Technics

KEYBOARD

SX-KN720
SX-KN920
SX-KN1500

ENGLISH

QQTG0406A

[KN1500]

FOR YOUR SAFETY PLEASE READ THE FOLLOWING TEXT CAREFULLY. (for UNITED KINGDOM)

This appliance is supplied with a moulded three-pin mains plug for your safety and convenience.
A 5 amp fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5 amps and that it is approved by ASTA or BSI to BS1362.
Check for the ASTA mark Ⓐ or the BSI mark ⓑ on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local Panasonic/Technics Dealer.

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT-OFF PLUG IS INSERTED INTO ANY 13 AMP SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.
If in any doubt please consult a qualified electrician.

IMPORTANT: —The wires in this mains lead are coloured in accordance with the following code:—

Blue: Neutral
Brown: Live

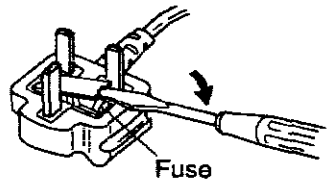
As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows.

The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

Under no circumstances should either of these wires be connected to the earth terminal of the three-pin plug, marked with the letter E or the Earth Symbol ⏚.

How to replace the fuse. Open the fuse compartment with a screwdriver and replace the fuse and fuse cover.



Technics

OWNER'S MANUAL

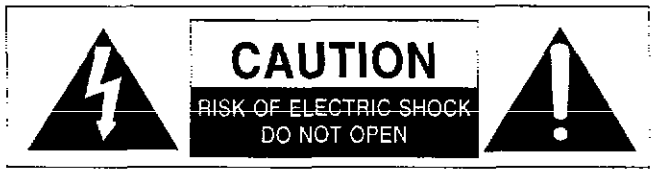
Caution (KN1500)

Voltage (except North America, Mexico, Europe, Australia, New Zealand, Singapore and Philippines)

Be sure the voltage adjuster located on the rear panel is in accordance with local voltage in your area before using this unit. Use a screwdriver to set the voltage adjuster to the local voltage.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

BEFORE YOU PLAY, PLEASE READ THE CAUTIONARY COPY APPEARING ON PAGES 2 AND 3.



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE SCREWS.
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Before you play

For long and pleasurable use of this instrument, and to gain a thorough understanding of your KN Keyboard, it is strongly recommended that you read through this Owner's Manual once.

The Owner's Manual is comprised of the following parts.

BASIC FUNCTIONS	This part includes an explanation of basic procedures and points you should be aware of for proper operation of your instrument.
PRACTICAL APPLICATIONS	This part comprises a detailed explanation of sound, effect, rhythm, **SEQUENCER**, **COMPOSER**, Disk Drive, MIDI, etc.
REFERENCE GUIDE (separate booklet)	Reference guide for the contents of the **SOUND**, **RHYTHM**, MIDI data, etc.

Cautions for safest use of this unit

(KN720/KN920)

Installation location

1. A well-ventilated place.
   Take care not to use this unit in a place where it will not receive sufficient ventilation, and not to permit the ventilation holes to be covered by curtains, or any similar materials.
2. Place away from direct sunlight and excessive heat from heating equipment.
3. A place where humidity, vibration and dust are minimized.

Metal items inside the unit may result in electric shock or damage.

Do not permit metal articles to get inside the unit.

Be especially careful with regard to this point if children are near this unit. They should be warned never to try to put anything inside.

If, nevertheless, some such article does get inside, contact the store where the unit was purchased.

If water gets into the unit

Contact the store where the unit was purchased.

As a precaution, it is suggested that flower vases and other containers which hold liquids not be placed on the top of this unit.

If operation seems abnormal

Immediately turn off the power, and contact the store where it was purchased.

Discontinue using the unit at once. Failure to do so may result in additional damage or some other unexpected damage or accident.

- Because the power amp is located inside the unit, it is normal for the cabinet to become warm.

Don't touch the inside parts of this unit.

Some places inside this unit have high voltage potential. Never try to remove the top or back panels of this unit, or to touch inside parts by hand or with tools.

Contact someone who is qualified in order to inspect the inside, or to replace a fuse, if such becomes necessary. Never attempt to do these things yourself.

Maintenance

The following suggestions will assist you in keeping the unit in top condition.

- Be sure to switch the instrument off after use, and do not switch the unit on and off in quick succession, as this places an undue load on the electronic components.
- To keep the luster of the surface and buttons, simply use a clean, damp cloth; polish with a soft, dry cloth. Polish may be used but do not use thinners or petro-chemical-based polishes.
- A wax-based polish may be used on the cabinet, although you will find that rubbing with a soft cloth will suffice.

When using the AC adaptor

Power source

1. Be sure the line voltage selector is in accordance with local voltage in your area before connecting the plug to the socket.
2. DC power cannot be used.
3. Unplug the power cord if the unit will not be used for a long time.

Handling the power cord

1. Never touch the power cord, or its plug, with wet hands.
2. Don't pull the power cord.

A word about the power cord

If the power cord is scarred, is partially cut or broken, or has a bad contact, it may cause a fire or serious electrical shock if used. NEVER use a damaged power cord for any appliance. Moreover, the power cord should never be forcibly bent.

SERVICE MUST BE CARRIED OUT BY DEALER OR OTHER QUALIFIED PERSON

Cautions for safest use of this unit (KN1500)

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If, nevertheless, some such article does get inside, disconnect the power cord plug from the electrical outlet, and contact the store where the unit was purchased.

If water gets into the unit

Disconnect the power cord plug from the electrical outlet, and contact the store where it was purchased.

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SERVICE MUST BE CARRIED OUT BY DEALER OR OTHER QUALIFIED PERSON

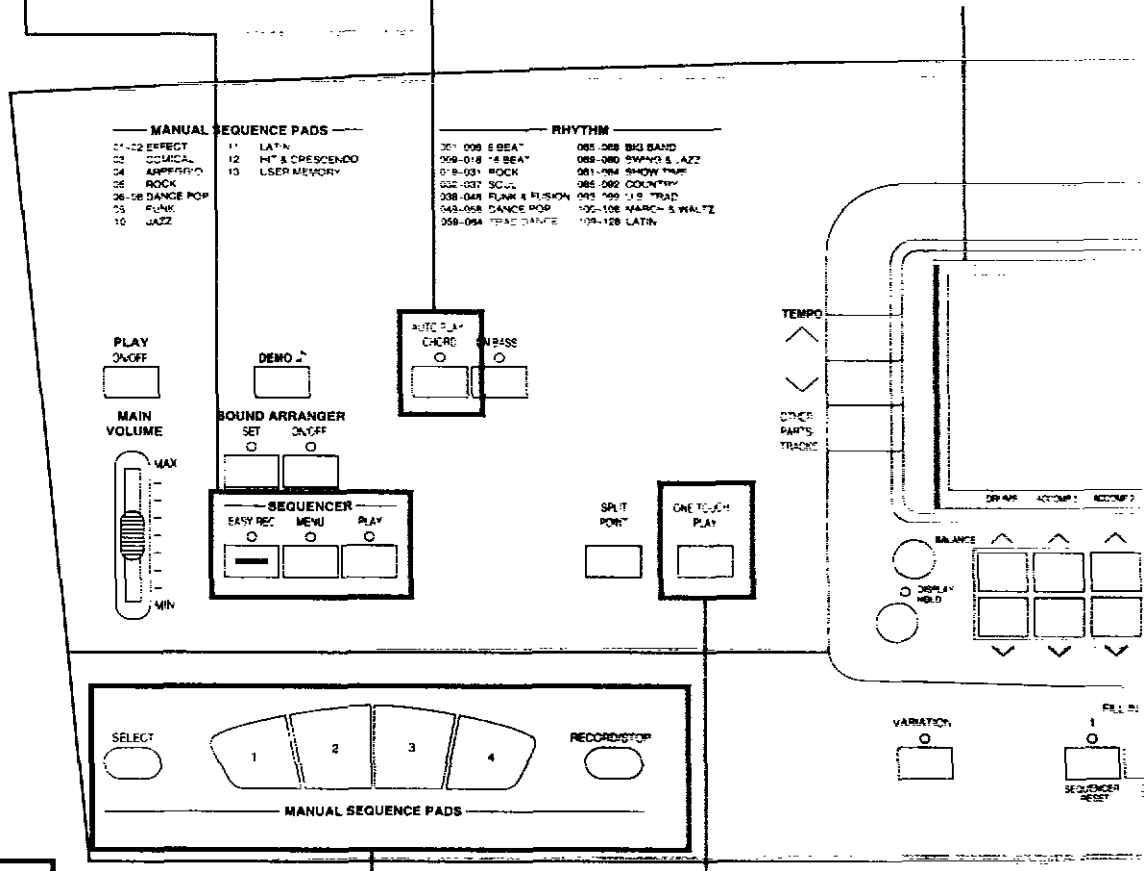
Contents

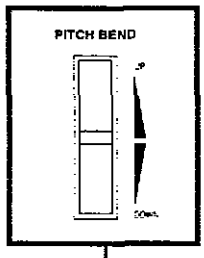
Controls and functions (KN720)

SEQUENCER
Record and play back your performance.
(Refer to page 59.)

AUTO PLAY CHORD
Add an automatic accompaniment to your selected rhythm.
(Refer to page 49.)

DISPLAY
Displays performance information, function settings and other messages.
(Refer to page 30.)





MANUAL SEQUENCE PADS
Add various phrases to your performance with the pad buttons.
(Refer to page 44.)

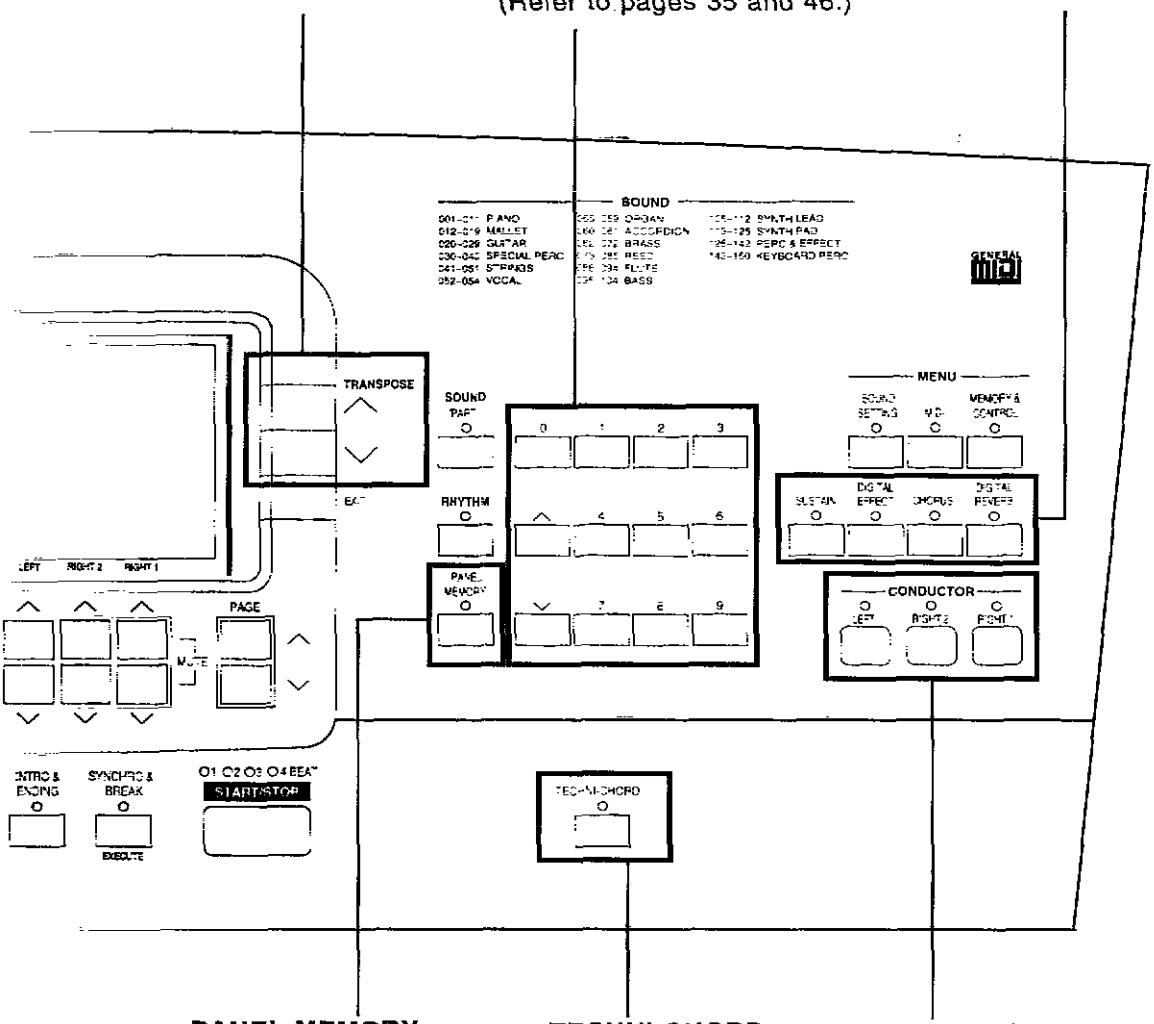
ONE TOUCH PLAY
Sounds and effects matching the selected rhythm are automatically set.
(Refer to page 53.)

PITCH BEND
The **PITCH BEND** wheel allows a "sliding" change in the pitch.
(Refer to page 40.)

TRANSPOSE
Raise or lower the key of the entire keyboard.
(Refer to page 41.)

Number pad
Use the number pad to select sounds and rhythms by their numbers.
(Refer to pages 35 and 46.)

Effects
Add various effects to the sounds.
(Refer to page 38.)



PANEL MEMORY
Store the panel settings, then recall them instantaneously just by pressing a button or two.
(Refer to page 56.)

TECHNI-CHORD
Block chords are automatically added to the melody.
(Refer to page 42.)

CONDUCTOR
Assign a different sound to each part, then assign the desired parts to sections of the keyboard.
(Refer to page 36.)

Backup memory
The various stored memories and function settings are preserved even if the **PLAY** button is turned off, as long as power is being supplied through the AC adaptor or the batteries.
If the power supply to this instrument is discontinued (either through the AC adaptor or the batteries), the various memories and settings will be cleared after about 10 minutes.

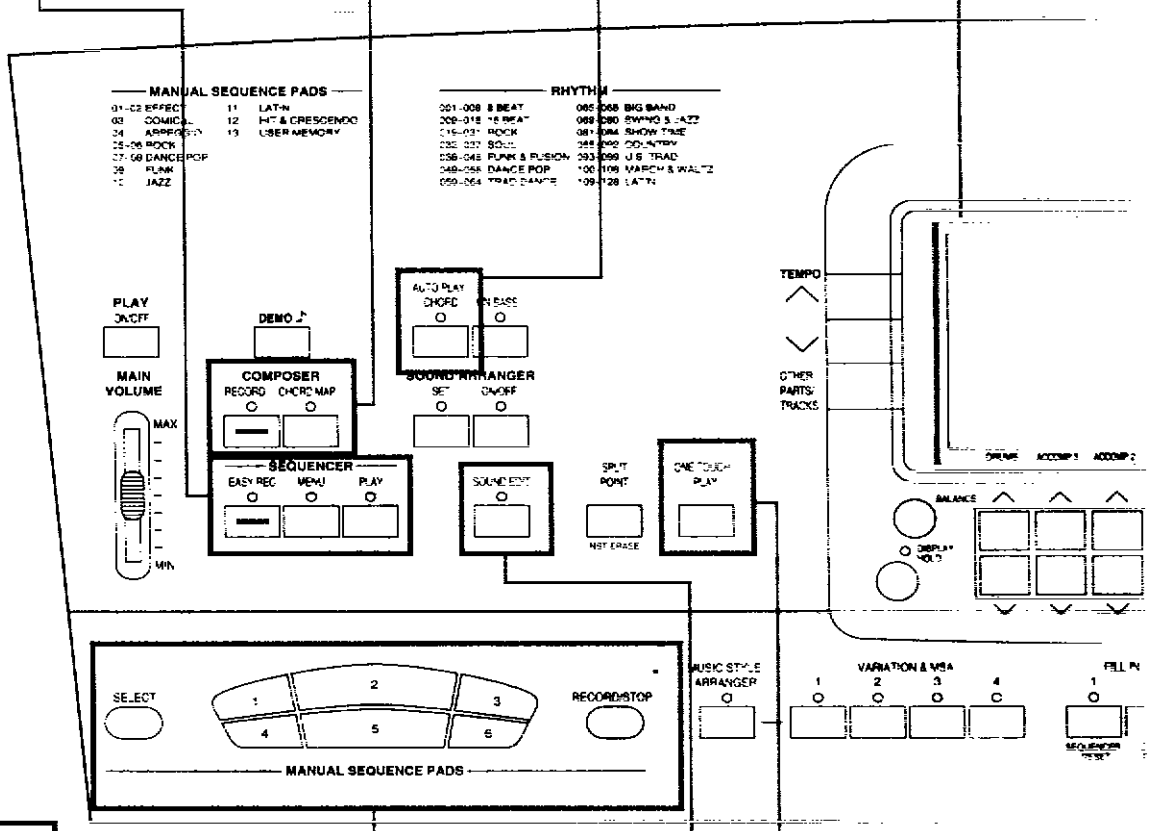
Controls and functions (KN920)

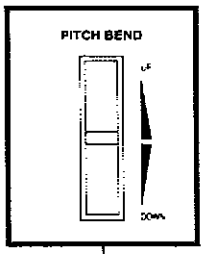
SEQUENCER
Record and play back your performance.
(Refer to page 59.)

COMPOSER
Create and store original rhythm patterns.
(Refer to page 77.)

AUTO PLAY CHORD
Add an automatic accompaniment to your selected rhythm.
(Refer to page 49.)

DISPLAY
Displays performance information, function settings and other messages.
(Refer to page 30.)





PITCH BEND
The **PITCH BEND** wheel allows a "sliding" change in the pitch.
(Refer to page 40.)

MANUAL SEQUENCE PADS
Add various phrases to your performance with the pad buttons.
(Refer to page 44.)

SOUND EDIT
Modify preset sounds to create new and unique sounds.
(Refer to page 106.)

ONE TOUCH PLAY
Sounds and effects matching the selected rhythm are automatically set.
(Refer to page 53.)

TRANSPOSE
Raise or lower the key of the entire keyboard.
(Refer to page 41.)

Number pad
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(Refer to pages 35 and 46.)

Effects
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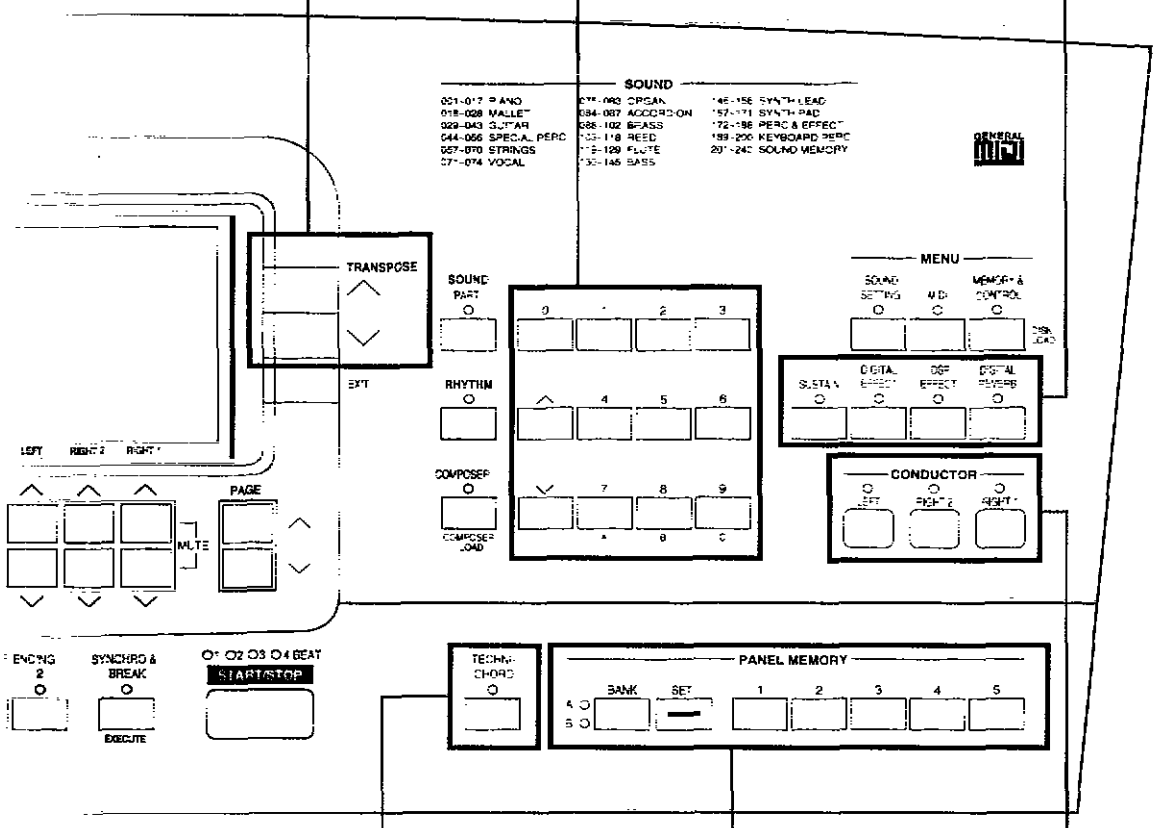

TECHNI-CHORD
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PANEL MEMORY
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CONDUCTOR
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Backup memory
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Controls and functions (KN1500)

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Create and store original rhythm patterns.
(Refer to page 77.)

AUTO PLAY CHORD
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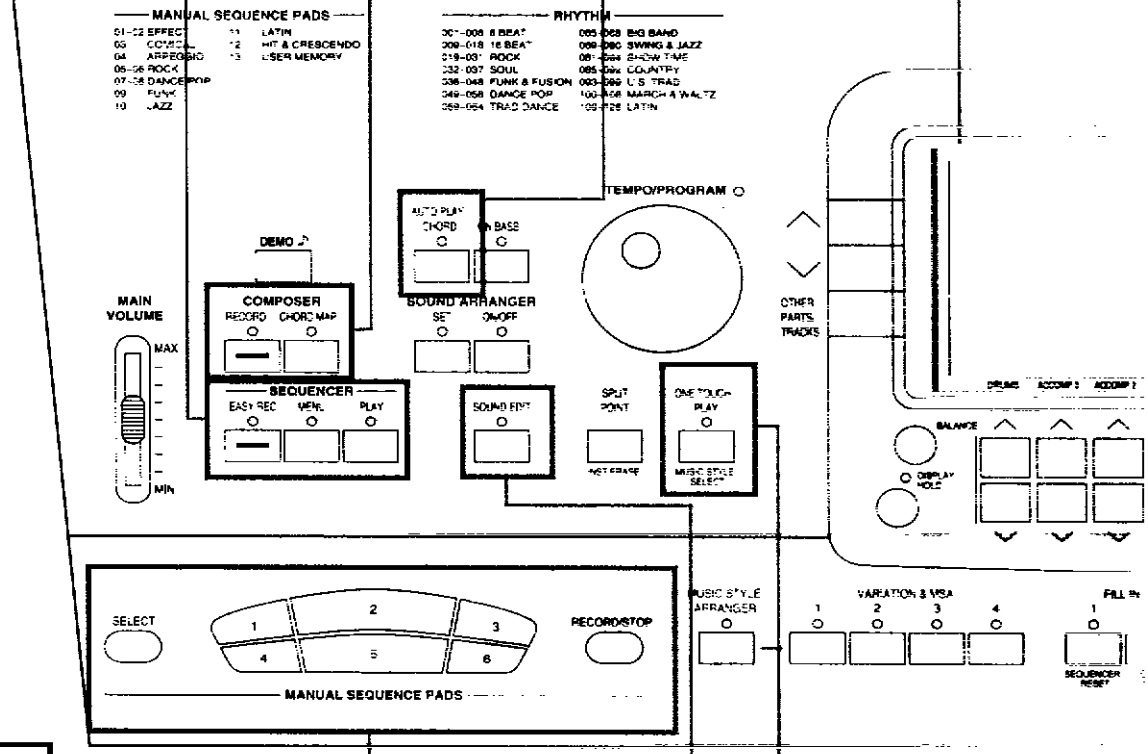

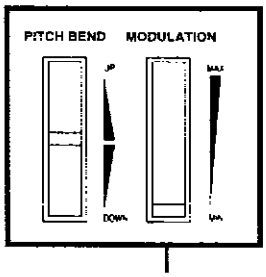

MANUAL SEQUENCE PADS
Add various phrases to your performance with the pad buttons.
(Refer to page 44.)

ONE TOUCH PLAY
Sounds and effects matching the selected rhythm are automatically set.
(Refer to page 53.)

PITCH BEND/MODULATION
The **PITCH BEND** wheel allows a "sliding" change in the pitch.
The **MODULATION** wheel is used to add vibrato to the sound.
(Refer to pages 40 and 41.)

SOUND EDIT
Modify preset sounds to create new and unique sounds.
(Refer to page 106.)

TRANSPOSE
Raise or lower the key of the entire keyboard.
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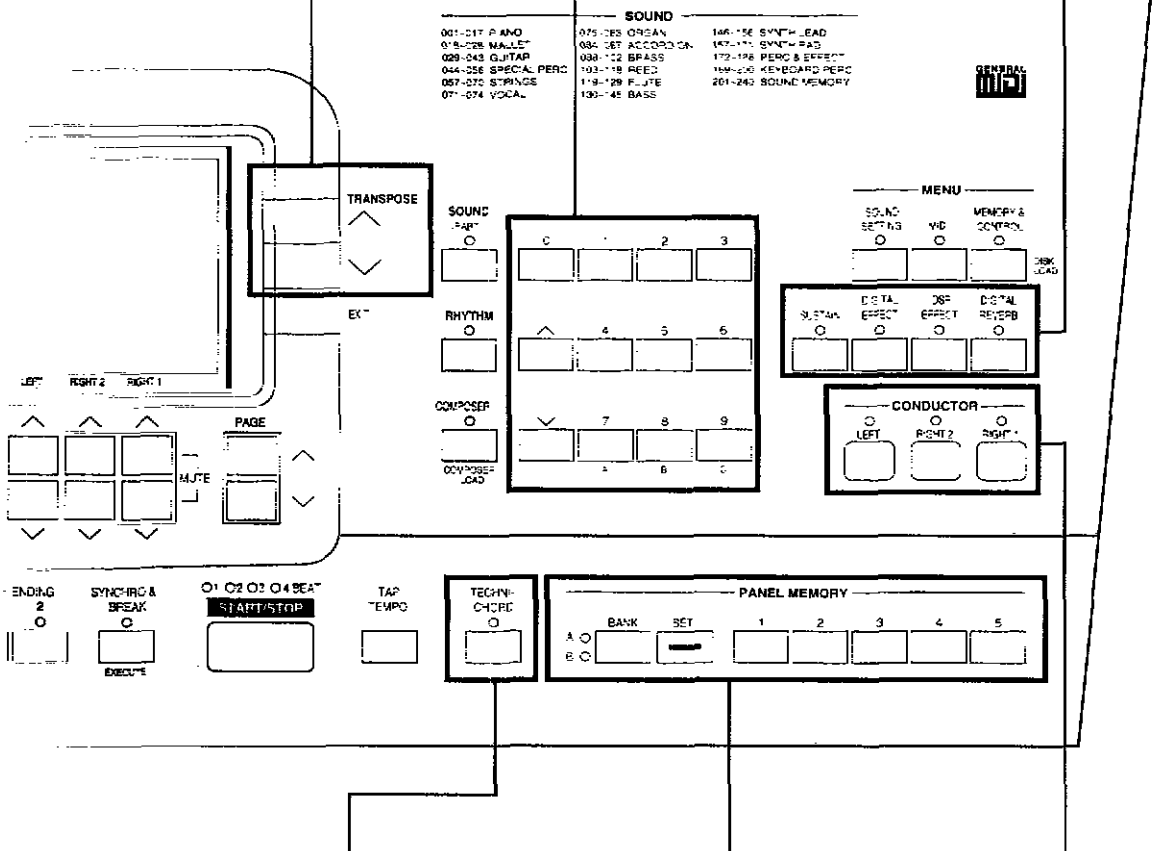

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CONDUCTOR
Assign a different sound to each part, then assign the desired parts to sectlons of the keyboard.
(Refer to page 36.)

Getting started (KN720/KN920)

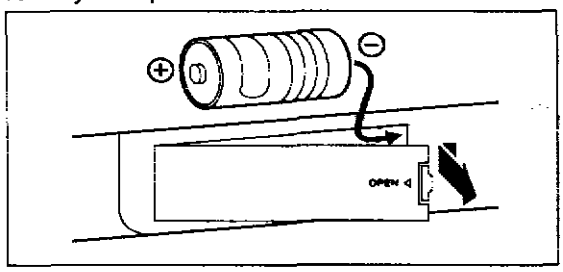
Before you play

This Keyboard can use either dry cell batteries or ordinary household AC current. If using batteries, use six R20/LR20 batteries ("D" size, UM-1). To use AC current, an SY-AD6/AD6B AC adaptor (12V, 2A) is required. (Note: Use of an AC adaptor other than the SY-AD6/AD6B may cause damage to your instrument.)

- The AC adaptor and battery are sold separately.
- The output power differs depending on whether the AC adaptor or batteries are being used.

When using batteries

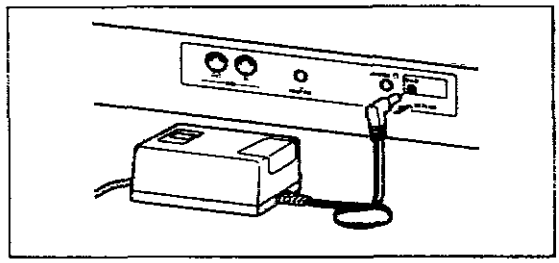
Open the battery compartment cover, found on the rear of the instrument. Insert six R20/LR20 batteries, and replace the battery compartment cover.



- To insert the batteries correctly, follow the + and – polarity indications. (Batteries installed with incorrect polarities may leak and damage this unit. If the leaking electrolyte comes into contact with skin or clothes, flush with water immediately.)
- Do not mix batteries (old and new) or types (carbon and alkaline).
- Remove the batteries from the battery compartment and store separately when the instrument is not to be used for a long time.
- Never subject batteries to excessive heat or flame; do not attempt to disassemble them; and be sure they are not short-circuited.
- Do not attempt to recharge carbon or alkaline batteries.

When using the AC adaptor

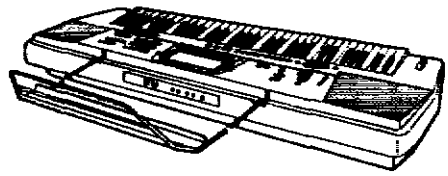
Connect the AC adaptor.



- Do not disconnect and connect the AC adaptor when the **PLAY** button is on.

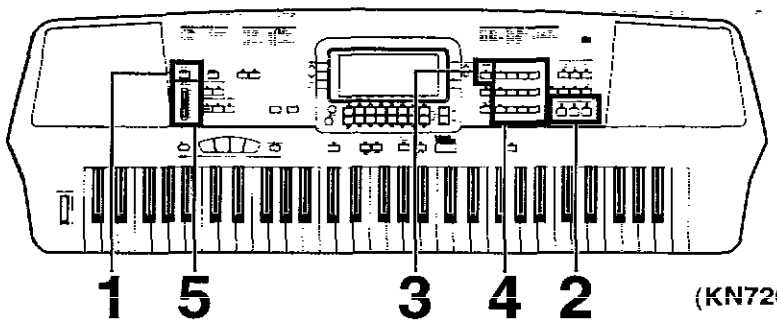
Music stand

Affix the music stand as shown.



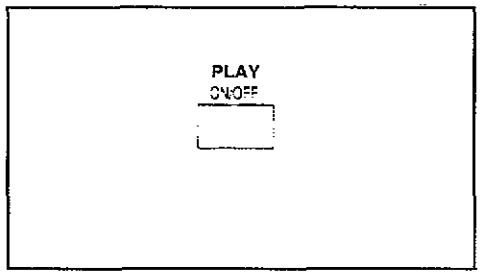
- Even when batteries are installed, if the AC adaptor is used, the battery circuit is bypassed and the power is supplied through the AC adaptor.
- When batteries are used, if the instrument is left on but the controls are not touched for a while (about 5 minutes), the energy-saving function is activated and the **PLAY** button turns off automatically.
- When the power is withdrawn from this instrument, the various storable memories and storable function settings of this instrument will be erased in about 10 minutes.
- When battery power is low during a performance, "WARNING! LOW BATTERIES!" is shown on the display. In this case, replace the batteries as soon as possible.

Playing

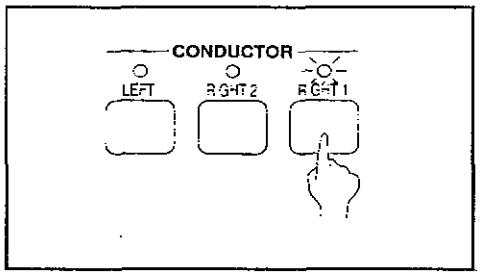


(KN720)

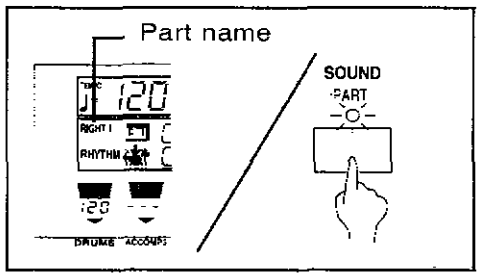
1 Press the **PLAY** button to turn it on.



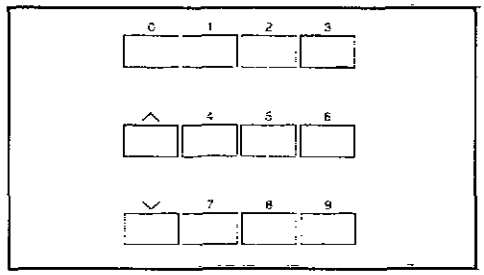
2 In the **CONDUCTOR** section on the panel, press the **RIGHT 1** button to turn it on.



3 Use the **SOUND/PART** button to select RIGHT 1.

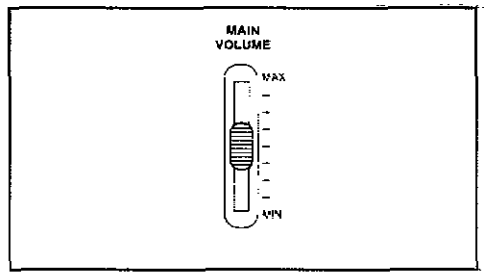


4 On the number pad, press **0**, **0**, **2**.



- Touch any note on the keyboard. You will hear the "Bright Piano" sound.

5 Set the **MAIN VOLUME** to an appropriate level with the sliding control.

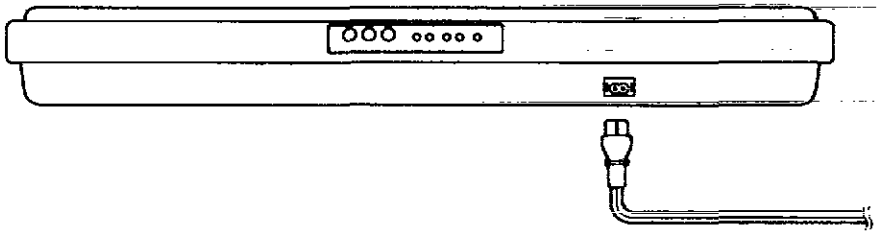


- Your Keyboard features Touch Response. You control the volume by playing the keys harder or softer.

- The pitch of this instrument can be adjusted for when playing with other instruments. (Refer to page 103.)

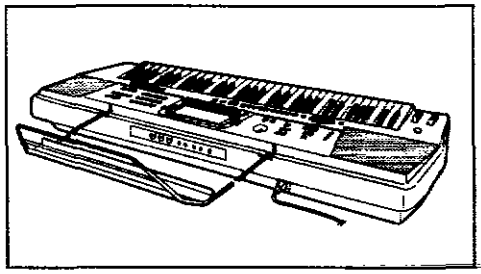
Getting started (KN1500)

Before you play



1 Plug the power cord into an outlet.

2 Affix the music stand as shown.

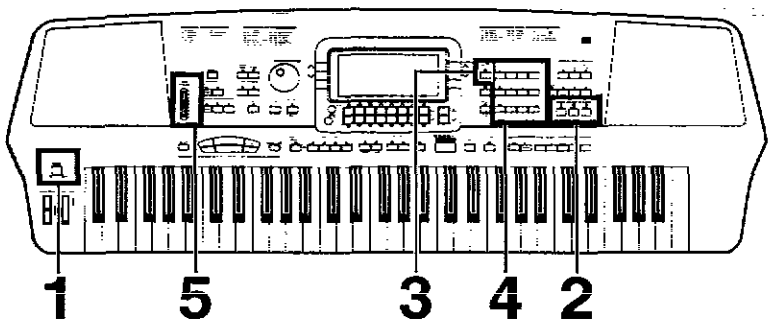


About the backup memory
The panel settings and stored memories are maintained in a backup memory for about 10 minutes after the power to this instrument is turned off. If you wish to keep the memory contents, before you turn off the instrument, use the SAVE procedure to store the desired data on a disk for recall at a later time.

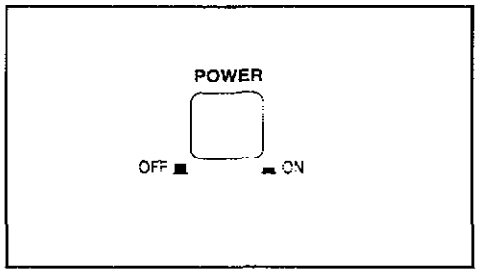
- The backup memory does not function until the power has been on for about 10 minutes.
- When you quit the operating mode, a warning display may appear to remind you to save the data.

- The pitch of this instrument can be adjusted for when playing with other instruments. (Refer to page 103.)

Playing

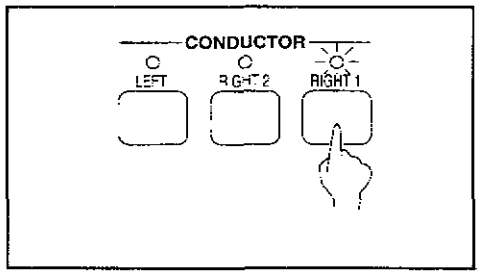


1 Press the **POWER** button to turn it on.

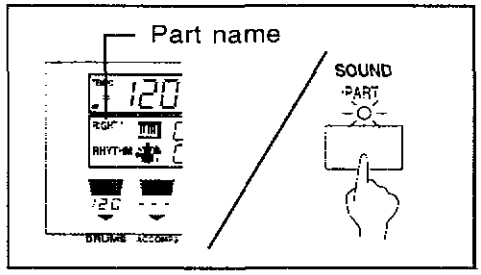


- Under certain conditions, the functions and memories of this instrument may be initialized when the power is turned on.

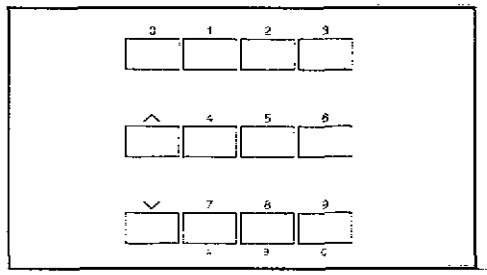
2 In the **CONDUCTOR** section on the panel, press the **RIGHT 1** button to turn it on.



3 Use the **SOUND/PART** button to select RIGHT 1.

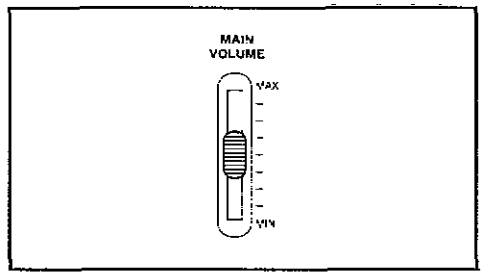


4 On the number pad, press **0**, **0**, **8**.



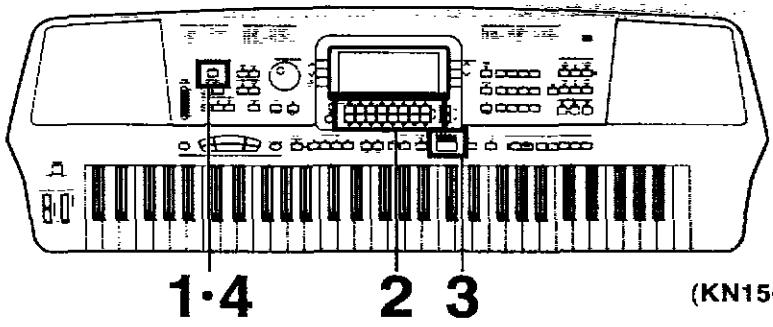
- Touch any note on the keyboard. You will hear the "Midi Grand" sound.

5 Set the **MAIN VOLUME** to an appropriate level with the sliding control.



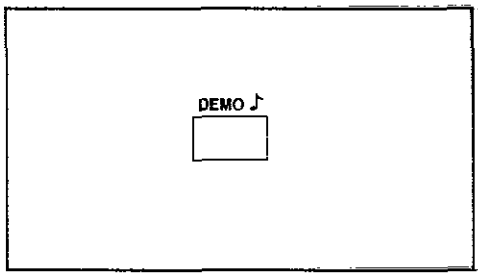
- Your Keyboard features Touch Response. You control the volume by playing the keys harder or softer.

Listen to the demonstration



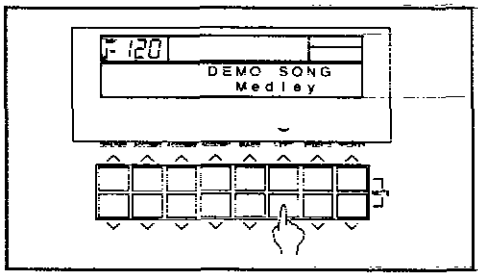
(KN1500)

1 Press the **DEMO** button.



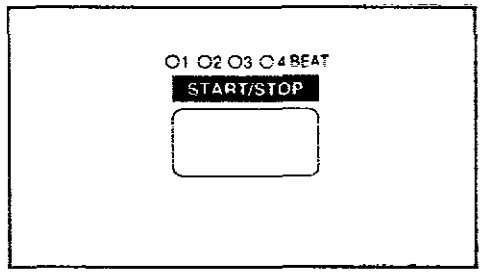
- The display changes to the DEMO SONG display.

2 Use the **LEFT** ∧ and ∨ buttons to select a song number.



- If you select "Medley," all the songs are played in a medley performance.

3 Press the **START/STOP** button.

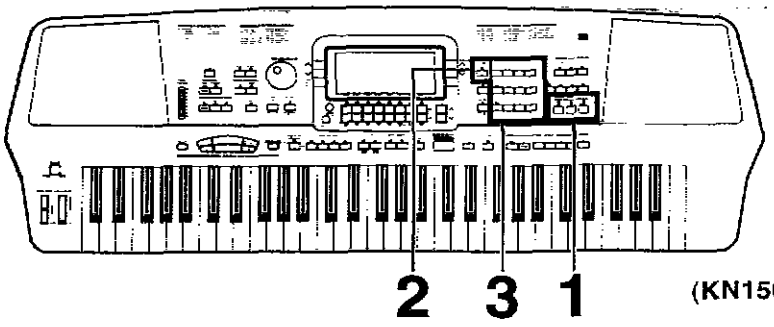


- The demonstration performance corresponding to your selection begins.
- To end the demonstration before it has finished, again press the **START/STOP** button.
- To listen to other songs, repeat steps 2 and 3.
- If "Medley" was selected, all the songs are played in order in a medley performance. The medley performance continues until the **START/STOP** button or the **DEMO** button is pressed again.

4 When you are finished listening to the demonstration tunes, press the **DEMO** button again.

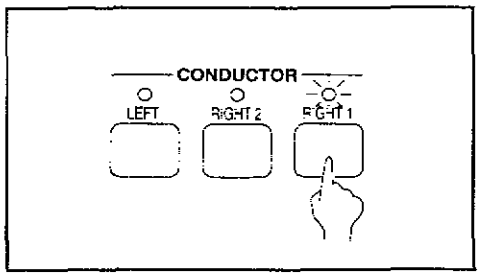
- If you press and hold the **DEMO** button for a few seconds, or if you press first the **DEMO** button and then the **START/STOP** button, you can also begin a medley performance.
- During the medley performance, use the **LEFT** ∧ and ∨ buttons if you wish to change to a different song.
- Some of the buttons do not function while the demonstration performances are being played.

Selecting sounds

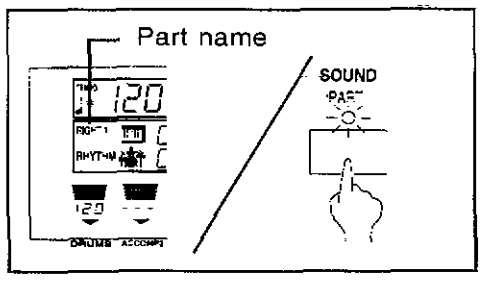


(KN1500)

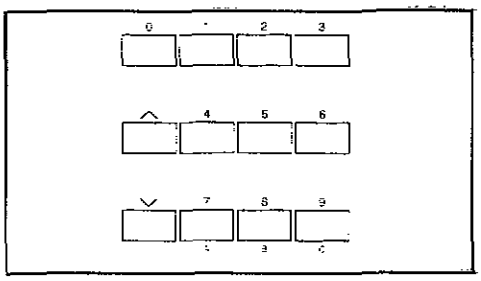
1 In the **CONDUCTOR** section, turn on the **RIGHT 1** button.



2 Use the **SOUND/PART** button to select RIGHT 1.



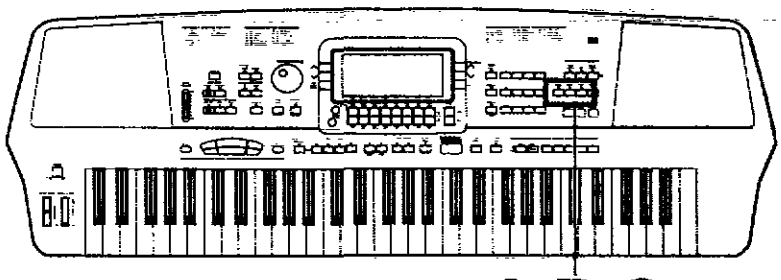
3 On the number pad, select a sound number (3 digits).



- The number and name of the sound you selected is shown on the display.
- The list of sound groups and their numbers is found on the upper part of the operation panel.
- For single-digit sound numbers: for sound **003**, for example, press **0**, **0**, **3**.
- You can use the ∧ and ∨ buttons to change to the next higher or lower sound number.

- Other things you can do are mixing sounds and playing different sounds on the left and right areas of the keyboard. (Refer to page 36.)

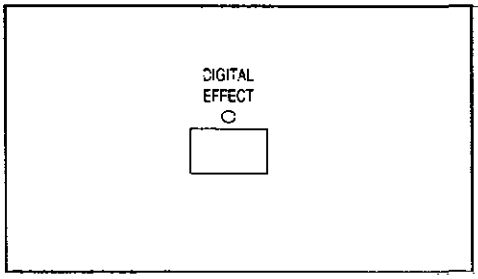
Add effects



(KN1500)

Add a feeling of spaciousness to the sound.

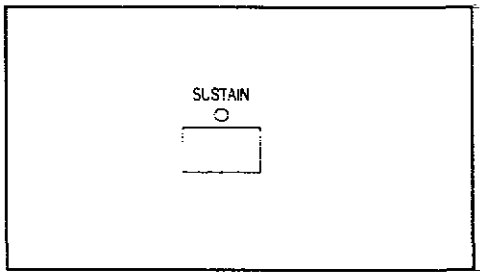
A Turn on the **DIGITAL EFFECT** button.



- The sound is broader and deeper.

Add sustain.

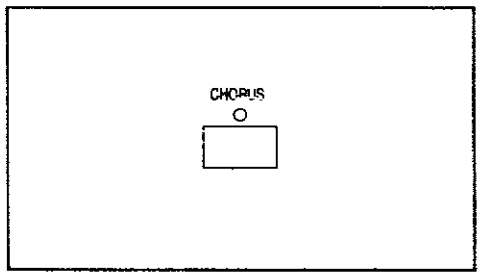
B Turn on the **SUSTAIN** button.



- Play and release a key. The tones fade out gradually after the key is released.

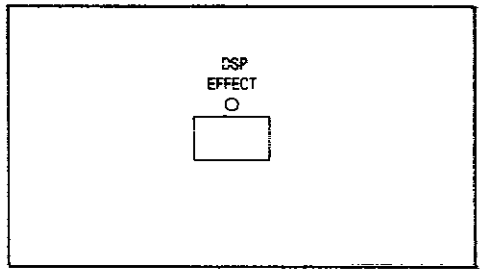
Add breadth to the sound. (KN720)

C Turn on the **CHORUS** button.

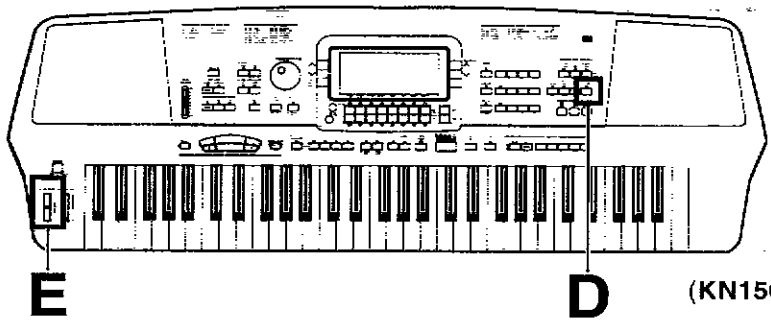


Add a unique quality to the sound. (KN920/KN1500)

C Turn on the **DSP EFFECT** button.



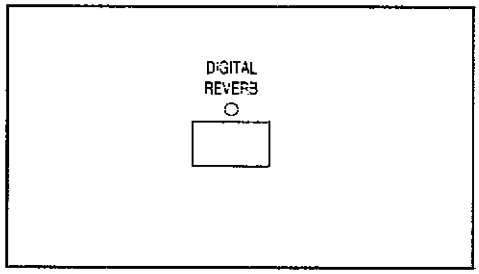
- The type of **DIGITAL EFFECT** differs depending on the selected sound.



(KN1500)

Add reverberation.

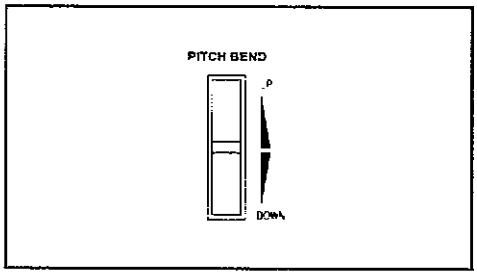
D Turn on the **DIGITAL REVERB** button.



- The reverberation effect is applied to all sounds.

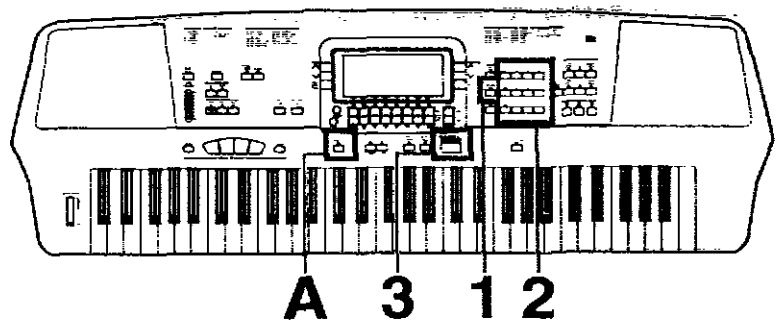
Change the pitch.

E While playing a key on the keyboard, move the **PITCH BEND** wheel up and down.

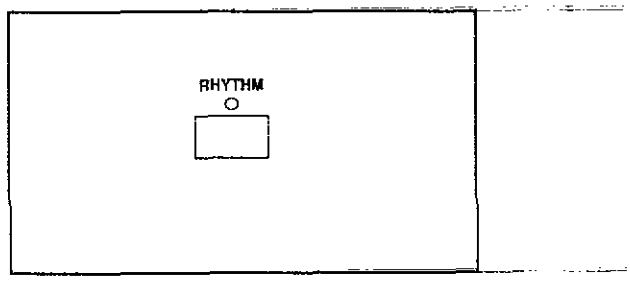


- The pitch of the played key slides up and down, as when you bend the strings on a guitar.

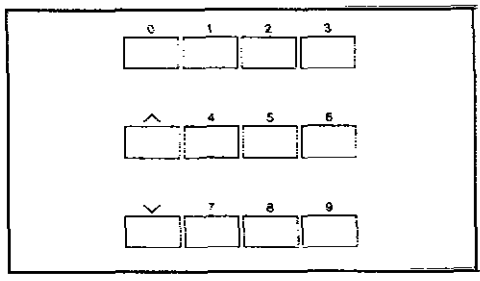
Playing automatic rhythms (KN720)



1 Press the **RHYTHM** button to turn it on.

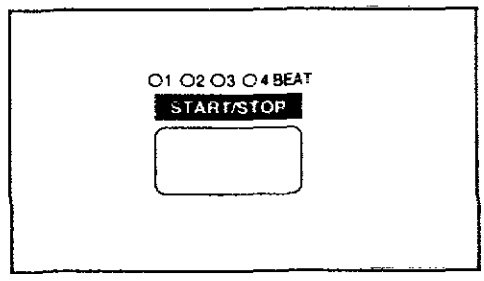


2 On the number pad, select a rhythm number (3 digits).



- The list of rhythm groups and their numbers is shown at the upper left of the operation panel.
- You can use the ∧ and ∨ buttons to change to the next higher or lower rhythm number.

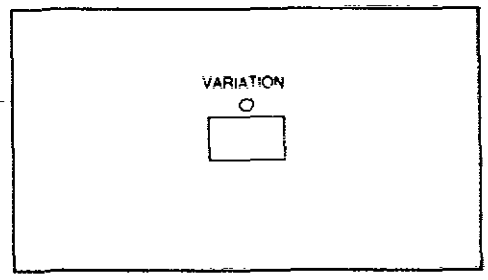
3 Start the rhythm by pressing the **START/STOP** button.

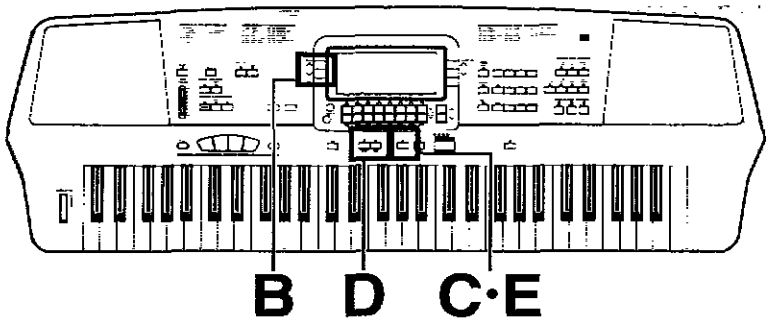


- Stop the rhythm by pressing the **START/STOP** button again.

Select a variation.

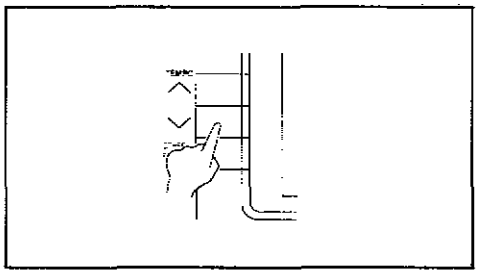
A When you turn on the **VARIATION** button, the nuance of the pattern changes.





Adjust the tempo.

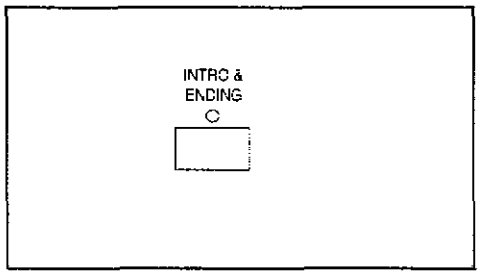
B Adjust the tempo with the **TEMPO** buttons.



- The tempo is shown on the display as "♩ =".

Insert an intro pattern.

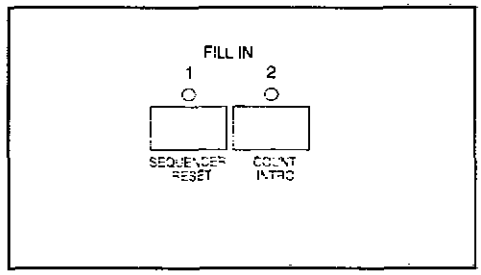
C To start your performance with an introduction, press the **INTRO & ENDING** button before starting the rhythm.



- An intro is played, after which the regular rhythm starts.

Insert a fill-in pattern.

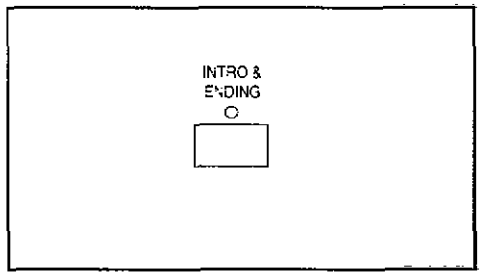
D While the preset rhythm pattern is playing, press either the **FILL IN 1** or **2** button.



- A fill-in pattern immediately starts to play.

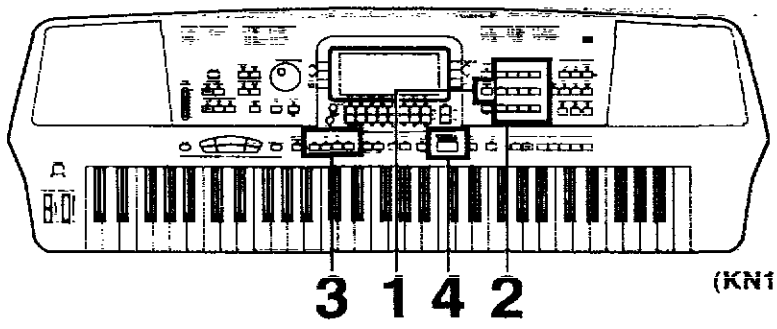
Insert an ending pattern.

E While the rhythm is playing, press the **INTRO & ENDING** button.



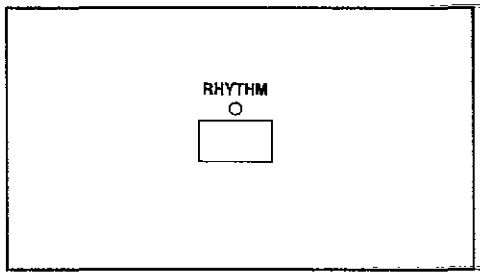
- You will hear an ending pattern, and then the rhythm stops.

Playing automatic rhythms (KN920/KN1500)

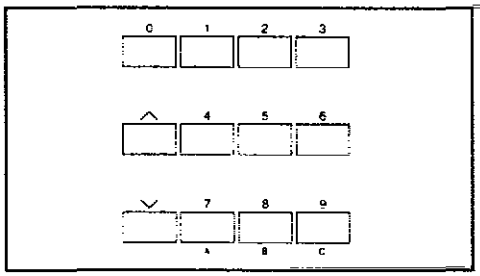


(KN1500)

1 Press the **RHYTHM** button to turn it on.

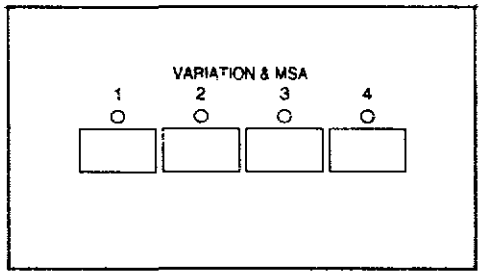


2 On the number pad, select a rhythm number (3 digits).



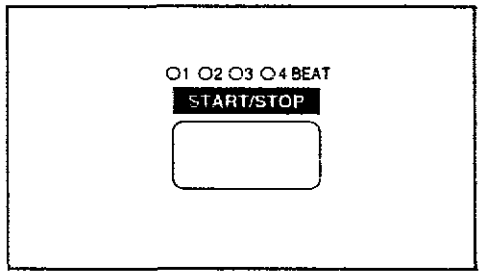
- The list of rhythm groups and their numbers is shown at the upper left of the operation panel.
- You can use the ∧ and ∨ buttons to change to the next higher or lower rhythm number.

3 Use the **VARIATION** buttons to select the variation number.

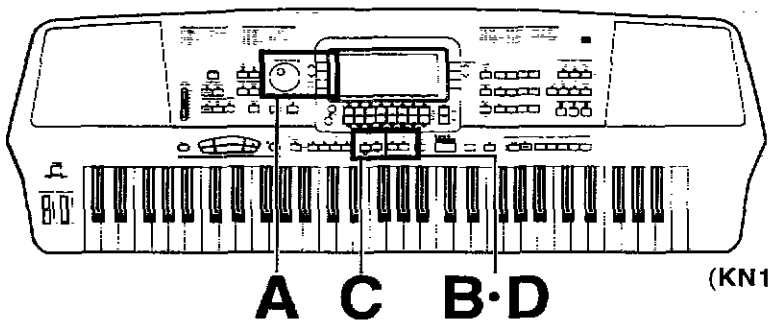


- The nuance of the pattern differs with each variation number.

4 Start the rhythm by pressing the **START/STOP** button.



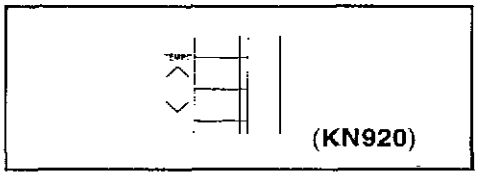
- Stop the rhythm by pressing the **START/STOP** button again.



(KN1500)

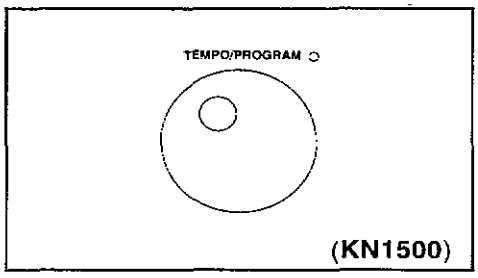
Adjust the tempo.

A Adjust the tempo with the **TEMPO** buttons.



(KN920)

KN1500: You can also adjust the tempo with the **TEMPO/PROGRAM** dial.

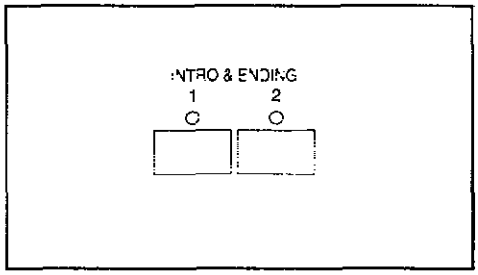


(KN1500)

- The tempo is shown in the display as "♩ = ".

Insert an intro pattern.

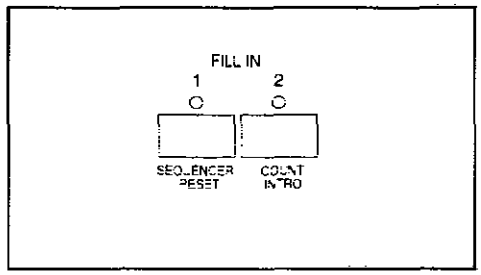
B To start your performance with an introduction, press the **INTRO & ENDING 1** or **2** button before starting the rhythm.



- An intro is played, after which the regular rhythm starts.

Insert a fill-in pattern.

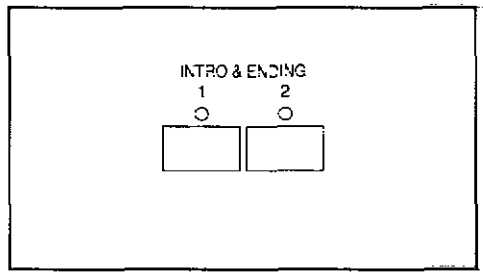
C While the preset rhythm pattern is playing, press either the **FILL IN 1** or **2** button.



- A fill-in pattern immediately starts to play.

Insert an ending pattern.

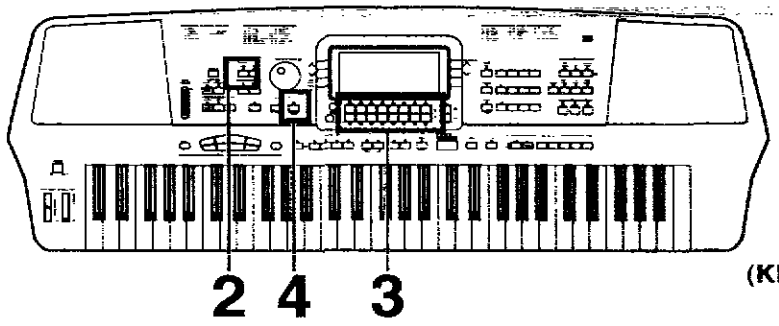
D While the rhythm is playing, press the **INTRO & ENDING 1** or **2** button.



- You will hear an ending pattern, and then the rhythm stops.

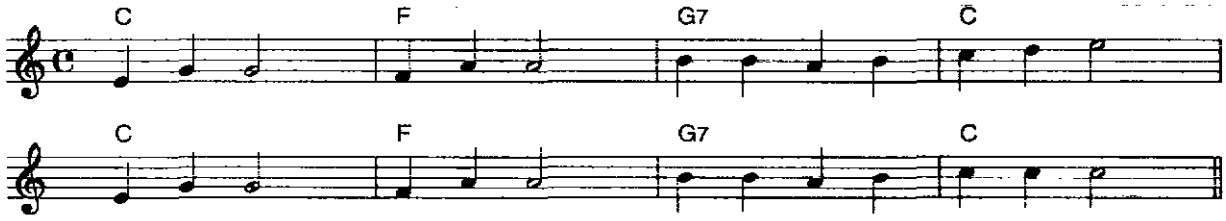
Automatic accompaniment

Just by specifying a chord on the keyboard, an accompaniment pattern which matches the selected rhythm is automatically played.



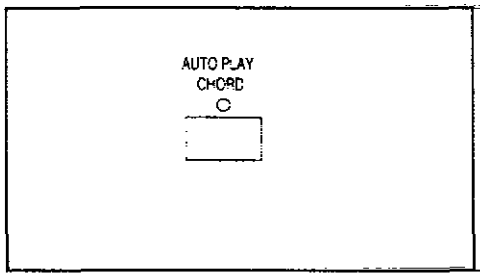
(KN1500)

Use the **AUTO PLAY CHORD** with the following tune.

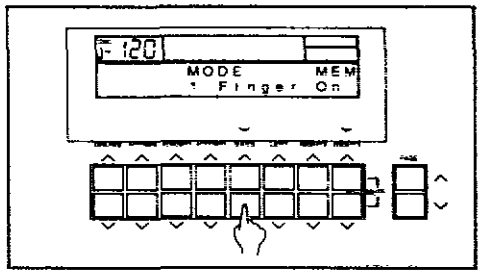


1 Select a rhythm (other than a three-beat rhythm).

2 Turn on the **AUTO PLAY CHORD** button.

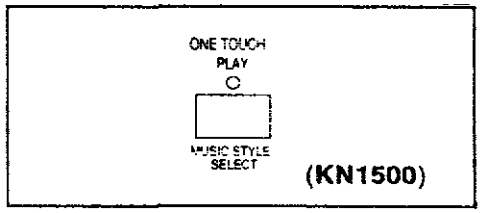


3 Use the **BASS** ∧ and ∨ buttons to select "1 Finger."



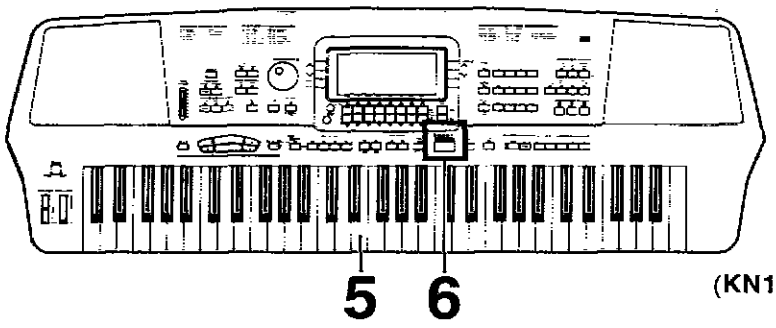
- The display returns to the previous display after a few seconds.

4 Press and hold the **ONE TOUCH PLAY** button for a few seconds until the panel settings change.



(KN1500)

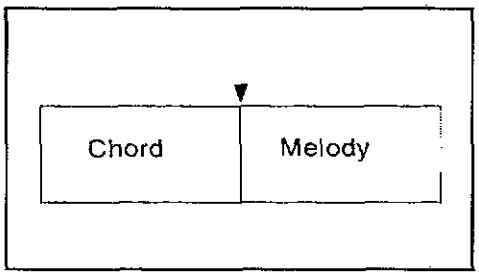
- The panel settings automatically change to those matching the rhythm you selected in step 1.



(KN1500)

5

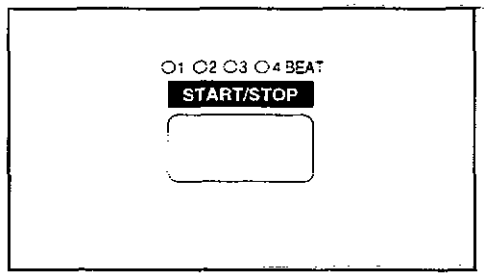
Use your left hand to play the chords and your right hand to play the melody.



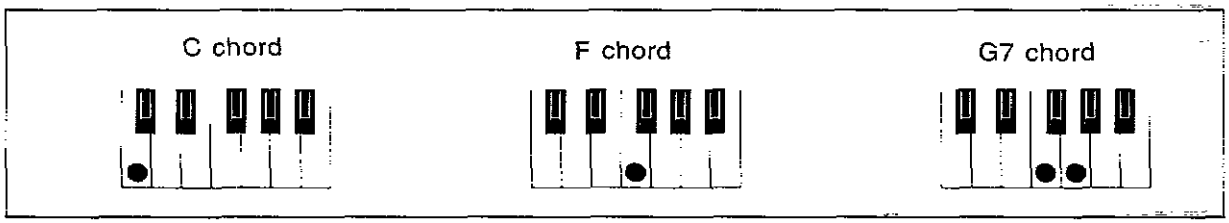
- Pressing a key on the left area of the keyboard will cause the automatic rhythm pattern to start playing (synchro start).
- When the C key is pressed on the left area of the keyboard, an accompaniment begins to play in the C major key.
- Playing the chord key (root note) and the white key to its left will produce a 7th chord.

6

At the end of your performance, press the **START/STOP** button.



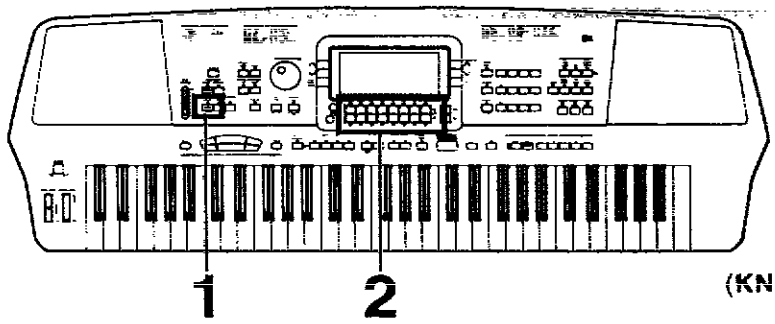
- The automatic accompaniment stops.
- When ending a performance which uses the automatic accompaniment, press the **AUTO PLAY CHORD** button to turn it off.



- **KN1500**: You can also have the panel settings change to automatically match the style you select. (Refer to page 54.)

Record your performance

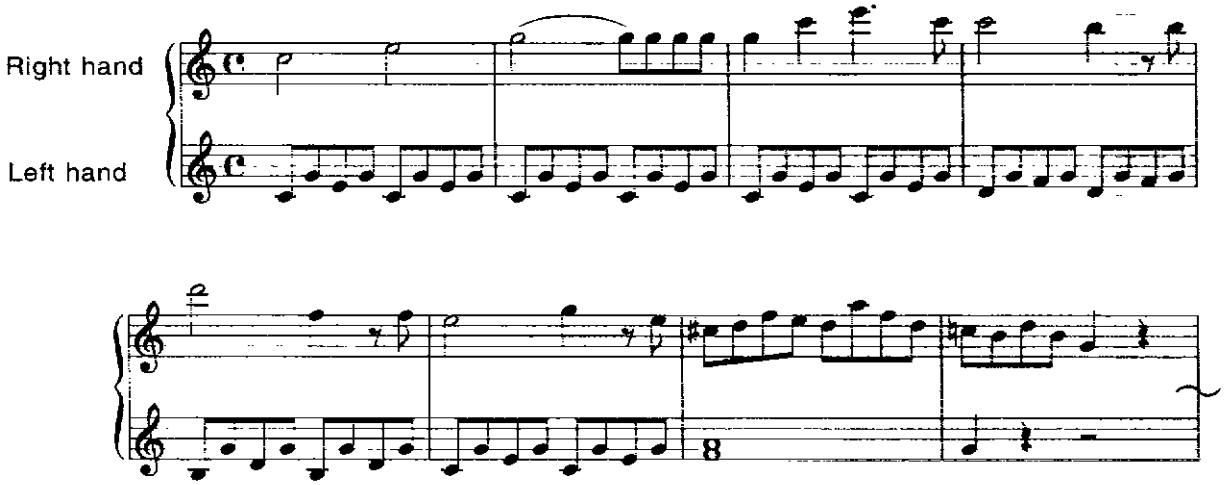
Use the **SEQUENCER** to record your performance.



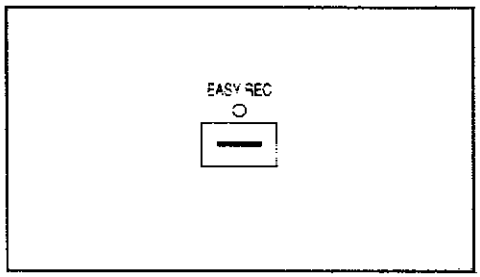
(KN1500)

Sonatina

Sound: **001** [Grand Piano] (**RIGHT 1** part)

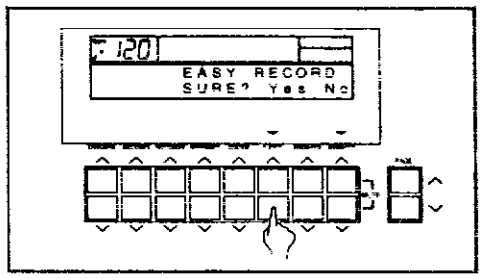


1 Press the **EASY REC** button to turn it on.

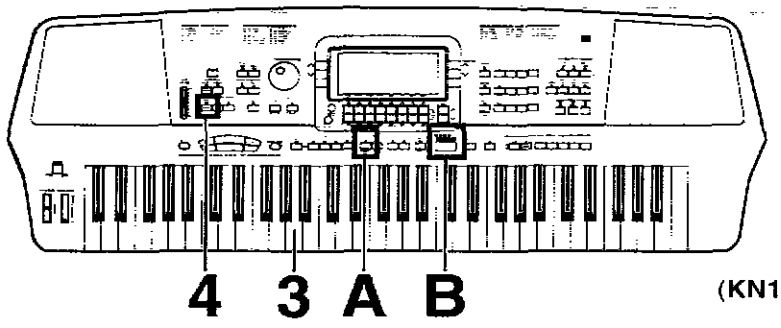


- The display changes to the EASY RECORD display.

2 Press either **LEFT** (Yes) button.



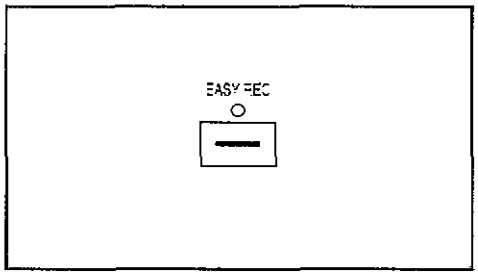
- The display changes to the REC display.



(KN1500)

3 Play the song on the keyboard.

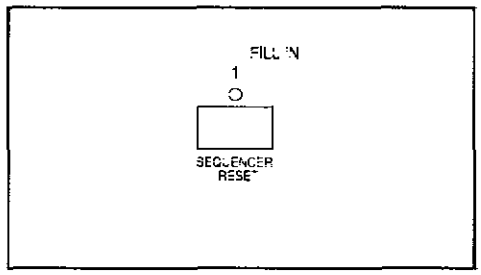
4 When you have finished playing, press the **EASY REC** button again to turn it off.



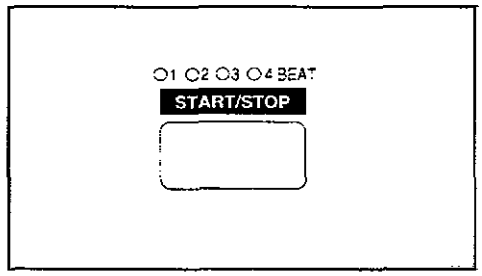
- The display changes to the SEQ PLAY display.

Playing back your recorded performance

A Press the **SEQUENCER RESET** (**FILL IN 1**) button.



B Press the **START/STOP** button.

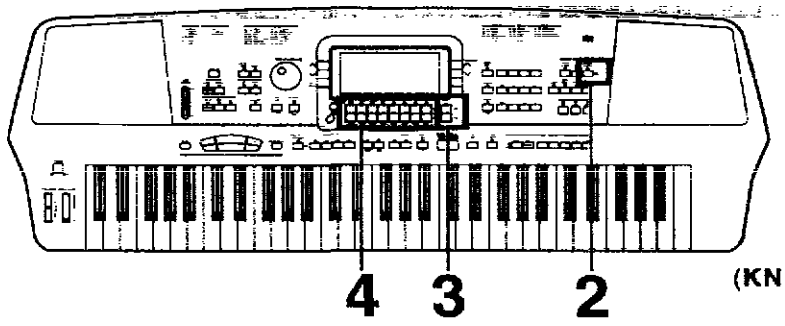


- Your performance is played back just as you recorded it.
- When you are finished playing back your performance, press the **PLAY** button in the **SEQUENCER** section to turn it off.

- You can also record several parts individually and then have them played back together for an ensemble performance. (Refer to page 64.)

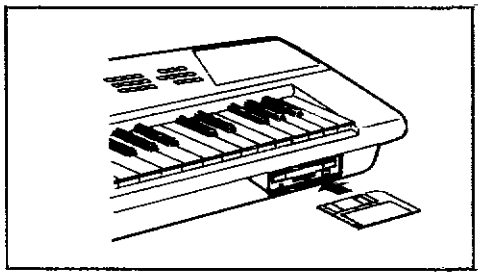
Playing commercial disks (KN920/KN1500)

You can play commercial song disks such as Standard MIDI File (SMF) FORMAT 0 or DISK ORCHESTRA COLLECTION™ (DOC) disks on this instrument.

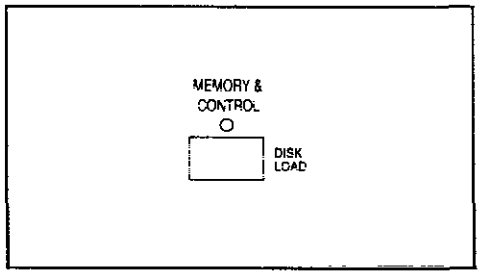


(KN1500)

1 Insert the song disk into the Disk Drive slot. Push it all the way in until you hear a click.

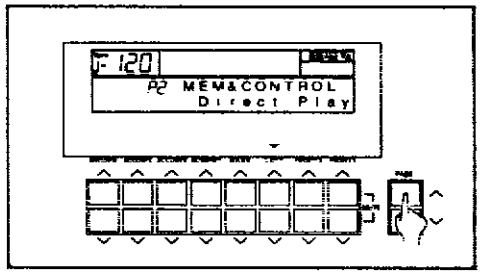


2 Press the **MEMORY & CONTROL** button to turn it on.

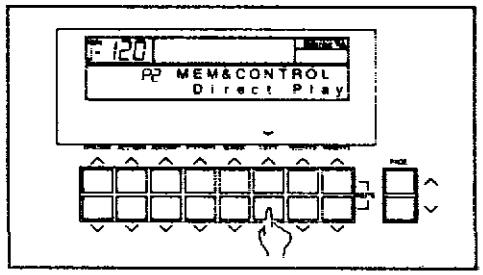


- The display changes to the MEM & CONTROL display.

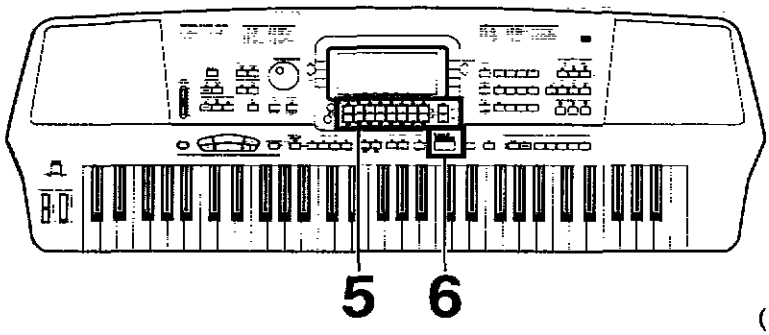
3 Press the **PAGE** ∧ button to select "P2 Direct Play."



4 Press the **LEFT** ∧ or ∨ button.



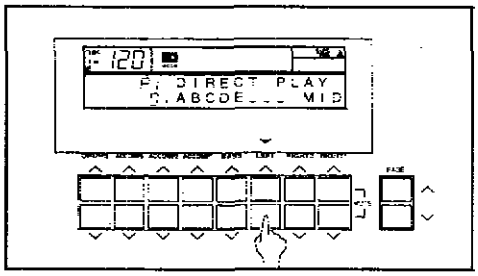
- The display changes to the DIRECT PLAY display.



(KN1500)

5

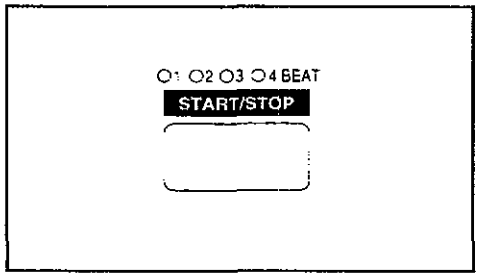
Use the **LEFT** ∧ and ∨ buttons to select the song you wish to play.



- For SMF files, if you press the **PAGE** ∧ button to display P2 DIRECT PLAY, you can use the **RIGHT 1** ∧ and ∨ buttons to specify whether or not to play the song as GENERAL MIDI (GM) (On/Off).

6

Press the **START/STOP** button.



- The selected song is played back.
- To stop playback, press the **START/STOP** button again.

- You can use the same procedure to play back other songs on the disk.
- Direct play from SMF FORMAT 1 disks is not possible. To play FORMAT 1 disks, follow the SMF LOAD procedure (page 93).

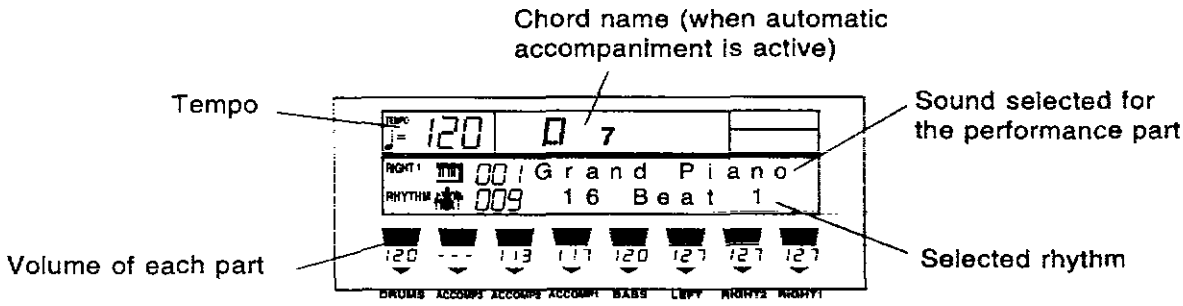
* DISK ORCHESTRA COLLECTION is a trademark of the YAMAHA Corporation.

About the display

The display shows various information and is used for most of this instrument's operations.

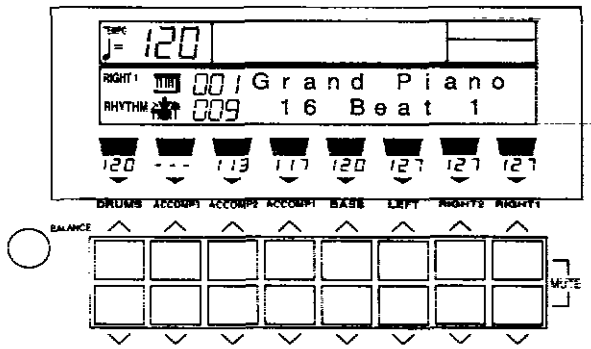
Normal display

This illustration shows the kind of information you see on the display during a normal performance.



Volume balance

At the bottom half of the normal display, the volume balance of each part is shown as a bar graph and a number (0 to 127).



Use the ∧ and ∨ buttons directly below the display to adjust the volume of each part.

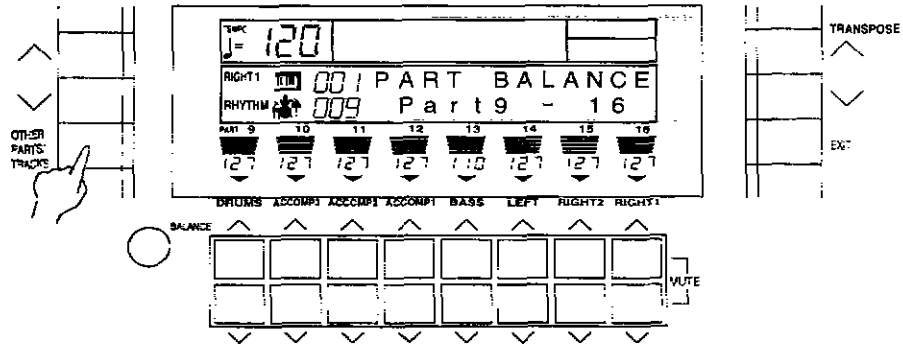
- If you press and hold a button, the scrolling speed becomes fast.
- Even when the display is not the normal display, you can view the volume balance by pressing the **BALANCE** button, located to the lower left of the display.

■ **MUTE**

To mute a part, press both the corresponding ∧ and ∨ buttons at the same time.

- The number indication for the volume of a muted part is shown as [– – –].
- Pressing either balance button for a muted part will cancel the mute function.

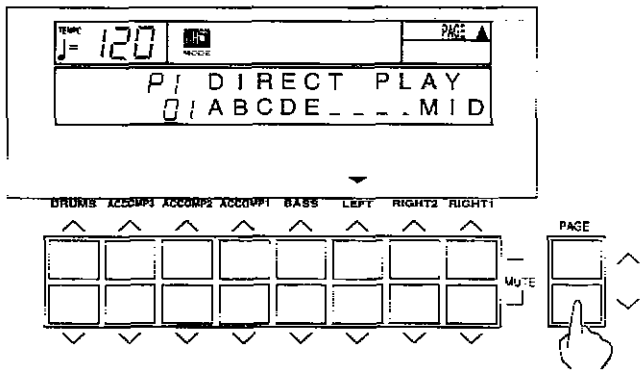
■ **OTHER PARTS**
Press the **OTHER PARTS/TRACKS** button to show the PART BALANCE display for MSP (**MANUAL SEQUENCE PADS**), [Part 1 – 8]; press again for [Part 9 – 16].



- Press the **EXIT** button to return to the display before the volume setting display.
- These parts are used when this instrument is being utilized as a 16-part multi-timbre sound generator: during **SEQUENCER** operation, during song disk playback (**KN920/KN1500**) or when external MIDI equipment is connected.

PAGE buttons

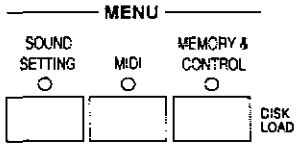
When the current display fills more than one screen, a PAGE indication is shown on the display. For example, if PAGE ▲ is shown on the display, it means that there is a following page or pages. Likewise, PAGE ▼ indicates a previous page, and PAGE ▼▲ indicates a previous and a following page. In this case, you can use the **PAGE** ∧ and ∨ buttons to the right of the balance buttons to view different "pages" of the display.



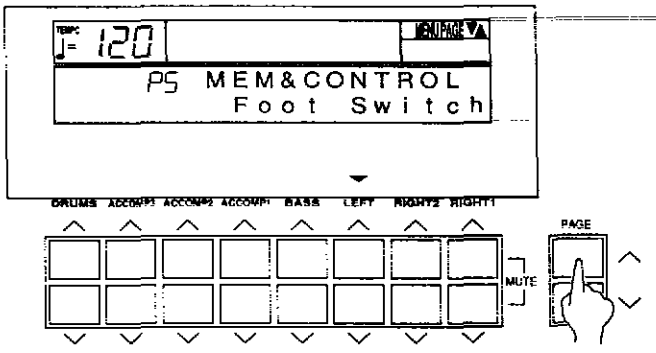
- Press the ∧ button to view the next page of the display, and the ∨ button to view the previous page of the display.
- P1, P2 etc. on the display indicates the page number.

MENU displays

The buttons shown in the illustration below for example control multiple functions. Pressing one of the buttons will access the corresponding **MENU** display.



■ Example of MENU display: MEMORY & CONTROL



(KN920/KN1500)

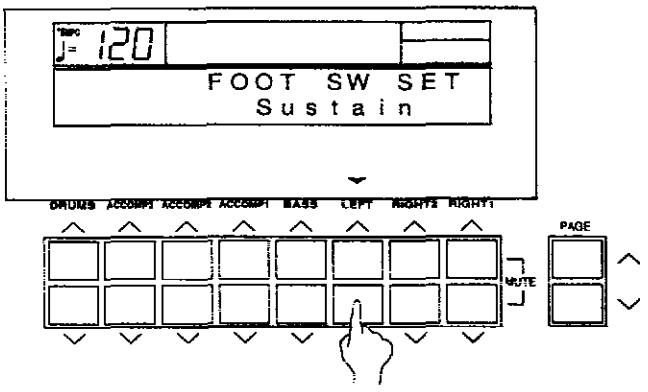
The **PAGE** buttons are also used to select the menu pages. When selecting a menu, a MENU PAGE indication is shown in the upper right part of the screen. For example, to select [Foot Switch], use the **PAGE** ∧ button to select page 5 (P5) (**KN920/KN1500**).

- In this manual, this procedure is written as follows: "Select [P5 Foot Switch]."
- To access the setting display, press the button below the display which corresponds to the ▼ indication (in this example, either **LEFT** ∧ or ∨ button).

Setting display

When necessary, the buttons below the display are used to set the functions.

■ Example of setting display: Foot Switch

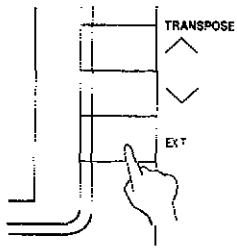


One or more ▼ indications at the bottom of the screen indicate that the corresponding balance buttons below the display are used to change the settings. In this example, the **LEFT** ∧ and ∨ buttons are used.

- In this manual, this procedure is written as follows: "Use the **LEFT** ∧ and ∨ buttons to select the function."

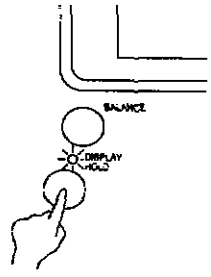
EXIT button

While the setting display is shown, press this button to go back to the previous display.



DISPLAY HOLD button

Press this button to turn it on when you wish to maintain the current display. For example, you can maintain a setting display which normally turns off automatically, or even during a performance you can monitor information which is not shown on the normal performance display.

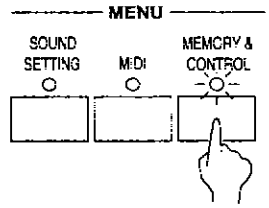


- If you are viewing a setting display which normally turns off automatically, this indicator may flash.
- If any of the **MENU** buttons, for example, is pressed, the **DISPLAY HOLD** mode is canceled.

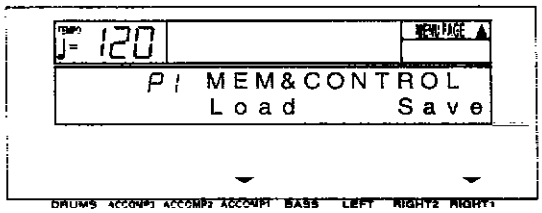
CONTRAST

Adjust the contrast of the display.

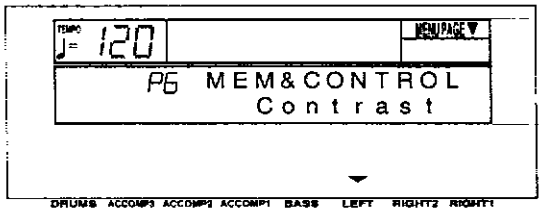
1. Press the **MEMORY & CONTROL** button to turn it on.



- The display looks similar to the following.

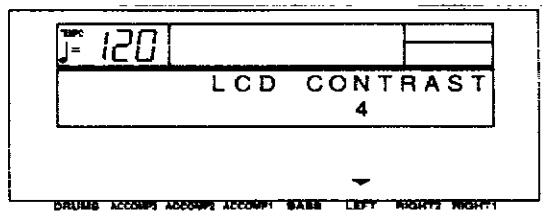


2. Use the **PAGE** buttons to select [P4 Contrast] (**KN720**) or [P6 Contrast] (**KN920/KN1500**).
- The display looks similar to the following.



(KN920/KN1500)

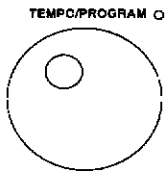
3. Press either **LEFT** button.
- The display looks similar to the following.



4. Use the **LEFT** ∧ and ∨ buttons to adjust the setting (1 to 8).
- Adjust the contrast of the display so that it is easy to read.

5. When you have completed making the settings, press the **MEMORY & CONTROL** button to turn it off.

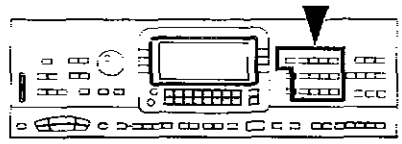
TEMPO/PROGRAM dial (KN1500)



If the **TEMPO/PROGRAM** indicator is lit while you are using the display to adjust a setting, it indicates that the dial may be used to change the displayed value or setting.

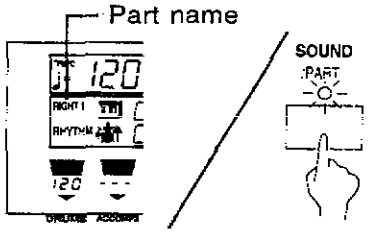
Part I Sounds and effects

Selecting sounds



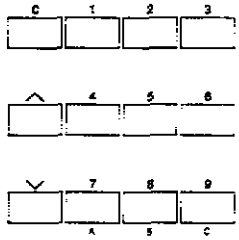
Select the sounds for the three parts you can play on the keyboard—**RIGHT 1**, **RIGHT 2** and **LEFT**.

1. Use the **SOUND/PART** button to select a part (**RIGHT 1**, **RIGHT 2** or **LEFT**).



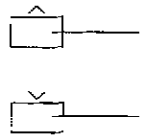
- The selected part is shown on the display.

2. On the number pad (**0** to **9**), press the buttons to select the desired sound (3 digits).
- The list of sound group names and their corresponding numbers is found on the upper part of the operation panel.
- A list of all the sounds and their numbers can be found in the separate REFERENCE GUIDE provided.



- Enter three digits to select the sound. For example, to select sound **003**, press **0**, **0**, **3**. To select sound **030**, press **0**, **3**, **0**.
- Do not enter the digits too slowly. If you wait too long after entering a number before entering the next number, the first number will be canceled.
- The selected sound is assigned to the part you selected in step 1.
- While the setting is being changed, the name of the selected part, and the number and name of the selected sound are shown on the display.

■ **∧ and ∨ buttons**



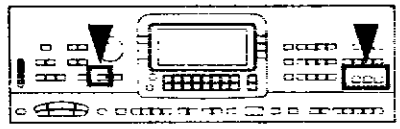
- Keep the ∧ or ∨ button pressed to scroll the numbers quickly.

■ **Percussion sounds**

The sounds in the **KEYBOARD PERC** group are percussion instrument sounds.
- Percussion instrument sounds are produced by the keyboard keys as indicated by the picture code above each key.
- For further information about the arrangement of percussion sounds, refer to the separate REFERENCE GUIDE provided.

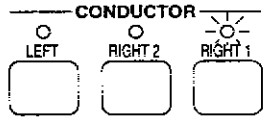
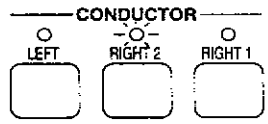
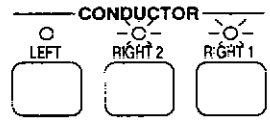
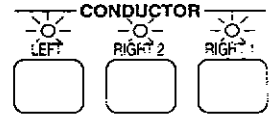
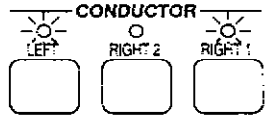
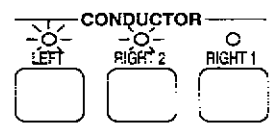
3. Repeat steps 1 and 2 to select sounds for the other parts.
- The **CONDUCTOR** buttons are used to assign parts to the keyboard. (Refer to page 36.)
- Most of the sounds in the **KEYBOARD PERC** and **PERC & EFFECT** sound groups do not have scaled pitches.
- **KN920/KN1500: SOUND MEMORY 201** to **240** are reserved for storing sounds you create yourself. (Refer to page 106.)

Assigning parts to the keyboard



The **CONDUCTOR** buttons are used to assign sounds to the keyboard in many different ways. For example, you can assign two sounds to the entire keyboard so that playing one key will produce two sounds. You can even split the keyboard into right and left sections (**SPLIT**), and assign a different sound to each section.

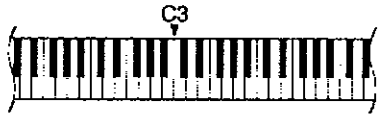
CONDUCTOR

CONDUCTOR settings	How sounds are assigned to the keyboard
	All keys produce the **RIGHT 1** sound. **RIGHT 1**
	All keys produce the **RIGHT 2** sound. **RIGHT 2**
	All keys produce both the **RIGHT 1** sound and the **RIGHT 2** sound. **RIGHT 1 + RIGHT 2**
	The left keys produce the **LEFT** sound and the right keys produce the **RIGHT 1** sound and the **RIGHT 2** sound. **LEFT** / **RIGHT 1 + RIGHT 2**
	The left keys produce the **LEFT** sound and the right keys produce the **RIGHT 1** sound. **LEFT** / **RIGHT 1**
	The left keys produce the **LEFT** sound and the right keys produce the **RIGHT 2** sound. **LEFT** / **RIGHT 2**

- The volume for each part can be adjusted independently. (Refer to page 30.)
- The following conditions are in effect when the **AUTO PLAY CHORD** is used.
  ONE FINGER, FINGERED mode: You cannot assign sounds to all the keys.
  PIANIST mode: The keyboard cannot be split.

SPLIT POINT

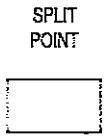
When the keyboard is divided into left and right sections, the split point is normally at C3 (indicated by ▼).



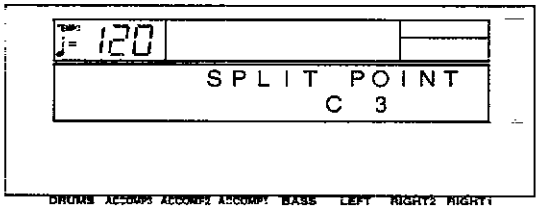
■ Customized split point

You can set a different split point.

1. Press the **SPLIT POINT** button.

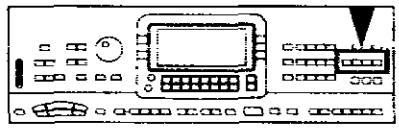


- The following display appears.



2. Specify the name of the desired split point note by pressing the corresponding key on the keyboard.
- The specified note name is shown on the display.
- A split point is set at the location of the pressed key, which is the lowest note of the right keyboard section.
- The display returns to the previous display after a few seconds.

Effects



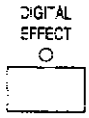
You can achieve even fuller and stirring sounds by adding various effects.

DIGITAL EFFECT

DIGITAL EFFECT gives the sound richness and enhances your performance.

1. Use the **SOUND/PART** button to select the part to which is effect will be applied.

2. Press the **DIGITAL EFFECT** button to turn it on for the selected part.



- The **DIGITAL EFFECT** on or off status is preset for each sound, so that the **DIGITAL EFFECT** automatically turns on when certain sounds are selected.
- This effect differs depending on the selected sound.
- This effect does not work for the **KEYBOARD PERC** sounds.

CHORUS (KN720)

Add breadth to the sound.

1. Use the **SOUND/PART** button to select the part to which is effect will be applied.

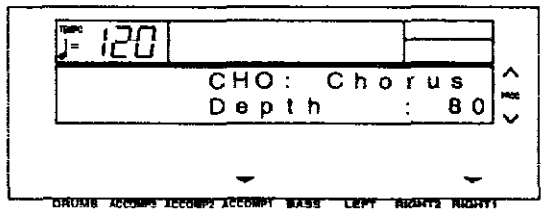
2. Press the **CHORUS** button to turn it on for the selected part.

- The **CHORUS** can be set to on or off for each part.

■ Effect setting

You can specify the type and adjust the parameters of this effect.

1. Press and hold the **CHORUS** button for a few seconds.
- The display looks similar to the following.



2. Use the **TRANSPOSE** (PROG) ∧ and ∨ buttons to select the type.

3. Use the **ACCOMP 1** ∧ and ∨ buttons to select a parameter.

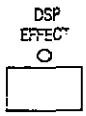
4. Use the **RIGHT 1** ∧ and ∨ buttons to modify the parameter.
- An explanation of the types and their corresponding parameters can be found in the separate REFERENCE GUIDE provided.
- The depth of the effect can be adjusted for each part. (Refer to page 102.)
- The display returns to the previous display after a few seconds.

DSP EFFECT (KN920/KN1500)

Add a unique quality to the sound.

1. Use the **SOUND/PART** button to select the part to which is effect will be applied.

2. Press the **DSP EFFECT** button to turn it on.

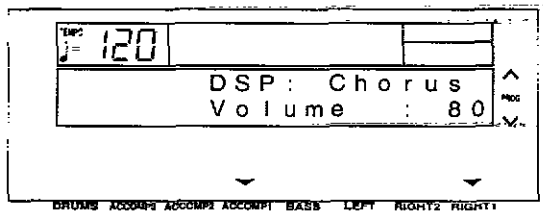


- This effect can be set to on or off for each part.

■ **Effect Setting**

You can specify the type and adjust the parameters of this effect.

1. Press and hold the **DSP EFFECT** button for a few seconds.
- The display looks similar to the following.



2. Use the **TRANSPOSE** (PROG) ∧ and ∨ buttons to select the type.

3. Use the **ACCOMP 1** ∧ and ∨ buttons to select a parameter.

4. Use the **RIGHT 1** ∧ and ∨ buttons to modify the parameter.
- An explanation of the types and their corresponding parameters can be found in the separate REFERENCE GUIDE provided.
- The depth of the effect can be adjusted for each part. (Refer to page 102.)
- The display returns to the previous display after a few seconds.

SUSTAIN

Sustain is the gradual fading out of musical tones after the key is released.

1. Use the **SOUND/PART** button to select the part to which is effect will be applied.

2. Press the **SUSTAIN** button to turn it on.

- The **SUSTAIN** can be set to on or off for each part.
- This effect does not work for the sounds in the **KEYBOARD PERC** sound group.
- This effect differs depending on the selected sound.
- The display can also be used to adjust the length of sustain. (Refer to page 102.)
- In the initialized state, this effect can be turned on and off with the optional Foot Switch (sold separately).

DIGITAL REVERB

DIGITAL REVERB applies a reverberation effect to the sound.

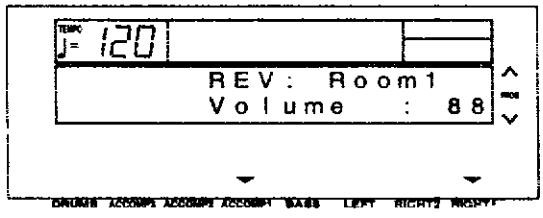
Press the **DIGITAL REVERB** button to turn it on.

- This effect is applied to all the sounds of this instrument.
- The display can also be used to adjust the depth of the reverb for each part. (Refer to page 102.)

■ **Effect Setting**

You can select the type and adjust the parameters of this effect.

1. Press and hold the **DIGITAL REVERB** button for a few seconds.
- The display looks similar to the following.



(KN920/KN1500)

2. Use the **TRANSPOSE** (PROG) ∧ and ∨ buttons to select the type.

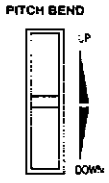
3. **KN920/KN1500**: Use the **ACCOMP 1** ∧ and ∨ buttons to select the parameter.

4. Use the **RIGHT 1** ∧ and ∨ buttons to modify the parameter.
- An explanation of the types and their corresponding parameters can be found in the separate REFERENCE GUIDE provided.
- **KN720**: Only the [Volume] setting can be changed.
- The display returns to the previous display after a few seconds.

PITCH BEND

The pitch of the instrument can be continuously changed with the **PITCH BEND** wheel at the left end of the keyboard. Using this control, you can produce the effect of bending the strings on a guitar.

While pressing a key on the keyboard, move the wheel up and down to control the pitch.



- When you release your hand from the wheel, it returns automatically to the center position and the pitch bend effect is turned off.
- The pitch bend effect does not function for the **AUTO PLAY CHORD** accompaniment pattern and for the sounds of the **LEFT** part.
- The amount of pitch bend can be set. (Refer to page 102.)

MODULATION (KN1500)

The **MODULATION** wheel is used to apply a vibrato effect, for example, to the sound.

While pressing a key on the keyboard, move the wheel up to add the effect.

- When this effect is not needed, set the **MODULATION** wheel to the **MIN** position.
- This effect differs depending on the selected sound.
- The vibrato effect does not function for the **AUTO PLAY CHORD** accompaniment pattern and for the sounds of the **LEFT** part.

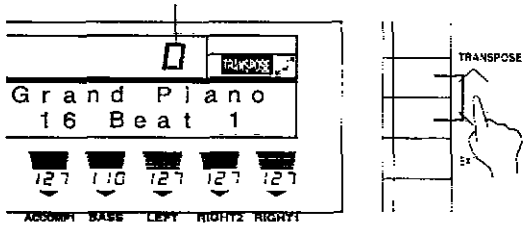
Transpose

The **TRANSPOSE** buttons are used to change the key of the entire instrument in semitone steps across an entire octave.

Suppose you learn to play a song—in the key of C, for example—and decide you want to sing it, only to find that it's either too high or too low for your voice. Your choice is to either learn the song all over again in a different key, or to use the **TRANSPOSE** feature.

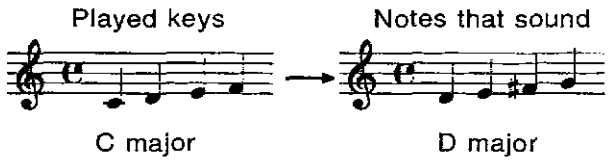
Adjust the key with the **TRANSPOSE** ∧ and ∨ buttons.

Actual key

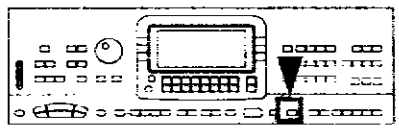


- Each press of the ∧ button raises the key in semitone steps, and each press of the ∨ button lowers the key in semitone steps (G — C — F♯).
- If the two buttons are pressed at the same time, the key returns to C.
- When the **TRANSPOSE** function is active, TRANSPOSE is shown in the upper right part of the display and, during setting, the key is indicated.

<Example: transposed to D>



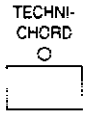
Techni-chord



TECHNI-CHORD turns your single-note melodies into full chords and offers you a choice of 13 different types, from a simple duet which adds one harmony note to your melody note, to big band reeds which adds four harmony notes to your melody note. If **TECHNI-CHORD** is part of a **ONE TOUCH PLAY** or **MUSIC STYLE SELECT (KN1500)** registration, a suitable **TECHNI-CHORD** type will be selected automatically.

1. Split the keyboard into left and right sections. (Refer to page 36.)

2. Press the **TECHNI-CHORD** button to turn it on.



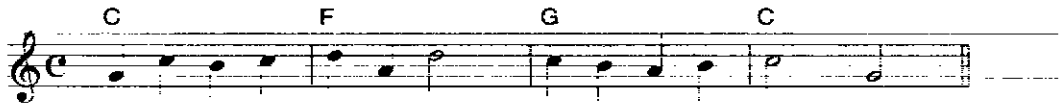
3. Play the keyboard.

- The melody you play with your right hand is automatically played in chords which are based on the chords you play with your left hand.

Example:

Left hand (chord)

Right hand (melody)

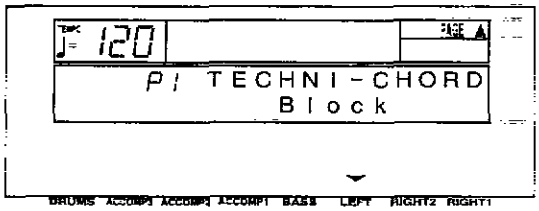


- This feature is very effective when used with the **AUTO PLAY CHORD**. (This feature does not work in the PIANIST mode.)

■ Harmony type

You can select the desired harmony style for the **TECHNI-CHORD**.

1. Press and hold the **TECHNI-CHORD** button for a few seconds.
- The display looks similar to the following.

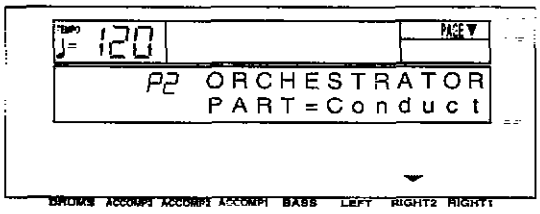


2. Use the **LEFT** ∧ and ∨ buttons to select the harmony type.
- Select from [Close], [Open 1], [Open 2], [Duet], [Country], [Theatre], [Hymn], [Block], [Big Band Brass], [Big Band Reeds], [Octave], [Hard Rock], [Fanfare].
- When the [Octave], [Hard Rock] or [Fanfare] type is selected, the **TECHNI-CHORD** functions even when the keyboard is not split.
- The display returns to the previous display after a few seconds.
- An explanation of each harmony type can be found In the separate REFERENCE GUIDE provided.

<ORCHESTRATOR>

Use this function to specify which part plays the harmony notes. By assigning different sounds to the melody notes and harmony notes, you can achieve a striking **TECHNI-CHORD** performance.

1. While the TECHNI-CHORD display is shown, press the **PAGE** ∧ button.
- The display looks similar to the following.

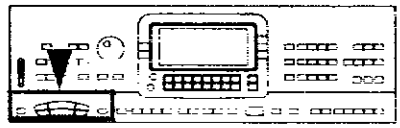


2. Use the **RIGHT 2** ∧ and ∨ buttons to select the part you wish to generate the harmony notes.
- LEFT and PART 16 cannot be selected.
- If [Conduct] is selected, the **CONDUCTOR** part which is currently selected will be specified as the part for the harmony notes. However, when **RIGHT 1** and **RIGHT 2** are both on, the harmony notes are produced in the sound for the **RIGHT 1** part.

Part II Manual Sequence Pads

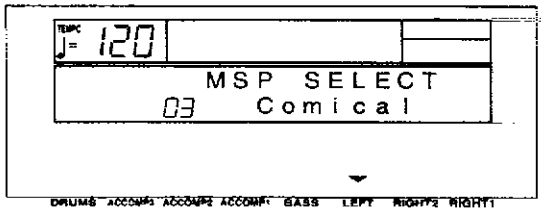
During your performance, you can insert a short recorded phrase or effect sounds by pressing a pad button. Several types of phrases have been prerecorded, but you can also create your own phrases and store them.

Playing phrases



1. In the **MANUAL SEQUENCE PADS** section, press the **SELECT** button.

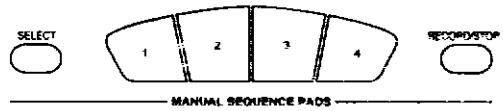
- The display looks similar to the following.



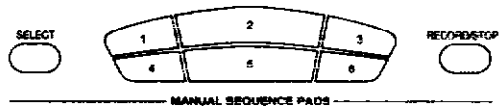
2. Use the **LEFT** ∧ and ∨ buttons to select the desired phrase bank number.
- The list of bank names and their corresponding numbers is found on the upper part of the operation panel.
- Bank [13 User] is reserved for storing your original phrases.
- The display returns to the previous display after a few seconds.

3. Press a pad button (**KN720**: **1** to **4**; **KN920/KN1500**: **1** to **6**).

KN720



KN920/KN1500



- A different phrase is played by each pad button.
- The selected phrase is played in the current tempo.
- To stop the phrase before it has ended, press the **RECORD/STOP** button.
- Some phrases continue to play until the **RECORD/STOP** button is pressed.
- Some phrases are programmed to begin playing in time with the measure count during a rhythm performance.
- When the **AUTO PLAY CHORD** is on, the phrase is played in the specified chord.
- On the normal display, if you press the **OTHER PARTS/TRACKS** button, the volume of the **MANUAL SEQUENCE PADS** (MSP) can be adjusted. (Refer to page 31.)

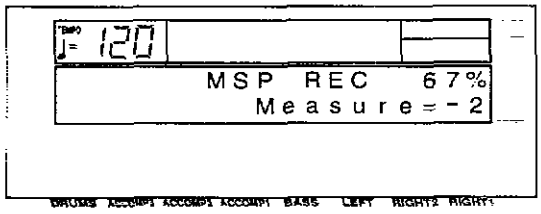
Record a phrase

Bank 13 is reserved for storing your orlginal phrases.

1. Use the **TEMPO** buttons or **TEMPO/PROGRAM** dial (**KN1500**) to adjust the recording tempo.

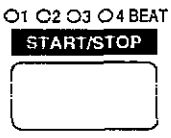
2. Press the **SELECT** button. On the MSP SELECT display, select [13 User].

3. While pressing the **RECORD/STOP** button, press the pad button in which you wish to record.
- There are two types of pads: For one type, the phrase is not timed to begin playing with the measure count. For the other type, the phrase starts to play in time with the measure count.
  KN720: Phrases in pad buttons **1** and **2** are not timed to begin playing with the measure count; phrases in **3** and **4** are synchronized with the measure count.
  KN920/KN1500: Phrases in pad buttons **1**, **2** and **3** are not timed to begin playing with the measure count; phrases in **4**, **5** and **6** are synchronized with the measure count.
- The display looks similar to the following.



4. Select the sound for the phrase you are going to record.

5. Press the **START/STOP** button.



- After a two-measure count (Measure= –2, –1), recording begins.

6. Play the phrase.

7. When you have finished recording the phrase, press the **START/STOP** button.
- You can also stop recording by pressing the **RECORD/STOP** button.

8. Repeat steps 3 to 7 to record phrases in the other pad buttons as desired.
- The following information is stored.
  – Your keyboard performance
  – Sound settings and changes
  – **SUSTAIN** setting
  – **PITCH BEND**, **MODULATION** (**KN1500**) wheel operation, etc.
- The memory capacity of the user bank is approximately 1200 notes. The remaining memory available for recording is shown on the MSP REC display as a percentage (%). When "MEMORY FULL!" appears on the display, no more data can be stored.

Part III Playing the rhythm

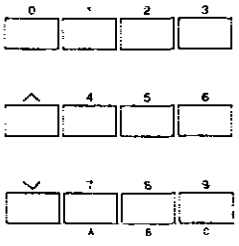
The rhythm section enhances the capabilities of this instrument with features such as automatic performance of the preset rhythm patterns and accompaniment patterns.

Selecting rhythms

Select a rhythm

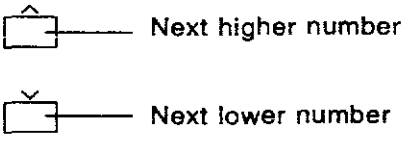
1. Press the **RHYTHM** button to turn it on.

2. On the number pad (**0** to **9**), press the buttons to select the desired rhythm (3 digits).
- The list of rhythm group names and their corresponding numbers is found on the upper part of the operation panel.
- A list of all the rhythms and their numbers can be found in the separate REFERENCE GUIDE provided.



- Enter three digits to select the rhythm. For example, to select rhythm **003**, press **0**, **0**, **3**. To select rhythm **030**, press **0**, **3**, **0**.
- Do not enter the digits too slowly. If you wait too long after entering a number before entering the next number, the first number will be canceled.
- During setting, the selected number and rhythm name are shown on the display.
- **KN920/KN1500:** A **COMPOSER** rhythm or **COMPOSER CHORD MAP** can also be selected as a rhythm. (Refer to pages 83 and 85.)

■ **∧ and ∨ buttons**



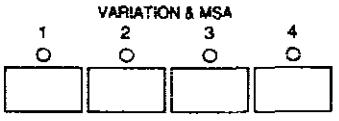
- Keep the ∧ or ∨ button pressed to scroll the numbers quickly.

VARIATION

For each rhythm, variations with difference nuances are available.
- You can change to a different variation while the rhythm is playing.

KN720: Turn on the **VARIATION** button to play the rhythm variation.

KN920/KN1500: Use the **VARIATION & MSA** buttons to choose from four different variations.



Start the rhythm

There are two ways to start the rhythm.

■ Immediate rhythm start

1. Select a rhythm.

2. Press the **START/STOP** button to turn it on.

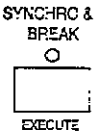
- The selected rhythm pattern immediately begins to play.
- You can stop the rhythm by pressing the **START/STOP** button again to turn it off.
- The **BEAT** indicators above the **START/STOP** button light to indicate the beat. On the first beat of the measure, the red indicator lights. On the second and succeeding beats of the measure, the green indicators light in order.

■ Synchronized start

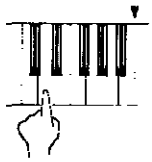
With the synchronized start feature, the rhythm pattern starts when you play a key on the keyboard.

1. Select a rhythm.

2. Press the **SYNCHRO & BREAK** button to turn it on.



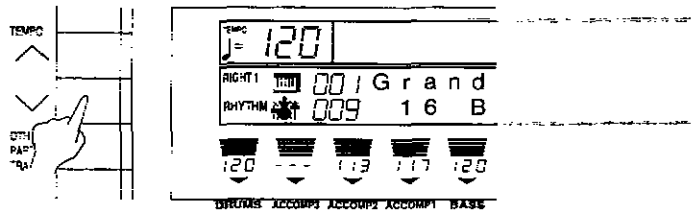
3. Play a key to the left of the keyboard split point.



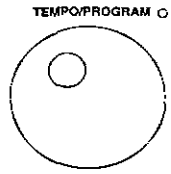
- The rhythm pattern begins to play.
- You can use the synchronized start feature even when the keyboard is not divided into left and right sections. To start the rhythm, press a key to the left of the specified split point.

■ Adjust the tempo

The tempo of the rhythm pattern is adjusted with the **TEMPO** ∧ and ∨ buttons.



- The tempo is shown on the display as a numerical value (♩ = 40 to 300).
- Keep the button pressed to change the value quickly.
- If the two buttons are pressed at the same time, the tempo returns to the standard 120 setting.
- **KN1500**: The **TEMPO/PROGRAM** dial can also be used to adjust the tempo of the rhythm pattern.



- When the **TEMPO/PROGRAM** indicator is lit, the **TEMPO/PROGRAM** dial is used for setting functions and cannot be used to adjust the tempo.

■ TAP TEMPO (KN1500)

You can set the tempo of the rhythm by tapping this button few times with your finger.

- The tempo at which the button is tapped is detected, and the tempo automatically changes correspondingly.

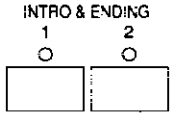
Playing the rhythm

Intro, fill-in and ending patterns fitting each different rhythm pattern are permanently recorded in your instrument, thus allowing a versatile rhythm performance.

INTRO

Begin the rhythm performance with an intro pattern.

1. Press the **INTRO & ENDING (KN720)/INTRO & ENDING 1** or **2 (KN920/KN1500)** button to turn it on.



(KN920/KN1500)

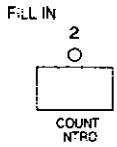
2. Press the **START/STOP** button to start the rhythm.

- An intro pattern is played, after which the normal rhythm pattern begins.

COUNT INTRO

You can begin the rhythm performance with a one-measure count.

1. Press the **COUNT INTRO (FILL IN 2)** button to turn it on.



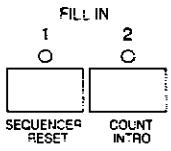
2. Press the **START/STOP** button to start the rhythm.
- A one-measure count is played, after which the normal rhythm pattern begins.

FILL IN

You can insert a fill-in pattern any time during the rhythm performance. Choose from two different fill-in patterns.

1. Select a rhythm and press the **START/STOP** button.

2. Press the **FILL IN 1** or **2** button.



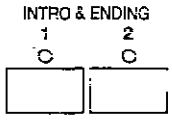
- A fill-in pattern is heard immediately for the remainder of the measure.
- When a **FILL IN** button is pressed on the last beat of the measure, the fill-in pattern continues to the end of the following measure.

ENDING

Finish the rhythm performance with an ending pattern.

1. Select a rhythm and press the **START/STOP** button.

2. Press the **INTRO & ENDING (KN720)/INTRO & ENDING 1** or **2 (KN920/KN1500)** button to turn it on.



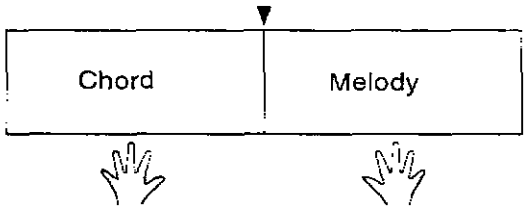
(KN920/KN1500)

- An ending pattern is produced, and then the rhythm performance stops.
- If you accidentally press an **INTRO & ENDING** button in the middle of the tune, you can press the **FILL IN 1** or **2** button. The ending pattern stops, and a fill-in pattern is produced, after which the normal rhythm performance continues.

Auto Play Chord

Simply by playing a chord on the keyboard, the **AUTO PLAY CHORD** function automatically plays an accompaniment pattern which matches perfectly the selected rhythm. With a real accompaniment as a background, you can concentrate on playing the melody.

How the AUTO PLAY CHORD works



When an **AUTO PLAY CHORD** mode is selected, an automatic accompaniment which matches the rhythm you have chosen is played in the chord which you specify with your left hand. The melody is played with your right hand.

- The accompaniment pattern of the **AUTO PLAY CHORD** is composed of five parts: **DRUMS**, **BASS**, **ACCOMP 1**, **ACCOMP 2** and **ACCOMP 3**.

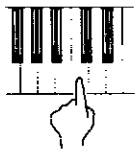
Playing chords

Choose from three ways of playing chords.

■ ONE FINGER mode

In the [1 Finger] mode, a major chord can be played just by pressing the key for its root note.

Example: C chord

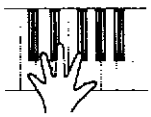


Minor, seventh and minor seventh chords are also easily produced.

minor chord	seventh chord	minor seventh chord
Play the root note plus a black key to the left of it.	Play the root note plus a white key to the left of it.	Play the root note plus a black key and a white key to the left of it.
Example: Cm 	Example: C7 	Example: Cm7 

■ FINGERED mode

In the [Fingered] mode, you specify the chord by playing all the notes in the chord.



- The Keyboard can distinguish the following played chords for each key (C is given as an example): C, C7, CM7, Caug, Caug7, Cm, Cm7, Cdim, Cm7♭5, CmM7, Csus4, C7sus4, C♭5, C7♭5, Cm♭5, C6, Cm6, CM7♭5, CM7♯5, CmM7♭5, etc.

■ PIANIST mode

In the [Pianist] mode, the entire keyboard can be used to specify chords (FINGERED mode) for the automatic accompaniment; a **RIGHT** part is assigned to all the keys, and the keyboard does not split. In addition to the chords in the [Fingered] mode, the Keyboard also recognizes 9th and 13th chords.

- When specifying chords, if you press a key a perfect 5th or more below the lowest note of the chord, the **BASS** part becomes a pattern based on that note.

<ON BASS>

If the **ON BASS** button is on while the [Fingered] or [Pianist] mode is selected, the **BASS** part is produced in the key of the lowest note of the played chord, thus making it possible to play chords such as "C on G" with just one hand.

- For example, with the **ON BASS** button on, if you play a C chord by pressing the keys G, C and E, the **BASS** part is produced in the key of G.

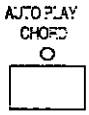
<MEMORY>

When the MEMORY (MEM) function is on, even when the keys are released, the chord is memorized and the accompaniment continues to play until you specify another chord.

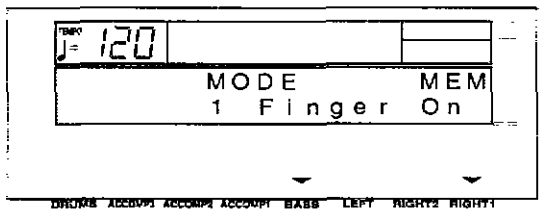
How to use the AUTO PLAY CHORD

1. Select the desired rhythm and sound(s), and set the tempo.

2. Press the **AUTO PLAY CHORD** button to turn it on.



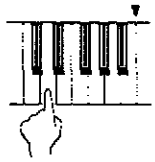
- The display looks similar to the following.



3. Use the **BASS** ∧ and ∨ buttons to select the **AUTO PLAY CHORD** mode.
- Use the **RIGHT 1** (MEM) ∧ and ∨ buttons to set MEMORY to on or off.
- After a few seconds, the display returns to the previous display.

4. Press the **START/STOP** button to begin the rhythm.
- You can also start the rhythm by playing a key on the keyboard. (Refer to page 47.)

5. Specify a chord.
- If the [1 Finger] or [Fingered] mode was selected, specify the chord on the keyboard section to the left of the split point.



- The split point can be changed. (Refer to page 37.)
- An accompaniment pattern in the specified chord is automatically played.
- When you use **FILL IN**, **INTRO** and **ENDING**, the automatic accompaniment is also used in these patterns.
- You can set the mode which determines how the **LEFT** part sounds during an **AUTO PLAY CHORD** performance. (Refer to page 105.)
- If the **AUTO PLAY CHORD** button is pressed during an automatic accompaniment, the button does not turn off, and the display changes to the mode-setting display.

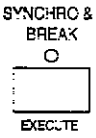
6. To stop the automatic accompaniment, press the **START/STOP** button.
- When the rhythm is off, if the [1 Finger] or [Fingered] mode is on and a chord is specified, the specified root note (R. BASS part) and chord notes (CHORD part) are produced. The volumes of these notes can be adjusted. (Refer to page 102.)

BREAK function

With the break function, the rhythm starts when the left keyboard is played and stops when the fingers are removed from the keys.

1. Select an **AUTO PLAY CHORD** mode.
- At this time, the MEMORY function should be off.

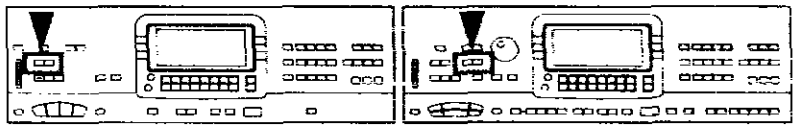
2. Press the **SYNCHRO & BREAK** button to turn it on.



3. Specify a chord.
- The automatic accompaniment begins to play (synchronized start).
- For the [Pianist] mode, play the keys to the left of the currently set split point.

4. Release the chord keys.
- The automatic accompaniment stops. When the keys are pressed again, the rhythm starts from the first beat.

Sound Arranger



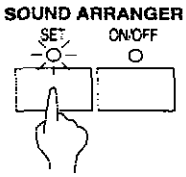
(KN720) (KN920/KN1500)

The **SOUND ARRANGER** feature lets you select other sounds for the **AUTO PLAY CHORD** parts of each rhythm.

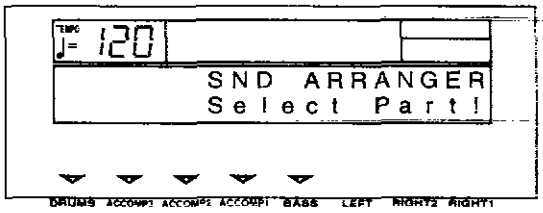
Setting the sounds

1. Select the rhythm whose sound you wish to change.
- **KN920/KN1500:** Do not select a **COMPOSER** rhythm or a **COMPOSER CHORD MAP**.

2. In the **SOUND ARRANGER**, press the **SET** button to turn it on.

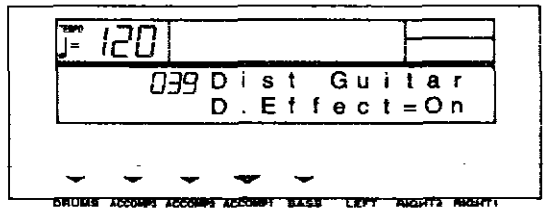


- The display changes to the following.



3. Use the balance buttons below the display to select the part whose sound you wish to change.
- Select from **BASS**, **ACCOMP 1**, **ACCOMP 2**, **ACCOMP 3** and **DRUMS**.

- The display changes to the following.



- The ▼ mark for the selected part only flashes.

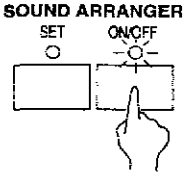
4. Select the desired sound.
- The **DIGITAL EFFECT** on/off status can also be specified (except for **DRUMS** part).
- For the **DRUMS** part, select sounds from the **KEYBOARD PERC** sounds. (These sounds cannot be selected for other parts.)
- The sound and on/off status of the **DIGITAL EFFECT** are shown on the display.
- Depending on the selected sound, the sound quality may differ from that during a normal performance.

5. Repeat steps 3 and 4 for the other parts as desired.

6. When you have finished selecting the sounds, press the **SET** button to turn it off.

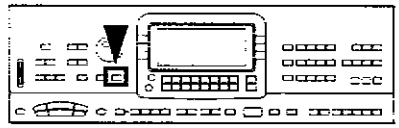
Playing back the sounds

1. In the **SOUND ARRANGER**, press the **ON/OFF** button to turn it on.



2. Start the rhythm (automatic accompaniment).
- When the **ON/OFF** button is off, the factory-preset sounds are produced.
- The ON/OFF setting is memorized for each rhythm.

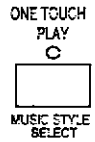
One Touch Play



ONE TOUCH PLAY sets up the your instrument with a suitable registration for your chosen rhythm style so that you can make a great sound straight away, even if you are playing this instrument for the first time. Using **ONE TOUCH PLAY** sets a suggested combination of sounds and balances and an appropriate tempo for the rhythm style at the push of a button.

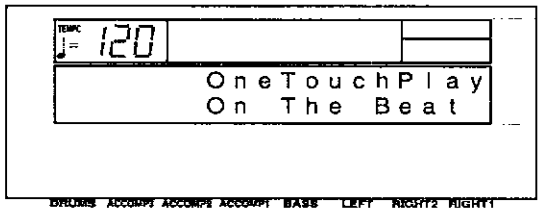
1. Select a rhythm pattern.
- **KN920/KN1500:** Do not select a **COMPOSER** rhythm or a **COMPOSER CHORD MAP**.

2. Press and hold the **ONE TOUCH PLAY** button for a few seconds until the panel settings change.



(KN1500)

- The display looks similar to the following.



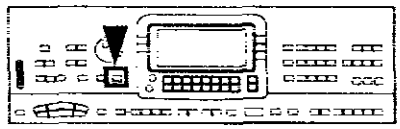
- The **AUTO PLAY CHORD** button and the **SYNCHRO & BREAK** button are automatically turned on. When a key on the left section of the keyboard is pressed, the automatic rhythm begins to play immediately.
- The octave and stereo balance of the sound may change.

- To return the functions of this instrument to their original settings, perform the INITIAL procedure. (Refer to page 122.)

Suggestions for using ONE TOUCH PLAY

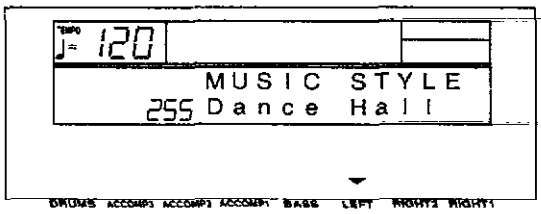
Press the **INTRO & ENDING** button before you play for a professional sounding introduction. Use the **ONE TOUCH PLAY** registration as a starting point for your own registration. Alter the sounds, balance and tempo to your own taste and store your new registration in the **PANEL MEMORY** for future use. (Refer to page 56.)

Music Style Select
(KN1500)



MUSIC STYLE SELECT sets up your Instrument with a suitable registration for a specific style of music. Select from this instrument's list of style names and **MUSIC STYLE SELECT** does the rest for you, setting suitable sounds and volume balances, along with the appropriate rhythm, accompaniment and tempo for your chosen style.

1. Press the **MUSIC STYLE SELECT (ONE TOUCH PLAY)** button momentarily.
- The display looks similar to the following.



- The name of the style shown on the display may become altered.

2. Use the **LEFT** ∧ and ∨ buttons to select a music style.
- The **AUTO PLAY CHORD** button and the **SYNCHRO & BREAK** button turn on, and the sounds, effects, rhythm and tempo which are best suited for the selected music style are automatically selected. When a key on the left section of the keyboard is pressed, the automatic rhythm begins to play immediately.
- The octave and stereo balance of the sound may change.

- To return the functions of this instrument to their original settings, perform the INITIAL procedure. (Refer to page 122.)

Suggestions for using MUSIC STYLE SELECT

Press the **INTRO & ENDING** button before you play for a professional sounding introduction. Use the **MUSIC STYLE SELECT** registration as a starting point for your own registration. Alter the sounds, volume balance and tempo to your own taste and store your new registration in the **PANEL MEMORY** for future use. (Refer to page 56.)

Music Style Arranger

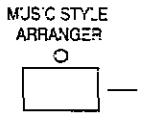
(KN920/KN1500)

The **MUSIC STYLE ARRANGER** helps you to make professional registration changes during your performance. Select from four contrasting registrations at the push of a button, or let your instrument change the registration automatically for you when you use **FILL IN 1** or **2**. The **MUSIC STYLE ARRANGER** will also alter the accompaniment in character with the registration change, creating a polished sounding arrangement.

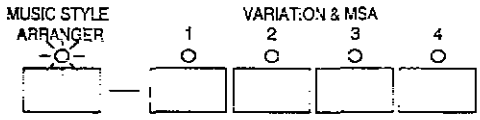
How to use the MUSIC STYLE ARRANGER

1. Select a rhythm pattern.

2. Press the **MUSIC STYLE ARRANGER** button to turn it on.



3. Use the **VARIATION & MSA** buttons to select a style (**1** to **4**).

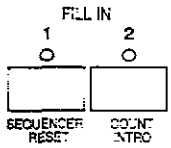


- The nuance of the pattern differs with each number.
- The panel settings (including the tempo) change according to the selected rhythm and music style. The **AUTO PLAY CHORD** button and the **SYNCHRO & BREAK** button are automatically turned on. When a key on the left section of the keyboard is pressed, the automatic rhythm begins to play immediately.
- The octave and stereo balance of the sound may change.

- To return the functions of this instrument to their original settings, perform the INITIAL procedure. (Refer to page 122.)
- During your performance, the style can be changed, but the tempo does not change.

How to change the music style during your performance

While you are playing the keyboard with the **MUSIC STYLE ARRANGER** on, press the **FILL IN 1** or **2** button.

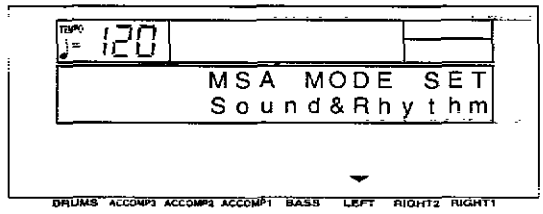


- Each time the **FILL IN 1** button is pressed, the **FILL IN 1** pattern plays, and then the music style changes in the **4** → **3** → **2** → **1** order. And each time the **FILL IN 2** button is pressed, the **FILL IN 2** pattern plays, and then the style changes in the **1** → **2** → **3** → **4** order.

■ **MUSIC STYLE ARRANGER mode**

You can define which panel settings change by pressing a **FILL IN** button when the **MUSIC STYLE ARRANGER** is used.

1. Press and hold the **MUSIC STYLE ARRANGER** button for a few seconds.
- The display changes to the following.

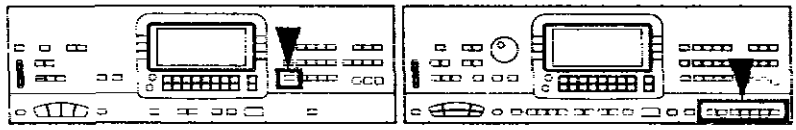


(continued on the next page)

2. Use the **LEFT** ∧ and ∨ buttons to select the mode.
   [Rhythm]: Only the rhythm changes.
   [Sound & Rhythm]: Both the sound and rhythm change.
   [Panel Memory]: The **PANEL MEMORY** number changes (**A1** to **A4**).

- After a few seconds, the display exits the setting mode.

Panel Memory



(KN720) (KN920/KN1500)

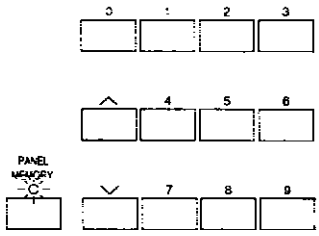
PANEL MEMORY stores the panel set up of this instrument allowing you to make complex changes at the push of a single button.

How to store the panel settings

<KN720>
Store a different panel setting in each of the number buttons (**0** to **9**).

1. Set up the desired panel settings (sounds, volumes, etc.)

2. While pressing the **PANEL MEMORY** button, press the number button for the memory you want to store (**0** to **9**).



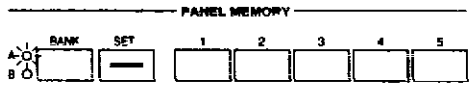
- The current panel settings are now stored in the specified **PANEL MEMORY** number. To recall the stored settings, just turn on the **PANEL MEMORY** button, and press the number for the desired panel setup.

<KN920/KN1500>
Five panel setups can be stored in each of the two banks (**A** and **B**).

1. Set up the desired panel settings (sounds, volumes, etc.)

2. Use the **BANK** button in the **PANEL MEMORY** section to select a bank (**A** or **B**).

3. While pressing the **SET** button, press a number button (**1** to **5**) for the memory you want to store.



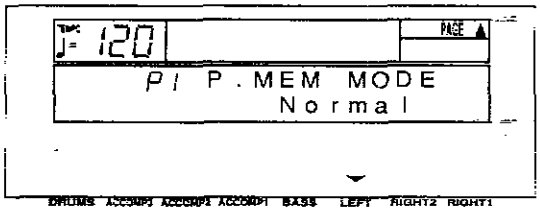
- The current panel settings are now stored in the specified bank and number. To recall the stored settings, select the **BANK** and specify the number.

- The recalled settings can be changed manually; however the memory contents of the **PANEL MEMORY** remain unchanged until you store them again.
- **KN720:** The contents stored in the **PANEL MEMORY** can be saved in this instrument's memory. (Refer to page 87.)
- **KN920/KN1500:** The **PANEL MEMORY** settings can be saved on a disk for recall at a later time. (Refer to page 89.)

■ PANEL MEMORY mode

You can define which panel settings are stored when the **PANEL MEMORY** is used.

1. Press and hold the **PANEL MEMORY** button (**KN720**)/**SET** button (**KN920/KN1500**) for a few seconds.
- The display changes to the following.



2. Use the **LEFT** ∧ and ∨ buttons to select the mode.

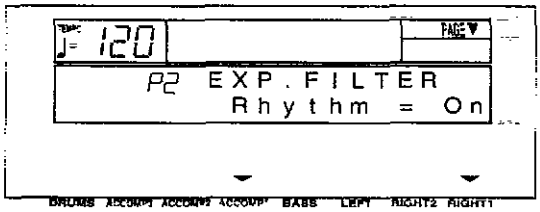
   Normal: The sounds and volume balance, effects and **CONDUCTOR** status are stored.
   Expand: All the instrument's settings are stored, including the rhythm, **TRANSPOSE**, tempo, etc.

- After a few seconds, the display exits the setting mode.

■ EXPAND MODE FILTER

You can specify which data is stored in the Expand mode.

1. While the P.MEM MODE display is shown, press the **PAGE** ∧ button.
- The display looks similar to the following.



2. Use the **ACCOMP 1** ∧ and ∨ buttons to select the item.
- Select from [Rhythm], [Tempo], [Split Pt] (SPLIT POINT), [Transpos], [APC&Mem] (AUTO PLAY CHORD & MEMORY), [MIDI], [Key Scale], [Reverb], [CHO Set] (CHORUS Setting) (**KN720**), [DSP Set] (**KN920/KN1500**), and [P4–P16 Set] (PART 4 to 16 Setting).

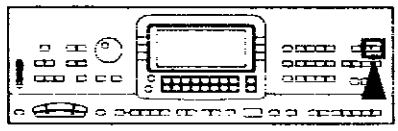
3. Use the **RIGHT 1** ∧ and ∨ buttons to store the on or off status for the selected item (On/Off).

4. Repeat steps 2 and 3 for each item, as desired.

Suggestions for using PANEL MEMORY

- The initial factory setting of **PANEL MEMORY** contains professional settings which you may choose to use or to alter to your own taste. These can be restored at any time by initializing the **PANEL MEMORY**. (Refer to page 122.)
- You can change from one **PANEL MEMORY** to another by pressing the optional Foot Switch (sold separately).

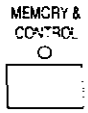
Foot Switch setting



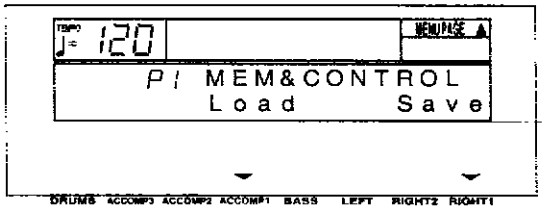
You can assign various functions to the optional Foot Switch (sold separately). The assigned function can then be controlled with the Foot Switch.

Assigning functions

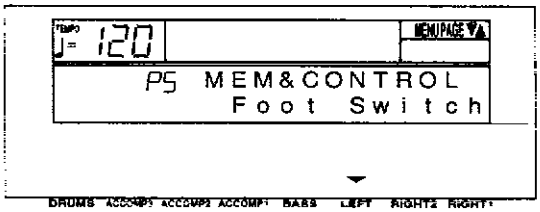
1. Press the **MEMORY & CONTROL** button to turn it on.



- The display changes to the following.

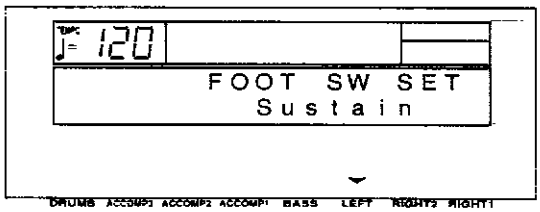


2. Use the **PAGE** buttons to select [P3 Foot Switch] (**KN720**)/[P5 Foot Switch] (**KN920/KN1500**).
- The display changes to the following.



(KN920/KN1500)

3. Press either **LEFT** button.
- The display changes to the following.



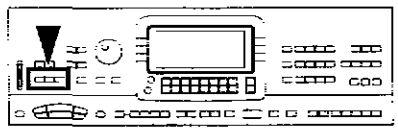
4. Use the **LEFT** ∧ and ∨ buttons to select a desired function.

[P. Memory] 0–9 (**KN720**)/A1–B5 (**KN920/KN1500**): The specified **PANEL MEMORY** number is turned on.
[P. Memory inc]: Increment the **PANEL MEMORY** selection by 1.
[Start/Stop]: **START/STOP** button on/off
[Rhythm Vari] (**KN720**): **VARIATION** button on/off
[Rhythm Vari 1–4] (**KN920/KN1500**): **VARIATION** button on
[Fill in 1]: **FILL IN 1** button on
[Fill in 2]: **FILL IN 2** button on
[Intro/Endng] (**KN720**): **INTRO & ENDING** button on
[Intro/Endng 1] (**KN920/KN1500**): **INTRO & ENDING 1** button on
[Intro/Endng 2] (**KN920/KN1500**): **INTRO & ENDING 2** button on
[Sustain]: **SUSTAIN** button on/off
[MSP] 1–4 (**KN720**)/1–6 (**KN920/KN1500**): Specified **MANUAL SEQUENCE PADS** button on
[Dig Effect]: **DIGITAL EFFECT** button on/off
[Chorus] (**KN720**): **CHORUS** button on/off
[DSP Effect] (**KN920/KN1500**): **DSP EFFECT** button on
[Glide]: Glide on/off (The glide effect "bends" the pitch down by about one semitone.)
[Techni-Chord]: **TECHNI-CHORD** button on/off
[Rotary Speed] (**KN920/KN1500**): **DSP EFFECT** rotary speed (Slow/Fast)

5. When you have completed making the settings, press the **MEMORY & CONTROL** button to turn it off.

Part IV Sequencer

Outline of the Sequencer



A sequencer records your performance in a similar way to a tape recorder. This instrument's **SEQUENCER** allows you to record up to 10 performances in a variety of ways. You may want to record your entire performance in one go (especially if you are using **AUTO PLAY CHORD** to provide the accompaniment), or to build up a complex arrangement with several different parts playing together, like an orchestral score. This instrument's **SEQUENCER** has 16 tracks. This means that you can record 16 different parts. However, you don't have to use all 16 tracks. For some uses you may only need to use one or two tracks. This instrument's **SEQUENCER** enables you to edit your recorded performance. Unlike a tape recorder you can change the sound or the tempo during playback, or correct wrong notes or timing errors.

SEQUENCER features

■ **You can change the tempo without changing the pitch**
When you record your performance at a slow tempo and play it back at a faster tempo, the pitch stays the same.

■ **Consistent sound**
Your performance is reproduced by a sound module as it reads digital data. So, unlike a recorded tape, the sound never deteriorates no matter how many times you play back your performance.

■ **Edit your recorded performance**
Comprehensive editing functions allow you to modify your recorded performance. Data can easily be erased, corrected or copied, providing an especially convenient tool for creating your original tunes.

■ **Instant search**
A recorded tape has to be rewound, but digital action means you can return to the beginning of your performance, or find any measure, instantly.

■ **Save your performances on disks (KN920/KN1500)**
All the data of your recorded performances can be stored on disks. The built-in Disk Drive also allows you to play back and use commercially sold disks on your own instrument.
- Features and operation of the built-in Disk Drive are explained in Part VII: Disk Drive (page 89).
- **KN720:** Your performance data can be stored in this instrument's memory. (Refer to page 87.)

Popular features

■ **Simplified recording method**
EASY RECORD is a feature that allows you to bypass the more complex recording procedures so you can record and play back your performance quickly and easily.
- You can also record an accompaniment from the **AUTO PLAY CHORD**.

■ **Create a one-man ensemble**
Use the REALTIME RECORD function to record your performance in up to 16 tracks and create your own orchestra or band.

■ **Store a chord progression**
Use the STEP RECORD to store a chord progression for the automatic accompaniment, and the rhythm changes, note by note.

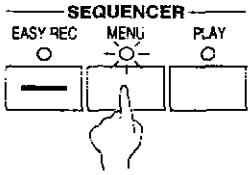
Memory capacity

Up to 10 songs can be stored in the **SEQUENCER**. Expressed in terms of notes, the total number of notes which can be stored in all the **SEQUENCER** songs and tracks is about 10,000 (**KN720**)/30,000 (**KN920/KN1500**). The remaining memory available for recording is shown on the display as a percentage.
- When "MEMORY FULL!" appears on the display, no more data can be stored in the **SEQUENCER**.

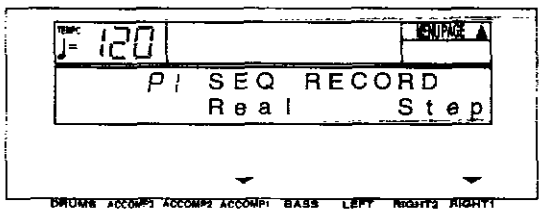
About the measure count
The measure count on the display corresponds to the time signature of the selected rhythm. However, if rhythm data is stored in the RHYTHM part and that part is played back, the measure count on the display corresponds to the stored rhythm data. (Refer to page 71.)
- **KN920/KN1500**: If you wish to use a time signature not available in the preset rhythms, use the **COMPOSER** to create a new time signature. (Refer to page 77.)

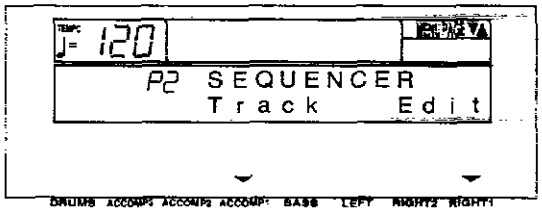
SEQUENCER MENU

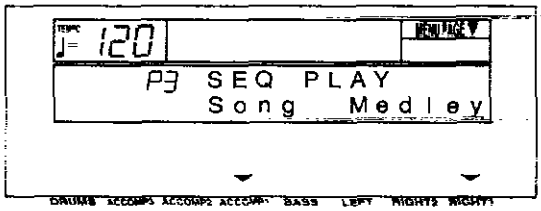
When you press the **MENU** button in the **SEQUENCER** section to turn it on, the display changes to the following.



- Use the **PAGE** buttons to view the three pages of menu display.







Summary of the SEQUENCER menu items

[P1 SEQ RECORD]

Real (REALTIME RECORD) (page 64)
Record your performance just as you play it on the keyboard.

Step (STEP RECORD) (page 68)
Store the chord progression for the automatic accompaniment, and the rhythm changes.

[P2 SEQUENCER]

Track (TRACK ASSIGN) (page 72)
Assign parts to up to 16 different tracks.

Edit (page 73)
Full-scale editing features are available.

[Song Clear]: Erase the recorded contents of a specific song.

[Track Clear]: Erase the contents of a specific track.

[Quantize]: Correct the timing of the recorded performance.

[Song Copy]: Copy specific songs.

[Panel Write]: Modify the panel status at the beginning of the song.

[P3 SEQ PLAY]

Song (page 61)
Specify the song number and name of the song to record or play back.

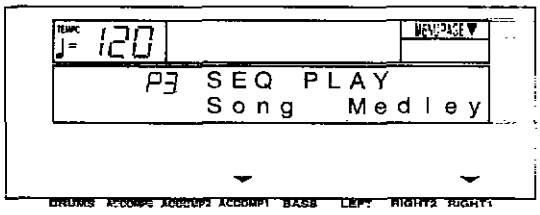
Medley (page 76)
Specify medley playback of songs.

Song

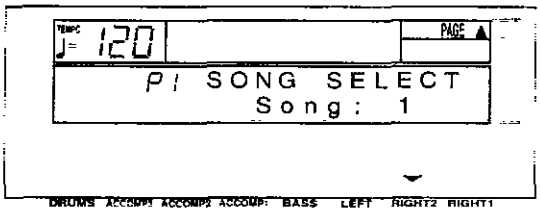
Up to 10 songs can be recorded in the **SEQUENCER**. The song number and song name are specified before recording begins.

1. Press the **MENU** button in the **SEQUENCER** section to turn it on.

2. Use the **PAGE** buttons to select [P3 SEQ PLAY].
- The display looks similar to the following.

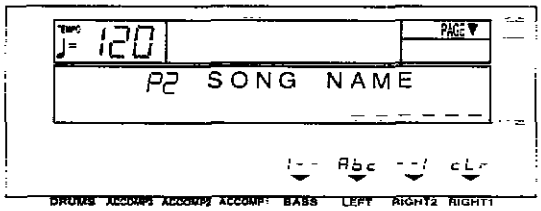


3. Press either **ACCOMP 1** button.
- The display looks similar to the following.



4. Use the **RIGHT 2** ∧ and ∨ buttons to select a song number (1 to 10).

5. If you wish to assign a name to the song, press the **PAGE** ∧ button.
- The display looks similar to the following.



6. Assign a name to the song (up to 6 characters).
- Use the **BASS** or **RIGHT 2** buttons to highlight the character position. Use the **LEFT** (Abc) buttons to select the alphanumeric character. Repeat these steps to type the whole name.
- To erase the name, press either **RIGHT 1** (cLr) button.

7. Use the **EXIT** button to return to the MENU display.

8. Follow the procedures to record the song.
- The same procedure is used to select the song to play back.
- Until this procedure is repeated, all subsequent recording and playback procedures are associated with the specified song number.
- To optimize memory, songs you do not wish to preserve should be deleted. (Refer to page 73.)

Easy Record

Suppose you are playing your instrument and you wish to record and play back your performance to hear how it sounds. You can bypass the set-up procedures of the full-scale sequencer and begin recording quickly and easily.

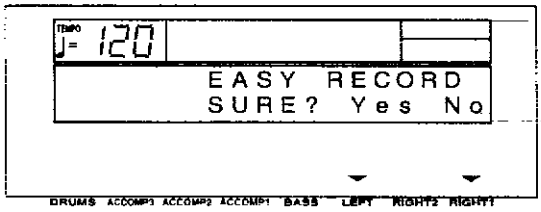
Recording procedure

1. Select the song number. (Refer to page 61.)

2. Set the desired sounds, effects, rhythms, etc.

3. In the **SEQUENCER** section, press the **EASY REC** button to turn it on.

- The display changes to the following.



- EASY RECORD is not available if GENERAL MIDI is set to On. (Refer to page 120.)

Here is what happens when you select the EASY RECORD mode.

- The recorded data for the currently selected SONG number is erased (Song Clear).
- Tracks available for recording are selected as follows.
  1: RIGHT 1 part
  2: RIGHT 2 part
  3: LEFT part
  4: APC part
  5: CONTROL part

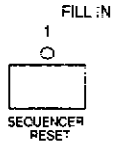
4. Press either **LEFT** (Yes) button.
- To cancel the procedure, press either **RIGHT 1** (No) button.
- The display changes to the REC display.

5. Play the keyboard.
- Recording begins as soon as you start the rhythm or play the keyboard.

6. When you have finished recording, press the **EASY REC** button in the **SEQUENCER** section to turn it off.
- The display changes to the SEQ PLAY display.

Playback

1. Press the **SEQUENCER RESET (FILL IN 1)** button.



2. Press the **START/STOP** button.

- Your recorded performance is played back automatically.
- When you are finished playing back your performance, press the **PLAY** button in the **SEQUENCER** section to turn it off.

Sequencer parts

The following summary explains what is stored in each **SEQUENCER** part.

Part name [name on display]	Used for	Recorded contents
RIGHT1 [Right1] **RIGHT2** [Right2] **LEFT** [Left] **PART4** [Part 4] ⋮ **PART15** [Part15]	Recording the performance of each part (REALTIME)	• Sound and volume settings • Sustain pedal operation • **DIGITAL EFFECT, CHORUS (KN720), DSP EFFECT (KN920/KN1500)** on/off • **PITCH BEND** wheel operation • **MODULATION** wheel operation **(KN1500)**
DRUM [Drum] (Part16)	Recording the drums performance with the **KEYBOARD PERC** group sounds (REALTIME)	• Sound (drum KIT) and volume settings
CONTROL [Control]	Recording changes in the panel button status (REALTIME)	• Rhythm setting and selection changes • **VARIATION** on/off **(KN720)** • **VARIATION** selection **(KN920/KN1500)** • **DIGITAL REVERB** on/off • **AUTO PLAY CHORD** status • **ON BASS** on/off • **MUSIC STYLE ARRANGER** status **(KN920/KN1500)** • **FILL IN, INTRO & ENDING** on • **PANEL MEMORY** selection changes • **TRANSPOSE** status • **TECHNI-CHORD** on/off • **START/STOP** on/off • **TEMPO** setting • **CONDUCTOR** status • **MANUAL SEQUENCE PADS** operation • Expression pedal operation (separately sold option) **(KN1500)**
AUTO PLAY CHORD [APC]	Recording chords for the **AUTO PLAY CHORD** (REALTIME)	• **AUTO PLAY CHORD** status • **START/STOP** on/off • **FILL IN, INTRO & ENDING** on
CHORD [Chord]	Recording the chord progression for the **AUTO PLAY CHORD** (STEP)	• Chord progression • **FILL IN, INTRO & ENDING** on
RHYTHM [Rhythm]	Settings related to rhythm (STEP)	• Rhythm settings and selection changes • **VARIATION** on/off **(KN720)** • **VARIATION** selection **(KN920/KN1500)** • **TEMPO** setting and changes • **FILL IN, INTRO & ENDING** on • **START/STOP** on/off

- You can use the TRACK ASSIGN function to assign parts to tracks as you wish. (Refer to page 72.)

■ **Default part settings**

1: RIGHT1	5: CONTROL	9: PART5	13: PART9
2: RIGHT2	6: RHYTHM	10: PART6	14: PART10
3: LEFT	7: DRUM	11: PART7	15: PART11
4: APC/CHORD	8: PART4	12: PART8	16: PART12

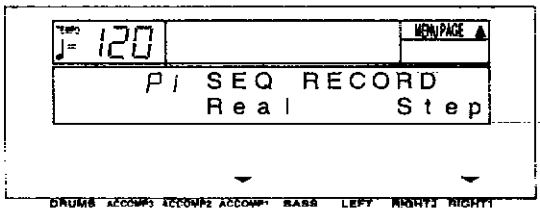
Realtime Record

With REALTIME RECORD, your performance is recorded with the timing exactly as you played it on the keyboard. And with the 16 tracks, you can even record your performance one track at a time (multi-track recording).

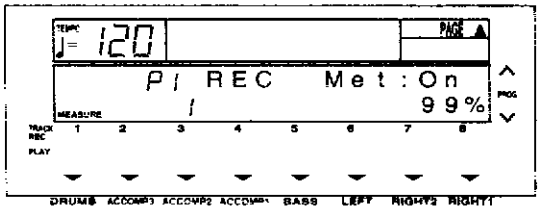
Recording procedure

1. Select a song number. (Refer to page 61.)

2. On the **SEQUENCER** menu display, select P1.
- The display looks similar to the following.



3. Press either **ACCOMP 1** (Real) button.
- The display looks similar to the following.



4. Use the buttons below the display to select the track numbers you are going to record.
- In the REC row, turn on the horizontal bar for TRACK numbers you are going to record.
- You can press the **OTHER PARTS/TRACKS** button to view the display for tracks 9 to 16.
- While you are recording, you can play back tracks which are already recorded. In the PLAY row, turn on the horizontal bar for TRACK numbers you wish to have played back.
- The part name for the selected recording track is shown on the display.
- You can select two or more tracks to record at one time. For performance parts, use the **CONDUCTOR** buttons to turn on the parts for the selected tracks (you should be able to hear them).
- When recording a track for the **AUTO PLAY CHORD** (APC) part, turn on the **AUTO PLAY CHORD** button. In this case, when recording begins, press the **START/STOP** button to begin the rhythm.
- The track for the RHYTHM ([Rhythm]) part can be selected for recording only when STEP RECORD is active.

5. Set the sounds, effects and volume as desired.
- The settings which are in effect at the time that recording begins are stored at the very beginning of the song.

6. Use the **TEMPO** buttons or **TEMPO/PROGRAM** dial (**KN1500**) to adjust the recording tempo.
- The tempo is shown on the display as a numerical value (♩ =).
- If you wish to record the tempo setting and tempo changes, select the CONTROL part, or use STEP RECORD: RHYTHM. (Refer to page 71.)

7. Turn the metronome on or off (On/Off) as desired with the **TRANSPOSE** (PROG) ∧ and ∨ buttons.
- The metronome sound is not recorded.

8. Play the keyboard.
- Recording begins.
- The current measure number is shown as "MEASURE" on the display.
- You can also press the **START/STOP** button to start the rhythm and begin recording.
- If the metronome is on, when you press the **START/STOP** button, a two-measure count plays, after which recording automatically begins. In this case, the rhythm does not start.
- Recording does not start until the two-measure count is completed.
- The remaining memory is shown on the display as "%".
- If you wish to adjust the volume balance of each track, the metronome, etc., during recording, press the **BALANCE** button and adjust the volume on the SEQ BALANCE display. Press the **OTHER PARTS/TRACKS** button if you wish to view other tracks, etc.
- If you wish to redo the recording or change the recording track, press the **EXIT** button. In this case, recording is terminated, so select the recording tracks again. You can change the panel settings at this time, if desired.

9. When you have finished recording, press the **MENU** button in the **SEQUENCER** section to turn it off.
- When the **MENU** button is turned off, the ending command is recorded. Note that, as long as the ending command is not recorded, blank recording continues even if you stop playing.
- The display changes to the SEQ PLAY display.

■ Multi-track recording

To record the next track immediately after the first track is completed, press the **EXIT** button. The track you just recorded changes to a "PLAY" track. Use the buttons below the display to specify "REC" for the next track you wish to record, and make the various settings (sound, etc.) for the track. Next, press the **START/STOP** button and record the track. The "PLAY" tracks are played back while you record. You can repeat these steps until your multi-track recording is complete.

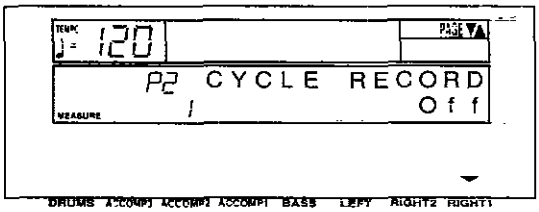
- For multi-track recording, be sure to press the **START/STOP** button to begin recording.
- If after recording you wish to change the panel setting and store them as the beginning song data, follow the PANEL WRITE procedure. (Refer to page 75.)

CYCLE RECORD

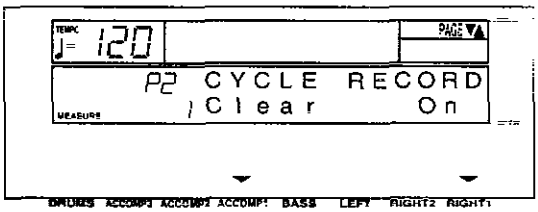
This mode allows you to have specified recording measures continuously repeated. Thus you can record measures by adding notes during any cycle.

1. On the REC display, specify "REC" for the track number you are going to record, and "PLAY" for track numbers you wish to have played back.

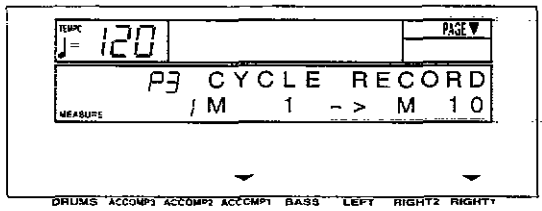
2. Press the **PAGE** ∧ button.
- The display looks similar to the following.



3. Press the **RIGHT 1** ∧ button to select "On".
- The display looks similar to the following.



4. Press the **PAGE** ∧ button.
- The display looks similar to the following.



5. Use the **ACCOMP 1** ∧ and ∨ buttons to specify the beginning measure number.

6. Use the **RIGHT 1** ∧ and ∨ buttons to specify the ending measure number.
- The ending measure you specify becomes the last measure of the cycle.

7. Press the **START/STOP** button.
- Cycle recording of the specified measures begins. If the metronome is on, cycle recording begins after a two-measure count.
- The rhythm does not start.

(Continued on the next page)

8. Play the keyboard.
- The specified measures are repeated, during which time you can record by adding notes little by little at the correct timing (over-dubbing).
- If you wish to erase all the performance data from the specified measures, press either **ACCOMP 1** (Clear) button on the P2 display.
- The maximum number of notes which can sound simultaneously for a track is 16.

9. When you have finished recording, turn off the **MENU** button in the **SEQUENCER** section.
- The display changes to the SEQ PLAY display.

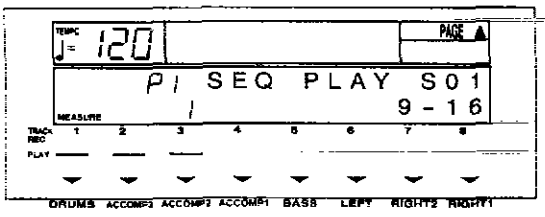
Sequencer Play

Play back your recorded performance.

1. Select a song number. (Refer to page 61.)

2. In the **SEQUENCER** section, press the **PLAY** button to turn it on.

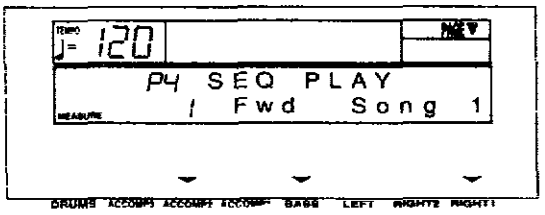
- The display looks similar to the following.



3. Use the buttons below the display to select the track numbers you wish to have played back.
- In the PLAY row, turn on the horizontal bars for the TRACK numbers you wish to have played back.
- You can press the **OTHER PARTS/TRACKS** button to view the display for tracks 9 to 16.
- On the display for tracks 1–8, a "9–16" indication means that at least one track from tracks 9–16 is selected as a playback track.
- You can select two or more tracks to play back at one time.
- The current song number is shown on the display (S01 to S20).
- If necessary, use the **TEMPO** buttons or the **TEMPO/PROGRAM** dial (**KN1500**) to adjust the playback tempo.
- The tempo is shown on the display as "♩ =".
- If the tempo was stored in the CONTROL or RHYTHM part, when that part is played back, the stored tempo data has priority.

4. Press the **SEQUENCER RESET (FILL IN 1)** button.
- The **SEQUENCER** returns to the beginning of the song and the beginning panel settings are recalled.

5. To begin playback from a measure other than measure 1, use the **PAGE** ∧ button to select [P4 SEQ PLAY].
- The display looks similar to the following.



6. Use the **ACCOMP 2** ∧ and ∨ buttons to select the beginning playback measure.
- By pressing and holding either **BASS** (Fwd) button, you can fast-forward to the desired measure while listening to the sound. This button does not function during playback.
- "MEASURE" indicates the current measure number.

7. Press the **START/STOP** button.
- The recorded performance is played back from the specified measure.
- When playback is begun from a measure in which an **INTRO**, **COUNT INTRO**, **FILL IN** or **ENDING** is recorded, the corresponding function does not work.
- If you wish to adjust the volume balance of each track or each **AUTO PLAY CHORD** part, for example, press the **BALANCE** button and adjust the volume on the SEQ BALANCE display. Press the **OTHER PARTS/TRACKS** button if you wish to view other tracks and parts.

8. To stop playback, press the **START/STOP** button.
- If the **START/STOP** button is pressed again, playback will continue from the point it was interrupted.

9. When you are finished playing back your performance, press the **PLAY** button in the **SEQUENCER** section to turn it off.
- During STEP RECORD or EDIT operations, the MEASURE indication on the display conforms to the time signature data recorded in the RHYTHM part.
- If you wish to play back a different song, use the **RIGHT 1** ∧ and ∨ buttons on the P4 display to select a different song number.

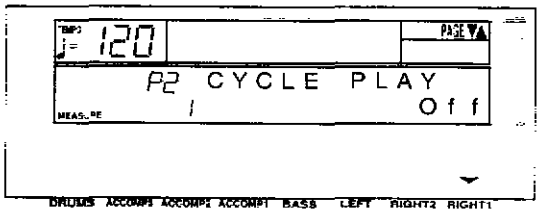
- Even if you press the **EXIT** button, for example, to exit the SEQ PLAY display, as long as the **PLAY** button is on, the song will be played back when the **START/STOP** button is pressed. In this case, even when the normal performance display is shown, the song may be played back without the rhythm start when the **START/STOP** button is pressed. Therefore, be sure to turn off the **PLAY** button if you do not wish to play back the recorded performance.

CYCLE PLAY

You can have specified measures played back repeatedly.

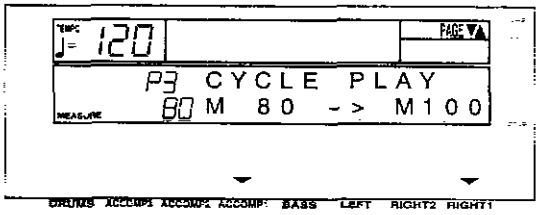
1. On the P1 SEQ PLAY display, specify "PLAY" for track numbers you wish to have played back.

2. Press the **PAGE** ∧ button.
- The display looks similar to the following.



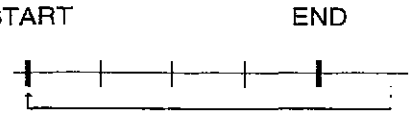
3. Press the **RIGHT 1** ∧ button to select On.

4. Press the **PAGE** ∧ button.
- The display looks similar to the following.



5. Use the **ACCOMP 1** ∧ and ∨ buttons to specify the beginning measure number.

6. Use the **RIGHT 1** ∧ and ∨ buttons to specify the ending measure number.
- The ending measure you specify becomes the last measure of the cycle.



7. Press the **START/STOP** button.
- Cycle playback of the specified measures begins.

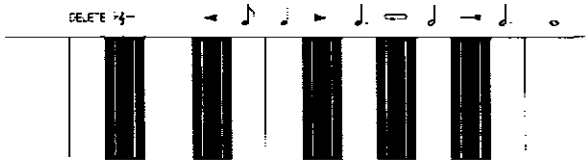
8. To stop cycle playback, press the **START/STOP** button again.
- During playback stop, if the **SEQUENCER RESET** (**FILL IN 1**) button is pressed, the **SEQUENCER** returns to the measure number specified in step 5. If the **SEQUENCER RESET** button is pressed again, the **SEQUENCER** returns to measure 1.

Step Record

Store a chord progression

Store the chord progression for the **AUTO PLAY CHORD** in the track for the CHORD part. Then, when the **AUTO PLAY CHORD** is used during playback, even if you do not specify the chords with your left hand, the chords change automatically.

- The chord length is specified with the **STEP RECORD** keys on the keyboard.



Note value keys

- Whole note
- Dotted half-note
- Half-note
- Dotted quarter-note
- Quarter-note
- Eighth-note

Reset key

Press to begin storing from the beginning.

Correction keys

◀ Move back one step.

▶ Move forward one step.

Repeat key

Press to end the chord-storing procedure and to specify automatic repeat playback of the stored progression.

End key

Press after the whole chord progression has been stored.

DELETE key

DELETE Press to erase data.

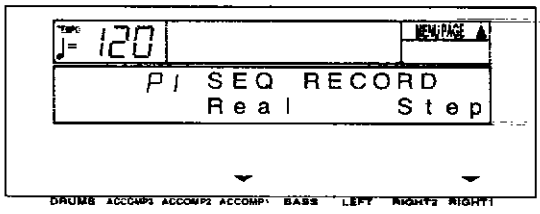
- To erase all the data from the current track, while pressing the **DELETE** key, press the End key (⊣).

■ Example of storing a chord progression

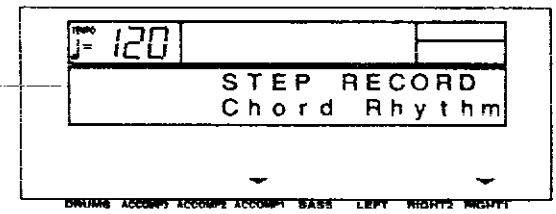
Measure 1	2	3		4	
C	C	F	G7	C	Am
𝅝	𝅝	𝅗𝅥	𝅗𝅥	𝅗𝅥.	𝅗𝅥.

1. Select the song number. (Refer to page 61.)

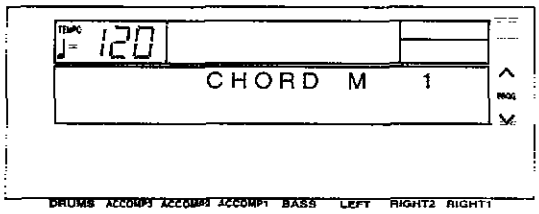
2. On the **SEQUENCER** menu display, select P1.
- The display changes to the following.



3. Press either **RIGHT 1** (Step) button.
- The display changes to the following.



4. Press either **ACCOMP 1** (Chord) button.
- The display changes to the following.



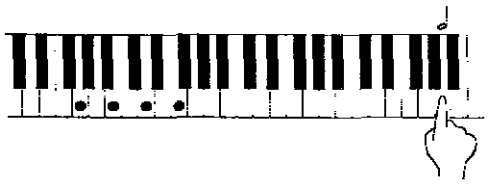
5. Store the chords.

<Measure 1, measure 2>
While playing a C chord with your left hand, press the ○ key one time with your right hand.

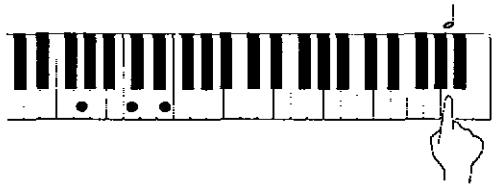
- A "beep" tone indicates that the chord has been successfully stored.
- The chord name is shown on the display.
- The measure automatically advances, in accordance with the specified note value.

<Measure 3>
(1) While playing an F chord, press the 𝅗𝅥 key one time.

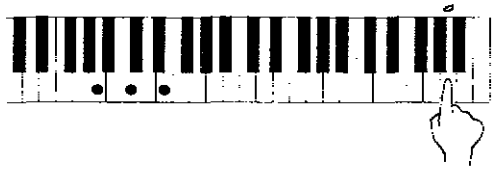
(2) While playing a G7 chord, press the 𝅗𝅥 key one time.



<Measure 4>
(1) While playing a C chord, press the 𝅗𝅥 key one time.



(2) While playing an Am chord, press the 𝅗𝅥 key one time.



- You can press an **INTRO & ENDING** button or a **FILL IN** button on the panel to store the desired pattern at the current position. (An **INTRO** or **COUNT INTRO** can be stored only at the beginning.)

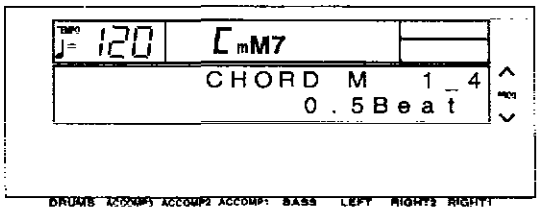
6. At the end of the chord progression, press the End key (⟞).
- This instrument exits the recording mode.
- During playback, playback of the recorded chord progression stops at this point. For automatic repeat playback of the chord progression, press the Repeat key (⟲) instead of the End key (⟞).

- When you play back the track for the Chord part, the chords of the automatic accompaniment change in accordance with the stored chord progression.
- Chords can also be specified in the ONE FINGER mode.
- If the **ON BASS** button is on, chords such as "C on G" can also be specified.

■ Correct the recorded chord progression

1. Follow the procedure to select the STEP RECORD: CHORD display.

2. Use the **TRANSPOSE** (PROG) ∧ and ∨ buttons to go to the measure you wish to modify. Use the ◀ and ▶ Correction keys to move the point you wish to edit.



- The measure number is indicated in the upper row. (Example: [1_4] indicates the fourth beat of the first measure.)
- In the lower row, the note length of the specified note is indicated in Beat units.

- To go to the end of the chord progression, while pressing the Reset key (|𝄞), press the ◀ key.

3. Correct the chord data.

Chord data

When the chord name is displayed, you can press the **DELETE** key to erase the data and then store a new chord.

- If you do not erase the displayed data before entering new chord data, the new data is inserted at this point, and the displayed data is merely shifted by the note value of the new chord.

Control data

The name of the stored function (INTRO, FILL, etc.) is displayed. You can press the **DELETE** key to erase the data which is displayed.

■ TRACK CLEAR

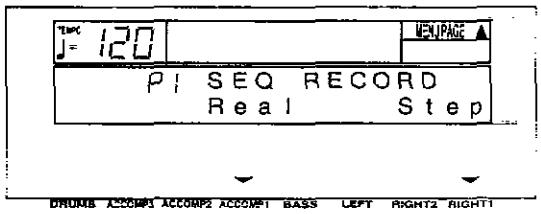
To erase all data from the current track, hold down the **DELETE** key and press the End (⟶|) key.

Store a rhythm progression

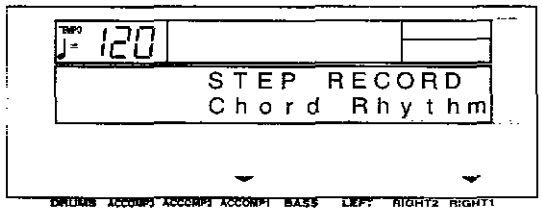
Changes in the rhythm selection and tempo, as well as the intro, fill-ins and the ending, can be stored by measures with the step recording method.

1. Select the song number. (Refer to page 61.)

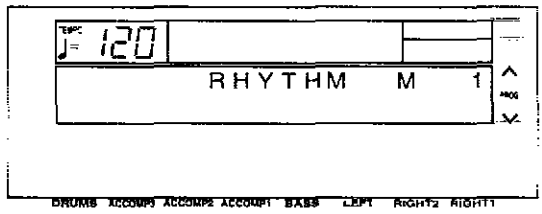
2. On the **SEQUENCER** menu display, select P1.
- The display looks similar to the following.



3. Press either **RIGHT 1** (Step) button.
- The display changes to the following.



4. Press either **RIGHT 1** (Rhythm) button.
- The display changes to the following.



5. Use the **TRANSPOSE** (PROG) ∧ and ∨ buttons to go to the measure you wish to record.

6. Store the rhythm data.
- Data which can be stored:
  START/STOP
  Changes in the rhythm selection
  Changes in the **VARIATION** selection
  COUNT INTRO, INTRO, FILL IN, ENDING
  Tempo changes
- Be sure to store the **START/STOP** data in the measure in which the rhythm starts or stops.
- If you are storing a **COUNT INTRO** or **INTRO**, store this data before the **START/STOP** data.

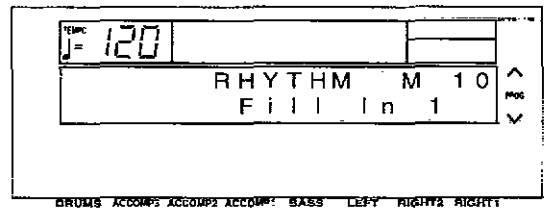
7. Repeat steps 5 and 6 to continue storing the rhythm progression.

8. At the end of the rhythm progression, press the End key.
- If the Repeat key is pressed instead of the End key, during playback the recorded rhythm progression is repeated.
- This instrument exits the recording mode.

■ Correct the recorded rhythm progression

1. Follow the procedure to select the STEP RECORD: RHYTHM display.

2. Use the **TRANSPOSE** (PROG) ∧ and ∨ buttons or the ◀ and ▶ Correction keys to move the point you wish to edit.



3. Correct the rhythm data.
- Press the **DELETE** key to erase data.
- If you select a rhythm with a different time signature, the time signature of all subsequent measures will also change.
- If data has already been recorded in other tracks, you cannot select a rhythm with a different time signature.

■ TRACK CLEAR

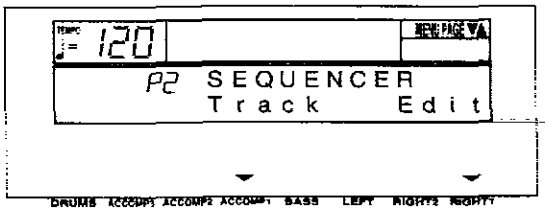
To erase all data from the current track, while the RHYTHM display is shown, hold down the **DELETE** key and press the End (—↵) key.

Track Assign

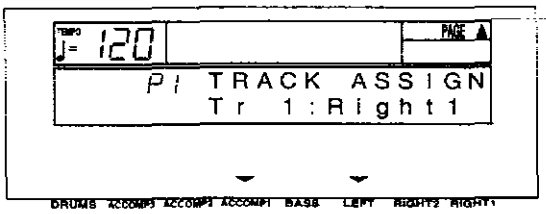
Each **SEQUENCER** part is already assigned to a track number. However, you can use the TRACK ASSIGN function to assign parts to tracks as you wish. This function is also used to designate the tracks used for the rhythm data and chord progression data.

1. Select the song number. (Refer to page 61.)

2. On the **SEQUENCER** menu display, select P2.
- The display looks similar to the following.



3. Press either **ACCOMP 1** (Track) button.
- The display changes to the following.



4. Use the **ACCOMP 1** ∧ and ∨ buttons to select the track.

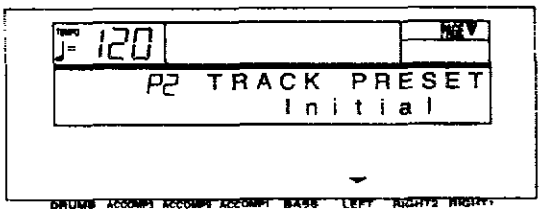
5. Use the **LEFT** ∧ and ∨ buttons to select the part for the specified track.
- Select one of the following parts: [Right1], [Right2], [Left], [Part4] to [Part15], [Drum], [APC], [Chord], [Control], [Rhythm]. (For an explanation of each **SEQUENCER** part, refer to page 63.)
- When a part other than the [Control], [APC/Chord] or [Rhythm] part is assigned, the track assign procedure is completed at this point.
- The [Rhythm], [Control] and [APC/Chord] parts cannot be assigned to more than one track.

6. When assigning the [Control], [APC/Chord] or [Rhythm] part, press either **RIGHT 1** button.
- The ARE YOU SURE? display appears. Press either **LEFT** (Yes) button to execute the function. Or press either **RIGHT 1** (No) button if you wish to cancel the procedure.

■ TRACK ASSIGN PRESETS

A preset track assignment can be selected.

1. While the P1 TRACK ASSIGN display is shown, press the **PAGE** ∧ button.
- The display looks similar to the following.



2. Use the **LEFT** ∧ and ∨ buttons to select the track assign mode.
- Select from the following modes.

Initial: Factory-preset settings.
Tech Multi: The optimum track assignment for a 16-part multi-timbre sound generator.
GM Multi: The optimum track assignment for creating GENERAL MIDI data.

3. Press the **EXECUTE (SYNCHRO & BREAK)** button.
- The ARE YOU SURE? display appears. Press either **LEFT** (Yes) button to execute the function. Or press either **RIGHT 1** (No) button if you wish to cancel the procedure.
- If [Yes] was selected, "COMPLETED!" is shown on the display and the selected track assign mode is enabled.

- After the TRACK PRESET is executed, you can use the **ACCOMP 1** ∧ and ∨ buttons to check the track assignment.

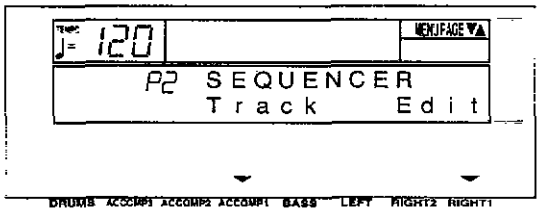
Editing the recorded performance

The edit feature allows you to erase or change portions of your performance after it has been recorded.

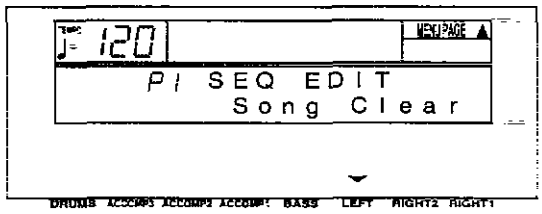
Select the edit function

1. Select the number of the song you wish to edit. (Refer to page 61.)

2. On the **SEQUENCER** menu display, select P2.
- The display changes to the following.



3. Press either **RIGHT 1** (Edit) button.
- The display changes to the following SEQ EDIT menu display.



4. Use the **PAGE** ∧ and ∨ buttons to select a menu item.

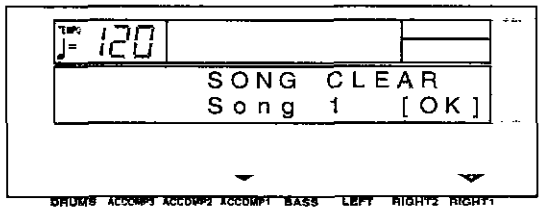
P1: [Song Clear]
P2: [Track Clear]
P3: [Quantize]
P4: [Song Copy]
P5: [Panel Write]

5. Press either **LEFT** button.
- The display changes in accordance with your selection.

6. Perform the editing procedures.
- During the editing procedure, you can press the **EXIT** button to go back to the SEQ EDIT menu display.

SONG CLEAR

Erase the recorded contents of a specified song.

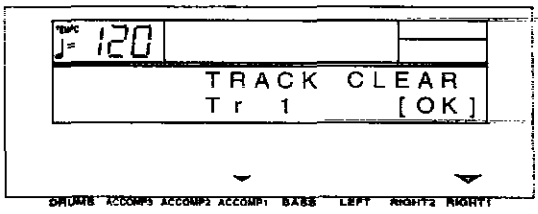


1. Use the **ACCOMP 1** ∧ and ∨ buttons to specify the number of the song to erase.
- If [All] is selected, all the songs recorded in the **SEQUENCER** will be erased.

2. Press either **RIGHT 1** (OK) button.
- The ARE YOU SURE? display appears. Press either **LEFT** (Yes) button to execute the function. Or press either **RIGHT 1** (No) button if you wish to cancel the procedure.
- If [Yes] was selected, "COMPLETED!" appears on the display, the specified songs are erased, and the instrument returns to the normal performance mode.

TRACK CLEAR

Erase the contents of a specific track.



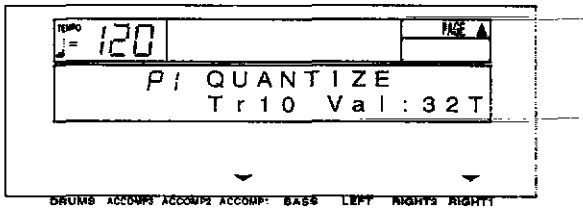
1. Use the **ACCOMP 1** ∧ and ∨ buttons to select the track you wish to clear.
- If [All] is selected, the data is erased from all the tracks.

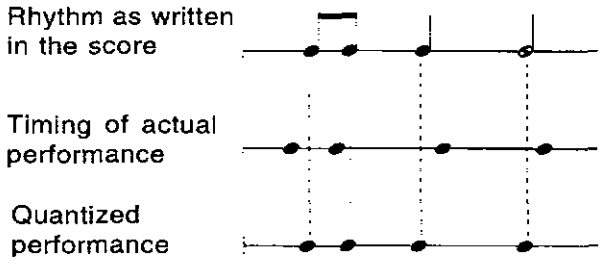
2. Press either **RIGHT 1** (OK) button.
- The ARE YOU SURE? display appears. Press either **LEFT** (Yes) button to execute the function. Or press either **RIGHT 1** (No) button if you wish to cancel the procedure.
- If [Yes] was selected, "COMPLETED!" appears on the display, and the specified tracks are erased.

3. To erase more than one track, repeat steps 1 and 2.

QUANTIZE

The QUANTIZE function can correct the timing of your performance after it has been recorded. If the rhythm is slightly out of sync or inexact, it will automatically be corrected to the specified quantize level.

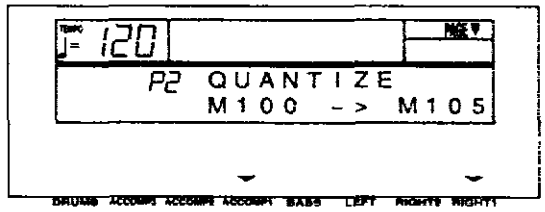




1. Use the **ACCOMP 1** ∧ and ∨ buttons to specify the track number.
- You cannot quantize the track for the [Control], [Rhythm] or [APC/Chord] part.
- If [All] is selected, all the tracks are quantized.

2. Use the **RIGHT 1** ∧ and ∨ buttons to specify the quantize level.
- This setting specifies the timing (minimum note value) on which the quantizing will be based.
- Select from 4, 8, 16, 32, 8T, 16T, 32T. (Example: 16=sixteenth note; T=triplet-type note.)

3. Press the **PAGE** ∧ button.
- The display changes to the following.



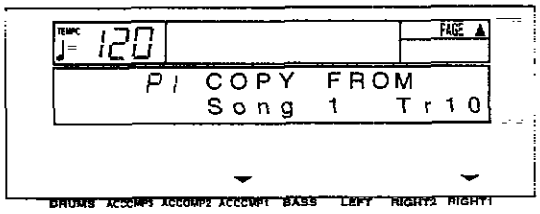
4. Use the **ACCOMP 1** ∧ and ∨ buttons to specify the start point (measure number).

5. Use the **RIGHT 1** ∧ and ∨ buttons to specify the end point (measure number).

6. Press the **EXECUTE (SYNCHRO & BREAK)** button.
- The ARE YOU SURE? display appears. Press either **LEFT** (Yes) button to execute the function. Or press either **RIGHT 1** (No) button if you wish to cancel the procedure.

SONG COPY

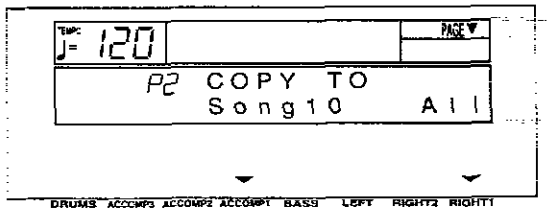
Copy the recorded data from specific tracks of a song.



1. Use the **ACCOMP 1** ∧ and ∨ buttons to specify the song number to copy from.

2. Use the **RIGHT 1** ∧ and ∨ buttons to specify the number of the track to copy from.
- If [All] is selected, all the tracks of the specified song number will be copied.

3. Press the **PAGE** ∧ button.
- The display changes to the following.



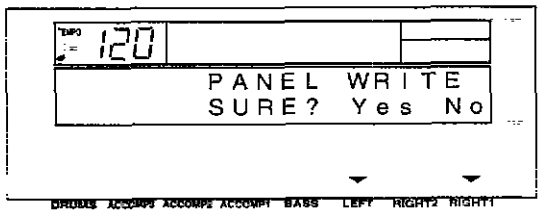
4. Use the **ACCOMP 1** ∧ and ∨ buttons to specify the song number to copy to.

5. Use the **RIGHT 1** ∧ and ∨ buttons to specify the number of the track to copy to.
- If [All] is selected, the data will be copied to all the tracks of the specified song number.

6. Press the **EXECUTE (SYNCHRO & BREAK)** button.
- The ARE YOU SURE? display appears. Press either **LEFT** (Yes) button to execute the function. Or press either **RIGHT 1** (No) button if you wish to cancel the procedure.

PANEL WRITE

You can change the panel status which is in effect at the beginning of the song. These are the settings which are recalled when the **SEQUENCER RESET** button is pressed.



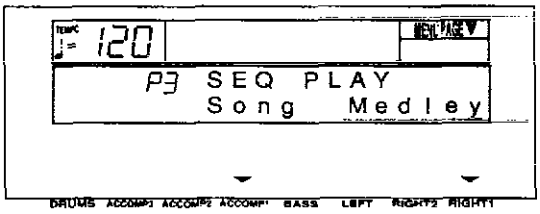
1. Use the panel buttons to change to the desired panel settings.

2. Press either **LEFT** (Yes) button.
- To cancel the procedure, press either **RIGHT 1** (No) button.
- If the [Yes] button is pressed, "COMPLETED!" is shown on the display.
- PANEL WRITE is automatically activated at the beginning of the REALTIME RECORD, or when a panel setting is changed during recording standby.

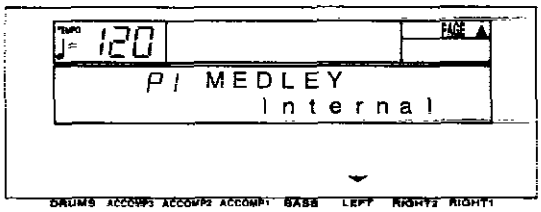
Sequencer Medley

You can have the songs played back continuously in order. Songs saved on a disk can also be played back in a medley.

1. On the **SEQUENCER** menu display, select P3 SEQ PLAY.
- The display looks similar to the following.



2. Press either **RIGHT 1** (Medley) button.
- **KN920/KN1500**: The display looks similar to the following.



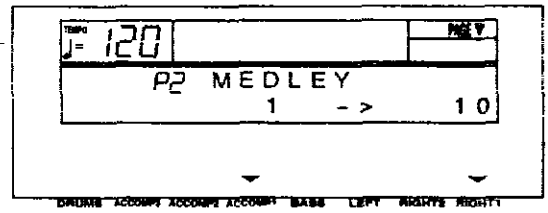
- **KN720:** Skip to step 5.

3. **KN920/KN1500**: Use the **LEFT** ∧ and ∨ buttons to specify which songs you wish to have played.

Internal: Play back song data from this instrument's **SEQUENCER** memories.
FD Technics: Play back Technics format song data saved on the floppy disk in the disk drive.
Other FD: Play back Standard MIDI File (Format 0) and DISK ORCHESTRA COLLECTION™ (DOC) song data saved on the floppy disk in the disk drive.

- Note that if [FD Technics] is selected and medley play is executed, all song data (SONG 1-10) currently stored in the **SEQUENCER** memory is destroyed.

4. Press the **PAGE** ∧ button.
- The display looks similar to the following.

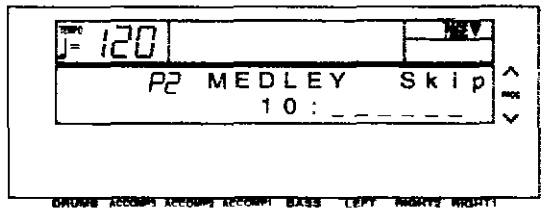


(KN920/KN1500)

5. Use the **ACCOMP 1** ∧ and ∨ buttons to specify the first song you wish to have played.

6. Use the **RIGHT 1** ∧ and ∨ buttons to specify the last song.

7. Press the **START/STOP** button.
- The songs are played back in the specified order.
- The display looks similar to the following.



- You can press either **TRANSPOSE** (PROG) button to skip to the next song.

8. To stop medley play, press the **START/STOP** button.
- **KN920/KN1500**: Features and operation of the Disk Drive are explained in "Part VII Disk Drive" (page 89).

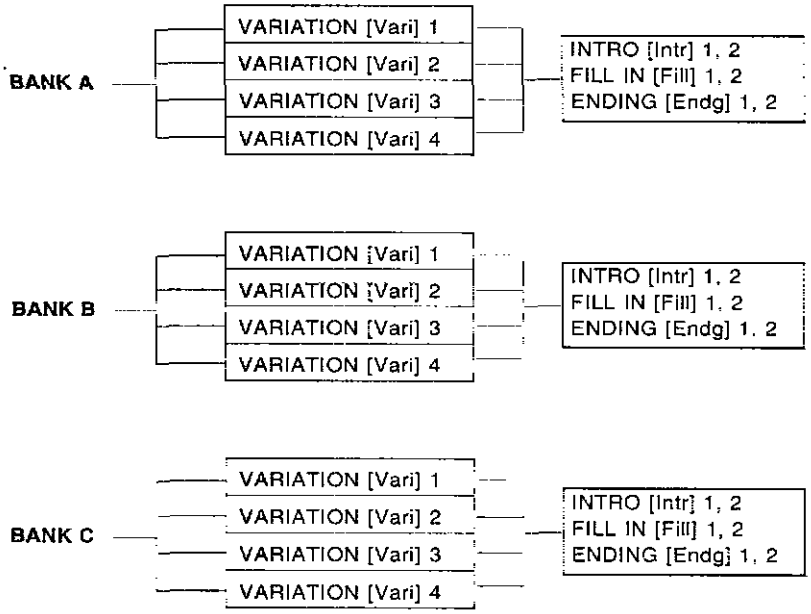
Part V Composer (KN920/KN1500)

Outline of the Composer

The **COMPOSER** enables you to create your own accompaniment patterns or to edit preset accompaniment patterns. A pattern is comprised of five parts: **DRUMS**, **BASS** and three **ACCOMP** parts. These parts would form the backing of a song, for example: Drums, Acoustic Bass, Piano, Jazz Guitar and Vibes. You may find it useful at first to copy and edit a preset pattern.

Rhythm components which can be stored

You can store up to 12 different rhythms (4 in each memory bank **A**, **B**, **C**).



- You can also create **INTRO**, **FILL IN** and **ENDING** patterns for each bank (**A**, **B**, **C**). These patterns are played back when the COMPOSER MODE is set to [Expand]. (Refer to page 83.)

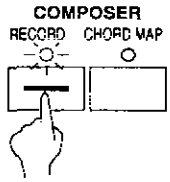
Memory capacity

Expressed in terms of notes, the total number of notes which can be stored in all the **COMPOSER** memories is about 10,000. The remaining memory available for recording is shown on the RECORD display as a percentage (MEMORY= %).

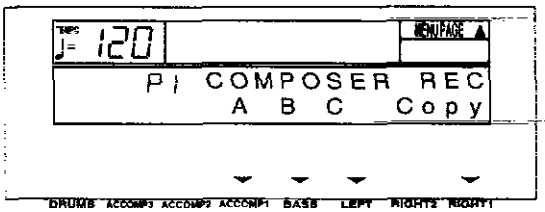
- When "MEMORY FULL!" appears on the display no more data can be stored in the **COMPOSER**.
- The recorded **COMPOSER** data can be saved to a disk and later quickly recalled (COMPOSER LOAD). (Refer to page 92.)

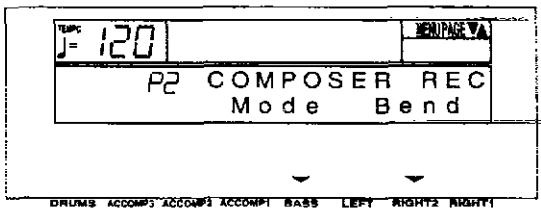
COMPOSER RECORD menu

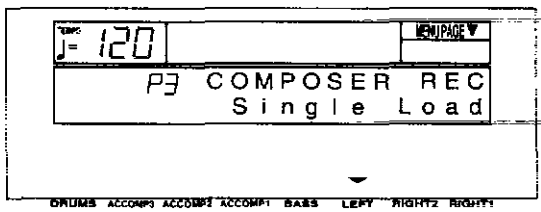
When you press the **RECORD** button in the **COMPOSER** section to turn it on, the display changes to the following.



- Use the **PAGE** buttons to view the three pages of menu display.







Summary of the COMPOSER menu items

[P1 COMPOSER REC]

A/B/C (pages 79 and 80)
Create a pattern in each of the A, B, C banks.

Copy (page 79)
Copy a preset rhythm pattern into a memory.

[P2 COMPOSER REC]

Mode (page 83)
Specify whether or not you are playing back your own **INTRO**, **FILL IN** and **ENDING** patterns.

Bend (page 84)
Set the pitch range for when the **PITCH BEND** wheel is operated during recording of the **ACCOMP** and **BASS** parts.

[P3 COMPOSER REC]

Single Load
Recall the desired **COMPOSER** data from data saved on a disk. The items on this menu are also on the **MEMORY & CONTROL** menu, and the procedures are the same (page 93).

Two ways to record in the COMPOSER

There are two ways to create and record a rhythm.

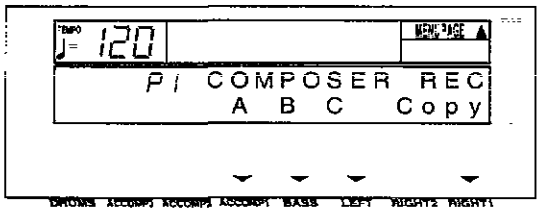
■ **Edit a preset rhythm** (pages 79 and 82)
Use the copy function to copy a preset rhythm to a memory, change parts of it, and then store it as a new rhythm.

■ **Create a completely new rhythm** (pages 80 and 82)
Clear the memories and compose a completely new rhythm from scratch.

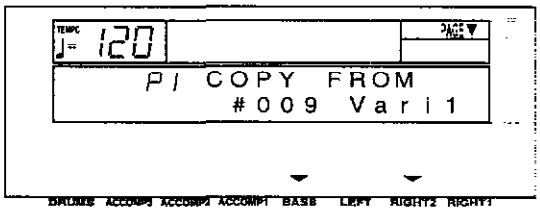
Edit a preset rhythm pattern: preparation

These are step-by-step instructions for preparing to create a new rhythm pattern by modifying a part of a preset rhythm pattern. First you copy one of the preset rhythm patterns to a location in the specified memory bank.

1. On the **COMPOSER RECORD** menu display, select P1.
- The display looks similar to the following.



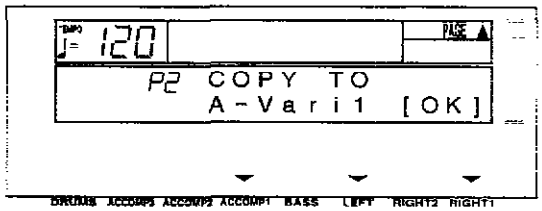
2. Press either **RIGHT 1** (Copy) button.
- The display looks similar to the following.



3. Use the **BASS** ∧ and ∨ buttons to select a rhythm number to copy.

4. Use the **RIGHT 2** ∧ and ∨ buttons to select the name of the section to copy from.
- Select from Vari (VARIATION) 1–4, Intr (INTRO) 1, 2, Endg (ENDING) 1, 2, V (VARIATION) 1Fl (FILL IN) 1, 2, V2Fl 1, 2, V3Fl 1, 2, V4Fl 1, 2.

5. Press the **PAGE** ∧ button.
- The display looks similar to the following.



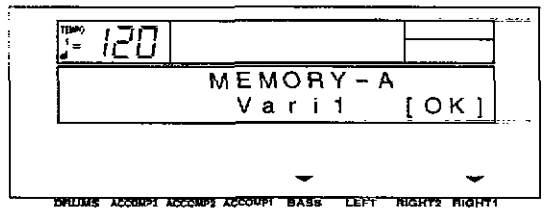
6. Use the **ACCOMP 1** ∧ and ∨ buttons to select a memory bank to copy to (A, B, C).

7. Use the **LEFT** ∧ and ∨ buttons to select the section name to copy to.
- Select from Vari 1–4, Intr 1, 2, Fill 1, 2, Endg 1, 2.

8. Press either **RIGHT 1** (OK) button.
- When copying has been successfully completed, "COPY COMPLETED!" appears on the display.

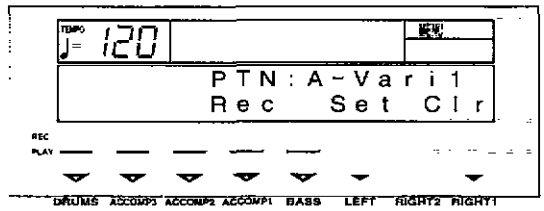
9. Press the **EXIT** button to view the P1 display.

10. Select the bank to which you copied the rhythm pattern (the memory bank you selected in step 6: A, B or C).
- The display looks similar to the following.



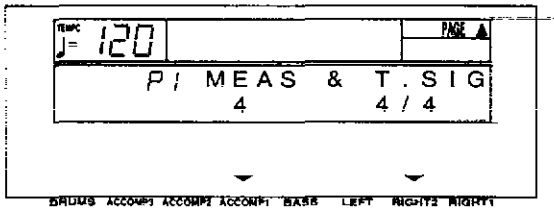
11. Use the **BASS** ∧ and ∨ buttons to select the section name to which you copied the section (the section name you selected in step 7).

12. Press either **RIGHT 1** (OK) button.
- The display looks similar to the following.

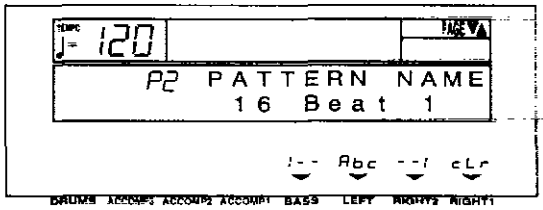


(Continued on the next page)

13. If you wish to name your new rhythm pattern (except for FILL IN, INTRO and ENDING), press either **LEFT** (Set) button.
- If you do not input a name for your rhythm pattern, the name becomes the same as the original rhythm from which you copied. Skip to step 17.
- The display looks similar to the following.

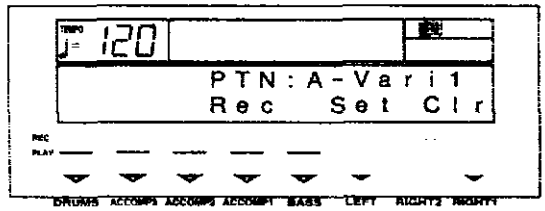


14. Press the **PAGE** ∧ button to view the P2 PATTERN NAME display.
- The display looks similar to the following.



15. Type a new name for your rhythm pattern (up to 12 characters).
- Use the **BASS** or the **RIGHT 2** buttons to highlight the character position. Use the **LEFT** (Abc) ∧ and ∨ buttons to select the alpha-numeric character. Repeat these steps to type the whole name.
- To erase all the characters, press either **RIGHT 1** (cLr) button.

16. Press the **EXIT** button to return to the following display.

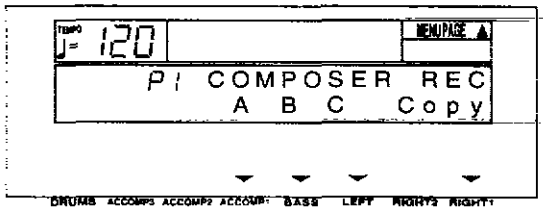


17. Press a [Rec] button to select the rhythm part you want to record first.
BASS
ACCOMP 1
ACCOMP 2
ACCOMP 3
DRUMS
- The pattern you copied and the metronome sound start, and recording begins. (Refer to page 82.)

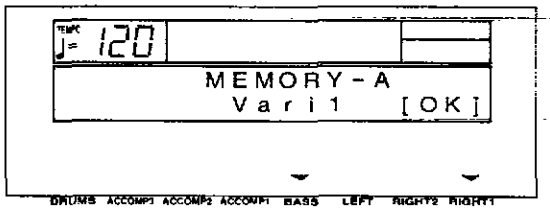
Create a completely new rhythm: preparation

Here are the preparatory steps to compose a completely new rhythm from scratch.

1. On the **COMPOSER RECORD** menu display, select P1.
- The display looks similar to the following.

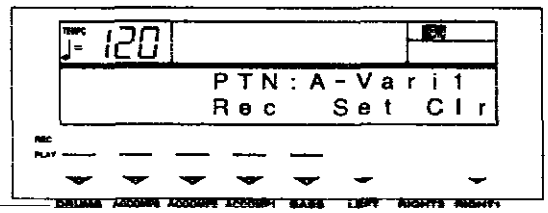


2. Select a bank in which to record the rhythm (A, B or C).
- The display looks similar to the following.

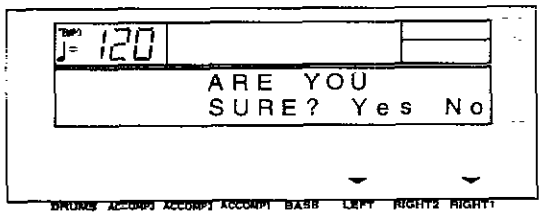


3. Use the **BASS** ∧ and ∨ buttons to specify the section you are going to create.
- Select from Vari 1–4, Intr 1, 2, Fill 1, 2, Endg 1, 2.

4. Press either **RIGHT 1** (OK) button.
- The display looks similar to the following.

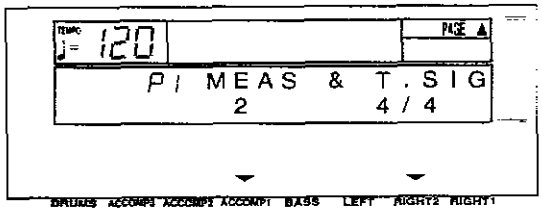


5. Press either **RIGHT 1** (Clr) button.
- The following confirmation display appears. Press either **LEFT** (Yes) button to execute the function, or press either **RIGHT 1** (No) button to cancel the function.



- If [Yes] was selected, "COMPLETED!" appears on the display, and the contents of all parts are cleared.

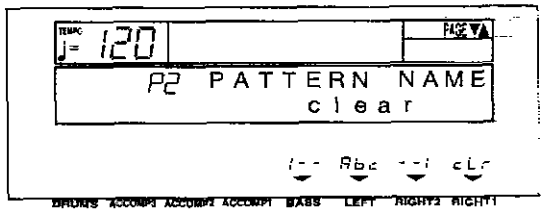
6. Press either **LEFT** (Set) button.
- The display looks similar to the following.



7. Use the **ACCOMP 1** ∧ and ∨ buttons to specify the number of measures in your repeating rhythm pattern (1 to 8).

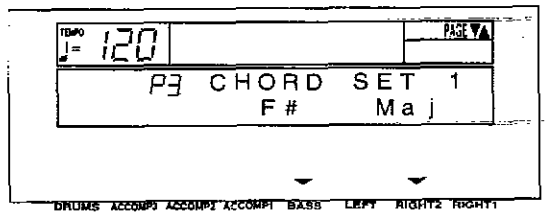
8. Use the **RIGHT 2** ∧ and ∨ buttons to specify the time signature (1/4 to 8/4).
- The settings for the number of measures and the time signature can be changed only if all the parts of the pattern were cleared in step 5.

9. Press the **PAGE** ∧ button to view the P2 PATTERN NAME display (except for FILL IN, INTRO and ENDING).
- The display looks similar to the following.



10. Type a name for your rhythm pattern (up to 12 characters).
- Use the **BASS** or **RIGHT 2** ∧ and ∨ buttons to highlight the character position. Use the **LEFT** (Abc) ∧ and ∨ buttons to select the alphanumeric character. Repeat these steps to type the whole name.
- To erase all the characters, press either **RIGHT 1** (cLr) button.

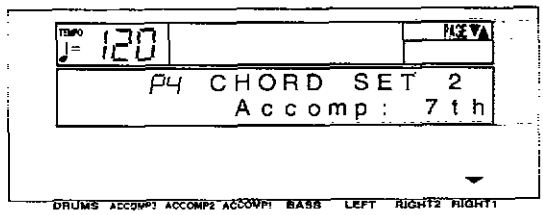
11. If you wish to record a performance in a key other than C major, or if you wish to specify the type of chord progression, press the **PAGE** ∧ button to view the P3 CHORD SET 1 display.
- The display looks similar to the following.



- If you do not wish to change these settings, skip to step 17.

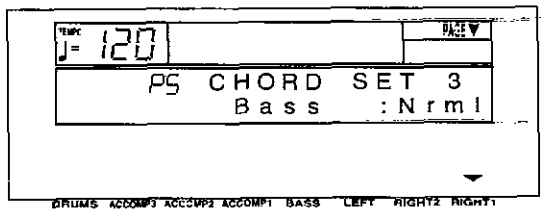
12. Use the **BASS** ∧ and ∨ buttons to specify the root note of the chords you wish to record. Use the **RIGHT 2** ∧ and ∨ buttons to specify the type of chord you wish to record (Min or Maj).

13. Press the **PAGE** ∧ button to view the P4 CHORD SET 2 display.
- The display looks similar to the following.



14. Use the **RIGHT 1** ∧ and ∨ buttons to specify the type of phrase progression for the **ACCOMP** parts (Normal [Nrml], or 7th).

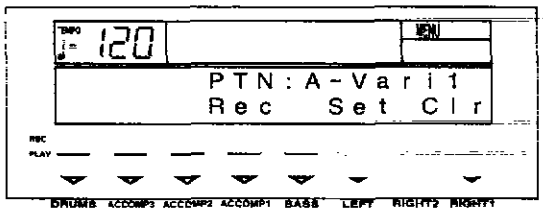
15. Press the **PAGE** ∧ button to view the P5 CHORD SET 3 display.
- The display looks similar to the following.



16. Use the **RIGHT 1** ∧ and ∨ buttons to specify the type of phrase progression for the **BASS** part (Normal [Nrml], or 7th).

(Continued on the next page)

17. Press the **EXIT** button to return to the following display.

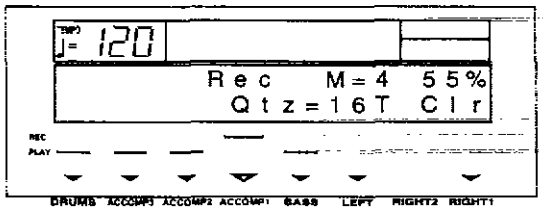


18. Press a [Rec] button to select the rhythm part you want to record first.
    BASS
    ACCOMP 1
    ACCOMP 2
    ACCOMP 3
    DRUMS
- The metronome sound starts and recording begins.

Record your rhythm pattern

Store each part of the rhythm pattern as you perform it on the keyboard.

Recording procedure



1. Adjust the tempo.
- The tempo can be freely adjusted when you play back the rhythm pattern, so record at the tempo which is easiest for you to play.

2. Select the sound.
- For the **DRUMS** part, select sounds from the **KEYBOARD PERC** sounds.
- For the **ACCOMP 1** to **3** and the **BASS** parts, select sounds from groups other than the **KEYBOARD PERC** sounds. You can also set the **DIGITAL EFFECT** to on or off.
- Depending on the selected sound, the sound quality may differ from that during a normal performance.

3. Record the part.

- The specified number of measures are repeatedly played back, during which time any newly played notes are added to those already recorded. The current measure number is shown on the display as "M=".
- Record the performance in C major for correct chord progressions during playback. To record the performance in a different scale, refer to page 81.
- The **PITCH BEND** wheel operation and **SUSTAIN** on/off are also recorded (except for the **DRUMS** part).

4. When you have finished recording one part, use the [Rec] buttons below the display to select the next part to record.
- The ▼ mark for the selected part only flashes.

5. Repeat steps 1 through 4 to record all the parts of the rhythm.

6. When you have finished recording the rhythm, press the **RECORD** button in the **COMPOSER** section to turn it off.

■ **Functions during recording**

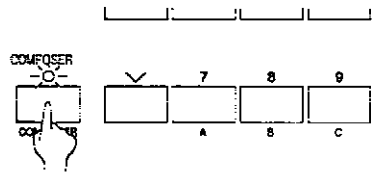
Clr
Press either **RIGHT 1** (Clr) button if you wish to erase all recorded contents of the currently selected part.

INST ERASE
When the **DRUMS** part is selected, the **DRUMS** part can be cleared instrument by instrument. Hold down the **INST ERASE (SPLIT POINT)** button and specify the instrument sound to be deleted by pressing the corresponding instrument key on the keyboard, after which only the specified instrument will be erased for as long as this button is kept pressed.

Qtz (QUANTIZE)
Set the desired quantize level to smooth out any unevenness in the timing of your performance. Use the **LEFT** ∧ and ∨ buttons to specify the timing (minimum note value) on which the quantizing will be based.
- Select from 32T, 32, 16T, OFF, 16, 8T, 8, 4. (Example: 16=sixteenth note; T=triplet-type note.)

Playback

1. Press the **COMPOSER** button to turn it on.



2. Use the number pad to select the bank.
- Press **7** for bank **A**, **8** for bank **B**, or **9** for bank **C**.

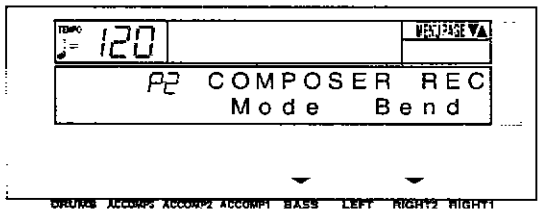
3. Use the **VARIATION & MSA** buttons to select the variation (**1** to **4**).

4. Press the **START/STOP** button.
- The **DRUMS** part begins to play back.
- The **BASS** and **ACCOMP** parts are played back when you use the **AUTO PLAY CHORD**.

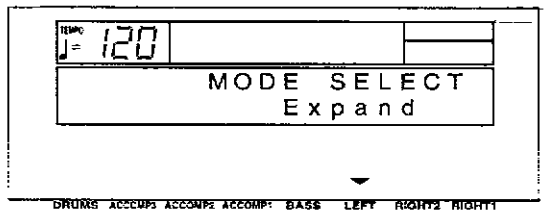
Composer mode

Two playback modes are available for you to choose from. If you wish to use the intro, fill-in and ending patterns from a preset rhythm when you play back your new rhythm pattern, select NORMAL MODE. For creating and playing back your original intro, fill-in and ending patterns, select EXPAND MODE.

1. On the **COMPOSER RECORD** menu display, select P2.
- The display changes to the following.



2. Press either **BASS** (Mode) button.
- The display looks similar to the following.



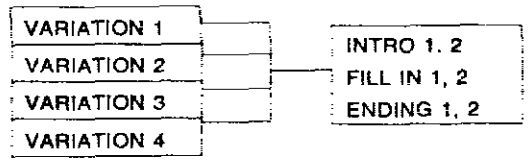
3. Use the **LEFT** ∧ and ∨ buttons to select the mode.

■ **Normal**
When a **FILL IN** button or the **INTRO & ENDING** button is pressed during playback, the corresponding pattern for a preset rhythm is played back.

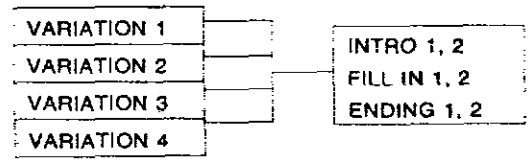
■ **Expand**
When a **FILL IN** button or an **INTRO & ENDING** button is pressed during playback, the corresponding pattern you created is played back.

- Only one each **FILL IN 1**, **FILL IN 2**, **INTRO 1**, **INTRO 2**, **ENDING 1** and **ENDING 2** pattern can be created for each of the three banks (**A**, **B** or **C**). The fill-in patterns, etc. for each bank are used for all the basic rhythms in the same bank.
- Each pattern of a bank should have the same time signature.

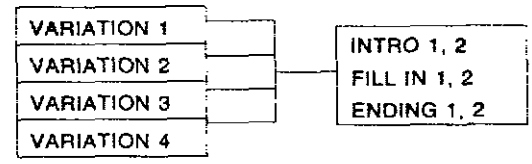
<BANK A>



<BANK B>



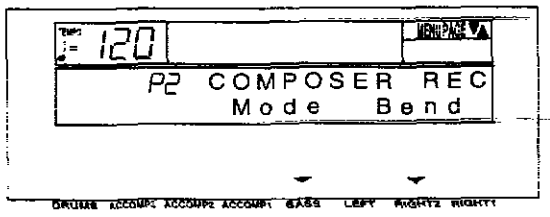
<BANK C>



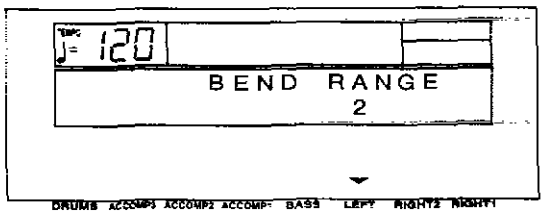
Bend Range

Adjust the amount of pitch change applied to the **ACCOMP** parts and the **BASS** part when the **PITCH BEND** wheel is operated during **COMPOSER** recording.

1. On the **COMPOSER RECORD** menu display, select P2.
- The display looks similar to the following.



2. Press either **RIGHT 2** (Bend) button.
- The display looks similar to the following.



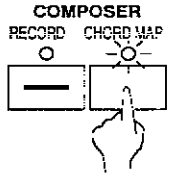
3. Use the **LEFT** ∧ and ∨ buttons to specify the range (0 to 12).
- Increments are in semitones.

Composer Chord Map

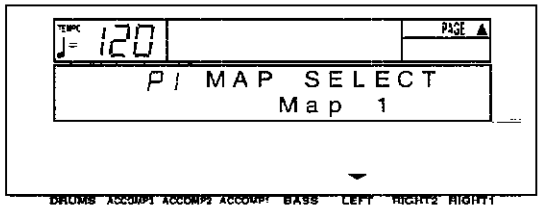
A different accompaniment pattern can be selected for each of the four types of chords (major, minor, seventh and diminished). Then the accompaniment combination can be stored in one of five different maps.

- Store beforehand in a **COMPOSER** memory (Vari 1–4) each accompaniment pattern you are going to perform when a type of chord is selected. When recording a pattern, for the minor type for example, record it in a minor key.

1. Press and hold the **CHORD MAP** button in the **COMPOSER** section for a few seconds.

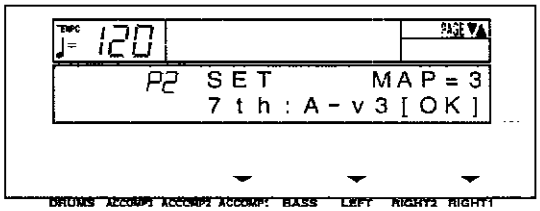


- The display looks similar to the following.



2. Use the **LEFT** ∧ and ∨ buttons to select a map number (Map 1 to 5).

3. Press the **PAGE** ∧ button.
- The display looks similar to the following.



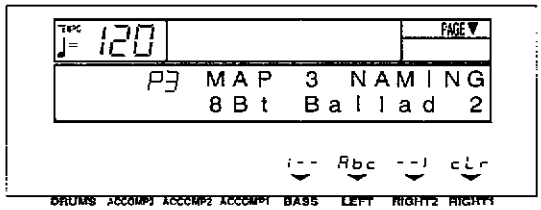
4. Use the **ACCOMP 1** buttons to select a chord type.
- Select from [Maj] (major), [Min] (minor), [7th], and [Dim] (diminished).

5. Use the **LEFT** ∧ and ∨ buttons to select a pattern for the chord type (bank name–variation number).
- The accompaniment pattern for the **INTRO**, **FILL IN** and **ENDING** is the one selected for [Maj].
- The accompaniment pattern for chords which are set to [Off] is the same as the pattern for [Maj] chords.

6. Repeat steps 4 and 5 for each chord type, as desired.
- Only patterns with the same number of measures and same time signature can be selected.

7. When all the settings are completed, press either **RIGHT 1** (OK) button.
- "COMPLETED!" appears on the display, and the settings are executed.

8. Press the **PAGE** ∧ button.
- The display looks similar to the following.



9. Assign a name to the map.
- Use the **BASS** or **RIGHT 2** buttons to highlight the character position. Use the **LEFT** (Abc) ∧ and ∨ buttons to select the alphanumeric character. Repeat these steps to type the whole name.
- To erase all the characters, press either **RIGHT 1** (cLr) button.

10. Use the **PAGE** buttons to select P1 MAP SELECT. Repeat steps 3 to 9 to create other maps, as desired.

11. When you have finished making the map settings, press the **EXIT** button.

Recall chord map

Follow the procedure below to recall a stored chord map and use with your performance.

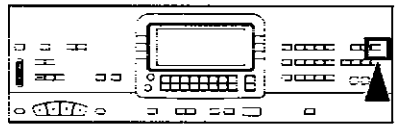
1. Press the **CHORD MAP** button in the **COMPOSER** section to turn it on.

2. Use the number pad to select the number of the desired map (1 to 5).
- The selected map number and map name are shown on the display.

3. Play the keyboard using the automatic accompaniment.
- The pattern changes according to the type of chord you play.
- If you select a different rhythm or **COMPOSER** rhythm, the **COMPOSER CHORD MAP** function is canceled.

Part VI Song memory (KN720)

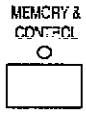
Store your performance



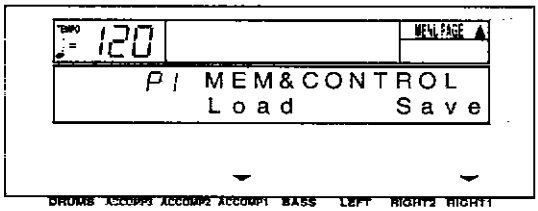
The stored contents of the **SEQUENCER** can be saved in this instrument's memory (SAVE).
- The stored contents of the **PANEL MEMORY** and the current panel settings are also stored.

SAVE

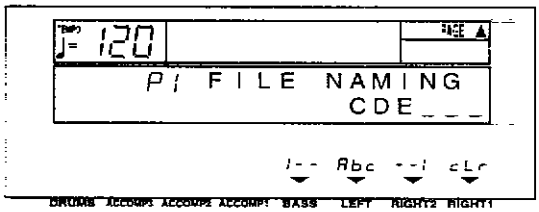
1. Press the **MEMORY & CONTROL** button to turn it on.



- The display looks similar to the following.

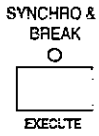


2. Press either **RIGHT 1** (Save) button.
- The display looks similar to the following.

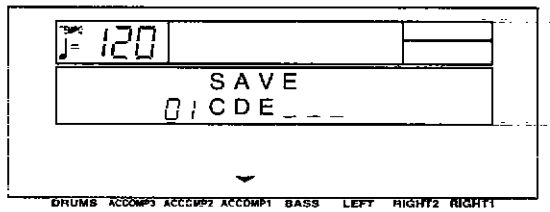


3. Assign a name to the song (up to 6 characters).
- Use the **BASS** and **RIGHT 2** buttons to highlight the character position. Use the **LEFT** (Abc) buttons to select the alphanumeric character. Repeat these steps to type the whole name.
- To erase the name, press either **RIGHT 1** (cLr) button.

4. Press the **EXECUTE (SYNCHRO & BREAK)** button.



- The display looks similar to the following.

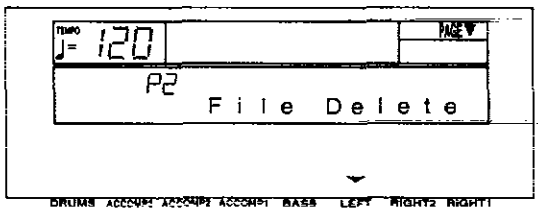


5. Use the **ACCOMP 1** ∧ and ∨ buttons to select the file number to save.
- File numbers in which songs are already saved are indicated by the song name.
- The number of files that can be saved is limited. If you are saving several songs which use a lot of memory, the number of files which can be saved will be about three.
- When the internal memory is full, "FILE FULL!" is shown on the display. Use the FILE DELETE function (refer to the next article) to clear any unnecessary files.

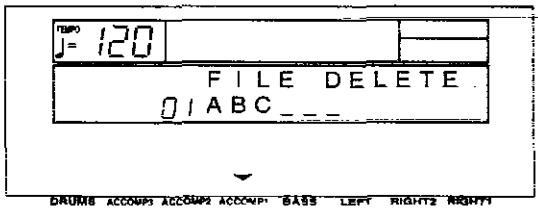
6. Press the **EXECUTE (SYNCHRO & BREAK)** button.
- The SAVE operation begins.
- When the operation has been successfully completed, "COMPLETED!" is shown on the display.
- If you attempt to save data to a file number in which data is currently saved, the display changes to the confirmation display. Press either **LEFT** (Yes) to continue the save procedure, or press either **RIGHT 1** (No) button if you wish to cancel the procedure.

FILE delete
Use the following procedure to clear a specific file.

1. On the FILE NAMING display, press the **PAGE** ∧ button.
- The display looks similar to the following.



2. Press either **LEFT** button.
- The display looks similar to the following.



3. Use the **ACCOMP 1** ∧ and ∨ buttons to specify the file to erase.

4. Press the **EXECUTE (SYNCHRO & BREAK)** button.
- The ARE YOU SURE? display appears. Press either **LEFT** (Yes) button to execute the function. Or press either **RIGHT 1** (No) button if you wish to cancel the procedure.

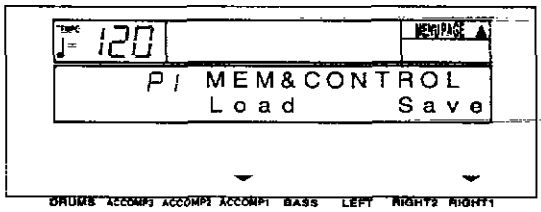
- The contents of the song files are preserved even if the **PLAY** button is turned off, as long as power is being supplied through the AC adaptor or the batteries.

Recall the stored performance

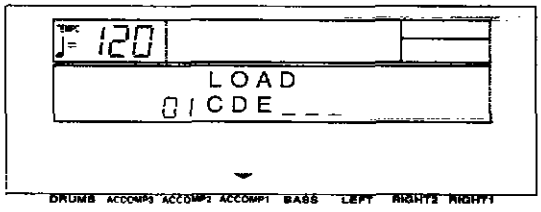
The contents of the song files can be recalled any time (LOAD).
- When the LOAD procedure is performed, the current memory contents (**SEQUENCER**, **PANEL MEMORY**, etc.) are replaced by the contents of the selected song file.

LOAD

1. Press the **MEMORY & CONTROL** button to turn it on.
- The display looks similar to the following.



2. Press either **ACCOMP 1** (Load) button.
- The display looks similar to the following.



3. Use the **ACCOMP 1** ∧ and ∨ buttons to select the file number to load.
- File numbers and the names of stored songs are shown on the display.

4. Press the **EXECUTE (SYNCHRO & BREAK)** button.
- The LOAD operation begins.
- When the operation has been successfully completed, "COMPLETED!" is shown on the display.

Part VII Disk Drive (KN920/KN1500)

Outline of the Disk Drive function

The Disk Drive enables you to store **COMPOSER** memories, **SEQUENCER** data etc. for future use.

Internal memory and Floppy Disk Drive

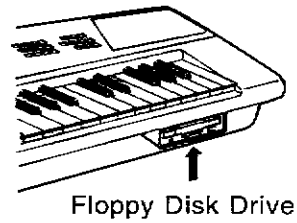
The storable internal memory is fixed at a limited capacity, but this external memory device expands the storable memory infinitely.

- You can use 3.5 inch 2DD (720 KB) or 2HD (1.44 MB) floppy disks; however, 2HD disks formatted as 2DD cannot be used.
- Specific file formats are handled as follows.

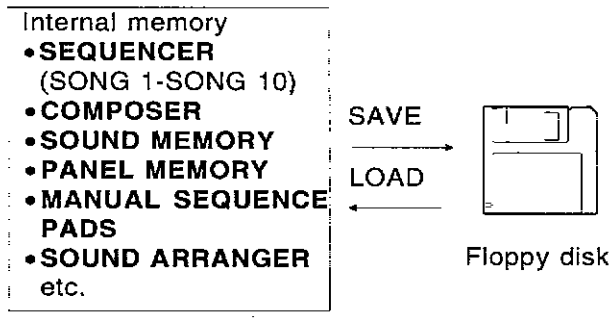
		SAVE	LOAD
TECHNICS File		○	○
Standard MIDI File	FORMAT 0	○	○
	FORMAT 1	×	○

FORMAT 0: There is one track on the disk, and it contains the 16 MIDI channels.

FORMAT 1: There is an unlimited number of tracks on the disk, each of which can contain the 16 MIDI channels.



Floppy Disk Drive



Load commercial software

Disks recorded using the Disk Drive of this instrument can, of course, be played back on your instrument (TECHNICS file). But this instrument also reads song data from floppy disks recorded in the Standard MIDI File format, enabling you to play commercial song disks on this instrument. In addition, by saving this instrument's **SEQUENCER** data in the Standard MIDI File format, you can play it back on an external sequencer.

DIRECT PLAY

You can play commercially sold song disks immediately without performing the normal load procedure.

- DIRECT PLAY can be used for the following disks:
  Standard MIDI File (SMF) disks (FORMAT 0)
  DISK ORCHESTRA COLLECTION™ (DOC)

■ About Standard MIDI Files

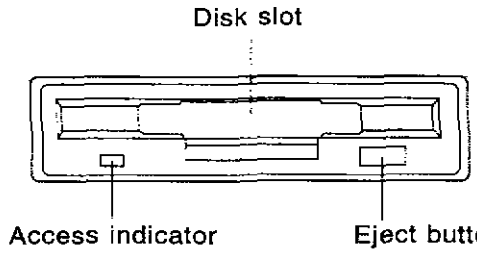
"Standard MIDI File" is a standardized data format which makes it possible for music data to be exchanged among different sequencers. Data stored in this format on sequencers of different models can be played back on this instrument, and vice versa.

- Only files with the ".MID" extension can be loaded.
- No more than 310 KB of data can be loaded into this instrument.

Warning

Standard MIDI Files ensure the compatibility of data such as key on, key off, velocity, program number. It does not guarantee 100% faithful reproduction of recorded music which is replete with such data. For exact playback of music, it may be necessary to perform extensive adjustments of all the sound generator settings. As you the listener are the ultimate judge of what sounds best, you should perform such adjustments to your satisfaction.

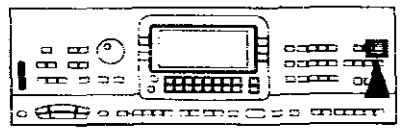
Main parts of the Floppy Disk Drive



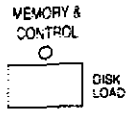
Eject button
Press to remove the disk from the Disk Drive.

Access Indicator
Lights when data is being loaded from or saved to disk.
- To prevent data loss, do not remove the disk from the Disk Drive or turn off the power when the access indicator is lit.

Outline of procedure



1. Press the **MEMORY & CONTROL** button to turn it on.



2. Use the **PAGE** buttons to select the desired menu.
- There are six pages of the menu display.

P1 Load (page 91)
Load data in either the Technics File format or Standard MIDI File format from a disk into this instrument's memory.

P1 Save (page 97)
Save data from this instrument's memory to a disk, in either the Technics File format or the Standard MIDI File format.

P2 Direct Play (page 95)
Immediate playback of commercial song disks.

P3 FD Format (page 96)
Format new floppy disks or erase the contents of recorded disks so they can be used by this instrument.

- [P4 Initial] is explained on page 122.
- [P5 Foot Switch] is explained on page 58.
- [P6 Contrast] is explained on page 34.

3. Select the desired menu and follow the procedures on the corresponding setting display.

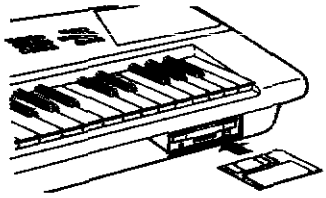
4. When you have finished setting the functions, press the **MEMORY & CONTROL** button to turn it off.

Loading data

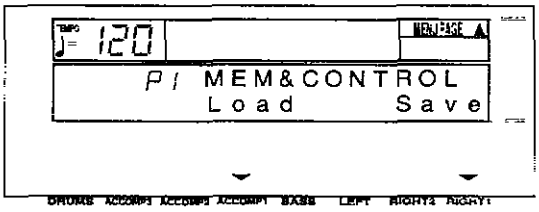
Recall (load) the data from the disk to this instrument's memories.
WARNING: The load procedure causes any data which is currently stored in the relevant memories to be erased.

DISK LOAD

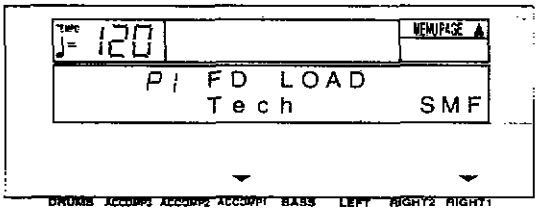
1. Insert the disk with the stored data into the Disk Drive. Push it all the way in until you hear a click.

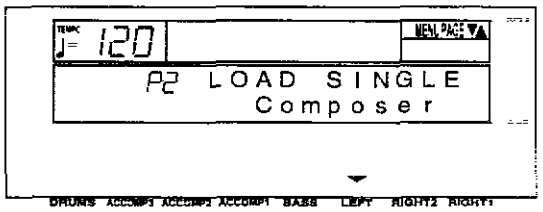


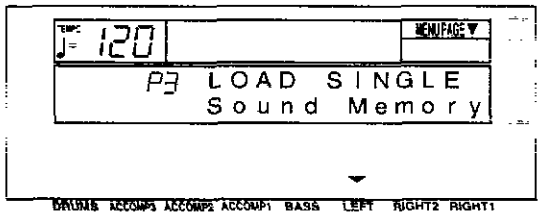
2. On the **MEMORY & CONTROL** menu display, select P1.
- The display looks similar to the following.



3. Press either **ACCOMP 1** (Load) button.
- The display changes to the following load menu display.
- There are three pages of the menu display.







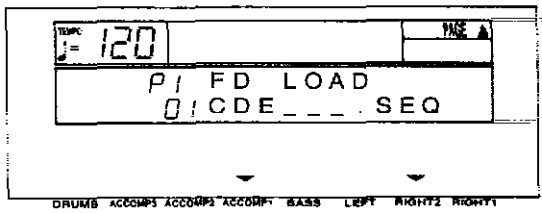
4. Select the type of data load you want.

[Tech]: Load data which was saved in the Technics File format (TECHNICS LOAD).
[SMF]: Load data which was saved in the Standard MIDI File format (SMF LOAD).
[LOAD SINGLE Composer]: Load **COMPOSER** data from a disk into a specified memory number.
[LOAD SINGLE Sound Memory]: Load specified **SOUND MEMORY** data.

5. Perform the selected disk load procedure. (Refer to the following sections.)

■ TECHNICS LOAD

Load data which was saved in the Technics File format.



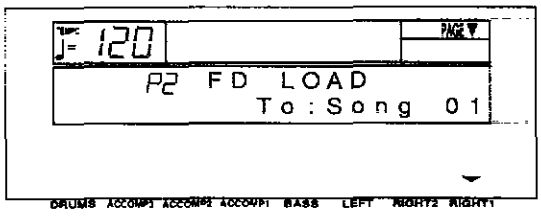
1. Use the **ACCOMP 1** ∧ and ∨ buttons to select the file on the floppy disk you wish to load (copy) to this instrument's memories.
- The file name is shown next to each file number.

2. Use the **RIGHT 2** ∧ and ∨ buttons to specify the kind of data you wish to load from the disk to your instrument.

ALL: All the following data is loaded.
SEQ: Only **SEQUENCER** data
CMP: Only **COMPOSER** data
SND: Only **SOUND MEMORY** data
PNL: Only **PANEL MEMORY** data
MSP: Only **MANUAL SEQUENCE PADS** data

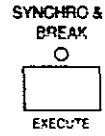
- The option which was specified during the SAVE procedure is automatically selected. Skip this step if you do not wish to change the selection.

3. For a SEQ file, press the **PAGE** ∧ button.
- The display looks similar to the following.



- Use the **RIGHT 1** ∧ and ∨ buttons to select the song number in this instrument's memories to which you wish to have the file loaded (copied).
- If you are loading a file that was saved with the ALL option selected, this display will not appear even if SEQ is selected in step 2.
- **SEQUENCER** data is loaded one song at a time. However, if you load a file for which ALL was selected, **SEQUENCER** songs 1 to 10 are loaded at once.

4. Press the **EXECUTE (SYNCHRO & BREAK)** button.

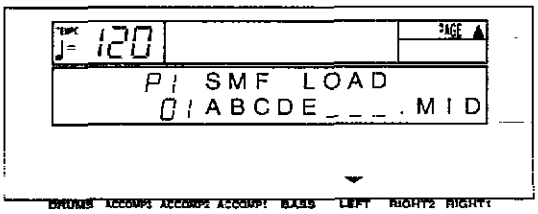


- The LOAD operation begins.
- When the operation has been successfully completed, "COMPLETED!" is shown on the display.
- If song data was loaded, you can press the **START/STOP** button to begin playback when the **PLAY** button of the **SEQUENCER** is on.

- You can quickly load just the **COMPOSER** data by pressing and holding the **COMPOSER LOAD (COMPOSER)** button for a few seconds.
- You can also access the FD LOAD display by pressing the **MEMORY & CONTROL (DISK LOAD)** button for a few seconds.

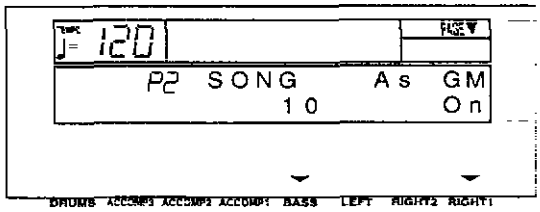
■ SMF LOAD

Load data which was saved in the Standard MIDI File (SMF) format.



1. Use the **LEFT** ∧ and ∨ buttons to select the file.

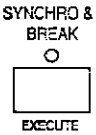
2. Press the **PAGE** ∧ button.
- The display looks similar to the following.



3. Use the **BASS** ∧ and ∨ buttons to select the song.
- Data is loaded one song at a time.

4. Use the **RIGHT 1** ∧ and ∨ buttons to specify whether or not to load the song as GENERAL MIDI (GM) (On/Off).
- If the GM setting you specify is different from the setting in the file, the sounds, the octave, and the arrangement of percussion sounds on the keyboard will be different.
- Information about GENERAL MIDI can be found on page 112.
- If playback is executed with the setting set to On, the functions of this instrument are limited in various ways. For detailed information, please refer to the separate REFERENCE GUIDE provided.

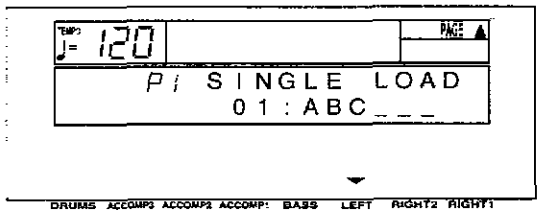
5. Press the **EXECUTE (SYNCHRO & BREAK)** button.



- The LOAD operation begins.
- When the operation has been successfully completed, "COMPLETED!" is shown on the display.
- Press the **START/STOP** button to begin playback.

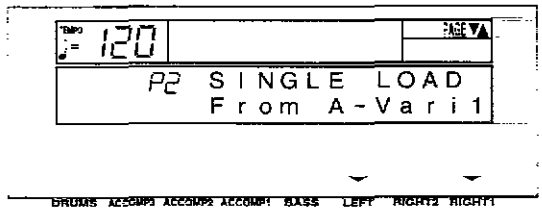
■ LOAD SINGLE COMPOSER

Load the desired **COMPOSER** data from a disk into a specific **COMPOSER** memory.



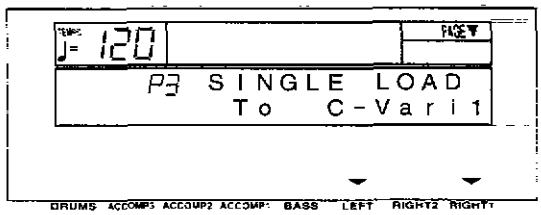
1. Use the **LEFT** ∧ and ∨ buttons to select the number of the file with the data you wish to load.

2. Press the **PAGE** ∧ button.
- The display looks similar to the following.



3. Select the pattern you wish to load.
- Use the **LEFT** ∧ and ∨ buttons to specify the bank name, and the **RIGHT 1** ∧ and ∨ buttons to specify the section name.

4. Press the **PAGE** ∧ button.
- The display looks similar to the following.

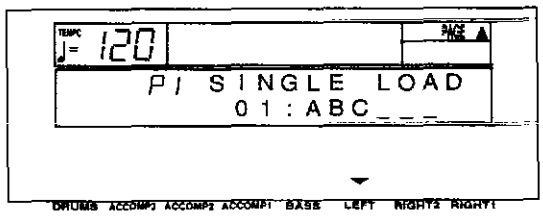


5. Select the section to load to.
- Use the **LEFT** ∧ and ∨ buttons to specify the bank name, and the **RIGHT 1** ∧ and ∨ buttons to specify the section name.

6. Press the **EXECUTE (SYNCHRO & BREAK)** button.
- The LOAD operation begins.
- When the operation has been successfully completed, "COMPLETED!" is shown on the display.
- This procedure can also be accessed from the **COMPOSER** menu display. (Refer to page 78.)

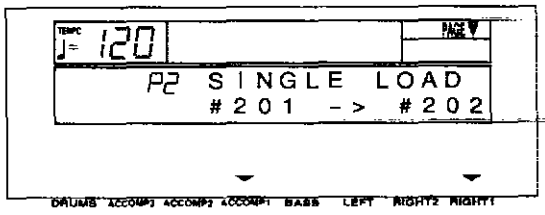
■ LOAD SINGLE SOUND MEMORY

Load the desired **SOUND** data from a disk into a specific **SOUND MEMORY**.



1. Use the **LEFT** ∧ and ∨ buttons to select the number of the file with the data you wish to load.

2. Press the **PAGE** ∧ button.
- The display looks similar to the following.



3. Use the **ACCOMP 1** ∧ and ∨ buttons to select the sound number (201–240) you wish to load.

4. Use the **RIGHT 1** ∧ and ∨ buttons to specify the sound number to load to.

5. Press the **EXECUTE (SYNCHRO & BREAK)** button.
- The LOAD operation begins.
- When the operation has been successfully completed, "COMPLETED!" is shown on the display.

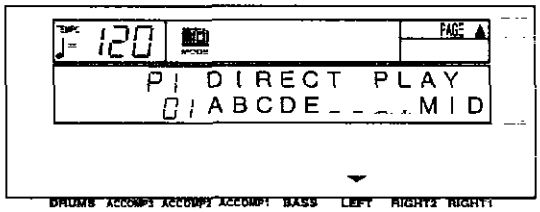
Playing commercial disks

Commercial song disks can be played back directly from a disk. The usual LOAD operation is not necessary, so playback is quicker.

DIRECT PLAY

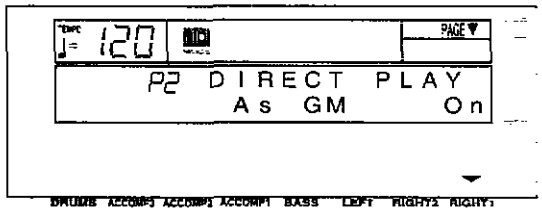
1. Insert the disk you wish to play back into the Disk Drive.

2. On the **MEMORY & CONTROL** menu display, select [P2 Direct Play].
- The display looks similar to the following.



3. Use the **LEFT** ∧ and ∨ buttons to select the filename to play back.

4. For SMF files, press the **PAGE** ∧ button.
- The display looks similar to the following.



- Use the **RIGHT 1** ∧ and ∨ buttons to specify whether or not to play the song as GENERAL MIDI (GM) (On/Off).

- If the GM setting you specify is different from the setting in the file, the sounds, the octave, and the arrangement of percussion sounds on the keyboard will be different.
- Information about GENERAL MIDI can be found on page 112.
- If playback is executed with the setting set to On, the functions of this instrument are limited in various ways. For detailed information, please refer to the separate REFERENCE GUIDE provided.

5. Press the **START/STOP** button.
- The selected song begins to play.
- Press the **START/STOP** button if you wish to stop playback before it has finished.

- You can use the same procedure to play back other songs on the disk.
- The song stops if you exit this display during playback.

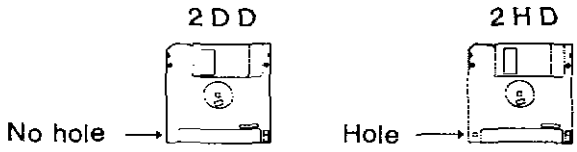
- DIRECT PLAY can be used for the following disks:
  Standard MIDI File (SMF) disks (FORMAT 0)
  DISK ORCHESTRA COLLECTION™ (DOC)
- Standard MIDI File FORMAT 1 disks cannot be played back using DIRECT PLAY. Use SMF LOAD for these disks.

Formatting a disk

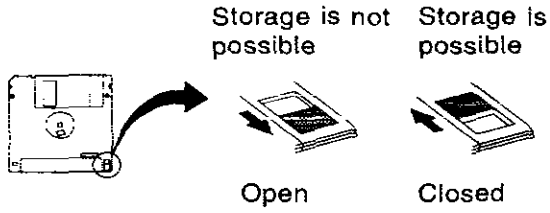
New floppy disks can be used only after they have been formatted. Follow the procedure below to format a new disk or erase the contents of a recorded disk.

FLOPPY DISK FORMAT

- This procedure clears the entire contents of the disk.
- Reformat a disk if it cannot be saved to or loaded from properly because of exposure to a magnetic field.
- You can use 3.5 inch 2DD (720KB) or 2HD (1.44MB) floppy disks.
- Be sure to specify the type of format which is suitable for the disk.
- How to distinguish the two disk types:

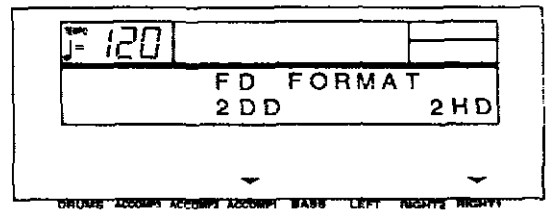


- Although 2HD floppy disks can hold more data and are convenient for quick loading and saving, 2DD disks are generally used for musical instruments. Therefore, you may not be able to use your 2HD disk data with other musical instrument models.
- To format the floppy disk, the write-protect window must be closed, as illustrated.

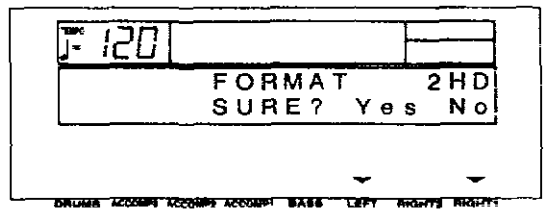


1. Insert the floppy disk into the Disk Drive slot. Push it all the way in until you hear a click.

2. On the **MEMORY & CONTROL** menu display, select [P3 FD Format] and press either **LEFT** button.
- The display changes to the following.



3. Select the type of format (2DD or 2HD).
- Be sure to select the type which is the same as your disk type.
- The display changes to the following.



4. Press either **LEFT** (Yes) button to format the disk, or press either **RIGHT 1** (No) button to cancel the format.
- After about 1–2 minutes, formatting is completed, "COMPLETED!" is shown on the display, and this instrument returns to the normal performance mode.

Saving data

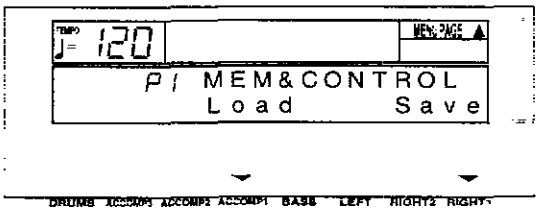
The recorded data and panel settings of this instrument can be saved on a disk.
- It is a good idea to save Technics File format data and Standard MIDI File format data in separate disks.

DISK SAVE

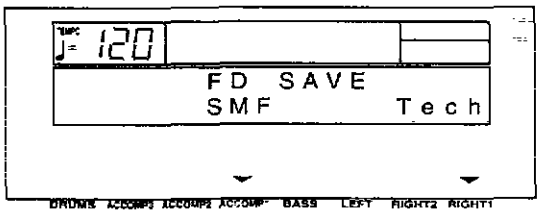
This procedure is used to save the performance data and settings of this instrument to a disk.

1. Insert a formatted disk into the Disk Drive slot. Push it all the way in until you hear a click.

2. On the **MEMORY & CONTROL** menu display, select P1.
- The display looks similar to the following.



3. Press either **RIGHT 1** (Save) button.
- The display looks similar to the following.



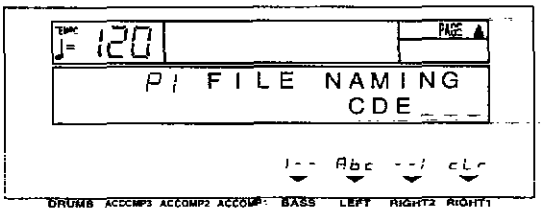
4. Select the type of data save you want.

[Tech]: Save data in the Technics File format (TECHNICS SAVE).
[SMF]: Save data in the Standard MIDI File format (SMF SAVE).

5. Perform the selected disk save procedure. (Refer to the following sections.)

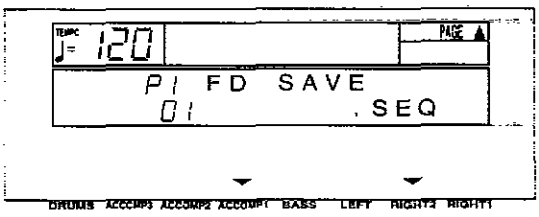
■ TECHNICS SAVE

Save data from this instrument in the Technics File format to a floppy disk.



1. Type a name for the new data file (up to 6 characters).
- Use the **BASS** and **RIGHT 2** ∧ and ∨ buttons to highlight the character position. Use the **LEFT** (Abc) ∧ and ∨ buttons to select the alphanumeric character. Repeat these steps to type the whole name.
- To erase the name, press either **RIGHT 1** (cLr) button.

2. Press the **EXECUTE (SYNCHRO & BREAK)** button.
- The display looks similar to the following.



3. Use the **ACCOMP 1** ∧ and ∨ buttons to select a file number (01 to 20).
- Files in which data is currently stored are indicated by the file name following the file number.
- The maximum number of files which can be saved may be less than 20 if you are saving many songs which use a lot of memory.
- More data can be saved using 2HD floppy disk.

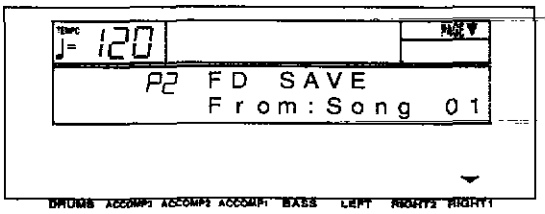
(Continued on the next page)

4. Use the **RIGHT 2** ∧ and ∨ buttons to specify the kind of data you wish to save to the disk.

ALL: All the following data is saved. SEQ: Only **SEQUENCER** data CMP: Only **COMPOSER** data SND: Only **SOUND MEMORY** data PNL: Only **PANEL MEMORY** data MSP: Only **MANUAL SEQUENCE PADS** data

- The MASTER TUNING setting is not saved.

5. If SEQ was selected in step 4, press the **PAGE** ∧ button.
- The display looks similar to the following.

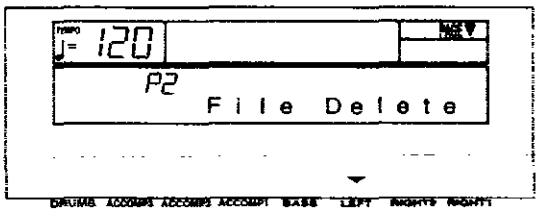


- Use the **RIGHT 1** ∧ and ∨ buttons to select the song number in this instrument's memories you wish to have saved to the floppy disk.
- **SEQUENCER** data is saved one song at a time. However, if ALL is selected, the contents of **SEQUENCER** songs 1 to 10 are saved at once. In this case, you can conserve memory by deleting songs you do not wish to save.

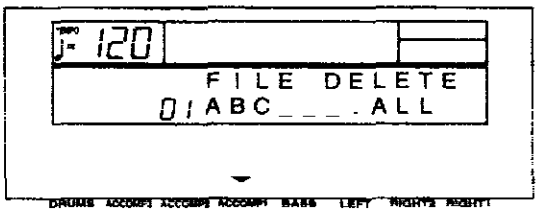
6. Press the **EXECUTE (SYNCHRO & BREAK)** button.
- The SAVE operation begins.
- When the operation has been successfully completed, "COMPLETED!" is shown on the display, and this instrument returns to the normal performance mode.
- If you attempt to save data to a file number in which data is currently saved, the display changes to the confirmation display. Press either **RIGHT 1** (No) button if you wish to cancel the procedure. When either **LEFT** (Yes) button is pressed, the DISK SAVE operation begins.

FILE delete
Use the following procedure to clear a specific file.

1. On the FILE NAMING display, press the **PAGE** ∧ button.
- The display looks similar to the following.



2. Press either **LEFT** button.
- The display looks similar to the following.

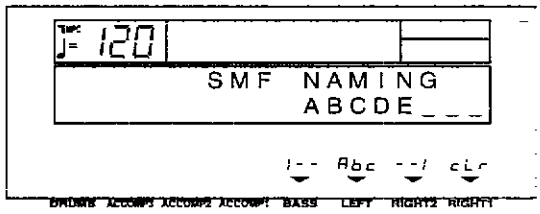


3. Use the **ACCOMP 1** ∧ and ∨ buttons to specify the file to erase.

4. Press the **EXECUTE (SYNCHRO & BREAK)** button.
- The ARE YOU SURE? display appears. Press either **LEFT** (Yes) button to execute the function. Or press either **RIGHT 1** (No) button if you wish to cancel the procedure.

■ SMF SAVE

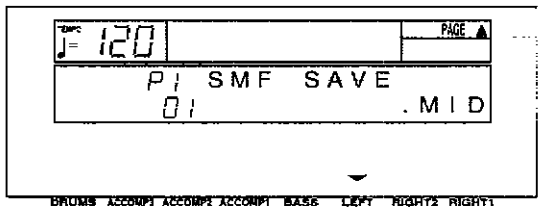
The data from this instrument's **SEQUENCER** can be saved to a floppy disk as Standard MIDI Files (SMF) (FORMAT 0 only). (Standard MIDI Files are most commonly saved on 2DD floppy disks.) Data saved on this instrument can then be used on another instrument.



- What you can save in the Standard MIDI File format is ordinary performance data, such as note data. Data such as **SEQUENCER** data for the chord and rhythm parts, **COMPOSER** data, **PANEL MEMORY** data, etc. is not saved. If you wish to also save the special Technics data, first use the TECHNICS SAVE procedure to save the data to a disk, and then follow the SMF SAVE procedure below.
- Standard MIDI Files are generally saved in the GM mode, but can be saved in the Technics mode.

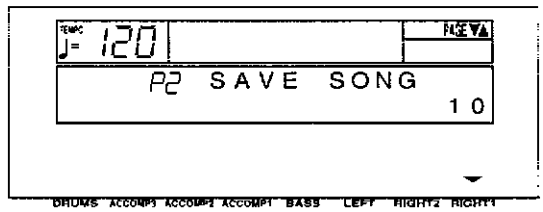
1. Type a name for the new data file (up to 8 characters).
- Use the **BASS** and **RIGHT 2** ∧ and ∨ buttons to highlight the character position. Use the **LEFT** (Abc) ∧ and ∨ buttons to select the alphanumeric character. Repeat these steps to type the whole name.
- To erase the name, press either **RIGHT 1** (cLr) button.
- Avoid using the numbers from 01 to 20 as the first two letters of the name.

2. Press the **EXECUTE (SYNCHRO & BREAK)** button.
- The display looks similar to the following.



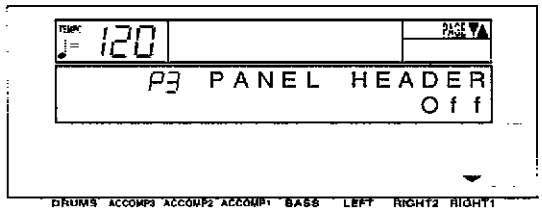
3. Use the **LEFT** ∧ and ∨ buttons to select the name of the file in which to save the data.
- To save in a new file, select a blank line.

4. Press the **PAGE** ∧ button.
- The display looks similar to the following.



5. Use the **RIGHT 1** ∧ and ∨ buttons to select the song number in this instrument's memories you wish to have saved to the floppy disk.
- Data is saved one song at a time.

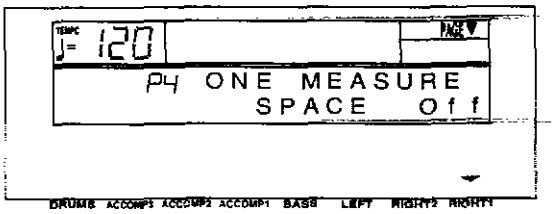
6. Press the **PAGE** ∧ button.
- The display looks similar to the following.



7. Use the **RIGHT 1** ∧ and ∨ buttons to select HEADER On/Off.
- Select On to save the sound, volume and other settings for each part as data at the beginning of the file.

(Continued on the next page)

8. Press the **PAGE** ∧ button.
- The display looks similar to the following.



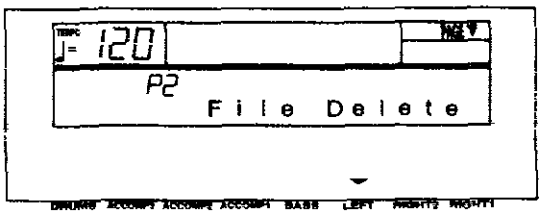
9. Use the **RIGHT 1** ∧ and ∨ buttons to select ONE MEASURE SPACE On/Off.
- When there is various data other than performance data stored at the beginning of a file, the start of playback may be delayed. This can be avoided by inserting a one-measure space before the beginning of the performance. Select On to insert a one-measure space. Select Off if you do not wish to insert the space.
- When set to On, a space is added each time a file is saved. Therefore, if you have already saved a file once with the ONE MEASURE SPACE set to On, please set it to Off each time the file is subsequently saved.

10. Press the **EXECUTE (SYNCHRO & BREAK)** button.
- The SAVE operation begins.
- When the operation has been successfully completed, "COMPLETED!" is shown on the display.
- If you attempt to save data to a file number in which data is currently saved, the display changes to the confirmation display. Press either **RIGHT 1** (No) button if you wish to cancel the procedure. When either **LEFT** (Yes) button is pressed, the SMF SAVE operation begins.

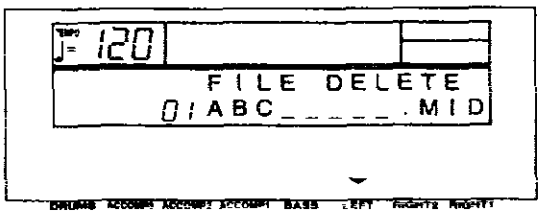
FILE delete

Use the following procedure to clear a specific file.

1. On the SMF NAMING display, press the **PAGE** ∧ button.
- The display looks similar to the following.



2. Press either **LEFT** button.
- The display looks similar to the following.

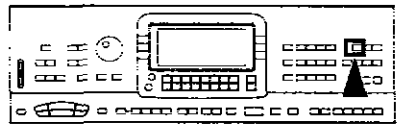


3. Use the **LEFT** ∧ and ∨ buttons to specify the file to erase.

4. Press the **EXECUTE (SYNCHRO & BREAK)** button.
- The ARE YOU SURE? display appears. Press either **LEFT** (Yes) button to execute the function. Or press either **RIGHT 1** (No) button if you wish to cancel the procedure.

Part VIII Adjusting the sounds

Outline of the Sound Setting mode



The **SOUND SETTING** mode is used for making fine adjustments to the functions related to sound, such as tone, volume and effects.

SOUND menu

1. Press the **SOUND SETTING** button to turn it on.

2. Use the **PAGE** buttons to select the menu.
- There are four pages of the menu display.

3. Select the desired menu and follow the procedures on the corresponding setting display.
- When the current display is a setting display, you can press the **EXIT** button to go back to the previous display. To show other menus, use the **EXIT** button to return to the **SOUND** menu display and make another selection.

4. When you have finished setting the functions, press the **SOUND SETTING** button to turn it off.

■ A word about parts

The organization of the sound parts is as follows.

Normal parts:
RIGHT 1, RIGHT 2, LEFT, PART 4 to 16 (PART 16 is reserved for the DRUM part)

AUTO PLAY CHORD parts:
ACCOMP 1, 2, 3, BASS, DRUMS, CHORD, R.BASS.

MANUAL SEQUENCE PADS part:
MSP

METRONOME part: METRO

- On the BALANCE display, PART 1, PART 2 and PART 3 become RIGHT 1, RIGHT 2 and LEFT, respectively.

Summary of the SOUND menu items

P1 Part Setting (page 102)
Set the various sound attributes for each part.

P2 Touch & Tune (page 103)
Set the keyboard sensitivity, and adjust the tuning.

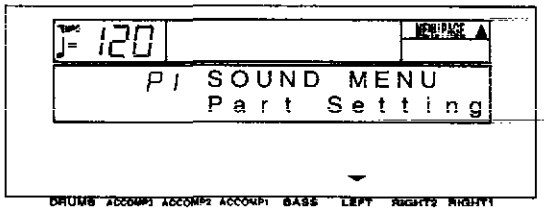
P3 Key Scaling (page 104)
Select the type of scaling (tuning).

P4 Left Hold (page 105)
Set the mode which determines how the **LEFT** part sounds during an **AUTO PLAY CHORD** performance.

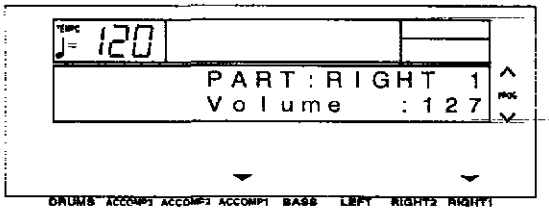
Part Setting

Set the various sound attributes for each part.

1. On the **SOUND** menu display, select [P1 Part Setting].
- The display looks similar to the following.



2. Press either **LEFT** button.
- The display looks similar to the following.



3. Use the **TRANSPOSE** (PROG) ∧ and ∨ buttons to select a part.
- PART 4 to 16 are used in **SEQUENCER** and MIDI functions when playing back Standard MIDI Files. PART 16 is reserved for the DRUM part.
- For information concerning CHORD and R. BASS, refer to page 51.

4. Assign a sound to the selected part.
- If the **SOUND/PART** button is pressed, the currently selected part and sound name are shown on the display.
- Only sounds from the **KEYBOARD PERC** can be selected for Part 16.
- You cannot assign sounds to the ACCOMP 1, 2, 3, BASS, DRUMS, MSP and METRO parts. (If the panel buttons are used to change the sound or effects for these parts, the RIGHT 1 settings change.)

5. Use the **ACCOMP 1** ∧ and ∨ buttons to select the attribute you wish to adjust.

6. Use the **RIGHT 1** ∧ and ∨ buttons to adjust the attribute.

Volume: Adjust the volume of each part (0 to 127).

Pan: Adjust the stereo balance of each part (L64–CTR–R63).
- At L64, the sound is completely to the left, at R63 completely to the right. At CTR, the sound is at the center.
- Even at the same numerical value, the stereo balance may differ slightly depending on the sound.

Reverb: Adjust the depth of the reverb for the part (0 to 127).

Chorus (**KN720**): Adjust the depth of the **CHORUS** (0 to 127).

DSP Eff. (**KN920/KN1500**): Adjust the depth of the **DSP EFFECT** (0 to 127).

S. Length: Adjust the length of the sustain (1 to 8).
- For some sounds, the length of the sustain does not change even if the number is changed.

KeyShift: Specify the amount of shift in the pitch of the played keys (–12 to +12).
- A value of 1 means a shift of one semitone. A value of 12 is one octave.
- The – button is used to lower the pitch, and the + button to raise the pitch.

Tuning: Fine-tune the pitch of each part (–128 to +127).
- Slight differences in the pitches between the parts add fullness to the sound.
- The – button is used to lower the pitch, and the + button to raise the pitch.

P.Bend: Set the amount of pitch change when the **PITCH BEND** wheel is operated (0 to 12).
- Increments are in semitones. A value of 12 is one octave.

Glide Pdl: Enable or disable the glide effect of the pedal (Foot Switch) (On/Off).
- For glide pedal setting, refer to page 58.

Sust. Pdl: Specify whether or not the **SUSTAIN** effect is applied with the pedal (Foot Switch) (On/Off).

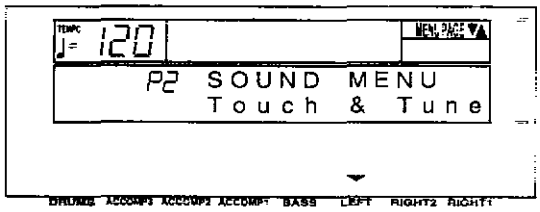
Key Scale: Enable or disable key scaling (On/Off)
- For key scaling, refer to page 104.

- The settings which can be adjusted may differ depending on the selected part.
- If **KEYBOARD PERC** sounds are assigned to a part other than PART 16, even if you change the setting for the attribute (except for Volume, Reverb, Chorus [**KN720**]/DSP Eff [**KN920/ KN1500**]), the new setting will not be in effect.
- To change the settings for a different part while the setting display is shown, use the **TRANSPOSE** (PROG) ∧ and ∨ buttons to change the part.
- When you have completed adjustment of an attribute, use the **ACCOMP 1** ∧ and ∨ buttons to select the next attribute you wish to adjust.

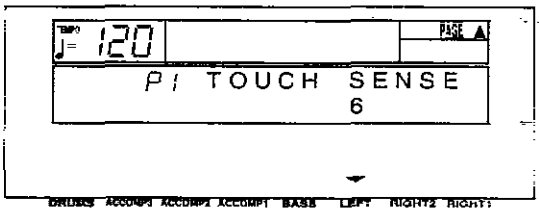
Touch & Tune

Select the keyboard touch response mode (TOUCH SENSE) and fine-tune the pitch of the entire instrument (TUNING).

1. On the **SOUND** menu display, select [P2 Touch & Tune].
- The display looks similar to the following.

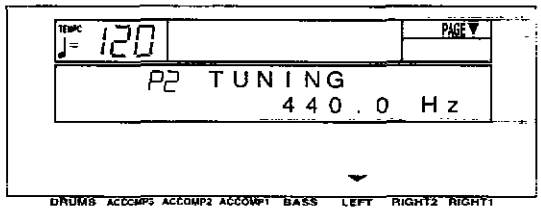


2. Press either **LEFT** button.
- The display looks similar to the following.



3. Use the **LEFT** ∧ and ∨ buttons to select the touch mode.
- Select from 0 to 9.
- When 0 is selected, the keyboard touch response is turned off.

4. Press the **PAGE** ∧ button.
- The display looks similar to the following.

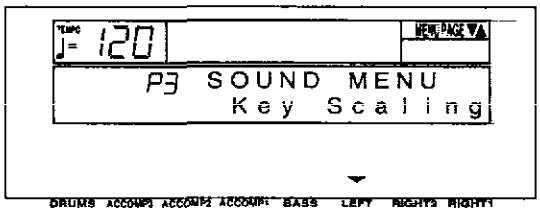


5. Use the **LEFT** ∧ and ∨ buttons to adjust the pitch within a range of 427.3 to 453.0 Hz.
- The decimal can be set to 0, 3 or 6.

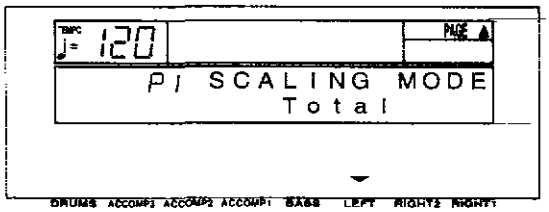
Key Scaling

The temperament (tuning) of this instrument can be adjusted. Various types other than standard temperament are available to choose from.

1. On the **SOUND** menu, select [P3 Key Scaling].
- The display looks similar to the following.



2. Press either **LEFT** button.
- The display looks similar to the following.

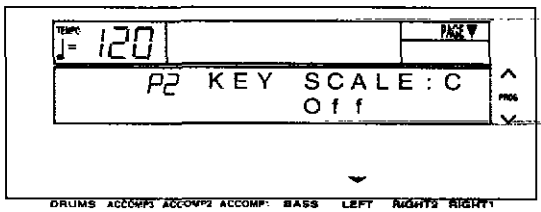


3. Use the **LEFT** ∧ and ∨ buttons to select the tuning mode.

   Total: The key scaling selected for this instrument is active for all parts. (Select this mode if you are selecting a tuning type.)

   Sound: The preset key scaling specified for individual sounds is active.

4. Press the **PAGE** ∧ button.
- The display looks similar to the following.



5. Use the **LEFT** ∧ and ∨ buttons to select the type.
- Select from [Off], [Random], [Piano], [Orchestra], [Pythagorean], [Werckmeister], [Kirnberger], [Arabic 1] to [Arabic 5], [Slendro], [Pelog], [User].
- [Off] is standard (equal temperament) tuning.
- Select [User] if you wish to use a customized scaling (explained in the following section).

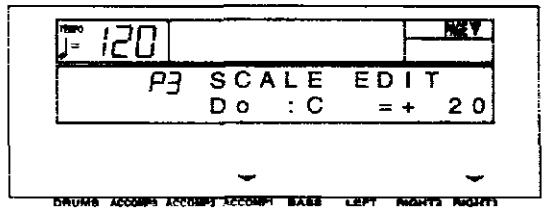
6. Use the **TRANSPOSE** (PROG) ∧ and ∨ buttons to select the key in which you are going to perform.
- Set to the key of the song you are going to play.

■ User type scaling

You can adjust the instrument to a customized scaling.
- In KEY SCALING, the pitch of each note of the octave is slightly shifted up or down from the standard (equal temperament) tuning.

1. On the P2 display, select [User] for the type.

2. Press the **PAGE** ∧ button.
- The display looks similar to the following.

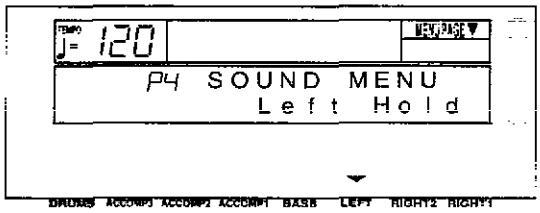


3. Adjust the key scaling.
- Use the **ACCOMP 1** ∧ and ∨ buttons to specify the keyboard key, and use the **RIGHT 1** ∧ and ∨ buttons to adjust the pitch of the key.
- Increments are in cents (one hundredth of an equal-tempered semitone). A + value raises the pitch and a – value lowers the pitch in relation to standard tuning (equal temperament).

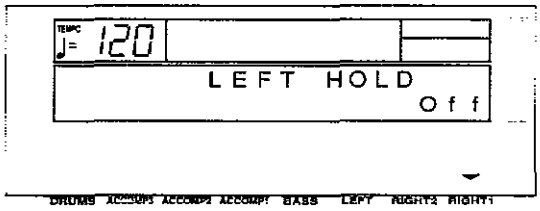
Left Hold

Select the mode to specify how the left section of the keyboard sounds during an **AUTO PLAY CHORD** performance.

1. On the **SOUND** menu display, select [P4 Left Hold].
- The display looks similar to the following.



2. Press either **LEFT** button.
- The display looks similar to the following.



3. Use the **RIGHT 1** buttons to set the mode to On or Off.

■ **OFF**

	ONE-FINGER	FINGERED	PIANIST
When rhythm is stopped	The specified chord sounds in the CHORD part sound.	The specified chord sounds in the CHORD part sound, and the pressed keys sounds in the **LEFT** part sound.	The CHORD part and the **LEFT** part do not sound (the entire keyboard produces the **RIGHT** part sound).
When rhythm is playing	The CHORD part and the **LEFT** part do not sound.	The CHORD part does not sound, but the pressed keys sound in the **LEFT** part sound.	

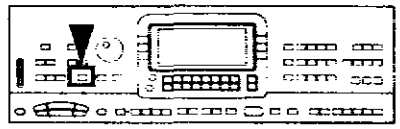
■ **ON**

	ONE-FINGER	FINGERED	PIANIST
When the rhythm is stopped or playing	The specified chord sounds in the **LEFT** part sound.	The specified chord sounds in the **LEFT** part sound.	The CHORD part and the **LEFT** part do not sound (the entire keyboard produces the **RIGHT** part sound).

- The **LEFT** part can be heard only when the **LEFT** button in the **CONDUCTOR** section is on.

Part IX Creating sounds (KN920/KN1500)

Outline of the Sound Edit

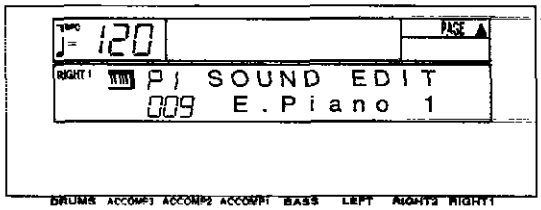


SOUND EDIT enables you to create your own new sound by altering one of the this instrument's preset sounds. Your new sound can be stored in one of the sound memory locations.

1. Select a preset sound on which to build your new sound.
- The sounds in the **KEYBOARD PERC** group (**189** to **200**) cannot be edited.

2. Press the **SOUND EDIT** button to turn it on.

- The display looks similar to the following.



- The sound you selected in step 1 is shown.

3. Use the **PAGE** buttons to select a menu.
- You can select from the following menus.

P2 SOUND NAMING (page 107)
Assign a name to your sound.

P3 WRITE (page 107)
Select a memory number to save the new sound.

P4 OCTAVE SHIFT (page 107)
Shift the octave range of the sound.

P5 D. EFFECT (page 108)
Select the type of **DIGITAL EFFECT** to apply to the sound.

P6 VIBRATO (page 108)
Specify the various vibrato settings.

P7 TONE SEL (TONE SELECT) (page 108)
Modify the tones which make up the sound.

P8 PITCH (page 109)
Adjust the settings related to the pitch of the sound.

P9 MIXER (page 109)
Adjust the volume, brilliance and stereo balance of the sound.

P10 ENVELOPE (page 110)
Specify how the volume changes over time.

P11 PTCH ENV (PITCH ENVELOPE) (page 110)
Specify how the pitch changes over time.

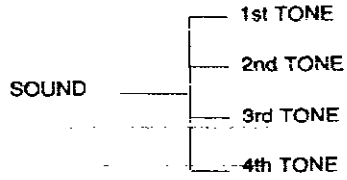
4. Select a menu item and adjust the setting.
- **KN1500:** When the **TEMPO/PROGRAM** indicator is lit, it indicates that the dial is available for setting the current function.

5. Repeat steps 3 and 4 to modify other sound attributes as desired.
- Use the **PAGE** buttons to select different menus.

6. When the sound is just the way you like it, use the **PAGE** buttons to select P3 WRITE, and follow the procedure to store your new sound. (Refer to page 107.)

■ About TONEs

A sound may be made up of at most four TONEs.



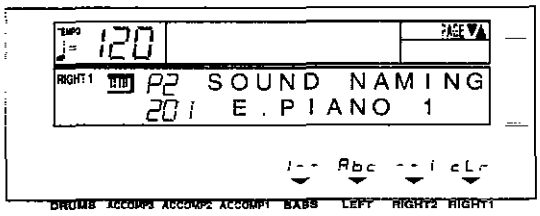
- The essence of the sound is created by the combination of the 1st TONE and 2nd TONE. Depending on the sound output status of the instrument, the 3rd and 4th TONEs may not be generated.
- There are two types of settings: those that can be adjusted for each TONE that comprises the sound, and those that can be adjusted for the whole sound. For settings that can be adjusted for each TONE, the **TRANSPOSE** (PROG) ∧ and ∨ buttons to the right of the display are used to specify the TONE.

Setting the function

SOUND NAMING

Assign a name to the sound you are creating.

1. Use the **PAGE** buttons to select [P2 SOUND NAMING].
- The display looks similar to the following.

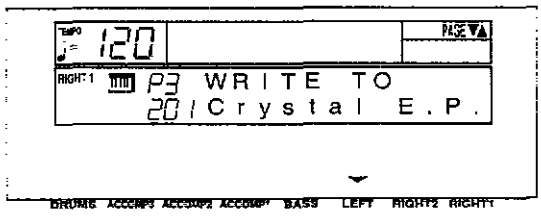


2. Type a new name for your sound (up to 12 characters).
- Use the **BASS** and **RIGHT 2** buttons to highlight the character position. Use the **LEFT** (Abc) buttons to select the alphanumeric character. Repeat these steps to type the whole name.
- To erase the name, press either **RIGHT 1** (cLr) button.

WRITE

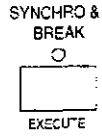
The sound numbers **201** to **240** in the **SOUND MEMORY** are reserved for storing the sounds you create with the **SOUND EDIT**.
- Your new sound will be erased if you exit the **SOUND EDIT** mode without first storing it in a memory.

1. Use the **PAGE** buttons to select [P3 WRITE TO].
- The display looks similar to the following.



2. Use the **LEFT** ∧ and ∨ buttons to select the MEMORY number in which to store the new sound (201 to 240).

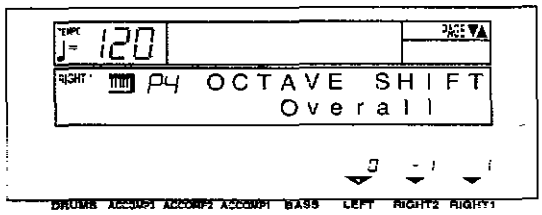
3. When you are finished editing the sound, if you wish to save it, press the **EXECUTE** (**SYNCHRO & BREAK**) button to store the new sound.



OCTAVE SHIFT

Set the pitch of the sound by octaves.

1. Use the **PAGE** buttons to select [P4 OCTAVE SHIFT].
- The display looks similar to the following.



2. Use the **LEFT** ∧ and ∨ buttons to set the octave for the whole keyboard ([Overall]) (–2 to 2).

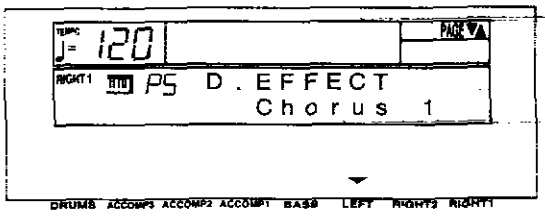
3. Use the **RIGHT 2** ∧ and ∨ buttons to set the octave for the **LEFT** part when the keyboard is split ([Split Left]) (–2 to 2).

4. Use the **RIGHT 1** ∧ and ∨ buttons to set the octave for the **RIGHT** parts when the keyboard is split ([Split Right]) (–2 to 2).

DIGITAL EFFECT

Select the type of **DIGITAL EFFECT** for your sound. When the **DIGITAL EFFECT** button is on, the type you set will be active for your sound.

1. Use the **PAGE** buttons to select [P5 D. EFFECT].
- The display looks similar to the following.

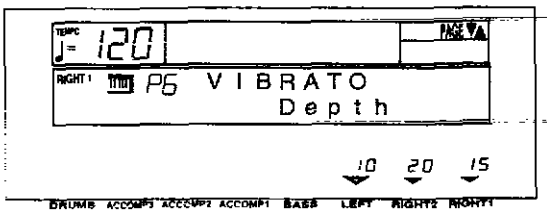


2. Use the **LEFT** ∧ and ∨ buttons to select the type of effect.
- Select from [Off], [Celeste 1, 2], [Chorus 1, 2], [Ensemble 1, 2], [Tremolo], [Organ Tremolo], [Single Delay], [Repeat Delay], [Solo Effect 1, 2].
- If a type other than [Off] is selected, the **DIGITAL EFFECT** button will turn on when the sound is selected.
- If the [Organ Tremolo] effect is selected, use the **DIGITAL EFFECT** button now to specify FAST (**DIGITAL EFFECT** button on) or SLOW (off) when the sound is selected.

VIBRATO

Modify the vibrato attributes of the sound.

1. Use the **PAGE** buttons to select [P6 VIBRATO].
- The display looks similar to the following.



2. Use the **LEFT** ∧ and ∨ buttons to adjust the vibrato depth ([Depth]) (OFF, 1 to 127).

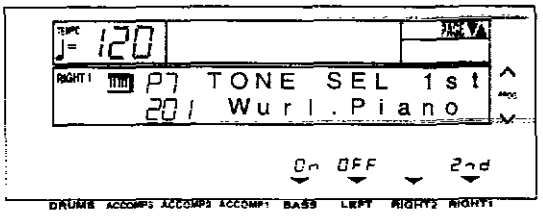
3. Use the **RIGHT 2** ∧ and ∨ buttons to adjust the vibrato speed ([Speed]) (0 to 127).

4. Use the **RIGHT 1** ∧ and ∨ buttons to set the time delay between key played and vibrato start ([Delay]) (0 to 30).

TONE SELECT

Modify the separate TONEs which comprise the sound.
- TONEs are explained on page 106.

1. Use the **PAGE** buttons to select [P7 TONE SEL].
- The display looks similar to the following.



2. Use the **TRANSPOSE** (PROG) ∧ and ∨ buttons to select the TONE ([1st], [2nd], [3rd], or [4th]).

3. Use the **RIGHT 2** ∧ and ∨ buttons to select a sound for the TONE.

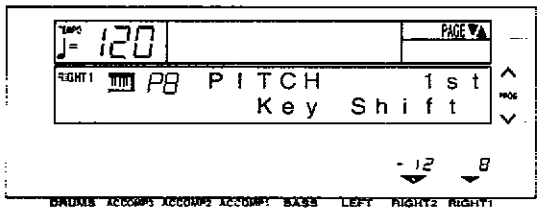
4. Use the **RIGHT 1** ∧ and ∨ buttons to select one TONE from the sound selected in step 3.
- The number of TONEs may differ depending on the selected sound.
- If either **LEFT** (OFF) button is pressed, the TONE will not sound. If either **BASS** (On) button is pressed, the TONE will be turned on.
- When a TONE is selected, the MIXER, ENVELOPE and PITCH ENVELOPE settings change to those of the selected TONE.

5. Repeat steps 2 to 4 for each TONE, as desired.

PITCH

Adjust the output pitch of each TONE.

1. Use the **PAGE** buttons to select [P8 PITCH].
- The display looks similar to the following.



2. Use the **TRANSPOSE** (PROG) ∧ and ∨ buttons to select a TONE.

3. Use the **RIGHT 2** ∧ and ∨ buttons to specify the output pitch ([Key Shift]) (–24 to 24).
- Units are in semitones.

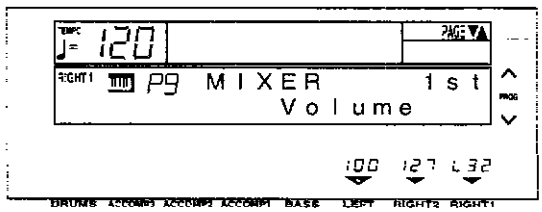
4. Use the **RIGHT 1** ∧ and ∨ buttons to fine-adjust the pitch ([Detune]) (–128 to 127).
- Slight differences in the [Detune] values between the tones add fullness to the sound.

5. Repeat steps 2 to 4 for each TONE, as desired.

MIXER

Adjust the volume, brilliance and stereo balance of each TONE.

1. Use the **PAGE** buttons to select [P9 MIXER].
- The display looks similar to the following.



2. Use the **TRANSPOSE** (PROG) ∧ and ∨ buttons to select a TONE.

3. Use the **LEFT** ∧ and ∨ buttons to adjust the volume ([Volume]) (0 to 127).

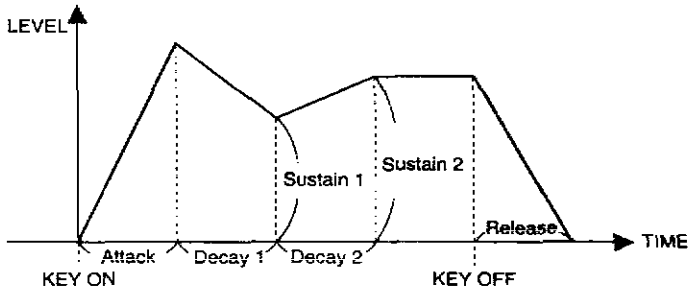
4. Use the **RIGHT 2** ∧ and ∨ buttons to adjust the brightness ([Brilliance]) (0 to 127).

5. Use the **RIGHT 1** ∧ and ∨ buttons to adjust the stereo balance ([Pan]) of the sound (L64–Ctr–r63, rnd).
- Ctr is the center point. At L64, the sound is all the way to the left, at r63 all the way to the right.
- If [rnd] is selected the stereo balance changes randomly each time a key is pressed.
- Even at the same numerical value, the stereo balance may differ slightly depending on the sound.

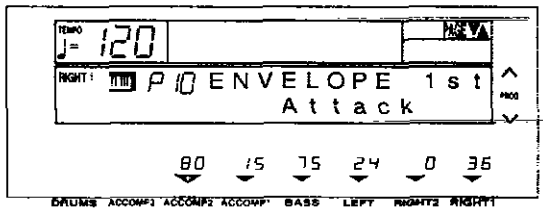
6. Repeat steps 2 to 5 for each TONE, as desired.

ENVELOPE

For each tone, specify the waveform (envelope) of volume change, from the time the key is played to the time the sound dies out.



1. Use the **PAGE** buttons to select [P10 ENVELOPE].
- The display looks similar to the following.



2. Use the **TRANSPOSE** (PROG) ∧ and ∨ buttons to select a TONE.

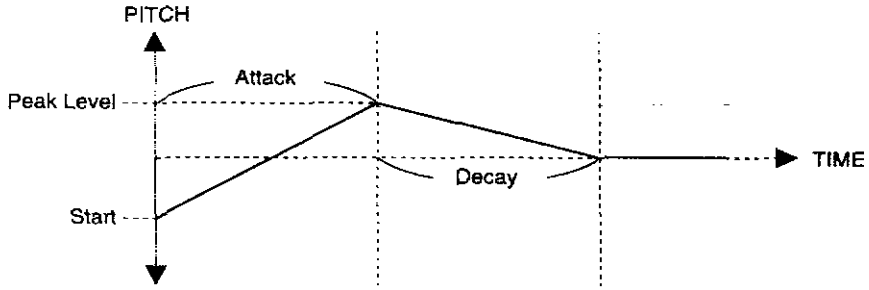
3. Use the ∧ and ∨ buttons below the display to modify the envelope (0 to 100).

ACCOMP 2:	[Attack]
ACCOMP 1:	[Decay 1]
BASS:	[Sustain 1]
LEFT:	[Decay 2]
RIGHT 2:	[Sustain 2]
RIGHT 1:	[Release]

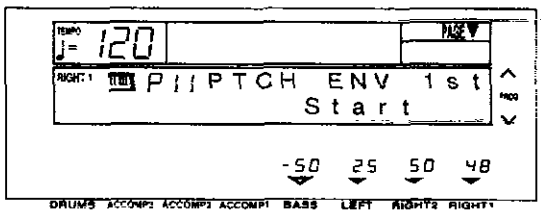
4. Repeat steps 2 and 3 for each TONE, as desired.

PITCH ENVELOPE

For each tone, specify the waveform (envelope) of pitch change, from the time the key is played to the time the sound dies out.



1. Use the **PAGE** buttons to select [P11 PTCH ENV].
- The display looks similar to the following.



2. Use the **TRANSPOSE** (PROG) ∧ and ∨ buttons to select a TONE.

3. Use the ∧ and ∨ buttons below the display to modify the envelope.

BASS:	[Start] (–50 to 50)
LEFT:	[Attack] (0 to 100)
RIGHT 2:	[Peak Level] (–50 to 50)
RIGHT 1:	[Decay] (0 to 100)

4. Repeat steps 2 and 3 for each TONE, as desired.

Part X MIDI

What is MIDI?

MIDI (Musical Instrument Digital Interface) is the international standard for digital communication of electronic musical instrument data. This means that any equipment which has a MIDI terminal—such as electronic musical instruments and personal computers—can easily exchange digital data with other MIDI equipment without resorting to complicated conversions or connections.

MIDI terminals

(On the rear panel)

(KN1500)

IN:
The terminal by which this instrument receives data from other equipment.

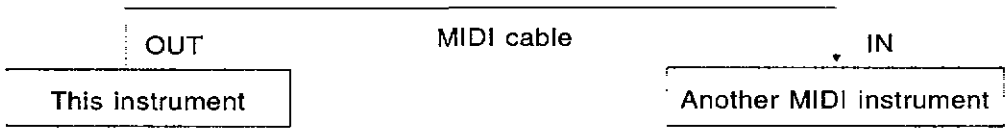
OUT:
The terminal that transmits data from this instrument to other equipment.

THRU (KN1500):
The terminal that transfers data from the **IN** terminal directly to other equipment.

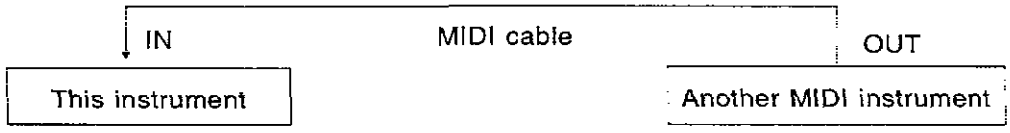
- For these connections, use a commercially available MIDI cable.

Connection examples

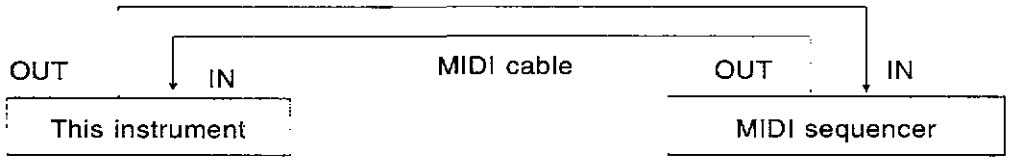
■ **To generate sound from a connected instrument by playing this instrument**



■ **To generate sound from this instrument by operating a connected instrument**

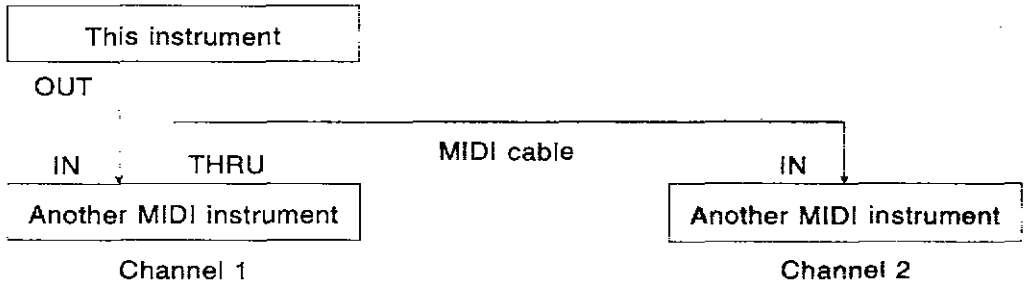


■ **To connect with a MIDI sequencer or a personal computer**



MIDI channels

Many different kinds of performance data are sent using just one MIDI cable. This is possible because MIDI signals are sent and received through 16 different "basic channels" (numbered 1 to 16). In order for the exchange of data to take place, the channels on the transmission side must match the channels on the receiving side. This characteristic also makes it possible to link multiple sound generators and to control each by matching specific channels.



The following kinds of data can be transmitted/received.

■ NOTE data

This is the most basic kind of MIDI data which is exchanged, and is used to specify which keys are played and how hard they are played.

NOTE NUMBER: Number specifying which key is played.
NOTE ON: Specifies that a key is played.
NOTE OFF: Specifies that a key is released.
VELOCITY: Specifies how hard a key is struck.

- MIDI notes are assigned numbers from 0 to 127, with middle C (C3) as 60. Note pitches are in semitone increments, with the higher numbers assigned to the higher pitches.

■ PROGRAM CHANGE

This is sound change data. When a different sound is selected on the transmitting instrument, the sound on the receiving instrument also changes.

■ CONTROL CHANGE

These are volume, sustain, effect, etc. data used to enhance performance expression. Each function is distinguished by its control number, and the function which can be changed by the control differs depending on the instrument.

■ EXCLUSIVE data

This is sound data, etc. particular to a specific instrument model. This data can also be transmitted and received by the DUMP function.

- For details, refer to the separate REFERENCE GUIDE provided.

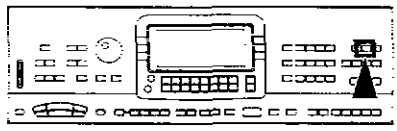
GENERAL MIDI

GENERAL MIDI (GM) is the standard which enables MIDI data exchange between different models or equipment of different manufacture. Program change numbers and their corresponding sounds, percussion instrument sounds, note numbers, etc. are data-compatible between equipment using this standard. Song data created on the equipment of one manufacturer can be played back on the equipment of a different manufacturer, as long as both conform to the GENERAL MIDI standard. This instrument conforms to this standard and can be used as a GENERAL MIDI sound generator.

Equipment which conforms to GENERAL MIDI standards is indicated by the following logo.

GENERAL MIDI

Outline of MIDI functions



Select the various settings which are used for MIDI operation of this instrument.

1. Press the **MIDI** button to turn it on.

2. Use the **PAGE** buttons to select the menu.
- There are nine pages of the menu display.

3. Select the desired menu and follow the procedures on the corresponding setting display.
- During the setting display, you can press the **EXIT** button to go back to the previous display. To show other menus, use the **EXIT** button to return to the **MIDI** menu display and make another selection.

4. When you have finished setting the functions, press the **MIDI** button to turn it off.

Summary of the MIDI menu items

P1 Channel (page 114)
Assign a MIDI channel to each part.

P2 Part Setting (page 115)
Make the OCTAVE and LOCAL CONTROL settings for each part.

P3 Common Set (page 116)
Set the following functions which are common to all parts.
NOTE ONLY
PROG. CHANGE TO P. MEM
INTRO, FILL-IN, ENDING
REALTIME SYSEX
APC CONTROL
TRANSPOSE
PROGRAM CHANGE MODE
DRUMS TYPE
SONG SELECT
MIDI SETUP LOAD

P4 Control Msg (CONTROL MESSAGE) (page 117)
Enable or disable the exchange of various control data.

P5 IN/OUT Set (INPUT/OUTPUT SETTING) (page 118)
Various settings related to transmission and reception of data

P6 Realtime Msg (REALTIME MESSAGE) (page 119)
Make the REALTIME COMMANDS and CLOCK settings.

P7 MIDI Presets (page 119)
Optimum MIDI settings according to the connected equipment

P8 GM Mode (page 120)
GENERAL MIDI settings

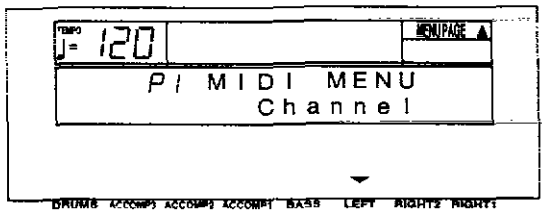
P9 Bulk Dump (page 121)
Settings related to data exchange of this instrument's internal data.

Setting the functions

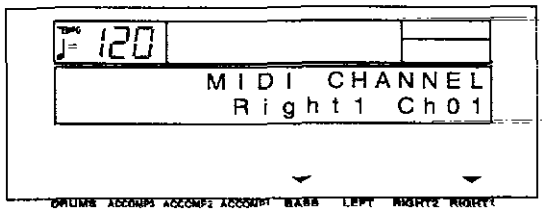
MIDI CHANNEL

MIDI Basic Channel numbers have already been assigned to parts (default settings) but you can reassign channel number to parts as follows.

1. On the **MIDI** menu display, select [P1 Channel].
- The display looks similar to the following.



2. Press either **LEFT** button.
- The display looks similar to the following.



3. Use the **BASS** ∧ and ∨ buttons to select the part.

4. Use the **RIGHT 1** ∧ and ∨ buttons to select a basic channel for the part (Off, 01 to 16).
- A part which has been set to Off cannot be used to transmit or receive MIDI data.

5. Repeat steps 3 and 4 for each part as desired.

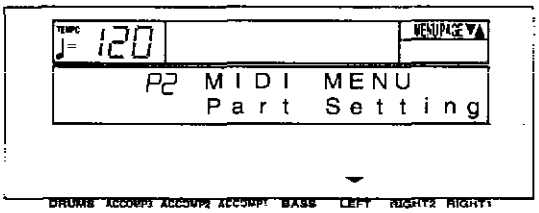
■ **Default part settings**

Part	Channel	Part	Channel	Part	Channel	AUTO PLAY CHORD part	Channel
Right 1	01	Part 7	07	Part 13	13	Acmp 1	Off
Right 2	02	Part 8	08	Part 14	14	Acmp 2	Off
Left	03	Part 9	09	Part 15	15	Acmp 3	Off
Part 4	04	Part 10	10	Part 16	16	Bass	Off
Part 5	05	Part 11	11	(Drum)		Drums	Off
Part 6	06	Part 12	12	Control	Off	Chord	Off

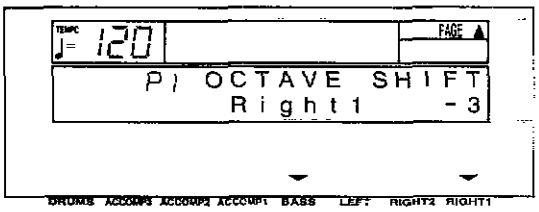
PART SETTING

Set the octave shift value for key notes transmitted from this instrument (OCTAVE), and specify whether this instrument's sound generator is enabled when MIDI data is transmitted (LOCAL CONTROL).

1. On the **MIDI** menu display, select [P2 Part Setting].
- The display looks similar to the following.



2. Press either **LEFT** button.
- The display looks similar to the following.

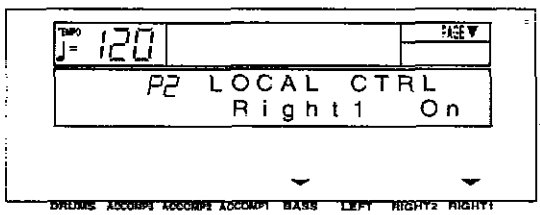


3. Use the **BASS** ∧ and ∨ buttons to select the part.

4. Use the **RIGHT 1** ∧ and ∨ buttons to set the octave shift value (–3 to 3).
- Octave shift is set for transmitted data only; however the transmitted and received octave shifts are linked. For example, if the transmitted octave shift is set to 1, the received octave shift is automatically set to –1.

5. Repeat steps 3 and 4 for each part, as necessary.

6. Press the **PAGE** ∧ button.
- The display looks similar to the following.



7. Use the **BASS** ∧ and ∨ buttons to select a part.

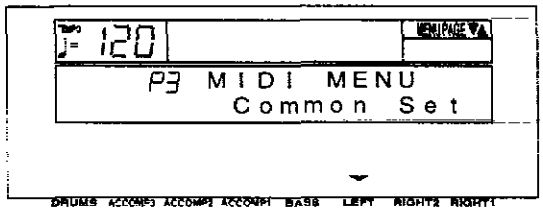
8. Use the **RIGHT 1** ∧ and ∨ buttons to enable or disable this instrument's sound generator.
- When set to On, the performance from this instrument is transmitted as MIDI data and also sounds from this instrument. When set to Off, the performance from this instrument is transmitted as MIDI data but does not sound from this instrument.

9. Repeat steps 7 and 8 for each part as desired.

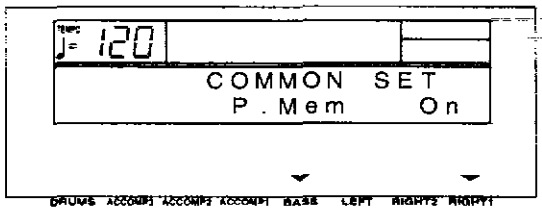
COMMON SETTING

Set the functions which are common to all parts.

1. On the **MIDI** menu display, select [P3 Common Set].
- The display looks similar to the following.



2. Press either **LEFT** button.
- The display looks similar to the following.



3. Use **BASS** ∧ and ∨ buttons to select the item.

4. Use the **RIGHT 1** ∧ and ∨ buttons to change the setting.

[P. Mem] (PROGRAM CHANGE TO PANEL MEMORY): Enable or disable the exchange of program change numbers for the **RIGHT 1** part by operation of the **PANEL MEMORY** buttons (On/Off).
- **KN920/KN1500:** For this setting, the **PANEL MEMORY 1** to **5** program change numbers correspond to the bank numbers as follows: **BANK A** = 0 to 4; **BANK B** = 5 to 9.

[Note Only]: Of the performance data, specify whether or not only note data is exchanged (On/Off).

[P. Change] (PROGRAM CHANGE MODE)
Nor: The program change numbers correspond to the sound numbers.
Tec: Program change numbers are standardized among all Technics models which are set to this mode. The program change number assigned to a given sound on one model is assigned to the same sound on all models which are set to the same mode.
GM: Program change numbers follow the GM standard.
- The program change numbers for each mode can be found in the separate REFERENCE GUIDE provided.

[Drums]
Nor: Keyboard percussion instrument sounds correspond to this instrument's key note numbers.
Tec: Keyboard percussion instrument sounds correspond to the same key note numbers for connected Technics models set to this type.
GM: Keyboard percussion instrument sounds follow the GM standard.

[Song Sel] (SONG SELECT)
On: Song number data can be exchanged.
Off: Song number data cannot be exchanged.

[Setup Ld] (MIDI SETUP LOAD)
On: When disk data is loaded, the MIDI settings stored on the disk are automatically recalled.
Off: MIDI settings stored on the disk are not recalled.

[Intro]: Enable or disable the exchange of intro, fill-in and ending data (On/Off).
- Data is exchanged on the channel for the **DRUMS** part.

[APC Ctrl] (APC CONTROL): Enable the exchange of data for the on/off status of the **AUTO PLAY CHORD**'s ONE-FINGER, FINGERED and PIANIST modes (On/Off).
- Data is exchanged on the channel for the **ACCOMP 1** part.

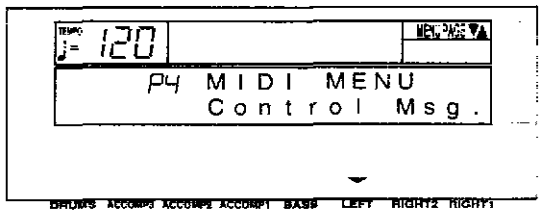
[RT Sysex] (REALTIME SYSTEM EXCLUSIVE): Specify whether or not SYSTEM EXCLUSIVE data is exchanged during the performance (On/Off).

5. Repeat steps 3 and 4 for the other settings as desired.

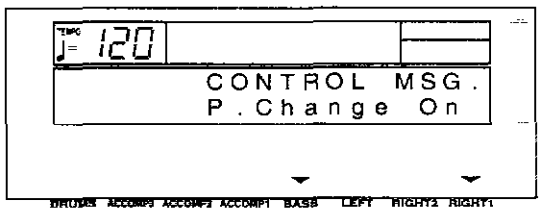
CONTROL MESSAGE

Enable or disable the exchange of various control data.

1. On the **MIDI** menu display, select [P4 Control Msg].
- The display looks similar to the following.



2. Press either **LEFT** button.
- The display looks similar to the following.



3. Use the **BASS** ∧ and ∨ buttons to select the control message.
- Select from the following: P.Change (PROGRAM CHANGE), Bank Sel (BANK SELECT), P.Bend (PITCH BEND), Volume, Express. (EXPRESSION), Panpot, Sustain, EFF&REV (EFFECT & REVERB), Modulat. (MODULATION), Tuning, Bend Rng (BEND RANGE), AftTouch (AFTER TOUCH), Rst.Cnt. (RESET ALL CONTROLLERS).

4. Use the **RIGHT 1** ∧ and ∨ buttons to specify on or off for the control message.

   On: Data for the control operation is exchanged.
   Off: Data for the control operation is not exchanged.

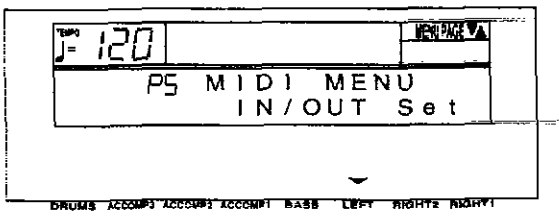
- The [Bank Sel] setting is effective only when [P. Change] is set to On.
- The [EFF&REV] setting controls the **DIGITAL EFFECT** and **DIGITAL REVERB** on/off.
- The [Tuning] setting is the on/off setting for the Tuning and Key Shift settings.

5. Repeat steps 3 and 4 for each control as desired.

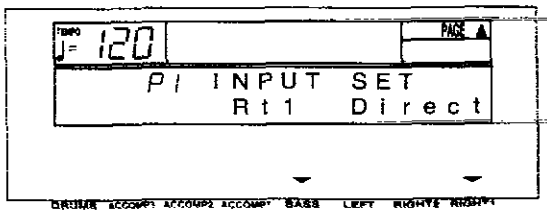
INPUT/OUTPUT SETTING

Make the settings which determine how various performance data is treated during data transmission and reception.

1. On the **MIDI** menu display, select [P5 IN/OUT Set].
- The display looks similar to the following.



2. Press either **LEFT** button.
- The display looks similar to the following.



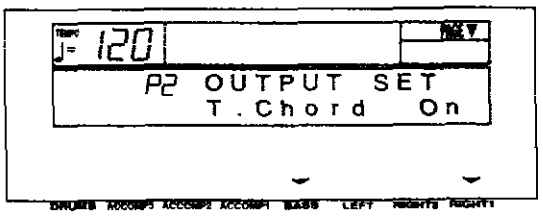
3. Use the **BASS** ∧ and ∨ buttons to select the item.

4. Use the **RIGHT 1** ∧ and ∨ buttons to change the setting.

[Rt1] (RIGHT 1 INPUT)
Cond: When data for the **RIGHT 1** part is received, the **CONDUCTOR** determines which part it is used for.
Direct: When data for the **RIGHT 1** part is received, it is treated as **RIGHT 1** data, and performance data for all parts is received on their respective basic channels.

[APC] (APC INPUT)
On: Input data for the **ACCOMP 1, 2, 3, BASS, DRUMS** and **CHORD** parts is received.
Off: Data for the above parts is not received.
- Basic channels should be assigned to the above parts before exchanging data.

5. Press the **PAGE** ∧ button.
- The display looks similar to the following.



6. Use the **BASS** ∧ and ∨ buttons to select the output item.

7. Use the **RIGHT 1** ∧ and ∨ buttons to change the setting.

[T.Chord] (TECHNI-CHORD OUTPUT)
On: Keyboard notes generated by the **TECHNI-CHORD** function are also transmitted.
Off: Only key note data of the pressed keys is transmitted.

[Drums] (DRUMS OUTPUT)
On: Data from the **DRUMS** part is transmitted.
Off: Data from the **DRUMS** part is not transmitted.

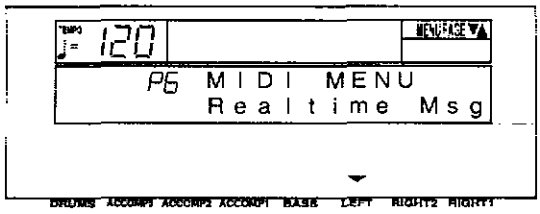
[APC] (APC OUTPUT)
On: The data for the **ACCOMP 1, 2, 3, BASS** and **CHORD** parts is transmitted.
Off: The data for the above parts is not transmitted.
- Basic channels should be assigned to the above parts before exchanging data.

[Trans.] (TRANSPOSE)
On: The note number of the transposed note is transmitted/received.
Off: The note number of the played key is transmitted/received.

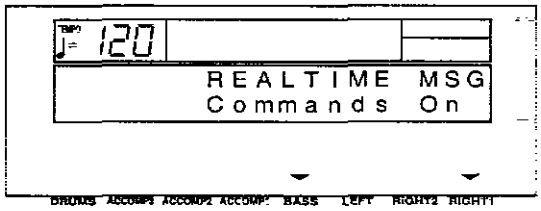
REALTIME MESSAGE

Enable or disable the exchange of **START/STOP** data (REALTIME COMMANDS), and select the CLOCK mode.

1. On the **MIDI** menu display, select [P6 Realtime Msg].
- The display looks similar to the following.



2. Press either **LEFT** button.
- The display looks similar to the following.



3. Use the **BASS** ∧ and ∨ buttons to select a function (Commands/Clock).

4. Use the **RIGHT 1** ∧ and ∨ buttons to change the setting.

[Commands]
On: Rhythm and **SEQUENCER** start/stop, continue, and song position pointer data can be transmitted/received.
Off: This data cannot be transmitted/received.

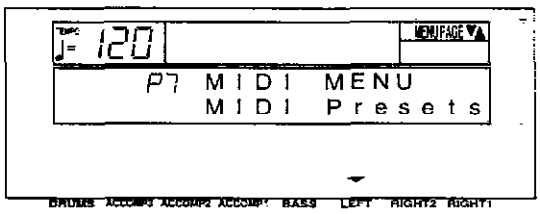
[Clock]
Int: This instrument's internal clock is used to control the performance. The clock of the connected equipment is disabled.
Mid: The clock of the connected equipment is used to control the performance. This instrument's clock is disabled. (The tempo is displayed as [♩= – –].)
- The Clock is set to "Int" when the power to this instrument is turned on.

5. Repeat steps 3 and 4 for the other function if desired.

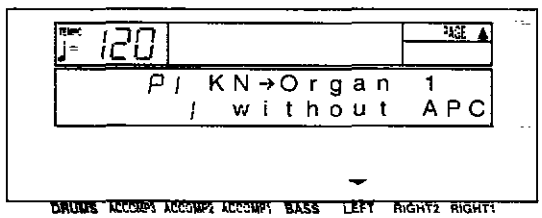
MIDI PRESETS

Establish the optimum settings depending on how this instrument is connected to other equipment, and on whether this instrument is used as the master or the slave.

1. On the **MIDI** menu display, select [P7 MIDI Presets].
- The display looks similar to the following.



2. Press either **LEFT** button.
- The display looks similar to the following.



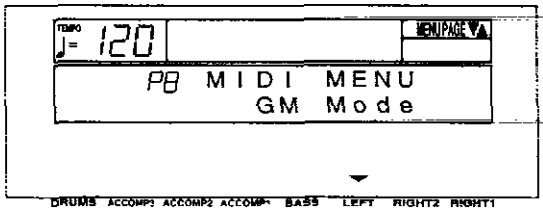
3. Use the **LEFT** ∧ and ∨ buttons to select the connection setup.
- There are two pages to this display. Use the **PAGE** buttons to change the page.
- The P1 display shows connection setups for when the **AUTO PLAY CHORD** is not used (without APC). And the P2 display shows connection setups for when the **AUTO PLAY CHORD** is used (with APC).

4. Press the **EXECUTE (SYNCHRO & BREAK)** button.
- When the settings have been successfully stored, "COMPLETED!" appears on the display.
- Detailed information about the PRESETS can be found in the separate REFERENCE GUIDE provided.

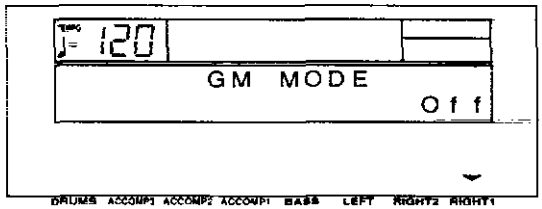
GENERAL MIDI

GENERAL MIDI (GM) is the standard which enables MIDI data exchange between different models or equipment of different manufacture. Program change numbers and their corresponding sounds, percussion instrument sounds, note numbers, etc. are data compatible between equipment using this standard.

1. On the **MIDI** menu display, select [P8 GM Mode].
- The display looks similar to the following.

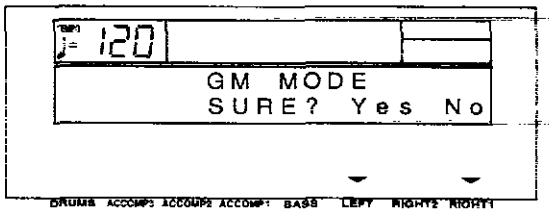


2. Press either **LEFT** button.
- The display looks similar to the following.



3. Use the **RIGHT 1** ∧ and ∨ buttons to specify whether or not this instrument should be compatible with GENERAL MIDI standard instruments (On/Off).
- This setting is automatically set to Off when the power is turned on.
- If On is selected, the status of this instrument changes to the GENERAL MIDI status, and the sounds and operations which can be selected are limited. In addition, the arrangement of percussion sounds on the keyboard changes. (Refer to the separate REFERENCE GUIDE provided.)

4. Press the **EXECUTE (SYNCHRO & BREAK)** button.
- The display looks similar to the following.



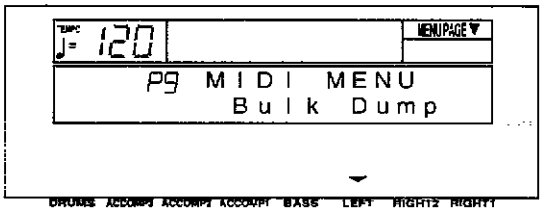
5. Press either **LEFT** (Yes) button.
- Press either **RIGHT 1** (No) button if you wish to cancel the function.
- If On was selected, the GENERAL MIDI logo is shown on the display.
- If the setting is changed from Off to On, the **SEQUENCER** memory is cleared and the panel settings are reset.
- If On is selected, this setting is automatically set to Off when the power is turned off, and all the memories are cleared. (**KN720**: The data in files that have been saved is not erased.)

BULK DUMP

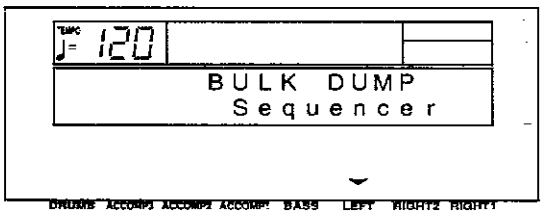
This instrument's internal data can be transmitted to and received from another instrument of the same model, or other MIDI equipment with Bulk Dump capability, as SYSTEM EXCLUSIVE data.

- Sound is not generated from this instrument during this procedure.
- The operations on this display are executed, even if [RT. Sysex] is set to off on the [Common Set] display.

1. On the **MIDI** menu display select [P9 Bulk Dump].
- The display looks similar to the following.



2. Press either **LEFT** button.
- The display looks similar to the following.

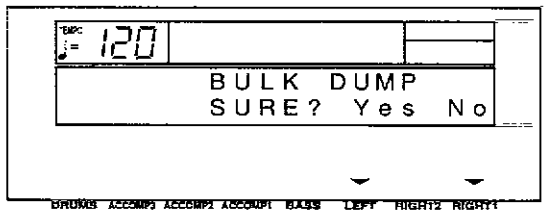


■ **Transmitting**

1. Follow the procedure necessary to prepare the receiving instrument for data reception.

2. Use the **LEFT** buttons to select the type of data to transmit.
- Select from [Total] (includes all the following data), [Composer] (**KN920/KN1500**), [Sequencer], [Sound Memory] (**KN920/KN1500**), [Panel Memory], and [Manual Seq Pad] (**MANUAL SEQUENCE PADS**).

3. Press the **EXECUTE** (**SYNCHRO & BREAK**) button.
- The display looks similar to the following.



4. Press either **LEFT** (Yes) button.
- Press either **RIGHT 1** (No) button if you wish to cancel the procedure.
- If the **LEFT** (Yes) button was pressed, transmission begins. During transmission, the transmitting status is shown on the display.

■ **Receiving**

After accessing the BULK DUMP display, follow the transmission procedure on the transmission side.

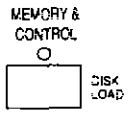
- During reception, the receiving status is shown on the display.
- If data transmission/reception is unsuccessful, an error message appears on the display.

Initialize

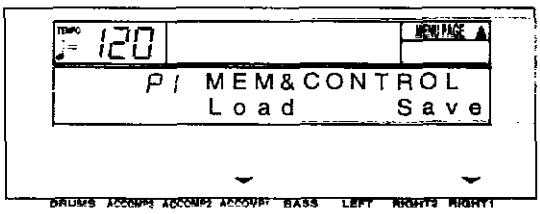
This instrument has many settable functions and storable memories. However, you can return the settings and memory to the factory-preset status.

INITIAL

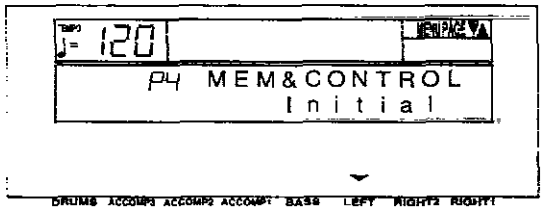
1. Press the **MEMORY & CONTROL** button to turn it on.



- The display changes to the following.

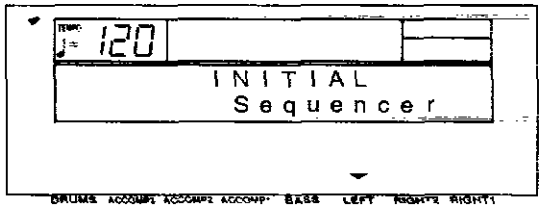


2. Use the **PAGE** ∧ and ∨ buttons to select [P2 Initial] (**KN720**)/[P4 Initial] (**KN920/KN1500**).
- This display looks similar to the following.



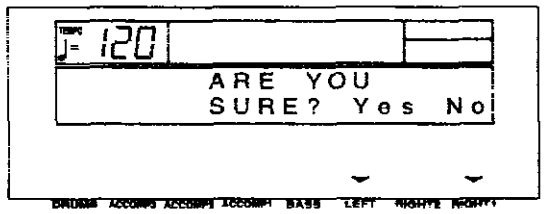
(**KN920/KN1500**)

3. Press either **LEFT** button.
- The display looks similar to the following.



4. Use the **LEFT** ∧ and ∨ buttons to select the desired type of initialization.
- Select from [Total] (includes all the following data), [Composer] (**KN920/ KN1500**), [Sequencer], [Sound Memory] (**KN920/KN1500**), [MIDI Setting], [Panel Memory] or [Manual Seq Pad].
- The [Panel Memory] type includes the **SOUND ARRANGER** settings.

5. Press the **EXECUTE (SYNCHRO & BREAK)** button.
- The display changes to the confirmation display. Press either **LEFT** (Yes) button if you wish to execute the initialization. Press either **RIGHT 1** (No) button if you wish to cancel the procedure.



- When you press either **LEFT** (Yes) button, initialization begins. When initialization is completed, "COMPLETED!" is shown on the display and this instrument returns to the normal performance mode.

- You can also reset all the instrument settings with the following procedure: Turn off the **PLAY (KN720/KN920)/POWER (KN1500)** button once. Then, while pressing the three buttons to the right of the display (**TRANSPOSE** ∧ and ∨, and **EXIT**) at the same time, turn the **PLAY/POWER** button on again.
- All the instrument settings may be initialized when the power is turn on, for example, if the effective time of the backup memory has been exceeded.

■ KN720/KN920: Backup memory

The various stored memories and function settings of this instrument are preserved as long as power is being supplied through the AC adaptor or the batteries. If the power supply to this instrument is discontinued (either through the AC adaptor or the batteries), the various memories and settings will be cleared after about 10 minutes.

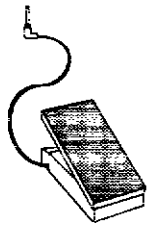
- The backup memory does not function until the power has been on for about 10 minutes.
- **KN920**: If you wish to keep the contents of the various memories, such as the **SEQUENCER** and **COMPOSER**, before you turn off the instrument, use the SAVE procedure to store the desired data on a disk for recall at a later time. When you exit these functions without saving to a disk, a warning display appears to remind you to save the data.

■ KN1500: Backup memory

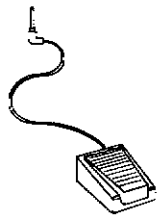
The panel settings and stored memories are maintained in a backup memory for about 10 minutes after the power to this instrument is turned off. If you wish to keep the memory contents, before you turn off the instrument, use the SAVE procedure to store the desired data on a disk for recall at a later time.

- The backup memory does not function until the power has been on for about 10 minutes.
- When you quit the operating mode, a warning display may appear to remind you to save the data.

Options



SZ-E2 (**KN1500** only)
Expression Pedal

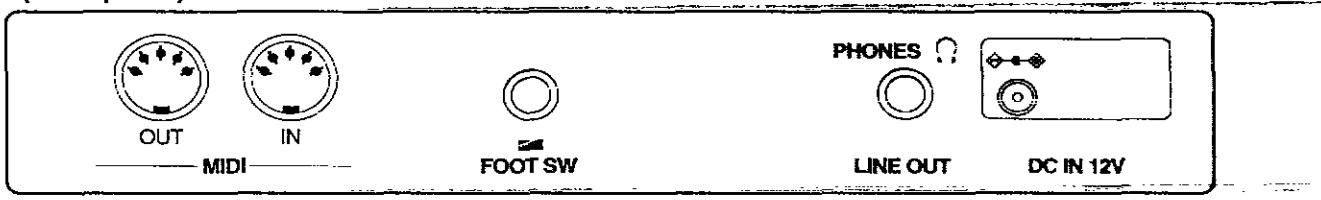


SZ-P1
Foot Switch

Connections

KN720/KN920

(Rear panel)



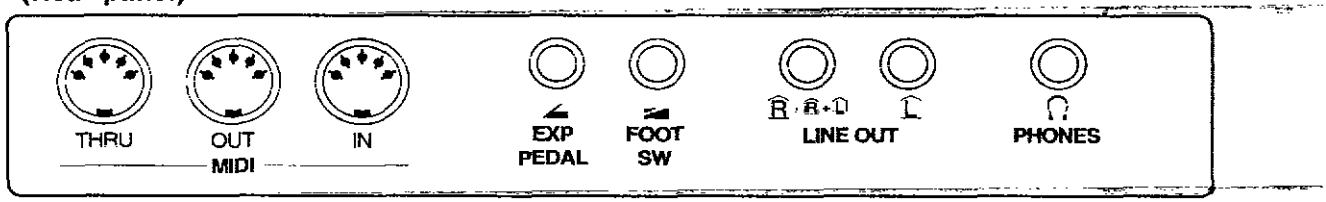
FOOT SW
An optional **SZ-P1** Foot Switch (sold separately) can be connected to this terminal to control various functions. (Refer to page 58.)

PHONES/LINE OUT
(output level 1.5 Vrms, 16 Ω)
Headphones, a keyboard amplifier, or stereo equipment can be connected to this terminal. When another apparatus is connected to this terminal, the speaker system is automatically switched off, and sound is heard only through the connected device.

MIDI
These terminals are for connection to another MIDI instrument. (Refer to page 111.)

KN1500

(Rear panel)



EXP PEDAL
The optional **SZ-E2** Expression Pedal (sold separately) can be connected to this terminal to control the volume.

FOOT SW
An optional **SZ-P1** Foot Switch (sold separately) can be connected to each terminal to control various functions. (Refer to page 58.)

LINE OUT (output level 1.5 Vrms, 600 Ω)
By connecting an external high-power amplifier, the sound can be reproduced at a high volume. To output monaural sound, connect the external equipment to the **R/R+L** terminal. (Do not connect the **L** terminal.)

PHONES
Headphones can be connected to this terminal. When headphones are connected to this terminal, the speaker system is automatically switched off.

MIDI
These terminals are for connection to another MIDI instrument. (Refer to page 111.)

Symptoms which appear to be signs of trouble

The following changes in performance may occur in the Technics Keyboard but do not indicate trouble.

	Phenomenon	Remedy
Sounds and effects	The buttons, keys, etc. malfunction.	• Turn off the **PLAY (KN720/KN920)/POWER (KN1500)** button once, then turn it on again. If this procedure is not successful, turn off this button once. Then, while pressing the three buttons to the right of the display (**TRANSPOSE** ∧ and ∨, and **EXIT**) at the same time, turn the **PLAY/POWER** button on again. (Note that, in this case, all programmable settings, functions and memories return to their factory-preset status.)
	No sound is produced when the keys are pressed.	• The **MAIN VOLUME** is at the minimum setting. Adjust the volume with the **MAIN VOLUME** control. • The volumes for the selected parts are set to the minimum levels. Use the balance buttons to set the volumes of the relevant parts to appropriate levels. (Refer to page 30.) • The part is muted. (Refer to page 30.) • The local control for a part performed on the keyboard is set to OFF. Set the local control to ON. (Refer to page 115.)
	Only percussive instrument sounds are produced when the keyboard is played.	• A sound in the **KEYBOARD PERC** sound group is selected.
	The volume is very low when the keyboard is played.	• The volume setting in the **SEQUENCER** contents is very low. Follow the INITIAL procedure to reset the settings. (Refer to page 122.)
	Some sounds cannot be selected.	• When the GENERAL MIDI status is set to on, The sounds which can be selected and operation which can be executed are limited. Turn the GENERAL MIDI status off to return the instrument to its normal operation. (Refer to page 120.)
	KN720/KN920: When using batteries, the volume level becomes low or the sound is distorted.	• The batteries are low. Replace all the batteries with new ones as soon as possible.
	KN920/KN1500: The sound you hear is different from the sound you selected.	• This sometimes occurs when you play back **SEQUENCER** or **COMPOSER** data which was created on a different model, or when MIDI data is received from a connected instrument. Select the desired sounds again.
Rhythm	The rhythm does not start.	• The **DRUMS** volume is set to the minimum level. Use the balance buttons to set the **DRUMS** volume to an appropriate level. • **KN920/KN1500**: A rhythm in memory with no stored pattern was selected. Select a different rhythm. • A **SEQUENCER PLAY** button is on. When you are not playing back the **SEQUENCER** performance, turn off the **SEQUENCER PLAY** button. • CLOCK is set to MIDI. Set CLOCK to INTERNAL. (Refer to page 119.) • The rhythm does not work when the GENERAL MIDI mode is set to ON. Turn the GENERAL MIDI status off to return the instrument to its normal operation. (Refer to page 120.)

	Phenomenon	Remedy
AUTO PLAY CHORD	No sound is produced for the automatic accompaniment.	• **KN920/KN1500**: A rhythm in **COMPOSER** memory with no stored pattern was selected. Select a different rhythm.
	No sound is produced for the automatic accompaniment, or only the sounds of some parts are produced.	• An **ACCOMP** part does not sound if its corresponding volume is set to the minimum level. Use the respective balance buttons to set the **ACCOMP 1**, **2** and **3** volumes to appropriate levels.
SEQUENCER	Storage is not possible.	• The remaining memory capacity of the **SEQUENCER** is 0. Follow the SONG CLEAR or TRACK CLEAR procedure to erase the memory. (Refer to pages 73 and 74.)
	Multi-track storage is not possible.	• The playback track has been selected, but the **START/STOP** button has not been pressed. On the recording display, the track marked with a horizontal bar in the REC row is the track which is ready for recording; a track marked with a horizontal bar in the PLAY row is a track which is ready for playback. To record one track while listening to another (playback) track, press the **START/STOP** button to begin playback.
	The playback measure indication is different from when the performance was recorded.	• The number of measures corresponds to the time signature of the rhythm selected at the start of recording. To change the rhythm in the middle of the song, record the rhythm change in the RHYTHM part. (Refer to page 71.)
COMPOSER (KN920/KN1500)	Storage is not possible.	• The remaining memory capacity of the **COMPOSER** is 0.
	Setting the time signature and number of measures is not possible.	• The time signature and number of measures cannot be changed for a pattern which is currently recorded in the **COMPOSER**. If you wish to change the time signature and/or measure data, first follow the procedure to clear the memory. (Refer to page 81.)
	The playback timing of the rhythm pattern is different from the timing with which it was recorded.	• The QUANTIZE function was on when the pattern was recorded and the timing was automatically corrected. Set the quantize level to a smaller note unit or to OFF when recording. (Refer to page 83.)
Disk Drive (KN920/KN1500)	The Disk Drive produces a noise during recording or playback.	• This occurs when the Disk Drive is reading a disk. It does not indicate a problem.
	When the procedure to load from a disk is performed, the contents of the keyboard memory are erased.	• When performing the load operation from a disk, the keyboard memory changes to that of the data loaded from the disk. If you wish to preserve a song which is stored in the keyboard memory, save it on a disk before performing the load procedure. (Refer to page 97.)
Other	Noise from a radio or TV can be heard.	• This sometimes occurs when electrical equipment such as a radio or TV is used near the instrument. Try moving such electrical equipment further away from the instrument. • The sound may be coming from a nearby broadcast station or amateur radio station. If the sound is bothersome, consult your dealer or service center.
	The cabinet becomes warm during use.	• This instrument has a built-in power source that heats the cabinet to some degree. This is not an indication of trouble.

Error messages

	Display	Contents
00	WRONG DISK!	The data on the disk that you are using is for a different product. (**KN920/KN1500**)
01	LOAD ERROR TRY AGAIN!	An error has occurred while the disk was loading. Please try again.
02	NO DISK!	There is no disk in the Disk Drive. (**KN920/KN1500**)
03	FILE EMPTY!	The file that you tried to load is empty. (**KN920/KN1500**)
04	SAVE ERROR TRY AGAIN!	An error has occurred while the data was being saved. Please try again.
05	WRITE PROTECTED!	The disk that you are using is write protected. Please remove the write protection and try again. (**KN920/KN1500**)
06	FILE FULL!	The internal memory is full. Please clear unwanted files. (**KN720**)
	DISK FULL!	The disk that you are using is full. Please use another disk. (**KN920/KN1500**)
07	FORMAT ERROR TRY AGAIN!	An error has occurred while the disk was formatting. The disk that you are using may be faulty. Please try formatting another disk. (**KN920/KN1500**)
08	DATA IS COPY PROTECTED!	The data on this disk is copy protected. (**KN920/KN1500**)
09	ALREADY COPY PROTECTED!	The data on this disk is already copy protected. (**KN920/KN1500**)
11	SEQUENCER DATA ERROR!	There is an error in the **SEQUENCER** data. Playback is not possible.
12	MEMORY FULL!	The memory is full. No more data can be recorded.
13	CHANGE IMPOSSIBLE!	It is not possible to change the time signature of a **COMPOSER** pattern after it has been recorded. If you want to proceed, you must first clear the entire **COMPOSER** pattern. (**KN920/KN1500**)
14	TIME SIG MISMATCH!	The time signature of the pattern from which you are copying is different from the **COMPOSER** memory that you are using. Either: Change the time signature of the **COMPOSER** memory or: Copy from a pattern that has the same time signature. (**KN920/KN1500**)
15	TIME SIG ALREADY SET	The time signature has already been set. It cannot be changed.
16	TRACK EXISTS!	The specified track already exists. It is impossible to assign two tracks to that part.
17	FILE TOO LONG!	This song is too long to be saved as an SMF file. (**KN920/KN1500**)
18	SMF LOAD ERROR!	The SMF file that you tried to load exceeds the memory capacity of this instrument and cannot be loaded. The destination **SEQUENCER** memory has been cleared. (**KN920/KN1500**)
19	BULK DUMP SEND ERROR!	An error occurred during system exclusive transmission. The data was not transmitted successfully. Please try again.
20	BULK DUMP RECV ERROR!	An error occurred during system exclusive data reception. The data was not received successfully. Please try again.
21	BULK DUMP ID CODE ERR!	The Identification (ID) code of the system exclusive data received by this instrument is for a different product.
22	"ALL" OPTION ONLY AVAIL	To load data which was saved on an older model Technics instrument, set the load option to "ALL." (**KN920/KN1500**)

	Display	Contents
23	NO SEQUENCER DATA!	There is no data in the **SEQUENCER**.
24	SMF CONVERT ERROR!	An error occurred in the SMF conversion. **(KN920/KN1500)**
25	NOT STANDARD MIDI FILE!	This disk is not in the Standard MIDI File data format. **(KN920/KN1500)**
26	SMF CONVERT ERROR!	SMF conversion is possible only for files with a time base (PPQ resolution) of 24/48/96/192/288/384. **(KN920/KN1500)**
27	SMF FORMAT ERROR!	FORMAT 2, 3, 4 ... SMF data cannot be used. **(KN920/KN1500)**
28	RHYTHM & CHORD ONLY!	Step record can be activated only for tracks to which the RHYTHM or CHORD part has been assigned.
29	SELECT A PRESET PTN!	A **COMPOSER** rhythm cannot be selected for the **SOUND ARRANGER**. Please select a preset rhythm. **(KN920/KN1500)**
30	SELECT A USER BANK!	Please select Bank "13 User" to store in the **MANUAL SEQUENCE PADS**.
31	TRACK ASSIGN MISMATCH!	Special tracks such as CHORD/APC, RHYTHM and CONTROL exist in the song from which you are copying and are incompatible with the destination song because it is in the GM mode.
32	MEAS/T. SIG MISMATCH!	The **COMPOSER** pattern you have chosen has a different time signature or number of measures from the other patterns in this **COMPOSER CHORD MAP**. All of the **COMPOSER** patterns used in a **COMPOSER CHORD MAP** must have the same time signature and number of measures. **(KN920/KN1500)**
33	NOT ENOUGH AVAIL MEMORY	The song that you have tried to load exceeds the this instrument's available memory and cannot be loaded. The selected **SEQUENCER** song memory has been cleared. Please clear existing songs in the instrument's memory using SONG CLEAR to make more memory available, and try again. **(KN920/KN1500)**
34	THIS FILE IS SMF FORMAT1!	This is an SMF FORMAT 1 file. Direct Play and Sequencer Medley are not available for this file. **(KN920/KN1500)**
35	RHYTHM DATA ERROR!	There is an error in the rhythm data. Playback is not possible.
36	MSP DATA ERROR!	There is an error in the **MANUAL SEQUENCE PADS** data. Playback is not possible.
37	DRUM EDIT IMPOSSIBLE!	The DRUM sounds cannot be edited with the **SOUND EDIT**. **(KN920/KN1500)**
38	NO CHORD TRACK!	[Chord] was selected in the Step record mode of the **SEQUENCER**, but there is no track to which the [Chord] part has been assigned.
39	NO RHYTHM TRACK!	[Rhythm] was selected in the Step record mode of the **SEQUENCER**, but there is no track to which the [Rhythm] part has been assigned.
	WARNING! LOW BATTERIES!	The remaining battery power is very low. Replace all the batteries with new ones immediately. **(KN720/KN920)**

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Specifications

	SX-KN720	SX-KN920	SX-KN1500
KEYBOARD	61 KEYS (WITH INITIAL TOUCH)		
SOUND GENERATOR	PCM		
MAXIMUM NUMBER OF NOTES PRODUCED SIMULTANEOUSLY	32 NOTES		
SOUNDS	150 SOUNDS	200 SOUNDS	
DIGITAL REVERB	○		
DIGITAL EFFECT	○		
DSP EFFECT	—	○	
CHORUS	○	—	
SUSTAIN	○		
SOUND EDIT	—	○ (MEMORY: 40)	
TRANSPOSE	G–C–F♯		
RHYTHM	128 × 2 VARIATIONS	128 × 4 VARIATIONS	
RHYTHM CONTROLS	START/STOP, INTRO & ENDING, FILL IN 1, 2, COUNT INTRO, SYNCHRO & BREAK, TEMPO	START/STOP, INTRO & ENDING 1, 2, FILL IN 1, 2, COUNT INTRO, SYNCHRO & BREAK, TEMPO	START/STOP, INTRO & ENDING 1, 2, FILL IN 1, 2, COUNT INTRO, SYNCHRO & BREAK, TEMPO, TEMPO/PROGRAM DIAL, TAP TEMPO
MANUAL SEQUENCE PADS	12 BANKS × 4 PADS, 1 USER BANK: 1200 NOTES, RECORD/STOP	12 BANKS × 6 PADS, 1 USER BANK: 1200 NOTES, RECORD/STOP	
AUTO PLAY CHORD	MODE: ONE FINGER, FINGERED, PIANIST MEMORY, ON BASS		
MUSIC STYLE ARRANGER	—	○	
SOUND ARRANGER	○		
ONE TOUCH PLAY	○		
MUSIC STYLE SELECT	—		○
TECHNI-CHORD	○		
PANEL MEMORY	10	2 BANKS × 5, SET	
SEQUENCER	16 TRACKS, 10 SONGS RESOLUTION: 96 PULSES PER QUARTER-NOTE STORAGE CAPACITY: APPROX. 10000 NOTES (KN720)/ APPROX. 30000 NOTES (KN920/KN1500) RECORD MODES: EASY, REALTIME, STEP (CHORD, RHYTHM) FUNCTIONS: TRACK ASSIGN, EDIT, SONG SELECT/NAME, MEDLEY		
COMPOSER	—	5 PARTS: BASS, ACCOMP 1, 2, 3, DRUMS STORAGE CAPACITY: APPROX. 10000 NOTES FUNCTIONS: BEND RANGE, MODE SELECT, PATTERN COPY, SINGLE LOAD, CHORD MAP MEMORY: 3 BANKS × 10 (VARIATION 1–4, INTRO 1, 2, FILL IN 1, 2, ENDING 1, 2)	
MEMORY & CONTROL	INITIAL, FOOT SWITCH SET, LOAD, SAVE, CONTRAST	INITIAL, FOOT SWITCH SET, DIRECT PLAY, DISK LOAD, DISK SAVE, DISK FORMAT, CONTRAST	
SOUND SETTING	PART SETTING, KEY SCALING, TOUCH & TUNE, LEFT HOLD		
MIDI	CHANNEL, PART SETTING, COMMON SET, CONTROL MESSAGE, IN/OUT SET, REALTIME MESSAGE, MIDI PRESETS, GM MODE, BULK DUMP		
DISK DRIVE	—	BUILT-IN 3.5 INCH FLOPPY DISK DRIVE FOR 2HD (1.44 MB), 2DD (720 KB)	

	SX-KN720	SX-KN920	SX-KN1500
PITCH BEND WHEEL	○		
MODULATION WHEEL	—		○
OTHER CONTROLS	MAIN VOLUME, BALANCE, MUTE, SPLIT POINT, CONDUCTOR		
DISPLAY	LCD (PAGE, EXIT, DISPLAY HOLD)		
DEMO	○		
TERMINALS	DC IN 12V, PHONES/LINE OUT, FOOT SW, MIDI (IN, OUT)		PHONES, LINE OUT (R/R+L, L), FOOT SW, EXP PEDAL, MIDI (IN, OUT, THRU)
OUTPUT	1.5 W × 2 (WITH BATTERIES), 8 W × 2 (WITH SY-AD6/AD6B AC ADAPTOR)		15 W × 2
SPEAKERS	12 cm × 2		12 cm × 2, 6.5 cm × 2
POWER REQUIREMENT	BATTERIES: DC 9V (USING R20/LR20 ["D" SIZE, UM-1] BATTERIES × 6)		90 W, 60 W (NORTH AMERICA AND MEXICO)
	AC: WITH SY-AD6 AC ADAPTOR AC 120/220/230/240V 50/60Hz AC 120V 60Hz (NORTH AMERICA AND MEXICO)		AC 120/220/240V 50/60Hz AC 120V 60Hz (NORTH AMERICA AND MEXICO)
	AC: WITH SY-AD6B AC ADAPTOR AC 230V 50/60Hz (EUROPE EXCEPT FOR UNITED KINGDOM)		AC 230-240V 50/60Hz (EUROPE, AUSTRALIA, NEW ZEALAND, SINGAPORE AND PHILIPPINES)
DIMENSIONS (W×H×D)*	105.7 cm × 14.9 cm × 40.4 cm (41-5/8" × 5-7/8" × 15-29/32")		
NET WEIGHT*	8.3 kg (18.3 lbs.)	8.8 kg (19.4 lbs.)	10.8 kg (23.8 lbs.)
ACCESSORIES	MUSIC STAND		MUSIC STAND, AC CORD

* Without MUSIC STAND, BATTERIES

• Design and specifications are subject to change without notice.

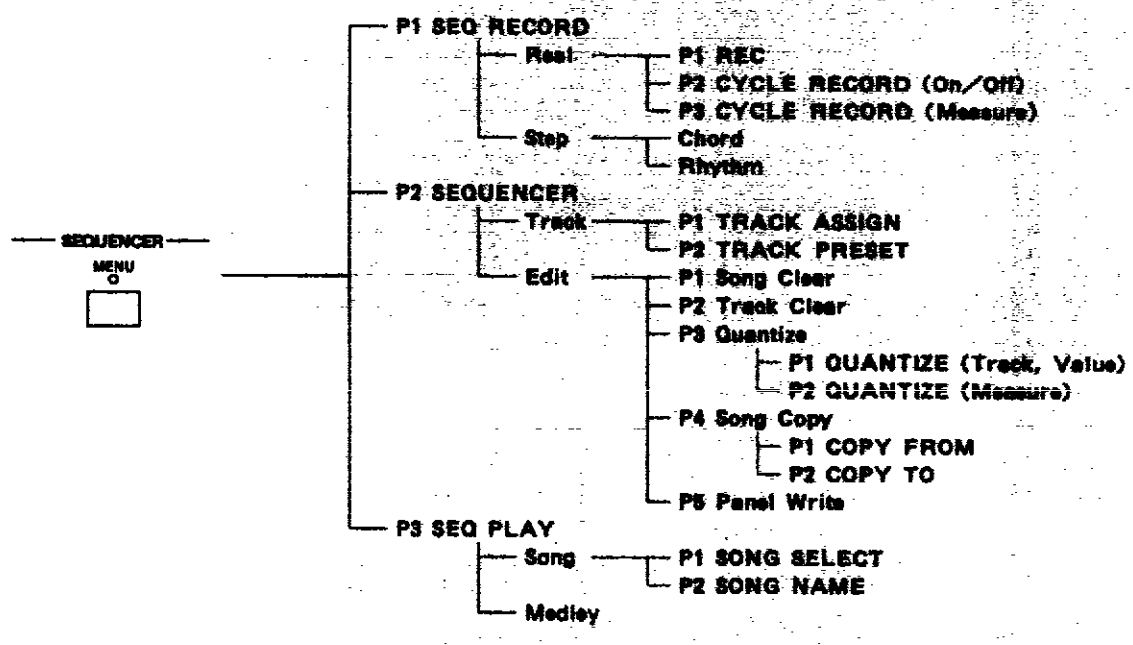
Technics

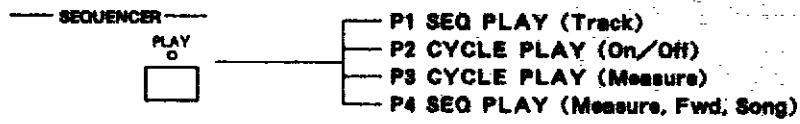
SX-KN720 / SX-KN920 / SX-KN1500

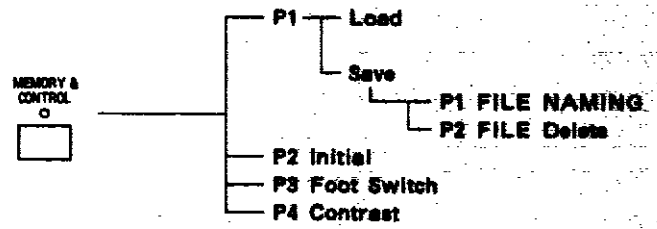
REFERENCE GUIDE

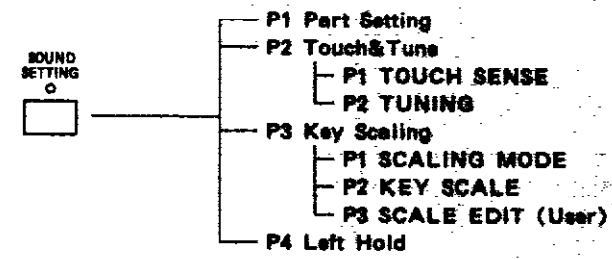
Contents

DISPLAY GUIDE (KN720)

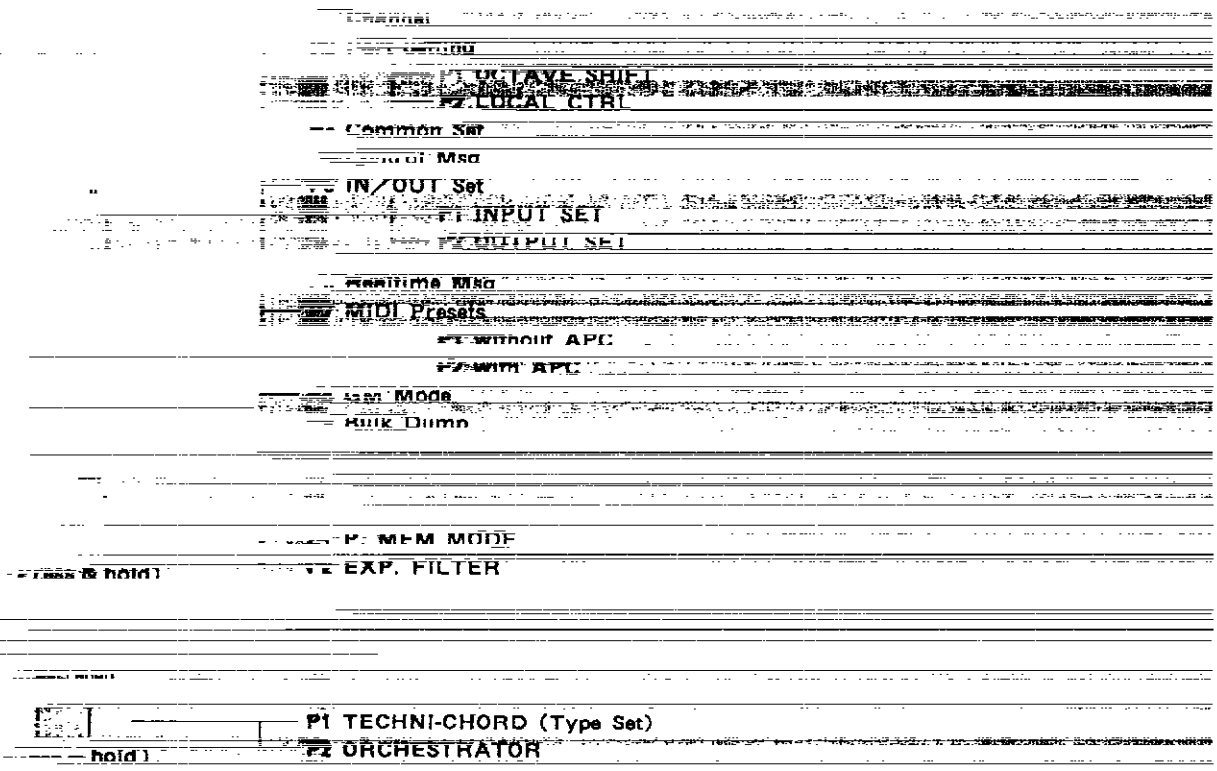




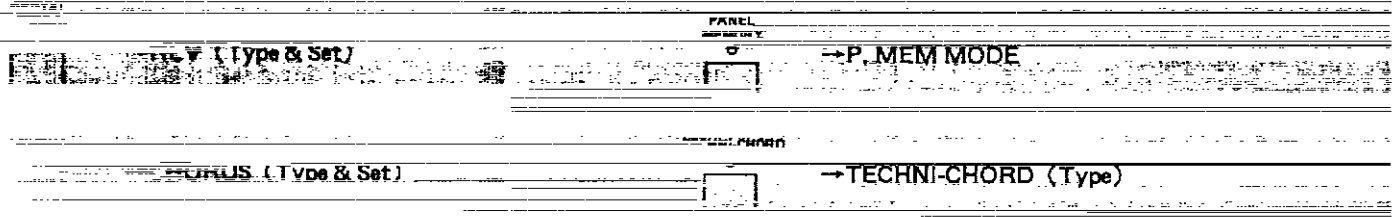




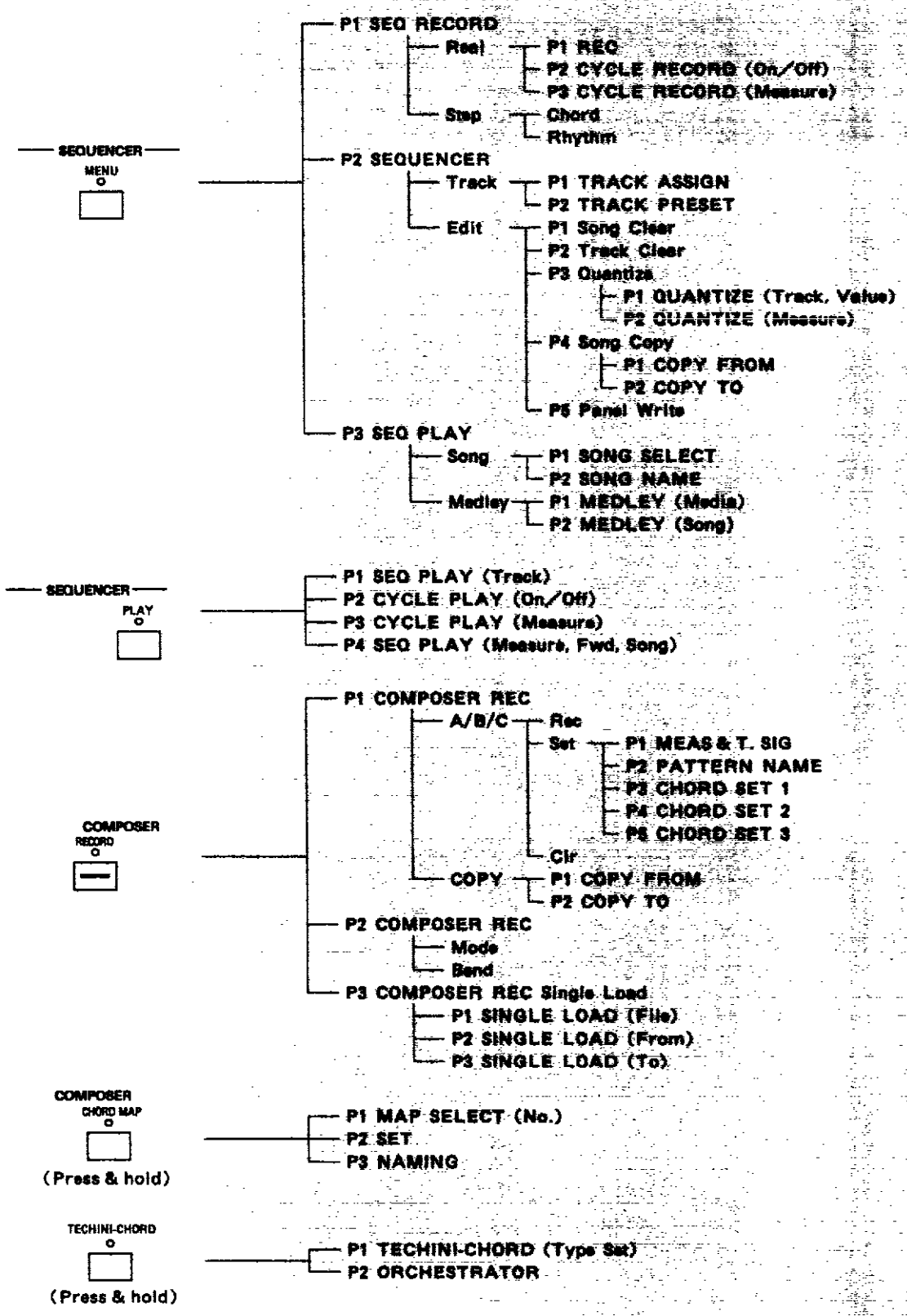
DISPLAY GUIDE (KN720)



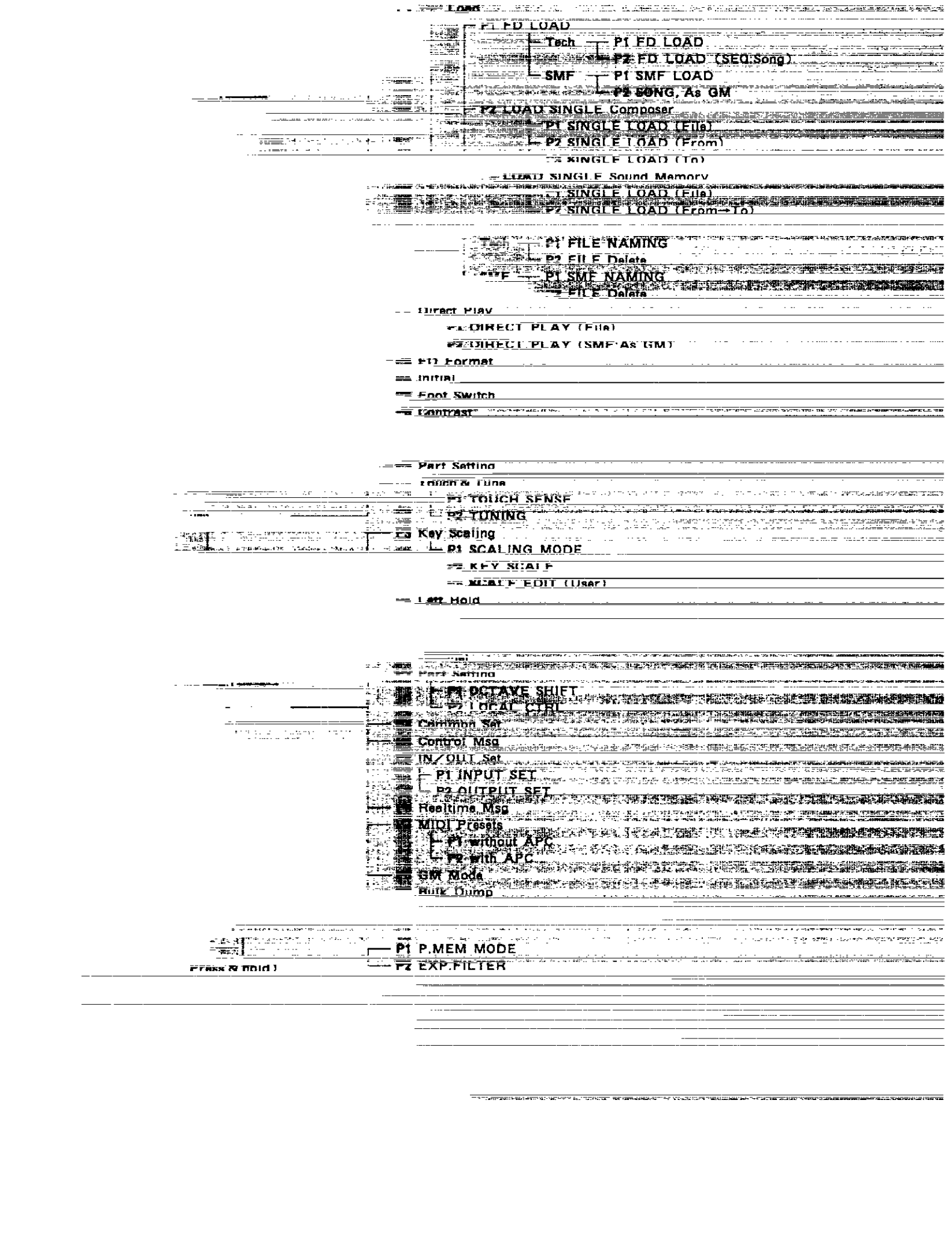
EASY SETTING (Press & hold)



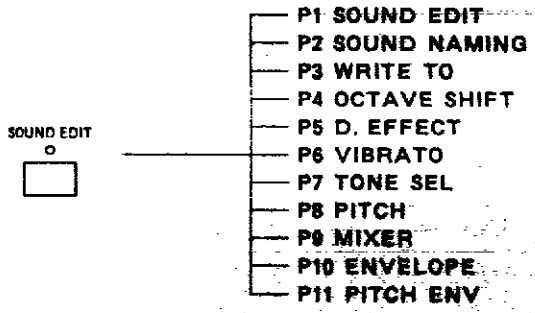
DISPLAY GUIDE (KN920/KN1500)



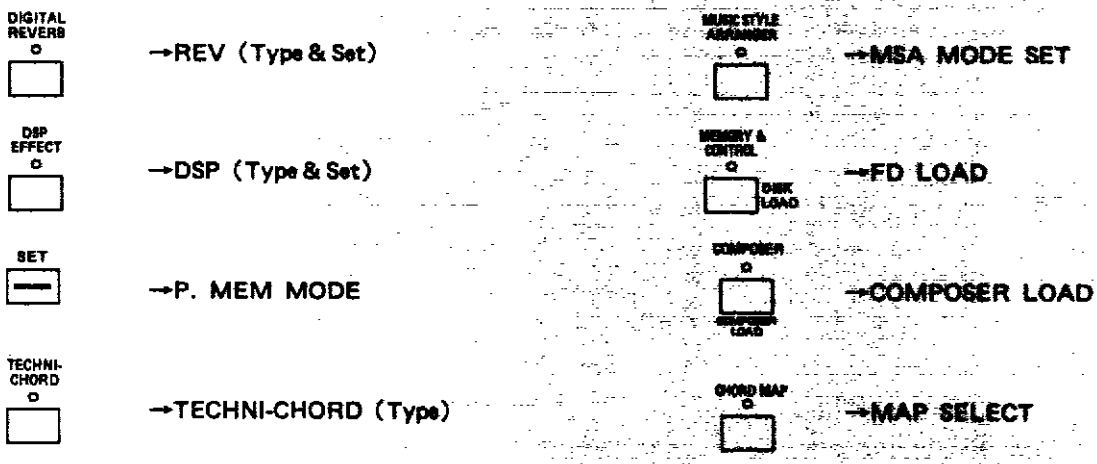
PLAY GUIDE (KN920 / KN1500)



DISPLAY GUIDE (KN920/KN1500)



■ EASY SETTING (Press & hold)



[illegible] (KN720)

MIDI PROGRAM CHANGE DATA				MIDI PROGRAM CHANGE DATA			
	NORM	TECH	GM	NO.	SOUND	NORM	TECH	GM
[illegible]	0 (0)	0 (0)	1	051	Bowed Bass	50 (0)	98 (0)	44
Bright Piano	1 (0)	1 (0)	2	052	Vocal Ah	51 (0)	104 (48)	53
Honky Tonk	2 (0)	1 (16)	4	053	Vocal Ooh	52 (0)	104 (32)	
Elect Grand	3 (0)	3 (0)	3	054	Vocal Doo	53 (0)	109 (0)	54
E.Piano	4 (0)	5 (0)	5	055	Jazz Organ	54 (0)	88 (0)	18
[illegible]	5 (0)	4 (32)		056	FullDrawbars	55 (0)	89 (0)	17
Modern E.P.1	6 (0)	6 (0)	6	057	Rock Organ	56 (0)	92 (32)	19
[illegible]	7 (0)	4 (0)		058	Pipe Organ	57 (0)	84 (0)	20
Harpsichord	8 (0)	16 (0)	7	059	Harmonium	58 (0)	86 (32)	21
[illegible]	9 (0)	17 (0)	8	060	BrtAccordion	59 (0)	80 (0)	22
Grand Clavi	10 (0)	115 (0)		061	Bandoneon	60 (0)	80 (16)	24
[illegible]	11 (0)	9 (0)	10	062	Brass	61 (0)	56 (0)	62
Vibraphone	12 (0)	8 (0)	12	063	Octave Brass	62 (0)	56 (16)	
Marimba	13 (0)	10 (0)	13	064	SynthBrass 1	63 (0)	60 (0)	63
Xylophone	14 (0)	11 (0)	14	065	SynthBrass 2	64 (0)	62 (64)	64
[illegible]	15 (0)	12 (0)	9	066	Trumpet	65 (0)	48 (0)	57
Steel Drum	16 (0)	15 (0)	115	067	Solo Trumpet	66 (0)	48 (64)	
TubularBells	17 (0)	14 (0)	15	068	Mute Trumpet	67 (0)	50 (0)	60
Tinkle Bell	18 (0)	14 (32)	113	069	Brt Trombone	68 (0)	52 (0)	58
Church Org.	19 (0)	20 (0)		070	Clsd Fr.Horn	69 (0)	54 (0)	
Spanish Gtr	20 (0)	20 (16)	25	071	Open Fr.Horn	70 (0)	54 (16)	61
Folk Guitar	21 (0)	22 (0)	26	072	MarchingTuba	71 (0)	55 (16)	59
Jazz Guitar	22 (0)	25 (0)	27	073	Soprano Sax	72 (0)	76 (0)	65
Bright Solid	23 (0)	26 (0)	28	074	Alto Sax	73 (0)	77 (0)	66
Mute Guitar	24 (0)	29 (0)	29	075	Mellow Alto	74 (0)	77 (16)	
Over Guitar	25 (0)	30 (0)	31	076	Tenor Sax	75 (0)	78 (48)	67
[illegible]	26 (0)	27 (32)	30	077	BreathyTenor	76 (0)	78 (16)	
Funk Harmonic	27 (0)	27 (16)		078	Baritone Sax	77 (0)	79 (16)	69
Hawaiian Gtr	28 (0)	31 (0)		079	Jz Clarinet	78 (0)	68 (0)	72
Banjo	29 (0)	33 (0)	105	080	Oboe	79 (0)	68 (0)	69
Mandolin	30 (0)	35 (0)		081	English Horn	80 (0)	67 (0)	70
Piano	31 (0)	32 (0)	47	082	Bassoon	81 (0)	70 (0)	71
[illegible]	32 (0)	127 (16)	56	083	Harmonica	82 (0)	82 (0)	23
084 Timbani	33 (0)	126 (0)	48	084	Bagpipe	83 (0)	73 (0)	110
[illegible]	34 (0)	7 (0)	11	085	Shanai	84 (0)	73 (16)	112
Koto	35 (0)	37 (0)	108	086	Piccolo	85 (0)	64 (0)	72
Shamisen	36 (0)	39 (0)	107	087	Jazz Flute	86 (0)	65 (0)	74
Kalimba	37 (0)	39 (0)	109	088	Pan Flute	87 (0)	72 (0)	76
Bagpipe	38 (0)	38 (0)	105	089	Syn Calliope	88 (0)	72 (48)	83
Fiddle	39 (0)	38 (16)	16	090	Recorder	89 (0)	74 (0)	75
Strings	40 (0)	100 (0)	49	091	Ocarina	90 (0)	74 (16)	80
[illegible]	41 (0)	101 (0)	50	092	Blown Bottle	91 (0)	72 (32)	77
Tremolo Str	42 (0)	100 (32)	45	093	Whistle	92 (0)	111 (0)	78
Pizzicato Str	43 (0)	99 (0)	46	094	Shakuhachi	93 (0)	75 (0)	78
Orch String 1	44 (0)	103 (0)	51	095	AcousticBass	94 (0)	43 (0)	33
Orch String 2	45 (0)	103 (16)	52	096	Elect Bass	95 (0)	40 (0)	
Violin	46 (0)	96 (0)	41	097	FretlessBass	96 (0)	40 (32)	38
Country Fiddle	47 (0)	96 (32)	111	098	Picked Bass	97 (0)	42 (0)	35
Viola	48 (0)	97 (32)	42	099	Slap Bass 1	98 (0)	41 (0)	37
[illegible]	49 (0)	97 (0)	43	100	Slap Bass 2	98 (0)	41 (16)	38

SOUND (KN720)

NO.	SOUND	MIDI PROGRAM CHANGE DATA			NO.	SOUND	MIDI PROGRAM CHANGE DATA		
		NORM	TECH	GM			NORM	TECH	GM
101	Analog Bass	100 (0)	46 (16)		126	Ice Rain	125 (0)	121 (48)	97
102	Wow Bass	101 (0)	46 (0)	39	127	Soundtrack	126 (0)	119 (16)	98
103	House Bass	102 (0)	47 (32)		128	Goblins	127 (0)	108 (0)	102
104	Plastic Bass	103 (0)	46 (80)	40	129	Agogo	0 (1)	122 (0)	114
105	Square Lead	104 (0)	117 (0)	81	130	Wood Block	1 (1)	122 (16)	116
106	Saw Lead	105 (0)	118 (16)	82	131	Taiko Drum	2 (1)	123 (48)	117
107	Air Vox	106 (0)	106 (16)	86	132	Melodic Tom	3 (1)	122 (32)	118
108	Chiffer Lead	107 (0)	117 (32)	84	133	Synth Drum	4 (1)	124 (0)	119
109	Charang	108 (0)	27 (48)	85	134	Rev Cymbal	5 (1)	122 (48)	120
110	5th Wave	109 (0)	119 (0)	87	135	Fret Noise	6 (1)	124 (16)	121
111	Bass & Lead	110 (0)	46 (32)	88	136	Breath Noise	7 (1)	124 (32)	122
112	Crystal	111 (0)	9 (32)	99	137	Seashore	8 (1)	124 (48)	123
113	Mlw Ensemble	112 (0)	107 (16)	90	138	Bird Tweet	9 (1)	125 (32)	124
114	Synth Vocal	113 (0)	107 (0)	55	139	Telephone	10 (1)	123 (0)	125
115	Spacy Pad	114 (0)	107 (32)	92	140	Helicopter	11 (1)	123 (16)	126
116	Metal Pad	115 (0)	106 (32)	94	141	Applause	12 (1)	125 (48)	127
117	Star Theme	116 (0)	120 (16)	104	142	Gun Shot	13 (1)	123 (32)	128
118	Bowed Glass	117 (0)	120 (0)	93	143	Jazz kit	14 (1)	113 (128)	
119	Atmosphere	118 (0)	21 (48)	100	144	Brush kit	15 (1)	117 (128)	
120	Fantasia	119 (0)	116 (48)	89	145	Standard kit	16 (1)	112 (128)	
121	Mist	120 (0)	108 (48)	101	146	Room kit	17 (1)	115 (128)	
122	Sweep Pad	121 (0)	62 (32)	96	147	Power kit	18 (1)	116 (128)	
123	Halo Pad	122 (0)	17 (48)	95	148	Dance kit	19 (1)	122 (128)	
124	Echo Drops	123 (0)	106 (48)	103	149	Electric kit	20 (1)	114 (128)	
125	Poly Synth	124 (0)	102 (32)	91	150	Orch kit	21 (1)	124 (128)	

• The numbers in parentheses ( ) are bank data.
Program change number=Program change data+1/Bank number=Bank data+1

SOUND	MIDI PROGRAM CHANGE DATA NORM	TECH	GM	NO.	SOUND	MIDI PROGRAM CHANGE DATA NORM	TECH	GM
Piano	0 (0)	0 (0)	1	051	Shamisen	50 (0)	36 (0)	107
Piano	1 (0)	1 (0)	2	052	Kalimba	51 (0)	39 (0)	109
[illegible]	[illegible]	[illegible]		053	MetalKalimba	52 (0)	39 (16)	
[illegible]	3 (0)	2 (16)		054	Sitar	53 (0)	38 (0)	105
[illegible]	[illegible]	[illegible]		055	Gamelan	54 (0)	14 (48)	
[illegible]	5 (0)	1 (16)	4	056	Dulcimer	55 (0)	38 (16)	16
[illegible]	6 (0)	3 (0)	3	057	Strings	56 (0)	100 (0)	49
[illegible]	7 (0)	0 (32)		058	Slow Strings	57 (0)	101 (0)	50
[illegible]	8 (0)	5 (0)	5	059	Oct Strings	58 (0)	102 (0)	
[illegible]	9 (0)	4 (32)		060	Bass Strings	59 (0)	99 (16)	
[illegible]	10 (0)	6 (0)	8	061	Tremolo Str	60 (0)	100 (32)	45
[illegible]	11 (0)	4 (0)		062	PizzicatoStr	61 (0)	99 (0)	46
[illegible]	12 (0)	5 (48)		063	Syn String 1	62 (0)	103 (0)	51
[illegible]	13 (0)	16 (0)	7	064	Syn String 2	63 (0)	103 (16)	52
[illegible]	14 (0)	18 (0)		065	Violin	64 (0)	96 (0)	41
[illegible]	15 (0)	17 (0)	8	066	Jazz Violin	65 (0)	96 (16)	
[illegible]	16 (0)	115 (0)		067	Cntry Fiddle	66 (0)	96 (32)	111
[illegible]	17 (0)	9 (0)	10	068	Viola	67 (0)	97 (32)	42
Vibraphone	18 (0)	8 (0)	12	069	Cello	68 (0)	97 (0)	43
Marimba	19 (0)	10 (0)	13	070	Bowed Bass	69 (0)	98 (0)	44
Xylophone	20 (0)	11 (0)	14	071	Vocal Ah	70 (0)	104 (48)	53
[illegible]	21 (0)	12 (0)	9	072	Vocal Ooh	71 (0)	104 (32)	
[illegible] Drum	22 (0)	15 (0)	115	073	Humming	72 (0)	105 (0)	
[illegible]	23 (0)	14 (0)	15	074	Vocal Doo	73 (0)	109 (0)	54
[illegible] Hall	24 (0)	14 (32)	113	075	Jazz Organ	74 (0)	88 (0)	18
[illegible] Marimba	25 (0)	13 (0)		076	FullDrawbars	75 (0)	89 (0)	17
[illegible]	26 (0)	113 (0)		077	JazzDrawbars	76 (0)	93 (0)	
[illegible] Mallet	27 (0)	11 (16)		078	16' & 1'	77 (0)	91 (0)	
[illegible] Org	28 (0)	20 (0)		079	Pop Organ	78 (0)	90 (0)	
[illegible] Gtr	29 (0)	20 (16)		080	Rock Organ	79 (0)	92 (32)	19
Folk Guitar	30 (0)	22 (0)	26	081	Pipe Organ	80 (0)	84 (0)	20
[illegible] Nylon Gtr	31 (0)	23 (0)		082	TheatreOrgan	81 (0)	87 (32)	
[illegible]	32 (0)	25 (32)		083	Harmonium	82 (0)	86 (32)	21
[illegible] Guitar	33 (0)	26 (0)	27	084	BrtAccordion	83 (0)	80 (0)	22
[illegible] Solid	34 (0)	28 (0)	28	085	MlwAccordion	84 (0)	81 (0)	
Mellow Solid	35 (0)	28 (0)		086	Musette	85 (0)	82 (0)	
[illegible] Solid	36 (0)	28 (16)		087	Bandoneon	86 (0)	80 (16)	24
[illegible] Guitar	37 (0)	29 (0)	29	088	Brass	87 (0)	56 (0)	62
[illegible] Guitar	38 (0)	30 (0)	31	089	Brass&Synth	88 (0)	56 (48)	
[illegible]	39 (0)	27 (32)	30	090	Octave Brass	89 (0)	56 (16)	
RockHarmonic	40 (0)	27 (16)		091	SynthBrass 1	90 (0)	60 (0)	63
[illegible]	41 (0)	31 (16)		092	SynthBrass 2	91 (0)	63 (48)	
[illegible] Gtr	42 (0)	31 (0)		093	SynthBrass 3	92 (0)	62 (64)	64
Banjo	43 (0)	33 (0)	106	094	Trumpet	93 (0)	48 (0)	57
Mandolin	44 (0)	35 (0)		095	Solo Trumpet	94 (0)	48 (64)	
Harp	45 (0)	32 (0)	47	096	Mute Trumpet	95 (0)	50 (0)	60
[illegible] Hit	46 (0)	127 (16)	56	097	Flugel Horn	96 (0)	51 (0)	
[illegible]	47 (0)	126 (0)	48	098	Brt Trombone	97 (0)	52 (0)	58
Music Box	48 (0)	7 (0)	11	099	Mlw Trombone	98 (0)	53 (0)	
Koto	49 (0)	37 (0)	108	100	Clsd Fr.Horn	99 (0)	54 (0)	

SOUND (KN920/KN1500)

NO.	SOUND	MIDI PROGRAM CHANGE DATA			NO.	SOUND	MIDI PROGRAM CHANGE DATA		
		NORM	TECH	GM			NORM	TECH	GM
101	Open Fr.Horn	100 (0)	54 (16)	61	151	Charang	22 (1)	27 (48)	85
102	MarchingTuba	101 (0)	55 (16)	59	152	Olymp Synth	23 (1)	80 (64)	
103	Soprano Sax	102 (0)	76 (0)	65	153	5th Wave	24 (1)	119 (0)	87
104	Alto Sax	103 (0)	77 (0)	66	154	Bass & Lead	25 (1)	48 (32)	88
105	Mellow Alto	104 (0)	77 (16)		155	Synth Harp	26 (1)	32 (64)	
106	Tenor Sax	105 (0)	78 (48)	67	156	Crystal	27 (1)	9 (32)	99
107	BreathyTenor	106 (0)	78 (16)		157	Mlw Ensemble	28 (1)	107 (16)	90
108	Rock Tenor	107 (0)	79 (0)		158	Warm Syn Pad	29 (1)	62 (80)	
109	Baritone Sax	108 (0)	79 (16)	68	159	Synth Vocal	30 (1)	107 (0)	85
110	Jz Clarinet	109 (0)	68 (0)	72	160	Spacy Pad	31 (1)	107 (32)	92
111	ClasClarinet	110 (0)	69 (0)		161	Metal Pad	32 (1)	108 (32)	94
112	Oboe	111 (0)	66 (0)	69	162	Star Theme	33 (1)	120 (16)	104
113	English Horn	112 (0)	67 (0)	70	163	Bowed Glass	34 (1)	120 (0)	93
114	Bassoon	113 (0)	70 (0)	71	164	Atmosphere	35 (1)	21 (48)	100
115	Harmonica	114 (0)	83 (0)	23	165	Fantasia	36 (1)	116 (48)	89
116	Blues Harm	115 (0)	83 (16)		166	Dream	37 (1)	108 (32)	
117	Bagpipe	116 (0)	73 (0)	110	167	Mist	38 (1)	109 (48)	101
118	Shanai	117 (0)	73 (16)	112	168	Sweep Pad	39 (1)	62 (32)	95
119	Piccolo	118 (0)	64 (0)	73	169	Halo Pad	40 (1)	107 (48)	96
120	Jazz Flute	119 (0)	65 (0)	74	170	Echo Drops	41 (1)	106 (48)	103
121	Clas Flute	120 (0)	65 (16)		171	Poly Synth	42 (1)	102 (32)	91
122	Alto Flute	121 (0)	64 (16)		172	Ice Rain	43 (1)	121 (48)	97
123	Pan Flute	122 (0)	72 (0)	76	173	Soundtrack	44 (1)	119 (16)	98
124	Syn Calliope	123 (0)	72 (48)	83	174	Goblins	45 (1)	106 (0)	102
125	Recorder	124 (0)	74 (0)	75	175	Agogo	46 (1)	122 (0)	114
126	Ocarina	125 (0)	74 (16)	80	176	Wood Block	47 (1)	122 (16)	116
127	Blown Bottle	126 (0)	72 (32)	77	177	Taiko Drum	48 (1)	123 (48)	117
128	Whistle	127 (0)	111 (0)	79	178	Melodic Tom	49 (1)	122 (32)	118
129	Shakuhachi	0 (1)	75 (0)	78	179	Synth Drum	50 (1)	124 (0)	119
130	AcousticBass	1 (1)	43 (0)	33	180	Rev Cymbal	51 (1)	122 (48)	120
131	Elect Bass	2 (1)	40 (0)		181	Fret Noise	52 (1)	124 (16)	121
132	Bright Bass	3 (1)	40 (16)	34	182	Breath Noise	53 (1)	124 (32)	122
133	Fusion Bass	4 (1)	40 (64)		183	Seashore	54 (1)	124 (48)	123
134	Funky E.Bass	5 (1)	40 (48)		184	Bird Tweet	55 (1)	125 (32)	124
135	FretlessBass	6 (1)	40 (32)	36	185	Telephone	56 (1)	123 (0)	125
136	Picked Bass	7 (1)	42 (0)	35	186	Helicopter	57 (1)	123 (16)	126
137	Mute Bass	8 (1)	47 (0)		187	Applause	58 (1)	125 (48)	127
138	Slap Bass 1	9 (1)	41 (0)	37	188	Gun Shot	59 (1)	123 (32)	128
139	Slap Bass 2	10 (1)	41 (16)	38	189	Jazz Kit	60 (1)	113 (128)	
140	Analog Bass	11 (1)	46 (16)		190	Brush Kit	61 (1)	117 (128)	
141	Soul Bass	12 (1)	42 (16)		191	Standard Kit	62 (1)	112 (128)	
142	Wow Bass	13 (1)	46 (0)	39	192	Room Kit	63 (1)	115 (128)	
143	Dance Bass	14 (1)	47 (48)		193	LightRockKit	64 (1)	126 (128)	
144	House Bass	15 (1)	47 (32)		194	Power Kit	65 (1)	110 (128)	
145	Plastic Bass	16 (1)	46 (80)	40	195	Funk Kit	66 (1)	120 (128)	
146	Square Lead	17 (1)	117 (0)	81	196	Dance Kit	67 (1)	122 (128)	
147	Saw Lead	18 (1)	118 (16)	82	197	House Kit	68 (1)	123 (128)	
148	Sine Lead	19 (1)	94 (0)		198	Soul Kit	69 (1)	121 (128)	
149	Air Vox	20 (1)	106 (16)	86	199	Electric Kit	70 (1)	114 (128)	
150	Chiffer Lead	21 (1)	117 (32)	84	200	Orch Kit	71 (1)	124 (128)	

• The numbers in parentheses ( ) are bank data.
Program change number=Program change data+1/Bank number=Bank data+1

NO.	RHYTHM	MIDI PROGRAM CHANGE DATA NORM	TECH
	[illegible]	0	90 (0)
	[illegible]	1	90 (112)
	[illegible]	2	91 (32)
	[illegible]	3	91 (64)
	[illegible]	4	84 (64)
	[illegible]	5	84 (96)
	[illegible]	6	86 (48)
	[illegible]	7	99 (32)
	[illegible]	8	96 (96)
	[illegible]	9	96 (64)
	[illegible]	10	101 (32)
012	[illegible]	11	99 (16)
	[illegible]	12	99 (112)
	E.P. Ballad	13	99 (0)
015	16 PopBallad	14	107 (80)
	[illegible]	15	100 (32)
	[illegible]	16	72 (80)
	Swing Rock 2	17	72 (64)
	Rock n Roll	18	80 (80)
	Piano R&Roll	19	80 (96)
021	Twist	20	76 (32)
	[illegible]	21	76 (16)
	[illegible]	22	76 (112)
	Shuffl Boogie	23	76 (0)
	70's Shuffle	24	79 (32)
025	Shufl Ballad	25	78 (32)
026	Rock Ballad	26	74 (80)
	[illegible]	27	75 (64)
	Rhythm&Blues	28	123 (80)
	Hard Rock	29	92 (32)
	Shuffl H Rock	30	79 (16)
	Soul	31	81 (32)
	8 Beat Soul	32	87 (16)
	Soul Shuffle	33	77 (80)
	[illegible]	34	102 (64)
	[illegible]	35	75 (0)
036	16 Beat Soul	36	103 (32)
037	Funk	37	110 (48)
	[illegible]	38	85 (32)
	Jazz Funk 1	39	112 (48)
	Jazz Funk 2	40	113 (64)
	Jazz Rock 1	41	113 (96)
	Jazz Rock 2	42	113 (80)
043	Latin Rock	43	118 (48)
044	Samba Rock 1	44	116 (48)
045	Samba Rock 2	45	117 (16)
046	Salsa	46	86 (64)
047	Latin Pop	47	116 (16)
	Euro Beat	48	124 (112)
	Disco 1	49	124 (80)

NO.	RHYTHM	MIDI PROGRAM CHANGE DATA NORM	TECH
051	Disco 2	50	123 (64)
052	Disco Samba	51	120 (64)
053	Dance	52	124 (96)
054	House	53	125 (32)
055	Techno	54	126 (48)
056	Hip Hop	55	127 (80)
057	Garage	56	125 (48)
058	Rap	57	127 (112)
059	Ballroom Fox	58	29 (16)
060	Euro Fox	59	29 (32)
061	Paris Ballad	60	74 (96)
062	Chanson Fox	61	29 (64)
063	Quickstep	62	28 (16)
064	Jive	63	29 (0)
065	BigBand Fast	64	36 (64)
066	BigBand Mid	65	38 (80)
067	Dance Band	66	39 (48)
068	BigBand Slow	67	38 (112)
069	Swing Combo	68	25 (32)
070	Orch.Swing	69	37 (32)
071	Jazz Waltz 1	70	46 (48)
072	Jazz Waltz 2	71	46 (64)
073	Swingy Waltz	72	12 (16)
074	Jazz Combo	73	34 (80)
075	Euro Combo	74	34 (64)
076	Jazz Quartet	75	32 (64)
077	Jazz Quintet	76	34 (96)
078	Jazz Ballad	77	44 (16)
079	BoogieWoogie	78	31 (0)
080	Modern Jazz	79	40 (80)
081	BroadwayShow	80	15 (64)
082	Hollywood	81	30 (16)
083	Soft Shoe	82	24 (80)
084	Caberet	83	15 (48)
085	Country2Step	84	17 (112)
086	CountryPiano	85	75 (48)
087	CountrySwing	86	17 (80)
088	Bluegrass	87	20 (48)
089	Country Pop	88	85 (48)
090	CountryRock1	89	85 (64)
091	CountryRock2	90	85 (32)
092	CountryRock3	91	18 (16)
093	Dixie Band	92	24 (96)
094	Gospel Shufl	93	77 (64)
095	GospelBallad	94	75 (112)
096	Gospel 4／4	95	77 (96)
097	Gospel 3／4	96	19 (16)
098	Slow Blues	97	75 (32)
099	Hawaiian	98	22 (16)
100	US March 2／4	99	0 (80)

RHYTHM

NO.	RHYTHM	MIDI PROGRAM CHANGE DATA		NO.	RHYTHM	MIDI PROGRAM CHANGE DATA	
		NORM	TECH			NORM	TECH
101	GrmnMarch2 / 4	100	1 (48)	115	Modern Mambo	114	56 (32)
102	US March 6 / 8	101	2 (16)	116	Carib	115	116 (64)
103	Pop March	102	4 (64)	117	Swing Reggae	116	71 (32)
104	Polka 2 / 4	103	4 (32)	118	ModernReggae	117	71 (48)
105	Waltz	104	8 (112)	119	Bossanova 1	118	48 (0)
106	Ballroom 3 / 4	105	13 (32)	120	Bossanova 2	119	48 (112)
107	ChansonWaltz	106	11 (32)	121	Samba	120	51 (96)
108	Vienna Waltz	107	9 (32)	122	Modern Samba	121	51 (80)
109	Rhumba	108	58 (64)	123	Merengue	122	57 (16)
110	RumbaPianist	109	58 (80)	124	Tango Argent	123	53 (48)
111	Beguine	110	59 (32)	125	Tango Europe	124	53 (64)
112	Bolero	111	58 (32)	126	Arabian	125	60 (0)
113	Cha Cha	112	57 (48)	127	Keroncong	126	60 (80)
114	Mambo	113	56 (64)	128	Dangdut	127	60 (64)

• The numbers in parentheses ( ) are bank data.
Program change number=Program change data+1/Bank number=Bank data+1

STANDARD PERCUSSION

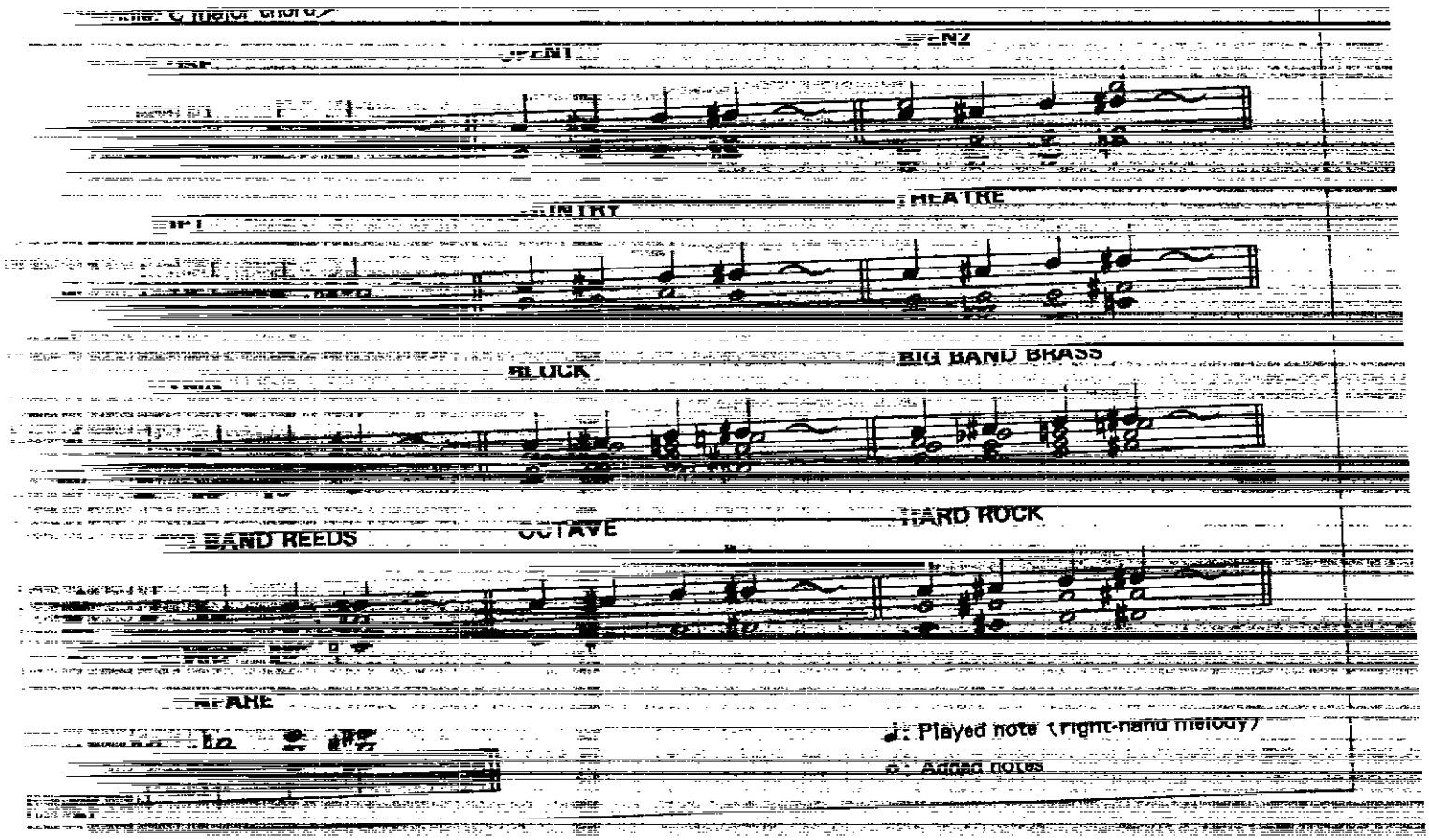
Other kits	MIDI NOTE NUMBER		Orch kit	MIDI NOTE NUMBER	
	NORM	TECH		NORM	TECH
	—	—		—	—
Bass Drum	36	36	Orchestral Bass Drum	36	36
Rim Shot	37	47	Rim Shot	37	47
[illegible]	38	38	Orchestral Snare Drum 1	38	38
Special Snare Drum	39	31	Castanets	39	55
Snare Drum 2	40	32	Orchestral Snare Drum 2	40	32
Floor Tom	41	95	Triangle	41	57
Splash Cymbal	42	24	Cymbal Soft Mallet	42	24
Tom Low	43	41	Ohchestral Tambourine	43	21
Crash Cymbal Low	44	51	Orchestral Cymbal 1	44	51
Tom Mid	45	43	Tam-Tam	45	30
Crash Cymbal High	46	25	Orchestral Cymbal 2	46	25
Tom High	47	45	Rattle	47	58
Hat Close 1	48	48	Tubiar Bells C	48	84
Hat Close 2	49	49	Tubiar Bells C'	49	85
Hat Open	50	50	Tubiar Bells D	50	86
Ride Bell	51	28	Tubiar Bells D'	51	87
Ride Cymbal	52	52	Tubiar Bells E	52	88
Conga Low	53	53	Tubiar Bells F	53	89
Small Conga Low	54	54	Tubiar Bells F'	54	90
Conga High	55	55	Tubiar Bells G	55	91
High Conga High	56	56	Tubiar Bells G'	56	92
Maraca Crash	57	57	Tubiar Bells A	57	93
Metal Cabasa	58	58	Tubiar Bells A'	58	94
Timbales Low	59	99	Tubiar Bells B	59	95
Timbales High	60	100	Tubiar Bells c	60	96
Cowbell Low	61	60	Tubiar Bells c'	61	97
Cowbell High	62	62	Tubiar Bells d	62	98
Agogo Low	63	102	Tubiar Bells d'	63	99
Agogo High	64	101	Timpani E	64	64
Whistle Low	65	65	Timpani F	65	65
Samba Whistle High	66	66	Timpani F'	66	66
Claves	67	67	Timpani G	67	67
Slap	68	68	Timpani G'	68	68
Hand Claps	69	69	Timpani A	69	69
Tambourine	70	74	Timpani A'	70	70
Cuica	71	96	Timpani B	71	71
Triangle Mute	72	108	Timpani c	72	72
Maracas	73	105	Timpani c'	73	73
Triangle Open	74	107	Timpani d	74	74
Guiro Short	75	77	Timpani d'	75	75
Guiro Long	76	78	Timpani e	76	76
Orchestral Bass Drum	77	85	Timpani f	77	77
Orchestral Snare Drum	78	86	Wood Block Low	78	115
Orchestral Cymbal	79	87	Wood Block Mid	79	116
Wind Chime	80	29	Wood Block High	80	117
Scratch 1	81	118	Hi Hat Close 1	81	48
Vibraslap	82	111	Hi Hat Close 2	82	49
Scratch 2	83	119	Hi Hat Open	83	50

KEYBOARD PERCUSSION

	General MIDI	MIDI NOTE NUMBER
	Bass Drum 2*	35
	Bass Drum 1	36
	Rim Shot	37
	Snare Drum 1	38
	Hand Claps	39
	Snare Drum 2	40
	Floor Tom Low	41
	Hi Hat Close	42
	Floor Tom High	43
	Hi Hat Pedal	44
	Tom Low	45
	Hi Hat Open	46
	Tom Mid	47
	Tom High 1	48
	Crash Cymbal 1	49
	Tom High 2	50
	Ride Cymbal 1	51
	China Cymbal	52
	Ride Bell	53
	Tambourine	54
	Splash Cymbal	55
	Cowbell	56
	Crash Cymbal 2	57
	Vibraslap	58
	Ride Cymbal 2	59
	Bongo High	60
	Bongo Low	61
	Conga Mute Crash	62
	Conga High	63
	Conga Low	64
	Timbales High	65
	Timbales Low	66
	Agogo High	67
	Agogo Low	68
	Cabasa	69
	Maracas	70
	Samba Whistle Short	71
	Samba Whistle Long	72
	Guiro Short	73
	Guiro Long	74
	Claves	75
	Wood Block Mid	76
	Wood Block Low	77
	Cuica High	78
	Cuica Low	79
	Triangle Mute	80
	Triangle Open	81
	Shaker	82
	Sleigh Bell	83

* Sounds in SEQUENCER and MIDI function.

RNT-CHORD TYPE



REVERB

Room 1, 2	Reverberations sound as if produced in a room (indoors).	Volume Rev Time Pre Delay High Damp Early Ref	(KN620 /KN1500)	0 – 99 0.10 – 10 S 0 – 200 ms −24 – 0 dB 0 – 99
Plate 1, 2	A type of reverberation obtained from a reverb unit which utilizes the vibrations of a metal plate.	Volume Rev Time Pre Delay High Damp Early Ref	(KN620 /KN1500)	0 – 99 0.10 – 10 S 0 – 200 ms −24 – 0 dB 0 – 99
Concert 1, 2	Reverberations sound as if produced in a concert hall.	Volume Rev Time Pre Delay High Damp Early Ref	(KN620 /KN1500)	0 – 99 0.40 – 30 S 0 – 200 ms −24 – 0 dB 0 – 99
[illegible] 1, 2 (KN620/KN1500)	Reverberations evoke [illegible]			
Wave 1, 2 (KN620/KN1500)	Reverberations evoke [illegible]			

Volume : Volume of the reverb.
Rev Time : The time it takes for the reverb effect to fade out.
Pre Delay : The time elapsed between the beginning of the reverb effect.
High Damp : Adjusts the degree of damping in the treble range.
Early Ref : Adjusts the early-reflection level.

[illegible] (KN720)

[illegible]	[illegible] fullness and richness is achieved by [illegible] slightly different pitch to the [illegible] sound.	Volume	0 – 99
		Depth	0 – 99
		LFO Spd	0 – 99

Volume : Volume of the sound to the effect is applied.
Depth : Depth of the effect.
LFO Spd : Transmission frequency of the LFO (low frequency oscillator) modulator.

[illegible] MODULATED CHORUS	[illegible] frequency modulated chorus in which the swell is emphasized.	Volume	0 – 99
		Depth	0 – 99
		Slow LFO	0 – 99
		Fast LFO	0 – 99

[illegible] LFO : Speed of the Slow LFO
[illegible] LFO : Balance of the Fast LFO

[illegible]	[illegible] full, wide effect of many instruments playing in unison.	[illegible]	0 – 99
		Depth	0 – 99
		LFO Spd	0 – 99

Mod Celes MODULATED CELESTE	A differently modulated celeste in which the swell is emphasized.	Volume	0 – 99
		Depth	0 – 99
		Slow LFO	0 – 99
		Fast LFO	0 – 99

Flanger	[illegible] modulation is added, giving an intensity to [illegible] having many overtones (harmonics).	[illegible]	0 – 99
		LFO Spd	0 – 99
		Resonance	–99 – +99
		Manual	0 – 99

[illegible] : Feedback volume (inverted when a minus value)
[illegible] : Center frequency to which the effect is applied.

[illegible] Vibrato	Modulates frequency in a vibrato pattern.	[illegible]	0 – 99
		Depth	0 – 99
		LFO Spd	0 – 99

DSP EFFECT (KN920/KN1500)

Chorus	A natural fullness and richness is achieved by adding a sound of a slightly different pitch to the original sound.	Volume Rev Send Depth LFO Spd	0 – 99 0 – 99 0 – 99 0 – 99

Volume : Volume of the sound to the effect is applied.
Rev Send : The volume sent to DIGITAL REVERB.
Depth : Depth of the effect.
LFO Spd : Transmission frequency of the LFO (low frequency oscillator) modulator.

Mod Chor (MODULATED CHORUS)	A differently modulated chorus in which the swell is emphasized.	Volume Rev Send Depth Slow LFO Fast LFO	0 – 99 0 – 99 0 – 99 0 – 99 0 – 99

Slow LFO : Speed of the Slow LFO.
Fast LFO : Balance of the Fast LFO.

Flanger	An undulation is added, giving an intensity to sounds having many overtones (harmonics).	Volume Rev Send LFO Spd Resonanc Manual	0 – 99 0 – 99 0 – 99 –99 – +99 0 – 99

Resonanc : Feedback volume (inverted when a minus value).
Manual : Center frequency to whitch the effect is applied.

Phaser	A more distinct undulation effect than FLANGER. Ideal for electric piano type sounds.	Volume Rev Send LFO Spd Resonanc Manual	0 – 99 0 – 99 0 – 99 –99 – +99 0 – 99

Ensemble	Produces the effect of many musical instruments being played together.	Volume Rev Send Depth LFO Spd	0 – 99 0 – 99 0 – 99 0 – 99

Sngl Dly (SINGLE DELAY)	An echo effect, in which the original sound is repeated after a delay.	Volume Rev Send Delay L Delay R FBack L FBack R	0 – 99 0 – 99 0 – 350 ms 0 – 350 ms –99 – +99 –99 – +99

Delay : Time difference between original sound and the repeat (ms).
FBack : Feedback volume (inverted when a minus level).

Distortn (DISTORTION)	The sound is very distorted. A powerful effect when applied to a sound which is played solo.	Volume Rev Send Drive Adjust	0 – 99 0 – 99 0 – 99 0 – 99

Drive : Degree of distortion.
Adjust : The manner in which the effect is applied.

Overdriv (OVERDRIVE)	A more natural distortion than the above effect, similar to that achieved with a vacuum tube amplifier.	Volume Rev Send Drive Adjust	0 – 99 0 – 99 0 – 99 0 – 99

EFFECT (KN920 / KN1500)

	sounds, clarifies sound profile, and	Rev Send	0	99
	sound forward.			
	The volume of the emphasis			
		Band 1 fc	50 Hz	16kHz
		Band 1 Q	0.1	20
		Band 1 Gain	-12	+12 dB
	An equalizer which sets sound quality for a precise			
PARAMETRIC EQ	frequency point.	Band 2 fc	50 Hz	16kHz
		Band 2 Q	0.1	20
		Band 2 Gain	-12	+12 dB
		Band 3 fc	50 Hz	16kHz
		Band 3 Q	0.1	20
		Band 3 Gain	-12	+12 dB

fc: Center frequency of the modified band.
Q: Sharpness of the curve of the frequency characteristic of the modified band.
Gain: Volume of emphasis / dambing in the modified band.

	Periodically shifts the sound's pan position.	Rev Send	0	99
Vibrato	Modulates frequency in a vibrato pattern.	Rev Send	0	99
	effect which automatically changes peak	Volume	0	99
Auto Wah	frequency in response to an increase in the volume	Rev Send	0	99
	the input.			
			SLW/FST	
		Rev Send	0	99
		Wah Type	Fast	0
	sounds that seem to be emitted from			99
	s, ideal for organ type sounds.	Bass Type	Fast	0
				99
		Drive	0	99
		Balance	0	99

Rotation speed between Slw (SLOW) and Fst (FAST).

DSP EFFECT (KN920/KN1500)

Ring Mod (RING MODULATOR)	Produces a metallic sound. Tends to sound off key.	Volume Rev Send OSC Spd	0 – 99 0 – 99 0 – 99

OSC Spd : Oscillator frequency.

Dly+Chor (DELAY+CHORUS)	Combines delay with chorus.	Volume Rev Send Dly d/w Delay L Delay R FBack L FBack R Chor d/w Depth LFO Spd	0 – 99 0 – 99 0 – 99 0 – 300 ms 0 – 300 ms –99 – +99 –99 – +99 0 – 99 0 – 99 0 – 99

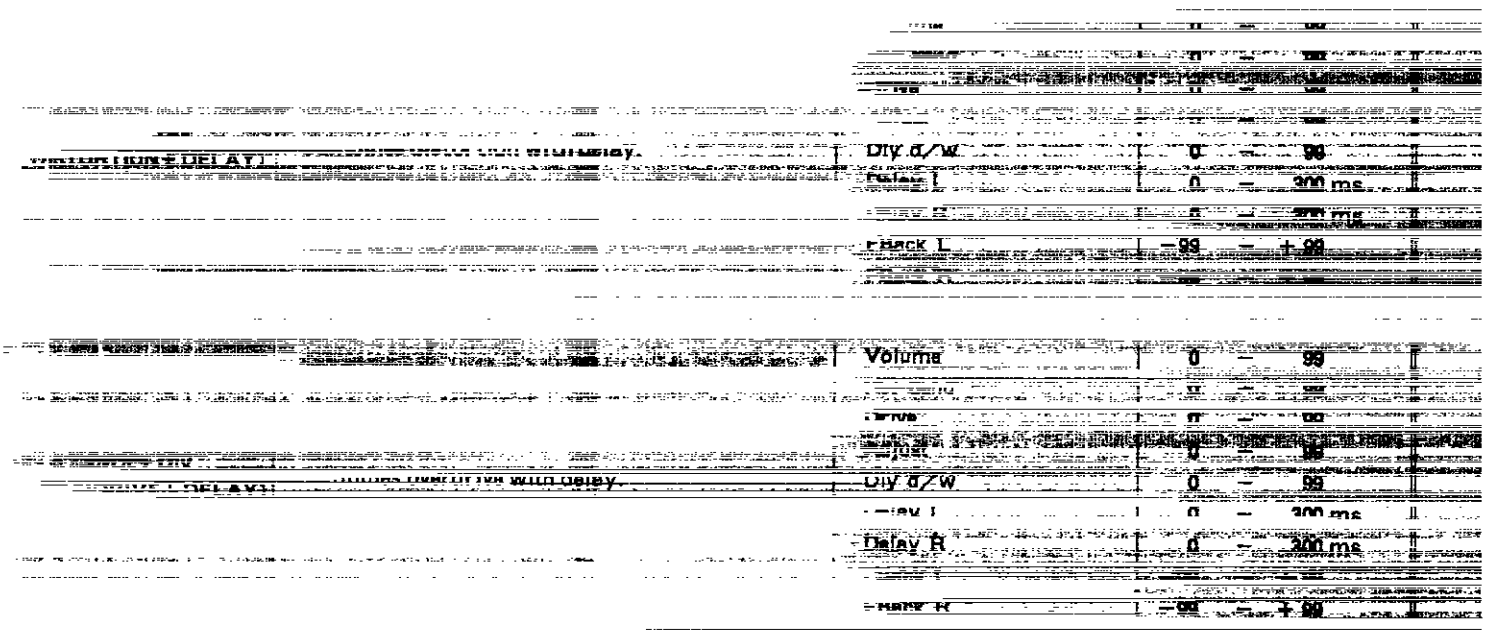
d/w : The proportion at which the original sound and the effect-altered sound are mixed.

Dly+Flan (DELAY+FLANGER)	Combines delay with flanger.	Volume Rev Send Dly d/w Delay L Delay R FBack L FBack R Flan d/w LFO Spd Resonanc Manual	0 – 99 0 – 99 0 – 99 0 – 300 ms 0 – 300 ms –99 – +99 –99 – +99 0 – 99 0 – 99 –99 – +99 0 – 99

Dly+Phas (DELAY+PHASER)	Combines delay with phaser.	Volume Rev Send Dly d/w Delay L Delay R FBack L FBack R Phas d/w LFO Spd Resonanc Manual	0 – 99 0 – 99 0 – 99 0 – 300 ms 0 – 300 ms –99 – +99 –99 – +99 0 – 99 0 – 99 –99 – +99 0 – 99

AWah+Dly (AUTO WAH+DELAY)	Combines auto wah with delay.	Volume Rev Send Dly d/w Delay L Delay R FBack L FBack R	0 – 99 0 – 99 0 – 99 0 – 300 ms 0 – 300 ms –99 – +99 –99 – +99

DSP EFFECT (KN920/KN1500)



MIDI Implementation Chart

Keyboard [SX－KN720／SX－KN920／SX－KN1500] (Transmitted)

Function		RIGHT1,2,LEFT, PART4～15	PART16	ACMP1	ACMP2,3	BASS	DRUMS	CHORD	CONTROL	Remarks
Basic Channel	Default	1-16	1-16	1-16	1-16	1-16	1-16	1-16	1-16	memorized
	Changed	1-16	1-16	1-16	1-16	1-16	1-16	1-16	1-16	
Mode	Default	3	3	3	3	3	3	3	3	OMNI OFF,POLY MODE
	Messages	×	×	×	×	×	×	×	×	
	Altered	–	–	–	–	–	–	–	–	
Note Number		0-119	0-119	0-119	0-119	0-119	0-119	0-119	–	Changes depending on the position of the transpose control, octave shift, and drums type.
	True voice	–	–	–	–	–	–	–	–	
Velocity	Note ON	○	○	○	○	○	○	○	–	
	Note OFF	×	×	×	×	×	×	×	–	
After Touch	Key's	×	×	×	×	×	×	×	–	Transmitted during SEQUENCER playback.
	Ch's	○×*	×	×	×	×	×	×	–	
Pitch Bend		○×*	×	○×*	○×*	○×*	×	○×*	×	
Control Change	0,32	○×*	○×*	○×*	○×*	○×*	○×*	○×*	×	bank select MSB, LSB
	1	○×*	×	○×*	○×*	○×*	×	○×*	×	modulation
	6,38	○×*	×	×	×	×	×	×	×	data entry MSB, LSB
	7	○×*	○×*	○×*	○×*	○×*	○×*	○×*	×	volume
	10	○×*	×	○×*	○×*	○×*	×	×	×	panpot
	11	○×*	○×*	○×*	○×*	○×*	○×*	×	○×*	expression
	64	○×*	×	○×*	○×*	○×*	×	×	×	sustain
	80	×	×	○×*	×	×	×	×	×	auto play chord
	82	×	×	×	×	×	○×*	×	×	intro, fill in, ending
	91	○×*	○×*	○×*	○×*	○×*	○×*	○×*	○×*	reverb
	93	○×*	○×*	×	×	×	×	×	×	DSP effect／Chorus
	94	○×*	×	○×*	○×*	○×*	×	○×*	×	digital effect
	100,101	○×*	×	×	×	×	×	×	×	RPN LSB, MSB
	120	○	○	×	×	×	×	×	×	all sound off
	121	○×*	○×*	×	×	×	×	×	×	reset all controllers
Prog Change		○×*	○×*	○×*	○×*	○×*	○×*	○×*	×	Changes depending on program change mode and prog.chg to p.mem.
	True #	–	–	–	–	–	–	–	–	
System exclusive		○								
System common	Song Pos	○×*								
	Song Sel	○×* (0-19)								
	Tune	×								
System Real Time	Clock	○								
	Commands	○×*								start／stop,continue
Aux Messages	Local ON／OFF	×	×	×	×	×	×	×	–	
	All notes OFF	×	×	×	×	×	×	×	–	
	Active Sense	○								
	Reset	×								
Notes		○×*……Whether or not the data for each of these items is transmitted can be set.								

Mode 1: OMNI ON, POLY　　Mode 2: OMNI ON, MONO　　○:Yes

Mode 3: OMNI OFF, POLY　　Mode 4: OMNI OFF, MONO　　×:No

MIDI Implementation Chart

		PART16	ACMPT	ACMP2,3	BASS	DRUMS	CHORD	CONTROL	Remarks
	1-16	1-16	1-16	1-16	1-16	1-16	1-16	1-16	memorized
Changed	1-16	1-16	1-16	1-16	1-16	1-16	1-16	1-16	
	3	3	3	3	3	3	3	3	OMNI OFF,POLY MODE
Messages	X	X	X	X	X	X	X	X	
	–	–	–	–	–	–	–	–	
	0-127	0-127	0-127	0-127	0-127	0-127	0-127	–	Changes depending on the position of the transpose control,octave shift, and drums type.
True voice	0-127	0-127	0-127	0-127	0-127	0-127	0-127	–	
ON	O	O	O	O	O	O	O	–	
OFF	X	X	X	X	X	X	X	–	
	X	X	X	X	X	X	X	–	
	OX*	X	X	X	X	X	X	–	
	OX*	X	OX*	OX*	OX*	X	OX*	X	
	OX*	OX*	OX*	OX*	OX*	OX*	OX*	X	bank select MSB, LSB
	OX*	X	OX*	OX*	OX*	X	OX*	X	modulation
	OX*	X	X*	X*	X*	X	X	X	data entry MSB, LSB
	OX*	OX*	OX*	OX*	OX*	OX*	OX*	X	volume
	OX*	X	OX*	OX*	OX*	X	X	X	panpot
	OX*	OX*	OX*	OX*	OX*	X	X	OX*	expression
							X	X	sustain
	O	O	X	X	X	O*	X	X	auto play chord
	OX*	OX*	OX*	OX*	OX*	OX*	OX*	OX*	intro, fill in, ending
						X	X	X	reverb
	OX*	OX*	OX*	OX*	OX*	X	OX*	X	DSP effect / Chorus
	X	X	X	X	X	X	X	X	digital effect
	O	O	O	O	O	O	O	X	RPN LSB, MSB
	OX*	OX*	OX*	OX*	OX*	OX*	OX*	X	all sound off
	OX	OX	OX*	OX*	OX*	OX*	OX*	X	reset all cotrollers
	0-127	0-127	0-127	0-127	0-127	0-127	0-127	–	Changes depending on program change mode and prog.cng to p.mem.

				O					
				OX* (0-19)					
				X					
				O					
				OX*					start / stop continue
	X	X	X	X	X	X	X	–	
All notes OFF	O	O	O	O	O	O	O	–	
				O					
				X					

* Whether or not the data for each of these items is received can be set.

ACCOMPT, 2, 3, BASS: Receptions of PITCH BEND, BANK SELECT, MODULATION, PANPOT, EXPRESSION, SUSTAIN, DIGITAL EFFECT, PROGRAM CHANGE

* Available only during COMPOSER record.

Mode 1:	OMNI ON, POLY	Mode 2:	OMNI ON, MONO
Mode 3:	OMNI OFF, POLY	Mode 4:	OMNI OFF, MONO

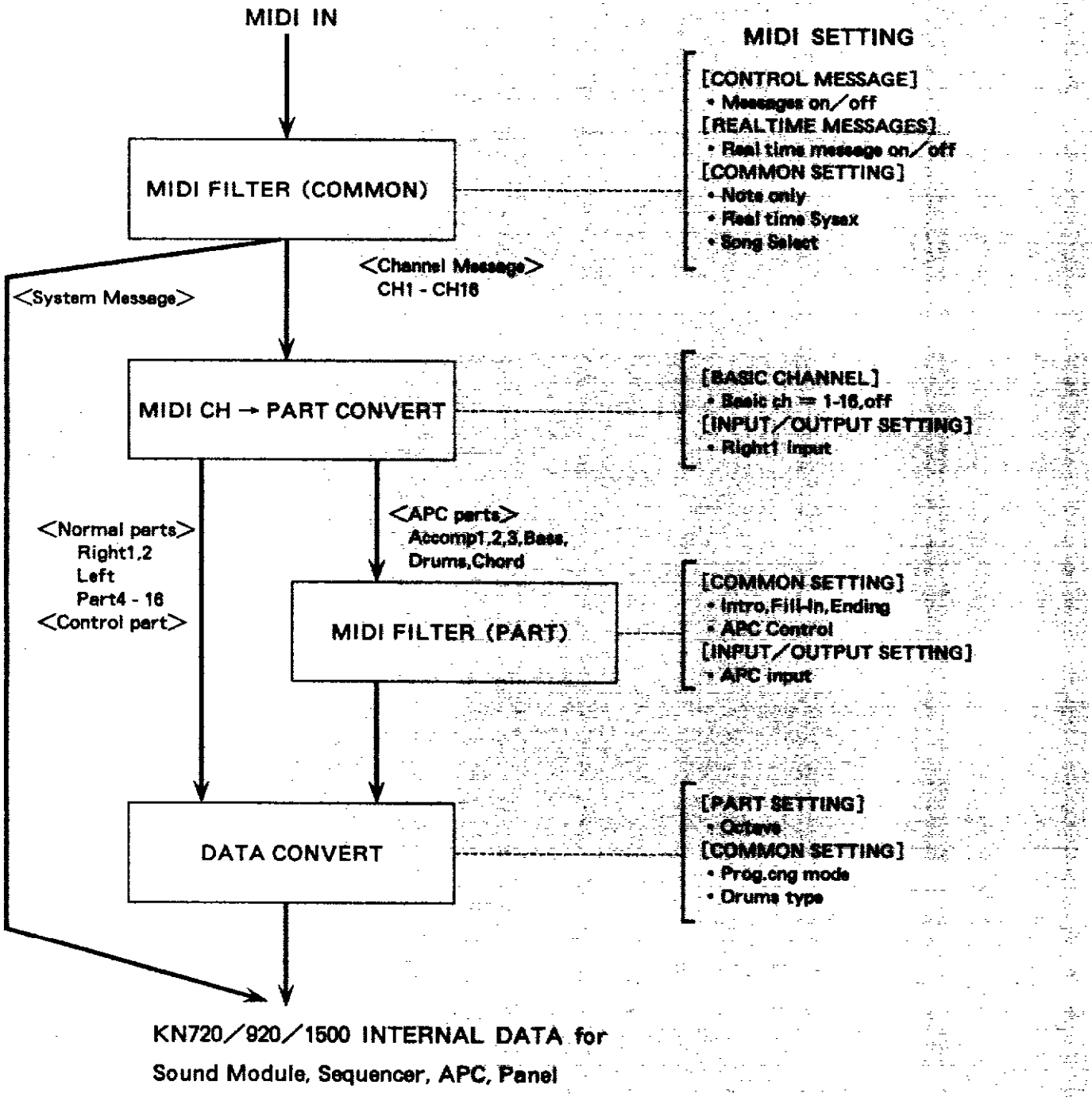
O: Yes

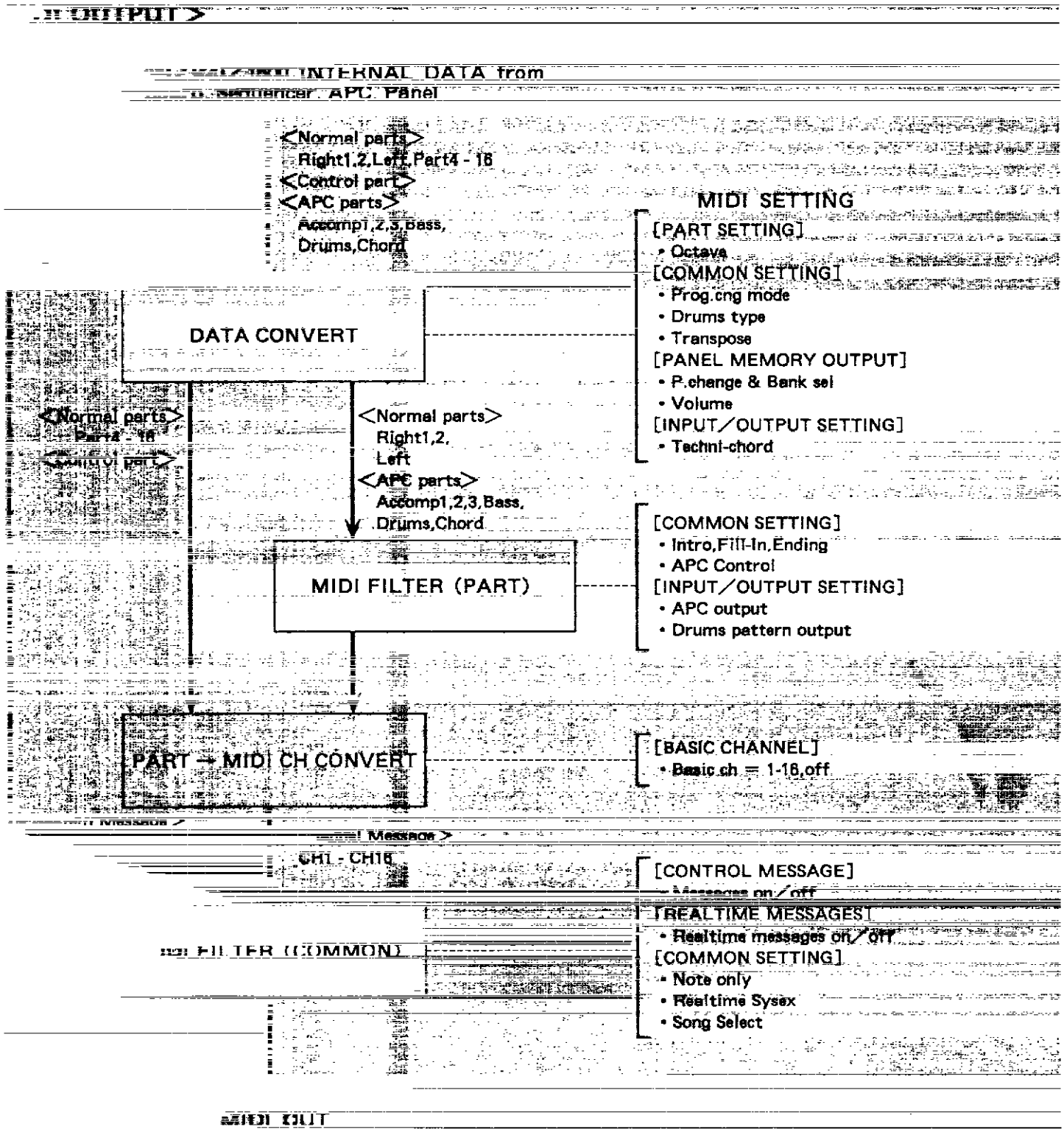
X: No

MIDI DATA FORMAT

MIDI DATA FLOWCHART

<MIDI INPUT>




INTERNAL DATA from
APC Panel
<Normal parts>
Right1,2,Left,Part4 - 16
<Control part>
<APC parts>
Accomp1,2,3,Bass,
Drums,Chord
MIDI SETTING
[PART SETTING]
• Octave
[COMMON SETTING]
• Prog.cng mode
• Drums type
• Transpose
[PANEL MEMORY OUTPUT]
• P.change & Bank sel
• Volume
[INPUT/OUTPUT SETTING]
• Techni-chord
DATA CONVERT
<Normal parts>
Part4 - 16
<Control part>
<Normal parts>
Right1,2,
Left
<APC parts>
Accomp1,2,3,Bass,
Drums,Chord
[COMMON SETTING]
• Intro,Fill-In,Ending
• APC Control
[INPUT/OUTPUT SETTING]
• APC output
• Drums pattern output
MIDI FILTER (PART)
PART → MIDI CH CONVERT
[BASIC CHANNEL]
• Basic ch = 1-16,off
Message
CH1 - CH16
[CONTROL MESSAGE]
[REALTIME MESSAGES]
• Realtime messages on/off
[COMMON SETTING]
• Note only
• Realtime Sysex
• Song Select
MIDI OUT

Message format

■Channel voice message

Note off

8nH	Note off status
kk	Note number
vv	Velocity

n: 0－F Basic channel
kk: 00H－7FH Note number
vv: 00H－7FH Velocity
•This status is not used during transmission; rather, velocity＝0 is transmitted with the note on status.

Note on

9nH	Note on status
kk	Note number
vv	Velocity

n: 0－F Basic channel
kk: 00H－7FH Note number
vv: 01H－7FH Velocity
00H Note off

■Control change

Bank select

BnH	Control change status
00H	Bank select (MSB)
mm	Bank select value (MSB)
(BnH)	Control change status
20H	Bank select (LSB)
ll	Bank select value (LSB)

n: 0－F Basic channel
mm,ll : 00H－7FH
•Indicates program change bank. Used when program change mode is set to Normal mode or Technics mode.
•The Bank Select for the Drums part is recognized as a change in the rhythm pattern select.

Modulation

BnH	Control change status
01H	Modulation
vv	Modulation depth value

n: 0－F Basic channel
vv: 00H－7FH
•Reception of ACCOMP 1,2,3 and BASS modulation is possible only during COMPOSER record.

Data entry

BnH	Control change status
06H	Data entry (MSB)
mm	Data entry value (MSB)
(BnH)	Control change status
26H	Data entry (LSB)
ll	Data entry value (LSB)

n: 0－F Basic channel
mm,ll: Values conform to the parameters specified for the RPN.

Volume

BnH	Control change status
07H	Part volume
vv	Part volume value

n: 0－F Basic channel
vv: 00H－7FH

Panpot

BnH	Control change status
0AH	Panpot
vv	Panpot value

n: 0－F Basic channel
vv: 00H－7FH
•Reception of ACCOMP 1,2,3 and BASS panpot is possible only during COMPOSER record.

Expression

BnH	Control change status
0BH	Expression
vv	Expression value

n: 0－F Basic channel
vv: 00H－7FH
•The expression for the CONTROL part is the total expression as regulated by the pedal operation.

Sustain

BnH	Control change status
40H	Sustain
vv	Sustain on／off

n: 0－F Basic channel
vv: 00H－3FH (00H) Off
40H－7FH (7FH) On
•Transmitted data is indicated by parentheses().

Chorus (KN720) / DSP effect (KN920 / KN1500)

BnH	Control change status
5DH	Chorus / DSP effect
vv	Chorus / DSP effect on / off

n: 0 – F Basic channel
vv: 00H – 7FH

RPN

BnH	Control change status
65H	RPN (MSB)
mm	RPN data number (MSB)
BnH	Control change status
64H	RPN (LSB)
ll	RPN data number (LSB)

n: 0 – F Basic channel
mm ll: The most significant byte (MSB) and least significant byte (LSB) of the parameter number specified for the RPN.

The RPN which can be transmitted / received are Pitch Bend Sensitivity, Fine Tuning, Coarse Tuning (corresponding respectively to the Pitch bend Range, Tuning and Key Shift of the KN720 / 920 / 1500) and RPN reset.

RPN		Data Entry		
MSB	LSB	MSB	LSB	
00H	00H	mm	---	Pitch Bend Sensitivity mm:00H - 0CH (0 - 12semi-tones) ll:igored •Up to 1 octave can be specified in semi-tone increments.
00H	01H	mm	ll	Fine Tuning mm,ll:00H,00H - 40H,00H -7FH,7FH (−128 * 100 / 128-0-127 * 100 / 128cents) •00H,00H (lower 8 bits ignored) •Can be specified in 100 / 128 cent increments.
00H	02H	mm	---	Coarse Tuning mm: 28H - 40H - 58H (−12 - 0 - +12semi-tones) ll:ignored •Up to 1 octave can be specified insemi-tone increments.
7FH	7FH			RPN Reset mm,ll:ignored •For when the RPN number is not specified. •The internal set value doesnot change.

Program change

CnH	Program change status
pp	Program change value

n: 0－F Basic channel
pp: 00H－7FH Program change value
Normal mode: Numbers are correspond to the sound number.

(<128 upward>
Number÷128=□...△
□=bank select △=program change)

Technics mode: Numbers are standardized among Technics modes(Bank Select also used).
GM: GM program change numbers.
•The Program Change for the Drums part is recognized as a change in the rhythm pattern select.

Channel pressure (After Touch)

DnH	Channnel pressure status
VV	Channnel pressure value

n: 0－F Basic channel
vv: 00H－7FH

Pitch bend change

EnH	Pitch bend status
ll	Pitch bend value (LSB)
mm	Pitch bend value (MSB)

n: 0－F Basic channel
ll,mm: 00H－7FH Pitch bend data
•The Pitch Bend Range is determined by the Pitch Bend Range(Pitch Bend Sensitivity)of each part.

■Channel mode message

All sound off

BnH	Channel mode status
78H	All sound off
00H	Dummy data

n: 0－F Basic channel

Reset all controllers

BnH	Channel mode status
79H	Reset all controllers
00H	Dummy data

n: 0－F Basic channel

All note off

BnH	Channel mode status
7BH	All note off
00H	Dummy data

n: 0－F Basic channel
Receive only

OMNI off

BnH	Channel mode status
7CH	OMNI off
00H	Dummy data

n: 0－F Basic channel
•Processed in same manner as when ALL Note off is received.

OMNI on

BnH	Channel mode status
7DH	OMNI on
00H	Dummy data

n: 0－F Basic channel
•Processed in same manner as when ALL Note off is received. Does not change to OMNI on.

MONO

BnH	Channel mode status
7EH	MONO
00H	Dummy data

n: 0－F Basic channel
•Processed in same manner as when ALL Note off is received. Does not change to MONO.

POLY

BnH	Channel mode status
7FH	POLY
00H	Dummy data

n: 0－F Basic channel
•Processed in same manner as when ALL Note off is received.

■System common message

Song position pointer

F2H	Song position pointer
ll	Least significant
mm	Most significant

ll,mm: 00H - 7FH

Song select

F3H	Song select
ss	Song number

ss: 0－19

	System exclusive
	System exclusive status
	ID number
	data
	:
	data
	End of exclusive status

50H(Technics ID)
dd: 00H – 7FH

bout the KN720 / 920 / 1500 MIDI exclusive

ming of KN720 / 920 / 1500 MIDI exclusive

KN720 / 920 / 1500 MIDI exclusive
- Universal system exclusive
  - GM on
  - GM off
- nics MIDI exclusive
  - transmission / reception of individual data

Universal system exclusive Message format

Turn General MIDI System On:

F0H	Exclusive status
7EH	Universal Non-Real Time SysEx
7FH	ID of target device (7F:Broadcast)
09H	sub-ID # 1 = General MIDI message
02H	sub-ID # 2 = General MIDI on
F7H	EOX

nics MIDI exclusive Message format

Type of messages and their forms

- Exclusive status
- Technics ID number
- Command ID
- Board category ID

transmitted in order beginning with SUX, ID#, etc. and continuing to the end.

The length of the transmission message differs depending on the type of command.

■Explanation of messages

SOX: Indicates the start of exclusive

F0H	Exclusive status

IDC: Product manufacturer differentiating ID

50H	Technics ID number

CMD: Indicates type of transmission data and commands.

21H	HRQ: Hand shake request
22H	HRT: Hand shake routine
23H	ACK: Acknowledge
24H	NAK: Negative Acknowledge
25H	TMP: Tempo data
27H	EOK: End of Block
28H	END: End
29H	ERR: Error
2AH	FUL: Memory full
2BH	DRQ: Data request
2CH	ITR: Individual data
2DH	BTR: Data block
7EH	CDD: Continuing data

PC: Technics product category ID

01H	KN
7EH	DMY: Dummy data for ACK,NAK,EOK,END, ERR,FUL

MD: Model differentiating ID

24H:	KN1500
25H:	KN920
26H:	KN720

VER: Exclusive version control ID

11H	Ver 2.1

[data]: Body of data

•[data] for Individual data, Data dump, and Data request.

ADR	ADR(MSB)	ADDRESS MSB (7bit)
	ADR	: (7bit)
	ADR(LSB)	ADDRESS LSB (7bit)
SIZ	SIZ(MSB)	MSB of the address length of relevant data from the above address. (7bit)
	SIZ	: (7bit)
	SIZ(LSB)	LSB of the address length of relevant data from the above address. (7bit)
DT		data
:		:
CN		Continue ID
SM		Checksum

ADR :
Indicates address length of beginning data. The type of data is recognized by this value. The 21-bit address is divided into 3 bytes of 7 bits each, and is sent in order beginning with the upper end. (Refer to the address map.)

SIZ :
Indicates length of address from ADR. (Refer to the address map.) The 21-bit address length is divided into 3 bytes of 7 bytes each, and is sent in order beginning with the upper end.
If a size not consistent with the data is indicated, data request is ineffective. If the data request concerns the data dump, then dummy data is sent, although it has no significance.

DT :
Body of transmitted data. The 8-bit data is divided into 2 bytes of 4 bits each, and is sent in order beginning with the upper end.
Note that SIZ = number of bytes in DT divided by 2.

CN : Indicates data continue/discontinue
00h STP : End of data
01H CNT : More data follows
(CMD of next packet is CDD)
The number of bytes in one exclusive packet is 256. In a transmission where the number of bytes exceeds one packet, CN = CNT, and the continuing data is transmitted in the continuing data (CMD = CDD) format.

SM : Checksum
Checksum for checking data errors.
The lower 7bits of Summation from IDC to SM=0

•[data] for Tempo.

DT1	Data LSB
DT2	Data MSB

DT2, DT1 : 02H, 08H - 12H, 0Ch
(♩ =40-300)
Tempo data is 9 bit Binary (= 101000 ~ 100101100)
The lower 4 bits is expressed as DT1, and the remaining upper 5 bits as DT2. DT1 is sent first followed by DT2.

The form of the transmission message

	SOX	IDC	CMD	PC	MD	VER	[data]					EOX
	=F0H	=50H		=01H	=※	=11H	ADR	SIZ	DT	CN	SM	=F7H
[illegible] request	SOX	IDC	HRQ	PC	MD	VER	–	–	–	–	–	EOX
Hand shake routine	SOX	IDC	HRT	PC	MD	VER	–	–	–	–	–	EOX
[illegible]nowledge	SOX	IDC	ACK	DMY	–	–	–	–	–	–	–	EOX
[illegible]tive Acknowledge	SOX	IDC	NAK	DMY	–	–	–	–	–	–	–	EOX
End of Block	SOX	IDC	EOK	DMY	–	–	–	–	–	–	–	EOX
End	SOX	IDC	END	DMY	–	–	–	–	–	–	–	EOX
error	SOX	IDC	ERR	DMY	–	–	–	–	–	–	–	EOX
Memory full	SOX	IDC	FUL	DMY	–	–	–	–	–	–	–	EOX
Tempo data	SOX	IDC	TMP	–	–	–	–	–	DT	–	–	EOX
Data request	SOX	IDC	DRQ	PC	MD	VER	ADR	SIZ	–	CN	SM	EOX
Individual data												
System data	SOX	IDC	ITR	PC	MD	VER	ADR	SIZ	DT	CN	SM	EOX
Part data	SOX	IDC	ITB	PC	MD	VER	ADR	SIZ	DT	CN	SM	EOX
Data dump												
[illegible] Memory (KN920/1500)												
[illegible]	SOX	IDC	BTR	PC	MD	VER	ADR	SIZ	DT	CN	SM	EOX
[illegible] number	SOX	IDC	BTR	PC	MD	VER	ADR	SIZ	DT	CN	SM	EOX
Panel												
[illegible] total data	SOX	IDC	BTR	PC	MD	VER	ADR	SIZ	DT	CN	SM	EOX
[illegible] memory	SOX	IDC	BTR	PC	MD	VER	ADR	SIZ	DT	CN	SM	EOX
Composer (KN920/1500)												
location	SOX	IDC	BTR	PC	MD	VER	ADR	SIZ	DT	CN	SM	EOX
header	SOX	IDC	BTR	PC	MD	VER	ADR	SIZ	DT	CN	SM	EOX
performance	SOX	IDC	BTR	PC	MD	VER	ADR	SIZ	DT	CN	SM	EOX
[illegible]												
[illegible]ation	SOX	IDC	BTR	PC	MD	VER	ADR	SIZ	DT	CN	SM	EOX
header	SOX	IDC	BTR	PC	MD	VER	ADR	SIZ	DT	CN	SM	EOX
[illegible]formance	SOX	IDC	BTR	PC	MD	VER	ADR	SIZ	DT	CN	SM	EOX
[illegible] data	SOX	IDC	CDD	–	–	–	–	–	DT	CN	SN	EOX

※KN1500 : 24H
※KN920 : 25H
※KN720 : 26H

■MIDI exclusive address map

ADDRESS (Hex)		Area	Subarea	Sub-subarea
ADR MSB~LSB	ADDRESS (21bit)			
00 00 00~	000000H~	SYSTEM		REAL TIME
01 00 00~	004000H~	PART	COMMON	REAL TIME
0A 00 00~	028000H~	PART	SPECIAL	REAL TIME
20 00 00~	080000H~	PANEL	PANEL DATA	NON-REAL TIME
24 00 00~	090000H~		PANEL MEMORY	NON-REAL TIME
38 00 00~	0E0000H~	SOUND MEMORY (KN920/1500)	HEADER	NON-REAL TIME
38 00 10~	0E0010H~		PARAMETER	NON-REAL TIME
48 00 00~	120000H~	MSP	LOCATION	NON-REAL TIME
48 00 20~	120020H~		HEADER	NON-REAL TIME
48 02 00~	120100H~		PERFORMANCE	NON-REAL TIME
50 00 00~	140000H~	COMPOSER (KN920/1500)	LOCATION	NON-REAL TIME
50 00 60~	140060H~		HEADER	NON-REAL TIME
50 27 40~	1413C0H~		PERFORMANCE	NON-REAL TIME
60 00 00~	180000H~	SEQUENCER	LOCATION	NON-REAL TIME
60 10 00~	180800H~		HEADER	NON-REAL TIME
61 30 00~	185800H~		PERFORMANCE	NON-REAL TIME

of individual data and data dump areas

data dump area

(Panel data = Panel Memory)

(Sound Memory(KN920/1500) (Header + Parameter)

(Location + Header + Performance)

(KN920/1500) (Location + Header + Performance)

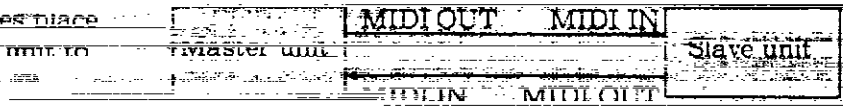
(Location + Header + Performance)

way transmission and handshake transmission

one-way transmission communication takes place

transmission only takes from the master unit to

slave unit.



handshake transmission the transmission status

between the master unit and slave unit is being

monitored. For this reason,

the cable connection from the slave unit to the

master unit is also necessary. In contrast to one-

way transmission, handshake transmission is faster

In the KN720/920/1500, the transmission mode is switched automatically between handshake transmission and one-way transmission. Communication begins with handshake transmission and, if there is no response from the slave unit within a given time, communication switches automatically to one-way transmission.

unication sequence between master unit and slave unit

Communication sequence of handshake

unication

Slave unit

RQ command

HRT command

F command

HRT command: handshake routine

	80H
HRT	80H
	22H
DAT	01H
MD	24H (KN1500)
	25H (KN920)
	26H (KN720)
	11H
EOX	F7H

RQ command: handshake request

ACK: Acknowledge

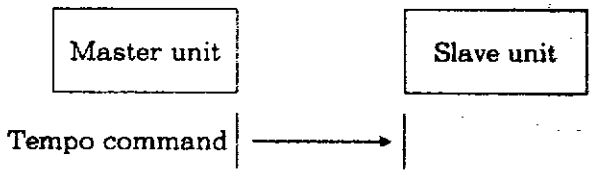
SOX	F0H
IDC	50H
ACK	23H
DMY	7EH
EOX	F7H

- There is no END command.
- If there is no response from the slave unit to the master unit even after the above handshake confirmation routine is performed three times it is interpreted as inability to transmit handshake data and the transmission mode changes to one-way transmission. (In the case of MIDI sequencer, etc.)

Handshake communication is possible only

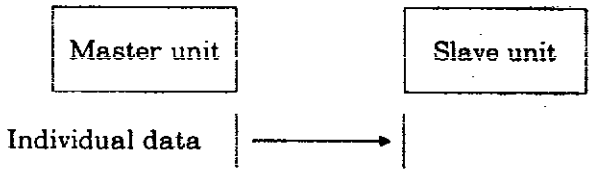
during data dump.

■Sequencer of tempo data communication



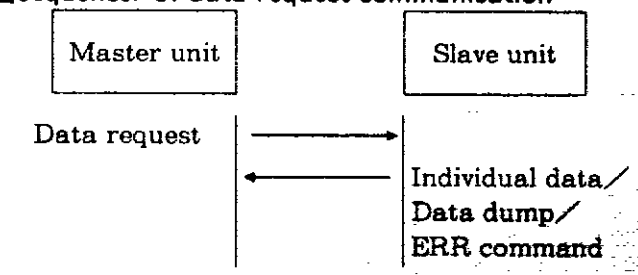
- Transmission/reception of TEMPO exclusive data can be enabled or disabled by the NOTE ONLY setting of the MIDI settings.

■Sequencer of individual data communication

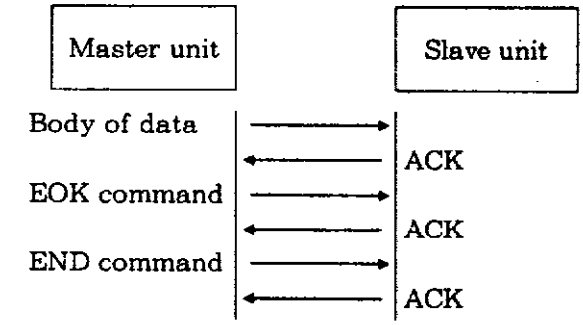


- Transmission/reception of REAL TIME exclusive data can be enabled or disabled by the COMMON SETTING setting of the MIDI settings.

■Sequencer of data request communication



■Sequencer of data dump communication



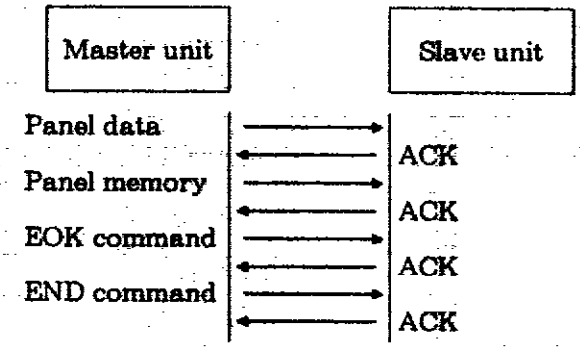
- Data dump is possible only while the SYSEX BULK DUMP display is selected during MIDI function setting.

Data is divided into five types:
TOTAL KEYBOARD, PANEL MEMORY, MANUAL SEQUENCE PADS (MSP), SOUND MEMORY(KN920/1500) , COMPOSER (KN920/1500), and SEQUENCER.

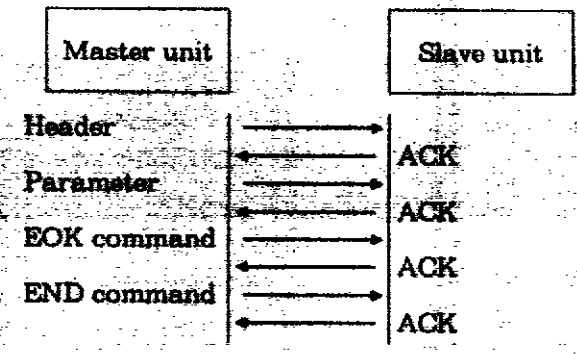
After the above handshake routine is concluded and communication link is established, the various kinds of data are respectively transmitted as described below.
For one-way transmission, the transmission interval between packets is more than 50 msec.

The number of bytes in one exclusive packet is 256. In a transmission where the number of bytes exceeds one packet, the continuing data is transmitted in the continuing data(CMD=CDD) format.

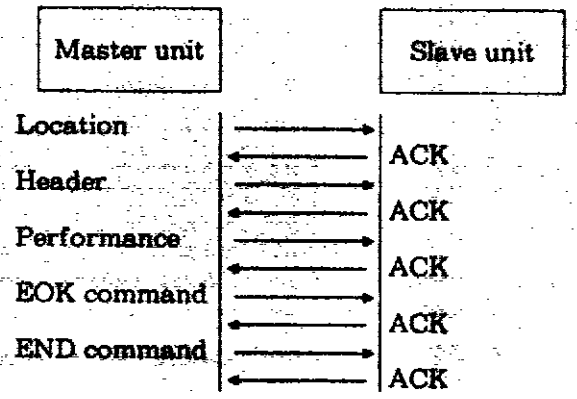
●Panel

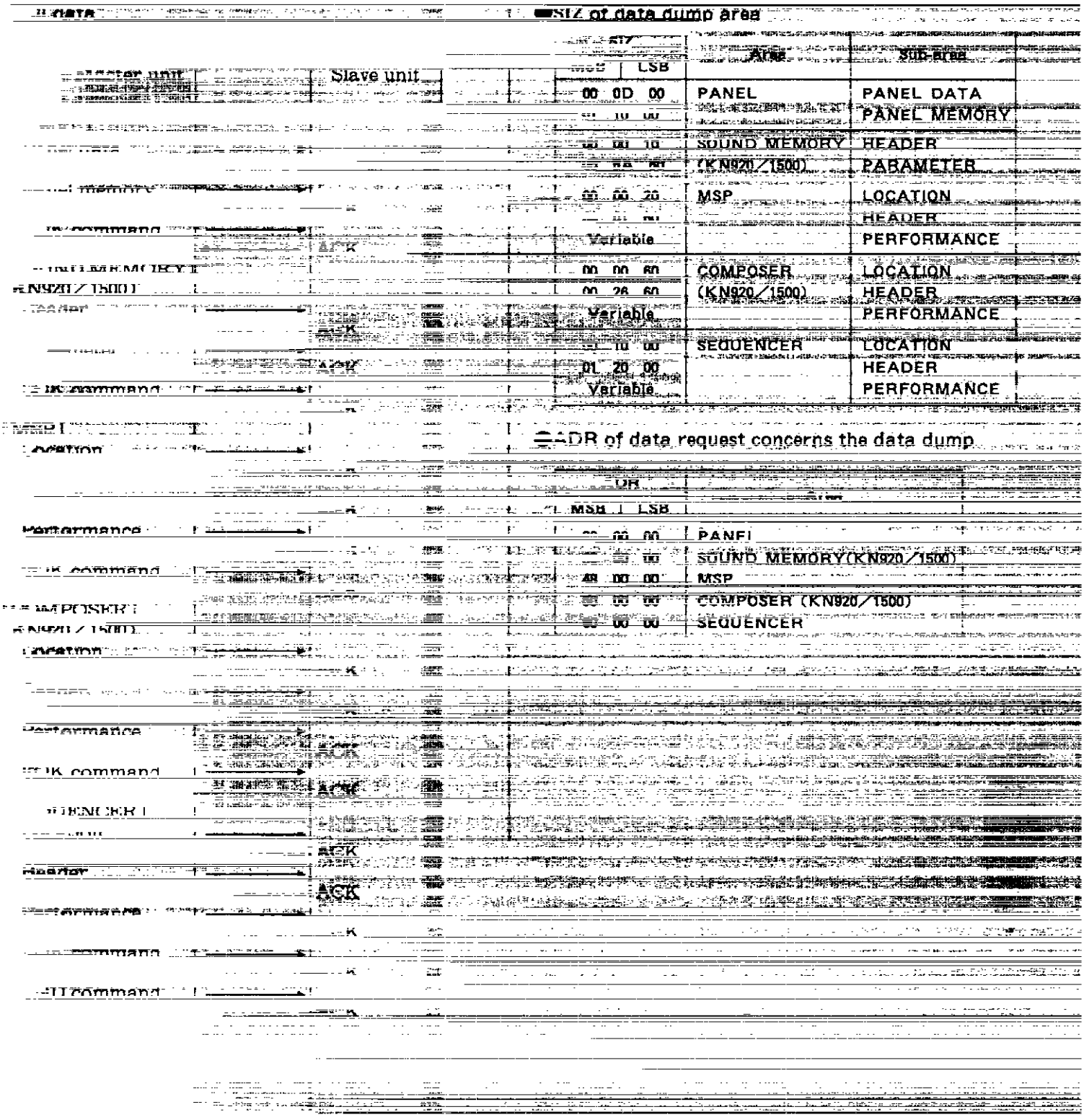


●Sound memory (KN920/1500)



●Composer data (KN920/1500), Sequencer data, MSP data




SIZ of data dump area
Area
Sub-area
Slave unit
MSB
LSB
00 0D 00
PANEL
PANEL DATA
PANEL MEMORY
SOUND MEMORY
(KN920/1500)
HEADER
PARAMETER
MSP
LOCATION
HEADER
Variable
PERFORMANCE
COMPOSER
(KN920/1500)
LOCATION
HEADER
Variable
PERFORMANCE
SEQUENCER
LOCATION
HEADER
Variable
PERFORMANCE
ADR of data request concerns the data dump
MSB
LSB
PANEL
SOUND MEMORY(KN920/1500)
MSP
COMPOSER (KN920/1500)
SEQUENCER
ACK

SYSTEM AND PART PARAMETER

ADR(HEX) MSB	ADR(HEX) LSB	SIZ(HEX) MSB	SIZ(HEX) LSB	PARAMETER	DATA(HEX) RANGE	DISCRIPTION	NOTE *1
SYSTEM REAL TIME							
00	00 00	00	00 01	MASTER TUNING	08-00-3F	427.3-440.0-453.0	QR
00	00 02	00	00 01	TRANSPOSE	00-05-0B	G-C-F#	QRT
00	00 03	00	00 01	OVERALL TOUCH SENSITIVITY	00-09	0-9	QR
00	00 10	00	00 01	PANEL MEMORY NUMBER	00-10	Off, 1-1, 1-2, ・・・,3-8	QRT
00	00 11	00	00 01	PANEL MEMORY EXPAND MODE	00-01	00H:Normal, 01H:Expand	QR
00	00 12	00	00 01	MUSIC STYLE ARRANGER STYLE	00-04	00H:Off, 01H-04H:1-4	QRT
00	00 13	00	00 01	MUSIC STYLE ARRANGER MODE	01-03	01H:Rhythm 02H:Sound&Rhythm 03H:Panel Memory	QR
00	00 20	00	00 02	MANUAL SEQUENCE PADS	00-7F	00-127	RT
				CNG&BANK SELECT	00-FF	00-255	
PART COMMON REAL TIME							
01	00 00	00	00 01	TOTAL EXPRESSION	00-7F	0-127	RT
01	00 08	00	00 01	TECHNI-CHORD ON/OFF	00-01	00H:Off, 01H:On	QRT
01	00 09	00	00 01	TECHNI-CHORD TYPE	00-0C	00H:Close 01H:Open1 02H:Open2 03H:Duet 04H:Country 05H:Theatre 06H:Hymn 07H:Block 08H:Big Band Brass 09H:Big Band Reeds 0AH:Octave 0BH:Hard Rock 0CH:Fanfare	QR
01	00 10	00	00 01	REVERB TOTAL ON/OFF	00-7F	00H:Off 7FH:On	QRT
01	00 11	00	00 01	REVERB TYPE (KN720)	10-15	10H:Room Reverb1 11H:Room Reverb2 12H:Plate Reverb1 13H:Plate Reverb2 14H:Concert Reverb1 15H:Concert Reverb2	QR
01	00 11	00	00 01	REVERB TYPE (KN820/1500)	10-1B	10H:Room Reverb1 17H:Dark Reverb2 11H:Room Reverb2 18H:Bright Reverb1 12H:Plate Reverb1 19H:Bright Reverb2 13H:Plate Reverb2 1AH:Wave Reverb1 14H:Concert Reverb1 1BH:Wave Reverb2 15H:Concert Reverb2 16H:Dark Reverb1	QR
01	00 21	00	00 01	CHORUS TYPE (KN720)	01-51	01H:Chorus 02H:Modulated Chorus 04H:Flanger 2CH:Celeste 2DH:Modulated Celeste 32H:Vibrato	
01	00 21	00	00 01	DSP EFFECT TYPE (KN820/1500)		01H:Chorus 34H:Auto Wah 02H:Modulated Chorus 35H:Rotary Speaker 04H:Flanger 36H:Ring Modulator 05H:Phaser 40H:Single Delay＋Chorus 06H:Ensemble 42H:Single Delay＋Flanger 09H:Single Delay 44H:Single Delay＋Phaser 20H:Distortion 46H:Auto Wah＋Single Delay 21H:Overdrive 50H:Single Delay＋Distortion 23H:Exciter 51H:Single Delay＋OverDrive 27H:Parametric Equalizer 30H:Auto Pan 32H:Vibrato	
01	00 22	00	00 01	DSP EFFECT to REVERB send value	00-99		
PART SPECIAL REAL TIME							
0A	00 00	00	00 02	RHYTHM PROG. CNG & Bank Select	00-7F 00-FF	0-127 0-255	QRT *2
0A	00 02	00	00 01	APC TYPE	00-03	00H:Off 01H:One Finger 02H:Fingered 03H:Pianist	QRT *3
0A	00 03	00	00 01	APC MEMORY ON/OFF	00-01	00H:Off, 01H:On	
0A	00 08	00	00 01	SYNCHRO/BREAK	00-01	00H:Off, 01H:On	QRT *2
0A	00 09	00	00 01	VARIATION	00-03	00H:Vari1, 01H:Vari2, 02H:Vari3, 03H:Vari4	QRT QRT *4
0A	00 0A	00	00 01	INTRO	00-02	00H:Off, 01H:Intro1 On, 02H:Intro2 On	QRT *4
0A	00 0B	00	00 01	COUNT INTRO	00-01	00H:Off, 01H:On	RT *4
0A	00 0C	00	00 01	FILL IN	00-02	00H:Off, 01H:Fill In1 On, 02H:Fill In2 On	RT *4
0A	00 0E	00	00 01	ENDING	00-02	00H:Off, 01H:Ending1 On, 02H:Ending2 On	RT *4

*1 Q: When Data Request is received, the relevant data is sent.
R: Data reception possible.
T: Data transmission possible.

*2 Corresponds to Technics numbers on the rhythm map.

*3 Not transmitted/received when APC MODE ENABLE = 0 (disable).

*4 Not transmitted/received when FILL IN, INTRO ENABLE = 0(disable).

NERAL MIDI SETTINGS

OUND

SOUND NAME	P.CNG #	SOUND NAME	P.CNG #	SOUND NAME	P.CNG #	SOUND NAME
[illegible]	[illegible]	Acoustic Bass	65	Soprano Sax	97	Ice Rain
[illegible]	[illegible]	Bright Bass	66	Alto Sax	98	Soundtrack
Elect Grand	35	Picked Bass	67	Tenor Sax	99	Crystal
[illegible]	[illegible]	Fretless Bass	68	Baritone Sax	100	Atmosphere
[illegible]	[illegible]	Slap Bass 1	69	Oboe	101	Mist
[illegible] E.P.1	38	Slap Bass 2	70	English Horn	102	Goblins
[illegible]	[illegible]	Wow Bass	71	Bassoon	103	Echo Drops
[illegible]	[illegible]	Plastic Bass	72	Jz Clarinet	104	Star Theme
Celesta	41	Violin	73	Piccolo	105	Sitar
[illegible]	[illegible]	Viola	74	Jazz Flute	106	Banjo
Music Box	43	Cello	75	Recorder	107	Shamisen
Vibraphone	44	Bowed Bass	76	Pan Flute	108	Koto
Marimba	45	Tremolo Str	77	Blown Bottle	109	Kalimba
Xylophone	46	Pizzicato Str	78	Shakuhachi	110	Bagpipe
Tubular Bells	47	Harp	79	Whistle	111	Cntry Fiddle
Dulcimer	48	Timpani	80	Ocarina	112	Shanai
Full Drawbars	49	Strings	81	Square Lead	113	Tinkle Bell
Jazz Organ	50	Slow Strings	82	Saw Lead	114	Agogo
Rock Organ	51	Syn String 1	83	Syn Calliope	115	Steel Drum
Pipe Organ	52	Syn String 2	84	Chiffer Lead	116	Wood Block
[illegible]monium	53	Vocal Ah	85	Charang	117	Taiko Drum
Brt Accordion	54	Vocal Doo	86	Air Vox	118	Melodic Tom
Harmonica	55	Synth Vocal	87	5th Wave	119	Synth Drum
[illegible]	[illegible]	Orchestra Hit	88	Bass & Lead	120	Rev Cymbal
[illegible]an Guitar	57	Trumpet	89	Fantasia	121	Fret Noise
[illegible]	[illegible]	Brt Trombone	90	Mlw Ensemble	122	Breath Noise
[illegible]	[illegible]	Marching Tuba	91	Poly Synth	123	Seashore
[illegible] Solid	60	Mute Trumpet	92	Spacy Pad	124	Bird Tweet
Mute Guitar	61	Open Fr.Horn	93	Bowed Glass	125	Telephone
Overdrive Gtr	62	Brass	94	Metal Pad	126	Helicopter
Dist Guitar	63	Synth Brass 1	95	Halo Pad	127	Applause
Harmonic	64	Synth Brass 2/3	96	Sweep Pad	128	Gun Shot

TION

MIDI CHANNEL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PART	P1	P2	P3	P4	P5	P6	P7	P8	P9	DRUM (P16)	P11	P12	P13	P14	P15	P10
SEQUENCER TRACK	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Non-working Function

[illegible]: RHYTHM, ONE TOUCH PLAY / MUSIC STYLE SELECT (KN1500),

[illegible]SIC STYLE ARRANGER (KN920 / 1500), PANEL MEMORY, TECHNI-CHORD, AUTO PLAY CHORD,

[illegible]POSER (KN920 / 1500), SOUND ARRANGER (KN920 / 1500), SOUND EDIT(KN920 / 1500) etc.

HOW TO USE MIDI PRESETS

The KN Keyboard can be connected to any MIDI equipped musical instrument.
To connect the KN Keyboard to another instrument use a standard MIDI cable and connect the MIDI OUT socket of the MASTER UNIT (the one you are playing) to the MIDI IN socket of the SLAVE UNIT.
MIDI Presets are designed to help you set up the KN Keyboard quickly and easily for use with various other instruments.
There are two pages of MIDI Presets, the first page with settings for use without Auto Play Chord and the second page with settings for use with Auto Play Chord.
Select the preset which matches your MIDI set up and press EXECUTE.
Many applications are very simple, but the following guidelines should be helpful with more complicated setups.

■MIDI PRESETS FOR CONNECTING AN ORGAN TO THE KN USING AUTO PLAY CHORD.

MASTER UNIT		MIDI PRESET	
EQUIPMENT	PLAY STYLE	TYPE	APC
ORGAN (ALL)	FINGERED	Organ 1→KN	WITH APC
ORGAN (ALL)	ONE FINGER *	Organ 2→KN	WITH APC

* TURN ON ONE FINGER(FA/GA/EA) OR FINGERED1(OTHERS) AND TURN DOWN APC VOLUME ON THE ORGAN.

■MIDI PRESETS FOR CONNECTING AN ORGAN TO THE KN WITHOUT AUTO PLAY CHORD.

MASTER UNIT		MIDI PRESET	
EQUIPMENT	PLAY STYLE	TYPE	APC
ORGAN (FA/GA/EA)	---	Organ 2→KN	WITHOUT APC
ORGAN (OTHERS)	---	Organ 1→KN	WITHOUT APC

■MIDI PRESETS FOR CONNECTING THE KN TO AN ORGAN USING / WITHOUT AUTO PLAY CHORD.

SLAVE UNIT		MIDI PRESET	
EQUIPMENT	PLAY STYLE	TYPE	APC
ORGAN (FA/GA/EA)	USING APC	KN→Organ 2	WITH APC
ORGAN (OTHERS)	USING APC	KN→Organ 1	WITH APC
ORGAN (FA/GA/EA)	WITHOUT APC	KN→Organ 2	WITHOUT APC
ORGAN (OTHERS)	WITHOUT APC	KN→Organ 1	WITHOUT APC

■MIDI PRESETS FOR CONNECTING A PR PIANO TO THE KN USING AUTO PLAY CHORD.

MASTER UNIT		MIDI PRESET	
EQUIPMENT	PLAY STYLE	TYPE	APC
PR (307 and later)	FINGERD	PR Piano 1→KN	WITH APC
PR (370 and previous)	FINGERD	Organ 1→KN	WITH APC
PR (ALL)	ONE FINGER	PR Piano 2→KN	WITH APC
PR (ALL)	PIANIST	PX Piano→KN	WITH APC

PRESETS FOR CONNECTING A PR PIANO TO THE KN WITHOUT AUTO PLAY CHORD

SLAVE UNIT		MIDI PRESET	
EQUIPMENT	PLAY STYLE	TYPE	APC
PR (307 and later)		PR Piano 2→KN	WITHOUT APC
PR (370 and previous)		PR Piano 1→KN	WITHOUT APC

MIDI PRESETS FOR CONNECTING THE KN TO A PR PIANO USING / WITHOUT AUTO PLAY CHORD

SLAVE UNIT		MIDI PRESET	
EQUIPMENT	PLAY STYLE	TYPE	APC
PR (307 and later)	USING APC	KN→PR Piano 2	WITH APC
PR (370 and previous)	USING APC	KN→PR Piano 1	WITH APC
PR (307 and later)	WITHOUT APC	KN→PR Piano 2	WITHOUT APC
PR (370 and previous)	WITHOUT APC	KN→PR Piano 1	WITHOUT APC

MIDI PRESETS FOR CONNECTING THE KN TO A EXTERNAL SEQUENCER USING AUTO PLAY CHORD

SLAVE UNIT		MIDI PRESET	
EQUIPMENT	APC OUTPUT	TYPE	APC
EXT SEQ	ACCOMPANIMENT PATTERN	KN→Ext SEQ 1	WITH APC
EXT SEQ	CHORD	KN→Ext SEQ 2	WITH APC

NOTES

- If "Keyboard 1" and "Keyboard 2"
  - Equipment which does not have MIDI presets.
  - Equipment which has MIDI presets. (= KN3000, KN2000, KN1500,KN1200, KN920 etc.)

- You use a MIDI preset to connect any other instrument to the KN Keyboard using Auto Play Chord .
- The KN Keyboard will be set to MIDI clock. This means that the KN's Rhythm will start & stop from the master unit's Rhythm button of the master unit and the tempo will be controlled by the master unit. It is preferable to set the Rhythm and Accompaniment balances of the master unit to zero to avoid any unpleasant clashes with the KN's Rhythm & Accompaniment.

MIDI PRESETS DATA

Master ↓ Slave		Without APC																		
		KN										Organ		Keyboard		PR Piano		PX Piano	Sound Module	Ext MIDI
		Organ		Keyboard		PR Piano		PX Piano	Sound Module	Vocal-ist	Ext MIDI	type1	type2	type1	type2	type1	type2			
Basic channel	Right1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Right2	3	3	2	2	3	2	off	2	2	2	3	3	2	2	3	2	2	4	2
	Left	2	2	4	3	2	3	off	3	3	3	2	2	4	3	2	3	3	2	3
	Part4	4	4	3	4	4	4	off	4	4	4	4	4	3	4	4	4	4	3	4
	Part5	5	5	5	5	5	5	off	5	5	5	5	5	5	5	5	5	5	5	5
	Part6	6	6	6	6	6	6	off	6	6	6	6	6	6	6	6	6	6	6	6
	Part7	7	7	7	7	7	7	off	7	7	7	7	7	7	7	7	7	7	7	7
	Part8	8	8	8	8	8	8	off	8	8	8	8	8	8	8	8	8	8	8	8
	Part9	9	9	9	9	9	9	off	9	9	9	9	9	9	9	9	9	9	9	9
	Part10	10	10	10	10	10	10	off	16	10	10	10	10	10	10	10	10	10	10	10
	Part11	11	11	11	11	11	11	off	11	11	11	11	11	11	11	11	11	11	11	11
	Part12	12	12	12	12	12	12	off	12	12	12	12	12	12	12	12	12	12	12	12
	Part13	13	13	13	13	13	13	off	13	13	13	13	13	13	13	13	13	13	13	13
	Part14	14	14	14	14	14	14	off	14	14	14	14	14	14	14	14	14	14	14	14
	Part15	off	off	off	15	off	15	off	15	15	15	off	off	off	15	off	15	15	15	15
	Part16	15	16	15	16	15	16	off	10	16	16	15	16	15	16	15	16	16	16	16
	Control	16	15	16	off	16	off	off	off	off	off	16	15	16	off	16	off	off	off	off
	Accomp1	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
	Accomp2	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
	Accomp3	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
	Bass	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
	Drums	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
	Chord	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
Octave	Part4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0
	Chord	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local all ch.		on	on	on	on	on	on	on	on	on	off	on	on	on	on	on	on	on	on	on
Control all msg.		on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on
Realtime msg.		on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	off
Clock		int	int	int	int	int	int	int	int	int	int	int	int	int	int	int	int	int	int	MIDI
Right1 input		dir	dir	dir	dir	dir	dir	dir	dir	dir	dir	dir	dir	dir	dir	dir	dir	dir	cndct	cndct	dir
APC in		off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
Technichord out		on	on	on	on	on	on	on	on	on	on	off	off	off	off	off	off	off	off	off	off
Drums out		off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
APC out		off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
P. chg to P. mem		off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
Note only		off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
Realtime sysex		off	off	off	on	off	off	off	on	off	on	off	off	off	on	off	off	off	off	on	on
Intro/Fill		on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on
APC control		off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
Transpose		off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
Prog. chg mode		TECH	TECH	TECH	TECH	TECH	TECH	NORM	GM	NORM	TECH	TECH	TECH	TECH	TECH	TECH	TECH	NORM	NORM	NORM	TECH
Drums type		TECH	TECH	TECH	TECH	TECH	TECH	NORM	GM	NORM	TECH	TECH	TECH	TECH	TECH	TECH	TECH	NORM	NORM	NORM	TECH
Song select		on	on	on	on	on	on	on	off	off	on	on	on	on	on	on	on	on	on	on	on

	Voice type1	Voice type2	Keyboard type1	Keyboard type2	PR Piano type1	PR Piano type2	Sound Module	Vocalist	Ext SEQ case1	Ext SEQ case2	Organ type1	Organ type2	Keyboard type1	Keyboard type2	PR Piano type1	PR Piano type2 ↓ KN	PX Piano	Accordion type1	Accordion type2	Accordion type3	Ext SEQ
Right1	1	1	1	1	1	1	1	off	1	1	1	1	1	1	1	1	1	1	1	1	1
Right2	3	3	2	2	3	2	2	2	2	2	3	off	2	2	2	2	2	off	4	4	2
Left	2	2	4	4	2	3	3	3	3	3	2	5	4	3	3	5	3	3	2	off	3
Pedal	4	4	3	3	4	4	4	4	4	4	4	4	3	4	4	4	4	4	3	3	4
[blank]	off	off	off	off	off	off	5	5	off	5	off	off	off	off	off	off	5	5	5	5	5
[blank]	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
[blank]	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
[blank]	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
[blank]	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Part10	10	10	10	10	10	10	off	10	10	10	10	10	10	10	10	10	10	10	10	10	10
[blank]	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
[blank]	12	12	12	12	12	12	12	12	12	off	12	12	12	12	12	12	12	12	12	12	12
[blank]	13	13	13	13	13	13	off	13	13	off	13	13	13	13	13	13	13	13	13	13	13
[blank]	14	14	14	14	14	14	off	14	14	off	14	14	14	14	14	14	14	14	14	14	14
[blank]	off	off	off	15	off	15	off	15	15	off	off	off	off	15	15	off	15	15	15	15	off
[blank]	off	off	off	off	off	off	off	16	off	off	off	off	off	off	off	off	16	16	16	16	off
[blank]	16	15	16	off	16	off	off	off	off	off	16	16	16	off	off	16	off	off	off	off	off
[blank]	off	off	off	off	off	off	13	off	off	12	off	off	off	off	off	off	off	off	off	off	off
[blank]	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
[blank]	off	off	off	off	off	off	off	off	off	14	off	off	off	off	off	off	off	off	off	off	off
[blank]	off	off	off	off	off	off	16	off	off	15	off	off	off	off	off	off	off	off	off	off	off
[blank]	15	16	15	16	15	16	10	off	16	16	15	15	15	16	16	15	off	off	off	off	16
[blank]	5	5	5	5	5	5	off	1	5	off	2	5	5	5	3	5	off	2	2	2	15
[blank]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	-1	0
Upper	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+1	+1	0
[blank]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
tweal all ch	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on
[blank]	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on
[blank]	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	off
[blank]	int	int	int	int	int	int	int	int	int	int	MIDI	MIDI	MIDI	MIDI	MIDI	MIDI	int	MIDI	MIDI	MIDI	MIDI
[blank]	dir	dir	dir	dir	dir	dir	dir	dir	dir	dir	dir	dir	dir	dir	dir	dir	cndct	cndct	cndct	cndct	dir
[blank]	on	on	on	on	on	on	off	off	on	on	on	on	on	on	on	on	on	on	on	on	on
chord out	on	on	on	on	on	on	on	on	on	on	off	off	off	off	off	off	off	off	off	off	off
Tones out	off	off	off	off	off	off	on	off	off	on	off	off	off	off	off	off	off	off	off	off	off
[blank]	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on
[blank]	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
[blank]	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
[blank]	off	off	off	on	off	off	on	off	on	on	off	off	off	on	off	off	off	off	off	off	on
Intro/Fill	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on	on
[blank]	on	on	on	on	on	on	off	off	on	off	on	on	on	on	on	on	on	on	on	on	on
Transpose	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
[blank]	TECH	TECH	TECH	TECH	TECH	TECH	GM	NORM	TECH	TECH	TECH	TECH	TECH	TECH	TECH	TECH	NORM	NORM	NORM	NORM	TECH
[blank]	TECH	TECH	TECH	TECH	TECH	TECH	GM	NORM	TECH	TECH	TECH	TECH	TECH	TECH	TECH	TECH	NORM	NORM	NORM	NORM	TECH
[blank]	on	on	on	on	on	on	off	off	on	on	on	on	on	on	on	on	on	on	on	on	on

Playback of Technics disks (KN920/KN1500)

■The PR920/KN1500 can play back data from the following instrument models:

KN2000	KN1200	KN901	KN3000

■The following data is compatible:

COMPOSER data
SEQUENCER data
Registration data (panel and **PANEL MEMORY** data)
SOUND MEMORY data
MANUAL SEQUENCE PADS User bank data

■Caution

- Functions of other models which are not incorporated in the KN920/KN1500 are not compatible. Moreover, if such functions are included in the **COMPOSER, SEQUENCER** or registration data on the disk, they will not be reproduced correctly.
- Because KN920/KN1500's sound module and DSP part configuration are different from those of other models, the nuance of the reproduced sounds may be different.
  Moreover, the sound will be different if you use a sound module waveform of a SOUND MEMORY sound which is not available in this instrument. In addition, the sound output of the performance may also differ due to the difference in the maximum number of notes which can be reproduced simultaneously.
- Preset rhythm pattern and **MANUAL SEQUENCE PADS** phrase change to those of the KN920/KN1500.
- The LOAD SINGLE COMPOSER function is disk compatible only between models KN920 and KN1500.

■Campatibility with KN3000 disk data:notable items

- **DIGITAL DRAWBAR** sounds are reproduced as preset organ sounds on the KN920/KN1500.
- Drums sounds from the USER KIT are reproduced as Standard Kit sounds on the KN920/KN1500.
- **REVERB** and **DSP EFFECT** types which are not available on the KN920/KN1500 are changed to this instrument's default settings. Even when the type is the same, the effects may sound different.
- Sequencer data which exceeds the **SEQUENCER** capacity of this instrument (30,000 notes) cannot be played back.

■Campatibility with KN2000/KN1200/KN901 disk data:notable items

- Some of the intro, fill-in etc. patterns in the **COMPOSER** Expand mode may be different, due to model differences in the memory configuration.
- The hard configurations of the **REVERB** and **DSP EFFECT** in the KN920/KN1500 are different from those of the other models, and therefore only the effect type is matched.
- MANUAL PERCUSSION performances are not played back.