

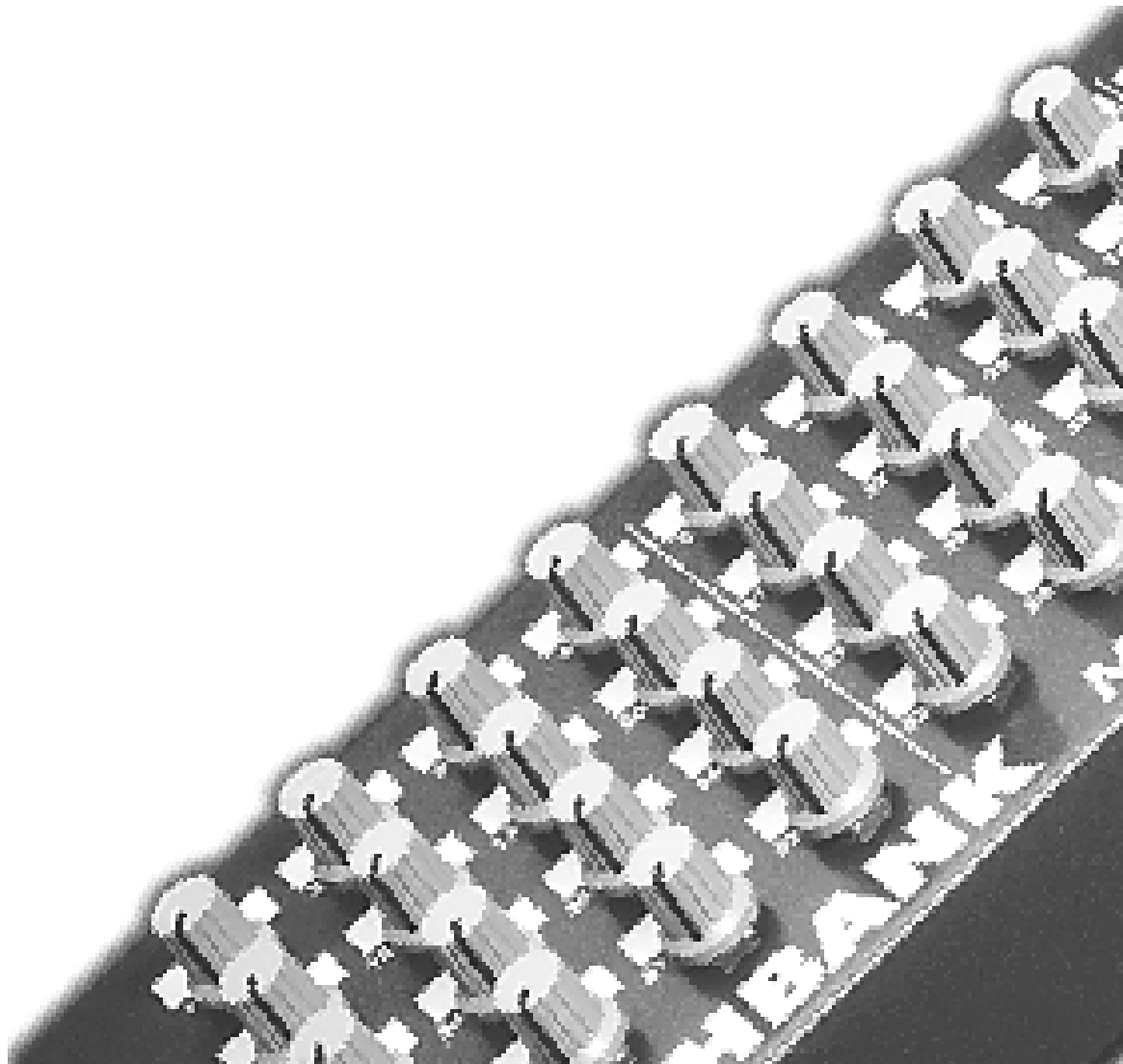
# DOEPFER

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## MIDI Controller Box

# Drehbank

## User's Guide (short version)



**A more detailed manual and info material you will find on the enclosed CD**

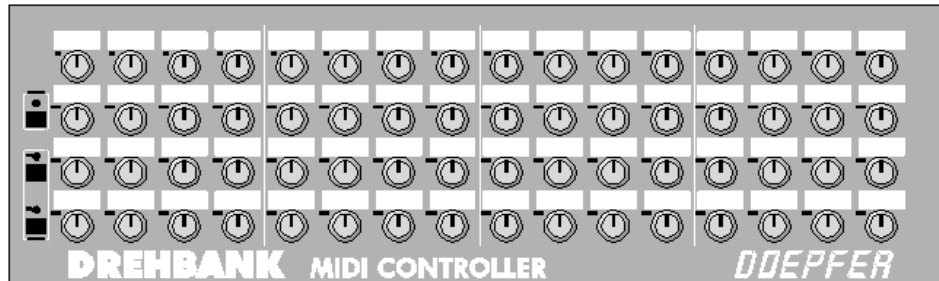
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## Connections

### Hardware unit: Drehbank

Front panel



- 64 control knobs
- 64 labelling pads (for the user to label the function of each control knob).
- 3 switches (on the left side of the unit; black):
  - (one) to create a „Snapshot“ (the top switch)
  - (two) to switch from one bank to the other (the lower 2 switches) **(5)**
- 3 L.E.D.s, one above each switch which indicate: **(4)**
  - When a 'Snapshot“ is being sent
  - Midi events
  - Which of the two banks is in use

Back panel



- 8 external control inputs (optional) **(6)**
- Power input connection **(1)**
- Midi Ports
  - MIDI-In **(2)**
  - MIDI-Out / Thru (Merge) **(3)**

### Power input/ Power supply (1)

The **Drehbank** is powered by an external DC power supply. A 230V power supply with Euro plug is included in the package. For countries with different voltages or plug sockets you'll have to buy the appropriate power supply in your country (9V DC@250mA output required). On the unit there is no On/Off switch. So to turn the unit on and off you have to connect / disconnect the power cable. Alternatively we recommend using a multiple mains socket with an On/Off switch.

### Midi-Out-Buchse (2)

Connect the **MIDI-OUT** of the **Drehbank** with the **MIDI-IN** of the device you want to control with the **Drehbank**.

### ***Midi-In-Buchse (3)***

The **Drehbank** merges the Midi data coming into the Midi In port with the generated data of the respective control knobs. The complete merged data is then sent to the Midi Out port.

#### **Note:**

**Drehbank** normally works in Midi Merge mode.

#### **Important:**

If there is a lot of data coming into the Midi In port it is possible that the **Drehbank** will have problems with merging, as the internal memory has a limited capacity. When transferring a lot of Midi events we recommend the use of an external merger.

The **Drehbank** editor and the **Drehbank** communicate via Midi. This requires a sound card with Midi interface or a special Midi card that works with the **Windows** multimedia driver (e.g. the Unitor from **Emagic**). You can configure the Midi In and Out ports through the **Windows** menu titled Multimedia/Midi.

#### **Note**

Please take care that you don't create Midi loops, because the PC could crash!

To avoid creating loops we have built in the option to deactivate the merge mode in 3 steps (found in the editor program).

### ***Control-LED's (4)***

The L.E.D.s are on the left side of the unit, one above each switch.

They indicate the different operation modes and actions of the **Drehbank**.

#### Operation indicators

When the **Drehbank** is switched on all 3 L.E.D.s light up and stay lit for about 5 seconds. In this time the data from the non-volatile memory (EEPROM) is transferred to the work buffer (RAM, volatile memory) of the unit. When this is completed the L.E.D.s switch off and the L.E.D. that indicates bank 1 lights up, as bank 1 is then active. If this does not happen then either the power input is not correctly connected to the **Drehbank** or it's possible that the plug or the **Drehbank** has a defect.

#### Bank indicators

The indicators show which bank is active:

- L.E.D lit over Bank 1 (Bank 2 off) indicates **BANK 1 is active**.
- L.E.D lit over Bank 2 (Bank 1 off) indicates **BANK 2 is active**.

## Snapshot Mode

Once the snapshot switch has been pressed the L.E.D. above it blinks rapidly. By pressing the switch once again within a second a „Snapshot“ will be sent and this is indicated by the L.E.D staying lit (again for about a second). After this the L.E.D.s returns to bank indicator mode.

## Midi events Indicator

Under normal operating the L.E.D. which indicates the Snapshot mode is switched off. For that reason this L.E.D. ( top ) is also used to indicate **Midi events**.

The L.E.D. flashes for every activity on the Midi bus (both Midi In, and Midi Out).

Midi events are normally performed very quickly and therefore the flashing of the L.E.D. is hardly noticeable. Turn a controller and watch the glow of the L.E.D.

The indicator also shows if a control knob is sending an event. Also you can see, if the **Drehbank** is receiving Midi data.(e.g.the receiving of information from the editor program.)

## **Switches (5)**

On the left of the unit you`ll find 3 black switches with the following functions:

### Recalling the original settings/ Rom presets

As you will see the **Drehbank** unit has no ON button/switch. To activate the ROM presets you must press a switch at the same time as you plug the power In (see the README.TXT file).

The indicator above the pressed switch will not light up, but instead the other two indicators will flash.

E.g., when turning the unit on you press switch 1 (the top switch), to select ROM preset 1.

The L.E.D. above that switch will not light up, but the other 2 L.E.D.s will light up. This inverted indication system also goes for the recalling of the other presets.

This means that the **Drehbank** at that moment loads the ROM preset and will wait until you release the switch.

After this the **Drehbank** returns to normal operation mode and switches to bank 1, the L.E.D.s are now also in normal operation mode.

Now the **Drehbank** is ready to *ROCK*. ☺

The recalling of the ROM presets has no effect on the nonvolatile memory (EEPROM). The preset that you loaded from the editor software into the nonvolatile memory still exists. To activate it again you must turn the unit off and on again.

### Switching between the 2 banks

For each bank there is one switch and one L.E.D. indicator.

Simply select a bank by pressing either of the bank switches on the **Drehbank**. The **Drehbank** will then activate the selected bank, which is indicated by the flashing of the L.E.D. above the pressed switch.

### Creating and sending a Snapshot

To create a Snapshot you must first press the top switch (labelled snap). When the switch is pressed for about a second the L.E.D. (that is otherwise inactive except for Midi activities) blinks rapidly. Press the switch again within a second and a **Snapshot** will be sent, indicated

by a long flash of the L.E.D. This flash is important, because if you trigger a **Snapshot** accidentally ( or at the wrong time) you could overload the Midi connection. Once the **Snapshot** has been sent the **Drehbank** returns to bank indicator mode.

### Important

If you change your mind and don't want to send a Snapshot (or if you go into the mode by accident) just wait until the L.E.D. stops blinking, (after one second)

### Remember

A Snapshot sends the controller values of all 64 knobs from the active bank.

## External control inputs (6)

If you have a unit fitted with the optional external control inputs, you will find the 8 external inputs at the rear of the unit (labelled **external inputs**)

The 8 external inputs are assigned to the following control knobs;

External input (at rear, left to right)	Control knob on front panel	Default settings
1	31	Control voltage
2	15	Control voltage
3	47	Control voltage
4	63	Control voltage
5	32	Foot controller
6	48	Foot controller
7	16	Foot controller
8	64	Foot controller

## Non volatile memory / presets

When you turn on the **Drehbank** without going into the editor program you'll find several complete presets already available.

These are:

- **The Fixed ROM Presets**, which are found on the EPROM, with the operation software of the **Drehbank**, but this can only be altered by updating the EPROM.

### Note:

The layout of ROM preset 1 is printed in the appendix. Information on ROM presets 2, 3, and 4 is found in the README.TXT file. (on the CD)

- **The Changeable non-volatile EEPROM Preset**. This preset is located in the internal non-volatile memory (EEPROM) and will under normal operating conditions be loaded into the work buffer (RAM).

## Software Drehbank Editor

On the CD you will find some editor programs for the **Drehbank**:

### ***Installationshinweise:***

Informations about the programs you will get on the CD in the respective heading which you can reach over the list of contents in 'Start.html'.

For that simply double-click the intall-file in your browser.

Then you could install the program direct form the browser or make a copy on your hard disc an start the file form your hard disc.

The installation will then suggest you a default path '\programme\doepfer\drehbank\V1\_1' or for the SoundDiver '\programme\emagic\doepfer\soundDiverOEM', where to copy the program and data files. This default path you can change if you want.

### ***Windows PC Editor Programm***

Once you've installed the application you'll find a file titled **Drehbank.EXE** in the directory you have chosen.

You can also create a link on the desktop for quicker access to the editor application. To start the program simply doubleclick on the **Drehbank.EXE** file.

### **System requirements**

The **Drehbank** Editor is a Windows application which requires the following system

- IBM compatible PC .
- CPU > 90 Mhz (recommended)
- > 8 Megabyte RAM (recommended)
- > 2 Megabytes of free space on the hard drive/disc.
- Windows 3.x, Windows 9x, or Windows NT.
- VGA Monitor with a resolution of at least 640x480.
- MIDI Interface (e.g. soundcard with MIDI Interface).
- Multimedia Midi cable to connect the **Drehbank**.
- 3.5" floppy drive or InterNet connection.
- **Drehbank**.

The editor program also works without a **Drehbank**, because the program needs no feedback from the **Drehbank**.

Warning:

Before you install the editor program (**Please**) read the README.TXT(help) file.

### ***Emagic SoundDiver Doepfer OEM-Version***

The CD contains an Adpation and an OEM-version of the Emagic SoundDiver (With this OEM version you could only use Doepfer Adaptions).

This could be very interesting alongside an existing **Drehbank** editor as those of you who work with the SoundDiver won't have to switch to a new editor program. Above all it gives Macintosh users the possibility to edit their **Drehbank** without having to buy a P.C. ☺

# Doepfer

## Musikelektronik

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