

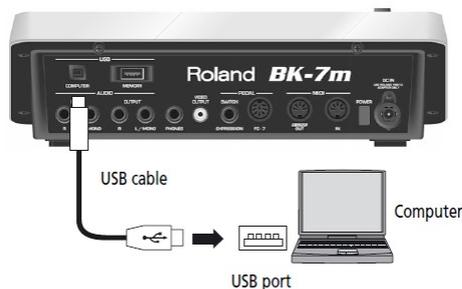
Settings required in the MIDI Set of the BK-7m for the communication with GERD



The BK-7m must be prepared to communicate with the PC via MIDI/USB. Obviously you have to connect the BK-7m to the PC. This can be done either with an USB cable or with two MIDI cables for MIDI IN and MIDI OUT (MIDI cables require additionally a MIDI-USB-Interface at your PC). Both approaches provide the identical functionality.

Comment: If you use the USB cable to connect the BK to the PC, the MIDI ports of the BK can be used to connect further MIDI controllers (e.g. keyboard, organ, accordion, etc.) to the BK.

Connection via USB

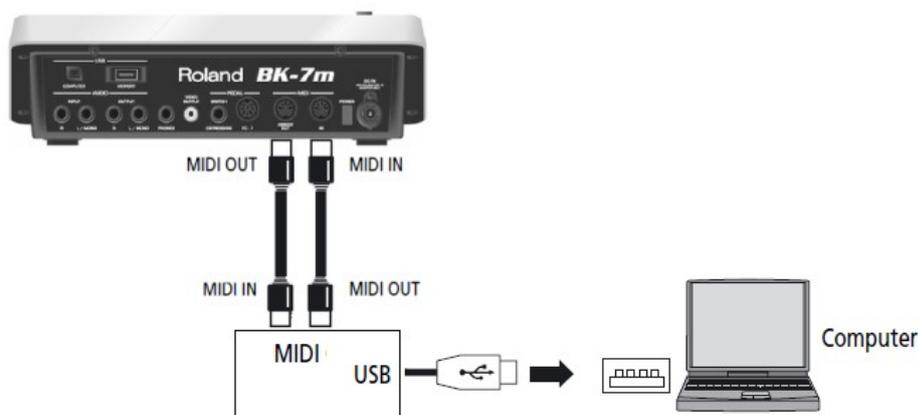


If you connect your BK via USB to the PC, please make sure that you have installed the latest "Arranger Driver" from Roland for your Windows operating system.

These drivers are provided by Roland for download in the support/download areas of Roland's websites and they are included in the installation package of **GERD**.

If you have problems to find the appropriate driver on the websites of Roland, please contact **GESINI**'s support team.

Connection via MIDI cables and MIDI/USB interface



1. Mandatory Requirements for the work with GESINI

1.1. OS Version of the BK

The Operating System (OS) of the BK must be V1.07. If you are using a former version of the OS, please upgrade your BK to V1.07. Further information on how to check the version of the OS and on how to upgrade the OS can be found in the Owner's Manual of the BK. This manual is provided by Roland for each BK.

1.2. Version of GERD

If you start GERD and go to the menu "Help" and select the item "About ..." you will see a dialog. This dialog informs you about the version of GERD you are using.

If the user name shown in the "About" is "Free Demo User", you are using a free demo version of GERD with **disabled** USB/MIDI communication. This version can be used to see the workflow, the dialogs, the options, the displays, etc. - but it cannot communicate with the BK.

1.3. Roland's Arranger Drivers for Windows

If you connect your BK via MIDI to your PC, you must install the appropriate drivers for Windows to enable the communication via USB between the PC and the BK. Roland offers on the website <http://www.roland.com> (or on any other local website), the 32 and 64 bit "Arranger Drivers" for Windows 7, 8, 8.1, and 10. Please make sure you installed the latest driver for your operating system successfully. If the drivers are not installed, GERD will ask you to install them during the installation of GERD.

2. Possible Problems with the Communication between BK and PC

2.1. General

If the BK was switched on some time ago, it might be in an operation mode not suitable for the communication with a PC. Therefore we recommend the following procedure to initialize the communication between PC and BK:

1. Start the PC and the controller keyboard.
2. Wait till the controller keyboard has booted.
3. Switch on the BK. Very short after the BK booted successfully, press some keys at the controller keyboard to send some MIDI messages to the BK.
4. If the BK receives MIDI messages during the first seconds/minutes after it booted, the BK starts the 'Connection Wizard'.
5. Do **not** select anything at the BK during the countdown for the 'Connection Wizard' (you can play keys on the controller if you want but do not touch the BK or press any button on the BK)
6. After the countdown for the 'Connection Wizard' is completed (and no wizard mode was selected), the BK should be able to communicate with the PC and the controller without any problems (e.g. if your MIDI channel for UP1 is set to 4, you should be able to play notes on the BK if your controller transmits on MIDI channel 4, etc.).

2.2. 'Connection Wizard' of the BK

The BK-7m offers a 'Connection Wizard'. For the first tests of GERD we recommend to ignore this wizard. Because if you select an operating mode with this wizard, some settings are made automatically which cannot be changed later in the menu of the BK. If everything with the MIDI communication between the BK and GERD is working well, you can use the 'Connection Wizard' as before.

Comment: As GERD controls the BK from "outside", GERD is only able to control the parameter accessible via MIDI from "outside". And the 'Connection Wizard' closes some doors for external controlling. And these doors cannot be re-opened easily. Because of that we recommend to make the first tests without the 'Connection Wizard'.

Save the settings in a "MIDI Set" in the BK (instead of using the 'Wizard')

All parameters described on the following pages can be saved in a "MIDI Set". If you do not know how to save a "MIDI Set" please use the Owner's Manual and read the instructions related to the "MIDI Sets".

With "MIDI Sets" you could avoid the 'Connection Wizard' and you can define different sets for different applications and operation modes of GERD (See next pages).

If you saved your settings in a "MIDI Set", you can easily recall the settings each time you start your BK.

The more you allow in the BK to be controlled from external, the greater your benefit when working with GERD. We will describe what you can configure to get the max. flexibility to externally control the BK.

If you do not want all these parameters to be controlled from an external software tool, you can obviously disable whatever you want. But for the initial work and test of GERD, we recommend to enable all options. Because then you will see, what GERD is actually able to do.

2.3. MIDI Settings required in the BK to work with GERD

Please make the following adjustments in the MIDI settings of the BK (as already mentioned on the previous page, you can save these settings in a separate "MIDI Set". Further information related to the MIDI sets can be found in the operation manual of the BK series).

(A) **Disable MIDI Thru if you do not need it**

In the menu of the BK, the musician can disable "MIDI Thru". If you do not need MIDI Thru, you should disable it as it reduces the amount of MIDI data sent from the BK to the PC.

Example: If you use Aftertouch on your controller or an expression pedal, this will lead to many MIDI messages received by the BK via its MIDI In port. If "MIDI Thru" is enabled, all these messages are sent via the USB cable to the PC leading to a high processing effort in **GERD**.

If you disable "MIDI Thru", all these messages will not be sent via USB to the PC and **GERD** can focus on the messages really required.

To disable "MIDI Thru" at the front panel of the BK:

- MENU [button on the panel of the BK]
- MIDI
- Edit System
- Parameters
- Soft Thru **Off**

(B) **Access to the different parts**

Tone Parts:

The BK allows in its default settings external access only to the "Tone Parts" UP1, UP2, LWR, and MBS. If you use the BK-7m, you can control these parts with an external controller keyboard. In case you are using a BK-5 or BK-9, you can use the (internal) keyboard to address these parts.

Song Parts:

Especially when working with the BK-7m, it might be useful to have access to more parts. And this is possible for each of the 16 internal parts (called 'Song Parts'):

- MENU [button on the panel of the BK]
- MIDI
- Edit Song Parts
- Rx **On**
- Rx Ch **1** or **2** or



Edit Song Parts	
Part	1
Rx	On
Rx Ch	1
Rx Shift	0

You can assign MIDI Rx Channel 1 to part 1, MIDI Rx Channel 2 to part 2, etc. Now you have access to all 16 internal parts from any external controller.

If you want additionally a feedback from the BK when settings in the BK are changed, you should enable the transmission of the MIDI data for the song parts as well:

- MENU
 - MIDI
 - Edit Song Parts
 - Tx **On**
 - Tx Ch **1** or **2** or

Comment: We recommend to use the same MIDI channel for Tx and Rx of a part.

Be careful:

Depending on the channels you assigned to the 'song Parts', some MIDI channels might now be used twice: first for a "Tone Part" (UP1, UP2, LWR, MBS) and second for a "Song Part", e.g. you may assign MIDI Channel 4 to UP1 and to 'Song Part' 4. This will lead to problems as external MIDI messages received on MIDI Channel 4 will always be processed by both parts (UP1 and 'Song Part 4').

To avoid this please disable the MIDI Rx for the 'Song Parts' with a MIDI Channel also used by the 'Tone Parts'.

Style Parts:

Unfortunately the style parts cannot be fully controlled with an external controller. According to the MIDI Implementation of the BK series, the style parts can only be switched on or off with NRPN MIDI messages. But any further changes of any parameter of these parts (e.g. sounds, volume) are disabled by Roland.

(C) System Settings for full controlling with GERD

Selection of Sounds, Controllers, etc.

- MENU
 - MIDI
 - Edit System
 - Parameters
 - Rx Sysex **On**

It is highly recommended to enable SysEx messages to work with **GERD**.

Controlling the Master Volume with GERD

- MENU
 - MIDI
 - Edit System
 - Basic
 - Rx **On**
 - Master Volume **On**

Selection of the MIDI channels ('Basic' and 'Style')



The 'Basic' and 'Style' Rx channels are required for the controlling of the BK.

They must be defined on the 'Controllers' page of **GERD** (see figure on the left) and they have to be set in the MIDI settings of the BK.

Define the 'Basic' Rx Channel in the BK:

- MENU
- MIDI
- Edit System
- Basic
- Rx Channel **13**

Basic	
Rx	Off
Rx Channel	13
Performance Pc R	On
Master Volume	On

*Channel 13 is the default value of the 'Basic' channel. You can of course use any other MIDI channel if your channel 13 is already used for a different task. But you must select the same MIDI Basic Channel in **GERD** and in the BK-7m.*

Define the 'Style' Rx Channel in the BK:

- MENU
- MIDI
- Edit System
- Style
- Rx Channel **10**

Style	
Rx	On
Rx Channel	11
Style Volume	On
Style Pc Rx	On

*Channel 10 is the default setting of the 'Style' channel. You can of course use any other MIDI channel if your channel 10 is already used for a different task. But you must select the same MIDI Style Channel in **GERD** and in the BK-7m.*

Controlling the Volume of the Style with **GERD**

- MENU
- MIDI
- Edit System
- Style
- Rx **On**
- Style Volume **On**

Style	
Rx	On
Rx Channel	11
Style Volume	On
Style Pc Rx	On

Selection of internal styles of the BK-7m with **GERD**

- MENU
- MIDI
- Edit System
- Style
- Rx **On**
- Style PcRx **On**

Style	
Rx	On
Rx Channel	11
Style Volume	On
Style Pc Rx	On

Selection of Performances on the USB stick with GERD

- MENU
 - MIDI
 - Edit System
 - Basic
 - Rx **On**
 - Tx **On**
 - Performance PcRx **On**
 - Performance PcTx **On**

Basic	
Rx	Off
Rx Channel	13
Performance Pc R	On
Master Volume	On

2.4. Extending the capabilities of the BK with GERD

(A) Playing with Styles

If the BK is played with styles, 8 of the 16 internal parts of the BK are controlled by the style (ADrums, ABass, ACC 1, ACC 2, ACC 3, ACC 4, ACC 5, ACC 6) and cannot be controlled from the external world. But the 8 remaining internal 'Song Parts' (parts 4, 6, 11, 12, 13, 14, 15, and 16) and the 4 'Tone Parts' (UP1, UP2, LWR, MBS) can be controlled via GERD. With GERD the musician can now address, control, and play 8 + 4 = 12 parts of the BK during a live session! This allows various splits and layer sounds and increases the potential of the BK significantly.

Comment: As 16 MIDI channels are available, the unique assignment of channels to parts is possible and no MIDI channel must be used for two parts simultaneously.

Further information for **experienced** BK, MIDI, and GERD users: GERD controls the parts of the BK either with MIDI Control Changes or with MIDI Sys-Ex messages. It is recommended to use Sys-Ex messages to control two parts sharing the same MIDI channel. With CC messages both parts using the same MIDI channel will process the same messages while with Sys-Ex messages the two parts can be controlled individually.

The 2 figures show how the control mode can be changed:



MIDI control of Part UP1:
SE = Sys-Ex



MIDI control of "Song Part 4":
CC = Control Changes

3. Operation Modes of GERD and BK

GERD offers the following operation modes:

- Live Play with Styles
Traditional arranger keyboard, played with styles
- Live Play with SMF (MIDI Files)
Playing a keyboard with MIDI Files instead of playing with styles
- Song Edit
Edit and adapt Standard MIDI Files (Format 0 and 1). Substitute patches, modify effect settings, etc.
- Style Edit
Edit and adapt styles (Roland style format). Substitute patches, modify effect settings, etc.
A sub mode to play the styles in the BK and to control them with GERD is available. As this sub mode requires some additional If you are interested in this sub mode, there is a dedicated application note available for this sub mode. Please download the application note from the download area at <http://www.gesini.com>.
- Sound Expander Module (Multi Timbral Sound Expander)
Play 16 parts via MIDI from an external controller, song player, etc.

