

Technics

KEYBOARD

SX-KN600

SX-KN800

Operating Instructions



Vol. 1

Technics

OWNER'S MANUAL

Vol. 1

Caution

Voltage (except North America)

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 PAGE 28.

IMPORTANT (for UNITED KINGDOM)

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 unit may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows.

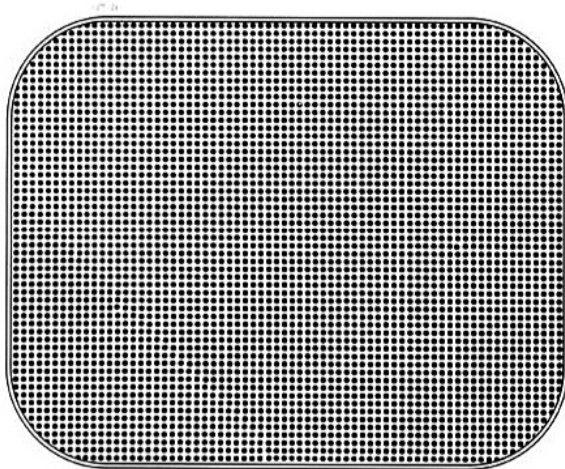
The wire which is coloured BLUE must be connected to the terminal with the letter N or coloured BLACK.

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

This apparatus was produced to BS 800: 1977.

Technics

KEYBOARD



AUTO PLAY CHORD

14 ONE FINGER FINGERED MEMORY

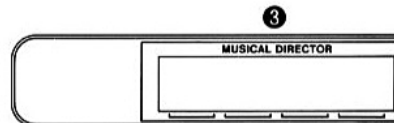
ARRANGER

1-ACCOMP 2-8-3 DRUMS VARIATION

RHYTHM SELECT

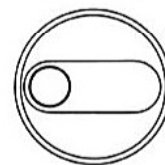
MARCH	POLKA	COUNTRY	WALTZ	TANGO	LATIN	SAMBA	BOSSA-NOVA
SWING	DIXIE	JAZZ WALTZ	SHUFFLE	ROCK BALLAD	SWING ROCK	SAMBA ROCK	LATIN ROCK
8 BEAT 1	8 BEAT 2	ROCK 'N' ROLL	16 BEAT 1	16 BEAT 2	JAZZ ROCK	FUNK	DISCO
1	2	3	4	5	6	7	8

COMPOSER



TRANPOSE

BALANCE



TEMPO/PROGRAM

CONDUCTOR

KEYBOARD PERCUSSION

BASS

POLY2

POLY1

MANUAL PERCUSSION

FILL IN (5 FINGER RESET)

INTRO/MENDING

SYNCHRO BREAK

START/STOP

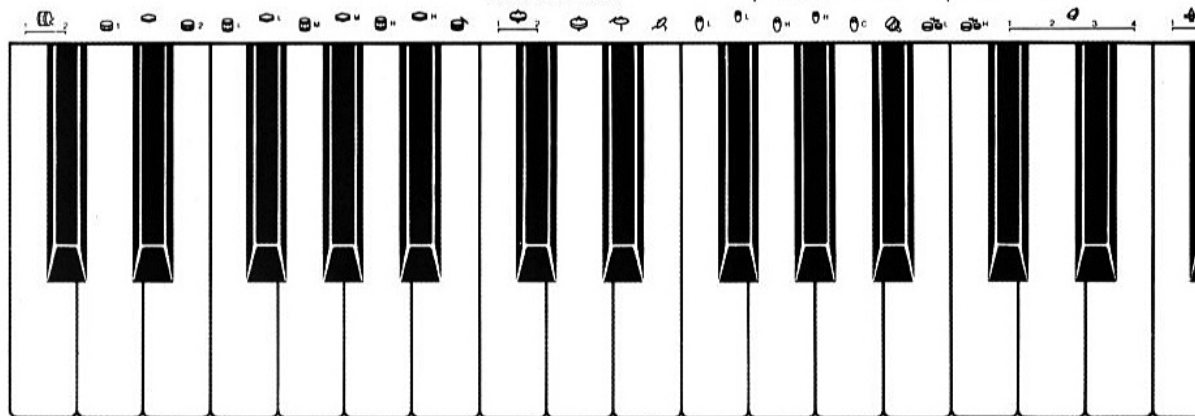
POWER



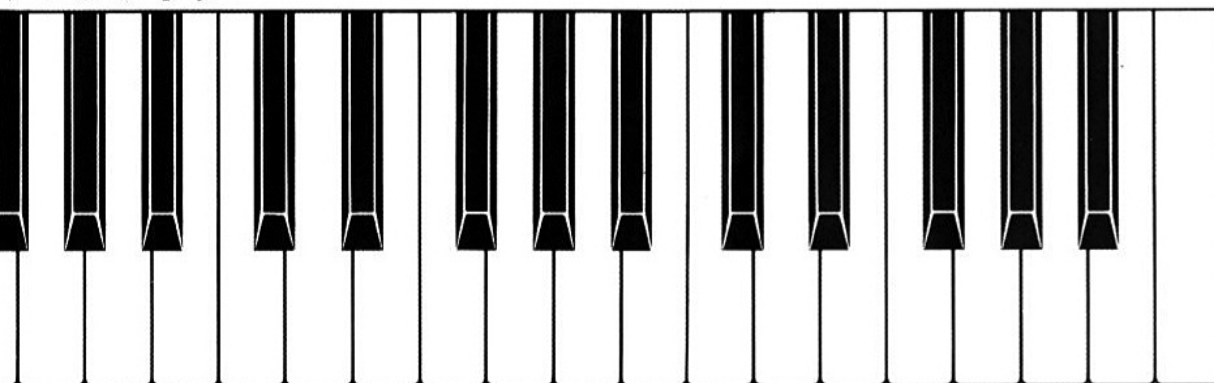
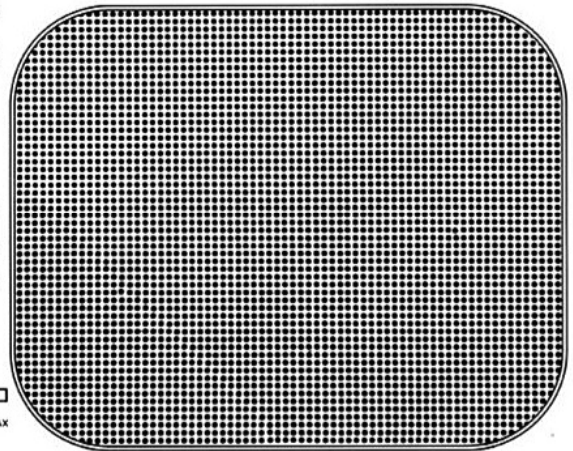
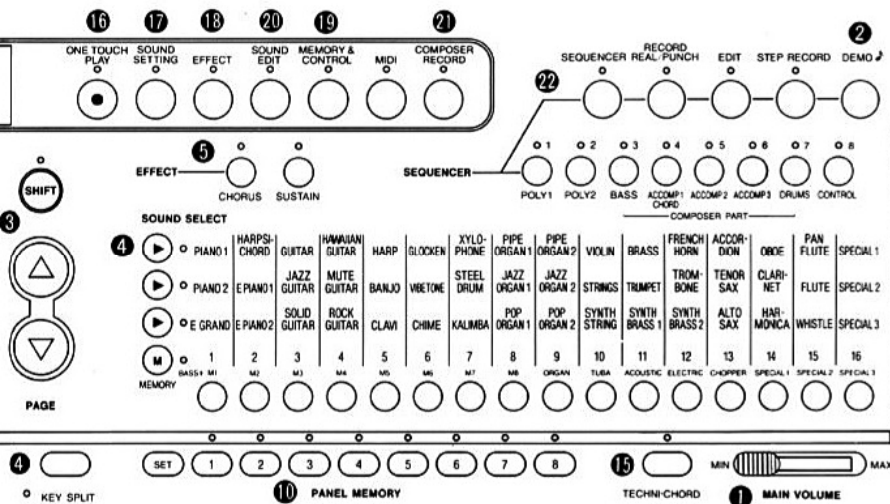
PITCH BEND



MODULATION



sx-KN600

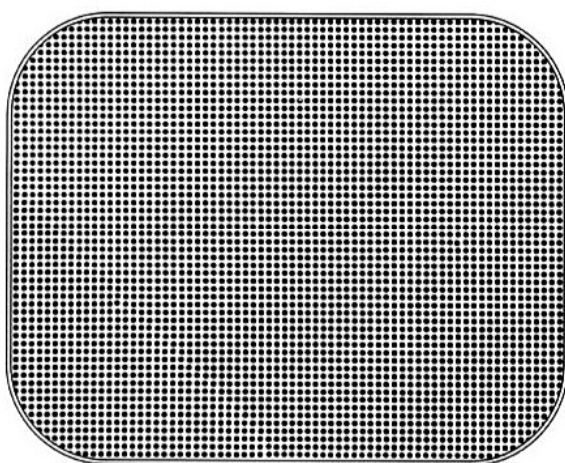


Technics

KN600
PCM KEYBOARD

Technics

KEYBOARD



8

THUNDER BRD WINDCHIMES SPECIAL 1 SPECIAL 2

WIND STREAM WAVE CHURCHBELL FADE OUT

1-ACCMP-2&3 DRUMS VIBRATION

14

ONE FINGER FINGERED MEMORY

AUTO PLAY CHORD

BGS (HALL/REVERB) (SOUND)

11

RHYTHM SELECT

MARCH	POLKA	COUNTRY	WALTZ	TANGO	LATIN	SAMBA	BOSSA-NOVA
SWING	DIXIE	JAZZ WALTZ	SHUFFLE	ROCK BALLAD	SWING ROCK	SAMBA ROCK	LATIN ROCK
8 BEAT 1	8 BEAT 2	ROCK 'N' ROLL	16 BEAT 1	16 BEAT 2	JAZZ ROCK	FUNK	DISCO
1	2	3	4	5	6	7	8

COMPOSER

3

MUSICAL DIRECTOR

TRANPOSE **9**

BALANCE

12

CONDUCTOR

4

KEYBOARD PERCUSSION

BASS

POLY2

POLY1

11

TEMPO/PROGRAM

13

PAD 1

PAD 2

PAD 3

MANUAL PERCUSSION

FILL IN (SOUND/CHORD RESET)

INTRO/BENDING

SYNCHRO BREAK

START STOP

1

POWER

OFF ON

6

PITCH BEND

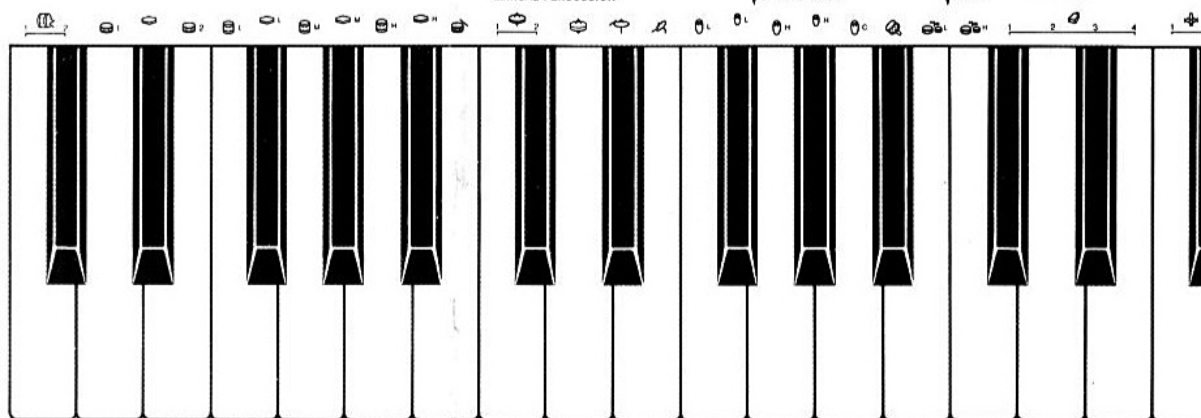
7

MODULATION

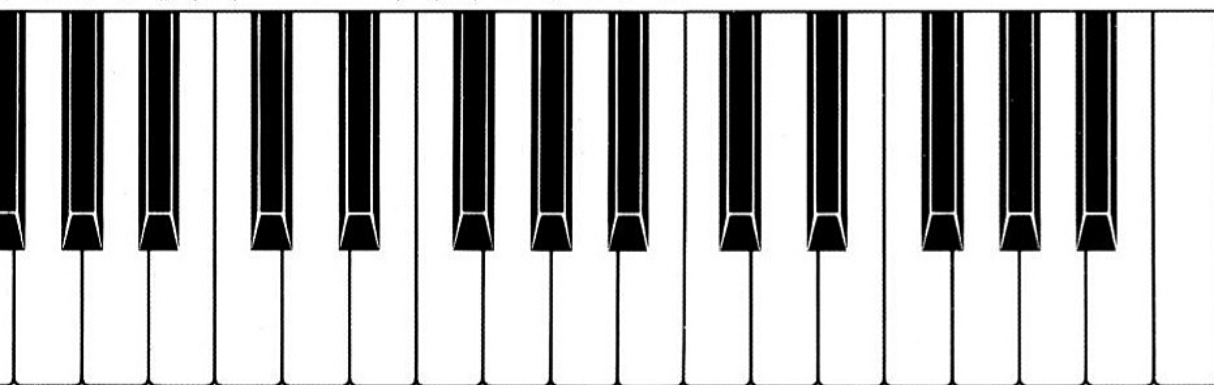
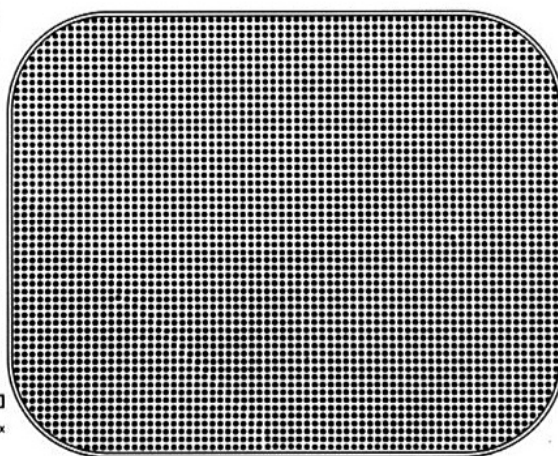
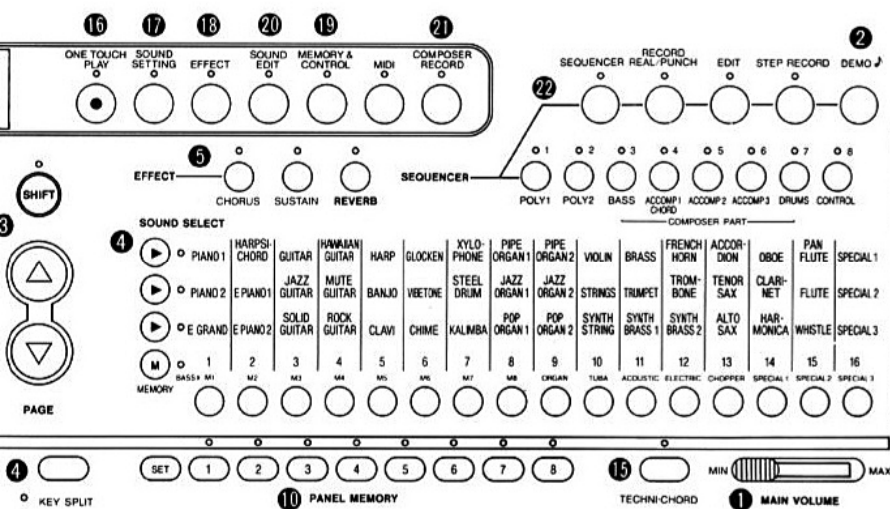
ON

UP

DOWN



sx-KN800



Technics

KN800
PCM KEYBOARD

Thank you for purchasing the Technics KN Series Keyboard.

This Owner's Manual is composed of three volumes.

Vol. 1 BASIC FUNCTIONS
Vol. 2 ADVANCED APPLICATIONS
Vol. 3 EXTERNAL MEMORY and MIDI

BASIC FUNCTIONS

This volume comprises an explanation of sounds and effects, rhythm and the fundamental workings of the Technics Keyboard. The circled numbers on the separate sheet correspond to the section numbers in this instruction manual.

CONTENTS

Part I Introduction

- ① Playing your Technics easy! 2
- ② Listen to the demonstration tune 3
- ③ Musical Director 4

Part II Basic creation of sounds and effects

- ④ Selecting sounds 6
- ⑤ Effect 9
- ⑥ Pitch Bend 9
- ⑦ Modulation 9
- ⑧ Back Ground Sound (KN800) 10
- ⑨ Transpose 10
- ⑩ Panel Memory 11

Part III Playing the rhythm

- ⑪ Rhythm Select 12
- ⑫ Keyboard Percussion 15
- ⑬ Manual Percussion 15
- ⑭ Auto Play Chord 16
- ⑮ Techni-chord 18
- ⑯ One Touch Play 19

Part IV Setting the functions

- ⑰ Sound Setting mode 20
- ⑱ Effect mode 22
- ⑲ Memory & Control mode 23

- Options and connections 27
- Cautions for safest use of this unit 28
- Specifications 31

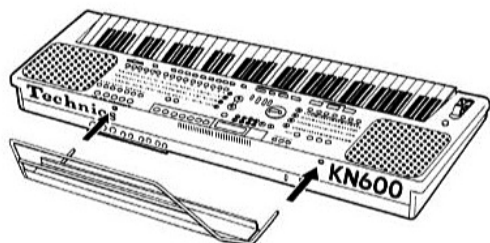
Part I Introduction

① Playing your Technics is easy!

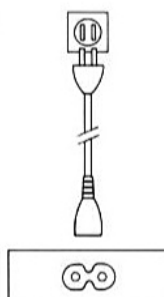
Setting up

1. Set up the music stand. Insert the music stand in the two holes on the rear of the keyboard as shown in the figure.
2. Plug the power cord into an outlet.
3. Press the **POWER** button to turn it on.

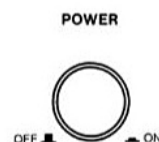
①



②

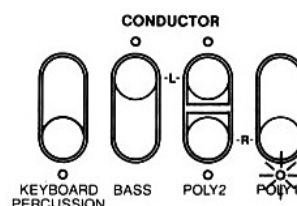


③

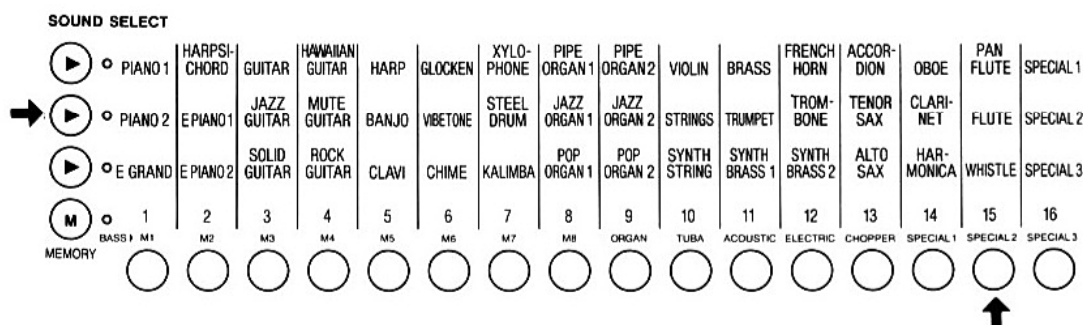


Start with the FLUTE sound.

1. Press the **POLY 1** button in the **CONDUCTOR** section to turn it on. The **POLY 1** indicator lights.



2. Select the **FLUTE** sound by pressing the appropriate buttons in the vertical and horizontal rows of the **SOUND SELECT** matrix.



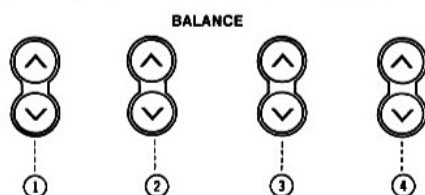
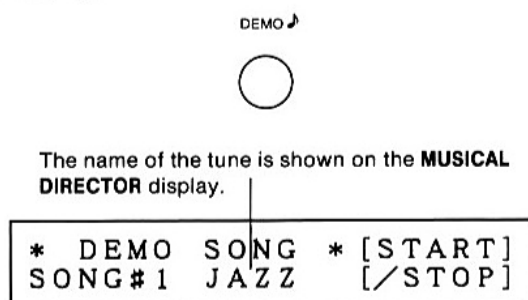
3. Set the **MAIN VOLUME** to an appropriate level with the sliding control.
 - Up to 7 notes on the KN600 and up to 8 notes on the KN800 can be produced simultaneously.
 - This keyboard features Touch Response, by which the volume is increased when the keyboard is played harder.



② Listen to the demonstration tune

A demonstration performance has been preset in your keyboard. Listen to the demonstration and you will hear what kind of performance is possible by using the various capabilities of the KN600/KN800.

1. Press the **DEMO** button. The display changes to the following.



2. Use the **▲** and **▼** **BALANCE** buttons at the ② position to select the first demonstration tune.

SONG#1: JAZZ
SONG#2: BALLAD
SONG#3: ETHNIC

3. Press either the **▲** or **▼** **BALANCE** button at the ① position to start the demonstration performance.

- The three tunes are played continuously in order until one of the **BALANCE** buttons at the ① position is pressed again.

4. When the demonstration performance is stopped and the **DEMO** button is then pressed again, the display returns to the normal mode display.

Note:

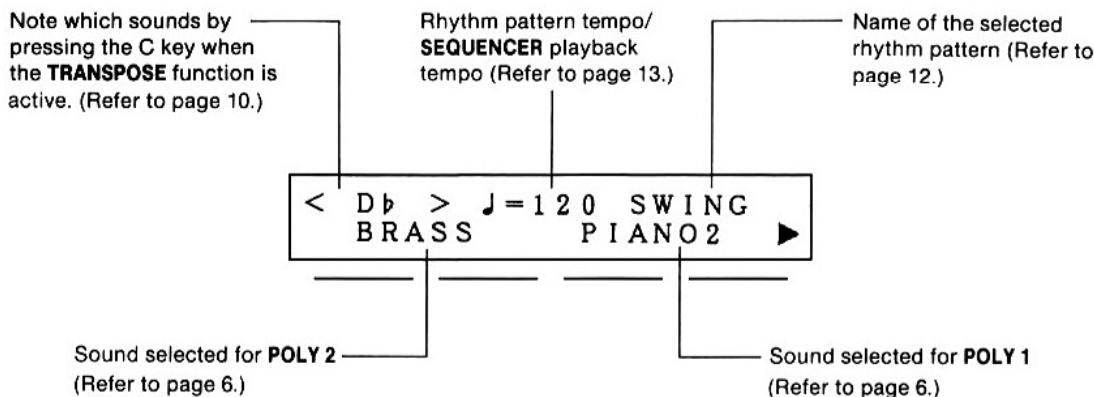
The other buttons and keys do not function when the demonstration performance display is shown.

③ Musical Director

The **MUSICAL DIRECTOR** displays performance information, function settings, and information necessary when performing storage procedures.

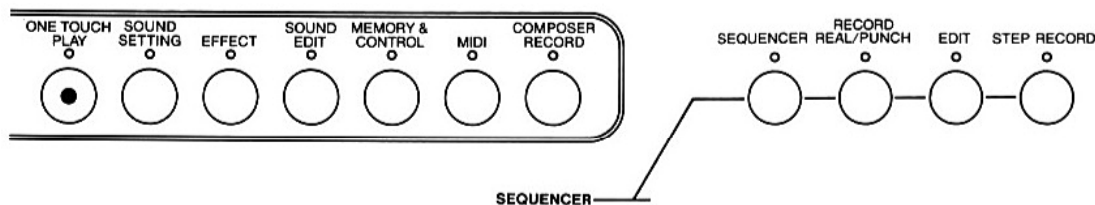
Normal mode display

When you are not performing storage functions, the display will be in the "normal mode" and indicate the following settings.



Display when setting functions

In addition to the above, other information is displayed on the **MUSICAL DIRECTOR** when one of the buttons shown in the figure below is pressed.



Page and Shift

Each mode may consist of several "pages." Some pages are shown in parts which you view by "shifting" the display.

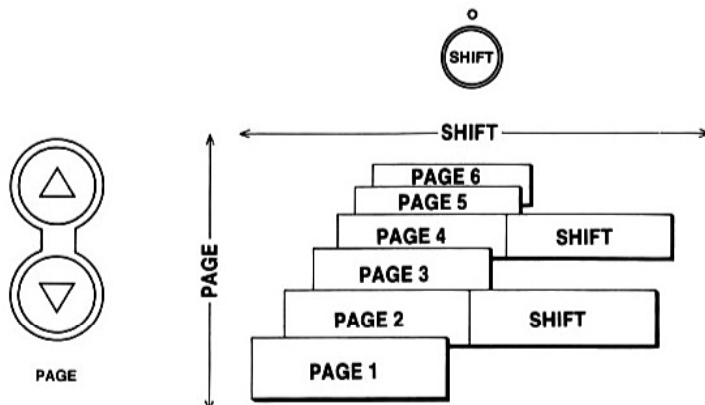
■ Changing the PAGE

Press the **▲ PAGE** button to go to a higher page number.
Press the **▼ PAGE** button to go to a lower page number.

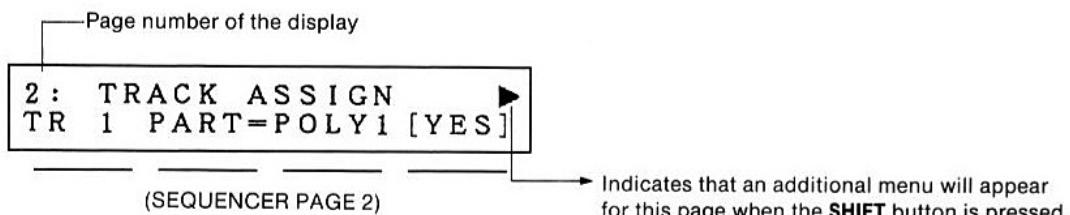
■ SHIFT display

When you press the **SHIFT** button to turn it on, the display changes to the "shift display." When you turn the **SHIFT** button off, the display returns to the original display.

- Changing the **PAGE** will cause the **SHIFT** button to turn off automatically.



Other symbols you will find



< > The enclosed selection indicates only one of multiple selections. The selection changes when the relevant Δ ∇ button is pressed.

[] The indicated function is executed or canceled when the relevant Δ ∇ button is pressed.

A word about the instructions in your Owner's Manual

Instructions to operate the **PAGE** buttons and the **SHIFT** button are abbreviated as follows:

■ Changing the "page"

PAGE 3

This sign indicates that you should press the appropriate **PAGE** button until this page number is shown on the display.

Press the Δ **PAGE** button to go to the next higher page number; press the ∇ **PAGE** button to go to the previous page number.

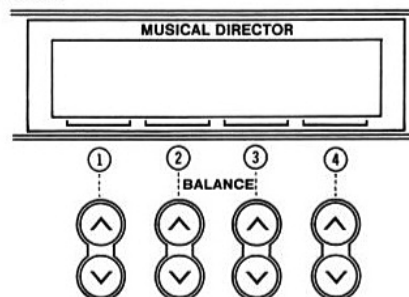
■ Shift display

PAGE 3 > SHIFT

This sign indicates that you should press the **SHIFT** button to turn it on and change the display to the "shift display." The indicator above the **SHIFT** button lights.

■ BALANCE buttons

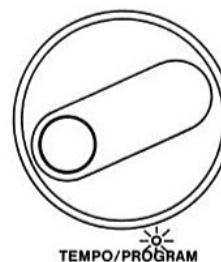
The settings shown on the display are for the most part controlled by operating the Δ and ∇ **BALANCE** buttons. The numbers ①~④ are indicated in the illustrations of the **MUSICAL DIRECTOR** display only in the Owner's Manual. These numbers correspond to the **BALANCE** buttons as shown below.



For example, "press either ④ button" means to press either of the **BALANCE** buttons, Δ or ∇ , in the ④ (rightmost) position.

Tempo/Program Dial

The **TEMPO/PROGRAM** dial is normally used to adjust rhythm and tempo. However, if the indicator below the dial is on while you are setting functions or operating the memory function, you can use the **TEMPO/PROGRAM** dial to specify the selection or set the value indicated on the display. When there are several items on the display which are settable, press either the Δ or ∇ button from ①~④ once to specify the item you wish to set.



Part II Basic creation of sounds and effects

4 Selecting sounds

The keyboard sounds of the KN600/KN800 are comprised of three parts—**POLY 1**, **POLY 2**, and **BASS**—for each of which respective sounds are selected with the **SOUND SELECT** matrix.

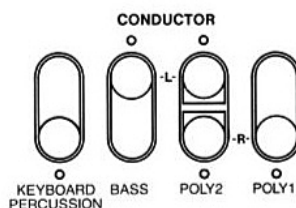
These parts are centrally controlled by the **CONDUCTOR**, which allows you to assign the same sound to the entire keyboard or different sounds to the left and right sections of a split keyboard.

Select a sound for each part with the **CONDUCTOR** and the **SOUND SELECT** matrix.

1. Select a part.

Press the **CONDUCTOR** button for the part you wish to select a sound for first. Select **POLY 1**, **POLY 2** or **BASS**.

- To select the **POLY 2** part, press the **R** button. (The sound selected for **POLY 2 R** is automatically set for **POLY 2 L**, too.)
- If the **KEYBOARD PERCUSSION** button is pressed on, the keyboard keys produce the sounds of percussion instruments. (Refer to page 15.)



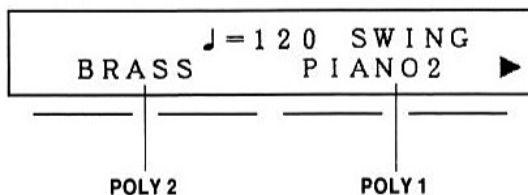
2. Select a sound.

POLY 1, POLY 2: The sound is selected by pressing one of the 3 vertical **►** buttons and one of the 16 horizontal buttons in the **SOUND SELECT** matrix.

BASS: The sound indicated in the **BASS ►** row is selected by pressing one of the 8 horizontal buttons (numbered 9~16) in the **SOUND SELECT** matrix.

SOUND SELECT																
	PIANO1	HARPSI-CHORD	GUITAR	HAWAIIAN GUITAR	HARP	GLOCKEN	XYLOPHONE	PIPE ORGAN1	PIPE ORGAN2	VIOLIN	BRASS	FRENCH HORN	ACCORDION	OBOE	PAN FLUTE	SPECIAL1
	PIANO2	EPIANO1	JAZZ GUITAR	MUTE GUITAR	BANJO	VIBETONE	STEEL DRUM	JAZZ ORGAN1	JAZZ ORGAN2	STRINGS	TRUMPET	TROMBONE	TENOR SAX	CLARINET	FLUTE	SPECIAL2
	E GRAND	EPIANO2	SOLID GUITAR	ROCK GUITAR	CLAVI	CHIME	KALIMBA	POP ORGAN1	POP ORGAN2	SYNTH STRING	SYNTH BRASS1	SYNTH BRASS2	ALTO SAX	HARMONICA	WHISTLE	SPECIAL3
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MEMORY	BASS ► M1	M2	M3	M4	M5	M6	M7	M8	ORGAN	TUBA	ACOUSTIC	ELECTRIC	CHOPPER	SPECIAL1	SPECIAL2	SPECIAL3

- The sound selected is shown on the **MUSICAL DIRECTOR** display.



- The **MEMORY 1~16** and **BASS M1~M8** locations are for storing original sounds you create yourself using the **SOUND EDIT** feature. (Refer to page 7 on Vol. 2.)

3. Assign the part to the keyboard.

Press the **CONDUCTOR** buttons to turn on the keyboard parts you wish to play. There are 8 possible ways to select parts as shown in the chart.

(R) denotes the right section of a split keyboard. (L) denotes the left section of a split keyboard.

CONDUCTOR settings	Parts which can be played on the keyboard	Number of notes that can be produced simultaneously
		KN600 POLY 1 : 7 notes KN800 POLY 1 : 8 notes
		KN600 POLY 2 : 4 notes KN800 POLY 2 : 8 notes
		KN600 POLY 1 : 7 notes POLY 2 : 4 notes KN800 POLY 1 : 8 notes POLY 2 : 8 notes
		KN600 (R) POLY 1 : 7 notes (L) POLY 2 : 4 notes KN800 (R) POLY 1 : 8 notes (L) POLY 2 : 8 notes
		KN600 BASS : 1 note KN800 BASS : 1 note
		KN600 (R) POLY 1 : 7 notes (L) BASS : 1 note KN800 (R) POLY 1 : 8 notes (L) BASS : 1 note
		KN600 (R) POLY 2 : 4 notes (L) BASS : 1 note KN800 (R) POLY 2 : 8 notes (L) BASS : 1 note
		KN600 (R) POLY 1 : 7 notes POLY 2 : 4 notes (L) BASS : 1 note KN800 (R) POLY 1 : 8 notes POLY 2 : 8 notes (L) BASS : 1 note

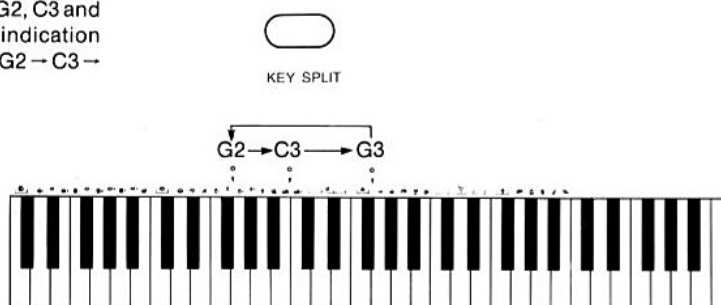
*Press 2 or more buttons simultaneously when multiple parts are used.

Poly 2 R and L

For **POLY 2** there are two types to select from, right (**R**) and left (**L**). **R** is selected to produce **POLY 2** sounds or both **POLY 1** and **POLY 2** sounds simultaneously over the entire undivided keyboard or on the right section of a divided keyboard. **L** is used to assign **POLY 2** sounds to the left section of a divided keyboard.

Changing the split point

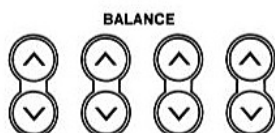
The split point is shown by one of the indicators at G2, C3 and G3. With each press of the **KEY SPLIT** button, the indication moves to the next split point in the following order: G2 → C3 → G3.



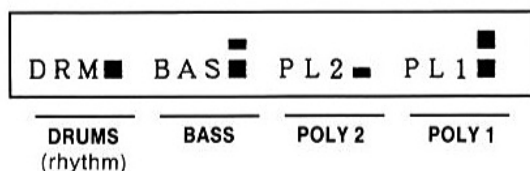
- When using the **AUTO PLAY CHORD** or the **ACCOMP** part of the **SEQUENCER** (explained later), the number of notes produced for **POLY 1** and **POLY 2** decreases.
- When the **AUTO PLAY CHORD** is used, the keyboard will split automatically.
- Depending on the selected sound, the octave may shift when the keyboard is split.

Balance (volume) of each part

The volume for each **CONDUCTOR** part is adjusted with the respective **▲** and **▼** **BALANCE** buttons.



1. When a **▲** or **▼** button is pressed, the volume for each part is shown on the **MUSICAL DIRECTOR** display in the form of a bar graph.



2. Adjust the volume for each part with the **▲** and **▼** **BALANCE** buttons.

- Pressing the **▲** button increases the volume.
- Pressing the **▼** button decreases the volume.
- Select from off and 14 volume levels.
- If no **▲** or **▼** button is pressed, the **MUSICAL DIRECTOR** returns to the normal mode display after a few seconds.

⑤ Effect

Your keyboard is provided with **CHORUS**, **SUSTAIN** and **REVERB** (KN800 only) effects. Try using these effects to see how they add character to the different sounds.



Effects

■ CHORUS

CHORUS effect gives the sound thickness and diffusion when a large number of musical instruments are being played.

■ SUSTAIN

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

■ REVERB (KN800 only)

REVERB creates the feeling of depth by adding an echo to the sound, such as the reverberation during a performance at a concert hall.

- The type of echo and depth of echo can be adjusted. (Refer to page 22.)

How to set effects

■ CHORUS and SUSTAIN

1. Turn on the **CONDUCTOR** button for the part for which you wish to set the effect. (Effects can be set for only one part at a time.)
 - To select the **POLY 2** part, press the **R** button.
2. Press to turn on the respective buttons for the desired effects.
 - The **CHORUS** effect does not function for the **BASS** part.

■ REVERB (KN800 only)

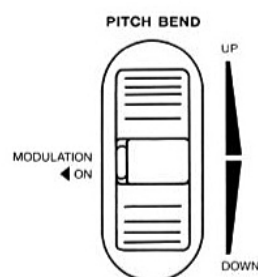
When the **REVERB** button is turned on, the **REVERB** effect is applied to all **CONDUCTOR** parts simultaneously.

⑥ 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 choking effect of a guitar.

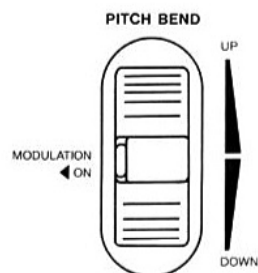
- When you release your hand from the wheel, it returns automatically to the center position and the pitch bend effect is turned off.
- The pitch can be raised or lowered as much as one whole note.
- The pitch bend effect does not function for the **AUTO PLAY CHORD** accompaniment pattern.



⑦ Modulation

The **MODULATION** switch is located in the center of the **PITCH BEND** wheel. When the switch is on, the vibrato effect is applied to the sounds. Vibrato is the effect of a slight waver in the pitch which can add a rich quality to the sounds.

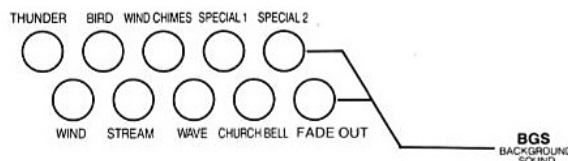
- The vibrato depth can be set for each part independently. (Refer to page 24.)



⑧ Back Ground Sound (KN800)

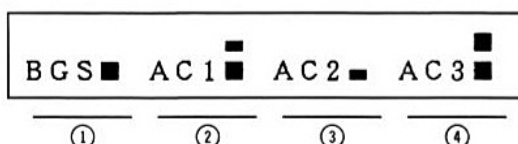
Nine different preset background sounds such as the chirping of birds and the sound of waves on the beach are available. Use the background sounds to give your song that special atmosphere.

1. Press a **BACK GROUND SOUND** button to turn it on.
 - The background sounds can be used together with the automatic rhythm and keyboard playing.
 - The background sounds can be mixed when two buttons are pressed at the same time. However, if the rhythm is started, only one background sound is produced (the sound of the uppermost or leftmost button).
2. If the **FADE OUT** button is pressed, the sound dies out slowly.
 - Press the **FADE OUT** button twice to turn off the **BACK GROUND SOUND** immediately.



■ Adjusting the volume

1. Press the **SHIFT** button.
2. Press the ① ② or ③ button. The display changes to the volume-setting display.
3. Adjust the volume of the **BACK GROUND SOUND** with the ④ and ⑤ buttons at ①.
 - Select from off and 14 volume levels.
 - A few seconds after you perform the above steps, the display will return to the **SHIFT** display. Press the **SHIFT** button again and the display will return to the normal mode display.



⑨ Transpose

The **TRANPOSE** control is used to shift the tuning (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 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 **TRANPOSE** feature.

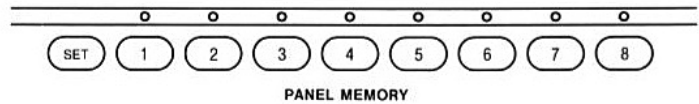
Another good use for the **TRANPOSE** feature is to allow you to play sheet music for instruments "built" in keys other than C, for example clarinet or saxophone.

- Each press of the ⑥ button changes the key of the instrument as follows: B, B^b, A, A^b, G. Each press of the ⑦ button changes the key as follows: D^b, D, E^b, E, F, F[#].
- When the **TRANPOSE** function is active, pressing the C key will sound the note shown in the **MUSICAL DIRECTOR** display.
- Pressing the two **TRANPOSE** buttons at the same time will return the keyboard to the normal pitch.



10 Panel Memory

The **PANEL MEMORY** buttons 1~8 allow you to store up to eight different panel settings of the keyboard. Then, simply by pressing just one button, the settings for the sounds and effects of each part are recalled instantly.



■ **Settings which can be stored are:**

- Sounds, effects and volumes for each part (**POLY 1**, **POLY 2**, **ACCOMP 1**, **2**, **3** and **BASS**)
- **CONDUCTOR** settings
- Keyboard split position
- **TRANSPOSE**

■ **Storing in the PANEL MEMORY**

1. Set up the desired panel settings.
2. With the **SET** button held down, press one of the number buttons of the **PANEL MEMORY**.
 - The panel settings of stored buttons (such as **MEMORY** buttons 1~16 in which are stored your original sounds created with the **SOUND EDIT** feature) can be stored in the **PANEL MEMORY**, but the memorized contents of these buttons cannot be stored.
 - The selected **PANEL MEMORY** button turns off when you change a storable setting on the panel.
 - It is possible to expand the range of storable panel settings. (Refer to page 24.)

Part III Playing the rhythm

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

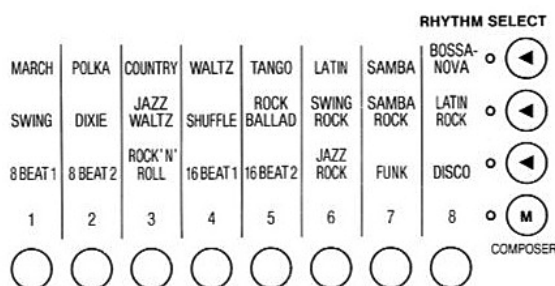
11 Rhythm Select

The rhythm section provides automatic performance of rhythm patterns using realistic percussive instrument sounds from a PCM digital sound generator.

Select a rhythm

Press one of the 3 vertical ◀ buttons and one of the 8 horizontal buttons in the **RHYTHM SELECT** matrix for the desired rhythm.

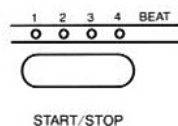
- The **COMPOSER** buttons 1~8 are for storing your own original rhythm patterns. (Refer to page 10 on Vol. 2.)
- The name of the selected rhythm is shown on the right part of the display.



Start the rhythm

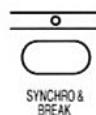
There are two ways to start the rhythm.

- Press the **START/STOP** button to start the rhythm instantly.

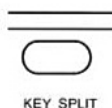


- When the **SYNCHRO & BREAK** button is on, the rhythm is started by pressing any key to the left of the indicated keyboard split point.

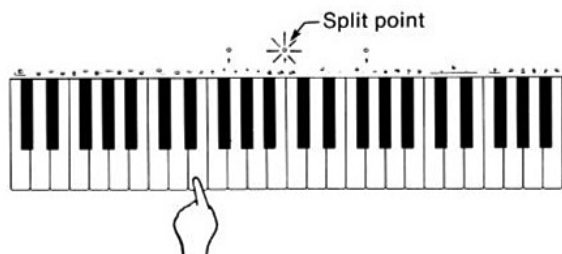
1. Press the **SYNCHRO & BREAK** button to turn it on.



2. Set the keyboard split point with the **KEY SPLIT** button. (Even when the keyboard is not divided into left and right sections, the indicator at the split position will light while the **KEY SPLIT** button is pressed.)



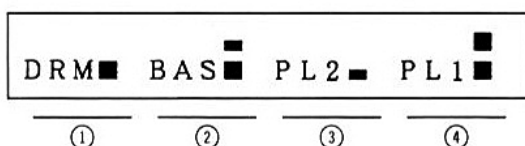
3. Press a key to the left of the indicated keyboard split point. The rhythm starts to play.



- When the rhythm is playing, the beat is shown by the four **BEAT** indicators above the **START/STOP** button.
- If the **SYNCHRO & BREAK** button is pressed on when the rhythm is stopped, the red first-beat indicator above the **START/STOP** button flashes with each beat, indicating the synchro-start standby status.

Adjust the volume

1. Press either ① button. The display changes to the balance display.

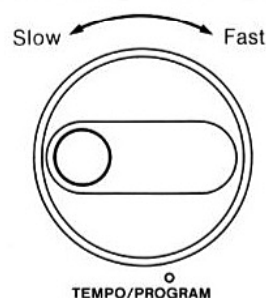


2. Adjust the volume with the ① buttons.
 - Select from off and 14 volume levels.
 - A few seconds after you complete the above steps, the display will return to the normal mode display.

Adjust the tempo

Adjust the tempo of the rhythm with the **TEMPO/PROGRAM** dial.

- The tempo is shown on the **MUSICAL DIRECTOR** display as $\text{♩} =$.
- If the green **TEMPO/PROGRAM** indicator is lit, the **TEMPO/PROGRAM** dial cannot be used to adjust the tempo.



Variation

Several rhythm variations are available for you to choose from.

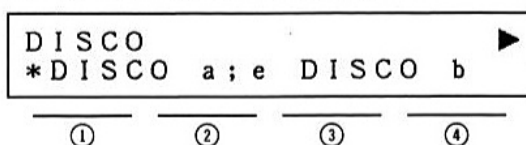
1. Select the desired rhythm with the buttons in the **RHYTHM SELECT** matrix.

RHYTHM SELECT							
MARCH	POLKA	COUNTRY	WALTZ	TANGO	LATIN	SAMBA	BOSSA-NOVA
SWING	DIXIE	JAZZ WALTZ	SHUFFLE	ROCK BALLAD	SWING ROCK	SAMBA ROCK	LATIN ROCK
8 BEAT 1	8 BEAT 2	ROCK 'N' ROLL	16 BEAT 1	16 BEAT 2	JAZZ ROCK	FUNK	DISCO
1	2	3	4	5	6	7	8
○	○	○	○	○	○	○	○
							COMPOSER

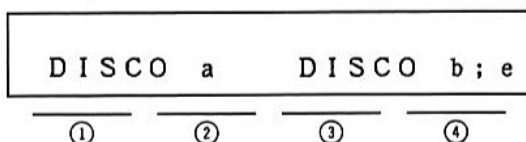
2. Press the **VARIATION** button in the **ARRANGER** section.



- The rhythm variation is shown on the display.
Example: When **DISCO** has been selected



Shift display



- The number of rhythm variations available depends on the particular rhythm selected.

3. Select the desired rhythm variation with the ①, ③ buttons.
 - A * will appear before the name of the selected variation.

4. If you press the **VARIATION** button again, the display will return to the normal mode display.

- The variation for the selected rhythm is shown on the shift display.

Example: When **DISCO** has been selected

DISCO a ; e
BGS ACP1 ACP2 ACP3

- For more detailed information concerning rhythm variations, refer to booklet provided.

DRUMS ARRANGER

When the **DRUMS** button of the **ARRANGER** section is pressed to on, the rhythm sounds change or the number of instruments in the rhythm increases.

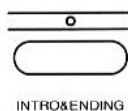


Intro & ending

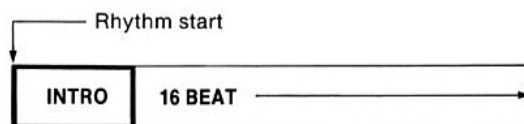
This feature lets you begin the rhythm with an introduction or stop the rhythm with an ending pattern.

■ This is how to start a song with **INTRO**.

1. Select **16 BEAT** on the **RHYTHM SELECT** matrix.
2. Press the **INTRO & ENDING** button to turn it on.



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



- When the intro is finished, the **INTRO & ENDING** indicator goes out.
- A rhythm with an intro can also be started with the synchro-start function.

■ ENDING

When the rhythm is on and the **INTRO & ENDING** button is pressed, at the end of a song for example, an ending pattern is produced, and then the rhythm stops.

- An ending pattern can also be inserted in the **AUTO PLAY CHORD** (explained later).

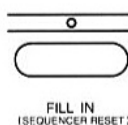
Fill In

Insert a fill-in pattern during the rhythm performance.

1. Select **16 BEAT** on the **RHYTHM SELECT** matrix.
2. Start the rhythm.



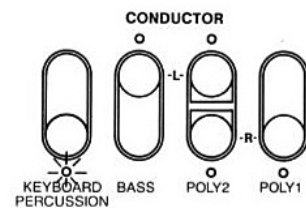
3. Press the **FILL IN** button.



- When the **FILL IN** button is pressed, a fill-in pattern is heard immediately.
- This fill-in feature is designed so that a different fill-in pattern is produced each time the **FILL IN** button is pressed. However, you can set a fixed fill-in pattern if you wish. (Refer to page 26.)

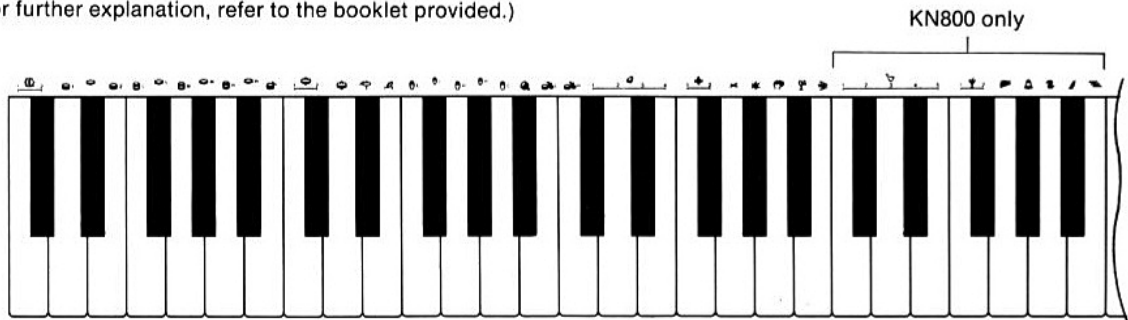
12 Keyboard Percussion

Press the **KEYBOARD PERCUSSION** button of the **CONDUCTOR** section on to turn your keyboard into a whole band of percussive instruments and other special sounds.



Percussive instrument sounds are produced by the keyboard keys as shown here.

(For further explanation, refer to the booklet provided.)



- The **KEYBOARD PERCUSSION** volume is adjusted with the **DRUMS** balance adjustment. (Refer to page 13.)
- Up to four instruments on the KN600 and up to 6 instruments on the KN800 can sound at the same time.
- When the **KEYBOARD PERCUSSION** button is on, the **POLY**, **BASS** and **ACCOMP** sounds are not available.
- If the **KEYBOARD PERCUSSION** is used while the automatic rhythm is playing, the rhythm pattern changes to a hi-hat and bass drum sound. To return to the normal rhythm sound, press the **KEYBOARD PERCUSSION** button to turn it off.

13 Manual Percussion

A percussive sound from the **KEYBOARD PERCUSSION** can be stored in each of the **PAD 1~3**, and then can be recalled during the performance by pressing the button.

<Procedure>

1. Press the **KEYBOARD PERCUSSION** button of the **CONDUCTOR** section to turn it on.
 2. While keeping one of the **PAD** buttons pressed, select the desired percussive sound by pressing the appropriate key on the keyboard for about 2 seconds.
 3. Two more percussive sounds can be stored in the remaining two **PAD** buttons.
- The **MANUAL PERCUSSION** button sounds can be played whether the **KEYBOARD PERCUSSION** button is on or off.
 - You can set **KEYBOARD PERCUSSION** sounds in the **PAD** buttons by using the display. (Refer to page 26.)



■ Initial setting

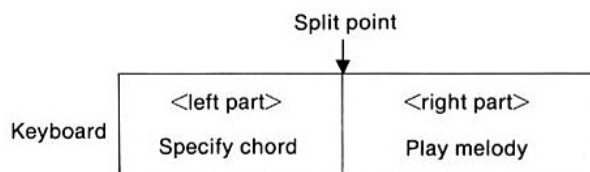
	PAD 1	PAD 2	PAD 3
KN600	Bass drum 1	Crash cymbal	Hand clap
KN800	Orchestra-hit	Wind chime	Thunder

- The **MANUAL PERCUSSION** volume is adjusted with the **DRUMS** balance adjustment.
- Other functions, such as rhythm start/stop, can be programmed in these buttons. (Refer to page 25.)

14 Auto Play Chord

Simply by playing a chord on the keyboard, the **AUTO PLAY CHORD** function automatically plays an accompaniment pattern which matches the selected rhythm.

When an **AUTO PLAY CHORD** mode is selected, the keyboard automatically divides into left and right sections. The left keyboard is used to specify the chords, the right keyboard to play the melody.



Playing chords

Choose from two ways of playing chords—the one-finger mode and the fingered mode—with the **ONE FINGER** and **FINGERED** buttons.

■ ONE FINGER mode


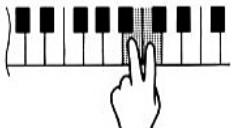
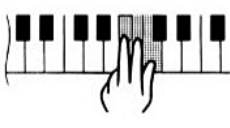
In the one-finger mode, a chord is played by specifying its root note.

1. Press the **ONE FINGER** button of the **AUTO PLAY CHORD** to turn it on.
2. Select a rhythm with the buttons in the **RHYTHM SELECT** matrix.



3. Press the **START/STOP** button to start the rhythm playing.
4. Press a key on the left keyboard to specify the root note. The major chord (**ACCOMP** part) and bass note corresponding to this root note are automatically played in an accompaniment pattern.

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 

- In the **ONE FINGER** mode, the **POLY 2 L** button and the **BASS** button of the **CONDUCTOR** turn off automatically and cannot be selected.

■ FINGERED mode

In the fingered mode, the chord is specified by playing it on the left part of the keyboard.

1. Press the **FINGERED** button of the **AUTO PLAY CHORD** to turn it on.
2. Select a rhythm with the buttons in the **RHYTHM SELECT** matrix.
3. Press the **START/STOP** button to start the rhythm playing.

4. When you play a chord on the left keyboard, the chord (**ACCOMP** part) and its corresponding bass note are automatically played in an accompaniment pattern.
 - When the **POLY 2 L** is selected, the **POLY 2** is also heard.
 - The keyboard can distinguish the following played chords for each key: C, C7, Cm7, C^{aug}, Cm, Cm7, Cdim7, Cm7^{♯5}, CmM7, C7sus4. If chord other than these is played, the chord in this group which is most closely related is used.
 - When a chord is specified with the rhythm stopped, the specified **ACCOMP** and **BASS** sounds are produced, but no rhythm pattern is produced.

Notes:

- If the **FINGERED** or **ONE FINGER** button of the **AUTO PLAY CHORD** is on, the number of sounds which are produced simultaneously by the right keyboard decreases.

	KN600	KN800
POLY 1	4	4
POLY 2	0	4

- If **BASS** only was selected in the **CONDUCTOR** section, when the keyboard automatically splits the right keyboard produces **POLY 1** sounds.

Memory button

When the **ONE FINGER** or **FINGERED** button is on

If the **MEMORY** button is on, even if you release the keyboard keys, the chord is memorized and is automatically played repeatedly until you play another chord.

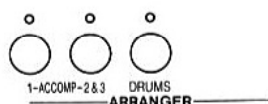
When the **ONE FINGER** and **FINGERED** buttons are off

If the rhythm is started when the **MEMORY** button is on, a walking bass matching the specified chord is produced.



Accompaniment pattern variations

You can select from two types of accompaniment patterns with the **ACCOMP 1** and **ACCOMP 2&3** buttons of the **ARRANGER**.



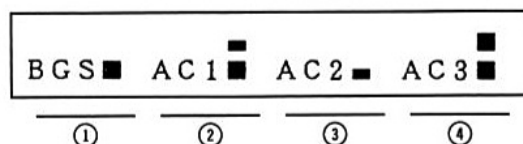
- **ACCOMP 1** and **ACCOMP 2&3** are turned on and off independently of each other.

Adjusting the volume

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

■ Adjusting the **ACCOMP** part volume

1. Press the **SHIFT** button.
 - The display changes to the shift display, and the name of the rhythm variation is shown.
2. Press one of the **BALANCE** buttons.
 - The display changes to the balance display for the rhythm part.



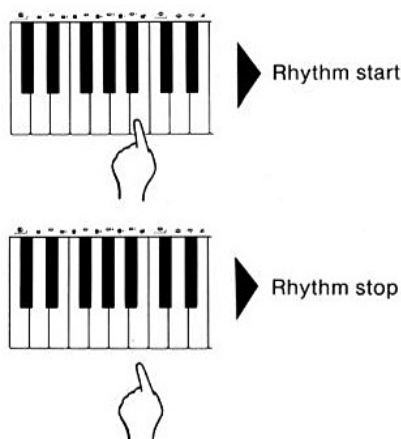
3. Adjust the **ACCOMP** part balance (AC1, AC2 and AC3) with the ②-④ buttons.
 - **ACCOMP** volume off and 14 levels of volume are selectable.
 - The display returns to the normal mode display after a few seconds.

For adjustment of the **BASS** part volume, refer to page 8.

Break function

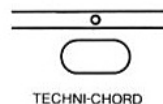
With the break function, the rhythm starts when the left keyboard is played and stops when the fingers are removed from the keys. When the keys are pressed again, the rhythm starts from the first beat.

1. Press the **ONE FINGER** or **FINGERED** button to turn it on.
 - At this time, the **MEMORY** button should be off.
2. Press the **SYNCHRO & BREAK** button to turn it on.

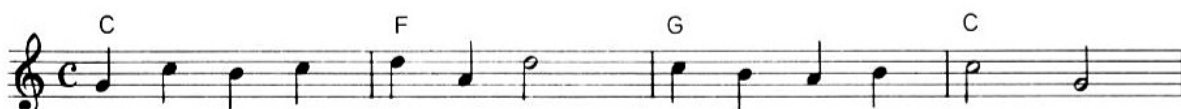


15 Techni-chord

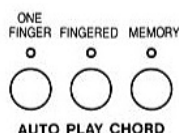
The **TECHNI-CHORD** feature expands the sound of your performance so that for each single note played, a chord is formed when the **AUTO PLAY CHORD** or **SEQUENCER** function (explained later) is used.



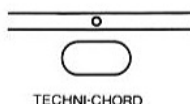
Set up your keyboard to play the example below.



1. Press the **ONE FINGER** button of the **AUTO PLAY CHORD** to turn it on.



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



3. Turn on the **POLY 1** button in the **CONDUCTOR**.
4. Select the **ACCORDION** sound in the **SOUND SELECT** matrix.

5. On the left part of the keyboard, play the note for the chord.

6. On the right part of the keyboard, play the melody. The melody is automatically played in block chords.

- If the chords for the **ACCOMP** part have been stored in the **SEQUENCER**, the melody can be played on the entire keyboard. (Refer to page 22 on Vol. 2.)
- The **TECHNI-CHORD** functions if the **POLY 1** is selected for the right part and the **POLY 2 (L)** is selected for the left part in the **CONDUCTOR** even if the **AUTO PLAY CHORD** is off.
- **TECHNI-CHORD** functions only for the **POLY** sounds.
- You can choose the desired **TECHNI-CHORD** harmony style. (Refer to page 23.)

16 One Touch Play

With the **ONE TOUCH PLAY** feature, the sounds and effects, etc. matching the selected rhythm are easily set in seconds and you are ready to play immediately.

- For details concerning the combination of rhythm and sounds, refer to the separate "One Touch Play" sheet.

1. Select the rhythm pattern with the buttons of the **RHYTHM SELECT** matrix.
- Do not select a rhythm with the **COMPOSER 1~8** buttons, or else the **ONE TOUCH PLAY** function will not work properly.
2. Press the **ONE TOUCH PLAY** button until the panel settings change.



3. The **AUTO PLAY CHORD** and **SYNCHRO & BREAK** functions are automatically turned on. The automatic rhythm begins to play immediately when a key on the left keyboard is pressed.

Music style select

If the **ONE TOUCH PLAY** button is pressed for just a second, the music style select function is activated. With this feature, all the keyboard settings, including the sounds, effects and rhythm, are set according to the selected music style.

1. Press the **ONE TOUCH PLAY** button momentarily.



The display changes to the following

PAGE 1

1: MUSIC STYLE
12 CHA CHA CHA! [SET]

①

②

③

④

2. Select the music style with the ① or ② buttons.
 - The music style can also be selected with the **TEMPO/PROGRAM** dial.
 - If the **ONE TOUCH PLAY** button is pressed again at this time, the music style select function is canceled.
3. By pressing either of the ④ buttons, the keyboard settings are set for the selected music style.

Part IV Setting the functions

⑪ Sound Setting mode

In general, the **SOUND SETTING** mode is used for setting sound, effects and volume for each part.

■ Specify the sound variation

1. Press the **SOUND SETTING** button to turn it on.



- The indicator lights.
- The **SOUND SETTING** display is shown.
- After making the desired settings, press the **SOUND SETTING** button to turn it off.

PAGE 1

1 : SOUND SETTING
PLY1=PIANO1+ VARI=2

① ② ③ ④

2. Select the part with the ① buttons.
 - Select from **POLY 1**, **POLY 2** and **BASS** parts.

3. Select the sound with the ② button.
 - The name of the sound is shown on the display.
 - You can also select the sound with the buttons in the **SOUND SELECT** matrix.
4. Select the desired variation (1 or 2) with the ④ buttons. (For details concerning variations, refer to booklet provided.)
5. Continue setting the desired sounds as desired.
 - The volume for each part is set with the **PAGE 2** display.

- #### ■ Set the volume for the ACCOMP 1, 2 and 3 parts with the ②, ③ and ④ buttons respectively.

PAGE 3

3 : BGS ■ AC1 ■ AC2 ■ AC3 ■

① ② ③ ④

- #### ■ Specify the sound for the ACCOMP part of the COMPOSER and SEQUENCER.

(Note, however, that the sound for the **ACCOMP** part of the **AUTO PLAY CHORD** does not change.)

1. PAGE 4

4 : SOUND SETTING
ACP1=STRNGS+ VARI=2

① ② ③ ④

2. Select the **ACCOMP** part with the ① buttons (ACP1, ACP2 and ACP3).
3. Select the desired sound with the ② buttons or with the buttons in the **SOUND SELECT** matrix.
4. If there are variations for the selected sound, select the variation with the ④ buttons.

■ Specify the on/off condition of the effect for each part.

1. **PAGE 5**

5 :	CHO	SUS	REV▶
PLY 1 =	ON	ON	OFF

①
②
③
④

2. Select the part with the ① buttons.

3. Set **CHORUS** on/off with the ② buttons.

- **CHORUS** on/off can be set for the **POLY 1, 2, ACCOMP 1, 2** and **3** parts.

4. Set **SUSTAIN** on/off with the ③ buttons.

- **SUSTAIN** on/off can be set for the **POLY 1, 2, ACCOMP 1, 2, 3** and **BASS** parts.

5. Set **REVERB** on/off with the ④ buttons (KN800 only).

- **REVERB** on/off can be set for the **POLY 1, 2, ACCOMP 1, 2, 3, BASS** and **DRUMS** parts.
- When **TOTAL** is set to **OFF**, **REVERB** does not work even if a part is set to **ON**.
- The **CHORUS** and **REVERB** of **ACCOMP 2** and **ACCOMP 3** cannot be set individually. If the **CHORUS** or **REVERB** are selected for one part, that effect is also heard on the other part.

■ Specify the volume for each part in 128 increments.

1. **PAGE 5 > SHIFT**

5 :	BAL
PLY 1 =	27

①
②
③
④

2. Specify the volume (from 0 to 127) with the ② buttons.

■ Assign the mode for each part independently.

1. **PAGE 6**

6 : PART ASSIGN
PLY 1 = MONO

①
②
③
④

2. Select the part with the ① buttons.

- Modes can be assigned to **POLY 1** and **POLY 2** parts.

3. Assign the mode with the ② buttons.

Select **POLY**, **MONO** or **SOLO**.

POLY	Set the POLY 1 and 2 to this mode so that polyphonic sound is produced.
MONO	The part set to this mode produces monophonic sound with high-note priority.
SOLO	The part set to this mode produces monophonic sound with last-note priority. However, this mode differs from the MONO mode in that when a part set to SOLO is mixed with a part set to POLY on the CONDUCTOR , the sound set to SOLO will not shift to the lower note if the interval between the highest note and the next note is more than one whole tone when you release your finger from the higher note.

- The initial setting is **POLY**.

18 Effect mode

In the effect-setting mode you can select the type of **REVERB**, store modified reverbs in **USER REVERB 1~4**, and specify the effect on/off condition for each part.

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

- The indicator lights.



Reverb (KN800 only)

PAGE 1

1 : REVERB TOTAL DEPTH
SYMPH. HALL OFF 8

① ② ③ ④

Specify the type and depth of the **REVERB**.

1. Select the type of reverberation effect with the ① buttons.
 - Select from eight types of **REVERB**: ROOM, HALL, STAGE, CATHEDRAL, SYMPH. HALL, ECHO 1, 2, 3.

For **USER 1~4**, refer to the **PAGE 2** procedure.

2. Set the **REVERB** on/off for all parts with the ③ buttons.
 - The **REVERB** indicator on the panel turns on or off depending on this setting.
3. Specify the depth of the reverberation effect with the ④ buttons.
 - Select from reverberation off and levels 1~8.

User reverb (KN800 only)

1. PAGE 2

2 : USER REVERB
USER 4 = SYMPH. HALL ▶

① ② ③ ④

You can select one of the **REVERB** types, edit it and then store it in **USER 1~4**.

2. Select from **USER 1~4** with the ① buttons.
3. Select one of the 8 types of **REVERB** with the ② buttons.

4. PAGE 2 > SHIFT

DECAY ECHO-TIME
8 8

① ② ③ ④

5. Set the **REVERB** decay time with the ① buttons.
 - Select from 1~8. The higher the value, the longer the decay time.
6. Set the **REVERB** repeat time with the ③ buttons.
 - Select from 1~8. The higher the value, the longer the repeat time.

Effect on/off

1. PAGE 3 (KN800) / PAGE 1 (KN600)

3 : CHO SUS REV
PLY 1 = ON OFF OFF

① ② ③ ④

Specify the effect on/off for each part.

2. Select the part with the ① buttons.
3. Set **CHORUS** on/off with the ② buttons.
 - **CHORUS** on/off can be set for the **POLY 1, 2, ACCOMP 1, 2** and **3** parts.

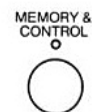
4. Set **SUSTAIN** on/off with the ③ buttons.
 - **SUSTAIN** on/off can be set for the **POLY 1, 2, ACCOMP 1, 2, 3** and **BASS** parts.
5. Set **REVERB** on/off with the ④ buttons (KN800 only).
 - **REVERB** on/off can be set for the **POLY 1, 2, ACCOMP 1, 2, 3, BASS** and **DRUMS** parts.
 - When **TOTAL** is set to **OFF**, **REVERB** does not work even if a part is set to **ON**.
 - The **CHORUS** and **REVERB** of **ACCOMP 2** and **ACCOMP 3** cannot be set individually. If the **CHORUS** or **REVERB** are selected for one part, that effect is also heard on the other part.

When all desired settings have been made, press the **EFFECT** button to turn it off.

19 Memory & Control mode

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

- The indicator lights.
- The display changes to the memory mode; an explanation of **PAGE 1** and **PAGE 3** appears in Part VIII: Storing the performance data. Use the **PAGE** buttons to get the displays relating to the functions explained here.
- After making the desired settings, press the **MEMORY & CONTROL** button to turn it off.



Initialize

PAGE 2

2 : INITIAL SETTING
ALL [SET]

① ② ③ ④

The memory contents of the KN600/KN800 can be initialized.

1. The functions to be initialized are selected by the ② buttons.

ALL:	Initializes all functions such as the status of sounds and effects, PANEL MEMORY , SOUND SELECT MEMORY , COMPOSER and SEQUENCER .
COMPOSER:	Initializes the COMPOSER memory and sets to the factory presets.
SOUND MEM.:	Initializes the SOUND SELECT MEMORY of all parts and sets to the factory presets.
SEQUENCER:	Initializes the memory contents of all tracks.

2. Press either ④ button to change to the following confirmation display.

2 : INITIAL SETTING
SURE? [NO] [YES]

① ② ③ ④

- Press either ④ button for [YES] to execute the initialization procedure.
- Press either ③ button for [NO] to cancel the initialization procedure.

Techni-chord

PAGE 4

4 : TECHNI CHORD
TYPE=CLOSE

① ② ③ ④

Select the desired **TECHNI-CHORD** harmony style with the ③ buttons.

- Select from four styles: CLOSE, OPEN 1, OPEN 2, DUET.

Tune

PAGE 5

5 : TUNE SCALE
4 4 0. 5 H z P I A N O T U N E

① ② ③ ④

With this function you can fine-tune the pitch of the entire keyboard. This is convenient when playing with other instruments.

Adjust the pitch with the ① buttons. The pitch is shown on the display.

- The pitch is adjustable within a range of 427.3 to 453.0 Hz.

Scale

Select from 2 modes with the ③ buttons.

- E. TEMPERA: One octave is divided into pitches of 12 equally spaced intervals.
- PIANO TUNE: Standard piano tuning, in which the lower pitches are tuned slightly lower and the higher pitches are tuned slightly higher.

Panel Memory mode

PAGE 6

6 : PANEL MEMORY MODE
NORMAL * E X P A N D

① ② ③ ④

Set the range of panel settings which are stored in the **PANEL MEMORY** locations.

1. Press either ① button to select NORMAL. Press either ③ button to select EXPAND.
- A * will appear before the name of the selected variation.

Mode	Panel settings which are stored
NORMAL	<ul style="list-style-type: none"> • Sounds, effects and volumes for each part • CONDUCTOR status • KEY SPLIT point • TRANSPOSE status
EXPAND	In addition to the above settings: <ul style="list-style-type: none"> • RHYTHM SELECT status • ARRANGER status • AUTO PLAY CHORD status • BACK GROUND SOUND status

Modulation

PAGE 7

7 : MODULATION DEPTH
PART=PLY 2 1

① ② ③ ④

Specify the depth of the vibrato (applied with the **MODULATION** switch) for each part.

1. Select the part with the ② buttons.
 - **MODULATION DEPTH** can be set for the **POLY 1, 2, ACCOMP 1, 2, 3** and **BASS** parts.
2. Set the vibrato depth (1~10) with the ④ buttons.

Switch assign

PAGE 8

8 : SWITCH ASSIGN
FTSW = STRT/STOP [SET]

① ② ③ ④

Assign the desired functions to the **FOOT SWITCH**, **PAD 1**, **PAD 2** and **PAD 3**.

- The Foot Switch SZ-P1 is an option.
- Specify the switch with the ① buttons.
 - Select FTSW, PAD 1, PAD 2 or PAD 3.
 - Select the desired function for the specified switch with the ② buttons.
 - The function is set as specified when either ④ button is pressed.

Functions which can be assigned are as shown here.

Function	Display	Foot Switch	PAD
OFF	OFF	—	○ ^b
PANEL MEMORY 1~8	P.MEM 1~8	○	○
PANEL MEMORY INCREMENT	P.MEM INC	○ ^a	○ ^a
START/STOP	STRT/STOP	○	○
FILL IN	FILL IN	○	○
INTRO & ENDING	ENDING	○	○
SUSTAIN	SUSTAIN	○*	○
GLIDE	GLIDE	○	○
TECHNI-CHORD	TECHNI-CD	○	○
PUNCH IN/OUT	PUNCH SW	○	—
PAD 1/2/3	PAD1~3INST	○ ^c	—

*Initialized setting

a: Every time you press the Foot Switch or **PAD**, the contents of the **PANEL MEMORY** are called in the numerical order of the **PANEL MEMORY** buttons.

b: Set the switch assign to off, to produce **KEYBOARD PERCUSSION** sounds with the **PAD** switches (see page 15.)

c: When **PAD** switch is set to OFF, the Foot Switch can be assigned the sound of a particular **PAD** switch.

Switch initialization

Returns the function settings of the Foot Switch and **PAD** switches to the initial status.

- PAGE 8 > SHIFT

8 : SWITCH ASSIGN
ALL INITIAL [SET]

① ② ③ ④

- Press either ④ button to execute.

Drum kit select

PAGE 9

9 : DRUM KIT SELECT
STYLE=ROCK

① ② ③ ④

Select the sound style of drums which fits the musical genre.

Select the desired genre with the ② buttons.

- Choose from ROCK, STANDARD and ELECTRIC.

Fill in pattern

PAGE 10

10 : FILL IN PATTERN
TYPE=RANDOM

① ② ③ ④

You can select the type of **FILL IN** pattern for each rhythm type with the ③ buttons.

Choose from A, B and RANDOM. When RANDOM is selected, type A and B are alternated whenever **FILL IN** is pressed.

Pad setting

PAGE 11

11 : PAD SETTING
PAD1=W n d c h i m

① ② ③ ④

Assign the desired type of percussion sound and instrument to **PAD 1**, **PAD 2** and **PAD 3**.

1. Specify PAD 1, 2 or 3 with the ① buttons.
2. Select the type of instrument (from keyboard percussion) with the ② buttons.
- Before assigning a percussion sound to a **PAD**, be sure to set PAD to OFF on **PAGE 8**.

LCD contrast

PAGE 12

12 : LCD CONTRAST
6

① ② ③ ④

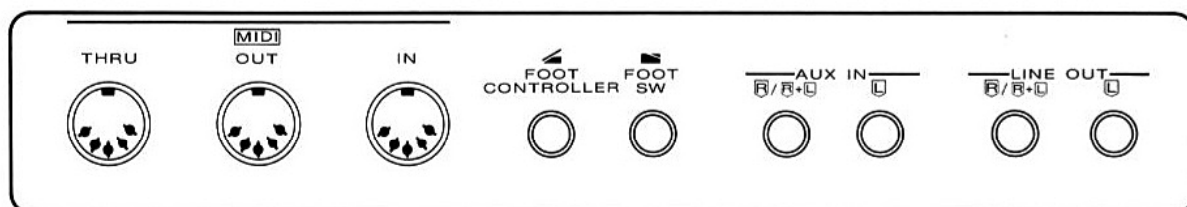
Set the contrast of the **MUSICAL DIRECTOR** display.

- You can adjust the LCD contrast in the range of 1~10 with the ③ buttons. The higher the number selected, the greater the contrast.

Options and connections

This page shows the optional accessories that are available for your Technics Keyboard. These can make your instrument more versatile and fun to play than it already is.

Also indicated are the many possible connections to the rear accessory panel.



FOOT CONTROLLER

The SZ-E2 Expression Pedal allows you to control the volume (loudness) of all the keyboard voices, leaving your hands free to play.

FOOT SW

When an SZ-P1 Foot Switch is connected to this terminal, you can choose from among several functions to control by foot. (Refer to page 25.)

AUX IN

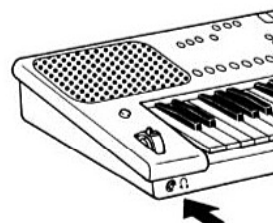
Other instruments such as a rhythm machine or sound module can be connected to the keyboard so that the sound is output from the keyboard. To receive monaural sound, connect instruments to the R/R+L terminal.

LINE OUT

By plugging into the Technics Keyboard Amp or a high-power amplifier, the sound can be reproduced at high volume. (Use the R/R+L terminal when outputting monaural sound.)

PHONES (Ω)

For silent practice headphones may be used. When plugged in, the speaker system is automatically switched off, and sound is heard only through the headphones.



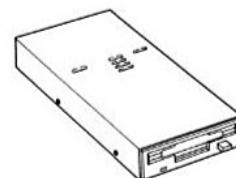
SZ-E2
Expression Pedal
(optional)



SZ-P1
Foot Switch
(optional)



SY-P5
Memory Card
(optional)



SY-FD20
Digital Disk Recorder
(optional)

Cautions for safest use of this unit

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.

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.

Handling the power cord

1. Never touch the power cord, or its plug, with wet hands.

2. Don't pull the power cord.

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, 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.

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, disconnect the power cord plug from the electrical outlet, 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.

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.

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.

**SERVICE MUST BE CARRIED OUT
BY DEALER OR OTHER QUALIFIED PERSON.**

MIDI Implementation Chart

Keyboard

[SX-KN600/SX-KN800]

(Transmitted)

Function		POLY 1	POLY 2	ACCOMP 1	ACCOMP 2	ACCOMP 3	BASS	DRUMS	CONTROL	Remarks
Basic Channel	Default Changed	1~16 1~16	1~16 1~16	1~16 1~16	1~16 1~16	1~16 1~16	1~16 1~16	1~16 1~16	1~16 1~16	memorized
Mode	Default Messages Altered	3 × —	3 × —	3 × —	3 × —	3 × —	3 × —	3 × —	3 × —	OMNI OFF POLY MODE
Note Number	True voice	0~127 —	0~127 —	0~127 —	0~127 —	0~127 —	0~127 —	0~127 —	— —	Changes depending on the position of the Octave Shift or Transpose control.
Velocity	Note ON Note OFF	○ × (9nH:v=0)	○ × (9nH:v=0)	○ × (9nH:v=0)	○ × (9nH:v=0)	○ × (9nH:v=0)	○ × (9nH:v=0)	○ × (9nH:v=0)	— —	
After Touch	Key's Ch's	× ×	× ×	× ×	× ×	× ×	× ×	× ×	× ×	
Pitch Bender		*○×	*○×	*○×	*○×	*○×	*○×	×	×	
Control Change	1	*○×	*○×	*○×	*○×	*○×	*○×	×	×	modulation
	7	*○×	*○×	*○×	*○×	*○×	*○×	*○×	*○×	volume main volume
	11	×	×	×	×	×	×	×	*○×	expression pedal
	64	*○×	*○×	*○×	*○×	*○×	*○×	×	×	sustain
	80	×	×	*○×	×	×	×	×	×	auto play chord
	82	×	×	×	×	×	×	*○×	×	intro, fill in, ending
93	*○×	*○×	*○×	*○×	*○×	×	×	×	chorus	
Prog Change	True #	*○×	*○×	*○×	*○×	*○×	*○×	*○×	*○× (KN800) *○× (KN800)	
System exclusive		×								
System common	Song Pos Song Sel Tune	*○×								0~18
System Real Time	Clock Commands	*○×								start/stop/continue
Aux	Local ON/OFF All notes OFF	×	×	×	×	×	×	×	—	
Messages	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 3: OMNI OFF, POLY

Mode 2: OMNI ON, MONO
Mode 4: OMNI OFF, MONO

○: Yes
×: No

MIDI Implementation Chart

Keyboard

[SX-KN600/SX-KN800]

(Recognized)

Function		POLY 1	POLY 2	ACCOMP 1	ACCOMP 2	ACCOMP 3	BASS	DRUMS	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 Messages Altered	3 × —	3 × —	3 × —	3 × —	3 × —	3 × —	3 × —	3 × —	OMNI OFF POLY MODE
Note Number	True voice	0~127 24~119	0~127 24~119	0~127 24~119	0~127 24~119	0~127 24~119	0~127 24~95	0~127 36~71 (KN600) 36~63 (KN800)	— —	Changes depending on the position of the Octave Shift or Transpose control.
Velocity	Note ON Note OFF	○ ×	○ ×	○ ×	○ ×	○ ×	○ ×	○ ×	— —	
After Touch	Key's Ch's	×	×	×	×	×	×	×	×	
Pitch Bender		*○×	*○×	*○×	*○×	*○×	*○×	×	×	
Control Change	1	*○×	*○×	*○×	*○×	*○×	*○×	×	×	modulation
	7	*○×	*○×	*○×	*○×	*○×	*○×	*○×	*○×	volume main volume
	11	×	×	×	×	×	×	×	*○×	expression pedal
	64	*○×	*○×	*○×	*○×	*○×	*○×	×	×	sustain
	80	×	×	*○×	×	×	×	×	×	auto play chord
	82	×	×	×	×	×	×	*○×	×	intro, fill in, ending
	93	*○×	*○×	*○×	*○×	*○×	×	×	×	chorus
Prog Change	True #	*○× 0~63 0~7**	*○× 0~63	*○× 0~63	*○× 0~63	*○× 0~63	*○× 0~15	*○× 0~31	*○× (KN600) *○× (KN800) 0~9	
System exclusive		×								
System common	Song Pos Song Sel Tune	*○× *○× ×								0~18
System Real Time	Clock Commands	○ *○×								start/stop/continue
Aux	Local ON/OFF All notes OFF	×	×	×	×	×	×	×	— —	
Messages	Active Sense Reset	○ ×								
Notes		*○×.....Whether or not the data for each of these items is received can be set. ** P. MEMO/P. CG								

Mode 1: OMNI ON, POLY
Mode 3: OMNI OFF, POLY

Mode 2: OMNI ON, MONO
Mode 4: OMNI OFF, MONO

○: Yes
×: No

Specifications

		SX-KN600	SX-KN800
KEYBOARD		61 KEYS (TOUCH SENSITIVE KEYBOARD)	
SOUND SOURCE		PCM	
MAXIMUM NUMBER OF SIMULTANEOUS POLYPHONIC NOTES		16	23
PRESET SOUNDS	POLY 1, 2, ACCOMP 1, 2, 3	96 SOUNDS (48 × 2 VARIATIONS): PIANO 1, 2, E.GRAND, HARPSICHORD, E.PIANO 1, 2, GUITAR, JAZZ GUITAR, SOLID GUITAR, HAWAIIAN GUITAR, MUTE GUITAR, ROCK GUITAR, HARP, BANJO, CLAVI, GLOCKEN, VIBETONE, CHIME, XYLOPHONE, STEEL DRUM, KALIMBA, PIPE ORGAN 1, 2, JAZZ ORGAN 1, 2, POP ORGAN 1, 2, VIOLIN, STRINGS, SYNTH STRING, BRASS, TRUMPET, FRENCH HORN, TROMBONE, SYNTH BRASS 1, 2, ACCORDION, TENOR SAX, ALTO SAX, OBOE, CLARINET, HARMONICA, PAN FLUTE, FLUTE, WHISTLE, SPECIAL 1, 2, 3	
	BASS	16 SOUNDS (8 × 2 VARIATIONS): ORGAN, TUBA, ACOUSTIC, ELECTRIC, CHOPPER, SPECIAL 1, 2, 3	
SOUND EDIT	PARAMETER	TONE ASSIGN MODE (NORMAL, DUAL DUET, TRIO), TONE SELECT, VOLUME (LEVEL, KEY-BALANCE), PITCH (KEY-SHIFT, DETUNE), ENVELOPE (ATTACK & DECAY, RELEASE), VIBRATO (DEPTH, SPEED, DELAY), REPEAT (SPEED), AUTO BEND & TRILL (PATTERN, DEPTH, TIME), PITCH RELEASE (DEPTH, TIME), TOUCH SENSE (VOLUME, AUTO BEND & TRILL), GLIDE (ON/OFF), SPLIT OCT (ON/OFF), SOUND NAME	
	SOUND MEMORY	POLY 1, 2, ACCOMP 1, 2, 3: 16 MEMORY BASS: 8 MEMORY	
EFFECT	CHORUS	ON/OFF (POLY 1, 2, ACCOMP 1, 2, 3)	
	SUSTAIN	ON/OFF (POLY 1, 2, ACCOMP 1, 2, 3, BASS)	
	REVERB	ON/OFF (POLY 1, 2, ACCOMP 1, 2, 3, BASS, DRUMS) TYPE (ROOM, HALL, STAGE, CATHEDRAL, SYMPHONY HALL, ECHO 1, 2, 3), TOTAL ON/OFF, DEPTH, USER 1~4 (DECAY, ECHO-TIME)	
MODULATION		VIBRATO ON/OFF	
PITCH BEND		○ (PITCH BEND WHEEL)	
TRANPOSE		○	
TECHNI-CHORD		○	
BGS		THUNDER, BIRD, WINDCHIMES, SPECIAL 1, 2, WIND, STREAM, WAVE, CHURCHBELL, FADE-OUT	
RHYTHM	PATTERN	MARCH, POLKA, COUNTRY, WALTZ, TANGO, LATIN, SAMBA, BOSSANOVA, SWING, DIXIE, JAZZ WALTZ, SHUFFLE, ROCK BALLAD, SWING ROCK, SAMBA ROCK, LATIN ROCK, 8 BEAT 1, 2, ROCK'N'ROLL, 16 BEAT 1, 2, JAZZ ROCK, FUNK, DISCO	
	CONTROLS	START/STOP, SYNCHRO & BREAK, FILL-IN, INTRO & ENDING, TEMPO	
	MANUAL PERCUSSION	PAD 1, 2, 3	
	KEYBOARD PERCUSSION	36	48
AUTO PLAY CHORD		FINGERED, ONE FINGER, MEMORY	
ARRANGER		ACCOMP 1, 2&3, DRUMS, VARIATION	
ONE TOUCH PLAY		⏮ (ONE TOUCH PLAY/MUSIC STYLE SELECT)	
PANEL MEMORY		SET, 1~8	
COMPOSER		5 TRACKS (PART: ACCOMP 1, 2, 3, BASS, DRUMS) MEMORY...1~8 INPUT MODE...REAL TIME, STEP EDITING FUNCTIONS...COPY, RECORDING, CHORD SELECT RESOLUTION...REAL TIME: ♩ -1/96, STEP: ♩ -1/32	
SEQUENCER		8 TRACKS (PART: POLY 1, 2, BASS, ACCOMP 1/CHORD, ACCOMP 2, 3, DRUMS, CONTROL) STORAGE CAPACITY...APPROX. 2,800 NOTES INPUT MODE...REAL TIME, STEPS EDITING FUNCTIONS...PUNCH-IN/OUT, TRACK ASSIGN, SONG ALL CLEAR, TRACK CLEAR, TRACK MERGE, MAJOR DELETE, MAJOR ERASE, MAJOR INSET, MAJOR COPY, VELOCITY CHANGE, QUANTIZE RESOLUTION...REAL TIME: ♩ -1/96, STEPS: ♩ -1/32, DEMONSTRATION TUNE...3	
MUSICAL DIRECTOR		LIQUID CRYSTAL DISPLAY (20 LETTERS × 2 LINES)	
CONTROLS		SHIFT, PAGE ⏮ ⏭, BALANCE ⏮ ⏭, CONDUCTOR (POLY 1, 2, BASS, KEYBOARD PERCUSSION), TEMPO/PROGRAM DIAL, KEY SPLIT	
MIDI		PART (POLY 1, 2, ACCOMP 1, 2, 3, BASS, DRUMS, CONTROL) CHANNELS 1~16 MIDI INPUT SELECT (CONDUCTOR/DIRECT) MIDI OUTPUT SELECT (APC/CHORD, TECHNI-CHORD ON/OFF) MIDI FUNCTION SELECT COMMON: (INITIAL, NOTE ONLY, TRANPOSE OUT, PROGRAM CHANGE MODE, SONG SELECT, REAL TIME COMMAND, MIDI CLOCK, MIDI DATA LOAR) PART: (OCTAVE SHIFT, PANEL MEMORY, PROGRAM CHANGE, SUSTAIN, VELOCITY, PITCH BEND, MODULATION, VOLUME, CHORUS, EXPRESSION, INTRO)	
EXTERNAL MEMORY		MEMORY CARD (SY-P5, OPTIONAL), DIGITAL DISK RECORDER (SY-FD20, OPTIONAL)	
TERMINALS		HEADPHONE, LINE OUT (R/R+L, L), AUX IN (R/R+L, L), MIDI (IN, OUT, THRU), FOOT SWITCH, FOOT CONTROLLER	
OTHERS		POWER SWITCH, MAIN VOLUME, MEMORY CARD SLOT	
OUTPUT		10W×2	
SPEAKERS		16cm (6-5/16")×2	
POWER REQUIREMENT		70W	
		AC120V, 60 Hz (NORTH AMERICA), AC120/220/240V 50/60 Hz	
DIMENSIONS (W×H×D)		103.2 cm×13.2 cm×35.7 cm (40-5/8"×5-3/16"×14-1/16")	
NET WEIGHT		11.2 kg (24.7 lbs.)	11.4 kg (25.1 lbs.)
ACCESSORIES		MUSIC RACK, AC CORD, DUST COVER	

Technics

KEYBOARD

SX-KN600

SX-KN800

Operating Instructions



Vol. 2

Technics

OWNER'S MANUAL

Vol. 2

PRACTICAL APPLICATIONS

This volume describes the storage functions incorporated in your Technics Keyboard, including how to use the **SOUND EDIT** to create unique sounds, the **COMPOSER** to make original rhythm patterns, and the **SEQUENCER** to record your performance.

	page
Part V Creating sounds	
⑳ SOUND EDIT	2
Part VI Creating accompaniment patterns	
㉑ COMPOSER	8
Part VII Recording/playback and editing your keyboard performance	
㉒ SEQUENCER	15

Part V Creating sounds

20 Sound Edit

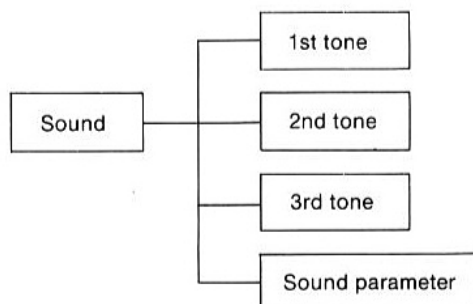
In the **SOUND EDIT** mode, you modify the various elements of a source (preset) sound as desired to make a new and unique sound which can then be stored in a **MEMORY** location.

Composition of the SOUND EDIT

By way of definition, we shall call the preset voices "sounds" each of which is comprised of a "sound parameter" and "tones" which are digitally recorded.

A sound may be made up of at most three tones, which we shall call the 1st, 2nd and 3rd tones. (Not all sounds are made up of three tones.)

The procedure by which you combine these tones and edit the sound parameters to create new sounds is very simple.















Furthermore, you specify the **MODE** by which each tone is generated.

NORMAL: The standard mode in which only 1 type of tone is used.

DUAL: When two tone types are used the sounds are layered (both tones are assigned to the whole keyboard).

DUET: When two tone types are used, each tone is assigned to a different portion of the keyboard.

TRIO: When three tone types are used, each tone is assigned to a different portion of the keyboard.

MODE	1 key	2 keys	3 keys
NORMAL	 1st	 1st	 1st
DUAL	 1st 2nd	 1st 2nd	 1st 2nd
DUET	 1st 2nd	 1st 2nd	 1st 2nd
TRIO	 1st 2nd 3rd	 1st 2nd 3rd	 1st 2nd 3rd

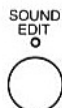
How to use the SOUND EDIT mode

- I. Enter the **SOUND EDIT** mode.
- II. Modify the various parameters as desired.
- III. Store the new sound in a **MEMORY** location.

Procedure

I. Enter the SOUND EDIT mode.

Press the **SOUND EDIT** button to turn it on.



- After editing a sound, press the **SOUND EDIT** button to turn it off.

II. Modify the parameters.

PAGE 1

1 : PART & SOUND
PLY 2 = BRASS+ VARI = 2

① ② ③ ④

Select a preset sound to use as the foundation on which to build the new sound. Choose a sound which is most similar to the sound you wish to make.

- Select the part with the ① buttons.
- Select the preset sound with the **SOUND SELECT** buttons.
- Select variation 1 or 2 with the ④ buttons.

PAGE 1 > SHIFT

1 : MEMORY WRITE
PLY 1 NO = 07 [WRITE]

① ② ③ ④

The **PAGE 1 > SHIFT** display can be used to store the edited sound. (This display is the same as the **PAGE 14** display.)

- Select the **MEMORY** location (number) with the ② buttons.
- When either ④ button is pressed, the display asks if you are sure you wish to store the new sound in the specified location.
- Pressing either ④ button for [YES] stores the sound. To cancel the **MEMORY WRITE** procedure, press either ③ button for [NO].

PAGE 2

2 : MODE SELECT
NORMAL

① ② ③ ④

Select the mode.

- Select the mode (NORMAL/DUAL/DUET/TRIO) with the ② buttons.

PAGE 2 > SHIFT

2 : MODE SELECT
2nd DELAY-START = 30

① ② ③ ④

If the **DUAL** mode has been selected, you can set the delay time between the start of the 1st tone and the start of the 2nd tone.

- Set the delay time (0~30) with the ④ buttons. The higher the number, the longer the delay.

PAGE 3

3 : TONE SELECT
1st 30 : Strings

① ② ③ ④

Modify and set the tones which comprise the sound.

- When there are multiple tones, select the tone you wish to modify first (1st, 2nd or 3rd) with the ① buttons.
- Specify the kind of tone with the ② buttons. (Refer to the separate booklet.)

When the **NORMAL** mode is selected, the tone indication (1st, 2nd, 3rd) is not displayed.

In many cases, when the corresponding **BALANCE** button is pressed once, the **TEMPO/PROGRAM** dial indicator lights and the dial can also be used to select the desired parameter. In this step, for example, after the ② or ③ button has been pressed once, you can use either the ② and ③ **BALANCE** buttons or the **TEMPO/PROGRAM** dial to select the desired tone.

PAGE 4

4 : VOLUME
1 s t LEVEL = 1 0 0

① ② ③ ④

Set the volume of each tone.

1. When there are multiple tones, select the tone you wish to modify first with the ① buttons.
2. Specify the volume "LEVEL" (0~100) with the ④ buttons. The higher the number, the louder the sound.

PAGE 4 > SHIFT

4 : VOLUME
1 s t KEY-BALANCE = + 5 0

① ② ③ ④

With the key balance effect, you can specify an increase in volume proportionate to the increase or decrease in pitch.

1. If the **DUAL** mode has been selected, select the tone you wish to modify first with the ① buttons.
2. Specify the amount of key balance effect (-50~+50) with the ④ buttons.
 - For a + value: The loudness increases as you play higher on the keyboard.
 - For a - value: The loudness increases as you play lower on the keyboard.

PAGE 5

5 : PITCH
1 s t KEY-SHIFT = - 2 4

① ② ③ ④

KEYSHIFT

The pitch of the keyboard of the played key can be shifted up or down.

1. When there are multiple tone elements, select the tone element you wish to modify first with the ① buttons.
2. Set the amount of key shift (-24~+24) with the ④ buttons.
 - Note that a value of 1 means a shift of one semitone.
 - To raise (or lower) the pitch one octave, set the value to +12 (or -12).
 - To raise (or lower) the pitch two octaves, set the value to +24 (or -24).

PAGE 5 > SHIFT

5 : PITCH
2 n d DETUNE = - 2 0

① ② ③ ④

DETUNE

The detune effect shifts the pitch of each tone.

1. When there are multiple tones, select the tone you wish to modify first with the ① buttons.
2. Set the amount of pitch change (-50~+50) with the ④ buttons.
 - When set to a + value, the tone will be high in relation to the keyboard tuning; when set to a - value, the tone will be low in relation to the keyboard tuning. The higher the absolute value, the greater the change in pitch.

PAGE 6

6 : ENVELOPE
2 n d ATTACK&DECAY = 3 0

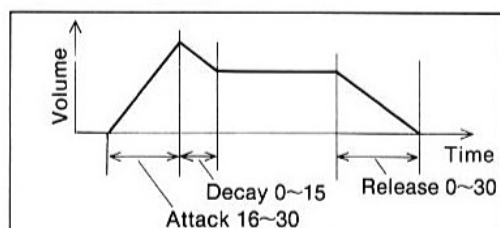
① ② ③ ④

Set the change in volume over time for each tone.

ATTACK & DECAY

Set the attack and decay time.

1. When there are multiple tones, select the tone you wish to modify first with the ① buttons.
2. Set the attack and decay values (0~30) with the ④ buttons.
 - Attack time (16~30)—the higher the value, the slower the attack.
 - Decay time (0~15)—the higher the value, the slower the decrease.



PAGE 6 > SHIFT

6 : ENVELOPE
2 n d RELEASE = 3 0

① ② ③ ④

RELEASE

The release time is the time elapsed from when the key is released to when the sound is no longer audible.

1. When there are multiple tones, select the tone you wish to modify first with the ① buttons.
2. Specify the release time (0~30) with the ④ buttons. The higher the value, the longer it takes for the sound to die out.

PAGE 7

7 : VIBRATO
DEPTH=30 2ndSP=15

① ② ③ ④

Set the vibrato effect.

1. Specify the depth of the vibrato (0~30) with the ② buttons.
 - The higher the value, the greater the change in pitch.
2. Specify the vibrato speed with the ④ buttons (0~30).
 - The higher the value, the faster the speed.
 - If the **DUAL** mode has been selected, however, select the tone to modify with the ③ buttons and the corresponding speed with the ④ buttons.

PAGE 7 > SHIFT

7 : VIBRATO
DELAY=10 1st=OFF

① ② ③ ④

1. Specify the time elapsed (0~30) from when the keyboard key is pressed until the vibrato effect is applied to the sound with the ② buttons.
 - The higher the value, the longer it takes until the vibrato effect is applied.
2. When there are multiple tones, select a tone with the ③ buttons. Select vibrato on/off for the selected tone with the ④ buttons.
 - When the **NORMAL** mode is selected, the vibrato on/off cannot be selected for each tone. (There is only one tone in the **NORMAL** mode.)

PAGE 8

8 : REPEAT
SPEED=10 1st=OFF

① ② ③ ④

The repeat function provides a mandolin effect by automatically repeating played notes.

1. Specify the repeat speed (0~30) with the ② buttons. The higher the value, the faster the repeat speed.
2. When there are multiple tones, select a tone with the ③ buttons. Select repeat on/off for the selected tone with the ④ buttons.
 - When the **NORMAL** mode is selected, the repeat on/off cannot be selected for each tone.

PAGE 9

9 : AUTOBEND&TRILL
PATTERN=A1 DEPTH=-30

① ② ③ ④

For AUTOBEND & TRILL there are 15 available patterns. (Refer to the separate sheet.)

1. Select the desired bend pattern (A1~5, B1~5, C1~5) with the ② buttons.
2. Specify the amount of pitch bend (-30~+30) with the ④ buttons.
 - The higher the absolute value, the greater the degree of pitch bend.

PAGE 9 > SHIFT

9 : AUTOBEND&TRILL
SPEED=30 1st=OFF

① ② ③ ④

1. Specify the time it takes for the set pitch change (auto bend pitch) to become the played pitch (normal pitch) (0~30) with the ② buttons.
 - The higher the value, the shorter the time.
2. When there are multiple tones, select a tone with the ③ buttons. Select pitch bend on/off for the specified tone with the ④ buttons.
 - When the **NORMAL** mode is selected, the AUTOBEND & TRILL on/off cannot be selected for each tone.

PAGE 10

10: PITCH RELEASE
DEPTH = +30 TIME = 30 ▶

① ② ③ ④

Set a continuous change in the pitch during the release period.

1. Specify the amount of pitch bend (−30~+30) with the ② buttons.
 - When set to a + value, the auto bend pitch is higher than the played pitch. At +30, the auto bend pitch is about one whole tone higher than the played pitch.
 - When set to a − value, the auto bend pitch is lower than the played pitch. At −30, the auto bend pitch is about one whole tone lower than the played pitch.
2. Specify the time it takes for the played pitch to become the auto bend pitch (0~30) with the ④ buttons.

PAGE 10 > SHIFT

10: PITCH RELEASE
2nd = ON

① ② ③ ④

3. When there are multiple tones, select a tone with the ① buttons. Select PITCH RELEASE on/off for the specified tone with the ② buttons.
 - When the **NORMAL** mode is selected, the PITCH RELEASE on/off cannot be selected for each tone.

PAGE 11

11: TOUCH SENSE
2nd VOLUME = + 9 ▶

① ② ③ ④

Set the degree of keyboard touch response.

1. Specify the level of keyboard touch response (−10~+10) with the ④ buttons.
 - When set to a + value, the harder the keyboard is played, the louder the sound.
 - When set to a − value, the harder the keyboard is played, the softer the sound.
 - If the **DUAL** mode has been selected, select the tone you wish to modify first with the ① buttons.

PAGE 11 > SHIFT

11: TOUCH SENSE
AUTOBEND & TRILL = OFF

① ② ③ ④

If **AUTOBEND & TRILL** was set to on (on **PAGE 9**), you can specify the relation between the auto bend effect and how hard the keyboard is played.

Select on/off with the ④ buttons.

- on: The **AUTOBEND & TRILL** effect is applied only when the keyboard is played hard.
- off: The **AUTOBEND & TRILL** effect is applied at all times.

PAGE 12

12: GLIDE SPLIT-OCT
OFF OFF

① ② ③ ④

When the glide effect is applied, the sound starts from a semitone below the played pitch and glides up to the normal pitch.

GLIDE: Select glide on/off with the ② buttons.

- When set to on, the glide effect can be applied with the Foot Switch (sold separately).

SPLIT-OCT: When the split octave effect is on, the sounds produced by the right part of a split keyboard are lowered by one octave.

Select **SPLIT OCT** on/off with the ④ buttons.

PAGE 13

13 : SOUND NAME
H R M N I C A

① ② ③ ④

Assign a name to your newly created sound.

1. Move the cursor with the **TRANPOSE** (◀ ▶) buttons.
2. Select the alphanumeric characters of the name with the ② and ③ buttons.
- The **TEMPO/PROGRAM** dial can also be used.

III. Store the new sound in a MEMORY location.

PAGE 14

14 : MEMORY WRITE
P L Y 1 N O = 0 7 [WRITE]

① ② ③ ④

Store your new sound in a **MEMORY** location of the **SOUND SELECT** matrix.

1. Select the **MEMORY** location (number) with the ② buttons.
2. When either ④ button is pressed, the display asks if you are sure you wish to store the new sound in the specified location.
3. Pressing either ④ button for [YES] stores the sound. To cancel the **MEMORY WRITE** procedure, press either ③ button for [NO].

- The memory areas of **POLY 1** and **POLY 2** are compatible. The sound edited for **POLY 1** can be stored in the memory area of **POLY 2**.
- When a **PAGE** other than **PAGE 1** is displayed, you can specify the memory number another way. While pressing the **M** button of **SOUND SELECT**, press the desired number button (1~16). The display changes to **PAGE 14**, and the memory number selection is shown at ②.
- The same procedure used with the **PAGE 14** display to store an edited sound can be followed with the **PAGE 1 > SHIFT** display.

Number of notes which sound simultaneously on the Keyboard

■ **KN600**

Part	Mode	Auto Play Chord off		Auto Play Chord on	
		Normal, Duet, Trio	Dual	Normal Duet, Trio	Dual
POLY 1		7	3	4	2
POLY 2		4	2	0	0
BASS		1*	—	1*	—

* Normal mode only

■ **KN800**

Part	Mode	Auto Play Chord off		Auto Play Chord on	
		Normal, Duet, Trio	Dual	Normal Duet, Trio	Dual
POLY 1		8	4	4	2
POLY 2		8	4	4	2
BASS		1*	—	1*	—

* Normal mode only

Part VI Creating accompaniment patterns

21 Composer

With the **COMPOSER** function you create and store your own accompaniment pattern, specify the desired chord and then play back your original accompaniment pattern automatically at the touch of a finger.

The five parts comprising the accompaniment pattern are **DRUMS**, **BASS**, **ACCOMP 1**, **2** and **3**, each of which is stored independently.

You can use either or both of the two methods of storing your pattern. Real-time recording allows you to store your pattern exactly as you play it on the keyboard, and step recording lets you store the notes one by one, just as you might write a musical score. Choose the method which is most convenient, depending on the characteristics or the performance technique of the musical piece concerned.

How to store an accompaniment pattern: outline

Setting up

A. Enter the **COMPOSER** mode.



B. Select a memory number. Specify a name for the new pattern.



C. Specify the number of measures in the pattern and the time signature.



Creating a pattern

D. Real-time recording

E. Step recording

F. Copying a pattern



Exit the **COMPOSER** mode

Please refer to each heading for detailed explanations.

Setting up

In the first step, we establish the overall information for the new pattern—its memory number, name, the number of measures and the time signature.

A. Enter the COMPOSER mode.

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

- The indicator lights.



B. Select a memory number. Specify a name for the new pattern.

PAGE 1

1 : MEMORY SELECT
MEM= 2 -- c l r -- [CLR]

① ② ③ ④

- Select a memory number in which to store the new accompaniment pattern.
 - Select a memory number (1~8) with the ① buttons. You can also use the **COMPOSER 1~8** buttons of the **RHYTHM SELECT** matrix, when the **M** button is on.
 - When the remaining memory capacity of the **COMPOSER** becomes 30% or less, the remaining memory is displayed in the upper row at ④.
- If a pattern has already been stored in the specified memory number, you can erase the contents.
 - Press either ④ button to get the **MEMORY CLEAR** display.

1 : MEMORY CLEAR MEM= 1
SURE? [NO] [YES]

① ② ③ ④

- Press either ④ button for [YES] to clear the memory number. Press either ③ button for [NO] to cancel the **MEMORY CLEAR** function.

- Specify a name for the accompaniment pattern.
 - The name you specify may have up to 7 characters.
 - Press either ③ button; the cursor moves to the part of the display where you can write the name. Move the cursor to the left or right with the **TRANPOSE** buttons to specify the location of the character. The **TEMPO/PROGRAM** dial (or the ③ buttons) is used to specify the alphanumeric character.
- Specify the part you are going to play first with the corresponding **COMPOSER PART** button.
 - The display automatically changes to **PAGE 3**.

C. Specify the number of measures in the accompaniment pattern and the time signature.

1. PAGE 2

2 : BAR SET MEM= 2
BAR= 4 BEAT= 4 / 4

① ② ③ ④

- Specify the number of measures in the accompaniment pattern (1~8) with the ② buttons.
- Specify the time signature with the ④ buttons.
 - Select one of the following: 1/2~4/2, 1/4~8/4, 2/8~16/8.
 - The default setting is 2 measures, 4/4 time.
 - The number of measures and time signature of a pattern already recorded cannot be changed.

Creating a pattern

The accompaniment pattern is composed of five parts—**DRUMS**, **BASS**, **ACCOMP 1**, **2** and **3**—each of which is formed independently. Two methods of creating the patterns—real-time recording and step recording—are explained below.

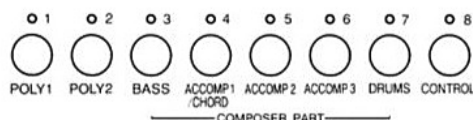
D. Real-time recording

1. PAGE 3

3 : REALTIME REC MEM=1
Q=OFF J=120 M=1 [CLR] ▶

① ② ③ ④

- Press the **START/STOP** button to play back the pattern stored in the selected memory number.
 - If the memory is blank, the metronome sound will be heard.
- Specify the part you are going to play first by pressing the corresponding **COMPOSER PART** button (**SEQUENCER** track buttons 3~7).



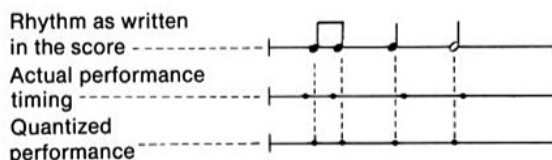
- To clear the specified part, press either of the ④ buttons.
 - Specify the sounds and effects.
- Set the desired quantize level with the ① buttons. The default setting is OFF.
 - Select from 1/32, 1/16, 1/8, 1/4, 1/2, 1, OFF.

About quantizing

Quantizing corrects the timing of a pattern as it is being recorded. For example, the rhythm will be corrected to the preset quantize level when the rhythm is out of sync or when the different parts do not seem to match because the timing is slightly off.

Because the performance is revised according to the specified quantized level, the smallest note unit which occurs in the performance should be specified.

Example: When the following music piece is performed and set to a quantize level of



- Play the accompaniment pattern.
 - You can regulate the tempo with the **TEMPO/PROGRAM** dial.

Notes concerning playing the pattern

- The tempo is shown at position ② and the number of measures at position ③ of the display.
- Record the performance in C major for correct chord progressions during playback. To record with another chord, follow the **PAGE 6** procedure before recording.
- The accompaniment pattern of the length specified in the **PAGE 2** menu is repeatedly played back, during which time any newly played notes are added to those already recorded.
- PITCH BEND** and **MODULATION** effects can also be stored in the memory.

Maximum number of notes which can sound simultaneously

	KN600	KN800
ACCOMP 1	4 notes	4 notes
ACCOMP 2	3 notes	4 notes
ACCOMP 3		
BASS	1 note	1 note
DRUMS	4 notes	6 notes

7. PAGE 3 > SHIFT

3 : REALT ERASE MEM=1
M=1 [ALL] [INST] VOL

① ② ③ ④

[ALL]

The performance recorded in the **COMPOSER PART** selected is erased for as long as either of the ② buttons is pressed.

[INST]

If the **DRUMS** part was specified, **DRUMS** part is cleared instrument by instrument. Hold down either ③ button and specify the instrument sound to be deleted by pressing the instrument key on the keyboard, after which that instrument only will be erased for as long as the ③ button is kept pressed.

VOL

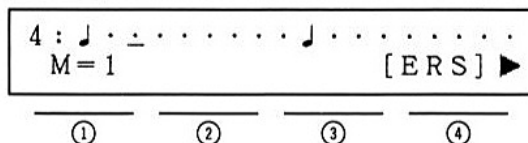
If either ④ button is pressed, the display changes to the balance display. The **DRUMS** part and **BASS** part volumes can be adjusted with the corresponding buttons. The volumes for **ACCOMP 1**, **2** and **3** can be adjusted on the shift display.

- Select the next part to be stored by pressing the corresponding **COMPOSER PART** button.
- When all the parts have been recorded, press the **COMPOSER RECORD** button to turn it off.

E. Step recording

When beginning recording with step recording, first follow steps A, B and C.

1. PAGE 4



2. Press the **START/STOP** button to play back the accompaniment pattern stored in the selected memory number.

3. Select the part you wish to store first.

Select the **COMPOSER** part you wish to store first by pressing the corresponding **COMPOSER PART** button (**SEQUENCER** track buttons 3~7).

• Specify the sounds and effects.

4. Specify the measure.

Specify the first measure you wish to store with the ① buttons.

5. Specify the timing.

Move the cursor with the **TRANPOSE** buttons to the position (note) you wish to record.

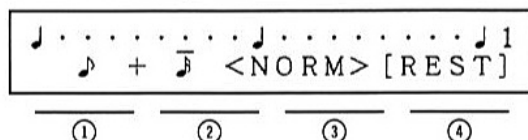
• The cursor moves continuously if the button is held down.



The 8 steps in this space represent one quarter note. In other words, each step represents one thirty-second note.

If you try to store triplets, the timing may not fit evenly into the 1/32-note steps. However, if you specify triplet-type notes (indicated by a 3 on the display) in step 7 below, the correct timing is automatically stored.

6. PAGE 4 > SHIFT



7. Specify the note length.

Specify the note length with the ① buttons.

• The following note lengths can be specified.



• Note lengths other than these can be stored. Used the ② buttons to specify the note length to be added to the note length specified in ①. The note lengths which can be specified for ② are the same as those for ①; however, when you do not wish to add note lengths, specify the no-note indication at ②.

Gate time

You can set the actual length of the produced sound ("gate time") for the desired legato or staccato effect. Specify the gate time with the ③ buttons before pressing the keyboard key.

The relation of gate time to note length is as follows:

<TENU> (tenuto) 100%
<NORM> (normal) 80%
<STAC> (staccato) 50%
<CUTT> (cutting) 25%

8. Press the desired keyboard key.

When the key is released, the note is stored along with the pitch and strength with which the key was pressed ("velocity").

- A position at which a note has been stored is indicated by a * mark.
- When a note is recorded, the cursor automatically moves the specified note length to the next unrecorded position.
- Chords can also be stored in **ACCOMP 1, 2** and **3**.
- No matter which key's pattern you want to record, play and store as C key scale, if not the playback tune will be not correct. However, if so desired, the chord can be changed to another chord by following the **PAGE 6** procedure before recording.

[REST]

A rest is specified by pressing the ④ buttons. The length of the rest is specified the same as for note length. If a rest is specified, the cursor automatically moves the specified length of the rest.

- Step positions at which no note has been recorded are played back as rests.

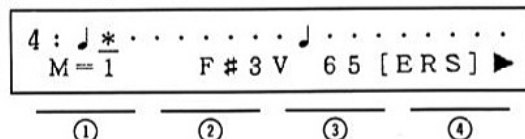
9. Repeat steps 5~8 to continue storing notes.

- When you have finished storing the notes in the measure, go to the next measure and continue storing.

■ Correcting the data

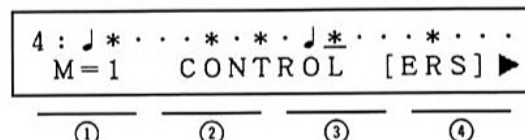
You can erase and correct data which has been input.

1. PAGE 4



2. Use the **TRANPOSE** < and > buttons to move the cursor and search the input data.

- If the cursor is moved to a * position at which more than one type of data is stored, the display of the stored data changes each time a **TRANPOSE** button is pressed.
- When the **MODULATION** switch or **PITCH BEND** wheel is used, the display changes as follows:



- In this case, the contents of control data are displayed on the **SHIFT** display.

3. To erase the displayed data, press either ④ button.

4. Correct the displayed data, if desired.

- Even for a performance which was stored with the real-time recording method, data can be erased using the step recording mode.

F. Copying a pattern

One convenient way of creating an accompaniment pattern is to copy parts of preset or **COMPOSER** rhythm patterns.

1. PAGE 5

5 : COPY	MEM=2
DIXIE	Q STEP [YES]

①

②

③

④

2. Select the rhythm pattern from which you wish to copy a part with the ① buttons or with the **RHYTHM SELECT** matrix.

- **AUTO PLAY CHORD** patterns are selected for the **BASS** and **ACCOMP.**

3. Select a variation with the ③ buttons.

4. After the variation is selected, press either ④ button to complete the selection of the preset pattern.

Setting the chord for the pattern

To facilitate correct chord changes during playback, the pattern is stored as a C scale performance. To store a performance in another scale, follow the procedure below.

1. PAGE 6

6 : REC CHORD	MEM=2
KEY=C#	<MAJ><NORM>

①

②

③

④

2. Specify the root note of the playback recorded chords with the ② buttons.

3. Select <MAJ> (major) or <MIN> (minor) with the ③ buttons.

4. Select <NORM> (normal) or <7th> with the ④ buttons.

<NORM>: When a 7th tone is included in the recorded sound, if a 7th chord is specified during playback, it changes to a 7th chord.

<7th>: When a 5th tone or 7th tone is included in the recorded sound, if a 7th chord is specified during playback, it changes to a 7th chord.

Exit the COMPOSER mode

Press the **COMPOSER RECORD** button to turn it off.

Playing back your stored accompaniment pattern

1. Select the **COMPOSER** number with the **RHYTHM SELECT**'s **M** button and the 1~8 buttons.
2. When the **START/STOP** button is pressed, the **DRUMS** part starts to play back.
3. Press either **ONE FINGER** or **FINGERED** of the **AUTO PLAY CHORD** to turn it on.
4. Specify the chord on the left part of the split keyboard.
 - You can change the method of specifying chords by pressing the **AUTO PLAY CHORD**'s **ONE FINGER** or **FINGERED** button.
 - The **INTRO & ENDING** and **FILL IN** buttons do not function for odd-meter patterns.

Example of creating an accompaniment pattern

1. Press the **COMPOSER RECORD** button to turn it on. The indicator lights, and the display changes to the **COMPOSER** mode display.

2. PAGE 1

1 : MEMORY SELECT
MEM= 1 -- c l r -- [CLR]

① ② ③ ④

- Select "1", either with the ① buttons, or with the **COMPOSER** memory buttons in the **RHYTHM SELECT** matrix.

3. PAGE 2

2 : BAR SET MEM= 1
BAR= 2 BEAT= 4/4

① ② ③ ④

- Set the number of measures to "2" with the ② buttons. Set the time signature to "4/4" with the ④ buttons.

Step record the DRUMS part

1. Begin recording with the **DRUMS** part—the "heart" of the rhythm.

PAGE 4

4 : J J
M= 1 [ERS] ►

① ② ③ ④

- Press the **SEQUENCER** track 7 (**DRUMS**) button to turn it on.
- Specify measure "1" with the ① buttons. This is the measure you will begin recording.
- Use the **TRANPOSE** (◀) and (▶) buttons to move the cursor to the note position you wish to record.
- Store the desired percussion sound by playing the corresponding keyboard key.

Example: Store a hi-hat pattern.

■ Measure 1

■ Measure 2

2. When you have finished storing the **DRUMS** part, continue step recording with the **BASS** part.
- Press the **SEQUENCER** track 3 button to turn it on.

Step record the BASS part

1. PAGE 4

4 : J J
M = 1 [E R S] ►

① ② ③ ④

- Specify measure "1" with the ① buttons.
- Use the **TRANPOSE** ◀ and ▶ buttons to move the cursor to the beginning of the first beat.
- Press **SHIFT**.

2. PAGE 4 > SHIFT

J J J 1
J < NORM > [R E S T]

① ② ③ ④

- Specify the note length with the ① buttons.
- Information on rests is on page 11.

Measure 1

Note length	J	J	J	J	J	J	J	J	J	J	J
Keyboard key	C	C	—	G	B \flat	C	—	C	G	B \flat	C
Rest	—	—	○	—	—	—	○	—	—	—	—

Measure 2

Note length	J	J	J	J	J	J	J	J	J	J	J
Keyboard key	—	C	B \flat	C	C	C	—	B \flat	C	C	—
Rest	○	—	—	—	—	—	○	—	—	—	—

- When you have finished storing the **BASS** part, store the **ACCOMP** part with real-time recording.
 - Press the **SEQUENCER** track 4 button to turn it on.

Real-time record the ACCOMP part

1. PAGE 3

3 : REALTIME REC MEM = 1
Q = J J = 1 2 0 M = 1 [C L R] ►

① ② ③ ④

- Set the quantize level to J with the ① buttons.
- If previously recorded data is in the track, press either ④ button for [CLR] to clear the track. Otherwise, even when storing new data, the previously stored contents remain.

2. Set the tempo with the TEMPO/PROGRAM dial.

3. Play the ACCOMP pattern.

- When you have finished storing the **ACCOMP** part, press the **COMPOSER RECORD** button to turn it off.

Part VII Recording/playback and editing your keyboard performance

22 Sequencer

This section of your manual comprises several articles designed to help you efficiently master the **SEQUENCER** functions.

It is suggested that you begin reading in order from the first article. However, it is not absolutely necessary to master all the functions to enjoy the **SEQUENCER** feature. Once you have acquired a basic understanding of how the **SEQUENCER** works, you may prefer to go directly to the steps which cover your particular interests.

A. Real-time recording

B. Playing back the recorded performance

C. Multi-track recording

D. Correcting your recorded performance
(punch in/out)

E. Step recording

- Storing chord progressions
- Storing rhythm progressions
- Storing the melody
- Storing control data

F. Tracks and parts (track assign)

G. Editing the recorded performance

What is a sequencer?

The sequencer is a special feature that allows you to record your keyboard performance and play it back. Though a sequencer might be thought of as a tape recorder, which stores sounds, the method by which the performance is recorded is entirely different.

The electrical signals produced by your performance—for example, the pitch of played notes and how hard the keyboard is played—are stored as digital data in the memory of the sequencer. When the data is recalled from the sequencer's memory, it reproduces your original performance on the keyboard exactly.

The practical features of the sequencer function are many:

- The playback tempo can be freely adjusted without changing the pitch.
- No matter how many times you record or play back, the sound quality never deteriorates.
- Once your performance is recorded, you have versatile modification features, including selection of sounds, and editing functions such as adding, deleting and replacing specified portions of the performance.
- The step recording function is selectable, which means you can input the note data one by one, just like writing a musical score.

All these features give you great flexibility, whether you are simply recording your performance or creating an original score.

How to record

Two methods of recording are available, real-time recording and step recording.

With the real-time recording method, you play the keyboard, either in time with the internal metronome or at a free tempo. Your performance is recorded with the timing exactly as it was played. Real-time recording allows you to store a tune very easily with all the subtle nuances just as you play them.

Step recording, on the other hand, is something like writing a musical score, whereby the notes are input one by one, giving you full control over the data for each note. The storage procedure takes more time than with real-time recording; however, unlike real-time recording, the step recording method is effective for storing a tune with its exact timing.

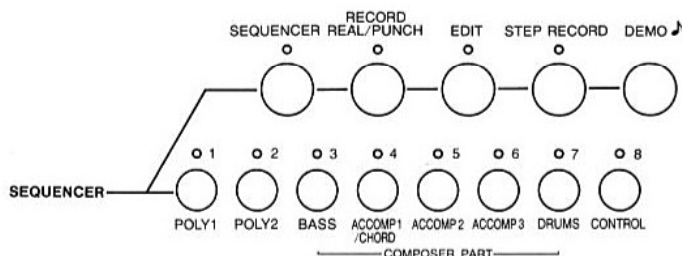
■ About tracks...

The KN600/KN800 has 8 sequencer tracks. By storing a performance on each track, you can create an ensemble performance on a single keyboard.

Editing

Editing of recorded tunes is mostly performed track by track. The functions include insertion/deletion of measures, changes in for example specified sounds, velocity. You can even erase individual tracks or merge tracks.

Sequencer buttons and their functions



SEQUENCER: This button allows you to use various playback features, such as fast forward and reset. (Refer to page 18.)

RECORD REAL/PUNCH: Real-time recording of your keyboard performance is made possible with this button. Furthermore, you can use the punch in/out feature to alter a specified portion of your performance.

EDIT: This button is used for editing a recorded performance, including deletion, merging and copying. (Refer to page 27.)

STEP RECORD: Create a tune as you would write a musical score, by storing the notes one by one. (Refer to page 20.) This button is also used for the chord sequencer function and rhythm sequencer function, by which chord progressions and rhythm pattern sequences are stored.

DEMO : You can play back the preset demonstration tune. (Refer to page 3 on vol. 1.)

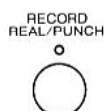
1~8: These are buttons for storing up to eight performance tracks. (Refer to page 17 or 35.)

A. Real-time recording

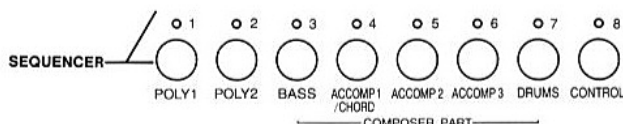
Explained here are the basic procedures of real-time recording. These procedures are also used for advanced applications such as multi-track recording (explained later).

[1] Preparing to record

1. Set the registration—sound, effects, volume, etc.—for the part you are going to record first.
 - The registration for **ACCOMP 1, 2 and 3** parts is set in step 3.
2. Press the **RECORD REAL/PUNCH** button to turn it on.

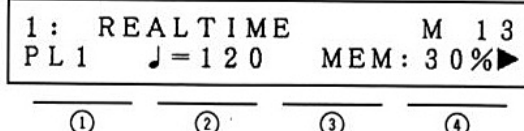


3. Select the part you wish to record first with the track buttons (1~8).



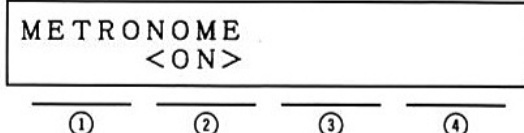
- The indicator of the button you pressed flashes slowly.
- Multiple parts can be stored at the same time if the buttons are on simultaneously. (The keyboard status is that specified by the **CONDUCTOR** buttons.)
- If the **DRUMS** part (track 7) is selected, the **KEYBOARD PERCUSSION** performance can be stored. In this case, the sounds for other parts cannot be produced on the keyboard.
- Track 8 (**CONTROL** part) may be used to store settings which are necessary to the performance, such as panel button settings, changes in tempo, volume, etc.
- The track 4 (**ACCOMP 1/CHORD**) part is set to **CHORD** when in the initial condition, so you cannot record it in the real-time recording mode. If you wish to record, refer to the paragraph on "track assign" on page 26 and use the procedure in order to specify "melody part."

4. PAGE 1



5. Set the tempo for recording.
 - Use the **TEMPO/PROGRAM** dial to set the tempo.
 - The part selected for recording is displayed at ①.
 - When recording multiple parts at one time, the part whose track button was turned on last is displayed.
 - The tempo is indicated at ② as $\text{♩} =$. The tempo is normally set to that indicated in the musical score.

6. PAGE 1 > SHIFT



7. If desired, you can turn on the metronome sound by pressing either of the ② buttons to display **<ON>**.

[2] Record the performance

Press the **START/STOP** button to start the rhythm and begin recording. Recording can begin just by starting to play the keyboard.

- When the metronome is on, it sounds for two measures of blank play, after which recording begins. In this case, the rhythm does not start.
- You can also use the **SYNCHRO START** function to begin the recording by playing on the left keyboard. (Refer to page 12 on vol. 1.)
- At this time, playing the keyboard will produce the sounds of the selected part.
- The remaining **SEQUENCER** storage capacity is indicated by % on the portion of the display above the ④ buttons. The storage capacity of the memory is common to all the sequencer tracks.
- If you wish to change the volume, you must first press the **SOUND SETTING** button to turn it on.

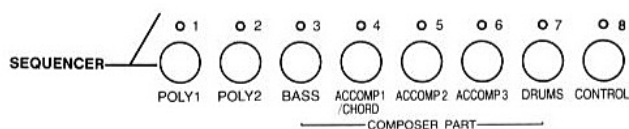
[3] End the recording

Press the **RECORD REAL/PUNCH** button to turn it off.

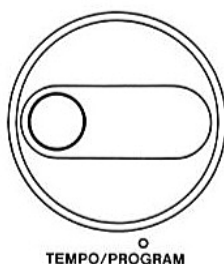
B. Playing back the recorded performance

1. Press the track buttons for the parts of the performance you wish to have played back.

2. Press the **SEQUENCER RESET** button.



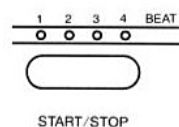
3. Adjust the playback tempo with the **TEMPO/PROGRAM** dial.



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

Automatic playback of the recorded performance begins.

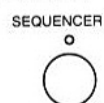
- At the end of the song, the performance stops.
- If the **START/STOP** button is pressed again during a performance, the performance stops.



- If you press the **START/STOP** button again, the performance will continue from the point at which it stopped; however, the rhythm will not be heard.
- If you wish to replay the performance from the beginning, press the **SEQUENCER RESET** button.

Functions for playback

When the **SEQUENCER** button is pressed on, the following playback functions are available.



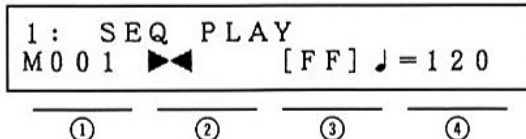
Measure: You can specify the measure at which you wish playback to start.

Reset: The performance returns to measure 1.

Fast forward: You can use the fast forward function while listening to the recorded performance.

Playback tempo: The playback tempo can be freely adjusted.

PAGE 1



■ Set the playback tempo.

Adjust the playback tempo with the **TEMPO/PROGRAM** dial.

■ Reset

Press either ② button to return to the first measure of the performance.

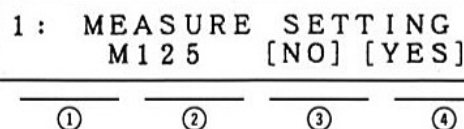
■ Fast forward

Fast forward while listening to the recorded performance by pressing either ③ button.

■ Set the first measure of playback

1. Press either ① button. The display changes to the following.

PAGE 1



2. Use the **TEMPO/PROGRAM** dial to specify the first measure from which you wish playback to begin.
3. To move to the specified measure, press either ④ button [YES]. If you do not wish to move to the specified measure, press either ③ button [NO].
4. Press the **START/STOP** button to begin playback of the recorded performance.

C. Multi-track recording

When recording multiple parts of a tune, you can record one part while listening to the part or parts already recorded.

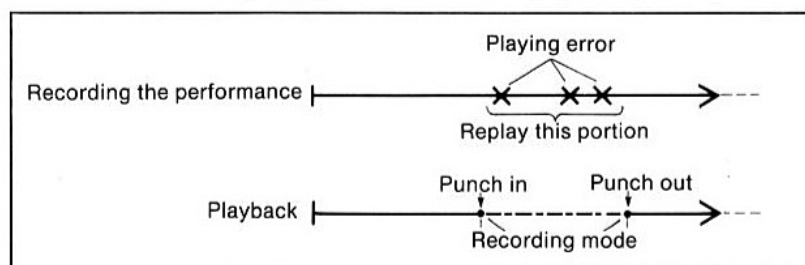
1. Press the **RECORD REAL/PUNCH** button to turn it on.
2. Select a track and record the part of this track first.
3. Press the **RECORD REAL/PUNCH** button to turn it off and confirm that the indicator for the previously recorded track is on.
4. Press the **RECORD REAL/PUNCH** button again to turn it on.

5. Press the track button for the part you wish to record next. Its indicator flashes.
- Confirm at this time that the indicator for the track you recorded in step 2 is lit.
6. Press the **START/STOP** button. The part which was recorded first is played back. Record the second part in time with this.
7. When you have finished recording all the parts, press the **RECORD REAL/PUNCH** button to turn it off.

D. Correcting your recorded performance (punch in/punch out)

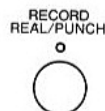
"Punch in" means that the mode is switched from playback to recording on the spot; "punch out" is the reverse, where the mode is immediately switched from recording to playback.

The punch in/out feature is very convenient when you wish to correct only a selected portion of a recorded performance, for example, when you made a mistake in playing.

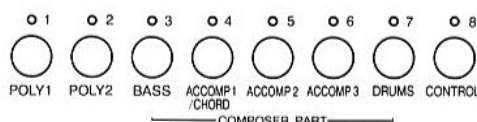


[1] Setting up

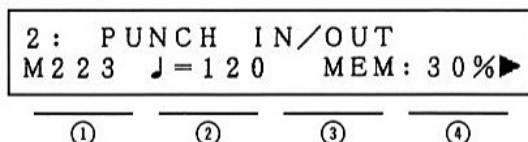
1. Press the **RECORD REAL/PUNCH** button. The indicator lights.



2. Press to turn on the track button (1~8) for the track you are going to punch in/out. The indicator flashes slowly.
 - For a multi-track recording you can, for example, correct a track or tracks while monitoring other recorded tracks. To do so, press to turn on the buttons for the tracks you wish to monitor BEFORE you press the **RECORD REAL/PUNCH** button in step 1. The indicators light.

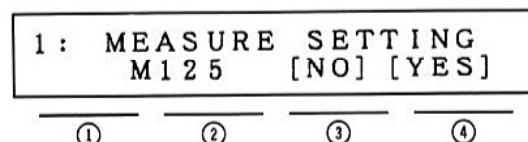


3. **PAGE 2**



■ Set the measure and tempo.

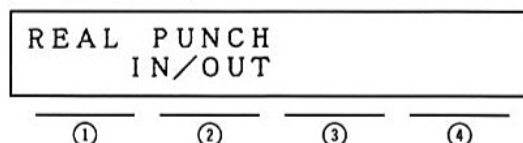
4. Press either ① button. The display changes to the following.



5. Use the **TEMPO/PROGRAM** dial to specify the first measure from which you wish playback to begin.
6. Adjust the playback tempo with the **TEMPO/PROGRAM** dial.
 - The remaining **SEQUENCER** storage capacity is indicated by % on the portion of the display above the ④ buttons.

[2] Punch in/out

1. **PAGE 2 > SHIFT**



■ Specify the timing of the punch in and punch out.

2. Press the **START/STOP** button to begin playback of the recorded tracks.
3. Press either ② button to specify the punch in point.
 - Punch in automatically begins when the keyboard is played.
4. Replay (re-record) the keyboard from the punch in point.
5. Press either ② button to specify the punch out point.
 - You can specify the punch in/out point with the optional Foot Switch (SZ-P1). Refer to page 25 on vol. 1 for the setting.

[3] Ending punch in/out

1. Press **START/STOP** to stop playback.
2. Press the **RECORD REAL/PUNCH** button to turn it off.

E. Step recording

Step recording is simply a method of making a tune by storing the sounds note-by-note instead of by playing the keyboard directly as in the real-time mode. For storing the data contents, the step recording function is divided into 4 modes.

<CHORD>

Store the chord progression of the tune.

- During playback the stored chord progression becomes the automatic accompaniment of the **AUTO PLAY CHORD**. (Refer to page 20.)

<RHY>

Store the rhythm pattern sequence and the timing of the intro, fill-ins, ending. (Refer to page 22.)

<MELODY>

Use the keyboard to store performance contents such as the **POLY 1** and **2** melody line, the accompaniment, and also the keyboard percussion performance. (Refer to page 22.)

<CTL>

The rhythm tempo and rhythm start/stop, and the panel settings (sounds, volumes, effects, etc.) for all the parts can be stored. (Refer to page 25.)

Storing chord progressions

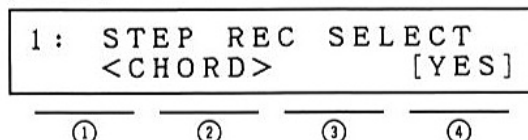
By storing the chord progressions beforehand, the **AUTO PLAY CHORD** automatically performs the chord sequence when you play back the tune stored in the **SEQUENCER**. With step recording, the chords are easily stored in order one by one.

[1] Preparing to store chords

- Press the **STEP RECORD** button to turn it on.
- The indicator lights.

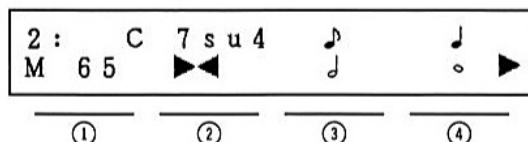


2. PAGE 1



■ Set to the chord-storing mode.

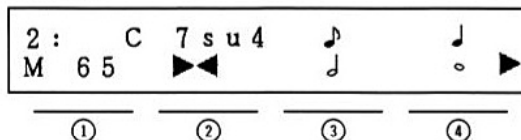
- Select the <CHORD> indication with the ② buttons.
- The indicator of the track assigned the chord part flashes.
- If the track indicator does not flash, assign the chord part to a track using the **TRACK ASSIGN** mode. (Refer to page 26.)
- Press either ④ button to select [YES].
- The indicator of the track assigned the chord part flashes. The display changes to the next **PAGE**.



[2] Storing chords

Select the length of the chord to be stored with the ③ and ④ buttons while pressing the chord keys on the keyboard.

- The name of the chord you play appears on the display.
- If the **FILL IN** or **INTRO/ENDING** button is pressed, the specified pattern is stored at that timing.
- An intro can only be inserted at the beginning of a measure.



- To store a space with no chord, store the chord length without playing a chord on the keyboard.
- The total number of measures is displayed at ①.

■ Reset

To return to the first measure, press either ② button.

■ Chord search

Use the **TRANPOSE** ⑤ and ⑥ buttons to move forward or backward one chord at a time.

[3] Finish storing chords

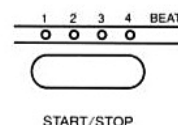
1. PAGE 2 > SHIFT



- Press either ③ button or either ④ button to exit the chord-storing mode.
- For repeat play during playback, press either ③ button for [REP].
- To simply end chord storage (no repeat), press either ④ button for [END].

[4] Playback

1. Turn on the button for the track in which the chord progression is stored.
2. Press **START/STOP**.
 - The automatic accompaniment plays following the stored chord progression.



For example, to store a chord progression

C	C	F G	C Am
			FILL IN

1. Press the **STEP RECORD** button to turn it on.

2. **PAGE 1** Set to the chord-storing mode.

3. **PAGE 2**

1st measure

C chord: While pressing the keys for a C chord on the keyboard, press the (4) (✓) button.

- The measure indication (M above the ① buttons) changes from 1 to 2.

2nd measure

C chord: Store the 2nd measure the same as you did the 1st measure.

- The measure indication changes from 2 to 3.

3rd measure

F chord: While pressing the keys for an F chord on the keyboard, press the (3) (✓) button.

G7 chord: While pressing the keys for a G7 chord on the keyboard, press the (3) (✓) button.

- The measure indication changes from 3 to 4.

4th measure

FILL IN: Press the **FILL IN** button.

C chord: While pressing the keys for a C chord on the keyboard, press the (3) (✓) button.

Am chord: While pressing the keys for an Am chord on the keyboard, press the (3) (✓) button.

4. **PAGE 2 > SHIFT**

Press either ④ button.



Modifying or correcting programmed chords.

Chords which are already stored can easily be changed. Just move to the desired measure and replace the stored chord with a different chord.

1. Press the **STEP RECORD** button to turn it on.

2. **PAGE 1** Set to the chord-storing mode.

3. **PAGE 2**

- Press the **TRANSPOSE**  button 4 times. The G7 chord is displayed.
- While pressing the keys for a F chord on the keyboard, press the **(3)**  button.

4. Press the **STEP RECORD** button to turn it off.

Storing rhythm progressions

The automatic rhythm sequence can be stored measure by measure with the **RHYTHM SELECT** and **COMPOSER** buttons.

1. Use the track assign procedure (refer to page 26) to assign the rhythm track to the desired track number.
2. Press the **STEP RECORD** button to turn it on.



3. PAGE 1



■ Set to the rhythm-storing mode.

4. Select the <RHY> indication with the ② buttons.
 5. Press either ④ button to select [YES].
- The display automatically changes to the next page.

■ Storing the rhythm progression

PAGE 2



6. Select the measure with the ① buttons.
7. Select the desired rhythm change.
 - First press the **START/STOP** button to program the rhythm start. Then use the panel controls to change the rhythm.
 - When the ① buttons are used to specify a measure in which rhythm change data is stored, the stored rhythm name and rhythm variation are displayed. If desired, the rhythm variation can then be changed with the ④ buttons.

These rhythm selections can be stored:

- The rhythm pattern from the **RHYTHM SELECT** matrix (including **COMPOSER** locations)
- Rhythm start/stop
- **FILL IN** and **ENDING** points
- Changes in the tempo

■ Storing the tempo

PAGE 2 > SHIFT



1. Select the measure for storing the tempo change (see step 6 of "Storing the rhythm progression").
2. Adjust the tempo with the **TEMPO/PROGRAM** dial.
3. Press either ① button to store the tempo.

ERS: Pressing either ② button erases any rhythm change recorded in the specified measure.
4. Press a ③ or ④ button to end the storing procedure.

REP: Press either ③ button for repeat play during playback.

END: Press either ④ button, to stop the chord progression at this point during playback.

Storing the melody

With step recording, the melody of a tune is created by storing one note at a time.

Each quarter note can be stored in 8 parts, in other words thirty-second notes.

Furthermore, although the pitch of the stored sound is specified by playing the keyboard, the note length, touch response, gate time (tenuto, staccato etc.), and rests are all specified with the **BALANCE** ^ and v buttons.

[1] Preparing to store

1. Press the **STEP RECORD** button to turn it on. The indicator lights.



2. PAGE 1



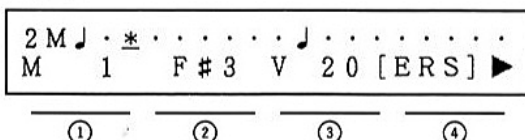
3. Select the <MELODY> indication with the ② buttons.
 - The indicators for the **POLY 1, 2, ACCOMP 1, 2, 3, BASS, DRUMS** and **ACCKB** track flash.
4. Press the track number of the part you wish to store.
- The indicator of the selected track flashes.
5. Press either ④ button.
 - The display automatically changes to the following **PAGE**.

[3] Correcting data

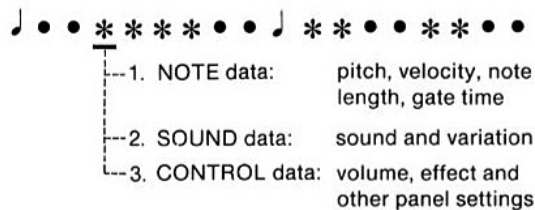
Stored data can easily be corrected by moving the cursor to the desired position and replacing the stored data with new data.

1. Move the cursor to the desired position with the **TRANPOSE** (◀) and (▶) buttons. The stored data is displayed.

PAGE 2



2. Correct the data



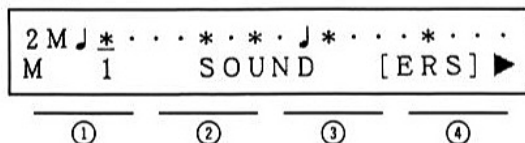
Because the stored data can be divided into the above three types, when correcting the data, it is necessary to do so on the respective edit displays.

- If all three types of data are stored at a * point, the display changes each time the **TRANPOSE** (▶) button is pressed to show the data in order of type: 1 → 2 → 3.
- If only one type of data is stored at a * point, the cursor moves to the next * position when the **TRANPOSE** (▶) button is pressed.

The procedures above can also be used to correct data which was stored with real-time recording.

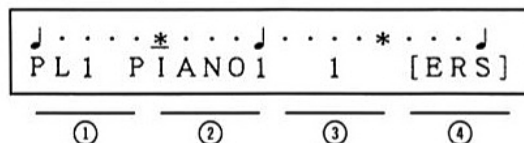
■ Program change (sound change) data

PAGE 2



1. Press either ④ button while this display appears to erase any sound data stored at the cursor position.

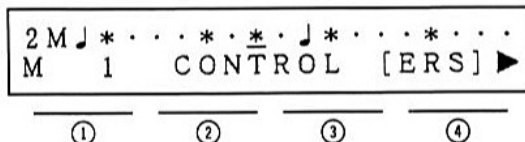
PAGE 2 > SHIFT



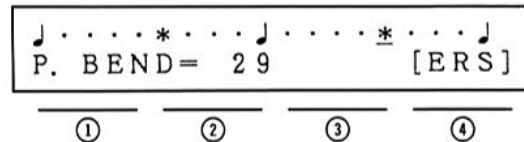
2. Store the correct data.
 - The sound is selected with the buttons on the panel.
 - To change the variation, first press the **TRANPOSE** (◀) button once to display the sound name, then select the variation with the ③ buttons.

■ Control change data

PAGE 2



PAGE 2 > SHIFT



- The name of the function is indicated at ①. The functions is changed with the panel switches (P. BEND, START/STOP, MODULATION).
- The effect on/off or set value is indicated at ②.
- If either ④ button is pressed while this display appears, any control data stored at the cursor position is erased.

[4] Exit the storage mode

When all storage has been completed, press the **STEP RECORD** button to turn it off.

For details concerning playback, refer to "Playback" on page 18.

Storing control data

If desired, the step recording method can be used to store only the control data. Control data for all parts can be stored.

1. Press the **STEP RECORD** button to turn it on. The indicator lights.

STEP RECORD



PAGE 1

1: STEP REC SELECT
<CTL> [YES]

① ② ③ ④

2. Specify the <CTL> indication with the ② buttons.
3. The indicator of the track assigned to the control track flashes.
 - In the initial state, track 8 is assigned.
4. Press either ④ button for [YES].
 - The display automatically changes to the next page.

Program change data

1. Specify the measure with the ① buttons and move the cursor to the desired position with the **TRANPOSE** buttons.
2. Specify the sound with the buttons on the panel.
 - To change the variation, press the **TRANPOSE** (C) button once.

PAGE 2

2 C ♪ * ♪
M 1 SOUND [ERS] ►

① ② ③ ④

3. PAGE 2 > SHIFT

♪ * ♪ * ♪
PL1 PIANO1 1 [ERS]

① ② ③ ④

4. Specify the variation with ③ buttons.

[ERS]

- If either ④ button is pressed while this display appears, any sound data stored at the cursor position is erased.

Control change data

1. Specify the measure with the ① buttons and move the cursor to the desired position with the **TRANPOSE** buttons.
2. Set the functions. Specify on/off for the **START/STOP** button and **MODULATION** switch. Adjust the numerical value of the **PITCH BEND** wheel.

PAGE 2

2 C ♪ * ♪
M 1 CONTROL [ERS] ►

① ② ③ ④

PITCH BEND, START/STOP, MODULATION

3. PAGE 2 > SHIFT

♪ * ♪ * ♪
P. BEND= 22 [NO] [YES]

① ② ③ ④

- The function name appears at positions ① and ②.
4. Press either ④ button for [YES] to store the data. To cancel the data storage, press either ③ button for [NO].

Erase expression data

PAGE 3 > SHIFT

♪ * ♪
EXP. = 94 [ERS]

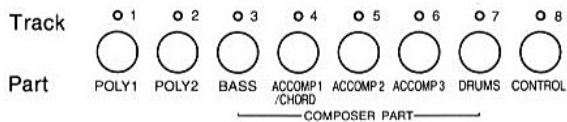
① ② ③ ④

- The numerical value of the volume appears at ②.
- To erase the data, press either ④ button for [ERS].
- The expression pedal is sold separately.

F. Tracks and parts (track assign)

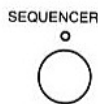
Each **SEQUENCER** track is assigned a part, such as **POLY 1**, **POLY 2**, **ACCOMP**, and so forth. Assigning the parts to tracks just means that you can select which part(s) of your **SEQUENCER** performance to record or play back.

In the initial state, parts are automatically assigned to tracks as follows:



You can assign a part to each track with the track-assign function, if desired.

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



■ Assign a part to a track.

2. **PAGE 2**



3. Select a track with the ① buttons.
4. Select the part for the specified track, with the ③ buttons.
5. Press either ④ button, the confirmation display appears. Press either ④ button to execute [YES], press either ③ button to cancel [NO].

The sequencer parts are:

Melody part	POLY 1
	POLY 2
	ACCOMP 1
	ACCOMP 2
	ACCOMP 3
	BASS
	DRUMS
	ACC KB
Other	CONTROL
	CHORD
	RHYTHM

- The melody part is possible to assign one part to more than one track, but it is not possible to assign more than one part to a track.

6. When you are finished assigning tracks, press the **SEQUENCER** button to turn it off.

■ <ACC KB> ACCOMP keyboard

The chord progression for the **AUTO PLAY CHORD** can be stored using either the real-time recording method or step recording method, just as for storing a melody performance. By storing the chords with either the **FINGERED** or **ONE FINGER** button on, they are played back following the automatic accompaniment pattern.

An example of how multiple track-assign might be used is shown here:

Track no.	Part	Used for
1	POLY 1	Melody 1
2	POLY 1	Melody 2
4	CHORD	Accompaniment chord progression ¹
5	BASS	Bass solo ²
6	DRUMS	Percussion solo ³
7	CONTROL	Changes in panel settings

- Notes:**
- 1) The **CHORD** part is assigned to track 4, with the chord progression having been stored with the step recording <CHORD> function.
 - 2) The **BASS** part is assigned to track 5. The automatic accompaniment pattern for the bass is produced when track 4 is played back, so this track is for storing a separate solo performance.
 - 3) The **DRUMS** part is assigned to track 6. The rhythm pattern progression is stored in track 7, so this track is for storing a drums solo with the keyboard percussion.

G. Editing the recorded performance

The edit feature allows you to modify a performance after recording it in the sequencer tracks. Performance data is easily erased, corrected or merged, making it an especially convenient tool for creating your original tunes.

Enter the edit mode

1. Press the **EDIT** button to turn it on. The indicator lights.



- Remember to turn off the **EDIT** button by pressing it again whenever you have finished using the editing functions.

Song clear

- To erase the recorded contents of all tracks 1~8 (song all clear).

1. **PAGE 1**

1 : SONG CLEAR	[YES]
----------------	-------

① ② ③ ④

2. When either ④ button is pressed, the display asks if you are sure you wish to clear the tracks.

1 : SONG CLEAR	SURE?	[NO]	[YES]
----------------	-------	------	-------

① ② ③ ④

3. Pressing either ④ button for [YES] erases the contents from all tracks. To cancel the SONG CLEAR procedure, press either ③ button for [NO].

Track clear

- To erase the contents of a specific track.

1. **PAGE 2**

2 : TRACK CLEAR	TRACK NO= 3	[YES]
-----------------	-------------	-------

① ② ③ ④

2. Select the track you wish to clear with the ③ buttons.

3. When either ④ is pressed, the display asks if you are sure you wish to clear the track.

2 : TRACK CLEAR	TR 3	SURE?	[NO]	[YES]
-----------------	------	-------	------	-------

① ② ③ ④

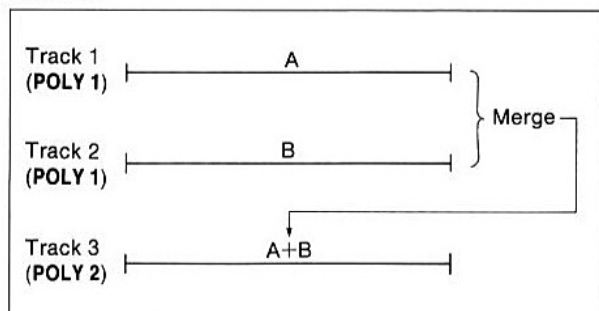
4. Pressing either ④ button for [YES] erases the contents from the specified track. To cancel the TRACK CLEAR procedure, press either ③ button for [NO].

Track merge

■ To merge the recorded contents of two tracks and store in a third track.

Tracks to be merged must be assigned the same sequencer part. It is not possible to mix data from different parts in one track.

Example:



1. **PAGE 3**

```
3 : TRACK MERGE
TR 1+TR 2→TR 3 [YES]
```

① ② ③ ④

2. Select the two tracks you wish to merge with the ① and ② buttons.
 - The two source tracks will be cleared when the merge procedure is executed.
3. Specify the track number in which to record the merged data with the ③ buttons.
 - Control tracks, rhythm tracks and **CHORD** track cannot be merged.
 - The destination track is automatically assigned the same sequencer part as the source tracks.
4. When either ④ button is pressed, the display asks if you are sure you wish to merge the tracks.

```
3 : TR 1+TR 2→TR 3
MRG: SURE? [NO] [YES]
```

① ② ③ ④

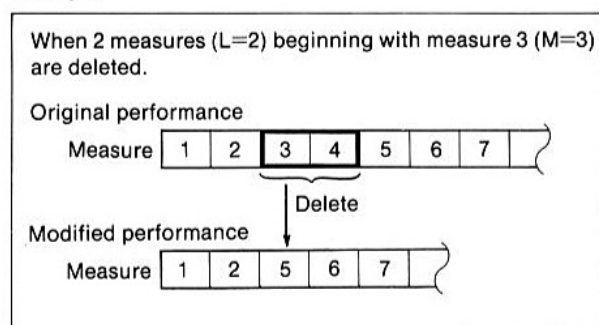
5. Pressing either ④ button for [YES] merges the two tracks into one. To cancel the TRACK MERGE procedure, press either ③ button for [NO].

Measure delete

■ To delete measures.

The specified measures are deleted from the recorded track. The length of the performance accordingly decreases by the number of deleted measures.

Example:



1. **PAGE 4**

```
4 : MEAS DELETE
TR 1 M 2 6 L 12 [YES]
```

① ② ③ ④

2. Specify the track you wish to modify with the ① buttons.
 - If <ALL> is selected, the measures are deleted from all the tracks at one time.
 - MEAS DELETE is not possible in **CHORD** tracks and **RHYTHM** tracks in which the repeat function has been stored.
3. Specify the first measure to delete with the ② buttons.
4. Specify the length of the deletion (number of measures) with the ③ buttons.
5. When either ④ button is pressed, the display asks if you are sure you wish to delete the measures.

```
4 : TR1 M 2 6 L 12
DEL: SURE? [NO] [YES]
```

① ② ③ ④

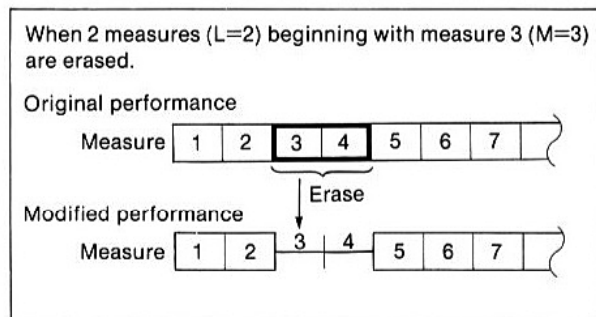
6. Pressing either ④ button for [YES] deletes the specified measures. To cancel the MEAS DELETE procedure, press either ③ button for [NO].

Measure erase

■ To erase measure contents.

The recorded contents of specified measures are erased from the track, but the length of the performance does not change.

Example:



1. PAGE 5

5 : MEAS ERASE
TR 1 M 2 6 L 1 2 [YES]

① ② ③ ④

2. Specify the track you wish to modify with the ① buttons.

- If <ALL> is selected, data is erased from the specified measures of all the tracks at one time.
 - MEAS ERASE is not possible in **CHORD** tracks and **RHYTHM** tracks in which the repeat function has been stored.
3. Specify the first measure to erase with the ② buttons.
4. Specify the length of the erasure (number of measures) with the ③ buttons.

■ To erase specific types of data from measures.

5. PAGE 5 > SHIFT

MEAS ERASE
<ALL DATA> [YES]

① ② ③ ④

6. Select the type of data to erase with the ② buttons.

- <ALL> All performance data is erased.
- <NOTE> Only keyboard performance data (pitch, note length, touch response, etc.) is erased.
- <CTL> Only control data (volume, etc.) is erased.

7. When either ④ button is pressed, the display asks if you are sure you wish to erase the data from the specified measures.

8. Pressing either ④ button for [YES] erases the data from the specified measures. To cancel the MEAS ERASE procedure, press either ③ button for [NO].

Measure insert

- To insert specified measures at a specified point.

1. PAGE 6

6 :	MEAS	INSERT	FROM
<TR>	TR	2	M 12 L 6 ▶

①
②
③
④

2. Select <TR> or <ALL> with the ① buttons.

<TR> The measures are inserted in the specified track only.

When 2 measures from track A beginning with measure 3 are inserted to track B from the beginning of measure 2.

Original performance data

Track A [a1] [a2] [a3] [a4] [a5] [a6]

Insert

Performance data after insert

[a1] [a2] [a3] [a4] [a5] [a6]

Track B [b1] [b2] [b3] [b4] [b5] [b6]

[b1] [a3] [a4] [b2] [b3] [b4] [b5] [b6]

- Track A and track B must be assigned to the same part.

<ALL> The measures are inserted in all tracks at the same time.

When 2 measures beginning with measure 3 are inserted to the same track from the beginning of measure 2.

Original performance data

Track A [a1] [a2] [a3] [a4] [a5] [a6]

Insert

Performance data after insert

[a1] [a3] [a4] [a2] [a3] [a4] [a5] [a6]

Track B [b1] [b2] [b3] [b4] [b5] [b6]

[b1] [b3] [b4] [b2] [b3] [b4] [b5] [b6]

Track C [c1] [c2] [c3] [c4] [c5] [c6]

[c1] [c3] [c4] [c2] [c3] [c4] [c5] [c6]

3. Specify the source track (track A) with the ② buttons.

- MEAS INSERT is not possible in **CHORD** tracks and **RHYTHM** tracks in which the repeat function has been stored.

4. Specify the first measure from which to copy (measure a3) with the ③ buttons.

5. Specify the number of measures to copy with the ④ buttons.

6. PAGE 6 > SHIFT

MEAS	INSERT
TO→	TR 2 M 12 [YES]

①
②
③
④

7. Specify the destination track (track B) with the ② buttons.

8. Specify the insert point (measure b2) with the ③ buttons.

9. The specified number of measures are inserted at point b2 on Track B when either ④ button is pressed.

- The length of the destination track increases by the specified number of measures, but the source track remains unchanged.
- If <ALL> is specified in step 2, it is not necessary to specify the source track and the destination track.

Measure copy

■ To copy specified measures to a track.

Copy measures from one track to another track.

1. PAGE 7

```

7 : MEAS COPY FROM
<ALL> M 2 5 L 4 ►
  
```

① ② ③ ④

2. Select <TR> or <ALL> with the ① buttons.

<TR> The specified measures are copied to the specified track only.

When 2 measures from track A beginning with measure 3 are copied to track B beginning with measure 2.

Original performance data

Track A a1 a2 a3 a4 a5 a6 a7 a8

Track B b1 b2 b3 b4 b5 b6 b7 b8

Copy

Performance data after copy

a1 a2 a3 a4 a5 a6 a7 a8

b1 a3 a4 b4 b5 b6 b7 b8

- Track A and track B must be assigned to the same part.

<ALL> The specified measures are copied to all tracks at the same time.

When 2 measures beginning with measure 3 are copied to the same track beginning with measure 6.

Original performance data

Track A a1 a2 a3 a4 a5 a6 a7 a8

Track B b1 b2 b3 b4 b5 b6 b7 b8

Track C c1 c2 c3 c4 c5 c6 c7 c8

Copy

Performance data after copy

a1 a2 a3 a4 a5 a3 a4 a8

b1 b2 b3 b4 b5 b3 b4 b8

c1 c2 c3 c4 c5 c3 c4 c8

- Specify the source track (track A) with the ② buttons.
 - MEAS COPY is not possible in **CHORD** tracks and **RHYTHM** tracks in which the repeat function has been stored.
- Specify the first measure from which to copy (measure a3) with the ③ buttons.
- Specify the number of measures to copy with the ④ buttons.

6. PAGE 7 > SHIFT

```

MEAS COPY
TO→ M 2 5 [YES]
  
```

① ② ③ ④

- Specify the destination track (track B) with the ② buttons.

- Specify the beginning of the copy point (measure b2) with the ③ buttons.
- When either ④ button is pressed, the display asks if you are sure you wish to copy the measures to the specified tracks.

```

7 : T1M 2 5 L 4 → T2M 2 5
CPY : SURE? [NO] [YES]
  
```

① ② ③ ④

- Pressing either ④ button for [YES] copies the measures to the specified tracks. To cancel the MEAS COPY procedure, press either ③ button for [NO].
 - If <ALL> was selected in step 2, it is not necessary to specify the source track and the destination track.

Velocity change

■ Modify the recorded velocity in specified measures.

1. **PAGE 8**

8 : VELO CHANGE
TR 3 M112 L 8 ▶

① ② ③ ④

2. Specify the track with the ① buttons.
3. Specify the start point (measure number) of the velocity change with the ② buttons.
4. Specify the duration of the change (number of measures) with the ③ buttons.

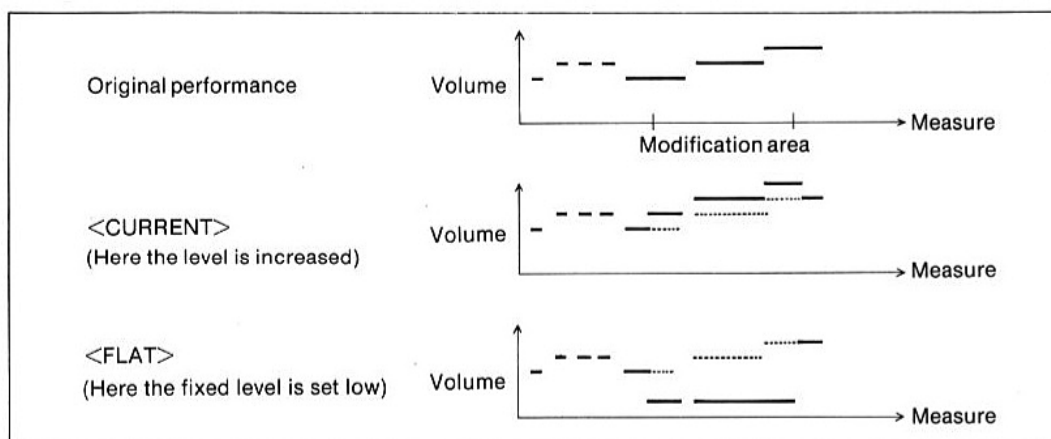
5. **PAGE 8 > SHIFT**

VELO CHANGE
<CURRENT>+ 48 [YES]

① ② ③ ④

6. Select the type of change with the ② buttons.
 - <CURRENT> The recorded velocity is increased or decreased by a specified amount.
 - If <CURRENT> change is selected, the ③ buttons are used to specify a change in the velocity within a range of 0~±127.
 - <FLAT> The recorded velocity is set at a fixed level.
 - If <FLAT> is selected, the ③ buttons are used to specify a velocity within a range of 0~127.
7. When either ④ button is pressed, the display asks if you are sure you wish to store the specified velocity.
8. Pressing either ④ button for [YES] stores the specified velocity. To cancel the VELO CHANGE procedure, press either ③ button for [NO].

Example:



Quantize

■ To quantize the recorded performance in specified measures.

1. **PAGE 9**

9 : QUANTIZE
TR 2 FROM M 26 L 13 ▶

① ② ③ ④

2. Select the track you wish to modify with the ① buttons.
3. Specify the first measure to modify with the ③ buttons.
4. Specify the length of the modification (number of measures) with the ④ buttons.

5. **PAGE 9 > SHIFT**

QUANTIZE
♪ 3 [YES]

① ② ③ ④

6. Select the desired quantize level with the ① buttons. Select from ♩, ♪, ♪, ♪, ♪, ♪, ♪, OFF.
7. When either ④ button is pressed, the display asks if you are sure you wish to quantize the specified measures.
8. Pressing either ④ button for [YES] quantizes the specified measures. To cancel the QUANTIZE procedure, press either ③ button for [NO].

An example of storing in the Sequencer

Melody 1: Glocken

Melody 2: Vibetone

Melody 3: Mute guitar

BASS: Electric

DRUMS

Set each part and track.

1. Press the **SEQUENCER** button to turn it on. The indicator lights.

2. **PAGE 2**

2 : TRACK ASSIGN

TR 1 PART=POLY1 [YES]

① ② ③ ④

- Specify the tracks with the ① buttons and the parts with the ③ buttons as shown here.

Track number	Part
1	POLY 1
2	POLY 2
3	ACCOMP 2
4	BASS
7	DRUM

3. Press the **SEQUENCER** button to turn it off.

Step record the BASS part.

1. Press the **STEP RECORD** button to turn it on.

2. **PAGE 1**

1 : STEP REC SELECT
<MELODY> [YES]

① ② ③ ④

- Select <MELODY> with the ② buttons.
- Press the **SEQUENCER** track 4 button to turn it on.
- Press either ④ button for [YES] to change to the **PAGE 2** display.

3. **PAGE 2**

2 M J J
M 1 [ERS] ▶

① ② ③ ④

- Select **ELECTRIC** with the **BASS** buttons in the **SOUND SELECT** matrix.
- Use the **TRANPOSE** (◀ ▶) buttons to move the cursor to the beginning of the first beat.

4. **PAGE 2 > SHIFT**

J * . . . * . . . J * . . . * . . . J
① ② ③ ④

5. First, store the first measure.
- Select J with the ① buttons.
 - Since the **BASS** part is composed of eighth notes, play the eight notes of the measure one after the other on the keyboard.
 - Continue as in the 1st measure until the 8th measure.
6. Press the **STEP RECORD** button to turn it off.

Step record the DRUMS part.

1. Press the **STEP RECORD** button to turn it on.

2. **PAGE 1**

1 : STEP REC SELECT
<MELODY> [YES]

① ② ③ ④

- Select <MELODY> with the ② buttons.

3. **PAGE 2**

2 M J J
M 1 [ERS] ▶

① ② ③ ④

- Press the **SEQUENCER** track 7 button to turn it on.
- Use the **TRANPOSE** buttons to move the cursor to the beginning of the first beat.
- Record each instrument by pressing the corresponding keys.

4. Press the **STEP RECORD** button to turn it off.

■ 1st measure

Real-time record the POLY 1 part.

1. Confirm that the indicators of the recorded **BASS** and **DRUMS** tracks are lit.
2. Press the **RECORD REAL/PUNCH** button to turn it on.
3. Press the **SEQUENCER** track 1 button.

4. **PAGE 1**

1 : REATIME M 1
PL 1 J = 100 MEM: ▶

① ② ③ ④

- Set the tempo to J = 100 with the **TEMPO/PROGRAM** dial.
5. Press the **START/STOP** button and begin to play.
 - You can play while listening to the parts already recorded.
 6. Press the **RECORD REAL/PUNCH** button to turn it off after playing.

■ Recording other parts

Record the other parts by pressing **SEQUENCER** buttons 2 and 3 as for the **POLY 1** part.

Summary of SEQUENCER recording

Part	Methode		Step record select	Recording contents
	Real-time	Step		
CONTROL	○	○	<CTL>	<ul style="list-style-type: none"> • Panel data of all parts • PITCH BEND data • MODULATION on/off • Tempo • RHYTHM SELECT • START/STOP • FILL IN • INTRO & ENDING • Expression pedal change
POLY 1, 2, BASS, DRUMS, ACCOMP 1, 2, 3	○	○	<MELODY>	<ul style="list-style-type: none"> • Performance of each part • Panel data for each part (sound etc.) • PITCH BEND data • MODULATION on/off • START/STOP • FILL IN • INTRO & ENDING
ACCKB <ACCOMP Keyboard>	○	○	<MELODY>	<ul style="list-style-type: none"> • Keyboard performance of ACCOMP 1 part • AUTO PLAY CHORD on/off • START/STOP • FILL IN • INTRO & ENDING
CHORD	—	○	<CHORD>	<ul style="list-style-type: none"> • Chord • FILL IN • INTRO & ENDING
RHYTHM	—	○	<RHY>	<ul style="list-style-type: none"> • START/STOP • FILL IN • INTRO & ENDING • RHYTHM SELECT • Tempo

Technics

KEYBOARD

SX-KN600

SX-KN800

Operating Instructions



Vol. 3

Technics

OWNER'S MANUAL

Vol. 3

EXTERNAL MEMORY and MIDI

This volume explains how to save your performance on the optional **MEMORY CARD** or **DIGITAL DISK RECORDER**. Furthermore, this volume explains how to use the MIDI functions to communicate with connected instruments.

Part VIII Storing the performance data

- ② Memory card 2
- ② Digital Disk Recorder (option) 6

Part IX MIDI

- MIDI 10

- Symptoms which appear to be signs of trouble 18
- Error display 20

- MIDI implementation chart 21

Transferring Sounds

When transferring specially-created sounds from one disk to another a potential problem arises because when you load the data from another disk, all the memories are overwritten with the new data, including the precious special voices which you spent hours creating with the edit facility.

Many users are happy enough with the standard voices provided or will use the new voices loaded from the new disk. But for those who want to retain their edited voices there is an elegant and simple way on the KN800.

The method of re-creating each voice individually certainly works but is unbelievably tedious and error prone. Imagine 16 (or 32) special voices to re-create on each of 10 tracks and that's only one disk.

The alternative method makes use of the memory card SY-P5. The KN800 has the facility to dump the sounds without the styles onto its memory card. So the simple procedure is:

1. Save your sounds to a card.
2. Load the required track from a disk.
3. Load (i.e. re-load) the sounds from the card.

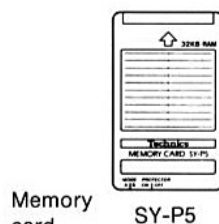
This gives you exactly what you want in this case, the new styles from a disk and your existing voices (and registration set-ups).

You can then if you wish, go a step further and save the entire combination on to a blank disk for later re-use.

Part VIII Storing the performance data

Your performances and registration settings can be stored in the separately sold Memory Card (SY-P5) and Memory Disk (SY-D20). The storable internal memory is fixed at a limited capacity, but these external memory devices expand the storable memory, allowing you to save more tune and sound data.

By recording performance data, including the settings of various functions, on the handy memory card or memory disk, one simple procedure lets you load the recorded settings into the keyboard panel at any time.



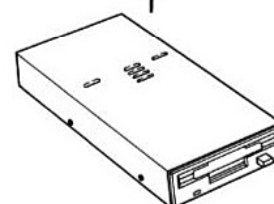
Memory card

SY-P5



Memory Disk

SY-D20



SY-FD20

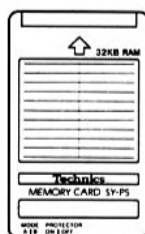
Memory disks are used with the Digital Disk Recorder. (sold separately)

23 Memory card SY-P5 (option)

What can you store on a memory card?

The memory card is used in the slot beneath the keyboard. Select from three modes—**SOUND**, **COMPOSER**, **SONG**—depending on the type and amount of data you would like to store.

Mode	Storable contents	Number of songs which can be stored
SOUND	<ul style="list-style-type: none"> Panel button settings PANEL MEMORY data SOUND SELECT matrix MEMORY contents (SOUND EDIT) 	8 songs
COMPOSER	SOUND mode contents (above) + COMPOSER memory contents	2 songs
SONG	COMPOSER mode contents (above) + SEQUENCER data	1 song (approximately 3000 notes)



PROTECTOR switch: When set to **ON**, you cannot store new data on the memory card.

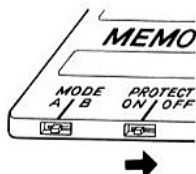
MODE switch: Set according to the mode.

A: **SOUND** mode or **COMPOSER** mode.

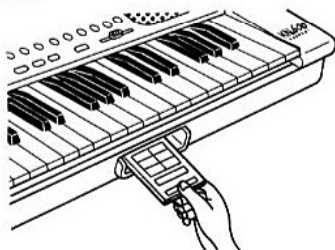
B: **SONG** mode

Saving data on the memory card

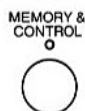
1. Set the **MODE** switch of the memory card to the desired mode—**A** for **SOUND** or **COMPOSER** mode, **B** for **SONG** mode.
2. Set the **PROTECTOR** switch of the memory card to **OFF**.



3. Insert the memory card into the slot under the right end of the keyboard.



4. If desired, the **PANEL MEMORY** and **SOUND EDIT** memory can be stored at this time.
5. Select the desired sounds, effects and rhythm with the buttons on the panel. Store the rhythm pattern in the **COMPOSER** (**SONG** and **COMPOSER** modes). Play and save your performance in the **SEQUENCER** (**SONG** mode only).
6. Now you are ready to save the panel settings and memory contents in the memory card. Press the **MEMORY & CONTROL** button to turn it on.



The display changes to the following.

PAGE 1

1 : MEMORY # = 0 1
CARD : S o n g S A V E L O A D

① ② ③ ④

CARD is displayed at ①. The setting of the memory card's mode is displayed at ②.

- If a memory disk is used at the same time, select CARD with the ① buttons.
7. When the **MODE** switch of the card is set to **B**, **SONG** appears at ②. When it is set to **A**, select **SOUND** or **COMP**.
 8. Select **SAVE** with the ③ buttons. The display changes to the following.

PAGE 1'

1' SAVE NAME SURE?
[NO] # 0 1 [YES]

① ② ③ ④

- If data has already been saved on the memory card, the number and name of the recorded tune are shown on the display.

9. Specify the song.

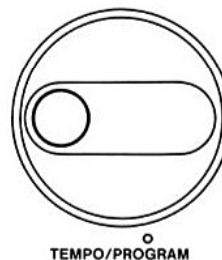
■ SOUND/COMPOSER mode

Assign song number 1 or 2 for the **COMPOSER** mode, 1~8 for the **SOUND** mode with the ② buttons.

■ SONG mode

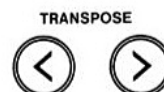
You can store a name for the tune after pressing either ③ button.

- The name may contain up to 6 characters.
- Use the **TEMPO/PROGRAM** dial to select the alpha-numeric characters.



TEMPO/PROGRAM

- Use the **TRANPOSE** buttons to move the cursor to the left or right.



- The name can be cleared by pressing both **TRANPOSE** buttons at the same time.

10. Save the song on the memory card by pressing either ④ button for [YES].

" S A V I N G . . . "

① ② ③ ④

- When the **SAVE** procedure is executed, any previously stored contents are erased. For an **A** mode card, the stored contents of the specified song number only are erased.
- If you do not wish to save the tune, press either ① button for [NO] to cancel the procedure and return the display to **PAGE 1**.

The display will indicate that the data has been saved on the memory card.

1' SAVE NAME SURE?
" SAVE COMPLETED ! "

① ② ③ ④

11. Press the **MEMORY & CONTROL** button to turn it off.

12. Remove the memory card from the slot.

Loading data from the memory card

1. Insert the memory card into the slot under the right end of the keyboard.
2. Press the **MEMORY & CONTROL** button to turn it on. The display changes to the following.

PAGE 1

```
1 : MEMORY # = 0 1 _____
CARD : S o n g      SAVE  LOAD
```

①

②

③

④

3. CARD is displayed at the ① position. The mode of the inserted card is displayed at the ② position.
 - If a memory disk is used at the same time, select CARD with the ① buttons.
4. Select LOAD with the ④ buttons. The display changes to the following.

PAGE 1'

```
1' LOAD  NAME      SURE?
[NO] # 0 1 _____ [YES]
```

①

②

③

④

5. Specify the tune to load.
 - **SOUND/COMPOSER** mode card: The song number of the tune to load is displayed at ②.
 - **SONG** mode card: The name of the displayed tune is shown at ③.
6. Load the data into the Keyboard's memory by pressing either ④ button for [YES].
 - When the load procedure is executed, the memory contents of the Keyboard are erased.
 - If you do not wish to load the data, press either ① button for [NO] to cancel the procedure and return the display to **PAGE 1**.

The display will indicate that the data has been loaded into the Keyboard's internal memory.

```
1' LOAD  NAME      SURE?
"  LOAD  COMPLETED ! "
```

①

②

③

④

7. Press the **MEMORY & CONTROL** button to turn it off.

■ SOUND mode:

The panel button information and the **SOUND SELECT**'s **MEMORY** contents stored in the card are loaded into the Keyboard's memory and the panel settings change accordingly.

■ COMPOSER mode:

The accompaniment patterns stored in the card are loaded into the Keyboard. Specify the desired rhythm with the **COMPOSER 1~8** button of the **RHYTHM SELECT** matrix.

■ SONG mode:

The performance stored in the card is loaded into the Keyboard. Play it back by pressing the **START/STOP** button.

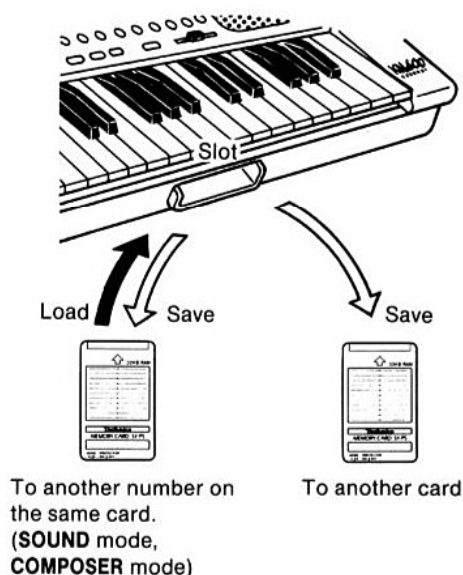
Copying songs

The contents of a memory card (source) can be copied onto another memory card (destination) by using the keyboard's internal memory.

1. Insert the source memory card into the slot and follow the procedure to load the tune data into the keyboard's internal memory (steps 2~6 on page 4).
2. When the "LOAD COMPLETED" indication appears, remove the source memory card from the slot and insert the destination memory card into the slot.
 - On the destination memory card, set the **PROTECTOR** switch to OFF.
3. Follow the procedure to save to a memory card (steps 7~12 on page 3).
 - The same mode must be selected for both the source card and the destination card.
 - If card is set to the **SOUND** or **COMPOSER** mode, the contents of one song number can be copied to another song number on the same card.

Notes on using the memory card

- The **SOUND** or **COMPOSER** mode and **SONG** mode cannot be used on the same card at one time. If the **MODE** switch is moved from one mode to the other, stored data may be lost. Also, be sure that a song is loaded to the keyboard in the same mode in which it was stored (otherwise loading the keyboard memory may not be successful).
- At normal temperatures, the battery life of the memory card battery is about 3 years. When the battery runs out, the stored contents are lost. The battery can be replaced by your dealer for a fee. The stored contents of the memory card are lost when the battery is replaced. If you do not wish to lose the stored data, be sure to copy them to another memory card before having the battery replaced.

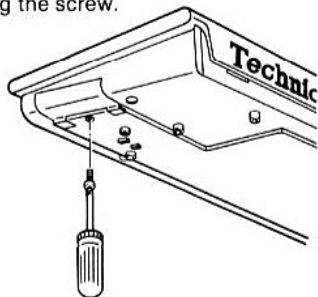


②4 Digital Disk Recorder SY-FD20 (option)

Data for up to 19 performances—including all the panel settings, button memories and **SEQUENCER** contents—can be stored on one digital memory disk SY-D20 (floppy disk). This is equivalent to 19 times the internal memory capacity of the Keyboard.

Installing in your keyboard

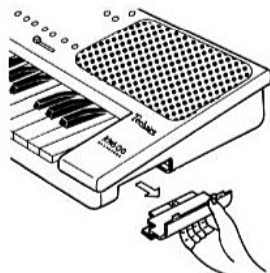
1. Make sure that the power to the Keyboard is turned off.
2. Remove the cover from the connector unit by first removing the screw.



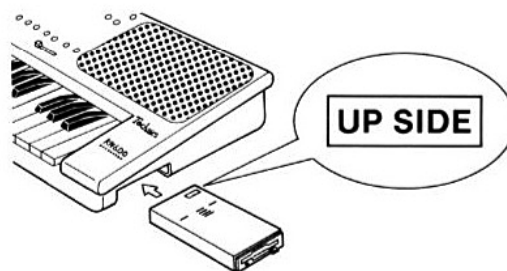
3. Use the gap at the top of the cover as a fingerhold to apply downward pressure.



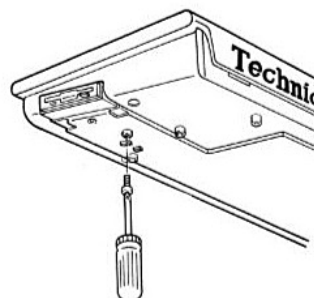
4. Pull the cover out horizontally and remove it from the Keyboard.



5. Insert the Digital Disk Recorder and push it in firmly and completely.



6. Secure the Digital Disk Recorder to the Keyboard with the screw you removed in step 2.



Disk format

New memory 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 stored disk.

- 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.
- If using commercially available floppy disks other than the SY-D20 memory disk, be sure to use 3.5 inch 2DD (double-side, double-density, double-track) floppy disks.

1. Insert the disk into the Digital Disk Recorder slot as shown in the illustration. 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 following.

PAGE 1

1 : MEMORY # = 1 9
DISK SAVE LOAD

① ② ③ ④

DISK is displayed at ①.

- If a memory card is used at the same time, select DISK with the ① buttons.

3. **PAGE 3**

3 : MEMORY # = 1 9
DEL VERIFY FRMAT

① ② ③ ④

4. Select FRMAT by pressing either ④ button. The display changes to the following.

■ **Preventing erasure of stored contents**

The memory disk is provided with a write protect window. To retain the disk contents, open the window as illustrated.



Saving a performance

1. Insert the memory disk into the slot of the Digital Disk Recorder.
2. If desired, the **PANEL MEMORY**, **SOUND EDIT** and **COMPOSER** memories can be stored at this time.
3. Select the desired sounds, effects and rhythm with the buttons on the panel.
4. Store your performance in the **SEQUENCER**. This is the data which is going to be saved in the memory disk.
5. Press the **MEMORY & CONTROL** button to turn it on. The display changes to the following.

PAGE 1

1 : MEMORY # = 1 9
DISK SAVE LOAD

① ② ③ ④

DISK is displayed at ①.

6. Select SAVE with the ③ buttons. The display changes to the following.

PAGE 1'

1' SAVE NAME SURE?
[NO] # 1 9 [YES]

① ② ③ ④

- If data has already been saved on the memory disk, the number and name of the recorded tune are shown on the display.

PAGE 3'

3' FORMAT SURE?
[NO] [YES]

① ② ③ ④

5. To execute the disk format, press either ④ button for [YES].
- If you do not wish to format the disk, press either ① button for [NO].
6. Formatting is completed when "COMPLETED" appears on the display. You can now press the **EJECT** button on the Digital Disk Recorder and remove the disk.
7. Press the **MEMORY & CONTROL** button to turn it off.

7. Assign the song number with the ② buttons.
 - You can assign a number from 1 to 19.
 - If you assign a song number which is already stored, the stored contents of that number are erased.
8. You can store a name for the tune after pressing either ③ button.
 - The name may contain up to 6 characters.
 - Use the **TEMPO/PROGRAM** dial to select the alphanumeric characters.
 - Use the **TRANPOSE** buttons to move the cursor to the left or right.
 - The name can be cleared by pressing both **TRANPOSE** buttons at the same time.
9. Save the song on the memory disk by pressing either ④ button for [YES].
 - If you do not wish to save the tune, press either ① button for [NO] to cancel the procedure and return the display to **PAGE 1**.

The display will indicate that the data has been saved on the memory disk.

1' SAVE NAME SURE?
" SAVE COMPLETED ! "

① ② ③ ④

10. Press the **MEMORY & CONTROL** button to turn it off.
11. You can now remove the memory disk from the Digital Disk Recorder.

Loading the stored data

1. Insert the memory disk into the slot of the Digital Disk Recorder.
2. Press the **MEMORY & CONTROL** button to turn it on. The display changes to the following.

PAGE 1

1 : MEMORY	# = 1 9	SAVE	LOAD
DISK			

① ② ③ ④

DISK is displayed at ①.

3. Select LOAD with the ④ buttons. The display changes to the following.

PAGE 1'

1' LOAD	NAME	SURE?
[NO]	# 1 9	[YES]

① ② ③ ④

4. Select the number of the tune you wish to load with the ② buttons.
5. Load the data into the Keyboard's memory by pressing either ④ button for [YES].
 - If you do not wish to load the data, press either ① button for [NO] to cancel the procedure and return the display to PAGE 1.
6. The display will indicate that the data has been loaded into the Keyboard's internal memory.

1' LOAD	NAME	SURE?
" LOAD	COMPLETED ! "	

① ② ③ ④

7. Press the **MEMORY & CONTROL** button to turn it off.
8. The memory disk can now be removed from the Digital Disk Recorder.

Medley play

You can specify continuous automatic playback of songs recorded on a memory disk (up to 19 songs).

1. Insert the memory disk into the Digital Disk Recorder.
2. Press the **SEQUENCER** button to turn it on.

3. PAGE 3

3 : MEDLEY PLAY
<OFF> SONG 2 ↔ SONG 1 5

① ② ③ ④

4. Select the number of the first song for playback with the ③ buttons.
 - Select from numbers in which songs have already been stored (1~19).
5. Select the number of the last song for playback with the ④ buttons.
 - Specify a song number higher than the number specified as the first song number.
6. Select MEDLEY PLAY <ON> with the ① buttons.
 - The specified songs are played back repeatedly.
 - If the **START/STOP** button is pressed again, playback of the next song begins.
 - To cancel medley playback, select MEDLEY PLAY <OFF> with the ① buttons.

Other Digital Disk Recorder functions

■ Data delete, data confirm

Perform the followings while monitoring the **MUSICAL DIRECTOR**.

1. Turn on the **MEMORY & CONTROL** button.

2. PAGE 3

3 : MEMORY # = 1 9			
DEL	VERIFY	FORMAT	
①	②	③	④

DELETE

The display changes to the following when you press either ① button for DELETE.

3' DELETE		SURE?	
[NO]	# 1 9	[YES]	
①	②	③	④

The delete procedure is used to erase one song at a time.

- a) Specify the number and name of song data to be deleted with ② buttons.
- b) Press either ④ button to execute deletion of data.
 - You can cancel the data delete procedure by pressing either ① button (display returns to **PAGE 3**).

VERIFY

The display changes to the following when you press either ② button on **PAGE 3** for VERIFY.

3' VERIFY		SURE?	
[NO]	# 1 9	[YES]	
①	②	③	④

Compares the data of the keyboard memory with that of memory disk.

- a) Select the number and name of the song to be verified with the ② buttons.
- b) Press either ④ button to start verification.
 - You can cancel the data confirmation procedure by pressing either ① button (display returns to **PAGE 3**).
 - The following display appears after completion of data confirm.

"COMPLETED!" The data in the keyboard memory matches that of the memory disk.

"ERROR!" The data in the keyboard memory does not match that of the memory disk.

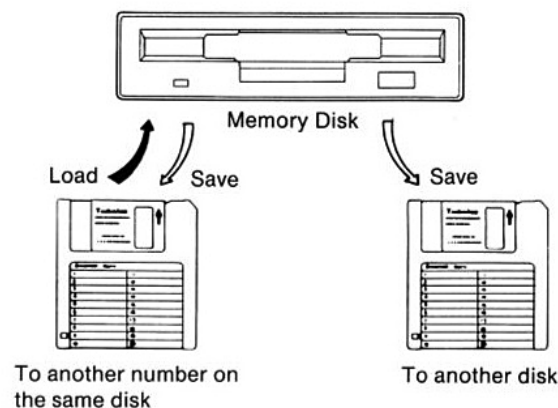
FORMAT

The display changes to the format display when you press either ④ button on **PAGE 3** for FORMAT. (See page 6.)

3. Turn off the **MEMORY & CONTROL** button when the operation is completed.

■ Copying songs

A tune saved on a floppy disk can be copied to another number on the same disk or to another disk by using the Digital Disk Recorder's internal memory.



1. First, load the song data into the memory. Insert the disk with the song you wish to copy into the Digital Disk Recorder, and follow load procedure steps 1~8 on page 8 to load the desired song.
2. When the "COMPLETED" indication appears, the loading operation is completed. If copying to a different disk, remove the source memory disk from the Digital Disk Recorder and insert the destination memory disk with the data protect off.
3. Follow save procedure steps 5~11 on page 7 to save the data to the destination memory disk.

The memory card's **SONG** mode (refer to ②③) and the memory disk's format are compatible. This means that you can use the same procedures to copy data from a memory card to a memory disk, and vice versa.

Part IX 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.

What can you do with MIDI?

Control another connected MIDI keyboard

By playing on one MIDI keyboard, you can produce a performance on one or more connected MIDI keyboards. If different sounds and effects are assigned to each keyboard, one person playing on one keyboard can produce an ensemble performance of many instruments. Another use would be to centrally control the sounds, effects and volumes of connected instruments on one keyboard.

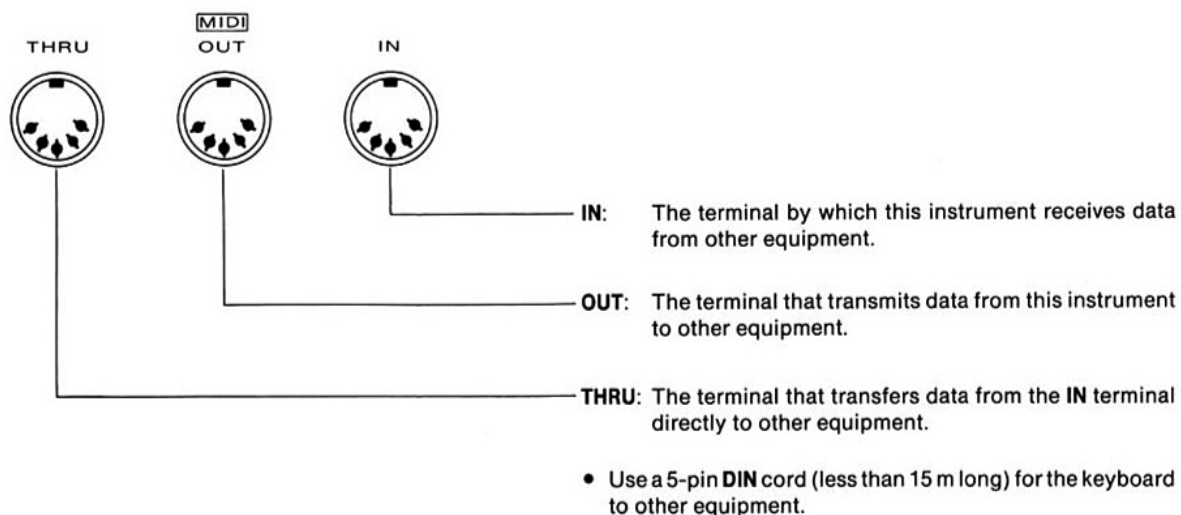
Automatic performance on the keyboard

If performance data for a MIDI instrument is stored in a computer or MIDI sequencer, the stored data can be used for automatic performance of the MIDI instrument.

Synchronized performance

Play along with a connected MIDI sequencer or rhythm machine for a synchronized performance.

About the MIDI terminals



Setting MIDI functions

Enter the MIDI-function-setting mode by pressing the **MIDI** button to turn it on. The indicator lights.



Basic channel

There are 16 basic channels (1~16) for MIDI signals. The channels on the transmission side and receiving side must match before keyboard on/off data, sound data, effect data, etc. can be exchanged.

PAGE 1

1 : BASIC CH. SELECT
PLY1: 1

① ② ③ ④

- Select the part for which to set the functions with the ① buttons. The basic channel currently assigned to the specified part is shown.
 - Select from the following 8 parts: **POLY 1, POLY 2, BASS, ACCOMP 1, ACCOMP 2, ACCOMP 3, DRUMS, CONTROL**.
- Assign a basic channel with the ② buttons.
 - Select from basic channels 1~16.

■ Assigning a basic channel already set

The same basic channel cannot be assigned to two or more parts. If you selected a channel which has already been set, "USED" is displayed.

1 : BASIC CH. SELECT
PLY1: 2 ----→ 3 USED ▶

① ② ③ ④

- The basic channel you attempted to assign is shown at ③. The basic channel currently set is shown.

To change the basic channel assigned to the other part, use the following procedure.

1. PAGE 1 > SHIFT

1 : BASIC CH. SELECT
BASS: 3

① ② ③ ④

- Change the basic channel assigned to the other part with the ② buttons to free the channel.
 - The basic channel for the part you wanted to set on **PAGE 1** will be set automatically.

The default settings are as follows:

Part	Channel
POLY 1	1
POLY 2	4
BASS	3
ACCOMP 1	5
ACCOMP 2	9
ACCOMP 3	10
DRUMS	15
CONTROL	16

MIDI input select

Set the mode for MIDI key note input.

■ CONDUCTOR mode and DIRECT mode

1. PAGE 2

2 : MIDI INPUT SELECT
PLY1 : *COND. / DIRECT

① ② ③ ④

2. Select **POLY 1** with the ① buttons.

3. Select **COND.** (CONDUCTOR) mode or **DIRECT** mode with the ② or ④ buttons.

Mode	Contents
DIRECT	Key note data for all parts is received; keyboard's CONDUCTOR is inoperative.
	Application examples
	The keyboard can be used as a sound generator when each part is played independently on the connected instrument. Useful when more than one basic channel is used to receive signals. When receiving data for the ACCOMP 1, 2 or 3 part, turn on the ONE FINGER or FINGERED button.
CONDUCTOR	Key note data for the POLY 1 part is received; sounds, etc. for the keyboard are assigned by the CONDUCTOR . (If key note data is received for another part, the sound is output for that part.)
	Application examples
	Use when only one basic channel is used to receive signals and the connected instrument has touch response capability.

- The default setting is **CONDUCTOR**.

■ ACCOMP 1: APC (AUTO PLAY CHORD) mode and DIRECT mode

1. PAGE 2

2 : MIDI INPUT SELECT
ACP1 : APC. /*DIRECT

① ② ③ ④

2. Select **ACP1** with the ① buttons.

3. Select **APC.** or **DIRECT** with the ② or ④ buttons.

Mode	Contents
APC	The AUTO PLAY CHORD function produces an accompaniment pattern based on the chords in the key note data input received for the ACCOMP 1 part.
DIRECT	The ACCOMP 1 sound is produced just as it is played on the keyboard for the key note data input.

- The default setting is **DIRECT**.

MIDI output select

Set the MIDI output mode.

■ TECHNI-CHORD on/off

When the **TECHNI-CHORD** button is on, keyboard notes created by the **TECHNI-CHORD** function can be output for the **POLY 1** and **2** parts.

1. PAGE 3

3 : MIDI OUTPUT SELECT
TECHNI-CD : ON/*OFF

① ② ③ ④

2. To output **TECHNI-CHORD** key note data, press either ③ button. If you do not wish to output **TECHNI-CHORD** key note data, press either ④ button (originally pressed key note data will be output).

- The default setting is on.

■ APC (AUTO PLAY CHORD) mode and CHORD mode

Select whether or not to output **AUTO PLAY CHORD** automatic accompaniment pattern data.

1. PAGE 3

3 : MIDI OUTPUT SEL.
ACMP : APC /*CHORD

① ② ③ ④

2. Select **ACMP** with the ① buttons.

3. Select **APC** or **CHORD** with the ② or ④ buttons.

Chord	Contents
APC	Key note data for the ACCOMP and BASS of the AUTO PLAY CHORD is output based on the chords played on the keyboard.
CHORD	Chords played on the keyboard are output from the keyboard without change.

- The default setting is **CHORD**.

Set the functions which are common to all MIDI parts

1. PAGE 4

4 : MIDI FUNCTION SEL.
COMMON : INITIAL [SET]

① ② ③ ④

2. Select COMMON with the ① buttons.
3. Select the function you wish to set with the ② buttons.
4. Select the desired settings with the ④ buttons.

Function	Setting	Contents
INITIAL	[SET] → YES	Initialize the MIDI settings.
	[SET] → NO	Do not initialize the MIDI settings.
NOTE ONLY	ON	Of the channel voice message, only note on/off and all-note-off data is transmitted/received.
	OFF*	All channel voice message data used in the KN600/KN800 can be transmitted/received.
TRANS. OUT (transpose out)	ON	The note number of the transposed note is output. This data pertains to MIDI OUT data only.
	OFF*	The note number of the played key is output.
P-CHG MD (program change mode)	NORM*	The program change numbers correspond to the order of the buttons as they are lined up from leftmost button of the bottom row and beginning with 0.
	TECH	Program change numbers are standardized among all Technics models which is 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 in the same mode.
SONG SEL. (song select)	EN*	Song number data can be transmitted/received.
	DIS	Song number data is not transmitted/received.
R TIME CMD (real time command)	EN*	Start/stop, continue, song position pointer data can be transmitted/received.
	DIS	Above data is not transmitted/received.
CLOCK	INTRNL*	The keyboard's internal clock only is used to control the performance. The clock of the connected equipment is disabled.
	MIDI	The clock of the external equipment is used to control the performance. The keyboard's clock is disabled.
MIDI LOAD	EN*	When the operation to load the memory card or memory disk is performed, the stored MIDI settings are automatically recalled.
	DIS	Stored MIDI settings are not recalled.

* indicates the default setting.

Set the functions which are dependent for each part

1. PAGE 4

4 : MIDI FUNCTION SEL.
PLY1 : P. BEND [EN]

①

②

③

④

Data for the functions below can be exchanged only when the MIDI basic channels are matched.

2. Select the desired part with the ① buttons.

3. Select the MIDI function with the ② buttons.

4. Select [EN] to enable data exchange or [DIS] to disable data exchange for the specified function with the ④ buttons.

OCT-SHIFT

(Octave shift) [-3, -2, -1, 0, +1, +2, +3]

Set the octave shift value for received/transmitted key notes with the ④.

- Octave shift is set for MIDI OUT data only; however, the MIDI OUT and MIDI IN octave shifts are linked. For example, if the MIDI OUT octave shift is set to +1, the MIDI IN octave shift is automatically set to -1.
- The initialized setting is 0.

P-CHG

(Program change)

Enable or disable the exchange of program change (SOUND SELECT) data. BACK GROUND SOUND program change data can be received with the CONTROL part; RHYTHM change data can be received with the DRUMS part.

- Variations are specified on this keyboard.
- The initialized setting is [EN].

P. MEM P-CHG

(Panel memory program change)

Enable or disable exchange of program change data using the POLY 1 channel and PANEL MEMORY buttons 1~8.

- The initialized setting is [DIS].
- When set to [EN], the program change data for the POLY 1 part cannot be exchanged.

SUSTAIN

Enable or disable exchange of sustain on/off data.

PITCH BEND

Enable or disable exchange of pitch bend data.

MODULATION

Enable or disable exchange of modulation on/off data.

VOLUME

Enable or disable exchange of volume data for each part.

- Main volume data is included in the CONTROL part.

EXPRESSION

Enable [EN] or disable [DIS] exchange of expression data.

INTRO

Enable or disable exchange of intro, fill in and ending on/off data.

- Data exchange possible only between models in the same KN600/KN800 series.

TYPE

Select NORM or TECH with the ④ buttons.

- When NORM is selected, the KEYBOARD PERCUSSION instrument sounds correspond to the Keyboard's key note numbers.
- When TECH is selected, the KEYBOARD PERCUSSION instrument types correspond to the same key note numbers for connected Technics models set to this mode.

CHORUS

Enable or disable exchange of chorus on/off data.

MIDI APC

Enable or disable the exchange of data for on/off status of AUTO PLAY CHORD's ONE FINGER and FINGERED buttons.

Parts for which these functions can be set are indicated by ○.

	POLY 1	POLY 2	BASS	ACCOMP 1	ACCOMP 2	ACCOMP 3	DRUMS	CONTROL
OCT-SHIFT	○	○	○	○	○	○	○	—
P-CHG	○	○	○	○	○	○	○	○
P.MEM P-CHG	○	—	—	—	—	—	—	—
SUSTAIN	○	○	○	○	○	○	—	—
PITCH BEND	○	○	○	○	○	○	—	—
MODULATION	○	○	○	○	○	○	—	—
VOLUME	○	○	○	○	○	○	○	○
EXPRESSION	—	—	—	—	—	—	—	○
INTRO	—	—	—	—	—	—	○	—
TYPE	—	—	—	—	—	—	○	—
CHORUS	○	○	—	○	○	○	—	—
MIDI APC	—	—	—	○	—	—	—	—

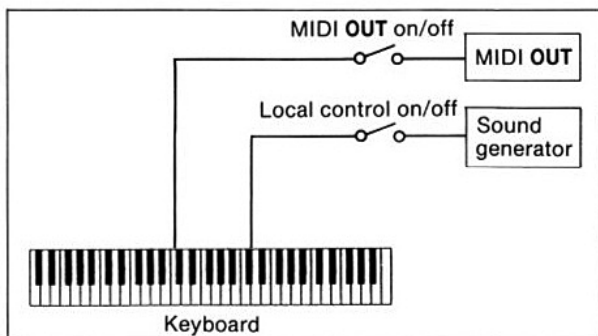
Local control and MIDI output on/off

■ Local control

Specify, for each part, whether the performance played on the keyboard is output by the keyboard's sound generator or not.

■ MIDI output on/off

Specify, for each part, whether the performance played on the keyboard is sent to the MIDI OUT terminal or not.



Local control

- on: Notes played on the keyboard sound from the Keyboard's sound generator.
- off: Notes played on the keyboard do not sound from the keyboard's sound generator.

MIDI out

- on: Notes played on the keyboard are sent to the MIDI OUT terminal.
- off: Notes played on the keyboard are not sent to the MIDI OUT terminal.

1. PAGE 5

5 : LOCAL CONTROL SET
PLY1 : LOCAL CONT. = ON

① ② ③ ④

2. Specify the part with the ① buttons.
3. Specify local control on/off with the ④ buttons.

4. PAGE 5 > SHIFT

5 : LOCAL CONTROL SET
PLY1 : MIDI OUT = OFF

① ② ③ ④

5. Specify the part with ① buttons.
6. Specify MIDI out on/off with the ④ buttons.

Panel Memory program change

By setting the program change numbers for the **POLY 1**, **POLY 2** and **BASS** parts in **PANEL MEMORY** buttons 1~8, you can effect a simultaneous program change for multiple parts during a performance simply by pressing a **PANEL MEMORY** button.

1. PAGE 6

6 : PANEL MEM PROG. CHG
P. M# = 1 / P-CHG OUT : DIS

① ② ③ ④

2. Select a **PANEL MEMORY** number (1~8) with the ① buttons.
3. Select EN/DIS with the ④ buttons. When set to DIS, program change number from that **PANEL MEMORY** button is not transmitted.

When set to EN, perform the following procedure.

4. PAGE 6 > SHIFT

6 : PANEL MEM PROG. CHG
PLY1 : P-CHG # = OFF

① ② ③ ④

5. Select the part with the ① buttons.
 - Select from **POLY 1**, **POLY 2** and **BASS**.
6. Specify the program change number for the part with the ④ buttons.
 - Select from off and 0~127.

Panel Memory local control

Set local control on/off and MIDI OUT on/off settings for each part with the **PANEL MEMORY** buttons 1~8.

1. PAGE 7

7 : PANEL MEM LOCAL CT
P. M# = 1 / LOCAL CTL = EN ▶

① ② ③ ④

2. Select a **PANEL MEMORY** number (1~8) with the ① buttons.

3. Select EN or DIS with the ④ buttons.

EN: Local control on/off and MIDI OUT on/off can be controlled by pressing the **PANEL MEMORY** buttons.

DIS: The **PANEL MEMORY** buttons do not function to control the local control on/off and MIDI OUT on/off.

4. PAGE 7 > SHIFT

7 : PANEL MEM LOCAL CT
PLY2 : LOCAL CONT. = ON

① ② ③ ④

5. Select the part with the ① buttons.

• Select from **POLY 1**, **POLY 2** and **BASS**

6. Specify LOCAL CONT or MIDI OUT with the ③ buttons.

LOCAL CONT (local on/off):

Specify whether or not sound is produced from the keyboard's sound generator when the keyboard is played with the ④ buttons.

MIDI OUT:

Specify whether the MIDI signal is output when the keyboard is played. Select MIDI OUT on/off with the ④ buttons.

Sound module mode

PAGE 8

8 : SOUND MODULE MODE
TYPE = A

① ② ③ ④

This mode is for when the keyboard is used as a sound module. You can generate sound from this keyboard by receiving the MIDI signal when the mode is set to A, B or C. Set the mode to A, B, C or OFF with the ③ buttons.

• The initial setting is OFF.

Mode A: In this mode, the sound module operates by itself. **ACCOMP 1, 2 and 3** parts do not produce sound.

Mode B: In this mode, the sound module operates by itself. **ACCOMP 1, 2 and 3** parts produce sound. The data contents are the same as the **ACCOMP 1 DIRECT** mode of the MIDI input select.

Mode C: The key note data received for the **ACCOMP 1** part is identified for chords, and you can play automatic accompaniment pattern of **AUTO PLAY CHORD** during rhythm play. The data contents are the same as the **APC** mode of the MIDI input select.

OFF: Sound is produced according to the mode specified for MIDI input select.

■ Number of sounds which can be generated simultaneously for each mode and part:

	Mode A		Mode B		Mode C	
	KN800	KN600	KN800	KN600	KN800	KN600
POLY 1	8	7	4	4	4	4
POLY 2	8	4	4	0	4	0
ACCOMP 1	0	0	4	4	4*	4*
ACCOMP 2	0	0	4	3	4*	3*
ACCOMP 3						
BASS	1	1	1	1	1*	1*
DRUMS	6	4	6	4	6	4

*AUTO PLAY CHORD

■ Notes regarding sound module modes A, B and C

- No sound is generated by playing this keyboard.
- No MIDI data is output.
- The sequencer can perform neither recording nor playback.
- The **DIRECT/CONDUCTOR** mode specified for MIDI input select does not function.
- You can select sounds even on the panel.

MIDI functions of the Sequencer

Data stored in the keyboard's **SEQUENCER** can be transmitted through **MIDI OUT**; and data received through **MIDI IN** can be stored in the keyboard's **SEQUENCER**.

■ Transmit

Enable or disable MIDI output of **SEQUENCER** data (during automatic performance of the **SEQUENCER**).

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

2. **PAGE 2**

2 : TRACK ASSIGN				▶
TR	1	PART=POLY1	[YES]	

①
②
③
④

3. Specify the track with the ① buttons.

4. **PAGE 2 > SHIFT**

L. CNT	MIDI	TRACK
<ON>	OUT= 3 CH	[INI]

①
②
③
④

5. For sound output of the specified track by the keyboard's sound generator, select <ON> with the ① buttons. Select <OFF> for no sound output by the keyboard.
6. Specify the basic channel of the selected track with the ③ buttons.
 - If the basic channel is set to off, no MIDI data is transmitted.

For tracks assigned to **CHORD** or **ACC KB**, the **AUTO PLAY CHORD** performance data is transmitted on the basic channels assigned to the **BASS**, **ACCOMP 1**, **2** and **3** parts.

- For tracks assigned to **CHORD** or **ACC KB**, "--ch" is displayed.

On the control track, only the expression control change data and **BGS** program change data are transmitted.

■ Reception

Unlike transmission, specify the basic channel for the reception parts.

1. Specify the basic channels for the parts to receive data. (Refer to the section on basic channel setting.)
2. Set the **SEQUENCER** track specified in the above step to the real-time recording mode.
3. When the data is input through this channel, recording starts.

Initialization

You can initialize the part assign, basic channel and **MIDI OUT** on/off for each track.

1. **PAGE 2 > SHIFT**

L. CNT	MIDI	TRACK
<ON>	OUT= 3 CH	[INI]

①
②
③
④

2. Press either ④ button.


3. The settings for the specified track are initialized by pressing either ④ button for [YES]. Press either ③ button for [NO] if you wish to leave the settings as they are and cancel the initialization procedure.
 - When the track settings are initialized, the stored song is erased, and the track assign and basic channel settings return to the default settings. The local control is set to ON.

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.	<ul style="list-style-type: none"> • Turn off the POWER once, then turn it on again. • If the above procedure is not successful, turn off the POWER once. Then, while pressing PAD 1, 2 and 3 at the same time, turn the POWER on again. (Note that, in this case, the stored contents of the SEQUENCER, COMPOSER, etc. are erased.)
The sound of a part cannot be heard.	<ul style="list-style-type: none"> • The volumes for the POLY 1, 2, ACCOMP 1, 2, 3, BASS, DRUMS and BGS parts are adjusted with the BALANCE buttons. When the volume level indication for a part is not shown on the MUSICAL DISPLAY, that part's volume is off. Use the \odot button to adjust the volume for that part to an appropriate level. • The local control for a part performed on the keyboard is set to OFF. (Refer to Vol. 3, page 15.)
When many keys are pressed at the same time, the sounds of each key are different.	In the DUET and TRIO modes, the sounds differ depending on the played key. (See Vol. 2, page 2.)
When a key is pressed, it does not sound.	<ul style="list-style-type: none"> • When the sound module mode is set to A, B or C, no sound is produced by playing the keyboard. Set the mode to OFF. (Refer to Vol. 3, page 16.) • The buttons and keys do not function when the demonstration performance display is shown. Press the DEMO  button to turn it off.

■ Rhythm

The rhythm does not start.	<ul style="list-style-type: none"> • When a SEQUENCER track button(s) is on and a song without any rhythm has been stored, the rhythm does not start. • When the clock mode is set to MIDI, the rhythm does not start if no MIDI clock signal is received from another instrument. When using only the Keyboard, return the clock mode to the internal clock, for example by turning off the POWER once.
The only rhythm produced is a hi-hat and bass drum sound.	<ul style="list-style-type: none"> • This is the rhythm sound produced when the KEYBOARD PERCUSSION button is on. When the KEYBOARD PERCUSSION button is turned off, the rhythm returns to normal.

■ Composer

The timing of a rhythm pattern which was stored in real-time is not correct.	The smallest note unit that can be stored is defined by setting of the QUANTIZE level. When the timing of a played note is off for QUANTIZE level, it will be corrected to the nearest note and stored.
--	---

■ Sequencer

The SEQUENCER track indicators are flashing slowly, but storage is not successful.	<ul style="list-style-type: none">• If any SEQUENCER indicator is lit, press the START/STOP button for automatic performance of the stored part. You can then store another part while you listen to the part already stored.• When storing POLY and BASS parts at the same time, turn on the respective CONDUCTOR button(s) before beginning to play.
---	--

■ External Memory

When the operation to load from the optional memory card or memory disk is performed, the contents of the Keyboard's internal memory are erased.	When performing the load operation from a memory card or memory disk, the Keyboard's internal memory changes to that stored in the memory card or memory disk. To preserve a song in the Keyboard's memory, save it in a memory card or memory disk before performing the load procedure.
--	---

■ 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 Keyboard. Try moving such electrical equipment further away from the Keyboard.
Noise from a radio or TV can be heard.	The sound may be coming from a nearby broadcast station or amateur radio station. If the sound is bothersome, consult your dealer or servicer.
The cabinet becomes warm during use.	This Keyboard has a built-in power source that heats the cabinet to some degree. This is not an indication of trouble.

Error Display

Display	Cause
---------	-------

■ COMPOSER/SEQUENCER

MEMORY full!!	<ul style="list-style-type: none"> The COMPOSER or SEQUENCER memory is full.
MEASURE error!!	<ul style="list-style-type: none"> A measure number which does not exist was specified. The measure number was specified improperly.
REPEAT exists	<ul style="list-style-type: none"> You attempted to use the copy, insert or delete procedure for a SEQUENCER chord track or rhythm track in which a repeat mark is stored.
PART error!!	<ul style="list-style-type: none"> Illegal edit attempt, such as in a melody track or rhythm track.
DATA exists	<ul style="list-style-type: none"> You attempted to use the COMPOSER function to modify a beat or measure of memory where a pattern was stored.
TRACK error!!	<ul style="list-style-type: none"> You attempted to edit a SEQUENCER track in which no song or data is stored.
OPERATION error!!	<ul style="list-style-type: none"> Recording is ending with no punch out point specified (the punch in point was specified).

■ Memory card/memory disk

LOAD error!!	<ul style="list-style-type: none"> Loading failed.
SAVE error!!	<ul style="list-style-type: none"> Saving failed.
DELETE error!!	<ul style="list-style-type: none"> Deleting a song failed.
VERIFY error!!	<ul style="list-style-type: none"> Data verification failed. Loaded, saved, or copied data has errors.
FORMAT error!!	<ul style="list-style-type: none"> Formatting failed.
NO DISK!! NO CARD!!	<ul style="list-style-type: none"> A memory card or floppy disk is not inserted.
PROTECT error!!	<ul style="list-style-type: none"> You attempted to save to a memory card or floppy disk which is write-protected.
SONG NOT FOUND	<ul style="list-style-type: none"> You attempted to load a song which does not exist in the memory card or floppy disk.

MIDI Implementation Chart

Keyboard

[SX-KN600/SX-KN800]

(Transmitted)

Function	POLY 1	POLY 2	ACCOMP 1	ACCOMP 2	ACCOMP 3	BASS	DRUMS	CONTROL	Remarks
Basic Channel Default Changed	1~16 1~16	1~16 1~16	1~16 1~16	1~16 1~16	1~16 1~16	1~16 1~16	1~16 1~16	1~16 1~16	memorized
Mode Default Messages Altered	3 × —	3 × —	3 × —	3 × —	3 × —	3 × —	3 × —	3 × —	OMNI OFF POLY MODE
Note Number True voice	0~127 —	0~127 —	0~127 —	0~127 —	0~127 —	0~127 —	0~127 —	— —	Changes depending on the position of the Octave Shift or Transpose control.
Velocity Note ON Note OFF	○ × (9nH:v=0)	○ × (9nH:v=0)	○ × (9nH:v=0)	○ × (9nH:v=0)	○ × (9nH:v=0)	○ × (9nH:v=0)	○ × (9nH:v=0)	— —	
After Touch Key's Ch's	× ×	× ×	× ×	× ×	× ×	× ×	× ×	× ×	
Pitch Bender	*○×	*○×	*○×	*○×	*○×	*○×	×	×	
Control Change	1	*○×	*○×	*○×	*○×	*○×	×	×	modulation
	7	*○×	*○×	*○×	*○×	*○×	*○×	*○×	volume main volume
	11	×	×	×	×	×	×	*○×	expression pedal
	64	*○×	*○×	*○×	*○×	*○×	×	×	sustain
	80	×	×	*○×	×	×	×	×	auto play chord
	82	×	×	×	×	×	*○×	×	intro, fill in, ending
93	*○×	*○×	*○×	*○×	*○×	×	×	×	chorus
Prog Change True #	*○× —	*○× —	*○× —	*○× —	*○× —	*○× —	*○× —	*○× — *○× (KN800) *○× (KN800)	
System exclusive	×								
System common Song Pos Song Sel Tune	*○× *○× ×								0~18
System Real Time Clock Commands	○ *○×								start/stop/continue
Aux Local ON/OFF All notes OFF	×	×	×	×	×	×	×	—	
Messages 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 3: OMNI OFF, POLY

Mode 2: OMNI ON, MONO
Mode 4: OMNI OFF, MONO

○: Yes
×: No

MIDI Implementation Chart

Keyboard

[SX-KN600/SX-KN800]

(Recognized)

Function		POLY 1	POLY 2	ACCOMP 1	ACCOMP 2	ACCOMP 3	BASS	DRUMS	CONTROL	Remarks
Basic Channel	Default Changed	1~16 1~16	1~16 1~16	1~16 1~16	1~16 1~16	1~16 1~16	1~16 1~16	1~16 1~16	1~16 1~16	memorized
Mode	Default Messages Altered	3 X —	3 X —	3 X —	3 X —	3 X —	3 X —	3 X —	3 X —	OMNI OFF POLY MODE
Note Number	True voice	0~127 24~119	0~127 24~119	0~127 24~119	0~127 24~119	0~127 24~119	0~127 24~95	0~127 36~71 (KN600) 36~83 (KN800)	— —	Changes depending on the position of the Octave Shift or Transpose control.
Velocity	Note ON Note OFF	○ X	○ X	○ X	○ X	○ X	○ X	○ X	— —	
After Touch	Key's Ch's	X X	X X	X X	X X	X X	X X	X X	X X	
Pitch Bender		*○X	*○X	*○X	*○X	*○X	*○X	X	X	
Control Change	1	*○X	*○X	*○X	*○X	*○X	*○X	X	X	modulation
	7	*○X	*○X	*○X	*○X	*○X	*○X	*○X	*○X	volume main volume
	11	X	X	X	X	X	X	X	*○X	expression pedal
	64	*○X	*○X	*○X	*○X	*○X	*○X	X	X	sustain
	80	X	X	*○X	X	X	X	X	X	auto play chord
	82	X	X	X	X	X	X	*○X	X	intro, fill in, ending
	93	*○X	*○X	*○X	*○X	*○X	X	X	X	chorus
Prog Change	True #	*○X 0~63 0~7**	*○X 0~63	*○X 0~63	*○X 0~63	*○X 0~63	*○X 0~15	*○X 0~31	*○X (KN600) *○X (KN800) 0~9	
System exclusive		X								
System common	Song Pos Song Sel Tune	*○X *○X X								0~18
System Real Time	Clock Commands	○ *○X								start/stop/continue
Aux	Local ON/OFF All notes OFF	X ○	X ○	X ○	X ○	X ○	X ○	X ○	— —	
Messages	Active Sense Reset	○ X								
Notes		*○X.....Whether or not the data for each of these items is received can be set. ** P. MEMO/P. CG								

Mode 1: OMNI ON, POLY
Mode 3: OMNI OFF, POLY

Mode 2: OMNI ON, MONO
Mode 4: OMNI OFF, MONO

○: Yes
X: No

Technics

KEYBOARD

SX-KN600

SX-KN800

Operating Instructions



Reference Guide

SX-KN600/SX-KN800

Contents

	Page
■ MUSICAL DIRECTOR GUIDE	1
■ SOUND VARIATIONS	3
■ TONE DIRECTORY	6
■ AUTO BEND & TRIL	7
■ RHYTHM DIRECTORY	8
■ KEYBOARD PERCUSSION	9
■ MUSIC STYLE	10
■ Please read your Owner's Manual for detailed explanations concerning each operating procedure.	

MUSICAL DIRECTOR GUIDE

NORMAL

- SOUND NAME <POLY, BASS>
TEMPO, RHYTHM,
TRANPOSE
- BALANCE <DRUMS, BASS, POLY>
- [SHIFT] RHYTHM VARIATION
- BALANCE <BGS, ACCOMP>

VARIATION

- RHYTHM VARIATION <1, 2>
- [SHIFT] RHYTHM VARIATION <3, 4>

ONE TOUCH PLAY

- [PAGE 1] MUSIC STYLE

SOUND SETTING

- [PAGE 1] SOUND SETTING <BASS, POLY>
- [PAGE 2] BALANCE <DRUMS, BASS, POLY>
- [PAGE 3] BALANCE <BGS, ACCOMP>
- [PAGE 4] SOUND SETTING <ACCOMP>
- [PAGE 5] PART CONDITION-EFFECT:
CHORUS, SUSTAIN, REVERB
- [SHIFT] PART CONDITION-BALANCE
- [PAGE 6] PART ASSIGN: MODE

EFFECT

- [PAGE -/1]* REVERB: TYPE, DEPTH, TOTAL ON/OFF
- [PAGE -/2]* USER REVERB: TYPE
[SHIFT] USER REVERB: DECAY, ECHO-TIME
- [PAGE 1/3]* PART CONDITION-EFFECT
(=SOUND SETTING P. 5)

SOUND EDIT

- [PAGE 1] [SHIFT] PART & SOUND
MEMORY WRITE (=PAGE 14)
- [PAGE 2] [SHIFT] MODE SELECT
2nd DELAY-START (DUAL MODE ONLY)
- [PAGE 3] TONE SELECT
- [PAGE 4] [SHIFT] VOLUME: LEVEL
VOLUME: KEY-BALANCE
- [PAGE 5] [SHIFT] PITCH: KEY-SHIFT
PITCH: DETUNE
- [PAGE 6] [SHIFT] ENVELOPE: ATTACK & DECAY
ENVELOPE: RELEASE
- [PAGE 7] [SHIFT] VIBRATO: DEPTH, SPEED
VIBRATO: DELAY
- [PAGE 8] REPEAT: SPEED
- [PAGE 9] [SHIFT] AUTO BEND & TRILL: PATTERN, DEPTH
AUTO BEND & TRILL: SPEED
- [PAGE 10] [SHIFT] PITCH RELEASE: DEPTH, TIME
PITCH RELEASE
- [PAGE 11] [SHIFT] TOUCH SENSE: VOLUME
TOUCH SENSE: AUTO BEND & TRILL
- [PAGE 12] GLIDE, SPLIT-OCTAVE
- [PAGE 13] SOUND NAME
- [PAGE 14] MEMORY WRITE (=PAGE 1 > SHIFT)

MEMORY & CONTROL

- [PAGE 1] MEMORY: SAVE, LOAD <CARD/DISK>
- [PAGE 2] INITIAL SETTING
- [PAGE 3] MEMORY:
DELETE, VERIFY, FORMAT <CARD/DISK>
- [PAGE 4] TECHNI-CHORD: TYPE
- [PAGE 5] TUNE, SCALE
- [PAGE 6] PANEL MEMORY MODE
- [PAGE 7] MODULATION: DEPTH
- [PAGE 8] [SHIFT] SWITCH ASSIGN <FOOT SWITCH, PAD>
SWITCH ASSIGN: INITIALIZE
- [PAGE 9] DRUM KIT SELECT: STYLE
- [PAGE 10] FILL IN PATTERN: TYPE
- [PAGE 11] PAD SETTING
- [PAGE 12] LCD CONTRAST

*KN600/KN800

MIDI

- [PAGE 1]
[SHIFT] BASIC CHANNEL SELECT
BASIC CHANNEL SELECT
- [PAGE 2] MIDI INPUT SELECT
- [PAGE 3] MIDI OUTPUT SELECT
- [PAGE 4] MIDI FUNCTION SELECT
- [PAGE 5]
[SHIFT] LOCAL CONTROL SET
MIDI OUT
- [PAGE 6]
[SHIFT] PANEL MEMORY PROGRAM CHANGE
PROGRAM CHANGE NUMBER
- [PAGE 7]
[SHIFT] PANEL MEMORY LOCAL CONTROL
LOCAL CONTROL/MIDI OUT

COMPOSER RECORD

- [PAGE 1] MEMORY SELECT, NAME, CLEAR
- [PAGE 2] BAR SET: BAR, BEAT
- [PAGE 3] REAL-TIME RECORD:
[SHIFT] QUANTIZE, CLEAR, TEMPO
ERASE, VOLUME
- [PAGE 4] STEP RECORD:
[SHIFT] MEASURE SETTING, ERASE
NOTE LENGTH, GATE TIME, REST
- [PAGE 5] COPY
- [PAGE 6] RECORDING CHORD

SEQUENCER

- [PAGE 1] SEQUENCER PLAY:
MEASURE SETTING, RESET, FF, TEMPO
- [PAGE 2]
[SHIFT] TRACK ASSIGN: PART ASSIGN
LOCAL CONTROL,
MIDI OUT (BASIC CHANNEL)
TRACK INITIALIZE
- [PAGE 3] MEDLEY PLAY (DISK)

RECORD REAL/PUNCH

- [PAGE 1]
[SHIFT] REAL-TIME RECORD, TEMPO
METRONOME
- [PAGE 2]
[SHIFT] PUNCH IN/OUT:
MEASURE SETTING, TEMPO
REAL PUNCH: IN/OUT

SEQUENCER EDIT

- [PAGE 1] SONG CLEAR
- [PAGE 2] TRACK CLEAR
- [PAGE 3] TRACK MERGE
- [PAGE 4] MEASURE DELETE
- [PAGE 5]
[SHIFT] MEASURE ERASE
MEASURE ERASE DATA
- [PAGE 6] MEASURE INSERT (FROM)
MEASURE INSERT (TO)
- [PAGE 7]
[SHIFT] MEASURE COPY (FROM)
MEASURE COPY (TO)
- [PAGE 8]
[SHIFT] VELOCITY CHANGE
VELOCITY CHANGE: TYPE, LEVEL
- [PAGE 9]
[SHIFT] QUANTIZE
QUANTIZE: LEVEL

STEP RECORD

- [PAGE 1] STEP RECORD SELECT
MODE: [CHORD] [RHYTHM]
[MELODY] [CONTROL]
- [PAGE 2] STEP RECORD:
 - [CHORD]
[SHIFT] MEASURE SETTING, RESET,
NOTE LENGTH
REPEAT, END
 - [RHYTHM]
[SHIFT] MEASURE SETTING, RHYTHM,
VARIATION
TEMPO, ERASE, REPEAT, END
 - [MELODY]
[SHIFT] MEASURE SETTING, ERASE
NOTE LENGTH, GATE TIME, REST
 - [CONTROL]
[SHIFT] MEASURE SETTING
SOUND data/CONTROL data

DEMO

- [PAGE 1] DEMO SONG

Sound Variations

<POLY>

SOUND	VARIATION	DISPLAY*1	COMMENT*2
PIANO 1	1 2	PIANO 1 PIANO 1+	OCTAVE PIANO
PIANO 2	1 2	PIANO 2 PIANO 2+	BRIGHT PIANO HONKY-TONK
E GRAND	1 2	E. GRAND E. GRND+	2 OCTAVE PIANO
HARPSI- CHORD	1 2	HRPSKRD HPSKRD+	COUPLER
E PIANO 1	1 2	E. PIAN1 E. PIA1+	DUAL (pp; E Piano 1, ff; Glocken)
E PIANO 2	1 2	E. PIAN2 E. PIA2+	ATTACK DETUNE
GUITAR	1 2	GUITAR GUITAR+	12 STRINGS
JAZZ GUITAR	1 2	JAZZ. GT JAZ. GT+	OCTAVE
SOLID GUITAR	1 2	SOLID. G SOLID. G	RHYTHM GUITAR 'Cutting'...TOP KEY
HAWAIIAN GUITAR	1 2	HWAI. GT HWAI. GT	AUTO BEND (f)
MUTE GUITAR	1 2	MUTE. GT MUTE. GT	ROCK GUITAR (MUTE)
ROCK GUITAR	1 2	ROCK. GT ROK. GT+	HARD ROCK GUITAR

SOUND	VARIATION	DISPLAY*1	COMMENT*2
HARP	1 2	HARP HARP+	OCTAVE (DELAY)
BANJO	1 2	BANJO BANJO	REPEAT
CLAVI	1 2	CLAVI CLAVI +	DISTORTION CLAVI
GLOCKEN	1 2	GLOCKEN GLOCKEN+	DUAL (Glocken, Kalimba-REPEAT)
VIBE TONE	1 2	VIBTONE VIBTON *	TRIO (Vibtone, Guitar, Jazz Gt)
CHIME	1 2	CHIME CHIME+	DELAY
XYLO- PHONE	1 2	XYLOFON XYLFON+	MARIMBA
STEEL DRUM	1 2	STL. DRM STL. DM+	
KALIMBA	1 2	KALIMBA KALIMBA+	AFRO
PIPE ORGAN 1	1 2	PIP. OR1 PIP. O1+	
JAZZ ORGAN 1	1 2	JAZ. OR1 JAZ. O1+	
POP ORGAN 1	1 2	POP. OR1 POP. O1+	

SOUND	VARIATION	DISPLAY*1	COMMENT*2
PIPE ORGAN 2	1 2	PIP. OR2 PIP. O2+	
JAZZ ORGAN 2	1 2	JAZ. OR2 JAZ. O2+	
POP ORGAN 2	1 2	POP. OR2 POP. O2+	
VIOLIN	1 2	VIOLIN VIOLIN	MELLOW
STRINGS	1 2	STRINGS STRNGS+	WITH SOLO VIOLIN
SYNTH STRING	1 2	S. STRNG S. STRG+	
BRASS	1 2	BRASS BRASS+	OCTAVE
TRUMPET	1 2	TRUMPET TRMPET *	TRIO (Trumpet, Trumpet, Trombone)
SYNTH BRASS 1	1 2	SYNBRS1 S. BRS1+	
FRENCH HORN	1 2	FR. HORN F. HORN *	TRIO (Flute, Fr. Horn, Oboe)
TROM- BONE	1 2	TROMBON TRMBON *	TRIO (Trumpet, Clarinet, Trombone)
SYNTH BRASS 2	1 2	SYNBRS2 S. BRS2+	

SOUND	VARIATION	DISPLAY*1	COMMENT*2
ACCOR- DION	1 2	ACRDION ACDION+	MUSETTE
TENOR SAX	1 2	TEN. SAX T. SAX *	DUET (Alt. Sax, Ten. Sax)
ALTO SAX	1 2	ALT. SAX A. SAX *	TRIO (Alt. Sax, Clarinet, Ten. Sax)
OBOE	1 2	OBOE OBOE *	TRIO (Oboe, Harpsichord, Clarinet)
CLARI- NET	1 2	CLRINET CLRNET *	TRIO (Clarinet, Accordion, Violin)
HAR- MONICA	1 2	HRMNICA HRMNICA	AUTO BEND
PAN FLUTE	1 2	PAN. FLT PAN. FLT	AUTO BEND (f)
FLUTE	1 2	FLUTE FLUTE *	TRIO (Flute, Strings, Oboe)
WHISTLE	1 2	WHISTLE WHISTLE	
SPECIAL 1	1 2	SPCIAL1 SPCIAL1	(Oriental Percussion) (African)
SPECIAL 2	1 2	SPCIAL2 SPCIAL2	(Ethereal Synth) (Synth Piano)
SPECIAL 3	1 2	SPCIAL3 SPCIAL3	(Click Square) (Plucked Synth)

*1 MODE: +...DUAL, *...DUET/TRIO

*2 Velocity: (pp) pianissimo, (p) piano, (f) forte, (ff) fortissimo

<BASS>

SOUND	VARIATION	DISPLAY	COMMENT*
ORGAN	1 2	ORGAN ORGAN	PIPE ORGAN
TUBA	1 2	TUBA TUBA	
ACOUSTIC	1 2	ACOSTIC ACOSTIC	BOWED BASS
ELECTRIC	1 2	ELCTRIC ELCTRIC	
CHOPPER	1 2	CHOPPER CHOPPER	
SPECIAL 1	1 2	SPCIAL 1 SPCIAL 1	(Synth Electric Bass) (Synth Electric Bass)-AUTO TRILL (f)
SPECIAL 2	1 2	SPCIAL 2 SPCIAL 2	(Mallet Bass) (Synth Chopper)
SPECIAL 3	1 2	SPCIAL 3 SPCIAL 3	(Synth Tuba) (Synth Tuba)

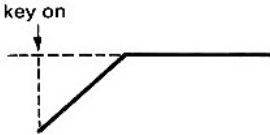

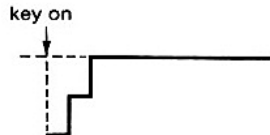
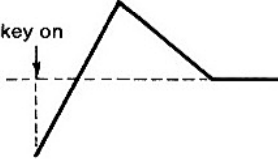
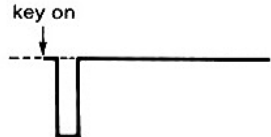
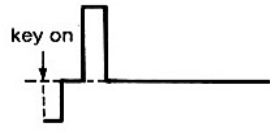
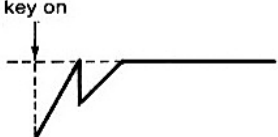
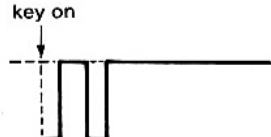
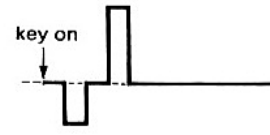


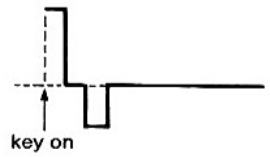

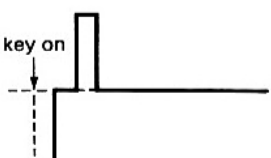
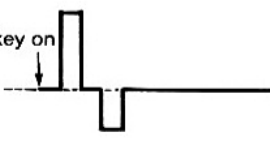
*(f) forte

TONE directory

POLY		
No.	DISPLAY	TONE NAME
1	Piano 1	Piano 1
2	Piano 2	Piano 2
3	E. Grand	Electric Grand Piano
4	Hrpskrd	Harpsichord
5	E. Pian 1	Electric Piano 1
6	E. Pian 2	Electric Piano 2
7	Guitar	Guitar
8	Jazz. Gt	Jazz Guitar
9	Solid G	Solid Guitar
10	Hwai. Gt	Hawaiian Guitar
11	Mute. Gt	Mute Guitar
12	Rock. Gt	Rock Guitar
13	Rthm. Gt	Rhythm Guitar
14	Harp	Harp
15	Banjo	Banjo
16	Clavi	Clavichord
17	Glocken	Glocken
18	Vibtone	Vibetone
19	Chime	Chime
20	Xylofon	Xylophone
21	Stl. Drm	Steel Drum
22	Kalimba	Kalimba
23	Pip Org 1	Pipe Organ 1
24	Pip Org 2	Pipe Organ 2
25	Jaz Org 1	Jazz Organ 1
26	Jaz Org 2	Jazz Organ 2
27	Pop Org 1	Pop Organ 1
28	Pop Org 2	Pop Organ 2
29	Violin	Violin
30	Strings	Strings
31	Syn Strg	Synth Strings
32	Brass	Brass
33	Fr. Horn	French Horn
34	Trumpet	Trumpet
35	Trombon	Trombone
36	Syn Brs 1	Synth Brass 1
37	Syn Brs 2	Synth Brass 2
38	Acrdion	Accordion
39	Ten. Sax	Tenor Sax
40	Alt. Sax	Alto Sax
41	Oboe	Oboe
42	Clrinet	Clarinet
43	Hrmonica	Harmonica
44	Pan Flut	Pan Flute
45	Flute	Flute
46	Whistle	Whistle
47	Ornt Prc	Oriental Percussion
48	Ethr Syn	Ethereal Synth
49	Clik Sqr	Click Square
50	African	African
51	Syn Pian	Synth Piano
52	Pluk Syn	Plucked Synth

BASS		
No.	DISPLAY	TONE NAME
1	Organ	Organ
2	Tuba	Tuba
3	Acoustic	Acoustic
4	Elctric	Electric
5	Chopper	Chopper
6	Syn Elct	Synth Electric
7	Mallet	Mallet
8	Syn Chop	Synth Chopper
9	Syn Tuba	Synth Tuba

Auto Bend & Trill

Pattern	A (Auto Bend)	B (Auto Trill 1)	C (Auto Trill 2)
1			
2			
3			
4			
5			

- Speed adjustable range 0~30
- Depth adjustable range -30~+30 (-200 cents ~ +200 cents)

Rhythm directory

RHYTHM	VARIATION
<PANEL LABEL>	<DISPLAY> (FULL NAME)
MARCH	MARCH
POLKA	POLKA
COUNTRY	COUNTRY
	BLUE G (BLUE GRASS)
WALTZ	WALTZ E (ENGLISH WALTZ)
	WALTZ V (VIENNA WALTZ) ★
	WALTZ G (GERMAN WALTZ) ★
TANGO	TANGO
LATIN	RHUMBA
	CHA CHA
SAMBA	SAMBA
BOSSA-NOVA	BOSSA N (BOSSA NOVA)
SWING	BIGBD S (BIG BAND SLOW)
	J COMBO (JAZZ COMBO)
	BIGBD F (BIG BAND FAST) ★
DIXIE	DIXIE
	Q STEP (QUICK STEP)
JAZZ WALTZ	J WALTZ (JAZZ WALTZ)
SHUFFLE	SHUFFL a (SHUFFLE a)
	SHUFFL b (SHUFFLE b) ★
	SHUFFL a; e (SHUFFLE a; e)
	SHUFFL b; e (SHUFFLE b; e) ★

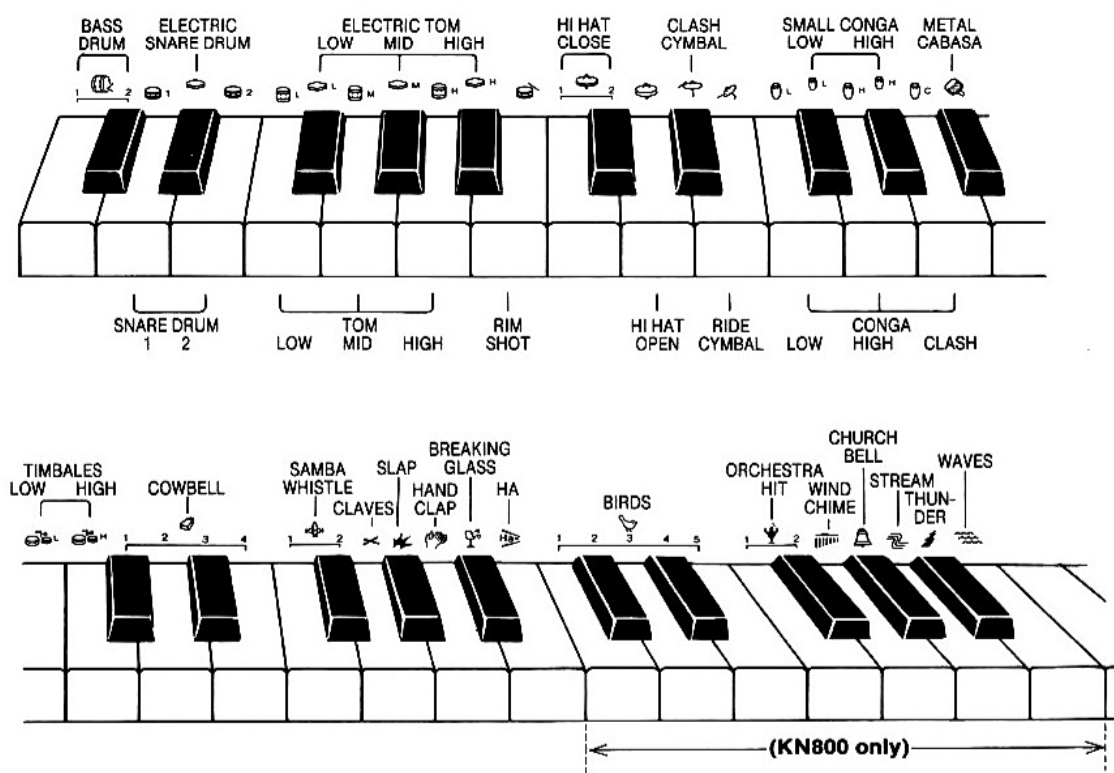
RHYTHM	VARIATION
<PANEL LABEL>	<DISPLAY> (FULL NAME)
ROCK BALLAD	BALLAD (ROCK BALLAD)
SWING ROCK	SWNG R a (SWING ROCK a)
	SWNG R b (SWING ROCK b) ★
SAMBA ROCK	SAMBA R (SAMBA ROCK)
	AFRO R (AFRO ROCK)
LATIN ROCK	REGGAE
	SALSA
8 BEAT 1	8 ROCK a (8 BEAT ROCK a)
	8 ROCK b (8 BEAT ROCK b)
8 BEAT 2	8 POP; e (8 BEAT POP; e)
	HEAVY M (8 BEAT HEAVY METAL) ★
	8 POP (8 BEAT POP)
ROCK' N' ROLL	ROCK & R (8 BEAT ROCK'N'ROLL)
16 BEAT 1	16 ROCK (16 BEAT ROCK)
	16 BALAD (16 BEAT BALLAD)
16 BEAT 2	16 POP a; e (16 BEAT POP a; e)
	16 POP b (16 BEAT POP b) ★
	16 POP a (16 BEAT POP a)
JAZZ ROCK	J ROCK a (JAZZ ROCK a)
	J ROCK b (JAZZ ROCK b) ★
	J ROCK a; e (JAZZ ROCK a; e)
	J ROCK b; e (JAZZ ROCK b; e) ★
FUNK	FUNK
	FUNK; e
DISCO	DISCO a; e
	DISCO b
	DISCO a
	DISCO b; e

; e → electric drum kit
★ → KN800 only

Keyboard Percussion

Press the **KEYBOARD PERCUSSION** button on to turn your keyboard into a whole band of percussive instruments and other special sounds.

<Percussive keyboard>



Music style

RHYTHM	MUSIC STYLE	
<PANEL LABEL>	<DISPLAY>	(FULL NAME)
MARCH	1 : U.S.A. MARCH 2 : EURO MARCH	
POLKA	3 : POLKA BAND 4 : QUICK POLKA	
COUNTRY	5 : C & W GUITARS 6 : COUNTRY & W 7 : BLUE GRASS	(COUNTRY & WESTERN GUITARS) (COUNTRY & WESTERN)
WALTZ	8 : SLOW WALTZ 9 : 3/4 QUINTET	
TANGO	10 : ARGENTANGO!	(ARGENTINE TANGO)
LATIN	11 : RHUMBA BAND 12 : CHA CHA CHA!	
SAMBA	13 : SAMBA RIO! 14 : SAMBA DOLCE	(SAMBA RIO DE JANEIRO)
BOSSA NOVA	15 : BOSSA TIPICO 16 : E. P. BOSSA	(very typical BOSSA NOVA) (ELECTRIC PIANO BOSSA NOVA)
SWING	17 : BIG BAND 18 : DANCE BAND 19 : BEBOP BRASS 20 : JAZZ COMBO	
DIXIE	21 : DIXIE BAND 22 : JANGLE PIANO	(honky-tonk PIANO)
JAZZ WALTZ	23 : 3/4 JAZZ! 24 : 3 QUARTET	(JAZZ WALTZ QUALTET)
SHUFFLE	25 : ROCK'N'ROLL 26 : ROCK PIANO	
ROCK BALLAD	27 : 50'S BALLAD 28 : HULA BALLAD	(Hawaiian)
SWING ROCK	29 : 80'S SWING 30 : SWING COMBO	
SAMBA ROCK	31 : SYNTH SAMBA 32 : AFRICAN POP	
LATIN ROCK	33 : CARIBBEAN 34 : OCTAVE SALSA	
8 BEAT 1	35 : 8 BALLAD 36 : STRAIGHT 8 37 : COUNTRY ROCK	
8 BEAT 2	38 : U.S.A. ROCK	
ROCK'N'ROLL	39 : 60'S POP	
16 BEAT 1	40 : STANDARD 16 41 : 16 BAND	
16 BEAT 2	42 : POP 16	
JAZZ ROCK	43 : POP JAZ ROCK 44 : SYNTH FUSION	(POP JAZZ ROCK)
FUNK	45 : ORIENT FUNK	
DISCO	46 : DISCO HORNS 47 : TECHNO POP 1 48 : TECHNO POP 2	