

DESCRIPTION
REAL COMPETENCE

AREA 61

Expandable Controller Keyboard



TERRATEC PRODUCER / AREA 61

English manual

Version 1.0, last revised: November 2008

CE Declaration

We:

TerraTec Electronic GmbH, Herrenpfad 38, D-41334 Nettetal, Germany

hereby declare that the product:

AREA 61,

to which this declaration refers is in compliance with the following standards or standardising documents:

1. EN 55022 :1998+Corrigendum July 2003+A1 :200+Corrigendum April 2003+A2 :2003
2. EN 55024 :1998+A1 :2001+A2 :2003

The following are the stipulated operating and environmental conditions for said compliance:

residential, business and commercial environments and small-company environments.

This declaration is based on:

Test report(s) of the EMC testing laboratory



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Contents

Important safety instructions	4
Introduction	4
After unpacking.....	4
How it works	5
Overview of the technology.....	5
Installation	7
Windows XP and Vista	7
Mac OS X	8
Just installed - here's what happens next	9
The interface of the AREA 61	13
Keyboard & octave shift	13
The 10 encoders.....	15
Bender and control wheel (pitch bend and modulation)	17
Transport and menu buttons.....	17
Display & menu.....	18
Foot pedal (sustain)	22
Inner values	22
USB 2.0 audio interface	22
Headphones connection	24
MIDI Interface	24
The Editor	26
Settings in standalone mode.....	30
Operation.....	32
The encoder settings	32
Wheel settings.....	34
Button settings.....	35
Foot-switch settings	37
Keyboard settings	37
AREA 61 options	40
The File menu	41
Banks & scenes.....	41
Loading & saving settings	42
Transmitting & receiving settings	42

Important safety instructions

Safety instructions

Please only ever connect analogue audio connections when switched off, in order to protect the speaker membranes and your hearing against sudden sound level peaks.

For digital devices, be sure to at least lower the volume on your playback equipment.

Connecting the device to the USB port of your computer may also cause a noise—please turn down the volume of your playback system accordingly.



Introduction

We would like to thank you for making this excellent decision and we're also pleased for you because you have made a good choice: the AREA 61 was designed with many years of practical experience and with the needs of musicians in mind - including studio keyboard players, live virtuosos and sound buffs.

Whichever group you belong to, we wish you lots of fun setting up your new system and then many years of pleasure in your creative work on and with the AREA 61. Let's get started!

...your TerraTec Team.

After unpacking

When you unpack the AREA 61, please first check that the package contents are complete and visually undamaged. If you find a defect, please contact your dealer or the TerraTec service team. You can find the contact information in the appendix.

After unpacking, you should have at least the following:

- AREA 61 keyboard
- Power supply
- Software CD
- Manual
- USB connection cable
- Service & Warranty documents

Tip: you should store the recyclable packaging material in a dry location for at least the duration of the warranty on your equipment, as this is the best way of repacking your equipment if it needs to be shipped back to us.

How it works

First, a short note about the basic operating concept behind the AREA 61. The AREA 61 keyboard can initially be used as a pure MIDI controller keyboard without a computer. If you wish to use the AREA 61 on your Mac or Windows PC to control software, you can also do this with the conventional MIDI method, if your computer is already equipped with a MIDI interface.

However, we recommend that you connect via a USB port, so that you achieve the best possible playing characteristics of the keyboard - and of course also to take advantage of the sophisticated audio I/O features. This is where the supplied driver software (Mac & PC) comes into play. The installation procedure for this is described from page [7](#).

In addition, connection via USB also allows you to use the enclosed Editor software, with which you can adapt the behaviour of the AREA 61 to your needs down to the finest detail.

In short: the pure "Keyboard AREA 61" can be used immediately any time. But you will get the best possible performance and access to all possible configurations if you use it in combination with the supplied software (driver plus Editor) and connected via USB.

Overview of the technology

In case you didn't already know the exact details before making your purchase, here is an overview of the many features of the AREA 61 system.

At first glance, the AREA 61 is just a classic MIDI controller keyboard with a five octave, touch-sensitive keyboard, the "usual suspects" such as PitchBend and modulation wheel, as well as a range of controls and keys for controlling the connected MIDI hardware and software.

You will also probably know that the AREA 61 can be connected to your computer - Mac or PC - via a high-speed USB 2.0 connection, and then provides the input and output of audio and MIDI signals to and from your audio workstation (DAW).

In addition to these basic functions, the real joy lies in the details - and there are a lot of these:

Even when you were unpacking and feeling the surface for the first time you will certainly have noticed that all the elements have been manufactured to a high standard: the controls (the so-called encoders), wheels and, above all the semi-weighted keyboard all meet the demands made of us by professional musicians.

Without exception, all operating elements are freely configurable with MIDI commands. By "double-clicking," you can assign most of them with up to three functions! Try it for yourself: press one of the eight potentiometers on the right-hand side twice in quick succession and the respective MIDI controller assignment switches over - from a red to a

green to an "orange function". The LCD always indicates which command is currently being used. You can find out more about these encoders from page [32](#).

The keyboard can be split into several zones and, using aftertouch, it is even possible to transmit MIDI parameters for two separate playing ranges. This is an almost forgotten opportunity for live players and sound enthusiasts. Aftertouch allows you to "copy" sounds in an extraordinarily lively fashion.

On the back of the AREA 61 you will find the various input and output for audio and MIDI signals. If your DAW does not yet have separate interfaces, the I/Os of the AREA 61 can now become a central part of your working environment via a USB connection. You can rely on maximum sound quality: 24-bits converters by Wolfson® allow for recordings and playback with sample rates of up to 96 kHz and a clean 108 dB(A) signal-to-noise ratio. And even the headphones output excels with a discretely designed amplification stage, of course with analogue volume control. You can find out more about the audio features from page [38](#).

The MIDI interface provides two independent ports each with an output and an input. In addition to the keyboard of the AREA 61 (IN 1) you can also use other MIDI equipment for importing (IN 2) or you can access other equipment from your DAW (OUT 1 & 2). You can find out more about the MIDI I/Os from page [24](#).

But what would be the point of all this nice hardware without the right software? Audio and MIDI drivers are available for Windows PCs (XP & Vista) and Mac OS X as Universal Binary (PowerPC & Intel). For both OS worlds, there are extremely efficient ASIO drivers and, under OS X, there is also Apple's CoreAudio. You can control all keyboard functions and MIDI assignments using the built-in AREA 61 Editor, which can be called up either as a standalone program, or - if possible integrated in your sequencer environment - as a VST plug-in.

And last but not least, there are many invisible details behind the background: such as the Ploytec FMC® (Fixed Master Clock) algorithm which ensures jitter-free audio data flow to the USB. This doesn't only sound important, but actually also sounds really great because FMC can give you a quality of sound that the basic architecture of the USB cannot provide. ;-).

ASIO support for the relevant host applications (e.g. Cubase / Nuendo) is, as you would expect from TerraTec, top quality and offers low latencies of up to less than 2 ms! With Mac OS X, a so-called HAL plug-in driver is used for the first time which, in addition to the usual CoreAudio standard, offers real ASIO support and thus also works without sample rate conversion.

And we've saved the best 'til last: the USB 2.0 interface is downwards compatible with the older 1.1 standard, so you can also operate the AREA 61 on older systems.

Installation

Installation? Of course, you can initially explore and also use your new AREA 61 without a computer - for example if you have a 19" synthesizer expander and wish to play and control this via MIDI. The 10 encoders of the AREA 61 send MIDI controls "by default" which lead to sound changes in most MIDI sound generators without requiring any configuration. And you can't go far wrong with key touches or the pitch and modulation wheels. So, simply connect a MIDI cable from the MIDI-OUT 1 on the AREA 61 to a corresponding sound generator and you're all set.

But if you need separate or special MIDI commands or you hopefully use the many other features of the AREA 61, you should install the supplied software for Windows or your Mac. You can find out the quickest way to do this in the following sections - we promise it'll be quick and painless.

Windows XP and Vista

Driver installation:

- Connect the AREA 61 to a socket using the power supply but leave it switched off.
- Have your Windows XP Service Pack 2 or Windows Vista Installation CD/DVD/Images ready.
- Connect the supplied USB 2.0 cable to the appropriate USB ports on the AREA 61 and your computer. The USB interface on the AREA 61 is also compatible with the older USB 1.1 standard. If possible, however, you should use a USB 2.0 interface so that you can use the full range of audio and MIDI functions. As before, do not switch the AREA 61 on. (If you have already switched it on, this is not a problem but you may have to cancel a few messages from your operating system.)
- After you have inserted the product CD, the Autostarter window will appear automatically. If this does not happen (it will depend on your Windows settings), you can launch the Autostarter manually by double-clicking on "Autorun.exe" (in the root directory of the CD). Now start the driver installation by clicking on the "Driver installation" button. Driver updates, which you have downloaded from the TerraTec website at a later time, are started from an unzipped archive with the file "Setup.exe".
- Now follow the instructions on screen.
- At the end of the copy process, the system doesn't usually have to be restarted - nonetheless you should first backup files and programs that are still running.
- If you wish to uninstall the software, simply start the installation program again and select "Remove installed drivers".

Editor installation:

- After you have inserted the product CD, the Autostarter window appears automatically. If this does not happen (it will depend on your Windows settings), you can launch the Autostarter manually by double-clicking on "Autorun.exe" (in the root directory of the CD). Now start the installation by clicking on the "Editor Installation" button. Software updates, which you have downloaded from the TerraTec website at a later time, are started from an unzipped archive with the file "Setup.exe".
- During installation, the installation program asks for the path to your VST plug-in directory (e.g. C:\Program Files\Steinberg\VstPlug-Ins\). The Editor can therefore also be loaded into your audio software as a VST plug-in! More about this later.
- After installation, you can start the Editor from the Windows start menu or within your VST-enabled audio software.
- If you wish to uninstall the software, simply start the corresponding program from the Windows start menu.

Mac OS X

Driver installation:

- Connect the AREA 61 to a socket using the power supply but leave it switched off initially. Connect the supplied USB 2.0 cable to the USB port on the AREA 61 and your Mac. The USB interface on the AREA 61 is also compatible with the older USB 1.1 standard, as was used in older (pre 2003) Macs. If possible, however, you should use a USB 2.0 interface so that you can use the full range of audio and MIDI functions.
- Insert the supplied CD-ROM or download the latest version from the TerraTec website. The CD contains the driver installation package as a DMG file in the "Software" folder.
- Double-click on the DMG file to access the AREA 61 Driver Package [version number].mpkg and start driver installation by double-clicking.
- The wizard for the necessary driver and software installation starts now. Simply follow the instructions on screen.
- At the end of the copy process, the system may have to be restarted - you should therefore first backup files and programs that are still running.
- After restarting the system, you can switch on the AREA 61 and start using it.
- If you wish to uninstall the software, simply start the relevant "AREA 61 Driver Uninstaller" program from the installation package.

Editor installation:

The Editor is basically designed as a Universal Binary (UB) plug-in program, but also a VST plug-in and standalone versions are available.

- Insert the supplied CD-ROM or download the latest version from the TerraTec website. The CD contains the software package as a MPKG file in the "Software \ AREA 61 Editor \ OS X" folder.

Just installed - here's what happens next

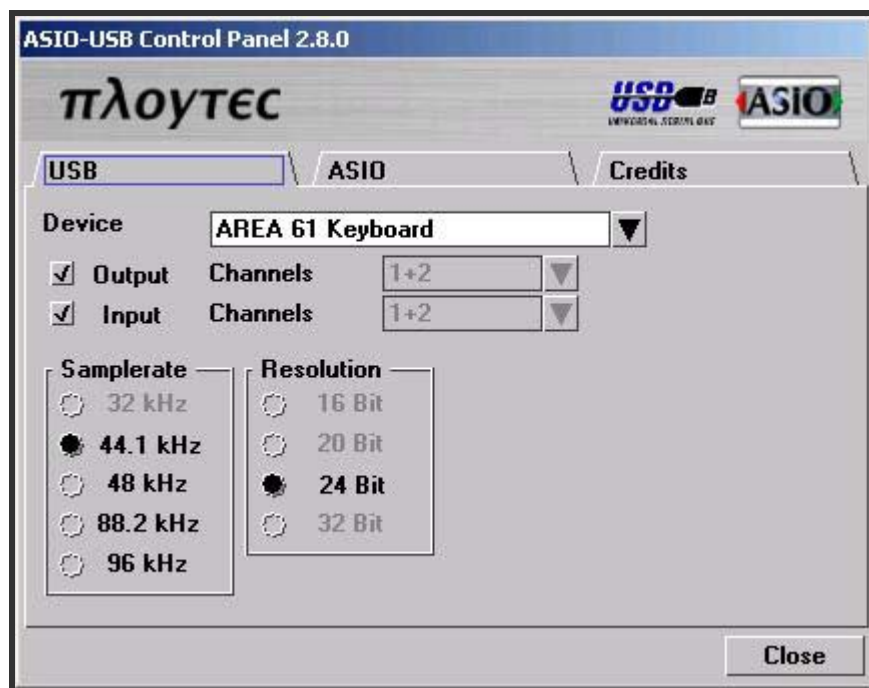
Your system has now installed all necessary software to use the AREA 61. The drivers were integrated seamlessly in the respective platform. So, for example, you can find the system-specific audio & MIDI settings under Windows via the control panel (-> Sounds and Audio Devices) and under OS X in the system settings (-> Sound), or via the "Audio MIDI Setup" service program.

However, there are two "programs" which are of more interest and importance for musicians...

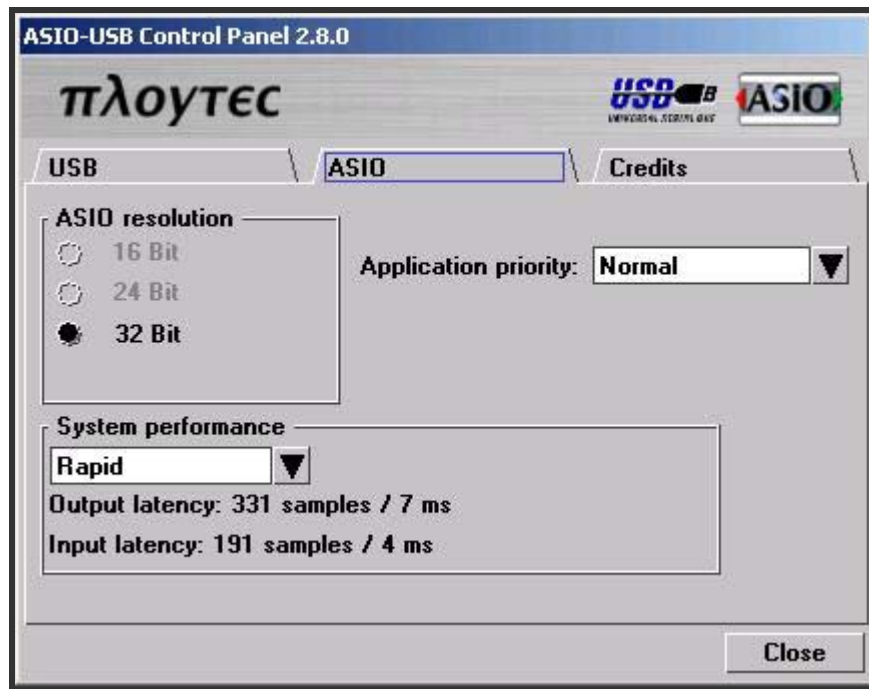
1. The ASIO driver with the ASIO Control Panel

Windows - Audio output in "music programs" should, if possible, be used via the ASIO driver if you wish to use the AREA 61 as an audio interface. The ASIO driver can usually be selected within the audio settings of your audioprogram, "Defaults", "I/O Setup", etc.

Wherever you select the "ASIO for AREA 61" driver, you can also call up the settings dialogue associated with the driver (usually via a button such as "ASIO Setup" or in Cubase "ASIO for AREA 61 -> Settings").



Screenshot: The ASIO Control Panel (USB tab) under Windows XP



Screenshot: The ASIO Control Panel (ASIO tab) under Windows XP

OS X - Audio output in "music programs" on the Mac is usually used via the OS X-internal CoreAudio system. CoreAudio offers a load of advantages and conveniences: for example, you can access a single audio interface using several programs at the same time – with low latencies. With Windows it is not usually possible to access the same audio hardware simultaneously using ASIO and WDM applications without further action, such as using Cubase together with Windows Mediaplayer. By the way, this doesn't mean that we haven't offered this functionality under Windows too! This feature nonetheless also has a disadvantage: As soon as several sources (programs) transmit your audio data with different sample rates - which happens, for example, if a short system message sounds at the same time as music plays - the data is mixed together. It happens unnoticed in real time ... but a sharp ear inevitably picks it up as a permanent conversion of the sample rates!

This is why the AREA 61 also offers a real ASIO driver for OS X, which you can use as an alternative to your music program (e.g. Logic). This hardware-like driver is only "capable" of a pre-defined sample rate - but it can do it "right". Usually you select the AREA 61 ASIO driver via the audio settings dialogue of your music software, such as "Preferences" (command key + ,), "Defaults", "I/O Setup", etc. The ASIO driver appears under OS X as a "normal" CoreAudio device, so there is no visual difference from the standard. In addition, this by-pass of the CoreAudio standard allows even better latencies!

ASIO latency

In the above-mentioned ASIO or CoreAudio Control Panel, you can now set the "speed" of the audio part in the AREA 61. This really means that the lower the time set in milliseconds (ms), the faster a piece of software can play back sounds.

This behaviour is also called latency. A low latency is especially important during live performances on software instruments or VST plug-ins via the AREA 61 keyboard: the lower the latency, the "crisper" the sounds. But the opposite also applies ... if you hear a crackle or any other kind of background noise during play back, you unfortunately have to increase the latency. In general, the higher the overall system load is, the more likely crackles and interruptions happens during audio playback and recording. As you can see, the "right" latency setting is always a question of trial and error.

MultiClient mode

As already mentioned, the audio driver of the AREA 61 offers the possibility of being addressed by several music programs at the same time. The standard used by the respective software (ASIO, WDM or CoreAudio) is irrelevant here. For example, several ASIO applications can address the AREA 61 together, if the same sample rate has been set. But don't forget, each software can use the maximum possible dynamic range (level) of the AREA 61. If several programs playing at the same time on the audio output, overdrive may occur, which are perceived as a distorted signal. In this case, you should reduce the output level in the music software accordingly. The ASIO driver always works with the sample rate set in the audio project. If a non-ASIO application (WDM or CoreAudio) is also playing with another sample rate, this is converted to the ASIO rate in real time.

During audio production, e.g. when mastering, it is generally recommended that you work with just one piece of software (e.g. Cubase, Logic, etc.).

2. The Editor

Whether you want to use the audio functions of the AREA 61 or not, you should familiarise yourself with the Editor with which you can adapt the AREA 61 to your needs. Even if you might only work with it once - to define your personal encoder setting and then save it permanently in the unit.



Screenshot: The AREA 61 Editor

There are two versions of the A61 editor: Standalone, i.e. can be called up on its own, and as a VST plug-in, where you can integrate the Editor in your sequencer environment as a "virtual instrument".

A detailed description of the Editor will take up a few pages, you can find it a bit later in this manual, starting from page [26](#).



The interface of the AREA 61

Keyboard & octave shift

The keyboard of the AREA 61 has 61 keys, or five octaves. The slightly weighted plastic keyboard transmits MIDI touch values over the full range from 0-127, can be split and transmits aftertouch, which can also be split into zones.

You can also extend the playing range by pressing the octave shift button. In the standard configuration (i.e. not transposed), the key on the far left corresponds to the note C1 (note number 36dec), while the key on the far right is note C6 (note number 96dec).

Each time you press the octave shift button, the octave position shifts by 12 semitones to the left or right - so you obtain a playing range of 128 notes (C-2/#0 to G8/#127). If you press and hold a button and press the second transpose button at the same time, you can also transpose in the single semitone range.

<div>TRANPOSE</div> <div></div>			
	+36	C4 (#72) ←→ G8 (#127)	
	+24	C3 (#60) ←→ C8 (#120)	
	+12	C2 (#48) ←→ C7 (#108)	
	+/- 0 Default	C1 (#36) ←→ C6 (#96)	
	-12	C0 (#24) ←→ C5 (#84)	
	-24	C-1 (#12) ←→ C4 (#72)	
	-36	C-2 (#00) ←→ C3 (#60)	

decimal numbers

Changing the touch-sensitivity (velocity).

The keyboard transmits touch values - the so-called velocity - in the full range from 0 to 127. The scale is linear in the default setting, i.e. a very cautious touch gives a value of 0, and a very strong (or to be precise, faster) touch gives the maximum value of 127. If your touch is in the middle, the keyboard transmits a value of 64.

If you would rather have a more curved, non-linear interpretation of key touch while playing, you can set this in the Editor software. So, for example, it is possible to output gentle key touches with higher velocity values, or even to set the opposite behaviour (gentle = high velocity, strong = low velocity), which can be of interest when layering sounds, for example.

Aftertouch zones

If you have not yet learnt about aftertouch in your – probably still recent – keyboard experience, you can now look forward to a real gem with us. Aftertouch means the pressure on a (keyboard) key after(!) it has been struck (but not yet released). Depending on the level of pressure, a continuous flow of further MIDI data is sent. If this feature is supported by a connected sound generator, aftertouch allows a nuanced influence of the played "note" after it was struck.

The aftertouch used in the AREA 61 is a so-called channel aftertouch. The keyboard can recognise and process two different aftertouch values, which extends its possible uses compared with the conventional channel aftertouch. So, in combination with the keyboard split function (see page 37), you can play a pad sound in the lower range of the keyboard and vary its filter opening via aftertouch, while at the same time being able to play a lead sound in the upper keyboard range, for which aftertouch controls a tremolo effect.

The two aftertouch zones are assigned to the following keys:

- Left aftertouch: keys 1-24 (so the first two lower octaves).
- Right aftertouch: keys 25-61.

You can define the parameters for aftertouch control in the Editor (see page 38).

The 10 encoders

Above the keyboard you will find a total of 10 rotary controls, which are surrounded by pretty illuminating rings of LEDs. Eight of these are next to each other at the right side (1-8), with two others marked as VOLUME (9) and DATA ENTRY (10). These controllers, also called encoders, are incredibly useful as they can not only be freely linked with practically any MIDI commands, but they can do this also 3 times each.



To illustrate the principle, turn an encoder (e.g. the one labelled "1 - Expression") about half a turn, so that the ring of LEDs is half illuminated (it may be that only one LED lights up, if this is the configuration set in the option settings, "Single"). Now press the same encoder twice briefly - in kind of the same way that you would do a double-click with a computer mouse - and turn the knob again. You see - the ring of LEDs changes the color! Repeat the double-click again, turn again and - voilà, the third color change takes place. Double-click again to switch through the colors ... the principle should be clear: each "color" can be assigned with its own MIDI command, so that a total of 30 different commands can be output via the encoders alone. Despite the many MIDI transmitters, you always maintain an overview because you can remember the colors easily in practice, and on the other hand because the display also shows you the respective assignment in plain text.

Push color.

And there's more! If you press and hold an encoder and turn it at the same time, the color changes (and the MIDI command) to the so-called "push color". If you release the encoder again, the ring of LEDs jumps back to the last selected color. So, you can quickly combine two commands, which can be of interest as an alternative to control via 2 separate encoders (e.g. volume plus panorama; filter cutoff plus resonance; etc.).

In the default setting, the following MIDI commands are assigned to the respective encoders. With the supplied Editor software (see from page [26](#)) you can make these settings yourself and save them permanently in the AREA 61.

ENCODER	Red	Green	Orange
ENC 1 EXPRESSION	Expression [Komplexer Macro] MIDI-CC #11(dec) MIDI channel 1 Push-Color green	Panorama MIDI-CC #10(dec) MIDI channel 1 Push-Color orange	Pitch Bend Sense RPN byte 1 #00(dec) RPN byte 2 #00(dec) MIDI channel 1 Push-Color red
ENC 2 CHARACTER	Character [Komplexer Macro] MIDI-CC #06(dec) MIDI channel 1 Push-Color green	Balance MIDI-CC #08(dec) MIDI channel 1 Push-Color orange	Fine Tuning RPN byte 1 #01(dec) RPN byte 2 #00(dec) MIDI channel 1 Push-Color red
ENC 3 WARP	Warp [Komplexer Macro] MIDI-CC #08(dec) MIDI channel 1 Push-Color green	Expression MIDI-CC #11(dec) MIDI channel 1 Push-Color orange	Coarse Tuning RPN byte 1 #02(dec) RPN byte 2 #00(dec) MIDI channel 1 Push-Color red
ENC 4 EFFECT	Effect [Komplexer Macro] MIDI-CC #09(dec) MIDI channel 1 Push-Color green	Sound Control 1 MIDI-CC #70(dec) MIDI channel 1 Push-Color orange	Tuning Progr. Sel RPN byte 1 #03(dec) RPN byte 2 #00(dec) MIDI channel 1 Push-Color red
ENC 5 ATTACK	Attack [Komplexer Macro] MIDI-CC #03(dec) MIDI channel 1 Push-Color green	Sound Control 2 MIDI-CC #71(dec) MIDI channel 1 Push-Color orange	Tuning Bank Sel RPN byte 1 #04(dec) RPN byte 2 #00(dec) MIDI channel 1 Push-Color red
ENC 6 DECAY	Decay [Komplexer Macro] MIDI-CC #62(dec) MIDI channel 1 Push-Color green	Sound Control 3 MIDI-CC #72(dec) MIDI channel 1 Push-Color orange	NRPN 1 NRPN byte 1 #00(dec) NRPN byte 2 #00(dec) MIDI channel 1 Push-Color red
ENC 7 SUSTAIN	Sustain [Komplexer Macro] MIDI-CC #63(dec) MIDI channel 1 Push-Color green	Sound Control 4 MIDI-CC #73(dec) MIDI channel 1 Push-Color orange	NRPN 2 NRPN byte 1 #01(dec) NRPN byte 2 #00(dec) MIDI channel 1 Push-Color red
ENC 8 RELEASE	Release [Komplexer Macro] MIDI-CC #119(dec) MIDI channel 1 Push-Color green	Sound Control 4 MIDI-CC #74(dec) MIDI channel 1 Push-Color orange	NRPN 3 NRPN byte 1 #02(dec) NRPN byte 2 #00(dec) MIDI channel 1 Push-Color red
ENC 9 VOLUME	Volume [Komplexer Macro] MIDI-CC #07(dec) MIDI channel 1 Push-Color green	Volume MIDI-CC #07(dec) MIDI channel 1 Push-Color orange	NRPN 4 RPN byte 1 #04(dec) RPN byte 2 #00(dec) MIDI channel 1 Push-Color red
ENC 10 DATA-ENTRY	Effect 1 Mix [Komplexer Macro] MIDI-CC #91(dec) MIDI channel 1 Push-Color green	Sound Control 6 MIDI-CC #75(dec) MIDI channel 1 Push-Color orange	NRPN 5 RPN byte 1 #05(dec) RPN byte 2 #00(dec) MIDI channel 1 Push-Color red

The push color (see above) is set to the respective next color as standard. So, with a red ring of LEDs, a long press switches to green, with a green ring of LEDs it switches to orange and with an orange ring of LEDs, it switches back to red. If this is a bit too complex for you, we recommend that you limit the push color to a single color. So, for example, you could set always "Green control" when you use the push color function.

Note: the push color function is not available for encoder #10, "DATA ENTRY". Here, a long press on the encoder takes you to the display/settings menu.

Bender and control wheel (pitch bend and modulation)

The pitch bend wheel, like the control wheel, has been one of the standard controllers in synthesizers since compact synthesizers have existed, thanks to Mr Robert 'Bob' Moog. Both controls can output any MIDI commands in the AREA 61. The pitch wheel has a neutral position in the centre and is automatically returned here by a spring after it is released.

The modulation wheel transmits its values (MIDI controller CC #1 / Modulation MSB) starting from the bottom position upwards ... at this point the author of the manual would like to interrupt his explanation of this great invention, which is as simple as it is ingenious and suggests the self-learning method. ;o)

Transport and menu buttons

Above the keyboard, next to the above-mentioned octave shift buttons, you will also find buttons for controlling the most important transport functions of a sequencer such as Cubase, Logic, Reason or Protools. Hardware solutions can usually also be controlled with the MIDI commands from the transport buttons, hence the original name: MIDI Machine Control, or MMC for short.

In the default settings, the buttons are assigned to the functions closest to the icons printed on them: fast forward & rewind, stop, start and record. With the enclosed Editor software (see page [26](#)), however, you can also set your own MIDI commands.

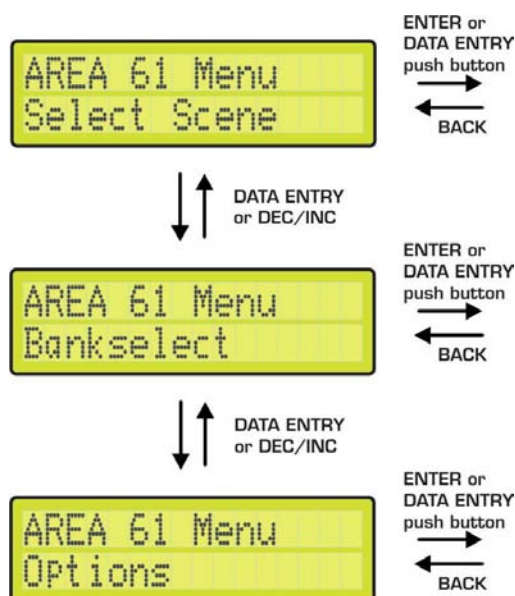
Press and hold encoder #10 for a moment to switch the display to menu view, and you can now navigate through the menu with the same buttons. In this mode, no MIDI commands are transmitted. You can find more information on the menu in the next section.

Display & menu

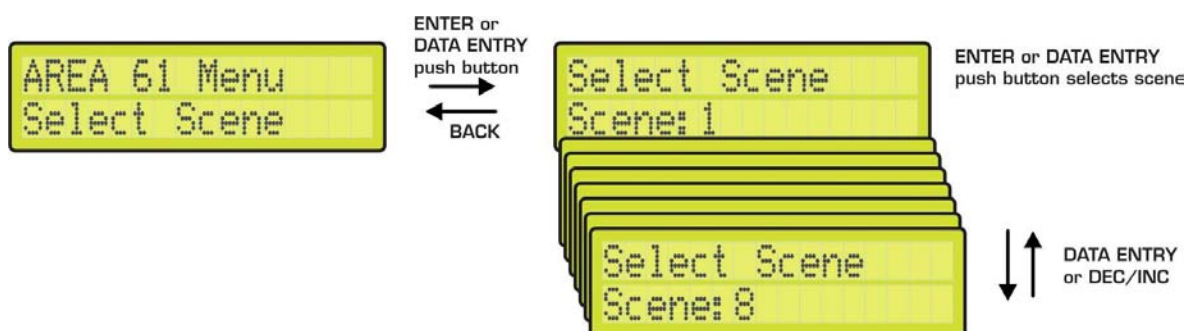
Really quite simple and convenient: the standard LCD display. If you press or turn one of the 10 encoders, the LCD will indicate the associated MIDI command and value. The contrast, by the way, can be adjusted at the back of the AREA 61 using the small contrast poti.

If you press and hold encoder #10 for a moment, the display switches to menu view. You can navigate through the menu either by turning and pressing the encoder or by using the above-mentioned transport & menu buttons.

As an initial overview, here is an illustration of the menu in a tree structure:



Scenes:



A scene, with exception of the global settings, contains all programmable parameters. This programming is done using the AREA 61 Editor software. In the Editor, up to 8 scenes can be created with different values and then transmitted to the device.

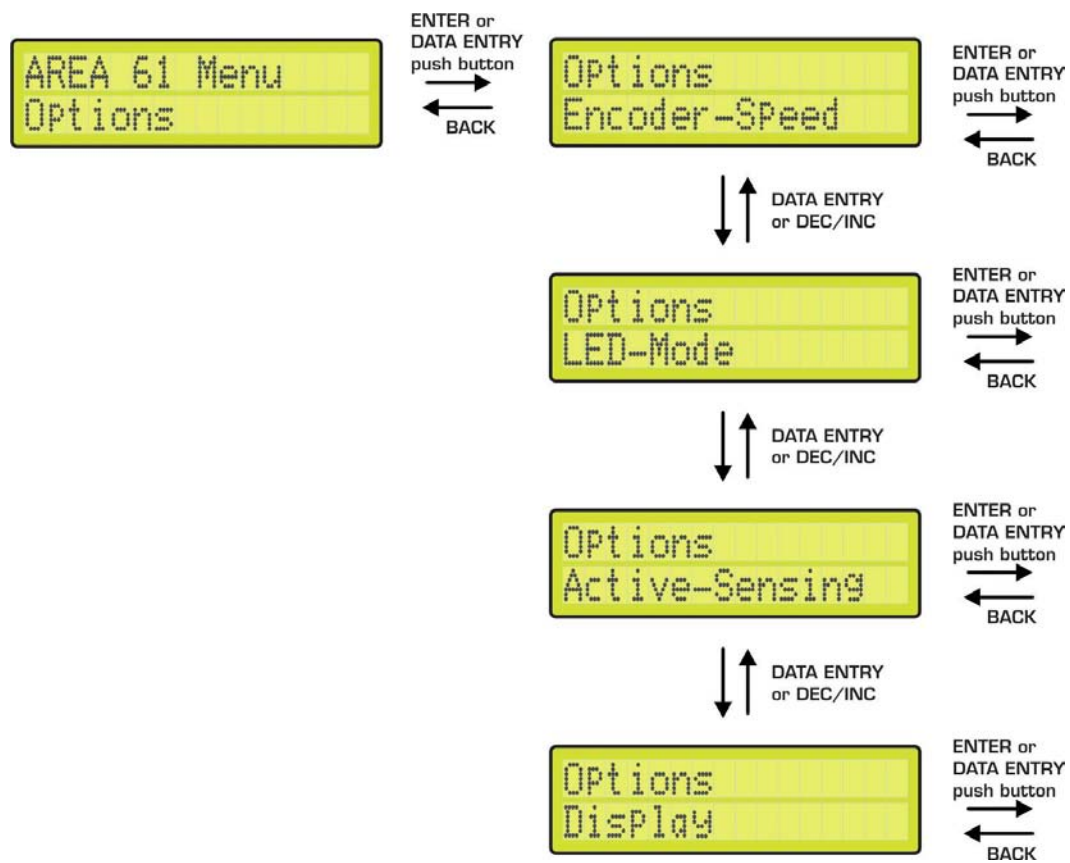
The flowchart illustrates the navigation through the Bankselect menu. It starts with the 'AREA 61 Menu' and 'Bankselect' screen. Pressing the 'ENTER or DATA ENTRY push button' leads to the 'Bankselect Bankselect MSB' screen, while the 'BACK' button returns to the previous screen. From 'Bankselect Bankselect MSB', pressing 'DATA ENTRY or DEC/INC' leads to the 'Bankselect Bankselect LSB' screen. Pressing 'ENTER or DATA ENTRY push button' from 'Bankselect Bankselect LSB' returns to the 'Bankselect Bankselect MSB' screen. From 'Bankselect Bankselect MSB', pressing 'ENTER or DATA ENTRY push button send Bank-Select' leads to a stack of screens showing 'Bankselect MSB' and 'MSB: 000 ✓'. Pressing 'DATA ENTRY or DEC/INC' from this stack leads to another stack of screens showing 'Bankselect MSB' and 'Bank: 127'. Pressing 'ENTER or DATA ENTRY push button' from this stack returns to the 'Bankselect Bankselect MSB' screen. Pressing 'BACK' from the 'Bank: 127' screen leads to a screen with 'same as MSB'.

```

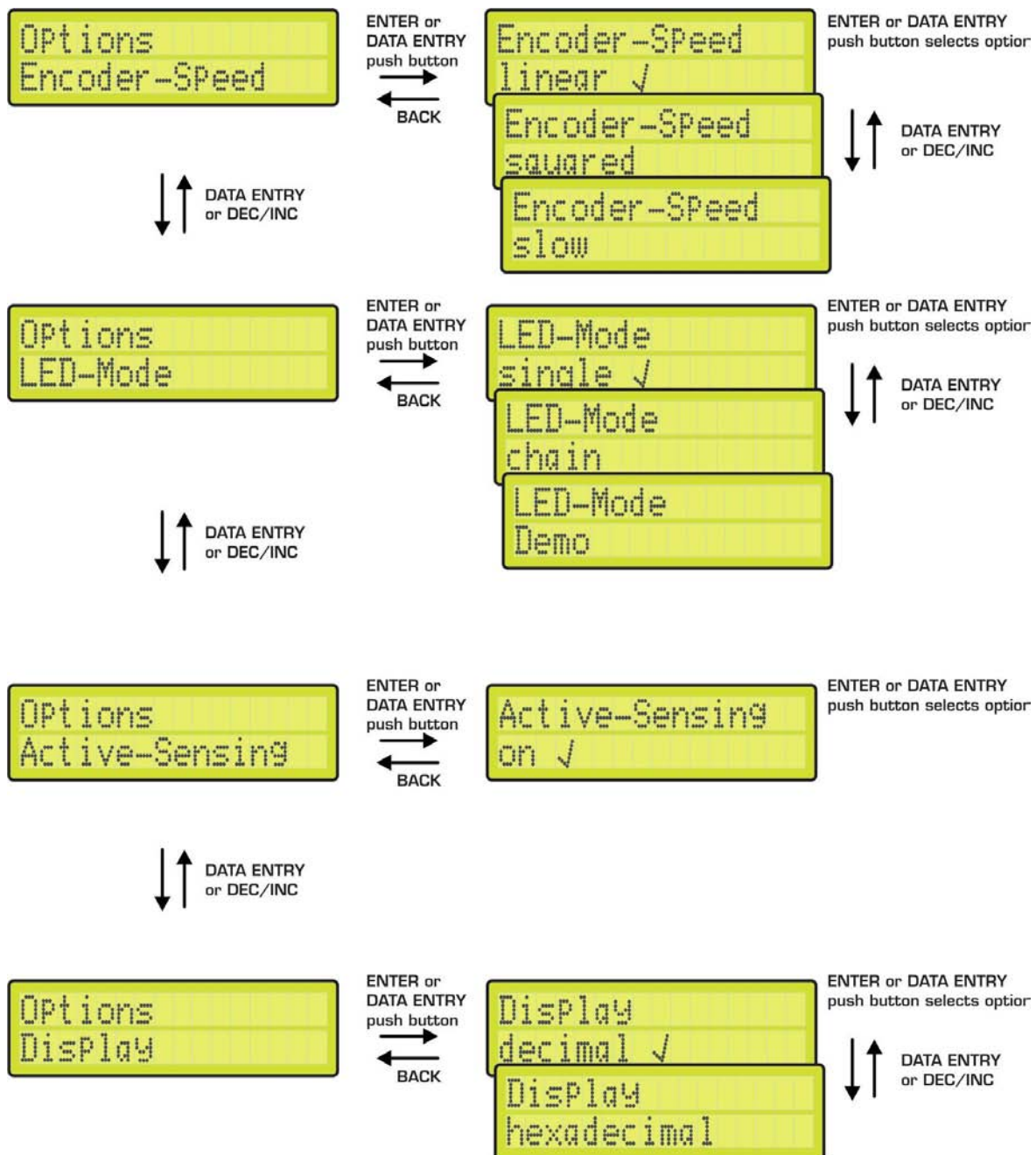
graph TD
    A["AREA 61 Menu  
Bankselect"] -- "ENTER or DATA ENTRY  
push button" --> B["Bankselect  
Bankselect MSB"]
    B -- "BACK" --> A
    B -- "DATA ENTRY  
or DEC/INC" --> C["Bankselect  
Bankselect LSB"]
    C -- "ENTER or DATA ENTRY  
push button" --> B
    B -- "ENTER or DATA ENTRY  
push button send Bank-Select" --> D["Bankselect MSB  
MSB: 000 ✓"]
    D -- "DATA ENTRY  
or DEC/INC" --> E["Bankselect MSB  
Bank: 127"]
    E -- "ENTER or DATA ENTRY  
push button" --> B
    E -- "BACK" --> F["... same as MSB"]
  
```

AREA 61 (English)

Options



The most important option settings, which can also be made directly on the device without the help of the Editor software, are shown here.



An exact explanation of the individual functions is given in the chapter on the Editor software -> Options. The only exception is that the LED demo mode can only be activated or deactivated on the device itself ;-).

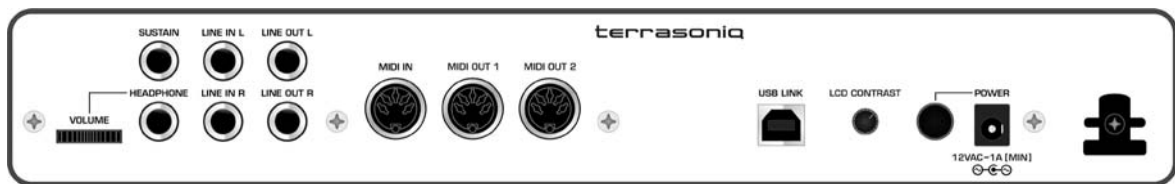
Demo:

If you really want to impress your friends and customers, show them what your AREA 61 can do! You could play a disco classic from your vinyl collection, dim the lights and let the encoders dance ... yeah baby! :-)

Foot pedal (sustain)

Before we turn to the signal input and outputs in the next chapter, let's have a quick final look at the connection for the obligatory foot pedal. This is - as with all control elements in the default setting - a so-called sustain (or hold) pedal, i.e. a control which outputs an "On" signal when pressed, and an "Off" signal when released (push mode).

Why is it important? In the supplied Editor software, you can turn this pedal into a switch for certain applications (toggle mode). In this case, a brief press (or release) would set an "On" command. And only when the pedal is pressed again would it be set to "Off" again. More on this at page [26](#).



Inner values

USB 2.0 audio interface

In front of you is not only a smart MIDI keyboard, it's a device that claims to taken seriously as a high-quality audio interface. Even if you already have a device for recording and playing back audio signals from your DAW, take a closer listen to the converters used in the AREA 61 and decide for yourself.

The back of the AREA 61 has two inputs and outputs for analogue audio signals. The sensitivity is designed for line signals with a professional "studio level" - around +4 dBu with sufficient headroom at about 2.1 Vrms. A discretely designed audio path routes the signals to and from an AD/DA converter by Wolfson. The maximum sample rate is 96 kHz for playback and recording – with 24-bits. If you are working in the field of media production, the lower range basic data will also be of interest for you: 8 kHz and 8-bits - and many variants in between - are also possible.

The USB interface on the AREA 61 is also compatible with the older USB 1.1 standard. If possible, however, you should use a USB 2.0 interface so that you can make use of the full range of audio & MIDI functions.

Brief explanation about USB: the Ploytec FMC® algorithm.

For anyone who's interested, here's a bit more background information on the subject of audio & USB. Actually the beloved USB interface isn't best suited to audio data transmissions. If you take a closer look at the principle of this bus system (or more accurately, the architecture on which it is based), you quickly see that "studio quality" audio can't work like this for many reasons ... and the "Universal Serial Bus" - itself in its 2nd generation - should be reserved for uncritical peripherals such as WebCams or iPods. But let's be fair: the USB shouldn't be condemned here and there are now numerous audio devices that can be recommended with a clear conscience for a daily dose of music enjoyment. We are purely talking about professional usage, and it's not for nothing that many competitors - including ourselves for other products - are happily giving way to a standard called IEEE 1394, better known as FireWire.

The reasons for this is quite complex: for a professional audio system it is important for the digital clock to be as stable as possible, even slight fluctuations (also called jitter) decrease the audio quality. With a stable hardware clock, the data flow from and to the driver is always constant. As audio applications can never retrieve or deliver 100% sample for sample at the time set by the hardware clock, buffers are used. By the way, the size of these buffers is set with the configurable ASIO latency. A too small buffer size can cause the buffer processed by the hardware not to be emptied or filled on time by the software and can therefore cause audible interruptions. On the other hand, if the buffer is too large, the software has to "wait" and the response time (latency) is slower, which has a negative impact during a live performance on a software synthesizer for example. The interaction between computer performance, buffer size and hardware clock is therefore a very sensitive issue and is a measure for a professional audio system. Now to the problem with USB: the transmission standard does not provide a clean timing control here. The individual data packets (frames and sub-frames) are transmitted with a timing of one millisecond, and this interval cannot be influenced or is unreliable. Fluctuations of different sizes are unavoidable and are also slightly different on every computer system. Many current systems compensate these fluctuations in such a way that the hardware clock is resetting, i.e. constantly runs faster and then slower. But this is only a workaround and while it is certainly acceptable for less professional systems, it does not help the audio quality in any case. This is where the Ploytec FMC (Fixed Master Clock) algorithm comes into play. It works both in the hardware firmware and in the driver. This absolutely guarantees that the hardware clock runs stable and that there are no interruptions and/or crackling noises on the driver side, despite very small buffer sizes. Of course we can't reveal the details of how this works here. But the fact is that with FMC the USB Bus is now also available for professional audio systems.

Headphones connection

The high-quality audio interface of the AREA 61 also has a top class headphones amplifier. This discretely designed stereo-channel provides the same signal as the above mentioned output with line level, but at a level designed for your ears. You can control the headphones volume separately at the back of the AREA 61.

Caution! Loud signals can permanently damage your hearing. Therefore, please take our advice: only increase the volume with care and don't forget that different headphones can output very different sound levels.

MIDI Interface

Musical Instrument Digital Interface ... the 5-pin sockets on countless musical instruments simply won't die out. MIDI is a standard on which we have been able to rely for decades. If you aren't familiar with the triple set of MIDI-IN, OUT and THRU, or don't want to use it, don't worry about it: communication with your computer is managed via USB and therefore via a so-called virtual MIDI device. In music programs its called "AREA 61 MIDI 1 or 2", with key and encoder movements being received (via IN) or data being transmitted to the AREA 61 (via OUT).

The MIDI routing is automatically switched over depending on whether or not the AREA 61 is operated via USB or without a computer (standalone). Both scenarios are described below:

1. AREA 61 via USB

The two USB MIDI device drivers "AREA 61 MIDI Port 1" (Out) and "AREA 61 MIDI Port 2" (Out) are fitted together on the internal processor of the keyboard and can both be used to send feedback to the LEDs of the encoders, programming from the Editor and also send future firmware updates. The AREA 61 MIDI Port 2 (Out) is also connected to the MIDI Out 2 socket. Usually, Out 1 should be used for communication between the software and the AREA 61, with Out 2 being provided as an additional USB MIDI interface. This means further external receivers, e.g. Rack Synthesizer, can be operated at Out 2 socket. All MIDI data that is generated directly by the AREA 61 (keyboard, encoders, etc...) is available at the USB MIDI device driver "AREA 61 MIDI Port 1" (In). "AREA 61 MIDI Port 2" (In) is used as an additional MIDI interface for external devices. "AREA 61 MIDI Port 2" (In / Out) can therefore be used as a completely independent MIDI interface.

The Editor

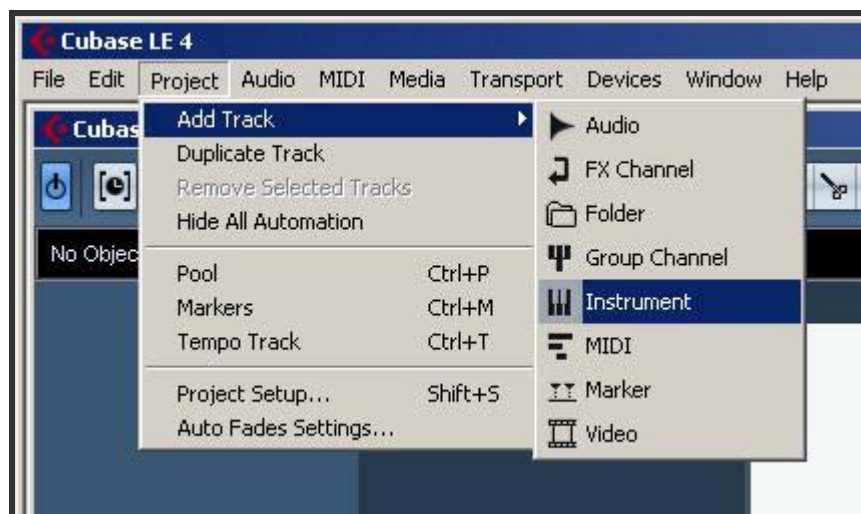
The key to controller happiness lies in the individual configuration of your setup. The AREA 61 Editor can help you here. You can use it as a standalone program or it can be integrate in your sequencer environment as a VST plug-in under Mac OS X and Windows.

The Editor as VST plug-in

If you load the Editor as a VST instrument, you can test changes in your sequencer directly after sending the settings to the AREA 61, without having to switch between different programs.

We assume that you have already called up an instrument plug-in in your favourite recording software, but if you're not sure how to do this, please take a look at the documentation for your software ... the platforms and programs are too varied to list them here in detail. In any case, ensure (as described above under Installation) that the plug-in data is in the right folder. The example below shows the use of the plug-in in Steinbergs Cubase LE 4, which is conveniently supplied with the AREA 61:

- In the project window, add a new "Instrument" track. In the next window, select the VST instrument "AREA 61 Editor".



As the Editor communicates with the AREA 61 via MIDI, you must now make the relevant settings. As already described, the "AREA 61 MIDI Port 1" should be assigned to the Editor. On the input side, plug-ins can generally be assigned with any MIDI port.

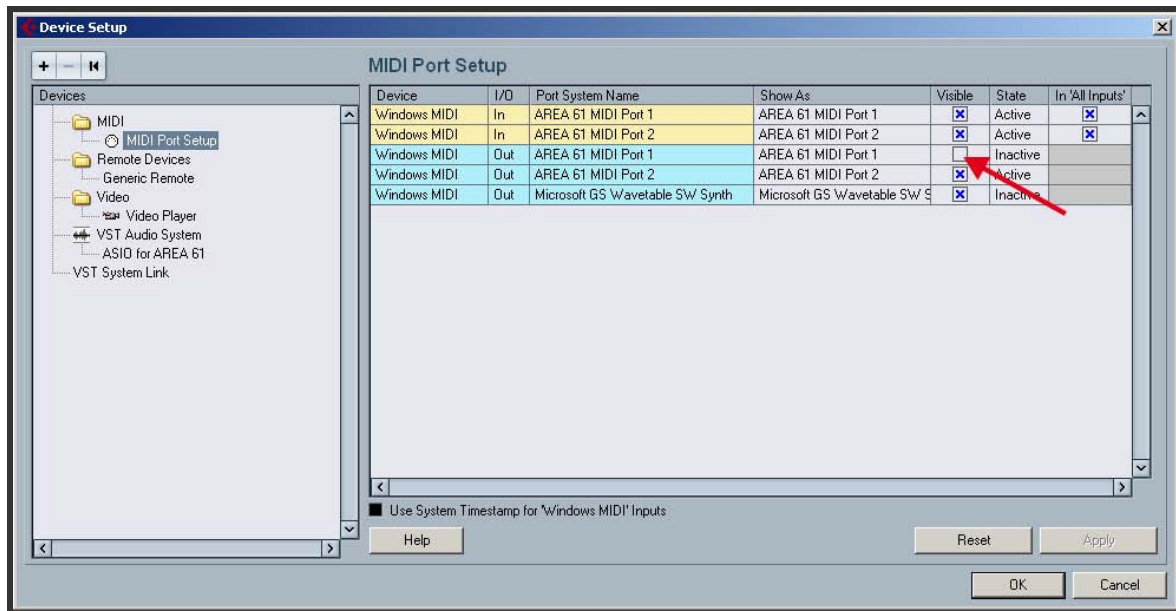


In the Cubase Inspector, select "AREA 61MIDI Port 1" or "All MIDI inputs".

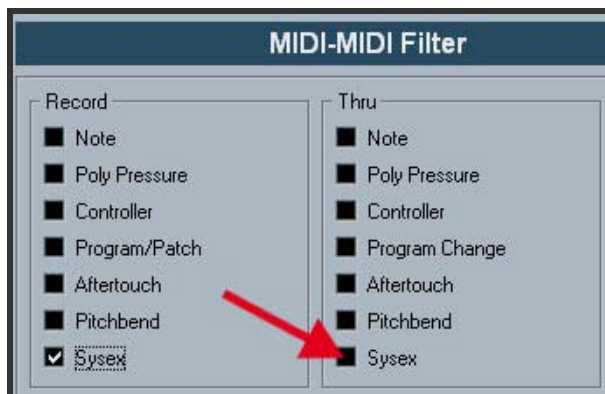
Assignment of a MIDI output from a plug-in is a bit more difficult as it is not usually provided in the host program. For this reason, the MIDI output port is also selected directly in

the AREA 61 Editor. When you start an audio application such as Cubase, all MIDI device drivers installed on your computer are opened and may no longer be available to other applications. To ensure that the AREA 61 Editor can still access a MIDI output, you must deactivate it from the host software (e.g. Cubase):

To do this, open the "Device Setup" window in Cubase via the "Devices" menu option. Now deselect the "Visible" option for MIDI output "AREA 61 MIDI Port 1" and release it.



Now ensure that Cubase forwards Sysex data to the plug-in. If the AREA 61 Editor requests banks or scenes from the keyboard, these are transmitted in the form of so-called system exclusive (Sysex) messages. To do this, open the Cubase program setup via "File -> Program setup" and select "MIDI -> MIDI Filter" in the left-hand browser. Ensure that "Sysex" is not selected for "Thru".



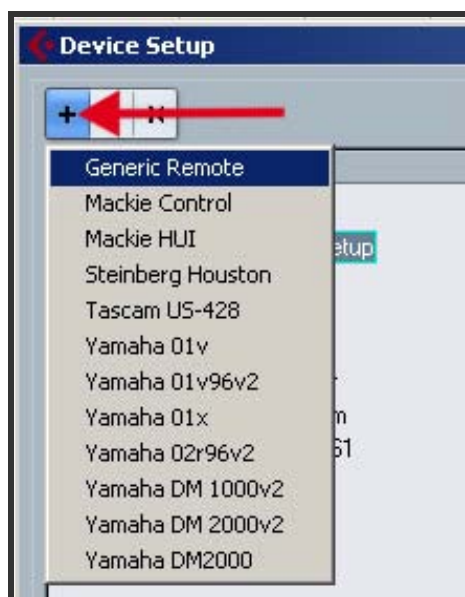


Now exit this menu and open the AREA 61 Editor. To do this, select the AREA 61 Editor instrument track on the Cubase project window and click on the icon to open.



The MIDI output is now set in the "File Menu" plug-in window. Now select "AREA 61 MIDI Port 1" here.

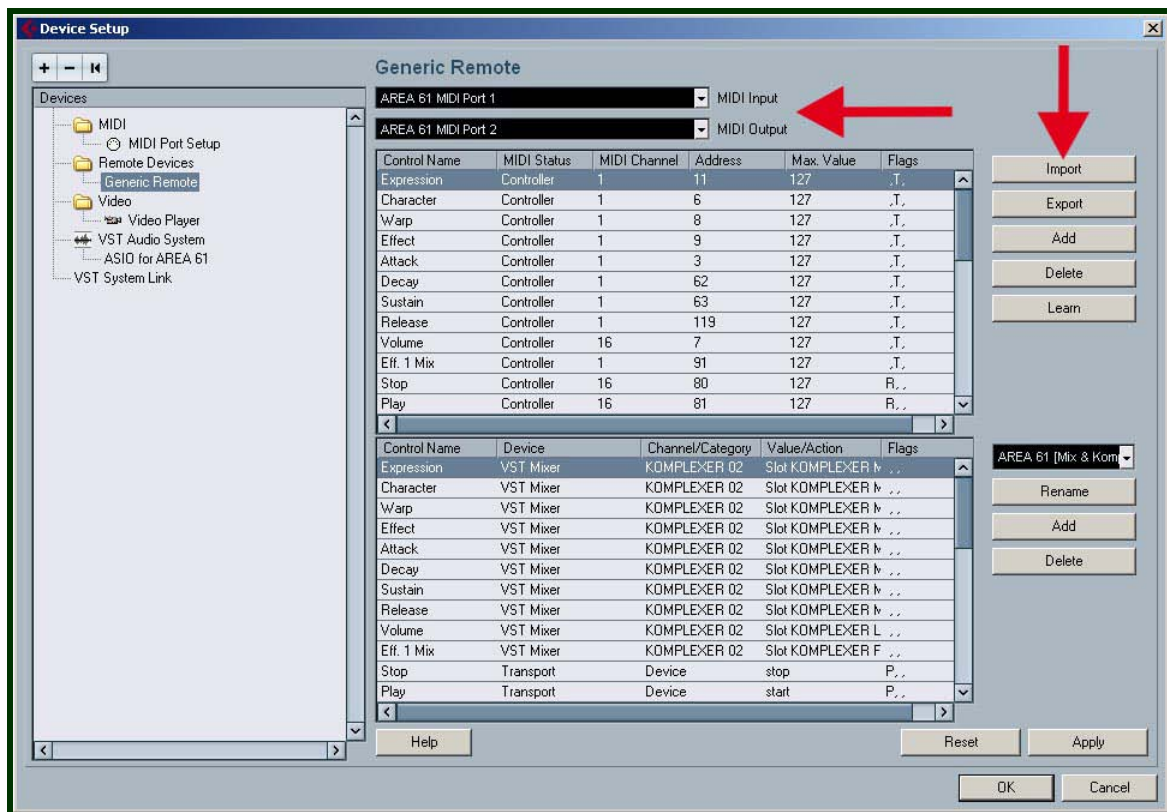
The AREA 61 as a generic remote in Cubase



The best integration of the AREA 61 in Cubase is by creating a so-called generic remote. This means nearly all Cubase functions can be accessed from external sources. A particular highlight is that informations on the connected hardware can also be transferred. Yep: it is also possible for the ring of LEDs on the AREA 61 to follow value changes in the software.

To set up generic remote, open the "Device Setup" window again via the "Devices" menu option. Click on the + icon and select "Generic Remote". Now set AREA 61 MIDI port 1 or 2 for the MIDI input. For the output, port 2 must be selected, as this, as previously mentioned, has been deactivated for Cubase and is only available to the AREA 61 Editor.

The settings appropriate to the relevant setup can now be made. To do this, read the corresponding chapter of the Cubase documentation.



On the AREA 61 CD there are some examples for Cubase 4 and Cubase LE 4. These offer a good starting point to set up your own setup.

To set up the respective example setup, proceed as follows (this example shows the "Mix & Komplexer" setup under LE4):

1. Ensure that the AREA 61 Editor VSTi plug-in is set up for Cubase as described above. The Komplexer VST should also be installed.
2. Now start an example Cubase LE4 project "AREA61 Project [Mix & Komplexer].cpr"
3. Open the AREA 61 Editor and load the appropriate scene file, in this case "AREA 61 Scene [Mix & Komplexer].fxp". Copy this scene to the AREA 61 keyboard and switch to this scene if necessary.
4. Now open the window for the generic remote and load the file "AREA 61 Generic Remote [Mix & Komplexer].xml" via import.

Now the volumes of the mixer channels can be controlled via the red encoders and vice versa! The green encoders control the panorama. For example, if you move encoder 1 (red) the volume slider of mixer channel "Audio 1" follows. If you press and hold this encoder for a second, it switches to the push color and the panorama for the same channel can be set. Via the transport keys on the AREA 61, you can control the playback, recording or stopping. The orange-colored encoders control the macro-controllers of the Komplexer (also in both directions) and the DEC/INC keys allow you to switch between

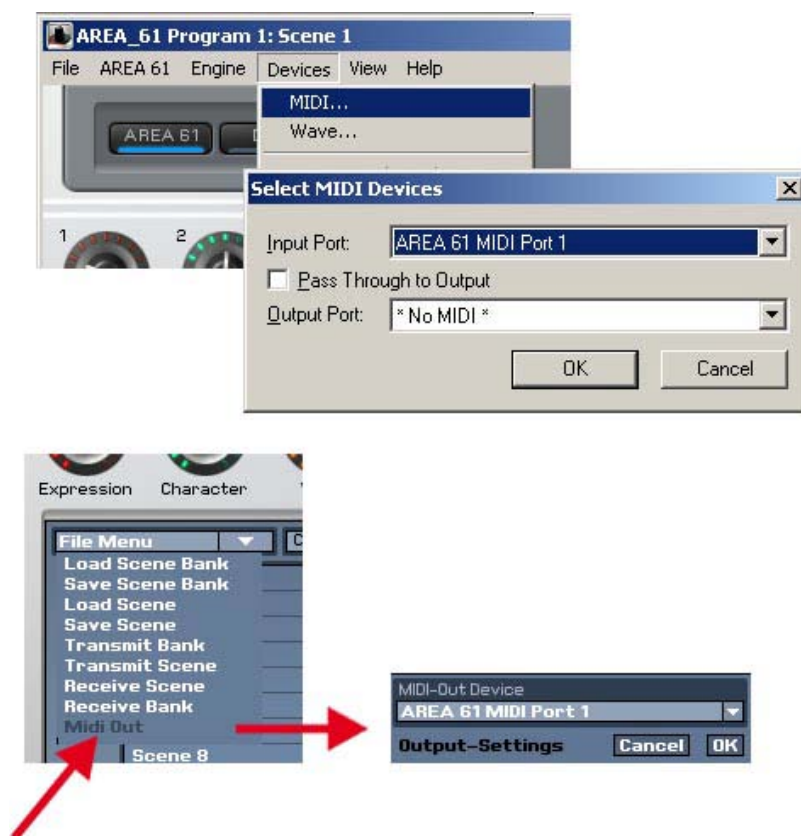
sound programs. As usual for VSTi plug-ins you should first select the Komplexer track, so that the MIDI data from the input is routed to the synthesiser or activate the loudspeaker symbol for the Komplexer track.

Two other setups are provided on the CD as further examples for controlling only the mixer (Mix) or only the Komplexer (Komplexer).

Settings in standalone mode

Windows. If you wish to run the AREA 61 Editor alone and not as a plug-in in VSTi host software such as Cubase, you can use the standalone version. The AREA 61 Editor is started within a simple VSTi host software program. Under Windows, the standalone version can be opened via the Start menu. Alternatively you can start the Editor by double-clicking on the program file "AREA_61.exe" which is located in the installation folder for the Editor, e.g. C:\Program Files\Steinberg\Vstplugins\AREA61_Editor\.

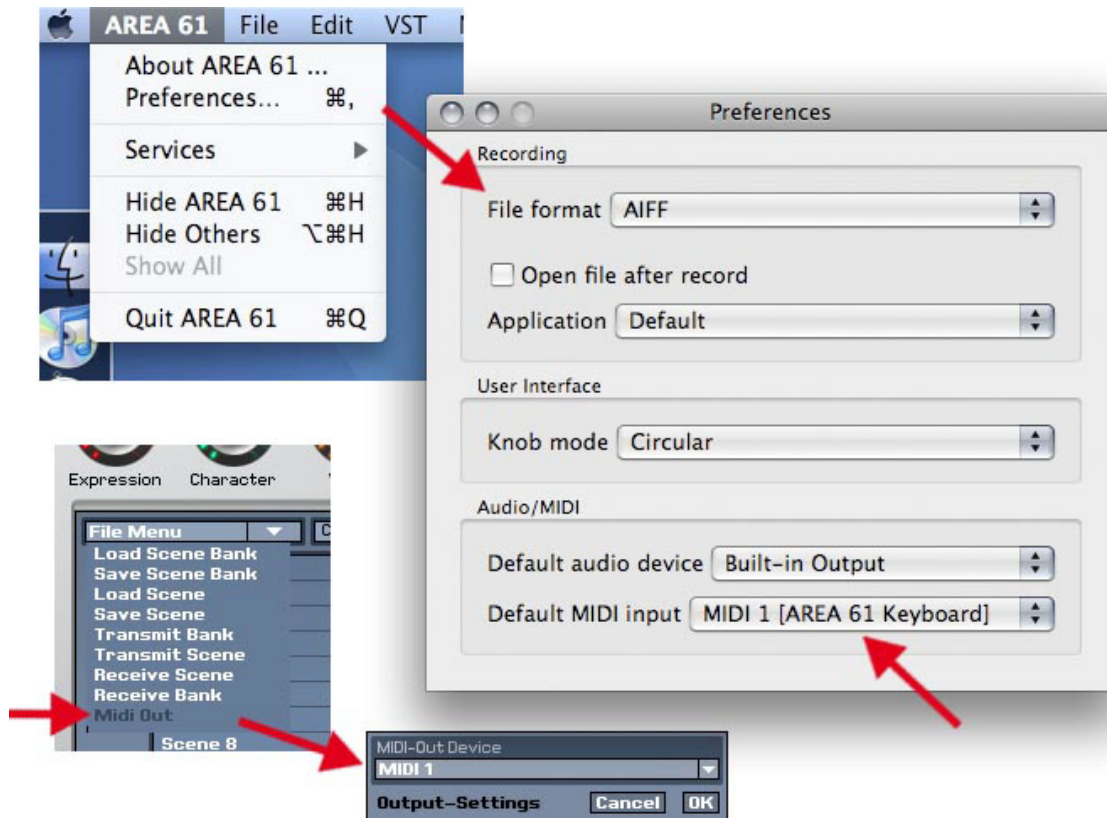
*In the file menu of the HOST software, select port "AREA 61 MIDI port 1" as the MIDI input. For the output, no ports, i.e. "**No MIDI*" is set here.*



The MIDI output is set in the actual plug-in. To do this, open the File menu of the Editor and select the "AREA 61 MIDI Port 1" port.

OS X. Simply start the program by double-clicking on the "AREA 61" program file which is located in the directory of your choice after installation. The program automatically loads the actual VST plug-in file "AREA 61 Editor.vst" which must be located in the Library\Audio\Plug-Ins\VST\ folder after installation (as described above).

In the File menu of the HOST software, select port "MIDI 1[AREA 61 Keyboard]" for the MIDI input.



Operation

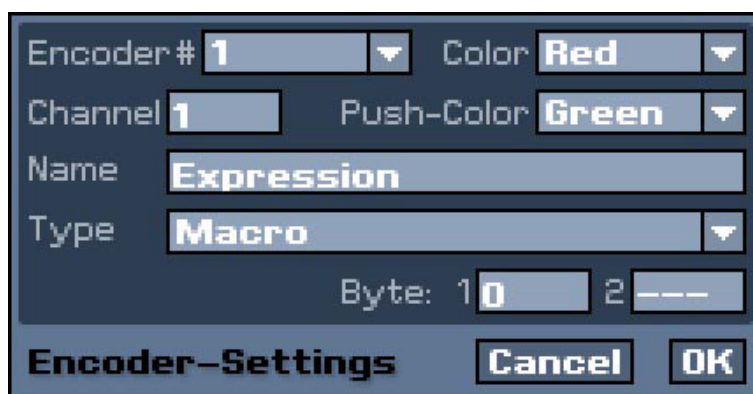
Please note: the "DSP" button currently still has no function and is only a place holder for future hardware sound generation options.

All settings for the A61 Editor are made with a simple operating principle on both Windows and Mac computers. Attention please: "Inputs in a dialogue must always be completed with the RETURN key – Thanks in advance." ;-)

- Alt + left-click on an encoder switches between the three encoder modes. These are identified by different colors in the Editor and on the keyboard itself.
- ALT + left-click (PC only) on an encoder opens the window for encoder settings. The encoder clicked on is pre-selected here. However, all 10 encoders can be programmed directly in this window for all three colors. It is therefore not necessary to open a separate settings window for each encoder.
- Shift + left-click on an encoder (Mac only) opens the window for encoder settings.
- ALT + left-click on the keyboard opens the window for setting up the keyboard.
- A single left-click on the wheels, buttons and pedal opens their setup dialogues.
- A right-click on the TerraTec Producer Logo (above the keyboard) opens the window for setting the global options.
- A left-click on the TerraTec Producer Logo opens the information window.

The encoder settings

Here you can define what should happen if an encoder on the keyboard is turned or pressed. As you already found out in the chapter on the interface of the AREA 61, each encoder has three colors and can therefore transmit three different MIDI commands. To select the "color" you want, use the SHIFT-click. Alternatively you can also set the color in the settings dialogue under "Color".



- Encoder #: Select one of the 9 encoders.
- Color: Select the color and the associated level of the selected encoder.
- Channel: The MIDI channel (1 to 16), to which the command below is transmitted.
- Push-Color: Select which push color should be used for the selected encoder.
- Name: Any string of characters for display in the LCD. To check the text you can see an image of the display in the top right of the Editor.
- Type: Which MIDI command should be sent? You can find an exact definition in the table below.
- Byte: Some MIDI commands only use one byte, some two. The second field is therefore only available depending on the command. If "Macro" was selected as the type, the right values for controlling the Komplexer macro controller are entered here.

Table of encoder selection types

Type	Meaning (decimal values)
Off	No data is sent.
MIDI CC	Any desired MIDI controller is sent. An exact list of all possible controllers is given in the Appendix.
RPN	The special RPN controller (Registered Parameter Number) with two bytes, MSB and LSB. The following RPNs are defined (byte 2, MSB = 0): <ul style="list-style-type: none"> - 00 = Pitch Bend Sensitivity - 01 = Fine Tuning - 02 = Coarse Tuning - 03 = Tuning Program Select - 04 = Tuning Bank Select
NRPN	The special NRPN controller (Non-Registered Parameter Number) with two bytes, byte 1 = LSB; byte 2 = MSB.
Macro	Automatically creates the right values for controlling the Komplexer VST Macro-Controller.

RPNs and NRPNs are provided in the MIDI language as an "extension" to the 120 or so standard controllers. Two controllers (for MSB and LSB) are sent for addressing, followed by controller #6 for values. Thus (N)RPN commands have access to $128 \times 128 = 16,384$ possible other controllers.

Note: if a receiver is set that it responds to MIDI controller #6, it can lead to undesirable shifts if an (N)RPN command is received on the same channel. If possible, you should not use controller #6 if (N)RPNs are also being sent.

RPNs (Registered Parameter Numbers) are usually the same for different sound generators, while NRPNs (Un-Registered Parameter Numbers) are freely used by each hardware & software manufacturer.

Wheel settings

Click on one of the two wheel graphics to reinvent the wheel!

The screenshot shows a 'Wheel-Settings' dialog box with two main sections. The top section is for 'Pitch' and the bottom for 'Mod.'. Each section has a 'Type' dropdown, a 'Channel' dropdown, two 'Byte' input fields, and a 'Name' text field. The 'Pitch' section is configured with Type: Pitch, Channel: 1, Byte:1: ---, Byte:2: ---, and Name: Pitch Wheel. The 'Mod.' section is configured with Type: MIDI CC, Channel: 1, Byte:1: 1, Byte:2: ---, and Name: Modulation Wheel. At the bottom of the dialog are three buttons: 'Wheel-Settings', 'Cancel', and 'OK'.

- Channel: The MIDI channel (1 to 16), to which the command below is transmitted.
- Name: Any string of characters for display in the LCD. To check the text, you can see an image of the display in the top right of the Editor.
- Type: Which MIDI command should be sent? You can find an exact definition in the table of encoder types above. The "Macro" type is not included here. For the pitch wheel there is of course an additional "Pitch" type, as this is defined as a separate status (Ex hex) according to the MIDI specification.
- Byte: some MIDI commands use one or two bytes. The second field is therefore only available depending on the command.

Button settings

Click on one of the seven buttons to open the settings dialogue in which you define what happens if one of the buttons is pressed. As you have already discovered in the chapter on the interface of the AREA 61, the operating keys of the AREA 61 can also be assigned with several MIDI commands.

The screenshot shows the 'Button-Settings' dialog box with the following settings for each button:

- Button 1:** Type: Prog. Change -, Channel: 1, Byte: 1, 2, Name: Program down
- Button 2:** Type: Prog. Change +, Channel: 1, Byte: 1, 2, Name: Program up
- Button 3:** Type: MMC Transport, Channel: 1, Byte: 0, 1, Name: Stop
- Button 4:** Type: MMC Transport, Channel: 1, Byte: 0, 2, Name: Play
- Button 5:** Type: MMC Transport, Channel: 1, Byte: 0, 6, Name: Record Start
- Button 6:** Type: Transpose Left, Channel: ---, Byte: 1, 2, Name: Transpose down
- Button 7:** Type: Transpose Right, Channel: ---, Byte: 1, 2, Name: Transpose up

At the bottom, there are 'Button-Settings', 'Cancel', and 'OK' buttons.

- **Channel:** The MIDI channel (1 to 16), to which the command below is transmitted.
- **Name:** Any string of characters for display in the LCD. To check the text, you can see an image of the display in the top right of the Editor.
- **Type:** Which MIDI command should be sent? You can find an exact definition in the table below.
- **Byte:** Some MIDI commands only use one byte, some two. The second field is therefore only available depending on the command. Many of the types available for selection have already been pre-defined and the assigned bytes are displayed as fixed values. For the last two buttons, there are two further types available for transposition.

Table of button and pedal selection types

Type	Meaning (decimal values)
Off	No data is sent.
MIDI CC +	The value of the set controller is increased by 1 when activated.
MIDI CC -	The value of the set controller is reduced by 1 when activated.
MIDI CC Static	When the set controller is activated, an adjustable fixed value is sent.
Sustain 1 P	The pre-defined controller #64 (Damper) sends the value 127 when pressed and the value 0 when released.
Sustain 1 T	The pre-defined controller #64 (Damper) sends the value 127 and 0 alternately each time it is pressed.
Portamento P	The pre-defined controller #65 sends the value 127 when pressed and the value 0 when released.
Portamento T	The pre-defined controller #65 sends the value 127 and 0 alternately each time it is pressed.
Sostenuto P	The pre-defined controller #66 sends the value 127 when pressed and the value 0 when released.
Sostenuto T	The pre-defined controller #66 sends the value 127 and 0 alternately each time it is pressed.
Soft Pedal P	The pre-defined controller #67 sends the value 127 when pressed and the value 0 when released.

Type	Meaning (decimal values)
Soft Pedal T	The pre-defined controller #67 sends the value 127 and 0 alternately each time it is pressed.
Legato P	The pre-defined controller #68 (Control Change) sends the value 127 when pressed and the value 0 when released.
Legato T	The pre-defined controller #68 (Control Change) sends the value 127 and 0 alternately each time it is pressed.
Sustain 2 P	The pre-defined controller #69 (Hold 2) sends the value 127 when pressed and the value 0 when released.
Sustain 2 T	The pre-defined controller #69 (Hold 2) sends the value 127 and 0 alternately each time it is pressed.
RPN +	RPN values too can be increased by 1 by pressing the button.
RPN -	Reduce RPN value by 1.
NRPN +	Increase NRPN value by 1.
NRPN - XX	Reduce NRPN value by 1.
Program Change +	Switches up through the programme numbers.
Program Change -	Switches down through the programme numbers.
Start	Sends a start command as System Real.
Continue	Sends a continue command as System Real.
Stop	Sends a stop command as System Real.
System Reset	Sends a MIDI reset as System Real
MMC Transport	<p>MIDI Machine Control. Byte 1 addresses the recipient (device ID). The following commands can be set with byte 2:</p> <ul style="list-style-type: none"> -01 = Stop -02 = Play -03 = Deferred Play (Locate) -04 = Fast Forward -05 = Rewind -06 = Record Strobe -07 = Record Exit -08 = Record Pause -09 = Pause -10 = Eject -13 = MMC Reset
Transpose Left / Right	The two correspondingly labelled buttons can be defined here for keyboard transposition.

With some controllers a difference is made between the two statuses P (for "Push") and T (for "Toggle"). For the controllers in question, there are then the statuses "On" and "Off". A push command in this case sends an "On" when the pedal is pressed, and "Off" when it is released. A toggle command, on the other hand, sends an "On" the first time it is pressed and released, and an associated "Off" the next time it is pressed and released.

Foot-switch settings


Click on the foot pedal to access the setup dialogue: the same thing that happens when you press the pedal. Pressing a connected foot pedal can trigger a range of MIDI commands, just like the encoders and wheels. The most frequently used are already listed under "Switch-Type" in the selection.



The "Foot-Sw.-Settings" dialog box is shown. It has a title bar. Inside, there is a "Switch-Type" dropdown menu set to "Sustain 1 P". Below it are two input fields: "Channel" set to "1" and "Byte:1" set to "64", followed by a "2" field with three dashes. A "Name" text box contains "Sustain 1 Switch". At the bottom are three buttons: "Foot-Sw.-Settings", "Cancel", and "OK".

Keyboard settings

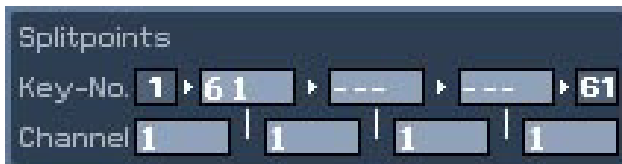
ALT+click on the keyboard at the bottom edge of the plug-in to open the keyboard settings.



The "Keyboard-Settings" dialog box is shown. It has a title bar. The first section is "Splitpoints" with a row of five input boxes containing "1", "24", "36", "48", and "61". Below this is a "Channel" row with four input boxes containing "1", "2", "3", and "4". The next section is "Aftertouch-Left" with a "Channel" dropdown set to "Channel", a "Channel" input set to "1", a "Byte:1" input set to "---", and a "Name" text box containing "Left-Aftertouch". Below that is the "Aftertouch-Right" section with a "Channel" dropdown set to "Channel", a "Channel" input set to "1", a "Byte:1" input set to "---", and a "Name" text box containing "Right-Aftertouch". The final section is "Velocity-Curve" with a dropdown set to "1" and a "Static" input set to "---". At the bottom are three buttons: "Keyboard-Settings", "Cancel", and "OK".

Splitpoints

You can split the keyboard into 4 independent zones, also called key splitting. According to simple arithmetic then, there are 3 available splitpoints - choose the corresponding MIDI note numbers in the top input area. As an overview, here are the favourite splitpoints at a glance:



One zone. All 61 keys transmit to MIDI channel 1.



Two zones. The first zone (keys 1-24) transmits to channel 1. Zone 2 (keys 25-61) transmits to channel 2. The zones are therefore also assigned to the two after-touch zones.



Three zones. The first zone (keys 1-24) transmits to channel 1. Zone 2 (keys 25-36) transmits to channel 2. Zone 3 (keys 37-61) transmits to channel 3.



Four zones. The first zone (keys 1-24) transmits to channel 1. Zone 2 (keys 25-36) transmits to channel 2. Zone 3 (keys 37-48) transmits to channel 3. Zone 4 (keys 49-61) transmits to channel 4.

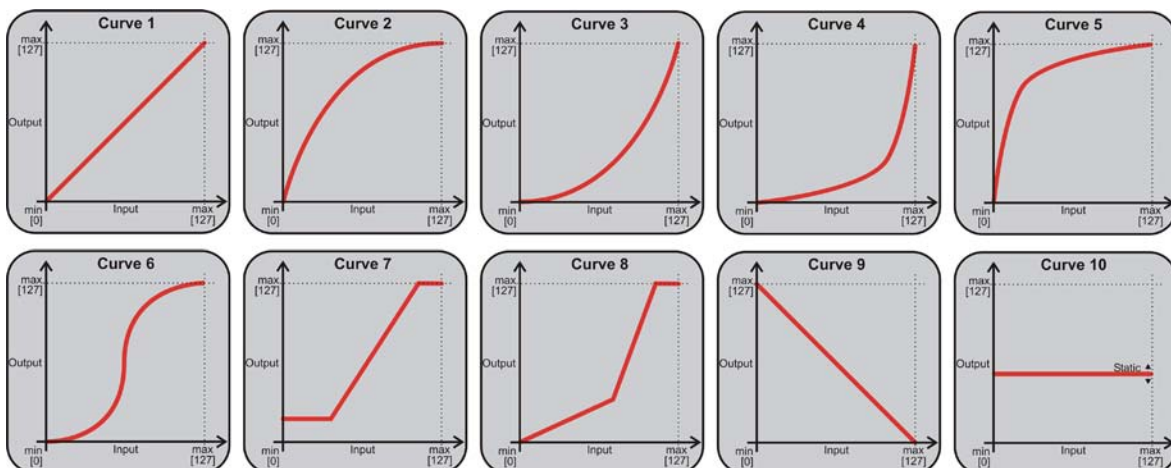
Aftertouch left and right

Aftertouch means when playing a note, MIDI controller information or the so-called channel aftertouch can be transmitted. The two aftertouch sensors are assigned to fixed keyboard zones. Aftertouch-Left comprises keys 1-24, Aftertouch-Right comprises keys 25-61. AREA 61 therefore automatically distinguishes between a "left" and a "right" aftertouch command when playing more than one note. If you wish you can assign different MIDI channels and separate send parameters. If both sensors are programmed with the same channel parameters the keyboard behaves as a normal channel aftertouch keyboard.

For example: Choose a 1 layer sound in the KOMPLEXER which reacts to channel aftertouch or program this accordingly. Copy layer 1 to layer 2 in the Komplexer (the maximum 4 layers are addressed here via channels 1-4). Now set Aftertouch-Left on the AREA 61 to "Channel", channel 1. Also set Aftertouch-Right to "Channel" but channel 2. Now the sound can be influenced separately with the right and left hand. Of course, you can also influence different parameters in the sound generator with both zones, e.g. left for the volume and right for the filter cutoff frequency. If you do this using MIDI controllers instead of the channel types, you can influence almost any desired synthesiser.

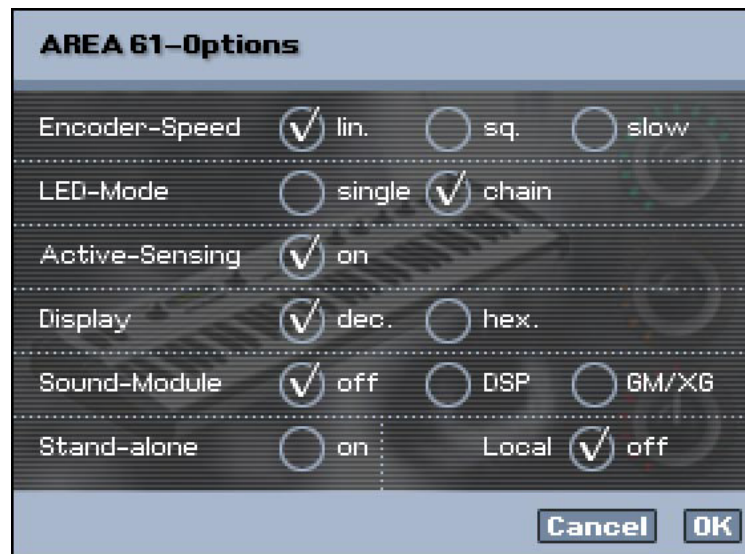
Touch-sensitivity

The keyboard of the AREA 61 is 'touch-sensitive'. Depending on how firmly (or rather, how quickly) a key is touched, a smaller or larger data value is sent via MIDI. This is usually implemented by the connected sound generators so that a sound is played more quietly or loudly. Sometimes further parameters are also changed which all have the aim of creating a "real" acoustic instrument as close as possible (e.g. a piano). To adapt the touch-sensitivity optimally to your personal playing style, you can choose from various curves. For example, curve 1 shows a linear behaviour, where the touch speed (also called velocity) is implemented in a ratio of 1:1. Curve 9 behaves in exactly the opposite way, the faster the quieter.... Curve 7 always starts and ends with a fixed minimum and maximum value, in between which the behaviour is linear again. The other curves show different, non-linear implementations. Just experiment a little. Curve 10 (Static) should be mentioned as a special feature, as it actually isn't a curve. This means a fixed value can be set, which is transmitted regardless of the touch strength. This is especially suitable for creating drum tracks, which shouldn't want a certain "Human Touch". The following graphics should clarify the different options:



AREA 61 options

Right-click on the TerraTec Producer logo to access some of the global settings for the AREA 61 system, which apply for all scenes.



Encoder Speed

The rotation behaviour of the 10 encoders can be set in three stages:

- **Linear (lin.):** With linear behaviour, the LED chain - and thus the transmitted value - moves approximately in line with the actual movement.
- **Quadratic (sq.)** Here the control path increases with the speed of rotation. In practice this means that you can make big value changes with a fast movement, or very fine adjustments with a slow movement. If you "fancy setting all encoders to zero", turn all encoders quickly and briefly with the quadratic setting set. With the linear setting (see above), you would need up to a full rotation to do this.
- **Slow** A value change is made here as above under linear, but about 5 times slower. This allows accurate adjustment of very fine-tuned parameters.

LED mode

300 light emitting diodes and three colors: select the power consumption of your AREA 61 and be mesmerised by the flashing rings of lights - a party for your senses!

Single: One single LED shows the current position - and thus the last transmitted value - of the encoder.

Chain: An LED chain is used instead of an single LED. This could provide clearer information in some cases. It is also easier to see the push color in chain mode.

I'm here: Active Sensing

MIDI instruments know that they are not alone because they send status reports to connected fellows. Some receivers show these reports via an LED which, however, can quickly become distracting in the studio. You can fit a muzzle to the AREA 61 and suppress all "I'm here. I'm here. I'm here" calls.

Display

If you turn an encoder, you can see the value transmitted in the display. This display can be decimal (e.g. values from 0-127) but also hexadecimal (00-7F).

Sound Module, Standalone, Local off

These entries are reserved for future hardware sound generation options.

The File menu

Banks & scenes

The settings for all parameters listed on the previous pages are initially only made in the A61 Editor. The settings data is therefore only permanently saved in the AREA 61 once it has been transmitted to the device.

All settings can of course, also be archived and reused on your computer. So for example, you can find configurations on the Internet for certain software or devices, which you can simply copy and apply to your AREA 61. Likewise it is of course possible to receive existing settings data in the AREA 61, or to change it and save it again.

When loading, saving, receiving and transmitting settings, we distinguish between two types: scenes, are individual configurations, e.g. for controlling a plug-in. Up to 8 of these scenes can be maintained at the same time in the Editor and in the device - we call this package a bank.

Important: The global settings in the options window of the Editor are only saved when a complete bank is transferred to the AREA 61.



Scenes can be copied using the buttons shown above and pasted to a different scene memory. With recall, the last version saved with the host project is restored. This also applies for the standalone version, which automatically creates an updated file called AREA_61.SAVIHost.fxb after each exit. As the AREA 61 Editor is a VSTi plug-in, all set-

tings made here are of course also automatically saved by the host software (e.g. Cubase) with a project.

Loading & saving settings

Via the File menu in the middle of the Editor, you can access the file dialogues for opening and saving entire banks or individual scenes. To load a bank, choose the "Load scene bank" option from the File menu. The currently loaded bank, or an independently created configuration is then overwritten.

- Load Scene Bank Loads a bank with up to 8 scenes.
- Save Scene Bank Saves all 8 scenes, plus the settings from the Options dialogue, in a file with the ending *. fxb.
- Load Scene Loads an individual scene.
- Save Scene Saves an individual scene in a file with the ending *.fxp.

Transmitting & receiving settings

As described above, the settings for all parameters are initially only made in the Editor and are only permanently saved in the AREA 61 once they have been transmitted to the device. Via the File menu in the middle of the Editor, you can also access the functions for transmitting and receiving entire banks or individual scenes. To transmit a scene or bank to the AREA 61, choose the point "Transmit Scene" or "Transmit Bank" from the File menu. The current configurations saved in the AREA 61 are then overwritten.

- Transmit Bank Transmits a bank with up to 8 scenes to the AREA 61.
- Transmit Scene Loads an individual scene.
- Receive Bank Receives all 8 scenes saved in the AREA 61 plus the global Option settings and overwrites the settings in the Editor.
- Receive Scene Receives an individual scene saved in the AREA 61 and overwrites the settings in the Editor. The scene that has been selected in the Editor is always requested.

MIDI Out

As already described above, the MIDI port for communication between the Editor and the AREA 61 is configured here. Either set AREA 61 MIDI Port 1 or, if you do not wish to connect the AREA 61 via USB and with the help of an additional MIDI interfaces, select a port of your choice. Don't forget to configure the MIDI input to the Editor accordingly.

In some circumstances, the Editor plug-in cannot transmit any MIDI data to the AREA 61. One reason for this could be that the two MIDI ports are already occupied by another application or the host application (your sequencer). In this case, you can select another MIDI port via the Midi-Out option in the File menu or deactivate the desired port in the VST audio software. Remember: in Cubase you deactivate the port in "Device Setup" via menu option "Devices", and in the standalone version you leave the MIDI-Out of the host application free.