First help

How to get help in the event of a problem:

If your HD-AE5000 doesn't work properly, please follow the 3 steps below:

1. First read our trouble shouting and help information's on page 26.

2. If you cannot find a solution please ask your dealer or authorised service/installation centre. All dealers and authorised service/installation centres are informed regularly of the latest help information and solutions.

3. In the event that your dealer or authorised service/ installation centre cannot solve your problem please contact us directly:

KEY SOFT SERVICE Switzerland

Tel./Fax	+41-41-922 03 14
Fax	+41-41-922 03 15
CompuServe	100305,2231
e-mail:	keysoftservice@bluewin.ch

To assist us in helping you when you phone please have the following information ready:

w *Serial no. of HD-AE5000 and KN5000*

w *HD/Soft Parameter*

Please understand that we are only able to answer questions about the HD-AE5000. Your Technics dealer will help you with all of your specific KN5000 questions.

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Table of Contents

Introduction - About this manual

w Overview

HD-AE5000 is a professional hard disk, audio and data output extension which is integrated into the main operating system of Technics KN5000. HD-AE5000 follows the same operation procedures as other features on the KN5000.

You will very quickly be able to operate all of the functions of HD-AE5000, but despite the ease of use of the HD-AE5000, please don't be tempted not to read the manual! A hard disk drive is a precision piece of equipment and needs special care and attention.

❖ *Therefore, we strongly recommend that you read this manual*.

HD-AE5000 uses a very safe data handling system, including head parking and motor off during play and data verifying during data write). In addition, the HD-AE5000 offers highly advanced shock resistance and reliability. Nevertheless, we strongly recommend that you make monthly backup's of your valuable data. Every procedure is explained in this manual, including considerations about your own HD structure and HD handling practices. Appendix pages 25 and 26 have further details about this.

w About this manual:

The HD-AE5000 owner's manual is a supplement to the Technics SX-KN5000 manual. You will find a menu guide for all functions similar to those in the main KN5000 manual. Additionally, special comments and notes in this manual highlight important features.

w *Technical description:*

All data loaded from floppy disk to the internal RAM, and all data combinations made on the KN5000 can be stored on HD-AE5000 hard disk drive. You can select with the load/save option which parts of a file are saved. When you turn the power ON the new HD-AE5000 start-up display, followed by the regular Technics standard display appears. HD-AE5000 uses this time to check the FAT (File allocation table) and boot sector of the HDD and copy all text information (Directories/ File names and FLS) to the HD-AE5000 SRAM. The Technics KN5000/ HD-AE is ready to play after the start up procedure has completed. To increase data safety every written data block is verified before the data is stored on the HDD. For copyright reasons (MS-DOS) and data read speed the HD-AE5000 uses its own HDD format.

❖ *The HDD does not keep running during play, which means data loading takes a little longer compared to MIDI direct play.*

To make the system open for updates and improvements, the HD-AE5000 uses Flash ROM for the program area. The new bi-directional (EPP/PS2) parallel port speeds up the data transfer between PC and keyboard. All HD-AE5000 functions are handled and controlled by the KN5000 main CPU.

If your service centre transfers data from the previous KN2000/3500 you will find all your songs in the same file location. If you had an SY-HD1, you will find the first 16 files in the same directory. Files 17 to 20 of each directory are transferred to directory 61, 62, 63, etc.

w *Specification:*

The HD-AE5000 option contains:

1. HD-AE5000 extension board, incl. 2.5″ E-IDE hard disk drive

2. HD-AE5000 owners manual and warranty card

3. Demo version of HD-TechManager5000

HD-AE5000

Congratulations on choosing the HD-AE5000 as your hard disk option for the Technics KN5000 and thank you very much for your valued confidence in our latest product. HD-AE5000 (HD=$\underline{H}$ard $\underline{D}$isk, $\underline{A}$=Audio, $\underline{E}$=Extension, 5000= KN5000) offers a huge memory capacity, a very quick loading and all the necessary options which will support your performance.

Button description for HD-AE5000

Most of the HD-AE5000 functions are controlled in the same way as the KN5000's features. The HD-AE5000 operation is very simple, utilising the same Disk button and the soft keys around the KN5000's screen, and as with the KN5000's internal screens the colour highlighting makes operation even simpler.

HD-AE5000 naming

Nomenclature: For clarity here is a list of definitions of abbreviations used in this manual:

HD(D)	Hard disk drive
File	Single or *.ALL load procedure from HDD
Song	Musical description of „file"
Directory	Folder with a max. of 16 files, often DIR named
F.L.S.	File Load Script, user defined list of files with load options

HD-LOAD MODES

Since the load function is the most important thing on stage, the HD-AE5000 is primarily designed to offer fast HDD access and automated operation. Therefore, we start the function explanations with a simple file load.

If your HD-AE5000 is empty (no data transfer from KN2000/3000) you need to save a song first. Please go to the page 13.

"New"   *Entrance to the HDD operation*

Because HD-AE5000 uses the same page's for loading files, saving files and edit functions (see page 13), we have added an dedicated HD-AE5000 icon.

☞   Press the DISK button on the MENU group followed by the HD-AE5000 button on the DISK MENU page.

The HD-AE5000 main page appear.

The right side buttons have direct access to the basic load selection.

The left side functions are reserved for tools and settings.

On the lower part of the display you can see the status of WRITE PROTECTION, WRITE CONFIRM, LOAD BY NUMBER MODE, QUICK LOAD MODE, JUMP AFTER LOAD and free memory capacity of HDD.

SELECT BY NAME

☞ Press the SELECT BY NAME button

HD DIR SELECT

001:BEST "AUF GEHTS"	013:MESSE LUZERN	**OK**
002:MIDI FILES	014:	
003:MIDI JACKSON	015:	
004:MIDI HOUSTON	016:	
005:	017:	
006:	018:	
007:	019:	
008:	020:MISTER MUSIK	
009:	021:TECHNISOFT	
010:TAIYO HITS	022:	
011:SO KLINGT ES II	023:	
012:	024:	

`01-24` `25-48` ◇ `49-72` `73-96` `97-120`

The new HD DIR SELECT page will appear.

For a easier operation in the in low light conditions such as on stage, the OK function is set to both top right buttons.

Use the UP/DOWN button's (or the Program/ Tempo wheel) to select the directory you wish to display.

"New"   Directory search

You can also use the Program/Tempo wheel to change from group (1-24) to group (25-48, 49-72, 73-96, and 97-120) simply by turning the wheel forwards or backwards. Additionally you can use the button's 01-24, 25-48, 49-72, 73-96, or 97-120 to change directly to another group of directories.

☞ Select your desired directory and press OK.

HD FILE SELECT PAGE 1/2

DIRECTORY 01:BEST "AUF GEHTS"   **LOAD**

01:Besame mucho
02:Ziseuner Melodie
03:Rhinstone Cowboy
04:Testfile
05:Santana Hits from Mike
06:Marina "Auf sehts 1" 2000
07:Samba in black
08:Amor, Amor, Amor
09:Arrivederci Clair
10:Adios Amor
11:Black is black
12:Die kleine Kneipe
13:
14:
15:
16:Test file 926kB (RCM incl)

CURRENT PANEL
PANEL MEMORY
SEQUENCER
COMPOSER
SOUND MEMORY
MSP
RHYTHM CUSTOM
USER MIDI

The HD FILE SELECT page will appear.

At the top of the list you will find the directory name. The types of data that can be loaded from the selected file are shown in the file info box. You can press the LOAD button to load all of the indicated data, or you can use the LOAD OPTION (press the page button) to load specific data only. (For example just Panel Memory, Sound Memory or any combination of the available data types).

"New"   *File search*

> *For a faster search method Use the LEFT/RIGHT button to change directory. If you advance beyond file 16 (Using the wheel or UP/DOWN buttons) the next directory will appear and the cursor will jump to file no. 1. With this function you can search from file 1 to file 1920 without directory selection.*

Important: Too much use of the wheel in this way is not recommended, Not only because of mechanical stress on the dial but also because it can take longer.

☞   Select the desired file with the Program/Tempo wheel or by using the ⋀ and ⋁ buttons.

After you have pressed OK, the loading information appears for just 3-5 seconds.

Loading time depense on the file's capacity.

If you just load a small sequencer file loading will take about 2 seconds. If you load the same title as a Performance file it can take about 4-5 seconds.

LOAD BY NUMBER

As many musicians organise their file's based on numbers the HD-AE5000 also offer this kind of file loading.

> ☞ Press LOAD BY NUMBER on the HD-AE5000 main page to change to the number entry page

Load by number offer the same loading options as load by name.

Note, that there is no LOAD OPTION available when you have selected the LOAD BY NUMBER MODE 2 on the SETUP & TOOLS page.

If you accidentally typed 008-11 instead of 008-12, you can also use the ⋏ and ⋎ buttons to find the next file on the same directory.

"New"   *3 & 2 (5) digit number entry*

Use the 10 marked buttons below the display and the HD-AE5000 will automatically find the selected file.
The LOAD BY NUMBER MODE 2 will automatically load the file after receiving the 5th digit.

> ☞ Type a 5 digit number by using the UP/DOWN buttons

The directory/file number and the file name will displayed.

Important: Only a completely 5 digit number will display a file.
For example: 001-01, means first directory/first file.
If you type an empty number, a warning message will be shown.

SELECT FILE LOAD SCRIPT (FLS)

As the memory capacity of the hard disk drive is very big (1920 files), it can become difficult to find a specific file very quick.

Therefore the HD-AE5000 offers a programmable file link table with load options. We call it FILE LOAD SCRIPT because you set it up like a script of file locations. Similarly to the medley play function, you can use AUTO START (AS) and AUTO LOAD (AL) to create a load/play chain.

To set up an F.L.S. right now, jump to the SAVE/EDIT F.L.S. on page 17.

"New"   *File Load Script*

120 sets (24 x 5) of freely programmable load scripts/tables each with 32 file links (16 x 2) and load options are available. During keyboard start-up, the F.L.S. is also copied into the HD-AE5000 static SRAM area to enable reading during play.

☞   Press SELECT FILE LOAD SCRIPT on the HD-AE5000 main page to change to the F.L.S. SELECT page

This page looks and operates in almost the same way as the standard directory select page.

☞   Select the desired F.L.S. and press OK.

The F.L.S. FILE SELECT page shows the name of the script as well as the long file names. After the file name you will find the AS/AL indication.

The location of the selected file is shown in the file option box. Use the PANIC button to cancel the automatic load/play chain.

Use the PANIC button only to cancel the automatic load/play chain.

☞ Press LOAD to start the F.L.S.

If the first song has AS indicated, the sequencer will start playing the music immediately after loading is complete. With AL indicated, the next song will be automatically loaded after sequencer has stopped, or if playback is stopped by the musician. In between the sequence stopping and the next one starting you have 2 second's to interrupt the play/load chain with the PANIC button.

The EXIT button has the same function as the regular KN5000 operation.

Important: On the APPENDIX (Page 25/26) you will find some more practical information to optimise your F.L.S. by using the AL/AS option.

HD-SAVE

The SAVE function on the HD-AE5000 is secured of several reasons:

1. Save functions are mostly used at home when preparing, during performance on stage you normally need LOAD functions only.

To prevent accidental loss of data the SAVE/EDIT buttons are hidden in standard mode

2. Other people cannot delete or overwrite your data.

"New"   *WRITE PROTECTION*

For safety reasons the HDD of the HD-AE5000 system is always write protected when the keyboard is switched ON. This prevents accidental data loss during play and provides LOAD and SAVE functions on the same page. For this reason small corrections can be made simply and quickly.

☞   Press the SETUP & TOOLS button on the HD-AE5000 main page to enter the SETUP & TOOLS page.

You will find more details and explanations about the SETUP & TOOLS on page 20.

☞   Press the WRITE PROTECT button and use the UP/DOWN button to change from ON to OFF.

How to name a directory

You can name the all the directories when the HD-AE5000 is first in-stalled or name a specific directory before you store a song to it.

☞   Press the SELECTION BY NAME button on the HD-AE5000 main page.

HD DIR SELECT

001:BEST "AUF GEHTS"	013:MESSE LUZERN	**OK**
002:MIDI FILES	014:	
003:MIDI JACKSON	015:	
004:MIDI HOUSTON	016:	
005:	017:	
006:	018:	
007:	019:	
008:	020:MISTER MUSIK	
009:	021:TECHNISOFT	
010:TAIVO HITS	022:	
011:SO KLINGT ES II	023:	
012:	024:	**EDIT**

01-24 | 25-48 | ↕ | 49-72 | 73-96 | 97-120

You will find the same DIRECTORY SELECT page as with the load function but with the addition of the EDIT button.

If you press EDIT you will find the familiar NAMING page, which operates in the same way as the standard KN5000 nam-ing page.

You can use all characters, as well as capital and small letters.

"New"   *Directory name can have 16 characters*

Taking advantage of the big screen directories can be named with a maximum of 16 characters. Additionally the LST button offers a small memory with the last 5 naming strings. Please refer also to the APPENDIX on page 25 and 26 for more information.

☞   Press the OK button to save the directory name.

Important: Data is verified for safety during saving, so this operation need a little bit extra time.

Save a song to HDD

To save an existing file which you have stored on floppy disk (what-ever type of file) on the HDD, follow this procedure:

☞ Load a file from FD, then press DISK, HD-AE5000 and SELECT BY NAME, select a named directory and press OK. On the HD FILE SELECT page choose a free space and press SAVE.

You will find the same FILE SELECT page as for the load function but with the addi-tion of a SAVE button.

If you press SAVE you will find also the familiar NAMING page.

"New"   *File name can have 26 characters*

For the file name you can have a maximum of 26 characters. File nam-ing also use the LST button function.

The EDIT FILE NAME page has the OPT function button to select the type of data that you want to save.

☞ Press the OK button on the FILE NAMING page to save the file on the hard disk.

If there is already a file on a chosen location, the ATTENTION mes-sage will warn you that the file will be overwritten if you continue.

Edit a File Load Script

Creating F.L.S. is as quick as writing some notes about the songs your are going to play on a piece of paper. No new display page's ... just name an F.L.S. and select the songs and save it ... that's it.

☞ Press the FILE LOAD SCRIPT button on the HD-AE5000 main page.

If you have selected this page for the first time you will find all the F.L.S's empty. For tips on how to organize an F.L.S. please refer pages 25 and 26.

☞ Out of the 120 F.L.S. select a free place and press the EDIT button.

Write your script name on the standard naming page with a max. of 16 characters.

For example: „Birthday party"

☞ Press OK to enter the name in the list.

EDIT FLS NAME also has the LST button for the last 5 string entries, similar to the edit directory and file naming functions.

After saving your script name to the script list, the F.L.S. FILE SELECT page will appear.

The script name will be shown on the F.L.S. title box, but the rest of the file list box will be empty when you first select it.

This page is also available for load and save/edit functions.

☞   Press the EDIT button.

With the F.L.S. EDIT page you can arrange the file mapping for your „Birthday Party" script.

☞   Press the SEARCH button to change to the HD DIR SE-LECT.

On the F.L.S. DIR SELECT page, you can chose a directory and confirm with the OK button in exactly the same as on the HD DIR SELECT page.

On the F.L.S. FILE SELECT page you select a birthday party song to put in your F.L.S.

☞   Press SELECT to copy the file name and allocation to the F.L.S.

You will find the song name, the location and all available file options on the F.L.S. EDIT page.

For better visual recognition, the song list box on the F.L.S. EDIT page has a silver background.

☞ Use the AS/AL options to create a medley chain.

A Sequencer Song in a file marked A.S. will start automatically after load is completed.

If a file is marked A.L. the next file will load automatically when the song finishes. This function needs a stop mark on the sequencer.

Use INSERT and DELETE to modify the script.
DEL1 = Delete an entry, but keep the place free
DEL2 = Delete an entry and move the following entries by one location.

☞ Repeat the above steps to complete the script

Don't forget to move the cursor to the next free place!

Up to 32 files can be mapped on a single script file.

☞ Finally confirm the script editing with SAVE F.L.S. button

COPY FD TO HDD

To automate LOAD/SAVE functions HD-AE5000 offer a very helpful and convenient COPY FD TO HARD DISK option.

This HD write function is also only available when the HD write protection is turned OFF (refer to page 13).

☞ Insert a KN5000 disk in the disk drive and press the COPY FD TO HD button on the HD-AE5000 main page.

The Floppy Disk Drive will read the directory of the inserted disk and display all files on the file selection.

Note, that all parts of each KN5000 file will be copied.

There is no file load/copy option.

☞ Select a song and mark it by pressing the SELECT button.

When you mark a song an indication is added behind the name of the selected song.

Continue by selecting other songs which you want to copy.

☞ Press the * TO button.

If you press the * TO button before you have selected any files an attention message will be displayed.

On the HDD directory list, you can select the location for your new files.

Because you are in the edit mode, you can also name a directory for your files. To do this, press the EDIT button.

Note, that you can only copy files to a named, empty directory.

☞ Press the COPY button to complete the COPY FD TO HD procedure.

The copy operation can take about 3 to 5 minutes depending on the number of files you selected.

SETUP & TOOLS

As already mentioned, SETUP & TOOLS are very important functions of the HD-AE5000.

The left side buttons are operation functions.

The right side functions are reserved for hardware information's, setup and the parallel port.

"New"   *WRITE PROTECTION ON/OFF*

Write protection (already explained on page 13) will secure your data during play on stage and hide the save/edit/format functions.

Important: This function can't be stored on the user setup.

"New"   *WRITE CONFIRM ON/OFF*

All save functions normally need your confirmation by pressing YES or CANCEL. Experienced users may not want this confirmation procedure to appear every time, so it can be set to OFF.

"New"   *QUICK LOAD MODE 1/2/3*

MODE 1: Press and hold the DISK button for 3 seconds, and the most recently selected directory page will appear.

MODE 2: Press and hold the DISK button for 3 seconds, and the LOAD BY NUMBER page will appear.

MODE 3: Press and hold the DISK button for 3 seconds, and the LOAD F.L.S. page will appear.

"New"   *LD BY NUM. MODE ON/OFF*

You can select either automatically load after the 5th digit is entered or manual load.

"New"   *JUMP AFTER LOAD 1/2*

Mode 1 will set the display (after HD loading is completed) to the play mode screen.

Mode 2 will keep the file select list page for a fast selection.

PAGE 2/2

SETUP & TOOLS also has a second page for more specific options and information.
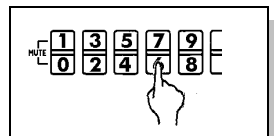
"New"   *HD FORMAT*

This icon is also only available with WRITE PROTECT OFF.

The format option is a very dangerous function because it will erase all of the data on the Hard Drive. However, this function has been added as some people may need to use it.

For safety, please note that to execute this command you must type the following key code:

0 5 0 3 5 4

Use the UP/DOWN button to type the format code.

"New"   *SAVE SETUP*

A small memory area store your personal settings expect WRITE PRO-TECT ON/OFF

"New"   *HD-INFO*

Software version and HD information's are displayed on this page.

PC DATA LINK

To communicate to a PC via parallel port the KN5000 has to be set on a special slave mode.

Please not that you have to update your HD-AE5000 extension before you can use the parallel port communication. You will find all detailed explanation with the HD-TechManager5000 (refer page 27) software.
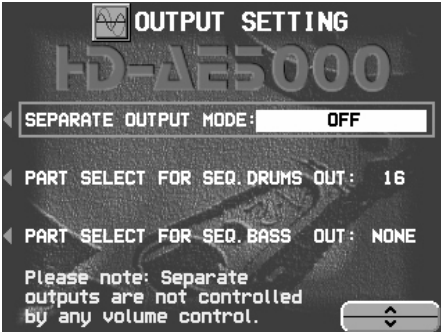
☞   Press the PC DATA LINK button.

This page is the last chance to accept the slave mode or to cancel. the procedure. Note that after selecting the slave mode only turning the power OFF or sending a command from HD-TechManager5000 can turn off the slave mode.

OUTPUT SETTINGS

A special part of the HD-AE5000 hardware is reserved for a separate output. A stereo jack connector next to the parallel port connector is used to connect to external amplification.

You can set the Output mode as follows:

DRUMS L/R (Stereo Drums)

DRUMS/BASS MIX, Drums and Bass together in stereo.

DRUMS/BASS, Mono Drums left, Mono-Bass right.

You can select which Sequencer parts are output as Bass and Drums.

These settings will be saved on the LSW.file.

The standard setting is:

SEPARATE OUTPUT MODE: OFF

PART SELECT FOR SEQ. DRUMS OUT: 16

PART SELECT FOR SEQ. BASS OUT: NONE

APPENDIX

Tips, tricks and suggestions

"New"   *Directory naming*

We recommend naming all directories with capital letters to distinguish them easily from file lists.

"New"   *LOAD BY NUMBER*

If your repertoire is numbered for example from 1 to maybe 1'600 we recommend to renumbering the songs like this:

```
1   -10   Dir 1/Files 1-10  11 to 15 are reserved for news/olds
11  -20   Dir 2/Files 1-10  11 to 15 are reserved for news/olds
21  -30   Dir 3/Files 1-10  11 to 15 are reserved for news/olds
181 -190 Dir 19/Files 1-10 11 to 15 are reserved for news/olds
651 -660 Dir 66/Files 1-10 11 to 15 are reserved for news .........
```

"New"   *FILE LOAD SCRIPT*

We suggest careful use of the AS/AL function.

You will find updated information and advice on our Internet home page www.keysoftservice.ch or by fax on request.

HD-AE5000 Trouble shouting

One of the most important benefits of the HD-AE5000 is data security. The hardware as well as the software is based on this objective.

Important:	How to handle KN5000 with built-in HD-AE5000

Please be aware, that even a modern hard disk drive is a mechanical unit and needs care during transportation and operation.

As previously mentioned, the Hard Drive is not accessed during play and the motor is always off during play mode. Additionally the heads are parked after every operation. Please also be aware of dramatic changes in temperature when you transport the KN5000 with the Hard Disk extension. The HDD can handle temperature variations from -40° to 60° C in the Non-Operation mode, but when you bring your keyboard from a cold place to a warm place, give the HDD a time of at least 60 min. to warm up to the room's temperature.

Another very important point is shock resistance. The HDD can handle a direct shock of 100G (Operating) and 500G (Non-Operating). More importantly be careful of excessive vibration. The limits are 1 G (Operating) and 5 G (Non-Operating).

Therefore, we recommend strongly, to handle the KN5000 with HD-AE5000 with all necessary care.

Important:	Track 0 problem

If you have a problem reading the HDD (Crash during save, power failure, lightning strike, etc.) you can implement the track 0 recover command. The procedure is the same as HD format but key code is: 9 6 5 7 6 8 Option:

Option:

HD-TechManager 5000

For security reasons we strongly recommend that you save your valuable data to a backup media.

The HD-TechManager5000 offer:

♦ **Automated backup and restore**

Select between full backup or archive flag backup and save your individual settings.

♦ **HD managing tools**

Convenient edit functions like directory and file move, directory and file delete, all text string naming, copy data to HDD and many others

♦ **Print options**

Print your directory and file lists in the same order as your HDD structure or alphabetically. Also the F.L.S. can be printed.

The HD-TechManager5000 is delivered with the special CE approved parallel port cable, software disks, owners manual and the HD-AE5000 system update disk.

The HD-TechManager5000 is a 32bit (Windows95) application for the IBM-PC or compatible.

Notes: