



PortableGrand DGX-670
Owner's Manual

Thank you for purchasing this Yamaha Digital Piano!

This instrument provides a comprehensive array of authentic voices and a superb grand piano touch with versatile functions.

We recommend that you read this manual carefully so that you can fully take advantage of the advanced and convenient functions of the instrument. We also recommend that you keep this manual in a safe and handy place for future reference.

Before using the instrument, be sure to read "PRECAUTIONS" on pages 4-5.





Information for users on collection and disposal of old equipment:

This symbol on the products, packaging, and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste.

For proper treatment, recovery and recycling of old products, please take them to applicable collection points, in accordance with your national legislation.

By disposing of these products correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling.

For more information about collection and recycling of old products, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.

For business users in the European Union:

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

Information on Disposal in other Countries outside the European Union:

This symbol is only valid in the European Union. If you wish to discard these items, please contact your local authorities or dealer and ask for the correct method of disposal.

(weee_eu_en_02)

FCC INFORMATION (U.S.A.)

1. IMPORTANT NOTICE: DO NOT MODIFY THIS UNIT!

This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modifications not expressly approved by Yamaha may void your authority, granted by the FCC, to use the product.

2. IMPORTANT: When connecting this product to accessories and/or another product use only high quality shielded cables. Cable/s supplied with this product MUST be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorization to use this product in the USA.

3. NOTE: This product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class "B" digital devices. Compliance with these requirements provides a reasonable level of assurance that your use of this product in a residential environment will not result in harmful interference with other electronic devices. This equipment generates/uses radio frequencies and, if not installed and used according to the instructions found in the users manual, may cause interference harmful to the operation of other electronic

devices. Compliance with FCC regulations does not guarantee that interference will not occur in all installations. If this product is found to be the source of interference, which can be determined by turning the unit "OFF" and "ON", please try to eliminate the problem by using one of the following measures:

Relocate either this product or the device that is being affected by the interference.

Utilize power outlets that are on different branch (circuit breaker or fuse) circuits or install AC line filter/s.

In the case of radio or TV interference, relocate/reorient the antenna. If the antenna lead-in is 300 ohm ribbon lead, change the lead-in to co-axial type cable.

If these corrective measures do not produce satisfactory results, please contact the local retailer authorized to distribute this type of product. If you can not locate the appropriate retailer, please contact Yamaha Corporation of America, Electronic Service Division, 6600 Orangethorpe Ave, Buena Park, CA90620

The above statements apply ONLY to those products distributed by Yamaha Corporation of America or its subsidiaries.

* This applies only to products distributed by Yamaha Corporation of America.

(class B)

COMPLIANCE INFORMATION STATEMENT (Supplier Declaration of conformity procedure)

Responsible Party : Yamaha Corporation of America
Address : 6600 Orangethorpe Ave., Buena Park, Calif. 90620
Telephone : 714-522-9011
Type of Equipment : Digital Piano
Model Name : DGX-670

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- 1) this device may not cause harmful interference, and
- 2) this device must accept any interference received including interference that may cause undesired operation.

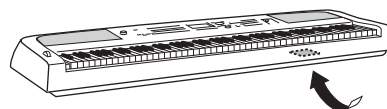
* This applies only to products distributed by Yamaha Corporation of America.

(FCC SDoC)

The model number, serial number, power requirements, etc., may be found on or near the name plate, which is at the bottom of the unit. You should note this serial number in the space provided below and retain this manual as a permanent record of your purchase to aid identification in the event of theft.

Model No. _____

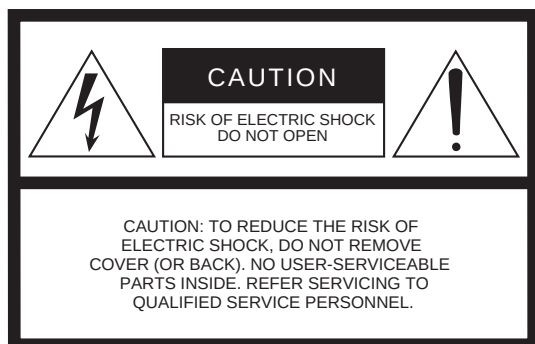
Serial No. _____



The name plate is located on the bottom of the unit.

(bottom_en_01)

For the AC adaptor



Explanation of Graphical Symbols



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



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

IMPORTANT SAFETY INSTRUCTIONS

- 1 Read these instructions.
- 2 Keep these instructions.
- 3 Heed all warnings.
- 4 Follow all instructions.
- 5 Do not use this apparatus near water.
- 6 Clean only with dry cloth.
- 7 Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11 Only use attachments/accessories specified by the manufacturer.
- 12 Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13 Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

(UL60065_03)

PRECAUTIONS

PLEASE READ CAREFULLY BEFORE PROCEEDING

Please keep this manual in a safe and handy place for future reference.

For the AC adaptor



WARNING

- € This AC adaptor is designed for use with only Yamaha electronic instruments. Do not use for any other purpose.
- € Indoor use only. Do not use in any wet environments.



CAUTION

When setting up, make sure that the AC outlet is easily accessible. If some trouble or malfunction occurs, immediately turn off the power switch of the instrument and disconnect the AC adaptor from the outlet. When the AC adaptor is connected to the AC outlet, keep in mind that electricity is flowing at the minimum level, even if the power switch is turned off. When not using the instrument for a long time, make sure to unplug the power cord from the wall AC outlet.

For the instrument



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:

Power supply/AC adaptor

- € Do not place the power cord near heat sources such as heaters or radiators. Also, do not excessively bend or otherwise damage the cord, or place heavy objects on it.
- € Only use the voltage specified as correct for the instrument. The required voltage is printed on the plate of the instrument.
- € Use the specified adaptor (page 100). Using the wrong adaptor can result in damage to the instrument or overheating.
- € Use only the supplied power cord/plug.
- € Check the electric plug periodically and remove any dirt or dust that may have accumulated on it.

Do not open

- € This instrument contains no user-serviceable parts. Do not open the instrument or attempt to disassemble or modify the internal components in any way. If it appears to be malfunctioning, discontinue use immediately and have it inspected by qualified Yamaha service personnel.

Water warning

- € Do not expose the instrument to rain, use it near water or in damp or wet conditions, or place on it any containers (such as vases, bottles or glasses) containing liquids which might spill into any openings. If any liquid such as water seeps into the instrument, turn off the power immediately and unplug the power cord from the AC outlet. Then have the instrument inspected by qualified Yamaha service personnel.
- € Never insert or remove an electric plug with wet hands.

Fire warning

- € Do not put burning items, such as candles, on the unit. A burning item may fall over and cause a fire.

Influences on electro-medical devices

- € Radio waves may affect electro-medical devices.
 - Do not use this product near medical devices or inside areas in which the use of radio waves is restricted.
 - Do not use this product within 15cm (6 in.) of persons with a heart pacemaker or defibrillator implant.

If you notice any abnormality

- € When one of the following problems occurs, immediately turn off the power switch and disconnect the plug from the outlet. Then have the device inspected by Yamaha service personnel.
 - The power cord or plug becomes frayed or damaged.
 - It emits unusual smells or smoke.
 - Some object has been dropped into the instrument.
 - There is a sudden loss of sound during use of the instrument.
 - If any cracks or breakages exist on the instrument.



CAUTION

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

Power supply/AC adaptor

- € Do not connect the instrument to an electrical outlet using a multi-plug connector. Doing so can result in lower sound quality, or possibly cause overheating in the outlet.
- € When removing the electric plug from the instrument or an outlet, always hold the plug itself and the cord. Pulling by the cord can damage it.
- € Remove the electric plug from the outlet when the instrument is not to be used for extended periods of time, or during electrical storms.

Connections

- € Before connecting the instrument to other electronic components, turn off the power for all components. Before turning the power on or off for all components, set all volume levels to minimum.
- € Be sure to set the volume levels of components at minimum levels and gradually raise the volume controls while playing the instrument to set the desired listening level.

Location

- € Do not place the instrument in an unstable position where it might accidentally fall over.
- € Do not go near the instrument during an earthquake. Strong shaking during an earthquake could cause the instrument to move or tip over, resulting in damage to the instrument or its parts, and possibly causing injury.
- € When transporting or moving the instrument, always use two or more people. Attempting to lift the instrument by yourself may damage your back, result in other injury, or cause damage to the instrument itself.
- € Before moving the instrument, remove all connected cables, to prevent damage to the cables or injury to anyone who might trip over them.

Handling caution

- € Do not insert a finger or hand in any gaps on the instrument.
- € Never insert or drop paper, metallic, or other objects into the gaps on the panel or keyboard. This could cause physical injury to you or others, damage to the instrument or other property, or operational failure.
- € Do not rest your weight on, or place heavy objects on the instrument, and do not use excessive force on the buttons, switches or connectors.
- € Do not use the instrument/device or headphones 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 in the ears, consult a physician.

- € When setting up the product, make sure that the AC outlet you are using is easily accessible and trouble or malfunction occurs, immediately turn off the power switch and disconnect the plug from the outlet. Even when the power switch is turned off, electricity is still flowing to the product at the minimum level. When you are not using the product for a long time, make sure to unplug the power cord from the wall AC outlet.
- € Use only the stand specified for the instrument (page 15). When attaching it, use the provided screws. Failure to do so could cause damage to the internal components or result in the instrument falling over.

Yamaha cannot be held responsible for damage caused by improper use or modifications to the instrument that is lost or destroyed.

Always turn the power off when the instrument is not in use. Even when the [] (Standby/On) switch is in standby status (display is off), electricity is still flowing to the instrument at the minimum level. When you are not using the instrument for a long time, make sure you unplug the power cord from the wall AC outlet.

NOTICE

To avoid the possibility of malfunction/ damage to the product, damage to data, or damage to other property, follow the notices below.

„ Handling

- € Do not connect this product to public Wi-Fi and/or Internet directly. Only connect this product to the Internet through a router with strong password-protections. Consult your router manufacturer for information on security best practices.
- € Do not use the instrument in the vicinity of a TV, radio, stereo equipment, mobile phone, or other electric devices. Otherwise, the instrument, TV, or radio may generate noise.
- € When you use the instrument along with an app on your smart device such as a smartphone or tablet, we recommend that you set Wi-Fi or Bluetooth to on after enabling •Airplane ModeŽ on that device in order to avoid noise caused by communication.
- € Do not expose the instrument to excessive dust or vibrations, or extreme cold or heat (such as in direct sunlight, near a heater, or in a car during the day) to prevent the possibility of panel disfiguration, damage to the internal components or unstable operation. (Verified operating temperature range: 5° ... 40°C, or 41° ... 104°F.)
- € Do not place vinyl, plastic or rubber objects on the instrument, since this might discolor the panel or keyboard.

„ Maintenance

- € When cleaning the instrument, use a soft and dry/slightly damp cloth. Do not use paint thinners, solvents, alcohol, cleaning fluids, or chemical-impregnated wiping cloths.
- € During extreme changes in temperature or humidity, condensation may occur and water may collect on the surface of the instrument. If water is left, the wooden parts may absorb the water and be damaged. Make sure to wipe any water off immediately with a soft cloth.

„ Saving data

- € Recorded Song and edited Song/Style/Voice/MIDI setup data, etc. are lost when you turn off the power to the instrument. This also occurs when the power is turned off by the Auto Power Off function (page 17). Save the data to the instrument, or to USB flash drive (page 26).
- € You can back up the data and settings of this instrument to the USB flash drive as a backup file (page 33), as well as restore a backup file to the instrument. To protect against data loss due to some failure, an operation mistake, etc., save your important data to a USB flash drive.
- € To protect against data loss through USB flash drive damage, we recommend that you save your important data onto spare USB flash drive or an external device such as a computer as backup data.

Information

„ About copyrights

- € Copying of the commercially available musical data including but not limited to MIDI data and/or audio data is strictly prohibited except for your personal use.
- € This product incorporates and bundles contents in which Yamaha owns copyrights or with respect to which Yamaha has license to use others• copyrights. Due to copyright laws and other relevant laws, you are NOT allowed to distribute media in which these contents are saved or recorded and remain virtually the same or very similar to those in the product.
 - * The contents described above include a computer program, Accompaniment Style data, MIDI data, WAVE data, voice recording data, a score, score data, etc.
 - * You are allowed to distribute medium in which your performance or music production using these contents is recorded, and the permission of Yamaha Corporation is not required in such cases.

„ About functions/data bundled with the instrument

- € Some of the preset songs have been edited for length or arrangement, and may not be exactly the same as the original.
- € This device is capable of using various types/formats of music data by optimizing them to the proper format music data for use with the device in advance. As a result, this device may not play them back precisely as their producers or composers originally intended.
- € The bitmap fonts used in this instrument have been provided by and are the property of Ricoh Co., Ltd.

„ About this manual

- € The illustrations and displays as shown in this manual are for instructional purposes only, and may appear somewhat different from those on your instrument.
- € The letters at the end of the model name (such as •B,Ž •WHŽ) indicate the color of the instrument. Since they simply indicate the appearance, these letters are omitted in this manual.
- € Windows is a registered trademark of Microsoft® Corporation in the United States and other countries.
- € The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Yamaha Corporation is under license.



- € The company names and product names in this manual are the trademarks or registered trademarks of their respective companies.

About the Manuals

This instrument has the following documents and instructional materials.

Included Documents



Owner's Manual (this book)

Explains the basic operations and functions of this instrument. Please read this manual first.

Online Materials (Downloadable from the web)



Reference Manual (only in English, German, French and Spanish)

Explains advanced features of the instrument, not explained in the Owner's Manual. For example, you can learn how to create original Styles or Songs, or find detailed explanations of specific parameters. Each chapter in this manual corresponds to the relevant chapters in the Owner's Manual.



Data List

Contains various important preset content lists such as Voices, Styles, etc., as well as MIDI-related information of this instrument.



Smart Device Connection Manual

Explains how to connect the instrument to a smart device such as smartphone or tablet, etc.



Computer-related Operations

Includes instructions on connecting this instrument to a computer, and operations related to transferring files and MIDI data.

To obtain these manuals, access the Yamaha Downloads <https://download.yamaha.com/> and enter the model name for searching the desired files.

Yamaha Downloads

<https://download.yamaha.com/>

Included Accessories

- „ Owner's Manual (this book)
- „ Online Member Product Registration
- „ AC adaptor*/ power cord*
- „ Music rest
- „ Footswitch

* May not be included depending on your area. Check with your Yamaha dealer.

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Welcome to the new DGX!

The DGX-670 is equipped with a color display and has advanced features that enhance your musical enjoyment and expand your creative and performance possibilities. Let's take a look!

Authentic piano sound

This instrument features gorgeous piano Voices, created with samples of the Yamaha CFX flagship concert grand piano. This instrument also features VRM which accurately recreates the acoustic resonance of grand piano, which changes subtly by the timing and strength of the player's touch and pedal operation. This enables expression of ever most delicate performance nuances and responds minutely to your use and key playing. The Piano Room features provide even greater piano performance enjoyment. Piano Room lets you select the desired piano type as well as different room ambiences, enabling a complete realistic piano experience, as if you were playing an actual piano.



▶▶▶ Page 35

Performing in various music genres

Naturally, this instrument provides many realistic piano Voices for your playing enjoyment. But it also features a wide variety of authentic instruments, both acoustic and electronic, including organ, guitar, sax, and others used in many music genres, letting you convincingly perform in any desired music style. Moreover, the special Super Articulation Voices realistically recreate many of the performance techniques and characteristic sounds generated when an artist plays an instrument. The result is superbly detailed expression, such as the realistic sound of finger slides on guitar, and the expressive breath noises of saxophone and other wind instruments.

▶▶▶ Page 38

Full Backing Band Accompaniment

Even if you're playing alone, the DGX can put an entire backing band behind you! By simply playing the keyboard, chords are automatically detected and they trigger the auto accompaniment backing (Style function). Select an accompaniment Style, such as pop, jazz, Latin, and various other music genres in the world, and let the DGX be your complete backing band! You can change arrangements on the fly, instantly selecting different rhythm variations and breaks in real time, including Intro, Ending, and Fill-in, during your performance.



▶▶▶ Page 48

Audio playing and recording

Audio files (WAV format) saved to a USB flash drive can be played back on the instrument. You can also record your performance as audio files (WAV format) to a USB flash drive, making it easy to edit your recordings on computer as desired, and share them over the Internet.

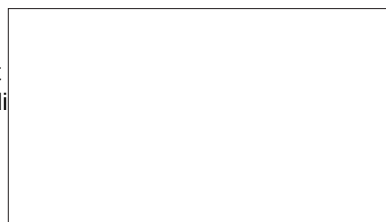


▶▶▶ Page 72

Lesson features with Score display

The Lesson features are a fun way to learn and master Songs, with notation shown on the display. For example, when you practice the right-hand part, the playback of the left part and other parts will wait for you to play the notes correctly. This allows you to practice melody and phrases smoothly, even if you are a beginner.

▶▶▶ Page 65



Sing along with Song playback or your own performance

Since a microphone can be connected to this instrument and Song lyrics can be shown on the display, you can enjoy singing along with your keyboard performance or along with Song playback. Moreover, you can apply various effects such as chorus to your singing voice. You can also cancel the vocal part on audio recordings, letting you sing along with (or instead of!) your favorite artists and groups, and enjoy performing even more.

▶▶▶ Page 77



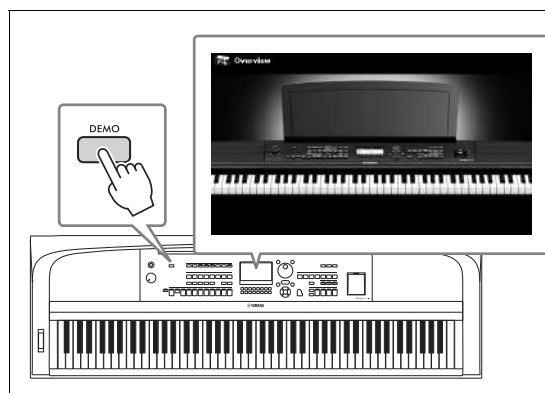
Playing back the audio data wirelessly, Bluetooth Audio function

The audio data in a Bluetooth-equipped device such as a smartphone can be played back through the DGX-670's built-in speakers. You can enjoy playing or singing along with the audio data, or simply listening to your favorite music.

▶▶▶ Page 96



*Depending on the country in which you purchased the product, the instrument may not have Bluetooth capability.



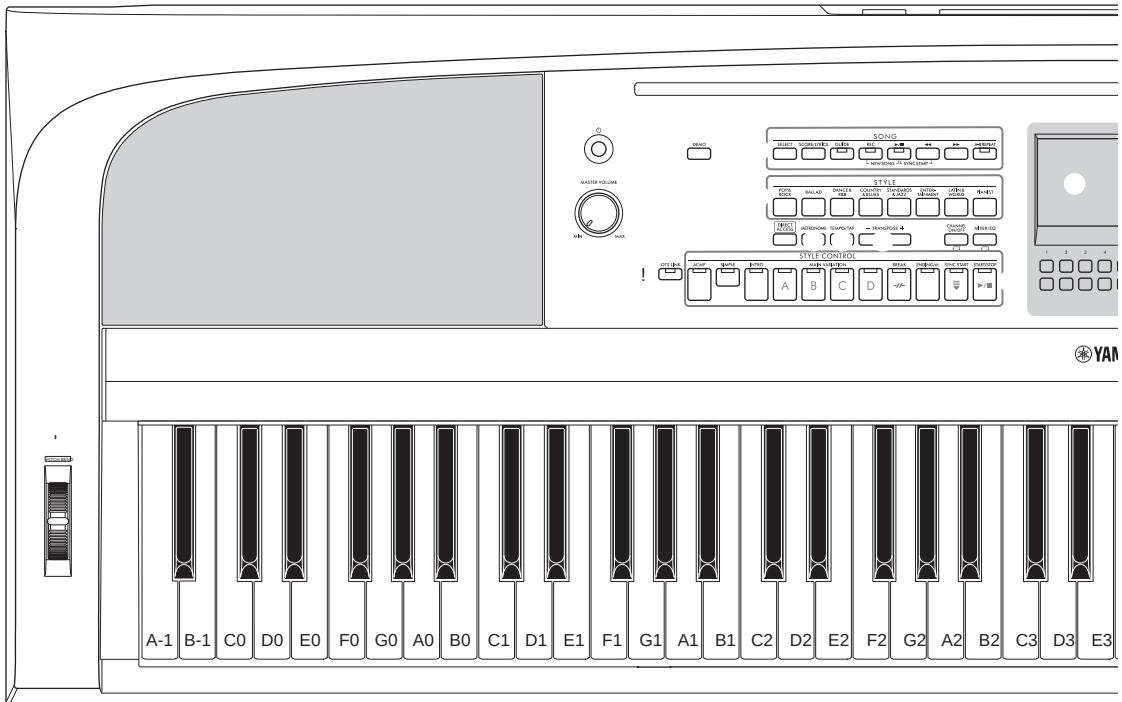
Want to learn more about the DGX-670's features?

Press the [DEMO] button and start the demonstration!

To stop the demonstration, press the [EXIT] button located at right of the display.

Panel Controls and Terminals

Top Panel



[1] (Standby/On) switch page 16
Turns on the instrument's power or sets to standby.

[MASTER VOLUME] dial page 17
Adjusts the overall volume.

[DEMO] button page 11
Plays the Demos.

SONG related buttons page 60
For selecting Songs and controlling Song playback.

STYLE category selection buttons page 48
For selecting a Style category.

[DIRECT ACCESS] button page 22
Instantly calls up the desired display with just a single additional button press.

[METRONOME] button page 44
Turns the metronome on or off.

[TEMPO/TAP] button page 52
Controls the tempo for Style, Song and Metronome playback.

TRANPOSE [-]/[+] buttons page 44
Transposes the entire pitch of the instrument in semitone steps.

[CHANNEL ON/OFF] button pages 53, 65
Calls up settings for turning Style/Song channels on or off.

[MIXER/EQ] button page 88
Calls up various settings for the keyboard, Style and Song parts.

! [OTS LINK] button page 52
Turns on/off the OTS Link function.

STYLE CONTROL buttons page 48
Controls Style playback.

LCD and related controls page 19
Indicates the current panel settings and allows you to select or change the settings.

[MENU] button page 100
Lets you make advanced settings and create your original Styles and Songs.

If your instrument is equipped with Bluetooth functionality (page 96), the Bluetooth logo is printed on the panel  button. Depending on the country in which you purchased the product, the instrument may not have Bluetooth capability.

- ? [PLAYLIST] button page 80
Calls up the Playlist display in which you can manage your repertoire.

[MIC SETTING] button page 77
Calls up the display from which you can make settings for the microphone.

[USB AUDIO] button page 72
Calls up the display for playing back audio files in the connected USB flash drive and recording your performance to the USB flash drive in audio format.

VOICE category selection buttons page 38
For selecting a Voice category.

" [VOICE EFFECT] button page 45
Applies various effects to the keyboard performance.

PART ON/OFF buttons..... page 38
Turns the keyboard part on or off.

\$ [PIANO ROOM] button page 35
Instantly calls up the optimum piano-related settings for playing the instrument simply as a piano.

% REGISTRATION MEMORY buttons... page 80
Registers and recalls panel setups.

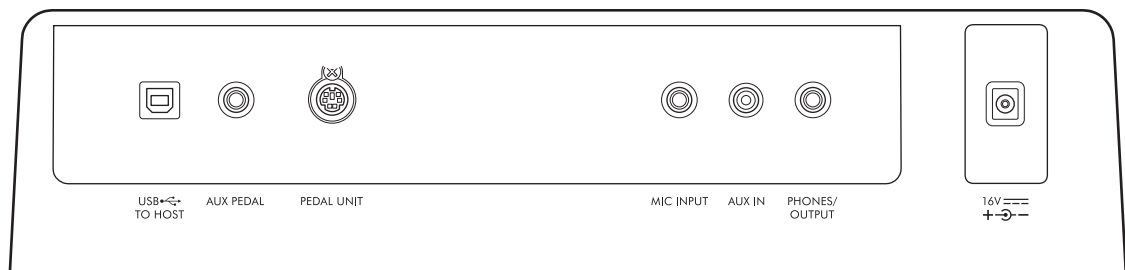
& [USB TO DEVICE] terminal page 91
For connecting a USB flash drive or USB wireless LAN adaptor.

' [PITCH BEND] wheel page 45
Bends the pitch of the keyboard played sound up or down.

Panel Setup (Panel Settings)
By using the controls on the panel, you can make various settings as described here. These settings of the instrument are together referred to as •panel setupŽ or •panel settingsŽ in this manual.

Panel Setup (Panel Settings)
By using the controls on the panel, you can make various settings as described here. These settings of the instrument are together referred to as **•panel setup•** or **•panel settings•** in this manual.

Rear Panel



[USB TO HOST] terminal page 92
For connecting to a computer or smart device such as smartphone or tablet.

[AUX PEDAL] jack see below
For connecting the included footswitch or separately sold foot pedals.

[PEDAL UNIT] jack page 15
For connecting a separately sold pedal unit.

[MIC INPUT] jack page 77
For connecting a microphone.

[AUX IN] jack page 95
For connecting an external audio device, such as a portable audio player.

[PHONES/OUTPUT] jack page 98
For connecting headphones or an external devices, such as speakers.

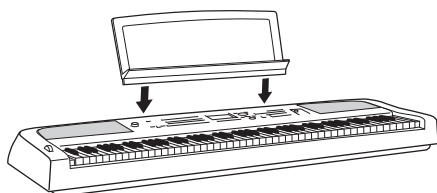
DC IN jack page 16
For connecting the AC adaptor.

⚠ CAUTION

Before connecting the instrument to other electronic components, turn off the power of all the components. Also, before turning any components on or off, make sure to set all volume levels to minimum (0). Otherwise, damage to the components, electrical shock, or even permanent hearing loss may occur.

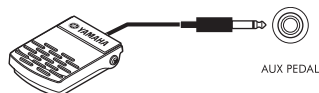
Attaching the Music Rest

Insert the music rest into the slots as shown.



Connecting a Footswitch

Connect the included footswitch to the [AUX PEDAL] jack. Other separately sold foot pedals (FC3A, FC4A or FC5) can also be connected to this jack. By default, the sustain function is assigned.



NOTE

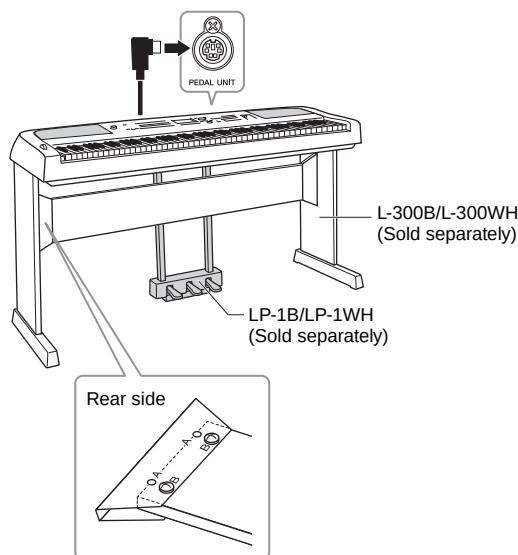
- € Make sure that the power is off when connecting or disconnecting the footswitch.
- € Do not press the footswitch while turning the power on. Doing this changes the recognized polarity of the footswitch, resulting in reversed operation.

Assigning a function to each pedal

Various functions can be assigned to each pedal connected to the [AUX PEDAL] jack or the [PEDAL UNIT] jack, including start/stop of Song playback and controlling Super Articulation Voices. These can be set on the Pedal tab of the Controller display called up via the [MENU] button (page 100).

Using a Keyboard Stand and Pedal Unit (Sold Separately)

A separately sold LP-1B/LP-1WH pedal unit can be connected to the [PEDAL UNIT] jack. When connecting the pedal unit, make sure to also assemble the unit on the separately sold L-300B/L-300WH keyboard stand. The L-300B/L-300WH keyboard stand is designed to be used for multiple models. When assembling the keyboard stand for the DGX-670, make sure to use the screw holes indicated by •BŽ on the metal brackets of the stand. For details, refer to the assembly manual of the stand.



NOTE

- € Make sure that the power is off when connecting or disconnecting the pedal unit.
- € Do not press the pedals while turning the power on. Doing this changes the recognized polarity of the pedals, resulting in reversed operation.

Half Pedal function (for FC3A and LP-1B/LP-1WH)

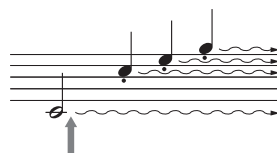
The FC3A and the right pedal of the LP-1B/LP-1WH have a Half Pedal function which allows you to use half-damper techniques, in which the damper is pressed somewhere between all the way down and all the way up. In this half-damper state (on a real piano), the damper feels only partially mute the strings. The Half Pedal function lets you delicately and expressively control the damper muting, and create subtle nuances in your performance, by finely controlling the point at which pressure on the pedal affects the damper muting. The point is called •Half Pedal PointŽ and can be set on the Pedaltab of the Controller display called up via the [MENU] button (page 100).

Pedal Unit Functions

By default, the following functions are assigned to each pedal.

„ Damper Pedal (Right)

Pressing this pedal will sustain notes longer. Releasing this pedal immediately stops (damps) any sustained notes.

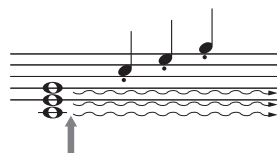


If you press and hold the damper pedal here, all the notes shown will be sustained.

When you select a VRM Voice (page 41), pressing this pedal activates the VRM to accurately recreate the unique resonance of an acoustic grand piano's soundboard and strings.

„ Sostenuto Pedal (Center)

If you play a note or notes on the keyboard and press the sostenuto pedal while the note(s) are held, those notes will sustain as long as you hold the pedal (as if the damper pedal had been pressed) but all subsequently played notes will not be sustained. This makes it possible to sustain a note or notes, for example, while other notes are played •staccato.Ž



If you press and hold the sostenuto pedal here, only the notes held at this timing will be sustained.

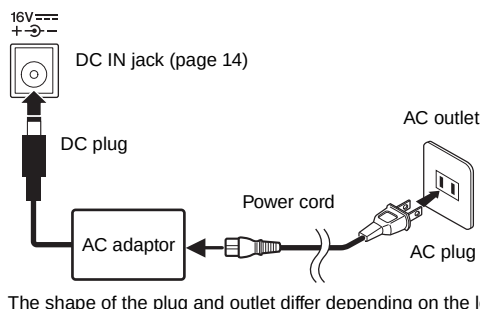
„ Soft Pedal (Left)

The soft pedal reduces the volume and slightly changes the timbre of notes played while the pedal is pressed. The soft pedal will not affect notes that are already playing when it is pressed.

Starting Up

Power Supply

Connect the plugs of the AC adaptor in the order shown in the illustration.



⚠ WARNING

Use the specified AC adaptor (page 107) only. Using the wrong AC adaptor can result in damage to the instrument or overheating.

⚠ CAUTION

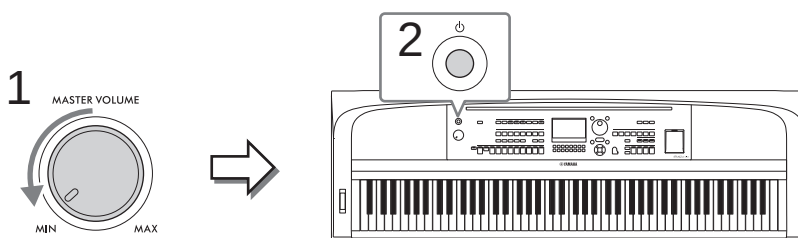
When setting up the product, make sure that the AC outlet you are using is easily accessible. If some trouble or malfunction occurs, immediately turn the power off and disconnect the plug from the outlet.

NOTE

When disconnecting the power cord, first turn off the power, and then follow this procedure in reverse order.

Turning the Power On/Off

- 1 Turn down the [MASTER VOLUME] dial to •MIN.Ž



- 2 Press the [1] (Standby/On) switch to turn the power on.
After the Main display appears, adjust the volume as desired while playing the keyboard.

NOTICE

Do not attempt any other operations, such as pressing keys, buttons or pedals. Doing so may cause the instrument to malfunction.

- 3 After you finish using the instrument, turn off the power by pressing the [1] (Standby/On) switch for about a second.

⚠ CAUTION

Even when the [1] (Standby/On) switch is in standby status, electricity is still flowing to the instrument at the minimum level. Remove the electric plug from the outlet when the instrument is not to be used for extended periods of time, or during electrical storms.

NOTICE

While recording or editing, or while a message is displayed, the power cannot be turned off even if you press the [1] (Standby/On) switch. If you want to turn off the power, press the [1] (Standby/On) switch after recording, editing, or after the message has disappeared. If you need to force-quit the instrument, hold down the [1] (Standby/On) switch for longer than three seconds. Note that the force-quit operation might cause data loss and damage to the instrument.

Setting the Auto Power Off function

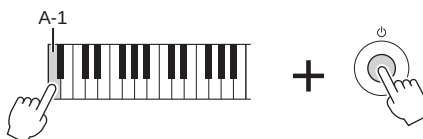
To prevent unnecessary power consumption, this instrument features an Auto Power Off function that automatically turns the power off if the instrument is not operated for a specified period of time. The amount of time that elapses before the power is automatically turned off is 30 minutes by default; however, you can change the setting. For details, refer to page 18.

NOTICE

Any data which is not saved via the Save operation will be lost if the power automatically turns off. Make sure to save your data before this happens.

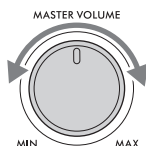
„ Disabling Auto Power Off (simple method)

Turn the power on while holding down the lowest key on the keyboard. A message appears briefly, then the instrument starts up with the Auto Power Off function disabled.



Adjusting the Master Volume

To adjust the volume of the entire keyboard sound, use the [MASTER VOLUME] dial while playing the keyboard.



⚠ CAUTION

Do not use the instrument for a long period of time at a high or uncomfortable volume level, since this can cause permanent hearing loss.

Intelligent Acoustic Control (IAC)

IAC is a function which automatically adjusts and controls the sound quality according to the overall volume of the instrument. Even when the volume is low, it permits both low sounds and high sounds to be clearly heard. IAC Control affects only the sound output of the instrument speakers. You can turn the IAC function on or off, and set the depth, although the default setting for this function is on. This can be set on the Config1 tab in the Utility display called up via the [MENU] button (page 100).

Making Basic Settings

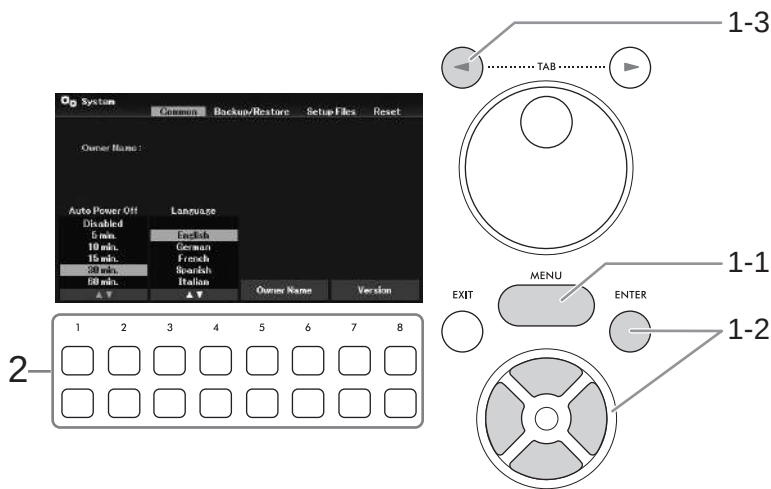
As necessary, make basic settings for the instrument, such as the language shown on the display.

1 Call up the operation display.

1-1 Press the [MENU] button to call up the Menu display.

1-2 Use the Cursor buttons [] [] [] [] to select System and then press the [ENTER] button.

1-3 Press the TAB [] button to select the Common tab.



2 Use the [16 %] ... [8 %] buttons to make the necessary settings.

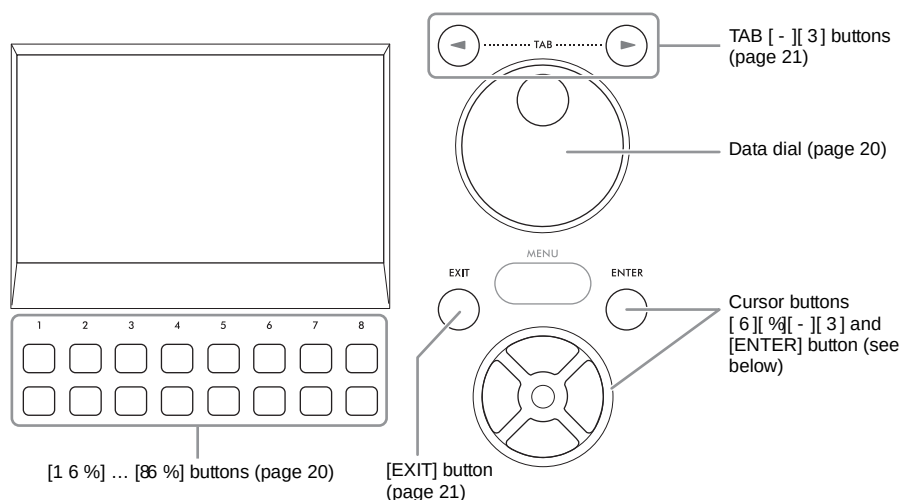
[1 6 %]/ [2 6 %]	Auto Power Off	Determines the amount of time that elapses before the power is automatically turned off by the Auto Power Off function (page 17). To disable Auto Power Off, select Disabled here.
[3 6 %]/ [4 6 %]	Language	Determines the language (English, German, French, Spanish and Italian are available) used in the display for messages.
[5 6 %]/ [6 6 %]	Owner Name	Lets you input your name which appears in the opening display (called up when the power is turned on). For instructions on entering characters, refer to page 31.
[7 6 %]/ [8 6 %]	Version	Calls up the firmware version of this instrument.

To return to the previous display, press the [EXIT] button.

Basic Operations

Display-based Controls

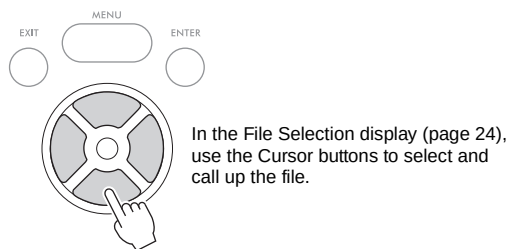
The LCD provides comprehensive at-a-glance information on all current settings. The displayed menu or parameters can be selected or changed by the controls around the LCD.



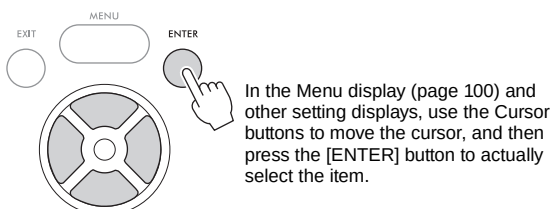
Cursor buttons [6] [%] [-] [3] and [ENTER] button

These buttons are used to move the on-screen cursor. In this manual, the upper and lower buttons are described as [6] [%] and the left and right buttons as [-] [3]. There are two types of display. One is the type in which the item is selected (and called up) only by moving the cursor, and the other is the type in which you need to press the [ENTER] button after moving the cursor to actually call up the item.

„ Example 1

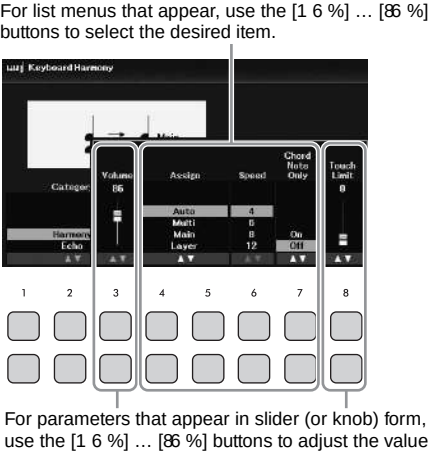
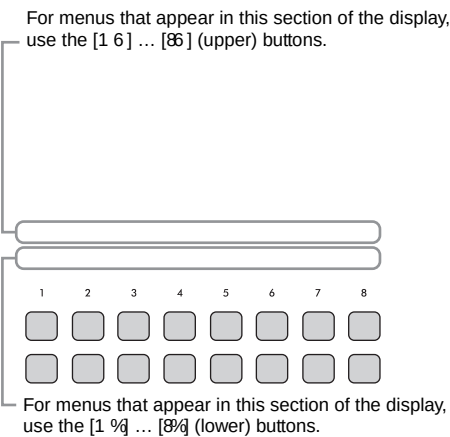


„ Example 2



[1 6 %] ... [86 %] buttons

The [1 6 %] ... [86 %] buttons are used to make selections or adjust settings (up or down correspondingly) for functions shown directly above them. In this manual, the upper buttons are described as [1 6 %] and the lower buttons as [%].



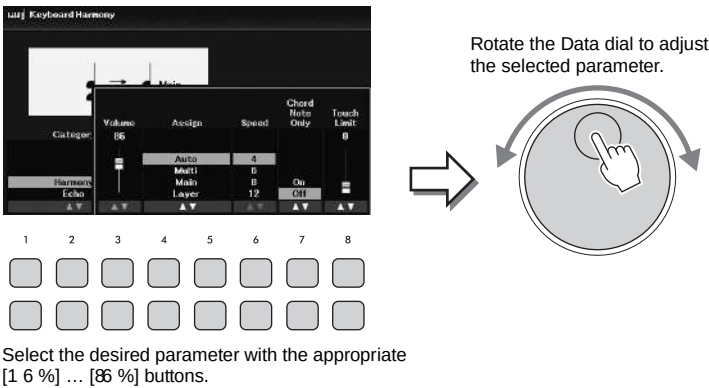
When setting parameters, you can reset the parameter to the default value by pressing both [%] buttons of the same number simultaneously.

Data dial

Depending on the selected display, the Data dial can be used in the following two ways.

„ Adjusting parameter values

You can conveniently use the Data dial in tandem with the [1 6 %] ... [86 %] buttons to adjust parameters indicated in the display.



This convenient technique also works well with pop-up parameters such as Tempo and Transpose. Simply press the appropriate button (ex., [TEMPO/TAP]), and then rotate the Data dial to set the value.

„ Selecting files (Voice, Style, Song, and so on)

The operation by using the Data dial is almost same as the operation of the Cursor buttons. After calling up the File Selection displays, rotate the Data dial to move the cursor, and then press the [ENTER] button to actually select and call up the file.

In most procedures when selecting the file or item described throughout this Owner's Manual, the Cursor buttons [6] [4] [-] [3] are used for simple selection, though other methods may also be used.

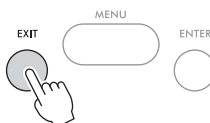
TAB [-] [3] buttons

These buttons are used mainly to change the pages of displays that have •tabsŽ at the top.



[EXIT] button

Pressing the [EXIT] button returns to the previously indicated display. Pressing the [EXIT] button several times returns to the default Main display (page 23).



Instruction Conventions in this Manual

Throughout this manual, instructions with multiple steps are given in convenient shorthand, with arrows indicating the proper sequence.

Example:

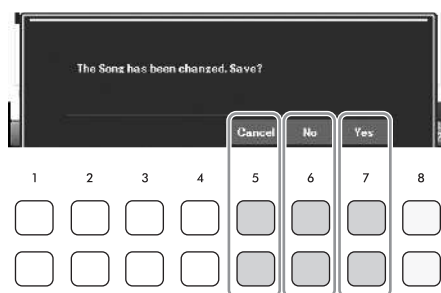
[MENU] Cursor buttons [6] [4] [-] [3] Controller, [ENTER] TAB [3] Setting Cursor button [6]
1 Touch Response

The example above describes a four-step operation:

- 1) Press the [MENU] button.
- 2) Use the Cursor buttons [6] [4] [-] [3] to select Controller, and then press the [ENTER] button.
- 3) Press the TAB [3] buttons to select the Setting tab.
- 4) Press the Cursor button [6] to select 1 Touch Response

Messages Shown in the Display

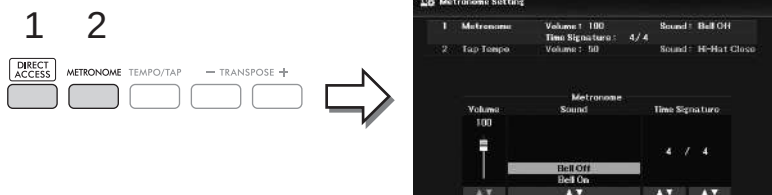
A message (information or confirmation dialog) sometimes appears on the screen to facilitate operation. When the message appears, press one of the [1.. [8 %] buttons corresponding to the message.



Calling Up the Desired Display Instantly „ Direct Access

With the convenient Direct Access function, you can instantly call up the desired display „ with just a single additional button press. Refer to [Direct Access Chain](#) in the Data List on the website for a list of the displays that can be called up with the Direct Access function.

- 1 Press the [DIRECT ACCESS] button.
A message appears in the display prompting you to press the appropriate button.

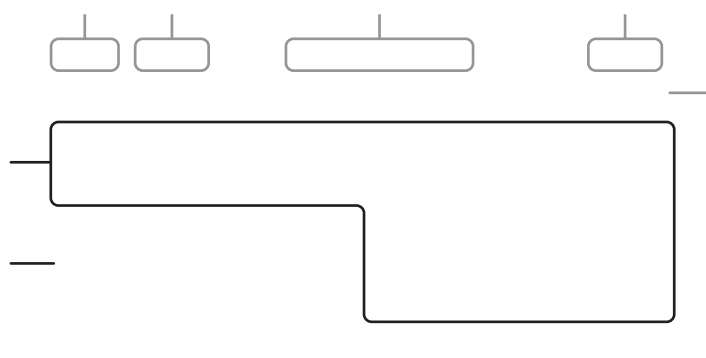


- 2 Press the button (or move the [PITCH BEND] wheel or connected pedal) corresponding to the desired setting display to instantly call up that display.
For example, pressing the [METRONOME] button calls up the display in which the time signature, volume and sound of the metronome can be set.

Main Display Configuration

The display that appears when the power is turned on is the Main display. This display shows the current basic settings such as the currently selected Voice and Style, allowing you to see them at a single glance. The Main display is the one you'll usually see when you play the keyboard.

The File Selection display (page 24) of Style, Song, Voice or Registration Memory Bank can also be called up from this display. To do this, use the Cursor buttons [F4] [-] [3] to select the desired item, and then press the [ENTER] button.



Voice name

Displays the Voice names currently selected for the Main, Layer and Left parts (page 38).

NOTE

When the Left Hold function (page 46) is on, an •HŽ indication appears at the right corner of the Left part.

Style name and related information

Displays the currently selected Style name, time signature and tempo (page 48).

When the [ACMP] button is turned on, the detected chord during your keyboard performance will be displayed. When the Song containing the chord data is played back, the current chord name will be displayed.

Song (MIDI file) name and related information

Displays the currently selected Song name, time signature and tempo (page 60).

Audio file name and related information

Displays information for the selected audio file in the connected USB flash drive (page 72), including the elapsed playback time, file name and Repeat mode icon. While recording, is shown.

Registration Memory Bank name and related information

Displays the currently selected Registration Memory Bank name and current Registration number (page 81).

When the Registration Sequence is on, the programed numbers are shown. The function lets you call up the four setups in any order you specify, by simply using the TAB [3] buttons or the pedals. For details, refer to the Reference Manual on the website, Chapter 7.

NOTE

When the Freeze function (page 83) is on, an •FŽ indication appears at the right corner.

Tempo

Displays the current tempo in Style playback or Song playback.

Bar/Beat

Displays the current position (bar/beat) of Style playback or Song playback.

Microphone indicator

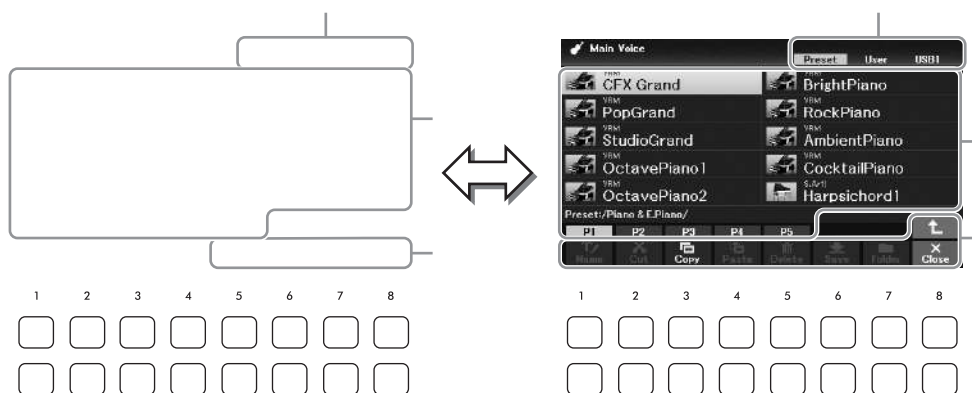
Indicates the input level of the connected microphone (page 77).

Transpose

Displays the amount of transposition in semitone units (page 44).

File Selection Display Configuration

The File Selection display is for selecting Voice, Styles, and other data (files). The File Selection display appears when you press one of the VOICE or STYLE category selection buttons, SONG [SELECT] button, etc.



Location (drive) of data

€Preset... Location where pre-programmed (preset) data is stored.

€User..... Location where recorded or edited data is saved.

€USB1.... Location where data on USB flash drive is saved. This appears only when a USB flash drive is connected to the [USB TO DEVICE] terminal.

NOTE

Before using a USB flash drive, be sure to read •Connecting USB DevicesŽ on page 91.

Selectable data (files)

The files that can be selected on this display are shown. If more than 10 files exist, the page numbers (P1, P2 ...) are shown below the files. Pressing one of the [16] buttons corresponding to the page numbers changes the display page. For pages that follow, • Ž appears, and for previous pages, • Ž appears.

File/Close

At the bottom of the File Selection display, you can toggle the indication between File and Close by pressing the [8] button. Pressing the [8] button while File is shown calls up the File Management menu (page 26), while pressing the [8] button while Close is shown closes the File Management menu and calls up the function names related to the current file (Voice, Style, Song, etc.).

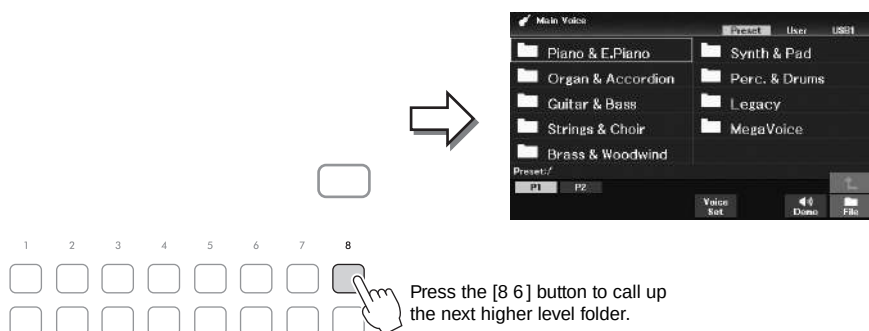
Calling up a higher level folder

When there are files in a folder, an up arrow is shown at the lower right of the display, allowing you to call up the higher level folder by pressing the **[6]** button.

Example of the Preset Voice Selection display

The preset Voices are categorized and contained in appropriate folders.

The next highest level (in this case, folder) is shown. Each folder shown in this display contains appropriately categorized Voices.



This display shows the Voices in a folder.

File Management

You can save, name, copy, move, delete files, and you can create folders to manage the files with the buttons located lower area in the File Selection display. For information on the File Selection display, refer to page 24.

NOTE

Before using a USB flash drive, be sure to read •Connecting USB DevicesŽ on page 91.

Saving a File

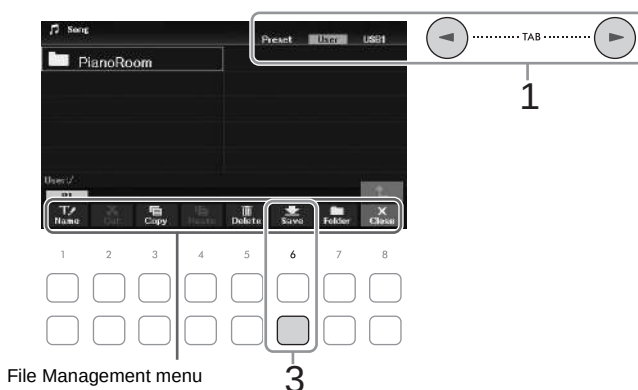
You can save your original data (such as Songs you’ve recorded) as a file to the instrument or USB flash drive.

- 1 In the File Selection display, select the appropriate tab (Preset or User or USB) to which you want to save the data by using the TAB [3] buttons.
If you want to save the data within an existing folder, also select the folder here.

NOTE

€ Files cannot be saved to the Preset tab.

€ The maximum total number of files/folders which can be saved to the User tab differs depending on the file size and the length of the file/folder names.



- 2 Make sure that the File Management menu is shown at the bottom of the display.
If the menu is not shown, press the [F] (File) button to call it up.
- 3 Press the [6] (Save) button.
The Character Entry window is called up.

NOTE

To cancel the Save operation, press the [8] (Cancel) button before step 5 below.

- 4 Enter the file name (page 31).
Even if you skip this step, you can rename the file at any time after saving it (page 28).

5 Press the [8] (OK) button to actually save the file.

If the file name already exists, a message appears asking you if you want to overwrite or not. If not, press one of the [6%] (No) buttons and enter another name.

The saved file will be automatically located at the appropriate position among the files in alphabetical order.

Creating a New Folder

You can create folders to make it easier to find your original data.

1 In the File Selection display, select the appropriate tab (Preset or USB) to which you want to create a new folder by using the TAB [] [3] buttons.

If you want to create a new folder within an existing folder, also select the folder here.

NOTE

€ A new folder cannot be created in the Preset tab or the PianoRoom folder (page 37).

€ The maximum number of files/folders which can be saved in a folder is 500.

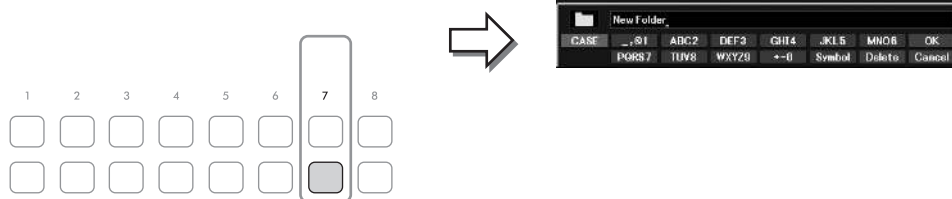
€ In the User tab, no more than three folder levels can be created. The maximum total number of files/folders which can be saved differs depending on the file size and the length of the file/folder names.

2 Make sure that the File Management menu is shown at the bottom of the display.

If the menu is not shown, press the [F] (File) button to call it up.

3 Press the [7%] (Folder) button.

The Character Entry window is called up.



NOTE

To cancel creating a new folder, press the [8 %] (Cancel) button.

4 Enter the name of the new folder (page 31).

If the folder name already exists, a message appears asking you if you want to overwrite or not. If not, press one of the [6%] (No) buttons and enter another name.

The created folder will be automatically located at the appropriate position among the folders in alphabetical order.

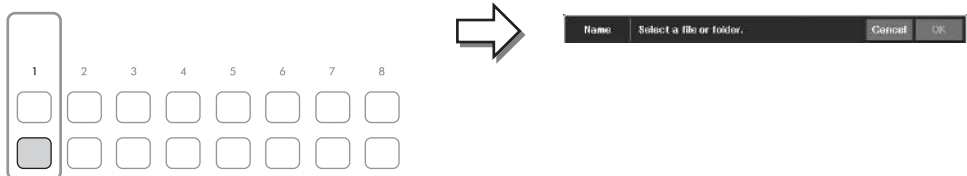
Renaming a File/Folder

You can rename files/folders.

NOTE

- € Files and folders in the Preset tab cannot be renamed.
- € The PianoRoom folder (page 37) cannot be renamed.

- 1 In the File Selection display, select the appropriate tab (Preset or USB) to which you want to rename by using the TAB-[] [3] buttons.
- 2 Make sure that the File Management menu is shown at the bottom of the display. If the menu is not shown, press the [F] (File) button to call it up.
- 3 Press the [N] (Name) button.
The window for the Rename operation appears at the bottom of the display.



- 4 Move the cursor to the desired file/folder by using the Cursor buttons [6] [4] [-] [3], and then press the [ENTER] button.

NOTE

To cancel the Rename operation, press the [7] [4] (Cancel) button.

- 5 Press the [8] (OK) button to confirm the file/folder selection.
The Character Entry window is called up.
- 6 Enter the name of the selected file or folder (page 31).
The renamed file/folder appears on the display at the appropriate position among the files in alphabetical order.

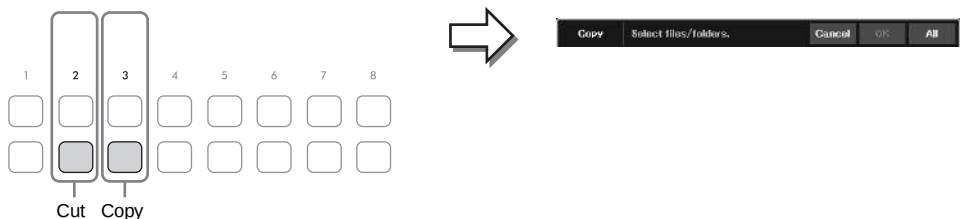
Copying or Moving Files

You can copy or cut files and paste them to another location (folder). You can also copy folders (but not move them) by using the same procedure.

NOTE

- Files in the Preset tab and the PianoRoom folder (page 37) cannot be moved.
- Protected Songs such as preset Songs copied to the User tab are indicated by • Prot.12 above the Song name on the Song Selection display. These cannot be copied or moved to USB flash drives.

- 1 In the File Selection display, select the appropriate tab (Preset, User or USB) which contains the file/folder you want to copy by using the TAB [] [3] buttons.
- 2 Make sure that the File Management menu is shown at the bottom of the display. If the menu is not shown, press the [F] (File) button to call it up.
- 3 Press the [3] (Copy) button to copy or [2] (Cut) button to move. The window for the Copy/Cut operation appears at the bottom of the display.



- 4 Move the cursor to the desired file/folder by using the Cursor buttons [6] [%] [-] [3], and then press the [ENTER] button. Pressing the [ENTER] button selects (highlights) the file/folder. To cancel the selection, press the [ENTER] button again. Press the [8] (All) button to select all files/folders indicated on the current display including the other pages. To cancel the selection, press the [8] (All Off) button again.

NOTE

To cancel the Copy/Move operation, press the [6 %] (Cancel) button.

- 5 Press the [7] (OK) button to confirm the file/folder selection.
- 6 Select the destination tab (User or USB) to paste the file/folder, by using the TAB [-] [3] buttons. If necessary, select the destination folder by using the Cursor buttons [6] [%] [-] [3], and then press the [ENTER] button.
- 7 Press the [4] (Paste) button to paste the file/folder selected in step 4. If the file/folder name already exists, a message appears asking you if you want to overwrite or not. If not, press one of the [6] (No) buttons and enter another name. The pasted file/folder appears on the display at the appropriate position among the files in alphabetical order.

Deleting Files/Folders

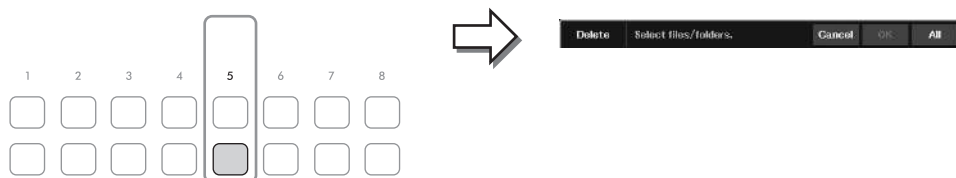
You can delete individual or multiple files/folders.

NOTE

€ Files in the Preset tab cannot be deleted.

€ The PianoRoom folder (page 37) cannot be deleted.

- 1 In the File Selection display, select the appropriate tab (e.g. USB) which contains the file/folder you want to delete by using the TAB  [3] buttons.
- 2 Make sure that the File Management menu is shown at the bottom of the display. If the menu is not shown, press the  (File) button to call it up.
- 3 Press the  (Delete) button.
The window for the Delete operation appears at the bottom of the display.



- 4 Move the cursor to the desired file/folder by using the Cursor buttons  [6]  [3], and then press the [ENTER] button.
Pressing the [ENTER] button selects (highlights) the file/folder. To cancel the selection, press the [ENTER] button again.
Press the  (All) button to select all files/folders indicated on the current display including the other pages. To cancel the selection, press the  (All Off) button again.

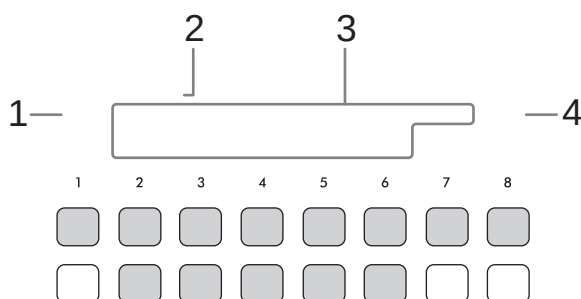
NOTE

To cancel the Delete operation, press the  (Cancel) button.

- 5 Press the  (OK) button to confirm the file/folder selection.
- 6 Follow the on-display instructions.
€Yes:Deletes the file/folder
€Yes All:Deletes all selected files/folders
€No: Leaves the file/folder as is without deleting
€Cancel:Cancels the Delete operation

Entering Characters

This section covers how to enter characters for naming files/folders, etc. Entering characters is done in the display shown below.



NOTE

- € The following marks cannot be entered for a file/folder name: \ / : * ? " < > |
- € File names or folder names can contain up to 50 characters.

- 1 Change the type of character by pressing the **[F1]** button.
 €CASE: Capital letters, numbers, marks
 €case: Lowercase letters, numbers, marks
- 2 Use the Data dial to move the cursor to the desired position.
- 3 Press the **[2 %]** ... **[6 %]** and **[7 6]** buttons, corresponding to the character you wish to enter.
 Several different characters are assigned to each button, and the characters change each time you press the button. To actually enter the selected character, move the cursor or press another character-input button. Alternately, you can wait for a short time and the character will be entered automatically.
 For more information on entering characters, refer to •Other character-entry operationsŽ on the page 32.

NOTE

To cancel the character-entering operation, press the **[8 %]** (Cancel) button.
- 4 Press the **[8]** (OK) button to actually enter the new name and return to the previous display.

Other character-entry operations

„ Deleting characters

Move the cursor to the character you wish to delete by using the Data dial, and press the [Delete] button. To delete all characters on the line at once, press and hold the [Delete] button.

„ Entering marks or space

- 1 Press the [Symbol] button to call up the mark list.
- 2 Use the Data dial to move the cursor to the desired mark or space, and then press the [OK] button.

„ Selecting custom icons for files (shown at left of file name)

- 1 Press the [Icon] button to call up the Icon Select pop-up.
- 2 Select the icon by using the Cursor buttons [Left] [Right] or Data dial. The display includes several pages. Use the TAB [Next] buttons to select the desired pages.
- 3 Press the [OK] button to apply the selected icon.

NOTE

To cancel the operation, press the [Cancel] button.

Data Backup

You can back up all data saved in the User drive (except protected Songs) and all settings of the instrument to a USB flash drive as a single file (extension: .bup.). The backup file can be restored to the instrument again, allowing you to recall the panel settings and performance data you created previously. For information on the settings that can be backed up, refer to the Backup/Restore column of the Parameter Chart in the Data List on the website.

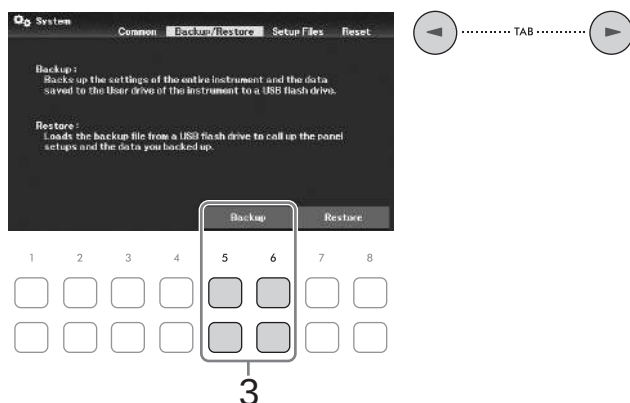
NOTICE

Completing the backup/restore operation may take a few minutes. Do not turn off the power during backup or restoring. If you turn off the power during backup or restoring, data may be lost or damaged.

NOTE

- € Before using a USB flash drive, be sure to read •Connecting USB DevicesŽ on page 91.
- € You can also back up files in the User drive such as Voice, Song and Registration Memory by copying them individually to a USB flash drive as desired. For instructions, refer to page 29.
- € You can also back up System settings, MIDI settings and User Effect settings individually to the Setup Files tab on the System display below. For details, refer to the Reference Manual on the website, Chapter 10.

- 1 Connect a USB flash drive to the [USB TO DEVICE] terminal for the backup destination.
- 2 Call up the operation display.
[MENU] Cursor buttons [6][%][-][3] System[ENTER] TAB [-][3] Backup/Restore



- 3 Use the [5 %]/[6 %] (Backup) buttons to save the data to the USB flash drive. When confirmation messages appear, follow the on-display instructions.

Restoring the Backup File

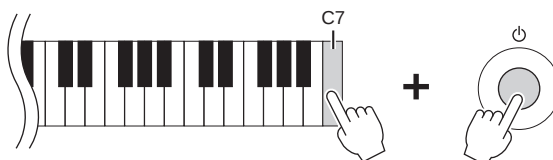
To do this, press the [7 %]/[8 %] (Restore) buttons in the Backup/Restore tab (see above). When confirmation messages appear, follow the on-display instructions. When the operation is completed, the instrument will be restarted automatically.

NOTICE

If any of the files (such as Songs or Styles) in the User drive of the instrument have the same name with the data contained in the backup file, the data are overwritten by restoring the backup file. Move or copy the files in the User drive of the instrument to USB flash drive before restoring (page 29).

Resetting to the Factory-programmed Settings (Initializing)

While holding the right-most key (C7) on the keyboard, turn the power on. This resets (or initializes) all of the settings (referred to as the System Setup parameters) to their factory default, with the exceptions of Language (page 18) Owner Name (page 18) and Bluetooth pairing information (page 96). Refer to the Parameter Chart in the Data List on the website for details about which parameters belong to System Setup.



If you want to initialize only the Registration Memory settings (page 81), turn the power on while holding the B6 key.

NOTE

You can also reset specified settings to the factory default value or delete all files/folders in the User drive. Call up the operation display: [MENU] ^ Cursor buttons [6] [%] [-] [3] System, [ENTER] ^ TAB [-] [3] Reset. For details, refer to the Reference Manual on the website, Chapter 10.

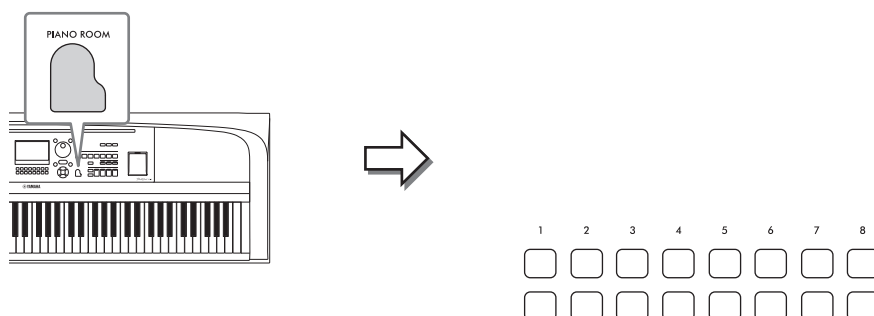
1 Piano Room

... Enjoying the Piano Performance ...

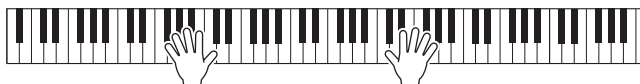
The Piano Room function is for those who want to simply, conveniently, and fully enjoy playing the instrument as a piano. No matter what settings you've made from the panel, you can instantly call up the optimum settings for piano performance with a single button press. You can also change the piano settings as you like.

Playing a Piano Performance in the Piano Room

- 1 Press the [PIANO ROOM] button to call up the Piano Room display. This calls up the relevant panel settings for piano performance. All buttons on the control panel (excepting the [PIANO ROOM], [EXIT] and [1 %] ... [8 %] buttons) are disabled.



- 2 Play the keyboard.



Change the piano settings according to the type of music you want to play or sound you want to create.

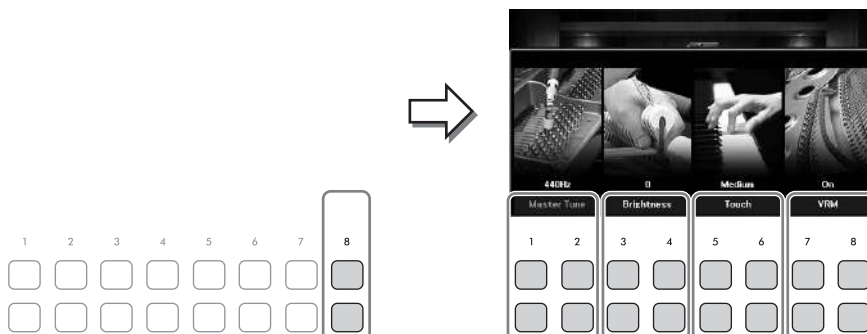
Piano Type	Use the [2 6 %]/[3 6 %] buttons to select the desired piano type.
Lid Position	Use the [4 6 %]/[5 6 %] buttons to determine how much the Lid is opened. This can be set only when one of the grand piano types is selected.
Environment (Reverb Type)	Use the [6 6 %]/[7 6 %] buttons to select the desired environment, which automatically calls up the appropriate Reverb type.

- 3 Press the [PIANO ROOM] button or [EXIT] button to exit the Piano Room display. All panel settings are restored to those which were set before the Piano Room display was called up.

Making the Detailed Settings in the Piano Room

You can change the settings of the Piano Room, such as touch sensitivity, as you like.

- 1 In the Piano Room display, use the [8 %] buttons to call up the setting display, and then change the settings by using the [1 %] ... [6 %] buttons.



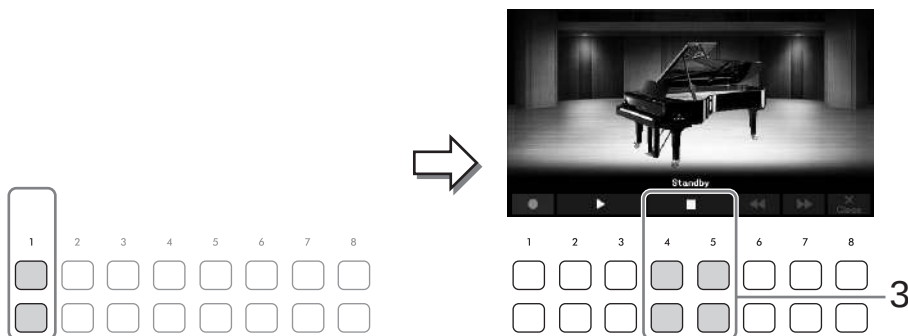
[1 6 %]/ [2 6 %]	Master Tune	Determines the pitch of this instrument in 1Hz steps.
[3 6 %]/ [4 6 %]	Brightness	Determines the brightness of the sound. Higher values result in a brighter sound.
[5 6 %]/ [6 6 %]	Touch	Determines how the sound responds to your playing strength. €Hard2: Requires strong playing to produce high volume. Best for players with a heavy touch. €Hard1: Requires moderately strong playing for high volume. €Medium: Standard Touch Response. €Soft1: Produces high volume with moderate playing strength. €Soft2: Produces relatively high volume even with light playing strength. Best for players with a light touch.
[7 6 %]/ [8 6 %]	VRM	Turns the VRM effect on/off. For details on the VRM effect, refer to page 41.

These settings will be maintained even if you exit from this display or turn off the power. Pressing the [PIANO ROOM] button next time will call up the Piano settings which were made the previous time.

- 2 Press the [EXIT] button to exit from the setting display.

Recording your Performance in the Piano Room

- 1 In the Piano Room display, press one of the [1] (*) buttons to put recording in standby.



- 2 Play the keyboard to start recording.
You can also start recording by using the [2] [3 6 %] (3) buttons.
While recording, Recording flashes.
- 3 After you finish your performance, press one of the [4] [5 6 %] (+) buttons to stop recording.

- 4 After a message appears prompting you to save, press one of the [6] [7 (Yes) buttons to save the file.

NOTICE

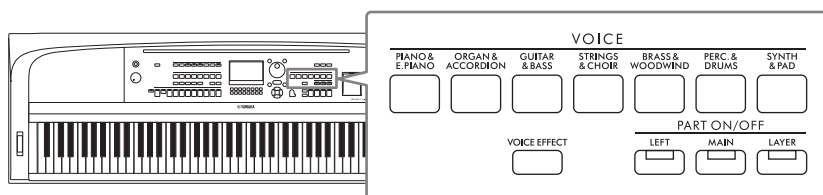
The recorded data will be lost if you turn the power off without executing the Save operation.

- 5 To hear the recorded performance, press one of the [2] [3 6 %] (3) buttons.
To stop playback, use the [4] [5 6 %] (+) buttons. The [6 %] (--) buttons are used to rewind, and the [7 %] (33) buttons are used to fast forward playback position.
Only the last recorded performance can be played back. Once you press one of the [8 (Close) buttons, the performance data cannot be played back on the Piano Room display. To play back the performance recorded in the Piano Room, find the data in the Piano Room folder on the User tab of the Song selection display (page 61) and play it back as a Song.

2 Voices

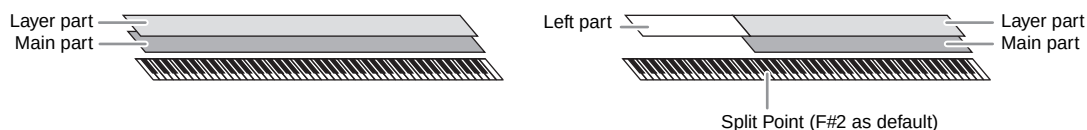
... Playing the keyboard with various sounds ...

The instrument features a wide variety of exceptionally realistic instrumental Voices, including piano, guitar, strings, brass, wind instruments and more.



Playing Preset Voices

The Voices can be played via three keyboard parts: Main, Layer and Left. These playing modes allow you to play just one single Voice (Main), play two different Voices in layer (Main and Layer), or play different Voices in the right- and left-hand areas of the keyboard (Main/Layer and Left). By combining these three parts, you can create luscious instrument textures and convenient performance combinations.

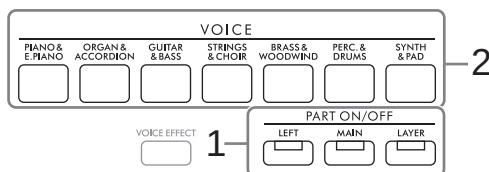


When the Left part is turned off, the entire keyboard is used for the Main and Layer parts. When the Left part is turned on, the $F\sharp_2$ and lower keys are used for the Left part while the upper keys (excluding $F\sharp_5$) are used for the Main and Layer parts. The key which divides the keyboard into the left-hand and right-hand areas is referred to as •Split Point.

NOTE

The Split Point can be changed (page 58).

- 1 Press one of the PART ON/OFF buttons to turn on the desired keyboard part.

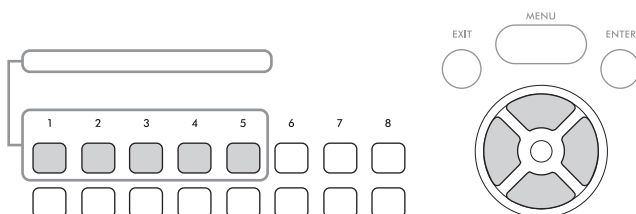


- 2 Press one of the VOICE category selection buttons to select a Voice category and call up the Voice Selection display for the part selected in step 1. The preset Voices are categorized and contained in appropriate folders. Voice category selection buttons correspond to the categories of the preset Voices.

NOTE

You can select Voices for the Main and Layer parts simply by using the Voice category selection buttons. While holding down one of the VOICE category selection buttons, press another VOICE category selection button. The Voice corresponding to the first pressed button is assigned to the Main part while the Voice of the second pressed button is assigned to the Layer part.

3 Select the desired Voice by using the Cursor buttons **[]** **[-]** **[3]**.



You can call up the other pages by pressing the buttons **[1]** **[7]** that correspond to the page numbers (P1, P2 ...), or by pressing the same VOICE category selection button repeatedly. Pressing the **[8]** button calls up other Voice categories (folders), including the categories which do not have any VOICE category selection buttons.

NOTE

The Voice characteristics are indicated above the Preset Voice name. For details, see page 40.

To listen to the demo phrases for each Voice

Press the **[7]** (Demo) button to start the Demo for the selected Voice. To stop the demo, press the **[7]** button again.

NOTE

If the button is not shown, press the **[8]** (Close) button to call it up.

4 If necessary, repeat steps 1 ... 3 to select the Voice for the other part.

5 Make sure that the desired keyboard part is turned on.

You can turn each keyboard part on or off by pressing the corresponding PART ON/OFF button. The Voice selected for each keyboard part can be confirmed on the Main display (page 23).



Lights up when the part is on.

6 Play the keyboard.



Voice Characteristics

There are various Voice types, and some types as described below require special performance considerations. These particular types have an indication above (or in the icon at left of) the Voice name on the Voice Selection display or the Main display. For explanations of the other types, refer to the Reference Manual on the website.



€ VRM Voices (page 41)

These recreate the characteristic string resonance of a real acoustic piano.

€ Super Articulation (S.Art!) Voices (page 42)

The word •articulation• in music usually refers to the transition or continuity between notes. This is often reflected in specific performance techniques, such as staccato, legato and slur.

€ Drums/SFX Voices

Lets you play various drums and percussion instruments or SFX (sound effects) sounds which are assigned to each key. For details on the Key assignments, refer to the Drum Key Assignment List in the Data List on the website. On some Drum and SFX Voices, you can use the Drum Kit Tutor function to see the Key assignment on the display as described below.

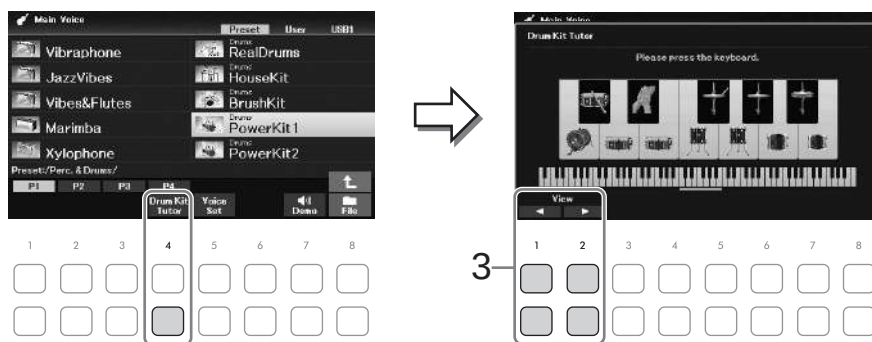
Displaying the Instruments Assigned to the Keyboard (Drum Kit Tutor)

For Drum Kit Voices in which the Drum Kit Tutor button is shown at the bottom of the Voice Selection display, you can confirm the key assignments in the Drum Kit Tutor display.

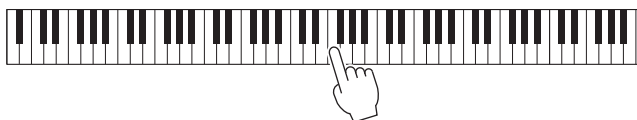
NOTE

If the File Management menu (page 26) is shown, press the [8 %] (Close) button to see if the Drum Kit Tutor button exists or not.

- 1 Select the compatible Drum Kit Voice in the Voice Selection display.
- 2 Press the [4 %] (Drum Kit Tutor) button to call up the Drum Kit Tutor display.



- 3 Press the desired key to check the key assignment.



The illustration and the name of the instrument assigned to the key appear on the Drum Kit Tutor display. To shift the illustration and instrument names by octaves, use the [1 %] and [2 6 %] buttons (or press the desired key outside the displayed range).

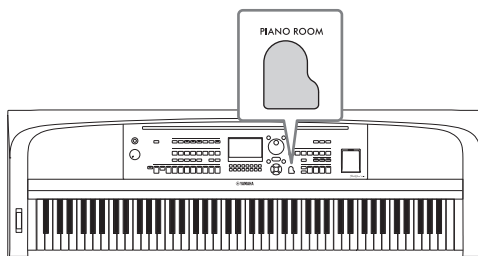
Calling up the Appropriate Settings for Piano Performance (Piano Reset)

You can easily reset to appropriate settings for playing the instrument as a piano, no matter what settings you've made from the panel. This function called •Piano ResetZ allows you to play the piano across the entire keyboard.

NOTE

This function cannot be used while the Piano Room display (page 35) is shown.

- 1 Press and hold down the [PIANO ROOM] button for two seconds or longer.



A message appears in the display.

- 2 Press one of the [7 %] (Reset) buttons to call up the appropriate settings for playing as a piano.

Playing Realistic Resonance-enhanced Piano Sounds (VRM Voices)

Simply by selecting a VRM Voice, you can enjoy the VRM effect (see below). VRM Voices can be selected via the VOICE category [PIANO & E. PIANO] button. A VRM Voice is indicated by VRM above the Voice name on the Voice Selection display or the Main display.

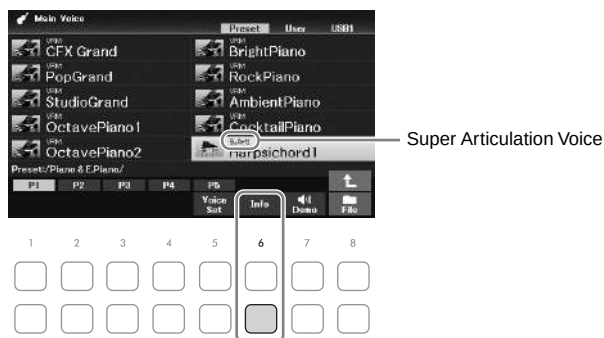
The default setting of the VRM effect is on. You can turn it on or off, and adjust the depth via [MENU] Cursor buttons [6] [7] [8] [9] [3] Voice Setting [ENTER] TAB [-] Piano Cursor button [6] 1 VRM. For details, refer to the Reference Manual on the website.

VRM (Virtual Resonance Modeling)

On a actual acoustic piano, if you press the damper pedal and play a key, not only does the string of the pressed key vibrate, it also causes other strings and the soundboard to vibrate, with each influencing the rest, creating a rich and brilliant resonance that sustains and expands. The VRM (Virtual Resonance Modeling) technology featured in this instrument reproduces the complicated interaction between both string and soundboard resonance, and make the sound more like that of a real acoustic piano. Since resonance instantaneously occurs depending on the action of the keys and pedal, you can expressively vary the sound by changing the timing of your pressing the keys, and the timing and depth of your pressing the pedal.

Playing Super Articulation Voices

The Super Articulation Voices enable you to create subtle, very realistic musical expressions, simply by how you play. S.Art!Z is shown above the Voice name of Super Articulation Voices on the Voice Selection display or the Main display.



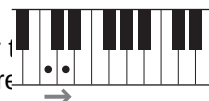
For performance instructions, you can call up the Information window of the selected Super Articulation Voice by pressing the [6] (Info) button on the Voice Selection display.

NOTE

If the button is not shown, press the [8] % (Close) button to call it up.

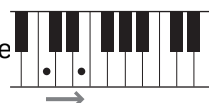
Example: Saxophone Voice

If you play a C note and then an adjacent D in a very legato way, you will hear 1 note change seamlessly, as though a saxophone player played it in a single breath.



Example: Guitar Voice

If you play a C note and then the E just above in a very legato but firm way, the slides up from C to E.



Adding Articulation Effects by Using the Pedal Unit (sold separately)

When you select a Super Articulation Voice for the Main part, the function of the center or/and left pedals are switched to control articulation effects. Pressing a pedal triggers different playing effects, separate from your keyboard playing. For example, pressing a pedal for a saxophone Voice can produce breath noises or key noises, while doing the same for a guitar Voice can produce fret noises or body-tapping sounds. You can effectively intersperse these into the notes as you play.

NOTE

If you want to lock the pedal function regardless of the Voice, turn off the Switch with Main Voice parameter. The operation display can be called up via [MENU] ` Cursor buttons [ 6 ] [ % ] [ - ] [ 3 ] Controller, [ENTER] ` TAB [3] Setting ` Cursor button [%] 3 Switch with Main Voice.

NOTE

€ Super Articulation Voices are only compatible with other models which have those types of Voices installed. Any Song or Style data you've created on the instrument using this Voice will not sound properly when played back on other instruments.

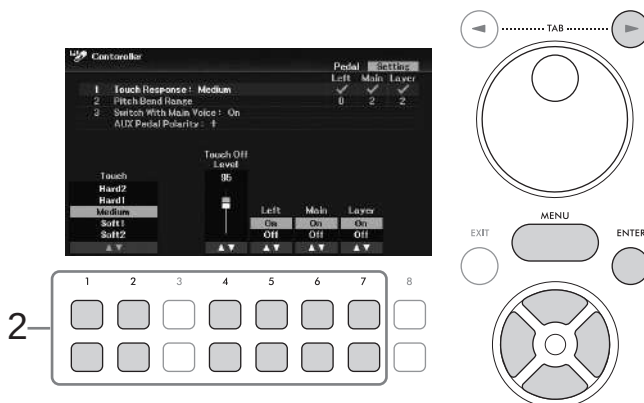
€ Super Articulation Voices sound differently depending on the keyboard range, velocity, touch, etc. Hence, if you turn on a Keyboard Harmony effect, change the transpose setting or change the Voice Set parameters, unexpected or undesired sounds may result.

Setting the Touch Response of the Keyboard

You can adjust the touch sensitivity of the instrument (how the sound responds to the way you play the keys). This setting does not change the weight of the keyboard.

1 Call up the operation display.

[MENU] Cursor buttons [6] [%] [-] [3] Controller, [ENTER] TAB [3] Setting Cursor button [6] 1 Touch Response



2 Use the [%] ... [%] buttons to set the Touch Response.

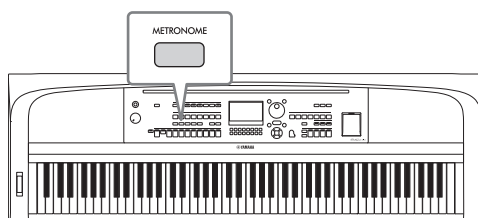
[1 6 %]/ [2 6 %]	Touch	€Hard2: Requires strong playing to produce high volume. Best for players with a heavy touch. €Hard1: Requires moderately strong playing for high volume. €Medium: Standard Touch Response. €Soft1 Produces high volume with moderate playing strength. €Soft2 Produces relatively high volume even with light playing strength. Best for players with a light touch.
[4 6 %]	Touch Off Level	Determines the velocity level when Touch Response for any parts (the parameter below) is set Off . In other words, the volume is fixed to this level regardless of your playing strength.
[5 6 %] ... [7 6 %]	Main, Layer, Left	Turns Touch Response on or off for each keyboard part.

2

Voices ... Playing the keyboard with various sou

Using the Metronome

The [METRONOME] button lets you start or stop the metronome. The metronome provides a click sound, giving you an accurate tempo guide when you practice, or letting you hear and check how a specific tempo sounds.



Metronome tempo can be adjusted by the same procedure as with Style tempo (page 52).

NOTE

You can change the time signature, volume and sound of the metronome on the display called up via [MENU] → Cursor buttons [6] [%] [-] [3] Metronome Setting, [ENTER] → Cursor button [6] 1 Metronome. For details, refer to the Reference Manual on the website.

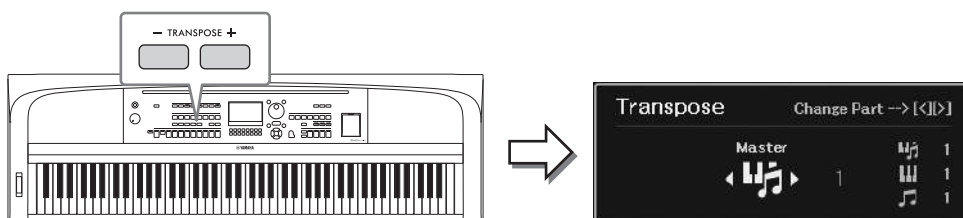
Changing the Pitch of the Keyboard

Adjusting the Pitch in Semitones (Transpose)

The TRANSPOSE [-]/[+] buttons transpose the overall pitch of the instrument (the keyboard sound, Style playback, Song playback, and so on) in semitone steps (from -12 and 12). To instantly reset the value to 0, press the [+] and [-] buttons simultaneously.

NOTE

The Transpose functions do not affect the Drum Kit or SFX Kit Voices.



You can independently select the part to be transposed as desired. Press the Cursor buttons several times until the desired part appears, and then use the TRANSPOSE [-]/[+] buttons to transpose it.

Master	Transposes the pitch of the entire sound with the exception of the Audio file playback, the input sound from the [MIC INPUT] jack and the Audio Input Sound (page 95) from the external device.
Keyboard	Transposes the keyboard pitch including the chord root for triggering Style playback.
Song	Transposes the pitch of the Song.

Fine Tuning the Pitch

By default, the pitch of the entire instrument is set to 440.0 Hz according to equal temperament. This basic tuning can be changed in the display called up via [MENU] Cursor buttons [6] [%] [-] [3] Master Tune/Scale Tune [ENTER]. For details, refer to the Reference Manual on the website.

NOTE

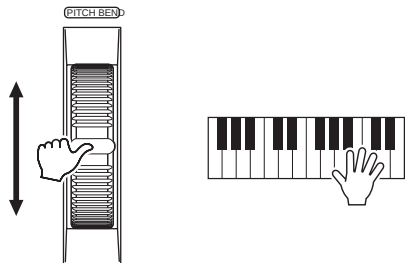
You can also adjust the pitch for each keyboard part (Main/Layer/Left) in the display called up via [MENU] Cursor buttons [6] [%] [-] [3] Voice Setting, [ENTER] TAB [-] [3] Tune.

Using the Pitch Bend Wheel

Use the [PITCH BEND] wheel to bend the pitch up (roll the wheel away from you) or down (roll the wheel toward you) while playing the keyboard. The Pitch Bend is applied to all the keyboard parts (Main, Layer and Left). The [PITCH BEND] wheel is self-centering and will automatically return to normal pitch when released.

NOTE

The effects produced by using the [PITCH BEND] wheel may not be applied to the Left part during Style playback, depending on the Style setting.

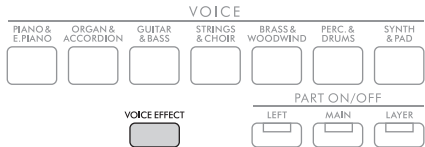


The maximum pitch bend range can be changed in the display called up via [MENU] Cursor buttons [6] [%] [-] [3] Controller, [ENTER] TAB [3] Setting Cursor buttons [6] [%] 2 Pitch Bend Range

Applying Voice Effects

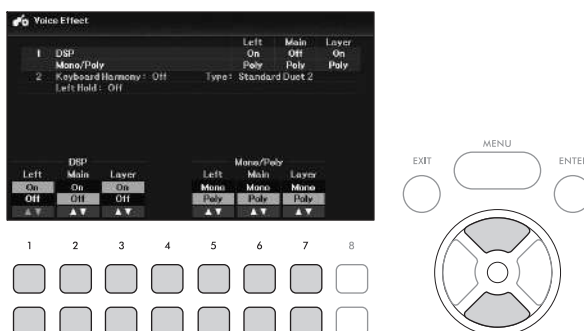
The instrument features a sophisticated multi-processor effect system which can add extraordinary depth and expression to your sound.

- 1 Press the [VOICE EFFECT] button to call up the Voice Effect display.



2
Voices ... Playing the keyboard with various sou

- 2 Use the Cursor buttons $\left[\begin{smallmatrix} \text{Left} \\ \text{Main} \\ \text{Layer} \end{smallmatrix} \right]$ to select the page, and then use the $\left[\begin{smallmatrix} \text{On} \\ \text{Off} \end{smallmatrix} \right]$... $\left[\begin{smallmatrix} \text{Mono} \\ \text{Poly} \end{smallmatrix} \right]$ buttons to apply effects to the Voices.



1	$\left[\begin{smallmatrix} \text{1} \\ \text{6} \end{smallmatrix} \right]$... $\left[\begin{smallmatrix} \text{3} \\ \text{6} \end{smallmatrix} \right]$	DSP	Turns the DSP (Digital Signal Processor) effect on or off for each keyboard part. With the digital effects built into the instrument, you can add ambience and depth to your music in a variety of ways, such as adding reverb that makes you sound like you are playing in a concert hall. NOTE The effect type can be changed. On the Voice Selection display, select $\left[\begin{smallmatrix} \text{5} \\ \text{9} \end{smallmatrix} \right]$ (Voice Set) ^ TAB [-] $\left[\begin{smallmatrix} \text{3} \end{smallmatrix} \right]$ Effect/EQ ^ Cursor buttons $\left[\begin{smallmatrix} \text{6} \\ \text{9} \end{smallmatrix} \right]$ 2 DSP Type. For details, refer to the Reference Manual on the website.
	$\left[\begin{smallmatrix} \text{5} \\ \text{6} \end{smallmatrix} \right]$... $\left[\begin{smallmatrix} \text{7} \\ \text{6} \end{smallmatrix} \right]$	Mono/Poly	Determines whether the Voice of the selected keyboard part is played monophonically or polyphonically. When Mono is selected, the part's Voice is played monophonically (only one note at the time) with last note priority, letting you play single, lead sounds such as brass instruments more realistically. Depending on the selected Voice, Portamento may be produced when notes are played with legato. NOTE Portamento is a function that creates a smooth transition in pitch from the first note played on the keyboard to the next.
2	$\left[\begin{smallmatrix} \text{2} \\ \text{6} \end{smallmatrix} \right]$ / $\left[\begin{smallmatrix} \text{3} \\ \text{6} \end{smallmatrix} \right]$	Keyboard Harmony	When the Keyboard Harmony function is set On by using the $\left[\begin{smallmatrix} \text{2} \\ \text{6} \end{smallmatrix} \right]$/$\left[\begin{smallmatrix} \text{3} \\ \text{6} \end{smallmatrix} \right]$ buttons, the Harmony type selected on the display called up via the $\left[\begin{smallmatrix} \text{4} \\ \text{6} \end{smallmatrix} \right]$ buttons can be applied to the right-hand section of the keyboard. For details, refer to the Reference Manual on the website.
	$\left[\begin{smallmatrix} \text{4} \\ \text{6} \end{smallmatrix} \right]$	Type	
	$\left[\begin{smallmatrix} \text{6} \\ \text{6} \end{smallmatrix} \right]$ / $\left[\begin{smallmatrix} \text{7} \\ \text{6} \end{smallmatrix} \right]$	Left Hold	When this is set On, the Voice for the Left part is held even when the keys are released. Non-decaying Voices such as strings are held continuously, while decaying Voices (such as piano) decay more slowly (as if the sustain pedal has been pressed). When the Left Hold function is set On, an •H indication appears at the right corner of the Left part on the Main display. 

Advanced Features

Refer to the Reference Manual on the website, Chapter 2.

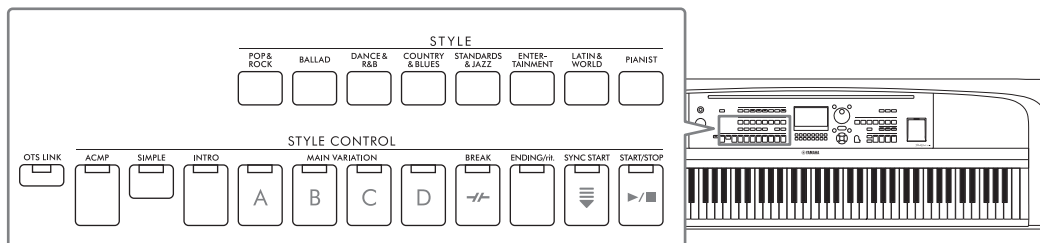


Metronome settings:	[MENU] Cursor buttons [6][%][-][3] Metronome Setting[ENTER]
Adjusting the Reverb/Chorus depth and other settings for piano Voices:	[MENU] Cursor buttons [6][%][-][3] Voice Setting[ENTER] TAB [-] Piano
Applying Keyboard Harmony:	[MENU] Cursor buttons [6][%][-][3] Keyboard Harmony[ENTER] or [VOICE EFFECT] Cursor button [%] 2 Keyboard Harmony [4 6 %] (Type)
Pitch-related settings	
€ Fine-tuning the pitch of the entire instrument:	[MENU] Cursor buttons [6][%][-][3] Master Tune/Scale Tune [ENTER] TAB [-] Master Tune
€ Scale Tuning:	[MENU] Cursor buttons [6][%][-][3] Master Tune/Scale Tune [ENTER] TAB [3] Scale Tune
€ Pitch settings for each keyboard part:	[MENU] Cursor buttons [6][%][-][3] Voice Setting[ENTER] TAB [-][3] Tune
Editing Voices (Voice Set):	Voice Selection display [%] (Voice Set)
Disabling automatic selection of Voice Sets (effects, etc.):	[MENU] Cursor buttons [6][%][-][3] Voice Setting[ENTER] TAB [3] Voice Set Filter

3 Styles

... Playing Rhythm and Accompaniment ...

The instrument features various accompaniment and rhythmic backing patterns (called •StylesŽ) in a variety of different musical genres including pop, jazz, and many others. The Style features Auto Accompaniment which detects the •chordsŽ automatically, and lets you produce automatic accompaniment playback simply by playing the keyboard. This lets you automatically recreate the sound of a full band or orchestra „ even if you’re playing by yourself.



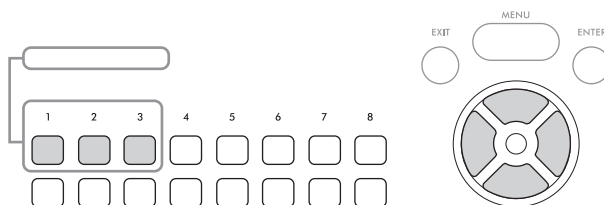
Playing a Style with the Auto Accompaniment

- 1 Press one of the STYLE category selection buttons to call up the Style Selection display.



- 2 Select the desired Style by using the Cursor buttons [-] [3].

You can call up the other pages by pressing the buttons [1] [2] that correspond to the page numbers (P1, P2 ...) or by pressing the same STYLE category selection button several times.



- 3 Make sure that the STYLE CONTROL [ACMP] button is on (the lamp is lit).



A Style generally consists of eight parts (channels): rhythm, bass and various accompaniment parts. By turning on the [ACMP] button, all your desired parts can be played back, while turning it off enables play for only the rhythm parts.

