosphere
4 Electric Piano 1	35 Fretless Bass	68 Oboe	100 SFX Brightness
5 Electric Piano 2	36 Slap Bass 1	69 English Horn	101 SFX Goblins
6 Harpsichord	37 Slap Bass 2	70 Bassoon	102 SFX Echoes
7 Clavinet	38 Syn Bass 1	71 Clarinet	103 SFX Sci-Fi
	39 Syn Bass 2		
Chromatic Percussion	**Strings/Orchestra**	**Pipe**	**Ethnic**
8 Celesta	40 Violin	72 Piccolo	104 Sitar
9 Glockenspiel	41 Viola	73 Flute	105 Banjo
10 Music Box	42 Cello	74 Recorder	106 Shamisen
11 Vibraphone	43 Contrabass	75 Pan Flute	107 Koto
12 Marimba	44 Tremolo Strings	76 Bottle Blow	108 Kalimba
13 Xylophone	45 Pizzicato Strings	77 Shakuhachi	109 Bag Pipe
14 Tubular bells	46 Orchestral Harp	78 Whistle	110 Fiddle
15 Dulcimer	47 Timpani	79 Ocarina	111 Shanai
Organ	**Ensemble**	**Synth Lead**	**Percussive**
16 Drawbar Organ	48 String Ensemble 1	80 Syn Square Wave	112 Tinkle Bell
17 Percussive Organ	49 String Ensemble 2	81 Syn Sawtooth Wave	113 Agogo
18 Rock Organ	(Slow)	82 Syn Calliope	114 Steel Drums
19 Church Organ	50 Syn Strings 1	83 Syn Chiff	115 Woodblock
20 Reed Organ	51 Syn Strings 2	84 Syn Charang	116 Taiko Drum
21 Accordion	52 Choir Aahs	85 Syn Voice	117 Melodic Tom
22 Harmonica	53 Voice Oohs	86 Syn Fifths Sawtooth	118 Syn Drum
23 Tango Accordion	54 Syn Choir	Wave	119 Reverse Cymbal
	55 Orchestral Hit	87 Syn Brass & Lead	
Guitar	**Brass**	**Synth Pad**	**Sound Effects**
24 Nylon Acoustic	56 Trumpet	88 New Age Syn Pad	120 Guitar Fret Noise
25 Steel Acoustic	57 Trombone	89 Warm Syn Pad	121 Breath Noise
26 Jazz Electric	58 Tuba	90 Polysynth Syn Pad	122 Seashore
27 Clean Electric	59 Muted Trumpet	91 Choir Syn Pad	123 Bird Tweet
28 Muted Electric	60 French Horn	92 Bowed Syn Pad	124 Telephone Ring
29 Overdrive	61 Brass Section	93 Metal Syn Pad	125 Helicopter
30 Distorted	61 Syn Brass 1	94 Halo Syn Pad	126 Applause
31 Harmonics	62 Syn Brass 2	95 Sweep Syn Pad	127 Gun Shot

Caution : *Electro Static Discharge, Electrical Fast Transient and Conducted RF interference may cause the unit to malfunction. In such case unplug the unit and plug in again to restore normal operation.*

Pour toutes les mises à jour de documents et manuels français, veuillez visiter la page web www.evolution.co.uk/manuals

Aktuelle deutsche Bedienungsanleitungen finden Sie unter: www.evolution.co.uk/ manuals

Para accedera manuales y documentación actualizada, por favor visite: www.evolution.co.uk/manuals

Per ottenere tutte le documentazioni italiane aggiornate, visitate www.evolution.co.uk/manuals

Trouble-Shooting

My Evolution hardware suddenly stopped working after having been working fine since installation.
Switch off the unit and leave for 10 seconds. Then restart your computer and try again. If the problem persists you may have to re-install the drivers for the unit.

My drivers are listed in the Device Manager and are said to be working OK, but the keyboard is not recognised in any software.
Win2000 and XP have a limitation to how many MIDI device drivers you can have installed at any one time. There is no indication that you are using the maximum number of drivers - the drivers will install as if there is not a problem.

To fix this problem: Go to http://www.evolution.co.uk/support/faq/index.html and locate the above question. You will find a link to an exe file that will solve this problem for you.

I have plugged in a sustain pedal to my Evolution keyboard, but it works the wrong way round.
The polarity of the sustain pedal is calculated by the keyboard when it is powered up. On power up, the sustain pedal is assumed to be in the OFF position. So, if you want the sustain pedal to be off when it is unpressed, make sure the pedal is unpressed when you power up.

When I press a key, there is a delay before I hear any sound.
This delay is known as latency.

Latency with MIDI signals is usually due to the soft-synth you are using. MIDI data is simply control data. The MIDI is read by the soft-synth. The soft-synth then completes a large number of complex calculations, in order to produce the sound you hear. All this takes time.

We recommend getting a proper soundcard. You can get a decent one these days for under £30. If you already have an adequate sound card, try re-installing the latest drivers for the sound card, or try reducing the buffer sizes of the audio drivers. You can do this in the Sound Studio II and Sound Studio Pro II programs by going to 'Audio' – 'Audio system settings' where you can reduce the buffer sizes of the MME or ASIO drives.

I can't get any sound from my Evolution Software.
In your software go to Options|Devices. Here you will see a list of MIDI Inputs and MIDI outputs.

If you have MIDI inputs available, if no driver names appear in the Output column, you need to re-install your soundcard or update the soundcard drivers.
The output column allows you to choose which output driver you want for generating the MIDI sounds. Most soundcards will have an option such as "FM synth" or "SBLive Synth". Click on these driver names to use the sounds of your soundcard for playback of MIDI data. If you just have a sound chip, the software synth to select may be similar to "Microsoft SW synth". Click on the driver name of your choice.

Rule of Thumb: Go back in to Devices and select the next MIDI output. Click to de-select the previous MIDI output and click 'OK'. Try the keyboard again. Repeat this process for each MIDI output in turn until you can hear sound.

Contact Details

For additional files, help or drivers for this product, it is best to look on our main website http://www.m-audio.com.

If you have any questions, comments or suggestions about this product, or any other M-Audio or Evolution product, we invite you to contact us directly by using the following information:

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