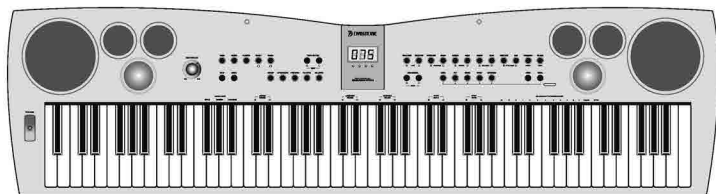
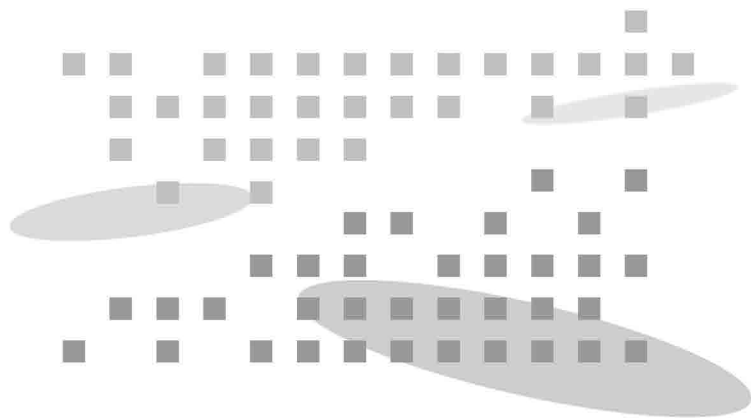




## OWNER'S MANUAL



*High-Performance*  
**STAGE PIANO DPP610**

*New feel, new look and new sound*

## PRECAUTIONS

### PLEASE READ CAREFULLY BEFORE PROCEEDING

Please keep these precautions in a safe place for future reference.



### WARNING

**Always follow the basic precautions listed below to avoid the possibility of serious injury or even death from electrical shock, short-circuiting, damages, fire or other hazards. These precautions include, but are not limited to, the following:**

- Do not open the piano or attempt to disassemble the internal parts or modify in anyway. The piano contains no user-serviceable parts. If it should appear to be malfunctioning, discontinue use immediately and have it inspected by qualified service personnel.
- Do not expose the piano to rain, use it near water or damp or wet conditions, or place containers on it containing liquids which might spill into any openings.
- If the power cord or plug becomes frayed or damaged, or if there is a sudden loss of sound during use of the piano, or if any unusual smells or smoke should appear to be caused by it, immediately turn off power switch, disconnect the electric plug from outlet, and have the inspected by qualified service personnel.
- Only use the voltage specified as correct for the piano. The required voltage is printed on the name label of the piano.
- Before cleaning the piano, always remove the electric plug from the outlet. Never insert or remove an electric plug with wet hand.
- Check the electric plug periodically and remove any dirt or dust which may have accumulated on it.



### CAUTION

**Always follow the basic precautions listed below to avoid the possibility of physical injury to you or others, damage to the piano or other property. These precautions include, but are not limited to, the following:**

- Do not place the power cord near heat sources such as heaters or radiators, and do not excessively bend or otherwise damage the cord, place heavy object on it or, place it in a position where anyone could walk on, trip over or roll anything over it.
- When removing the electric plug from the piano or an outlet, always hold the plug itself and not the cord. Pulling by the cord can damage it.
- Do not connect the piano to an electrical outlet using a multiple-connector. Doing so can result in lower sound quality, or possibly cause over-heating in the outlet.
- Remove the electric plug from the outlet when the piano is not to be used for extended periods of time, or during electrical storms.
- Before connecting the piano to other electronic components, turn off power for all components. Before turning the power on or off for all components, set all volume levels to minimum.
- Do not expose the piano to excessive dust or vibrations, or extreme cold or heat such as in direct sunlight, near heater, or in the car during the day to prevent the possibility of panel disfiguration or damage to the internal components.
- Do not use the piano near other electrical products such as televisions, radios, or speakers, since this might cause interference which can affect proper operation of other products.
- Do not place the piano in an unstable position where it might accidentally fall over.
- Before moving the piano, remove all connected cables
- When cleaning the piano, use a soft, dry cloth. Do not use paint thinners, solvent, cleaning fluids or chemical-impregnated wiping cloths. Also, do not place vinyl, plastic or rubber object on the piano, since might discover the panel or keyboard.
- Do not rest your weight or place heavy objects on the piano.
- Do not use excessive force on the buttons, switches and connectors.
- Take care that the key cover does not pinch your fingers, and do not insert a finger or hand in the key cover gap.
- Never insert or drop paper or metallic or liquids or other objects between the slits of the key cover and keyboard. If this happens, immediately turn off the power and remove electric plug from outlet and inspect by qualified service personnel.
- Do not place the piano against a wall (allow at least 3 cm/one inch from the wall), since this can cause inadequate air circulation, and possibly result in the piano overheating.
- Read carefully the 'GENERAL GUIDE' section in this manual. Failure to assemble the piano in the proper sequence might result in damage to the piano or even injury.
- Do not operate the piano for a long period of time at a high or uncomfortable volume level, since this can cause permanent hearing loss. If you experience any hearing loss or ringing the ears, consult a physician.
- During thunderstorms, turn the product off and disconnect the plug from the power.

## Welcome

Thank you and congratulations on your purchase of the **High-Performance STAGE PIANO**. Your new High-Performance STAGE PIANO delivers various specifications in compact body. Sharing much in common with high-end models, your piano offers 128-polyphony, new Advanced Real Hammer Action keyboard (ARHA), USB MIDI interface and hundreds of additional sounds and rhythm styles. Its modern and stylish design will match most home interiors. The piano's compact size will allow it to fit into many places compared to a traditional piano or large digital piano.

## Main Features

### 128 Voices

A wide selection of tones includes stereo piano and synthesized sounds, drum sets, and much more. Other features include digital effects that control the acoustical characteristic of tones.

### Auto Accompaniment

Simply play a chord and the corresponding rhythm, bass, and chord parts play along automatically.

### Registration Memory

Piano setups can be stored in memory for later recall and instant settings whenever you need them.

### Recording and Play Back

Performance recording lets you record your performances, including Auto Accompaniment, in real time.

### USB port

A USB port provides quick and easy connection to a computer.

### Powerful Stereo 15W + 15W amplifier with 6 Speakers

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## Unpacking

Carefully remove the Digital Piano and its accessories from the packing box. The Digital Piano set consists of the following items.

Main Unit



Music Stand



Non-Slip Pedal



AC Adapter



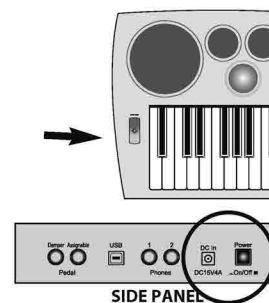
Owner's Manual



☞ Inspect each item carefully to make sure that it is in good condition. If you find any item missing or damaged, contact the place of purchase immediately for replacement.

## General Guide

### Turning ON the Power



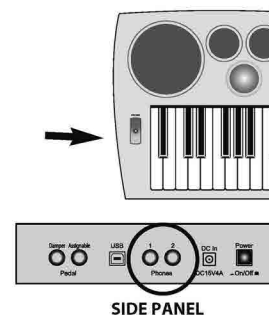
② Connecting the AC adapter. First insert the DC plug of AC Adapter into DC In connector on the piano then plug a AC plug of AC adapter into the proper AC outlet on the wall.

③ Press **POWER** switch. The power is turned on and the initial display appears in the **Multi Function Display**. The voice of Grand Piano is selected automatically at first.

☞ Adjust the volume by using **MASTER VOLUME**.

Press **POWER** switch again when turning off the power. All lamps and LED display will turn off.

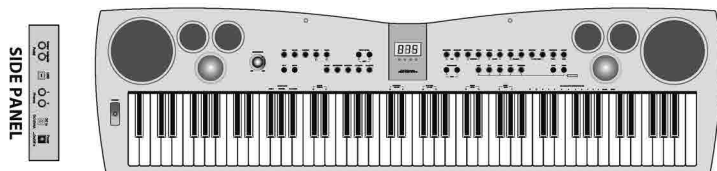
### Headphone



Connect a set of stereo headphones(optional) to **HEADPHONE jack** (standard 1/4" phone jacks). Insert the headphone plug into the **HEADPHONE jack** on the bottom panel of the piano. When headphones are connected, the internal speaker system is automatically shut off.

Since the piano has two **HEADPHONE jacks**, two sets of headphones can be used simultaneously, allowing two people to enjoy listening to the performance.

## Connecting Your Computer (USB Terminal)



By connecting a computer to the USB, you can transfer data between the instrument and the computer via MIDI, and take advantage of sophisticated computer music programs. Keep in mind that you also need to install an appropriate USB MIDI driver. The instructions below explain how to connect and use the terminals.

### CAUTION

This instrument cannot be connected with both USB terminal and MIDI Terminals.

### CAUTION - Precautions when using the USB terminal.

When connecting the computer to the USB terminal, make sure to observe the following points. Failing to do so risks freezing the computer and corrupting or losing data. If the computer or the instrument freezes, turn the power to the instrument off and restart the computer.

Before connecting the computer to the USB terminal, exit from any power-saving mode of the computer (such as suspended, sleep, standby), and quit any open application software, also turns off the power to the instrument. Execute the following before turning the power to the instrument off or unplugging the USB cable to/from the instrument/computer.

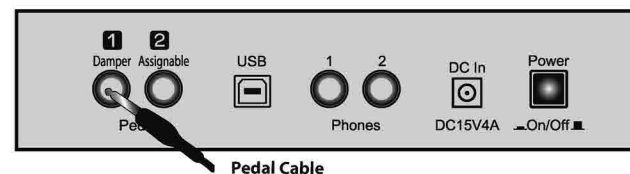
- Quit any open application software on the computer.
- Make sure that data is not being transmitted from the instrument. (Data is transmitted only by playing notes on the keyboard or playing back a song.)
- While a USB device is connected to the instrument, you should wait for six seconds or more between these operations: When turning the power of the instrument off then on again, or when alternately connecting/disconnecting the USB cable.

### Local Control On/Off

Press and hold down the **KEYPAD** button and press **Right (C8) key of keyboards**.

Under Local control off, the piano doesn't make any sound without PC connection(USB or MIDI).

## Pedal Connector



### 1 DAMPER PEDAL CONNECTOR

With piano tones, depressing the pedal causes notes to linger, much like a piano's damper pedal. With organ tones, depressing the pedal causes notes to continue to sound until the pedal is released.

### 2 ASSIGNABLE PEDAL CONNECTOR

This pedal connector can be assigned to one of following functions. (see the **PEDAL** section on page 21)

#### 1) Sustain Pedal

With piano tones, depressing the pedal causes notes to linger, much like a piano's damper pedal.

#### 2) Soft Pedal (Default)

Depressing the pedal softens the sound of the notes being played.

#### 3) Sostenuato Pedal

As with the sustain pedal function described above, depressing the sostenuto pedal causes notes to be sustained. This difference between a sostenuto pedal and sustain pedal is the timing. With a sostenuto pedal, you press the keys and then depress the pedal before you release the keys. Only the notes that are sounding when the pedal is depressed are sustained.

#### 4) Rhythm Fill1/Synchro Start Pedal

In this case, the pedal performs the same function as the **Fill1/Synchro** button.

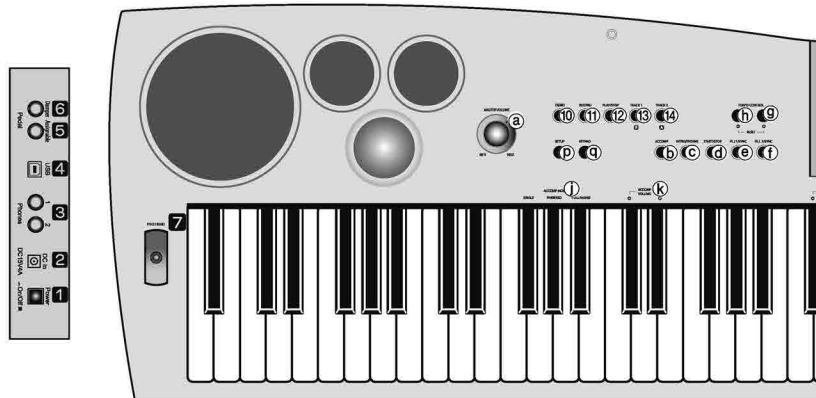
#### 5) Rhythm Fill2/Synchro Start Pedal

In this case, the pedal performs the same function as the **Fill2/Synchro** button.

#### 6) Rhythm Start/Stop Pedal

In this case, the pedal performs the same function as the **Start/Stop** button.

## Panel Controls and Terminals



### VOLUME SECTION

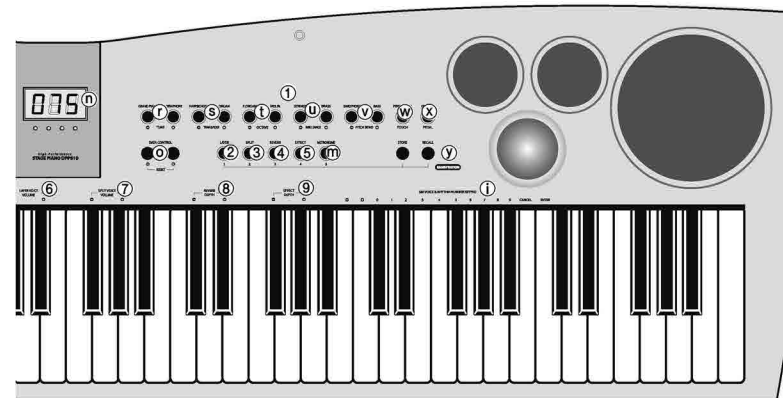
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## Basic Operation

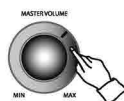
### Adjusting the Volume

The piano has one volume knob on the panel for adjusting the volume.

#### MASTER VOLUME

This determines the entire volume of the piano.

☞ This also determines the volume level of the **HEADPHONE(s)**.



### Selecting Voices

The piano features a wealth of rich, authentic voices, including piano, strings and brass instruments. It also features a keyboard percussion function that lets you play realistic drum, percussion sounds, and various effect sounds directly from keyboard.

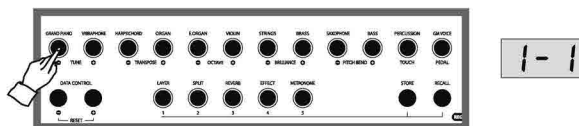
#### Voice Types

- ☞ 50 Sounds and GM 128 Voice Sounds
- ☞ 3 Drum kits
- ☞ 2 Sound Effect sets

The voices of the piano are assigned to 50 voices select buttons. Each button is assigned to an upper voice and lower voice.

#### 1 Select a Voice.

Select the desired voice by pressing the appropriate **VOICE** button.



☞ Piano has total 11 voice groups and each voice group has 5 voices.

☞ When pressing a **VOICE** button, the lamp in the LED display flashes for 3 seconds and the pop-up display shows the location of the selected voice as follows.

- **Left digit of the pop-up display** lets you know the location of the selected voice button: 1~9, A, b.
- **Right digit of the pop-up display** lets you know the location of the voice of the selected button: 1 ~ 5.

☞ After selecting a voice, while the lamp is flashing, you can select one of five voice of the selected voice group by pressing the **VOICE** button. Also, the voice can be selected by pressing **DATA UP** and **DOWN** buttons.

#### ☞ POP-UP Display

The pop-up display returns to the previous display after 3 seconds.

#### ☞ Backing Up the Selected Voice.

The last selected voice in each button will be retained in memory.

#### VOICE LIST

Grand Piano	Vibra-phone	Harp-si-chord	Organ	E.Organ	Violin	Strings	Brass	Saxo- phone	Bass	Per- cussion
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8	Group 9	Group A	Group b
G. Piano 1	Vibraphone	Harp-sichord	Pipe Organ	E. Organ 1	Violin	Strings 1	Brass	Tenor Sax	Acst. Bass	Drum 1
G. Piano 2	Marimba	Clavi	Reed Organ	E. Organ 2	Viola	Strings 2	SynthBrass1	Alto Sax	Finger Bass	Drum 2
G. Piano 3	Xylophone	Celesta	Accordion	E. Organ 3	Cello	Voice 3	SynthBrass2	Oboe	Pick Bass	Drum 3
E. Piano 1	Tubular Bell	Glocken	Harmonica	Voice Oohs	Clarinet	SynthStr. 1	Trumpet	English Horn	SynthBass 1	SFX 1
E. Piano 2	Dulcimer	MusicBox	Ban-don-ion	SynthVoice	Flute	SynthStr. 2	Trombone	Bassoon	SynthBass 2	SFX 2

#### 2 Play the selected voice.

Adjust the volume by using **MASTER VOLUME** and play the piano with the selected voice.

### GM Voice

There are 128 different voices in the piano. When the **GM VOICE** button is selected, one of 128 GM voices can be assigned

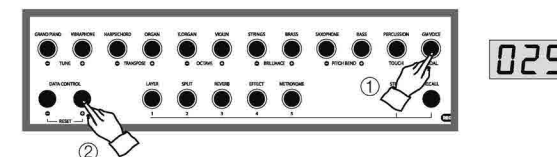
#### CHANGING GM VOICE BY DATA BUTTONS.

##### 1 Press the GM VOICE button.

The Pop-up display shows you the current selected voice number.

☞ Default GM voice: 025 Guitar

##### 2 Select the desired voice by pressing the DATA buttons.



- ☞ Instead of the **DATA** buttons, you can change the GM voice by using GM number keys and GM voice button.
- ☞ See the **GM VOICE TABLE** on page 34 in this manual.

## CHANGING GM VOICE BY GM NUMBER KEYS.

Instead of the **DATA** buttons, you can change the GM voice by using GM number keys.

### 1 Press and hold down the GM VOICE button.

The Pop-up display shows you the current selected voice number.

### 2 Press GM number keys and Enter key.

⇨ See the **GM VOICE TABLE** on page 34 in this manual.

⇨ **Backing Up the Selected Voice.**

The last selected voice in each button will be retained in memory.

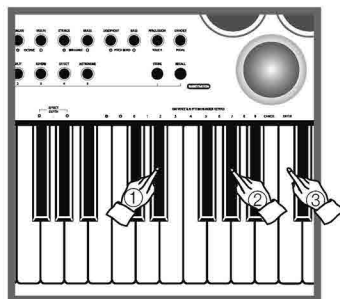
#### ⇨ EXAMPLE

If you want to choose **JAZZ GUITAR (No. 27)**,

1) Press and hold down the **GM VOICE** button.

2) Press GM number 2 (D#), 7 (G#) and Enter key.

Piano shows 027 in the pop up display and makes bell sound.



## Layer

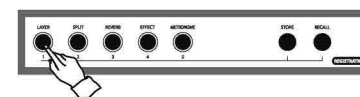
The Layer mode of the piano allows you to select and play two different voices simultaneously in a layer. This makes it easy to create exceptionally rich and thick tonal textures. The volume balance can be set for the two voices.

### 1 Select the main voice.

Select a voice in the normal way. (see the **SELECTING VOICE** section on page 11)

### 2 Call up the Layer mode.

To call up the layer mode, press the **LAYER** button. Lamp lights and the layer is set on.



7-1

⇨ The default Layer Voice is the **7-1 STRINGS** in the Layer mode.

### 3 Select the layered voice.

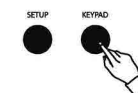
Select a voice in the normal way. (see the **SELECTING VOICE** section on page 11)

## Adjusting the Layer Volume

This determines the volume of the Layered voice.

### 1 Call up the KEYPAD SETUP mode.

Press and hold down the **KEYPAD** button. The Keypad pop-up appears in the LED display.



### 2 Adjust the Layer Volume.

Adjust the Layer Volume by using the **LAYER VOLUME UP** and **DOWN** keys.

070

- ⇨ If you press both Volume UP and DOWN Keys at the same time automatically return to the default Layer Volume(70).
- ⇨ The range of volume is 0 ~ 100.
- ⇨ Hold the button for continuous decrementing or incrementing.



### 3 Return to Play mode.

Release the **KEYPAD** button.



## Split

The Split mode of the piano allows you to select and play two different voices with your left and right hands - For example, play bass with the left and piano with the right.

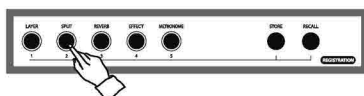
### PLAYING WITH SPLIT VOICE

#### 1 Select the main voice.

Select a voice in the normal way. (see the **SELECTING VOICE** section on page 11)

#### 2 Call up the Split mode.

To call up the layer mode, press the **SPLIT** button. Lamp lights and the split is set on.



A-1

⇒ The default Split Voice is the **A-1 ACOUSTIC BASS** in the split mode.

#### 3 Select the split voice.

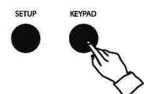
Select a voice in the normal way. (see the **SELECTING VOICE** section on page 11)

### Adjusting the Split Volume

This determines the volume of the split voice.

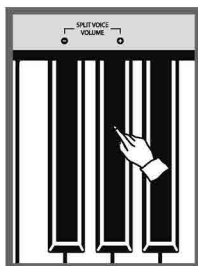
#### 1 Call up the KEYPAD SETUP mode.

Press and hold down the **KEYPAD** button. The Keypad pop-up appears in the LED display.



#### 2 Adjust the Split Volume.

Adjust the Split Volume by using the **SPLIT VOLUME UP** and **DOWN** keys.



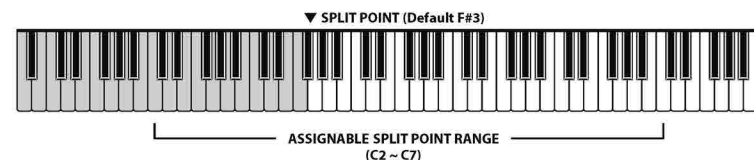
- ⇒ If you press both **Volume UP** and **DOWN** Keys at the same time automatically return to the default Split Volume(80).
- ⇒ The range of volume is 0 ~ 100.
- ⇒ Hold the button for continuous decrementing or incrementing.

#### 3 Return to Play mode.

Release the **KEYPAD** button.

## Changing the Split Point

To assign new split point, hold down the **SPLIT** button and press a key. (Default F3#)

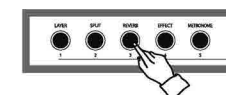


## Reverb

Reverb is an effect that recreates the decaying reflections of a sound in a performance space, and reproduces the special ambience of a concert hall.

### REVERB ON/OFF

To turn on reverb, press the **REVERB** button. The lamp lights and reverb is set ON.

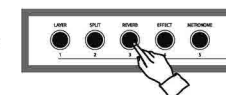
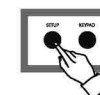


To turn off reverb, press the **REVERB** button again. The lamp turns off and reverb is no longer active.

### SELECTING REVERB TYPE

Press and hold down the **SETUP** button and press the **REVERB** button.

r-2



- ⇒ The Reverb type pop-up display appears and shows current reverb type.
- ⇒ Press the button again, the reverb type is changed.
- ⇒ There are 8 Reverb types in the piano. **r-1**: ROOM, **r-2**: ROOM 2 (Default), **r-3**: ROOM 3, **r-4**: HALL 1, **r-5**: HALL 2, **r-6**: PLATE, **r-7**: DELAY, **r-8**: PAN DELAY

### ADJUSTING THE REVERB DEPTH

This determines the depth of the reverb.

#### 1 Call up the KEYPAD SETUP mode.

Press and hold down the **KEYPAD** button. The Keypad pop-up appears in the LED display

#### 2 Adjust the Reverb Depth.

Adjust the Reverb Depth by using the **REVERB DEPTH UP** and **DOWN** keys.

- ⇒ If you press both **UP** and **DOWN** Keys at the same time automatically return to the default Reverb Depth (50).
- ⇒ The range of volume is 0 ~ 100.
- ⇒ Hold the key for continuous decrementing or incrementing.

#### 3 Return to Play mode.

Release the **KEYPAD** button.

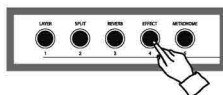
## Effect

This control adds richness to the sound. There are 8 different Effect types: Chorus 1, 2, 3, 4, Feedback, Flanger Short delay and Feedback Delay.

### EFFECT ON/OFF

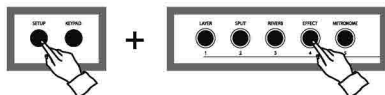
To turn on effect, press the **EFFECT** button. The lamp lights and effect is set ON.

To turn off reverb, press the **EFFECT** button again. The lamp turns off and effect is no longer active.



### SELECTING EFFECT TYPE

Press and hold down the **SETUP** button and press the **EFFECT** button.



- ✎ The EFFECT type pop-up display appears and shows current effect type.
- ✎ Press the button again, the effect type is changed.
- ✎ There are 8 effect types in the piano.

**C-1**: CHORUS 1, **C-2**: CHORUS 2, **C-3**: CHORUS 3 (Default), **C-4**: CHORUS 4, **C-5**: FEEDBACK, **C-6**: FLANGER, **C-7**: SHORT DELAY, **C-8**: FEEDBACK DELAY

### ADJUSTING THE EFFECT DEPTH

This determines the depth of the effect.

#### 1 Call up the KEYPAD SETUP mode.

Press and hold down the **KEYPAD** button. The Keypad pop-up appears in the LED display

#### 2 Adjust the Effect Depth.

Adjust the Effect Depth by using the **EFFECT DEPTH UP** and **DOWN** keys.

- ✎ If you press both **UP** and **DOWN** Keys at the same time automatically return to the default Effect Depth (70).
- ✎ The range of volume is 0 ~ 100.
- ✎ Hold the key for continuous decrementing or incrementing.

#### 3 Return to Play mode.

Release the **KEYPAD** button.

## Using the Metronome

The piano features a convenient metronome that is ideal for practicing.



### START/STOP OF THE METRONOME

To start the metronome, simply press the **METRONOME** button.

Press the **METRONOME** button again to stop the metronome sound.

### ADJUSTING THE TEMPO OF THE METRONOME

You can set the tempo over range 40 ~ 250 beats per minute by using the **TEMPO** buttons.

- ✎ Hold the button for continuous decrementing or incrementing.
- ✎ If you press both **UP** and **DOWN** Keys at the same time automatically return to the default Tempo (♩ = 128).

### SELECTING THE BEAT

Press and hold down the **SETUP** button and press the **METRONOME** button.

- ✎ The Metronome Beat pop-up display appears and shows current beat of the metronome.
- ✎ Press the button again, the beat is changed.
- ✎ Beat Range: 1 ~ 9

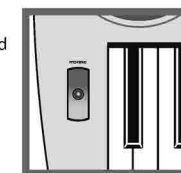
## Using the PITCH BEND Wheel

As its name suggests, the PITCH BEND wheel lets you "bend" the pitch of a sound. This makes it possible to add a touch of realism to saxophone and other tones.

### TO USE THE PITCH BEND WHEEL

While holding down a keyboard key with your right hand, use your left hand to rotate the PITCH BEND wheel up and down.

Releasing the PITCH BEND wheel returns the note to its original pitch.



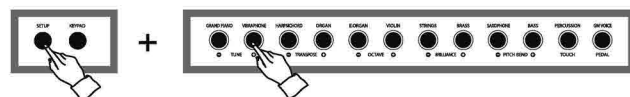
- ✎ With saxophone and electrical guitar tones, the most realistic sounding effects can be produced if you play notes and operate the PITCH BEND wheel simultaneously.
- ✎ See the **PITCH BEND RANGE** section on page 20. (Default: 2 semitones) to change the bend range of the **PITCH BEND wheel**.
- ✎ Never turn on keyboard power while the PITCH BEND wheel is rotated.
- ✎ The **PITCH BEND Wheel** works for main and layered voice.

# Setup

## Tune

The Tune function lets you make fine adjustments to the pitch, allowing you to accurately match the tuning with that of other instruments.

Press and hold down the **SETUP** button and press the **TUNE UP** or **DOWN** button.

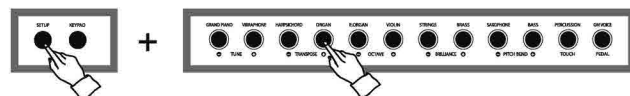


- ✎ The Tune pop-up display appears and shows current value.
- ✎ The value can be changed by pressing **TUNE UP** and **DOWN** buttons.
- ✎ If you press both **UP** and **DOWN** buttons at the same time automatically return to the default value.
- ✎ **Range**: A3 440Hz  $\pm$  100 cents (Default 00)
- ✎ **Hz(Hertz)**  
The pitch is measured in units of Hertz (abbreviated Hz), which represents the number of times the sound wave vibrates in a second.
- ✎ **Cent**: Cent is unit of pitch, equal to 1/100 of a semitone.
- ✎ **Backing Up adjusted value**. The last adjusted value of each Function can be retained in memory.

## Transpose

The TRANSPOSE function makes it's possible to shift the pitch of the keyboard in semitone units, allowing you to match the pitch of the keyboard to the range of other instruments or singers, or letting you easily play in a different key without having to change your fingering. For example, if the TRANSPOSE is set F key, playing C results in a pitch of F, or in other words, you can play in the key of C major on the keyboard and automatically have the pitch transposed to F major.

Press and hold down the **SETUP** button and press the **TRANSPOSE UP** or **DOWN** button.

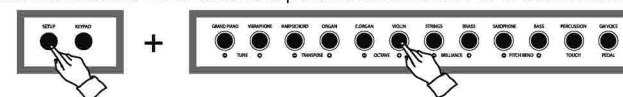


- ✎ The Transpose pop-up display appears and shows current value.
- ✎ The value can be changed by pressing **TRANSPOSE UP** and **DOWN** buttons.
- ✎ If you press both **UP** and **DOWN** buttons at the same time automatically return to the default value.
- ✎ **Range**: -12 semitone  $\sim$  0  $\sim$  12 semitone (Default 00)
- ✎ **Backing Up adjusted value**. The last adjusted value of each Function can be retained in memory.

## Octave Shift

The OCTAVE SHIFT function makes it's possible to shift the octave of the keyboard, allowing you to match the octave of the keyboard to the range of other instruments.

Press and hold down the **SETUP** button and press the **OCTAVE SHIFT UP** or **DOWN** button.



- ✎ The Octave shift pop-up display appears and shows current value.
- ✎ The value can be changed by pressing **OCTAVE UP** and **DOWN** buttons.
- ✎ This function works for only main voice.
- ✎ If you press both **UP** and **DOWN** buttons at the same time automatically return to the default value.
- ✎ **Range**: -1  $\sim$  0  $\sim$  +1 octave (Default 0)
- ✎ **Backing Up adjusted value**. The last adjusted value of each Function can be retained in memory.

## Brilliance

The sound timbre can be adjusted by using the BRILLIANCE function.

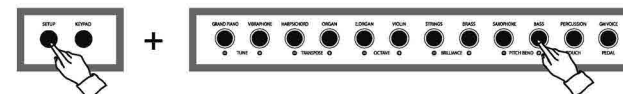
Press and hold down the **SETUP** button and press the **BRILLIANCE UP** or **DOWN** button.



- ✎ The Brilliance pop-up display appears and shows current value.
- ✎ The value can be changed by pressing **BRILLIANCE UP** and **DOWN** buttons.
- ✎ The default value is 00, which is normal brilliance.
- ✎ Whenever press both **BRILLIANCE UP** and **DOWN** buttons, default value '00' is set automatically.
- ✎ If the brilliance is low, the piano makes dark sound and If it is high, the piano makes bright sound.
- ✎ **Backing Up adjusted value**. The last adjusted value of each Function can be retained in memory.

## Pitch Bend Range

Specified the maximum change in a tone that can be applied using the PITCH BEND wheel. Press and hold down the **SETUP** button and press the **PITCH BEND UP** or **DOWN** button

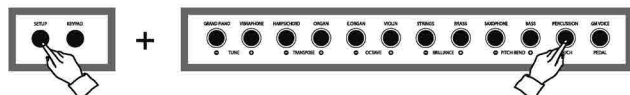


- ✎ The Pitch bend pop-up display appears and shows current value.
- ✎ The value can be changed by pressing **PITCH BEND UP** and **DOWN** buttons.
- ✎ The default value is 2, which is 2 semitones. The setting range is 00(no change) to 12 (12 semitone)
- ✎ Whenever press both **PITCH BEND UP** and **DOWN** buttons, default value '2' is set automatically.
- ✎ **Backing Up adjusted value**. The last adjusted value of each Function can be retained in memory.

## Touch

Touch determines how your playing strength (velocity) affects the volume of the voices. 10 types are available for tailoring the keyboard response to the selected voice, type of song, or your own playing preference.

Press and hold down the **SETUP** button and press the **TOUCH** button.



DISPLAY	TYPE	DESCRIPTION
1	SOFT 1	These settings let you produce a relatively loud sound even when playing the key softly.
2	SOFT 2	
3	SOFT 3	
4	NORMAL 1	These settings are standard keyboard response and the <b>NORMAL 2</b> is used as the basic setting.
5	NORMAL 2	
6	NORMAL 3	
7	HARD 1	These settings require you to play the keys quite strongly to produce maximum loudness.
8	HARD 2	
9	HARD 3	
oFF	FIXED	These settings produce the same degree of loudness, no matter how strongly or softly you play the keys.

- ⇨ The Touch pop-up display appears and shows current touch value.
- ⇨ Press the button again, the value is changed.

## Pedal

One of 6 pedal-functions can be assigned to the assignable pedal.

Press and hold down the **SETUP** button and press the **PEDAL** button.



- ⇨ The Pedal pop-up display appears and shows current touch value.
- ⇨ Press the button again, the value is changed.
- ⇨ **Assignable 6 pedal functions.** (see the **CONNECTING PEDAL** section on page 8.)

DISPLAY	PEDAL FUNCTION	DISPLAY	PEDAL FUNCTION
1	Damper	4	Rhythm Fill1/Synchro Start
2	Soft (Default)	5	Rhythm Fill2/Synchro Start
3	Sostenuto	6	Rhythm Start/Stop

## Auto - Accompaniment

This keyboard automatically plays bass and chord parts in accordance with the chords you finger. The bass and chord parts are played using sounds and voices that are automatically selected to select the rhythm you are using. All of this means that you get full, realistic accompaniments for the melody notes you play with your right hand, creating the mood of a one-person ensemble.

### Selecting a Rhythm

This keyboard provides you with 80 exciting rhythms that you can select using the following procedure.

#### 1 Call up the KEYPAD SETUP mode.

Press and hold down the **KEYPAD** button. The Keypad pop-up appears in the LED display.

#### 2 Select the desired Rhythm

Press the **RHYTHM NUMBER** key(s) and **ENTER** key. Also, you can use **UP(+)** and **DOWN(-)** keys instead of the Number keys.

- ⇨ Whatever you select a rhythm number, you should press the ENTER key for selecting rhythm.
- ⇨ If you press both **UP(+)** and **DOWN(-)** Keys at the same time automatically return to the default Rhythm Pop 1 (1).
- ⇨ Hold the **UP(+)** (or **DOWN(-)**) Keys for continuous decrementing or incrementing.

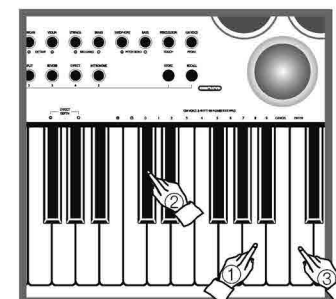
#### [EXAMPLE]

If you want to choose **MAKARENA (No. 80)**,

- 1) Press and hold down the **GM VOICE** button.
- 2) Press number 8 (A), 0(C#) and Enter(C) key.

Piano shows 80 in the pop up display and makes bell sound.

- ⇨ **POP-UP Display**  
The pop-up display returns to the previous display after 3 seconds.



### Rhythm List

No.	Rhythm	No.	Rhythm	No.	Rhythm	No.	Rhythm	No.	Rhythm
01	Pop 1	17	Hip Hop	33	Slow Rock 1	49	Latin 1	65	Waltz 1
02	Pop 2	18	House	34	Slow Rock 2	50	Latin 2	66	Waltz 2
03	Pop 3	19	Dance 1	35	Funk 1	51	Latin 3	67	Waltz 3
04	Pop 4	20	Dance 2	36	Funk 2	52	Latin 4	68	Waltz 4
05	Pop 5	21	Dance 3	37	Funk 3	53	Samba	69	Polka
06	Pop 6	22	Dance 4	38	Motown 1	54	Salsa 1	70	March 1
07	Pop 7	23	Dance 5	39	Motown 2	55	Salsa 2	71	March 2
08	Pop 8	24	Dance 6	40	New Age	56	Raggae	72	Classic
09	Ballad 1	25	Rock 1	41	Jazz 1	57	Bossanova 1	73	Country 1
10	Ballad 2	26	Rock 2	42	Jazz 2	58	Bossanova 2	74	Country 2
11	Ballad 3	27	Rock 3	43	Jazz 3	59	Bossanova 3	75	Bluegrass
12	Ballad 4	28	Rock 4	44	Jazz 4	60	Rhumba	76	Country Rock
13	Rhythm & Blues	29	Boogie	45	Blues 1	61	Tango 1	77	Fork
14	Gospel	30	Shuffle 1	46	Blues 2	62	Tango 2	78	Fork Rock 1
15	Soul 1	31	Shuffle 2	47	Swing 1	63	Cha Cha	79	Fork Rock 2
16	Soul 2	32	Shuffle 3	48	Swing 2	64	Beguine	80	Makarena

## Tempo Control Adjustment

Whenever you select a different style, the preset tempo for that style is also selected, and the tempo is shown in the Multi Function display after **STYLE SELECT** Pop-up display. (Unless you try changing the style during playback, in which case the same tempo is maintained.)

Press the **TEMPO** buttons. ( You can show current tempo in the Multi Function Display.)

- ⇒ You can press either **TEMPO UP** or **DOWN** button briefly to decrement or increment the tempo value by one, hold the button for continuous decrementing or incrementing.
- ⇒ **Tempo** (Range: 40 ~ 250, Default setting: Differs depending on the style.)
- ⇒ **Restoring the default Style Tempo**  
You can restore the preset tempo for the selected Style at anytime by simultaneously pressing both **TEMPO UP** and **DOWN** buttons.

## Adjusting Accompaniment Volume

### 1 Call up the KEYPAD SETUP mode.

Press and hold down the **KEYPAD** button. The Keypad pop-up appears in the LED display.



### 2 Adjust the Accompaniment Volume.

Adjust the Accompaniment Volume by using the **ACCOMP VOLUME UP** and **DOWN** keys .



- ⇒ If you press both **Volume UP** and **DOWN** Keys at the same time automatically return to the default Accompaniment Volume(90).
- ⇒ The range of volume is 0 ~ 100.
- ⇒ Hold the button for continuous decrementing or incrementing.



## Starting the Rhythm



There are 3 ways to start the rhythm style, as described.

### 1 Straight Start

Press the **START/STOP** button. The lamp will flash and the rhythm will start.

### 2 Synchronized Start

This method lets you start the style by playing a note or chord on the keyboard.

To use this, press the **FILL1/SYNCH** or **FILL2/SYNCH** button.

The **START/STOP** lamp flashes in time with selected tempo, indicating that Synchronized Start is in stand-by. Press a key in the split keyboard(left hand), the rhythm starts.

To cancel Synchronized Start, press the **FILL1/SYNCH** or **FILL2/SYNCH** button again so the lamp turns off.

### 3 Start with an introduction

First press the **INTRO/ENDING** button, then the **START/STOP** button. The style starts with Intro pattern. After playing Intro pattern, Main loop 1 or 2 starts.

You can start the style by using the **FILL/SYNCH** button. (see above **SYNCHRONIZED START** section.)

- ⇒ The **INTRO** lamp turns off when the pattern changes from Intro to Main Loop.

## Main Loops

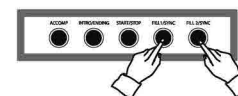
Each of the styles has two main loops. The lamp of the currently selected pattern lights.

Main loop1(FILL1) is basic pattern of the style and Main loop2(FILL2) is a variation of Main loop 1.

Judicious switching between FILL 1 and FILL 2 patterns within a song can add variety and make the overall rhythm more interesting.

After playing the Fill 1, the main loop 1 plays and after the Fill 2, the main loop2(variation) always starts.

## Fill-in



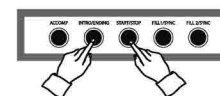
Press the **FILL 1/SYNCH** or **FILL 2/SYNCH** button during playback of the style. The lamp of the flashes and the Fill-in pattern plays automatically.

After automatic playback of the Fill-in, the rhythm pattern will changes as described:

- ⇒ When Main loop 1 is playing back and the **FILL 1/SYNCH** is pressed, go to Main loop 1 after fill-in.
- ⇒ When Main loop 2 is playing back and the **FILL 1/SYNCH** is pressed, go to Main loop 1 after fill-in.
- ⇒ When Main loop 1 is playing back and the **FILL 2/SYNCH** is pressed, go to Main loop 2 after fill-in.
- ⇒ When Main loop 2 is playing back and the **FILL 2/SYNCH** is pressed, go to Main loop 2 after fill-in.

## Stopping the Rhythm

There are 2 ways to start the rhythm style, as described.



### 1 Straight Start

To stop style playback, press the **START/STOP** button

### 2 Stop with an ending.

To playback an ending pattern before stopping, press the **INTRO/ENDING** button during playback of the style.

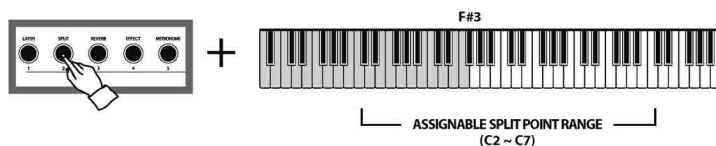
- ⇒ When pressing the **FILL 1/SYNCH** or **FILL 2/SYNCH** button during playback of the ending pattern, playback of the ending pattern is canceled and the main loop starts after playback of the Fill-in.

## Changing the Split Point

Right range and left range for Auto Accompaniment can be divided at any keys.  
To assign new split point, hold down the **SPLIT** button and press a key. (Default F#3)

### SPLIT POINT

When Single Finger or Fingered is selected the keyboard is automatically divided into left and right sections. You must use the left section to play the chords and the right section to play the melody.



## Types of Auto Accompaniment mode

### Single Finger

The Single Finger method makes it easy to produce accompaniment using major, minor, seventh and minor seventh chords by pressing certain key (according to simple rules) in the left range of the keyboard (lower than split point). (see the **SINGLE FINGER** section on page 26)

### Fingered

The Fingered method lets you produce automatic accompaniment by playing full chords in the left range of the keyboard (lower than split point). (see the **FINGERED** section on page 27)

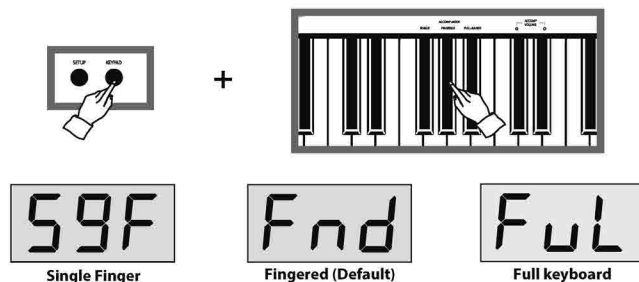
### Full Keyboard

Full keyboard automatically produces appropriate automatic accompaniment for virtually anything you play on the keyboard, in any range. (see the **FULL KEYBOARD** section on page 27)

## Setup of an Auto Accompaniment mode

To set an Auto Accompaniment mode, press and hold the **KEYPAD** button and press a desired auto accompaniment key.

The multi function display shows the selected auto accompaniment mode.



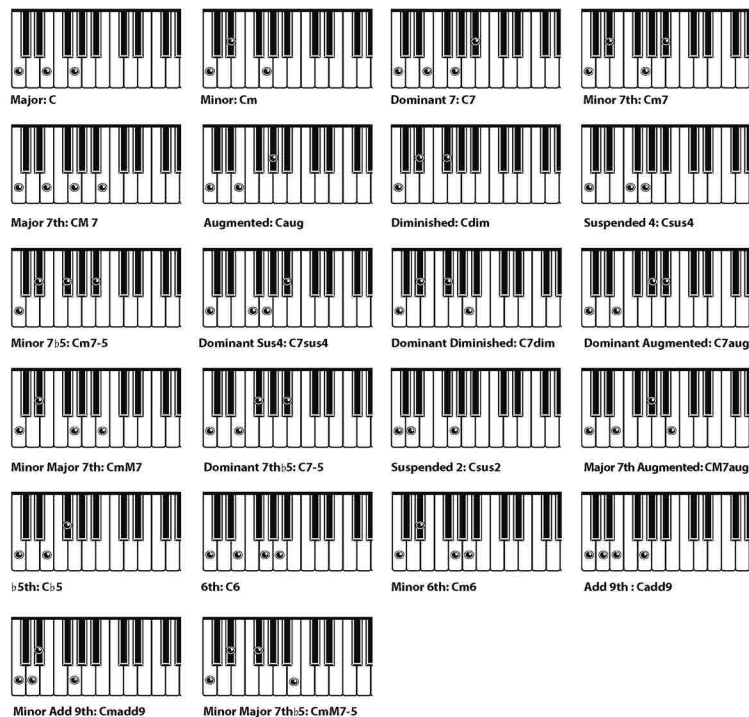
## Single Finger

To play Auto Accompaniment to the selected style, press one, two, three or four keys in the left range (below and including the split point), following the rules described below.

CHORD		EXAMPLE
<b>MAJOR</b> Pressing just one key produces a full major chord corresponding to that note.	C	
<b>MINOR</b> Simultaneously pressing any key to the right of that note results in a full minor chord.	Cm	
<b>SEVENTH</b> Similarly, pressing one more key to the right (three keys in all) produces a full 7th chord.	C7	
<b>MINOR SEVENTH</b> Pressing a fourth key to the right (four keys in all) creates a full minor seventh chord.	Cm7	

## Fingered

Allows you to play a complete style arrangement when you play three or four fingered chords in the left range of the keyboard split.



## Full Keyboard

When the Full Keyboard mode is selected, the piano will automatically creates appropriate accompaniment while you play just about anything using both hands, anywhere on the keyboard. You don't have to worry about specifying the accompaniment chords. The name of the detected chord will appear in the display. (Although Full keyboard is designed to work with many songs, some arrangements may not be suitable for use with this feature.)

## Using the Auto Accompaniment

The following procedure describes how to use the keyboard's Auto Accompaniment feature. Before starting, you should first select the rhythm you want to use and set the tempo of the rhythm to the value you want.

### 1 Select a Rhythm Style.

Select the desired rhythm. (see the **SELECTING A RHYTHM** section on page 22)

### 2 Set the Tempo.

Set the desired tempo. (see the **TEMPO CONTROL ADJUSTMENT** section on page 23)

### 3 Set the Auto Accompaniment function to ON.

To do this, press the **AUTO ACCOMP** button. The lamp lights.

⇨ Press the **AUTO ACCOMP** button again to turn off the lamp and set Auto Accompaniment to off.



### 4 Set an Auto Accompaniment mode

To set an Auto Accompaniment mode, press and hold the **KEYPAD** button and press a desired auto accompaniment key.



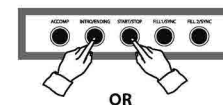
### 5 Start the Auto Accompaniment

To start Auto accompaniment, press the **START/STOP** button. Alternately, press the **FILL1/SYNC** or **FILL2/SYNC** button, then play the keyboard.

Also it can start with introduction pattern. (see the **STARTING THE RHYTHM** section on page 23)

### 6 Stop the Auto Accompaniment

Press the **START/STOP** or **INTRO/ENDING** button (see the **STOPPING THE RHYTHM** section on page 24)



## Recording

The piano features comprehensive song recording functions that allow you to record your own performance.

### Recording Music



#### 1 Select Record mode.

Select the desired voice and press the **RECORD** button. Then, the **RECORD** lamp lights and the **TRACK 1** lamp flashes.

Auto Accompaniment styles can be recorded into the **TRACK1**. You can also use the **LAYER** and the **SPLIT** functions while you record a song.

#### 2 Start recording to the Track1.

Recording starts when playing the keyboard or pressing the **PLAY/STOP** button.

#### 3 Stop recording to the Track1.

Recording stops when pressing the **PLAY/STOP** button again. Flash of the track 1 lamp stops and the lamp turns on.

When pressing the **PLAY/STOP** button, playback of the recorded song in the track1 starts.

#### 4 Start recording to Track2.

To prepare recording track 2, press the **Track2** button. The lamp flashes. It's available to record the second part of the song to the Track2.

Recording starts when playing the keyboard or pressing the **PLAY/STOP** button.

⇒ If you don't want to hear the recorded song in the Track1, press the **TRACK1** button, the track1 lamp is turned off and playback of the track 1 doesn't start.

#### 5 Stop recording.

Recording stops when pressing the **PLAY/STOP** button.

#### 6 Playback the recorded song.

Press the **PLAY/STOP** button again. The recorded song is played.

⇒ To delete the recorded track, press and hold the **TRACK** button for about 2~3 seconds.

⇒ To delete the recorded song, press and hold the **RECORD** button for about 2~3 seconds.

⇒ **Backing Up the recorded song.** Even if the power is turned off, the recorded song memory will not be deleted.

#### 7 Return to the normal mode.

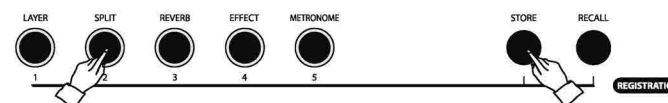
Press the **RECORD** button. The Record lamp is turned off.

## Registration

A Registration is a particular setup of rhythm, sound, Auto Accompaniment or any other parameters or features you are using. To change the functions during playing you can store your desired conditions in one button. And then if you select the button, your desired conditions will be loaded immediately.

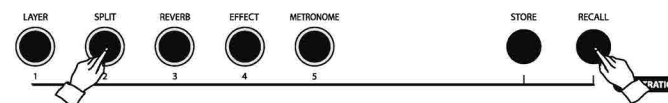
### Storing a Registration Memory

Press and hold down the **STORE** button and press a **REGISTRATION** button. Display shows stored REGISTRATION number 'S11 ~ S15'.



### Recall a Registration Memory

Press and hold down the **RECALL** button and press a **REGISTRATION** button.



## MIDI

MIDI(Musical Instrument Digital Interface) is the international standard for digital communication of electronic musical instrument data. This means that any equipment that has a MIDI terminal - such as electronic musical instruments or personal computers - can easily exchange digital data with other MIDI equipment without complicated conversions or connections.

### MIDI Local Control

Local control refers to the fact that, normally, the piano keyboard controls its internal tone generator, allowing the internal voices to be played directly from the keyboard.

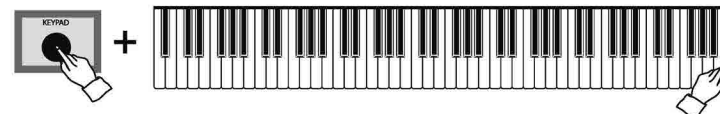
This situation is called Local Control ON. When the local control is set to off, the keyboard and sound source are separated and no sound is heard through the piano when playing the keyboard.

However, the data of the keyboard performance is output through MIDI. By setting local control to off, you can play an external MIDI tone generator from the keyboard of the piano without sounding the internal voices.

Press and hold down the **KEYPAD** button and press **RIGHT END KEY(C8)** of keyboard.

The pop-up Display shows oFF, the piano does not send the control signals to local sound generator. The piano sound can be generated by external MIDI signal.

Press **KEYPAD** with **RIGHT END KEY(C8)** again, the Local control will be ON.





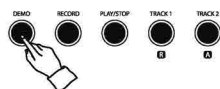
## DEMO

There are 50 classical musics in your piano. You can playback the music for your own listening pleasure, or use them for practice.

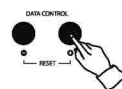
### Playback of Demo Music

#### 1 Press the DEMO button.

The lamp turns on and display shows music no. 'd01'.



#### 2 Select a desired music by using DATA UP or DOWN button.



⇒ There are 50 tunes in the demo music.

#### 3 Press the PLAY/STOP button.

Playback of the selected music starts.

##### Adjustment of tempo

It's available to adjust the tempo of playback by using **TEMPO UP** or **DOWN** button during playback of music. When pressing both **TEMPO UP** and **DOWN** buttons, the tempo goes to default value.

##### Repeat Music

Turn on the **TRACK1/R** button, and playback of the music repeats.

##### Playback of all music

Turn on the **TRACK 2 /A** button, and playback of the next tune starts automatically, after playback of a demo tune finished.

##### Adjusting demo music volume

To adjust demo music volume, press and hold the **KEYPAD** and press **ACOMP VOLUME UP** or **DOWN** key on the demo music mode. When pressing both **ACOMP VOLUME UP** and **DOWN** keys, the default Demo Music Volume (80) is set.

#### 4 To stop playback of the music, press the PLAY/STOP button.

#### 5 To go to the normal mode, press the DEMO button.

The lamp turns off and piano goes to normal mode.

### Demo Music List

Display	Title	Composer
d01	Etude op.10 no.1	Chopin, Fryderyk Franciszek
d02	Etude op.10 no.4	
d03	Etude op.10 no.5	
d04	Etude op.25 no.9	
d05	Nocturne op.9 no.1	
d06	Nocturne op.9 no.2	
d07	Nocturne op.27 no.2	
d08	Nocturne op.32 no.1	
d09	Nocturne op.72 no.1	
d10	Sonata op.3 no.4	
d11	Mazurka op.7 no.1	
d12	Mazurka op.30 no.2	
d13	Mazurka op.67 no.3	
d14	Polonaise op.40 no.1	
d15	Waltz op.34 no.1	
d16	Waltz op.64 no.1	
d17	Waltz op.64 no.2	
d18	Waltz op.69 no.2	
d19	Impromptu No. 4 c sharp minor (Fantasie-Impromptu) Op.66	
d20	Ballade op.23 no.1 in g minor	
d21	Ballade op.47 no.3 in A flat Major	
d22	Prelude op.28 no.1 in C Major- Agitato	
d23	Prelude op.28 no.16 in b-flat minor- Presto con fuoco	
d24	Piano Sonata no.10 in C major, KV330 I. Allegro moderato	Mozart, Wolfgang Amadeus
d25	Piano Sonata no.11 in A major, KV331 I. Alla turca : Allegretto	
d26	Piano Sonata no.14 in c minor, KV457 I. Adagio	
d27	Piano Sonata no.14 in c minor, KV457 III. Assai allegro	
d28	Variations "Ah! Vous dirai-je, Maman"	Beethoven, Ludwig van
d29	Rondo in D major, KV485	
d30	Sonate no.8 in c minor, op.13 'Pathetique' Grave - Allegro molto e con brio	
d31	Sonate no.8 in c minor, op.13 'Pathetique' II. Adagio cantabile	
d32	Sonate no.8 in c minor, op.13 'Pathetique' III. Allegro	
d33	Arabesque No.1 in E major	Debussy, Claude Achille
d34	Suite bergamesque 1. Prelude	
d35	Suite bergamesque 3. Clair de lune	
d36	Petite Suite, for piano 4-hands 2. Cortège	
d37	Scenes from Childhood op.15 From foreign lands and peoples in G major	Schumann, Robert Alexander
d38	"12 Etudes d'execution transcendante (Transcendental Etudes), S.139 Etude Transcendante in d minor, Mazeppa	Liszt, Franz
d39	The flight of the bumble bee (by S. Rachmaninov)	Rimsky, Korsakov
d40	Trois Gymnopédies 1. Lent et douloureux	Satie, Erik
d41	12 Fantasie per clavicembalo (TWV 33) - Harpsichord music - 1. Fantasia	Telemann, Georg Philipp
d42	12 Fantasie per clavicembalo (TWV 33) - Harpsichord music - 3. Fantasia	
d43	12 Fantasie per clavicembalo (TWV 33) - Harpsichord music - 5. Fantasia	
d44	12 Fantasie per clavicembalo (TWV 33) - Harpsichord music - 6. Fantasia	
d45	12 Fantasie per clavicembalo (TWV 33) - Harpsichord music - 12. Fantasia	
d46	Children's Album, Op.39 No.4 Mama	Tchaikovsky, Pyotr Ilyich
d47	Prelude in C major, BWV933	Bach, Johann Sebastian
d48	Präludium und Fuge in B BWV560 -Pipe Organ music -	
d49	Wohltemperiertes Klavier-Pledudio 1	
d50	Wohltemperiertes Klavier-Fuga 1	

# MIDI Implementation

MIDI Implementation Chart

Function	Recognized	Transmitted	Remark
Basic Channel Default	ALL	1-3	
Mode Default	OMNI OFF, POLY	OMNI OFF, POLY	
Note ON/OFF 9nH kk vv	O	O	#kknote ON (0-127) #vvvelocity (1-127)
Pitch Bender EnH bi bh	O	O	Maximum swing +/- 1 tone
00 BnH 00H cc	O	X	Bank Select
01 BnH 01H cc	O	X	Modulation Wheel
05 BnH 05H cc	O	X	Portamento Time
06 BnH 06H cc	O	X	Data Entry
07 BnH 07H cc	O	X	Volume
10 BnH 0AH cc	O	X	Pan Out
11 BnH 0BH cc	O	X	Expression
64 BnH 40H cc	O	O	Sustain (Damper) Pedal
65 BnH 41H cc	O	X	Portamento ON/OFF
66 BnH 42H cc	O	O	Sostenuto Pedal
Control 67 BnH 43H cc	O	O	Soft Pedal
Change 80 BnH 80H vv	O	X	Reverb Prog.(vv=00H-70H)
81 BnH 51H vv	O	X	Chorus Prog.
91 BnH 5BH vv	O	O	Reverb Send Level
93 BnH 5DH vv	O	O	Chorus Send Level
120 BnH 78H 00H	O	X	All Sound Off
121 BnH 79H 00H	O	X	Reset All Controller
123 BnH 7BH 00H	O	X	All Notes Off
126 BnH 7EH 00H	O	X	Mono On
127 BnH 7FH 00H	O	X	Poly On
Program Change CnH PP	O	O	Sounds/Drum Set List
System Exclusive General MIDI Reset	X	X	

O: Yes, X: No

# GM Voice & Drum Table

GM Voice List

GM #	VOICE	GM #	VOICE
001	Grand Piano 1	065	Soprano Saxophone
002	Grand Piano 2	066	Alto Saxophone
003	Grand Piano 3	067	Tenor Saxophone
004	Honky Tonk	068	Baritone Saxophone
005	Electric Piano 1	069	Oboe
006	Electric Piano 2	070	English Horn
007	Harpsichord	071	Bassoon
008	Clavinet	072	Clarinet
009	Celesta	073	Piccolo
010	Glockenspiel	074	Flute
011	Music Box	075	Recorder
012	Vibraphone	076	Pan Flute
013	Marimba	077	Bottle Blow
014	Xylophone	078	Shakuhachi
015	Tubular Bell	079	Whistle
016	Dulcimer	080	Ocarina
017	Electric Organ 1	081	Square
018	Electric Organ 2	082	Sawtooth
019	Electric Organ 3	083	Calliope
020	Pipe Organ	084	Chiffer
021	Reed Organ	085	Charang
022	Accordion	086	Solo Vox
023	Harmonica	087	Fifths
024	Bandonion	088	Bass Lead
025	Nylon Guitar	089	Fantasia
026	Steel Guitar	090	Warm Pad
027	Jazz Guitar	091	Poly Synth
028	Clean Guitar	092	Space Vox
029	Muted Guitar	093	Bow Glass
030	Drive Guitar	094	Metal Pad
031	Lead Guitar	095	Halo Pad
032	Harmonic Guitar	096	Sweep Pad
033	Acoustic Bass	097	Ice Rain
034	Finger Bass	098	Sound Track
035	Pick Bass	099	Crystal
036	Fretless Bass	100	Atmosphere
037	Slap Bass 1	101	Brightness
038	Slap Bass 2	102	Goblin
039	Synth Bass 1	103	Echo Drop
040	Synth Bass 2	104	Star Theme
041	Violin	105	Sitar
042	Viola	106	Banjo
043	Cello	107	Shamisen
044	Contra Bass	108	Koto
045	Tremolo Strings	109	Kalimba
046	Pizzicato Strings	110	Bagpipe
047	Harp	111	Fiddle
048	Timpani	112	Shanai
049	Strings	113	Tinkle Bell
050	Slow Strings	114	Agogo
051	Synth Strings 1	115	Steel Drum
052	Synth Strings 2	116	Wood Block
053	Choir Aahs	117	Taiko
054	Voice Oohs	118	Melody Tom
055	Synth Voice	119	Synth Drum
056	Orchestra Hit	120	Reversed Cymbal
057	Trumpet	121	Guitar Noise
058	Trombone	122	Breath Noise
059	Tuba	123	Sea Shore
060	Muted Trumpet	124	Birds
061	French Horn	125	Telephone
062	Brass Section	126	Helicopter
063	Synth Brass 1	127	Applause
064	Synth Brass 2	128	Gunshot

## Drum Table

	Prog 1 Standard Drum (b-1)	Prog 9 Room Drum	Prog 17 Rock Drum	Prog 25 Elec. Drum (b-2)	Prog 26 Analog Drum
27 - D#1	High Q				
28 - E1	Slap				
29 - F1	Scratch Push				
30 - F#1	Scratch Pull				
31 - G1	Sticks				
32 - G#1	Square Click				
33 - A1	Metronome Click				
34 - A#1	Metronome Bell				
35 - B1	Kick drum2/Jazz BD2				
36 - C1	Kick drum1/Jazz BD1		Power Kick	Elec BD	808 Bass Drum
37 - C#2	Side Stick				808 Rm shot
38 - D2	Snare Drum1		Gated Snare	Elec SD	808 Snare Drum
39 - D#2	Hand Clap				
40 - E2	Snare Drum 2				
41 - F2	Low Floor Tom	Room Low Tom2	Room Low Tom2	Elec Low Tom2	808 Low Tom2
42 - F#2	Closed Hi-Hat [EXC1]				808 CHH[EXC1]
43 - G2	High Floor Tom	Room Low Tom1	Room Low Tom1	Elec Low Tom1	808 Low Tom2
44 - G#2	Pedal Hi-Hat [EXC1]				808 CHH[EXC1]
45 - A2	Low Tom	Room Mid Tom2	Room Mid Tom2	Elec Mid Tom2	808 Mid Tom2
46 - A#2	Open Hi-Hat [EXC1]				808 OHH[EXC1]
47 - B2	Low-Mid Tom	Room Mid Tom1	Room Mid Tom1	Elec Mid Tom1	808 Mid Tom1
48 - C2	Hi Mid Tom	Room Hi Tom2	Room Hi Tom2	Elec Hi Tom2	808 Hi Tom2
49 - C#3	Crash Cymbal 1				808 Cymbal
50 - D3	High Tom	Room Hi Tom1	Room Hi Tom1	Elec Hi Tom1	808 Hi Tom1
51 - D#3	Ride Cymbal 1				
52 - E3	Chinese Cymbal			Reverse Cymbal	
53 - F3	Ride Bell				
54 - F#3	Tambourine				
55 - G3	Splash Cymbal				
56 - G#3	Cowbell				808 Cowbell
57 - A3	Crash Cymbal2				
58 - A#3	Vibraslap				
59 - B3	Ride Cymbal2				
60 - C4	Hi Bongo				
61 - C#4	Low Bongo				
62 - D4	Mute Hi Conga				808 High Conga
63 - D#4	Open Hi Conga				808 Mid Conga
64 - E4	Low Conga				808 Low Conga
65 - F4	High Timbale				
66 - F#4	Low Timbale				
67 - G4	High Timbale				
68 - G#4	Low Agogo				
69 - A4	Cabasa				
70 - A#4	Maracas				808 Maracas
71 - B4	Short Whistle[EXC2]				
72 - C5	Long Whistle[EXC2]				
73 - C#5	Short Guiro[EXC3]				
74 - D5	Long Guiro[EXC3]				
75 - D#5	Claves				808 Claves
76 - E5	Hi Wood Block				
77 - F5	Low Wood Block				
78 - F#5	Mute Cuica[EXC4]				
79 - G5	Open Cuica[EXC4]				
80 - G#5	Mute Triangle[EXC5]				
81 - A5	Open Triangle[EXC5]				
82 - A#5	Shaker				
83 - B5	Jingle Bell				
84 - C6	Belltree				
85 - C#6	Castanets				
86 - D6	Mute Surdo[EXC6]				
87 - D#6	Open Surdo[EXC6]				
88 - E6					

※ Prog. 9 (Room Drum), Prog. 26 (Analog Drum) Prog. 33 (Jazz Drum), Prog. 41 (Brush Drum), Prog. 49 (Orchestra Drum) can be used with MIDI connection.

	Prog 33 Jazz Drum	Prog 41 Brush Drum	Prog 49 Orchestra Drum (b-3)	Prog 57 SFX 1 (b-4)	Prog 60 SFX 2 (b-5)	비고
27 - D#1			Closed Hi Hat		Conga	
28 - E1			Pedal Hi-Hat		Whistle	
29 - F1			Open Hi Hat		Small Drum	
30 - F#1			Ride Cymbal		Cymbal	
31 - G1					Castanets	
32 - G#1					Triangle	
33 - A1					Maracas	
34 - A#1					Timbale	
35 - B1	Jazz BD2	Jazz BD2	Concert BD 2		Belltree	
36 - C2	Jazz BD1	Jazz BD1	Concert BD1		Wood Block	
37 - C#2					Jingle Bell	
38 - D2		Brush Tap	Concert SD		Hand Clap	
39 - D#2		Brush Slap	Castanets	High Q	Jng	
40 - E2		Brush Swirl	Concert SD	Slap	ONE	
41 - F2			Timpani F#	Scratch Push	TWO	
42 - F#2			Timpani F#	Scratch Pull	Laughing	
43 - G2			Timpani G	Sticks	THREE	
44 - G#2			Timpani G#	Square Click	Bugs	
45 - A2			Timpani A	Metronome Click	FOUR	
46 - A#2			Timpani A#	Metronome Bell	EIF	
47 - B2			Timpani B	Guitar Slide	FIVE	
48 - C3			Timpani c	Git Cut Noise(down)	SIX	
49 - C#3			Timpani c#	Git Cut Noise (up)	Korean Drum 1	
50 - D3			Timpani d	Double Bass Slap	SEVEN	
51 - D#3			Timpani d#	Key Click	Korean Drum 2	
52 - E3			Timpani e	Laughing	EIGHT	
53 - F3			Timpani f	Screaming	NINE	
54 - F#3				Punch	Korean Drum 3	
55 - G3				Heart Beat	TEN	
56 - G#3				Footsteps1	Korean Drum 4	
57 - A3			Concert Cymbal2	Footsteps2	Rocket	
58 - A#3				Applause	Korean Drum 5	
59 - B3			Concert Cymbal1	Door Creaking	SHORT/LONG	
60 - C4				Door Closing	SOFT/LOUD	
61 - C#4				Scratch	Cuckoo	
62 - D4				Wind Chime	GOOD/VERY GOOD	
63 - D#4				Car Engine Start	Bush Warbler	
64 - E4				Car Breaking	Birds	
65 - F4				Car Pass	Hen	
66 - F#4				Car Crash	Duck	
67 - G4				Police Siren	Chick/Chicken	
68 - G#4				Train	Dog	
69 - A4				Jet Take-off	Cat	
70 - A#4				Helicopter	Pig	
71 - B4				Starship	Goat	
72 - C5				Gun Shot	Cow	
73 - C#5				Machine gun	Korean Cymbal 1	
74 - D5				Laser gun	Horse	
75 - D#5				Explosion	Korean Cymbal 2	
76 - E5				Dog	Flag/Flogs	
77 - F5				Horse Gallop	Swan + Bubble	
78 - F#5				Birds	Splash	
79 - G5				Rain	Wolf	
80 - G#5				Thunder	Comic Sound	
81 - A5				Wind	Tiger	
82 - A#5				Sea Shore	Children' s Laughing	
83 - B5				Stream	Elephant	
84 - C6				Bubble	Bear	
85 - C#6					Korean Drum 7	
86 - D6					Telephone Bell	
87 - D#6					Korean Drum 8	
88 - E6					Bicycle Bell	

※ Prog. 60 (SFX 2) has more sound effects on note A0~D1 and note F6~C8 of the keyboard area.

## Troubleshooting

※ Be sure to check to following table whenever you encounter problems with the DIGITAL PIANO operation.

PROBLEM	CAUSE	SOLUTION
<b>No sound</b>	1. Power supply problem.	1. Check the power cord whether it's properly in AC outlet.
	2. Volume setting is too low.	2. Adjust the volume.
	3. Headphone is plugged in.	3. Unplug the headphone.
<b>Occasional interference</b>	1. Refrigerators, washing machines and similar electric appliances are interfering.	1. Use outlet as far away as possible from appliance thought to be the cause.
<b>No sound when connected to external amplifier.</b>	1. Volume setting is too low.	1. Adjust the volume.
	2. Defective connection cord.	2. Replace connection cord.

## Specifications

Section	Contents
<b>PRODUCT</b>	HIGH PERFORMANCE STAGE PIANO
<b>KEYBOARD</b>	88 KEYS (STANDARD) - 7 1/4 OCTAVES
<b>TOUCH RESPONSE</b>	OFF, HARD 1/2/3, SOFT 1/2/3, NORMAL 1/2/3
<b>MAX. POLYPHONY</b>	128 NOTES
<b>SOUND</b>	GENERAL MIDI 128 VOICES 3 DRUM KIT, 2 SOUND EFFECT SET
<b>ACCOMPANIMENT STYLE</b>	80 RHYTHM STYLES
<b>ACCOMPANIMENT MODE</b>	SINGLE FINGER, FINGERED, FULL KEYBOARD
<b>ACCOMPANIMENT CONTROLS</b>	START/STOP, INTRO/ENDING, FILL1/SYNC, FILL2/SYNC
<b>FUNCTIONS</b>	LAYER, SPLIT, TUNE, TRANSPOSE
<b>REGISTRATION MEMORY</b>	5
<b>DIGITAL SIGNAL PROCESSING</b>	CHORUS (8), REVERB (8)
<b>METRONOME</b>	YES
<b>DISPLAY</b>	LED MULTI FUNCTION DISPLAY
<b>DEMO MUSIC</b>	50 TUNES
<b>RECORD</b>	REAL-TIME-RECORDING 2 TRACKS MAX. 6,500 NOTES/TR
<b>VOLUME CONTROLS</b>	MAIN, ACCOMPANIMENT, LAYER, SPLIT
<b>I/O TERMINALS</b>	USB IN, 2 PEDAL IN 2 HEADPHONE JACKS
<b>SPEAKER</b>	2 INCHES × 6 (STEREO 15W + 15W)
<b>POWER</b>	DC IN (15V 4A)
<b>POWER CONSUMPTION</b>	20W
<b>DIMENSIONS (W × D × H)</b>	1,340mm × 350mm × 140mm
<b>WEIGHT</b>	17.5Kg
<b>ACCESSORY</b>	OWNER'S MANUAL, MUSIC STAND, AC ADAPTER, NON-SLIP PEDAL



Part No. 11958309MF