Digital Piano

KSP30

OWNER'S MANUAL

Advanced Operation

KAWAI

GUIDELINES FOR SAFE OPERATION

- **POWER**
  Always operate this digital piano from an AC outlet. Double check the voltage, as mistakenly using an outlet with a higher voltage could damage this equipment and present a safety hazard.

- **NOISE**
  Use caution when selecting a location for this digital piano, as motors and neon or fluorescent lights can be a source of electrical interference creating noise in the sound output. If unexpected noise can be heard, try changing locations.

- **HANDLING THE POWER PLUG AND CORD**
  Never handle the power plug with moist hands, as this could cause electrical shock. Also, be careful not to step on or trip over the cord, as this could cause electrical shorts or breaks in the line.

- **BREAKDOWNS**
  During a suspected breakdown, opening up the unit and removing parts is highly dangerous. Please do not do this! In the event of a suspected breakdown, consult the retailer where you purchased the unit or contact your nearest Kawai dealer.

- **AFTER USE**
  After use, always be sure to turn off the power. Leaving the power on for long periods can sometimes cause operating problems. During extended periods of non-uses,remove the plug from the outlet.

- **CLEANING**
  Never attempt to clean the instrument with chemicals such as alcohol, thinner or benzine. When cleaning the outside of the unit, wipe gently with a soft cloth soaked in a solution of water and neutral detergent. Be sure to wiping out excess solution before using the cloth. Clean off the piano keys by wiping with a soft cloth moistened with water.

- **DATA BACKUP BATTERY**
  When the internal battery for data backup has exceeded its service life, the contents of the registration memory will be lost. Please replace this battery every 6 to 7 years. (Contact your dealer.)

HANDLING OF FLOPPY DISKS

- Floppy disk types
  The KSP30 uses 2DD, 3.5 inch floppy disks. Other types of floppy disks cannot be used.

- Do not handle the inner parts of a floppy disk or allow foreign objects such as dirt to get in or onto the disk. When a disk is opened and the inner portion is touched or dust gets through the shutter, data cannot be recorded correctly.

- Do not place near strong magnetic fields. Data on a disk can be erased or damaged when exposed to external magnetic fields. So, avoid placing a disk near magnets or speakers, etc.

- The floppy disk must not be removed when the disk drive indicator lamp is lit. Removing a disk when the lamp above the disk insertion slot is lit will destroy or damage data on the disk.

- Memory Protect
  A small rectangular window is provided in the lower left portion of the disk. This window prevents writing or erasure of data on the disk. When this window is closed, data can be written onto the disk. When open, data cannot be written onto the disk. Set this memory protect window to the open position when you wish to prevent disk data from being written, overwritten or erased.

- Inserting and Removing the disk from the KSP30
  Hold the floppy disk so that the label faces upward and insert it, metal shutter first, into the KSP30 disk drive. Insert the disk all the way into the disk drive until you see it lock into place. Press the eject button gently when you wish to remove the disk.

INTRODUCTION

Thank you for choosing this Kawai KSP30 Digital Piano.

Your new Kawai KSP30 digital piano is a truly innovative instrument offering the very latest in leading-edge music technology. Its development relied upon Kawai's long years of experience and success in the manufacture of musical instruments. A diverse array of 129 instrument sounds, 64 rhythms for a wide range of pleasing styles, and a powerful auto orchestra capability give you the musical resources to create exciting "full band" performances with just your own two hands!

This manual consists of three parts: a Basic Version, an Advanced Version and an Auto Chord Progression Chart.

Basic Operation.....This section explains just the basic functions of your digital piano. It is designed for those learning to play for the first time.

Advanced Operation.....This section explains all the functions of the digital piano in greater detail. It will prove useful for those who have mastered the basic section of the manual.

Auto Chord Progression Chart.....This is used with the Auto Chord Progression feature. It includes a sound list and chord form table.

KSP30 SPECIAL FEATURES

- **129 Realistic Sounds**
  A total of 129 sounds have been provided, including piano and a wide array of musical instrument sounds and effects used throughout the world.
- **64 Rhythms/Auto-Accompaniment Patterns Gathered from Worldwide Genres**
  A total of 64 rhythm/auto-accompaniment patterns are offered, ranging from folk music to latin styles to the latest popular music. This lets you perform your music along with accompaniments created by top musicians in each genre. Optional rhythm disks (sold separately) give you access to an an expanded range of rhythm patterns.
- **Creative Auto-Accompaniment (Auto Orchestra)**
  This function provides a "back-up" band to support your performance with a natural, "human" feel.
- **Auto Chord Progression Lets You Create an Impressive Full-band Performance with Just One Finger**
  Chord progressions for 64 well-known songs play automatically, allowing you to sound like a complete orchestra as you play melodies with just one finger!
- **ONE TWO PLAY Function Lets You Instantly Find Sounds and Panel Settings to Match Each Rhythm**
  You can select an ideal sound and panel setting just by choosing a rhythm and pressing the ONE TWO PLAY button. When this function is combined with Auto Chord Progression, you can easily achieve the perfect setting for each song performance!
- **Registration Memory Stores Your Favorite Panel Settings**
  Settings essential to your performance (sounds, DUAL sound combinations, SPLIT sounds, tempo, etc.) can be stored for immediate recall on any of four buttons. These settings can also be stored on a disk.
- **Recorder Function Easily Stores Your Performance**
  Using the recorders to store your favorite songs, evaluate a performance, or record right- and left-hand parts separately for piano practice
- **Accepts SMF (Standard MIDI File) Data**
  The recorder allows you to play SMF data (format 0,1) available on disk from a variety of software suppliers. Software applications include playback of popular songs, music lessons, and music history courses.
- **GM Compatible Sound Source**
  This digital piano can be used as a 16-channel Multi-Timbral, General MIDI (GM) compatible sound source.

TABLE OF CONTENTS

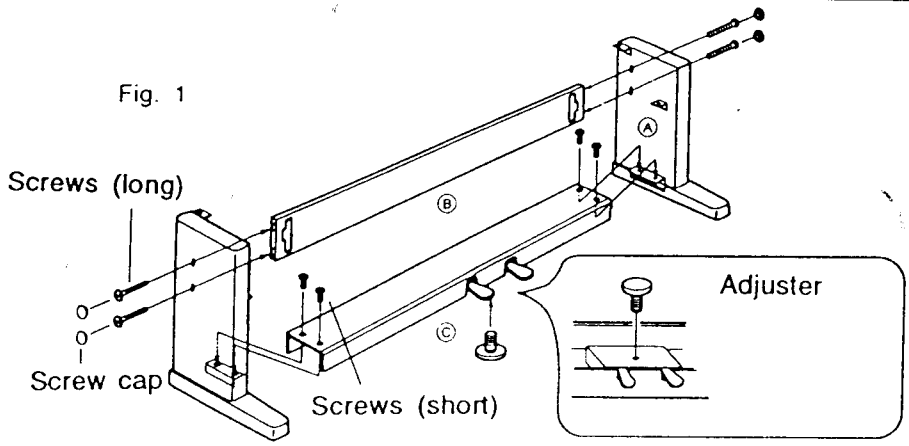
ASSEMBLY

- Be sure to check that all parts are on hand before starting to assemble your unit.
- During disassembly use the procedure below, in reverse order.

■ PARTS PROVIDED

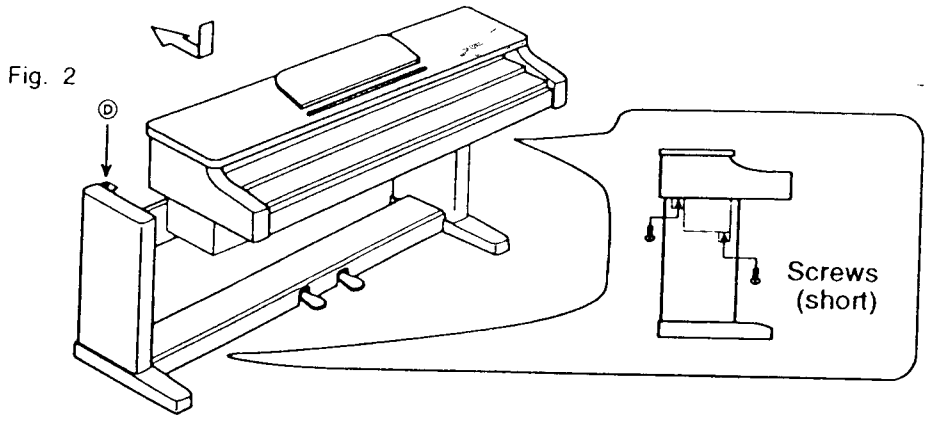
• Side panel Ⓐ	2 pcs.	• Screws (long)	4 pcs.
• Back panel Ⓑ	1 pc.	• Screws (short)	8 pcs.
• Pedal board Ⓒ (2 or 3 pedals)	1 pc.	• Adjuster	1 pc.
		• Screw cap	4 pcs.

Fig. 1



1. Insert the adjuster (height adjusting screw) on Ⓒ from the back about 1 cm. (Fig. 1)
2. Fasten Ⓐ and Ⓒ with 4 screws (short). (Fig. 1)
3. Hold Ⓑ so that the side with metal fittings faces toward you, and fasten Ⓐ and Ⓑ with four screws (long) (Fig. 1)

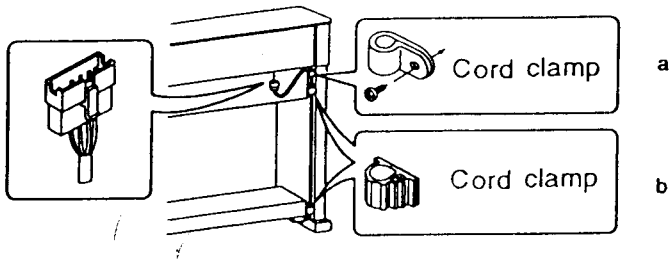
Fig. 2



4. Place the piano on the stand so that, when viewed from top, all of metal fittings Ⓓ at the back of the body are visible. Use care so that your hand (supporting the rear part of the piano) is not caught between the side plate and the unit. (Fig.2)
5. Hold the stand tight with your foot, and hold the front of the piano with your hand so that it does not tilt. Slide the body backward until it hooks on to Ⓓ. (Fig. 2)
6. Secure the unit to the stand with 4 screws (short).(Fig. 2)
   Temporarily tighten the screws, and adjust the position of the piano. Then, tighten all screws securely.

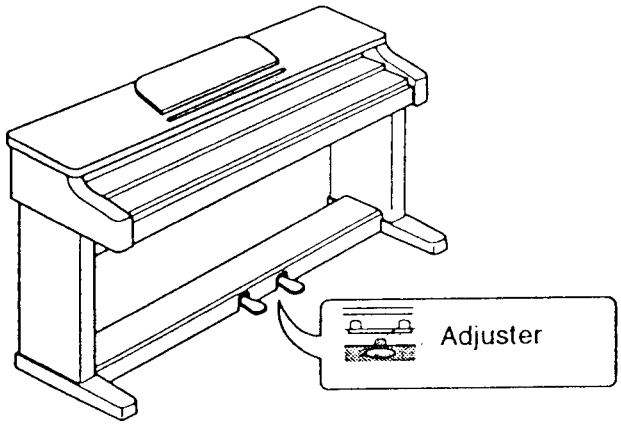
Caution: Be sure to secure the unit to the stand with the screws. If you fail to do so, the unit could fall from the stand, causing damage or personal injury.

Fig. 3



7 Insert the pedal connection cord that comes from © into the unit's pedal terminal and fasten with clamps "a" and "b". (Fig. 3) (Insert clamp "a" after removing the screw.)

Fig.4
Fully assembled view

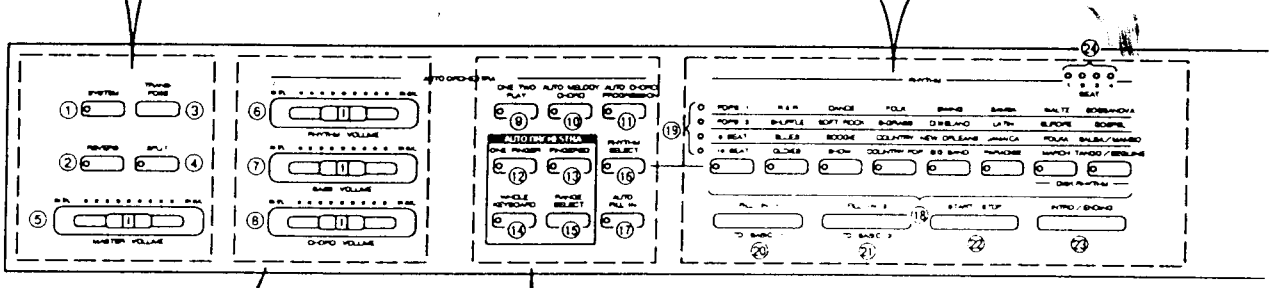


8. Turn the adjuster (installed on the back of ©) until it touches the floor to support the pedal board.(Fig.4)

PART NAMES AND FUNCTIONS

①SYSTEM button (refer to p. 33)
Touch curve and pedal, set with MIDI etc.
②REVERB button (refer to p. 13)
Adds reverb to the sound
③TRANSPOSE button (refer to p. 28)
Transposes the musical steps in half-step intervals.
④SPLIT button (refer to p. 11)
Use to play different sounds on the right and left sides of the keyboard.
⑤MASTER VOLUME lever
Adjusts the overall volume of the digital piano.

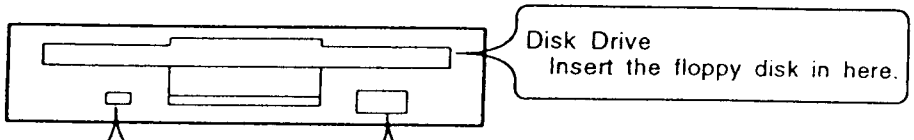
⑱Rhythm button (refer to p. 15)
Selects the rhythm to be played.
⑲Rhythm lamp (refer to p. 15)
Displays the selected rhythm name list.
⑳FILL-IN 1 button (refer to p. 16, 20)
㉑FILL-IN 2 button (refer to p. 16, 20)
The FILL-IN pattern for the rhythm or auto accompaniment is played.
㉒START STOP button (refer to p. 16)
Pressing this button starts the rhythm. Pressing again stops it.
㉓INTRO/ENDING button (refer to p. 16)
When the rhythm is stopped, this button plays the intro pattern -- followed by the basic pattern. When the rhythm is playing, the button initiates the ending pattern and then stops play.
㉔BEAT lamp
This lamp flashes in time with the rhythm tempo during play.



⑥RHYTHM VOLUME
Adjusts the auto accompaniment rhythm volume
⑦BASS VOLUME
Adjusts the auto accompaniment bass volume.
⑧CHORD VOLUME
Adjusts the auto accompaniment chord volume.

⑨ONE TWO PLAY button (refer to p. 25)
Automatically selects sounds to match the rhythm
⑩AUTO MELODY CHORD button (refer to p. 26)
Adds chords to melodies played in single notes.
⑪AUTO CHORD PROGRESSION button (refer to p. 23)
Automatically plays a chord progression matching the rhythm.
⑫⑬⑭ONE FINGER, FINGERED, WHOLE KEYBOARD button (refer to p. 17)
Used for auto accompaniment play.
⑮RANGE SELECT button (refer to p. 22)
Selects the range of the auto accompaniment chord parts.
⑯RHYTHM SELECT button (refer to p. 15)
Used to select any rhythm listed on the panel.
⑰AUTO FILL-IN button (refer to p. 27)
Automatically plays a FILL-IN pattern every 4 bars.

DISK DRIVE



Disk Drive
Insert the floppy disk in here.

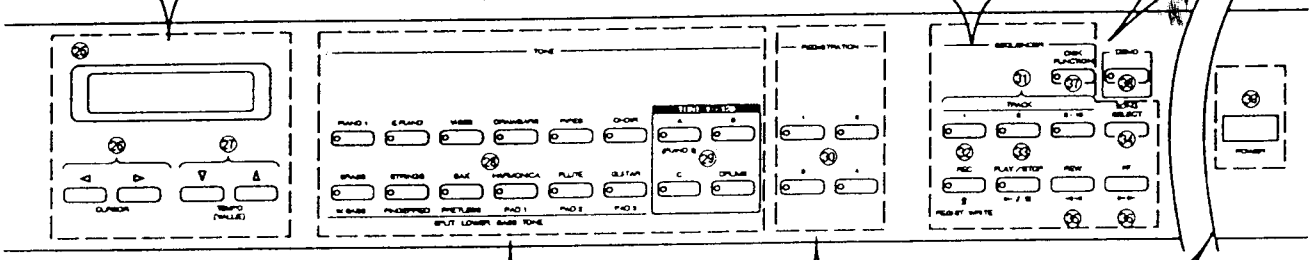
Disk Indicator Lamp
Indicator lamp lights up while the disk drive is in operation

Eject Button
Press to remove the floppy disk from the disk drive.

㉖DISPLAY screen
Displays names and modes of the various rhythms and sounds.
㉘CURSOR button (refer to p. 9)
Changes the position of the cursor (horizontal bar) on the screen.
㉗TEMPO VALUE button (refer to p. 9)
Changes the settings of tempo and sound numbers indicated by the cursor on the display.

㉛TRACK button (refer to p. 49, 61)
Selects the track button to record or replay separate right or left hand parts, or separate sounds.
㉜REC REGIST WRITE button (refer to p. 29, 53)
Used for storing various settings with the Registration button for making recordings, etc.
㉝PLAY/STOP button (refer to p. 56)
Plays and also stops the current song.
㉞SONG SELECT button (refer to p. 53)
Selects songs when using the recorder function.
㉟REW (Rewind) button (refer to p. 56)
Performs fast rewind of the song.
㊱FF (Fast forward) button (refer to p. 56)
Performs fast forward of the song.
㊲DISK FUNCTION button (refer to p. 66, 67)
Makes various disk settings.

㊳DEMO button (refer to p. 31)
Plays the demonstration song.



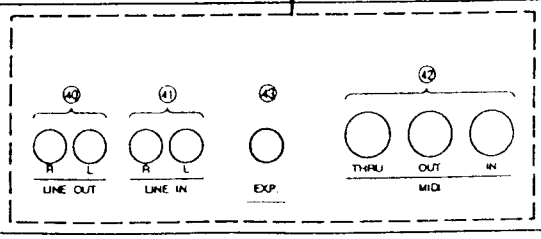
㉘Sound Select buttons (refer to p. 7, 8)
Selects the sounds for the performance.
㉙Sound Select buttons (refer to p. 7, 8)
Selects the sounds for the performance.
The sounds for these buttons can be changed.

㉚REGISTRATION button (refer to p. 29)
This button stores a combination of sounds, rhythms and volume, etc. This data can be recalled when needed, with one button.

㉙POWER switch
Turns the power ON and OFF.

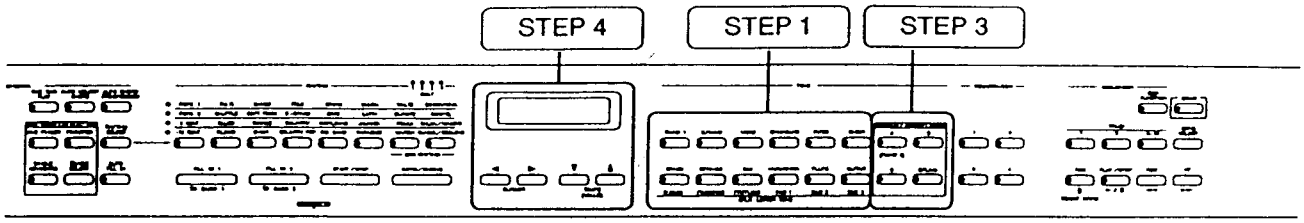
㊵LINE OUT terminals
Use these terminals to route a sound to other external equipment such as amps and stereos.
㊶LINE IN terminals
Use these terminals to route sounds from external equipment (such as stereos and CD players), to be played through the built-in speakers.
㊷MIDI terminals
Use these terminals to connect other MIDI instruments.
㊸EXP. (Expression) Use this terminal to connect the expression pedal (V-20X: sold separately). Controls the volume.

REAR PANEL



1 CHOOSING A SOUND

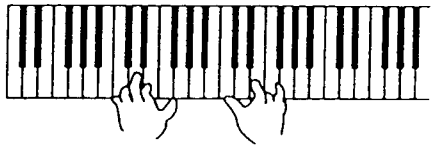
This digital piano incorporates 129 sounds and 7 drum sets, giving you a wide variety of choices.



STEP1 Press the button corresponding to your favorite sound shown on the panel.

For instance, if the FLUTE button is pressed, the lamp for this button lights and the flute sound is chosen.

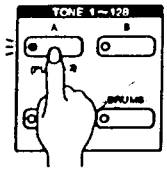
STEP2 A beautiful flute sound can be heard when a key is pressed.

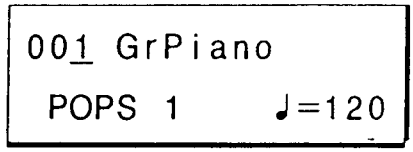


To play sounds other than those listed on the panel:

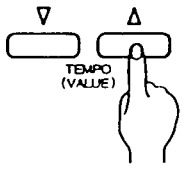
STEP3 Press any one of the A, B or C buttons.

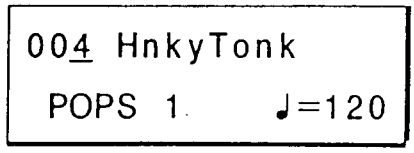
For instance, if the A button is pressed, the piano 2 (Grand Piano) sound is chosen and the name is shown in the display.





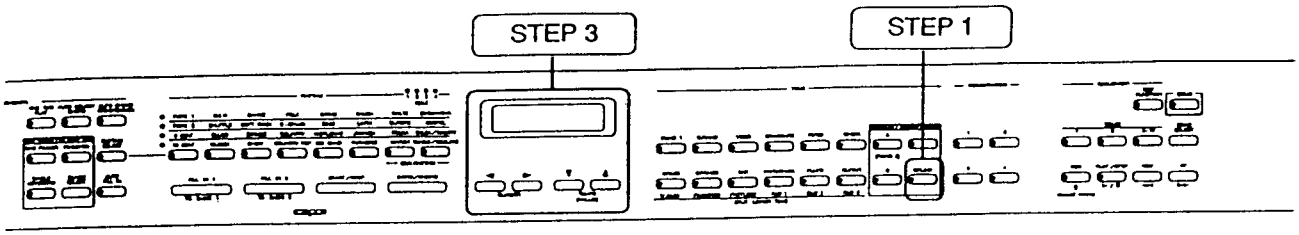
STEP 4 Press the TEMPO (VALUE) button several times while watching the display. Notice that the sounds change. When the button is held down, the numbers change in increments of 10. Select the sound you like from a total of 128 sounds, numbering from 001 to 128.





(Refer to the 128 sound list on the back cover page of the Auto Chord Progression Chart.)

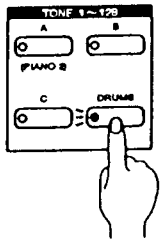
- When selecting a sound in this way, it is automatically assigned to the button you pressed, and remains even if the power is off.
  Please assign your favorite sounds to the A - C buttons for instant recall.

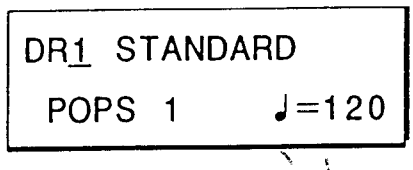


To play the drum sound:

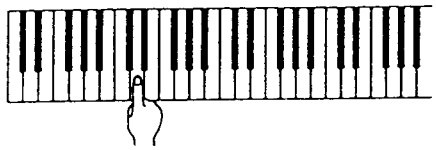
STEP 1 Press the DRUMS button.

The standard set is chosen from among the 7 drum sets and is shown on the display.

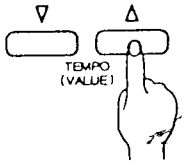


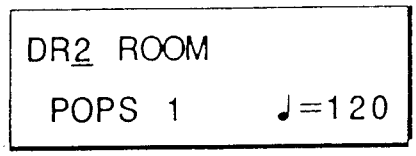


STEP 2 When the keys are pressed, various drum and percussion sounds will be heard.



STEP 3 Press the TEMPO (VALUE) button several times to change the drum set.





STANDARD ..... Plays a traditional drum set assortment.
ROOM ..... Plays a lighter-sounding drum set.
POWER ..... Plays a powerful drum set.
ELECTRO ..... Plays an electronic drum set.
BOB ..... Plays an artificial drum set used for house mixing
JAZZ ..... Plays a jazz drum set.
ORCHSTR ..... Plays timpani sounds like those used in orchestras.

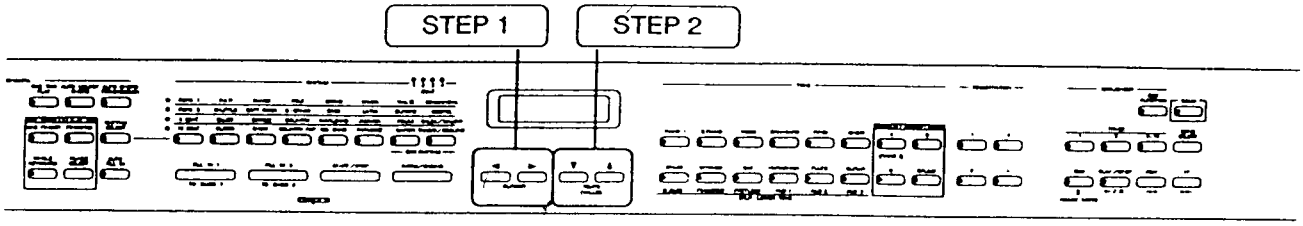
(Refer to page 42 of the "Auto Chord Progression Chart" for the sound layout of each drum set.)

When selecting a drum set in this way, it is automatically assigned to the DRUMS button, and remains even if the power is off.
Please assign your favorite sounds to the DRUMS buttons for instant recall.

- The SPLIT button cannot be operated during DRUMS selection. (Refer to p. 11)
- Auto Orchestra cannot be operated during DRUMS selection. (Refer to p. 17)

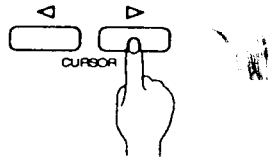
2 CHANGING THE TEMPO

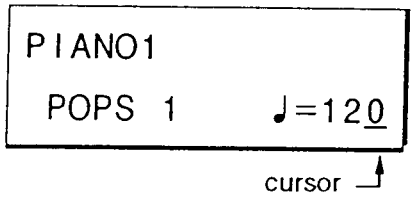
This page teaches you how to adjust tempo by changing the number that appears in the display.



To change the tempo:

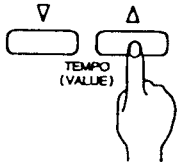
STEP 1 Press the CURSOR button several times to move the cursor beneath TEMPO.
(The cursor may not move, depending on the screen menu.)

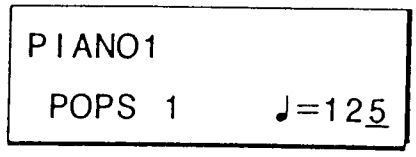




STEP 2 Press the TEMPO (VALUE) button several times to change the tempo setting.

When this button is held down, the numbers change in increments of 10.

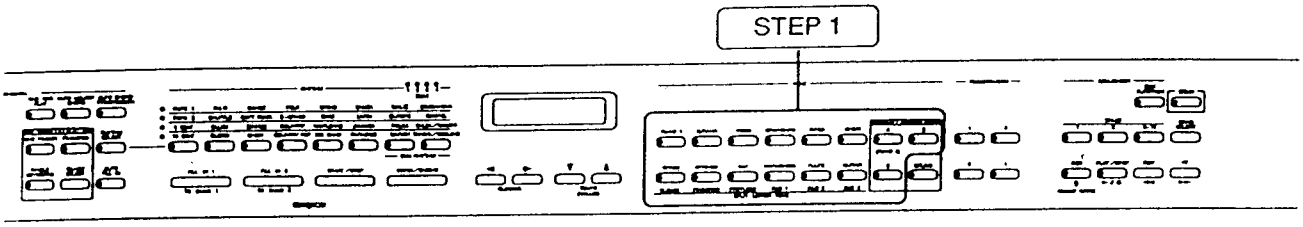




As shown above, numbers and settings in the display can be changed by moving the cursor with the CURSOR button and then changing the number or setting with the TEMPO (VALUE) button. (In some cases the cursor position may be stationary, depending on the type of screen menu. Also numbers and settings may have been preset.)

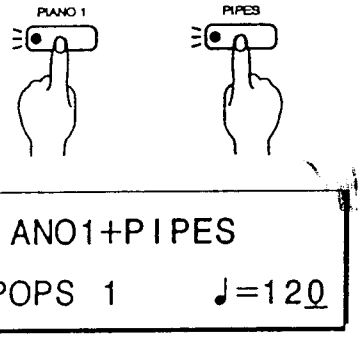
3 COMBINING TWO SOUNDS (DUAL FUNCTION)

A fuller sound can be obtained by combining two sounds. This is called the DUAL function.

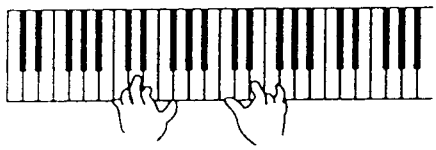


STEP 1 Press the buttons for two of your favorite sounds simultaneously.

In this example, piano 1 and pipe organ sounds are combined and then displayed on the screen as shown at the right.



STEP 2 Press a key and the two combined sounds will be heard.



★ Any of the 129 sounds (except for drums) can be combined with the DUAL function using the A, B, and C buttons.
A number display for sounds stored with the A, B, C buttons is shown.
For instance, simultaneously pressing the PIANO 1 button and B button gives the following display.

PIANO1+GM058
POPS 1 ♩=120

→DUAL function for piano and trombone No. 058

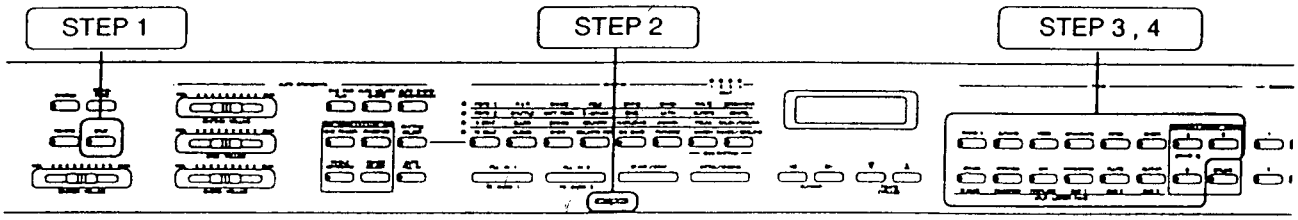
Move the cursor as shown in the above display with the CURSOR button.
Pressing the TEMPO (VALUE) button changes the B button sound description.

This function is convenient for finding your favorite sound combination by listening and comparing various sounds.

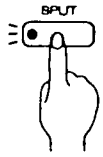
• The volume balance of the two sounds can also be changed (Refer to p. 36)

4 PLAYING DIFFERENT SOUNDS WITH RIGHT AND LEFT HANDS (SPLIT FUNCTION)

You can play separate sounds for left hand (lower keyboard) and right hand (upper keyboard) with the SPLIT function. While playing a melody with your right hand, you can play chords or bass with your left hand.

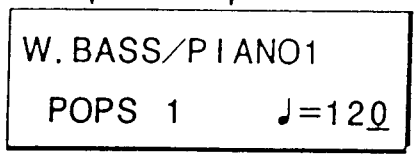


STEP 1 Press the SPLIT button. The lamp for that button will light.

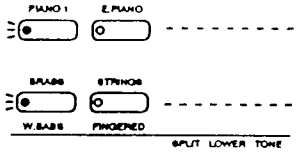


STEP 2 Keeping the [SPLIT POINT] dividing line in mind (between G3 and G#3), play separate sounds on the left and right.

Lower keyboard sounds — Upper keyboard sounds

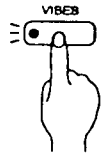


★When pressing SPLIT button, the following sounds are assigned to upper/lower keyboard.
upper: The sound currently selected
lower: W. BASS



← The lamps for the upper and lower keyboard sound buttons will light.

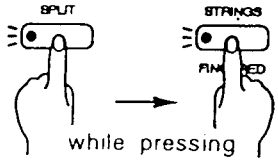
STEP 3 To change the sound assigned to the upper keys, press the sound button you want to assign.



STEP 4 To change the sound assigned to the lower keys, press the sound button you want to assign while holding down the SPLIT button.

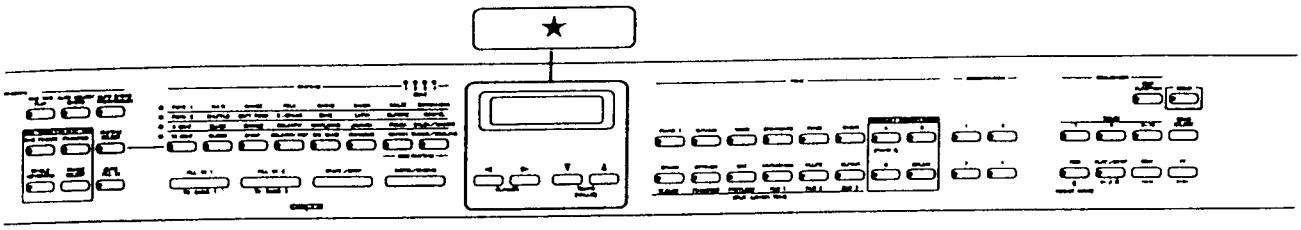
When pressing the button once, the sound shown below the button is selected.

To select the sound shown above the button, press the button once again.



Press once for lower sound (FINGERED BASS).

Press twice for upper sound (STRINGS).



- The DRUMS sound cannot be selected when SPLIT is "ON".
- The lower keyboard will sound about one octave higher than normal when played, except when using the following eight sounds:

  033 WoodBass = W.BASS
  034 FingerBass = FINGERED
  035 PickBass
  036 Fretless = FRETLESS
  037 SlapBass1
  038 SlapBass2
  039 SynBass1
  048 SynBass2

★ All sound buttons can be set with SPLIT except for the DRUMS button.
All 129 sounds can be freely set in combinations by using the A, B and C buttons.
Sounds stored with the A, B and C buttons are set in a line No. display format.
For instance, simultaneously pressing the PIANO 1 button and B button SPLIT gives the following display:

```
PIANO1 /GM058
 POPS 1      ♩=120
```

→ Piano on lower keyboard and trombone No. 058 on the upper keyboard

Move the cursor with the CURSOR button as shown in the display below.

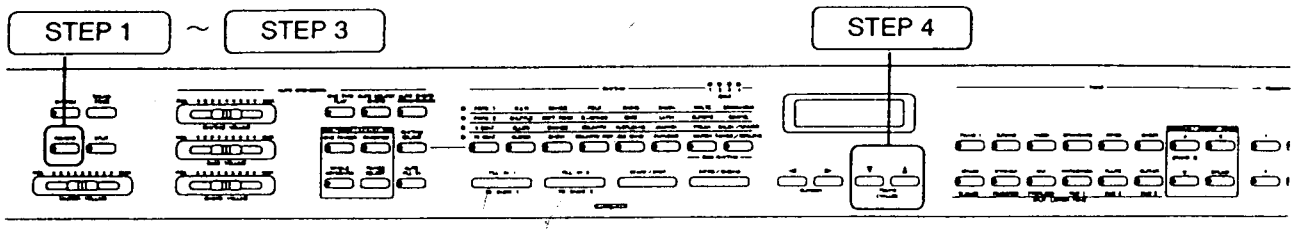
```
PIANO1 /GM058
 POPS 1      ♩=120
```

Pressing the TEMPO (VALUE) button changes the B button sound description.
This function will help you find your favorite sound combination by listening and comparing various sounds.

- The SPLIT point can also be changed. (Refer to p. 37)
- The sound balance for the lower and upper keyboard can also be adjusted. (Refer to p. 36)

5 EXPLORING THE REVERB FUNCTION

You can use the reverb function to enhance your performance. Reverb adds a pleasing echo effect to any sound, providing a richer character to your music.



STEP 1 The reverb effect is being activated when the REVERB lamp is lit. (The reverb effect is active when power is first turned on.)

STEP 2 Pressing the reverb button turns off the REVERB lamp and cancels the reverb effect.

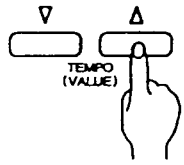
STEP 3 Pressing the reverb button again lights the REVERB lamp and activates the reverb effect. For a few seconds, the display will show the message in the figure on the right.

REVERB TYPE
= LARGE ROOM

STEP 4

Pressing the TEMPO (VALUE) button repeatedly while this message is displayed allows you to change the type of reverb as desired.
(After about 3 seconds, the display will return to normal.)

```
REVERB TYPE
= HALL
```

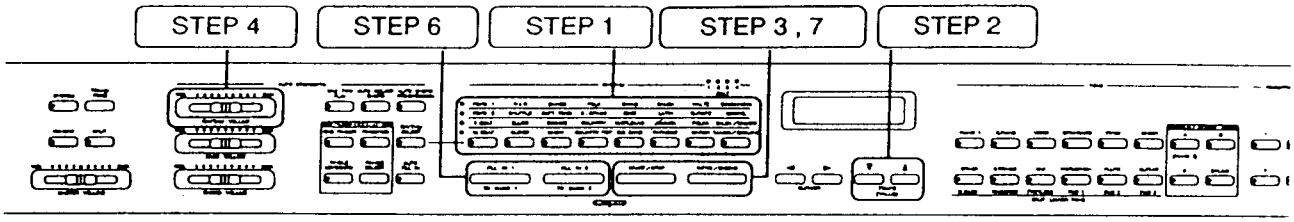


Types of reverb are listed below:

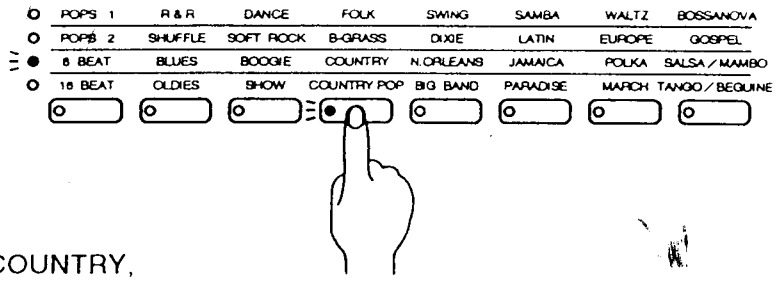
SMALL ROOM.....Similar to playing in a small room that produces a pronounced echo.
LARGE ROOM .....Provides a longer reverb sound than the above SMALL ROOM.
HALL.....Similar to playing in a small concert hall.
CHURCH.....Similar to playing in large concert hall or church.
COSMIC.....Conveys a feeling of wide and open spaces.
DELAY.....Produces a delayed echo.

When the reverb type in the display is changed, the new reverb effect will be activated after about 2 seconds.

6 PLAYING RHYTHMS



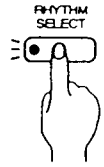
STEP 1 Select a favorite rhythm with the rhythm buttons.



For example, to select COUNTRY, press the button below COUNTRY several times. Its lamp will light as shown in the figure on the upper right. The rhythm name is shown in the display.

Pressing the RHYTHM SELECT button while COUNTRY is still displayed allows you to select a different COUNTRY rhythm. (Variation Pattern)

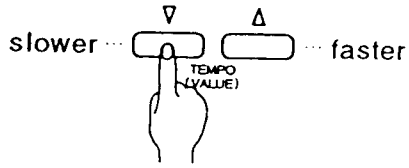
Pressing the RHYTHM SELECT button once more turns off the lamp and takes you back to the original country rhythm.



The variation pattern has been selected.

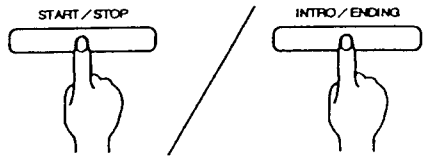
This function allows you to select two types of patterns for each rhythm name.

STEP 2 Adjust the speed of the rhythm (tempo). Press the TEMPO (VALUE) button to adjust the tempo as needed.

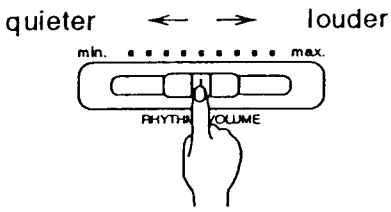


STEP 3 Start the rhythm.

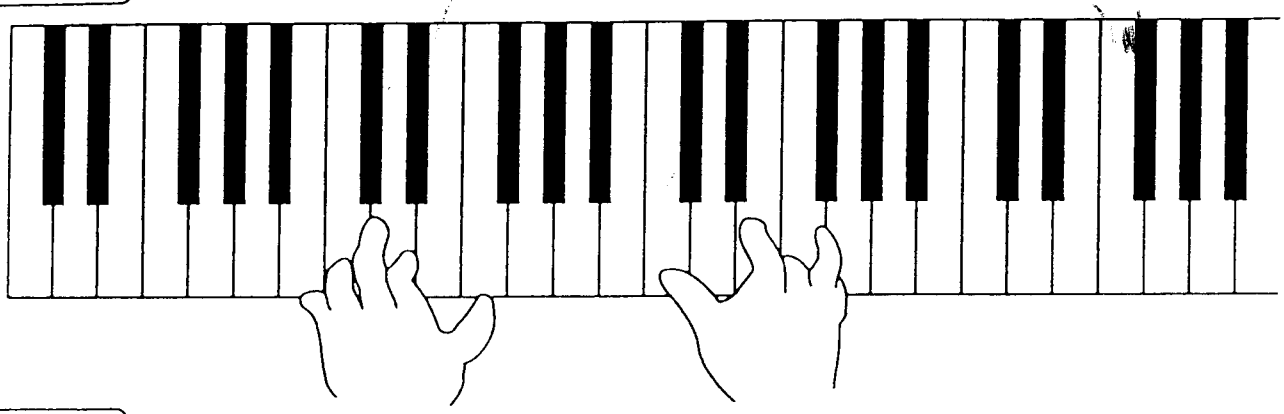
- Press the START/STOP button to start the rhythm immediately.
- Press the INTRO/ENDING button to start the rhythm with the preset introduction.



STEP 4 Adjust the rhythm volume as needed with the RHYTHM VOLUME slide control.

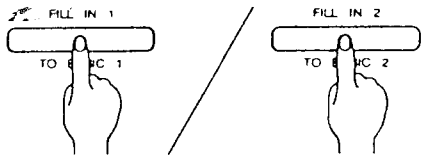


STEP 5 Play in time with the rhythm.



STEP 6 To change the character of the rhythm (FILL-IN):

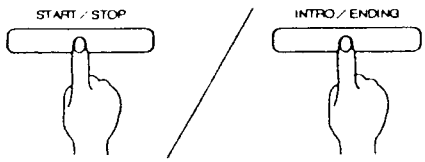
Press FILL-IN 1 to change to basic pattern 1 (BASIC 1).
Press FILL-IN 2 to change to basic pattern 2 (BASIC 2).



- In this digital piano, 2 basic patterns can be selected for 1 rhythm.
- Basic pattern 1 (BASIC 1) is played right after rhythm or auto accompaniment is started or after FILL-IN 1 is selected.
- Basic pattern 2 (BASIC 2) is played right after FILL-IN 2 is selected. Basic pattern 2 (BASIC 2) is recommended for the "higher intensity" portions of a song.

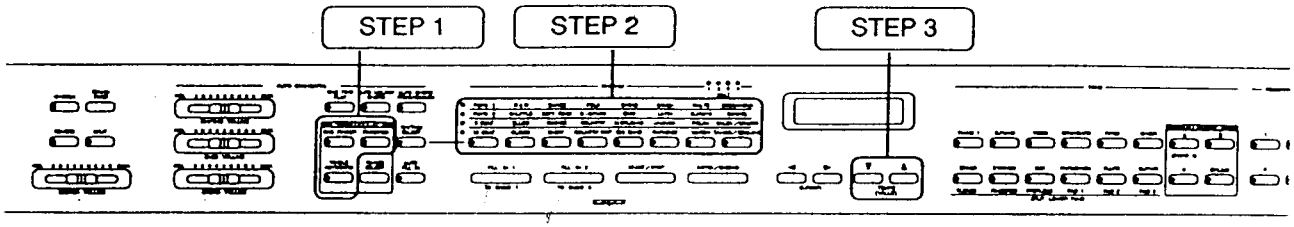
STEP 7 Stop the rhythm.

- Press the START/STOP button to stop the rhythm immediately.
- Press the INTRO/ENDING button to stop the rhythm with the preset ending pattern.

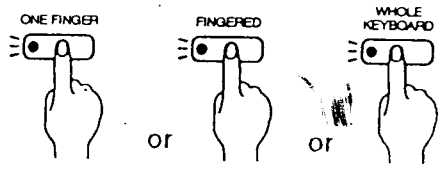


7 PERFORMING WITH AUTO ORCHESTRA

The Auto Orchestra (auto accompaniment) function allows you to sound like an entire band just by playing left-hand chords.



STEP 1 Press the ONE FINGER button, the FINGERED button or the WHOLE KEYBOARD button.



- **When the ONE FINGER button is pressed**

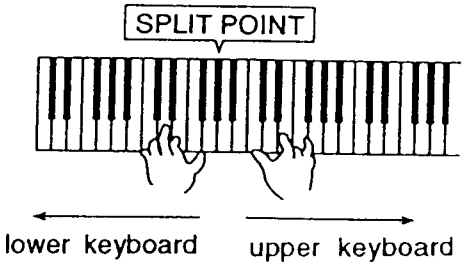
  Auto Orchestra is controlled with just one finger, so that full left-hand chords do not have to be played. For example, you can select a major chord with just one finger (on the root note) and select other types of chords by pressing down keys with two or more fingers.

- **When the FINGERED button is pressed**

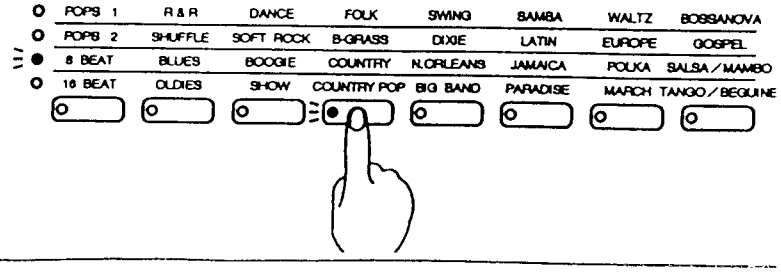
  Auto Orchestra is controlled by playing full chords with the left hand.

- **When the WHOLE KEYBOARD button is pressed**

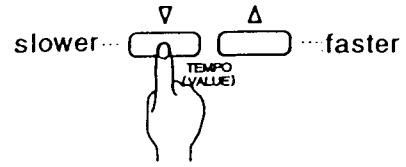
  Auto Orchestra can be controlled by pressing down a chord anywhere on the keyboard. In addition, the bass of the Auto Orchestra accompaniment is controlled by the lowest key played on the lower keyboard.



STEP 2 Select a favorite rhythm with the rhythm buttons.

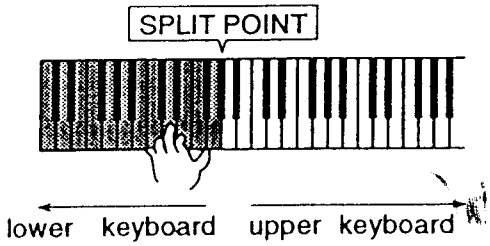


STEP 3 Adjust the speed of the rhythm (tempo). Press the TEMPO (VALUE) button to adjust the tempo as needed.

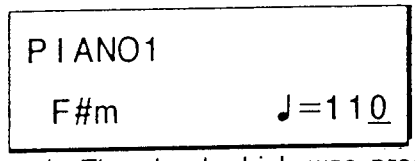


STEP 4 Start the accompaniment.

Auto Orchestra starts when a left hand chord or a single key (in ONE FINGER mode) is pressed.
As shown in the figure on the right, hold down keys that are to the left of the position labeled as the SPLIT POINT.



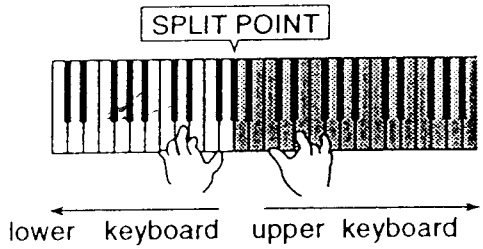
NOTE:
Auto Orchestra will not start when selecting the DRUMS sound.



↑ The chord which was pressed is displayed.

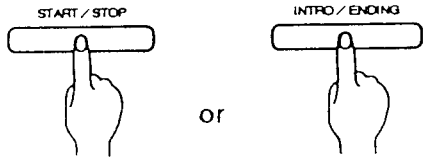
Refer to p. 44 of the Chord Progression Chart for details on holding down chords.

STEP 5 Play a melody with your right hand in time with the accompaniment.
Your right hand should use the keys identified in the figure on the right. These keys are found to the right of the position labeled as the SPLIT POINT.

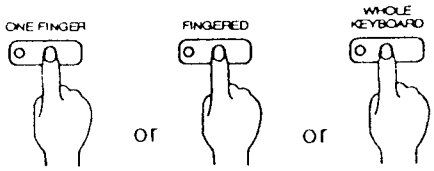


NOTE:
During playing in WHOLE KEYBOARD mode, you can start auto accompaniment by pressing a chord on any range of the keyboard.
The sound currently selected will be heard when any keys are played.

STEP 6 Stop the accompaniment.
Press the START/STOP button or the INTRO/ENDING button.



To cancel auto accompaniment, push the button for the AUTO ORCHESTRA lamp which is lit. When the lamp turns off, auto accompaniment is cancelled.



• SPLIT POINT can be changed as needed. (Refer to p. 37)

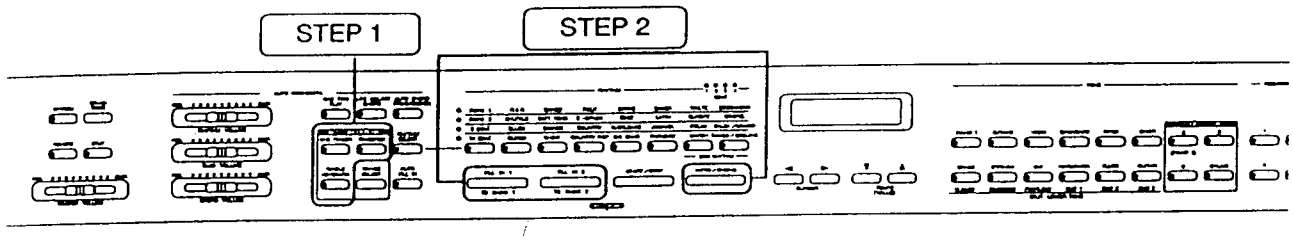
AUTO ORCHESTRA

Functional differences between the three AUTO ORCHESTRA buttons:

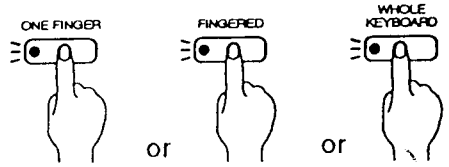
	ONE FINGER	FINGERED	WHOLE KEYBOARD
Level / Style	For beginners	For players accustomed to organ and jazz piano	For players accustomed to contemporary and classical piano
Chord sensor keys	Lower keyboard	Lower keyboard	All keys
Bass sensor keys	Lower keyboard	Lower keyboard	All keys. However, the lowest key pressed controls the bass.
Sensor parameters	Chord is detected when 1 or more keys are pressed.	Chord is detected when 3 or more keys are pressed.	Chord is detected when 3 or more keys are pressed.
Generating tones	Lower keyboard notes will not be heard when they are played (except when SPLIT is selected).	Lower keyboard notes will not be heard when they are played (except when SPLIT is selected).	All notes are heard when played.

STARTING AUTO ORCHESTRA FROM INTRO/FILL-IN

Starting Auto Orchestra with INTRO/FILL-IN provides a more exciting beginning to your songs.

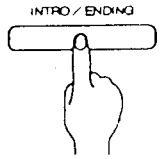


STEP 1 Press one of the three Auto Orchestra buttons.

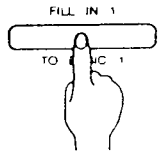


STEP 2 Select the type of start you desire.

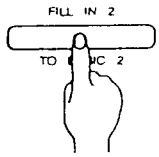
- To start with an INTRO, press the INTRO/ENDING button.
- To start with FILL-IN 1, press the FILL-IN 1 button.
- To start with FILL-IN 2, press the FILL-IN 2 button.



PLAY CHORD
→ INTRO START

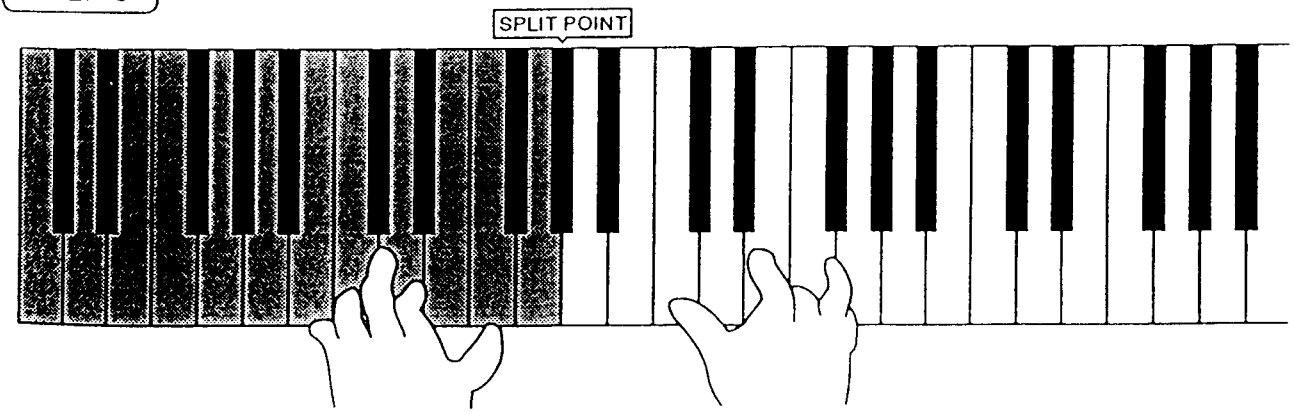


PLAY CHORD
→ FILL1 START



PLAY CHORD
→ FILL2 START

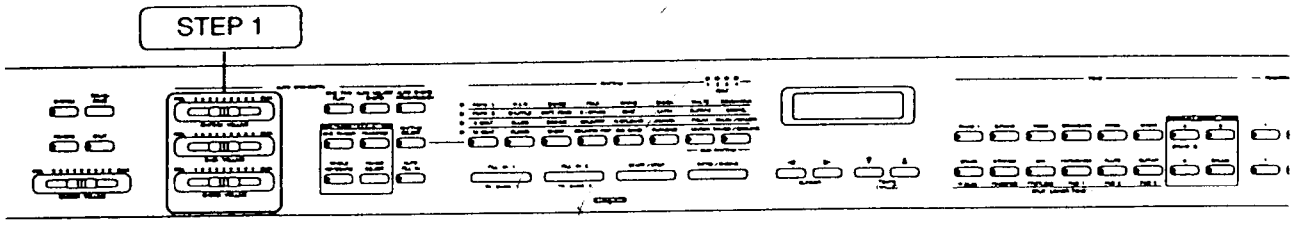
STEP 3



Hold down a chord and start Auto Orchestra.
Hold down a major chord and a "major" intro will start
Hold down a minor chord and a "minor" intro will start

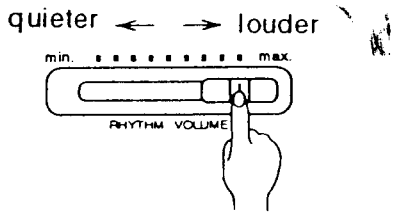
ADJUSTING AUTO ORCHESTRA VOLUME

The volume of each Auto Orchestra part can be adjusted.

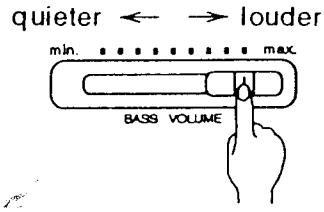


STEP 1 Try using the volume control for each Auto Orchestra part:

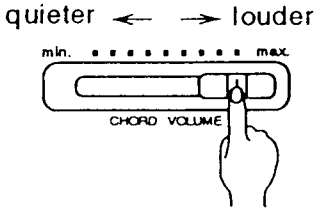
- Adjust the drum/percussion volume as desired with the RHYTHM VOLUME control.



- Adjust the bass volume as desired with the BASS VOLUME control.



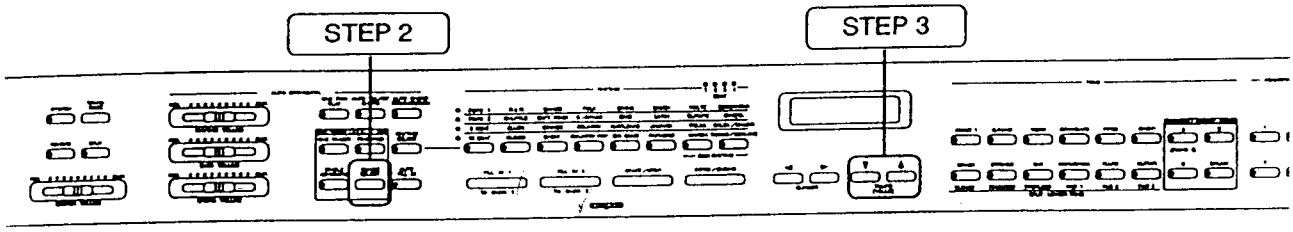
- Adjust the chord volume as desired (for sounds such as piano accompaniment) with the CHORD VOLUME control.



- No sound can be heard when the controls are moved all the way to the left.
- When the Master Volume Control is set to a low level, the sound levels will not increase even when the "part" volume controls are increased.

CHANGING THE AUTO ORCHESTRA SOUND RANGE

In Auto Orchestra, the sound range of the accompaniment can be adjusted, even during a chord change. The following describes how to change these sound ranges.

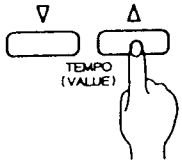


STEP 1 Start the Auto Orchestra (refer to p. 17).

STEP 2 Press the RANGE•SELECT button.

RANGE SELECT
= NORMAL

STEP 3 Press the TEMPO (VALUE) button several times to adjust the setting



- NORMAL..Plays the Auto Orchestra in the normal sound range.
- HIGH.....Plays a portion of the Auto Orchestra in a higher sound range.
- LOW.....Plays a portion of the Auto Orchestra in a lower sound range.

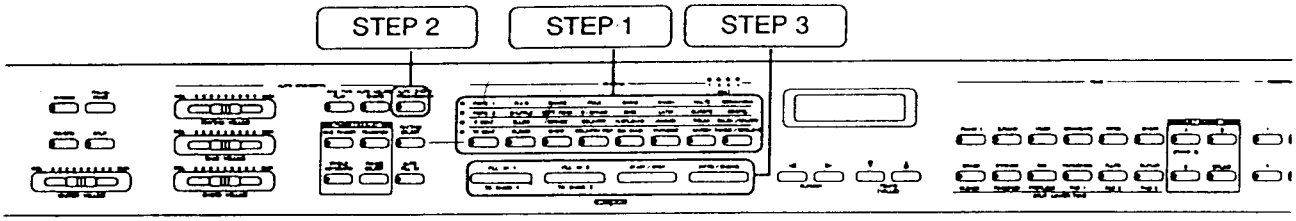
STEP 4 After several seconds, the screen returns to the normal display.

- With certain types of rhythms and chords, there may be a case in which the sound range will not change even if you changed the above setting. However, the sound range settings will always be in effect while progressing through different chords.
- Try each of the above sound range settings while playing different chords to get acquainted with this feature.

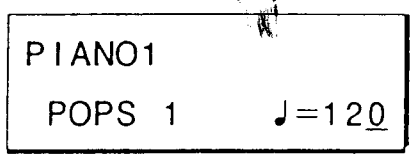
• RANGE•SELECT can be adjusted even when rhythm/accompaniment is not running.

8 ENJOYING THE AUTO CHORD PROGRESSION FEATURE

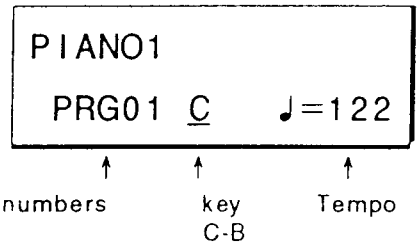
This digital piano offers 64 types of rhythm patterns -- with automatic chord progressions to match each rhythm. The Auto Chord Progression feature allows you to select from a variety of preset chord progressions for each rhythm. Try using Auto Chord Progression while following the chords on the enclosed Auto Chord Progression Chart to see how enjoyable this feature can be.



STEP 1 Select a rhythm.
(POPS 1 was chosen in this case.)

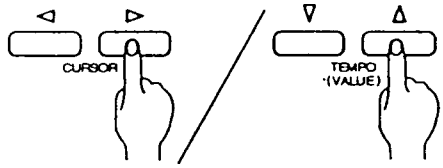


STEP 2 Press the AUTO CHORD PROGRESSION button.



The number of the chord progression (PRG No. 1), the key (C) and the tempo (122) which match this rhythm are displayed.

When changing the chord progression (PRG), key or tempo, move the cursor to the position you want to change (with the CURSOR button). Then, change the setting with the TEMPO (VALUE) button.

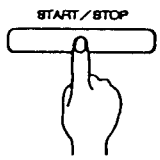


Refer to the Auto Chord Progression Chart for information on chord progressions (PRG).

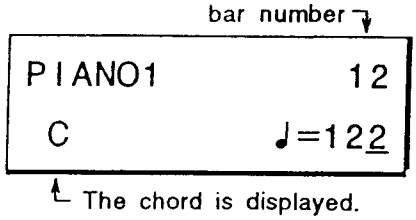
- AUTO FILL-IN is cancelled when AUTO CHORD PROGRESSION is turned on.
- AUTO CHORD PROGRESSION cannot be turned on during rhythm play or during Auto Orchestra play.

(THE AUTO CHORD PROGRESSION)

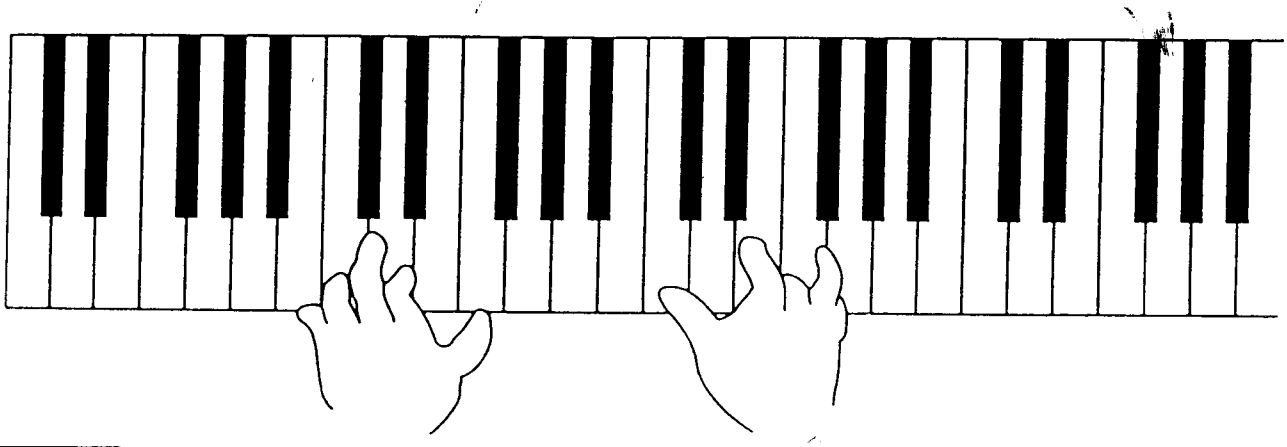
STEP 3 Press the START/STOP button.



Auto Orchestra begins with the INTRO and the chord progression starts automatically. At the conclusion of the INTRO, the chords and notes will begin to appear in the display.

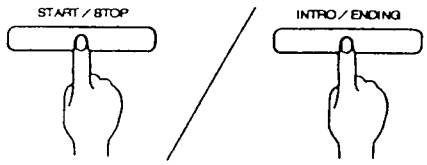


STEP 4 Play in time with the accompaniment.



STEP 5 Auto Orchestra will conclude automatically with the ending pattern, but you can press the START/STOP button to finish immediately without the ending.

To jump to the ending pattern at any time, press the INTRO/ENDING button.



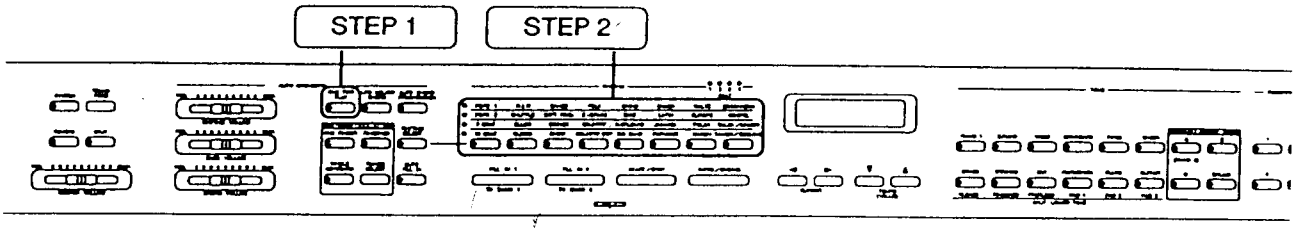
- Play some music for your enjoyment using the enclosed Chord Progression Chart.
- During Auto Chord Progression, a FILL-IN cannot be inserted with the FILL-IN button.
- During Auto Chord Progression, the AUTO FILL-IN function cannot be operated.
- During Auto Chord Progression, the chord progression (PRG), keys and tempo will not change, even if you change to a different rhythm.

- If you simultaneously use the ONE TWO PLAY function (refer to p. 25), you can enjoy playing with optimal settings of sounds and reverb.

• Auto Chord Progression can also be started using the INTRO/ENDING, FILL-IN1 and FILL-IN 2 buttons.

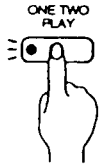
9 AUTOMATICALLY SELECTING SOUNDS TO MATCH THE RHYTHM (ONE TWO PLAY)

The "ONE TWO PLAY" function automatically selects settings such as tempo, sounds, DUAL functions and reverb to match each of the 64 rhythms.



STEP 1 Select a rhythm.

STEP 2 Press the ONE TWO PLAY button.



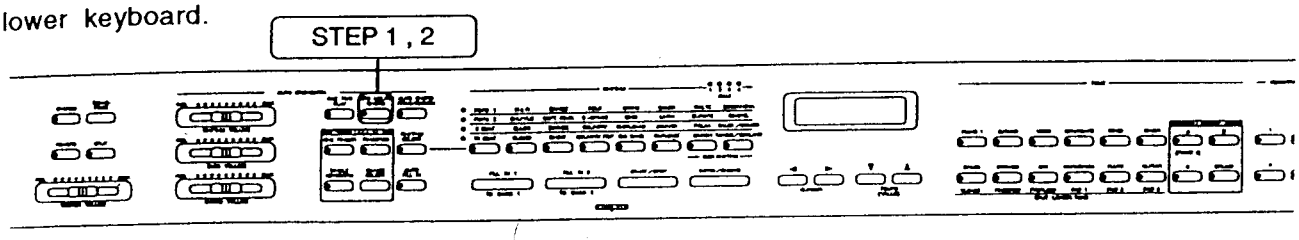
A suitable combination of sounds, tempo, and effects which matches the rhythm you selected is automatically chosen.

STEP 3 Press the ONE TWO PLAY button once more to cancel ONE TWO PLAY. Its lamp will turn off.
The panel settings will be restored to their original setting.

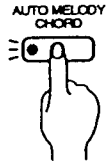
- The rhythm can also be changed when the ONE TWO PLAY button is pressed and its lamp is lit.
- Note that the registration memory settings cannot be recalled when the ONE TWO PLAY function is on

10 ADDING AUTO MELODY CHORDS

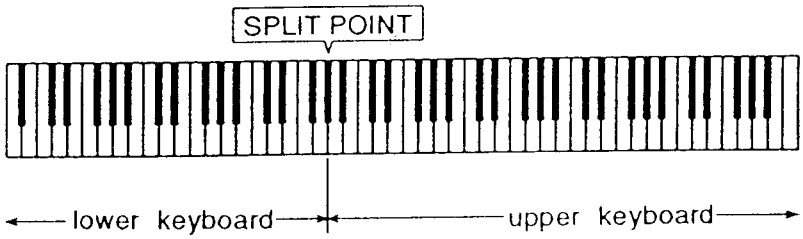
The "Auto Melody Chord" function adds two harmony notes to any melody played with one finger of your right hand. The harmony notes added are determined by the chords you play with your left hand on the lower keyboard.



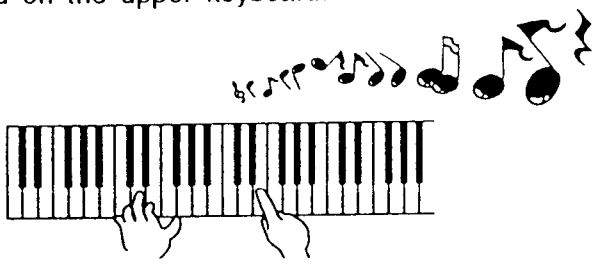
STEP 1 Press the AUTO MELODY CHORD button.



- The keys are divided into upper and lower keyboard.



- When a chord is held down on the lower keyboard, harmony notes are added to the sound played on the upper keyboard.

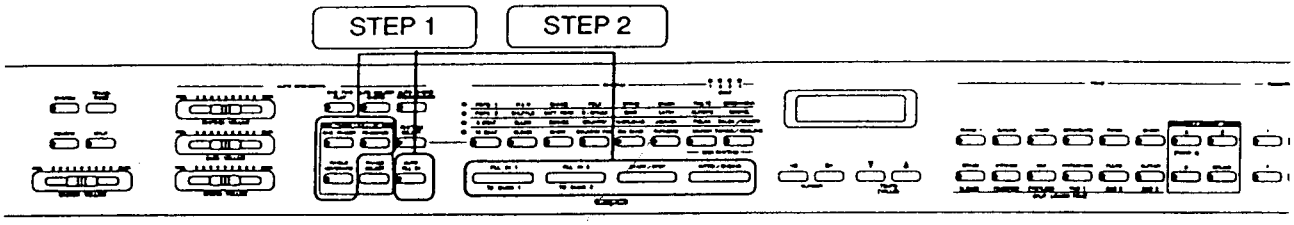


A melody played with just one finger sounds like a melodic sequence of full chords.

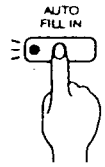
STEP 2 Press the AUTO MELODY CHORD button to cancel the Auto Melody Chord feature. The lamp will turn off and the Auto Melody Chord function will be cancelled.

11 INSERTING AUTO FILL-IN

A FILL-IN can automatically be added every four bars when this function is used.



STEP 1 Press the AUTO FILL-IN button.



STEP 2 Start rhythm and auto accompaniment. A FILL-IN will automatically be played every four bars.

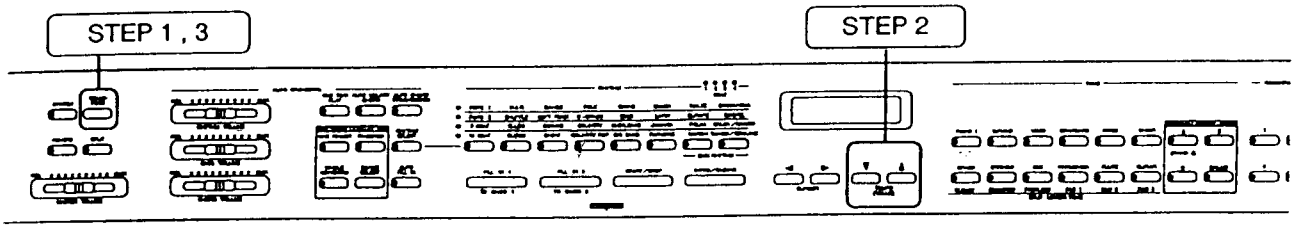
FILL-IN 1 will be played when basic pattern 1 (BASIC 1) is selected.
FILL-IN 2 will be played when basic pattern 2 (BASIC 2) is selected.

STEP 3 Press the AUTO FILL-IN button again to cancel the AUTO FILL-IN function.

• The AUTO FILL-IN function is cancelled when the Auto Chord Progression feature is turned on

12 TRANSPOSING YOUR PERFORMANCE

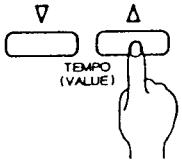
This digital piano offers a transpose function which lets you play a song in any key. The pitch of the piano can be adjusted in half-tone units, allowing you to play a song in the key of C but hear it in another key. The transpose feature is especially valuable when accompanying a singer who wants a song in a difficult key that accomodates his/her vocal range. The transpose feature lets you play the singer's sheet music in its normal key, while letting the singer hear the sound in his/her key.



STEP 1 Press the TRANSPOSE button. This activates the Transpose mode. The present status is shown in the display.

TRANSPOSE
= 0

STEP 2 Press the TEMPO (VALUE) button to adjust the setting up or down in half-tone increments



TRANSPOSE
= + 2

Since the pitch is adjusted in half-tone increments, moving to a value of +2 will transpose the piano up one full tone. In this instance, pressing the "C" key will play a "D" note. Pressing a C chord in Auto Orchestra will play a D chord. Settings can be adjusted from -12 to +12 on the display.

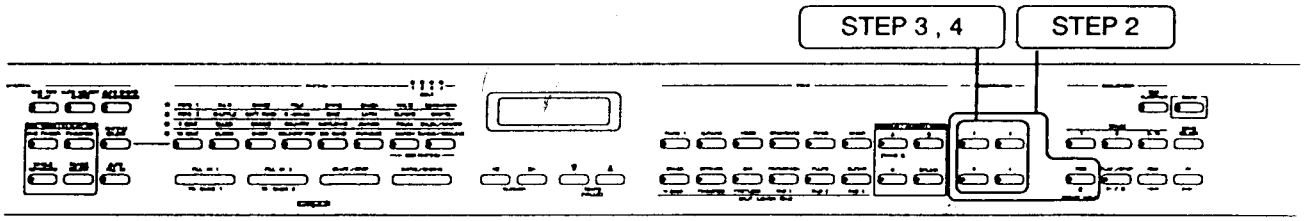
- Check the sound by playing the keys.
- The transpose mode will be cancelled if the TEMPO (VALUE) buttons are not pressed within several seconds.
- Transpose mode settings return to ±0 when the power is turned off and then turned on again.

STEP 3 Press the TRANSPOSE button (or just wait for several seconds). The transpose settings will be entered and the screen will return to the normal display.

• The MIDI IN signal cannot be transposed

13 STORING PANEL SETTINGS (REGISTRATION MEMORY)

Quickly changing sounds and rhythms during a performance is often difficult for even the most skilled player. "Registration Memory" allows you to store a selected combination of tones, rhythms and volume levels for immediate recall with the touch of a finger. A total of four "registrations" (complete panel settings) can be stored in this digital piano. These four "registrations" can also be stored on the disk. (Refer to p. 72)



STEP 1 Set the panel for the sound, rhythm and volume button settings, etc. that you desire The data shown in the chart below is already stored in the registration memory. Registrations can also include for reverb types and transpose settings, etc.

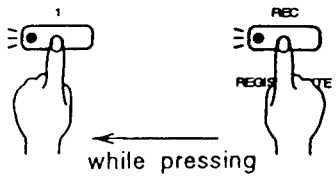
The following items can be stored in the registration memory.

• TONE	Tone selection, DUAL settings, SPLIT settings and assignments of A, B, C and DRUMS button
• RHYTHM	Rhythm selection Tempo
• AUTO ORCHESTRA	ONE FINGER button on/off, FINGERED button on/off, WHOLE KEYBOARD button on/off, volume control contents for rhythm, bass and chord part names, range select settings
• ADDITIONAL	SPLIT button on/off, REVERB button on/off, AUTO MELODY CHORD on/off, AUTO FILL-IN button on/off, REVERB type settings, TRANSPOSE settings, DUAL/SPLIT BALANCE settings, ALL GM ASSIGN on/off, ALL GM assign descriptions, SPLIT POINT settings

STEP 2

Press the desired registration button (REGISTRATION 1 - 4) while holding down the REC•REGIST WRITE button.

The panel settings will be stored and the display at right will be shown.



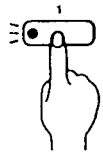
REGIST.WRITE
COMPLETED!

- During song mode (refer to p. 53) data cannot be stored in the registration memory.
- Data stored in registration memory will not be lost, even if the power is turned off.
- Reset when you wish to restore the settings preset at the factory. (Refer to p. 32)

To recall a registration stored in memory:

STEP 3

Press the desired registration button (REGISTRATION 1 - 4). The panel settings you stored earlier on that button will appear on the panel.



- When storing registrations, only numeric values will be stored. The actual position of the controls, buttons and levers will not change.
- After the registrations are recalled, the panel buttons and levers can be changed to adjust the registration.

STEP 4

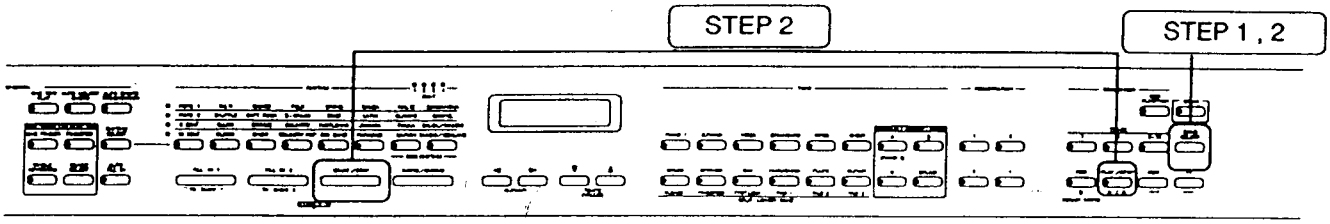
To restore the panel to its original settings, press the registration button whose lamp is lit.

The registration button lamp that was lit will turn off, and the panel will return to the settings which were in effect before any registration buttons were pressed.

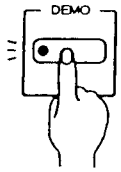
•The ONE TWO PLAY function cannot be used when registration memory buttons 1-4 are ON.

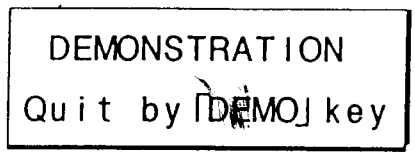
14 LISTENING TO THE DEMO SONG

This digital piano has been equipped with an impressive demo song to highlight the piano's considerable capabilities.

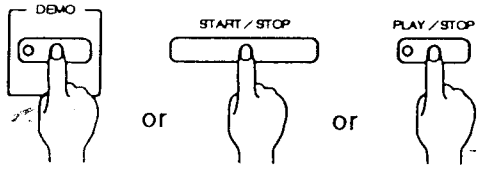


STEP 1 Press the DEMO button.
The demo song will begin.





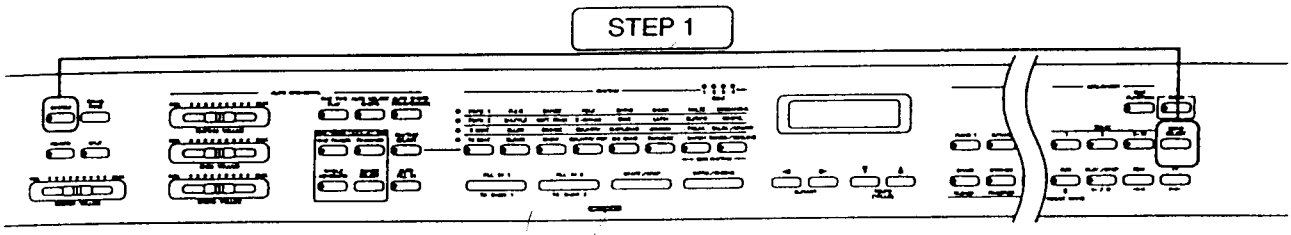
STEP 2 The demo song will stop when the DEMO button, the START/STOP button or the PLAY/STOP button are pressed.



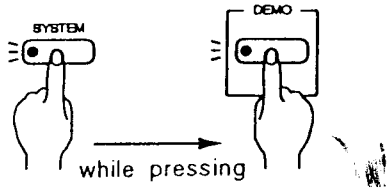
• During a demo song no sound will be heard from the keys when played.

15 RESET

When the RESET procedure is performed, all the settings for functions such as the registration memory are restored to the original factory settings.



STEP 1 Press the DEMO button while holding down the SYSTEM button.



As shown in the display on the right, all settings will be restored to those in effect when the instrument was shipped from the factory.

After several seconds, the screen will return to the normal display.

FACTORY RESET
COMPLETED!

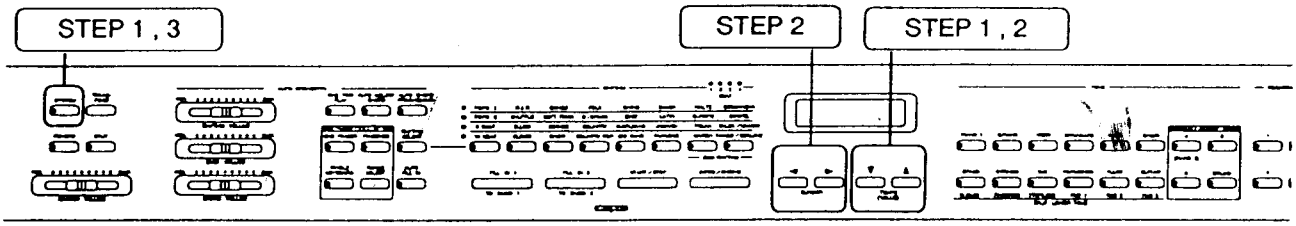
- Reset is disabled in System Mode or while recording with the recorder.
- Performing the reset operation enables "GM Reset".
- The disk data is not reset.
- Refer to p. 47 and p. 83 for details on factory settings.

16 SYSTEM SETTINGS

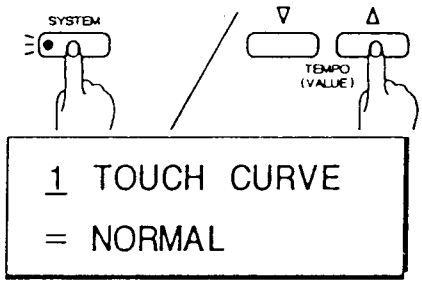
The System Mode allows various internal settings for this digital piano to be adjusted.
In the system mode settings, system tuning data and data for sound designations stored in the memory will not be lost when ALL GM ASSIGN is ON, even if the power is turned off. Other settings, however, will be reset to factory settings (refer to p. 83), once the power is turned off.

1. TOUCH CURVE SETTINGS

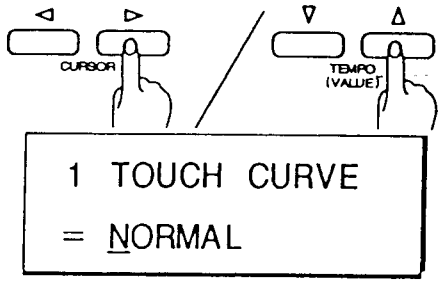
This feature allows you to adjust the "Touch Response" of the key, ranging from a light touch to heavy touch. The physical touch of the keys will not change -- but the way the piano responds to your touch can be changed.



STEP 1 Press the SYSTEM button to enter the System Mode.
Press the TEMPO (VALUE) button several times and select No.1 "TOUCH CURVE".



STEP 2 Move the cursor as needed with the CURSOR button and press the TEMPO (VALUE) button several times to adjust the setting.



SELECTION

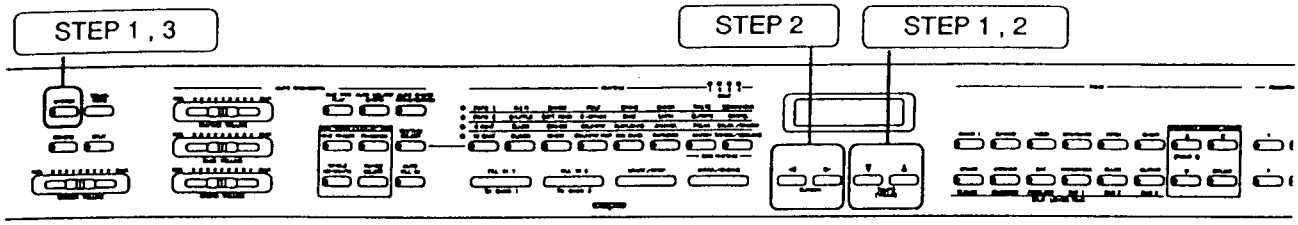
- LIGHT 2.....This is a light touch curve, appropriate for children a light touch will produce louder volume.
- LIGHT 1.....This is a fairly light touch curve.
- NORMAL.....This is the normal touch curve ... similar to an acoustic piano.
- HEAVY 1.....This is a fairly heavy touch curve. Requires a heavier touch to produce loud volume.
- HEAVY 2.....This is a heavy touch curve. It requires a very strong touch to achieve loud volume.

STEP 3 Press the SYSTEM button once more and the lamp will turn off. The System Mode is now cancelled and the screen returns to the original display.

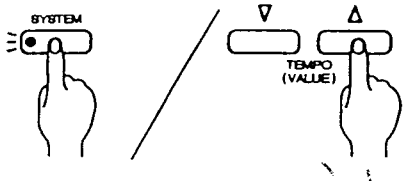
• MIDI keyboard data will not be output in System Mode.

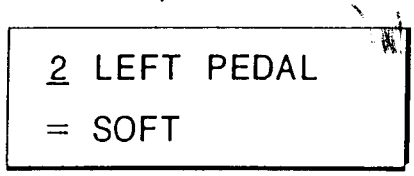
2. LEFT PEDAL SETTINGS

This sets the left pedal function.

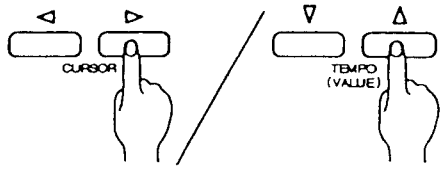


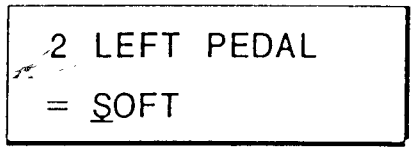
STEP 1 Press the SYSTEM button. To enter the System Mode.
Press the TEMPO (VALUE) button several times to select No.2 "LEFT PEDAL".





STEP 2 Move the cursor as needed with the CURSOR button and press the TEMPO (VALUE) button several times to adjust the left pedal setting.





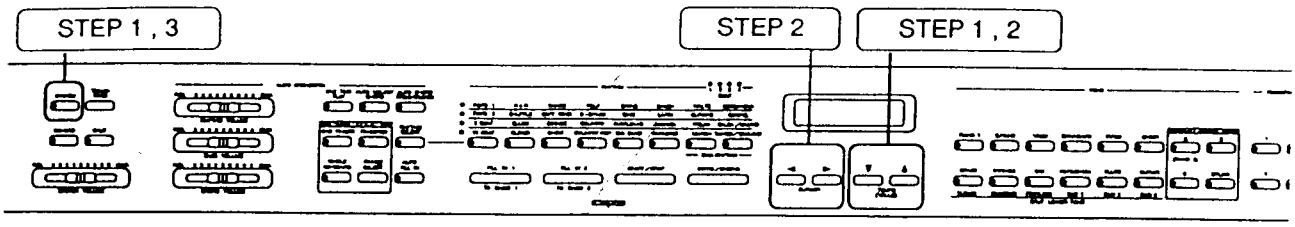
AVAILABLE SETTINGS:

- SOFT ..... In this soft pedal mode, depressing the left pedal makes the sounds softer and the volume lower.
- START/STOP ..... The start and stop of the rhythm can be controlled with the left pedal.
- INTRO/ENDING ..... When the pedal is depressed while the rhythm is not currently playing, an intro pattern is played and the rhythm starts. When the pedal is depressed while the rhythm is playing, the rhythm will conclude after playing the ending pattern.
- FILL-IN 1 ..... When the pedal is depressed while the rhythm is playing,
- FILL-IN 2 a FILL-IN pattern is played.

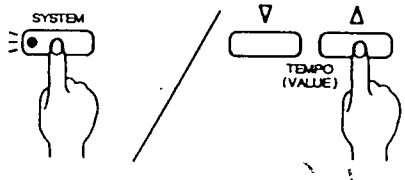
STEP 3 Press the SYSTEM button once more and the lamp will turn off. The System Mode is now cancelled and the screen returns to the original display.

3. DAMPER PEDAL SETTINGS

This sets the damper (sustain) pedal function.

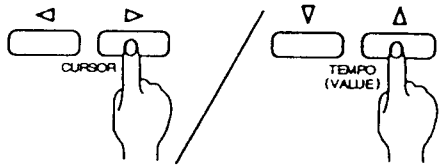


STEP 1 Press the SYSTEM button to enter the System Mode.
Press the TEMPO (VALUE) button several times to select No.3 "DAMPER PEDAL".



3 DAMPER PEDAL
= LOWER & UPPER

STEP 2 Move the cursor as needed with the CURSOR button and press the TEMPO (VALUE) button several times to adjust the damper pedal setting.



3 DAMPER PEDAL
= LOWER & UPPER

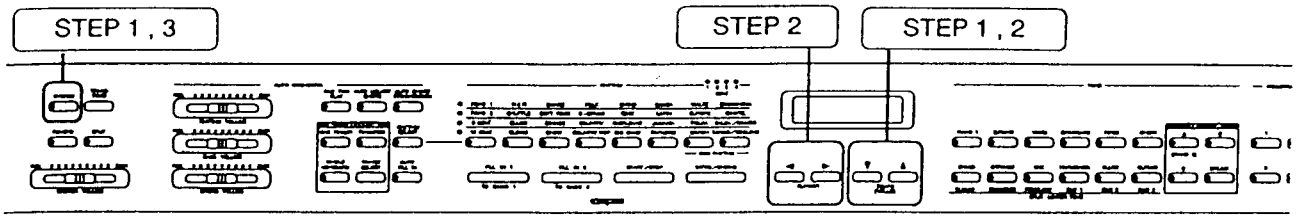
AVAILABLE SETTINGS

- LOWER & UPPER
  This applies the damper (sustain) effect to both upper and lower keyboards during SPLIT.
- LOWER
  This applies the damper effect to the lower keyboard only during SPLIT.
- UPPER
  This applies the damper effect to the upper keyboard only during SPLIT.

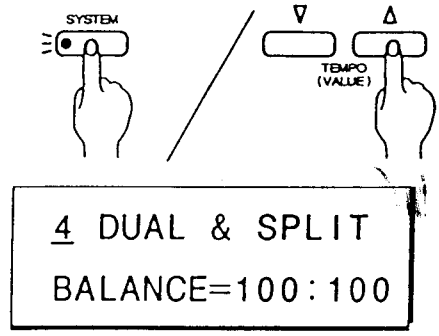
STEP 3 Press the SYSTEM button once more and the lamp will turn off. The System Mode is now cancelled and the screen returns to the original display.

4. DUAL/SPLIT BALANCE SETTINGS

This adjusts the volume balance between sounds when the DUAL and SPLIT functions are activated.



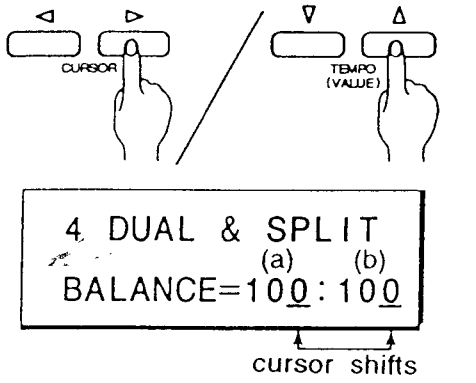
STEP 1 Press the SYSTEM button to enter the System Mode.
Press the TEMPO (VALUE) button to select No.4 "DUAL & SPLIT".



STEP 2 Move the cursor as needed with the CURSOR button and press the TEMPO (VALUE) button several times to adjust the DUAL & SPLIT setting.

AVAILABLE SETTINGS:

100 ↑ large volume
⌇
1 ↓ small volume



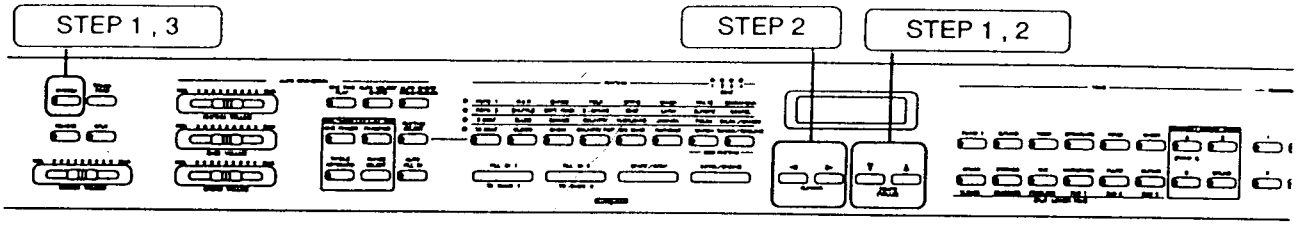
- For DUAL
  - (a) : Sound volume for right side or lower side panel sound buttons
  - (b) : Sound volume for left side or upper side panel sound buttons
- For SPLIT
  - (b) : Upper keyboard volume
  - (a) : Lower keyboard volume

- Values can change in range from 1 - 100.
- When the master volume control is set to a low level, the overall volume will not increase even when each individual volume control is operated.

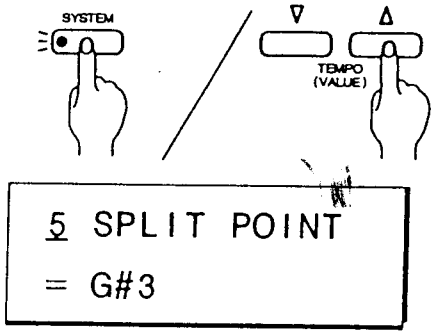
STEP 3 Press the SYSTEM button once more and the lamp will turn off. The System Mode is now cancelled and the screen returns to the original display.

5. SPLIT POINT SETTINGS

This allows you to adjust the location of the SPLIT POINT.



STEP 1 Press the SYSTEM button to enter the System Mode.
Press the TEMPO (VALUE) button several times to select No.5 "SPLIT POINT".



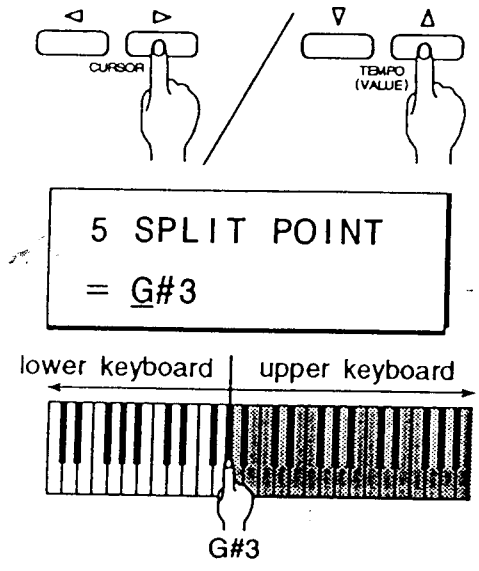
STEP 2 Move the cursor as needed with the CURSOR button and press the TEMPO (VALUE) button several times to adjust the SPLIT POINT setting.

AVAILABLE SETTINGS: A_0 - C_8

Note:
The subscript number identities the octave in which the note appears. The "0" subscript refers to the partial octave at the left end of the keyboard. "C_1" is the first C to appear (from the left) in the first full octave on the piano keyboard.

You can also press the key that you want as the SPLIT POINT.

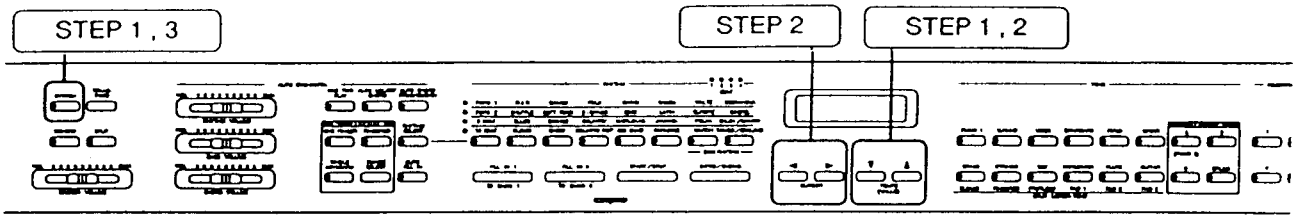
That key will appear in the display and will become the lowest note of the upper keyboard.



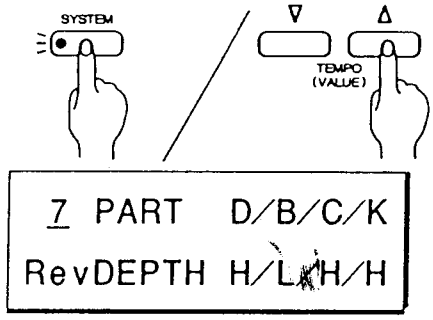
STEP 3 Press the SYSTEM button once more and the lamp will turn off. The System Mode is now cancelled and the screen returns to the original display.

7. PART REVERB DEPTH SETTINGS

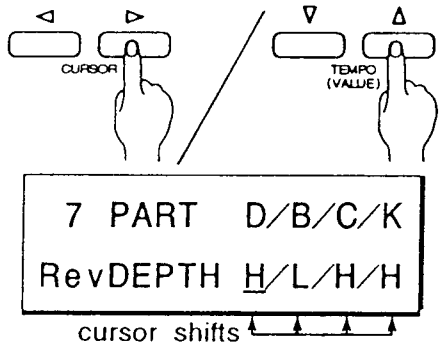
This allows reverb depth settings to be customized for separate accompaniment and performance parts.



STEP 1 Press the SYSTEM button to enter the System Mode.
Press the TEMPO (VALUE) button several times to select No.7 "PART".



STEP 2 Move the cursor as needed with the CURSOR button and press the TEMPO (VALUE) button several times to adjust the setting.



The HI and LO settings specified on the previous page are assigned to respective accompaniment and performance parts:

7 PART D/B/C/K
RevDEPTH H/L/H/H → Settings

- D .....Auto accompaniment drum/percussion parts
- B.....Auto accompaniment bass parts
- C .....Auto accompaniment chord parts
- K.....Performance parts with keys

Settings: H .....HI (High), L.....LO (Low)

For instance, if you set HI=7 and LO=1 as described on the previous page, the following reverb settings are specified as seen in the display above.

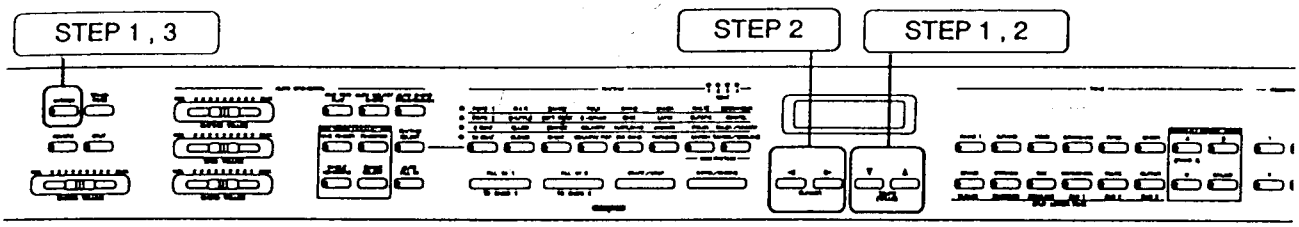
PART	SETTING	
D (drum/percussion)	H	Reverb of depth 7 applied
B (bass)	L	Reverb of depth 1 applied
C (chord)	H	Reverb of depth 7 applied
K (keyboard sound)	H	Reverb of depth 7 applied

STEP3 Press the SYSTEM button once more and the lamp will turn off. The System Mode is now cancelled and the screen returns to the original display.

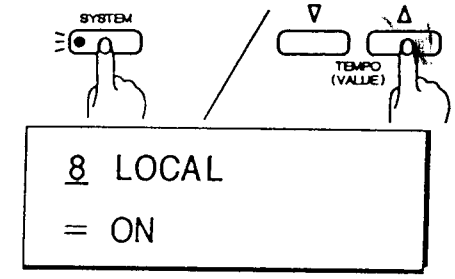
• When listening to playback from the recorder or PIANO 1 with MIDI, the reverb HI/LO settings for the keyboard part are used

8. LOCAL CONTROL SETTINGS

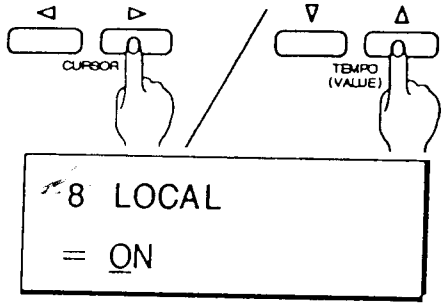
This allows you to change the Local Control setting. "Local Control" determines whether or not a sound is heard when a key is pressed. Normally Local Control will be "ON" and you will hear sound when you press keys on the piano. When using this digital piano as a MIDI controller, you may want to turn off the sound on all or part of the keyboard. This would allow you to hear only the sound produced by an external keyboard or module that you are controlling via MIDI.



STEP 1 Press the SYSTEM button to enter the System Mode.
Press the TEMPO (VALUE) button several times to select No.8 "LOCAL".



STEP 2 Move the cursor as needed with the CURSOR button and press the TEMPO (VALUE) button several times to change the "Local" setting.



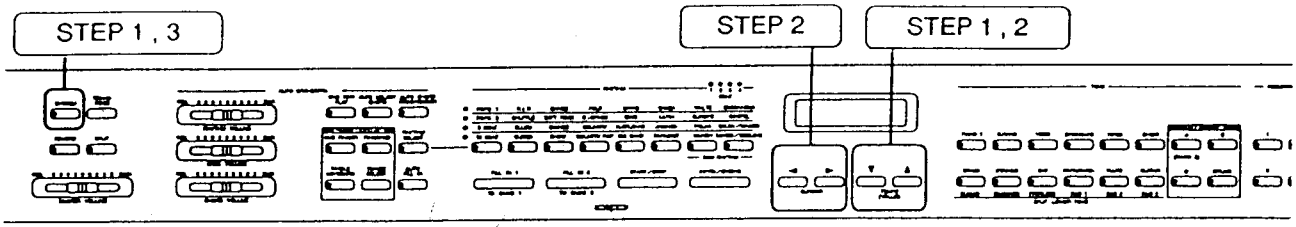
AVAILABLE SETTINGS

- ON ..... Sound is heard when keys are played and also when MIDI data is received.
- OFF ..... No sound is heard when keys are played. Sound is heard only when MIDI data is received.
- UPPER OFF..... Lower keyboard is ON and upper keyboard is OFF. This is convenient when using Auto Orchestra on the lower keyboard while playing right hand melodies on the upper keyboard which are to be heard on another sound source (keyboard or module) that is controlled through MIDI.

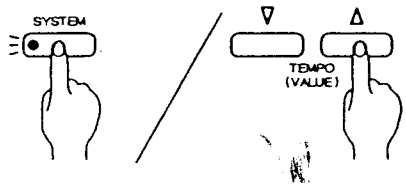
STEP 3 Press the SYSTEM button once more and the lamp will turn off. The System Mode is now cancelled and the screen returns to the original display.

9. SYSTEM TUNING SETTINGS

This allows you to "fine tune" the pitch of this digital piano to adjust easily to the pitch of other instruments.

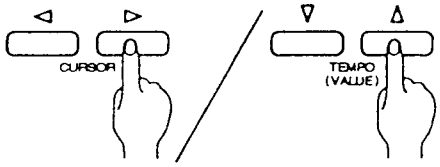


STEP 1 Press the SYSTEM button to the System Mode.
Press the TEMPO (VALUE) button several times to select No.9 "SYSTEM TUNE".




```
9 SYSTEM TUNE
=    0
```

STEP 2 Move the cursor as needed with the CURSOR button and press the TEMPO (VALUE) button several times to adjust the system tune setting.




```
9 SYSTEM TUNE
=    0
```

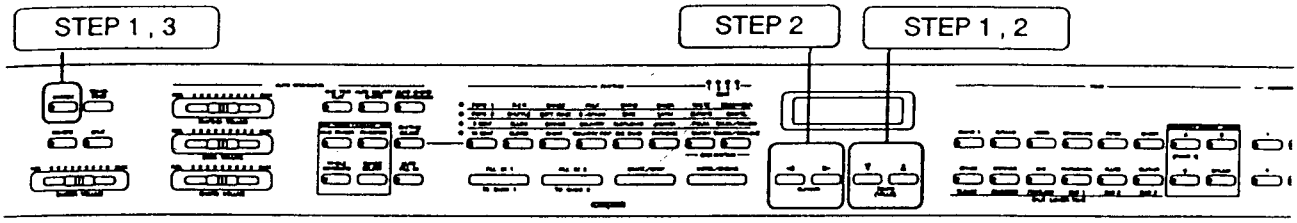
- The system tune setting can range from -32 to +32.
  [± 50 cents (100 cents = a half tone)]

The system tune setting will not change even when the power is turned off.

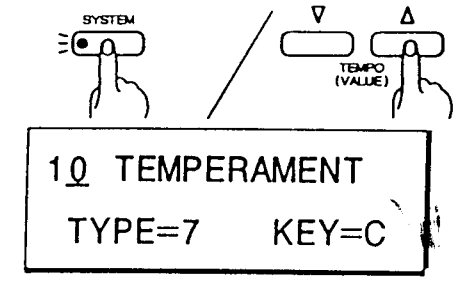
STEP 3 Press the SYSTEM button once more and the lamp will turn off. The System Mode is now cancelled and the screen returns to the original display.

10. TEMPERAMENT SETTINGS

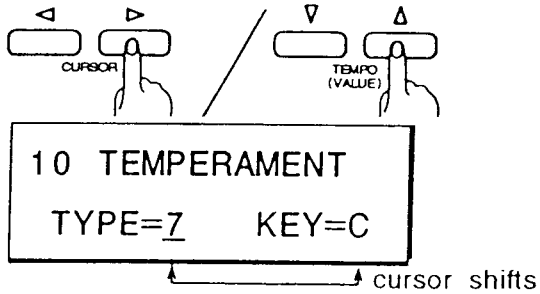
The sounds on this digital piano can also be played with various temperaments.



STEP 1 Press the SYSTEM button to enter the System Mode.
Press the TEMPO (VALUE) button several times to select No.10 "TEMPERAMENT".



STEP 2 Move the cursor as needed with the CURSOR button and press the TEMPO (VALUE) button several times to change the temperament setting.



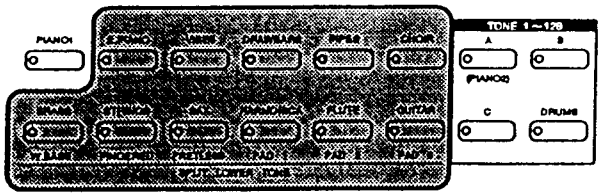
Setting		Temperament Characteristics
TYPE 1	Equal Temperament	One of the most popular piano tuning methods. Chords sound the same (and maintain the same relative consonance) in any key.
TYPE 2	Mersenne Temperament	Still widely used for choral music. Consonances for thirds and fifths are removed
TYPE 3	Pythagorean Temperament	This tuning method uses mathematical ratios to eliminate consonances for fifths. It has problems with chords, but produced beautiful melodic lines.
TYPE 4	Meantone Temperament	This tuning method in which the third consonance is removed has improved on the Mersenne temperament, which had a little unharmonious fifth consonance, and produces chords that are more beautiful than those using equal temperament.
TYPE 5	Werckmeister III Temperament	These methods offer beautiful sounding chords similar to those of the mean tone for key signatures with few accidentals. As the accidentals increase, the tension grows higher, and the temperament produces beautiful melodies closer to those in the Pythagorean temperament. These types are primarily used by classical music composers who want to take advantage of these characteristics.
TYPE 6	Kirnberger III Temperament	
TYPE 7	**Equal temperament with tuning curve (PIANO 1)**	When PIANO1 has been chosen, an equal temperament with tuning curve is provided. When any other sound is chosen a Temperament Type1 (without tuning curve) is provided

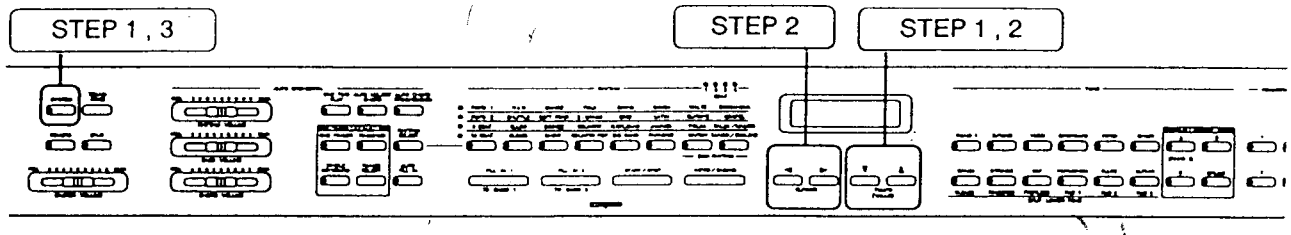
The key setting for the temperament is done at the KEY position on the display from C through B.

STEP 3 Press the SYSTEM button once more and the lamp will turn off. The System Mode is now cancelled and the screen returns to the original display.

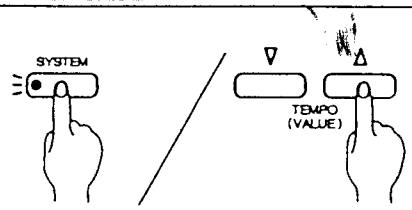
11. ALL GM ASSIGNMENT SETTINGS

The buttons in the figure below can be used to store your favorite choices from among the 128 sounds, just as you did with the A, B, C buttons.



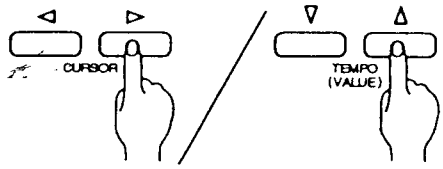


STEP 1 Press the SYSTEM button to enter the System Mode.
Press the TEMPO (VALUE) button several times to select No.11 "ALL GM ASSIGN".




```
11 ALL GM ASSIGN
 = OFF
```

STEP 2 Move the cursor as needed with the CURSOR button and press the TEMPO (VALUE) button several times to adjust the setting.




```
11 ALL GM ASSIGN
 = OFF
```

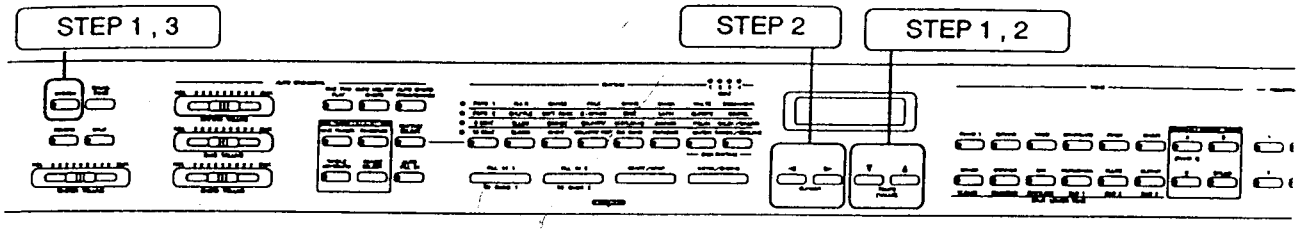
AVAILABLE SETTINGS
- OFF.....Normal status
- ON.....You can assign your favorite sounds to the 11 sound buttons.

STEP 3 Press the SYSTEM button once more and the lamp will turn off. The System Mode is now cancelled and the screen returns to the original display.

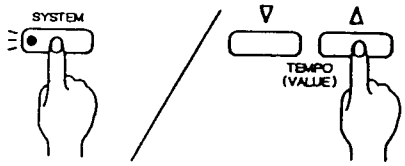
- After turning the above setting ON and returning to the previous screen, use the procedures described in [STEP3 - STEP4] on page 7 to assign the desired sounds to the 11 sound buttons. The sound assignment settings, regardless of the OFF/ON setting, are stored in memory and will not be lost, even if the power is turned off.

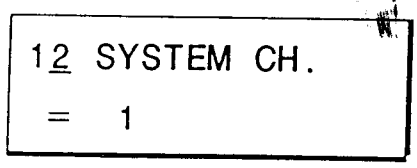
12. SYSTEM CHANNEL SETTINGS

This page describes how to set the MIDI channel for controlling the flow of musical data to and from other instruments via MIDI.

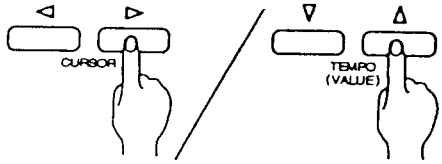


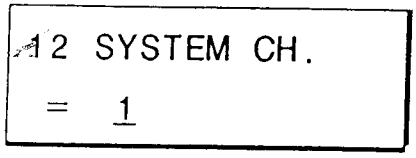
STEP 1 Press the SYSTEM button to enter the System Mode.
Press the TEMPO (VALUE) button several times to select No.12 "SYSTEM CH".





STEP 2 Move the cursor as needed with the CURSOR button and press the TEMPO (VALUE) button several times to change the setting.





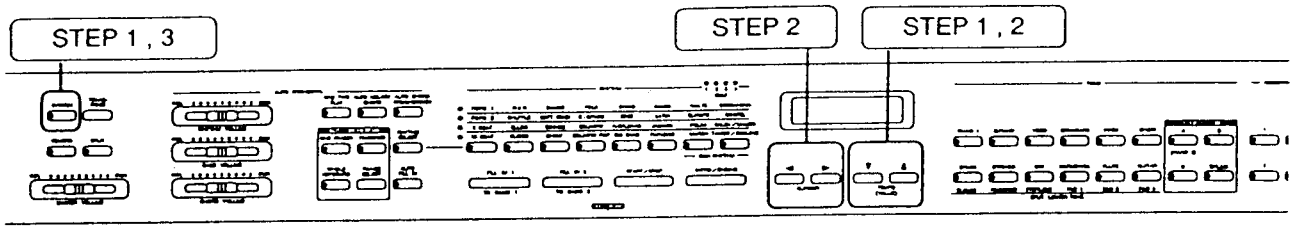
The system channel setting can range from 1 - 16 (channels).

Refer to p. 79 for details on MIDI connections.

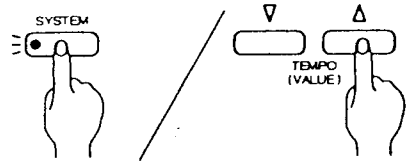
STEP 3 Press the SYSTEM button once more and the lamp will turn off. The System Mode is now cancelled and the screen returns to the original display.

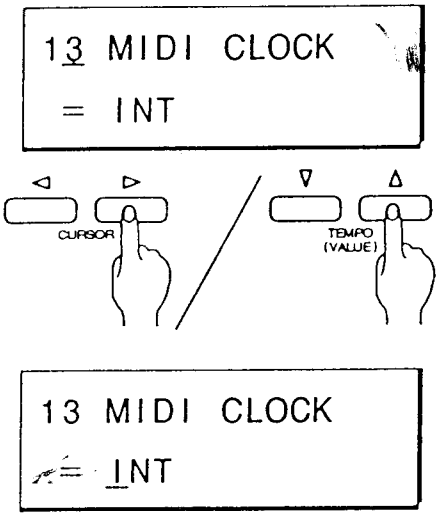
13. MIDI CLOCK SETTINGS

Determines whether or not the rhythm will start when a MIDI signal is received.



STEP 1 Press the SYSTEM button to enter the System Mode.
Press the TEMPO (VALUE) button several times to select No.13 "MIDI CLOCK".





STEP 2 Move the cursor as needed with the CURSOR button and press the TEMPO (VALUE) button several times to change the setting.

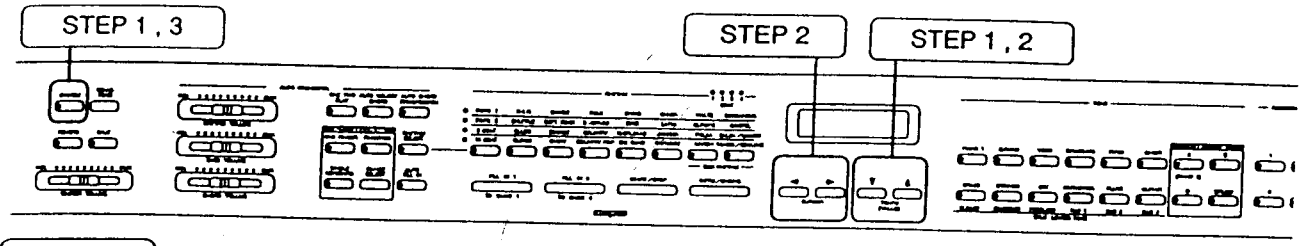
- INT .....Will not receive external MIDI CLOCK and START signals.
- EXT .....Will receive external MIDI CLOCK and START signals.

STEP 3 Press the SYSTEM button once more and the lamp will turn off. The System Mode is now cancelled and the screen returns to the original display.

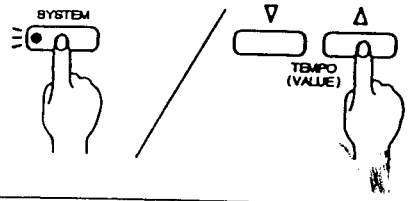
Please note the following when set to EXT.
- The rhythm/Auto Orchestra/recorder cannot be started with the panel switches on the piano. They can only be started with the MIDI CLOCK and START signals. Once started in this way, the accompaniment can be stopped with FILL-IN 1 and 2, START/STOP and INTRO/ENDING patterns.
- The recorder can be played right after entering song mode (refer to p. 53) when the start signal is received.
- When the start signal is received during record standby (refer to p. 54), recording can be started.

14. MULTI-TIMBRE SETTINGS

This function determines whether your digital piano will receive MIDI data on one MIDI channel (the SYSTEM CHANNEL) or on all channels (1-16) simultaneously.

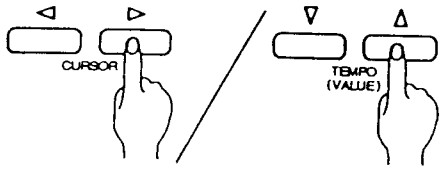


STEP 1 Press the SYSTEM button to enter the System Mode.
Press the TEMPO (VALUE) button several times to select No.14 "MULTI-TIMBRE".




```
14 MULTI TIMBER
 = ON
```

STEP 2 Move the cursor as needed with the CURSOR button and press the TEMPO (VALUE) button several times to change the setting.




```
14 MULTI TIMBER
 = ON
```

- ON ..... Separate sounds can be played through MIDI on any of the MIDI channels from 1-16.
- OFF ..... Sounds selected on the panel can be played through MIDI (refer to p. 44) using only the channel set earlier as the "SYSTEM CHANNEL".

STEP 3 Press the SYSTEM button once more and the lamp will turn off. The System Mode is now cancelled and the screen returns to the original display.

When MULTI TIMBRE is set to ON, this digital piano can be used as a 16-section MULTI TIMBRE GM (General MIDI) sound source.

Factory settings for MULTI TIMBRE ON (when the unit has been reset).

MIDI receive section	MIDI receive channel	Sound	Reverb HI/LO
1	1	001 Gr Piano	HI
2	2	001 Gr Piano	HI
3	3	001 Gr Piano	LO
4	4	001 Gr Piano	HI
5	5	001 Gr Piano	HI
6	6	001 Gr Piano	HI
7	7	001 Gr Piano	HI
8	8	001 Gr Piano	HI
9	9	001 Gr Piano	HI
10	10	DR1 STANDARD	HI
11	11	001 Gr Piano	HI
12	12	001 Gr Piano	HI
13	13	001 Gr Piano	HI
14	14	001 Gr Piano	HI
15	15	001 Gr Piano	HI
16	16	001 Gr Piano	HI

Settings which can be changed on the piano:

- ON/OFF to determine whether or not sound will be heard from each channel (Refer to p. 48)
- Reverb type (compatible with all sections) (Refer to p. 14)
- Level settings for reverb depth HI and LO (compatible with all sections) (Refer to p. 38)
- Tuning settings (compatible with all sections) (Refer to p. 41)
- Temperament settings (compatible with all sections) (Refer to p. 42)

- Selections such as "the sound of each section" and the "reverb HI and LO" can be changed with MIDI program change information and MIDI control data.
- Performing the reset operation (refer to p. 32) enables "GM Reset" for each section.

Settings for MULTI TIMBRE OFF

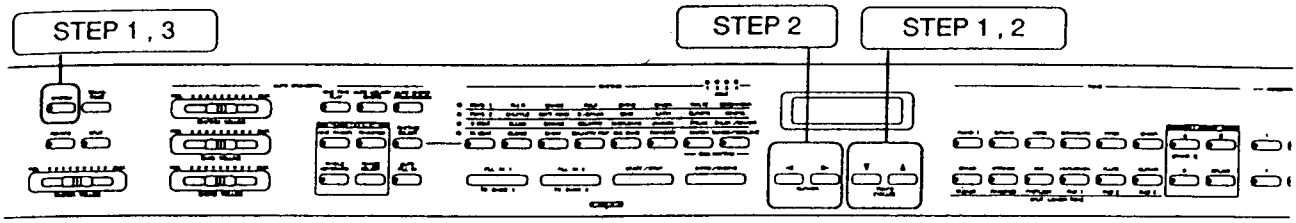
- MIDI receive channel (Refer to p. 44)
- Reverb type (Refer to p. 14)
- Reverb depth (Refer to p. 38)
- Tune (Refer to p. 41)
- Temperament settings (Refer to p. 42)

Settings are changed on the digital piano.

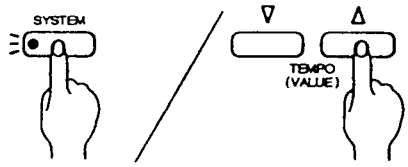
- Sound ..... Expresses sounds chosen on the piano.

15. TEMPO TRACK SETTINGS

This feature allows variations in TEMPO during a song to be recorded into the KSP30 recorder. You can also set whether the tempo data you recorded will be played back with that song or not.

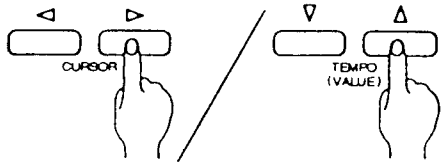


STEP 1 Press the SYSTEM button to enter the System Mode.
Press the TEMPO (VALUE) button several times to select No.15 "TEMPO TRACK".



15 TEMPO TRACK
= ON

STEP 2 Move the cursor as needed with the CURSOR button and press the TEMPO (VALUE) button several times to adjust the tempo track setting.



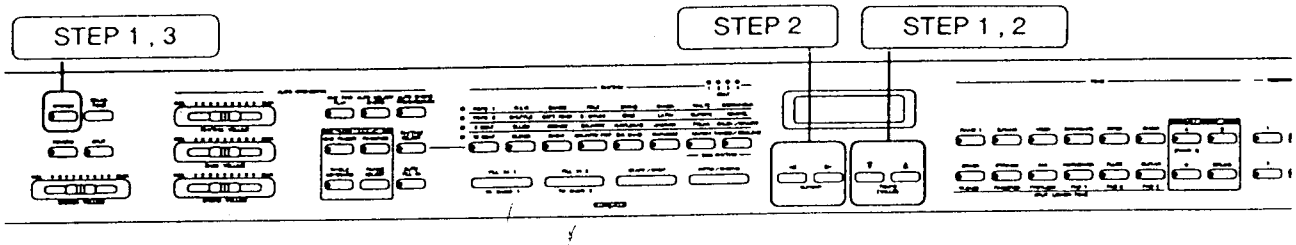
15 TEMPO TRACK
= ON

- ON.....Previously recorded TEMPO data is used during recorder playback.
- OFF.....TEMPO complies with messages on the display during recorder playback.

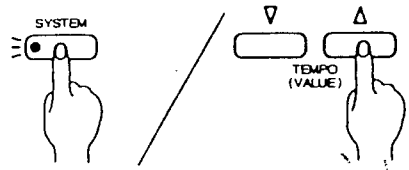
STEP 3 Press the SYSTEM button once more and the lamp will turn off. The System Mode is now cancelled and the screen returns to the original display.

16. SECTION MUTE SETTINGS

This function determines the non-receiving MIDI channels for MIDI operation when the MULTI TIMBRE setting is ON. This function is disabled when the MULTI TIMBRE setting is OFF.

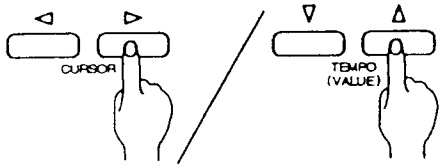


STEP 1 Press the SYSTEM button to enter the System Mode.
Press the TEMPO (VALUE) button several times to select No.16 "SECTION MUTE".




```
16 SECTION MUTE
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
```

STEP 2 Move the cursor as needed with the CURSOR button and press the TEMPO (VALUE) button several times to adjust the section mute setting.




```
16 SECTION MUTE
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
```

cursor shifts

Change the numbers on the lower row of the display, for instance, to 1↔*.
For example, when you do not want to receive MIDI signals on channels 3, 8 and 14, adjust the settings as shown in the figure on the right.

```
16 SECTION MUTE
1 2 * 4 5 6 7 * 9 10 11 12 13 * 15 16
```

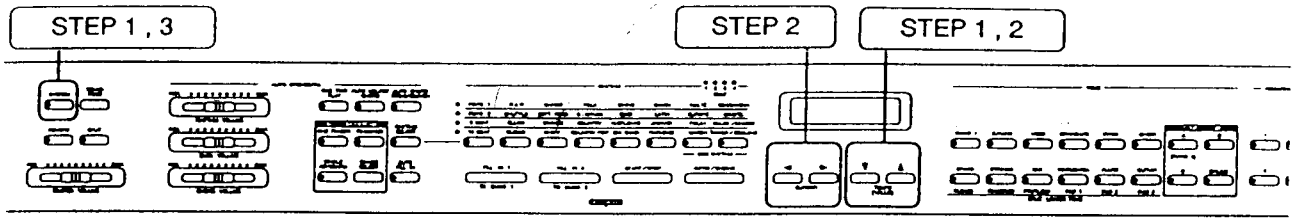
STEP 3 Press the SYSTEM button once more and the lamp will turn off. The System Mode is now cancelled and the screen returns to the original display.

• During System Mode, sounds will not be played even if a MIDI signal is received.

17. DISK RHYTHM SETTINGS

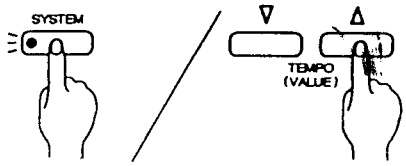
When loading the disk rhythm (sold separately) into the KSP30 you can use the panel buttons to set recall of the disk rhythm or recall of the panel display rhythm. (Refer to P. 78)

Note:
This function is inoperable if the disk rhythm has not been loaded into the KSP30.



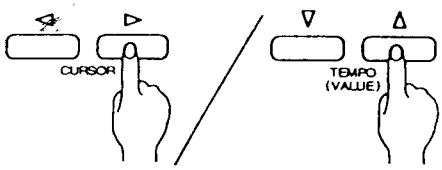
STEP 1 Press the SYSTEM button to enter the System Mode with the disk rhythm loaded into the KSP30, (Refer to P. 77) proceed as follows.

Press the TEMPO (VALUE) button several times to select No.17 "DISK RHYTHM".



17 DISK RHYTHM
= ON

STEP 2 Move the cursor as needed with the CURSOR button and press the TEMPO (VALUE) button several times to adjust the disk rhythm setting.



17 DISK RHYTHM
= ON

- ON.....Select the disk rhythm with the rhythm buttons on the KSP30 panel.
- OFF.....Selects the rhythm on the panel display of the KSP30 panel. (Refer to p. 15)

STEP 3 Press the SYSTEM button once more and the lamp will turn off. The System Mode is now cancelled and the screen returns to the original display.

17 USING THE RECORDER

The recorder function in your digital piano allows you to record and play back any performance. You could record an Auto Orchestra background and then replay it while recording a right-hand melody. You can also record the left and right hand parts of a difficult song separately and then play them back at the same time. Once a song is recorded, it will remain in memory even if the power is turned off.
The recorder can record a maximum of 100 songs, with 16 tracks provided for each song.

SONG 1	1 TRACK
	2 TRACK
	⋮
	16 TRACK
SONG 2	1 TRACK
	2 TRACK
	⋮
	16 TRACK
SONG 100	1 TRACK
	2 TRACK
	⋮
	16 TRACK

Separate parts can be recorded on each track.

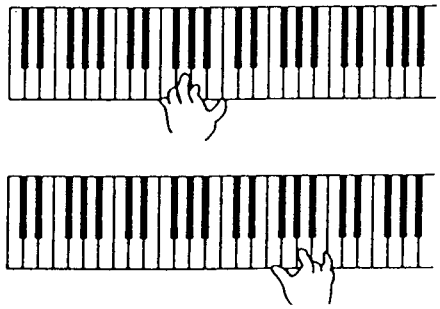
Track 1 is the main track. Use this track for all one-track recording.

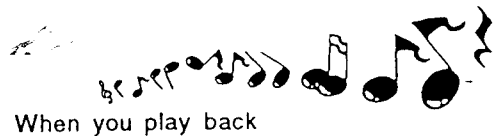
Tracks 2 to 16 are "subtracks" used for overdubbing. You can record additional parts on these tracks while listening to the music you recorded on Track 1.

Left-hand parts recorded on Track 1 and right-hand parts recorded on Track 2 can be played back together, even though they were recorded separately.
A track is a place for separate recording of different parts.

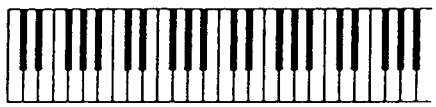
TRACK 1
Record an Auto Orchestra part.

TRACK 2
Record a melody part.





When you play back



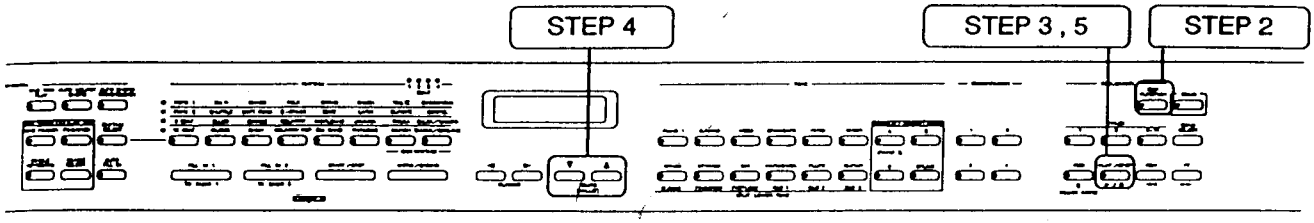
you get an Auto Orchestra + melody.

You can also record different sounds on each track and create an "ensemble" performance.

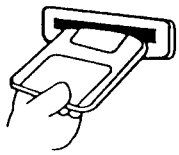
Track 1	Auto Orchestra
Track 2	Piano
Track 3	Organ

<Before starting recording.>

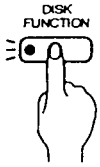
A formatted disk must be used for playback and recording in the disk drive section of this digital piano. Before using a floppy disk (from hereon simply "disk"), follow the disk format procedure below:



STEP 1 Insert the disk into the disk drive.

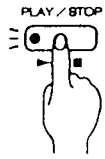


STEP 2 Press the DISK FUNCTION button.



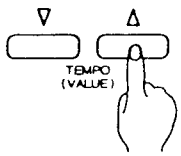

```
8 DISK FORMAT
      →<PLAY>
```

STEP 3 Press the PLAY/STOP button.




```
8 DISK FORMAT
Sure? →NO
```

STEP 4 Press the TEMPO/(VALUE) button and select [YES].
(To discontinue formatting, select [NO] and press "Disk Function" button.)




```
8 DISK FORMAT
Sure? →YES
```

STEP 5 Press the PLAY/STOP button.
Disk formatting begins.
The count number in the display gradually decreases. Upon reaching 0 (zero), formatting is complete.

Once formatting is complete, the screen turns to the display at the right.

```
8 DISK FORMAT
Executing..   79
```

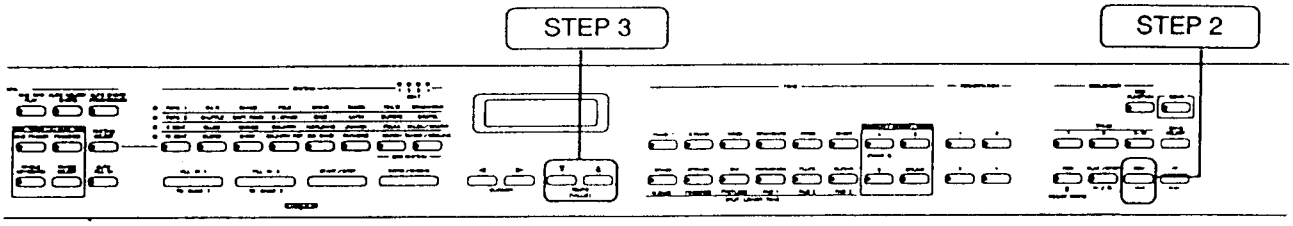
count

```
SONG001
          ♩=120
```

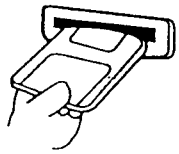
- Refer to p. 76 for reformatting a disk.
- Disks that have been formatted with other computers or instruments cannot be used with the KSP30. You must reformat these disks before using.

USING THE RECORDER

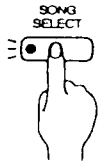
Now try making an actual recording.



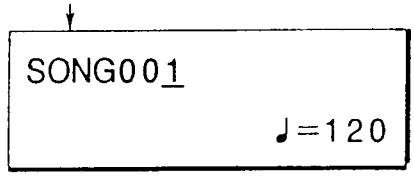
STEP 1 Insert a disk formatted by this digital piano into the disk drive. (If the disk is not inserted, record and playback cannot be done by the recorder.)



STEP 2 Press the SONG SELECT button and song mode will be selected.

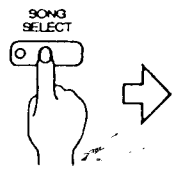


In song mode, the song number is displayed on the upper row of the screen.

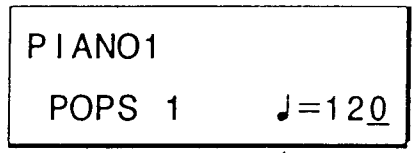


CAUTION

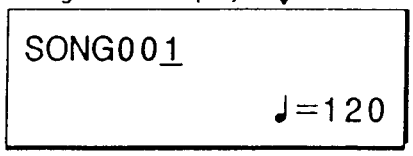
Song mode is selected when using the recorder. Pressing the SONG SELECT button lets you switch between normal mode and song mode. MIDI signals cannot be received in song mode. (Refer to p. 79)



Normal display

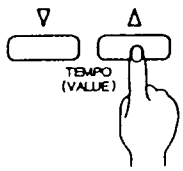


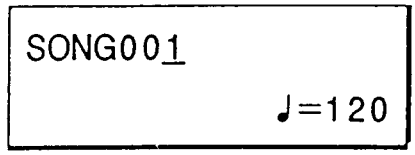
Song mode display

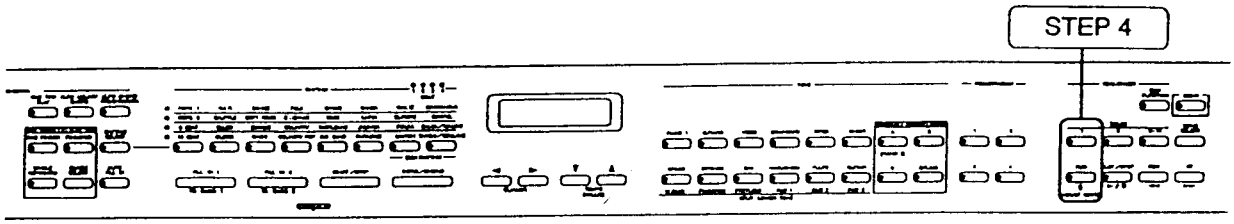


The mode (display) is switched each time you press the button.

STEP 3 Press the TEMPO (VALUE) button and select the song No.(1-100) that you want to record.

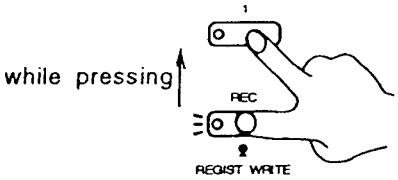






STEP 4

Press the TRACK 1 button while holding down the REC button.



The display at the right is shown while the REC button is held down.

The remaining space in the recorder memory is displayed.

```
SONG001 99% Free
 REC= 1tr  ♩=120
```

When you release your finger from the REC button, a metronome begins to "tick" and the display at the right is shown.
The tempo can be changed with the TEMPO (VALUE) button.

```
SONG001
 REC= 1tr  ♩=120
```

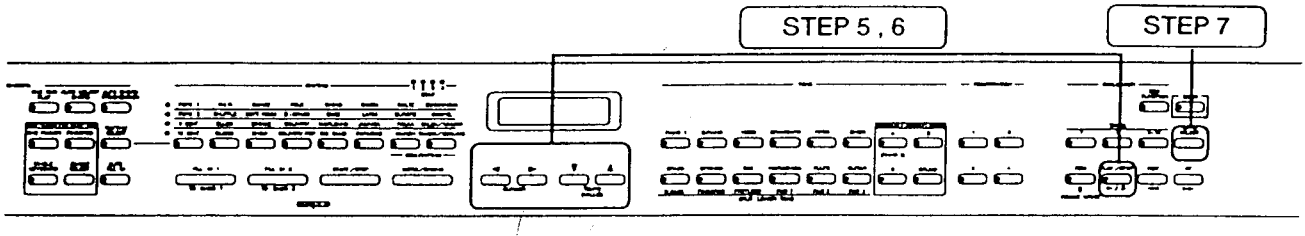
You are now ready to record. (Record standby)
Pressing the REC button will cancel the record standby condition.

When the track you selected is already fully recorded, the display at the right can be seen.
Please note that if you start recording on a fully recorded track, the previous data of the track will be erased!

```
SONG001
 REC= 1tr♩ ♩=120
```

- The metronome volume is adjusted with the rhythm volume (Refer to p. 21)
- The multi timbre setting will be "on" during song mode (Refer to p.46).

Datum of RHYTHM volume, BASS volume and CHORD volume are recorded.

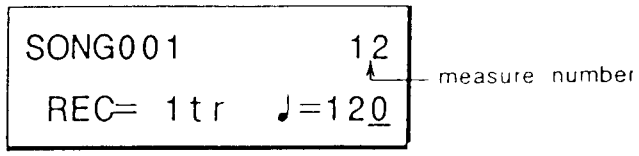


STEP 5 Start recording, using one of the following 3 methods.

- Play a key .....Recording starts automatically when you play a key (when Auto Orchestra is OFF). This "AUTO START" feature is convinient for recording songs without the Auto Orchestra function.
- Press the PLAY/STOP button .....Recording will start. This is useful when you want to insert a few moments of silence before starting to play.
- Start the rhythm .....Recording of rhythm/Auto Orchestra starts immediately when you start the rhythm or Auto Orchestra.

Rhythm cannot be started while recording.

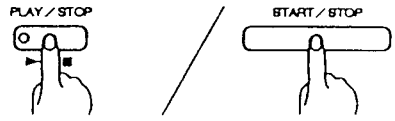
STEP 6 During recording, the current bar (measure) is displayed



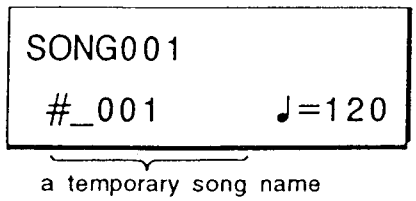
Important Recording Notes:

- Sound, rhythm and tempo can be changed while recording.
- During rhythm play, DRUMS and other sounds cannot be changed.
- Rhythm, Auto Orchestra and Auto Chord Progression can only be recorded on Track 1.
- DUAL and SPLIT sounds • Auto Melody Chord can only be recorded on Track 1.

To stop recording, press the PLAY/STOP button or the START/STOP button.

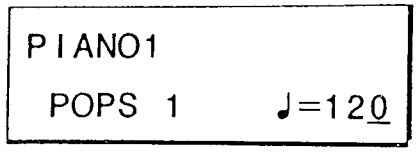


A temporary song name is displayed for the recorded song.



Refer to P. 67 for procedures for naming the song.

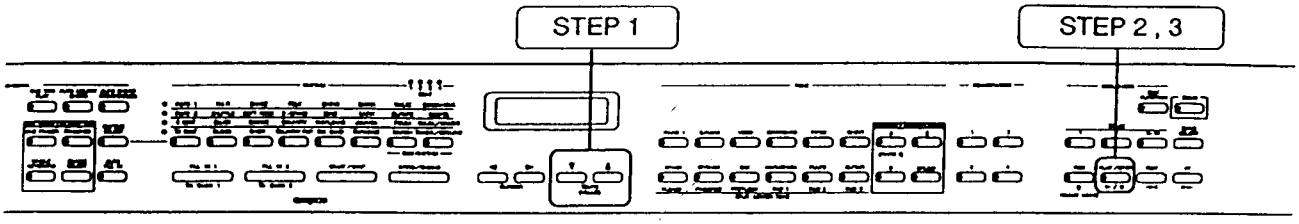
STEP 7 Press the SONG SELECT button. This exits the song mode and the screen returns to the original display.



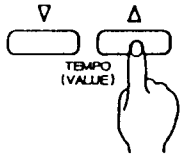
• During record and record standby, the following button functions are disabled:
→Changing the sound contents of AUTO CHORD PROGRESSION, A, B, C, and DRUM buttons, DEMO performance and SYSTEM buttons

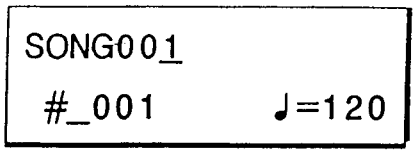
USING THE RECORDER — PLAYBACK

The song you recorded can now be played back.

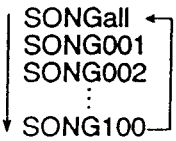


STEP 1 Press the TEMPO (VALUE) button in song mode with the disk inserted (refer to p. 53) and select the song which you want to play back.



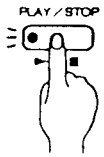


When you choose SONGall, every song stored in the disk is played in sequence starting from Song001. (Chain sequence play)
When Song001 is displayed after selecting SONGall, you can decrease the number of songs with the TEMPO(VALUE) button.

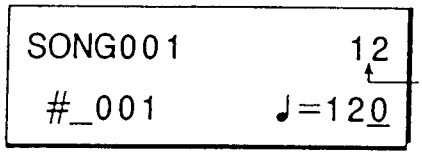


STEP 2 Press the PLAY/STOP button to start playback.

The current measure is displayed on the screen. Your song is played back with the sounds used during recording.



current measure



STEP 3 Press the PLAY/STOP button. The button's lamp will turn off and playback will stop.

During playback of a song, Auto Orchestra data is sent through MIDI (refer to p. 61).
Refer to p.63 for play of SMF (Standard MIDI File) data.

<Fast Forward and Rewind of Songs>

FF (Fast Forward) Button

During song play.....The song fast forwards and sound is heard while the FF button is held down. When the FF button is released, play will automatically begin at the later part of the song that you have selected.

During Stop/Pause ...The song fast forwards and no sound is heard. After the FF button is released, the song will not begin to play until you press the play button.

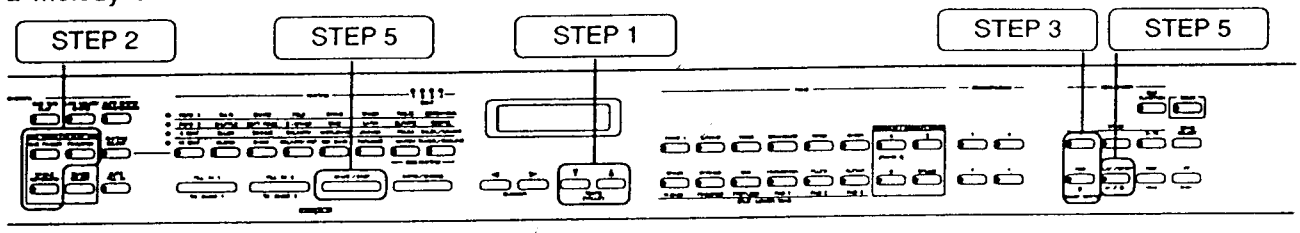
REW (Rewind) Button

During song play.....The song rewinds and no sound is heard while the REW button is held down. When the REW button is released, play will automatically begin at the earlier part of the song that you selected. The recorder will be set to standby if you rewind to the beginning of a song.

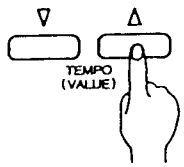
During Stop/Pause ...The song rewinds and no sound is heard while the REW button is held down. After the REW button is released, the song will not resume play until you press the PLAY button.

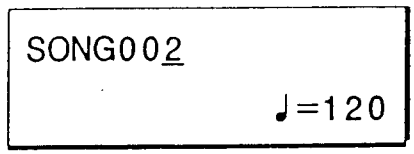
RECORDING SOUNDS ON MULTIPLE TRACKS

To try the overdubbing feature, record an Auto Orchestra on Track 1 and then listen to it while recording a melody on Track 2.



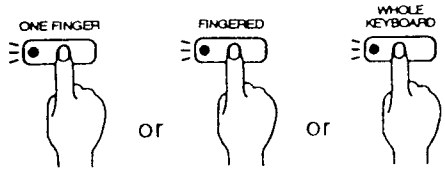
STEP 1 Press the TEMPO (VALUE) button in song mode with the disk inserted (refer to p. 53) and select a song.





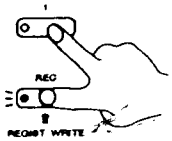
SONG 2 was selected.

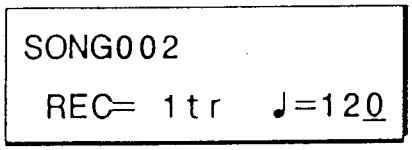
STEP 2 Select a rhythm and press one of the Auto Orchestra buttons.



STEP 3 Press the TRACK 1 button while holding down the REC button. (Record standby)

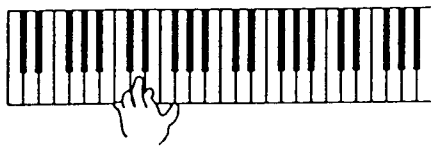
while pressing



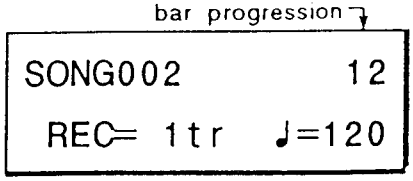


STEP 4 Hold down a chord and start Auto Orchestra. (Refer to p. 17)
You can also start with an INTRO. (Refer to p. 20)

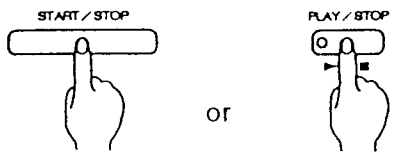
Recording starts simultaneously with the start of Auto Orchestra.

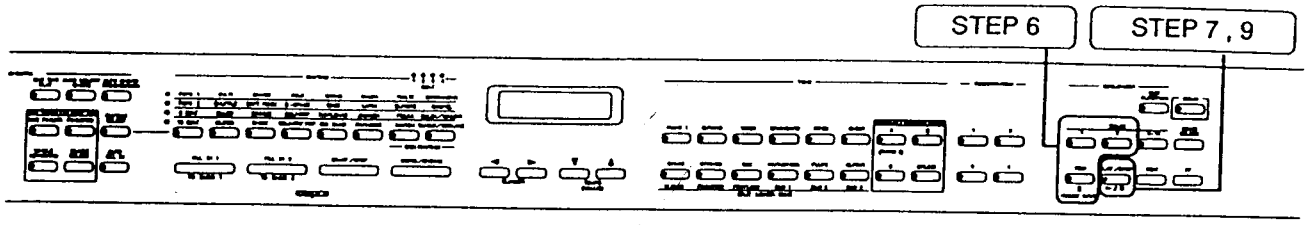


bar progression



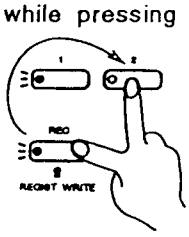
STEP 5 When you are finished, press the START/STOP button or PLAY/STOP button. The Auto Orchestra and recording function will stop.

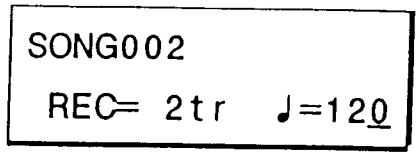




STEP 6 Next, record a melody on TRACK 2 while listening to the Auto Orchestra track recorded on Track 1.

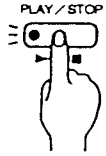
Press the TRACK 2 button while holding down the REC button. (Record standby)

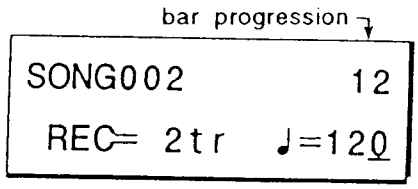




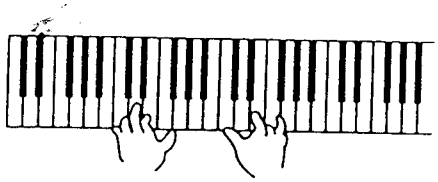
STEP 7 Press the PLAY/STOP button.

The Auto Orchestra part that you recorded will play back.





STEP 8 Play a melody in time with the Auto Orchestra.

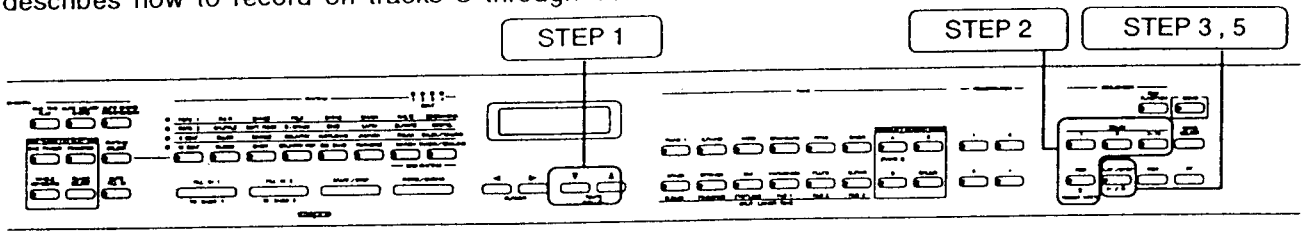


STEP 9 When your performance is finished, press the PLAY/STOP button and the recording function will end.

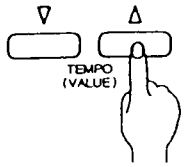
Pressing the SONG SELECT button exits song mode and returns the piano to normal status.

RECORDING ON TRACKS 3-16

Your KSP30 is capable of recording on a total of sixteen separate tracks. Below is an example which describes how to record on tracks 3 through 16:



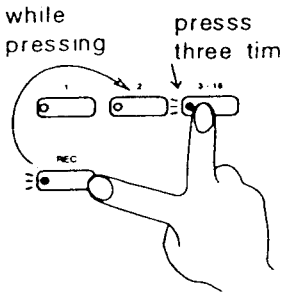
STEP 1 Press the TEMPO (VALUE) button in song mode with the disk inserted (refer to p. 53) and select a song.



SONG002
♩=120

SONG 2 was selected.

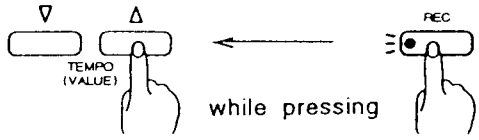
STEP 2 For this example, we will record on Track 5. Press the TRACK 3-16 button three times while holding down the REC button.
(Each time the TRACK 3-16 button is pressed while holding down the REC button, the record track shown on the screen will change).



TRACK 5 was selected

SONG003
REC= 5tr ♩=120

The record track can also be selected by pressing the TEMPO (VALUE) button while holding down the REC button.

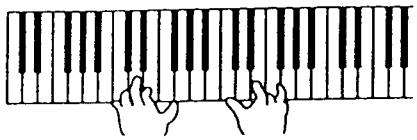


STEP 3 Recording will start when the PLAY/STOP button is pressed or the keys are played.

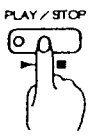
current measure

SONG002 12
REC= 5tr ♩=120

STEP 4 Start playing



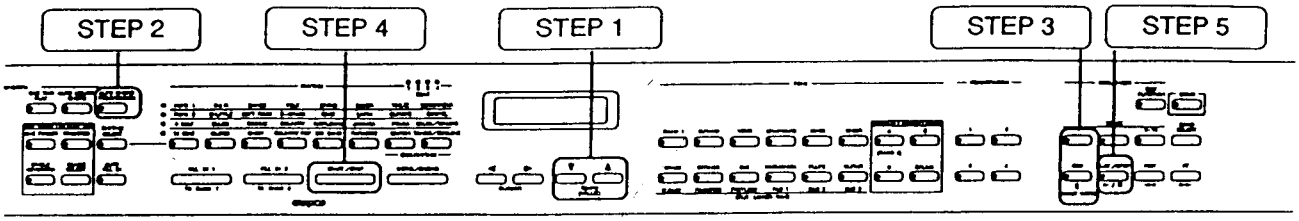
STEP 5 When your performance is finished, press the PLAY/STOP button and the recording function will end.



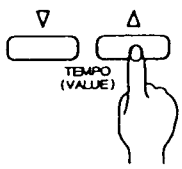
Pressing the SONG SELECT button exits song mode and returns the piano to normal status

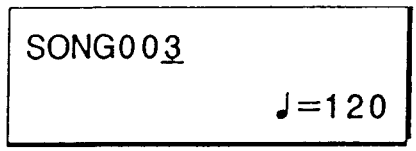
RECORDING AUTO CHORD PROGRESSIONS

Auto Chord Progressions can also be recorded on Track 1, just as you did with Auto Orchestra.



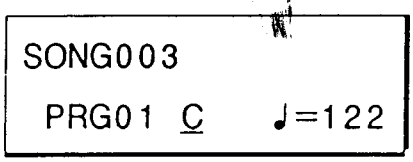
STEP 1 Press the TEMPO (VALUE) button in song mode with the disk inserted (refer to p. 53) and select a song.





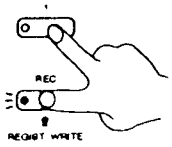
In this case SONG 3 was selected.

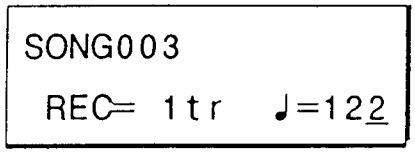
STEP 2 Select a rhythm and press the AUTO CHORD PROGRESSION button.



In this case POPS1 was selected.

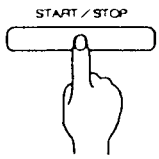
STEP 3 Press the TRACK1 button while holding down the REC button. (Record standby)

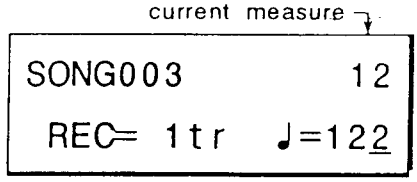




STEP 4 Press the START/STOP button.

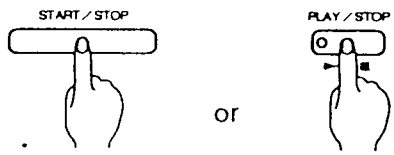
Recording starts simultaneously with the start of auto chord progression.





Note
At such times, the measure number shown in the display will differ from that of the Auto Chord Progression Chart.

STEP 5 Press the START/STOP button or PLAY/STOP button and the accompaniment and recording will stop.



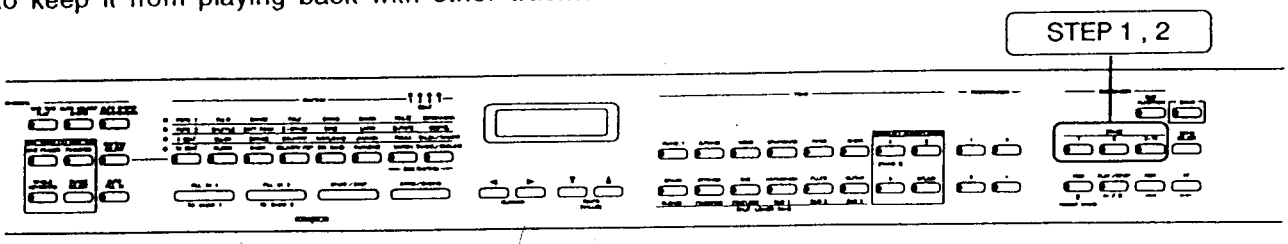
Pressing the SONG SELECT button exits song mode and returns the piano to normal status.

Note:
Please note that Auto Chord Progression will be turned off when you use the FF or REW buttons to pause during playback of songs recorded with Auto Chord Progression.
In such a case, once again, start playback from the beginning of the song.

A recorded melody can be added to Tracks 2 and 3, as described on p. 57 - 58.

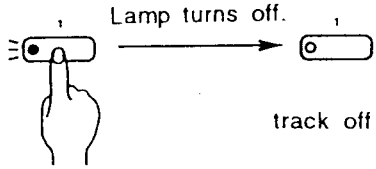
USING THE RECORDER — TRACK BUTTON ON/OFF

At any time, you can turn a particular track "off" to keep it from being erased (by an overdub track) or to keep it from playing back with other tracks.

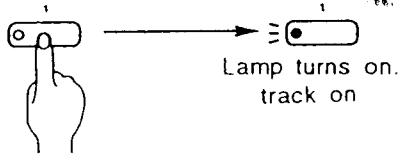


< ON/OFF for Tracks 1, 2 >

STEP 1 Press the desired TRACK button. The track button's lamp will turn off and that track cannot be played back (or recorded upon).



STEP 2 Press that TRACK button again to let the track play back again. The track button's lamp will light.

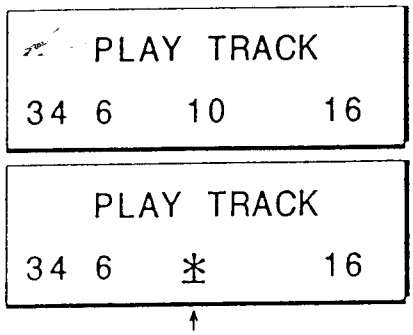


< ON/OFF for Tracks 3-16 >

STEP 3 Press the TRACK 3-16 button. The tracks which contain recorded data will be displayed. The figure at right indicates that tracks 3,4,6, 10 and 16 all contain recorded data. All other tracks are unused.

STEP 4 Use the CURSOR button to select the track you want to turn ON or OFF. Then set the track ON or OFF with the TEMPO (VALUE) button.

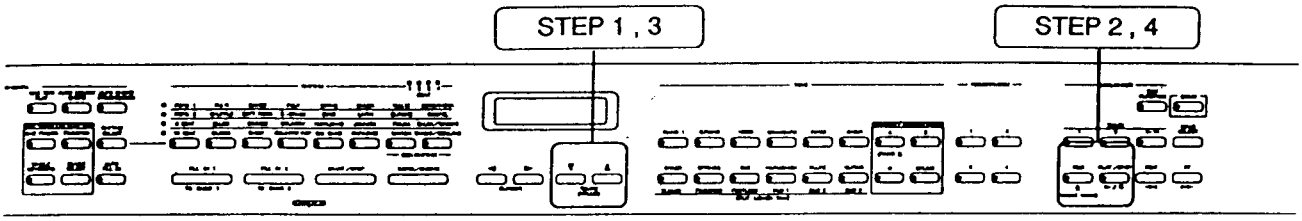
STEP 5 Press the TRACK 3-16 button once again (or just wait several seconds) and the screen will return to the original display.



- Delete the track contents when you want to erase all data on a track. (Refer to the next page.)
- The track button cannot be switched on and off during record or record standby.

USING THE RECORDER — DELETING TRACK DATA

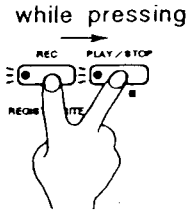
The contents of any track can be deleted with the following procedure:



STEP 1 Press the TEMPO (VALUE) button in song mode with the disk inserted (refer to p. 53) and select the song which is contained on the truck you want to delete.

```
SONG005
 LOVESONG   ♩=120
```

STEP 2 Press the PLAY/STOP button while holding down the REC button.




```
TRACK DELETE
TRACK =CANCEL
```

STEP 3 Select the track number you want to delete with the TEMPO (VALUE) button.

Available settings
CANCEL ..... Deletion cancelled.
1-16 ..... Track number you set are deleted.
all ..... All tracks are deleted.

STEP 4 Press the PLAY/STOP button when the procedure has been completed.

The contents of the track that you specified has been deleted and the screen returns to the original display.

The track will not be deleted when the setting is Track = CANCEL.

• During [STEP2] the deletion will be stopped and the screen returns to the last previous display, even if the REC button is pressed.

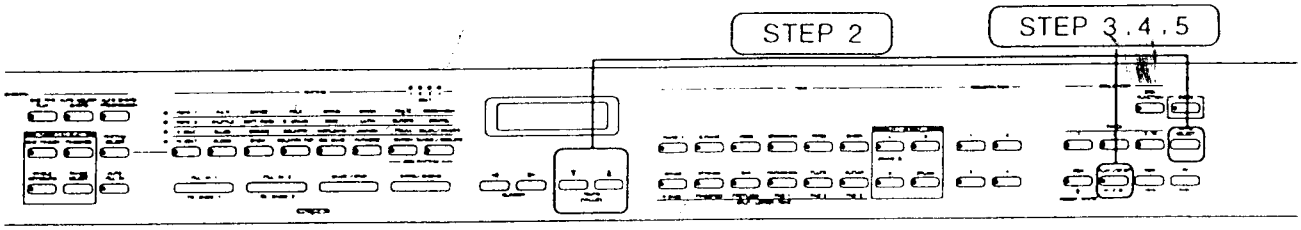
PLAYING STANDARD MIDI FILE (SMF) DATA

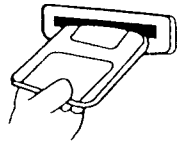
Historically, data formats for sequencer and computer song data have varied from manufacturer to manufacturer. This meant that MIDI song data designed for one brand of computer or sequencer could not be used with other brands.
The "Standard MIDI File" data format was conceived to provide compatibility between brands of hardware. Data that conforms to the Standard MIDI File format can be used with any device (computer, sequencer, MIDI instrument) that is designed to accept Standard MIDI Files.
The following are guidelines for the Standard MIDI File format:

- Data should be saved onto MS-DOS formatted 3.5-inch 2DD disks with 8 sectors (640 Kbytes) or 9 sectors (720 Kbytes).
- All 2DD disks formatted on IBM, NEC and Atari computers as well as MS-DOS 2DD disks formatted on Macintosh computers can be used.

The KSP30 digital piano accepts all Standard MIDI Files.

- MS-DOS is a trademark of the Microsoft Corporation.
- Macintosh is a registered trademark of Apple Computer, Inc.





STEP 1 Insert the song data disk into the disk drive.

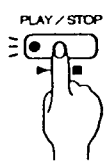
STEP 2 Press the SONG SELECT button to enter Song Mode (refer to p. 53). Press the TEMPO (VALUE) button to select a song for playback.

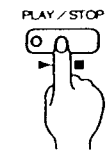
STEP 3 Press the PLAY/STOP button. The [WAIT] message will be displayed for a few seconds. The display time varies with the song.

When the display changes to the message at the right, you are ready to play back.

STEP 4 Press the PLAY/STOP button again to start playback.

STEP 5 When the song finishes (or when you press the PLAY/STOP button), playback stops and the screen returns to the [STEP 2] display.






```
SONG001
 MIDIFILE  ♩=120
```
↳ song name

```
SONG001
 Wait...   ♩=120
```
few seconds later ⇩

```
SONG001
 → <PLAY>  ♩=120
```

```
SONG001        12
 MIDIFILE  ♩=120
```

• The tempo display may show ♩ = ♩ according to the time base of the song.

- In this digital piano, standard MIDI file data is played back with the following data formats:
  - Format 0.....Only one track is used. Multiple MIDI multi-channel data is recorded on this track.
  - Format 1.....Multiple tracks are used. MIDI multi-channel data is recorded on these tracks.

  In song data format (0 or 1), the standby or waiting time until play starts varies according to the resolution and number of measures etc. For those needing a short standby (waiting time), we recommend using Format 0 for play.

- The recorder track assignments for playing of standard MIDI file song data are given below:

MIDI channel for each data portion	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sequencer track number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Muting of each MIDI channel is done with the recorder track ON/OFF function. (Refer to p. 61)

- The chart below describes the parameters for playing Standard MIDI Files:

	During Play	Remarks
Data format	0, 1	—
Matching number of tracks	Maximum 17 (at Format 1)	Track number greater than 18 will not play
Time base	24, 48, 96, 192, 384, 30, 60, 120, 240, 480	—
Tempo	♩ = 20 - 250	If the original tempo data is ♩ = 1 - 19 playback will be ♩ = 20. If ♩ = 251 or more, playback will be ♩ = 250. The tempo and tempo display vary according to the time base. So at times, the display will show ♩ = ♩.
Data size available for play	Within approx. 200 Kbyte	—
File name expansion	No limit	—
Beat	No limit	—

- Tempo of playback may become slower where there're too frequent datum of notes.

NOTES FOR USING THE RECORDER

- When the recorder memory is full during (or prior to) recording, an error message will appear on the screen and recording will stop. At that time, delete unwanted songs and tracks. Then, start recording again.
- When using Auto Chord Progression and One Two Play in your recording, start recording after adjusting all panel settings in Song Mode prior to activating the "record standby" condition.
- When recording was done with the registration memory button set to ON, the registration memory button lamp will turn off during playback but the contents of that registration will be evident on playback.
- During Rhythm/Auto Orchestra playing, pressing the Song Select button to enter or exit song mode will stop the Rhythm/Auto Accompaniment.
- When using the damper pedal to play a song recorded with a SPLIT sound (refer to p. 11), the damper effect will conform to system mode damper pedal settings.
- If you record a song using a rhythm from an external Rhythm Disk (refer to pages 77 and 78) which utilizes the Auto Chord Progression and ONE TWO PLAY features, be sure to insert the song disk before playback. If the song disk is not loaded prior to playback, the front panel settings that were in place at the time of recording will be heard.

DISK CATEGORY - RECORDER/DISK FUNCTION TABLE

O : Operates - calls up the disk function.
– : No operation - calls up no disk function.

Disk →	Disks formatted with KSP30	SMF data disks with MS-DOS format	Rhythm disk (sold separately)	Unformatted disks or not compatible with KSP30
Sequencer function				
PLAY	O	O	–	–
REC	O	–	–	–
REW/FF	O	O	–	–
Disk function				
1 SONG NAME	O	O ☆	–	–
2 SONG REPEAT	O	O	–	–
3 REGIST. NAME	O	–	–	–
4 REGIST. LOAD	O	–	–	–
5 REGIST. SAVE	O	–	–	–
6 SONG COPY	O	–	–	–
7 DISK SONG COPY	O	–	–	–
8 DISK FORMAT	O	O	–	O
9 RHYTHM LOAD	–	–	O	–

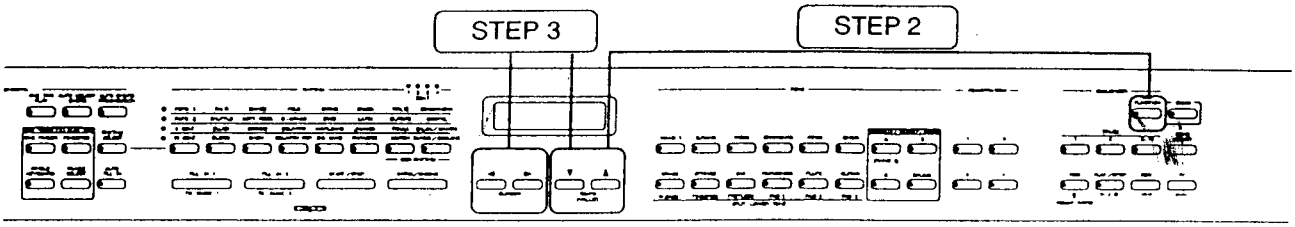
☆ File names (song names) cannot be changed.

18 DISK FUNCTION

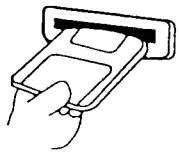
The Disk Function Mode performs various operations related to the disk and recorder. Be aware that some data on a disk may not be available depending on the type of disk being used. (Refer to p. 66) Turning the DISK FUNCTION Mode button "off" allows you to exit the mode when desired. (Except during task execution)

1. SONG NAME (Naming a song)

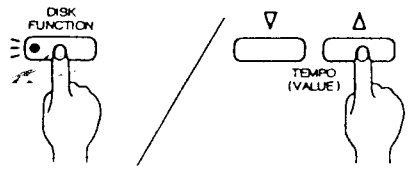
Song names can be inserted or altered. Up to 8 characters can be used when inserting a song name. Names of standard MIDI file format songs cannot be changed.



STEP 1 Insert the disk into the disk drive.



STEP 2 Press the Disk Function button to select Disk Function Mode. Press the TEMPO (VALUE) button several times to select No. 1 "SONG 002 NAME".

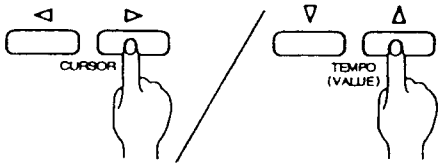


↓ song number

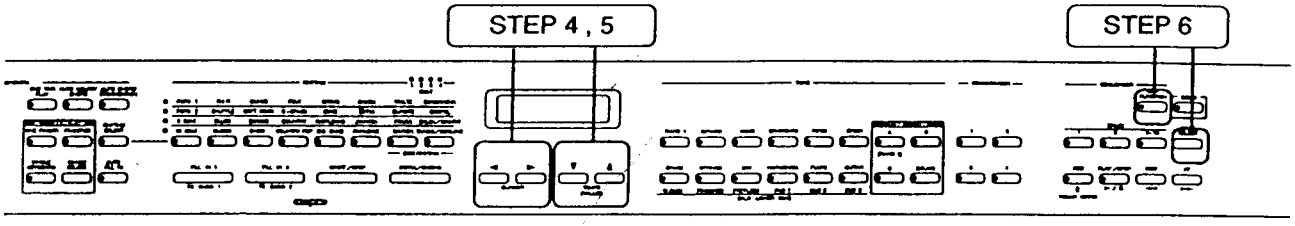
```
1 SONG001   NAME
#_001
```

↑ song name

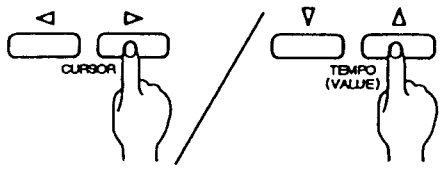
STEP 3 Move the cursor to the song number position with the CURSOR button and select the song number you want to name with the TEMPO (VALUE) button.




```
1 SONG001   NAME
#_001
```



STEP 4 Move the cursor to the song name position with the CURSOR button. Select one character at a time with the TEMPO (VALUE) button.



Use letters and numbers from the following list:

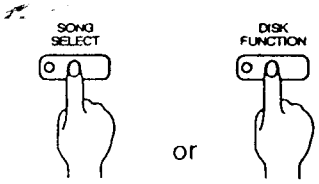
```
 ! " # $ % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
@ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [ ¥ ] ^ _
` a b c d e f g h i j k l m n o p q r s t u v w x y z { | } →←
```

```
1 SONG001  NAME
A_001
```

STEP 5 Move the cursor as needed to the second character space and third character space etc. Add one letter for each space required, as in [STEP 4].

```
1 SONG001  NAME
ABCDEFGH
```

STEP 6 After entering the name, press the SONG SELECT button to enter the Song Mode. When you press the DISK FUNCTION button, the lamp will turn off. The Disk Function Mode is now cancelled and the screen returns to the original display.



Song Name Monitor and Quick Play

On the SONG NAME display, you can verify the song number and song name on the disk as they appear in order on the display (monitor).

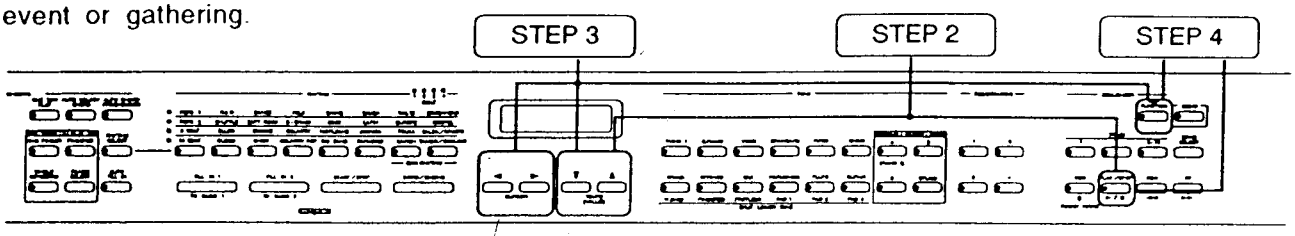
```
1 SONG057  NAME
MYSONG
```

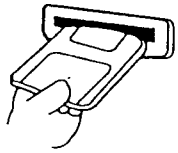
As shown in the figure on the left, check the song name by moving the cursor to the song number position. When you press the TEMPO (VALUE) button, the song name for the matching song number quickly appears on the display.

When the SONG NAME display is shown, pressing the PLAY/STOP button returns operation to Song Mode. The song just selected will be played. (refer to p. 56)

2. SONG REPEAT

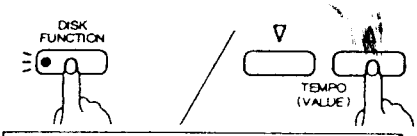
This function repeats play of a specific song or a sequence of songs. A maximum of 10 songs can be arranged in sequence for repeated play. This function is ideal for providing background music for any event or gathering.

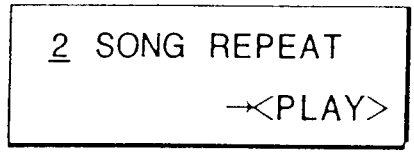




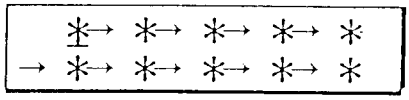
STEP 1 Insert the disk into the disk drive.

STEP 2 Press the DISK FUNCTION button to enter the Disk Function Mode. Press the TEMPO (VALUE) button several times to select No. 2 "SONG REPEAT".

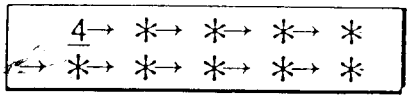




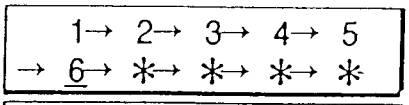
STEP 3 Press the PLAY/STOP button to return to the repeat setting display. Move the cursor with the CURSOR button. Set the song number with the TEMPO (VALUE) button.
Ex. 1.
For repeat play of only the 4th song.
Ex. 2.
For repeat play from the 1st song to the 6th song.
Ex. 3.
For repeat play in the sequence of 76th song, → 100th song → 23rd song.



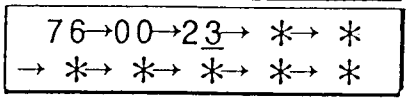
Ex. 1



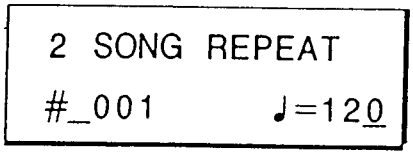
Ex. 2

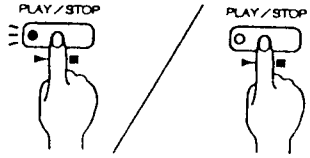


Ex. 3



STEP 4 When song selection is complete, press the PLAY/STOP button. Sequential playback of the songs you selected will start.
Press the PLAY/STOP button to stop playback. The screen will return to the [STEP 2] display. When the DISK FUNCTION button is pressed, the lamp turns off and the screen returns to the normal display



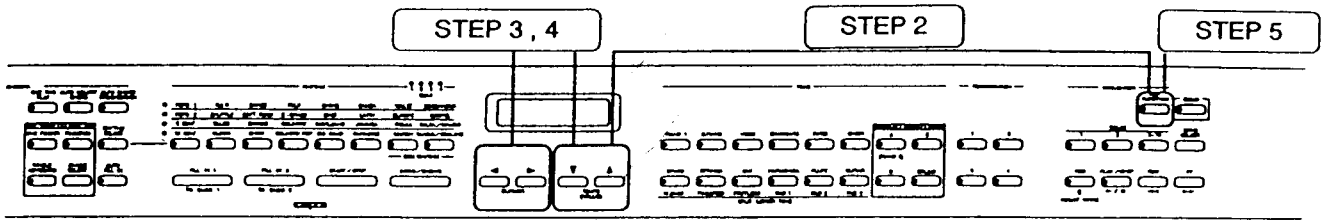


playback stop

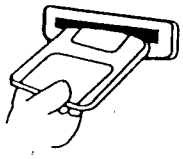
The song repeat song number settings will remain stored [STEP 3] even when the power is turned off When the unit is reset (refer to p. 32) these settings will be erased.

3. REGISTRATION NAME (Naming the registration stored)

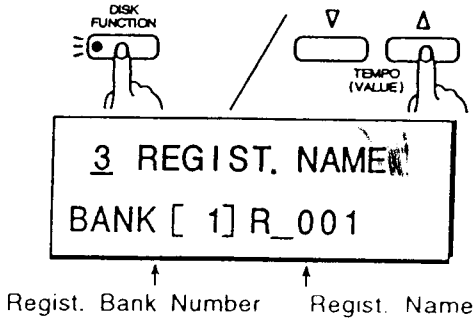
This procedure allows you to add or alter the names of registrations (panel settings) stored on the disk. A maximum of 8 characters can be used.



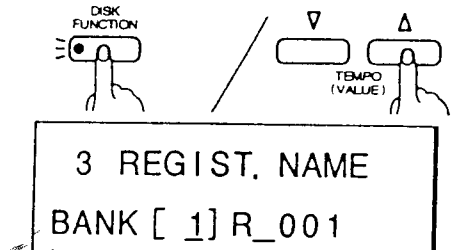
STEP 1 Insert the disk into the disk drive.



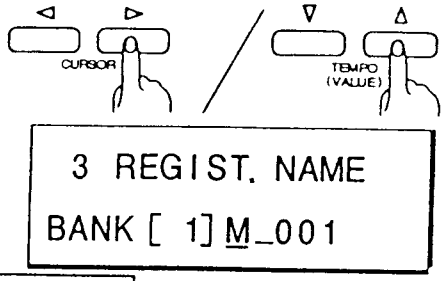
STEP 2 Press the DISK FUNCTION button to enter the Disk Function Mode. Press the TEMPO (VALUE) button several times to select No. 3 "REGIST. NAME".

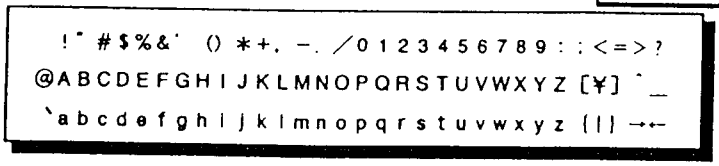


STEP 3 Move the cursor to the Regist. Bank Number position with the CURSOR button. Select the Regist. Bank you want to name.



STEP 4 Move the cursor to Regist. Name position and add one character at a time with the TEMPO (VALUE) button. (Move the cursor as needed to the second character space and third character space, etc. of the Regist. Bank Name.)

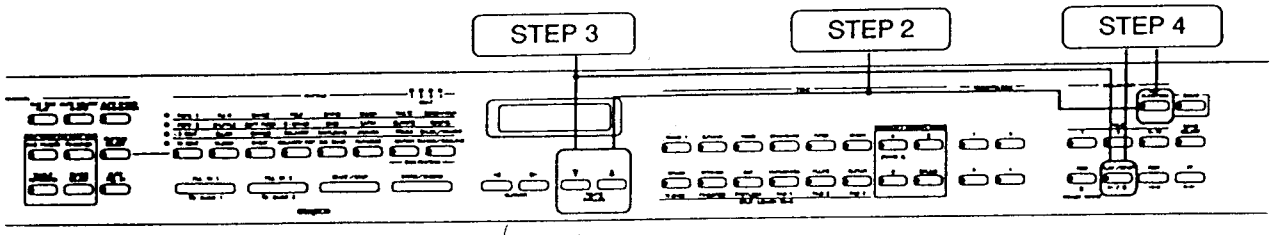




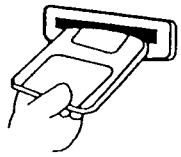
STEP 5 After entering the name, press the DISK FUNCTION button. The lamp will turn off. The Disk Function Mode is now cancelled and the screen returns to the original display.

4. LOADING REGISTRATION DATA (Loading registration data from the disk)

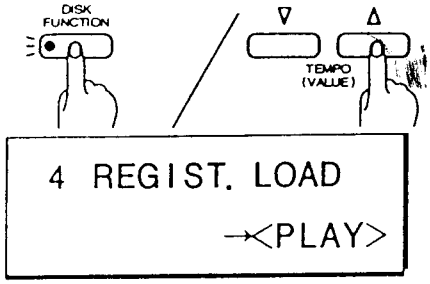
This function loads registration settings stored on disk.



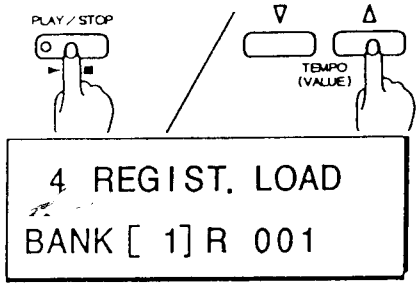
STEP 1 Insert the disk with the registration data into the disk drive.



STEP 2 Press the DISK FUNCTION button to enter Disk Function Mode. Press the TEMPO (VALUE) button several times to select No. 4 "REGIST LOAD".

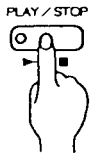


STEP 3 Press the PLAY/STOP button. Select the Regist (registration) Bank to load with the TEMPO (VALUE) button.



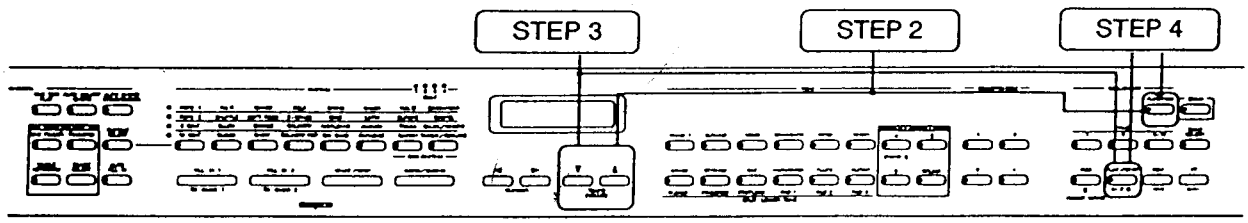
Please use caution. When data is loaded from the disk, data in the registration memory of the KSP30 will be erased.

STEP 4 Press the PLAY/STOP button. Setting data is loaded and the screen returns to the normal display.

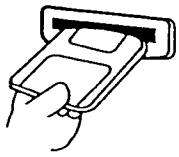


5. SAVING REGISTRATION DATA (Storing registration settings on disk)

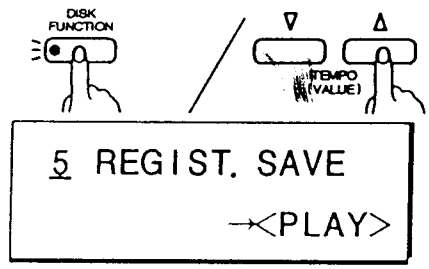
This function stores the four registration settings made with the KSP30's four registration buttons in one group onto a disk. Up to 10 groups can be stored on one disk. Any disk that has been formatted using the KSP30 (refer to p. 52 & P. 76), even one with song data stored on it, can be used.



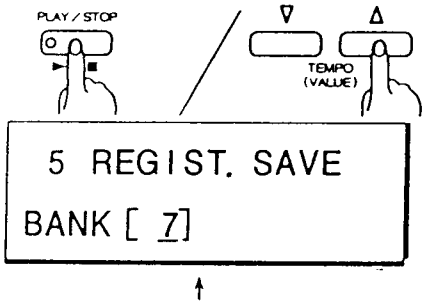
STEP 1 Insert the disk into the disk drive.



STEP 2 Press the DISK FUNCTION button to enter Disk Function Mode. Press the TEMPO (VALUE) button several times to select No. 5 "REGIST SAVE".



STEP 3 Press the PLAY/STOP button. Select the Regist bank number you want to use for this group of registrations with the TEMPO (VALUE) button.



When there is no data in the bank, no registration name is displayed.

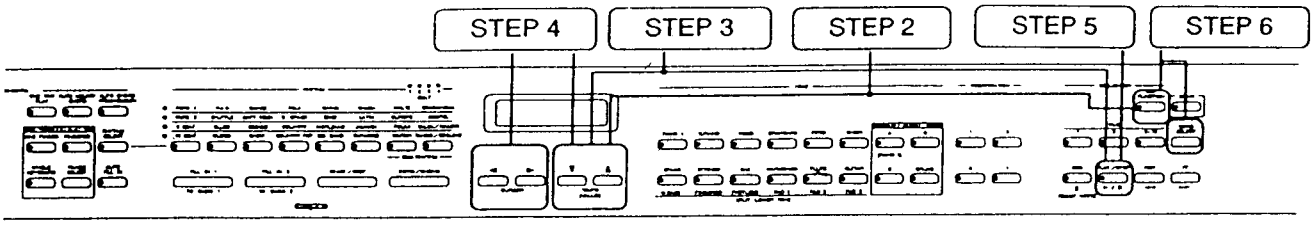
Please use caution when storing data on the disk. Older disk data in the registration memory with the same bank number will be erased when new data with the same number is loaded.

STEP 4 Press the PLAY/STOP button. Registration data is loaded onto the disk and the screen returns to the normal display.

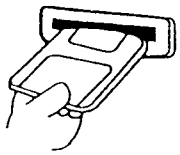
- A temporary registration name is attached when registration data is stored in a bank with no data.
- This registration name can be changed. (refer to p. 70)

6. SONG COPY (Copying songs on the same disk)

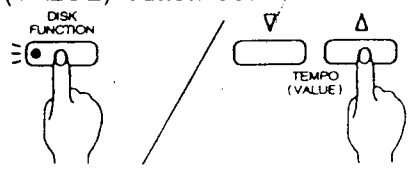
This function allows you to copy a designated song to another song number.



STEP 1 Insert the disk into the disk drive.

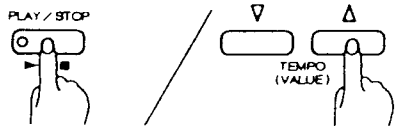


STEP 2 Press the DISK FUNCTION button to enter Disk Function Mode. Press the TEMPO (VALUE) button several times to select No. 6 "SONG COPY".




```
6 SONG COPY
        →<PLAY>
```

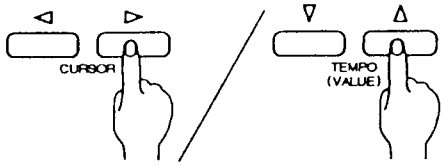
STEP 3 Press the PLAY/STOP button. Select the number of the song you want to copy with the TEMPO (VALUE) button and CURSOR button




```
6 SONG COPY
SONG001 → 002
```

The number of the song to be copied — The copy destination song number

STEP 4 Move the cursor with the CURSOR button to the song number position for copy destination. Select the song number for copy destination with the TEMPO (VALUE) button.

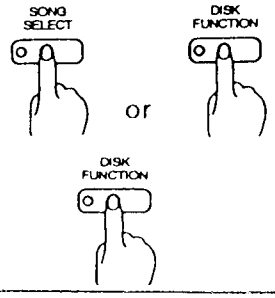



```
6 SONG COPY
SONG001 → 003♩
```

When a song has already been recorded at the copy destination you selected, a ♩ will be displayed on the right side of the song number as shown in the figure above. Please use caution as copying to this location will erase the song previously stored there.

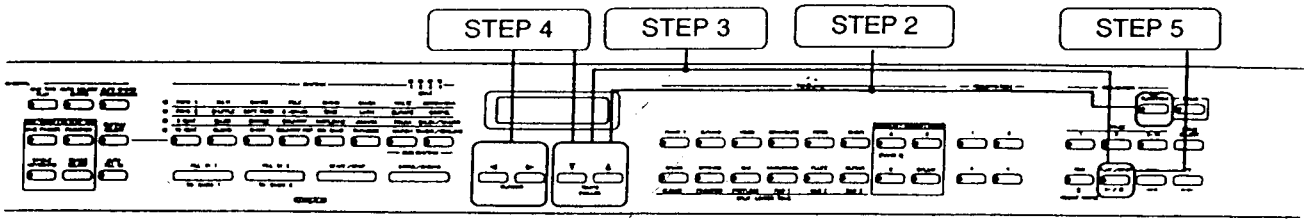
STEP 5 When copying is complete, press the PLAY/STOP button. Copying is executed and the screen returns to the [STEP 2] display.

STEP 6 Press the SONG SELECT button to enter the Song Mode. When you press the DISK FUNCTION button, the lamp will turn off. The Disk Function Mode is now cancelled and the screen returns to the original display.

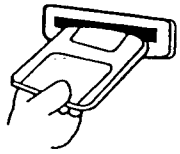


7. COPYING A SONG ONTO ANOTHER DISK

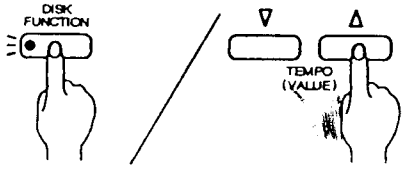
This procedure allows you to copy a specified song onto another disk:



STEP 1 Insert the disk containing the song you want to copy into the disk drive.

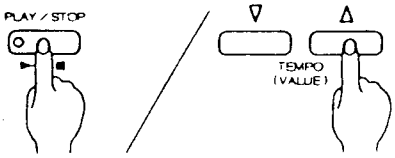


STEP 2 Press the DISK FUNCTION button to enter Disk Function Mode. Press the TEMPO (VALUE) button several times to select No. 7 "DISK SNG COPY".




```
7 DISK SNG COPY
          →<PLAY>
```

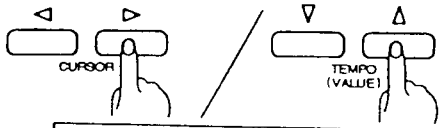
STEP 3 Press the PLAY/STOP button. Select the number of the song you want to copy with the TEMPO (VALUE) button.




```
7 MASTER → NEW
SONG001 → 001
```

The number of the song to be copied.
The copy destination song number to send to destination disk.

STEP 4 Move the cursor with the CURSOR button to the song number position for copy destination (separate disk). Select the song number of the copy destination with the TEMPO (VALUE) button.



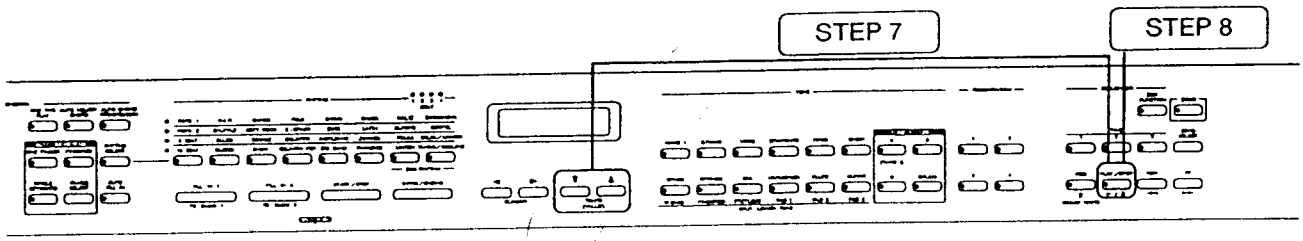

```
7 MASTER → NEW
SONG001 → 001
```

STEP 5 Press the PLAY/STOP button several times. After several seconds, the display shown on the lower right will appear.

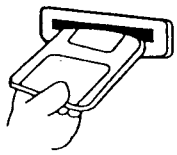

```
7 MASTER → NEW
Executing..
```

In-progress ⇩

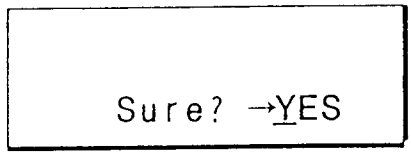
```
7    INSERT
     NEW DISK
```



STEP 6 Remove the disk that contains the song you wanted to copy and insert the new destination disk. (Please use a disk that has been formatted with the KSP30 as a copy destination disk.)

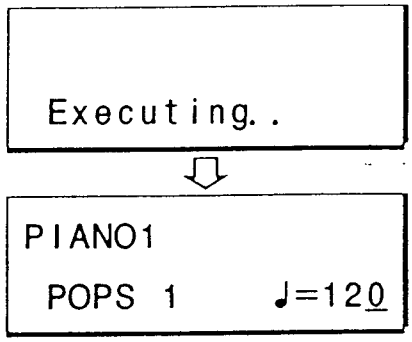


STEP 7 Press the PLAY/STOP button and the display in the figure at the right will appear.
Select [YES] or [NO] with the TEMPO (VALUE) button.
- YES .....Copy the data
- NO .....Stop data copy

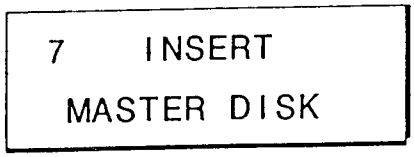


STEP 8 After [YES] or [NO] is selected, press the PLAY/STOP button.

- When [YES] is selected, the data is copied and the screen returns to the normal display.
- When [NO] is selected, copying of data is halted and the screen returns to the [STEP 5] display.



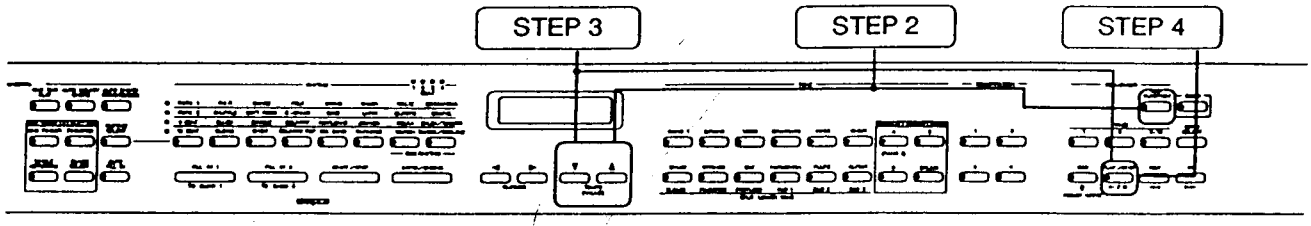
The following message is displayed when many songs are to be copied.

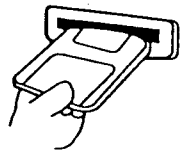


When the INSERT MASTER DISK message is displayed, comply by inserting the original disk into the disk drive.
When the INSERT NEW DISK message is displayed, comply by inserting the copy destination disk into the disk drive.

8. DISK FORMAT (Formatting disks)

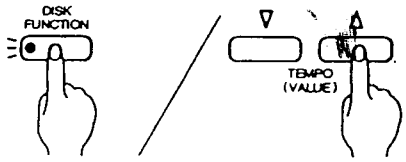
This procedure should be used to format new disks and disks previously formatted by other instruments or computers:

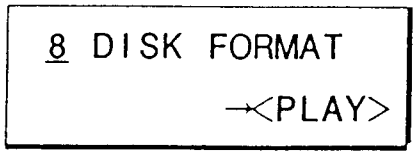




STEP 1 Insert the disk you want to format into the disk drive.

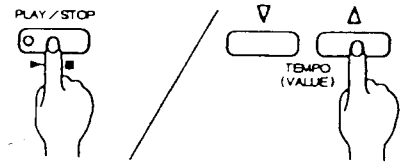
STEP 2 Press the DISK FUNCTION button to enter Disk Function Mode. Press the TEMPO (VALUE) button several times to select No. 8 "DISK FORMAT".

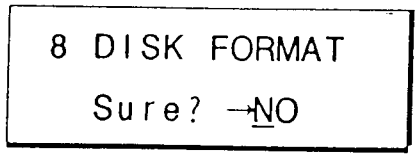




STEP 7 Press the PLAY/STOP button and the display in the figure at the right will appear.
Select [YES] or [NO] with the TEMPO (VALUE) button.

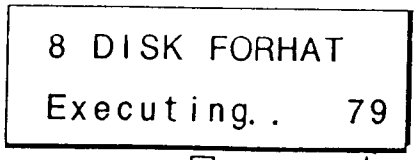
- YES ..... Format the disk
- NO ..... Stop disk formatting



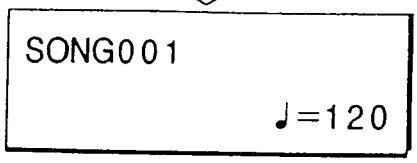


STEP 8 After [YES] or [NO] is selected press the PLAY/STOP button.

- When [YES] is selected, the disk is formatted and operation returns to the Song Mode.
- When [NO] is selected, disk formatting is halted and the screen returns to the [STEP 2] display.



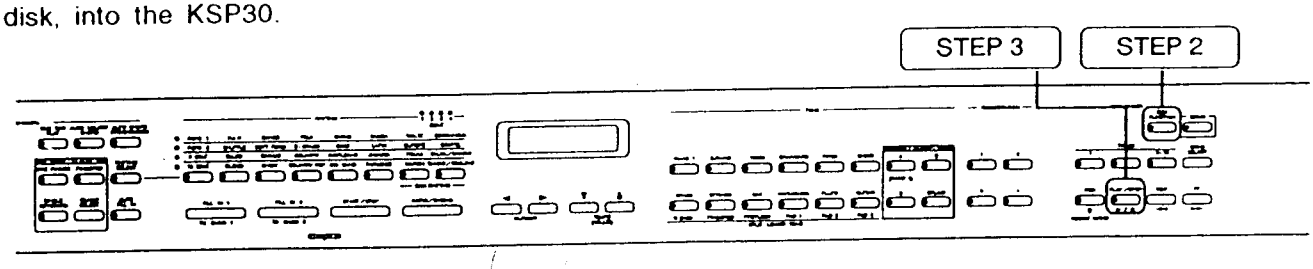
executing count



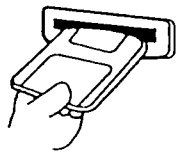
Please use caution. Once a disk is formatted, its previous data is completely erased.

9. LOADING RHYTHM (Loading data from a custom rhythm disk)

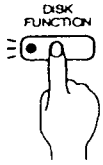
This function loads disk rhythm patterns for Auto Chord Progression/One Two Play data from a custom disk, into the KSP30.

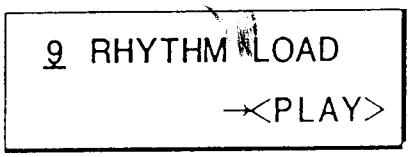


STEP 1 Insert the rhythm disk (sold separately) into the disk drive.

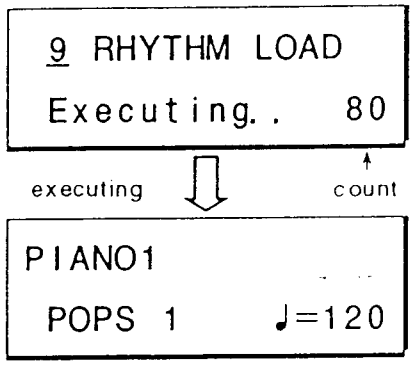


STEP 2 Press the DISK FUNCTION button.





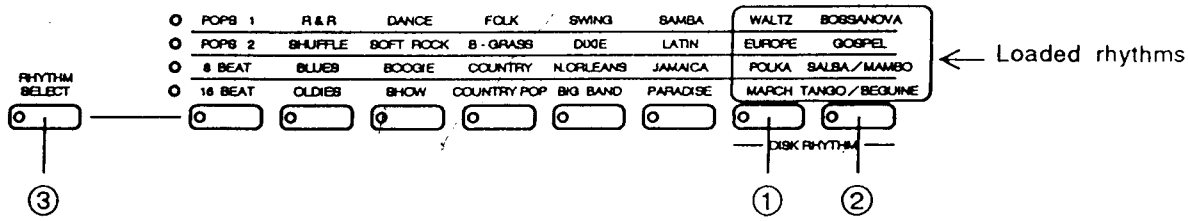
STEP 3 Press the PLAY/STOP button.
Disk data is loaded into the KSP30.
The screen then returns to the normal display.
The count on the display gradually decreases. Loading is finished when a 0 is displayed.



- Please use caution when loading data from the rhythm disk. Data previously loaded into the KSP30 from a rhythm disk will be erased.
- Once data from a rhythm disk is loaded, it will not be erased, even if the power is turned off.
- When the KSP30 is reset (refer to p. 32), all rhythm disk settings will be erased.

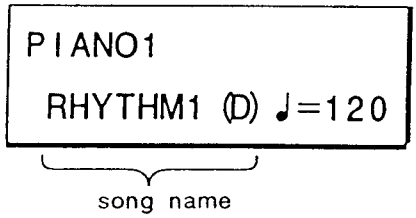
< Selecting the rhythm for loading >

Disk Rhythms positions are laid out on the panel as shown in the figure below:



Select the rhythm you desire with the ① and ② select buttons or the ③ RHYTHM SELECT button. This selects the disk rhythms you loaded, not rhythms listed on the panel such as WALTZ and BOSSANOVA.

The name of the disk rhythm you selected will then be displayed on the screen.



Start playing as you did with previous rhythms.

< Points about disk rhythms for Auto Chord Progression and One Two Play >

- When you load a disk rhythm, the matching Auto Chord Progression Program and One Two Play data are also loaded at the same time.
- When a disk rhythm is loaded, you can play an Auto Chord Progression Program matching the disk rhythm with rhythms other than disk rhythms. (Refer to p. 23)
  Please refer to the enclosed disk rhythm reference material for Auto Chord Progression Program numbers and for Chord Progressions.
- When selecting a disk rhythm on the panel, settings for the matching sounds and reverb are called up by pressing the One Two Play button. (Refer to p. 25)

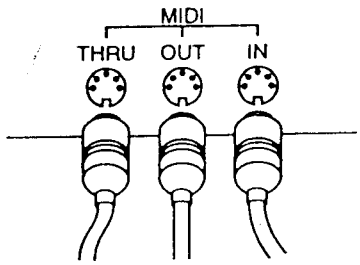
When loading the disk rhythm (sold separately) into the KSP30 you can use the panel buttons to set recall of the disk rhythm or recall of the panel display rhythm. (Refer to p. 78)

19 MIDI INTERFACE

The term MIDI is an acronymn for Musical Instrument Digital Interface. MIDI is an international music standard used for sending music data back and forth by way of the custom cables between musical instruments such as digital pianos, synthesizers and sequencers. Utilizing MIDI allows a performance on one musical instrument to be played on several instruments. Plus, the DATA from that performance can be sent to an external sequencer for editing overdubbing, and later playback. The potential uses of MIDI are varied and extremely powerful.

1. MIDI Connections

Musical instruments compatible with MIDI have connection terminals referred to as MIDI IN, MIDI OUT and MIDI THRU (some instruments do not have a MIDI THRU terminal). Custom MIDI cables are inserted into these terminals for compatible MIDI operation between instruments.



- MIDI OUT .....Music data transformed into electrical signals are output through this terminal. It is connected to the MIDI IN terminal of other instruments.
- MIDI IN .....This terminal is an input for receiving music data from other instruments. It is connected to the MIDI OUT or MIDI THRU terminals of other instruments.
- MIDI THRU.....Data received via the MIDI IN terminal is routed "as is" from this terminal. The MIDI THRU terminal is sometimes used when connecting three or more instruments.

2. Applications of MIDI functions

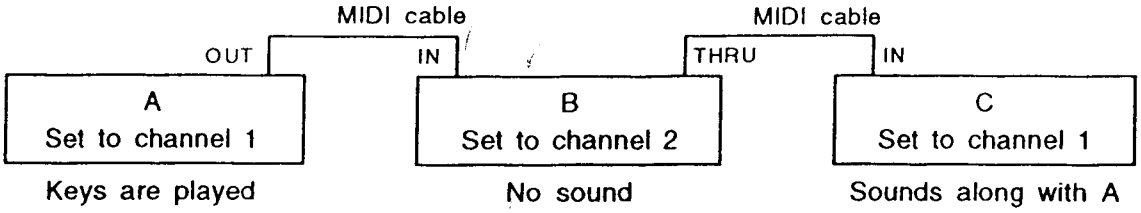
The types of data sent and received with MIDI vary depending on the musical instrument. This digital piano is provided with the following MIDI functions:

- Setting for send and receive channels
- Sending and receiving keyboard note data (which key is pressed?)
- Sending and receiving of sound change data
- Send and receiving of ON/OFF data for left pedal and damper pedal
- Local control settings (No sound is issued if keys are pressed, sounds can only be heard when the MIDI signal is received.)
- MULTI TIMBRE ON/OFF settings
- Transmission of auto accompaniment data
- ON/OFF for each receive channel while MULTI-TIMBRE is set to ON.

- A 16-section MULTI-TIMBRE GM (General MIDI) sound source can be used since this digital piano is compatible with the international, standardized GM specification.
- During system settings in this unit (refer to p. 33) or during song mode (refer to p 53), no sound will be generated even if MIDI data is received.

3. What's a MIDI Channel?

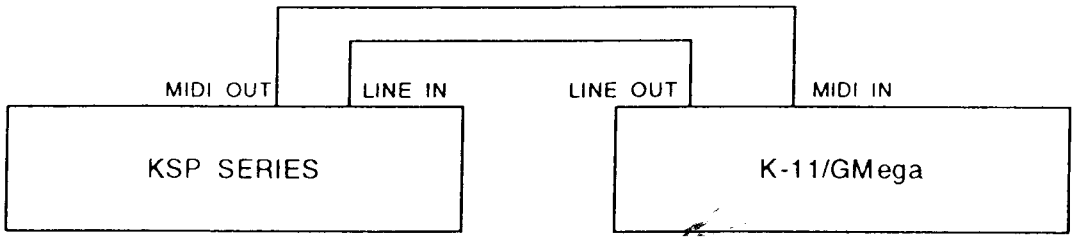
Channels are provided in MIDI for simultaneous play of several musical instruments. If the MIDI channels of the transmitting (sending) instrument and receiving instrument do not match, data cannot be exchanged. For example, if three instruments are as shown in the drawing below, and the keys of the A instrument are played, the C instrument will sound simultaneously with A, but the B instrument which is on a different channel will not make any sound.



MIDI channels can be set from 1 to 16 in this digital piano.

4. Actual MIDI Connection Example

● Connecting with a MIDI-compatible instrument
(Connection to a Kawai K-11 Digital Synthesizer/GMega Synthesizer Module)

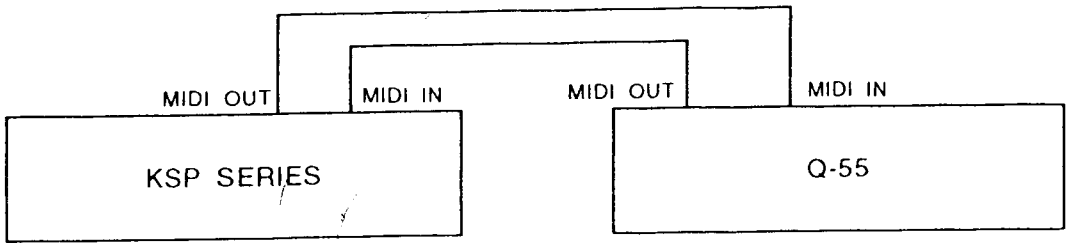


KSP Series sound + K-11/GMega sound

As shown in the above figure, note data created on the KSP series piano (when keys are pressed) is sent to the synthesizer (in this case, a K-11). In addition, the sound from the synthesizer/module can be combined with the KSP piano's sound by connecting the LINE OUT of the synthesizer/sound source to the KSP series LINE IN.
Since the sounds can be set separately, the string sound of the synthesizer/module can be added to the KSP series piano sound for a rich, combined sound. A wide variety of combination sounds can be created in this way.

Please read the respective instruction manuals for operation and handling of the K-11/GMega.

- External sequencer connections
  (Connection to a Kawai Q-55 Sequencer)



As shown in the figure, this connection allows a performance on the KSP series to be recorded on an external sequencer. If the equipment is equivalent to a Kawai Q-55 Sequencer, Q-80 or Q-80EX sequencer with floppy disk drive, the data from your performance can be stored on a floppy disk. Also, if the sequencer uses standard MIDI files as do the Q-55 and Q-80EX, the performances can be played back on a commercially available song disk (GM sound source, standard MIDI file format).

Please read the sequencer instruction manual for operation and handling procedures for the sequencer.

Regarding MIDI Auto Orchestra

When rhythm and Auto Orchestra are played on this digital piano, the MIDI accompaniment data is simultaneously sent through MIDI on the transmit channels shown in the table below:

	Part	MIDI transmit channel
Auto Orchestra	Drum/percussion	10
	Bass	3
	Chord1	4
	Chord2	5
	Chord3	7

Actual played note data is sent via MIDI on the designated system channel. (Refer to p. 44)

When the MIDI receive device is a MULTI TIMBRE GM sound source, the Auto Orchestra parts from this digital piano can be played, on that sound source.

- Moving the part volume slider of the Auto Orchestra transmits MIDI volume data through the MIDI transmit channels listed in the table above.
- When recording Auto Orchestra parts on the Q-80(EX), set the Q-80(EX) clock to INT.

Regarding Exclusive Data

In this digital piano, MIDI system exclusive data can be sent or received on the system channels. (Refer to p. 44)

TRANSMISSION OF PROGRAM CHANGES

When sound buttons are pressed, program change information is sent via MIDI as follows:

Sound Buttons	Program Change Number	
	MULTI TIMBRE - ON	MULTI TIMBRE - OFF
PIANO 1	0	0
E.PIANO	5	1
VIBES	11	2
DRAWBARS	16	3
PIPES	19	4
CHOIR	52	5
BRASS	61	6
STRINGS	49	7
SAX	65	8
HARMONICA	22	9
FLUTE	73	10
GUITAR	24	11
TONE A	Note 1	12
TONE B		13
TONE C		14
DRUMS	Note 2	15

Note 1 : Corresponds to GM sounds assigned to each button.
(Refer to the back cover page of Auto Chord Progression Chart.)

Note 2 : Corresponds to drum sets assigned to drum buttons.
(Refer to p. 43 and the back cover page of Auto Chord Progression Chart.)

With MULTI TIMBRE ON or GM ASSIGN ON, pressing the sound button sends the program change for the matching GM sound assigned to each button.

FACTORY SETTINGS

Selected tone color	piano 1
Tone button A	001 GrPiano
Tone button B	058 Trombone
Tone button C	006 Banjo
Tone button DRUMS	DR1 STANDARD
Reverb type	LARGE ROOM
Transpose	± 0
Selected rhythm pattern	POPS 1
Range select	NORMAL

SYSTEM SETTINGS

1 Touch curve	NORMAL
2 Left pedal	SOFT
3 Damper pedal	LOWER & UPPER
4 DUAL/SPLIT balance	100 : 100
5 SPLIT point	G # 3
6 Reverb depth	HI = 7 LO = 1
7 Reverb depth in each part	D, C, K = HI B = LO
8 Local control	ON
9 System tuning	± 0
10 Temperament	TYPE = 7, KEY = C
11 ALL GM Assign	OFF
12 System channel	1
13 MIDI clock	INT
14 MULTI TIMBRE	ON
15 Section mute	All channels = Receive
16 Tempo track	ON
17 Disk rhythm	—

ERROR MESSAGES

Error messages are displayed when malfunctions occur or incorrect procedures are attempted. When an error message appears, stop operation and comply with the following instructions:

No Disk!	CAUSE:	Disk is not inserted.
	ACTION:	Insert disk in disk drive.
Write Protected!	CAUSE:	The protect slot on the disk was placed in the "ON" position. (Refer to back cover page.)
	ACTION:	Set the disk protect to off.
	CAUSE:	The song is copy-protected.
	ACTION:	Discontinue attempts to copy the song.
Disk Unavailable!	CAUSE:	Procedure was attempted that can't be executed with the disk.
	ACTION:	Discontinue the procedure.
	CAUSE:	The disk or its format status may be defective.
	ACTION:	Format the disk. (Refer to p.76)
	If the disk is still unusable, replace it.	
No data!	CAUSE:	Operation was attempted on a song bank with no data.
	ACTION:	Discontinue the operation.
Disk full!	CAUSE:	The disk is full and no further data can be copied onto it.
	ACTION:	Erase unneeded data (Refer to P.62) or use another disk.
Memory Full!	CAUSE:	The song data from the standard MIDI file you attempted to playback is too large.
	ACTION:	Playback using an external recorder compatible with standard MIDI files.

WAIT, IT'S NOT BROKEN!

SYMPTOM	CAUSE	TROUBLESHOOTING
No sound, low sound	Volume is set to minimum. (min.).	Set the volume for master volume, rhythm, chord and bass to the correct levels.
	Headphones are plugged in.	Remove the headphones so that sound can come from the speakers.
	A registration in which volume was set to min. was selected.	This volume setting is cancelled when the volume is changed.
	Local control is set to OFF, UPPER OFF.	Set the Local Control to ON. (Refer to p. 40)
Rhythm/Auto Orchestra won't start.	MIDI clock is set to EXT.	Set the MIDI clock to INT. (Refer to p. 45)
Only one sound is played in DUAL mode or SPLIT mode.	Low setting for DUAL/SPLIT BALANCE.	Adjust the settings for DUAL/SPLIT BALANCE.
SYSTEM, SONG mode cannot be selected.	Has been set to another mode.	Enter each desired mode when the current mode finishes.
No sound heard, even when MIDI signal is received.	Transmit and receive MIDI channels do not match.	Set transmit and receive to the same MIDI channel.
	Errors in mute section settings were made.	Reset the section mute correctly. (Refer to p. 49)
	System mode, song mode or disk function mode was selected.	Cancel this mode.

MAIN SPECIFICATIONS

Number of keys	88 keys
Polyphonic	47 (max.)
Sound buttons (16 buttons, 129 sounds, 7 drum sets)	PIANO 1, Electric Piano, Vibraphone, Drawbar Organ, Pipe Organ, Choir, Brass, Strings, Sax, Harmonica, Flute, Guitar, Tone A (PIANO 2), Tone B, Tone C, Drums [LOWER only] Wood Bass, Fingered Bass, Fretless Bass, Pad 1, Pad 2, Pad 3
Rhythm (64 rhythms)	Pops 1 x 2, Pops 2 x 2, 8 Beat x 2, 16 Beat x 2, Rock n Roll x 2, Shuffle x 2, Blues x 2, Oldies x 2, Dance x 2, Soft Rock x 2, Boogie x 2, Showbeat x 2, Folk x 2, Bluegrass x 2, Country x 2, Country Pop x 2, Swing x 2, Dixieland x 2, New Orleans x 2, Big Band x 2, Samba x 2, Latin x 2, Jamaica x 2, Paradise x 2, Waltz x 2, European Waltz x 2, Polka x 2, March x 2, Bossanova x 2, Gospel x 2, Salsa, Mambo, Tango, Beguine.
Reverb type	Small room, large room, hall, church, cosmic, delay
Sequencer	Record/playback (100 songs x 16 tracks), fast forward, rewind, playback of standard MIDI file (format 0 & 1), sound memory of approx. 70,000 sounds
Disk drive	3.5 inch micro floppy disk drive (2DD)
Volume	Master volume, rhythm volume, bass volume, chord volume
Other functions	Auto Orchestra, Auto Melody Chord, Auto Chord Progression, DUAL, SPLIT, system settings, transpose, One Two Play, Auto FILL-IN, registration memory
Pedal	Left pedal (soft, start/stop, intro/ending, FILL-IN 1-2 assignments can be done by pedal assign function) damper pedal (upper & lower, lower, upper), Sostenuto pedal
External terminals	Headphone x 2, MIDI (IN, OUT, THRU), LINE IN (L, R), LINE OUT (L ,R), EXPRESSION
Finish	Simulated Dark Walnut
Output	40W x 2
Speaker	(23cm x 16cm) x 2, 5cm x 2 (with Speaker - Box)
Dimensions (W x D x H)	140 x 56 x 85 (cm) (with stand)
Weight	66 kg (with stand)
Accessories	Owner's manual (Basic Operation), Owner's manual (Advanced Operation), Auto Chord Progression Chart, Floppy disk , etc

• We reserve the right to make changes without notice, on part specifications related to external appearance and for purposes of product improvement.

INDEX

[KAWAI DIGITAL PIANO]

Date : Aug. 1993
Version 1.0

Model KSP30 MIDI Implementation Chart

Function		Transmit	Receive	Remarks
Basic channel	When power is ON Possible settings	1, 3, 4, 5, 10 ★1 1–16 ★2	1–16 1–16 ★3	★3 At MULTI TIMBRE ON, channels 1 - 16are set in each section.
Mode	When power is ON Message Alternative	3 × **********	3 × ×	
Note number	Sound range	9–120 **********	0–127 0–127	Piano 1...15 - 113
Velocity	Note ON Note OFF	O 9nH, V=1–127 × 9nH V=0	O ×	
After touch	Keys Channel	× ×	× O	
Pitch bender		O ★4	O	
Control change	1 6 7 10 11 64 66 67 69 91 100,101 120 121	O ★4 × O O ★4 O ★4 O O O × × × × ×	O O O O O O × O O O (LO/HI) O O O	Modulation Data entry Volume PAN Expression Hold 1 (Sustain) Sostenuto Soft pedal Hold 2 (Sustain) Effect RPN, LSB, MSB All sound off Reset all controllers
Program change	Setting range	O (0–127) **********	O (0–127) ★5 (0–127)	★5 10ch: Receive only of 0-6, 8, 16, 24, 25, 33, 40, 48
Exclusive		O	O	
Common	: Song position : Song select : Chain	× × ×	× × ×	
Real time	: Clock : Command	O O	O O	
Others	: Local ON/OFF : All Note OFF : Active sensing : Reset	× × O ×	O (Receive only of system channels) O O ×	
Remarks		★1 1 = keyboard, 3 = bass, 4 = chord 1, 5 = chord 2, 7 = chord 3, 10=drum	★2 keyboard parts only	★4 Transmit only at auto accompaniment

Mode 1 : Omni On, Poly
Mode 2 : Omni On, Mono
Mode 3 : Omni Off, Poly
Mode 4 : Omni Off, Mono

O : Function
× : None

KAWAI

Kawai Musical Instruments Manufacturing Co.,Ltd.
200 Terajima-cho, Hamamatsu, Japan

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This instrument has been certified to comply with the limits for a class B digital apparatus, pursuant to the Radio Interference Regulations, C.R.C., c. 1374.

This digital piano should be not commercial use but household use.

OW925E-L㊊応用編
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