

**KURZWEIL®**

**German D Grand EXP**  
Expansion Board for the PC3K  
Installation Instructions

# Kurzweil International Contacts

Contact the nearest Kurzweil office listed below to locate your local Kurzweil representative.

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[www.youngchang.com](http://www.youngchang.com)

Official distributors in other countries are listed on the web site, shown below.



[www.kurzweil.com](http://www.kurzweil.com)



[support@kurzweil.com](mailto:support@kurzweil.com)



[www.facebook.com/kurzweilmusicsystems/](http://www.facebook.com/kurzweilmusicsystems/)



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[www.youtube.com/user/KurzweilTutorials](http://www.youtube.com/user/KurzweilTutorials)

## Introduction

Congratulations on purchasing the German D Grand EXP expansion kit. This guide explains how to install the hardware (one small circuit board) and software (operating system and Kurzweil soundware objects) that constitute the expansion kit.

Please read all of the introductory information in this document (through Setting up Hardware, to page 5) before proceeding with the installation. When you've finished the introductory material, follow the instructions for Hardware Installation.

## Contents of the Kit

In addition to this installation guide, your German D Grand EXP kit should contain the following items:

- Expansion board (dual inline memory module, or DIMM)
- deoxIT<sup>®</sup> swab for cleaning the contacts of the circuit board

## Safety Precautions

To prevent risk of electrocution, make sure that your instrument is disconnected from its power supply before you begin disassembly.

Static electricity, even in small amounts, can cause damage to electronic components (especially memory). Before disassembling your instrument, touch a conductive metal surface to discharge any static electricity that you may have built up.

## Save Your Data!

After upgrading your instrument's software, you'll need to perform a hard reset. This deletes all your user-defined objects (programs, setups, effects), and completely reinitializes the instrument. Be sure to back up your instrument's memory before you begin the installation. You will need a USB thumb drive for this purpose.

## Storing and Replacing Your Flash Memory Board

Installing the German D Grand EXP requires removing the original 128 Mb PC3K flash memory board that shipped with your instrument. You will not be able to use user sample data while the German D Grand EXP is installed. After removing the original flash memory board, keep it safe from damage and static by storing it in the bag and box that your German D Grand EXP came in. If in the future you want to load user samples, you can remove the German D Grand EXP and replace it with the original 128 Mb PC3K flash memory board. To re-install the original flash memory board, follow these instructions but use the flash memory board in place of the German D Grand EXP board. The latest PC3K software must be installed from [kurzweil.com](http://kurzweil.com).

Use caution, if the boards are replaced frequently there is risk of wearing out the slot connections and they may become unreliable or not function at all. If you encounter problems when installing a board that has not been recently used, you may need to apply additional deoxIT to the contacts. You may need to purchase additional deoxIT if the included swab has dried out.

## Preparing for Hardware Installation

### Tools and Materials Required

#### Software Upgrade

**IMPORTANT:** before you can install the hardware components of your expansion kit, you must upgrade your instrument's operating system software, and its soundware objects (program and setup information). See *Upgrading Your Software* below for upgrade instructions.

#### Hardware Installation

- #2 (small) cross-recess (Phillips head) screwdriver
- Two thick foam pads (to protect your instrument)

You'll need a flat work area large enough to accommodate the disassembled instrument. Most tabletops will work. Please be sure to use a surface wide enough to support your instrument from the ends. The foam pads will prevent damage to the keys and the components on the front panel.

### Upgrading Your Software

Before installing any hardware, you must upgrade your instrument's software and test it to make sure it's working correctly. The software upgrades are available at the following location on the Kurzweil website:

<http://kurzweil.com/downloads>

Click on the link that corresponds to your instrument. Scroll up or down until you find the link for the latest software version. Click on the link to download your new software.

Each link downloads a compressed file that expands to a set of files including the software upgrade files, and instructions for installing the upgrades. The compressed file may expand automatically when you download it. If it doesn't, you can use an application like ZipIt or WinZip to expand the file.

When you've completed the software upgrade, proceed to the hardware installation, starting with the preparations in the following section.

### Setting up Hardware

#### Removing the Access Panel

1. Make sure your instrument is disconnected from its power supply, and that you've disconnected all other cables from the rear panel. Also be sure to discharge any residual static electricity by touching a conductive metal object (like the keyboard casing).

2. Position the foam pads on your work surface so that they'll support the ends of the keyboard. The Styrofoam pads from the original instrument packaging are useful for this purpose.
3. Place your instrument face-down on the foam pads, with the keyboard facing away from you, and the back of the instrument closer to you. Make sure that it's not resting on the Alpha Wheel or sliders.
4. Using a #2 (small) Phillips screwdriver, remove the seven screws that secure the access panel, as shown in Figure 1. Place the screws in a small container or dish so as not to lose one.

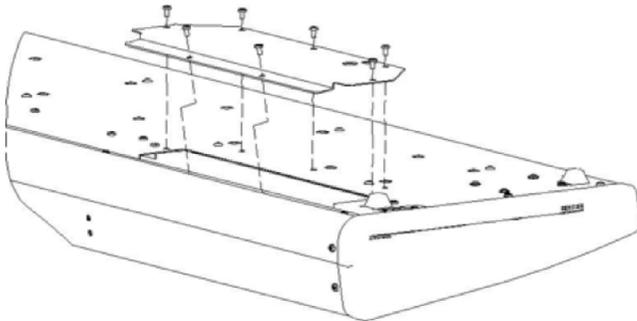


Figure 1.

## Deoxidizing the Contacts

During shipping and storage, the gold contacts on the circuit board may have become oxidized, which can prevent proper operation. To ensure the best performance, your expansion kit includes a small swab impregnated with deoxIT. Use the deoxIT to clean the contacts, as shown in Figure 2.

Be careful not to touch the contacts with your bare fingers; this will cause further oxidation.

You may want to use a plastic glove to make sure the contacts stay clean, and to avoid getting deoxIT on your hands.

Once you've deoxidized the contacts, you're ready to install the expansion board. We recommend saving the deoxIT cloth in its plastic bag, in case you need to clean the contacts again.



Figure 2.

## Hardware Installation

### 1 - IDENTIFY THE CORRECT EXPANSION SLOT

Looking into the access port from the rear of the instrument, you will see either one or two expansion boards. Bank 1 will be the circuit board slot closest to the rear, containing the original 128 Mb PC3K flash memory board that shipped with your instrument.

Bank 0 may be empty, or may contain a KORE64 upgrade board installed previously.

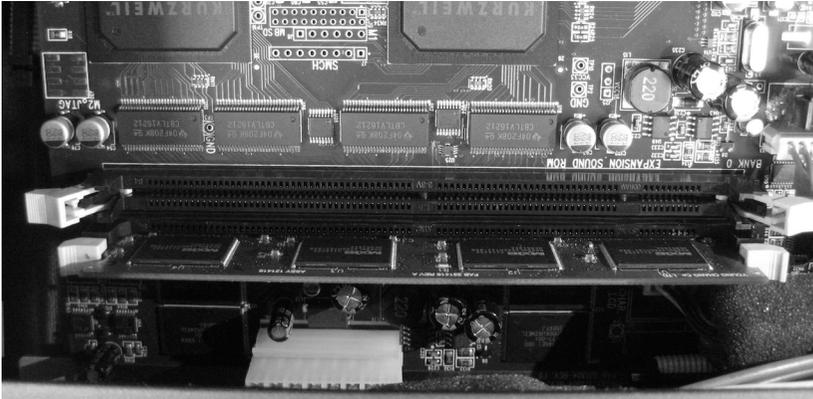


Figure 3: Bank 1 with original memory board only

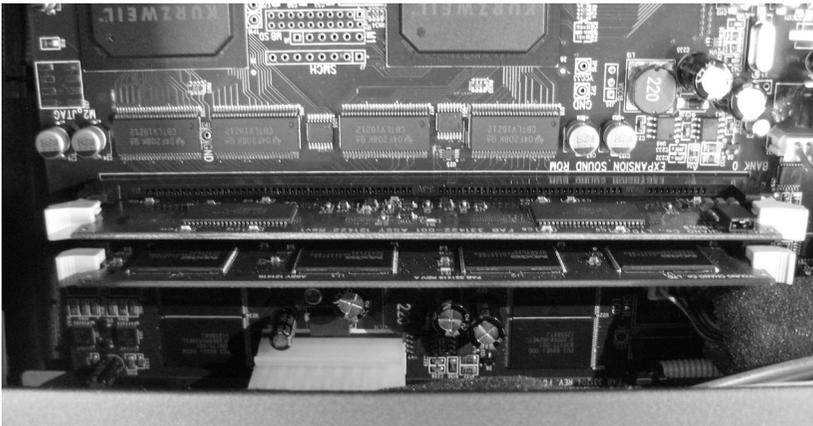


Figure 4: Both banks with boards installed

### 2 - REMOVE THE ORIGINAL MEMORY BOARD

Release the original 128Mb card, using your thumbs to press down on the white tabs on either side of the board in Bank 1. You may have to apply firm pressure on the tabs.

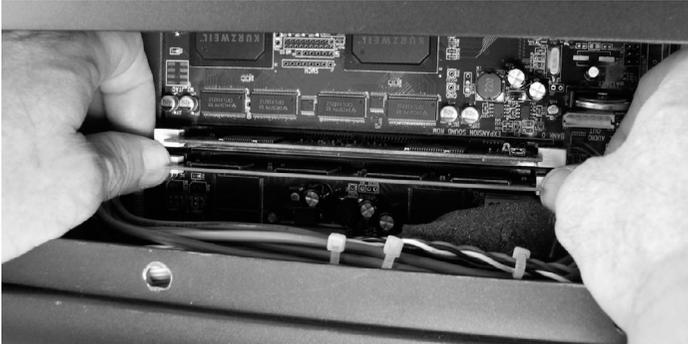


Figure 5: Removing board from Bank 1, with KORE64 in Bank 0

Safely store the removed 128Mb flash memory board (see Storing and Replacing Your Flash Memory Board on page 1). Once this board is removed, one or both banks will be empty. Be sure you install your German D Grand EXP in the correct location (Bank 1).

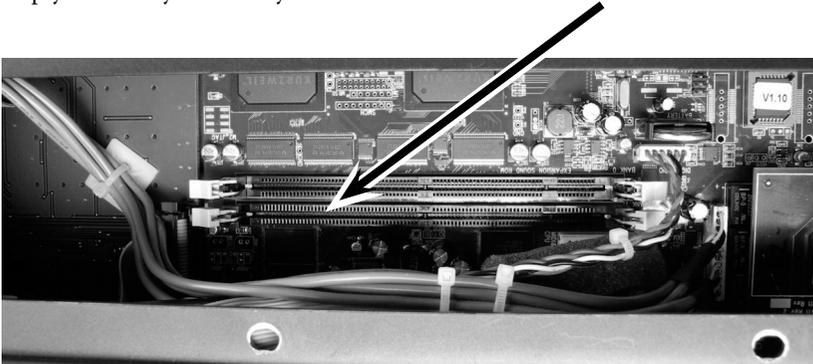


Figure 6: Both banks shown empty -- German D Grand EXP goes in Bank 1

### 3 - INSTALL YOUR German D Grand EXP

Grasp the expansion board at the top and center, with the chips facing away from you (towards the front of the instrument). The contacts should be at the bottom. Note the notches at the bottom and center of the expansion board. These notches help you align the expansion board in the slot on the main board.

## Verifying the Installation

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Holding the expansion board in a vertical position, insert it into the Bank 1, aligning the notches with the partitions in the socket.

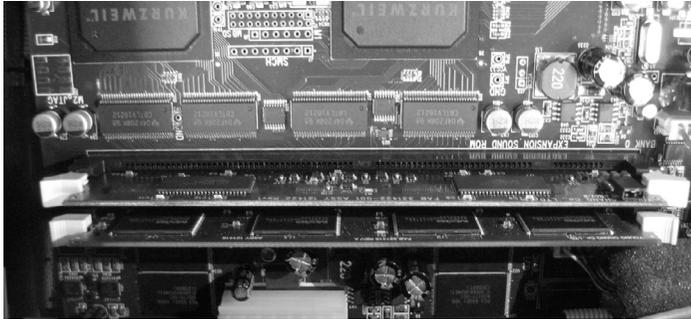


Figure 7: German D Grand EXP installed in Bank 1; KORE64 in Bank 0

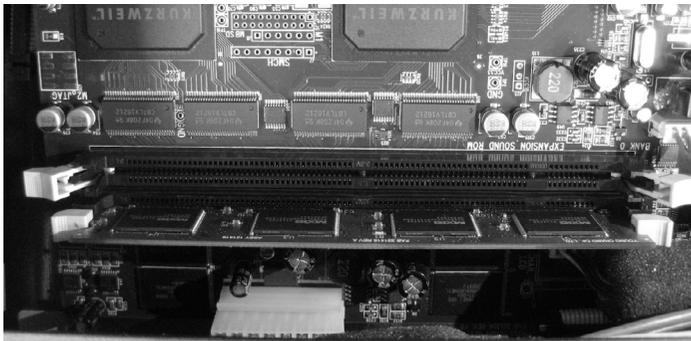


Figure 8: German D Grand EXP installed with no KORE64

Using your fingers on the top edge, press the board firmly into the slot, making sure to apply the pressure vertically to avoid putting stress on the expansion board or the slot. Then squeeze the two hinged clips at the ends of the slot until they snap into the closed position. You may need to snap one clip first, then the other.

Replace the access panel, using the screws you set aside. Proceed to the next section, to verify the installation.

## Verifying the Installation

You'll need to run a few diagnostic tests to make sure that your expansion board is properly installed and fully functional.

1. Reconnect the power supply and turn your instrument on.
2. Press the MASTER button to enter Master mode.

3. Press SOFT Button 6 (“more” at the left of display) three times until you see the following page, which includes the EXPAND option.

```

MasterMode:MAIN          Memory available:99%
Tune      :Oct
Transpose:0ST           MasterLock: Off
FX Mode   :Performance  DemoButton: On
DrumRemap:None         Buttons   : Off
Id Entry  :Global       Display   : Lyr/Zone
SetupCtls:Instant      SafeMode  : Off
                                QACategory: Favorite
more MEMORY EXPAND PRVIEW JOIN more

```

4. Use SOFT Button 3 to select the EXPAND option. You should see the following page. If so, proceed to step 5. (Note: the diagnostic program refers to Slots, even though the main circuit board uses the term Bank. These terms mean the same thing.) If so, proceed to step 5.

```

MasterMode:EXPANSION
Slot 0 : ROM Expansion 1 installed.
Slot 1 : ROM Expansion 2 installed.

TEST                               Done

```

If the PC3K's display shows Empty DIMM slot for Bank 1, you may not have installed the expansion board properly. Turn off your instrument, disconnect the power supply, and repeat the instructions in Hardware Installation.

If you have properly installed the board in Bank 1, but you still see Empty DIMM slot for Bank 1, there may be a problem with the board itself. See the Diagnostics section below.

5. Use the UP/DOWN arrow keys to select Bank 1. Press SOFT button 1 (TEST) to run the diagnostic. The test should run for about a minute. If the test succeeds, you'll see the following:

```

MasterMode:Message
Test Passed.
Name   : German D Grand EXP
Version: 0.0
Copyright 2011 Young Chang Co. Ltd.

Ok

```

Congratulations! You're ready to start using your German D Grand EXP. If the test fails, it may be for any of the following reasons.

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## DIAGNOSTICS

You may see any of the following results if there's an issue with the expansion board (either poor contact due to improper positioning or oxidation on the contacts, or a malfunction of the board itself).

An error in the address bus gives results like the following (it won't look exactly like this):

```
MasterMode:Message
Address Line error.
Addr bit 3 stuck.
Addr bit 25 stuck.
Ok
```

A data bus error results in a page that looks something like this:

```
MasterMode:Message
Data bus error.
0x0DFFFF80 - expected 0x0001, read 0x00F9
0x0DFFFF82 - expected 0x0002, read 0x00F9
0x0DFFFF84 - expected 0x0004, read 0x00F9
Ok
```

You'll see the following if there's a checksum error, which may indicate a malfunction of the expansion board:

```
MasterMode:Message
Checksum error.
Expected: 0x3DEFAB45 Got: 0x3DE5689A
Ok
```

If you encounter any of these errors, you may be able to correct them by carefully reseating the expansion board in Bank 1. Another application of deoxIT to the contacts may also correct the problem. Both of these procedures may help if you encounter problems after using the German D Grand EXP successfully.

If you're unable to get a successful test after trying all of these procedures, please contact Kurzweil Customer Support. See page ii for contact information.

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# PROGRAM LIST

## GERMAN D GRAND EXP

- 3700 Concert Piano
- 3701 Rock Piano
- 3702 Recital Piano
- 3703 Bright Classical
- 3704 Parlor Piano
- 3705 Jazz Piano
- 3706 Stadium Pop Pno
- 3707 Radio Pop Piano
- 3708 Power Pop Piano
- 3709 Big Rock Piano
- 3710 Upright Piano
- 3711 Blues Piano
- 3712 Classic Rock Pno
- 3713 Modern Rock Pno
- 3714 NOLA Piano
- 3715 Stage Piano
- 3716 R&B Keys
- 3717 Hip Hop Piano
- 3718 EDM Piano
- 3719 Soul Piano
- 3720 Pub Piano
- 3721 Indie Piano
- 3722 Seventies Piano
- 3723 Piano & Pad
- 3724 Piano & Choir
- 3725 Piano & Harp
- 3726 Film Piano
- 3727 Ambient Piano
- 3728 Dark & Distant
- 3729 Delay Piano
- 3730 Mono Piano

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Part Number: 910560-001



