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Chapter

PPG PRK FD USER MANUAL

0. WHAT IS THE PRK FD

The PRK FD is a keyboard controller.
It contains a wooden weighted velocity sensitive keyboard with 72 keys.
It contains a 16 bit computer.
It contains a floppy disk drive.
It can control the PPG WAVE 2.3.
It can control outside MIDI equipment.

The players performance on the PRK FD keyboard can be simultaneously routed to the PPG SYSTEM and outside MIDI keyboards etc. with all the dynamics and other performance functions.

The PRK FD can load natural sampled sounds into the WAVE 2.3 or the EVU synthesizer. It can store and load multisamples, updates of sampled sounds and multisamples, velocity parameter programs, polyphonic sequences and songs.

0.1. THE SOFTWARE

The PRK FD is equipped with two different software media.

A constant software program is housed in the PRK FD itself.

The constant software is stored in two EPROMS which are placed under the floppy drive.

This software contains the system program and is always available. In case you have forgotten the System disk, which contains an updated software, you are not lost, because you can still rely on the software which is housed in the EPROMs, although it might not be the newest version.

The constant software can be exchanged by replacing the two EPROMS.

PPG eventually comes up with new constant software in EPROMS.

A temporary software program is on floppy disk, the SYS.DISK.

The "SYS.DISK" is the disk that contains the "up to date" software for the PRK FD and is released whenever new software is written for the unit.

The PRK FD will always work without the "SYS.DISK" software because the constant software of the EPROMs is always there, but the "SYS.DISK" enables you to use the latest revision of the software.

The operational software of the "SYS.DISK" should be loaded everytime before you start working with the unit.

Loading the system software from disk: Insert the SYSTEM DISK into the floppy drive. Switch on the PRK FD and the WAVE 2.3 according to chapter 1.1. Wait for approx. 3 seconds. To reload the SYS DISK, you also can use the RESET button (booting) on the rear panel of the PRK FD, instead of powering up the PRK FD.

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1.0 SETTING UP

1.1 THE PRK FD AND THE WAVE 2.3

The PRK FD is shipped in a carton with cushioning material.

Be sure that the top of the box is on the upside when you start unpacking the unit. Remove the cushioning from the box and take the accessory parts out.

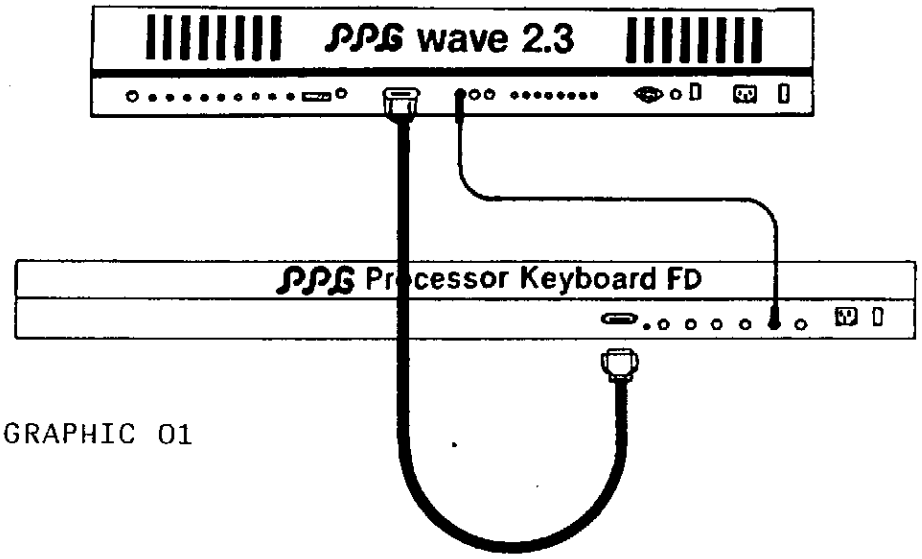
The accessory parts are:
- AC power cable
- Communication cable
- The PPG SOUND LIBRARY
- The "SYS.DISK"
- The "DEMO PRK" disk
- Owners manual

Notify your dealer if anything is missing.

Place the WAVE 2.3 on top of the PRK FD. PPG offers a suitable metal stand for the two units.

Connect the PRK FD to the WAVE 2.3 via the PPG Communication bus.

Connect one end of the Communication bus cable to the WAVE 2.3. connect the other end to the PRK FD. Secure connection with the bales. Connect MIDI OUT 2 to the MIDI IN of the WAVE 2.3.

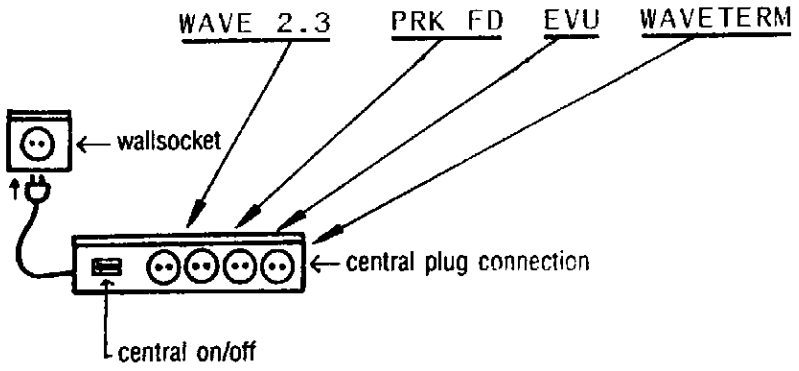


GRAPHIC 01

----------IMPORTANT----------
BEFORE YOU CONNECT THE AC POWER CABLE, MAKE SURE THAT THE AC RATING SWITCH (220 VOLTS OR 110 VOLTS) IS SET TO THE RIGHT POSITION. THE AC RATING SWITCH IS LOCATED ON THE BOTTOM OF THE UNIT.

WARNING:
Damage caused by plugging the power cable into an outlet that does not supply 220 or 110 volts, or plugging into an outlet without having checked the right positioning of the AC RATING SWITCH is not covered by your WARRANTY.

Connect all AC power cables to a multi plug connection with central power switch. Do not switch on the units one after the other. Always use a central plug connection with central power switch in order to switch on all units at the same time.



GRAPHIC 02

Insert the SYSTEM DISK into the floppy drive (see chapter 1.3). Switch on the set up with central power switch.

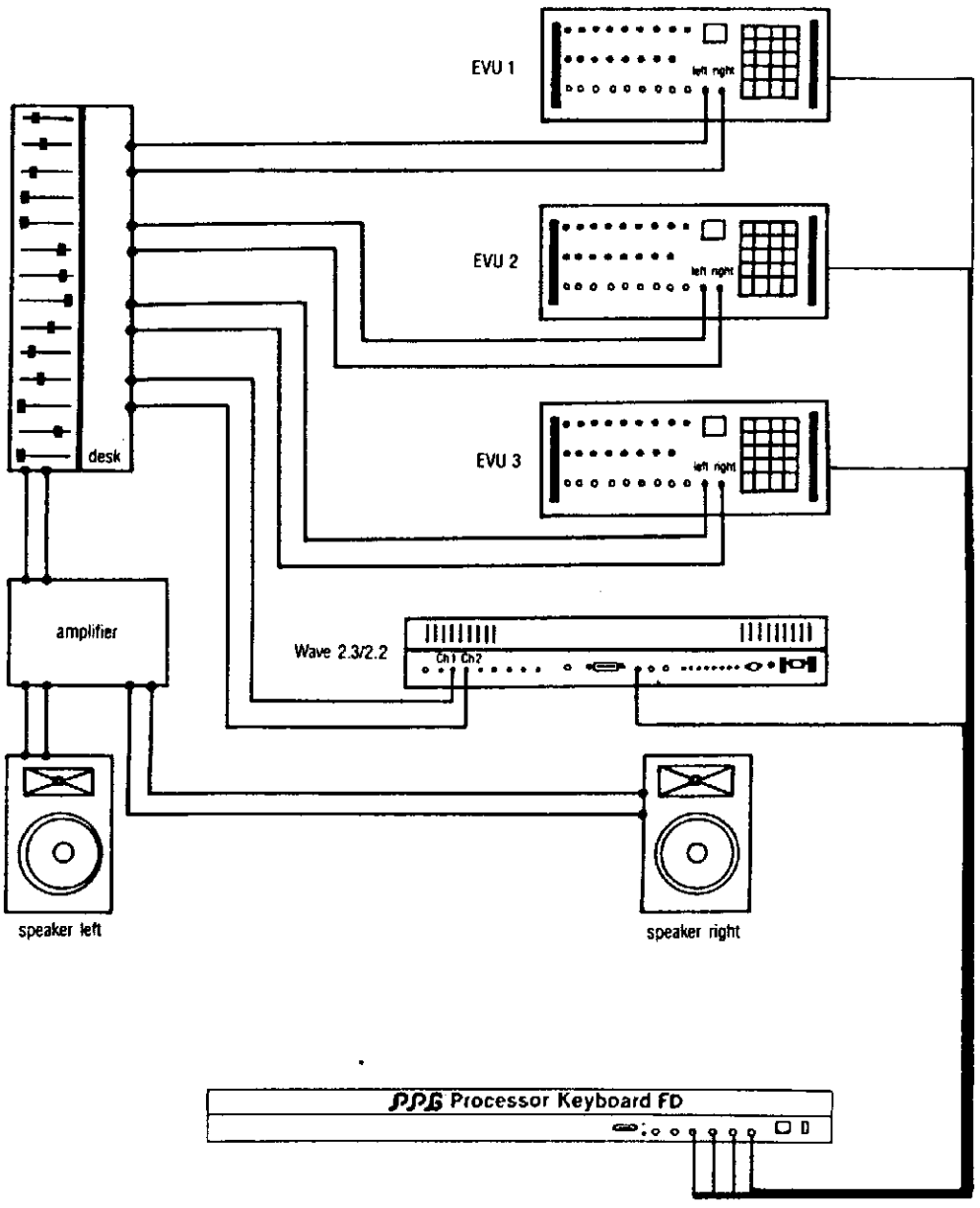
NOTE: If you have purchased the WAVE 2.3 and the PRK FD together, it is strongly advisable, to familiarise yourself with the functions of the WAVE 2.3 first.

The PRK FD is a controller and does not have its own tone generation.

It can control the complementing PPG units (WAVE 2.3 and EVU) and MIDI equipped synthesizers and effectors.

Connect 2 cables with standard phone plugs to the stereo outputs of the WAVE 2.3 (CH1 - CH2).

Connect the other ends of the cables to the "line" inputs of your desk or "AUX", "TAPE PLAY" inputs of your amplifier.



1.2. DISKOPERATION

Diskettes are storage media.

They hold a lot of information and they "memorise" all the work and efforts you have put into your music.

- Store your disks inside the protective jackets.
- Do not bend the disks.
- Keep them in a clean and dry place (no dust etc.).
- Never put the disks in the proximity of magnetic fields. (loudspeakers etc.)
- Do not touch the magnetic foil of the disk.
- Keep disks at a temperature between approx. 50 - 122 F (10 C - 40 C).
- Always use a disk pen with felt or easy to break tip when writing on the disk label.
- Never use a ballpoint writer.

The PRK FD is equipped with a special high density 5 1/4" disk drive. This drive has the same capacity as a 8" drive. NOTE: Please use only diskettes with high density (96 tpi= tracks per inch) like MAXELL MD2-HD or compatible.

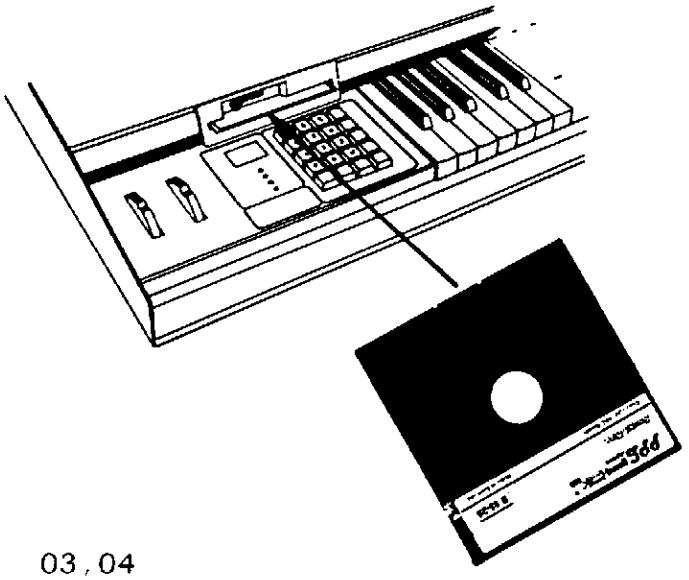
The disks can contain sampled sounds (PPG SOUND LIBRARY). sounds which have been previously sampled with the WAVE-TERM B. and updates of edited sampled sounds as well as Synthesizer soundprograms for the WAVE 2.3 and EVU. Velocity programs. Sequences. Songs and Midi programs.

NOTE: (FROM SMR)
THE DISKS USED BY THIS ARE NOT "HIGH DENSITY", BUT 96 TPI DOUBLE DENSITY (720K), USE NORMAL D.D DISKS (360K) FOR THIS UNIT.

DO NOT USE MD-2HD, THESE ARE DIFFERENT! USE MD-DD OR MD-2D; OR DO MARK CERTIFIED @ RADIO SHACK.

1.3. INSERTING A DISK:

- open the lock of the disk drive.
- take the "DEMO PRK DISK" out of the envelope.
- your thumb should cover the disk label.
- BE CAREFUL, DON'T TOUCH THE MAGNETIC FOIL.
- The disk has to be held in a horizontal position.
- The disk's magnetic slot has to be directed towards the drive.
- softly insert the disk until it is all the way in.
- close the disk drive lock (move the lever softly down) .
- the red LED of the drive is now illuminated.



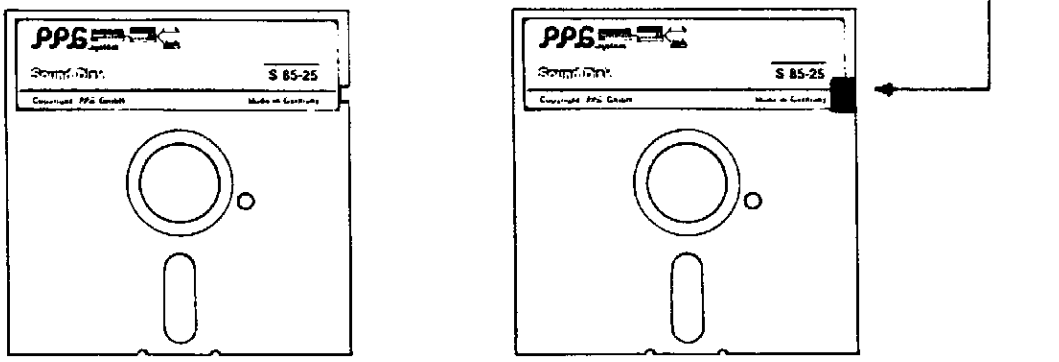
GRAPHICS 03,04

If you have not inserted a disk before you start working with the PRK FD, the display will show "d-" (= drive not ready) repeatedly, indicating that no disk has been inserted.

All error messages have to be terminated by entering "F1" on the PRK FD keypad.

1.4. DISKPROTECTION

All the disks of the PPG SOUND LIBRARY are write protected with a disk tab.



GRAPHIC 05

New disks are not write protected.

After having a disk formatted and having saved some of your work onto it, you should protect it with a write-protect-tab.

Take the tab off again when you want to store new data and later on replace it again.

In case you want to store a File onto disk and the disk is protected, the display shows "d-" repeatedly, indicating that the protection tab has to be removed.

1.5. FORMATTING A DISK:

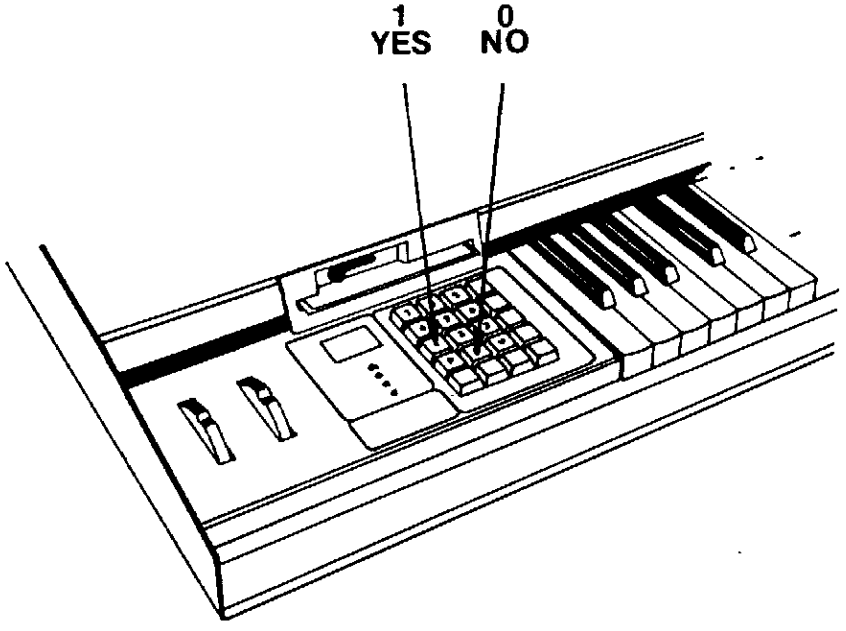
Insert a new disk into the floppy drive. The display might show "d-" , indicating that the disk directory cannot be read. PRESS "F1". Make sure that there is no protective tab on the disk.

What you do:	display:	what happens:
PRESS "F1"	"S-"	enter song mode?
" 0"	"A-"	enter keyboard arrangement?
" 0"	"FC"	enter floppy handling-copy?
" 0"	"FL"	floppy load?
" 0"	"Fn"	new disk formatting
" 1"	"Sn"	(flashing) are you sure you want to format this disk?
" 1"	"Sn"	stops flashing
" 1"		formatting procedure is executed and will take some minutes.
	"--"	formatting ready

The disk is now ready for usage with the PRK FD. Use this disk as practice disk.

In case the displays does not show the "--" , but an error message, try another disk (NOTE: please use only 96 tpi disks, MAXELL MD2-HD)

Communication with the PRK FD uses the "question-answer" form. The display shows a question and you have to answer with:



2.0. STARTING TO WORK

2.1. COMPONENTS CONNECTED

Beside the connected COM-BUS cable you have to use the MIDI bus for transfering the keyboard information to other components. When the PRK FD is switched on, it is loaded with one keyboard arrangement. The PRK FD is switched to "ON/OFF" "0", that means, the connected WAVE 2.3 or EVU is controlled with the normal MIDI velocity on loudness. Switch to "ON/OFF" "1" for using the PRK FD velocity parameters. You can now play the PRK FD in your music system.

2.2. CALLING UP UPDATES AND MULTISAMPLES

----------IMPORTANT----------

Please notice, that the PRK FD is always "MASTER" in use with the WAVE 2.3.

When you have hooked up your musicsystem to the complete PPG SYSTEM including the PPG WAVE-TERM, the TERM will be the MASTER for the disk operations. Except the functions "STORE 3 DUMP / LOAD" for saving/getting the keyboard arrangements and song data, which are still done by the PRK FD.

Now we can start loading sounds and playing them.

The PRK FD is shipped with the PPG SOUNDLIBRARY which contains well over 400 sounds.

For demonstrational purposes 25 different sets of up to eight sounds, called MULTISAMPLES had been stored onto the DEMO PRK disk.

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Each disk can hold one set of 60 programs for multisamples and/or MIDI-arrangements.

Generally two operations have to be executed:

----------IMPORTANT----------

FIRST: Load all the UPDATES from disk into the working memory of the PRK.

SECOND: Load the appropriate sounds.

INSERT: the "DEMO PRK" disk which contains the UPDATES for 25 MULTISAMPLES.

CLOSE: the disk drive.

PRESS: "STORE","3","LOAD"

REMOVE: "DEMO PRK" disk from drive. (after about 3 sec.)

INSERT: "SOUND LIBRARY DISK 85/01".

PRESS: "P","0","1".

The PRK FD LED's will flash each time a BANK of the WAVE 2.3 is loaded. After the loading procedure is finished, one UNIT LED lights permanently.

Play the PIANO...

If you like to continue experiencing the sounds of the LIBRARY, repeat the procedure inserting the wanted sound disk and pressing the complementing program numbers.

EXAMPLE: SL disk 10 = P 10 (SL=sound library)
22 = P 22 etc.

Some disks simply call up a set of eight sounds which are selected of the content of the whole disk in order to show what kind of sounds are on the disk.

For easy handling the 25 programs are directly related to the 25 SOUND LIBRARY disks. However they show only a fraction of the possible MULTISAMPLE arrangements.

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Most of the SOUND LIBRARY disks contain more than one multisample. You can directly load these multisamples, which are made by the WAVETERM, from the SOUND LIBRARY disks. In the PRK FD the multisample files are called "U"-files, but they are the same like the "M"-files in the WAVETERM (just a problem of writing a "M" in a 7 segment LED display).

INSERT the SOUND LIBRARY disk 85/01.

This disk contains the data for a Fender Rhodes multisample along with the piano data.

In order to directly load the Rhodes:

what you do:	display:	what happens:
PRESS: "F1"	"S-"	
" 0"	"A-"	
" 0"	"FC"	
" 0"	"FL"	
" 1"	"GU"	for calling a multisample and update set
" 1"	"U-"	waits for a 3-digit number
PRESS: "8", "5", "0"		the name of the multisample and update set

After all eight sounds are loaded, you can play the Rhodes.

2.3. CALLING UP SEQUENCES AND SONGS

First let us call up a special MULTISAMPLE and a demo song.

INSERT: the "DEMO PRK" disk.

Now we have to load a set of 172 synthesizer sounds into the "WAVE 2.3"

what you do:	display:	what happens:
PRESS: "F1"	"S-"	
" 0"	"A-"	
" 0"	"FC"	
" 0"	"FL"	floppy load
" 1"	"GU"	
" 0"	"Gt"	
" 0"	"GS"	
" 0"	"GP"	get synthesizer sound programs
" 1"	"P-"	
PRESS: "0","0","0"		=the register number of the set of 172 sounds.

Now you have to call up program 44 in bank 7 on the WAVE 2.3. Load a set of sampled sounds next.

PRESS: " P","0","0"

The drive loads seven sample sounds into the remaining seven banks of the "WAVE 2.3".

Now you have to get the sequences from disk.

what you do:	display:	what happens:
PRESS: "F1"	"S-"	song ?
" 0"	"A-"	arrangement ?
" 0"	"FC"	floppy copy ?
PRESS: " 0"	"FL"	floppy load ?
" 1"	"GU"	calling multis.?
" 0"	"Gt"	get transient?
" 0"	"GS"	get sequence set?
" 1"	"S-"	sequence set number?
PRESS: "0","0","0"		sequence set number "000"

Now we have to call up the song out of the memory of the PRK.

what you do:	display:	what happens:
PRESS: "STORE"	"-0"	
" 2"	"-2"	
" P"	" 0"	
" 0"	"00"	
" 0"	" 0"	
PRESS: " 1"		on the WAVE 2.3, the WAVE's cursor has jumped automaticly to position "RUN:", and the DEMO SONG will be played back.

2.4. CREATING AND SAVING SEQUENCES AND SONGS

We have loaded eight sounds into the WAVE 2.3 and now we can create new sequences and songs with them.

ERASE: the content of the WAVE 2.3 sequencer (RECM: "8", "8").

Now you can start creating 10 new sequences according to the operational routines of the WAVE 2.3 sequencer mode.

NOTE: THE PRK FD IS LOADED WITH A CERTAIN VELOCITY PROGRAM. YOU CAN RECORD THE SOUNDS DYNAMICALLY INTO THE SEQUENCER!!!

After you have completed the recording of a couple of sequences, you can link them together to a SONG.

Notice: The Songmode has a certain editmode:

"DUMP" displays the actual value.
You can change the values as often as you wish.
"LOAD" steps to the next parameter.

what you do:	display:	what happens:
PRESS: "F1"	"S-"	for songmode
" 1"	"n-"	(yes) song number
"00"- "09"	"S-"	any number 00-09 S- =single sequence

INSERT: the number of the first sequence you want to play back (00 - 09 is possible).

PRESS: "LOAD"	"L-"	to load the sequence number into the memory. L- =loops
INSERT: "01"-"98"		The amount of loops you want to hear of that sequence (01 - 98 is possible).
PRESS: "LOAD"	"S-"	To load the amount of loops. S- =Speed
INSERT: "00"-"99" "15"		any value between 00 - 99 for speed. Insert "15"

PRESS:	"LOAD"	"b-"	to determine the basic tuning
INSERT:	"00"-"60"	"00"	"00" for the original pitch "01" up to "60" transposes the sequence chromatically.
PRESS:	"LOAD"	"E-"	means "END OF THE SONG"
INSERT:	"0"	"S-"	(0= NO) in case you want to continue, (S-) for the number of the next sequence.
	"1"	"--"	(1= YES) in case you want to end the song.

When the song is complete, it is automatically stored into the working memory.

Listen to your song:

PRESS: "STORE","2","P","..",".."
and insert the number
of the song (two digits).

Press: "1" on the WAVE 2.3.(The WAVE's cursor has jumped automatically to position "RUN:").The song is played back.

In case you are not satisfied with the result, you can edit and change the song.

Call up the song again:

What you do:	display:	what happens:
PRESS: "F1"	"S-"	
"1 "	"n-"	
" "	" "	Enter the number of the song.
	"S-"	for the first sequence
PRESS: "DUMP"	" "	The actual number of the first sequence is displayed.

If you want to keep it, PRESS: "LOAD", if you want to change it, simply insert the number of the sequence you want to hear. All the other parameters feature the same possibility.

If you do not want to change the parameter at all, you can step through pressing "LOAD" frequently.

Go on and create different combinations of the sequences you have recorded.

If you want to SAVE your work onto disk,

PRESS: "STORE","3","DUMP"

Everything which is contained in the working memory (songs, WAVE sounds- Updates, complete keyboard arrangements) is transfered to disk.

In case you are working with a new formatted disk, the "DUMPING" takes place immediately.

In case you are working with a disk, which already contains an UPDATE file, the display comes up with (a flashing "S "= are you sure?) "S3", indicating that this location already is occupied.

In case you have material on the disk you don't want to lose, you should SAVE the actual data on a new disk.

What you do:	display:	what happens:
PRESS: "0"	"S3"	The "S" stops flashing
"0"	" 3"	end of procedure

If you want to overwrite the existing data,

PRESS: "1"		
"1"		The disk starts to write the data and "S-" disappears : "-3" stays, indicating that the data are SAVED properly.

In order to call up the Songs at a later date, load the "UPDATES",the "P"- and "S"- FILE and do the same procedure like "TEST RUN".

3.0. MIDI FEATURES

The PRK FD is MASTER KEYBOARD in use with the WAVE 2.3 and a MIDI MASTER KEYBOARD.

It comes with a very powerful MIDI software package.

Four parallel MIDI outputs are sending without delay.

All MIDI commands are controllable through the PRK FD.

Each of the four outputs are able to control 16 MIDI components. A total of 64 MIDI components is controllable.

Eight keyboard zones (multisplits) are user assignable for MIDI components.

All MIDI DATA can be saved and reloaded from floppy disk.

Sound data from Yamaha DX 7 can be saved and reloaded from disk.

MIDI organisation:

Eight keyboard zones are sent to four MIDI busses.

Each MIDI bus can control outboard MIDI expander on 16 MIDI channels.

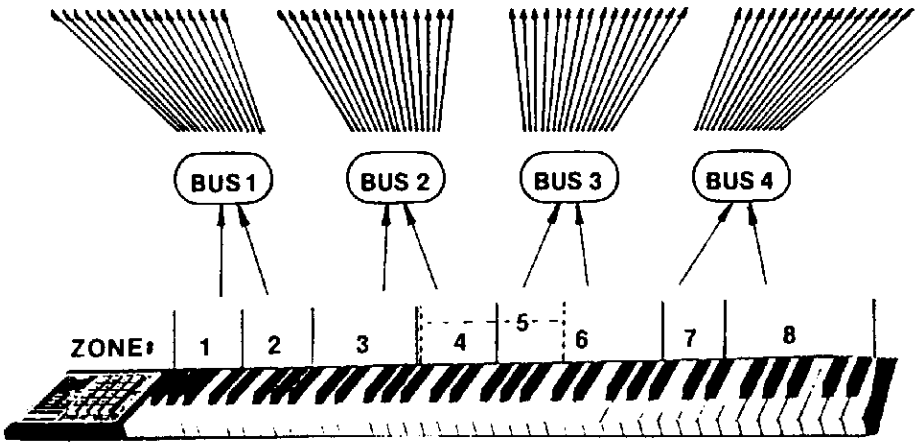
For example:

MIDI BUS 1 : MIDI expander

MIDI BUS 2 : PPG components -WAVE 2.3,2.2, EVU

MIDI BUS 3 : MIDI drum and percussion computer

MIDI BUS 4 : MIDI compatible effect units -delays, reverbs, MIDI mixdown



3.1. CONNECTING OUTBOARD MIDI COMPONENTS

Outboard MIDI components are connected to one of the four outputs on the rear of the PRK FD.

Use 5-pin MIDI connectors only.

The outboard MIDI components have to be connected to the "MIDI OUT" socket.

Switch to MIDI POLY MODE if possible.

If MIDI OMNI MODE is supplied only, do not link any other components. Use one of the four MIDI outputs of the PRK FD exclusively, otherwise all MIDI DATA are received by this component as well.

Use MIDI THRU on outboard equipment for more MIDI components.

3.2. SELECTING THE PRK FD KEYBOARD TRANSFER MODES

When starting new, (after restart) the PRK FD automatically sends keyboard informations on all MIDI busses on MIDI channel "1". You can directly play the PRK FD in your MIDI equipment. When the update-set from the PRK DEMO disk is already loaded, you can call directly 2 different MIDI arrangements.

PRESS: "STORE","7", "P","0","0"
(MIDI arrangement one).

MIDI channel 1 calls program 12 and
MIDI channel 2 program 45.

What you do:	display:	what happens:
Press:	" 0"	"00"
	" 1"	" 1"

(for MIDI arrangement 2)

MIDI channel 1 calls program 28 and
MIDI channel 2 program 77.
The played keys are transposed one octave up on channel 1.

3.3. SETTING UP A MIDI KEYBOARD ARRANGEMENT

What is a keyboard arrangement ?

With the PRK FD you can define which part of the PRK FD keyboard is controlling which instrument on MIDI channel 1 to 16. These parts are called keyboard zones (displayed by "n-") You can define upto eight zones which are stored as one keyboard arrangement number (n-).

Each zone holds the informations for:

1. upper/lower border of the zone ("U-","L-"), the range of the zones can be a single key upto 72 keys. The zones can be seperated from each other or they can be overlapping in any configuration.

2. a sound program, which is loaded into the connected synthesizer or effect unit.

3. transposition of the played keys up and down in a range of more than four octaves.

4. sustain switch - enable/disable ("S-")
5. pitch wheel (spring loaded) - enable/disable ("P-")
6. modulation wheel destination (any MIDI standardized controller) e.g., modulation, main volume, portamento, release time etc.
7. MIDI bus (the PRK FD is able to send on four MIDI busses in parallel), ("b-")
8. the MIDI channel for the selected bus ("C-")

Use software version 5 or a later version for your WAVE 2.3. If you have another MIDI compatible instrument, which is able to receive in the poly mode, we use it as a second component along with the WAVE 2.3.

It is possible to select any of the 16 MIDI channels on each of the four MIDI busses.

Use the advantage of the four MIDI busses by connecting your MIDI gear not only to one MIDI output!

This way you get a minimum of unavoidable MIDI-delay.

Switch your MIDI compatible synthesizer to MIDI channel "1". Connect it to the first MIDI output (PRK FD rear panel).

The WAVE 2.3 should be switched to MIDI channel "2" and connected to the PRK's second MIDI output.

Now we can start creating our first MIDI keyboard arrangement.

General functions:

The keyboard arrangement mode has the following features:

display	explanation	valid values
"A-"	= keyboard arrangement mode	
"n-"	= number of the keyboard arrangement	00 - 59
"ıı-"	= number of the keyboard zone	01 - 08
"b-"	= bus number	01 - 04
"C-"	= MIDI channel	01 - 16
"P-"	= sound program number	01 - 98
	no program change	00 , 99
"┘-"	= pitch wheel dis/enable	00 , 01
"I-"	= mod wheel MIDI parameter assign	01 - 99
	mod wheel disabled	00
"I-"	= key velocity intensity	00 - 07
"L-"	= lower keyboard border	00 - 72
"U-"	= upper keyboard border	00 - 72
"t-"	= pitch transpose	00 - 60
"S-"	= sustain dis/enable	00 , 01
"E-"	= end/continue of operation	1 , 0

What you do:	display:	what happens:
PRESS: "F1"	"S-"	
" 0"	"A-"	keyboard arrangement
" 1"	"n-"	number of arrangement
"00"-"59"		
	"ıı-"	select keyboard zone
INSERT:"01"-"08"		
	"b-"	select bus

INSERT:"01"-"04"		for your synthe. use bus 1
PRESS: "LOAD"	"C-"	select MIDI channel
INSERT: "01"		
PRESS "LOAD"	"P-"	for sound program
INSERT:"00"-"98"		number of program, "00" means: no program change!
PRESS: "LOAD"	"┘-"	for pitch wheel
INSERT: "00" or "01"		"00"= off,"01" = on
PRESS" "LOAD"	"┘-"	for modulation wheel
INSERT:"00"-"99"		selecting the MIDI code to be effected by the wheel (e.g. "01" = modulation)
PRESS: "LOAD"	"|-"	for velocity intensity
INSERT:"00"-"07"		"00"= off,"07"=maximum
PRESS: "LOAD"	"L-"	for lower border of keyboard zone
INSERT:"00"-"72"		chromatically rated use 00
PRESS: "LOAD"	"U-"	for starting key definition. upper boarder of keyb. zones
INSERT:"00"-"99"		chromatically rated (use 45) change value (edit/comp.)

Simultaneously you have the option of changing the upper border of the keyboard zone (edit/compare) by entering a different value.

What you do:	display:	what happens:
PRESS: "LOAD"	"t-"	for chromatic pitch transposing

INSERT:"00"-"99"		"00"= no transposition "01"-"49"= transposing up "51"-"99"= transposing down
PRESS: "LOAD"	"S-"	for sustain switch
INSERT:"00"-"01"		"00"= off (disable), "01"= on (enable)
PRESS: "LOAD"	"E-"	for end of operation
INSERT: " 1"	"--"	for leaving the MIDI transfer operation. "--" for play mode is shown.
INSERT: " 0"	" -"	in case you want to continue the MIDI operation. (" -" for inserting the keyb.zone you want to work on next.

Repeat the operation with the WAVE 2.3 or other MIDI components on MIDI channel "2".

The effect of parameter changing "P " and "S " can be directly heard and modified.

Already existing parameter settings can be checked and altered.

After you have entered an existing MIDI keyboard arrangement program by inserting the appropriate value ("n-"), you can first check the previously entered parameter values by pressing the "DUMP" key. The actual value is displayed and can be altered as often as necessary by entering new values. If the change has been made, you have to press "LOAD" to roll to the next parameter.
For fast access, all parameters can be stepped through after having inserted the ("ii-") number by simply pressing "LOAD". Stop at the wanted parameter, press "DUMP" for displaying the stored parameter and do your alteration.

The MIDI keyboard arrangement mode can be left by pressing "F1".

You can directly enter any MIDI component.

When "ii-" is displayed, just insert the MIDI zone number and you will only change the setting for the unit assigned to this zone.

THIS MIDI KEYBOARD ARRANGEMENT PROGRAM IS NOW STORED IN THE WORKING MEMORY UNDER THE ARRANGEMENT NUMBER YOU HAVE CHOSEN.

YOU CAN CALL IT UP ANY TIME.

PRESS: "STORE","7","P", ".."
and insert a two-digit register number.

In case you have created other MIDI keyboard arrangements, you can switch back and forth between these programs without pressing "STORE","7","P", again. Simply enter the number of the next MIDI keyboard arrangement you want to play.

ALL MIDI KEYBOARD ARRANGEMENTS CAN BE STORED ON DISK.

PRESS: "STORE","3","DUMP"

3.4. SAVING SOUND DATA FROM DX 7 ON DISK

Make sure that there is a connection from the DX 7 MIDI output to the PRK FD MIDI input !

What you do:	display:	what happens:
PRESS:	"F1"	"S-"
INSERT:	" 0"	"A-"
	" 0"	"FC"
	" 0"	"FL"
	" 0"	"Fn"
	" 0"	"Fd"
	" 0"	"FS" floppy save?
	" 1"	"GS" file group: sequence?
	" 0"	"GP" file group: program data?
	" 0"	"GE" file group: exclusive data?
PRESS:	" 1"	"GE" the PRK is waiting for the MIDI exclusive data code

----------DX 7 action----------

Now you have to press "function ", "8" , "8" on the DX 7 and "SYS INFO UNAVAIL will be displayed. Switch to SYS INFO AVAIL with "+". Insert :"8" "MIDI TRANSMIT ?" is displayed. Press: "YES".

	"E-"	PRK FD display a three digit number has to be inserted (sound file name)
" "		
	"--"	the saving procedure is finished

3.5. LOADING SOUNDPROGRAMS INTO THE DX 7

Only the MIDI output "1" is sending exclusive data to the DX 7.

Enable the DX 7 to receive program data through MIDI and call the "E-" file from the PRK FD (SYS INFO AVAIL) :

What you do:	display:	what happens:
PRESS: "F1"	"S-"	
" 0"	"A-"	
" 0"	"FC"	
" 0"	"FL"	
" 1"	"GU"	
" 0"	"Gt"	
" 0"	"GS"	
" 0"	"GP"	
" 0"	"GY"	
" 0"	"GE"	
" 1"	"E-"	insert the register number (sound file name)

Now you can play the sounds on your DX 7.

4.0. LOADING INDIVIDUAL SAMPLES FROM DISK INTO THE PPG WAVE 2.3

With the PRK FD it is possible to load the individual banks with sampled sounds to create your own multisamples.

The DEMO PRK FD disk contains a set of samples.

They can be loaded into the WAVE 2.3 directly according to your own taste.

You can mix synthesizer sounds with sound samples as well.

Let us start with loading a set of sampled sounds into the WAVE 2.3.

----------IMPORTANT----------

BEFORE YOU START LOADING NEW TRANSIENT SOUNDS INTO THE WAVE 2.3, YOU MUST SAVE THE EXISTING "UPDATE" ONTO A SECURITY DISK, BECAUSE THE TRANSIENT LOADING MODE "ERASES" ALL EXISTING "UPDATES".

After you have saved the "UPDATES" on a security disk, go on with the following operations.

After you have loaded all the necessary transient sounds reload the "UPDATES" from security disk.

Insert the DEMO PRK FD disk into the PRK FD disk drive.

what you do:	display:	what happens:
PRESS:	"STORE"	the "STORE 5" command selects
	" 5"	the bank, in which you want to load the sample.
PRESS:	"P "	identifies the wanted bank
	" 0"	bank 00 upto 07 are possible
	" 0"	

what you do:	display:	what happens:
PRESS: "F1"	"S-"	
" 0"	"A-"	
" 0"	"FC"	
" 0"	"FL"	floppy load?

(If you have already passed this display, keep on pressing "0" until "FL" is shown again.)

PRESS:	" 1"	"GU"	
	" 0"	"Gt"	
	" 1"	"t-"	get transient
INSERT:	" 6"		the number of the transient
	" 2"		sound. In this case,
	" 5"	"--"	let us load a bass drum.which is registered under 625. This will take approx. 2 sec.

If for some reason you have inserted a non existing register number, the display shows a rotating "0-", indicating that the File could not be found on the disk. Press "F1" in order to erase the rotating "0".

For loading more sounds into single banks of the WAVE 2.3, repeat this procedure with the "STORE","5" command, then identify the wanted bank with the "P.." command and then load the sound from the PRK's floppy drive.

After succesfully loading you can call up Bank "00" on the WAVE 2.3 and play the bass drum, using the PRK FD or the WAVE 2.3 keyboards. With the PRK FD keyboard it is possible, to play dynamically.

PLEASE HAVE A LOOK TO CHAPTER 6.0. for detailed information on the velocity parameters.

PPG PRK FD USER MANUAL

Please load the following sounds:

BANK	"00"	SOUND "625"	=	bass drum
	"01"	"632"	=	snare drum
	"02"	"205"	=	hi hat
	"03"	"040"	=	slap bass
	"04"	"852"	=	rhodes
	"05"	"556"	=	trumpet
	"06"	"810"	=	xylophone
	"07"	"422"	=	fuzz strat

After having loaded all the banks, you can play with all the eight sounds and start working with the sequencer of the WAVE 2.3 and record some sequences.

For song creation and SAVING procedure, please refer to chapter 2.4.

Whenever you have made a mistake, a wrong insertion etc., you can exit the operation by pressing F1.

Repeat the operation.

4.1. CREATING A MULTISAMPLE KEYBOARD ARRANGEMENT

Is the UPDATE already existing in the memory? If not, press: "STORE", "3", "LOAD".

The WAVE 2.3 has the unique advantage of holding two complete keyboard arrangements, selectable by the GROUP switch and indicated by the two LEDs. Each keyboard arrangement consists of seven splitpoints, different sounds, overall detune etc. This gives you the possibility to switch over from one keyb.arrangement to the other by simply using the group button. This feature of the WAVE 2.3 is supported by the PRK FD multisampling. It is now possible to define what is going to be loaded into the WAVE 2.3 when later on calling up the MULTISAMPLE and KEYBOARD ARRANGEMENT.

In a normal situation, you can set the splitpoints, starting banks and keyboard mode according to WAVE 2.3 routines.

In this case the GROUP "A" and "B" LED have to light together in order to write the complete information for both the "A" GROUP and "B" GROUP keyboard arrangements.

In a live performance situation it is possible, to play with the arrangement of one of the two GROUPS and simultaneously loading the other GROUP without interfering your playing.

After the loading has been accomplished, it is possible to switch over to the new sound of the GROUP which has just been loaded.

This is done by simply selecting the GROUP which should be reloaded, before you save the MULTISAMPLE on disk, i.e. the complementing GROUP LED should light during the saving procedure.

It is of course within the nature of the amount of available BANKS, that you leave at least one BANK open for your playing while loading a maximum of seven BANKS simultaneously.

(If you want to load all eight BANKS the loading process will

interfere your performance.)

This feature allows you to change as many sound samples within a piece of music during live performance as you want.

After having set up the keyboard arrangement you can store the information in the working memory of the PRK FD as a new "UPDATE".

PRESS: "STORE", "8", "P", and insert a two digit register number "40" (in this case) Whenever you want to erase a P number (multisampling program) simply overwrite it with a new program.

Now you have to store the key velocity program data for this MULTISAMPLE.

PRESS: "STORE", "9", "P", "40"

Alter the splitpoint, basis bank etc. for another program and store the new program. Follow the above quoted steps. For easy operation use a register number close to the one just previously inserted.

(First arrangement of sounds = P40
Second arrangement with the same set of sounds = P41)

Now all the data are stored in the working memory.

They can be called up immediately:

PRESS: "STORE", "0", "P", "40". The sounds and the keyboard arrangement are now loaded.

In order to call up the second keyboard arrangement, which is using the same sounds, you can save time by not loading the sample sound material again from disk, ("STORE" "0") but directly calling up only the altered WAVE 2.3 parameters.

PRESS: "STORE", "1", "P", "41".

4.2. SAVING A MULTISAMPLE KEYBOARD ARRANGEMENT ON DISK

IMPORTANT: It is necessary to store the velocity parameter settings along with the UPDATE.

PRESS: "STORE","9", "P", and insert the same program number as used under "STORE" "8" (for this multisample)

REMEMBER: The informations of the MULTISAMPLES and program settings are still only in the working memory of the PRK. Now we have to save them on disk as a UPDATE.

PRESS: "STORE", "3", "DUMP" Now all the UPDATE data (working memory) are saved on disk.

In case you have already stored a UPDATE file on this disk, the display will ask you "S3" (flashing "S " is indicating that a UPDATE file is already on this disk) if you want to overwrite this file, press two times "1". If not press "F1" and "0".

5.0. SAVING SYNTHESIZER SOUND PROGRAMS

The PRK FD gives easy access to your sound programs. You can load sound programs from disk into the WAVE 2.3 and whenever you have created new sound programs and combi programs you can store them onto disk as well.
Remove the protection tab from your PRACTICE DISK.

Insert your PRACTICE DISK into the floppy drive.

What you do:	display:	what happens:
PRESS:	"F1"	"S-"	
	" 0"	"A-"	
	" 0"	"FC"	
	" 0"	"FL"	
	" 0"	"Fn"	
	" 0"	"Fd"	
	" 0"	"FS"	floppy store?
	" 1"	"GS"	
	" 0"	"GP"	save synth. sound programs
	" 1"	"P-"	
INSERT:	"9", "9", "8"		program number 998.

The floppy drive starts storing immediately for approx. 2 second. If the registration number has previously been used on this disk, the display shows "S-" (= Already Stored !!!) indicating that this File is existing. Start again this procedure and use a different file number.

NOTE: IT IS ADVISABLE TO WRITE DOWN THE FILES AND THEIR CONTENTS ON THE LABEL OF THE DISK, IN ORDER TO KEEP YOUR DISK LIBRARY ORGANISED.

5.1. LOADING AND EDITING SYNTHESIZER SOUND PROGRAMS FROM DISK

The DEMO PRK disk contains a special WAVE 2.3 sound program file which is called P "999" . This file holds 18 combiprograms, 7 polyphonic demo sequences and two sets of 86 sound programs. They are loaded all together at once.

Before you load the new soundprograms, make sure that you SAVE the sound and sequence data which are in your WAVE 2.3. Please have a look to chapter 5.1. before you go on reading this chapter.

Insert the DEMO PRK disk into the floppy drive.

What you do:	display:	what happens:
PRESS: "F1"	"S-"	songmode?
" 0"	"A-"	keyboard arrangement?
" 0"	"FC"	floppy copy?
" 0"	"FL"	floppy load?
" 1"	"GU"	get multis.+ update set?
" 0"	"Gt"	get transient?
" 0"	"GS"	get song?
" 0"	"GP"	get program?
" 1"	"P-"	insert program number.
PRESS: " 9", "9", "9"		the programs are loaded into the WAVE 2.3 (less than one second)

Call up combination program "10" (WAVE 2.3) and call up sequence "00" and start the sequence with "RUN" "1". A classical song with modern arrangement is played back. After having heard the Demo song press "RUN" "0", In addition you find seven more demonstration sequences (01-07) and their corresponding COMBI PROGRAMS, e.g. CP 06 and sequence 06. To return to normal keyboard playing, stop the sequence (RUN:0), press: "SEQ:" "99" and "PROGRAM" on the WAVE 2.3.

In order to use the sounds in your own special way and to create new sounds, you can edit soundprograms and come up with new combination programs.

6.0. THE VELOCITY PARAMETERS

The PRK FD is a velocity sensitive keyboard. The velocity can be adjusted (for each zone of the arrangement) to the individual needs of the connected MIDI equipment. However the effect on the sound depends on the abilities of the connected MIDI gear.
In combination with PPG components the PRK FD velocity effects eight different parameters simultaneously.
Each of these parameters has eight intensity degrees.
With the velocity parameters you can set up a velocity program.
A velocity program is loaded together with a multisample program and can be stored in the working memory.

The eight velocity parameters for the PPG components are:

1	=	volume	(0 - 7) intensity
2	=	jump one bank ahead	(0 - 7) intensity
3	=	jump within a wavetable	(0 - 7) intensity
4	=	filter envelope att.	(0 - 7) intensity
5	=	volume attack time	(0 - 7) intensity
6	=	filter attack time	(0 - 7) intensity
7	=	filter decay time	(0 - 7) intensity
8	=	pitch bend	(0 - 7) intensity

A typical velocity parameter program would look like this:

param./	value(intensity)		
1	3	=	medium intensity on the volume
2	0	=	NO intensity on the banks
3	0	=	NO intensity on the wavetable
4	2	=	medium intensity on the filter cut off
5	0	=	NO intensity on the volume attack
6	0	=	NO intensity on the filter attack
7	0	=	NO intensity on the filter decay
8	0	=	NO intensity on the pitch bend

A setting for soft "attack/release" could look like this:

10, 20, 30, 40, 54, 64, 70, 80.

A setting for pitch bend could look like this:

10, 20, 30. 43, 50, 60, 70, 83.

A setting for wavescanning could look like this:

13, 20, 35, 40, 50, 60, 70, 80.

In certain cases, the velocity effect can not be heard, because the sound program is not suitable for certain parameters.

EXAMPLE: For pitch bend activation it is necessary to activate this function on the WAVE 2.3 tuning display (by entering EO:1 ES:1). Adjust the settings of the third envelope generator to your needs.

It is up to you how intensively you are going to use the velocity feature.

It is very exciting to record sequences with a velocity program.

In order to do so, you can use one velocity program for recording only but you can try out any other velocity combination for the playback.

7.0. THE DISK CATALOGUE

The PRK FD has a certain feature which gives you access to the catalogue of Files which are on the inserted disk.

The following Files can be displayed.

- "t" for transient sound
- "Y" for second bank of transient
- "S" for sequences
- "P" for synthesizer sound programs
- "U" for update file (60 multisamples,arrangem.etc.)
  This file has no file number.
- "E" for exclusive MIDI program data

In order to check what is on disk, execute the following operations:

What you do:	display:	what happens:
PRESS: "F1"	"S-"	
" 0"	"A-"	
" 0"	"FC"	
" 0"	"FL"	
" 0"	"Fn"	
" 0"	"Fd"	
" 0"	"FS"	
" 0"	"FF"	floppy files?
" 1"	"Fx"	x= see above t,Y,S,P,U,E
" 1"	"F."	.=the first digit
" 1"	"F."	the second digit
" 1"	"F."	the third digit of the register number

Go on pressing "1" until you get all the requested information. Write down the register number of the files you need.

The "U-" file does not display any numbers because a disk can hold only one general "U" file, which contains all the 60 Multisamplings as well as the 10 Songs and the 60 MIDI Keyboard arrangements.

The display goes back to neutral position after all files have been displayed.

You can leave the catalog mode by pressing "F1".

Recommendation: MAKE NOTES OF THE FILES ON THE DISK LABEL.

8.0. THE COPY FUNCTION

With the PRK FD it is possible to copy sampled sounds and double length sounds.

Sequences and synthesizer sound programs can be copied to another disk, by loading them into the WAVE 2.3 and later on saving them on another disk.

It is necessary to copy the Files individually.

COPY A T-FILE: a transient sound (sampled sound) can be copied.

Insert the disk you want to copy from.

What you do:	display:	what happens:
PRESS: "F1"	"S-"	
" 0"	"A-"	
" 0"	"FC"	floppy copy?
" 1"	"Ct"	yes!
" 1"	"t-"	
INSERT:		the register number of the sound you want to copy (three figures).

The display shows "t-" with a dash shifting up and down, indicating that the sound data have been transfered from disk into the memory.

Insert: the new disk into the floppy drive. The sound is automatically written onto the new disk. The procedure is finished when the display shows "--" again.

NOTE: If a sound uses two banks (double lenght sound) you have to copy the Y - File (2nd bank) as well. The Y - File has the same register number as the normal sample: "t" "XXX" , "Y" "XXX". Always copy the t -File first.

9.0. FUNCTION LISTING

STORE "0"	load complete multisample
STORE "1"	change arrangement when using the same sound material
STORE "2"	load a song
STORE "3"	enable floppy LOAD/DUMP functions
STORE "4"	define the bank which will be skipped when loading the multisample (the last sound remains unchanged in this bank)
STORE "5"	select a WAVE 2.3 Bank for loading a T- File
STORE "6"	enables/disables the realtime arpeggiator (upper locations are reserved for service Test+Check function)
STORE "7"	selects a MIDI keyboard arrangement
STORE "8"	stores sound adjustments (of the multisample)
STORE "9"	stores key velocity parameters for WAVE 2.3/EVU

PPG PRK FD USER MANUAL

MIDI:

"F1" (enter)

"S" enter song mode ? answer NO !

"A" enter arrangement utility ? answer YES

"n" select number of arrangement (1-59)

"ıı" select number of zone (1-8)

"b" define MIDI bus (1-4)

"C" define MIDI channel (1-16) for selected bus

"P" define program for connected unit (0-99)
(0=no program loaded)

"┘" enable/disable pitch wheel (1/0)

"┘" define mod. wheel destination (0-99)
(0=off)

"┘" define velocity intensity (0-7)

"L" define lower keyboard zone border (0-72)

"U" define upper keyboard zone border (0-72)

"t" set pitch transpose (0-99);
(0=50=no transposition)
(1-49 = positiv transp.
(51-99= negativc transp.)

"S" enable/disable sustain (1/0)

"E" terminate/continue (1/0) working in the
arrangement mode.

PPG PRK FD USER MANUAL

FLOPPY COMMUNICATION: Press "F1"

"S-" -no-

"A-" -no-

"FC"---------- floppy handling/copy utility
- "Ct" = copy transient
- "CY" = copy second bank of double transient
- "CE" = copy exclusive MIDI program data

"FL"---------- floppy handling/loading
- "GU" = load multisampling created in the WAVETERM B
- "Gt" = load transient
- "GS" = load sequences for WAVE 2.3.
- "GP" = load synthesizer sound programs for WAVE 2.3
- "GE" = load exclusive MIDI program data

"Fn"---------- floppy handling/formatting new disk
- "Sn" = do you really want to format this disk ? (are you shure)

"Fd"---------- floppy handling/deleting
- "dU" = delete multisample created on the WAVETERM B
- "dt" = delete transient
- "dS" = delete sequences
- "dP" = delete synthesizer sounds
- "dY" = delete second bank of transient
- "dE" = delete exclusive

"FS"---------- floppy handling/saving
- "GS" = save sequences
- "GP" = save synthesizer sounds
- "GE" = save exclusive

"FF"---------- floppy handling/catalogue
- "Ft" = display transient on disk
- "FU" = display UPDATE (no file number)
- "FY" = display second bank of transient
- "FP" = display synthesizer sound files
- "FS" = display sequence file
- "FE" = display exclusive MIDI program data

10. REALTIME-ARPEGGIATOR

The PRK FD features a new kind of arpeggiator, which just reacts to your musical feeling. This arpeggiator does not use a constant trigger source, it is directly triggered by your hand moving the modulation wheel. The range of the arpeggiated chords or tones is up to 6 octaves and is determined by the location of your pressed keys and the action of the modulation wheel.

Enable the realtime arpeggiator:

PRESS: "STORE", "6", "P", "01", and play a chord in the lower part of the keyboard. Hold the chord while moving the modulation wheel.

Try different keyboard locations for your played chord.

Disable the realtime arpeggiator:

When you are still in the arpeggiator mode (STORE 6), just PRESS: "00".
When you have used other functions, you first have to call up the arpeggiator-enable/disable functions PRESS: "STORE", "6",and then "P", "00" .