

Clavinova[®]

Owner's Manual
Mode d'emploi

CLP-685
CLP-675
CLP-645
CLP-635
CLP-665GP

Thank you for choosing the Yamaha Clavinova.

In order to make the most of your Clavinova's performance potential and features, please read this Owner's Manual thoroughly, and keep it in a safe place for later reference.

Before using the instrument, be sure to read "PRECAUTIONS" on pages 6–7.

For information on assembling the instrument, refer to the instructions at the end of this manual.

Nous vous remercions d'avoir choisi le Yamaha Clavinova.

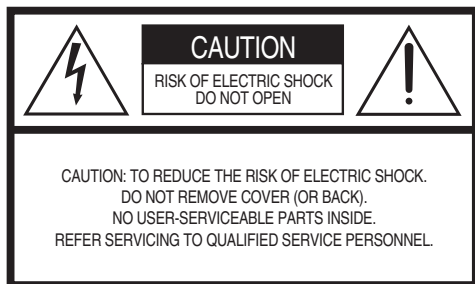
Afin d'exploiter votre Clavinova au maximum de ses performances et de ses fonctions, lisez attentivement ce mode d'emploi et conservez-le pour le consulter ultérieurement.

Avant d'utiliser l'instrument, lisez attentivement la section « PRÉCAUTIONS D'USAGE » aux pages 6 et 7.

Pour plus d'informations sur l'assemblage de l'instrument, reportez-vous aux instructions figurant à la fin de ce manuel.

SPECIAL MESSAGE SECTION

PRODUCT SAFETY MARKINGS: Yamaha electronic products may have either labels similar to the graphics shown below or molded/stamped facsimiles of these graphics on the enclosure. The explanation of these graphics appears on this page. Please observe all cautions indicated on this page and those indicated in the safety instruction section.



See bottom of Keyboard enclosure for graphic symbol markings.



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



The lightning flash with arrowhead symbol, within the 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 electrical shock.

IMPORTANT NOTICE: All Yamaha electronic products are tested and approved by an independent safety testing laboratory in order that you may be sure that when it is properly installed and used in its normal and customary manner, all foreseeable risks have been eliminated. **DO NOT** modify this unit or commission others to do so unless specifically authorized by Yamaha. Product performance and/or safety standards may be diminished. Claims filed under the expressed warranty may be denied if the unit is/has been modified. Implied warranties may also be affected.

SPECIFICATIONS SUBJECT TO CHANGE: The information contained in this manual is believed to be correct at the time of printing. However, Yamaha reserves the right to change or modify any of the specifications without notice or obligation to update existing units.

ENVIRONMENTAL ISSUES: Yamaha strives to produce products that are both user safe and environmentally friendly. We sincerely believe that our products and the production methods used to produce them, meet these goals. In keeping with both the letter and the spirit of the law, we want you to be aware of the following:

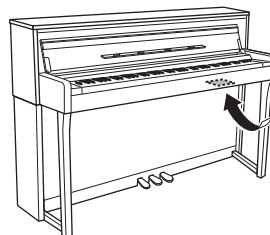
Battery Notice: This product MAY contain a small non-rechargeable battery which (if applicable) is soldered in place. The average life span of this type of battery is approximately five years. When replacement becomes necessary, contact a qualified service representative to perform the replacement.

Warning: Do not attempt to recharge, disassemble, or incinerate this type of battery. Keep all batteries away from children. Dispose of used batteries promptly and as regulated by applicable laws. Note: In some areas, the servicer is required by law to return the defective parts. However, you do have the option of having the servicer dispose of these parts for you.

Disposal Notice: Should this product become damaged beyond repair, or for some reason its useful life is considered to be at an end, please observe all local, state, and federal regulations that relate to the disposal of products that contain lead, batteries, plastics, etc.

NOTICE: Service charges incurred due to lack of knowledge relating to how a function or effect works (when the unit is operating as designed) are not covered by the manufacturer’s warranty, and are therefore the owners responsibility. Please study this manual carefully and consult your dealer before requesting service.

NAME PLATE LOCATION: The graphic below indicates the location of the name plate. The model number, serial number, power requirements, etc., are located on this plate. You should record the model number, serial number, and the date of purchase in the spaces provided below and retain this manual as a permanent record of your purchase.



Model _____

Serial No. _____

Purchase Date _____

SPECIAL MESSAGE SECTION

This product utilizes batteries or an external power supply (adapter). DO NOT connect this product to any power supply or adapter other than one described in the manual, on the name plate, or specifically recommended by Yamaha.

WARNING: Do not place this product in a position where anyone could walk on, trip over, or roll anything over power or connecting cords of any kind. The use of an extension cord is not recommended! If you must use an extension cord, the minimum wire size for a 25' cord (or less) is 18 AWG. NOTE: The smaller the AWG number, the larger the current handling capacity. For longer extension cords, consult a local electrician.

This product should be used only with the components supplied or; a cart, rack, or stand that is recommended by Yamaha. If a cart, etc., is used, please observe all safety markings and instructions that accompany the accessory product.

SPECIFICATIONS SUBJECT TO CHANGE:

The information contained in this manual is believed to be correct at the time of printing. However, Yamaha reserves the right to change or modify any of the specifications without notice or obligation to update existing units.

This product, either alone or in combination with an amplifier and headphones or speaker/s, may be capable of producing sound levels that could cause permanent hearing loss. DO NOT operate for long periods of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.

IMPORTANT: The louder the sound, the shorter the time period before damage occurs.

Some Yamaha products may have benches and / or accessory mounting fixtures that are either supplied with the product or as optional accessories. Some of these items are designed to be dealer assembled or installed. Please make sure that benches are stable and any optional fixtures (where applicable) are well secured BEFORE using.

Benches supplied by Yamaha are designed for seating only. No other uses are recommended.

NOTICE:

Service charges incurred due to a lack of knowledge relating to how a function or effect works (when the unit is operating as designed) are not covered by the manufacturer's warranty, and are therefore the owners responsibility. Please study this manual carefully and consult your dealer before requesting service.

ENVIRONMENTAL ISSUES:

Yamaha strives to produce products that are both user safe and environmentally friendly. We sincerely believe that our products and the production methods used to produce them, meet these goals. In keeping with both the letter and the spirit of the law, we want you to be aware of the following:

Battery Notice:

This product MAY contain a small non-rechargeable battery which (if applicable) is soldered in place. The average life span of this type of battery is approximately five years. When replacement becomes necessary, contact a qualified service representative to perform the replacement.

This product may also use "household" type batteries. Some of these may be rechargeable. Make sure that the battery being charged is a rechargeable type and that the charger is intended for the battery being charged.

When installing batteries, never mix old batteries with new ones, and never mix different types of batteries. Batteries MUST be installed correctly. Mismatches or incorrect installation may result in overheating and battery case rupture.

Warning:

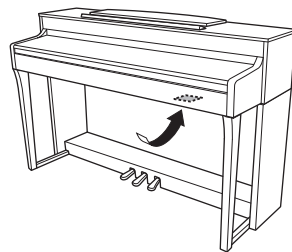
Do not attempt to disassemble, or incinerate any battery. Keep all batteries away from children. Dispose of used batteries promptly and as regulated by the laws in your area. Note: Check with any retailer of household type batteries in your area for battery disposal information.

Disposal Notice:

Should this product become damaged beyond repair, or for some reason its useful life is considered to be at an end, please observe all local, state, and federal regulations that relate to the disposal of products that contain lead, batteries, plastics, etc. If your dealer is unable to assist you, please contact Yamaha directly.

NAME PLATE LOCATION:

The name plate is located on the bottom of the product. The model number, serial number, power requirements, etc., are located on this plate. You should record the model number, serial number, and the date of purchase in the spaces provided below and retain this manual as a permanent record of your purchase.



Model _____

Serial No. _____

Purchase Date _____

PLEASE KEEP THIS MANUAL

For the instrument

COMPLIANCE INFORMATION STATEMENT (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 : CLP-685, CLP-675, CLP-645, CLP-635, CLP-665GP

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.
- See user manual instructions if interference to radio reception is suspected.

* This applies only to products distributed by YAMAHA CORPORATION OF AMERICA.

(FCC DoC)

For the instrument and the AC adaptor

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)

For the AC Adaptor

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

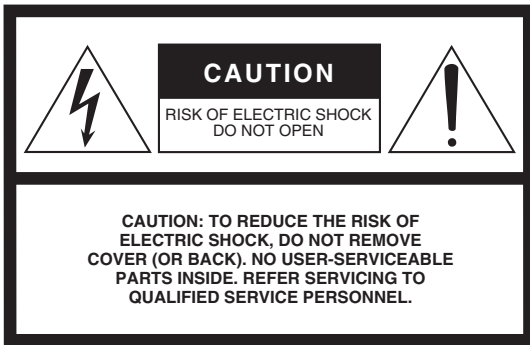
- (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

(fcc_sengen)

CAN ICES-3 (B)/NMB-3(B)

- This applies only to products distributed by Yamaha Canada Music Ltd.
- Ceci ne s'applique qu'aux produits distribués par Yamaha Canada Musique Ltée.

(can_b_01)



The above warning is located on the bottom of the unit.

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 point 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.



For the instrument (except CLP-635)

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 AC adaptor (CLP-635)



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 you are not using the instrument for a long time, make sure to unplug the power cord from the wall AC outlet.

For CLP-685, CLP-675, CLP-645, CLP-635, CLP-665GP



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/Power cord

Power supply/AC adaptor (CLP-635)

- 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 name plate of the instrument.
- (CLP-635) Use the specified adaptor (page 126) only. 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 which 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 should appear to be malfunctioning, discontinue use immediately and have it inspected by qualified Yamaha service personnel.

Location (if Bluetooth functionality is included)

(For information on whether Bluetooth functionality is included or not, refer to page 81.)

- 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 15 cm (6 in.) of persons with a heart pacemaker implant.

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.

If you notice any abnormality

- When one of the following problems occur, immediately turn off the power switch and disconnect the electric 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.



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/Power cord

Power supply/AC adaptor (CLP-635)

- Do not connect the instrument to an electrical outlet using a multiple-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 not 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.

Assembly

- Read carefully the attached documentation explaining the assembly process. Failure to assemble the instrument in the proper sequence might result in damage to the instrument or even injury.

Location

- Do not place the instrument in an unstable position where it might accidentally fall over.
- 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.
- 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 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.

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 volumes of all components at their minimum levels and gradually raise the volume controls while playing the instrument to set the desired listening level.

Handling caution

- Do not insert a finger or hand in any gaps on the key cover or instrument. Also take care that the key cover does not pinch your finger.
- (CLP-685) Do not apply excessive force when closing the key cover. A key cover equipped with the SOFT-CLOSE™ mechanism closes the cover slowly. Applying excessive force to the key cover when closing it could damage the SOFT-CLOSE™ mechanism, and possibly result in injury to your hands and fingers caught under the closing key cover.
- Never insert or drop paper, metallic, or other objects into the gaps on the key cover, 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.

Using the bench (If included)

- Do not place the bench in an unstable position where it might accidentally fall over.
- Do not play carelessly with or stand on the bench. Using it as a tool or stepladder or for any other purpose might result in accident or injury.
- Only one person should sit on the bench at a time, in order to prevent the possibility of accident or injury.
- For benches that can be adjusted, do not adjust the bench height while sitting on the bench, since this can cause excessive force to be imposed on the adjustment mechanism, possibly resulting in damage to the mechanism or even injury.
- If the bench screws become loose due to extensive long-term use, tighten them periodically using the specified tool in order to prevent the possibility of accident or injury.
- Keep special watch over any small children so that they don't fall off the rear of the bench. Since the bench does not have a backrest, unsupervised use may result in accident or injury.

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

Always turn the power off when the instrument is not in use.

Even when the [0] (Standby/On) switch is in standby status (power lamp 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 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 application on your iPhone or iPad, we recommend that you set that device's "Airplane Mode" to "ON" and then the Wi-Fi/*Bluetooth* setting to "ON" 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.
- In the case of a model with a polished finish, bumping the surface of the instrument with metal, porcelain, or other hard objects can cause the finish to crack or peel. Use caution.

■ 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.
- In the case of a model with a polished finish, gently remove dust and dirt with a soft cloth. Do not wipe too hard since small particles of dirt can scratch the instrument's finish.
- 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.
- When cleaning the bench, use a soft and dry cloth (or, if necessary, one that is slightly damp). Do not use paint thinners, solvents, alcohol, cleaning fluids, or chemical-impregnated wiping cloths.

■ Saving data

- Some of the data of this instrument (page 98) and the Song data saved to the internal memory of this instrument (page 52) are retained when the power is turned off. However, the saved data may be lost due to some failure, an operation mistake, etc. Save the Song data to a USB flash drive or an external device such as a computer (page 73). Before using a USB flash drive, make sure to refer to page 72.
- 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 LCD screens as shown in this manual are for instructional purposes only, and may appear somewhat different from those on your instrument.
- iPhone, iPad, iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries.
- The company names and product names in this manual are the trademarks or registered trademarks of their respective companies.

■ Tuning

- Unlike an acoustic piano, this instrument does not need to be tuned by an expert (although the pitch can be user-adjusted to match other instruments). This is because the pitch of digital instruments is always maintained perfectly.

■ About Bluetooth

- For information on handling *Bluetooth* communications, refer to "About *Bluetooth*" on page 129.

Included Accessories

- **Owner's Manual (this book)**
- **Data List (CLP-685 only)**
- **"50 Classical Music Masterpieces" (Music Book)**
- **Online Member Product Registration**
You will need the PRODUCT ID on the sheet in order to fill out the User Registration form.
- **Power cord (except CLP-635)**
- **Power cord*, AC adaptor* (CLP-635)**
- **Bench***
- **Warranty***

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

About the Manuals

This instrument has the following documents and instructional materials.

Included Documents



Owner's Manual (this book)

This document explains how to use the Clavinova.

• Introduction:

This section explains how to set up and start using your Clavinova. Setup is so simple, you can start playing right away.

• Main Operations:

This section explains various functions useful for your practice, such as Preset Song playback and Song recording.

• Detailed Settings:

This section explains how to make detailed settings for the Clavinova's various functions. Refer to this section as necessary.

• Appendix:

This section introduces Message List, a description of Preset Voices, and other reference material.



Data List (CLP-685 only)

This document contains lists of XG Voices and XG Drum Kit that can be selected on the CLP-685.

Icons on this manual

Example **685** 675 645 635 665GP

This indicates that the relevant function is only available on certain models. These icons indicate that the function is available on the CLP-685 but not on the CLP-675, CLP-645, CLP-635, CLP-665GP.

Online Materials (Downloadable from the web)



iPhone/iPad Connection Manual

Explains how to connect the instrument to smart devices, such as iPhone, iPad, etc.



Computer-related Operations

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



MIDI Reference

Contains the MIDI-related information.

To obtain these manuals, access the Yamaha Downloads, enter the model name for searching the desired files.

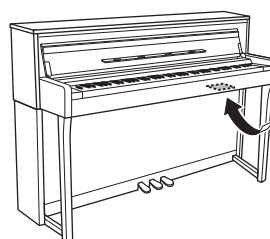
Yamaha Downloads

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

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)

Features



Full-scale piano performance

▶▶ page 24

The CLP-685 and CLP-675 feature a brand new keyboard, which reproduces the authentic touch and feel of an actual grand piano. Its improved keyboard mechanism provides a wider range of touch response, with exceptionally expressive control from pianissimo to fortissimo. Moreover, the keys have an even longer pivot point distance (length from the front side to the pivot point), for more natural feeling, even when playing the inner part of a key. In addition, all models feature piano sounds created with samples of the Yamaha CFX flagship concert grand piano and the famed Vienna-made Bösendorfer grand piano. Moreover, the VRM function on all models simulates the luscious resonance effect on acoustic pianos—where the sound of one string causes sympathetic vibration in other strings and the soundboard. You can customize the piano sound (in a special “Piano Room” setting group) by adjusting various parameters such as string resonance, damper resonance and touch response.

When headphones are connected, the piano sounds are automatically adjusted to impart a natural sound distance sensation. Also, selecting the CFX Voice calls up a binaural sampling sound, enabling realistic, natural sound when using headphones (page 20). Altogether, these models deliver widely variegated and rich sounds that are faithful to actual acoustic pianos.

* Bösendorfer is a subsidiary company of Yamaha.



Song playback for both listening enjoyment and practice purposes

▶▶ page 39

Also built into this instrument are 50 classical music masterpieces, plus 303 lesson Songs for mastering the piano. You can simply enjoy listening to these built-in Songs, or use them for separate right-hand/left-hand practicing.* The 303 lesson Songs consist of practice pieces taken from various standard piano instruction manuals, including “The Virtuoso Pianist.” Moreover, you can input the audio from a smart device to this instrument via *Bluetooth*** and hear it through the built-in speakers of the instrument. Refer to page 81 for details.

*The part on/off function is available only for MIDI songs that have both right- and left-hand parts.

**The models CLP-685, CLP-675, CLP-645 and CLP-665GP are equipped with *Bluetooth* functionality; however, even these models may not support *Bluetooth*, depending on the country in which you purchased the product. For information on whether *Bluetooth* functionality is included or not, refer to page 129.



Twenty different rhythms

▶▶ page 51

Playing along with one of the twenty basic rhythms built into the instrument is a great way to add excitement to your performances. They feature a variety of different patterns from jazz, popular music, and the like, to give you what you need to make playing more fun and lively.



Recording your performances

▶▶ page 52

The instrument lets you save your performance to internal memory or a USB flash drive (sold separately). You can record your performance using one of two methods, MIDI or Audio recording, according to your needs. MIDI recording is ideal for making independent tracks—for example, recording a right-hand part to Track 1 first, and then a left-hand part to Track 2—allowing you to create pieces that would be difficult to play live with both hands together. Audio recording on the other hand, saves recorded data in stereo, CD-quality WAV format to a USB flash drive, for storing to computer and playing on portable music players.

Table of Contents

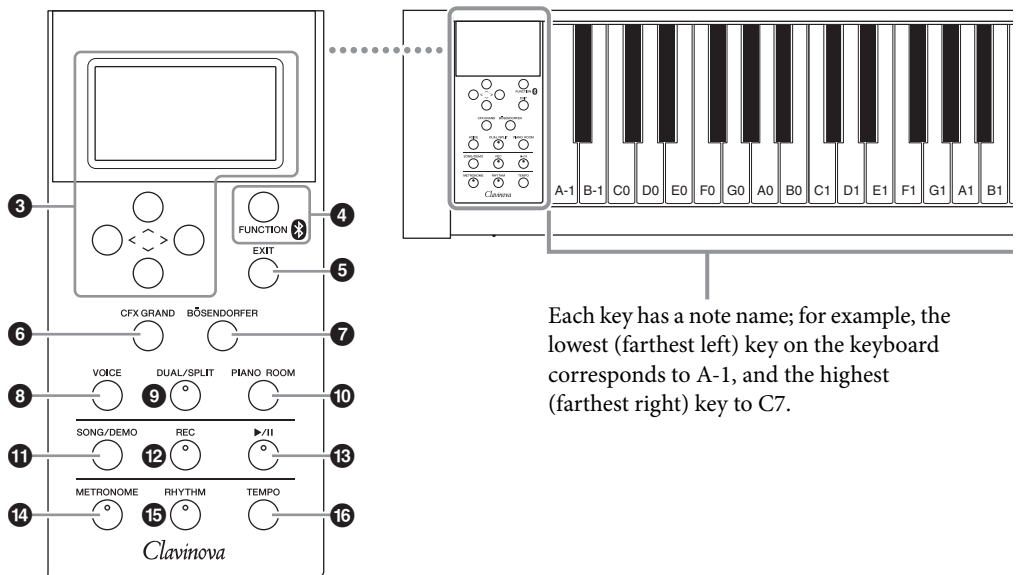
PRECAUTIONS	6
NOTICE	8
Information	8
Included Accessories	9
About the Manuals	9
Features	10
Introduction	12
Panel Controls and Terminals	12
Control Panel	12
Getting Started — Playing the Clavinova	14
Turning the Power On or Off	14
Music Rest	17
Lid	18
Setting the Volume — [MASTER VOLUME]	19
Using Headphones	19
Using the Pedals	21
Basic Operations on Display	22
Main Operations	24
Enjoying the Piano Performance	24
Selecting two Grand Piano Voices from the panel directly	24
Customizing the Sound and the Touch Response of Piano Voices (Piano Room)	25
Playing Various Musical Instrument Sounds (Voices)	28
Selecting Voices	28
Enhancing and Customizing the Sound	30
Playing Two Voices Simultaneously (Dual)	32
Splitting the Keyboard Range and Playing Two Different Voices (Split Mode)	33
Using Dual and Split Simultaneously	34
Playing Duo	35
Using the Metronome	36
Playing Back Songs	39
Listening to the Voice Demos	40
Playback of Songs	41
Playing a One-hand Part — Part Cancel Function (MIDI Songs)	44
Playing Back a Song Repeatedly	45
Adjusting the Volume Balance	48
Useful Playback Functions	50
Playing the Keyboard along with Rhythm Playback	51
Recording Your Performance	52
Recording Methods	52
Quick MIDI Recording	53
MIDI Recording — Independent Tracks	55
MIDI Recording to the USB Flash Drive	57
Audio Recording to the USB Flash Drive	58
Other Recording Techniques	59

Handling Song Files	63
Song Types and File Operation Limitations	63
Basic Song File Operation	64
Deleting Files — Delete	65
Copying Files — Copy	65
Moving Files — Move	66
Convert a MIDI Song to an Audio Song during Playback — MIDI to Audio	67
Renaming Files — Rename	68
Connections	69
Connectors	69
Connecting USB Devices (USB [TO DEVICE] Terminal)	72
Connecting to a Computer (USB [TO HOST] Terminal)	73
Connecting External MIDI Devices (MIDI Terminals)	73
Connecting to an iPhone/iPad (USB [TO DEVICE], USB [TO HOST] and MIDI Terminals)	74
Using the <i>Bluetooth</i> Audio function	81
Detailed Settings	83
Basic Operations	83
Voice Menu	84
Song Menu	88
Metronome/Rhythm Menu	91
Recording Menu	92
System Menu	93
Appendix	100
Preset Voice List	100
Song List	104
50 Classics	104
Lesson Songs	104
Rhythm List	105
Message List	106
Troubleshooting	108
Assembling the Clavinova	110
Assembly Precautions	110
CLP-685 Assembly	111
CLP-675 Assembly	115
CLP-645, CLP-635 Assembly	118
CLP-665GP Assembly	121
Specifications	124
Index	127
About <i>Bluetooth</i>*	129

*For information on whether *Bluetooth* functionality is included or not, refer to page 129.

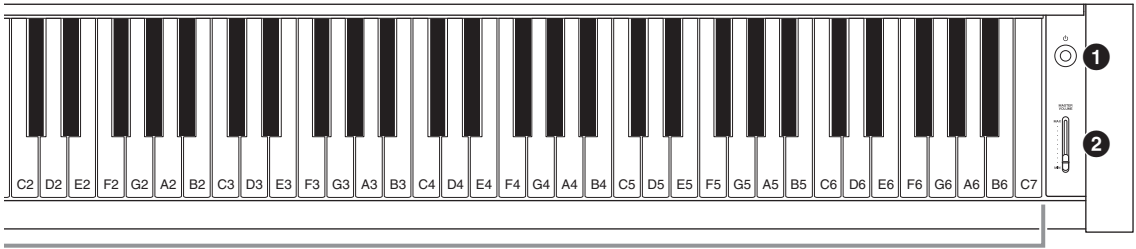
Panel Controls and Terminals

Control Panel

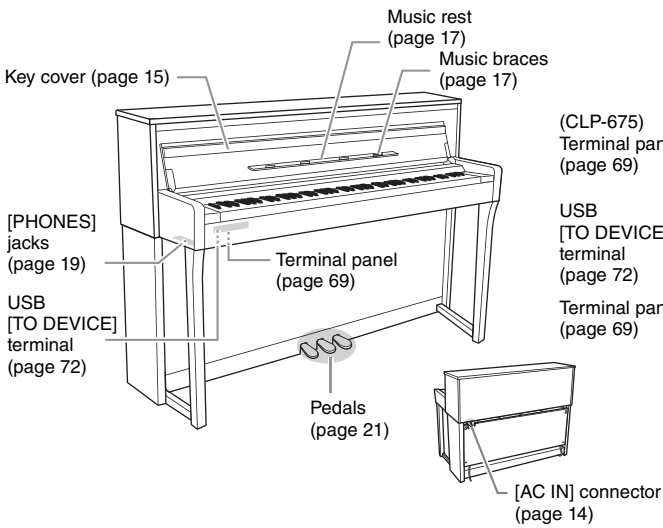


Each key has a note name; for example, the lowest (farthest left) key on the keyboard corresponds to A-1, and the highest (farthest right) key to C7.

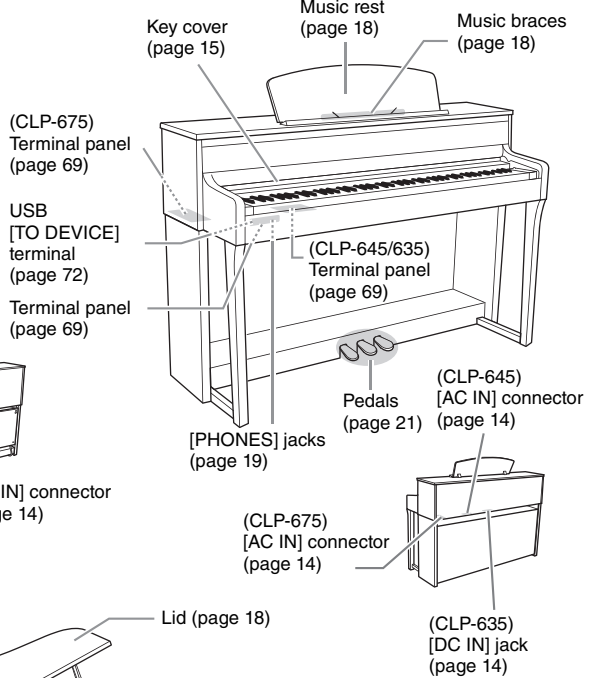
- 1** [⏻] (Standby/On) switch page 15
For turning the power on or setting it to standby.
- 2** [MASTER VOLUME] slider page 19
For adjusting the overall volume.
- 3** [^]/[v]/[<]/[>] buttons, display..... page 22
For selecting an item or setting a value using the buttons corresponding to the display indication.
- 4** [FUNCTION] button page 83
Pressing this button alternates the displays among “Voice” menu, “Song” menu, “Metronome/Rhythm” menu, “Recording” menu and “System” menu, from which you can make detailed settings for the related functions.
- Bluetooth logo** page 81
The models CLP-685, CLP-675, CLP-645 and CLP-665GP are equipped with *Bluetooth* functionality; however, even these models may not support *Bluetooth*, depending on the country in which you purchased the product. If the *Bluetooth* logo is printed on the control panel, this means that the product is equipped with *Bluetooth* functionality.
- 5** [EXIT] button page 22
Pressing this button exits from the current display, or returns to the Voice or Song display.
- 6** [CFX GRAND] button..... page 24
For selecting the “CFX Grand” Voice.
- 7** [BÖSENDORFER] button page 24
For selecting the “Bösendorfer” Voice.
- 8** [VOICE] button page 28
Calls up the Voice list display.
- 9** [DUAL/SPLIT] button page 32
For playing two Voices simultaneously, or different Voices on the left- and right-hand sections of the keyboard.
- 10** [PIANO ROOM] button page 25
Calls up the Piano Room display where you can select an optimum piano sound and adjust the touch response.
- 11** [SONG/DEMO] button page 39
Calls up Song List for selecting a demo Song or a Song to playback or edit.
- 12** [REC] button..... page 52
For recording your keyboard performance.
- 13** [▶/||] (Play/Pause) button page 41
For alternately playing back and pausing the Preset Songs or your recorded material.
- 14** [METRONOME] button..... page 36
For using the metronome functions.
- 15** [RHYTHM] button..... page 51
For using the rhythm functions.
- 16** [TEMPO] button page 36
For setting the tempo.



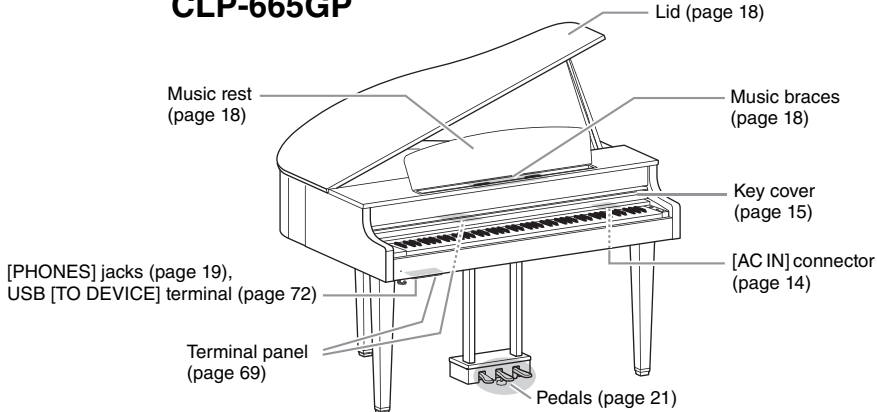
CLP-685



CLP-675, CLP-645, CLP-635



CLP-665GP



Getting Started — Playing the Clavinova

This section explains how to set up and start using your Clavinova. Setup is so simple, you can start playing right away.

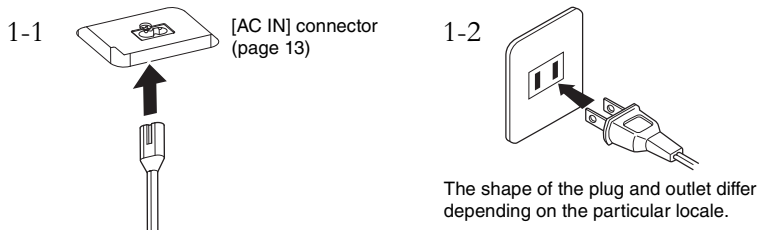
Turning the Power On or Off

1. Connect the power cord and AC adaptor (CLP-635 only).

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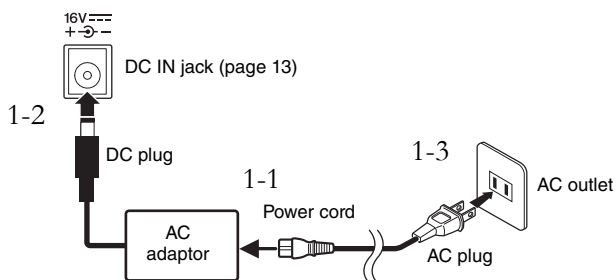
First insert the plug of the power cord into the AC connector on this instrument, then plug the other end of the cord into a proper AC outlet on the wall. In some areas a plug adaptor may be provided to match the pin configuration of the AC wall outlets in your area.

For more information on connecting the power cord, refer to the assembly instructions on pages 113, 117, 119 or 123.



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



⚠ 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 off the power switch and disconnect the plug from the outlet.

⚠ WARNING

- Use only the AC power cord supplied with your instrument. If the supplied cord is lost or damaged and needs to be replaced, contact your Yamaha dealer. The use of an inappropriate replacement can pose a fire and shock hazard!
- The type of AC power cord provided with your instrument may be different depending on the country in which it is purchased. (In some areas a plug adaptor may be provided to match the pin configuration of the AC wall outlets in your area.) Do NOT modify the plug provided with your instrument. If the plug does not fit the outlet, have a proper outlet installed by a qualified electrician.

⚠ WARNING

Use the specified adaptor (page 126) only. The use of other adaptors may result in irreparable damage to both the adaptor and the instrument.

NOTE

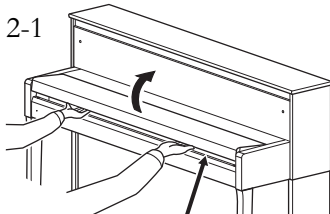
When disconnecting the power cord/AC adaptor, first turn off the power, then follow this procedure in reverse order.

2. Open the key cover.

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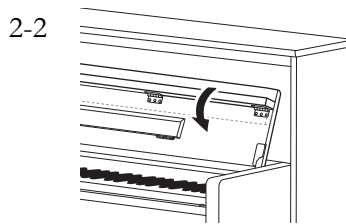
2-1. With both hands, hold the hand grip, then lift and open the key cover.

2-2. Fold down the top of the key cover.



CAUTION

Be careful to avoid catching your fingers when opening or closing the cover.



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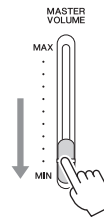
Lift the cover slightly, then push and slide it to the end.



CAUTION

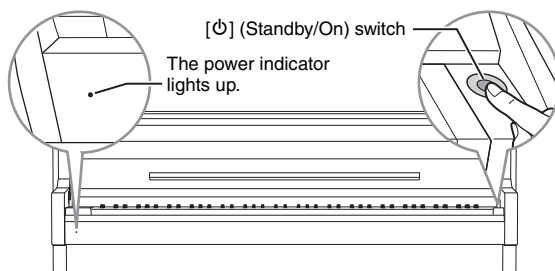
Be careful to avoid catching your fingers when opening or closing the cover.

3. Turn down the [MASTER VOLUME] slider at the right end of the front panel to “MIN.”



4. Press the [⏻] (Standby/On) switch at the right end of the front panel to turn the power on.

The display located at the left end of the front panel and the power indicator located below the left end of the keyboard both light up.



CAUTION

- Do not place objects such as pieces of paper or metal on top of the key cover. Small objects placed on the key cover may fall inside the unit when the cover is opened and may be nearly impossible to remove. This could cause electric shock, short circuit, fire or other serious damage to the instrument.

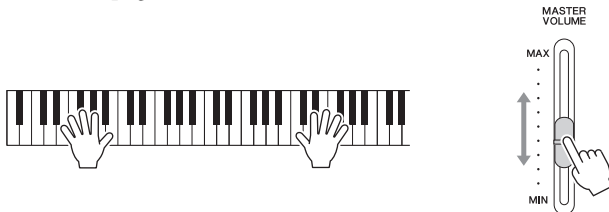
- Hold the cover with both hands when opening or closing it. Do not release it until it is fully opened or closed. Be careful to avoid catching fingers (yours or others, especially children's) between the cover and the unit.

NOTICE

Press only the [⏻] (Standby/On) switch when turning the power on. Any other operations, such as pressing the keys, buttons or pedals may cause the instrument to malfunction.

5. Play the keyboard.

While playing the keyboard, adjust the volume level by using the [MASTER VOLUME] slider. For details, refer to “Setting the volume — [MASTER VOLUME]” on page 19.



6. After you use the instrument, press and hold the [⏻] (Standby/On) switch for a second to turn the power off.

The display and the power indicator are turned off.

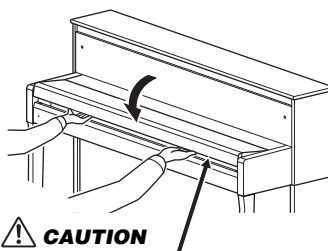
7. Close the key cover.

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7-1. If the music rest is unfolded, fold it back.

7-2. With both hands, open the folded top of the key cover, and close it gently.

The key cover is equipped with the special SOFT-CLOSE™ mechanism which closes the cover slowly.



CAUTION
Be careful to avoid catching your fingers when opening or closing the cover.

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Slide the cover toward you and gently lower the cover over the keys.



CAUTION
Be careful to avoid catching your fingers when opening or closing the cover.

CAUTION

Even when the instrument is turned off, electricity is still flowing to the instrument at the minimum level. When you are not using the instrument for a long time or during electrical storms, make sure you unplug the AC power plug from the wall AC outlet.

CAUTION

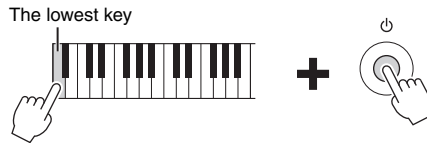
Do not apply excessive force when closing the key cover. Applying excessive force to the key cover when closing it could damage the SOFT-CLOSE™ mechanism, and possibly result in injury to your hands and fingers caught under the closing key cover.

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 approximately 30 minutes by default; however, you can change the setting (page 97).

Disabling Auto Power Off (simple method)

Turn the power on while holding down the lowest key on the keyboard. An “Auto power off disabled” message appears briefly and Auto Power Off is disabled.



NOTICE

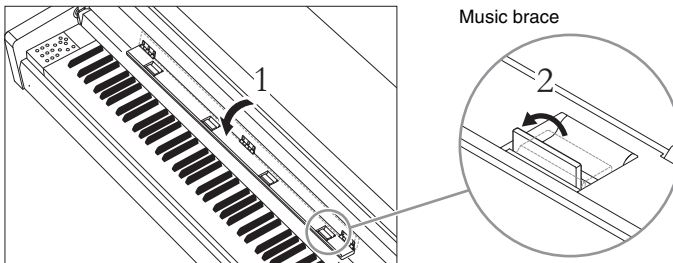
- Any data which are not saved will be lost if the power automatically turns off. Make sure to save your data before this happens.
- Depending on the instrument status, the power may not turn off automatically, even after the specified period of time elapses. Always turn off the power manually when the instrument is not in use.

Music Rest

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Unfold the music rest:

- Unfold the music rest, which is on the inside of the key cover.
- Unfold the music braces, which allow you to hold the pages of music books in place.



NOTE

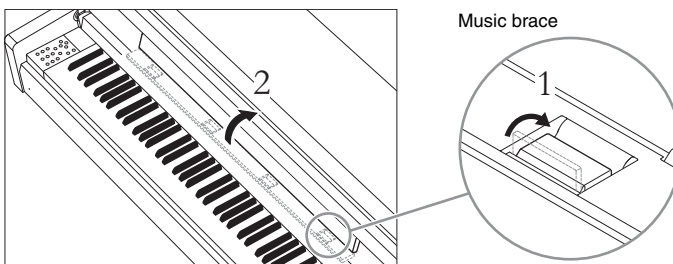
Fold down the top of the key cover (see step 2 on page 15.) when using the music rest.

NOTICE

Do not put anything heavy on the music rest for a long period of time. Doing so may damage the music rest.

Fold the music rest:

- Fold the music braces if they are unfolded.
- Fold the music rest before closing the key cover.

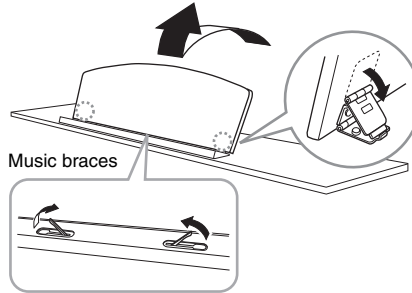


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To raise the music rest:

1. Pull the music rest up and toward yourself as far as it will go.
2. Flip down the two metal supports at the left and right on the rear of the music rest.
3. Lower the music rest so that the metal supports latch into place.

Music braces allow you to hold the pages of music books in place.

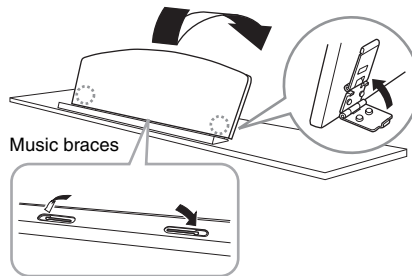
**CAUTION**

Do not try to use the music rest in a half-raised position. Also, when raising or lowering the music rest, do not release your hands from the music rest until it is all the way up or down.

To lower the music rest:

Close the Music braces if they are open, and then lower the music rest by following the instructions below.

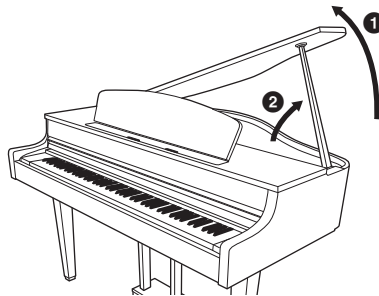
1. Pull the music rest toward yourself as far as it will go.
2. Raise the two metal supports (at the rear of the music rest).
3. Gently lower the music rest backward until it is all the way down.

**Lid**

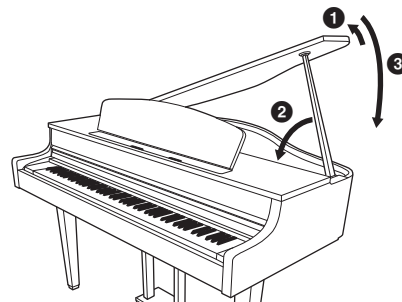
685 675 645 635 665GP

To open the lid:

1. Raise and hold the right side of the lid (viewed from the keyboard end of the instrument).
2. Raise the lid stay and carefully lower the lid so that the end of the stay fits into the recess in the lid.

**To close the lid:**

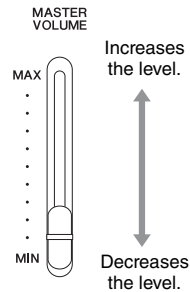
1. Hold the lid stay and carefully raise the lid.
2. Hold the lid in its raised position and lower the lid stay.
3. Carefully lower the lid.

**WARNING**

- Do not let children open or close the lid. Also, be careful to avoid catching fingers (yours or others, and especially those of children) when raising or lowering the lid.
- Make sure that the end of the stay fits securely in the lid recess. If the stay is not properly seated in the recess, the lid may fall, causing damage or injury.
- Be careful that you or others do not bump the stay while the lid is raised. The stay may be dislodged from the lid recess causing the lid to fall.

Setting the Volume — [MASTER VOLUME]

To adjust the volume, use the [MASTER VOLUME] slider located at the right of the panel. Play the keyboard to actually produce sound while you adjust the volume.



Master Volume: The volume level of the entire keyboard sound.

Adjusting the [MASTER VOLUME] slider also affects the output level of the [PHONES] jacks and the output level of the AUX OUT jacks.

CAUTION

Do not use the instrument at a high volume level for a long period of time, or your hearing may be damaged.

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 is effective only from the sound output of the instrument speakers.

You can set the IAC setting On or Off via the “System” menu display: Press the [FUNCTION] button repeatedly to call up the “System” menu display → “Sound” → “IAC.” The default setting for this function is “On.”

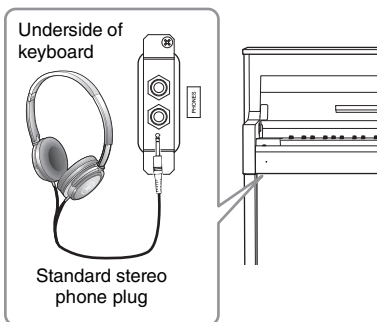
NOTE

“System” menu display (page 93)

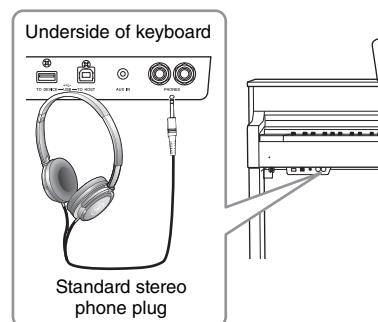
Using Headphones

Connect a pair of headphones to one of the [PHONES] jacks. When the headphones are plugged into either of the [PHONES] jacks, the internal speaker system is automatically shut off. Two [PHONES] jacks are provided. Two sets of standard stereo headphones can be plugged in. (If you are using only one pair of headphones, you can plug them into either of these jacks.)

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CAUTION

Do not use headphones at a high volume for an extended period of time. Doing so may cause hearing loss.

Reproducing the Natural Sensation of Sound Distance — Binaural Sampling and Stereophonic Optimizer

This instrument features two advanced technologies that allow you to enjoy exceptionally realistic, natural sound, even when listening on headphones.

Binaural Sampling (“CFX Grand” Voice only)

Binaural sampling is a method that uses two special microphones set at the ear position of a performer and records the sound from a piano as it is. Listening to the sound with this effect through headphones gives the impression of being immersed in the sound, as if it was actually emanating from the piano. Moreover, you can enjoy the sound naturally for a long time without ear strain. When the default voice, “CFX Grand” (page 24) is selected, connecting the headphones automatically enables the binaural sampling sound.

Stereophonic Optimizer (Voices in the Piano group other than “CFX Grand”)

The Stereophonic Optimizer is an effect which reproduces natural sound distance like the sound of binaural sampling even though you hear it on headphones. When a Voice in the Piano group other than “CFX Grand” is selected, connecting the headphones automatically enables the Stereophonic Optimizer.

When headphones are connected, the Voices in the Piano group automatically change to the sound of Binaural Sampling or the sound enhanced with the Stereophonic Optimizer, by the default settings. Since these sounds are optimized for listening with headphones, we recommend that you set this function to “OFF” in the following situations.

- Playing the piano sound of this instrument with an external powered speaker system, while monitoring the sound output from this instrument on connected headphones.
- Making an audio recording (page 52) and then playing that recorded audio Song through speakers of this instrument. (Make sure to turn off these functions before audio recording.)

You can set this setting On or Off via the “System” menu display. Press the [FUNCTION] button repeatedly to call up the “System” menu display: “Sound” → “Binaural” (page 94).

Sampling

A technology which records the sounds of an acoustic instrument then stores them to the tone generator to be played based on information received from the keyboard.

NOTE

Voices in the Piano group are those contained in the “Piano” category in the Preset Voice List (page 100). For details about selecting Voices, refer to page 24.

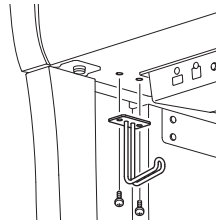
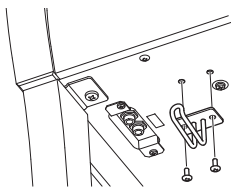
NOTE

Before connecting an external powered speaker system, be sure to read “Connections” (page 69).

Using the headphone hanger

You can conveniently hang the headphones on the instrument when not using them. Install the headphone hanger using included two screws (4 × 10 mm) as shown in the illustration.

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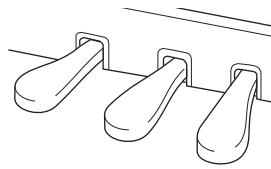


NOTICE

Do not hang anything other than the headphones on the hanger. Otherwise, the instrument or the hanger may be damaged.

Using the Pedals

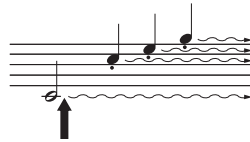
This instrument is equipped with three foot pedals: damper pedal (right), sostenuto pedal (center), and soft pedal (left).



Damper pedal (right pedal)

When you press the damper pedal, the notes you play have a longer sustain.

When you select a Voice in the Piano group, pressing the damper pedal activates the VRM (page 26) to accurately recreate the unique resonance of an acoustic grand piano's soundboard and strings.



When you press the damper pedal here, the notes you play before you release the pedal have a longer sustain.

NOTE

Voices in the Piano group are those contained in the "Piano" category in the Preset Voice List (page 100). For details about selecting Voices, refer to page 24.

NOTE

You can assign other functions to each pedal by using "Pedal Assign" in "Voice" menu display (page 86).

Half-pedal function

This instrument also has 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 felts only partially mute the strings. The Half-pedal function on the Clavinova 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. This can be set via the "System" menu display: Press the [FUNCTION] button repeatedly to call up the "System" menu display: "Pedal" → "Half Pedal Point" (page 94).

GP Responsive Damper Pedal

685 675 645 635 665GP

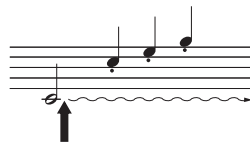
The damper pedal of the CLP-685/675 is the GP Responsive Damper Pedal. This special pedal has been designed to provide enhanced tactile response and, when pressed, is much closer in feel to the pedal of an actual grand piano. It makes it easier to physically experience the half-pedal point and more easily apply the half-pedal effect than other pedals. Since the pressing sensation may vary depending on the situation, including the location where the instrument is installed, you should adjust the half-pedal point described above to the desired setting.

NOTE

The pedals are covered with vinyl covers when shipped from the factory. If your instrument features the GP Responsive Damper Pedal, remove the cover from the damper pedal for optimum use of the pedal effect.

Sostenuto pedal (center pedal)

If you play a note or chord on the keyboard and press the sostenuto pedal while holding the note(s), the notes will sustain as long as the pedal is held. All subsequent notes will not sustain.



When you press the sostenuto pedal here while holding the note(s), the notes will sustain as long as you hold the pedal.

NOTE

While the sostenuto (center) pedal is held, a sustained (non-decaying) type of Voice such as strings or organ may sound continuously without decay after the notes have been released.

NOTE

The center pedal or left pedal can also be used as a [▶/||] (Play/Pause) button. You can assign this function via the "System" menu display: Press the [FUNCTION] button repeatedly to call up the "System" menu display: "Pedal" → "Play/Pause" (page 94).

Soft pedal (left pedal)

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. In order to apply this effect, play notes after pressing the pedal.

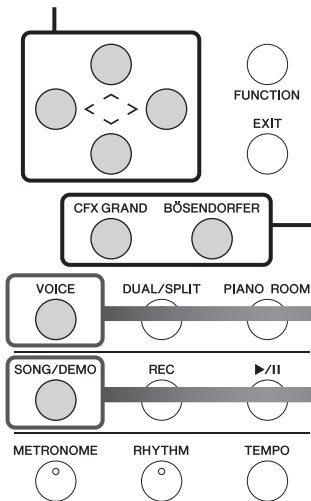
Keep in mind that this pedal function will be changed from the Soft pedal depending on the selected Voice. When the "Mellow Organ" is selected, pressing and releasing this pedal switches between "fast" and "slow" of the Rotary Speaker speed ("Rotary Speed" on page 85). When the Vibraphone is selected, this pedal switches Vibrato on and off ("VibeRotor" on page 85).

Basic Operations on Display

On the screen display, you can call up three main functions: Voice, Song and Demo. In addition, various detailed settings can be made, for even greater playability and performance potential.

Select a Voice, Song or Demo Song

Select from the list, or change the display.



Selecting Voices

1. Press the [VOICE] button to call up the Voice List display.

When this is shown here, you can scroll through the display vertically.



2. Press the [^] or [V] button to select a Voice group.

Selecting Song/Demo

1. Press the [SONG/DEMO] button to call up the Song category list.

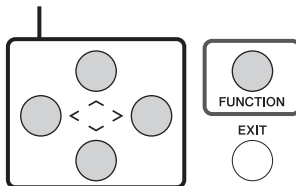
When this is shown here, you can scroll through the display vertically.



2. Press the [^] or [V] button to select a Song category.

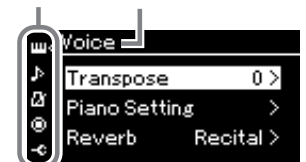
Detailed Settings

Select from the list, or change the display.



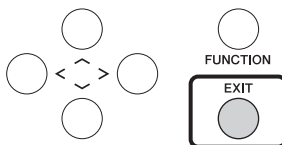
1. Press the [FUNCTION] button repeatedly to select the desired menu.

Menu icon Menu name



2. Press the [^] or [V] button to select a parameter of the current menu.

Return to the Voice/Song display



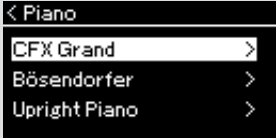
Press the [EXIT] button to return to the Voice display or the Song display, depending on which display was previously shown. While the pop-up window is shown, pressing the [EXIT] button returns to the previously shown display.

Voice: Instrument sound for playing from the keyboard. In addition to the Piano sounds, a wide variety of other musical instrument sounds are available.


Song: A piece of music for listening enjoyment or for playing back and practicing along with.

Demo: Voice Demos let you experience the characteristics of the Voices.

[>] to select a Voice.
[<] to return.



[>] to select a Voice.
[^] to return.



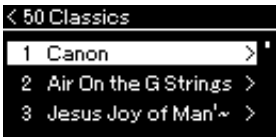
This indicates the current position in the Voice group.

3. Press the [^] or [V] button to select a Voice.
Press the [^] and [V] buttons simultaneously to select the first Voice in the list.


4. Play the keyboard.
Press the [<] or [>] button to select the previous or next Voice. Press the [<] and [>] simultaneously to select the first Voice in the Voice group.

You can select the "CFX Grand" and the "Bösendorfer" Voices directly from the control panel buttons.

[>] to select a Song.
[<] to return.



[>] to select a Song.
[^] to return.

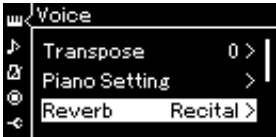


3. Press the [^] or [V] button to select a Song.
When "Lesson" is selected, press the [^] or [V] button to select a Lesson type.

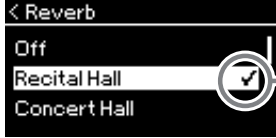
4. Press the [▶/||] (Play/Pause) button to playback the Song.
Use the [<] or [>] button to select the previous or next bars.

Note that the hierarchy depth differs depending on the selected parameter.

[>] to detailed settings.
[<] to return.



[>] to detailed settings.
[EXIT] to return to the previous display.




A checkmark is shown at the right of the selection.

3. Press the [^] or [V] button to select a parameter.

4. Use the [^][V] buttons or the [>] button to select a setting.
Press the [<] button to return to the previous display.

Adjusting the value on the slider pop-up window

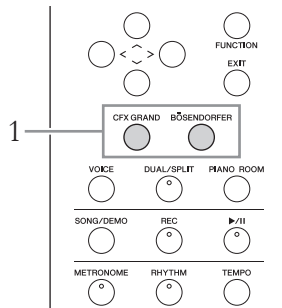


4. Press the [<] or [>] button to adjust the value, press the [EXIT] button to close the pop-up window.
To reset the default value, press the [<] and [>] buttons simultaneously.

Enjoying the Piano Performance

This instrument puts the sounds of two renowned grand pianos, the Yamaha CFX and Bösendorfer Imperial, as well as other piano sounds—each with its own distinctive appeal and sonic characteristics. Simply select the particular piano sound desired, according to the music you intend to play or your personal preferences.

Selecting two Grand Piano Voices from the panel directly



1. Press the [CFX GRAND] button or the [BÖSENDORFER] button to select the piano type.

A Voice is called up from the selected Voice button and its name appears on the Voice display.

Voice display



CFX Grand

Yamaha's CFX concert grand piano sound with a wide dynamic range for maximum expressive control. Suitable for playing in any music genre and style.

Bösendorfer

The famed sound of the Vienna-made Bösendorfer Imperial concert grand piano. Its spacious sound evokes the size of the instrument, and is ideal for expressing tenderness in compositions.

2. Play the Keyboard.

Selecting Other Piano Voices

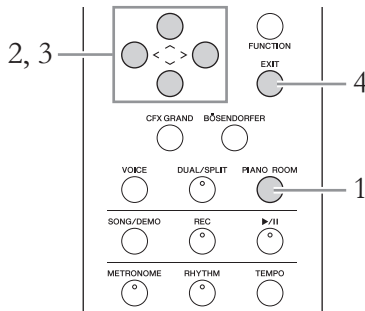
Press the [<][>] buttons to select other piano Voices than "CFX Grand" and "Bösendorfer." You can also select the other Voices by pressing the [VOICE] button (page 28).

NOTE

You can hear and experience the characteristics of the Voices by listening to the Demo Songs for each Voice (page 40).

Customizing the Sound and the Touch Response of Piano Voices (Piano Room)

You can adjust the detailed settings of Voices in the Piano group in the Piano Room. Try creating a custom piano sound by adjusting the various parameters such as lid position, string resonance, damper resonance and so on.



1. Press the [PIANO ROOM] button to call up the Piano Room display.

Piano Room display



2. Press the [^]/[v] buttons to select items (page 26).
3. Press the [<]/[>] buttons to change the settings (page 26).
4. Press the [EXIT] button to exit from the Piano Room display.









NOTE

If a Voice other than in the Piano group is selected, pressing the [PIANO ROOM] button changes it to "CFX Grand."

NOTE

Pressing the [PIANO ROOM] button disables the Dual/Split/Duo functions.

What you can do in the Piano Room

Item	Icon	Descriptions	Default settings	Setting Range
Lid Position		Determines how much the Lid is opened.	Full	Full, Half, Close
Brightness		Adjusts the brilliance of sound.	Differs depending on the Voice.	0 – 10
Touch		Determines how the sound responds to your playing strength. You should adjust this setting according to the specific Voice you're playing or the particular Song you're performing, as desired.	Medium	Soft2, Soft1, Medium, Hard1, Hard2, Fixed
Reverb		Determines the Reverb type which is applied to all the entire sound including the keyboard performance, Song playback and MIDI data input from an external MIDI device.	Differs depending on the Voice.	Refer to the Reverb Type List (page 87)
Reverb Depth		Adjusts the Reverb depth. When "Reverb" is set to "off" or a value of "0," no effect is produced.	Differs depending on the Voice.	0 – 127
Master Tune		Fine tunes the pitch of the entire instrument. This function is useful when you play this instrument along with other instruments or CD music.	A3 = 440.0 Hz	A3 = 414.8 Hz – 466.8 Hz (approx. 0.2 Hz steps)
VRM		Turns the VRM effect on/off. For information about the VRM function, refer to page 27. For details about the Piano Voices compatible with VRM, refer to the "Preset Voice List" on page 100. Listening to the VRM Demo You can hear the difference of VRM On/Off by pressing the [▶/] (Play/Pause) button while VRM On/Off display is being displayed. If you press the [▶/] (Play/Pause) button while VRM is On, the Demo Song of VRM On will play back. If you press the [▶/] (Play/Pause) button while VRM Off, the Demo Song of VRM Off will play back.	On	On, Off
Damper Res.		Determines the depth of the string resonance effect which is applied when the damper pedal is pressed. This parameter can be set when VRM is on.	5	0 – 10
String Res.		Determines the depth of the string resonance effect which is applied when a note on the keyboard is pressed. This parameter can be set when VRM is on.	5	0 – 10
Aliquot Res.		Adjusts the sympathetic vibrations of the Aliquot resonance effect. For details about Aliquot, refer to "What is Aliquot?" (page 27).	5	0 – 10
Body Res.		Adjusts the resonance of the piano itself, i.e. soundboard, the sides, the frame and so on. This parameter can be set when VRM is on.	5	0 – 10
Key Off Sample		Determines the volume of the key-off sound (the subtle sound that occurs when you release a key) which is available only for some Voices. For Voices to which this effect is applied, refer to the Voice List (page 100).	5	0 – 10
Half Pedal Point		Specify the point to which you must depress the right pedal before the effect of "Sustain Continuously" begins to be applied. This setting applies only to the "Sustain Continuously" effect (page 87) that is assigned to the right pedal.	0	-2 (effective with the shallowest press) – 0 – +4 (effective with the deepest press)



What is VRM?

The VRM (Virtual Resonance Modeling) function uses sophisticated physical modeling to simulate the actual string resonance sound that occurs when the damper pedal on a real piano is pressed or keys are played and held.

On an 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 spreads. The VRM (Virtual Resonance Modeling) technology featured in this instrument reproduces the complicated interaction of both string and soundboard resonance faithfully using a virtual musical instrument (physical modeling), and makes the sound more like a real acoustic piano. Since instantaneous resonance is made at the moment according to the state of the keyboard or pedal, you can vary the sound expressively by changing the timing of your pressing the keys, and the timing and depth of your pressing the pedal.

What is Aliquot?

Aliquot is a stringing method for pianos that uses extra, un-struck strings in the upper octaves to enhance the tone. These strings sympathetically vibrate with other strings in an acoustic piano, resonating with overtones, and adding richness, brilliance and complex color to the sound. Since they do not have a damper, they will continue sounding even after you release your hands from the keyboard.

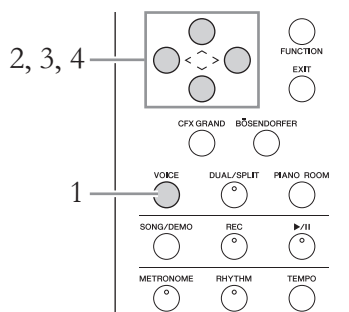
Playing Various Musical Instrument Sounds (Voices)

In addition to the wonderfully realistic piano sounds, you can select and play other musical instrument sounds (Voices), such as organ or stringed instruments.

Selecting Voices

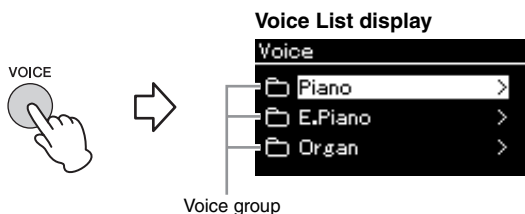
The Voices of the instrument are conveniently divided into groups of instrument types. Select a desired Voice and play the piano.

You can also select a Voice from the XG Voices (CLP-685 only). For instructions, refer to page 29.



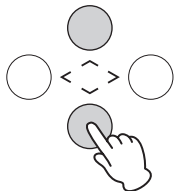
1. Press the [VOICE] button to call up the Voice List display.

Voice groups are listed in the display. The currently selected Voice is highlighted.



2. Use the [^]/[v] buttons to select the Voice group.

Highlight the Voice group name you want to use.



NOTE

To hear and experience the characteristics of the Voices, listen to the Demo Songs for each Voice (page 40).

NOTE

Touch Response (page 93) will not be applied to some Voices. For information about the Voices to which Touch Response can be applied, refer to the "Preset Voice List" on page 100.

XG

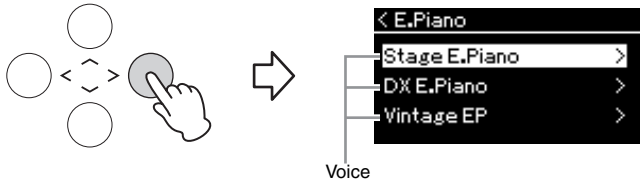
XG is a major enhancement of the GM System level 1 format (page 39), and was developed by Yamaha specially to provide more Voices and variations, as well as greater expressive control over Voices and effects, and to ensure compatibility of data well into the future.

NOTE

For information about the Voices, refer to the "Preset Voice List" (page 100).

3. Press the [>] button.

The Voices in the selected group are listed in the display.



NOTE

Press the [<] button to return to the Voice List for selecting the Voice Group.

4. Use the [^]/[v] buttons to scroll through the Voice list, and then press the [>] button to select the desired Voice.

The currently selected Voice name is shown in the display.

Voice display



You can select other Voices in order using the [<]/[>] buttons via the Voice display.

Press the [^] button to go back to the Voice List display.

5. Play the keyboard.

Selecting XG Voices



If you want to select a Voice from the XG voices, select "XG" in step 2.



Scroll to the bottom of the display by pressing the [v] button.

Because the XG Voice group has an extremely large number of Voices, the group is divided into sub-groups. Press the [>] button to call up the Voice group list, then select the desired Voice group from the list by using the [^]/[v] buttons. After this, follow the procedure beginning with step 3 above.

*For details on XG Voices, refer to the "XG Voice list" in the separate Data List.

NOTE

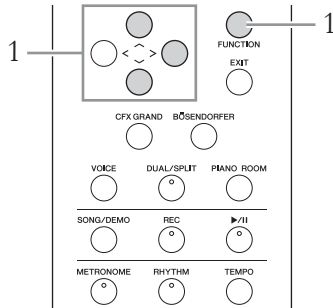
You can specify the Touch Response (how the sound responds to the way you play the keys). You should adjust this setting according to the specific Voice you're playing or the particular Song you're performing, as desired. You can make the settings via the "System" menu display: Press the [FUNCTION] button repeatedly to select the "System" menu display → "Keyboard" → "Touch" (page 93). You can also adjust the Touch Response for the Voices in the Piano group from the Piano Room display (page 26).

Enhancing and Customizing the Sound

Applying the following effects gives you greater and richer expressive capabilities.

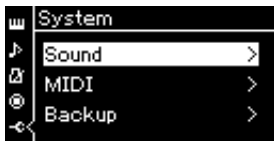
Brilliance

For adjusting the brightness of the sound. This setting is applied commonly to all parts (keyboard Voices/Song/MIDI).



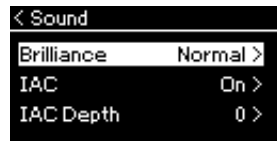
1. Press the [FUNCTION] button repeatedly to call up the “System” menu display, then select the highlighted item in each display as illustrated below.

“System” menu display



- 1-1. Use the [^]/[V] buttons to select “Sound.”
- 1-2. Press the [>] button to call up the next display.

Sound display



- 1-3. Use the [^]/[V] buttons to select “Brilliance.”
- 1-4. Press the [>] button to call up the next display.

Brilliance display



- 1-5. Use the [^]/[V] buttons to select the value.

Use the [^]/[V] buttons to select the desired tonality in the Brilliance display. To reset to the default setting, press the [^] and [V] buttons simultaneously.

- **Mellow 1 – 3**
Soft and mellow tone. The sound becomes more mellow and rounder as the number increases.
- **Normal**
Standard tone.
- **Bright 1 – 3**
Bright tone. The sound becomes brighter as the number increases.

Default setting: Normal

NOTE

If you select Bright 1 – 3 as the type of brilliance, the volume level will increase slightly. Under this condition, if you raise the [MASTER VOLUME] slider setting, the sound may become distorted. If this happens, lower the volume accordingly.

Reverb

This control adds reverberation to the sound by simulating the natural reverberation of a concert hall. The ideal Reverb type is automatically selected whenever you select a Voice, but you can select any of the available Reverb types.

To select a desired Reverb type, use the “Voice” menu display: “Reverb” (page 84). You can also select the Reverb type for Voices in the Piano group from the Piano Room display (page 26).

This setting is applied commonly to all parts (keyboard Voices/Song/MIDI).

NOTE

You can adjust the Reverb depth for the selected Voice from the “Voice” menu display: “Voice Edit” → “Reverb Depth” (page 85).

Chorus

This control adds warmth and spaciousness to the sound. The ideal Chorus type is automatically selected whenever you select a Voice, but you can select any of the available Chorus types.

To select a desired Chorus type, use the “Voice” menu display: “Chorus” (page 84).

This setting is applied commonly to all parts (keyboard Voices/Song/MIDI).

NOTE

You can adjust the Chorus depth for the selected Voice from the “Voice” menu display: “Voice Edit” → “Chorus Depth” (page 85).

NOTE

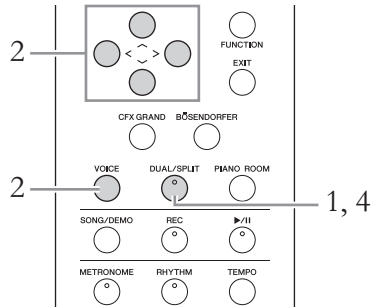
When you want to apply the Chorus effect to a Voice whose Chorus type is set to off by default, set the Chorus type to something other than “Off,” then set the Chorus depth value as desired (greater than “0”).

Effects

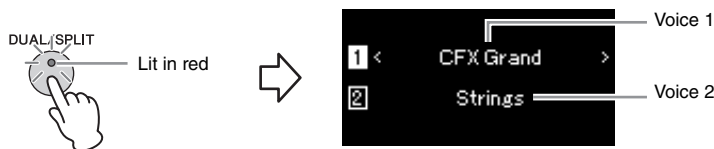
This instrument features a wide variety of Effects, letting you apply enhancements such as Echo or Tremolo to the selected Voice for your keyboard performance. You can select any of the available Effect types from the “Voice” menu display: “Voice Edit” → “Effect” (page 85).

Playing Two Voices Simultaneously (Dual)

Two Voices can be played simultaneously. You can create warm and richly textured Voices by using Voices from different groups simultaneously in a layer, or by using Voices in the same group.



1. To enter the Dual mode, press the [DUAL/SPLIT] button once so that the lamp lights in red.



The Voice which is displayed at top is Voice 1, and the one at bottom is Voice 2.

2. Select the Voices for layering.

2-1. Use the [^]/[v] buttons to highlight **1** (Voice 1) in the display.

2-2. Use the [<]/[>] buttons or the [VOICE] button to select the desired Voice.

If you use the [VOICE] button to call up the Voice List display, press the [>] button to select a Voice, and then return to the previous display.

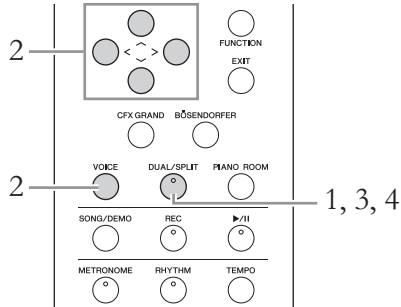
Use the [^]/[v] buttons to highlight **2** (Voice 2), select a Voice in the same way.

3. Play the keyboard.

4. To exit from the Dual mode, press the [DUAL/SPLIT] button repeatedly to turn the lamp off.

Splitting the Keyboard Range and Playing Two Different Voices (Split Mode)

Split mode enables you to play two different Voices on the keyboard—one with your left hand and another with your right.




1. To enter the Split mode, press the [DUAL/SPLIT] button repeatedly to light it in green.



The Voice which is displayed at top is Voice R, and the one at bottom is Voice L.

2. Select a Voice for the right-hand area and left-hand area.

- 2-1. Use the [^]/[v] buttons to highlight  (Voice R) in the display.
- 2-2. Use the [<]/[>] buttons or the [VOICE] button to select the desired Voice.

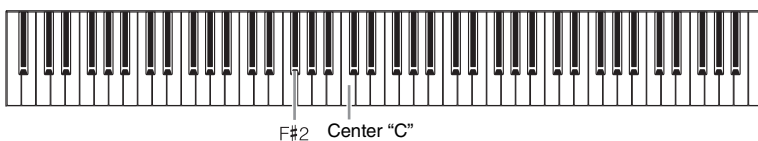
If you use the [VOICE] button to call up the Voice List display, press the [>] button to select a Voice, and then return to the previous display.

Use the [^]/[v] buttons to highlight  (Voice L), and select a Voice in the same way.

3. Play the keyboard.

Changing the Split Point

You can change the Split Point (the border between the right- and left-hand ranges) from the default setting “F#2” to any other key. While in the Split mode, hold down the [DUAL/SPLIT] button, and press the key you wish to assign as the Split Point.



4. To exit from the Split mode, press the [DUAL/SPLIT] button repeatedly so that the lamp turns off.

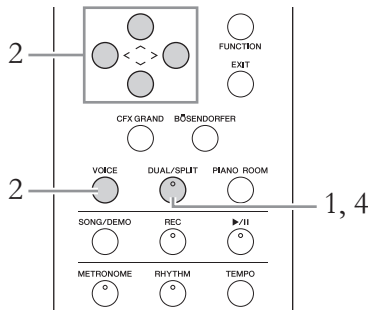
NOTE

The specified Split Point key is included in the left-hand range.

NOTE

The Split Point can also be set via the “System” menu display: Press the [FUNCTION] button repeatedly to call up the “System” menu display → “Keyboard” → “Split Point” (page 94).

Using Dual and Split Simultaneously



1. To enter the Dual and Split modes simultaneously, press the [DUAL/SPLIT] button repeatedly so that the lamp lights in orange.



The Voice which is displayed at top is Voice R1, and the one in the middle is Voice R2, and the one at bottom is Voice L.

2. Select the Voices for layering and for the left-hand area.

2-1. Use the [^]/[v] buttons to highlight **R1** (Voice R1) in the display.

2-2. Use the [<]/[>] buttons or the [VOICE] button to select the desired Voice.

If you use the [VOICE] button to call up the Voice List display, press the [>] button to select a Voice, and then return to the previous display.

Use the [^]/[v] buttons to highlight **R2** (Voice R2) and **L** (Voice L), and select Voices in the same way.

3. Play the keyboard.

4. Press the [DUAL/SPLIT] button to exit from the Dual and Split mode.

The lamp of the [DUAL/SPLIT] button turns off.

NOTE

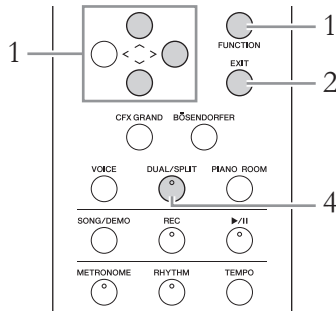
The specified Split Point key is included in the left-hand range.

NOTE

For the information on setting the Split Point, refer to page 33.

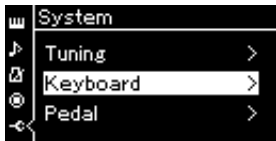
Playing Duo

This function allows two different players to play the instrument, one on the left and the other on the right. This is convenient for practicing duets over the same octave range.

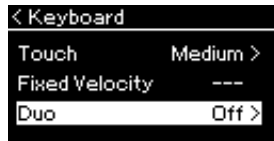


1. Press the [FUNCTION] button repeatedly to call up the “System” menu display, and then select the highlighted item in each display as illustrated below.

“System” menu display

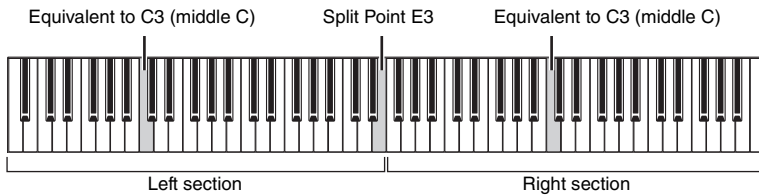


Keyboard display



- 1-1. Use the [^]/[V] buttons to select “Keyboard.”
- 1-2. Press the [>] button to call up the next display.
- 1-3. Use the [^]/[V] buttons to select “Duo.”
- 1-4. Press the [>] button to select “On.”

The keyboard is divided into two sections, with the E3 key as the Split Point.



The pedal function changes as follows.

Right Pedal	Damper pedal for the right-hand range
Center Pedal	Damper pedal for both the right-hand and left hand ranges
Left Pedal	Damper pedal for the left-hand range

NOTE

While Duo is on, the Reverb, VRM and Stereophonic Optimizer functions are disabled (page 20).

NOTE

The specified Split Point key is included in the left-hand range.

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

When Duo is on, the [DUAL/SPLIT] button is lit in green and the [Duo] is shown on the Voice display.



3. Play the keyboard.

The sound of left-hand range is emitted from the left, the sound of right-hand range is emitted from the right.

4. Press the [DUAL/SPLIT] button to exit from the Duo mode.

You can also exit from the Duo mode by following either of the instructions below.

- Press any of the [CFX GRAND], [BÖSENDORFER], [PIANO ROOM] buttons.
- Repeat the same procedure from step 1 to set it to “Off.”

Using the Metronome

The instrument has a built-in metronome (a device that keeps an accurate tempo)—a convenient tool for practice.

1. Press the [METRONOME] button to start the metronome.

This calls up the Tempo display, from which you can adjust the tempo. For details, see next section.

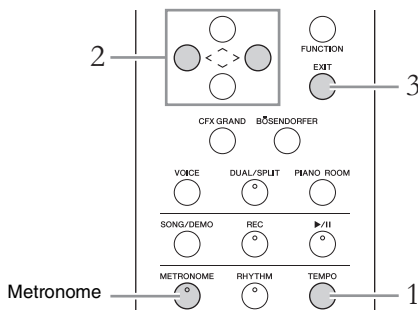
2. Press the [METRONOME] button to stop the metronome.

To close the Tempo display, press the [EXIT] button.

NOTE

You can set the metronome volume, BPM and so on from the “Metronome/Rhythm” menu display (page 91).

Adjusting the Tempo



1. Press the [TEMPO] button to call up the Tempo display.



2. Use the [<]/[>] buttons to adjust the tempo.

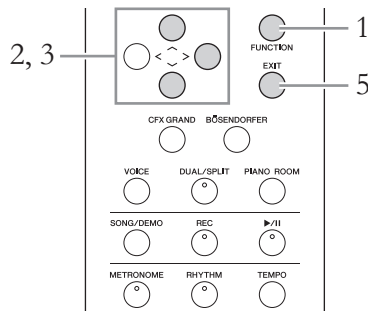
You can adjust the tempo value (number of beats per minute) using the [<]/[>] buttons. To reset the tempo to the default setting, press the [<] and [>] buttons simultaneously.

3. Press the [EXIT] button to close the Tempo display.

NOTE

For information on setting the time signature, refer to page 37.

Setting the metronome time signature



1. Press the [FUNCTION] button repeatedly to call up the “Metronome/Rhythm” menu display.
2. Use the [^]/[v] buttons to select “Time Sig.” and then press the [>] button.

Time Signature display



3. Use the [^]/[v] buttons to select the desired time signature.

Setting range: 2/2, 1/4, 2/4, 3/4, 4/4, 5/4, 6/4, 7/4, 3/8, 6/8, 7/8, 9/8, 12/8

Default setting: 4/4 (Selecting a MIDI Song will change the tempo value to that specified in the selected MIDI Song data.)

Tempo indication and Setting range

Tempo is displayed as “note type=xxx” (For example: ♩ =120). Selecting the Time Signature changes the available parameters as follows.

Note type	Time Signature	Setting range
♩ Half note	2/2	3 – 250
♩ Quarter note	1/4, 2/4, 3/4, 4/4, 5/4, 6/4, 7/4	5 – 500
♩ Dotted quarter note	6/8, 9/8, 12/8	4 – 332 (even numbers only)
♩ Eighth note	3/8, 7/8	10 – 998 (even numbers only) and 999

- * When the tempo value of the selected MIDI Song is outside the setting range on the instrument, the value will be changed to fit within the setting range.
- * Note type will be fixed to quarter note as long as the “BPM” parameter in the “Metronome/Rhythm” menu display is set to “Crotchet” regardless of the Time Signature you set.

4. Turn the “Bell” setting on.

For details, refer to “Bell” in the “Metronome/Rhythm” menu (page 91). The Metronome plays back according to the selected Time Signature with the Bell sound on the first beat of each measure.

5. Press the [EXIT] button to close the “Metronome/Rhythm” menu display.

Note type

The length of one beat

Metronome detailed settings

You can set the metronome volume, BPM and so on from the “Metronome/Rhythm” menu display (page 91).

Playing Back Songs

This instrument can play Preset Songs, Songs you recorded on this instrument, or commercially available Songs. In addition to listening to these Songs, you can play the keyboard as the Song plays back.

MIDI Songs and Audio Songs

There are two kinds of Songs that can be recorded and played back on this instrument: MIDI Songs and Audio Songs.

A MIDI Song is comprised of your keyboard performance information and is not a recording of the actual sound itself. The performance information refers to which keys are played, at what timing, and at what strength—just as in a musical score. Based on the recorded performance information, the tone generator (of the Clavinova, etc.) outputs the corresponding sound. A MIDI Song uses a small amount of data capacity in comparison to an Audio song, and allows you to easily change aspects of the sound, such as Voices used, etc.

An Audio Song is a recording of the performed sound itself. This data is recorded in the same way as that used in recording cassette tapes, or with voice recorders, etc. This data can be played with a portable music player, etc., allowing you to easily let other people hear your performance.

You can play back the following types of Songs in this instrument.

- Preset Voice Demo Songs (Voice Demo).
- Preset Songs: 50 classical Preset Songs (“50 Classics”) and 303 Lesson Songs (“Lesson”)
- Your own recorded Songs (see page 52 for instructions on recording)
- Commercially available MIDI Song data: SMF (Standard MIDI File)
The maximum size for playback on this instrument is approx. 500KB per single MIDI Song.
- Commercially available Audio Song data: Wav (file extension = .wav with 44.1 kHz sample rate, 16-bit resolution, stereo, and maximum 80 minutes length)

685 675 645 635 665GP

CLP-685 is compatible with the following formats.

GM System Level 2

“GM (General MIDI)” is one of the most common Voice allocation formats. “GM System Level 2” is a standard specification that enhances the original “GM” and improves Song data compatibility. It provides for increased polyphony, greater Voice selection, expanded Voice parameters, and integrated effect processing.

XG

XG is a major enhancement of the GM System Level 1 format, and was developed by Yamaha specifically to provide more Voices and variations, as well as greater expressive control over Voices and effects, and to ensure compatibility of data well into the future.

GS

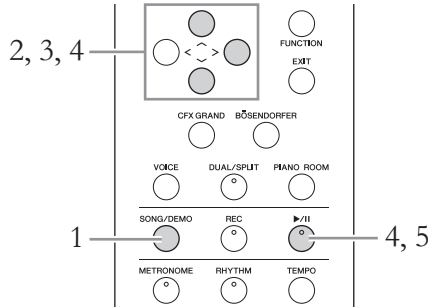
GS was developed by the Roland Corporation. In the same way as Yamaha XG, GS is a major enhancement of the GM specifically to provide more Voices and Drum kits and their variations, as well as greater expressive control over Voices and effects.

Availability of functions differs between MIDI Songs and Audio Songs. In this chapter, the following icons indicate whether or not the explanation applies to MIDI Songs or Audio Songs individually.

Example:   Indicates explanation applies only to MIDI Songs

Listening to the Voice Demos

For each Voice group, the instrument contains several Demo recordings that showcase the special characteristics of the corresponding Voices. For information about the Voices which feature Demos that can be played back, refer to the “Preset Voice List” on page 100.



1. Press the [SONG/DEMO] button to call up the Song list display.



2. Use the [^]/[v] buttons to select “Demo,” and then press the [>] button to call up the next display.
3. Use the [^]/[v] buttons to select the desired Voice Demo, and then press the [>] button to call up the Demo display. The currently selected Voice Demo name is shown in the display.

Demo display



4. Press the [►/II] (Play/Pause) button to start playback.
5. Press the [►/II] (Play/Pause) button again to stop playback.

The Piano Demo stops automatically when Piano Demo playback reaches the end.

Selecting Other Demos

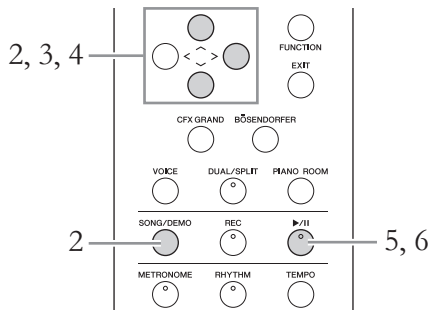
Press the [^] button to return to the Song list display, then repeat steps 3 – 4 of this section.

NOTE

Recording operations cannot be used during Voice Demo playback.

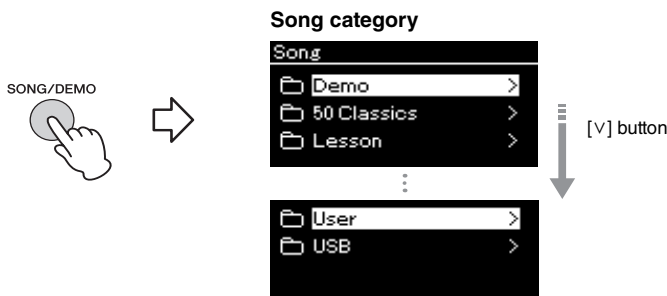
Playback of Songs

MIDI | Audio



1. If you want to play back a Song in a USB flash drive, connect the USB flash drive containing Song data to the USB [TO DEVICE] terminal beforehand.
Audio files to be played must be on a USB flash drive.
2. Press the [SONG/DEMO] button to call up the Song List display, then select the desired category using [^]/[v] buttons.

Select the desired one from “50 Classics,” “Lesson,” “User” or “USB” referring to the category descriptions below.



Demo	Voice Demos let you experience the characteristics of the Voices (MIDI Song) (page 40).
50 Classics	50 classical Preset Songs (MIDI Songs). For these Songs, see the music book “50 Classical Music Masterpieces,” included with this instrument. For details, refer to the “Song List” on page 104.
Lesson	303 Preset Songs (MIDI Songs) ideal for practice, taken from “The Virtuoso Pianist” and others. For these Songs, refer to the Lesson Songs on page 104. Lesson Songs are divided into several folders depending on the types.
User	MIDI Songs which have been recorded and saved to the instrument by using the Record function (page 52), and MIDI Songs which have been copied/moved to the instrument using File operations (page 63).
USB	MIDI/Audio Songs saved to the USB flash drive by recording them with this instrument or Audio Songs converted from MIDI Songs (page 67), or MIDI/Audio Songs saved to the USB flash drive.

NOTE

The instrument can automatically select a Song file saved in the root directory of the USB flash drive as soon as the USB flash drive is connected. For instructions, refer to “USB Autoload” on page 96.

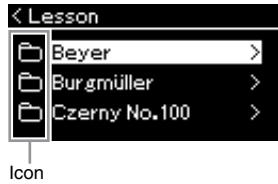
NOTE

Before using a USB flash drive, be sure to read “Connecting USB Devices (USB [TO DEVICE] terminal)” on page 72.

3. Press the [>] button to display the Songs in the specified category, and then select a desired Song using the [^]/[v] buttons.

When “User” or “USB” category is selected, the icon indicating Song types are shown to the left of the Song name.

Song List



icon	Data format
	Folder
	MIDI Songs
	Audio Songs

Since the Lesson Songs are conveniently divided into specific folders, select the desired folder, press the [>] button, and then select a Song.

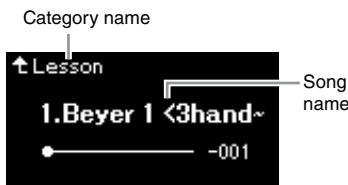
To select a recorded Song saved to USB flash drive:

When you record a Song and save it to a USB flash drive, the recorded Song will automatically be saved to the USER FILES folder on a USB flash drive. If you want to select the Song from the USER FILES folder, select USB in step 2, and USER FILES folder in step 3.

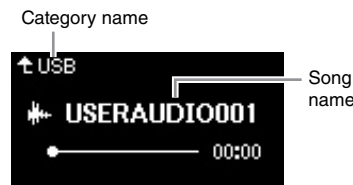
4. Press the [>] button to select the desired Song.

The Song display is shown letting you to see the currently selected Song name and its category name.

Song display: MIDI Song



Song display: Audio Song



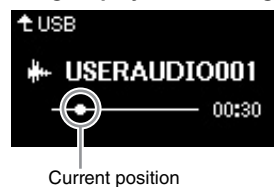
5. Press the [▶/||] (Play/Pause) button to start playback.

The current position of the Song playback will be shown.

Song display: MIDI Song



Song display: Audio Song



You can play the keyboard along with Song playback. You can also change the Voice for your keyboard performance. To adjust the volume balance between your keyboard performance and MIDI Song playback, or to adjust the Audio Volume, set the appropriate Volume parameters individually in the “Song” menu display (page 48).

NOTE

Press the [<] button to return to the category/folder.

NOTE

“NoSong” will be shown in the display when no data exists in that folder.

When Songs cannot be read from a USB flash drive

If the song cannot be read, you may need to change the Language setting for the Song name in the “System” menu display (page 97).

NOTE

Press the [^] button to return to the Song list.

NOTE

When the Song title is too long to be displayed, press the [v] button to see the full title.

NOTE

If a Song has been selected, the original tempo of the Song is used, and the Metronome setting (page 36) will be ignored.

6. Press the [▶/||] (Play/Pause) button again to stop playback.

Even if you don't press the [▶/||] (Play/Pause) button, the Song stops automatically when Song playback reaches the end.

NOTE

Useful playback functions are described on pages 44 – 50.

NOTE

Pressing the [<] and [>] buttons simultaneously returns to the top position of the Song.

Rewind/Fast forward

1. Use the [<] and [>] buttons to move back or forth through the Song (in bars or seconds), while the Song display is shown.

Song display: MIDI Song



Measure number

Song display: Audio Song



Elapsed time

Holding one of the buttons scrolls backward/forward continuously. Pressing the [<] and [>] buttons simultaneously returns to the top position of the Song.

Adjusting the tempo

You can adjust the playback tempo of a Song.

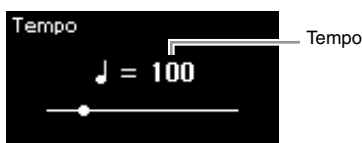
1. Press the [TEMPO] button to call up the Tempo display.

For a MIDI Song, press the [TEMPO] button during Song playback or while the Song display is shown. For an Audio Song, press the [TEMPO] button during Song playback.

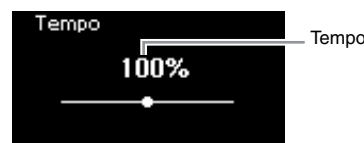
NOTE

Changing the tempo of an Audio Song may change its tonal characteristics.

MIDI Song



Audio Song



2. Change the Tempo value using the [<]/[>] buttons.

The original tempo of the current Song can be recalled by pressing the [<] and [>] buttons simultaneously.

When a MIDI Song is selected, the tempo range differs depending on the Time Signature for a selected Song. Available setting values may only include even numbers (multiples of 2), depending on the Time Signature. For more information, refer to page 37.

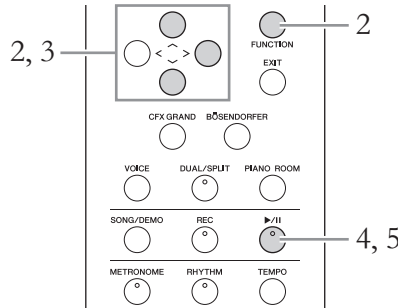
When an Audio Song is selected, the tempo range is between 75% – 125%. 100% is the original tempo value. Higher values result in a faster tempo.

3. Press the [EXIT] button to exit from the Tempo display.

Playing a One-hand Part — Part Cancel Function (MIDI Songs)

MIDI **Audio**

Some MIDI Songs, such as Preset Songs, are divided into right-hand and left-hand parts. By using such Song data, you can practice the left hand by turning on only the right-hand part, and practice the right hand by turning on only the left-hand part—allowing you to practice parts separately for easy mastery of difficult material.



1. Select a Song for practicing.

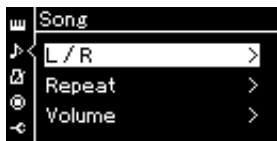
For instructions, refer to page 41. Song categories “50 Classics” and “Lesson” are recommended for this.

2. Select a part you want to practice, then set the part to off.

Press the [FUNCTION] button repeatedly to call up the “Song” menu display, then select the highlighted item in each display as illustrated below.

In the “L/R” display, select the part (track) you want to mute for practicing. Select “R” for practicing the right-hand part, or “L” for the left-hand part.

“Song” menu display



L/R display



2-1. Use the [^]/[v] buttons to select “L/R.”

2-2. Press the [>] button to call up the next display.

2-3. Use the [^]/[v] buttons to select desired track.

3. Use the [>] button to select “Off” for the selected part.

4. Press the [▶/||] (Play/Pause) button to start playback.

Play and practice the part you just muted.

NOTE

The parts can be turned on or off even during playback.

NOTE

Usually, Channel 1 is assigned to “R,” Channel 2 is assigned to “L,” and Channels 3 – 16 are assigned to “Extra.” However, the assignments may differ depending on the particular Song. Channels assigned to “Extra” cannot be set to on or off individually.

NOTE

Some songs in “50 Classics” and “Lesson” categories are duet songs. Refer to page 104 about part assignment for the duet songs.

NOTE

Whenever you select another MIDI Song, both parts are automatically turned on.

5. Press the [▶/||] (Play/Pause) button again to stop playback.

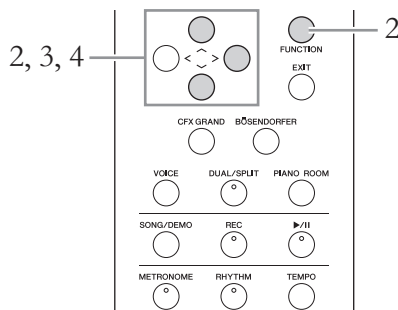
Even if you don't press the [▶/||] (Play/Pause) button, the Song stops automatically when Song playback reaches the end.

Playing Back a Song Repeatedly

There are three Repeat items as follows. These are convenient for repeatedly practicing difficult phrases. It is a good idea to use this function and the Part Cancel function (above) for practicing difficult phrases, in the case of MIDI Songs.

- **AB Repeat** Play a MIDI Song repeatedly by designating a specific range within the Song.
- **Phrase Repeat** Play a MIDI Song repeatedly by designating a phrase or phrases within the Song.
- **Song Repeat** Play a MIDI/Audio Song repeatedly, or play all MIDI/Audio Songs saved in a designated folder repeatedly in order or in random order.

The explanations here apply only to AB Repeat and Song Repeat. For Phrase Repeat, refer to page 88.



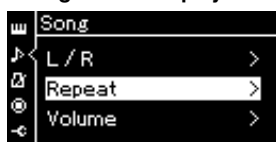
1. Select a Song to be played back.

For instructions, refer to page 41.

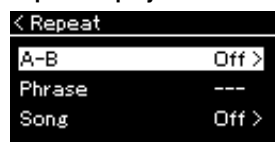
2. Call up the Repeat display.

Press the [FUNCTION] button repeatedly to call up the “Song” menu display. Select “Repeat,” then press the [>] button.

“Song” menu display



Repeat display



3. In the Repeat display, select a desired item using the [^]/[v] buttons, then press the [>] button.

If you want to set AB Repeat, select “A – B.”
 If you want to set Song Repeat, select “Song.”

4. Set in the appropriate setting display.

- **AB Repeat**See below.
- **Song Repeat**See page 47.

AB Repeat setting



Specify the repeat range.

4-1. Press the [▶/||] (Play/Pause) button to start Song playback.

4-2. Press the [>] button at the starting point (A) of the range to be repeated.

A – B display



4-3. Press the [>] button again at the ending point (B).

After an automatic lead-in (to help guide you into the phrase), the range from Point A to Point B is played back repeatedly.

5. To turn off the Repeat function, press the [>] button while “Repeat Off” is highlighted, or select another Song.



Specifying the top of a Song as Point A

Specify Point A before starting playback, then start playback and specify Point B.

Specifying the end of a Song as Point B

Specifying only Point A results in repeat playback between Point A and the Song end (as Point B).

NOTE

You can also specify the repeat range by the following procedure.

- 1 Highlight the measure number using the [^] button, then fast-forward the Song to Point A using the [<]/[>] buttons.
- 2 Highlight “Set A” using the [v] button, then press the [>] button.
 After specifying Point A, the display for specifying Point B is called up.
- 3 Specify Point B in the same way as Point A.

Song Repeat setting

MIDI | Audio

- 4-1. Select the desired Repeat type using the [^]/[v] buttons in the setting display.

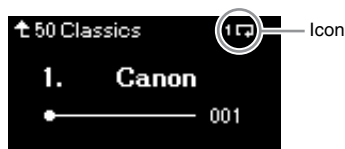
Setting display






- **Off:**
Disables repeated playback.
- **Single:**
Plays through the selected file repeatedly.
- **All:**
Continuously plays back all Songs within a designated range in order.
- **Random:**
Continuously plays back all Songs within a designated range in random order.

- 4-2. Press the [▶/⏸] (Play/Pause) button to start Repeat playback.

Icons corresponding to each Repeat setting are shown on the Song display.



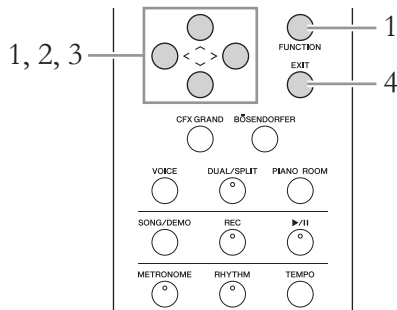
While the Repeat setting is on,  (Single), , or  (Random) is shown in the upper right corner of the Song display.

5. To turn off the Repeat function, press the [▶/⏸] (Play/Pause) button again to stop playback, and then select “Off” in step 4-1.

Adjusting the Volume Balance

MIDI | **Audio**

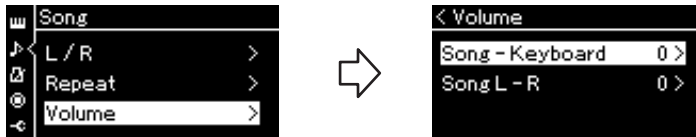
When a MIDI Song is selected, you can adjust the Volume balance between the Song playback and the sound you are playing on the keyboard, or between the Right and Left parts of the selected Song. When an Audio Song is selected, you can adjust the Audio Song volume.



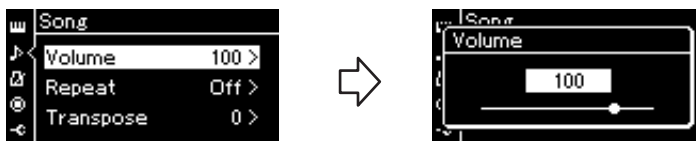
Select the desired Song beforehand. For instructions, refer to page 41.

1. Press the [FUNCTION] button repeatedly to call up the “Song” menu display. Select “Volume,” and then press the [>] button.

“Song” menu display (When a MIDI Song is selected)



“Song” menu display (When an Audio Song is selected)



2. When a MIDI Song is selected, select “Song – Keyboard” or “Song L – R” using the [^]/[v] buttons, then press the [>] button to call up the setting display. When an Audio Song is selected, use the [<]/[>] buttons to set the Audio playback volume. After setting the value, go on to step 4.

- **Song – Keyboard**

Adjust the Volume balance between the MIDI Song playback and the sound you are playing on the keyboard.

- **Song L – R**

Adjust the Volume balance between the Right and Left parts of the selected MIDI Song.

NOTE

Some commercially available music data contain extremely high volumes. When using such data (MIDI Song), adjust the “Song – Keyboard” setting.

3. Adjust the Volume balance by using the [<]/[>] buttons.

In the case of “Song – Keyboard”:



← The volume of your playing will be lower. → The Song playback volume will be lower.

In the case of “Song L – R”:



← R part volume will be lower. → L part volume will be lower.

4. Press the [EXIT] button twice to exit from the “Song” menu display.

Whenever you select another MIDI Song, the setting for “Song L – R” is restored to its default setting. As for “Song – Keyboard” and Audio Volume, selecting another Song will not reset the value.

NOTE

The selected parameters of “Song – Keyboard” will be maintained (Backup Setting) even when the power is turned off. Make sure not to set the volume levels to minimum. Otherwise the sound of keyboard or songs will not be played. You can change the settings to maintain the selected parameter or not. For details, refer to “Backup Setting” on page 98.

Useful Playback Functions

MIDI

Audio

Starting/pausing playback by using a pedal

You can assign the Song Play/Pause function (equivalent to the [▶/||] (Play/Pause) button) to the center or the left pedal in the “System” menu. Press the [FUNCTION] button repeatedly to call up the “System” menu display, and then select “Pedal” → “Play/Pause” to make the assignment.

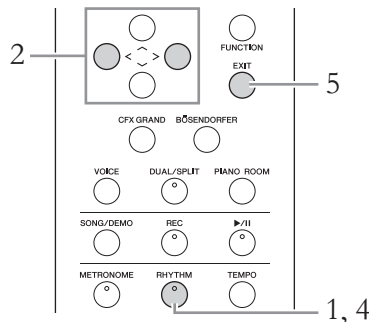
This is convenient for starting or pausing playback when you are performing and can't take your hands from the keyboard.

Transposing the pitch of a Song

You can shift the pitch of Song playback up or down in semitone intervals. You can change the settings via the “Song” menu display: Press the [FUNCTION] button repeatedly to call up the “Song” menu display → “Transpose” (page 88).

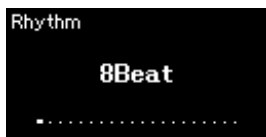
Playing the Keyboard along with Rhythm Playback

This instrument features various rhythm patterns. In time with the Rhythm playback, you can enjoy your keyboard performance.



1. Press the [RHYTHM] button to start Rhythm playback.

Intro playback starts followed by the Rhythm playback.



2. Use the [<]/[>] buttons to call up the desired Rhythm.

For details on the available Rhythms, refer to the Rhythm List (page 105).

3. Play the keyboard along with Rhythm playback.

4. To stop Rhythm playback, press the [RHYTHM] button again.

The Rhythm will automatically stop after the Ending is played.

5. Press the [EXIT] button to exit from the Rhythm display.

About the Rhythm Tempo

- The Rhythm tempo is equivalent to that set for the Metronome (page 36).
- Although you set the Rhythm tempo, selecting a MIDI Song will change the tempo value to that specified in the selected MIDI Song data.

Detailed Settings for the Rhythm

From the "Metronome/Rhythm" menu display (page 91), you can set detailed parameters, such as Rhythm volume and Sync Start, with which pressing a key will start Rhythm playback.

NOTE

The Rhythm display cannot be called up during the Song playback or recording.

To set the Intro/Ending on or off

"Intro" and "Ending" allow you to vary the arrangement of the accompaniment. You can set "Intro" and "Ending" on/off via "Intro" or "Ending" in the "Metronome/Rhythm" menu display (page 91).

Recording Your Performance

This instrument allows you to record your performance in the following two methods.

• MIDI Recording **MIDI**

With this method, recorded performances are saved to the instrument or a USB flash drive as an SMF (format 0) MIDI file. If you want to re-record a specific section or edit parameters such as Voice, use this method. Also you can record your performance to each Track one by one. Since a MIDI Song can be converted to an Audio Song after recording (page 67), you may want to use MIDI recording (with overdubbing and multiple parts) to first create a complex arrangement you would not otherwise be able to play live, then convert it to an Audio Song. This instrument allows you to record approximately 500 KB of data per Song.

• Audio Recording **Audio**

With this method, recorded performances are saved to a USB flash drive as an Audio file. Recording is done without designating the recorded part. Since it is saved in stereo WAV format of normal CD quality resolution (44.1 kHz/16 bit) by default, it can be transmitted to and played on portable music players by using a computer. Because audio signals via the [AUX IN] jack are also recorded, you can record your keyboard performance along with the performance sound of the connected CD player or portable music players. This instrument allows you to record up to 80 minutes per single recording.

For details about the difference between MIDI Songs and Audio Songs, refer to page 39.

Recording Methods

This chapter covers the following four methods. Note that the created data format differs depending on the method, MIDI or Audio.

• Quick MIDI Recording **MIDI** page 53

This method lets you start recording most quickly. Your performance will be recorded and saved to the “User” category in this instrument’s internal memory.

• MIDI Recording — Independent Tracks **MIDI** page 55

This lets you record the right, left and extra parts separately. Since you can record the left part while playing back the right, this is useful for recording both parts of a duet. Since you can record up to sixteen parts separately, record the performance of each instrument part one by one and create fully orchestrated compositions.

• MIDI Recording to the USB Flash Drive **MIDI** page 57

This method is useful when you want to overwrite the already recorded MIDI Song in the USB flash drive or create a New MIDI Song on the USB flash drive.

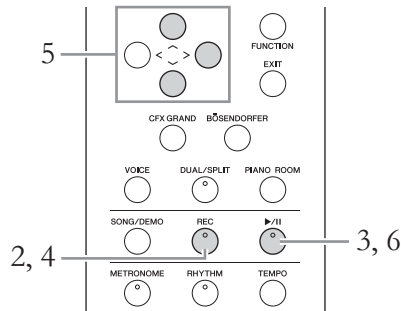
• Audio Recording to the USB Flash Drive **Audio** page 58

This method lets you record your performance as Audio data to the USB flash drive connected to the USB [TO DEVICE] terminal.

Quick MIDI Recording

MIDI

This method is the quickest way to start recording.



1. Make the necessary settings such as Voice selection and time signature.

Before starting the Recording operation, select a Voice (page 28) for your keyboard performance, turn Dual/Split/Duo on or off as desired, set the time signature of the Metronome/Rhythm (page 36), then select a Reverb/Chorus/Effect type as desired.

2. Press the [REC] (Record) button to enter the Recording mode.

The blank new Song for recording is automatically set.

REC display

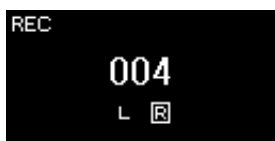


The [▶/||] (Play/Pause) button will flash at the current tempo.
To exit from the Recording mode, press the [REC] (Record) button again.

3. Play the keyboard to start recording.

When you wish to record an empty section at the start of the Song, press the [▶/||] (Play/Pause) button to start recording.

REC display (during recording)



NOTE

If you want to record the left-hand and right-hand parts individually, refer to "MIDI Recording—Independent Tracks" (page 55), since the Recording method here assumes that both the left and right parts are being recorded together.

Using the Metronome/Rhythm

You can use the Metronome/Rhythm while recording. While the Metronome sound cannot be recorded, the Rhythm sound can. Make sure to start enter the Recording mode before starting Rhythm playback, since entering the Recording mode during playback of the Rhythm stops its playback.

NOTE

The "Song – Keyboard" Volume Balance (page 48) will not be recorded.

NOTE

With MIDI recording, the performance will be recorded to Track 1. However, in the Dual/Split/Duo mode, the tracks assigned for recording and the tracks actually used for recording are different. For details refer to "Recording Track Assignment" on page 55.

Mode:

A mode is a status under which you can execute a certain function. In Recording mode, you can record Songs.

NOTE

Pressing and holding the [REC] button for a second will call up the display which lists the Recording Target Songs. In this case, select "New Song" then press the [>] button referring to the table on page 57.

To start recording as soon as a Rhythm starts:

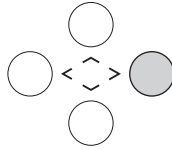
When a Rhythm (page 51) is selected, press the [RHYTHM] button to start Rhythm playback and MIDI recording simultaneously.

4. After you finish your performance, press the [REC] (Record) button again to stop recording.

This operation exits from the Recording mode and calls up the display for saving the recorded performance data.

5. If you want to save the recorded performance, press the [>] button to execute the Save operation while “Save” is highlighted.

After the Save operation is completed, the display shows “Save Completed” then returns to the Song display. The recorded Song will be named “USERSONGxxx” (xxx: number) and saved in the “User” category.



- If you are not satisfied with your performance and want to record again, highlight “Retry” then press the [>] button. Try recording again from step 3.
- If you do not want to save the recorded data, highlight “Cancel” then press the [>] button.

6. To hear the recorded performance, press the [▶/||] (Play/Pause) button.

NOTICE

The recorded MIDI Song will be lost if you change to another Song or you turn the power off without executing the Save operation.

Renaming the recorded Song

The recorded Songs are named automatically, but you can rename Songs as you like (page 68).

Data that can be recorded to MIDI Songs	
<p>Data for each Track</p> <ul style="list-style-type: none"> • Note data (your keyboard performance) • Voice selection • Pedal operations (Damper/Soft/Sostenuto) • Reverb Depth • Chorus Depth • Effect Depth • Sound brightness — “Brightness” • Resonance effect setting — “HarmonicContent” • Octave • Volume setting for each Voice — “Volume” • Pan for each Voice • Detune • Touch Sensitivity 	<p>Data commonly for all Tracks</p> <ul style="list-style-type: none"> • Scale • Tempo • Time Signature • Reverb Type • Chorus Type • Effect Type

NOTE

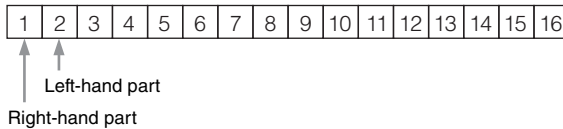
Parameter settings other than Voice and Tempo, such as note data, pedal (Damper/Soft/Sostenuto) data, octave setting and time signature, cannot be changed after recording.

MIDI Recording — Independent Tracks

MIDI

With MIDI Recording, you can create a MIDI Song consisting of 16 tracks by recording your performance to each track one by one. In recording a piano piece, for example, you can record the right-hand part to Track 1 then record the left-hand part to Track 2, allowing you create a complete piece which may be difficult to play live with both hands together. To record a performance with Rhythm playback, for example, record Rhythm playback to Tracks 9 – 10, then record melodies to Track 1 while listening to the already recorded Rhythm playback. In this way, you can create an entire Song which would otherwise be difficult, or even impossible, to play live.

Example:



When you want to record a new track of an already recorded MIDI Song:

After selecting the target MIDI Song (steps 1 – 4 on pages 41 – 42), press and hold the [REC] (Record) button for a second to call up the display which lists the Recording Target Songs, select the 4th item (the selected MIDI Song), press the [>] button, then go to step 2 described on this page.

1. Execute the same operations as in step 1 and step 2 on page 53 to enter the Recording mode with a new blank Song selected.

2. Use the [<]/[>] buttons to select a Recording Track.


When you want to record the right-hand part, highlight “R” (Track 1).

When you want to record the left-hand part, highlight “L” (Track 2).

Alternately, when you want to record your performance to Tracks 3 – 16, call up the desired one by pressing the [<]/[>] buttons repeatedly.



Track Data Status

 Contains data.

 Contains no data.

3. Play the keyboard to start recording.

4. After you finish your performance, press the [REC] (Record) button to stop recording.

This operation exits from the Recording mode and calls up the display for saving the recorded performance data.

NOTE

If you want to record your performance to the USB flash drive or you want to add the recording to the MIDI Song in the USB flash drive, refer to “MIDI Recording to the USB flash drive” (page 57).

NOTE

Rhythm cannot be added to a recorded Song. When you want to record Rhythm, make sure to record the Rhythm playback first.

NOTE

If you record your performance with both hands to R then to L, both are played back at the same time as a single Song.

Recording Track Assignment

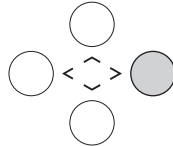
When Dual/Split/Duo is on, only the R1 Voice performance will be recorded to the selected Track, and the R2 Voice performance will be recorded to the Track number which is 6 plus the selected Track, and the L Voice performance of Split/Duo will be recorded to the Track number which is 3 plus the selected Track. Rhythm playback will be recorded to Tracks 9/10.

NOTICE

Note that recording your performance to a Track containing data will overwrite the previously recorded data.

5. If you want to save the recorded performance, press the [>] button to execute the Save operation while “Save” is highlighted.

After the Save operation is completed, the display shows “Save Completed” then returns to the Song display. The recorded Song will be named “USERSONGxxx” (xxx: number) and saved in the “User” category.



- If you are not satisfied with your performance and want to record again, highlight the cursor to “Retry” then press the [>] button. Try recording again from step 3.
- If you do not want to save the recorded data, highlight “Cancel” then press the [>] button.

6. To hear the recorded performance, press the [▶/||] (Play/Pause) button.

7. To record another Track, enter the Song Recording mode again.

7-1. Press and hold the [REC] (Record) button for a second.

The Recording Target Songs will be listed on the display.





7-2. Use the [V] button to select existing MIDI Song (at the bottom of the list), then press the [>] button.

You can check whether or not each Track contains recorded data by the mark appears in upper right of each Track.

Track Data Status



 Contains data.

 Contains no data.

8. Record your performance to another track by repeating steps 2 – 6 of this section.

In step 2, select a track which has no recorded data. In step 3, play the keyboard while listening to the already recorded data.

NOTICE

The recorded MIDI Song will be lost if you change to another Song or you turn the power off without executing the save operation.

Renaming the recorded Song

The recorded Songs are named automatically, but you can rename Songs as desired (page 68).

NOTICE

Note that recording your performance to a Track containing data will overwrite the previously recorded data.

MIDI Recording to the USB Flash Drive

MIDI

These instructions describe how to overwrite an already recorded MIDI Song in the USB flash drive or how to create a New MIDI Song on the USB flash drive.

1. **Connect the USB flash drive to the USB [TO DEVICE] terminal.**
2. **Select a MIDI Song as Recording target, then enter the Recording mode.**
 - 2-1. **If you want to record an additional Track to the already recorded MIDI Song, select the desired MIDI Song in the USB flash drive. If you want to record from scratch, skip this step.**
 - 2-2. **Press and hold the [REC] (Record) button for a second to call up the display which lists the Recording Target Songs.**



- 2-3. **From the Recording Target Songs, select “New Song (USB)” or the MIDI Song selected in step 2-1 (4th item below) using the [^]/[v] buttons, then press the [>] button to enter the Recording mode.**

Recording Target Song	Description
New Song	Select this when you want to record your performance to a blank MIDI Song and save to “User” category in this instrument’s internal memory.
New Song (USB)*	Select this when you want to record your performance to a blank MIDI Song and save to the USB flash drive.
New Audio (USB)*	Select this when you want to record your performance to blank audio data and save to the USB flash drive.
xxxxx (MIDI Song selected in step 2-1 above)**	Select this when you want to record additionally to/overwrite the currently selected MIDI Song.

* Can be selected only when the USB flash drive is connected to the USB [TO DEVICE] terminal.

** Will not be shown when an already recorded MIDI Song is not selected in step 2-1 above, or when a Preset Song or Protected Song is selected in step 2-1.

NOTE

To connect a USB flash drive, be sure to read the section “Connecting USB Devices (USB [TO DEVICE] terminal)” on page 72.

NOTE

Before starting the Recording operation, check the remaining memory capacity of the USB flash drive. “System” menu: “Utility” → “USB Properties” (page 96).

3. Execute the Recording operation, then save the recorded performance.

- **When you want to record additionally to the currently selected MIDI Song, or record to a specified track on a blank MIDI Song:**

Execute steps 2 – 8 in “MIDI Recording—Independent Tracks” on page 55.

- **When you want to quick record to a blank MIDI Song:**

Execute steps 3 – 6 in “Quick MIDI Recording” on page 53.

Audio Recording to the USB Flash Drive

Audio

These instructions describe how to record your performance as audio data. Note that an audio file to which your performance is to be recorded can be saved only to a USB flash drive. This is why you should prepare your USB flash drive device before starting the Recording operation.

1. **Connect the USB flash drive to the USB [TO DEVICE] terminal.**
2. **Press and hold the [REC] (Record) button for a second to call up the display which lists the Recording Target Songs.**
3. **Use the [^]/[v] buttons to select “New Audio (USB)” then press the [>] button.**
4. **Execute steps 3 – 6 in “Quick MIDI Recording” (page 53).**
Unlike with MIDI Recording, the elapsed time is shown on the display while Audio Recording is being executed.



NOTICE

Note that recording your performance to a Track containing data will overwrite the previously recorded data.

NOTE

The time signature and tempo cannot be changed when replacing the part of an existing MIDI Song.

NOTE

To connect a USB flash drive, be sure to read the section “Connecting USB Devices (USB [TO DEVICE] terminal)” on page 72.

NOTE

Before starting the Recording operation, check the remaining memory capacity of the USB flash drive. “System” menu: “Utility” → “USB Properties” (page 96).

NOTE

With Audio recording, distorted sound may be produced if the Voice Volume is set to the value higher than the default setting. Make sure to set the Voice Volume to the default value or less before recording from the “Voice” menu display: “Voice Edit” → “Volume” (page 85).

NOTE

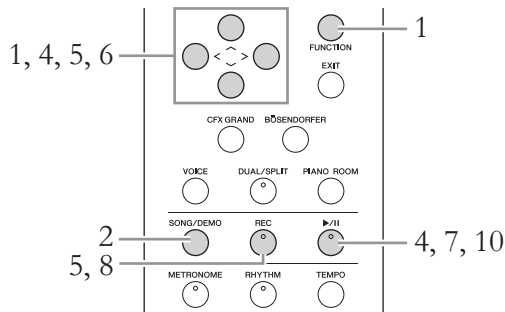
With Audio recording, audio signals such as those from the [AUX IN] jack are also recorded.

Other Recording Techniques

Re-recording a MIDI Song in parts

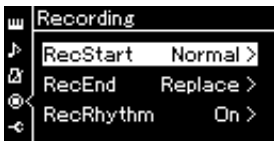
MIDI

You can re-record a specific range of the MIDI Song.



1. Set the parameters which determine how recording starts and stops.

1-1. Press the [FUNCTION] button repeatedly to call up the “Recording” menu display.



1-2. Use the [^]/[V] buttons to select “RecStart,” then select the value which determines how recording starts by using the [>] button.

- **Normal**

The already recorded data will be replaced with the new one as soon as recording starts.

- **KeyOn**

The already recorded data will be maintained until you press a key, and actual recording starts as soon as you press a key.

1-3. Use the [^]/[V] buttons to select “RecEnd,” then select the value which determines how recording stops by using the [>] button.

- **Replace**

The data after the point you stop recording will also be erased.

- **PunchOut**

The data after the point you stop recording will remain.

2. **Press the [SONG/DEMO] button to call up the Song List display.**
3. **Select the desired MIDI Song.**
For instructions, refer to page 41.
4. **Specify the start point you wish to re-record.**
Use the [<]/[>] buttons to move the playback position (measure number) to the desired point. Alternately, press the [▶/■] (Play/Pause) button to start playback, then press the [▶/■] button again slightly prior to the desired point.

If necessary, select the settings (Voice and other parameters).
Select the desired settings, if you wish to change the previous ones.
5. **Press and hold the [REC] (Record) button for a second to call up the display which lists the Recording Target Songs, then select the 4th item (Song selected in step 3), then press the [>] button to enter the recording mode.**
6. **Use the [<]/[>] buttons to select a Track for re-recording.**
7. **Play the keyboard or press the [▶/■] (Play/Pause) button to start recording.**
8. **Press the [REC] (Record) button to stop recording.**
9. **Save the recorded performance by following step 5 on page 56.**
10. **To hear the recorded performance, press the [▶/■] (Play/Pause) button.**

NOTE

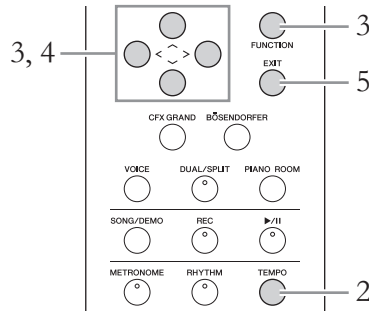
The time signature cannot be changed when replacing the part of an existing Song.

Changing the tempo or the Voice of a previously recorded MIDI Song

MIDI

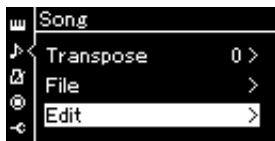
For MIDI Songs, you can change the tempo and Voice after recording to change a feel or to set a more suitable tempo.

To change the tempo:



1. **Select the MIDI Song you wish to change.**
For instructions, refer to page 41.
2. **Press the [TEMPO] button to call up the Tempo display, then set the desired Tempo.**
For instructions, refer to page 36.
3. **Press the [FUNCTION] button repeatedly to call up the “Song” menu display, then select the highlighted item in each display as illustrated below.**

“Song” menu display



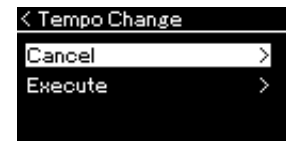
- 3-1. Use the [^]/[V] buttons to select “Edit.”
- 3-2. Press the [>] button to call up the next display.

Edit display



- 3-3. Use the [^]/[V] buttons to select “Tempo Change.”
- 3-4. Press the [>] button to call up the next display.

Tempo Change display



4. **Apply the selected Tempo value to the current MIDI Song data.**

Press the [V] button to highlight “Execute,” then press the [>] button to apply the new Tempo value to the current MIDI Song data.



When this operation is completed, “Completed” is shown on the display, and the Tempo Change display will be restored after a while.

5. Press the [EXIT] button to exit from the “Song” menu display.

To change the Voice:

1. Select the MIDI Song you wish to change.

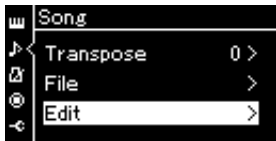
For instructions, refer to page 41.

2. Select the desired Voice.

For instructions, refer to page 28.

3. Press the [FUNCTION] button repeatedly to call up the “Song” menu display, then select the highlighted item in each display as illustrated below.

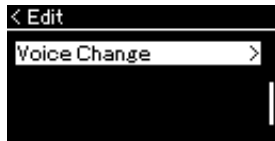
“Song” menu display



3-1. Use the [^]/[v] buttons to select “Edit.”

3-2. Press the [>] button to call up the next display.

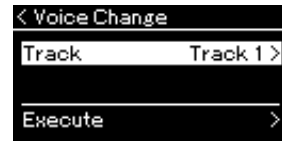
Edit display



3-3. Use the [^]/[v] buttons to select “Voice Change.”

3-4. Press the [>] button to call up the next display.

Voice Change display



4. Press the [>] button to call up the setting display, then select the desired Track using the [^]/[v] buttons.

5. Apply the Voice selected in step 2 for the Track selected in step 4 to the current MIDI Song data.

Press the [<] button to return to the Voice Change display. Press the [v] button to highlight “Execute,” then press the [>] button to apply the new Voice to the current MIDI Song data.



When this operation is completed, “Completed” is shown on the display, and the Voice Change display will be restored after a while.

6. Press the [EXIT] button to exit from the “Song” menu display.

Handling Song Files

The “File” menu in the “Song” menu display (page 88) enables you to apply various operations to Song files — Songs you recorded on this instrument or commercially available Songs.

To connect a USB flash drive, be sure to read the section “Precautions when using the USB [TO DEVICE] terminal” on page 72.

Operation	File menu	Page
Deleting files	Delete	pages 64, 65
Copying files	*Copy	pages 64, 65
Moving files	*Move	pages 64, 66
Converting a MIDI Song to an Audio Song during playback	*MIDI to Audio	pages 64, 67
Renaming files	Rename	pages 64, 68

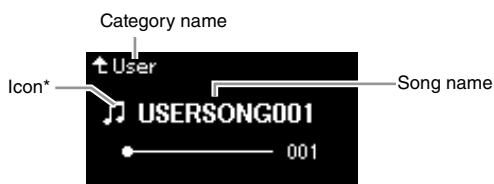
Settings marked with a “*” are effective only when a MIDI Song is selected.

File

A file contains a group of data. On this instrument, a Song file includes Song data and a Song name.

Song Types and File Operation Limitations

Song types are indicated as the category name and icon in the Song display. The following chart shows the Song type and restrictions on File operations.



Restrictions for protected Songs

Commercially available Song data may be copy protected to prevent illegal copying or accidental erasure.

* The icon appears only when you select a Song in the “User” or “USB” category.

O: Yes, x: No

Data Location	Category	Song Type	Deleting files	Renaming files	Copying files	Moving files	Convert a MIDI Song to an Audio Song during playback
	Instrument	Demo	Demo (Voice Demo)	x	x	x	x
50 Classics		50 classical Preset Songs	x	x	x	x	x
Lesson		Lesson Preset Songs	x	x	x	x	x
User		Your own recorded Songs (MIDI)	O	O	O	O	O
USB flash drive device	USB	MIDI Songs with protect applied	O	O	x	x	x
		MIDI Songs with Yamaha's proprietary protect applied	O	O	x	O	x
		MIDI Songs	O	O	O	O	O
		Audio Songs	O	O	x	x	x
USB flash drive device	USB	MIDI Songs with protect applied	x	x	O	x	x
		MIDI Songs with Yamaha's proprietary protect applied	O	O	x	O	x

* There are two types of Songs: original and edited. Original and edited Songs should be saved in the same folder. If not, playback cannot be done.

Basic Song File Operation

Song files can be handled via the instructions shown below.

1. **Connect the appropriate USB flash drive containing the desired files to the USB [TO DEVICE] terminal.**

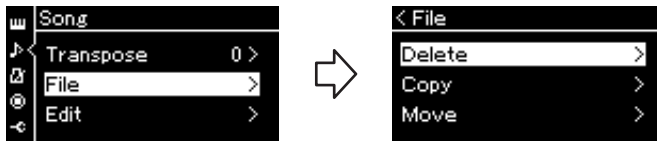
2. **Select a Song for handling.**

For information on selecting a Song, see page 41.

3. **Call up the File mode.**

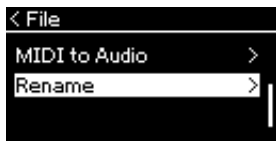
3-1. **Press the [FUNCTION] button repeatedly to call up the “Song” menu display. Use the [^]/[v] buttons to select “File” then press the [>] button.**

“Song” menu display



3-2. **Select the desired operation from “Delete,” “Copy,” “Move,” “MIDI to Audio” or “Rename.”**

For example: Renaming files



From here, if you wish to close the File mode, press the [EXIT] button once or twice.

4. **Execute the selected operation.**

For specific instructions, refer to the corresponding section.

- **Delete**.....page 65
- **Copy**.....page 65
- **Move**page 66
- **MIDI to Audio**page 67
- **Rename**page 68

During operation, messages (information, confirmation, etc.) may be shown on the display. For explanations and details, refer to “Message List” on page 106.

5. **Press the [EXIT] button to close the File mode.**

NOTICE

Do not disconnect the USB flash drive during file handling or when a USB flash drive is mounted. Doing so may delete all data in the USB flash drive and the instrument.

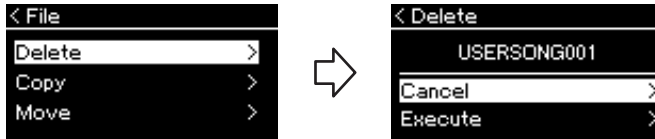
Deleting Files — Delete

For details about Song types which can be deleted, refer to page 63.

See page 64 for information on basic operations.

The following is a detailed procedure of step 4 on that page.

- 4-1. While “Delete” is highlighted, press the [>] button to call up the setting display.



- 4-2. Highlight “Execute” by pressing [v] button, and then press the [>] button.

After the Song is deleted, the display returns to the Song List display.

NOTICE

Do not turn off the power or eject the USB flash drive while “Executing” is shown in the display.

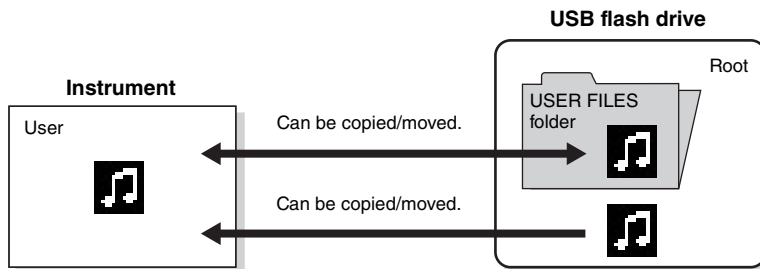
Copying Files — Copy

For details about Song types which can be copied, refer to page 63.

Range of the Copy/Move operation

As for a MIDI Song in the “User” category in the instrument, you can Copy/Move it only to the USER FILES folder on a USB flash drive. Selecting a MIDI Song from “User” for copying/moving automatically specifies the USER FILES folder as the destination.

As for a MIDI Song in a USB flash drive, you can Copy/Move it to the “User” category in the instrument.



See page 64 for information on basic operations.

The following is a detailed procedure of step 4 on that page.

USER FILES folder

If the USB flash drive device plugged into the instrument contains no USER FILES folder, one will be created automatically when you format or record a Song to that device. The recorded Song will then be saved in that folder.

NOTE

Please note that the copy features are intended for your personal use only.

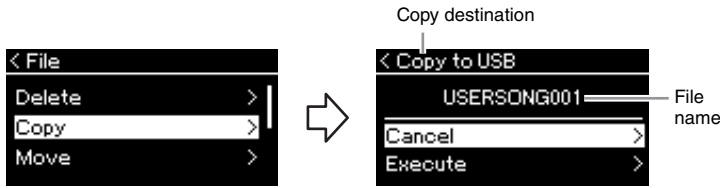
NOTE

Folders cannot be copied.

Root:

The highest level of a hierarchical structure. This indicates an area which does not belong to a folder.

- 4-1. While “Copy” is highlighted, press the [>] button to call up the setting display.



- 4-2. Highlight “Execute” by pressing [V] button, then press the [>] button.

The selected Song will be copied to the destination with the same name as the copy source file.

Copy destination:

“USB” will be shown when the copy destination is the USB flash drive or “User” when the instrument is the copy destination. A file copied to the USB flash drive is stored to the USER FILES folder on it.

NOTE

A message appears when a Song with the same name already exists in the copy destination. Select “Overwrite” when you want to overwrite the selected Song, or “Cancel” to cancel by using the [^]/[V] buttons, and then press the [>] button.

NOTICE

Overwrite operations erase any existing data of the copy destination file and overwrite with data of the copy source file.

NOTICE

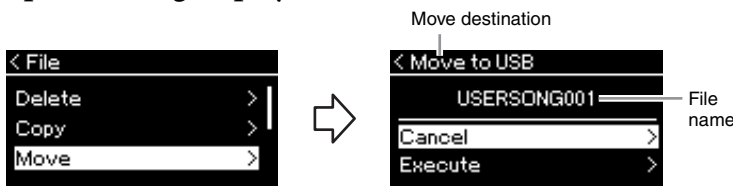
Do not turn off the power or eject the USB flash drive while “Executing” is shown in the display.

Moving Files — Move

For details about Song types which can be moved, refer to page 63. See page 64 for information on basic operations.

The following is a detailed procedure of step 4 on that page.

- 4-1. While “Move” is highlighted, press the [>] button to call up the setting display.



- 4-2. Highlight “Execute” by pressing the [V] button, then press the [>] button.

The selected Song will be moved to the destination and the display returns to the Song list display.

Move destination

“USB” will be shown when the move destination is the USB flash drive or “User” when the instrument is the move destination. A file moved to the USB flash drive is stored to the USER FILES folder on it.

NOTE

A message appears when a Song with same name already exists in the move destination. Select “Overwrite” when you want to overwrite the selected Song, or “Cancel” to cancel by using the [^]/[V] buttons, then press the [>] button.

NOTICE

Overwrite operations erase any existing data of the move destination file and overwrite with data of the move source file.

NOTICE

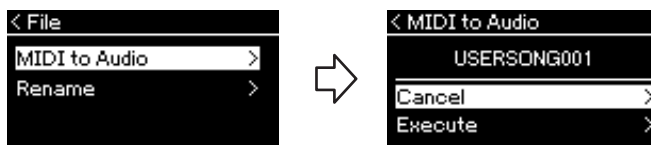
Do not turn off the power or eject the USB flash drive while “Executing” is shown in the display.

Convert a MIDI Song to an Audio Song during Playback — MIDI to Audio

A MIDI Song in the “User” memory of the instrument or on a USB flash drive can be converted to an Audio Song then saved to the USER FILES folder on a USB flash drive. For information about which Song types can be converted, refer to page 63.

See page 64 for information on basic operations.
The following is a detailed procedure of step 4 on that page.

- 4-1. While “MIDI to Audio” is highlighted, press the [>] button to call up the setting display.



- 4-2. Highlight “Execute” by pressing the [V] button, then press the [>] button.

This operation starts playback and conversion from MIDI to Audio. This is basically the same as that of Audio Song Recording, which allows you to record your keyboard performance and other audio, such as that from [AUX IN]. After you convert the Song, a message “Convert completed” will be shown and the display returns to Song List display.

NOTE

After conversion, the MIDI Song remains in the original data location.

NOTICE

Do not turn off the power or disconnect the USB flash drive during the conversion. Otherwise the data will be lost.

NOTE

A message appears when a Song with same name already exists in the copy destination. Select “Overwrite” when you want to overwrite the selected Song by using the [^]/[V] buttons, then press the [>] button.

NOTE

To cancel this operation, press the [EXIT] button during the conversion. When the operation is canceled, the converted Audio Song will not be saved.

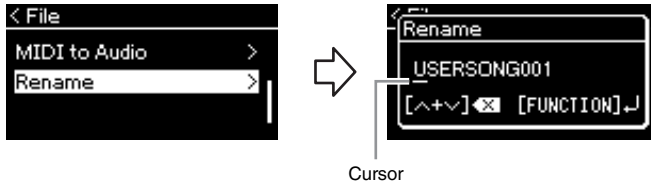
Renaming Files — Rename

For details about Song types which can be renamed, refer to page 63.

See page 64 for information on basic operations.

The following is a detailed procedure of step 4 on that page.

- 4-1. While “Rename” is highlighted, press the [>] button to call up the setting display.**



- 4-2. Assign a name to the Song.**

Use the [<]/[>] buttons to move the highlight (underline).

Use the [^]/[v] buttons to change the character at the current cursor position. Pressing both buttons simultaneously will delete the character at the current cursor position.

A Song name can contain up to 46 characters. Characters which extend beyond the display capacity and are not visible can be viewed by moving the highlight by using the [<]/[>] buttons.

- 4-3. Press the [FUNCTION] button.**

After the Song is renamed, the display returns to Song List display where the renamed Song can be selected.

NOTE

For information about the character types available for the Song name, refer to “Language” on page 97.

NOTICE

Do not turn off the power or eject the USB flash drive while “Executing” is shown in the display.

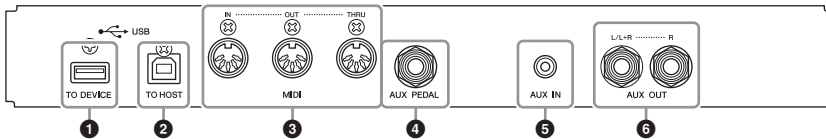
Connections

Connectors

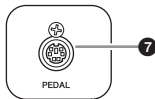
For information about location of these connectors, refer to “Panel Controls and Terminals” on page 13.

685 675 645 635 665GP

Terminals under the keyboard

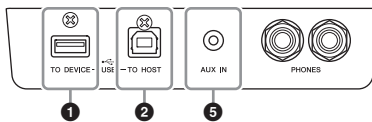


Bottom (rear view)

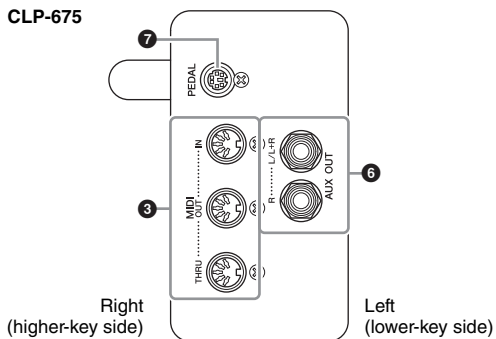


685 675 645 635 665GP

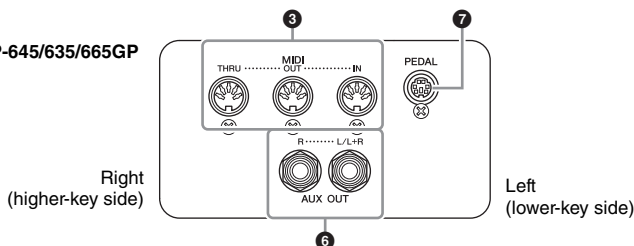
Terminals under the keyboard



Bottom (rear view)



CLP-645/635/665GP



⚠ 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.

1 USB [TO DEVICE] terminal

This terminal allows connection to USB flash drive or to the iPhone/iPad via an accessory sold separately. Refer to “Connecting USB Devices (USB [TO DEVICE] terminal)” on page 72 and “Connecting to an iPhone/iPad” on page 74.

2 USB [TO HOST] terminal

This terminal allows connection to a personal computer or to the iPhone/iPad via an accessory sold separately. Refer to “Connecting a computer” on page 73 and “Connecting to an iPhone/iPad” on page 74.

3 MIDI [IN], [OUT], [THRU] terminals

Use MIDI cables to connect external MIDI devices to these connectors. Refer to “Connecting External MIDI Devices” on page 73 for more information. Also, you can connect the iPhone/iPad via an accessory sold separately. Refer to “Connecting to an iPhone/iPad” on page 74.

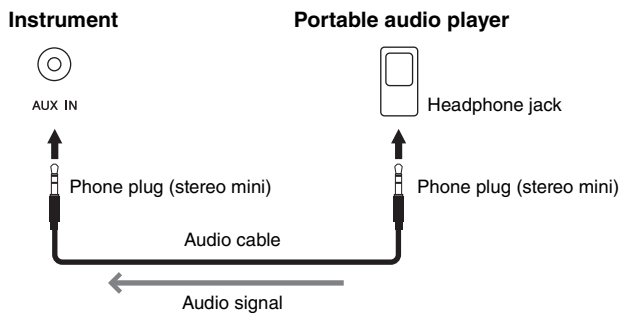
4 [AUX PEDAL] jack (CLP-685)

A separately sold FC7 foot controller or FC4A/FC5 foot switch can be connected to this jack.

By using an FC7 you can control the volume while playing to add expression to your performance, or control various other functions. By using an FC4A/FC5, you can switch various selected functions on/off. To select the function that will be controlled, use the “Aux Assign” (page 94) in the “System” menu display.

5 [AUX IN] jack

You can connect the headphone jack of a portable audio player to the instrument’s [AUX IN] jack, letting you hear the sound of that audio player through the built-in speakers of the instrument.



NOTE

There are two different types of USB terminals on the instrument: USB [TO DEVICE] and USB [TO HOST]. Take care not to confuse the two terminals and the corresponding cable connectors. Be careful to connect the proper plug in the proper direction.

NOTE

- Connect or disconnect the pedal when the power of this instrument is turned off.
- Do not press the footswitch/foot pedal while turning the power on. Doing this changes the recognized polarity of the footswitch, resulting in reversed footswitch operation.

NOTICE

When the Clavinova's [AUX IN] jack is connected to an external device, first turn on the power to the external device, then to the Clavinova. Reverse this order when you turn the power off.

NOTE

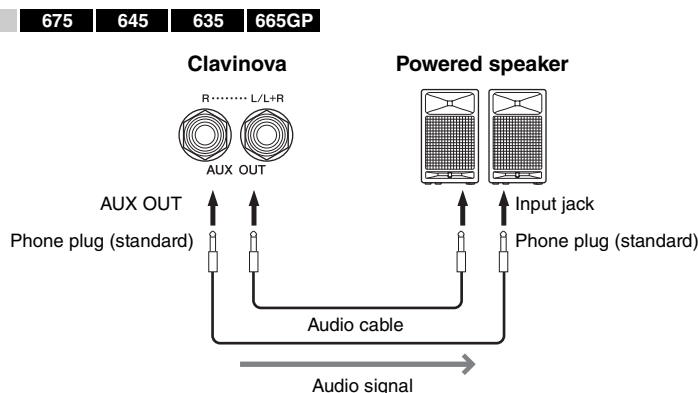
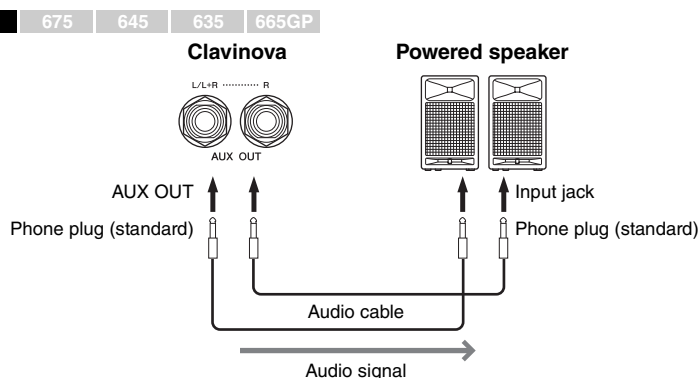
The instrument's [MASTER VOLUME] setting affects the input signal from the [AUX IN] jack.

NOTE

Use audio cables and adaptor plugs having no (zero) resistance.

6 AUX OUT [L/L+R] [R] jacks (CLP-685) AUX OUT [R] [L/L+R] jacks (CLP-675/645/635/665GP)

These jacks let you connect the Clavinova to external powered speaker systems, for playing in larger venues at higher volumes.



The Clavinova's [MASTER VOLUME] setting will affect the sound that is output from AUX OUT jacks. When the Clavinova's AUX OUT jacks are connected to an external speaker and you want to turn off the speaker sound of the Clavinova, switch the "speaker" parameter to off via the "System" menu: "Utility" → "Speaker" (page 96).

7 [PEDAL] jack

This jack allows connection to the pedal cord (CLP-685: page 113, CLP-675: page 117, CLP-645/635: page 119, CLP-665GP: page 122).

NOTE

Use only the [L/L+R] jack for connection with a monaural device.

NOTICE

- To avoid possible damage, first turn on the power to the instrument, then to the external device. When turning off the power, first turn off the power to the external device, then to the instrument. Since this instrument's power may automatically be turned off due to the Auto Power Off function (page 17), turn off the power to the external device, or disable Auto Power Off when you do not intend to operate the instrument.
- Do not route the output from the AUX OUT jacks to the [AUX IN] jack. If you make this connection, the signal input at the [AUX IN] jack is output from the AUX OUT jacks. These connections could result in a feedback loop that will make normal performance impossible, and may even damage the equipment.

NOTE

Use audio cables and adaptor plugs having no (zero) resistance.

NOTE

When you are monitoring the sound output via the AUX OUT jacks from headphones connected to the instrument, we recommend that you set the Binaural Sampling and Stereophonic Optimizer functions to off. For details, refer to page 20.

Connecting USB Devices (USB [TO DEVICE] Terminal)

You can connect a USB flash drive or a USB wireless LAN adaptor (sold separately) to the USB [TO DEVICE] terminal. You can save data you've created on the instrument to the USB flash drive (pages 63, 98), or you can connect the instrument to a smart device such as an iPad via wireless LAN (page 74).

Precautions when using the USB [TO DEVICE] terminal

This instrument features a built-in USB [TO DEVICE] terminal. When connecting a USB device to the terminal, be sure to handle the USB device with care. Follow the important precautions below.

NOTE

For more information about the handling of USB devices, refer to the owner's manual of the USB device.

■ Compatible USB devices

- USB flash drive
- USB hub
- USB wireless LAN adaptor UD-WL01 (sold separately; may not be available in some areas)

Other USB devices such as a computer keyboard or mouse cannot be used.

The instrument does not necessarily support all commercially available USB devices. Yamaha cannot guarantee operation of USB devices that you purchase. Before purchasing a USB device for use with this instrument, please visit the following web page:

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

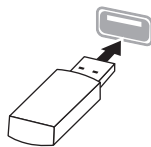
Although USB devices 2.0 to 3.0 can be used on this instrument, the amount of time for saving to or loading from the USB device may differ depending on the type of data or the status of the instrument. USB 1.1 devices cannot be used on this instrument.

NOTE

The rating of the USB [TO DEVICE] terminal is a maximum of 5V/500mA. Do not connect USB devices having a rating above this, since this can cause damage to the instrument itself.

■ Connecting a USB device

When connecting a USB device to the USB [TO DEVICE] terminal, make sure that the connector on the device is appropriate and that it is connected in the proper direction.



NOTICE

- Avoid connecting or disconnecting the USB device during playback/recording and file management operations (such as Save, Copy, Delete and Format), or when accessing the USB device. Failure to observe this may result in "freezing" of the operation of the instrument or corruption of the USB device and the data.
- When connecting then disconnecting the USB device (and vice versa), make sure to wait a few seconds between the two operations.

NOTE

- If you intend to connect two or three devices at the same time to a terminal, you should use a bus-powered USB hub. Only one USB hub can be used. If an error message appears while using the USB hub, disconnect the hub from the instrument, then turn on the power of the instrument and re-connect the USB hub.
- Do not use an extension cable when you connect a USB device.

Using USB Flash Drives

By connecting the instrument to a USB flash drive, you can save data you've created to the connected device, as well as read data from the connected USB flash drive.

■ Number of USB flash drives that can be used

Only one USB flash drive can be connected to the USB [TO DEVICE] terminal. (If necessary, use a USB hub. The number of USB flash drives that can be used simultaneously with musical instruments even when a USB hub is used is only one.)

■ Formatting a USB flash drive

You should format the USB flash drive only with this instrument (page 96). A USB flash drive formatted on another device may not operate properly.

NOTICE

The format operation overwrites any previously existing data. Make sure that the USB flash drive you are formatting does not contain important data. Proceed with caution, especially when connecting multiple USB flash drive.

■ To protect your data (write-protect)

To prevent important data from being inadvertently erased, apply the write-protect provided with each USB flash drive. If you are saving data to the USB flash drive, make sure to disable write-protect.

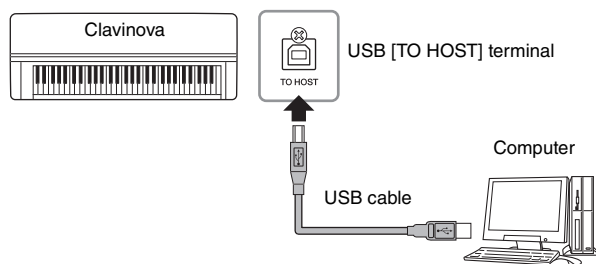
■ Turning off the instrument

When turning off the instrument, make sure that the instrument is NOT accessing the USB flash drive by playback/recording or file management (such as during Save, Copy, Delete and Format operations). Failure to do so may corrupt the USB flash drive and the data.

Connecting to a Computer (USB [TO HOST] Terminal)

By connecting a computer to the USB [TO HOST] terminal, you can transfer data between the instrument and the computer via MIDI.

For details on using a computer with this instrument, refer to the “Computer-related Operations” on the website (page 9).



Files that can be transferred to/from the computer

- MIDI Songs recorded on this instrument (page 52): file extension = .mid (SMF Format 0, Format 1)
- Backup files (page 98)
- External Songs: file extension = .mid (SMF Format 0, Format 1)

Connecting External MIDI Devices (MIDI Terminals)

The sophisticated MIDI functions give you powerful tools to expand your music performance and creation possibilities. Use the MIDI terminals and standard MIDI cables to connect external MIDI devices (keyboard, sequencer, etc.)

- **MIDI [IN]** Receives MIDI messages from another MIDI device.
- **MIDI [OUT]** Transmits MIDI messages generated on this instrument to another MIDI device.
- **MIDI [THRU]** ... Simply relays the MIDI messages received at MIDI IN.

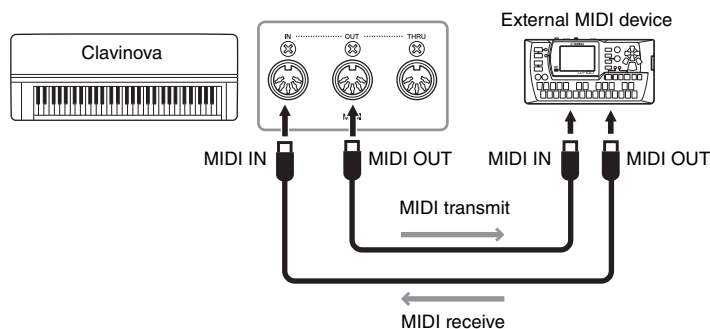
685

675

645

635

665GP



NOTICE

Use an AB type USB cable of less than 3 meters. USB 3.0 cables cannot be used.

NOTE

- The instrument will begin transmission a short time after the USB connection is made.
- When using a USB cable to connect the instrument to your computer, make the connection directly without passing through a USB hub.
- For information on setting up your sequence software, refer to the owner's manual of the relevant software.



CAUTION

Before connecting the instrument to other MIDI devices, turn off the power of all the components.

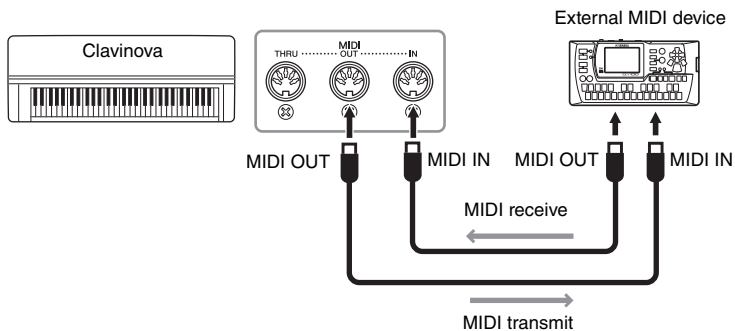
NOTE

For details about MIDI, refer to “MIDI Basics” downloadable from the Yamaha website (page 9).

NOTE

Since MIDI data that can be transmitted or received varies depending on the type of MIDI device, check the MIDI Data Format to find out what MIDI data and commands your devices can transmit or receive. The MIDI Data Format is contained in the “MIDI Reference” downloadable from the Yamaha website (page 9).

685 675 645 635 665GP



Connecting to an iPhone/iPad (USB [TO DEVICE], USB [TO HOST] and MIDI Terminals)

You can connect a smart device such as an iPhone or iPad to this instrument via the USB wireless LAN adaptor UD-WL01 (sold separately; may not be available in some areas). By using appropriate apps on your smart device, you can take advantage of convenient functions and get more enjoyment out of this instrument.

- For details on connections, refer to the “iPhone/iPad Connection Manual” on the website (page 9).
- For information about the compatible smart devices and apps, access the following page:
<http://www.yamaha.com/kbdapps/>

Connection with the USB wireless LAN adaptor (UD-WL01*)

*UD-WL01 (sold separately) may not be available depending on your area.

Start wireless connection according to the instructions in the “iPhone/iPad Connection Manual” on the website, then make sure to make appropriate setups from the following instructions: “Display the Networks and connecting to the access point,” “Automatic Setup by WPS,” “Manual Setup” or “Connecting by the Accesspoint Mode.” Refer to pages 77 – 80 in this Owner’s Manual, then set up as required.

NOTE

- Before using the USB [TO DEVICE] terminal, be sure to read “Precautions when using the USB [TO DEVICE] terminal” on page 72.
- When you use the instrument along with an application on your iPhone/iPad, we recommend that you first set “Airplane Mode” to “ON” then set “Wi-Fi” to “ON” on your iPhone/iPad in order to avoid noise caused by communication.

NOTICE

Do not place your iPhone/iPad in an unstable position. Doing so may cause the device to fall and result in damage.

The following menu is shown only when you connect the USB wireless LAN adaptor to the USB [TO DEVICE] terminal on this instrument.

Menus marked with * differ in the Wireless LAN Mode parameters between the two modes: "Infrastructure" and "Accesspoint." The default setting for the Wireless LAN Mode is "Infrastructure."

To call up the desired parameter:							
Press the [FUNCTION] button several times to select "System" menu, then use the [^]/[v]/[<]/[>] buttons to select the desired parameter.							
[>] [<]	[>] [<]	[>] [<]	[>] [<]	[>] [<]	Description	Default setting	Setting range
Utility	Wireless LAN* (In the "Infrastructure" mode)	Select Network	(Networks)		Connect to an access point by selecting the network.	-	-
			Other	SSID	Set the SSID.	-	Up to 32 characters (half size), alphanumeric characters, marks
				Security	Set the Security.	None	None, WEP, WPA-PSK (TKIP), WPA-PSK (AES), WPA2-PSK (AES), WPA/WPA2 mixed PSK
				Password	Set the Password.	-	Up to 64 characters (half size), alphanumeric characters, marks
				Connect	Connect using the settings in "Other" display.	-	-
		Detail	DHCP		Set the wireless LAN detailed settings. IP Address, Subnet Mask, Gateway, DNS Server1, DNS Server2 can be set when DHCP is set to Off while cannot be set when DHCP set to On. Use the [<]/[>] buttons to select each octet in the entry display, then enter the value using the [^]/[v] buttons. To finalize the setting, press the [FUNCTION] button.	On	On/Off
			IP Address			0.0.0.0	0.0.0.0-255.255.255.255
			Subnet Mask			0.0.0.0	0.0.0.0-255.255.255.255
			Gateway			0.0.0.0	0.0.0.0-255.255.255.255
			DNS Server1			0.0.0.0	0.0.0.0-255.255.255.255
	DNS Server2			0.0.0.0	0.0.0.0-255.255.255.255		
	Save		Save the settings in the "Detail" display. Move the highlight to "Save," then press the [>] button to execute the Saving.	-	-		
	Wireless LAN Option	Wireless LAN Mode	Infrastructure Mode	Determines whether the access point is used for wireless LAN connection (Infrastructure Mode) or not (Accesspoint Mode).	Infrastructure Mode	-	
			Accesspoint Mode		Accesspoint Mode		
		Initialize	Cancel	Initialize the settings in the wireless LAN display. Move the highlight to "Execute," then press the [>] button to execute the initialization.	Cancel	-	
Execute			Execute				
Detail		Host Name		Set the Host name.	[CLP-****]-[xxxxxx (MAC address lower 6 figure)]	Up to 57 characters (half size) including alphanumeric characters, the "_" (underscore) and "-" (hyphen) character.	
		Mac Address		Display the MAC address of the USB wireless LAN adaptor.	-	-	
		Status		Display the error code of network function.	-	-	

Wireless LAN in the Accesspoint Mode

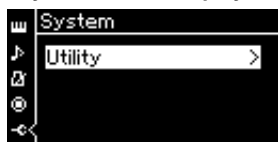
To call up the desired parameter: Press the [FUNCTION] button several times to select "System" menu, then use the [^]/[v]/[<]/[>] buttons to select the desired parameter.					
[>] [<]	[>] [<]	[>] [<]	Description	Default setting	Setting range
Utility	Wireless LAN* (In the "Accesspoint" mode)	SSID	Set the SSID as an access point.	ap-[CLP-****]-[xxxxxx (MAC address lower 6 figure)]	Up to 32 characters (half size), alphanumeric characters, marks
		Security	Set the Security as an access point.	WPA2-PSK (AES)	None, WEP, WPA-PSK (TKIP), WPA-PSK (AES), WPA2-PSK (AES), WPA/WPA2 mixed PSK
		Password	Set the Password as an access point.	00000000	Up to 64 characters (half size), alphanumeric characters, marks
		Channel	Set the channel as an access point.	11	Differs depending on the USB wireless LAN adaptor models. <ul style="list-style-type: none"> • Models for United States and Canada: 1 – 11 • Others: 1 – 13 When no USB wireless LAN adaptor is connected, setting range is channels 1 – 13.
		DHCP Server	Set the IP address related settings.	On	On, Off
		IP Address		192.168.0.1	192.168.0-255.1-254.
		Subnet Mask		255.255.255.0	255.255.0.0, 255.255.128.0, 255.255.192.0, 255.255.224.0, 255.255.240.0, 255.255.248.0, 255.255.252.0, 255.255.254.0, 255.255.255.0
		Save	Save the settings you set in the Wireless LAN display (in the "Accesspoint" mode)	–	–

Displaying the Wireless LAN Networks and connecting to a Network

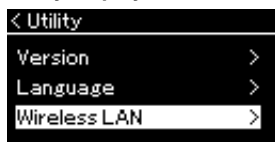
Make sure to connect the USB wireless LAN adaptor (sold separately) to the USB [TO DEVICE] terminal, otherwise the displays for setup below will not be shown.

1. Press the [FUNCTION] button repeatedly to call up the “System” menu display, then select the highlighted item in each display as illustrated below.

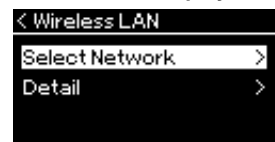
“System” menu display



Utility display



Wireless LAN display



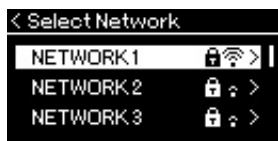
- 1-1. Use the [^]/[v] buttons to select “Utility.”
- 1-2. Press the [>] button to call up the next display.

- 1-3. Use the [^]/[v] buttons to select “Wireless LAN.”
- 1-4. Press the [>] button to call up the next display.

- 1-5. Use the [^]/[v] buttons to select “Select Network.”

2. Press the [>] button to call up the network list.

For a network with a lock icon , you need to enter the proper password.



3. Connect the instrument to the Network.

- 3-1. Select the desired network, then press the [>] button.

The name of the selected network will be fully shown in the display, letting you confirm this is the network you want to use.

- 3-2. Press the [>] button.

- **For a network without a lock icon:**

Connecting starts.

- **For a network with a lock icon:**

You need to enter the proper password. For details on how to enter characters, refer to the “Renaming files” on page 68. After entering the password, press the [FUNCTION] button to finalize the setting. This operation starts connecting automatically.

When connection is done successfully, “Completed” is shown in the display, and returns to the “Select Network” display.

4. Connect the iPhone/iPad to the access point.

Refer to the “iPhone/iPad Connection Manual” on the website (page 9).

NOTE

If no signal from the access point is received, the access point cannot be listed. Also, closed access points cannot be listed.

Automatic Setup by WPS

Please make sure to connect the USB wireless LAN adaptor (sold separately) to the USB [TO DEVICE] terminal, otherwise the displays for setup will not be shown.

If your access point supports WPS, you can easily connect the instrument to access point by WPS, without making settings, such as password input, etc. Press the WPS button on the USB wireless LAN adaptor more than 3 seconds, and press the WPS button on your access point within two minutes.

When connection is done successfully, “Completed” is shown in the display, and the Voice display will be shown.

Finally, connect the iPhone/iPad to the access point referring to the “iPhone/iPad Connection Manual” on the website (page 9).

NOTE

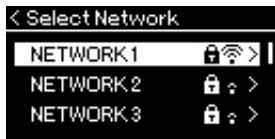
WPS setup is not available while the instrument is in the following modes or conditions:

- While a Song or a Demo Song is playing back or being paused temporarily, or while the instrument is in the Song Recording mode.
- When Wireless LAN mode is set to “Accesspoint Mode” in the “System” menu.

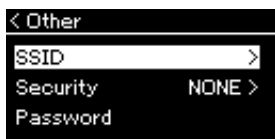
Manual Setup

Make sure to connect the USB wireless LAN adaptor (sold separately) to the USB [TO DEVICE] terminal, otherwise the displays for setup will not be shown.

1. To call up the network list, perform steps 1 – 2 in the “Displaying the Wireless LAN Networks and connecting to a Network” (page 77).



2. Select “Other” at the bottom of the network list, then press the [>] button.
3. Set the SSID, Security and Password to the same as the settings on the access point.



- 3-1. Select the “SSID” then press the [>] button to call up the display for SSID input, then enter the SSID.

For details on how to enter the characters, refer to “Renaming files” on page 68. After entering the SSID, press the [FUNCTION] button to finalize the setting. Operation returns to the “Other” display.

- 3-2. Select “Security” then press the [>] button to call up the Security list. Select the security then return to the “Other” display by pressing the [<] button.
- 3-3. Select “Password,” then set the password in the same way as SSID.

4. Select “Connect >” at the bottom of the display shown in step 3, then press the [>] button to start connecting.

When connection is done successfully, “Completed” is shown in the display, and returns to the “Select Network” display.

5. Connect the iPhone/iPad to the access point.

Refer to the “iPhone/iPad Connection Manual” on the website (page 9).

NOTE

The password cannot be set when you select “none” for the security setting.

Connecting by the Accesspoint Mode

Please make sure to connect the USB wireless LAN adaptor (sold separately) to the USB [TO DEVICE] terminal, otherwise the displays for setup will not be shown.

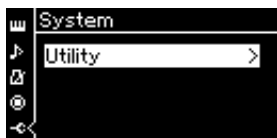
NOTE

This cannot be used to connect to the internet or another wireless LAN device.

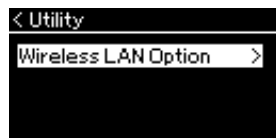
1. Switch the instrument to the “Accesspoint Mode.”

Press the [FUNCTION] button repeatedly to call up the “System” menu display, then select the highlighted item in each display as illustrated below.

“System” menu display



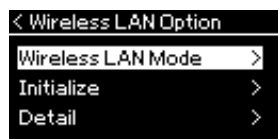
Utility display



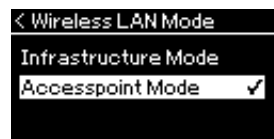
- 1-1. Use the [^]/[v] buttons to select “Utility.”
- 1-2. Press the [>] button to call up the next display.

- 1-3. Use the [^]/[v] buttons to select “Wireless LAN Option.”
- 1-4. Press the [>] button to call up the next display.

Wireless LAN Option display



Wireless LAN Mode display



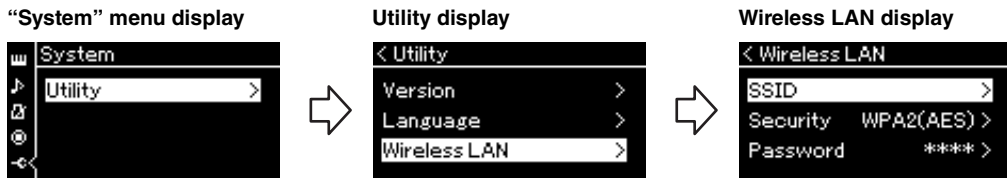
- 1-5. Use the [^]/[v] buttons to select “Wireless LAN Mode.”
- 1-6. Press the [>] button to call up the next display.

- 1-7. Use the [^]/[v] buttons to select “Accesspoint Mode.”

When mode change is done successfully, “Completed” is shown in the display, operation returns to the Wireless LAN Mode display.

2. Set SSID, Security, Password and Channel.

2-1. From the “System” menu display, select the highlighted item in each display as illustrated below.



2-2. Set the SSID, Security, Password and Channel.

Select and enter each value/setting in the same way as in step 3 in “Manual Setup.” For the setting range for each item, refer to the table on page 76.

3. Save the setting.

Select “Save >” at the bottom of the Wireless LAN display, then press the [>] button to start saving.

When saving is done successfully, “Completed” is shown in the display, and operation returns to the Utility display.

4. Connect the iPhone/iPad to the instrument (as an access point).

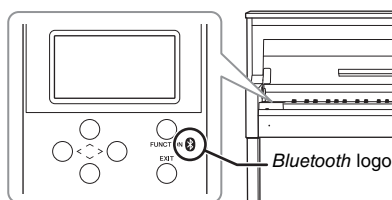
Refer to the “iPhone/iPad Connection Manual” on the website (page 9).

Using the *Bluetooth* Audio function

685 675 645 635 665GP

Bluetooth availability

The models CLP-685, CLP-675, CLP-645 and CLP-665GP are equipped with *Bluetooth* functionality; however, even these models may not support *Bluetooth*, depending on the country in which you purchased the product. If the *Bluetooth* logo is printed on the control panel, this means that the product is equipped with *Bluetooth* functionality.



Before using the *Bluetooth* function, be sure to read “About *Bluetooth*” on page 129.

If your smart device is equipped with the *Bluetooth* function, you can input the sound of the audio data saved in the smart device to this instrument and hear it through the built-in speakers of the instrument. Also, you can record the input audio data as an Audio Song (page 58).

Pairing with Smart Devices

If you wish to connect your smart device to the instrument via *Bluetooth*, the smart device needs to be paired with the instrument first. Once the smart device has been paired with this instrument, there is no need to perform pairing again.

1. Hold down the [FUNCTION] button for 3 seconds.

The pop-up window will appear which indicates that the instrument is standing by for pairing.



To cancel the pairing, press the [EXIT] button.

2. On the smart device, set the *Bluetooth* function to on and select “CLPxxx” from the connection list.

For details, refer to the smart device owner’s manual.

After pairing is completed, the pop-up window will close, and the *Bluetooth* icon appears on the Voice display and Song display.

Voice display



Pairing

“Pairing” means to register *Bluetooth*-equipped smart devices on this instrument, and establish the mutual recognition for wireless communication between the two.

NOTE

Only one smart device can be connected to this instrument at a time (although up to 8 smart devices can be paired to this instrument). When pairing with the 9th smart device has succeeded, pairing data for the device with the oldest connection date will be deleted.

NOTE

When the *Bluetooth* function of this instrument is set to “Off,” standby for pairing with the instrument is not enabled when holding the [FUNCTION] button for 3 seconds. In this case, set *Bluetooth* to “On” (page 82), and then start pairing.

NOTE

Make sure to complete the settings on the smart device within 5 minutes.

NOTE

If you are required to enter a passkey, enter the numerals “0000.”

3. Play back audio data on the smart device to confirm that the built-in speakers of the instrument can output the audio sound.

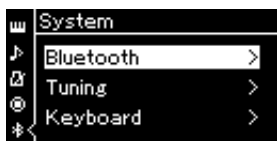
When you turn on the instrument the next time, the last-connected smart device will be connected to this instrument automatically, if the *Bluetooth* function of the smart device and the instrument is set to on. If it is not connected automatically, select the model name of the instrument from the connection list on the smart device.

Switching the *Bluetooth* Function On/Off

By default, the *Bluetooth* function will be on right after turning the instrument's power on, however you can set the function to off.

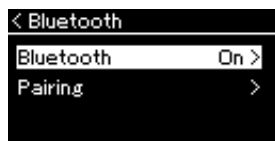
1. Press the [FUNCTION] button repeatedly to call up the "System" menu display, then select the highlighted item in each display as illustrated below.

"System" menu display



- 1-1. Confirm that "Bluetooth" is selected.
- 1-2. Press the [>] button to call up the next display.

Bluetooth display



- 1-3. Confirm that "Bluetooth" is selected.

2. Press the [>] button to switch on/off.

To exit from the "System" menu display, press the [EXIT] button.

NOTE

You can adjust the volume of the sound input via *Bluetooth* by the [MASTER VOLUME] slider. To adjust the volume balance between your keyboard performance and the input sound via *Bluetooth*, adjust the volume on the smart device.

NOTE

You can start pairing from the "System" menu display: Press the [FUNCTION] button repeatedly to call up the "System" menu display → "Bluetooth" → "Pairing," and then press the [>] button.

Detailed Settings

Pressing the [FUNCTION] button gives you access to a variety of important settings for Voices, Song playback, Metronome, Song recording and the entire system of this instrument.

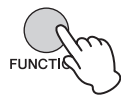
Basic Operations

1. As necessary, make the Voice settings or select a Song.

- If you want to edit Voice-related parameters (by calling up the “Voice” menu), select a Voice. If you want to edit parameters related to the R1/R2/L Voices, such as volume balance, turn on Dual/Split/Duo, then select the desired Voices.
- If you want to set Song playback parameters, such as Repeat, select a Song.
- If you want to edit your recorded MIDI Song data (by calling up Edit in the “Song” menu), select the recorded MIDI Song.

2. Press the [FUNCTION] button several times to select the desired menu.

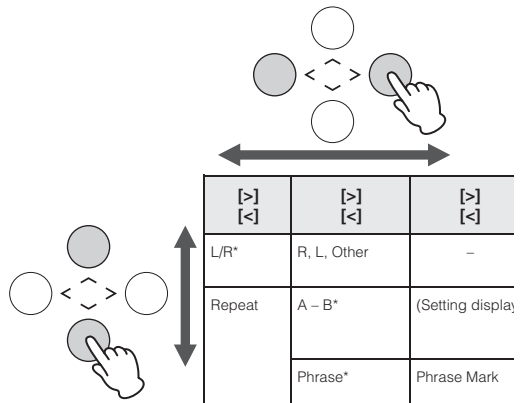
Pressing the [FUNCTION] button repeatedly will call up the following menu displays in order, according to the vertical menu at the left of the display.



- “Voice” menu (page 84)
- “Song” menu (page 88)
- “Metronome/Rhythm” menu (page 91)
- “Recording” menu (page 92)
- “System” menu (page 93)

3. Use the [^]/[v]/[<]/[>] buttons to select the desired parameter.

While referring as needed to the parameter list on each page listed in step 2, use the [^]/[v] buttons to navigate through the display vertically and use the [<]/[>] buttons to navigate through display horizontally.



4. On the display called up in step 3, select a value or execute the operation.

Most displays allow you to select a value by simply using the [^]/[v] buttons, although some, such as Edit in the “Song” menu and Backup in the “System” menu, let you execute an operation.

If a pop-up window is shown, set the value with the [<]/[>] buttons, then exit from the window using the [EXIT] button.

Also, when the selected parameter provides only two options (on and off, for example), simply pressing the [>] button will alternate the value between the two options.



5. To exit from the menu display, press the [EXIT] button.



Voice Menu

This menu lets you edit or set various parameters related to keyboard performance, such as Voice parameters. By turning on Dual/Split/Duo, you can make the settings for each Voice or each Voice combination. While playing the keyboard and hearing the sound, change a parameter value to find your desired sound. Note that you should turn on Dual/Split/Duo before calling up the “Voice” menu display.

NOTE

Parameters with * are shown only when Dual/Split/Duo is on.

To call up the desired parameter:					
Turn on Dual, Split or Duo as necessary, select Voices as necessary, press the [FUNCTION] button several times to select “Voice” menu, then use the [^]/[v]/[<]/[>] buttons to select the desired parameter.					
[>] [<]	[>] [<]	[>] [<]	Description	Default setting	Setting range
Transpose	(Pop-up window)	–	Shifts the pitch of the entire keyboard up or down in semitone intervals to facilitate playing in difficult key signatures, and to let you easily match the pitch of the keyboard to the range of a singer or other instruments. For example, if you set this parameter to “5,” playing key C produces pitch F. In this way, you can play the F major song as if it were in C major. NOTE The setting here will not affect Song playback. If you want to transpose Song playback, use the Transpose parameter in the “Song” menu (page 88). NOTE Your keyboard performance data will be transmitted with the transposed note numbers while MIDI note numbers received from an external MIDI device or computer will not be affected by the Transpose setting.	0	-12 (-1 octave) – 0 (normal pitch) – +12 (+1 octave)
Piano Setting	Lid Position	(Setting display)	Determines how much the Lid is opened.	Full	Full, Half, Close
	VRM	–	Turns the VRM effect on/off. For the information about the function of VRM, refer to page 27. For details about the Piano Voices compatible with VRM, refer to the “Preset Voice List” on page 100.	On	On, Off
	Damper Res.	(Setting display)	Determines the depth of the string resonance effect which is applied when the damper pedal is pressed. This is available only when VRM is on.	5	0 – 10
	String Res.	(Setting display)	Determines the depth of the string resonance effect which is applied when a note on the keyboard is pressed. This is available only when VRM is on.	5	0 – 10
	Aliquot Res.	(Setting display)	Adjusts the sympathetic vibrations of Aliquot. This is available only when VRM is on. For details, refer to “What is Aliquot?” (page 27).	5	0 – 10
	Body Res.	(Setting display)	Adjusts the resonance of the soundboard, the sides, the frame, and the grand piano itself. This is available only when VRM is on.	5	0 – 10
	Key Off Sample	(Setting display)	Determines the volume of the key-off sound (the subtle sound that occurs when you release a key) which is available only for some Voices. For Voices to which this effect is applied, refer to the Voice List (page 100).	5	0 – 10
Reverb	(Setting display)	–	Determines the Reverb type which is applied to all the entire sound including the keyboard performance, Song playback and MIDI data input from an external MIDI device.	Differs depending on the Voice or Voice combination.	Refer to the Reverb Type List (page 87)
Chorus	(Setting display)	–	Determines the Chorus type which is applied to all the entire sound including the keyboard performance, Song playback and MIDI data input from an external MIDI device.	Differs depending on the Voice or Voice combination.	Refer to the Chorus Type List (page 87)

To call up the desired parameter:

Turn on Dual, Split or Duo as necessary, select Voices as necessary, press the [FUNCTION] button several times to select "Voice" menu, then use the [^]/[v]/[<]/[>] buttons to select the desired parameter.

[>] [<]	[>] [<]	[>] [<]	Description	Default setting	Setting range
Voice Edit	(Voice names)*	Octave	Shifts the pitch of the keyboard up and down in octave steps. This parameter can be set for each Voices when Dual/Split/Duo is on.	Differs depending on the Voice or Voice combination.	-2 (two octaves lower) – 0 (no pitch shift) – +2 (two octaves higher)
		Volume	Adjusts the volume for each of the R1/R2/L Voices. This lets you adjust the balance between the R1/R2/L Voices when Dual/Split/Duo is on.	Differs depending on the Voice or Voice combination.	0 – 127
		Reverb Depth	Adjusts the Reverb depth for each of the R1/R2/L Voices. This lets you adjust the balance between the R1/R2/L Voices when Dual/Split/Duo is on. The "0" setting will produce no effect. NOTE When a VRM Voice is used for several parts simultaneously, unexpected sounds may result since the Reverb depth for a part which has priority will become the common setting for the parts. During Song playback, setting for a Song part is used (priority order: Ch. 1, Ch. 2...Ch. 16), while the setting for a keyboard part is used when Song playback is stopped (priority order: R1, L and R2 Voices).	Differs depending on the Voice or Voice combination.	0 – 127
		Chorus Depth	Adjusts the Chorus depth for each of the R1/R2/L Voices. This lets you adjust the balance between the R1/R2/L Voices when Dual/Split/Duo is on. The "0" setting will produce no effect. NOTE When a VRM Voice is used for several parts simultaneously, unexpected sounds may result since the Chorus depth for a part which has priority will become the common setting for the parts. During Song playback, setting for a Song part is used (priority order: Ch. 1, Ch. 2...Ch. 16), while the setting for a keyboard part is used when Song playback is stopped (priority order: R1, L and R2 Voices).	Differs depending on the Voice or Voice combination.	0 – 127
		Effect	In addition Reverb and Chorus, another Effect can be applied to the R1/R2/L Voices of the keyboard independently. Note that this Effect type can be selected for up to two Voices.	Differs depending on the Voice or Voice combination.	Refer to the Effect Type List (page 87).
		Rotary Speed	Available only for the Voice of which the Effect Type is set to "Rotary." This parameter determines the rotation speed of the Rotary Speaker effect.	Differs depending on the Voice or Voice combination.	Fast, Slow
		VibeRotor	Available only for the Voice of which the Effect Type is set to "VibeRotor." This parameter turns on or off the VibeRotor effect.	Differs depending on the Voice or Voice combination.	On, Off
		VibeRotor Speed	Available only for the Voice of which the Effect Type is set to "VibeRotor." This parameter determines the speed of the Vibraphone vibrato effect.	Differs depending on the Voice or Voice combination.	1 – 10
		Effect Depth	Adjusts the Effect depth for each of the R1/R2/L Voices. Note that some Effect types do not allow you to adjust the depth.	Differs depending on the Voice or Voice combination.	1 – 127
		Pan	Adjusts the stereo pan position for each of the R1/R2/L Voices.	Differs depending on the Voice or Voice combination.	L64 (leftmost) – C (center) – R63 (rightmost)

To call up the desired parameter: Turn on Dual, Split or Duo as necessary, select Voices as necessary, press the [FUNCTION] button several times to select "Voice" menu, then use the [^]/[v]/[<]/[>] buttons to select the desired parameter.					
[>] [<]	[>] [<]	[>] [<]	Description	Default setting	Setting range
Voice Edit	(Voice names)*	Harmonic Cont	Produces a distinctive "peaky" tone by raising the Resonance value of the Filter. This parameter can be set for each of the R1/R2/L Voices when Dual/Split/Duo is on. NOTE Harmonic content may have little audible effect or not be applied to some Voices.	Differs depending on the Voice or Voice combination.	-64 – +63
		Brightness	Adjusts the brightness of the R1/R2/L Voices independently.	Differs depending on the Voice or Voice combination.	-64 – +63
		Touch Sens.	Determines the degree to which the volume level changes in response to your touch on the keyboard (how hard you play). Since the volume level of some Voices such as Harpsichord and Organ do not change regardless of how you play the keyboard, the default setting for these Voices is 127.	Differs depending on the Voice or Voice combination.	0 (softest) – 64 (largest changes in the level) – 127 (which produces the loudest volume regardless of how you play the keyboard)
		RPedal	Turns the Right pedal function on or off for each of the R1/R2/L Voices. This parameter is useful when you want to ensure, for example, that the pedal function affects the right-hand performance but does not affect the left-hand performance.	Differs depending on the Voice or Voice combination.	On, Off
		CPedal	Turns the Center pedal function on or off for each of the R1/R2/L Voices. This parameter is useful when you want to ensure, for example, that the pedal function affects the right-hand performance but does not affect the left-hand performance.	Differs depending on the Voice or Voice combination.	On, Off
		LPedal	Turns the Left pedal function on or off for each of the R1/R2/L Voices. This parameter is useful when you want to ensure, for example, that the pedal function affects the right-hand performance but does not affect the left-hand performance.	Differs depending on the Voice or Voice combination.	On, Off
Pedal Assign	Right	(Setting display)	Assigns one of various functions (other than the original one) to the Right pedal.	SustainCont	Refer to the Pedal Function List (page 87).
	Center	(Setting display)	Assigns one of various functions (other than the original one) to the Center pedal.	Sostenuto	Refer to the Pedal Function List (page 87).
	Left	(Setting display)	Assigns one of various functions (other than the original one) to the Left pedal.	Rotary Speed (Mellow Organ), Vibe Rotor (Vibraphone), Soft (other Voices)	Refer to the Pedal Function List (page 87).
Balance*	Volume R2 – R1*	(Pop-up window)	Adjusts the volume balance between R1 and R2 Voices when Dual is on. After adjusting this with the [<]/[>] buttons, press the [EXIT] button to exit from the pop-up window.	Differs depending on the Voice or Voice combination.	R2+10 – 0 – R1+10
	Volume L – R*	(Pop-up window)	Adjusts the volume balance between the left and right keyboard sections when Split/Duo is on. After adjusting via the [<]/[>] buttons, press the [EXIT] button to exit from the pop-up window.	Differs depending on the Voice or Voice combination.	L+10 – 0 – R+10
	Detune*	(Pop-up window)	Detunes the R1 Voice and R2 Voice in Dual mode to create a thicker sound. On the display, move the slider rightward via the [>] button will raise the R1 Voice pitch and lower the R2 Voice pitch, and vice versa. After adjusting this, press the [EXIT] button to exit from the pop-up window.	Differs depending on the Voice or Voice combination.	R2+20 – 0 – R1+20

■ Reverb Type List

Off	No effect
Recital Hall	Simulates clear reverberation in a mid-sized hall suitable for piano recital.
Concert Hall	Simulates brilliant reverberation in a large hall for public orchestra performances.
Chamber	Simulates the elegant reverberation in a small room suitable for chamber music.
Cathedral	Simulates the solemn reverberation in a high-ceiling stone-made cathedral.
Club	Simulates the lively reverberation in a jazz club or a small bar.
Plate	Simulates the bright sound of vintage reverb equipment used in recording studios.

■ Chorus Type List

Off	No effect
Chorus	Adds a rich, spacious sound.
Celeste	Adds swell and a spacious sound.
Flanger	Adds swell effects similar to the sound of an ascending or descending jet plane.

■ Effect Type List

Off	No effect
DelayLCR	Delay applied at left, center, and right positions.
DelayLR	Delay applied at left and right positions.
Echo	Echo-like delay
CrossDelay	Left and right delays cross each other in alternation.
Symphonic	Adds a rich and deep acoustic effect.
Rotary	Adds the vibrato effect of a rotary speaker.
Tremolo	The volume level changes in rapid cycles.
VibeRotor	The vibrato effect of a vibraphone.
AutoPan	The sound pans left to right and back and forth.
Phaser	The phase changes periodically, swelling the sound.
AutoWah	The center frequency of the wah filter changes periodically.

■ Pedal Function List

Function	Description	Available pedal (O: Can be assigned, X: Cannot)		
		Left pedal	Center pedal	Right pedal and pedal connected to the [AUX PEDAL] jack (CLP-685)
Sustain (Switch)	On/off switch type damper	O	O	O
Sustain Continuously *	Damper that sustains the sound proportionately to how deeply you press the pedal (page 21)	X	X	O
Sostenuto	Sostenuto (page 21)	O	O	O
Soft	Soft (page 21)	O	O	O
Expression*	A function that lets you create changes in dynamics (volume) as you play	X	X	O
PitchBend Up*	A function that smoothly raises the pitch	X	X	O
PitchBend Down*	A function that smoothly lowers the pitch	X	X	O
Rotary Speed	Changes the rotational speed of the MellowOrgan rotary speaker (switches between fast and slow each time you press the pedal)	O	O	O
VibeRotor	Switches the vibraphone vibrato on/off (switches on/off each time you press the pedal)	O	O	O

When you want to assign a function marked with * to the pedal connected to the [AUX PEDAL] jack (CLP-685), you should use a Foot Controller (page 70). For other functions, you should use a Footswitch (page 70).

Song Menu

This menu lets you set various parameters related to Song playback and edit the Song data with a single touch.

NOTE

- The parameters marked with * will be available only when a MIDI Song is selected. These parameters are not shown when an Audio Song is selected.
- The parameters marked with ** will be available only when an Audio Song is selected.
- When using the “Edit” menu, select a MIDI Song other than the preset Song.
- Execute is a function that edits or changes the current Song data. Note that pressing the [>] button will actually change the Song data.
- The content of the “Song” menu differs depending on the type of Song currently selected (MIDI/Audio).

To call up the desired parameter: Select a Song as necessary, press the [FUNCTION] button several times to select “Song” menu, then use the [^]/[v]/[<]/[>] buttons to select the desired parameter.					
[>] [<]	[>] [<]	[>] [<]	Description	Default setting	Setting range
L/R*	R, L, Other	–	Turns on (Play) or off (Mute) each of the Song tracks. For details, refer to page 44.	On	On, Off
Repeat	A – B*	(Setting display)	Lets you play back a specified range (from Point A to B) of the current Song repeatedly. For instructions, refer to page 45.	Off	On, Off
	Phrase*	Phrase Mark	This parameter is available only when a MIDI Song containing the Phrase Mark. By specifying a Phrase number here, you can play back the current Song from the mark point, or to play back the corresponding phrase repeatedly. If you start Song playback with a Phrase set to “On,” the countdown starts, followed by repeated playback of the specified phrase or phrases until you press the [▶/■] (Play/Pause) button.	000	000 – the last phrase number of the Song
		Repeat			Off
	Song	(Setting display)	By setting this parameter, you can play back only a specific Song, or specific Songs in order repeatedly or randomly. For details, refer to page 45.	Off	Off, Single, All, Random
Volume	Song – Keyboard*	(Pop-up window)	Adjusts the volume balance between the Song playback sound and keyboard performance.	0	Key+64 – 0 – Song+64
	Song L – R*	(Pop-up window)	Adjusts the volume balance between the right-hand part left-hand parts of Song playback.	0	L+64 – 0 – R+64
		(Pop-up window)**	Adjusts the Audio volume.	100	0 – 127
Transpose	(Setting display)	–	Shifts the pitch of Song playback up or down in semitone intervals. For example, if you set this parameter to “5,” a Song created in C major will be played back in F major. NOTE The Transpose setting will not affect the audio signals, such as those input from the [AUX IN] jack. NOTE MIDI Song playback data will be transmitted with the transposed note numbers while MIDI note numbers received from an external MIDI device or computer will not be affected by the Transpose setting. NOTE Applying transpose to an Audio Song may change its tonal characteristics.	0	-12 (-1 octave) – 0 (normal pitch) – +12 (+1 octave)
File	Delete	Cancel	Deletes a specific Song. For details about Song types which can be deleted, refer to page 63.	–	–
		Execute		–	–
	Copy*	Cancel	Copies a specific MIDI Song then saves it to a different location. For details about Song types which can be copied, refer to page 63.	–	–
		Execute		–	–











To call up the desired parameter: Select a Song as necessary, press the [FUNCTION] button several times to select "Song" menu, then use the [^]/[v]/[<]/[>] buttons to select the desired parameter.					
[>] [<]	[>] [<]	[>] [<]	Description	Default setting	Setting range
File	Move*	Cancel	Moves a MIDI Song to a different location. For details about Song types which can be moved, refer to page 63.	–	–
		Execute		–	–
	MIDI to Audio*	Cancel	Converts a MIDI Song to an Audio file. For details about Song types which can be converted, refer to page 63.	–	–
		Execute		–	–
	Rename	(Setting display)	Edits a Song name. For details about Song types which can be renamed, refer to page 63.	–	–
	Edit*	Quantize	Quantize	The Quantize function allows you to align all the notes in the current MIDI Song to the correct timing, such as 8th note or 16th note.	1/16
Strength			1. Set the Quantize value to the smallest notes in the MIDI Song. 2. Set the Strength value which determines how strongly the notes will be quantized. 3. Move the highlight to "Execute" then press the [>] button to actually change the MIDI Song data.	100%	0% – 100% Refer to "Strength setting range." (page 90)
Execute				–	–
Track Delete		Track	Deletes a specific track data of the current MIDI Song. 1. Select the desired track to be deleted.	Track 1	Track 1 – Track 16
		Execute	2. Move the highlight to "Execute," then press the [>] button to actually delete the specified track data.	–	–
Tempo Change		Cancel	Changes the tempo value of the current MIDI Song as data. Before calling up the "Song" menu display, set the desired Tempo value for changing.	Differs depending on the Song	–
		Execute	Move the highlight to "Execute," then press the [>] button to actually change the Tempo value as MIDI Song data.	–	–
Voice Change		Track	Changes the Voice of a specific track in the current MIDI Song to the current Voice as data. 1. Select a track of which the Voice will be changed.	Track 1	Track 1 – Track 16
		Execute	2. Move the highlight to "Execute," then press the [>] button to actually change the Voice as MIDI Song data.	–	–
Others*		Quick Play	–	This parameter enables you to specify whether a Song that starts from the middle of a bar, or a Song with a silence prior to the first note, should be played from the first note or from the top of the bar (rest or blank). This parameter is useful for a MIDI Song that starts with a short one-or two-beat pick-up or lead-in.	On
	Track Listen	Track	This lets you play back only the selected Track to listen to its contents. To do this, select a Track, move the highlight to "Start," then press and hold the [>] button to start playback from the first note. Playback continues while holding the [>] button.	Track 1	Track 1 – Track 16
		Start			
Play Track	–		This parameter enables you to specify the tracks for playing back on this instrument. When "1&2" is selected, only tracks 1 and 2 will be played back, while tracks 3 to 16 will be transmitted via MIDI. When "All" is selected, all tracks will be played back on this instrument.	All	All, 1&2

NOTE

Tempo of Song playback can be set on the display called up by pressing the [TEMPO] button. For instructions, refer to page 43.

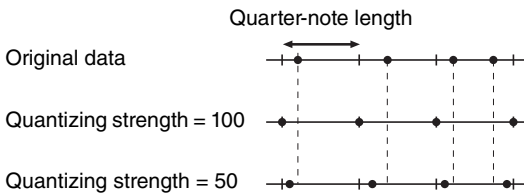
■ Quantize Supplementary

Quantize setting range

1/4.....		quarter note
1/6.....		quarter note triplet
1/8.....		eighth note
1/12.....		eighth note triplet
1/16.....		sixteenth note
1/24.....		sixteenth note triplet
1/32.....		thirty-second note
1/8+1/12.....		eighth note + eighth note triplet*
1/16+1/12.....		sixteenth note + eighth note triplet*
1/16+1/24.....		sixteenth note + sixteenth triplet*

The three Quantize settings marked with asterisks (*) are exceptionally convenient, since they allow you to quantize two different note values at the same time. For example, when the straight eighth notes and eighth notes triplet are contained in the same part, if you quantize by straight eighth notes, all notes in the part are quantized to straight eighth notes—completely eliminating any triplet feel. However, if you use the eighth note + eighth note triplet setting, both the straight and triplet notes will be quantized correctly.

Strength setting range



Metronome/Rhythm Menu

This menu lets you set the volume and tempo indication format of the Metronome (page 36) or Rhythm (page 51). In addition, you can set the bell sound of the Metronome to play back at the first beat and adjust parameters related to Rhythm playback variation.

To call up the desired parameter: Press the [FUNCTION] button several times to select "Metronome/Rhythm" menu, then use the [^]/[v] buttons to select the desired parameter.					
[>] [<]	[>] [<]	[>] [<]	Description	Default setting	Setting range
Time Signature	(Setting display)	–	Determines the time signature of the metronome. When you select or playback MIDI Songs, this will automatically be changed to the time signature of the selected songs.	4/4	2/2, 1/4, 2/4, 3/4, 4/4, 5/4, 6/4, 7/4, 3/8, 6/8, 7/8, 9/8, 12/8
Volume	(Pop-up window)	–	Determines the volume of the Metronome or Rhythm. You can adjust the volume balance between the keyboard performance and Metronome/Rhythm playback.	82	0 – 127
BPM	–	–	Determines whether the note type of the tempo indication is affected by the Metronome Time Signature (page 37) or not (crotchet). When "Time Sig." is selected, the denominator of the Time Signature is shown as the note type of the tempo indication. (The dotted quarter note is shown as the note type of the tempo indication only when the Time Signature is set to "6/8," "9/8," or "12/8.")	Time Sig.	Time Sig., Crotchet
Bell	–	–	Determines whether or not the bell sound is played back at the first beat of the specified Time Signature.	Off	On, Off
Intro	–	–	Determines whether the Intro is played back or not before the Rhythm pattern is started. NOTE During Song playback, the Intro cannot be played back even if you start the Rhythm with this parameter set to "On."	On	On, Off
Ending	–	–	Determines whether the Ending is played back or not before the Rhythm pattern is stopped.	On	On, Off
SyncStart	–	–	When this is set to "On," you can start Rhythm playback also by pressing any note on the keyboard. When you want to use this function, follow the instructions below: 1. Set this function to on. 2. Press the [RHYTHM] button to enter the Synchro start standby mode. The [RHYTHM] button flashes. 3. Press any key to start with the rhythm.	Off	On, Off

■ Setting the Tempo

Tempo of Metronome/Rhythm can be set on the display called up by pressing the [TEMPO] button. For details on setting the Tempo for the Metronome or Rhythm, refer to page 36.

Recording Menu

This menu lets you make detailed settings related to MIDI Recording (page 52).

NOTE

The settings here will not affect Audio Recording.


To call up the desired parameter: Press the [FUNCTION] button several times to select "Recording" menu, then use the [^]/[v] buttons to select the desired parameter.					
[>] [<]	[>] [<]	[>] [<]	Description	Default setting	Setting range
RecStart	–	–	This parameter, which is used when you overwrite the already recorded MIDI Song, determines when the actual MIDI Recording starts after you execute the Recording Start operation. When set to "Normal," actual recording will start as soon as you execute the Recording Start operation. When set to "KeyOn," actual recording starts as soon as you press any key after you execute the Recording Start operation.	Normal	Normal, KeyOn
RecEnd	–	–	This parameter, which is used when you overwrite the already recorded MIDI Song, determines whether the existing data after the point at which you stop recording will be erased or not.	Replace	Replace, PunchOut
RecRhythm	–	–	Determines whether or not Rhythm playback will be recorded during MIDI Recording.	On	On, Off

/ System Menu

This menu lets you make the overall settings applied to the entire instrument.

Bluetooth compatibility is indicated by the following icons. (For details on *Bluetooth* compatibility, see page 129.)

 : models equipped with *Bluetooth*

 : models not equipped with *Bluetooth*


NOTE

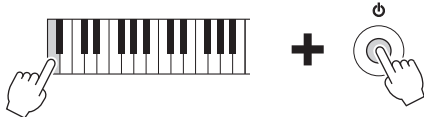
Parameters marked with * are available only if the instrument is equipped with *Bluetooth* functionality.

To call up the desired parameter:					
Press the [FUNCTION] button several times to select "System" menu, then use the [^]/[v]/[<]/[>] buttons to select the desired parameter.					
[>] [<]	[>] [<]	[>] [<]	Description	Default setting	Setting range
Bluetooth*	Bluetooth	(Setting display)	Switches the <i>Bluetooth</i> function on/off (page 82).	On	On, Off
	Pairing	(Setting display)	For registering (pairing) the <i>Bluetooth</i> device (page 81).	–	–
Tuning	Master Tune	(Pop-up window)	Fine tunes the pitch of the entire instrument. This function is useful when you play this instrument along with other instruments or CD music. NOTE These settings will not be applied to the Drum Kit Voices or Audio Song. Also, these settings will not be recorded to a MIDI Song.	A3 = 440.0 Hz	A3 = 414.8 Hz – 466.8 Hz (approx. 0.2 Hz steps)
	Scale Tune	(Setting display)	Modern acoustic pianos are tuned almost exclusively in equal temperament, which divides one octave into twelve equal intervals. Likewise, this digital piano employs equal temperament, but it can be changed at the touch of a button to play in historical temperaments used in the 16th to 19th centuries.	Equal Temperament	Refer to the "Scale Tune List" (page 97)
	Base Note	(Setting display)	Determines the base note for the Scale selected above. When the base note is changed, the pitch of the keyboard is transposed, yet maintains the original pitch relationship between the notes. This setting is necessary when Scale Tune is set to something other than "Equal Temperament." NOTE When Scale Tune is set to "Equal Temperament," "..." is shown on the display and this parameter cannot be edited.	C	C, C#, D, Eb, E, F, F#, G, Ab, A, Bb, B
Keyboard	Touch	(Setting display)	Determines how the sound responds to your playing strength. This setting does not change the weight of the keyboard. <ul style="list-style-type: none"> • Soft2: Produces relatively high volume even with light playing strength. Best for players with a light touch. • Soft1: Produces high volume with moderate playing strength. • Medium: Standard Touch Sensitivity. • Hard1: Requires moderately strong playing for high volume. • Hard2: Requires strong playing to produce high volume. Best for players with a heavy touch. • Fixed: No touch response. The volume level will be the same regardless of how hard you play the keys. NOTE The setting here will not be recorded to a MIDI Song and not be transmitted as MIDI messages.	Medium	Soft 2, Soft 1, Medium, Hard 1, Hard 2, Fixed

To call up the desired parameter: Press the [FUNCTION] button several times to select "System" menu, then use the [^]/[v]/[<]/[>] buttons to select the desired parameter.					
[>] [<]	[>] [<]	[>] [<]	Description	Default setting	Setting range
Keyboard	Fixed Velocity	(Pop-up window)	Determines the velocity with which you play the keys when Touch (above) is set to "Fixed." NOTE The setting here will not be recorded to a MIDI Song and not be transmitted as MIDI messages.	64	1 – 127
	Duo	(Setting display)	Splits the keyboard into two ranges, allowing you to play duets over the same octave range (page 35).	Off	On, Off
	Split Point	(Setting display)	Determines the Split Point (the boundary between the right-hand and left-hand keyboard areas).	F #2 (Split), E3 (Duo)	A-1 – C7
Pedal	Half Pedal Point	(Pop-up window)	Here you can specify the point to which you must depress the right pedal or a pedal connected to the [AUX PEDAL] jack (CLP-685) before the assigned effect begins to be applied. This setting applies only to the "Sustain Continuously" effect (page 87) that is assigned to the right or AUX pedal (CLP-685).	0	-2 (effective with the shallowest press) – 0 – +4 (effective with the deepest press)
	Soft Pedal Depth	(Pop-up window)	Determines how deeply the Soft pedal effect is applied. This parameter is available only for the pedal to which "Soft" (page 87) is assigned.	5	1 – 10
	Pitch Bend Range	(Pop-up window)	Determines the range of the pitch bend that is produced via the pedal in semitone steps. This setting is available only for the pedal to which "Pitch Bend Up" or "Pitch Bend Down" (page 87) is assigned. NOTE For some Voices, the pitch may not be changed according to the Pitch Bend Range value set here.	2	0 – +12 (pressing the pedal will raise/lower the pitch by 12 semitones [1 octave])
	Aux Polarity (CLP-685)	–	A pedal connected to the [AUX PEDAL] jack may switch on and off differently. For example, some pedals turn the effects on and others turn them off when you press them. Use this parameter to reverse this mechanism.	Make	Make, Break
	Aux Assign (CLP-685)	(Setting display)	Assigns a function to the pedal connected to the [AUX PEDAL] jack.	Expression	Refer to the Pedal Function List (page 87).
	Aux Area (CLP-685)	(Setting display)	Determines the keyboard area to which the function of the pedal connected to the [AUX PEDAL] jack is applied.	All	All, Right, Left
	Play/Pause	(Setting display)	Assigns the [▶/] (Play/Pause) button's function to one of the Left pedal, Center pedal and pedal connected to the [AUX PEDAL] jack (CLP-685). If a value other than "Off" is selected here, the corresponding pedal's function assigned in the "Voice" menu (page 86) is disabled.	Off	Off, Left, Center, AUX (CLP-685)
Sound	Brilliance	(Setting display)	Adjusts the brilliance of Voices played via the entire keyboard.	Normal	Mellow 1 – 3, Normal, Bright 1 – 3
	IAC	–	Turns the IAC effect on or off. For details about IAC, refer to page 19.	On	On, Off
	IAC depth	(Pop-up window)	Determines the depth of the IAC. The higher the value, the more clearly the low/high sounds at lower volume levels.	0	-3 – +3
	Binaural	–	Turns the Binaural Sampling function (when headphones are connected) on or off. When the function is on and headphones are connected, the sound from this instrument changes to the sound of Binaural Sampling or the sound enhanced with the Stereophonic Optimizer, allowing you to enjoy more realistic sound (page 20).	On	On, Off

To call up the desired parameter: Press the [FUNCTION] button several times to select "System" menu, then use the [^]/[v]/[<]/[>] buttons to select the desired parameter.					
[>] [<]	[>] [<]	[>] [<]	Description	Default setting	Setting range
MIDI	MIDI OUT	(Setting display)	Determines the MIDI channel on which the MIDI messages generated via the keyboard performance will be transmitted from the MIDI [OUT] or USB [TO HOST] terminal. When Dual/Split/Duo is on, the MIDI channels are assigned as follows. <ul style="list-style-type: none"> • Performance via the R1 Voice = n (setting value) • Performance via the R2 Voice = n+2 • Performance via the L Voice = n+1 	Ch1	Ch1 – Ch16, Off (not transmitted)
	MIDI IN	(Setting display)	Determines which part of the instrument will be controlled by each channel data of the MIDI messages coming from the MIDI [IN] and USB [TO HOST] terminal. <ul style="list-style-type: none"> • Song: Song part is controlled by the MIDI messages. • Keyboard: The entire keyboard is controlled regardless of the Dual/Split/Duo setting. • R1: The keyboard performance via the R1 Voice is controlled. • L: The keyboard performance via the L Voice is controlled. • R2: The keyboard performance via the R2 Voice is controlled. • Off: No part is controlled. 	"Song" for each of all MIDI channels	For each MIDI channel: <ul style="list-style-type: none"> • Song • Keyboard • R1 • L • R2 • Off
	Local Control	–	"Local Control On" is a state in which this instrument produces the sound from its tone generator when you play the keyboard. In "Local Control Off" state, the keyboard and the tone generator are cut off from each other. This means that even if you play the keyboard, this instrument will produce no sound. Instead, the keyboard data can be transmitted via MIDI to a connected MIDI device or computer, which can produce the sound. The "Local Control Off" setting is useful when you wish to play only an external sound source while playing the keys on this instrument.	On	On, Off
	Receive Param.	(Setting display)	Determines which types of MIDI messages can be received or recognized by this instrument. <p>MIDI message types: Note on/off, Control Change, Program Change, Pitch Bend, System Exclusive</p>	On (for all the MIDI messages)	On, Off (for each MIDI message)
	Transmit Param.	(Setting display)	Determines which types of MIDI messages can be transmitted from this instrument. <p>MIDI message types: Note on/off, Control Change, Program Change, Pitch Bend, SystemRealTime, System Exclusive</p>	On (for all the messages)	On, Off (for each message)
	Initial Setup	Cancel	Transmits the current panel settings such as Voice selection to a connected MIDI device or computer. Before you start recording your performance to a connected MIDI device or computer, execute this operation to record the current panel settings at the beginning of your performance data. It causes that the same panel settings are called up when the recorded performance is played back.	–	–
		Execute	<p>Operation: Move the highlight to "Execute," then press the [>] button to transmit the panel settings as MIDI messages.</p>	–	–
Backup	Backup Setting	–	For instructions about these functions, refer to pages 98 – 99.	–	–
	Backup	–			
	Restore	–			
	Factory Set	–			

To call up the desired parameter: Press the [FUNCTION] button several times to select "System" menu, then use the [^]/[v]/[<]/[>] buttons to select the desired parameter.					
[>] [<]	[>] [<]	[>] [<]	Description	Default setting	Setting range
Utility	USB Format	Cancel	This lets you format or initialize the USB flash drive connected to the USB [TO DEVICE] terminal. NOTICE Executing the Format operation will delete all data saved in the USB flash drive. Save important data to a computer or another storage device. NOTE When connecting the USB flash drive to the USB [TO DEVICE] terminal, a message prompting you to execute the Format operation may appear. If such a case occurs, execute the Format operation.	-	-
		Execute	Operation Move the highlight to "Execute," then press the [>] button to start the Format operation. After Formatting is completed, a message appears then the instrument returns to the Utility display after a while. NOTICE Never turn off the power or disconnect the USB flash drive while "Executing" is shown in the display.		
	USB Properties	-	Shows the amount of free space and entire memory in the USB flash drive connected to the USB [TO DEVICE] terminal.  Capacity 7350 MB — Amount of entire memory Free 6911 MB — Amount of free space	-	-
	USB Autoload	-	When this is set to "On," the Song saved in the root directory can be selected (shown on the display) automatically as soon as the USB flash drive is connected to the USB [TO DEVICE] terminal.	Off	On, Off
	Speaker	(Setting display)	Lets you switch the speaker on/off. <ul style="list-style-type: none"> • Normal The speaker will sound only if headphones are not connected. • On The speaker will always sound. • Off The speaker will not sound. 	Normal	Normal, On, Off
Contrast	(Pop-up window)	Adjusts the contrast of the display.	0	-5 - +5	

To call up the desired parameter: Press the [FUNCTION] button several times to select "System" menu, then use the [^]/[v]/[<]/[>] buttons to select the desired parameter.																																																																																																																																													
[>] [<]	[>] [<]	[>] [<]	Description	Default setting	Setting range																																																																																																																																								
Utility	Auto Power Off	(Setting display)	<p>Lets you set the amount of time that elapses before the power is turned off by Auto Power Off function (page 17). To disable Auto Power Off, select "Off."</p> <p>Disabling Auto Power Off</p>  <p>Turn the power on while holding down the lowest key on the keyboard. A message appears briefly and Auto Power Off is disabled.</p>	30 (minutes)	Off, 5, 10, 15, 30, 60, 120 (minutes)																																																																																																																																								
	Version	-	Displays the model name and the firmware version of this instrument.	-	-																																																																																																																																								
	Language	System	<p>Determines the type of characters shown on the display for the System (general indication other than Song name) and Song (Song name) individually.</p> <p>Character list</p> <p>International</p> <table border="1" data-bbox="507 821 926 937"> <tr><td>0~9</td><td>A~Z</td><td>a~z</td><td>Ä</td><td>Ë</td><td>Ï</td><td>Ö</td><td>Ü</td><td>ä</td><td>ë</td><td>ï</td><td>ö</td><td>ü</td><td>à</td><td>è</td><td>ì</td><td>ò</td></tr> <tr><td>ù</td><td>á</td><td>é</td><td>í</td><td>ó</td><td>ú</td><td>â</td><td>ê</td><td>î</td><td>ô</td><td>û</td><td>ñ</td><td>ñ</td><td>Ç</td><td>ç</td><td>º</td><td>¿</td></tr> <tr><td>!</td><td>#</td><td>\$</td><td>%</td><td>&</td><td>'</td><td>(</td><td>)</td><td>+</td><td>,</td><td>-</td><td>;</td><td>=</td><td>@</td><td>[</td><td>]</td><td>^</td></tr> <tr><td>_</td><td>`</td><td>{</td><td>}</td><td>~</td><td>.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table> <p>Japanese</p> <table border="1" data-bbox="507 966 926 1072"> <tr><td>0~9</td><td>A~Z</td><td>a~z</td><td>ア</td><td>イ</td><td>ウ</td><td>エ</td><td>オ</td><td>カ</td><td>キ</td><td>ク</td><td>ケ</td><td>コ</td><td>サ</td><td>シ</td><td>ス</td><td>セ</td></tr> <tr><td>ソ</td><td>タ</td><td>チ</td><td>ツ</td><td>テ</td><td>ト</td><td>ナ</td><td>ニ</td><td>ノ</td><td>ハ</td><td>ヒ</td><td>フ</td><td>ヘ</td><td>ホ</td><td>マ</td><td>ミ</td><td>ム</td></tr> <tr><td>メ</td><td>モ</td><td>ヤ</td><td>ユ</td><td>ヨ</td><td>ラ</td><td>リ</td><td>ル</td><td>レ</td><td>ロ</td><td>ワ</td><td>ヰ</td><td>ヱ</td><td>ヰ</td><td>ヱ</td><td>ヰ</td><td>ヱ</td></tr> <tr><td>ヰ</td><td>ヱ</td><td>ヰ</td><td>ヱ</td><td>ヰ</td><td>ヱ</td><td>ヰ</td><td>ヱ</td><td>ヰ</td><td>ヱ</td><td>ヰ</td><td>ヱ</td><td>ヰ</td><td>ヱ</td><td>ヰ</td><td>ヱ</td><td>ヰ</td></tr> </table>	0~9	A~Z	a~z	Ä	Ë	Ï	Ö	Ü	ä	ë	ï	ö	ü	à	è	ì	ò	ù	á	é	í	ó	ú	â	ê	î	ô	û	ñ	ñ	Ç	ç	º	¿	!	#	\$	%	&	'	()	+	,	-	;	=	@	[]	^	_	`	{	}	~	.												0~9	A~Z	a~z	ア	イ	ウ	エ	オ	カ	キ	ク	ケ	コ	サ	シ	ス	セ	ソ	タ	チ	ツ	テ	ト	ナ	ニ	ノ	ハ	ヒ	フ	ヘ	ホ	マ	ミ	ム	メ	モ	ヤ	ユ	ヨ	ラ	リ	ル	レ	ロ	ワ	ヰ	ヱ	ヰ	ヱ	ヰ	ヱ	ヰ	ヱ	ヰ	ヱ	ヰ	ヱ	ヰ	ヱ	ヰ	ヱ	ヰ	ヱ	ヰ	ヱ	ヰ	ヱ	ヰ	International	Japanese, International
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	Wireless LAN, Wireless LAN Option	-	Refer to page 75.	-	-																																																																																																																																								

■ Scale Tune List (Temperament List)

Equal Temperament	One octave is divided into twelve equal intervals. Currently most popular piano tuning scale.
PureMajor/PureMinor	Based on natural overtones, three major chords using these scales produce a beautiful, pure sound.
Pythagorean	This scale was devised by Pythagoras, the famous Greek philosopher and is created from a series of perfect fifths, which are collapsed into a single octave. The 3rd in this tuning is slightly unstable, but the 4th and 5th are beautiful and suitable for some leads.
MeanTone	This scale was created as an improvement on the Pythagorean scale, by making the major third interval more "in tune." It was especially popular from the 16th century to the 18th century. Handel, among others, used this scale.
Werckmeister/ Kirnberger	These scales combine Mean Tone and Pythagorean in different ways. With these scales, modulation changes the impression and feel of the Songs. They were often used in the era of Bach and Beethoven. They are also often used now to reproduce the music of that era on harpsichords.

■ Backup Setting

(Selecting parameters maintained even when the power is turned off)

This lets you set whether some settings of the Backup Setting (below) are maintained or not when the power is turned off. The Backup Setting consists of two groups, “Voice” (including Voice related settings such as Voice selection) and “Other” (including various settings such as Song Repeat and Tuning), which can be set individually.

Data and settings maintained even when the power is turned off

- User MIDI Song (saved in this instrument’s “User” memory)
- *Bluetooth** (“System” menu)
- Utility (“System” menu)
- Backup Setting (explained here)

*For information on whether *Bluetooth* functionality is included with the instrument or not, refer to page 129.

1. Press the [FUNCTION] button several times to select “System” menu.
2. Use the [^]/[v] buttons to select “Backup,” use the [>] button to call up the next display, then use the [^]/[v] buttons to select “Backup Setting.”
3. Use the [>] then the [^]/[v] buttons to select “Voice,” then use the [>] button to select “On” or “Off.”
Each “Voice” contains the following settings:
 - Voice selection for R1, R2 and L
 - All the parameters other than Transpose in the “Voice” menu
4. Use the [^]/[v] buttons to select “Other,” then use the [>] button to select “On” or “Off.”
The “Other” contains the following settings:
 - In the “Song” menu: Song Repeat, Song-KeyBoard, Audio Volume, Quick Play, Play Track
 - In the “Metronome/Rhythm” menu: Volume, BPM, Bell On/Off, Intro, Ending
 - In the “System” menu: Tuning, Keyboard (except “Duo”), Pedal, Sound, MIDI
5. Press the [EXIT] button to exit from the “System” menu display.

■ Backup

(Saving the Backup file for internal data)

This lets you save data on internal memory to the connected USB flash drive as a backup file (named “clp-***.bup”). This backup file can be loaded to the instrument via the Restore function (page 99) for future.

NOTICE

- It may take 1 – 2 minutes to complete this operation. Never turn off the power during this operation (while “Executing” is shown). Doing so could result in damage to the data.
- If the same backup file (clp-***.bup) is already saved in the USB flash drive, this operation will overwrite or replace this file with new one.

1. Connect the USB flash drive to the USB [TO DEVICE] terminal.
2. Press the [FUNCTION] button several times to select “System” menu.
3. Use the [^]/[v] buttons to select “Backup,” use the [>] button to call up the next display, then use the [^]/[v] buttons to select “Backup.”
4. Use the [>] button to call up the next display, then use the [^]/[v] buttons to select “Execute.”
5. Press the [>] button to execute the Backup operation.
6. Press the [EXIT] button to exit from the “System” menu display.

NOTE

When you want to restore the settings in the backup file, execute the Restore function.

NOTE

Protected Songs cannot be backed up.

Restore

(Restarting the instrument with the Backup file loaded)

This lets you load the backup file (clp-***.bup) saved via the Backup function (page 98) to the instrument on.

NOTICE

- It may take 1 – 2 minutes to complete this operation. Never turn off the power during this operation (while “Executing” is shown). Doing so could result in damage to the data.
- If Protected Songs or recorded Songs reside on “User” memory, make sure to move the Songs to the USB flash drive by following the instructions page 66 before executing this operation. If you do not, the Songs will be deleted via this operation.

1. Connect the USB flash drive containing the Backup file to the USB [TO DEVICE] terminal.
2. Press the [FUNCTION] button several times to select “System” menu.
3. Use the [^]/[v] buttons to select “Backup,” use the [>] button to call up the next display, then use the [^]/[v] buttons to select “Restore.”
4. Use the [>] button to call up the next display, then use the [^]/[v] button select “Execute.”
5. Press the [>] button to execute the Restore operation.

A message indicating that the operation is completed appears, then the instrument will restart after a while.

Factory Set

(Restarting the instrument with the initial factory settings loaded)

This lets you reset this instrument to its factory default settings which refers to the initial setting preprogrammed when shipped from the factory, and is called up when you first turn on the power to this instrument.

Note that the following points.

- This operation resets the Backup Setting (page 98) to the default setting.
- This operation will not delete the Songs saved in the User folder.

- This operation will not delete the *Bluetooth** pairing information (page 81).

*For information on whether *Bluetooth* functionality is included with the instrument or not, refer to page 129.

NOTICE

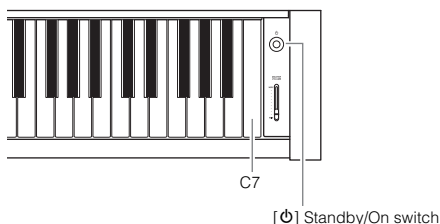
Never turn off the power during this operation (while “Factory set executing” is shown). Doing so could result in damage to the data.

1. Press the [FUNCTION] button several times to select “System” menu.
2. Use the [^]/[v] buttons to select “Backup,” use the [>] button to call up the next display, then use the [^]/[v] buttons to select “Factory Set.”
3. Use the [>] button to call up the next display, then use the [^]/[v] buttons to select “Execute.”
4. Press the [>] button to execute the Restore operation.

A message indicating that the operation is completed appears, then the instrument will restart after a while.

Alternate method for restoring the default settings

Press and hold down the white key on the right end (C7) and press the [⏻] (Standby/On) switch to turn on the power to this instrument. This operation will not delete the Songs in the User folder.



Preset Voice List

CLP-685

Voice Group	Voice Name	Stereo Sampling	Touch Sense	Key-off Sampling	VRM	Voice Demo	Voice description
Piano	CFX Grand	○	○	○	○	● ⁽¹⁾	Yamaha's CFX concert grand piano sound with a wide dynamic range for maximum expressive control. Suitable for playing in any music genre and style.
	(Binaural CFX Grand)	○	○	—	○		Yamaha's CFX concert grand piano sound sampled by Binaural Sampling, the method optimized for headphone use. Listening this through headphones gives the impression of being immersed in the sound, as if it was actually emanating from the piano. This Voice is selected automatically when headphones are connected.
	Bösendorfer	○	○	○	○	● ⁽²⁾	The famed sound of the Vienna-made Bösendorfer Imperial concert grand piano. Its spacious sound evokes the size of the instrument, and is ideal for expressing tenderness in compositions.
	Upright Piano	○	○	—	○	● ⁽³⁾	The sound sampled from an upright piano, the Yamaha SU7. Enjoy the unique tonal character and a lighter, more casual feel.
	Studio Grand	○	○	○	○	○	The sound of Yamaha's C7 grand piano, which is often used in recording studios. Its bright and clear sound is good for popular styles.
	Bright Grand	○	○	○	○	—	Bright piano sound. Good for clear expression and "cutting through" other instruments in an ensemble.
	Mellow Grand	○	○	○	○	—	Mellow piano sound. Good for quiet and slow music.
	Ballad Grand	○	○	○	○	—	Grand piano sound with a soft and warm tone. Good for playing ballads.
	Warm Grand	○	○	—	○	—	Warm and soft piano sound. Good for relaxing music.
	Pop Grand	○	○	○	○	—	A slightly brighter piano sound. Good for popular styles.
	Jazz Grand	○	○	—	○	—	A piano sound with unique tonal character. Good for jazz styles.
	Rock Grand	○	○	○	○	—	A bright-sounding piano. Ideal for rock styles.
HonkyTonk Pf	○	○	—	○	—	A honky-tonk style piano. Enjoy a tonal character that is quite different than a grand piano.	
E.Piano	Stage E.Piano	—	○	○	—	○	The sound of an electric piano using hammer-struck metallic "tines." Soft tone when played lightly, and an aggressive tone when played hard.
	DX E.Piano	—	○	—	—	○	An electronic piano sound produced by an FM synthesizer. The tone will change as you vary your playing touch. Ideal for popular music.
	Vintage EP	—	○	○	—	○	A different type of electric piano sound than Stage E.piano. Widely used in rock and popular music.
	Soft EP	—	○	○	—	—	An electric piano with a characteristic panning effect. Good for playing quiet ballads.
	Phaser EP	—	○	○	—	—	A distinctive phaser effect makes this ideal for fusion styles.
	DX Bright	—	○	—	—	—	A variation of electronic piano sound produced by an FM synthesizer. Its bright and sparkling sound character spice up the music.
	Tremolo Vintage	—	○	○	—	—	Includes tremolo ideal for Vintage EP. Frequently used in rock music.
Organ	Organ GrandJeu	○	—	—	—	○	A registration sound famous for use in French organ compositions. This dramatic sound is ideal for ending a performance.
	Organ Principal	○	—	—	—	—	This Voice features the combination of pipes (8'+4'+2') of a principal (brass instrument) organ. It is suitable for Baroque church music.
	Organ Tutti	○	—	—	—	○	This Voice features a full coupler of a pipe organ, famous for the sound used in Toccata and Fugue by Bach.
	Jazz Organ 1	—	—	—	—	○	The sound of a "tonewheel" type electric organ. Sampled with Rotary SP effect, its rotation speed is slow. Often heard in jazz and rock idioms.
	Jazz Organ 2	—	—	—	—	—	A same type of electric organ sound as Jazz Organ 1. This was sampled with the fast rotation speed of the rotary speaker effect. Switch Voices between Jazz Organ 1 and Jazz Organ 2 to add variations to your performance.
	Mellow Organ	—	—	—	—	—	A mellow electric organ sound. Ideal for calmer songs.
	Organ Flute 1	○	—	—	—	—	A pipe organ sound that combines flute-type (woodwind type) stops of different pitches (8' + 4'). This is a gentle sound that is ideal for accompanying hymns.
	Organ Flute 2	○	—	—	—	—	A pipe organ sound that combines flute-type (woodwind type) stops of different pitches (8' + 4' + 1-1/3'). This is brighter than Organ Flute1, and is suitable for solos.
Strings	Strings	○	○	—	—	○	Stereo-sampled, large-scale strings ensemble with realistic reverb. Try combining this Voice with piano in the Dual mode.
	Slow Strings	○	○	—	—	—	The sound of a string ensemble, with a slow attack. Suitable for use in Dual mode with piano or electric piano.
	Choir	○	○	—	—	○	A big, spacious choir Voice. Perfect for creating rich harmonies in slow pieces.

Voice Group	Voice Name	Stereo Sampling	Touch Sense	Key-off Sampling	VRM	Voice Demo	Voice description
Strings	Slow Choir	○	○	—	—	—	The sound of a choir with a slow attack. Suitable for use in Dual mode with piano or electric piano.
	Mellow Strings	○	○	—	—	—	A mellow string ensemble. Enjoy a tonal character that is different from a Strings.
	Synth Pad 1	—	○	—	—	○	A warm, mellow, and spacious synth sound. Ideal for sustained parts in the background of an ensemble, or for use in Dual mode with piano or electric piano.
	Synth Pad 2	—	○	—	—	—	String-like synth sound with a late attack. Ideal for use in Dual mode with bright tone piano or electric piano.
	Synth Pad 3	○	○	—	—	—	A unique and spacious synth sound. Ideal for playing slow music or for use in Dual mode with piano or electric piano.
Bass	Acoustic Bass	—	○	—	—	○	The sound of a finger-plucked upright bass. Frequently used in jazz and Latin music.
	Bass & Cymbal	—	○	—	—	—	The sound of a cymbal has been layered onto the bass. Effective when used for jazz walking-bass lines.
	Electric Bass	—	○	—	—	○	The sound of an electric bass. Frequently used in jazz, rock, and popular music.
	Fretless Bass	—	○	—	—	○	The sound of a fretless bass. Suitable for styles such as jazz and fusion.
	Vintage Bass	—	○	—	—	—	A different type of electric bass with a rich sound.
Others	Harpichord 8'	○	—	○	—	● ⁽⁴⁾	The sound of the instrument frequently used in baroque music. Variations in playing touch will not affect the volume, and a characteristic sound will be heard when you release the key.
	Harpsi. 8'+4'	○	—	○	—	—	A harpsichord with an added upper octave. Produces a more brilliant sound.
	Harp	—	○	—	—	○	This sound was sampled from a grand harp. This sound, with a bright attack, is ideal for playing gorgeous phrases.
	Vibraphone	○	○	—	—	○	A Vibraphone sound, sampled in stereo. Its spacious and clear sound is ideal for popular music.
	Marimba	○	○	—	—	—	A marimba sound, sampled in stereo for spaciousness and realism.
	Celesta	○	○	—	—	—	The sound of a celesta (a percussion instrument in which hammers strike metallic bars to produce sound). This instrument is well-known for its appearance in "Dance of the Sugarplum Fairies" from Tchaikovsky's "Nutcracker Suite."
	Nylon Guitar	○	○	—	—	○	Stereo-sampled, nylon-string guitar with natural reality. Suitable for any style of musics.
	Steel Guitar	—	○	—	—	—	A bright steel-string guitar sound. Ideal for popular music.
	Scat	—	○	—	—	—	You can enjoy jazz "scatting" with this Voice. Depending on how hard and what note range you play, different sounds will be produced.
XG	—	—	○	—	—	○	For details on XG Voices, refer to the "XG Voice list" in the separate Data List.

VRM

Simulated string resonance sound with physical modeling when the damper pedal is pressed or keys are pressed.

Key-off Sampling

Samples of the very delicate noises that are produced when keys are released.

	Voice Group	Voice Name	Title	Composer
● ⁽¹⁾	Piano	CFX Grand	Impromptu No.1 op.29	F. F. Chopin
		(Binaural CFX Grand)		
● ⁽²⁾		Bösendorfer	Mädchen Wunsch (6 Chants polonaise S.480 R.145)	F. Liszt / F. F. Chopin
● ⁽³⁾		Upright Piano	Sonatine F dur Anh5(2) 1st mov.	L. v. Beethoven
● ⁽⁴⁾	Others	Harpichord 8'	Concerto a cembalo obbligato, 2 violini, viola e continuo No.7, BWV.1058	J. S. Bach

The Voice Demos with (●) listed above are short rearranged excerpts of the original compositions. All other Demo Songs are Yamaha original (© Yamaha Corporation).

CLP-675, CLP-645, CLP-635, CLP-665GP

Voice Group	Voice Name	Stereo Sampling	Touch Sense	Key-off Sampling	VRM	Voice Demo	Voice description
Piano	CFX Grand	○	○	○	○	● ⁽¹⁾	Yamaha's CFX concert grand piano sound with a wide dynamic range for maximum expressive control. Suitable for playing in any music genre and style.
	(Binaural CFX Grand)	○	○	—	○		Yamaha's CFX concert grand piano sound sampled by Binaural Sampling, the method optimized for headphone use. Listening this through headphones gives the impression of being immersed in the sound, as if it was actually emanating from the piano. This Voice is selected automatically when headphones are connected.
	Bösendorfer	○	○	○	○	● ⁽²⁾	The famed sound of the Vienna-made Bösendorfer Imperial concert grand piano. Its spacious sound evokes the size of the instrument, and is ideal for expressing tenderness in compositions.
	Upright Piano	○	○	—	○	● ⁽³⁾	The sound sampled from an upright piano, the Yamaha SU7. Enjoy the unique tonal character and a lighter, more casual feel.
	Bright Grand	○	○	○	○	○	Bright piano sound. Good for clear expression and "cutting through" other instruments in an ensemble.
	Mellow Grand	○	○	○	○	—	Mellow piano sound. Good for quiet and slow music.
	Warm Grand	○	○	—	○	—	Warm and soft piano sound. Good for relaxing music.
	Pop Grand	○	○	○	○	—	A slightly brighter piano sound. Good for popular styles.
	Jazz Grand	○	○	—	○	—	A piano sound with unique tonal character. Good for jazz styles.
	Rock Grand	○	○	○	○	—	A bright-sounding piano. Ideal for rock styles.
	HonkyTonk Pf	○	○	—	○	—	A honky-tonk style piano. Enjoy a tonal character that is quite different than a grand piano.
E.Piano	Stage E.Piano	—	○	○	—	○	The sound of an electric piano using hammer-struck metallic "tines." Soft tone when played lightly, and an aggressive tone when played hard.
	DX E.Piano	—	○	—	—	○	An electronic piano sound produced by an FM synthesizer. The tone will change as you vary your playing touch. Ideal for popular music.
	Vintage EP	—	○	○	—	○	A different type of electric piano sound than Stage E.piano. Widely used in rock and popular music.
	Soft EP	—	○	○	—	—	An electric piano with a characteristic panning effect. Good for playing quiet ballads.
	Phaser EP	—	○	○	—	—	A distinctive phaser effect makes this ideal for fusion styles.
	DX Bright	—	○	—	—	—	A variation of electronic piano sound produced by an FM synthesizer. Its bright and sparkling sound character spice up the music.
	Tremolo Vintage	—	○	○	—	—	Includes tremolo ideal for Vintage EP. Frequently used in rock music.
Organ	OrganPrincipal	○	—	—	—	● ⁽⁴⁾	This Voice features the combination of pipes (8'+4'+2') of a principal (brass instrument) organ. It is suitable for Baroque church music.
	Organ Tutti	○	—	—	—	○	This Voice features a full coupler of a pipe organ, famous for the sound used in Toccata and Fugue by Bach.
	Jazz Organ 1	—	—	—	—	○	The sound of a "tonewheel" type electric organ. Sampled with Rotary SP effect, its rotation speed is slow. Often heard in jazz and rock idioms.
	Jazz Organ 2	—	—	—	—	—	A same type of electric organ sound as Jazz Organ 1. This was sampled with the fast rotation speed of the rotary speaker effect. Switch Voices between Jazz Organ 1 and Jazz Organ 2 to add variations to your performance.
	Mellow Organ	—	—	—	—	—	A mellow electric organ sound. Ideal for calmer songs.
Strings	Strings	○	○	—	—	○	Stereo-sampled, large-scale strings ensemble with realistic reverb. Try combining this Voice with piano in the Dual mode.
	Slow Strings	○	○	—	—	—	The sound of a string ensemble, with a slow attack. Suitable for use in Dual mode with piano or electric piano.
	Choir	—	○	—	—	○	A big, spacious choir Voice. Perfect for creating rich harmonies in slow pieces.
	Slow Choir	—	○	—	—	—	The sound of a choir with a slow attack. Suitable for use in Dual mode with piano or electric piano.
	Synth Pad	—	○	—	—	○	A warm, mellow, and spacious synth sound. Ideal for sustained parts in the background of an ensemble, or for use in Dual mode with piano or electric piano.
Bass	Acoustic Bass	—	○	—	—	○	The sound of a finger-plucked upright bass. Frequently used in jazz and Latin music.
	Bass & Cymbal	—	○	—	—	—	The sound of a cymbal has been layered onto the bass. Effective when used for jazz walking-bass lines.
	Electric Bass	—	○	—	—	○	The sound of an electric bass. Frequently used in jazz, rock, and popular music.
	Fretless Bass	—	○	—	—	○	The sound of a fretless bass. Suitable for styles such as jazz and fusion.
Others	Harpsichord 8'	○	—	○	—	● ⁽⁵⁾	The sound of the instrument frequently used in baroque music. Variations in playing touch will not affect the volume, and a characteristic sound will be heard when you release the key.
	Harpsi. 8'+4'	○	—	○	—	—	A harpsichord with an added upper octave. Produces a more brilliant sound.

Voice Group	Voice Name	Stereo Sampling	Touch Sense	Key-off Sampling	VRM	Voice Demo	Voice description
Others	Vibraphone	○	○	—	—	○	A Vibraphone sound, sampled in stereo. Its spacious and clear sound is ideal for popular music.
	Nylon Guitar	○	○	—	—	○	Stereo-sampled, nylon-string guitar with natural reality. Suitable for any style of musics.
	Steel Guitar	—	○	—	—	—	A bright steel-string guitar sound. Ideal for popular music.

VRM

Simulated string resonance sound with physical modeling when the damper pedal is pressed or keys are pressed.

Key-off Sampling

Samples of the very delicate noises that are produced when keys are released.

	Voice group	Voice name	Title	Composer
●(1)	Piano	CFX Grand	Impromptu No.1 op.29	F. F. Chopin
		(Binaural CFX Grand)		
●(2)		Bösendorfer	Mädchens Wunsch (6 Chants polonaise S.480 R.145)	F. Liszt / F. F. Chopin
●(3)		Upright Piano	Sonatine F dur Anh5(2) 1st mov.	L. v. Beethoven
●(4)	Organ	Organ Principal	Herr Christ, der ein'ge Gottes-Sohn, BWV.601	J. S. Bach
●(5)	Others	Harpsichord8'	Concerto a cembalo obbligato, 2 violini, viola e continuo No.7, BWV.1058	J. S. Bach

The Voice Demos with (●) listed above are short rearranged excerpts of the original compositions. All other Demo Songs are Yamaha original (© Yamaha Corporation).

Song List

50 Classics

No.	Song Title	Composer
Arrangements		
1	Canon D dur	J. Pachelbel
2	Air On the G Strings	J. S. Bach
3	Jesus, Joy of Man's Desiring	J. S. Bach
4	Twinkle, Twinkle, Little Star	Traditional
5	Piano Sonate op.31-2 "Tempest" 3rd mov.	L. v. Beethoven
6	Ode to Joy	L. v. Beethoven
7	Wiegenlied op.98-2	F. P. Schubert
8	Grande Valse Brillante	F. F. Chopin
9	Polonaise op.53 "Héroïque"	F. F. Chopin
10	La Campanella	F. Liszt
11	Salut d'amour op.12	E. Elgar
12	From the New World	A. Dvořák
13	Sicilienne	G. U. Fauré
14	Clair de lune	C. A. Debussy
15	Jupiter (The Planets)	G. Holst
Duets		
16	Menuett (Eine kleine Nachtmusik K.525)	W. A. Mozart
17	Menuett G dur	L. v. Beethoven
18	Marcia alla Turca	L. v. Beethoven
19	Piano Concerto No.1 op.11 2nd mov.	F. F. Chopin
20	The Nutcracker Medley	P. I. Tchaikovsky
Original Compositions		
21	Prelude (Wohlt temperierte Klavier I No.1)	J. S. Bach
22	Menuett G dur BWV.Anh.114	J. S. Bach
23	Piano Sonate No.15 K.545 1st mov.	W. A. Mozart
24	Turkish March	W. A. Mozart
25	Piano Sonate op.13 "Pathétique" 2nd mov.	L. v. Beethoven
26	Für Elise	L. v. Beethoven
27	Piano Sonate op.27-2 "Mondschein" 1st mov.	L. v. Beethoven
28	Impromptu op.90-2	F. P. Schubert
29	Frühlingslied op.62-6	J. L. F. Mendelssohn
30	Fantaisie-Impromptu	F. F. Chopin
31	Etude op.10-3 "Chanson de l'adieu"	F. F. Chopin
32	Etude op.10-12 "Revolutionary"	F. F. Chopin
33	Valse op.64-1 "Petit chien"	F. F. Chopin
34	Nocturne op.9-2	F. F. Chopin
35	Nocturne KK4a-16/BI 49 [Posth.]	F. F. Chopin
36	Träumerei	R. Schumann
37	Barcarolle	P. I. Tchaikovsky
38	La prière d'une Vierge	T. Badarzewska
39	Liebesträume No.3	F. Liszt
40	Blumenlied	G. Lange
41	Humoresque	A. Dvořák
42	Arietta	E. H. Grieg
43	Tango (España)	I. Albéniz
44	The Entertainer	S. Joplin
45	Maple Leaf Rag	S. Joplin
46	La Fille aux Cheveux de Lin	C. A. Debussy
47	Arabesque No.1	C. A. Debussy
48	Cakewalk	C. A. Debussy
49	Je te veux	E. Satie
50	Gymnopédies No.1	E. Satie

Lesson Songs

Album Title	No. /Song Title	Composer	
Vorschule im Klavierspiel op.101	1-106	F. Beyer	
25 Etudes faciles et progressives op.100	1	La candeur	J. F. Burgmüller
	2	Arabesque	
	3	Pastorale	
	4	Petite réunion	
	5	Innocence	
	6	Progrès	
	7	Courant limpide	
	8	La gracieuse	
	9	La chasse	
	10	Tendre fleur	
	11	La bergeronnette	
	12	Adieu	
	13	Consolation	
	14	La styrienne	
	15	Ballade	
	16	Douce plainte	
	17	Babillarde	
	18	Inquiétude	
	19	Ave Maria	
	20	Tarentelle	
	21	Harmonie des anges	
	22	Barcarolle	
	23	Retour	
	24	L'hirondelle	
	25	La chevaleresque	
100 Übungsstücke op.139	1-100	C. Czerny	
30 Etudes de mécanisme op.849	1-30	C. Czerny	
The Virtuoso Pianist	1-20 1-Variation. 1-22	C-L. Hanon	

About Duet Songs

The songs listed below are duet songs.

- Nos.16-20 of "50 Classics"
- Nos. 1-11 of the Vorschule im Klavierspiel op.101 of "Lesson Songs" as well as 32-34, 41-44, 63-64, and 86-87

The right-hand part is for the right hand of the first player, the left-hand part is for the left hand of the first player, and Extra part is for the both hands of the second player.

Rhythm List

Category	No.	Name
Pops&Rock	1	8Beat
	2	16Beat
	3	Shuffle1
	4	Shuffle2
	5	Shuffle3
	6	8BeatBallad
	7	6-8SlowRock
Jazz	8	Swing
	9	SwingFast
	10	Five-Four
	11	JazzWaltz
Latin	12	Samba
	13	BossaNova
	14	Rumba
	15	Salsa
	16	Tango
Kids&Holiday	17	2-4Kids
	18	6-8March
	19	ChristmasSwing
	20	Christmas3-4

Message List

Some message display remains open. In this case, press the [EXIT] button to close message display.

Message	Meaning
Access error	The operation has failed. The following causes can be considered. If the following are not responsible, the file may be damaged. <ul style="list-style-type: none"> The file operation is wrong. Follow the instructions in "Handling Song Files" (page 63) or "Backup"/"Restore" (pages 98 – 99). The connected USB flash drive is not compatible with this instrument. For information on compatible USB flash drive, see page 72. The protected Song on which you attempted the operation is defective.
Bluetooth pairing...	The instrument is standing by for <i>Bluetooth</i> pairing. Refer to the instructions on page 81.
Cannot be executed	The operation has failed. The following causes can be considered. Solve the causes, and try again. <ul style="list-style-type: none"> The file operation you attempted cannot be executed to Preset Songs or an Audio Song. For information on the limitation of handling Song files, see page 63. The Song file operation cannot be made to an empty Song file (page 53) or NoSong. NoSong: This is displayed when you select a folder which does not contain any Songs.
Change to Current Tempo	This message indicates that you are applying the current tempo to the selected Song.
Change to Current Voice	This message indicates that you are changing the Voice of the Song with the current Voice.
Completed	This message indicates that the operation is completed. Go on to the next step.
Completed Restart now	Restore is completed. The instrument is automatically turned on again.
Convert canceled	This message appears when the convert operation is canceled.
Convert completed to USB/ USERFILES/	This message appears when the convert operation to the "USER FILES" folder on a USB flash drive is completed.
Convert to Audio	This message appears during the convert operation.
Copy completed to USB/ USERFILES/	This message appears when the copy operation to the "USER FILES" folder on a USB flash drive is completed.
Copy completed to User	This message appears when the copy operation to the "User" on this instrument is completed.
Device busy	The operation, such as converting to the Audio Song or Audio Song playback/recording, has failed. This message appears when you attempt to use a USB flash drive to which recording/deleting operations are repeated. Execute the Format operation after making sure there is no important data in the USB flash drive (page 96), and try again.
Device removed	This message appears when the USB flash drive is removed from the instrument.
Duplicate name	This message indicates that an identically named file already exists. Rename the file (page 68).
Executing	The instrument is executing the operation. Wait until the message disappears, then go on to the next step.
Factory set executing Memory Song excluded	The default settings (except the Songs in the "User") have been restored (page 99). This message also appears if you press and hold down the C7 key and turn on the power to the instrument.
FactorySet Completed Restart	Factory set is completed. The instrument is then restarted.
Incompatible device	This message appears when an incompatible USB flash drive is connected. Use a device whose compatibility has been confirmed by Yamaha (page 72).
Internal hardware error	A malfunction has occurred in the instrument. Contact your nearest Yamaha dealer or authorized distributor.
Last power off invalid Checking memory	This message appears when the power is turned on after turning off the power while handling a Song file (page 63) or saving a backup file (page 98). The internal memory is being checked while this message appears. If the internal settings are damaged, they will be reset to the default settings. If the Songs in the "User" are damaged, they will be deleted.
Maximum no. of devices exceeded	The number of devices exceed the limitation. Up to two USB devices can be connected simultaneously. For details, see page 72.
Memory full	Since the capacity and the number of files in the "User"/USB flash drive are full, the operation cannot be completed. Delete some Songs in the "User"/USB flash drive or move Songs to another USB flash drive, and try again.
Move completed to USB/ USERFILES/	This message appears when the move operation to the "USER FILES" folder on a USB flash drive is completed.
Move completed to User	This message appears when the move operation to "User" on the instrument is completed.

Message	Meaning
No device	A USB flash drive was not connected to the instrument when you attempted to perform a device-related operation. Connect the device, and try again.
No response from USB device	The instrument cannot communicate with the connected USB device. Redo the connection (page 72). If you still see this message, the USB device may be damaged.
Notice: Protected Song	This message appears when you attempt to handle the Protected Song. For information on the limitation of file operations, see page 63.
Please wait	The instrument is processing the data. Wait until the message disappears, then go on to the next step.
Protected device	This message appears when you attempt a file operation (page 63), record your performance or save the data on a read-only USB flash drive. Cancel the read-only setting, if possible, and try again. If you still see this message, the USB flash drive is internally protected (such as commercially available music data). You cannot make the file operation or record your performance to such a device.
Protected Song	You attempted a file operation to a Protected Song or read-only file. Data of those types have handling limitations (page 63), and also cannot be used for editing (page 59). Use a read-only file after cancelling the read-only setting.
Remaining space on drive is low	Since the remaining space on the "User"/USB flash drive is low, delete any unnecessary files (page 65) before recording.
Same file name exists	This message appears to prompt you to confirm if overwriting or not when executing a Copy/Move/MIDI to Audio operation.
Song error	This message appears, if a problem is found with the Song data when you select a Song or while the Song is playing. In this case, reselect the Song, and try again to play back. If the message still appears, the Song data may have been damaged.
Song too large	The size of Song data (MIDI/Audio) exceeds the limitation. The following causes can be considered. <ul style="list-style-type: none"> • The Song size you attempt to play back exceeds the limitation. The limitation for playback is approx. 500KB (MIDI), 80 minutes (Audio). • The Song size exceeds the limitation during recording. The limitation for recording is approx. 500KB (MIDI), 80 minutes (Audio). The recording will end automatically and the recorded data before the end is saved. • The Song size exceeds the limitation during converting a MIDI Song to an Audio Song. The limitation is 80 minutes (Audio).
System limit	This message appears when the number of files exceeds the system limit. The maximum number of files and folders which can be saved in a folder is 250. Try again after deleting/moving the unnecessary file(s).
This data format is not supported	This message appears when you attempted to load a Song of unsupported format to this instrument. Refer to the page 39 about supported Song formats.
Unformatted device	This message appears when you attempt to use an unformatted USB flash drive. Format it (page 96), and try again.
Unsupported device	This message appears when an unsupported USB flash drive is connected. Use a device whose compatibility has been confirmed by Yamaha (page 72).
USB device overcurrent error	Communication with the USB device has been cut off because of an abnormal power surge to the device. Disconnect the USB device from the USB [TO DEVICE] terminal and turn the [⏻] (Standby/On) switch of the instrument standby and on again.
USB hub hierarchical error	The USB hub is connected in two layers. USB hub use is limited to one layer.
USB power consumption exceeded	A bus-powered USB hub is usually recommended. When this message appears, however, use a self-powered USB hub (with its own power source) and turn the power to on, or use a device whose compatibility has been confirmed by Yamaha (page 72).
Wrong device	The file operation cannot be made to the connected USB flash drive. The following causes can be considered. <ul style="list-style-type: none"> • The USB flash drive is not formatted. Format it (page 96), and try again. • The number of files exceeds the system limit. The maximum number of files and folders which can be saved in a folder is 250. Try again after deleting/moving the unnecessary file(s).
Wrong name	The Song name is not appropriate. This message appears during the "Renaming files" (page 68) operation because of the following causes. Rename the Song correctly. <ul style="list-style-type: none"> • No character has been input. • You used a period or space at the beginning/ending of a Song name.

Troubleshooting

When a message is displayed, refer to the “Message List” (page 106) for troubleshooting aid.

Problem	Possible Cause and Solution
The instrument does not turn on.	The instrument has not been plugged in properly. Securely insert the female plug into the socket on the instrument, and the male plug into a proper AC outlet (page 14).
A click or pop is heard when the power is turned on or off.	This is normal when electrical current is being applied to the instrument.
The power is automatically turned off.	This is normal and due to the Auto Power Off function. If necessary, set the parameter of the Auto Power Off function (page 97).
The message “USB device overcurrent error” is shown and the USB device does not respond.	Communication with the USB device has been shut down because of the overcurrent to the USB device. Disconnect the device from the USB [TO DEVICE] terminal, then turn on the power of the instrument.
Noise is heard from the speakers or headphones.	The noise may be due to interference caused by the use of a mobile phone in close proximity to the instrument. Turn off the mobile phone, or use it further away from the instrument.
Noise is heard from the instrument's speakers or headphones when using the instrument with the application on iPhone/iPad.	When you use the instrument along with the application on your iPhone/iPad, we recommend that you set that device's “Airplane Mode” to “ON” and then the Wi-Fi/ <i>Bluetooth</i> setting to “ON” on your iPhone/iPad in order to avoid noise caused by communication.
The overall volume is low, or no sound is heard.	The Master Volume is set too low; set it to an appropriate level using the [MASTER VOLUME] slider (page 19).
	The volume level for the keyboard performance is set too low. Adjust the volume balance to increase the keyboard volume via the “Song” menu display: “Volume” → “Song - Keyboard” (page 48).
	Headphones are connected when the Speaker setting is “Normal” (page 96). Disconnect the headphone plug.
	The Speaker setting is “Off.” Set the Speaker to “Normal” via the “System” menu display: “Utility” → “Speaker” (page 96).
	Local Control is “Off.” Set Local Control “On” via the “System” menu display: “MIDI” → “Local Control” (page 95).
“Expression” is assigned to the right pedal or the AUX pedal (CLP-685). Assign any function other than “Expression” to the pedal (page 86) via the “Voice” menu display: “Pedal Assign” → “Right” (page 86) or the “System” menu display: “Pedal” → “Aux Assign” (CLP-685) (page 94).	
The speakers do not switch off when a pair of headphones is connected to the [PHONES] jack.	The Speaker setting is “On.” Set the speaker setting to “Normal” via the “System” menu display: “Utility” → “Speaker” (page 96).
Pedals do not function.	The pedal cord may not be securely connected to the [PEDAL] jack. Be sure to insert the pedal cord all the way until the metal part of the cord plug disappears from view (pages 113, 117, 119 or 122).
(CLP-685) The on/off setting of the pedal connected to the AUX PEDAL jack is reversed.	Some types of pedals may turn on and off in opposite fashion. Set to the appropriate parameter via the “System” menu display: “Pedal” → “Aux Polarity” (page 94).
The keyboard volume is lower than the Song playback volume.	The volume level for the keyboard performance is set too low. Adjust the volume balance to increase the keyboard volume via the “Song” menu display: “Volume” → “Song - Keyboard” (page 48).
The buttons do not respond.	While you are using a function, some buttons not used for the function are disabled. If the Song is playing, stop playback. Otherwise, press the [EXIT] button to return to the Voice or Song display, Then, perform the desired operation.
Higher or lower notes do not sound correctly when the transpose or octave setting is made.	This instrument can cover the range of C -2 – G8 when you set the transposition or octave. If notes lower than C -2 are played, the sound is moved one octave higher. If notes higher than G8 are played, the sound is moved one octave lower.
Performance in Dual/Split/Duo mode is not recorded, or part data is lost unexpectedly.	Switching to Dual/Split/Duo mode in the middle of the Song is not recorded. Also, the recording part for the Voice 2 (Dual mode) or the left Voice (Split/Duo mode) is automatically assigned (page 55). If the assigned part already has data, the data will be overwritten and deleted when you record.
Depending on the selected Voice, the keyboard sound in Duo mode may be output from only one speaker.	This is because the default pan setting differs depending on the Voice. Change the settings from the “Voice” menu → “Voice Edit” → “Voice name” → “Pan” (page 85).

Problem	Possible Cause and Solution
The Song title is not correct.	The "Language" setting may be different than that is selected when you named the Song. Also, if the Song was recorded on another instrument, the title might be displayed incorrectly. Set the "Language" parameter (page 97) via the "System" menu display: "Utility" → "Language" → "Song" to change the setting. However, if the Song was recorded on another instrument, changing the "Language" parameter setting may not resolve the problem.
Menu display cannot be called up.	When Song is being played back, menu display other than "Voice" menu and "Song" menu will not appear. Stop the Song by pressing the [▶/] (Play/Pause) button. Also, in the recording ready mode, only "Recording" menu display will appear.
Rhythm does not start.	"SynchStart" setting is on. Set "SynchStart" off in the "Metronome/Rhythm" menu display.
The contents of the Wireless LAN is not shown in the display even though the USB wireless LAN adaptor is connected.	Disconnect the USB wireless LAN adaptor and connect it again.
The <i>Bluetooth</i> -equipped smart device cannot be paired with nor connected to the instrument.	Check the <i>Bluetooth</i> function of the smart device is activated. To connect the smart device and the instrument via <i>Bluetooth</i> , both devices need to be functional.
	The smart device and the instrument need to be paired to connect each other via <i>Bluetooth</i> (page 81).
	In case there is a device (microwave oven, wireless LAN device, etc.) that outputs signals in the 2.4 GHz frequency band nearby, move this instrument away from the device that is emitting radio-frequency signals.
Sound input via the [AUX IN] jack or <i>Bluetooth</i> is interrupted.	The Noise Gate function of this instrument cuts unwanted noise from the input sound. However, this may result in wanted sounds also being cut, such as the soft decay sound of a piano. This is normal and not a sign of malfunction.

*For information on whether *Bluetooth* functionality is included or not, refer to page 129.

Specifications

Items		CLP-685	CLP-675	CLP-645	CLP-635	CLP-665GP	
Product Name		Digital Piano					
Size/Weight	Width [For models with polished finish]	1461 mm (57-1/2") [1467 mm (57-3/4")]	1461 mm (57-1/2") [1466 mm (57-11/16")]			1430 mm (56-5/16")	
	Height [For models with polished finish]	With music rest closed	1027 mm (40-7/16") [1029 mm (40-1/2")]	967 mm (38-1/16") [970 mm (38-3/16")]	927 mm (36-1/2") [930 mm (36-5/8")]		932 mm (36-11/16")
		With music rest raised	—	1136 mm (44-3/4") [1137 mm (44-3/4")]	1096 mm (43-1/8") [1097 mm (43-3/16")]	1081 mm (42-9/16") [1082 mm (42-5/8")]	1103 mm (43-7/16")
	Height with lid up		—				1400 mm (55-1/8")
	Depth [For models with polished finish]		477 mm (18-3/4") [477 mm (18-3/4")]	465 mm (18-5/16") [465 mm (18-5/16")]	459 mm (18-1/16") [459 mm (18-1/16")]		1147 mm (45-3/16")
	Weight [For models with polished finish]		83.0 kg (183 lbs., 0 oz.) [89.0 kg (196 lbs., 3 oz.)]	69.0 kg (152 lbs., 2 oz.) [71.0 kg (156 lbs., 8 oz.)]	60.0 kg (132 lbs., 4 oz.) [66.0 kg (145 lbs., 8 oz.)]	56.0 kg (123 lbs., 7 oz.) [62.0 kg (136 lbs., 11 oz.)]	103 kg (227 lbs., 1 oz.)
Control Interface	Keyboard	Number of Keys	88				
		Type	GrandTouch Keyboard: wooden keys (white only), synthetic ebony and ivory key tops, escapement	NWX (Natural Wood X) keyboard: wooden keys (white only), synthetic ebony and ivory keytops, escapement	GH3X (Graded Hammer 3X) keyboard: synthetic ebony and ivory keytops, escapement		
		Touch Response	Hard2/Hard1/Medium/Soft1/Soft2/Fixed				
		88-key Linear Graded Hammers	Yes		—		
		Counter weight	Yes	—			
	Pedal	Number of Pedals	3				
		Half Pedal	Yes (Damper)				
		Assignable Functions	Sustain (Switch), Sustain Continuously, Sostenuto, Soft, Expression, Pitch Bend Up, Pitch Bend Down, Rotary Speed, Vibe Rotor, Song Play/Pause				
		GP Responsive Damper Pedal	Yes		—		
	Display	Type	Full Dots LCD				
		Size	128 x 64 dots				
Language		English, Japanese					
Panel	Language	English					
Cabinet	Key Cover Style	Folding	Sliding				
	Music Rest	Yes					
	Music Braces	Yes					
Voices	Tone Generation	Piano Sound	Yamaha CFX, Bösendorfer Imperial				
		Binaural Sampling	Yes (CFX Grand Voice only)				
	Piano Effects	VRM	Yes				
		Key-off Samples	Yes				
		Smooth Release	Yes				
	Polyphony		256				
	Preset	Number of Voices	49 Voices + 14 Drum/SFX Kits + 480 XG Voices	36			
Compatibility		XG (GM), GS (for Song playback), GM2 (for Song playback)	—				

Items			CLP-685	CLP-675	CLP-645	CLP-635	CLP-665GP	
Effects	Types	Reverb	6 types					
		Chorus	3 types					
		Brilliance	7 types					
		Effect	11 types					
		Intelligent Acoustic Control (IAC)	Yes					
	Functions	Stereophonic Optimizer	Yes					
		Dual	Yes					
Split		Yes						
Songs (MIDI)	Preset	Number of Preset Songs	21 Voice Demo Songs + 50 Classics + 303 Lesson Songs	19 Voice Demo Songs + 50 Classics + 303 Lesson Songs				
		Recording	Number of Songs	250				
	Recording	Number of Tracks	16					
		Data Capacity	Approx. 500KB/Song					
	Playback	Data Capacity	Approx. 500KB/Song					
	Format	Playback	SMF (Format 0, Format 1)					
Recording		SMF (Format 0)						
Recording/ Playback (Audio)	Recording Time (max.)		80 minutes/Song					
	Format	Playback	.wav (44.1 kHz sample rate, 16-bit resolution, stereo)					
		Recording	.wav (44.1 kHz sample rate, 16-bit resolution, stereo)					
Functions	Rhythms	Preset	20					
	Overall Controls	Metronome	Yes					
		Tempo Range	5 – 500					
		Transpose	-12 – 0 – +12					
		Tuning	414.8 – 440.0 – 466.8 Hz (approx. 0.2Hz increments)					
		Scale Type	7 types					
	Bluetooth	Bluetooth version	4.1			—	4.1	
		Supported profile	A2DP			—	A2DP	
		Compatible codec	SBC			—	SBC	
		Wireless output	Bluetooth class 2			—	Bluetooth class 2	
		Maximum communication distance	Approx. 10 m			—	Approx. 10 m	
		Range of transmit frequency	2402 – 2480MHz			—	2402 – 2480MHz	
		Maximum RF output power	4dBm			—	4dBm	
	The Bluetooth-equipped models CLP-685, CLP-675, CLP-645 and CLP-665GP may not actually have Bluetooth functionality, depending on the country in which you purchased the product. Refer to page 129 for details.							
	Piano Room		Yes					
Storage and Connectivity	Storage	Internal Memory	Total maximum size approx. 1.5MB					
		External Device	USB flash drive					
	Connectivity	DC IN	—	16V		—		
		Headphones	Standard stereo phone jack (x 2)					
		MIDI	[IN] [OUT] [THRU]					
		AUX IN	Stereo Mini					
		AUX OUT	[L/L+R] [R]					
		AUX PEDAL	Yes	—				
		USB TO DEVICE	Yes					
USB TO HOST	Yes							

Items		CLP-685	CLP-675	CLP-645	CLP-635	CLP-665GP
Sound System	Amplifiers	(50W + 50W + 50W) x 2	(35W + 50W + 20W) x 2	(25W + 25W) x 2	30W x 2	(25W + 10W) x 2
	Speakers	(16 cm + 8 cm + 2.5 cm (dome)) x 2, Spruce Cone Speaker	(16 cm + 8 cm + 5 cm) x 2	(16 cm + 8 cm) x 2	16 cm x 2	(16 cm + 5 cm) x 2
	Acoustic Optimizer	Yes				
Power Supply	AC Adaptor	—			PA-300C or an equivalent recommended by Yamaha	—
	Power Consumption	Refer to note *1 below.			20W (When using PA-300C AC adaptor)	Refer to note *1 below.
	Auto Power Off	Yes				
Included Accessories		<ul style="list-style-type: none"> • Owner's Manual • Data List (CLP-685) • Warranty* • "50 Classical Music Masterpieces" Music Book • Online Member Product Registration • Bench* • Power cord (CLP-685, CLP-675, CLP-645, CLP-665GP) • Power cord*/AC power adaptor* (CLP-635): PA-300C or an equivalent recommended by Yamaha <p>*May not be included depending on your area. Check with your Yamaha dealer.</p>				
Separately Sold Accessories (May not be available depending on your area.)		<ul style="list-style-type: none"> • Headphones HPH-150/HPH-100/HPH-50 • Footswitches FC4A/FC5 (CLP-685) • Foot controller FC7 (CLP-685) • AC power adaptor: PA-300C or an equivalent recommended by Yamaha (CLP-635) • USB Wireless LAN Adaptor UD-WL01 • Wireless MIDI Adaptor MD-BT01/UD-BT01 				

The contents of this manual apply to the latest specifications as of the publishing date. To obtain the latest manual, access the Yamaha website then download the manual file. Since specifications, equipment or separately sold accessories may not be the same in every locale, please check with your Yamaha dealer.

*1: Power consumption is described on or near the name plate, which is at the bottom of the unit. For details about the name plate location, refer to page 9.

Index

Numerics

50 Classics 41, 104

A

AB Repeat 46
AC adaptor 14
Access point 79
Aliquot 27
Aliquot Resonance (Aliquot Res.) 26
Assembly 110
Audio Recording 52
Audio Song 39
Auto Power Off 17
Aux Assign 94

B

Backup 98
Backup Setting 98
Bell 91
Binaural 20
Bluetooth 81, 129
Body Resonance (Body Res.) 26
Brightness 26
Brilliance 30

C

Chorus 31
Chorus Type List 87
Computer 73
Computer-related Operations 9
Connections 69
Contrast 96
Convert 67
Copy 65

D

Damper pedal 21
Damper Resonance (Damper Res.) 26
Delete 65
Demo 40
Detailed Settings 83
Display 22
Dual 32
Duo 35

E

Edit (Song) 89

Edit (Voice) 85
Effect 31
Effect Depth 85
Effect Type List 87
Ending 51

F

Factory Set 99
Fast forward 43
File Operation 63
Format (instrument) 99
Format (Song) 39
Format (USB flash drive) 96

G

GP Responsive Damper Pedal 21

H

Half Pedal Point 26
Half-pedal 21
Headphones 19

I

IAC 19
Initial Setup 95
Intro 51
iPhone/iPad 74
iPhone/iPad Connection Manual 9

K

Key cover 15, 16
Key Off Sample 26

L

Language 97
Lid 18
Lid Position 26
Local Control 95

M

Master Tune 26
MASTER VOLUME 19
Message List 106
Metronome 36
Metronome/Rhythm menu 91
MIDI 95
MIDI Recording 52

MIDI Reference	9
MIDI Song	39
MIDI to Audio	67
Move	66
Music Rest	17
N	
Network	77
O	
Octave	85
P	
Pairing	81
Part Cancel	44
Pedal	21, 94
Pedal Function List	87
Piano Room	25
Piano Setting	84
Pitch Bend	94
Playback (Rhythm)	51
Playback (Song)	41
Power	14
Power cord	14
R	
Recording	52
Recording menu	92
Rename	68
Repeat	45
Restore	99
Reverb	26, 31
Reverb Type List	87
Rewind	43
Rhythm	51
Rhythm List	105
S	
Save (Backup file)	98
Scale Tune	97
Soft pedal	21
Song	39, 63
Song category	41
Song List	104
Song menu	88
Song Repeat	47
Sostenuto pedal	21
Sound	94
Speaker	96
Split	33

Split Point	33
Stereophonic Optimizer	20
String Resonance (String Res.)	26
System menu	93

T

Tempo	36
Tempo (Song)	43
Time signature	37
Touch	26
Track	55
Transpose (Keyboard)	84
Transpose (Song)	88
Troubleshooting	108
Tuning	93

U

USB Autoload	96
USB flash drive	72
USB Format	96
USB Properties	96
User	41
Utility	96

V

Version	97
Voice	28
Voice List	100
Voice menu	84
Volume	19
Volume (Audio Song)	48
Volume (Metronome)	91
Volume (MIDI Song)	48
Volume balance	48
VRM	26, 27
VRM Demo	26

W

Wireless LAN	74
WPS	78

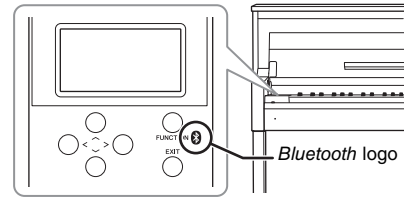
X

XG	28, 29
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About *Bluetooth*

***Bluetooth* availability**

The models CLP-685, CLP-675, CLP-645 and CLP-665GP are equipped with *Bluetooth* functionality; however, even these models may not support *Bluetooth*, depending on the country in which you purchased the product. If the *Bluetooth* logo is printed on the control panel, this means that the product is equipped with *Bluetooth* functionality.



- *Bluetooth* is a technology for wireless communication between devices within an area of about 10 meters (33 ft.) employing the 2.4 GHz frequency band.

Bluetooth®

- The *Bluetooth*® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Yamaha is under license.

■ Handling *Bluetooth* communications

- The 2.4 GHz band used by *Bluetooth* compatible devices is a radio band shared by many types of equipment. While *Bluetooth* compatible devices use a technology minimizing the influence of other components using the same radio band, such influence may reduce the speed or distance of communications and in some cases interrupt communications.
- The speed of signal transfer and the distance at which communication is possible differs according to the distance between the communicating devices, the presence of obstacles, radio wave conditions and the type of equipment.
- Yamaha does not guarantee all wireless connections between this unit and devices compatible with *Bluetooth* function.