

*i*² Control-61



User's manual



Preface

Congratulations on purchasing the **i² Control-61** master MIDI controller keyboard. It is one of the finest products of its kind, made after extensive research into what customers require from a MIDI Controller.

When using your **i² Control-61** in conjunction with a computer and appropriate music software, you will be able to discover the wonderful world of Computer Music, with a set of complete musical instruments from your sound card or workstation.

This manual is written to help you become familiar with the powerful features of the **i² Control-61**

Please read the manual carefully to discover all the features of your **i² Control-61** after reading the manual, you will have a clear understanding of how to transmit different MIDI messages to other instruments and equipment. For ease of use of MIDI implementation, we strongly recommend you to have the manual at hand when you are using the keyboard, especially if you are new to the world of MIDI.

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IMPORTAND SECURE INFORMATION

Please read the following secure instructions first!

Very Important!!

1. Never use the keyboard in the near of water like a swimming pool, bathtub or wet environment like a basement or in rain or similar.
2. Never use the keyboard in the near of heating elements like a radiator or similar, also high temperatures or direct sunbeam should be avoid.
3. Use only the power supply that is declared in our Specification
4. If you didn't use the keyboard for a longer time please plug power off.
5. Take care that no liquid flows inside the keyboard
6. Also take care that no metal objects like a coin or paperclip and other small objects can fall into the keyboard (e.g. by children...) because of electrical shortcut.
7. Do not open the keyboard, this is allowed by qualified technicians only.
8. Never leave the keyboard powered and switched on alone, because of fire for example by thunderstorm or other reasons.
9. Children should inform about the secure information and/or an adult should take care about, if children are to young for understanding this information.
10. In the near of a radio or television device, are electromagnetic fields possible they can disturb the reception. Enough distance is important!
11. In the near of Audio Amplifiers is noise possible. Enough distance is important too.
12. For cleaning never use petrol, alcohol or solvent because damaging of the housing. Use only a dry or little wet rag for cleaning and unplug the power supply or USB connector, because of electrical shock.
13. Never unplug the keyboard if the power supply is powered.
14. Don't throw the Keyboard, and also never let them crash down. Also don't push or trust the keyboard.
15. At a thunderstorm please unplug all connectors.

Thank You.

Main Feature

The **ι²Control-61** MIDI master controller keyboard provides 61 dynamic Piano keys, which can draw 5V DC power directly from your PC sound card. Therefore, you don't need an external power-supply to activate your instrument when used with a PC.

To set up the MIDI connection of your **ι²Control-61** to your PC's sound card, your **ι²Control-61** comes with an USB cable. This cable connects your **ι²Control-61** keyboard to your PC USB- port, which makes it simple to expand your system.

The **ι²Control-61** provides two MIDI OUT sockets for connecting to other MIDI devices such as sound modules or synthesisers.

There is also a socket for an optional sustain-footswitch.

Although the **ι²Control-61** has no built-in sound capabilities, it offers a great variety of useful MIDI functions.

Something you should know before using the MIDI Functions

MIDI is the acronym for *Musical Instrument Digital Interface*, which makes all digital musical instruments equipped with this standardised interface capable of exchanging their MIDI data or “talk to each other”!

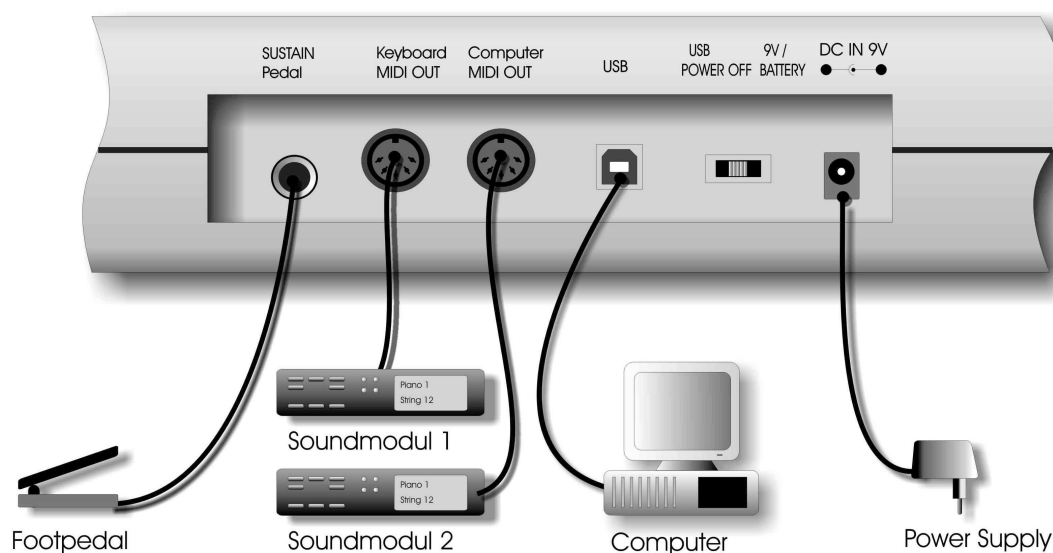
To explain how MIDI works on your instrument in more detail, the following illustrations will outline the MIDI functions of the **ι²Control-61**, which allow you to connect the keyboard to other MIDI instruments. The versatile MIDI capability of the **ι²Control-61** will offer you tremendous power in a MIDI environment.

Using the MIDI Functions

1. Connecting the keyboard to other MIDI instruments:

To transmit MIDI data from your keyboard to other professional MIDI instruments, please purchase a MIDI cable and use it to connect the MIDI OUT jack of your **i²Control-61** to the MIDI IN jack of the other instrument. Make sure that the MIDI "transmit" channel on your **i²Control-61** matches the MIDI "receive" channel of the other instrument.

2. Please refer to the following diagram for the MIDI connection:



Using the USB Midi-Interface

The **i² Control-61** Keyboard has a build in USB MIDI-interface; witch transfers the midi data from the keyboard to the computer, but also from the computer to the midi-out at the keyboard.

The booth midi-outs are separate usable, to control a sound expander or maybe an effect device. In your music program you can set the midi-out-port of the interface as the output of the keyboard, and also the input-port of the interface as the input of the keys of the keyboard. If the driver installation is correct, you can use the interface without problems.

If you are using Windows XP or Mac OSX, you can now simply connect the keyboards USB port with the PC USB port and switch the keyboard's power switch to the "ON" position.

The

I² Control-61 is is class compliant and will work without any further installation

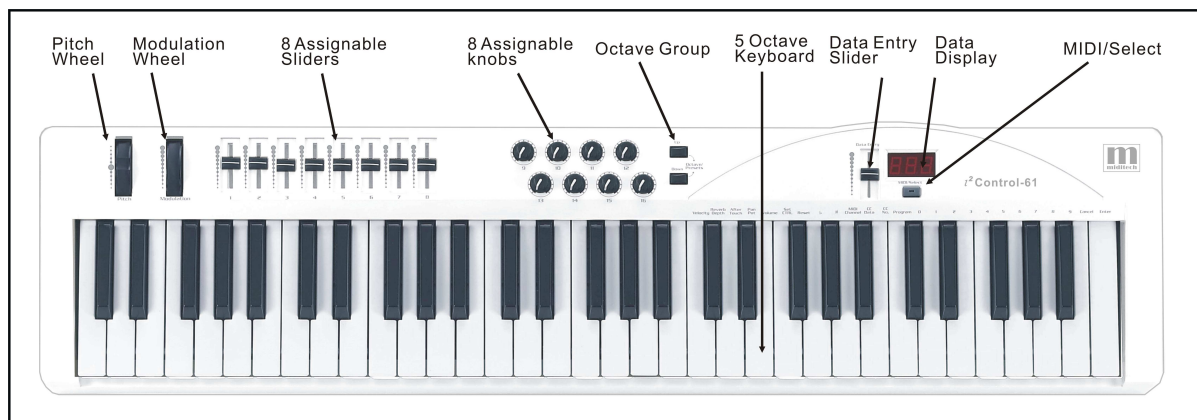
Default Setting of the ι^2 Control-61

The ι^2 Control-61 will always select the following values for their parameters when the power is turned on.

- *Transmit MIDI Channel no. 1.
- *Default After Touch value will be 0
- *Default Velocity value will be 0
- *Default Reverb Depth value will be 64
- *Default Pan Pot value will be 64
- *Default Volume value will be 127
- *Default CC Data value will be 0
- *Default CC no. value will be 0
- *Default Control Change (CC-00=0, CC-32=0) message will be transmitted.
- *Default Program Change (PG=1) message will be transmitted.
- *Real-time Controller 1 - 8 on Midi controller 10 - 18 each on Channel 1

Overall Diagram Preview

Operation panel:



Pitch Bend Wheel

The Pitch Bend wheel is used for raising or lowering the pitch of a voice during performance.

The range of pitch values depends on the sound generator (sound card or module) being used. Please refer to the manuals of your devices for information on how to change the Pitch Bend range. To bend the pitch up, please move the wheel away from you. To bend the pitch down, please move the wheel towards you.

Modulation Wheel

It is very common to use the modulation wheel to change the intensity of effects: mainly Vibrato(pitch change), Tremolo (change the volume), and Modulation (change the tone). The Modulation wheel produces a vibrato effect shortly after the sound is generated. It is most effective for voice such as Saxophone Strings and Oboe.

Data Entry Slide

This slide controller allows you to adjust the following parameters: Volume, Velocity, Chorus, Reverb, Pan pot, and Aftertouch directly from your keyboard.

MIDI / SELECT button

Use this button to select different MIDI commands on certain keys from your keyboard.

12 Control-61 provides several groups of MIDI commands as follows:

MIDI Channels group

Pressing the MIDI/SELECT button and then pressing the MIDI CHANNEL key allows you to select the transmitting channel for your keyboard. The default Channel is 1 when the keyboard's power is turned on. Pressing the MIDI/SELECT button, Ten Key 2 then the MIDI/SELECT button changes the MIDI transmit channel from 1 to 2. You can use the Data entry-Slider too.

Octave group

By pressing the Octave key, you will shift the active keyboard range one octave higher, or lower. For example, if you want to change the octave 2 octaves down : Press Octave Key twice .

Transposer Group

Pressing the MIDI/SELECT button and the TRANSPOSE Key you increase or decrease the notes by halftones. If you want to transpose by 3 semitones: Press the MIDI/SELECT button and the ”#” key, (in the display you see 3 for three semitones) than press MIDI/SELECT to finish the change.

Reset key

Pressing the MIDI/SELECT button and the Reset key will send out a message to return all external MIDI instruments to their default setting as well.

Control Change data entry by Numeric keypad

1² Control-61 allows you to use the numeric keys to specify your Control Change DATA parameter instead of data entry slide. By pressing MIDI/SELECT button and CC data key & then the required number and finally the Enter key to finish. For example, if you want to make Control Change 7 as value 123.

- 1) Press MIDI/SELECT button;
- 2) Press CC No. (will be shown in display)
- 3) Choose 7 on numeric keypad;
- 4) Press enter key to specify Control Change as 7;
- 5) The display shows “---“
- 6) Press CC DATA. (will be shown in display)
- 7) Press number key 1, 2, and 3;
- 8) Press enter key to specify value 123 then press MIDI/SELECT Button to finish this action.
- 9) For Velocity, Reverb and Chorus Depth, Pan Pos, Volume you only need to enter CC Data Value.

Please note for e.g.: after you press enter key the LED display will show --- to indicate that you pressed enter key and will not disappear until you press MIDI/SELECT button to finish your choice. After you press cancel key the LED display will show blank to indicate that you pressed cancel key and will not disappear until you press MIDI/SELECT button to finish your choice.

Program key

Pressing MIDI/SELECT button and the Program key, then numeric keys then enter key, you can select any patch number between 1 to 128. For example, if you want to change voice to 67 (Tenor Sax): Press MIDI/SELECT button and 67 on numeric keys, then enter key and MIDI/SELECT button again to finish this action.

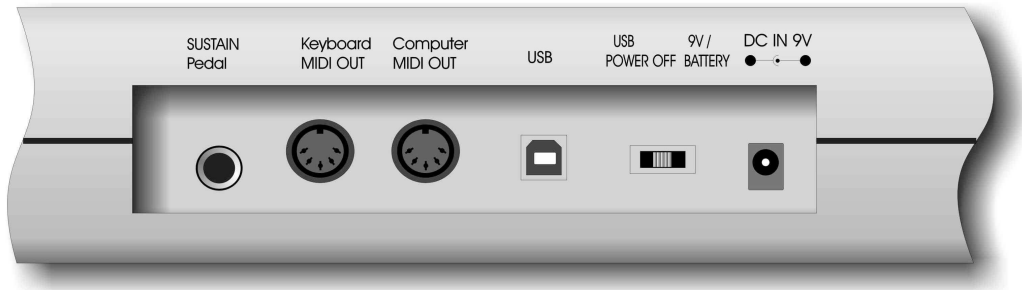
Assignment of the 16 Real-time Controller (8 faders + 8 knobs)

In order to assign a Controller Knob/Fader to a MIDI Parameter (MIDI Controller) please follow these steps:

1. press MIDI select then SET CONTROLLER key (F3)
2. choice number of knob on ten key group (1 - 8) then press enter
3. assign controller number on ten key group (1-127) then press enter
4. assign act channel number on ten key group (1-16) then press enter
5. Finally, Press MIDI / select key again to finish assign knob.

Now you have assigned to one Control knob the MIDI Parameter and the MIDI Channel. Repeat the same method for the other 15 Real-time Controller.

Rear Panel



Sustain jack

This jack allows you to connect an optional Sustain Footswitch to the keyboard.

MIDI OUT jacks

This standard MIDI jacks is used to send MIDI messages to another MIDI instrument (such as sound module).

USB Port / power port

This jack is used to connect the keyboard with the computer, to get power and send MIDI messages directly to the sound card.

Power switch

The 3-way power switch turns the keyboard's power to external 9V power or power off. The keyboard has a built in EE-Prom Store for saving all settings.

Trouble Shooting

If anything doesn't work . . .

please check following points:

Midi connection fault . . .

do you have installed your midi drivers from your soundcard ?

Look at START --> Settings --> System control --> Multimedia --> Tab Midi

for installed Drivers. If not, you have to do this first. After that your Keyboard should work with your computer. Attention: In some programs you have to set the Input-Port, before you can receive Midi-data. Please check!!

Audio is delayed . . .

This problem is often attached to the midi device, but in reality it is a problem of the sound card in your computer. Many sound cards have an adjustable latency time, they are used to work with slow computers, and so audio is not interrupt. At the installing of the sound card, the latency time is set to maximum value e.g. 512 samples, and this is too much, so your midi-notes are sounding delayed. Adjust this value to a minimum that is possible for your computer, and you will hear audio correct. But you can connect your keyboard to a sound expander too, and you will see that's no problem of your keyboard.

Midi Device is not recognize . . .

There are some misunderstandings, because a midi device is not recognizable by computer, except USB. The midi standard does not support recognizing of devices!

The **i²Control-61** is recognized by USB but not by midi-interface, this is normal!!

Pedal doesn't work . . .

May be you have the wrong pedal type. There are two types of pedals in the market: One is a pedal with an open contact, and if pressed it closed, and one is with a closed contact and opened if pressed. The keyboard needs a pedal with an open contact!

USB doesn't work . . .

Is power switch on power-on position?

Are you sure that the computer found the keyboard or an unknown USB-Device?

In the first case everything is Ok. In the second case there is a problem of the Hardware of the keyboard.

It must be recognized by your computer otherwise there is no communication between computer and keyboard possible.

Could you please test the keyboard on another computer, maybe by a friend or a music shop for check of a hardware problem?

In this case please take the keyboard to your reseller for exchange or repair, maybe they have a technician they can help you.

Otherwise they should call us to help you.

If you connect the keyboard by USB, it should be recognized.

Look at „Start → Settings → System control → System → Device manager at Audio/Video/Game controller for the keyboard settings. If not install your USB -driver!

Do you have set midi out port at your music program?

Please Check!

Otherwise look for our latest USB-driver at our homepage. May be its a driver problem.

Device is recognized but no sound . . .

Did you set the input and output ports inside your music-program?

This is important otherwise no communication is possible.

For example Input port set to midi-keyboard, output port set to soundcard

This kind of Set-ups you will find in Menus like Device manager or Hardware manager and so on.

After new Start the keyboard don't work . . .

If after a new start or a break the device is not working, it is possible that the legacy option in your Bios is off.

Did you set the USB-Legacy Option on?

This is important, because some programs could not handle USB-devices without this option. Please check!!

Too many USB-devices . . .

Another point is, if you have too many USB-devices connected to your USB-Port, the port is switched off. A USB Port delivered only 500mA, otherwise the system close the port. Please check how many devices you are using at your USB-port!

If you disconnect some devices the port will be switched on, and the device will work. In this case you should use a hub with separated power supply.

Admin or User mode . . .

Are you Admin or User on this computer system?

In User mode are some restrictions for USB devices, so many devices do not work in this mode.

Power supply does not work . . .

If the unit isn't powered by power-supply, try to connect by USB-Connection. If it works normal, the power-supply may be damaged.

Alternativ . . .

Please try to connect the keyboard with midi out port at a Mididevice like synthesizer or sound module or a computer of a friend or music shop for testing the correct working keyboard. So you know where you can search the problem.

Or try to download a Midimonitor like Midiox --> WWW.MIDIOX.COM to test the correct working of the keyboard.

Important: You must set-up the input and output devices!

If everything doesn't help . . .

You can write an e-mail to our hotline Info@Miditech.de and we try to help you.

Specifications

Model: **i² Control-61**

Keyboard	61 dynamic keys.
Simultaneous Note output (Reverse priority)	10 notes
Control switches	MIDI Channel Reset Transpose -,+ Program Change CC-No.(Generic CC Assignment) CC-Data Data Entry Velocity Assignment, Data Entry Reverb Send Level Assignment, Data Entry Chorus Send Level Assignment, Pan Pot Assignment (CC-10), Volume Assignment (CC-07) CC-Data Controller Knob Assignment (set controller) Numerical Keys x10 Enter Cancel Octave Up, Down 8 real time controller knobs 8 real time controller sliders Pitch Bender Wheel, Modulation Wheel, Data Entry slide
External Control Terminals	Keyboard MIDI Out USB (DIN), Keyboard MIDI Out (DIN), USB Sustain, DC in Power SW.
Display	7 segment LED x 3
Dimensions	92 x 21.5 x 7.5 (cm)
Weight	3.5 kg
Power source	DC 9V

***Design and specifications subject to change without notice**

***No liability for printing mistakes**

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MIDI Implementation Chart

Model: **1²Control-61**

Function		Transmitted	Recognised	Remarks
Basic Channel	Default	1	x	
	Changed	1-16	x	
Mode	Default	Mode 3	x	
	Messges	x	x	
	Altered	*****	x	
Note Number :		12-108	x	With Octave Change
True Voice		*****	x	
Velocity	Note ON	o	x	
	Note OFF	x	x	
After Touch	Key's	x	x	
	Ch's	x	x	
Pitch Bender		o	x	
Control Change		O	x	
Prog Change :True # CC-00, CC-32		1-128	x	
		0-127	x	
		x	
System Exclusive		x	x	
System :Song Pos :Song Sel Common :Tune		x	x	
		x	x	
		x	x	
System Real Time	:Clock	x	x	
	:Commands	x	x	
Aux Message	:Local ON/OFF	x	x	
	:All Notes OFF	o	x	Send with Reset.
	:Active Sense	o	x	
	:Reset	o	x	Send with Reset.
Notes:				

Mode 3 : OMNI OFF, POLY

o=Yes, x=No