



# Your PDF Guides

You can read the recommendations in the user guide, the technical guide or the installation guide for M-AUDIO EVOLUTION MK461C. You'll find the answers to all your questions on the M-AUDIO EVOLUTION MK461C in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

**User manual M-AUDIO EVOLUTION MK461C**  
**User guide M-AUDIO EVOLUTION MK461C**  
**Operating instructions M-AUDIO EVOLUTION MK461C**  
**Instructions for use M-AUDIO EVOLUTION MK461C**  
**Instruction manual M-AUDIO EVOLUTION MK461C**



[You're reading an excerpt. Click here to read official M-AUDIO EVOLUTION MK461C user guide](http://yourpdfguides.com/dref/2813904)  
<http://yourpdfguides.com/dref/2813904>

**Manual abstract:**

You can control many different parameters. @@@@Here is a snapshot of the powerful features implemented in your Evolution keyboard: Features List  
MK-425C/MK-449C & MK-461C Ports: x x Power: MIDI OUT USB MIDI OUT/IN x x USB powered DC IN for external PSU Keyboard: x 25, 49 or 61 note  
velocity sensitive keyboard (MK-425C, MK-449C and MK-461C respectively) x 9 velocity curves Controls: x 12 programmable rotary dials (8 on MK-425C  
and MK-449C) x 9 full size programmable faders (MK-449C & MK-461C only) x 10 programmable buttons x Pitch bend and modulation wheels, both fully  
MIDI assignable x Foot switch, fully MIDI assignable MIDI Data from controllers x MIDI control number x RPN/NRPN x Program, Bank LSB, Bank MSB x  
Pitch Bend x GM/GM2/XG SysEx Messages 1 MIDI Data from buttons: x Note on x Note on/off Toggle x MIDI CC on/off Toggle x Program, Bank LSB, Bank  
MSB presets x MIDI Machine Control functions x GM/GM2/XG SysEx Messages "On the fly" features: x Program and bank changes x Snap shot sends  
current status for all controllers x Drawbar mode for faders (MK-449C and MK-461C only) x Controller Mute, mutes controller output to avoid parameter  
jumps Other features: x Memory Dump via Sys Ex x Dedicated Sys Ex Librarian for storing and organizing setups x 10 memory locations stores all settings x  
MIDI out USB interface Evolution MK-425C/MK-449C/MK461C Getting Started Contents - MK-425C/449C/461C Getting Started Introduction.....

..... 1 Features List..

... 1 Contents - Getting Started ..

..... 2 Contents - Advanced User Guide .....

..... 3 MK-425C Graphic Illustration .....

.....  
.....  
.....  
.....  
.....  
.....

*.... 4 MK-449C Graphic Illustration ....*

.....  
.....  
.....  
.....  
.....  
.....

*.... 5 MK-461C Graphic Illustration .*

.....  
.....  
.....  
.....  
.....  
.....

*... 6 Installation What's In The Package?.....*

.....  
.....  
.....  
.....  
.....  
.....

*..8 About The Manual .....*

.....  
.....  
.....  
.....  
.....  
.....

*8 Before You Connect Your Keyboard.....*

.....  
.....

.....  
.....  
.....  
.....

.....  
*.8 Power & Connecting Via USB...*

.....  
.....  
.....  
.....

.....  
*..8 Windows XP & Mac OS X.....*

.....  
.....  
.....  
.....  
.....

.....  
*.....8 Installing Drivers For Windows 98/ME .*

.....  
.....  
.....  
.....  
.....  
.....

.....  
*.....9 Installing Drivers For Windows 2000 ...*

.....  
.....  
.....  
.....  
.....

.....  
*..9 Installing Drivers For Apple Mac OS 9.x ..*

.....  
.....  
.....  
.....



.....  
.....

.....  
*..11 Testing The MK-425C/449C/461C With Your Software ...*

.....  
.....

.....  
.....

*..11 Setting The Global MIDI Channel .....*

.....  
.....

.....  
.....

.....  
.....

.....  
.....

*.....11 Setting The Keyboard Velocity Curve .....*

.....  
.....

.....  
.....

.....  
.....

.....  
.....

*..12 Octave ...*

.....  
.....

.....  
.....

.....  
.....

.....  
.....

.....  
.....

.....  
.....

.....  
.....

*.....12 Transpose....*

.....  
.....

.....  
.....

.....  
.....

.....  
.....

.....  
.....

.....  
.....  
.....  
.....  
.....12 Pitch Bend Wheel .....

.....  
.....  
.....

.....  
.....  
.....

.....  
.....  
.....

.....13 Modulation Wheel .....

.....  
.....

.....  
.....

.....  
.....

.....13 Foot Switch .

.....  
.....

.....  
.....

.....  
.....

.....  
.....

.....13 Recalling Presets....

.....  
.....

.....  
.....

.....

.....  
.....  
.....

*....14 Sending Snap Shot.....*

.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

*.....14 Draw Bar Mode.*

.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....

*15 Muting All Controllers.....*

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....

*..15 Program Changes.....*

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

.....  
.....  
.....



.....16 Bank Changes .

.....  
.....  
.....

.....  
.....  
.....

.....  
.....  
.....

.16 Getting More Out Of Your Sound Blaster....

.....  
.....

.....  
.....  
.....

...16 Saving And Organizing Presets ..

.....  
.....

.....  
.....  
.....

.....  
.....  
.....

.....17 Basic Programming Operations .

.....  
.....  
.....

.....  
.....  
.....

.....  
.....  
.....

17 Trouble-Shooting .....

.....  
.....  
.....

.....  
.....  
.....

.....  
.....  
.....

.....  
.....  
.....  
...19 Contact Evolution.....

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

.20 2 Evolution MK-425C/MK-449C/MK461C Getting Started This page intentionally left blank. 3 Evolution MK-425C/MK-449C/MK461C Getting Started MK-425C Graphic Illustration 10 1 8 7 6 3 5 2 4 4 MK-425C Dimensions: 48 x 21 x 10 cm Feature descriptions on page 7. Evolution MK-425C/MK-449C/MK461C Getting Started MK-449C Graphic Illustration 10 1 9 8 6 7 4 5 3 5 2 MK-449C Dimensions: 80 x 21 x 10 cm Feature descriptions on page 7. Evolution MK-425C/MK-449C/MK461C Getting Started MK-461C Graphic Illustration 10 1 9 8 6 7 4 5 3 6 2 MK-461C Dimensions: 97 x 21 x 10 cm Evolution MK-425C/MK-449C/MK461C Getting Started 12 13 14 11 15 MK-425C, MK-449C and MK-461C rear view. 1. Sixty-one full-size (49 on the MK-449C, 25 on MK-425C) velocity sensitive keyboard. 2. 3. Pitch bend and modulation wheels. Ten assignable MIDI buttons, doubles up as a numeric keypad (0-9) in edit mode. 4. 5. 6. +/- buttons. Dual press function sends out Snap Shot command. Backlit LCD display Eight function keys. Single press functions for, Global Channel, Channel Assign, Control Assign, Program, Data LSB, Data MSB, Store and Recall\*. 7. Dual press functions for Control Mute, Control Select, Drawbar, Midi out from USB, Velocity Curve, Device ID and Memory Dump\*\*. 8. 9. 10. Octave +/- buttons. Dual press function controls transpose. Nine 40 mm faders all of which are fully MIDI assignable. Twelve rotary controllers, all of which are fully MIDI assignable (eight on MK-449C & MK-225C). 11. USB In/Out connects to the USB port of your computer via the included USB cable. 12.

MIDI Out plug used to connect the keyboard to other MIDI hardware via a standard MIDI 5-Pin DIN plug (not included). Can also be used as USB to MIDI out interface. 13. 14. 15. Footswitch socket, fully MIDI assignable. Power on/off switch. DC In plug for connection of 9v DC power supply (not included). \* The MK-225C single press functions: Global Channel, Control Assign, Program, Data LSB, Data MSB, Recall \*\* MK-225C dual press functions: Control Mute, Channel Assign, Control Select, MIDI out from USB, Store. Additional unlabelled dual press functions: Velocity Curve, Device ID, Memory Dump. 7 Evolution MK-425C/MK-449C/MK461C Getting Started What's In The Package? What's in the package Your Evolution MK-425C/449C/461C package should contain the following items: · Evolution MK-425C/449C or 461C USB keyboard controller · Getting Started manual · Evolution Installer CD-ROM · USB cable If any of the above listed items are missing, please contact the retailer you purchased the product from. About The Manual This is the Getting Started manual which covers the basic operation of the 3 Evolution USB keyboard controllers MK-425C, MK-449C and MK-461C. You will find a graphic illustration of your keyboard on pages 4, 5 and 6. We have numbered the important sections of this illustration and used the numbering throughout the manual. In-depth programming and advanced features are covered in the MK-425C/449C/461C Advanced User Guide, which is provided as electronic documentation on the Evolution Installer CD-ROM.

The format of the documentation is Adobe Acrobat so you will need to install Acrobat Reader to either print or view the documentation. We have provided this program on the CD-ROM as well, in case you don't have it already. Throughout the manual we will refer to the 3 models as MK-425C/449C/461C whenever a feature applies to all 3 and point out any discrepancies. Before You Connect Your Keyboard. You are probably eager to plug in your Evolution keyboard and get started, but it's sensible to check the installation documentation first.

You can power the keyboard either via USB or an optional external power supply. Use only one method at a time. Power & Connection Via USB 1. 2. 3. Check that the on/off button (15) on the back of the unit is set to iO fff. Plug in the USB cable provided with the MK-425C/449C/461C to a free USB port on your computer. Plug in the other end of the USB cable to the USB socket on the MK-425C/449C/461C. The single USB cable not only powers the U-Control 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 switch the power position to iOn.



[You're reading an excerpt. Click here to read official M-AUDIO EVOLUTION MK461C user guide](http://yourpdfguides.com/dref/2813904)  
<http://yourpdfguides.com/dref/2813904>

Because the Evolution keyboard is class compliant it will work with out any further installation. 8 Evolution MK-425C/MK-449C/MK461C Getting Started  
Installing Drivers For Windows 98/ME 1. 2. Power up your PC. Insert the Evolution Installer CD-ROM. The installer should open automatically. If not, select  
run from the start menu and type d:\autorun where 'd' is your CD-ROM drive, then press ENTER. Click on 'install drivers'. Follow instructions on screen.  
When finished exit setup.

Switch on the MK-425C/449C/461C (14). 3. 4. 5. 6.

Windows will proceed with the installation of a USB driver and a MIDI driver. Once completed, you are ready to go. Windows may ask you to restart your  
computer if you have previously installed an Evolution device. Installing Drivers For Windows 2000 1. 2.

Power up your PC. Insert the Evolution Installer CD-ROM. The installer should open automatically. If not, select run from the start menu and type d:\autorun  
where 'd' is your CD-ROM drive, then press ENTER. Click on 'Driver Installer'. Follow instructions on screen. When finished exit setup. Switch on the  
MK-425C/449C/461C. Windows will automatically recognise the keyboard and ask for the Evolution Installer CD-ROM. Select the CD-ROM drive and click  
OK.

Windows will then ask you to select the CD-ROM drive again for the MIDI driver. If Windows reports the drivers have not been digitally signed, click on  
'Continue Installation'. Select the drive once more. Click OK and you are ready to go. 3. 4. 5. 6. 7. 8.

9. 10. Installing Drivers For Apple Mac OS 9.x If you do not have OMS installed, please run the OMS installer first. Otherwise jump to "Installing the  
MK-425C/449C/461C OMS Driver" on page 8.

To install OMS: Make sure that all programs are shut down before you begin the installer. All input for your software application. This will differ from one  
program to another so please refer to the documentation provided with your software. Setting The Global MIDI Channel The MK-425C/449C/461C can  
transmit on any of the standard 16 MIDI channels. If you are using a computer based system, usually the software controls the routing of MIDI signals, so  
you won't have to worry about this.

If, however, you are using a MIDI sound module or connecting to another piece of MIDI equipment, you will need to make sure that both your Evolution  
keyboard and the receiving unit is set to the same MIDI channel. The global MIDI channel affects the keyboard, program and bank changes plus whatever  
controllers have been set to respond to the global setting. Here is how you set the Global MIDI Channel: 1. Press GLOBAL CHANNEL (6). The LCD will  
display the KEYBOARD and CHAN symbol. The 3-digit display will show the currently selected global channel, preceded by a 'c'. Type in the MIDI channel  
number (01-16) using the numeric keypad or the +/- keys. 11 2. Evolution MK-425C/MK-449C/MK461C Getting Started Setting The Keyboard Velocity Curve  
Once you have sound, you may want to adjust the way the keyboard responds to your individual playing style. The velocity curves determine the relationship  
between how hard the keys are struck and the corresponding velocity that the unit transmits.

We have designed 9 new velocity curves for the MK-425C/449C/461C ranging from the ultra dynamic to more constant velocity values. Here is how you  
change the velocity curve: 1. 2. Press "VELOCITY CURVE" (7). MK-425C: Press "CONTROL ASSIGN" and "DATA LSB" simultaneously. Type in the MIDI  
channel number (01-16) using the numeric keypad or the +/- keys (4). Octave You can shift the whole keyboard up or down to give you access to a total of 11  
octaves on any of the Evolution keyboards. 1. 2. Press "OCTAVE +" (8) for every octave you want to shift the keyboard up.

Press "OCTAVE -" (8) for every octave you want to shift the keyboard down. Transpose You can also transpose the keyboard so that you can change the key  
of the music you are playing without changing the key you are playing in. 1. 2. Press "TRANSPPOSE" (OCTAVE + and OCTAVE together) (8).

Press the Octave + or - key (8) for every semi tone you want to transpose up or down. So for instance, you may have learnt to play a piece of music in the key  
of C. To now play it in F you would need to press "TRANSPPOSE" followed by 5 presses on the OCTAVE+ key or 7 presses on the OCTAVE - key. 12

Evolution MK-425C/MK-449C/MK461C Getting Started Pitch Bend Wheel As the name indicates, the pitch bend wheel is usually used to bend the notes  
played on the keyboard, up or down. This allows you to play phrases not normally associated with keyboard playing, including guitar style riffs.  
Your sound source determines how far you can bend the note. Its typically set to 2 semitones but can be up to 2 octaves +/- . The pitch bend on your Evolution  
keyboard has even wider scope. It is fully MIDI assignable, just like the other controllers on your MK-425C/449C/461C. To find out how, read the section  
"Basic Programming Operations" on page 17. Modulation Wheel The modulation wheel (2) is, as implied, typically used for modulation of the sound you are  
playing. This type of real-time controller was originally introduced on electronic keyboard instruments to give the performer the option of for instance adding  
vibrato just like players of acoustic instruments do. Just like the pitch bend wheel, the modulation wheel is fully MIDI assignable. @@@@This is  
also the default function on your Evolution keyboard. The MK-425C/449C/461C goes further though.

@@@@@ 1. 2. Press the function key labelled "Recall" (6) . @@@@@@ 1. 2. 3. 4. 5. Press the function key labelled "Recall". Type "02" on the numerical  
keypad.

Launch the B4. Make sure the B4 is receiving data from the keyboard. @@@@ When you send a snapshot, the LCD will display the SNAPSHOT symbol.  
@@@@@ Press the CHANNEL and RECALL buttons to disengage DRAW BAR mode. @@@@@@ CTRL MUTE does not affect buttons, the  
foot switch or the keyboard.

@@@@@ You will be able to move the controller to a position relative to the software's controller value, rather than causing the software's controller value to  
jump. You can also use this feature for creative mixing and interesting DJ type control. If for instance you use the faders for conventional volume mixer, try  
engaging the controller mute function, change the volume up or down of various channels and press the SNAP SHOT buttons. This form of mixing is very  
dynamic and can not be done using a conventional mixer. 15 Evolution MK-425C/MK-449C/MK461C Getting Started Program Changes You can at any one  
time send out a program change message to you sound card, sound module, instrument or whatever other device will receive this standard MIDI message.  
The program change will be sent on the global MIDI channel. 1. 2. Press the PROGRAM button (6). Type in the program number you wish to send, using the  
numerical keypad or the +/- keys (3 or 4).



[You're reading an excerpt. Click here to read official M-AUDIO](#)

[EVOLUTION MK461C user guide](#)

<http://yourpdfguides.com/dref/2813904>

*Example: The LCD display the PROG symbol in the right hand corner Indicating that the PROGRAM button has been pressed. The program value sent is 00 and it's sent on the global MIDI channel 01. You can also program the assignable buttons to send out fixed program messages to individual MIDI channels. Try for instance preset 01 which has been setup to send program messages 01 to 10 on the 10 assignable buttons. For further information regarding this method, please go to the Advanced User Guide and read the section "Programming and Editing The MK-425C/449C/461C.*

*Bank Changes If your receiving device has more than 128 programs, you may be able to access the additional banks by sending out bank change LSB and MSB messages. 1. 2. Press the DATA LSB or DATA MSB button (6). Type in the bank number you wish to send, using the numerical keypad or the +/- keys (3). Please check the documentation for your receiving device to ensure that it will respond to these messages. For more information about LSB and MSB, please see the chapter "Program and Bank Changes Explained" in the Advanced User Guide. Getting More Out Of Your Sound Blaster One of the most common sound cards is the SoundBlaster from Creative Labs. You may have one installed in your PC already without knowing what power is behind its sound engine. It is not easy to access all the parameters available but again we have done the hard work for you.*

*This is how you get your keyboard to work instantly with your SoundBlaster: 1. 2. 3. 4. 5.*

*Press the function button (7) "Recall". Type "30" on the numerical keypad (3). This selects the SoundBlaster setup on your keyboard. Launch your MIDI sequencer and select a MIDI track. Make sure to set the output of your MIDI track to "SB Live! Synth" or "SB Audigy Synth".*

*Play your keyboard while moving any faders or controls on the keyboard The MK-425C/449C/461C remote controls filter and sound parameters on the SoundBlaster card using some of the extended programming options in the keyboard. 16 Evolution MK-425C/MK-449C/MK461C Getting Started Saving And Organizing Presets Once you have familiarized yourself with the Evolution keyboard presets you may want to save and reorganize the order to suit your setup. Before we start, please note that the factory presets are stored in ROM within the keyboard and can therefore be restored at any time. Lets move preset 10 "XG/GS preset" to location 03 by carrying out the following procedure: 1. 2. 3. 4. Press the function button (7) "Recall". Type "10" on the numerical keypad (3). Press the function button (6) "Store".*

*Type "03" on the numerical keypad (3). This will save or store the current setup to preset location 03. If you want to reset the MK-425C/449C/461C back to the factory defaults, just hold down the +/- buttons on the numerical keypad while switching the keyboard on. Note: Restoring the Factory presets will erase all setups stored to memory. You can also organise your presets using the Evolution Librarian Software (PC only, please check [www.evolution.co.uk](http://www.evolution.co.uk) for Mac version) included with your Evolution keyboard. Insert the Evolution CD-ROM in to your computer's CD-ROM drive and run the installer. Basic Programming Operations Now that you have learnt how to use the factory presets, its time to look at how to program and modify your own basic setups.*

*We will use the B4 again for the purpose of this exercise. 1. 4. 5. 6.*

*Launch the B4 and make sure its receiving data from your keyboard. On the MK-425C/449C/461C, press the function button (6) "Recall". Type "02" on the numerical keypad (3). This selects the preset for the B4. Move the modulation wheel (2).*

*While moving the modulation wheel, the display shows the positional value. When you stop moving the wheel, after a short delay the display shows the controller number in small digits and 01 in large digits. This tells you that the modulation wheel currently is assigned to controller number 001. Press the function button (6) "CONTROL ASSIGN". Type "011" on the numerical keypad (3). If you now move the wheel you should see the display show modulation wheels controller number in the left hand corner and 11 in large digits. Moving the modulation wheel should now control the B4's Swell parameter. 7. 8. 17 Evolution MK-425C/MK-449C/MK461C Getting Started Move one of the rotary controllers and notice how the numbers in the display change, telling you what controller number you have selected and what MIDI cc is assigned to it.*

*1. 2. Press the function button (6) "CONTROL ASSIGN". Type "076" on the numerical keypad (3). Notice the display now shows 76 in large digits, the controller number you have just programmed. Moving the controller should now control the Tube Amp Driver parameter on the B4. You can keep going in order to create your own setups, but make sure you store to a preset location before recalling any other setups, if you want to keep it. @@@@Switch off the unit and leave for 10 seconds. Then restart your computer and try again. @@@@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 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.*



**[You're reading an excerpt. Click here to read official M-AUDIO EVOLUTION MK461C user guide](http://yourpdfguides.com/dref/2813904)**  
<http://yourpdfguides.com/dref/2813904>

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 like "Microsoft SW synth".

Click on the driver name of your choice. Rule of Thumb: If you have numerous output drivers enabled (highlighted in blue) and cannot hear any output, de-select all but one of them and try again. Repeat this process until you hear some sounds. 19 Evolution MK-425C/MK-449C/MK461C Getting Started Contact Evolution If you are looking for more supporting material, setup files for your Evolution product or simply have problems getting your system up and running, the best place to look is: <http://www.evolution.co.uk>

Our distributor in your country should be able to answer any additional questions. You will also find a link to our distributor list on the website. If you have exhausted these two possibilities you are of course welcome to contact us directly via the following 2 email addresses: General enquiries: [Support: info@evolution.co.uk](mailto:Support@evolution.co.uk)

We hope you will have many years of enjoyment and active use from your Evolution Product and wish you every success in your creative efforts. Evolution Electronics Ltd. Caution : Electro Static Discharge, Electrical Fast Transient and Conducted RF interference may cause the unit malfunctioning. 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](http://www.evolution.co.uk/manuals) Aktuelle deutsche Bedienungsanleitungen finden Sie unter: [www.evolution.co.uk/manuals](http://www.evolution.co.uk/manuals)

Para acceder a manuales y documentación actualizada, por favor visite: [www.evolution.co.uk/manuals](http://www.evolution.co.uk/manuals) Per ottenere tutte le documentazioni italiane aggiornate, visitate [www.evolution.co.uk/manuals](http://www.evolution.co.uk/manuals) 20 .



[You're reading an excerpt. Click here to read official M-AUDIO EVOLUTION MK461C user guide](http://www.evolution.co.uk/manuals)  
<http://yourpdfguides.com/dref/2813904>