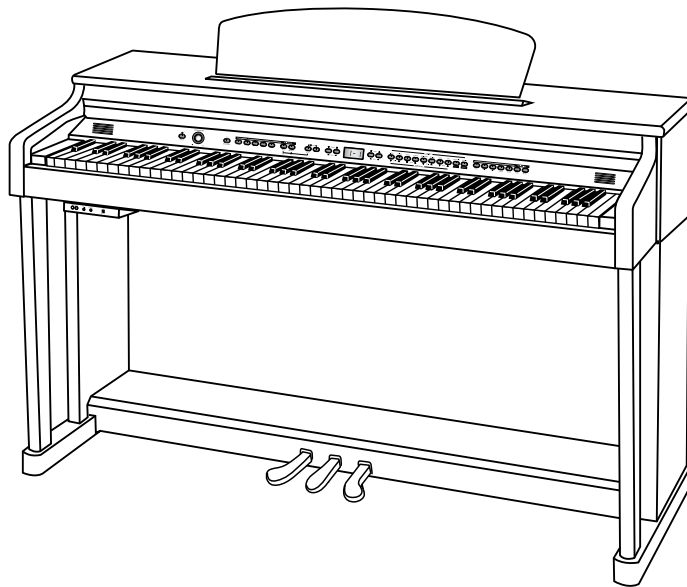


# OWNER'S MANUAL



**High Performance USB Digital Piano**  
*New feel, new look and new sound*

**Before reading:**

# Safety Instructions

This section is intended to keep the user safe and prevent financial loss. Please read this section carefully and use the product properly according to it.



**WARNING:**

Not observing this warning could result in death or serious injury.



**CAUTION:**

Not observing this caution could result in injury and/or financial loss.



**WARNING:**

To avoid the risk of death or physical injury due to electric shock, short circuit, damage or fire, please observe the fundamental safety instructions listed below.

This warning includes the following:

- Never open the product or attempt to break down or modify the inner parts. This product has no user-serviceable components. If you believe the product is malfunctioning, please immediately cease the use of the product and contact customer service for repair.
- Do not expose the product to rain. Do not use the product under watery or wet environment, and avoid placing liquid containers on the product as it may spill into the product. If any liquid is spilled into the product, immediately turn off the product, take the plug off the AC outlet and contact customer service for inspection.
- If the power cord or plug is either wore off or damaged, or the product suddenly stops sounding, or any unknown smell or smoke seem to be emerging from the product, immediately turn off the product, take the adapter plug off the AC outlet and contact customer service for inspection.
- Only use the voltage that is designated for this product. The designated voltage is printed on the nameplate of the product.
- Always take the plug off the outlet prior to cleaning the product. Never insert or take off the plugs with wet hands.
- Regularly check the condition of the power plug, and remove any substances or dust that may have accumulated on it.



## CAUTION

**To avoid the risk of physical injury, damage of this product or other financial loss, please observe the fundamental safety instructions listed below. This caution includes the following:**

- Do not place the power cord nearby heat generators like heaters or radiators. Bending the cord too much could damage the cord. Do not put heavy objects on the cord, or leave the cord on a location where others could step on or trip over it.
- When removing the plug from the product or outlet, always seize the neck of the plug. Seizing and pulling from the cord could damage it.
- Do not use multi-connectors to power the product. Doing so could result in lowered sound quality and/or overheat the outlet.
- When not using the product for an extended period of time, or during an electric storm, take the plug off the outlet.
- When connecting the product to another electric product, turn off the powers of both products before connecting. Set the volumes of all products to minimum before turning on or off the products. After making sure that all volumes are set to minimum, begin using this product and gradually increase the volume until the desired level is reached.
- Do not expose this product to excessive dust, vibration, or locations/sources of extreme heat (under direct sunlight, nearby heaters, inside cars during daytime). Exposure to such environments may result in external and/or internal damage.
- Do not use this product nearby TV, radio, stereo sound device, mobile phones or other electric devices. Doing so could result in excessive noise from either this product or the TV/radio.
- Do not place the product on unstable locations where it could fall off.
- Always remove all cables from the product before moving it.
- When cleaning the instrument, use soft and dry or lightly wet cloth. Do not use cleansing cloth imbued with paint diluent, solvent, cleansing agent or chemical substances. Also do not place any objects made of vinyl, plastic or rubber on the product. Doing so could result in color alteration of the panel or the keyboard.
- Do not place your weight or heavy objects onto the product.
- Do not use excessive force while manipulating the buttons, switches or connectors.
- Be careful not to leave fingers below the key cover when closing it. Do not insert fingers below the key cover or into any other gap between the parts of this product.
- Do not insert or drop any objects like paper or metal substances on the key cover, panel, or in the gap between keys. When done so accidentally, immediately turn off the power of the product, take the plug off the outlet, and contact customer service.
- Maintain 3 inches of space between the piano and the wall or other nearby objects. Insufficient space could interfere with air circulation and may result in overheat.
- Carefully read the guide on assembling process and follow the steps provided. Not doing so could result in damage of the instrument and/or injury of the user.
- Avoid using the product on volume high enough to be disturbing to ears for extended period of time, as doing so could affect one's hearing permanently. If you experience hearing difficulty, or ringing on the ears, contact a physician.
- During thunderstorms, take the plug off the outlet.

## Product Features

---

Thank you for choosing this product.

This product is a top-notch digital piano that offers 256 notes of maximum polyphony and high quality 512MB(4Gbit) sound data, and advanced sound amplifying system among other things.

Among its versatile features are a comprehensive recording system consisting of 3 tracks for efficient practicing, educational music bank for enhanced piano learning (Beyer, Czerny 100/30/40, Burgmüller etudes and many favorite sonatines), and USB and audio IN/Out jacks for connectivity with computers and other audio devices.

To take full advantage of the wide range of features and capabilities offered by this instrument, please read this user's manual carefully.

Please keep this user's manual for future reference.

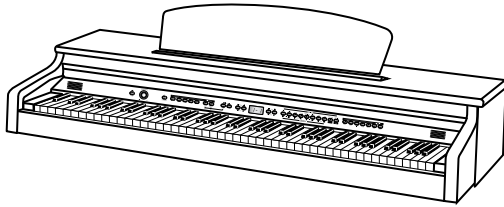
Thank you.

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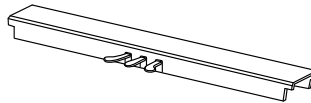
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# Product Components

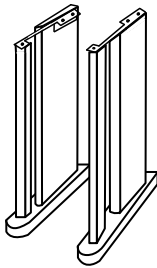
After purchasing the product, carefully unpack it and examine the existence and condition of the items listed below. If an item is missing or damaged, contact the store where it was purchased.



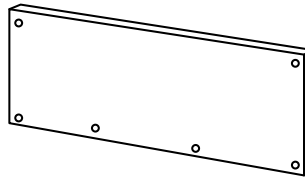
Piano Main Body



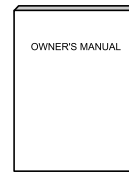
Pedal Plate (c)



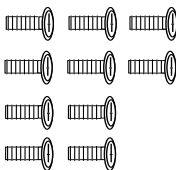
Left & Right Legs (a, b)



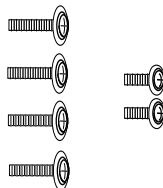
Backplate (d)



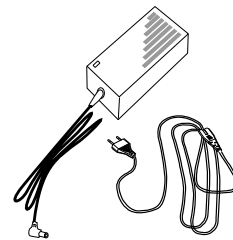
Owner's Manual



Pedal Plate, Main Body Fixers (e) (M6x15)mm, 10EA



Backplate Fixers (f) (M4x22)mm, 4EA (g) (M4x8)mm, 2EA

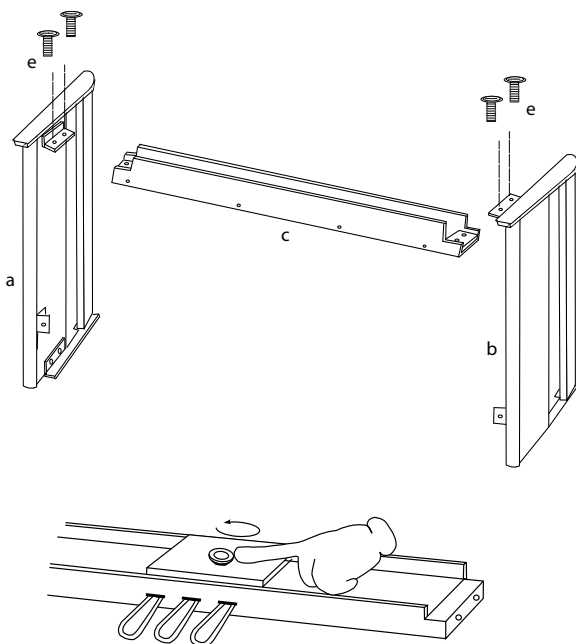


Adapter

☞ Keeping the original packing materials may prove useful later in case it needs to be repacked for transportation.

# Assembling

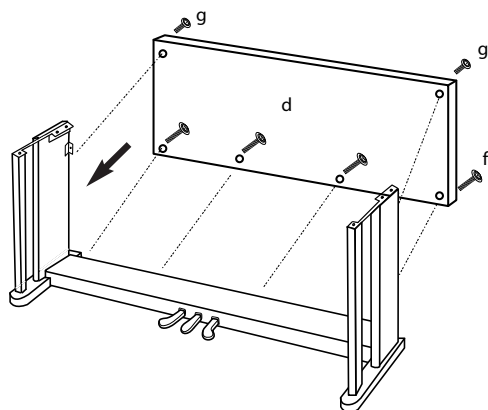
## 1 Assembling the legs and pedals



1 Set the **legs(a, b)** upside down like the picture, then use the **Pedal Plate Fixers(e)** to connect the **Pedal Plate (c)** to the legs.

2 Adjust the pedal plate knob (see picture) so that it would come in contact with the floor on which the piano is to be installed.

## 2 Assembling the backplate



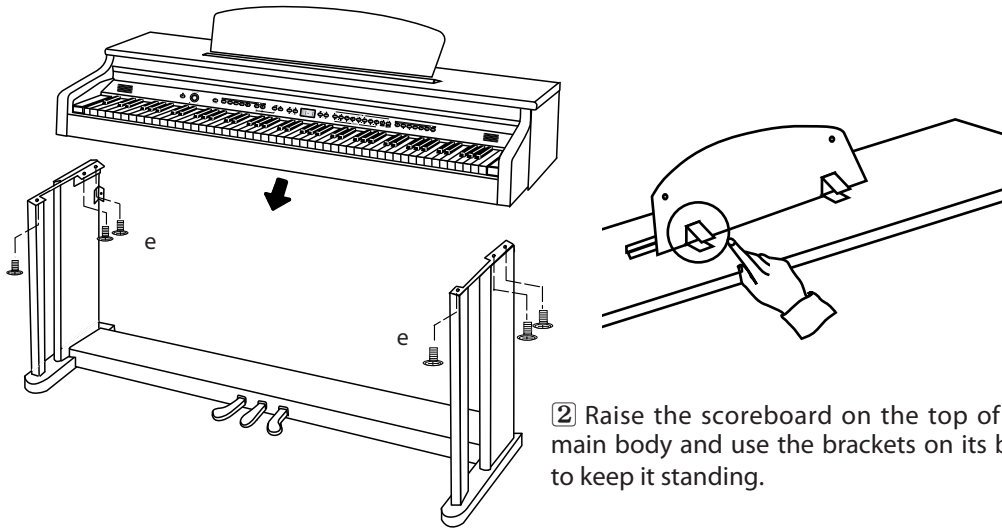
1 Place the **backplate(d)** between the legs by inserting it from behind.

2 Use the **backplate fixer (f, g)** to fix the backplate.

3 Make sure that the plate is standing straight.

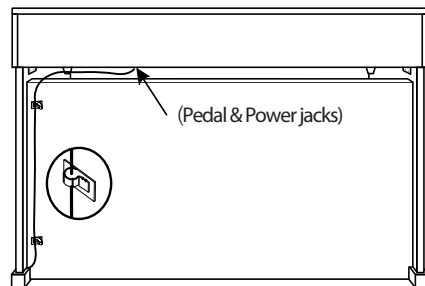
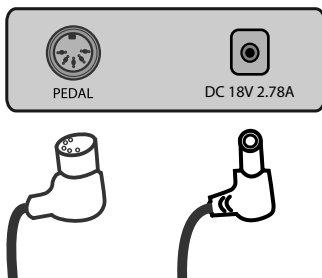
### 3 Assembling the main body

① Carefully place the main body onto the assembled lower body according to the picture so that its holes would match the brackets attached to the legs. Use the **Main Body Fixers (e, 6EA)** to secure the connection between the main and lower bodies.



### 4 Connecting the pedal & power cables

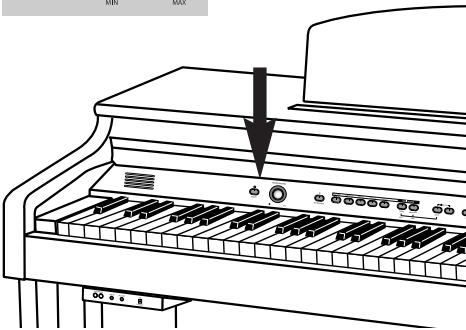
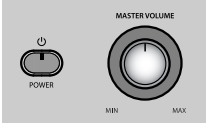
① Connect the pedal cable to the pedal jack below the main body. The pedal cable can be found below the pedal box.



# Parts

## Power Switch

### Power Switch (On the left)



Connect the AC power cord to the piano and a household AC outlet, and press the **power switch** to turn on the piano. The buttons will be lighted.

- ☞ When the piano is turned on, the initial default voice is 'Grand Piano 1'.
- ☞ Use the Master Volume knob to adjust the volume.
- ☞ When turning on the piano, do not press the damper pedal. Doing so may cause the pedal to malfunction.

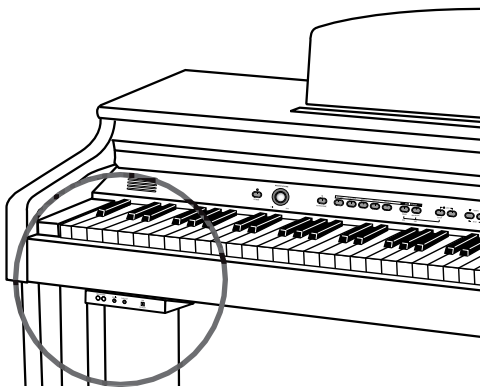
All parameters and settings except for the recording and registration memories are initialized whenever the piano is turned off and on again.

### Auto Power Off (APO)

This product may be set to turn itself off automatically when left unused for a certain amount of time. By default, leaving the piano unused for 30 minutes will cause it to turn off.

Refer to Page 35 for setting the auto power-off timer.

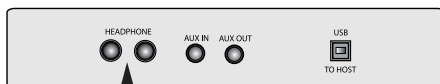
## Headphone Jacks



Two headphone jacks are located on the left beneath the main body.

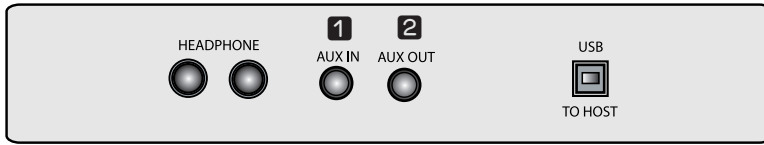
- ☞ When a headphone is connected to the piano, the speakers of the piano are muted.
- ☞ Two headphone jacks are offered to support up to two people to listen to the performance simultaneously.
- ☞ The type of headphones used is Stereo 55 (1/4 inch). If the use of the 3.5mm plugged headphones is desired, an extra converter (3.5mm -> 55) will be required.
- ☞ Headphones are sold separately.

### External Connection Jacks (on the bottom left of the piano)



Headphone jacks

## Audio Jacks



External Connection Jacks (on the bottom left of the piano)

### 1 AUX IN

By connecting devices to this jack the piano may play soundtracks provided by external sources via its internal speakers.

Use an audio cable (sold separately) to connect the audio output jack of the external devices (MP3 player, CD player, sound module, electric instrument etc.) and the **AUX IN** of the piano to hear the sound of the external device played through the piano's internal speakers.

- ☞ When connecting to an external device, always turn on the external device first before turning on the power of the piano. When quitting the use of the external device, reverse this order and turn the piano off first before turning off the external device.
- ☞ The audio connection jacks are stereo 3.5mm connectors.

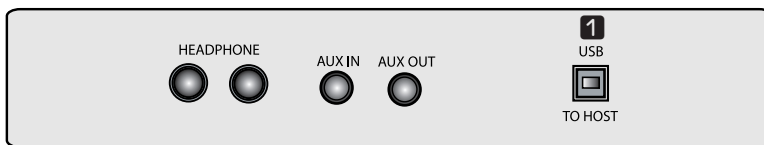
### 2 AUX OUT

**This jack is used when the use of a more powerful external sound producer (amplifiers etc.) is desired to reproduce the audio output of the piano.**

Use an audio cable (sold separately) to connect the **AUX OUT** of the piano and the input jack of the external device to hear the piano through the speaker system of the external device.

- ☞ When connecting to an external device, always turn on the external device first before turning on the power of the piano. When quitting the use of the external device, reverse this order and turn the piano off first before turning off the external device.
- ☞ The audio connection jacks are stereo 3.5mm connectors.

## Digital Jack



External Connection Jacks (on the bottom left of the piano)

### 1 USB TO HOST

The piano has a USB jack that could be used to connect the piano directly to a computer. By using this jack, the piano and computer may exchange MIDI data via USB.

- 1 Use a USB wire (sold separately) to connect the piano and the computer.
- 2 To use the piano as a MIDI device, run the MIDI music software on the computer and set its input/output device to USB Audio Device.
- 3 To use the piano as the audio device for the computer, set the computer's audio device to the piano after connecting.

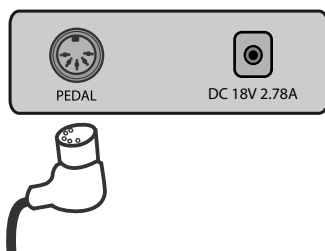
- ⇒ Some notes may stop sounding if connected via USB.
- ⇒ The piano's performance may be digitally recorded by the computer when being used as an audio device.
- ⇒ Usable on Windows XP or higher, and Mac OS X.
- ⇒ No extra driver is required since it utilizes the common Windows device driver.
- ⇒ If the device is not recognized, or the USB audio device is not seen on the list of the device setup menu, check the USB cable and its connection state.
- ⇒ If connecting the instrument to a computer causes the computer to shut off or stop functioning, do not reattempt the connection (doing so may damage the computer or the piano) and immediately contact customer service.

## Pedals

The piano consists of three pedals that corresponds to the three pedals of an acoustic piano.

### Connecting the pedal cable

Retrieve the pedal cable tied below the pedal box, and connect it to the pedal jack below the main body.



### Pedal Functions

#### 1 Damper Pedal (Right Pedal)

This pedal performs the same function as the damper pedal of an acoustic piano; playing notes while keeping this pedal pressed will sustain the notes even after the keys have been released. It also provides the Half Pedal feature, which detects and responds to the delicate control that pianists exercise on acoustic pianos by pressing the pedal only halfway.

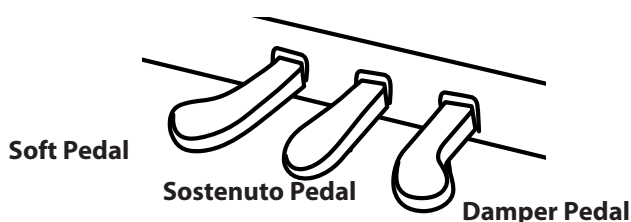
- ⇒ The duration of the sustained notes differs depending on the chosen voice.
- ⇒ The Half Pedal feature changes the sustain duration depending on how deep the pedal is pressed.
- ⇒ When turning on the piano, do not press the damper pedal. Doing so may cause the pedal to malfunction.

#### 2 Sostenuto Pedal (Middle Pedal)

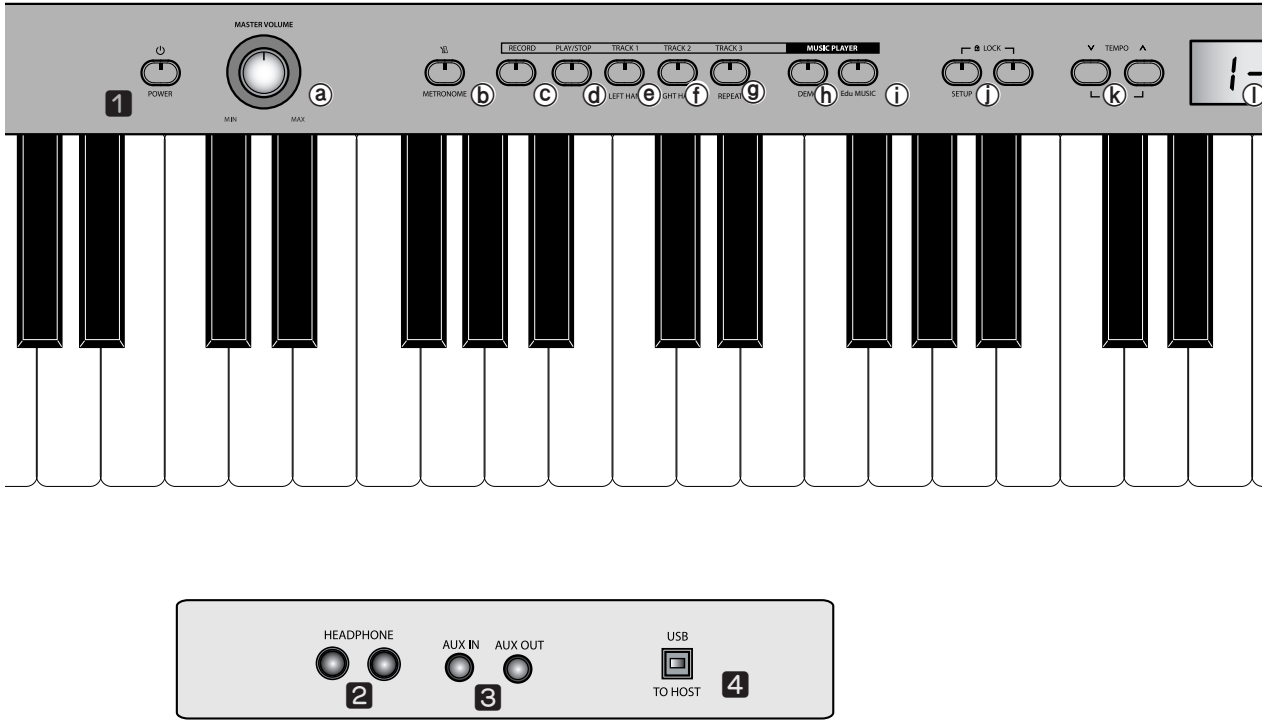
This pedal performs the same function as the sostenuto pedal, which is the middle pedal of an acoustic grand piano. It behaves similarly to the damper pedal, but only the notes that are being played at the moment the sostenuto pedal is pressed will be retained. Notes that are played after the pedal was pressed are not affected, even if the pedal is being kept pressed.

#### 3 Soft Pedal (Left Pedal)

This pedal performs the same function as the soft pedal of an acoustic piano. Pressing this pedal causes the sound of the piano to be muffled a little bit and softens its character.



# Control Panel



## Volume Adjustment

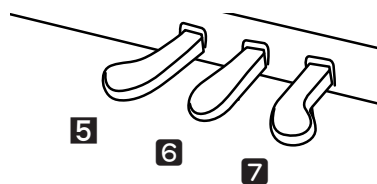
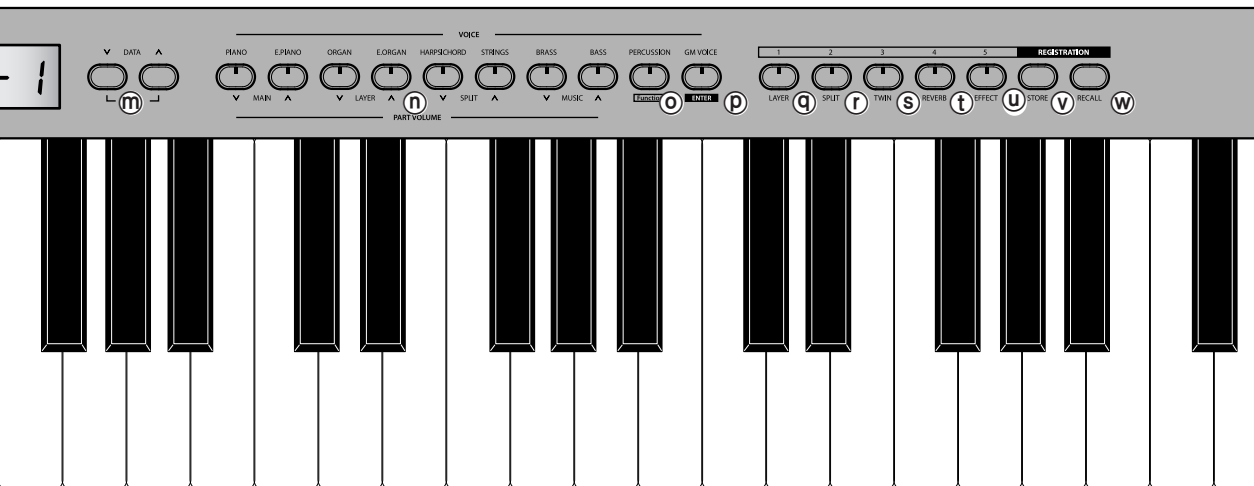
Ⓐ MASTER VOLUME ..... Page 13

## Demo & Recording

- Ⓑ METRONOME ..... Page 18, 27
- Ⓒ RECORD ..... Page 33
- Ⓓ PLAY/STOP ..... Page 20, 22
- Ⓔ TRACK 1/LEFT HAND ..... Page 22, 33
- Ⓕ TRACK 2/RIGHT HAND ..... Page 22, 33
- Ⓖ TRACK 3/REPEAT ..... Page 22, 33
- Ⓗ DEMO ..... Page 20
- Ⓖ Edu MUSIC ..... Page 22
- Ⓚ TEMPO UP/DOWN..... Page 18, 22

## Function Interface

- Ⓛ SETUP/LOCK
- Ⓛ LED Screen
- Ⓜ DATA UP/DOWN
- Ⓞ FUNCTION ..... Page 25
- Ⓟ ENTER ..... Page 25



## Voice & Effects

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Ⓡ	SPLIT	Page 17
Ⓢ	TWIN	Page 15
Ⓣ	REVERB	Page 19
Ⓤ	EFFECT	Page 19
Ⓥ	STORE	Page 32
Ⓦ	RECALL	Page 32

## Power

❶	Power Switch	Page 8
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## External Connection Jacks

❷	Headphones	Page 8
❸	AUX IN/OUT	Page 9
❹	USB TO HOST	Page 9

## Pedal

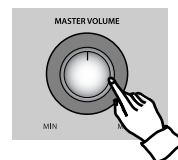
❺	Soft Pedal	Page 10
❻	Sostenuto Pedal	Page 10
❼	Damper Pedal	Page 10

# Basic Controls

## Master Volume

Use the **Master Volume** knob to adjust the overall volume of the piano.

- ☞ The master volume also affects headphones.



## Choosing Voice

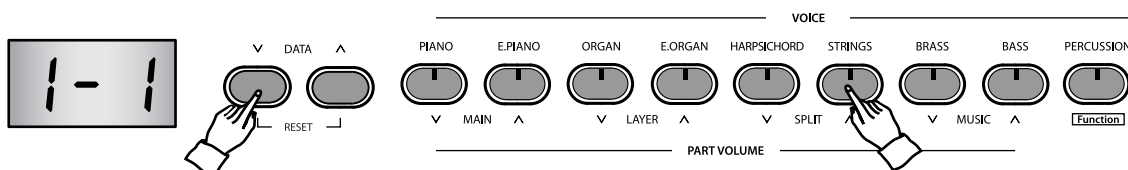
This product is a high class digital piano which offers the refined deep sound of quality acoustic grand pianos along with the sound of other diverse acoustic and electric musical instruments.

### Voice Types

- ☞ 128 GM (General MIDI) Voices, including the 45 basic voices
- ☞ 3 Percussion Sets
- ☞ 3 Sound Effect Sets

### 1 Select your desired voice.

Press the button that corresponds to the desired voice.



- ☞ The voices are categorized into 9 voice groups as featured on the panel. Each voice group consists of 5 voices.
- ☞ When a voice button is pressed, the LED screen will display the current voice number.
  - 1) The left number represents the voice group. (1-9)
  - 2) The right number represents the index number of the voice inside that group. (1-5)
- ☞ Repeatedly press a voice button to cycle through the available voices of that group. It may also be done by using the **DATA UP and DOWN** buttons when the voice numbers are shown on the LED.
- ☞ Your last choice for each group is retained even if you switch to another voice group. It will be retained until the piano is turned off.

### List of Voices

Grand Piano	E.Piano	Organ	E.Organ	Harpichord	Strings	Brass	Bass	Percussion
Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8	Group 9
Grand Piano 1 Grand Piano 2 Grand Piano 3 Grand Piano 4 Honkytonk	Electric Piano 1 Electric Piano 2 Electric Piano 3 Clavinet Vibraphone	Pipe Organ Reed Organ Accordion Harmonica Bandonion	E. Organ 1 E. Organ 2 E. Organ 3 Synth 1 Synth 2	Harpichord Clarinet Picolo Flute Oboe	Strings Slow Strings Synth Strings Choir Aahs Violin	Brass Synth Brass Saxophone Trumpet Trombone	Acoustic Bass E. Bass 1 E. Bass 2 E. Bass 3 Synth Bass 1	Drum 1 Drum 2 Drum 3 SFX1 SFX2

## Pedal Effects for Different Voices

For the voices listed below, the left pedal may be used to trigger special effects for enhanced playing.

Voice Effect	Display	Description
Elec Organ 1	4-1	Left pedal triggers the Chorus effect when pressed
Elec Organ 2	4-2	Left pedal triggers the Chorus effect when pressed
Strings	6-1	Left pedal plays cymbals, and adds wind/brass sound when played <i>forte</i>
Slow Strings	6-2	Left pedal plays cymbals, and adds wind/brass sound when played <i>forte</i>
Drum 1, 2, 3	9-1, 2, 3	Left pedal plays the bass drum

☞ These effects will not work when the above voices are used as the Layer or Split voice. They must be chosen as the Main voice in order to benefit from these effects.

## 2 Play the piano using the chosen voice.

To adjust the volume of the chosen voice, use the MASTER VOLUME knob.

## GM(General MIDI) Voices

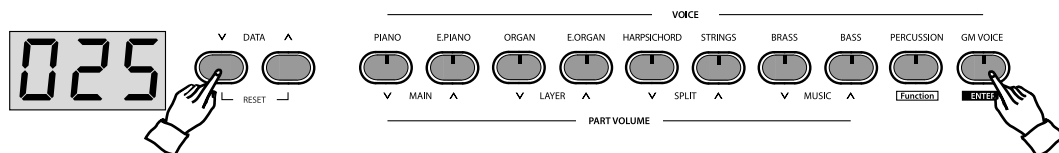
The piano is also equipped with the 128 voices that are fully compatible with the international standard GM (General MIDI).

### 1 Press GM VOICE.

The LED screen will show the index number of the current GM voice.

☞ Default Voice: 025 Guitar

### 2 When the GM voice number is displayed on the LED, press DATA UP/DOWN to cycle through the numbers.



☞ Refer to the GM voice list on Page 36.

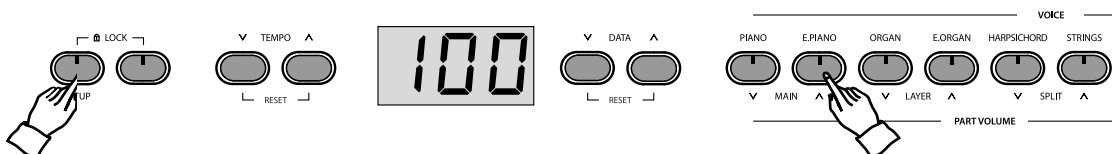
☞ Your last choice of GM voice will be retained until the piano is turned off.

## Main Voice Volume

By adjusting the Main Voice volume, the balance between volumes of different voices (Main/Layer/Split) may be adjusted.

### 1 Enter the SETUP mode.

Press and hold down **SETUP**, then use the MAIN VOICE VOLUME Up/Down buttons to adjust the Main voice volume. The LED will display the current value.



- ☞ Pressing both **Up/Down** buttons simultaneously will restore the default value (100).
- ☞ The **DATA Up/Down** buttons may be used instead of the **MAIN VOLUME** buttons.
- ☞ The numerical range of the volume is 0-100.
- ☞ Keep a button pressed to quickly navigate through the values.
- ☞ To stay in SETUP mode: The piano may stay in SETUP mode instead of leaving it once the **SETUP** button is released.

- 1) While in SETUP mode, press **LOCK**. The LED screen will stay where it is even if SETUP is released afterwards.
- 2) Pressing **LOCK** while not pressing SETUP will also trigger and lock in the SETUP mode.

### 2 When you're done adjusting, release SETUP to return to performing mode.

- ☞ To cancel the SETUP mode LOCK, press **LOCK** again. The buttons will turn off, allowing the piano to return to performing mode.

## Twin Piano

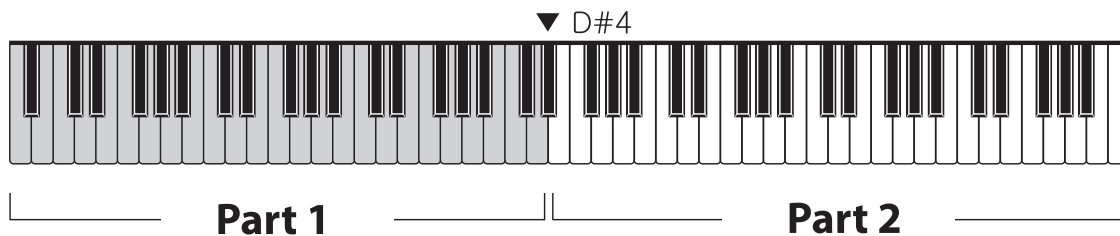
Twin Piano divides the piano keyboard into two equal smaller ("twin") keyboards with identical range of octaves. This allows two people to play the piano simultaneously on the same octaves.

### 1 Select a voice.

Refer to Page 13 for voice selection.

### 2 Press TWIN.

The button will be lighted, and the keyboard will be divided into two parts, with D#4 as the point of division. The two parts will play in same range of octaves.



### 3 Press TWIN once again to quit using TWIN PIANO.

The button will turn off, indicating that TWIN PIANO is no more active.

- ☞ When in TWIN PIANO mode, the Layer, Split, and Recording features may not be used.

## Layer

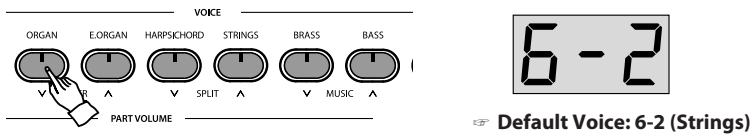
Layer allows the player to sound two voices simultaneously when playing the keyboard.

### 1 Choose the desired main voice first.

Refer to Page 13 for voice selection.

### 2 Press LAYER.

The Layer mode will be activated, indicated by the LED which shows current Layer voice number.



### 3 Choose the desired Layer voice.

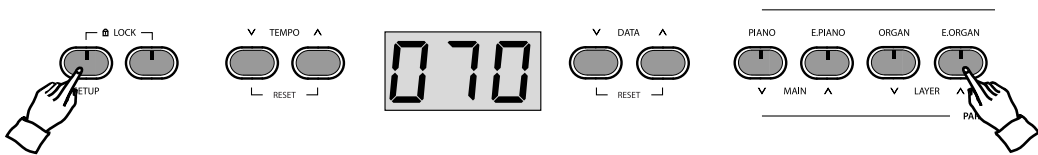
Refer to Page 13 for voice selection.

## Layer Volume

By adjusting the Layer Voice volume, the balance between volumes of the Main and Layer voices may be adjusted.

### 1 Enter the SETUP mode to adjust the Layer volume.

Press and hold down **SETUP**, then use the LAYER VOICE VOLUME Up/Down buttons to adjust the Layer volume. The LED will display the current value.



- ☞ Pressing both **Up/Down** buttons simultaneously will restore the default value (70).
- ☞ When the LED is showing the Layer volume value, the **DATA Up/Down** buttons may be used instead of the **LAYER VOLUME** buttons.
- ☞ The numerical range of the volume is 0~100.
- ☞ Keep a button pressed to quickly navigate through the values.
- ☞ To stay in **SETUP** mode: The piano may stay in SETUP mode instead of leaving it once the SETUP button is released.

- 1) While in SETUP mode, press **LOCK**. The LED screen will stay where it is even if SETUP is released afterwards.
- 2) Pressing **LOCK** while not pressing **SETUP** will also trigger and lock in the SETUP mode.

### 2 When you're done adjusting, release SETUP to return to performing mode.

- ☞ To cancel the SETUP mode LOCK, press **LOCK** again. The buttons will turn off, allowing the piano to return to performing mode.

## Split

Split divides the piano keyboard into two sections, and allows the player to assign different voices to each of the sections. For example, by using Split the melody part on the right could be played in piano voice while the accompaniment on the left sounding in acoustic bass voice.

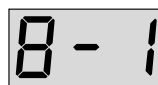
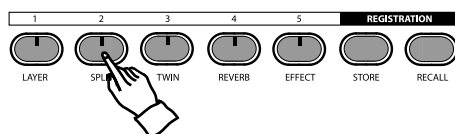
### Using Split

#### 1 Choose the desired main voice first.

The main voice will be assigned to the right part. Refer to Page 13 for voice selection.

#### 2 Press SPLIT.

The Split mode will be activated, indicated by the LED which shows current the Split voice (left part voice) number.



☞ Default Voice : 8-1 Acoustic Bass

#### 3 Choose the desired Split voice (that is, the left part voice).

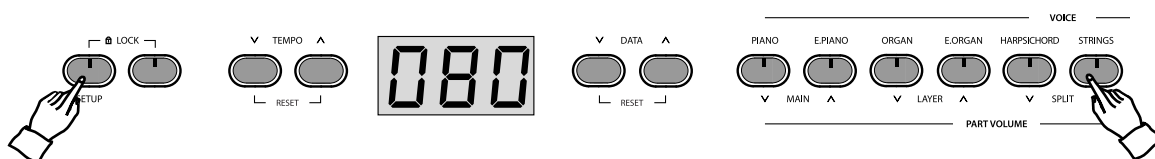
Refer to Page 13 for voice selection.

## Split Volume

By adjusting the Split Voice volume, the balance between volumes of the Main (right) and Split (left) voices may be adjusted.

#### 1 Enter the SETUP mode to adjust the Split volume.

Press and hold down **SETUP**, then use the **SPLIT VOICE VOLUME Up/Down** buttons to adjust the Split volume. The LED will display the current value.



- ☞ Pressing both **Up/Down** buttons simultaneously will restore the default value (80).
- ☞ When the LED is showing the Split volume value, the **DATA Up/Down** buttons may be used instead of the **SPLIT VOICE VOLUME** buttons.
- ☞ The numerical range of the volume is 0~100.
- ☞ Keep a button pressed to quickly navigate through the values.
- ☞ To stay in SETUP mode: The piano may stay in SETUP mode instead of leaving it once the **SETUP** button is released.

- 1) While in SETUP mode, press **LOCK**. The LED screen will stay where it is even if SETUP is released afterwards.
- 2) Pressing **LOCK** while not pressing **SETUP** will also trigger and lock in the SETUP mode.

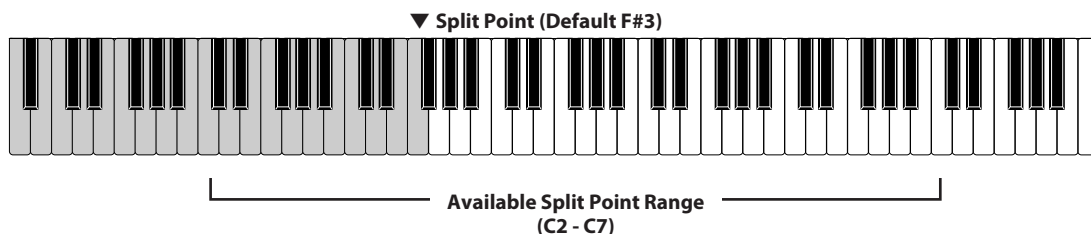
#### 2 When you're done adjusting, release SETUP to return to performing mode.

- ☞ To cancel the SETUP mode LOCK, press **LOCK** again. The buttons will turn off, allowing the piano to return to performing mode.

## Split Point

Split Point determines the point by which the keyboard is divided when using Split.

While holding **SPLIT**, press the key that you wish to set as the split point. A 'bell' sound will be heard, indicating that a new Split Point has been set.



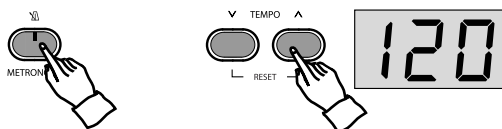
## Metronome

Metronome provides clicks over a steady beat to help the player keep in time while playing.

### Turning Metronome On/Off

Press **METRONOME** to begin hearing metronome beats.

Press **METRONOME** again to turn off the metronome.



### Adjusting Tempo

The range of metronome tempo is from 40 to 250 bpm (beats per minute). It may be adjusted by using the **TEMPO** buttons.

- ⇨ Keep a **TEMPO** button pressed to quickly increase/decrease the value.
- ⇨ The default tempo value is 120; pressing both **TEMPO Up/Down** buttons simultaneously will restore the default tempo.
- ⇨ Refer to Page 27 for setting the meter and volume of the metronome.

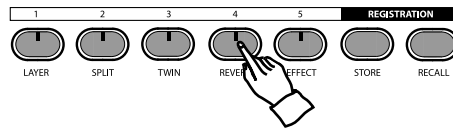
## Reverb

Reverb recreates the decaying reflections of sound as experienced in a fully resonant concert hall, making the piano sound feel more natural and realistic.

8 types of Reverbs are available: Room 1(r-1), Room 2(r-2), Room 3 (r-3), Hall 1(r-4), Hall2 (r-5), Plate (r-6), Delay (r-7), Pan Delay (r-8).

### Using Reverb

Press **REVERB**. The button will turn on, indicating that the Reverb is now active.



To disable the Reverb, press **REVERB** again. The button will turn off.

- ☞ The Reverb is set ON by default.
- ☞ Refer to Page 28 for choosing the type of Reverb.

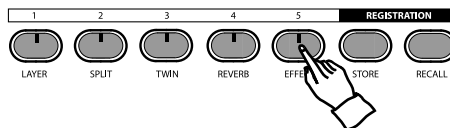
## Effect

Effect adds digital sound effects to the voices, allowing the piano to produce more abundant and unique colors of sound.

8 types of Effects are available: Chorus 1(C-1), Chorus 2(C-2), Chorus 3(C-3), Chorus 4(C-4), Feedback(C-5), Flanger(C-6), Short Delay(C-7), Feedback Delay(C-8).

### Using Effect

Press **EFFECT**. The button will turn on, indicating that the Effect is now active.



To disable the Effect, press **EFFECT** again. The button will turn off.

- ☞ The Effect is set OFF by default.
- ☞ Refer to Page 29 for choosing the type of Effect.

# Demo

## Playing a Demo

The piano features recordings of 50 selected works as played by professional pianists.

### 1 Enter the DEMO mode.

Press **DEMO**. The button will turn on, with the LED displaying 'd01'.



### 2 Refer to the Demo Music List and choose the desired piece to listen.

Use **DATA Up/Down** buttons to reach the number of the desired piece.

⇒ Refer to Page 21 for list of the Demo Music.

### 3 Play the music.

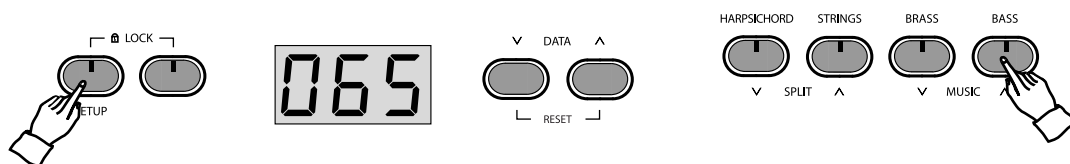
Press **PLAY/STOP** to begin listening to the music.

## Demo Volume

The volume of the Demo recording may be adjusted.

### 1 Enter the SETUP mode to adjust the Demo volume.

Press and hold down **SETUP**, then use **MUSIC VOLUME Up/Down** buttons to adjust the Demo volume.



⇒ Pressing both **DATA Up/Down** buttons simultaneously will restore the default value (65).

⇒ When the LED is showing the Demo volume value, the **DATA Up/Down** buttons may be used instead of the **MUSIC VOLUME** buttons.

⇒ The numerical range of the volume is 0~100.

⇒ Keep a button pressed to quickly navigate through the values.

⇒ To stay in SETUP mode: The piano may stay in SETUP mode instead of leaving it once the **SETUP** button is released.

1) While in SETUP mode, press **LOCK**. The LED screen will stay where it is even if SETUP is released afterwards.

2) Pressing **LOCK** while not pressing **SETUP** will also trigger and lock in the SETUP mode.

### 2 When you're done adjusting, release SETUP to return to performing mode.

⇒ To cancel the SETUP mode LOCK, press **LOCK** again. The buttons will turn off, allowing the piano to return to performing mode.

## Demo List (1~50)

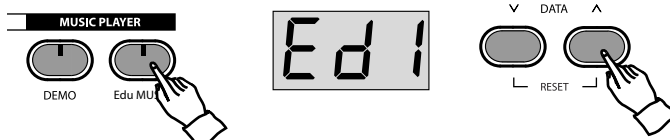
Display	Title	Composer
d01	Etude op.10 no.1	<b>Chopin, Fryderk Francuszek</b>
d02	Etude op.10 no.4	
d03	Etude op.10 no.5	
d04	Etude op.10 no.9	
d05	Nocturne op.9 no.1	
d06	Nocturne op.9 no.2	
d07	Nocturne op.27 no.2	
d08	Nocturne op.32 no.1	
d09	Nocturne op.72 no.1	
d10	Sonata op.3 no.4	
d11	Mazurka 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, KV 330-1 Allegro moderato	<b>Mozart, Wolfgang Amadeus</b>
d25	Piano Sonata no.11 in A major, KV331-3 Alla turca : Allegretto	
d26	Piano Sonata no.14 in C minor, KV457-2 Adagio	
d27	Piano Sonata no.14 in C minor, KV457-3 Allego assai	
d28	Variations "Ah! Vous dirai-je, Manan"	
d29	Rondo in D major, KV485	
d30	Sonate no.8 in c minor, op.13 'Pathetique' Grave- Allegro molto e con brio	<b>Beethoven, Ludwig van</b>
d31	Sonate no.8 in c minor, op.13 'Pathetique' 2 Adagio cantabile	
d32	Sonate no.8 in c minor, op.13 'Pathetique' 3 Allegro	
d33	Arabesque No.1 in E major	<b>Debussy, Claude Achille</b>
d34	Suite bergamesque 1. Prelude	
d35	Suite bergamesque 3. Clair de lune	
d36	Petite Suite, for piano 4-hands 2. Cortege	
d37	Scenes from Childhood op.15 From foreign lands and peoples in G major	<b>Schumann, Robert Alexander</b>
d38	"12 Etudes d'execution transcendante (Transcendental Etudes), S139 Etue Transcendante in d minor, Mazeppa	<b>Liszt, Franz</b>
d39	The flight of the bumble bee (by S. Rachmaninov)	<b>Rimsky, Korsakov</b>
d40	Trois Gymnopedies 1. Lent et douloureux	<b>Satie, Erik</b>
d41	12 Fantasie per clavicembalo (TWV 33) - Harpsichord music - 1. Fantasia	<b>Telemann, Georq Philipp</b>
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	<b>Tchaikovsky, PyotrIlyich</b>
d47	Prelude in C major, BWV933	<b>Bach, Johann Sebastian</b>
d48	Preludium und Fuge in B BWV560- Pipe Organ music-	
d49	Wohltemperiertes Klavier-Pledudio 1	
d50	Wohltemperiertes Klavier-Fuga 1	

# Edu Music

The piano features a dedicated data bank that contains music data specially aimed for educational purpose, which includes the Beyer (106), Burgmüller (25), Czerny (100/30/40, 170 total) etude series, and some favorite sonatines (45) by selected composers.

## Ed1/2/3/4/5/6 (Beyer/Burgmüller/Czerny/Sonatinas)

For enhanced piano learning experience, the piano features a wide range of educational music program consisting of Beyer, Burgmüller, Czerny etudes and sonatinas by selected composers.



### 1 Enter the Educational Music mode.

Press **Edu Music**. The button will turn on, with the LED displaying 'Ed1'.

### 2 Choose the desired Ed group. The available choices are Ed1 (Beyer), Ed2 (Burgmüller), Ed3 (Czerny 100), Ed4 (Czerny 30), Ed5 (Czerny 40), Ed6 (Sonatinas).

Use the **DATA Up/Down** buttons to navigate through the available Edu groups, and press **PLAY/STOP** to select one.

### 3 Choose the desired music inside the group.

Use the **DATA Up/Down** buttons to reach the number of the desired piece.

### 4 Play the music.

Press **PLAY/STOP** to begin listening to the music.

- ☞ Press **TRACK3/REPEAT** to repeat the current music. The button will turn on to indicate that it is in repeat mode.
- ☞ If you wish to enter another Ed group while already in one, choose the '---' which may be found at the beginning of the numbers to exit the current group and return to Ed group selection.
- ☞ If desiring to hear only the right hand part, press **TRACK1/LEFT HAND** to turn off the button and the left hand part, and vice versa if the left hand part only is desired.
- ☞ All listed works have their own default tempos, but you may adjust the tempo by using the **TEMPO Up/Down** buttons. However, any tempo changes made to a piece will cease to take effect once the piece ends and the next piece (or next playback of the same piece if repeating) will be played in its default tempo.
- ☞ Press both **Tempo Up/Down** buttons simultaneously to restore the default tempo.
- ☞ Use the **SETUP** and **MUSIC VOLUME Up/Down** buttons to adjust the volume of the playback (See the section below).

## Edu Music Volume

The volume of the Edu Music recording may be adjusted.

### 1 Enter the SETUP mode to adjust the Edu Music volume.

Press and hold down **SETUP**, then use **MUSIC VOLUME Up/Down** buttons to adjust the Demo volume.

- ☞ Pressing both **DATA Up/Down** buttons simultaneously will restore the default value (65).
- ☞ When the LED is showing the Demo volume value, the **DATA Up/Down** buttons may be used instead of the **MUSIC VOLUME** buttons.
- ☞ The numerical range of the volume is 0~100.
- ☞ Keep a button pressed to quickly navigate through the values.
- ☞ To stay in SETUP mode: The piano may stay in SETUP mode instead of leaving it once the **SETUP** button is released.
  - 1) While in SETUP mode, press **LOCK**. The LED screen will stay where it is even if **SETUP** is released afterwards.
  - 2) Pressing **LOCK** while not pressing **SETUP** will also trigger and lock in the SETUP mode.

### 2 When you're done adjusting, release SETUP to return to performing mode.

- ☞ To cancel the SETUP mode **LOCK**, press **LOCK** again. The buttons will turn off, allowing the piano to return to performing mode.



## Burgmüller Etudes (Ed3) / Sonatines (Ed7)

Display	Title(Ed2)	Display	Title(Ed6)	Composer
b01	Burgmüller 25 Etude No.1 <b>La Candeur</b>	011	Sonatines op.20 no.1 1	<b>F. kuhlau</b>
b02	Burgmüller 25 Etude No.2 <b>L'Arabesque</b>	012	Sonatines op.20 no.1 2	
b03	Burgmüller 25 Etude No.3 <b>La Pastorale</b>	013	Sonatines op.20 no.1 3	
b04	Burgmüller 25 Etude No.4 <b>Patite Reunion</b>	021	Sonatines op.20 no.2 1	
b05	Burgmüller 25 Etude No.5 <b>Innocence</b>	022	Sonatines op.20 no.2 2	
b06	Burgmüller 25 Etude No.6 <b>Progres</b>	023	Sonatines op.20 no.2 3	
b07	Burgmüller 25 Etude No.7 <b>La Courant Limpide</b>	031	Sonatines op.20 no.3 1	
b08	Burgmüller 25 Etude No.8 <b>La Gracieuse</b>	032	Sonatines op.20 no.3 2	
b09	Burgmüller 25 Etude No.9 <b>La Chasse</b>	033	Sonatines op.20 no.3 3	
b10	Burgmüller 25 Etude No.10 <b>Tendre Fleur</b>	041	Sonatines op.55 no.1 1	<b>M. Clementi</b>
b11	Burgmüller 25 Etude No.11 <b>La Bergeronnette</b>	042	Sonatines op.55 no.1 2	
b12	Burgmüller 25 Etude No.12 <b>L'Adieu</b>	051	Sonatines op.55 no.2 1	
b13	Burgmüller 25 Etude No.13 <b>Consolation</b>	052	Sonatines op.55 no.2 2	
b14	Burgmüller 25 Etude No.14 <b>La Styrienne</b>	053	Sonatines op.55 no.2 3	
b15	Burgmüller 25 Etude No.15 <b>Ballade</b>	061	Sonatines op.55 no.3 1	
b16	Burgmüller 25 Etude No.16 <b>Douce Plainte</b>	062	Sonatines op.55 no.3 2	
b17	Burgmüller 25 Etude No.17 <b>La Babillarde</b>	071	Sonatines op.36 no.1 1	
b18	Burgmüller 25 Etude No.18 <b>Inquietude</b>	072	Sonatines op.36 no.1 2	
b19	Burgmüller 25 Etude No.19 <b>Ave Maria</b>	073	Sonatines op.36 no.1 3	
b20	Burgmüller 25 Etude No.20 <b>Tarantelle</b>	081	Sonatines op.36 no.2 1	
b21	Burgmüller 25 Etude No.21 <b>L'Harmonie Des Anges</b>	082	Sonatines op.36 no.2 2	
b22	Burgmüller 25 Etude No.22 <b>Barcarolle</b>	083	Sonatines op.36 no.2 3	
b23	Burgmüller 25 Etude No.23 <b>Le Retour</b>	091	Sonatines op.36 no.3 1	
b24	Burgmüller 25 Etude No.24 <b>L'hirondelle</b>	092	Sonatines op.36 no.3 2	
b25	Burgmüller 25 Etude No.25 <b>La Chevaleresque</b>	093	Sonatines op.36 no.3 3	
		101	Sonatines op.36 no.4 1	<b>J.Haydn</b>
		102	Sonatines op.36 no.4 2	
		103	Sonatines op.36 no.4 3	
		111	Sonatines op.36 no.5 1	<b>W.A.Mozart</b>
		112	Sonatines op.36 no.5 2	
		113	Sonatines op.36 no.5 3	
		121	Sonatines op.36 no.6 1	<b>L.V.Beethoven</b>
		122	Sonatines op.36 no.6 2	
		131	Sonatines Hob. 16-35 1	
		132	Sonatines Hob. 16-35 2	<b>J.L.Dussek</b>
		133	Sonatines Hob. 16-35 3	
		141	Sonatines K.545 1	
		142	Sonatines K.545 2	<b>L.V.Beethoven</b>
		143	Sonatines K.545 3	
		151	Sonatines op.49 no.2 1	
		152	Sonatines op.49 no.2 2	<b>L.V.Beethoven</b>
		161	Sonatines op.49 no.1 1	
		162	Sonatines op.49 no.1 2	
		171	Sonatines op.20 no.1 1	<b>J.L.Dussek</b>
		172	Sonatines op.20 no.1 2	

# Functions / Parameters

By using the Function button, many diverse parameters of the piano may be set. A total of 25 parameters exist, each representing a particular property related to either the sound or functionality of the piano.

## Using Function

Press and hold down **SETUP**, then press **FUNCTION**.

The LED will display 'F01' which indicates that you are on the first parameter.

Navigate through the parameters ('F01', 'F02'... 'F25') by using the **DATA Up/Down** buttons.

Press **ENTER** to edit the current parameter. Use the **DATA Up/Down** buttons to adjust the value.

When you're done, release **SETUP** to allow the piano to return to performing mode.



- ☞ The LED will display the current value.
- ☞ To stay in SETUP mode: The piano may stay in SETUP mode instead of leaving it once the **SETUP** button is released.
  - 1) While in SETUP mode, press **LOCK**. The LED screen will stay where it is even if SETUP is released afterwards.
  - 2) Pressing **LOCK** while not pressing SETUP will also trigger and lock in the SETUP mode.
- ☞ To cancel the SETUP mode LOCK, press **LOCK** again. The buttons will turn off, allowing the piano to return to performing mode.
- ☞ Pressing both **DATA Up/Down** buttons simultaneously will always restore the default value of the respective parameter.
- ☞ Last edited values for each parameter will stay in effect until the piano is turned off, except the **F24** APO (Auto Power-Off) timer setting, which is retained permanently.

Display	Function Name	Range	Default	Note
F01	Master Tune	-99 ~ 00 ~ +99	00	
F02	Key Transpose	-12 ~ 00 ~ +12	00	
F03	Touch	OFF, 1~9	5	
F04	Fixed Touch Level	10 ~ 127	80	
F05	MIDI Local Control	ON/OFF	ON	
F06	Metronome Volume	020 ~ 100	60	
F07	Metronome Beat	0, 2 ~ 12	0	
F08	Brilliance	-50 ~ 00 ~ +50	00	
F09	Octave Shift	-1 ~ 0 ~ +1	0	
F10	Half Pedal	ON/OFF	ON	
F11	Continuous Playback	ON/OFF	ON	
F12	Music Transpose	-12 ~ 00 ~ +12	-	
F13	Reverb Volume	000 ~ 100	50	
F14	Effect Volume	000 ~ 100	70	
F15	Reverb Type	r-1 ~ r-8	r-2	
F16	Effect Type	C-1 ~ C-8	C-3	
F17	Scale Tune	1 ~ 9	1	
F18	String Resonance Volume	000 ~ 100	060	Piano Voices Only
F19	Damper Resonance Volume	000 ~ 100	050	Piano Voices Only
F20	Damper Sample Volume	000 ~ 100	055	Piano Voices Only
F21	Key-Off Sample Volume	0 ~ 4	1	Piano Voices Only
F22	Strech Tune	ON/OFF	ON	Piano Voices Only
F23	Initialize Registration	Enter	-	
F24	APO	OFF/030/120/240	030	
F25	Initialize All	Enter	-	

## Master Tune (F01)

Tune allows fine tuning of the piano by units of cent, which is useful when the piano is to be played alongside other acoustic instruments that are tune-sensitive.

- ☞ Cent: A unit of pitch; 1 cents equals to a hundredth of a semitone.
- ☞ Use the **DATA Up/Down** buttons to adjust the tuning of the instrument by units of cents.
- ☞ Press both **Up/Down** buttons simultaneously to restore its default value (0).
- ☞ Range:  $\pm 99$  cents (default 0)
- ☞ **Hertz(Hz)**: A unit of vibration; it represents the number of repetition occurring in a second during an iterative movement by an object or a wave.
- ☞ Refer to Page 25 on using the FUNCTION button.

## Transpose (F02)

The piano may be transposed by units of semitone, in order to either match the range of a singer's voice without necessitating change of fingering or facilitate playing music written in difficult keys.

- ☞ Range:  $\pm 12$  semitones (default 0)
- ☞ Press both Up/Down buttons simultaneously to restore its default value (0).
- ☞ Refer to Page 25 on using the FUNCTION button.

## Touch (F03)

Touch determines how responsive the sound volume is to the playing strength or velocity of the player. The piano offers 10 different Touch settings to satisfy different types of music or player preferences.

Display	Name	Description
1 2 3	Soft 1 Soft 2 Soft 3	These settings allow the player to produce large sound without necessarily using large forces, and are designed to suit players who do not have much finger strength.
4 5 6	Normal 1 Normal 2 Normal 3	These settings represent the responsiveness of ordinary acoustic pianos. Default value: 5 (=Normal 2).
7 8 9	Hard 1 Hard 2 Hard 3	These settings require the player to play quite hard to produce loud sounds, and suits players that possess strong fingers or desire more delicate control of soft melodies.
OFF	Off (Fixed)	Under this unique setting, all notes are pronounced equally regardless of the player's finger velocity.

- ☞ Range: Off, 1 - 9 (Default 5)
- ☞ Press both Up/Down buttons simultaneously to restore its default value (5).
- ☞ Refer to Page 25 on using the FUNCTION button.

## Fixed Touch Velocity (F04)

When Touch(F03) is set to off(fixed), all notes played will have the same velocity. Fixed Touch Velocity allows you to set the constant volume level that you wish to use while Touch is set to Off.

- ☞ Range: 10 - 127 (Default: 80)
- ☞ Press both Up/Down buttons simultaneously to restore its default value (80).
- ☞ Refer to Page 25 on using the FUNCTION button.

## MIDI Local Control (F05)

Intended for MIDI users, this setting is used mainly when connecting the piano to external devices like computers so as to use the piano as a MIDI input device.

Setting Local Control to Off prevents the input data of the keyboard from being sent to the internal speaker system of the piano, thereby silencing it while the data is output to any external devices connected to the piano as MIDI signals.

- ☞ Range: On, Off (Default: On)
- ☞ Press both **Up/Down** buttons simultaneously to restore its default value (On).
- ☞ Refer to Page 25 on using the FUNCTION button.

## Metronome Volume (F06)

The volume of the metronome clicks may be adjusted.

- ☞ Range: 20 - 100 (Default: 80)
- ☞ Press both Up/Down buttons simultaneously to restore its default value (80).
- ☞ Refer to Page 18 for more information on the Metronome.
- ☞ Refer to Page 25 on using the FUNCTION button.

## Metronome Meter (F07)

The metronome may be set to emphasize the downbeats of a given meter.

- ☞ Range: 0, 2 - 12 (Default: 0)
- ☞ Press both Up/Down buttons simultaneously to restore its default value (0=no meter).
- ☞ Refer to Page 25 on using the FUNCTION button.

## Brilliance (F08)

Brilliance determines the timbre of the piano sound.

When Brilliance is increased the piano sound gains more pronouncing clarity, and when decreased the sound is softened.

- ☞ Brilliance does not affect the secondary voices used for Layer/Split.
- ☞ Range: -50 ~ 0 ~ 50 (Default: 0)
- ☞ Press both **Up/Down** buttons simultaneously to restore its default value (0).
- ☞ Refer to Page 25 on using the FUNCTION button.

## Octave Shift (F09)

Octave Shift allows the piano to be transposed an octave up or down.

- ☞ Octave Shift does not affect the Split voice.
- ☞ Range: -1 ~ 0 ~ 1 (Default: 0)
- ☞ Press both **Up/Down** buttons simultaneously to restore its default value (0).
- ☞ Refer to Page 25 on using the FUNCTION button.

## Half Pedal (F10)

The Half Pedal feature allows the pedal to detect its movement more precisely, producing varying lengths of sustain depending on how much the pedal was pressed.

- ☞ Range: On, Off (Default: On)
- ☞ Press both **Up/Down** buttons simultaneously to restore its default value (On).
- ☞ Refer to Page 10 for more information on the pedal.
- ☞ Refer to Page 25 on using the FUNCTION button.

## Continuous Playback (F11)

With this setting ON, when a Demo piece is finished it is automatically followed by the next piece in the same music group, continuing until the end of that music group is reached. Note that if Repeat (**TRACK3/REPEAT** button) is on, it takes priority over the Continuous Playback.

- ☞ Range: On, Off (Default: On)
- ☞ Press both **Up/Down** buttons simultaneously to restore its default value (On).
- ☞ Refer to Page 20, 22 for more on DEMO and Edu MUSIC.
- ☞ Refer to Page 25 on using the FUNCTION button.

## Music Transpose (F12)

Music Transpose is much like Transpose, but instead of transposing the piano keyboard it affects the Demo songs, transposing them in semitone steps.

- ☞ Range:  $\pm 12$  semitones (Default 0)
- ☞ Press both **Up/Down** buttons simultaneously to restore its default value (0).
- ☞ Refer to Page 25 on using the FUNCTION button.

## Reverb Volume (F13)

The strength of the Reverb sound may be adjusted.

- ☞ Range: 0 ~ 100 (Default 50)
- ☞ Press both **Up/Down** buttons simultaneously to restore its default value (50).
- ☞ Refer to Page 19 for more on Reverb.
- ☞ Refer to Page 25 on using the FUNCTION button.

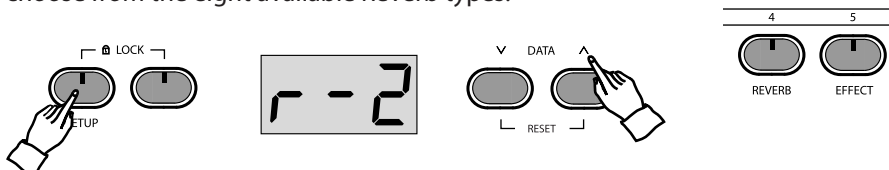
## Effect Volume (F14)

The strength of the Effect sound may be adjusted.

- ☞ Range: 0 ~ 100 (Default: 70)
- ☞ Press both **Up/Down** buttons simultaneously to restore its default value (70).
- ☞ Refer to Page 19 for more on Effect.
- ☞ Refer to Page 25 on using the FUNCTION button.

## Reverb Type (F15)

You may choose from the eight available Reverb types.

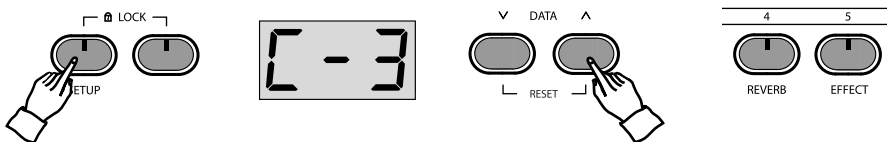


Display	r-1	r-2 (Default)	r-3	r-4	r-5	r-6	r-7	r-8
Name	Room 1	Room 2	Room 3	Hall 1	Hall 2	Plate	Delay	Pan Delay

- ☞ Press both **Up/Down** buttons simultaneously to restore its default value (r-2).
- ☞ Refer to Page 25 on using the FUNCTION button.

## Effect Type (F16)

You may choose from the eight available Effect types.



Display	C-1	C-2	C-3 (Default)	C-4	C-5	C-6	C-7	C-8
Name	Chorus 1	Chorus 2	Chorus 3	Chorus 4	Feed back	Flanger	Short delay	Feedback delay

- ☞ Press both **Up/Down** buttons simultaneously to restore its default value (C-3).
- ☞ Refer to Page 25 on using the FUNCTION button.

## Scale Tune (F17)

Most western music and its instruments use the equal temperament system for tuning, but in different historic periods and/or cultures many other types of tuning systems are found. This piano may be tuned to any of the tuning systems described below.

Display	Name	Description
1	EQUAL_TEMPERAMENT	The most widely used system of tuning which features equal ratios of frequency between all semitones.
2 3	PURE_MAJOR PURE_MINOR	A tuning system that strictly follows the natural overtones, which sets the frequency ratio between two notes to small integers. This scale produces the purest triads (I, IV, V).
4 5	MEAN_TONE PYTHAGOREAN	The Pythagorean system is constructed purely on the basis of octaves and fifths, which produces the purest fifths and fourths but destabilizes thirds. The mean-tone system was developed to address this issue to "fix" the thirds so that they would sound consonant.
6 7	WERCKMEISTER KIRNBERGER	These tuning systems were created by combining the mean tone and Pythagorean systems, in which each musical key possesses its own characteristic.
8 9	ARABIC_1 ARABIC_2	The tuning system used for traditional Arabic music.

- ☞ Range: 1 ~ 9 (Default: 1)
- ☞ Press both **Up/Down** buttons simultaneously to restore its default value (1).
- ☞ Refer to Page 25 on using the FUNCTION button.

## String Resonance Volume (F18)

---

On acoustic pianos, when a key is played there are subtle interferences between sympathetic strings, which is a phenomenon commonly referred as the string resonance. The piano sound contains string resonance samples for advanced realism. This parameter determines the strength of such effect.

- ☞ Range: 0 ~ 100 (Default: 60)
- ☞ Press both **Up/Down** buttons simultaneously to restore its default value (60).
- ☞ Refer to Page 25 on using the FUNCTION button.

## Damper Resonance Volume (F19)

---

When playing an acoustic piano with the damper pedal pressed, the open strings that are not being played also vibrate sympathetically since the dampers are off, their sound reflecting on the surrounding piano cabinet. The digital piano is capable of simulating this reflections of sound on the cabinets using digital effects. This parameter determines the volume of this cabinet reflection effect.

- ☞ Range: 0 ~ 100 (Default: 60)
- ☞ Press both **Up/Down** buttons simultaneously to restore its default value (60).
- ☞ Refer to Page 25 on using the FUNCTION button.

## Damper Sample Volume (F20)

---

When playing an acoustic piano with the damper pedal pressed, the open strings that are not being played also vibrate sympathetically since the dampers are off. This piano also offers live samples of this sound of all open strings vibrating when a key is played with damper pedal pressed. This parameter determines the volume of such samples.

- ☞ Range: 0 ~ 100 (Default: 55)
- ☞ Press both **Up/Down** buttons simultaneously to restore its default value (55).
- ☞ Refer to Page 25 on using the FUNCTION button.

## Key-Off Volume (F21)

---

On acoustic pianos, as the key is released there is the subtle sound of the dampers falling back onto their strings again. The key-off samples of this piano bring the subtle yet essential sensation of key release to life. This parameter determines the volume of this effect.

- ☞ Range: 0 ~ 4 (Default: 0)
- ☞ Press both **Up/Down** buttons simultaneously to restore its default value (0).
- ☞ Refer to Page 25 on using the FUNCTION button.

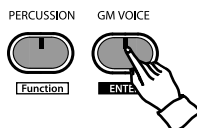
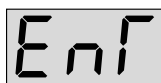
## Stretch Tune (F22)

When tuning an acoustic piano, the low strings are tuned a bit lower than their original pitches, and the high strings higher, in order to accommodate the frequency difference of the harmonic series that occurs depending on the tension and stiffness of the strings, balancing the pitches of the overtones and preventing dissonance when playing multiple notes at once.

- ☞ Setting this OFF will result in the piano being 'flat-tuned', which means that the notes are tuned strictly according to their basic pitches, disregarding the harmonic series.
- ☞ Range: On, Off
- ☞ Press both **Up/Down** buttons simultaneously to restore its default value (On).
- ☞ Refer to Page 25 on using the FUNCTION button.

## Initialize Registration (F23)

This command erases all settings saved to the Registration buttons, restoring them to initial values. When the LED displays **ENΓ**, press ENTER to clear all registration memories.



- ☞ Refer to Page 35 for more on Registration.

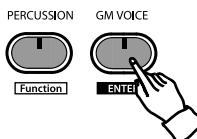
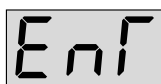
## APO (Auto-Power Off) (F24)

The piano may be set to turn itself off if left unused for a set amount of time in order to conserve energy and ensure safety.

- ☞ Range: Off/30/120/240 (min.) Default: 30
- ☞ Press both **DATA UP/DOWN** buttons simultaneously to restore the default value (30).
- ☞ The last adjusted value will persist even if the piano is turned off.
- ☞ Refer to Page 8 for more on APO.
- ☞ Refer to Page 25 on using the FUNCTION button.

## Initialize ALL (F25)

Initialize ALL parameters that were adjusted using the **FUNCTION** button (except F23). When the LED displays **ENΓ**, press **ENTER** to initialize all parameters.



- ☞ Refer to Page 25 for the default values of each parameter.

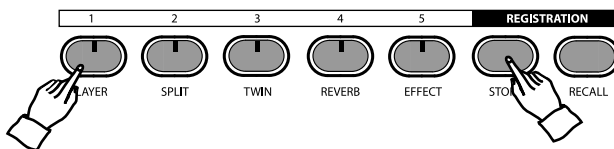
# Registration

Registration allows the user to save all current settings and parameters to the registration buttons so that they may be recalled for easy use in the future.

## Registration Memory

### Saving a Registration

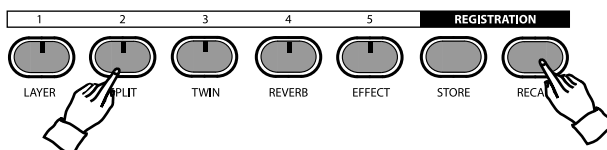
Once all parameters are set, press and hold down **STORE** and then press one of the five **REGISTRATION** buttons to save the current setting to that memory.



- ☞ When **STORE** is pressed the LED will display '---'.
- ☞ Registration may not be used when either DEMO or Edu MUSIC is being used.

### Loading a Registration

Press and hold down **RECALL**, then press the **REGISTRATION(1~5)** button that contains the desired registration.



- ☞ When **RECALL** is pressed the LED will display '---'.
- ☞ Registration may not be used when either DEMO or Edu MUSIC is being used.

### Default Registration Memory Values

Each registration memory has its own default values which is presented at the table below.

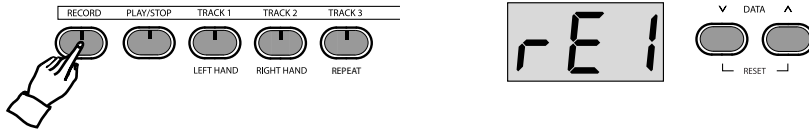
	Main	Layer	Split
1	Grand Piano 1 (1-1)		
2	E.Piano (2-1)	Slow Strings (6-2)	
3	Trumpet (7-4)		Acst. Bass (8-1)
4	Pipe Organ (3-1)		
5	Synth 1 (4-4)	Saxophone (7-3)	

- ☞ Performing Initialize Registration (F23) will erase all user settings from the memories and restore their default values.

# Record

The piano offers extensive recording system that consists of three song slots with three tracks per each slot. Each track may record up to 4,500 notes, which is an amount that can record 'Für Elise' by L. V. Beethoven three times in a row.

## Recording & Playing



### 1 Prepare to record.

Choose the voice(s) that you wish to use for recording, and press **RECORD**.

The button will turn on, and TRACK1 will begin flashing. The Layer and Split may be used for recording to all tracks.

- ☞ A flashing **TRACK** button indicates that track is ready to record.

### 2 Record to Track 1.

Play a key, or press **PLAY/STOP** to begin recording.

- ☞ Recording will terminate if the piano is not played for a long time.
- ☞ When recording, the **RECORD** and **PLAY/STOP** buttons will keep flashing.

### 3 End recording to Track 1.

Press **PLAY/STOP** to stop recording to Track 1.

If desiring to hear what is recorded in Track 1, press **PLAY/STOP** once again.

- ☞ The **PLAY/STOP** button will keep flashing during playback.
- ☞ If a track is empty, its corresponding button will not turn on when pressed.

### 4 Record to Track 2.

End any undergoing recording (to track 1) or playback session, and press **TRACK2**. The button will begin flashing. Play a key, or press **PLAY/STOP** to begin recording.

- ☞ Recording will terminate if the piano is not played for a long time.
- ☞ When recording, the **RECORD** and **PLAY/STOP** buttons will keep flashing.
- ☞ If you do not want to hear the material of other tracks while recording, press the buttons corresponding to the tracks that you wish to mute to turn them off prior to recording.

### 5 End recording to Track 2.

Press **PLAY/STOP** to stop recording to track 2.

### 6 Repeat the steps above to record to multiple tracks.

- ☞ 3 tracks are available.
- ☞ Each track may be played, retrieved or otherwise used individually.
- ☞ If the capacity limit of the recording memory is exceeded, the LED will display 'FUL' and any further material from that point will be discarded.
- ☞ When the capacity limit is exceeded, the piano may stop sounding or otherwise malfunction. If this happens, turn the piano off and on again.
- ☞ All settings (voice, volumes etc.) are also recorded along. However, metronome clicks are not recorded, neither the Transpose, Tune and Touch parameters.
- ☞ Recorded materials are preserved even if the piano is turned off, or the Initialize ALL function is performed.
- ☞ While recording (or playback) is in progress, keeping an **UP/DOWN** button pressed will not sprint through the values as usual.

## 7 To erase a Track/Tracks:

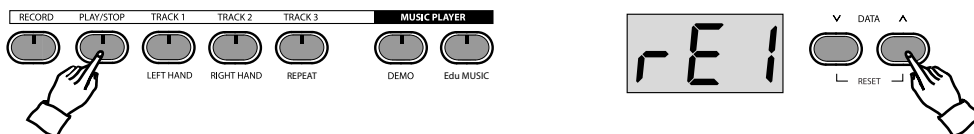
Recorded materials are preserved even if the piano has been turned off, and you need to perform the following to remove any recorded material:

- ☞ To erase a track, press and hold down its respective **TRACK** button until a 'bell' is heard.
- ☞ To erase all tracks, press and hold down the **RECORD** button until a 'bell' is heard.

## 8 Press RECORD again to quit recording and return to performing mode.

## Recording Memory Banks

The piano offers three memory banks for recording, allowing the user to save up to 3 recordings with 3 available tracks per each recording.



### 1 Choose a Memory Bank.

Press **PLAY/STOP**. The LED will display 'rE1', which represents memory bank 1.

Use **DATA Up/Down** buttons to move to other banks.

- ☞ A total of 3 banks (rE1, rE2, rE3) exist, each with 3 tracks.
- ☞ A track may record up to 4,500 notes, and a bank has a capacity of 13,500 notes (4,500 x 3). Therefore, the maximum number of notes that the piano may record at a time is 40,500.
- ☞ Recorded materials are preserved even if the piano is turned off, or the Initialize ALL function is performed.

### 2 To erase a Memory Bank:

Press and hold down **RECORD** until a 'bell' rings. The contents of the currently chosen bank will be erased.

# MIDI

## 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 wv		O	O	#kk:note ON (0-127) #vv:velocity (1-127)
Pitch Bender	EnH bi bh		O	O	Maximum swing +/- 1 tone
Control Change	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	Damper Pedal
	65	BnH 41H cc	O	X	Portamento ON/OFF
	66	BnH 42H cc	O	O	Sostenuto Pedal
	67	BnH 43H cc	O	O	Soft Pedal
	80	BnH 80H wv	O	X	Reverb Prog.(w=00H-70H)
	81	BnH 51H wv	O	X	Chorus Prog.
	91	BnH 5BH wv	O	O	Reverb Send Level
	93	BnH 5DH wv	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 Voices & Percussions

## List of GM Voices

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

## List of Percussions

	Prog 1 Standard Drum (b-1)	Prog 9 Room Drum	Prog 17 Rock Drum (b-2)	Prog 25 Elec. Drum (b-3)	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 Rim 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				
71 - B4	Short Whistle[EXC2]				808 Maracas
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	Belltrees				
85 - C#6	Castanets				
86 - D6	Mute Surdo[EXC6]				
87 - D#6	Open Surdo[EXC6]				
88 - E6					

※ The sets Prog. 9 (Room Drum), Prog. 26 (Analog Drum), Prog. 33 (Jazz Drum), Prog. 41 (Brush Drum), Prog. 49 (Orchestra Drum) are not included in the percussion voice of the piano, and may be used only through MIDI connections.

	Prog 33 Jazz Drum	Prog 41 Brush Drum	Prog 49 Orchestra Drum	Prog 57 SFX 2 (b-5)		
27 - D#1		Closed Hi Hat				
28 - E1		Pedal Hi-Hat				
29 - F1		Open Hi Hat				
30 - F#1		Ride Cymbal				
31 - G1						
32 - G#1						
33 - A1						
34 - A#1						
35 - B1	Jazz BD2	Jazz BD2	Concert BD 2			
36 - C2	Jazz BD1	Jazz BD1	Concert BD1			
37 - C#2						
38 - D2		Brush Tap	Concert SD			
39 - D#2		Brush Slap	Castanets	High Q		
40 - E2		Brush Swirl	Concert SD	Slap		
41 - F2			Timpani F	Scratch Puch		
42 - F#2			Timpani F#	Scratch Pull		
43 - G2			Timpani G	Sticks		
44 - G#2			Timpani G#	Square Click		
45 - A2			Timpani A	Metronome Click		
46 - A#2			Timpani A#	Metronome Bell		
47 - B2			Timpani B	Guitar Slide		
48 - C3			Timpani c	Gt Cut Noise(dw)		
49 - C#3			Timpani c#	Gt Cut Noise(up)		
50 - D3			Timpani d	Double Bass Slap		
51 - D#3			Timpani d#	Key Click		
52 - E3			Timpani e	Laughing		
53 - F3			Timpani f	Screaming		
54 - F#3				Punch		
55 - G3				Heart Beat		
56 - G#3				Footstep 1		
57 - A3			Concert Cymbal2	Footstep 2		
58 - A#3				Applause		
59 - B3			Concert Cymbal1	Door Creaking		
60 - C4				Door Closing		
61 - C#4				Scratch		
62 - D4				Wind Chime		
63 - D#4				Car Engine Start		
64 - E4				Car Breaking		
65 - F4				Car Pass		
66 - F#4				Car Crash		
67 - G4				Police Siren		
68 - G#4				Train		
69 - A4				Jet Take-off		
70 - A#4				Helicopter		
71 - B4				Starship		
72 - C5				Gun Shot		
73 - C#5				Machine gun		
74 - D5				Laser gun		
75 - D#5				Explosion		
76 - E5				Dog		
77 - F5				Horse Gallop		
78 - F#5				Birds		
79 - G5				Rain		
80 - G#5				Thunder		
81 - A5				Wind		
82 - A#5				Sea Shore		
83 - B5				Stream		
84 - C6				Bubble		
85 - C#6						
86 - D6						
87 - D#6						
88 - E6						

※ The Prog. 59 (SFX 1) have additional sound effects on the lowest (A0~D1) and highest (F6~C8) keys that are excluded from the chart due to its limit of range.

# Trouble shooting

If a problem occurs while using this product, check the points listed below first prior to contacting customer service.

Problem	Cause	Solution
The piano does not turn on.	<ol style="list-style-type: none"> <li>1) The power cord is not properly plugged.</li> <li>2) The power switch is not pressed. (The button is lighted when it is pressed.)</li> </ol>	<ol style="list-style-type: none"> <li>1) Properly plug the power cord.</li> <li>2) Press the power switch.</li> <li>3) Contact customer service.</li> </ol>
The speakers produce no sound when a key is played.	<ol style="list-style-type: none"> <li>1) The master volume is set to minimum.</li> <li>2) A headphone is connected.</li> <li>3) The power connection jack of the power cord is not properly connected to the product.</li> <li>4) The treble/bass volume is set to minimum.</li> </ol>	<ol style="list-style-type: none"> <li>1) Increase the master volume.</li> <li>2) Disconnect the headphone.</li> <li>3) Properly connect the power connection jack to the product.</li> <li>4) Increase the part volumes.</li> </ol>
There are notable difference between the volumes of the main voice and the secondary voice.	<ol style="list-style-type: none"> <li>1) The secondary voice volume is set to a wrong value.</li> </ol>	<ol style="list-style-type: none"> <li>1) Set the secondary voice volume properly.</li> </ol>
Random noise is heard when using the product.	<ol style="list-style-type: none"> <li>1) Other electric products such as a refrigerator or an electric washer are operating nearby.</li> </ol>	<ol style="list-style-type: none"> <li>1) Move the product faraway from other electric products, particularly those that use motors.</li> </ol>
No sound is heard when using the product connected to an external sound device.	<ol style="list-style-type: none"> <li>1) The master volume is set to minimum.</li> <li>2) The connecting cord is either cut or damaged.</li> </ol>	<ol style="list-style-type: none"> <li>1) Increase the master volume.</li> <li>2) Replace the cord.</li> </ol>

# Product Specifications

<b>Product Name</b>	HIGH PERFORMANCE USB DIGITAL PIANO
<b>Keyboard</b>	High Quality ARHA 88 Standard Keyboard - 7 1/4 octaves
<b>Touch</b>	10 Levels (Soft 1/2/3, Normal 1/2/3, Hard 1/2/3, Off)
<b>Maximum Polyphony</b>	256
<b>Voices</b>	128 General MIDI 3 Drum Sets 2 Effect Sets
<b>Features</b>	Layer, Split, Tune, Transpose, Twin Piano
<b>Registration Memory</b>	5 slots
<b>DSP</b>	8 Reverbs, 8 Effects
<b>Metronome</b>	Yes (Tempo/meter/volume adjustable)
<b>Display</b>	LED
<b>Demo</b>	50
<b>Educational Music</b>	346 (Beyer/Czerny/Burgmüller etudes, selected sonatines)
<b>Recording</b>	Real-time recording 3 tracks x 3 banks Maximum 40,500 notes (4,500 per track)
<b>Volume Controls</b>	Master, Main, Layer, Split, Demo, Edu Music
<b>I/o Terminals</b>	AUX IN/OUT, USB TO HOST, Pedal Input, 2 headphones jacks
<b>Speaker</b>	6.5 INCHx2, 2 INCHx2
<b>Power Consumption</b>	STEREO 20W + 20W
<b>Power</b>	DC Adapter
<b>Accessory</b>	Owner's Manual, Adapter



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