# PA-80
# USB Interface



## Installation and Operating Manual

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Important Notice: Only a qualified service technician should install the USB Interface. We cannot be held responsible or liable for direct or indirect damage caused by incorrect installation of the USB Interface board.

# 1. Installation

Congratulations on having purchased an accessory which, we believe, will change the way you use your keyboard, and will open a new world of creative possibilities and ease of use. We have done our best to produce a reliable product, which will give you many years of satisfaction. We hope you enjoy it.

## 1.1 Installation of the USB Connector

The USB Interface Connector will be installed in the place of the Video Interface, so sorry, it is not possible to install the USB Interface and the Video Interface at the same time.

1. Unsrew the Cover of the Video Interface board and unsrew the Cover of the Hard Disk (See KORG manuals). Now with a little patient put the USB Cable that is connected to the USB Connector board trought the PA-80 so you can tale it in the Hard Disk access.
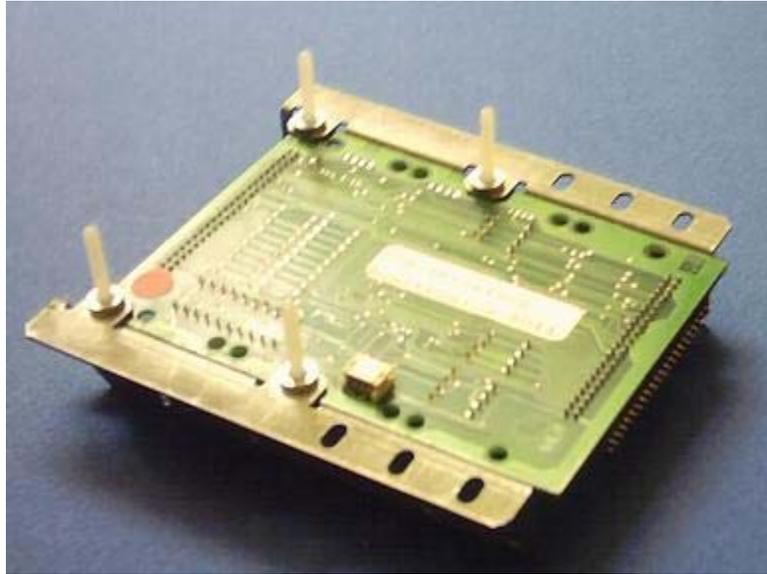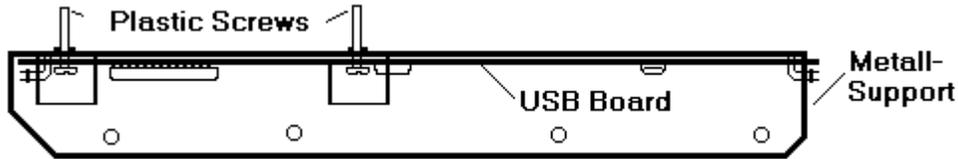
2. Now you can fasten the ground cable on the USB Connector and mount the USB Connector board on the Backside of the PA-80.



## 1.2 Installing the USB Interface Board

Remove the Hard Drive support together with the Hard Drive, unscrew the Hard Drive and the Vocal Harmony Board, too, if you have it.

Fasten the USB Board with the attached 6mm plastic Screws if you <u>not</u> have the Vocal Harmony Board. If you have the Vocal Harmony Board please use the 20mm plastic Screws. (See photo and drawing below)
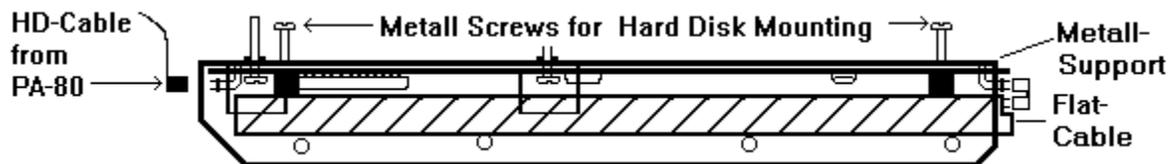
## 1.3 Installing the Hard Drive

Connect the Hard Drive in the short 44pin flat cable connector that is on the USB Board, the side is marked with "HD". Touch the Hard Disk only on the side and don`t press to strong, to avaoid damage on the Hard Drive.
With the 4 added metall screws mount the USB Board and the Hard drive together.
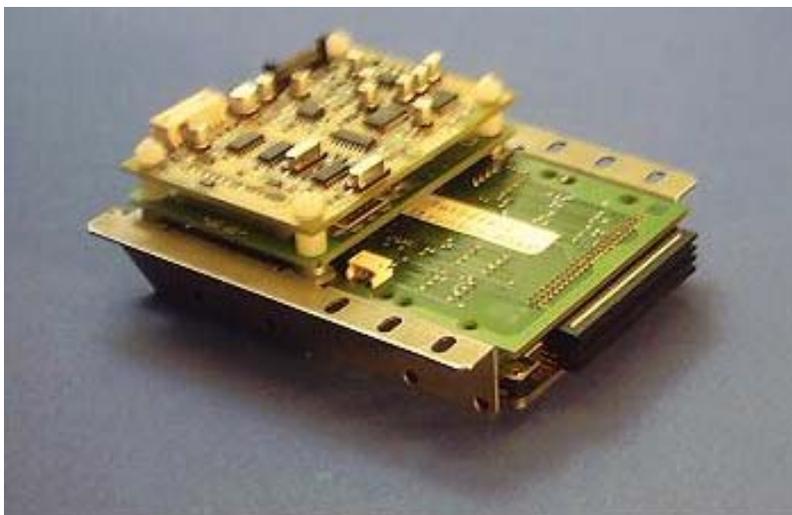
See drawing below:



## 1.4 Installing the Vocal Harmony Board (optional )

If you have the Vocal Harmony board too, put it on the long plastic screws and fasten it with the attached plastic nuts.
See picture next page:

## 1.5 Installing the PA-80

Attach the 44pin flat cable from the PA-80 to the free 44Pin Connector from the USB Board, pin number one of the flat cable is red or black, this side on the USB board is also marked with a red or black sticker.

Insert the 4 Pin Cable from the USB Connector in the small connector on the USB Board, if you have the Vocal Harmony board attach it also like described in the manual for Vocal Harmony Board installation.

Install all into the PA-80, (take care that the USB Board did not toch the silver foil inside the Hard Disk Cover ). Now get started running the USB board:

1.) Switch on the **PA-80**. You should hear the hard disk running. Then check several standard functions, such as DISK , to verify that you have access to the internal hard disk. If not, check all connections again.

2.) Using the standard USB cable included in the kit, and if you are ready to proceed to driver installation, you would now be able to connect a running computer to the PA-80 new USB Interface socket. However, things may be less complicated if you first turn off both the PA-80 and your computer, review instructions, and then proceed to the section "Installation of the Windows Drivers".

## 2. Driver Installation under Windows

### 2.1 Driver Installation under **Windows XP**

Turn on the computer, turn off your **PA-80**, and connect both with the included USB cable.  If you need more length, take the included cable along to your neighbourhood computer store and be sure you purchase a new one with the same plug connections on each end.  Now turn on the keyboard.  Automatic hardware detection and driver installation will begin.  Pop-up windows will appear, such as "New Hardware Found".  Using the Classic View, single left click the "Start" button, hover on  "Settings", single left click "Control Panel", and left double click the "System" folder or icon.  Single left click the "Hardware" tab and single left click "Device Manager".  Single left click on the "+" sign in front of "Disk drives" to expand it, and single right click the drive representing the hard disk installed in your 9000 Pro.  Single right click it, and on the menu which appears, single left click "Properties". Single left click the  "Policies" tab and select this option by single left clicking  the circle: ⊙ Optimize for quick removal .
Click "O.K." and close all open windows.

### 2.2 Driver Installation under **Windows Millenium and Windows 2000**

Windows 2000 and Windows Millenium have the USB-Mass Storage Device Class drivers integrated. These drivers are installed automatically when your USB Interface cable has been connected.

1.)    Switch on the computer, switch off the keyboard and connect both with the USB cable.
2.)    Now turn on the **PA-80**. After awhile, the pop-up message "New Hardware Found – USB Mass Storage Device" appears, then "New Hardware Found – (Your Hard disk) Type USB Device". After this, for each partition of your  **PA-80**, a window appears.
3.)    In the right lower corner of your monitor you will see a symbol 🖭 15:34 in your Task Bar. If you want to uninstall the USB Interface, right single click on the mouse and single left click on "Stop USB disk –Drive (:)".  Click on this message and confirm the message box: "The 'USB Disk :' device can now be safely removed from the system" by left single clicking "OK".
4.)    Now you can switch off the keyboard or disconnect the USB cable.

2.3 Driver Installation under **Windows 98 and Windows 98SE**

Please do not install the USB Interface under any operating system earlier than Windows 98, as we cannot guarantee proper functioning of the product. To begin the installation process, with your **PA-80** turned off, turn on and boot your computer.  Then connect the two, with the supplied USB cable.

1.) Turn on the **PA-80**. In a few seconds, the following message appears: "New hardware found – Musitronics USB Interface".  Click "Next".

2.) Insert the 3.5" Driver Disk in the floppy drive of your computer.  In the window which appears, select "Search for the best driver for your device. (Recommended)" and click "Next".

3.) Check the box "Floppy disk drives" and again click "Next".

4.) The display shows "Windows driver file search for the device:
- Musitronics **PA-80** USB Interface", and then "Windows is now ready to install the best driver for this device.  Location of driver: A:\MTUSBINT.INF". Click "Next".

5.) Now click "Finish".   After a short time, the designation of your keyboard's installed hard disk is displayed in a window. Something similar to the following message appears: "This wizard can search for a new driver for (your hard disk type and USB device)".  Click "Next".

6.) Again, select "Search for the best driver for your device. (Recommended)."  Click "Next".

7.) Check only the box "Floppy disk drives" and again click "Next".

8.) The display shows: "Windows driver file search for the device:
- Musitronics USB Storage Device - Windows is now ready to install the best driver for this device.   Location of driver: A:\MTNTMAP.INF". Click "Next".

9.) After a few seconds, for each partition on your **PA-80** installed hard drive, a new drive letter appears on the computer's screen.

2.4 Installation under **MAC OS X and MAC OS 9.2**

Please use the following procedure for a new installation under the **MAC OS X** operating system:

1.) Turn off your **PA-80** and turn on your Macintosh computer.  Then connect both devices with the included USB Cable.

2.) Turn on the **PA-80**.  After a few seconds, for each partition  on your **PA-80** installed hard disk, a new drive letter appears on the computer's screen.

## 3. Operating the KORG PA-80 USB Interface

**Please install the latest Upgrade version 3.05 to use the USB Interface. This version is optimized for USB Interface use.**

**Important Notice: Musitronics can not be held responsible or liable for any data loss that is caused by use of the USB Interface**

**Do not disconnect the USB cable if a USB transmission is in progress, or else you may loose data!**

**It is not possible for a PC and the PA-80 to simultaneously access the keyboard's hard disk. Before you change from PC to keyboard or the other way around, wait until any data transmission is complete. This may be determined on the computer's monitor screen, or by observing the PA-80 "Write" light; when it is not flashing, it is O.K. to access the disk.**

Refresh the Computer Display

If you have stored data from the **PA-80** on the **PA-80** hard disk drive, the new content is displayed after you selected View/Refresh.

Refresh the PA-80 Displays

After you have transferred data from the PC to the **PA-80**, you must press the "DISK" switch of PA-80 to get the display upgrated (Version 3.05), KORG will maker an Update for automaticall refresh in the future.

## 4. Applications

Backup of your **PA-80** Partitions on a Computer

Create a new folder on your PC, such as "**PA-80 Backup**".  Select and expand the assigned drive letter of the **PA-80** partition which you want to backup. Now choose "Edit", select "All", Then "Edit", "Copy", and right click on your new folder.  Select "Edit" and "Paste".  Backup of the entire **PA-80** internal hard drive begins.  This may take a few minutes, depending upon how much information it contains.  If you have a CD Writer, you can similarly make a backup directly onto a blank CD.

Working with files on the hard disk

With the USB Interface, you can easy transfer data between your PC and your keyboard and visa versa. You can Copy, Rename, Delete and sort files from your computer onto your **PA-80**'s hard disk.  From your computer's keyboard, using its monitor and familiar software, you have virtually complete file management control over the **PA-80's** hard disk.   Slow, tedious, and confusing **PA-80** proprietary software procedures are circumvented.

Directly download MIDI music, styles, and data from the Internet to your **PA-80** Hard Disk

It's easy with the USB Interface!  After you select a MIDI file or a sample from the Internet, right click on your mouse button and select "Save Target as".  Now directly select the appropriate **PA-80** hard disk partition and its desired target folder. By saving it to that target folder, it is possible to save a MIDI song directly from Rio De Janeiro to your **PA-80** Pro's hard disk for replay anytime.  In fact, you may download an entire directory of songs to the **PA-80's** hard disk in seconds.  There are no more floppy or ZIP disks to insert and remove, no more proprietary software to navigate, and no more endless confusion and uncertainty.

Data exchange between two or more **PA-80s**

Do you want quick and easy data exchange among your musical colleagues? No problem.  You can simultaneously network up to 10 keyboards via one computer, using that computer's keyboard and monitor to quickly and effortlessly transfer files directly from one **PA-80's** directory structure to that of another.

Working with Sequencers

With the USB interface, you can directly edit a MIDI file or a sample created and stored on the **PA-80's** hard disk. Load the MIDI file or sample into the computer's editing program.  After you have made changes, save the modified MIDI file or sample back to the **PA-80's** hard drive, in its original location or another (if you want to preserve the original file).  Run the MIDI file on the **PA-80's** Song Player and listen to your result.

Use commercially available editing applications

There are various programs on the market, such as "Registration Edit" and "Musical Data Base Edit", with which you can directly access and edit the MDB/REG/STYLES data stored on your **PA-80** hard disk.  Without the USB Interface, the process would be much more tedious and complex.

Transfer the content of a Sample CD

Save yourself the cost of an expensive SCSI CD-ROM drive. Use the ordinary CD-ROM drive of your Computer to directly transfer .WAV samples from a CD to the folder of your choice on the **PA-80's** hard drive, via your computer's monitor and keyboard.

Defragment a partition ; Make a Compressed Backup:

With full disk management capability, you can shorten access time to your PSR-9000's hard disk files by periodically defragmenting the drive, via your computer. Simply select the desired partition, right click it, and select the "Tools" tab.  Click the "Defragment Now" button. On the same tab, you can check the partition or make a compressed backup.

Searching files

Using the search function of the Windows "Start" menu, it is easy to locate any file on the PSR-9000's hard disk, or to search for a certain category of file, such as all MIDI files (i.e., *.mid), or all samples, or all styles.

The possibilities are really endless.  We haven't begun to tell you about all the new things you will discover that you can do with your **PA-80's** new USB Interface.  For the first time, it will truly become a "work station", even with a direct connection to the world-wide Internet, via your computer!  You will wonder how you got along without it.  Have fun, as we are sure you will.

## Technical Data

USB 1.1 Mass Storage Device Class compatible
Speed: Read – 1000 Kbytes/sec   Write - 1000 Sec/sec