

DESCRIPTION
REAL COMPETENCE

MIDI HUBBLE

2 x 2 MIDI / USB HUB



TERRATEC PRODUCER MIDI HUBBLE

English Manual

Version 1.0, from: August 2004

CE Declaration

We:

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

hereby declare that the product:

TerraTec Producer MIDI HUBBLE,

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

1. EN 55013

2. EN 55020

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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Welcome!

We're pleased that you've chosen a product from the TerraTec Producer line for your musical endeavors and would like to congratulate you on your decision. With the MIDI HUBBLE System, you've purchased a sophisticated piece of state-of-the-art studio equipment. Thanks to its wealth of options and proven technology, it will serve you well—both in demanding studio environments and day-to-day home recording for years to come.

Enjoy your MIDI HUBBLE.

Sincerely,
Your TerraTec Producer Team

Scope of delivery.

Start by making sure that nothing is missing.

The MIDI HUBBLE System package should contain the following items:

- MIDI HUBBLE module
- 1.8 m USB connecting cable (plug type A to B)
- Product CD-ROM (driver and software)
- This manual
- Service request form
- Registration documents
- BeSonic Premium Account

Please return the enclosed registration card to us at the earliest possible opportunity, or register online at:

<http://www.terratec.net/register.htm>

Notes on USB interface, hub and power supply

The MIDI HUBBLE USB interface is based on the USB 1.1 bus, but can of course also be connected to a USB 2.0 port. The MIDI HUBBLE provides three additional USB 1.1-compliant ports for connecting additional peripherals. In addition to the 2 x 2 MIDI interface, it therefore contains a complete 3-port USB 1.1 hub. Virtually all USB 1.1 and many USB 2.0 devices can be connected to the additional ports. USB 2.0 devices can, as a rule, be connected to USB 1.1 ports, but please note that devices such as USB 2.0 video grabbers or USB 2.0 audio systems need the higher bandwidth provided by USB 2.0 and therefore may not function correctly or at all on a USB 1.1 bus. But no need to worry—connecting a USB 2.0 device to a USB 1.1 port will not result in damage to the MIDI HUBBLE, so you can attempt it completely without risk.

Bus-powered operation without separate AC adapter

In bus-powered mode, the complete power supply is realized via the USB port of the computer and any intermediate USB hubs. Please note that the port can deliver a maximum current of 500 mA. Normally all USB ports on a computer, or on a hub with its own AC adapter, will provide a full 500 mA. Please check the documentation of your computer or hub in this regard. Hubs that draw their own power via the bus cable (such as the USB port on a Macintosh keyboard) can deliver a maximum of 100 mA per port and are therefore not suitable as a power supply for the MIDI HUBBLE system. In these cases, the MIDI HUBBLE system must be used in self-powered mode (see below).

In bus-powered mode, a total of 500 mA is available to the MIDI HUBBLE. The electronics of the MIDI HUBBLE requires around 60 mA, leaving 440 mA for all three USB ports. When using the MIDI HUBBLE in bus-powered mode, you should therefore use its USB ports for devices with low power consumption such as software dongles, USB mice, or USB devices with their own power supply. If in doubt, consult the documentation of the individual devices. For example, combining a TerraTec Audio System PHASE 26 USB, a USB mouse and a software dongle will definitely not be a problem in bus-powered mode.

Self-powered operation with separate AC adapter

In addition to bus-powered operation without an AC adapter, the MIDI HUBBLE interface can also be used in self-powered mode with its own AC adapter. An AC adapter is only necessary, however, if the connected peripherals have a total power consumption of more than 440 mA (see above), or if you would like to conserve the power of your notebook battery. When using an AC adapter, a full 500 mA are available at each USB port. A regulated and well-stabilized 6V DC power supply capable of delivering at least 1.7 A is required for this purpose (not included). Caution: use only the AC adapter available separately from TerraTec (article number: 200067) for this purpose. The use of other power supplies will void your warranty.

Installing the drivers under Windows 2000 and XP.

1. Disconnect the MIDI HUBBLE system from the USB bus.
2. Start the Windows driver installation via the autostart function of the included product CD. Alternatively, go to the
<CD>:\MIDI HUBBLE\Software\Windows 2000_XP\Driver_Control Panel\ folder on the CD and manually launch the installer "MIDI HUBBLE Setup Vx.x.exe".
3. Follow the instructions of the installation program.

When the installation is complete, the MIDI HUBBLE system will be available in all relevant applications as a MIDI device.

Installing the Control Panel in MAC OS X (OS 10.3.3 or higher).

Administrator rights are required to install the Control Panel.

1. Disconnect the MIDI HUBBLE system from the USB bus.
2. Go to the <CD>:\MIDI HUBBLE\Software\MAC OS X\ folder on the included product CD and copy the installer file "MIDI HUBBLE Setup Vx.xpkg" to the Macintosh desktop before launching the installer.
3. Follow the instructions of the installation program.

Notes for Windows users.

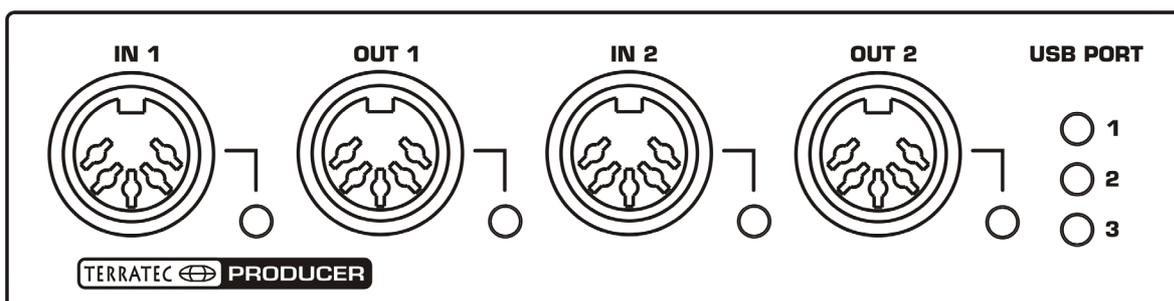
- Close all audio software before disconnecting the USB connection to the PC.
- The drivers have not been certified by Microsoft. You will receive a warning to this effect in Windows 2000 and XP, which you can safely ignore. You can continue the installation without concern.
- After installing the drivers, open the “Device Manager” and check for yellow exclamation marks.
- Multiple MIDI HUBBLE modules cannot be cascaded at present.
- The MIDI HUBBLE Control Panel is installed together with the drivers.

Notes for Macintosh users.

- The MIDI HUBBLE is shipped with driver support for MAC OS 10 (OS X). In the OS10 version, we recommend the Apple operating system update called “Jaguar” (current version 10.3.3). A version update, which can be obtained for an extra charge, contains some improvements specially geared towards audio applications.
- In MAC OS 10, the MIDI HUBBLE uses the operating system's own core MIDI driver, making the installation of additional drivers unnecessary. The MIDI HUBBLE Control Panel for the configuration of special functions (MIDI filter, thru routing and firmware updates) requires MAC OS 10.3.3 or higher. However, the Control Panel is not obligatory required for the MIDI HUBBLE.
- Multiple MIDI HUBBLE modules cannot be cascaded at present.

The ports of the MIDI HUBBLE module

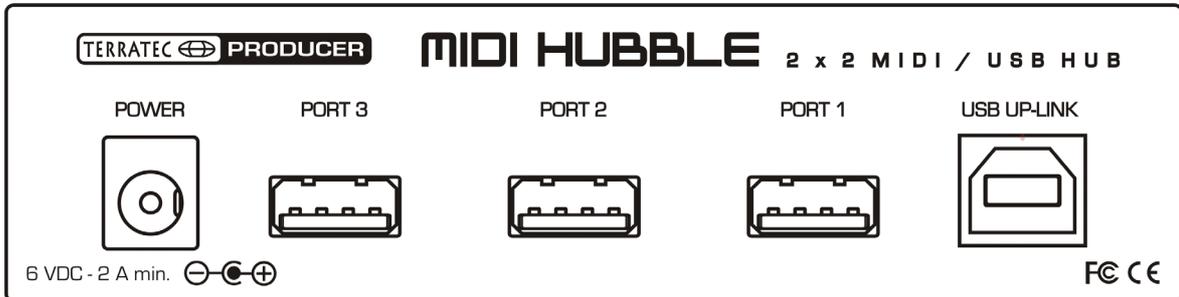
The front panel



- First of all, you'll find the 5-pin DIN sockets of the **MIDI ports** (IN/OUT 1 and 2) on the front panel. Each port has a signal LED to indicate activity.
- **The USB PORT LEDs** merely indicate that the USB ports on the rear panel of the MIDI HUBBLE are operational. Data transfer activity is not signaled. In the event that the current limiter of a USB port is tripped, the LED associated with the port will go out and a message will be displayed by the operating system (Windows or MAC OS X). To correct the problem, remove the last USB device you connected

to the hub and reinitialize the MIDI HUBBLE by disconnecting it from the computer, waiting a few seconds and reconnecting it.

The rear panel



The optional AC adaptor can be connected to the **power socket** on the rear panel. This socket is intended solely for use with the TerraTec AC adapter (article number 200067) which is available as an optional extra. In most cases, however, the MIDI HUBBLE can be used without an AC adapter (bus powered mode). Please read the power supply notes starting on page 5.

The **USB ports 1 to 3** are three fully functional USB 1.1 connections. Virtually all USB 1.1 and many USB 2.0 devices can be connected to the additional ports. For more information, please read the notes on the USB interface and power supply starting on page 5.

Use the **USB UP-LINK** socket to connect the MIDI HUBBLE to a USB 1.1 or USB 2.0 port on your computer or on a USB hub. The included 1.8 m USB cable or any other USB cable with a maximum length of 5 m can be used for this purpose. To cover distances greater than 5 meters, use a USB repeater or an active USB hub.

The control panel.



MAC OS X version



Windows version

Use the MIDI HUBBLE Control Panel to configure additional functions.

Note: the functionality and the position of the control elements are as identical as possible under Windows and MAC OS. The following descriptions apply to both versions.

LED Filter

Many MIDI devices such as synthesizers send a so-called active sensing signal around every 300 ms whenever they are not receiving MIDI data. The lack of an active sensing signal indicates a fault, such as a defective cable, to the MIDI receiver. As the MIDI HUBBLE only forwards the active sensing signal to other devices, visualizing it via the status LEDs doesn't make much sense (and would get pretty annoying after a while). These signals can therefore be filtered out for display purposes (and for display purposes only) in the Control Panel.

Firmware (update)

Important note: The connection to the computer must not be interrupted during the firmware update process (around 5 to 10 seconds). In the event of such an interruption, the MIDI HUBBLE must be sent in for reprogramming. The costs thus incurred are not covered by the manufacturer's warranty.

Thanks to software technology, updates to existing standards and new functions can be added to the MIDI HUBBLE without changes to the hardware by updating its so-called 'firmware'. To update the firmware, proceed as follows:

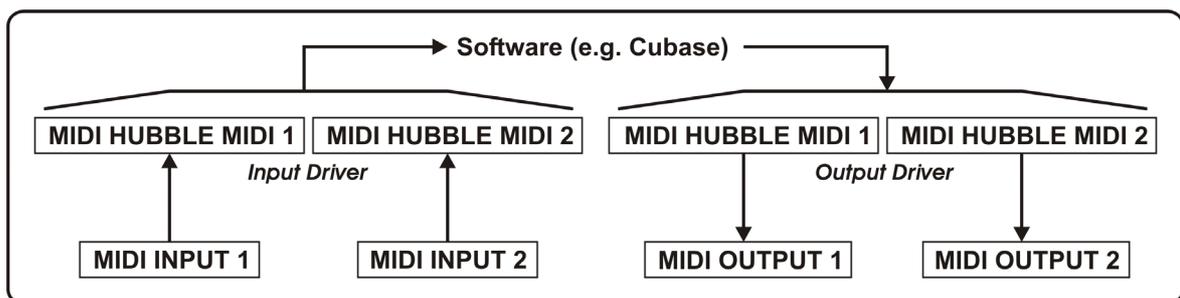
- Close all applications.
- Next, click on the "Update" button. Locate and select the current Windows firmware "midihubbleVx.xx.eep" (on the TerraTec website, for example).
- "Open" exits the search function and automatically starts the firmware update process. Use the status display to monitor the progress of the update. Please ensure that the update process is not interrupted!
- Once the firmware update has completed successfully, the Control Panel will close automatically. Restart your computer. If prompted to do so, also install a new driver as described above.

MIDI Thru

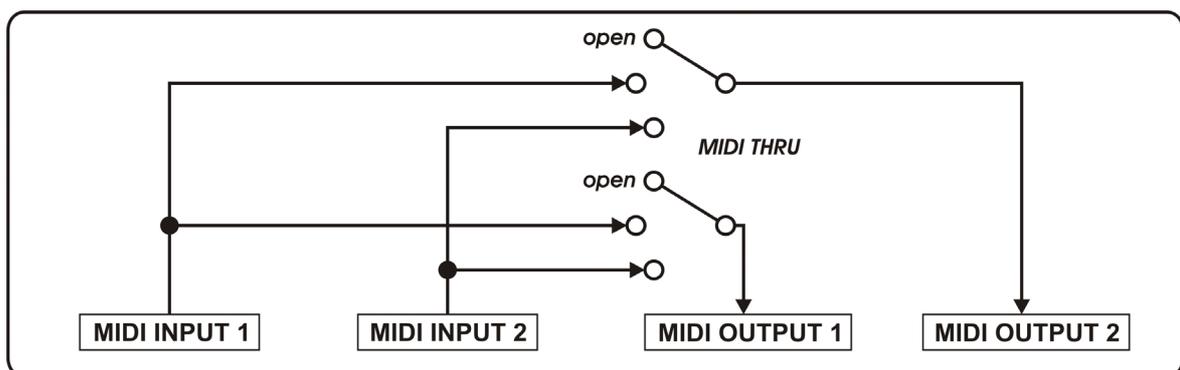
This function lets you configure the routing of the MIDI inputs and outputs. When using the MIDI HUBBLE with a Windows system, the changes made here will not be executed as long as any other software (Cubase, etc.) is accessing the MIDI HUBBLE driver.

Example: A master keyboard is connected to MIDI Input 1; external synthesizer expanders are connected to MIDI Output 1 and 2. As long as a software application such as Cubase is open, the routing will be realized in the sequencer as usual. When the sequencer is closed, the MIDI inputs and outputs will be connected according to the MIDI Thru settings in the Control Panel. Both expanders can thus be played using the master keyboard. Impossible configurations such as the routing of both inputs to the same output are locked.

In MAC OS 10.3.3 (or higher), the routing settings are always applied immediately, regardless of whether MIDI software is accessing the hardware or not. Nevertheless, we recommend closing all MIDI applications before executing the MIDI Thru settings. Failing to do so may cause notes to hang or other undesirable effects.



Operation in Windows: MIDI Input/Output routing with driver open



Operation in Windows: MIDI Input/Output routing with driver closed

Appendix A—Technical Data

- Connection via USB port (Universal Serial Bus 1.1/2.0)
- 2 separate MIDI outputs (32 channels)
- 2 separate MIDI inputs (32 channels)
- MIDI I/O status LEDs
- Flexible MIDI-Thru switching matrix
- Integrated USB 1.1 hub with 3 additional USB ports
- USB Out port status LEDs
- Choice of self-powered or bus-powered operation without separate AC adapter
- USB output ports deliver up to 500 mA each in self-powered mode, up to 440 mA total in bus-powered mode
- Max. 60 mA current consumption without loads on USB Out ports
- Firmware updates possible
- Driver support for Windows 2000/XP and MAC OS X
- EMC-compliant shielded metal housing
- 1.80 m USB connector cable included
- AC adapter specifications: secondary 6 VDC / 2 A (regulated and stabilized) AC adapter article number: 200067
- Dimensions (mm): 118 x 31.1 x 74 (WxHxD)
- Weight: 158 g

System requirements PC

- Pentium II 450 MHz or faster
- 128 MB RAM
- 1 USB 1.1 or USB 2.0 port*
- Windows 2000 or Windows XP

System requirements MAC

- G3 400 MHz
- 128 MB RAM
- 1 USB 1.1 or 2.0 port*
- OS X (10.3.3 required for Control Panel)

* optional AC adapter required if the computer's USB port is not self-powered.