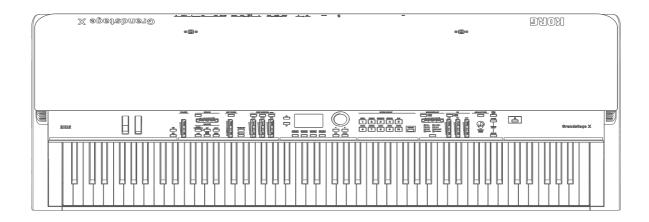
# Grandstage X STAGE PIANO

# Owner's Manual



# | Supplementary contents



<sup>\*</sup>Before using the Grandstage X, please read the Safety-related Precautions (PDF) carefully to ensure proper use.

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### **Grandstage X** - Table of contents

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# Introduction

Thank you for purchasing the Korg Grandstage X.

To take full advantage of this instrument's functionality and ensure years of trouble-free operation, please read this manual carefully before use.

→ About this manual

# About this manual

The documentation for this product consists of the following.

- Grandstage X Quick Start Guide (printed)
- Grandstage X Owner's Manual (this document)
- Grandstage X Sound Name List (PDF): downloadable from the Korg website at https:// www.korg.com

#### Grandstage X Quick Start Guide (printed)

This provides a simple explanation of the Grandstage X's basic operations.

Read this first.

#### Grandstage X Owner's Manual (this document)

This provides a simple explanation of the Grandstage X's main functionality.

This guide also explains the MIDI messages and other information that can be handled by the Grandstage X.

You can download this at https://www.korg.com.

#### Grandstage X Sound Name List (PDF)

Contains a list of sound data for the Grandstage X, including programs, favorites and more.

You can download this at https://www.korg.com.

#### Conventions in this manual

#### Symbol &, Note, Tip

These symbols respectively indicate a point of caution, a supplementary note or a tip.

#### Example screen displays

The parameter values and other data shown in the screen images in this manual are only examples, and may not necessarily match the values that appear in the screen of your instrument.

#### Data handling

If you operate this instrument incorrectly or the unit malfunctions, the contents of the memory may be lost. For this reason, we recommend that you save any important data to an SD card. Please be aware that Korg will accept no responsibility for any damages which may result from loss of data.

#### Cables

To avoid malfunctions, make sure the cable that you use to connect the following jacks is no more than 3 m long.

Headphones jack, USB port, DAMPER jack, SWITCH jack, PEDAL jack

# Main features

The Korg Grandstage X is a stage piano that was designed in the pursuit of onstage playability, offering a rich variation of sounds including the greatest acoustic and electric piano sounds, along with functionality that's effective for playing the sounds you want and performing in the way that you like... all in a retro-futuristic design with an overwhelming presence and shining personality.

#### The greatest piano sounds

- This instrument features eight acoustic piano sounds that are well-known classics. The onboard SGX-2 dedicated acoustic piano sound generator makes both delicate and powerful, richly expressive sounds a reality with large, non-looping waveform samples across the keyboard.
- In particular, you can adjust the balance for two of the piano sounds between the "Dry" (the original sound captured by a mic positioned right next to the piano) and "Ambi" sound (the ambient sound captured by a mic positioned further away from the piano), and create a mixed sound like a studio or live concert engineer would.
- The Grandstage X includes vintage electric piano sounds from seven classic models. The EP-1 dedicated electric piano sound generator makes the best sound a reality, with natural changes in sound and delicately-modeled panel effects, cabinets and so on.

#### 700 sounds offer a rich variation

- Aside from piano sounds, this instrument also features around 700 sounds that are commonly used in stage performance, such as clav, organ, strings, brass, synthesizers and more.
- The Grandstage X features seven high-quality sound synthesis engines, including the SGX-2 (acoustic piano), EP-1 (electric piano), CX-3 (tonewheel organ), VOX Organ (transistor organ), FC-1 (transistor organ), AL-1 (analog modeling), and the HD-1 (PCM sound generator), all of which are optimum for these sounds.
- The Grandstage X also features a powerful internal effects section. The optimum effect for each sound is already preset, such the standard assortment of effects like phaser and chorus for electric piano. You can also use the REVERB/DELAY section to instantly set reverb and delay.
- Layer and split functions can be set instantly. This is used to stack two sounds together, or to play two different sounds on the left and right of the keyboard.

#### Unison and Nutube for added sonic presence

- You can use the unison feature to create thick, spacious sounds with a single touch.
- The Nutube (a new kind of vacuum tube that utilizes vacuum fluorescent display technology)
  offers analog tone functions that give greater presence to the sound with analog warmth and
  added harmonics.

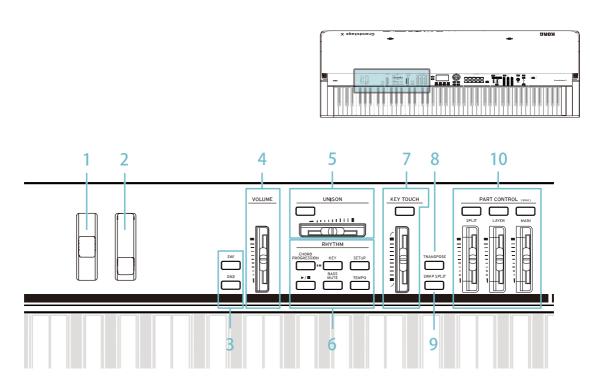
#### The pursuit of onstage playability

- Use the Favorites function to register up to 100 of your favorite MAIN/LAYER/SPLIT sound settings.
- The KEY TOUCH slider can be used to instantly adjust how the volume and sound responds to changes in touch (i.e., how hard or soft the keys are played). The performance feel can be customized to match the playing style required (such as solos, ensembles, and bands) and the song.
- A smooth sound transition (SST) feature eliminates dropouts when you switch between sounds.
- The Grandstage X features an authentic rhythm function with drums and bass. This lets you
  enjoy a virtual session with drums and bass, which follow the chord progression you play or
  program in advance.

# Panel description and functions

- $\to \underline{\text{Front panel}}$
- $\to \underline{\text{Rear panel}}$

# Front panel



#### 1 Pitch bend wheel

This is mainly used to control the pitch of notes played. Move the wheel up to raise the pitch, and move the wheel down to lower the pitch.

→ Pitch bend wheel

#### 2 Modulation wheel

This is mainly used to control the vibrato effect. Moving the wheel up applies the effect that's set for the respective sound.

→ Modulation wheel

#### 3 SW1 button, SW2 button

These buttons control the sound. SW1 controls the tone, and SW2 mainly controls whether the effect is on/off. The functions that can be controlled are effectively set for each sound. Refer to the program list in the "Sound Name List" for the functions that are set.

#### 4 VOLUME slider

This adjusts the volume of audio output from the headphones and AUDIO OUTPUT jacks.

#### 5 UNISON (Unison section)

Applies a unison effect to the sound. This feature stacks and plays the same note together multiple times, creating a thick and spacious sound. This is set to be applied to the MAIN part only by default.

UNISON button: This turns the unison effect on/off.

UNISON slider: Adjusts how the unison effect is applied.

→ <u>Using unison to create thick, spacious sounds</u>

#### 6 RHYTHM (Rhythm section)

The Grandstage X features an authentic rhythm function with drums and bass. This lets you enjoy a virtual session with drums and bass, which follow the chord progression you play or program in advance.

CHORD PROGRESSION button: Turns the chord progression function on/off.

KEY button: Sets the key used by the chord progression function.

SETUP button: Configures the rhythm. Use this to set the style and volume of the rhythm, as well as how the chords are detected.

▶/■ button: Plays/stops the rhythm.

BASS MUTE button: Turns mute on/off for the rhythm bass part.

TEMPO button: Sets the tempo of the rhythm. Tap this at least twice in time with the desired tempo to set the tempo of the rhythm. To set a decimal value, turn the value dial or press the +/- buttons while holding down the ENTER button.

- → Using the rhythm for a virtual session with drums and bass
- → RHYTHM section parameters

#### 7 KEY TOUCH (Key Touch section)

This adjusts how the volume and tone change in response to how hard the keys are played (velocity) on the Grandstage X.

KEY TOUCH button: This switches the key touch function on/off.

KEY TOUCH slider: When you move this slider up from center position, you can more easily play louder notes (in a fortissimo style) with greater stability. This is good for making the sound of the Grandstage X stand out when you play in a band ensemble. When you move the slider down from center position, you can play with a wider range of dynamics from a strong fortissimo to a delicate pianissimo. This is suitable when intonation is important, such as piano solos and vocal accompaniment. → Changing the key touch

#### 8 TRANSPOSE button

Switches the transpose function on/off for the entire keyboard.

→ TRANSPOSE button

#### 9 SWAP SPLIT button

While playing in split mode, this button lets you swap sounds for the lower part (the part of the keyboard to the left of the split point) and upper part (the part of the keyboard to the right of the split point).

→ SWAP SPLIT button

#### 10 PART CONTROL (Part Control section)

Use this section to turn the MAIN, LAYER and SPLIT parts off and to adjust their respective volumes.

MAIN: This part plays only the Main timbre of the sound you've selected. The MAIN part is set to always play. If you press the MAIN button while the keyboard is in LAYER or SPLIT mode, only the MAIN timbre is on (SOLO).

LAYER: This part plays at the same time as the Main timbre.

SPLIT: This part divides the keyboard into left and right sides at the split point.

The name of the sound for each part (MAIN, LAYER and SPLIT) is shown in the display.

#### **MAIN** button

Press this button in LAYER or SPLIT mode to play the Main timbre of the sound only (SOLO).

→ Selecting the main sound program

#### LAYER button

Press this button (the button lights up) to enable LAYER mode.

Use the sliders for each part to adjust the volume balance of each timbre when in LAYER mode.

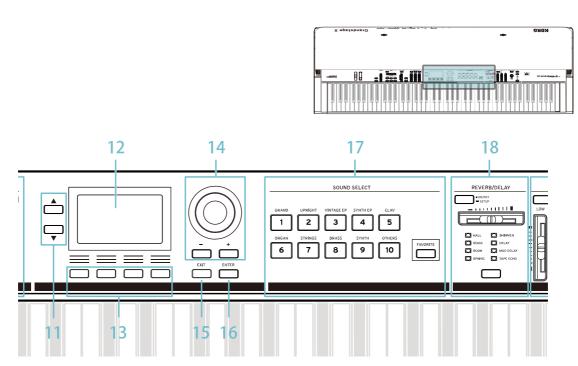
→ Selecting sounds for layers

#### **SPLIT** button

Press this button (the button lights up) to enable SPLIT mode. Play a note on the keyboard while holding down this button to set the split point.

Use the sliders for each part to adjust the volume balance of each timbre when in SPLIT mode.

→ Selecting sounds for splits



#### 11 ▲/▼ buttons

Use these buttons to move the cursor (▶) up and down in the display. You can edit the parameters selected with the cursor on the display by using the value dial or the +/- buttons.

#### 12 Display

Shows the program name and parameter values while in Edit mode.

#### 13 Function buttons

These buttons recall the functions shown in the display.

#### 14 Value dial and +/- buttons

Use these controls to edit the value of the parameter that's selected by the cursor.

#### 15 EXIT button

This is used to cancel a favorite write operation, and can also be used to exit the Panel Lock function, edit mode, navigate out of the system settings and so on.

#### 16 ENTER button

Press this to access the edit page and to execute commands.

As with Damper Pedal Calibration in SYSTEM, when ">" is shown to the right of the parameter name that's selected in the display and you press the ENTER button, you can access the next page farther down. When [OK] or [Cancel] is shown onscreen, you can press the ENTER button as a shortcut for OK.

#### 17 SOUND SELECT (Sound Select section)

Use these buttons to select the programs from categories, which are assigned to the MAIN, LAYER and SPLIT parts on the Grandstage X. You can also use these to save the sounds you've created and then select them as favorites.

#### **Buttons 1-10**

The sounds on the Grandstage X are divided into 10 categories.

To select a program, first use buttons 1-10 to specify the category of sound you want to select, and then choose a sound program you like from that category.

→ Selecting sounds

#### **FAVORITE** button

Press this to select a favorite.

→ Selecting favorites

#### 18 REVERB/DELAY (Reverb/Delay section)

Sets the reverb and delay effects. The settings can be saved as favorites.

#### ON/OFF button

Turns the reverb and delay effects on/off. When this is on (the button lights up), the reverb/delay settings are enabled. Long-press the button to show the reverb/delay parameters in the display, where you can configure the detailed settings.

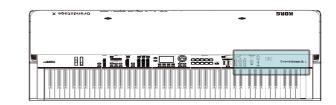
#### **DEPTH slider**

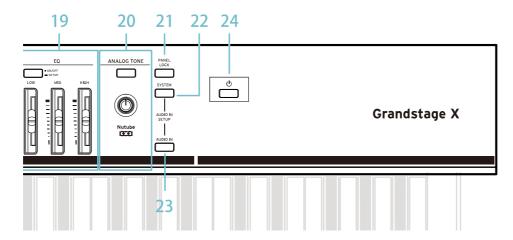
This sets the depth of the effect.

#### Effect select button

Selects the reverb or delay effect type.

→ Reverb/delay settings





#### 19 EQ (Equalizer section)

Use these controls to adjust the three-band equalizer.

ON/OFF button: This turns the equalizer on/off. When this is ON (the button lights up), the LOW, MID and HIGH slider settings are enabled. Long-press the button to show the equalizer parameters in the display, where you can configure the detailed settings.

 $\rightarrow$  Using the equalizer

#### 20 ANALOG TONE (Analog Tone section)

This is an analog circuit that features KORG's proprietary Nutube technology, through which the sound can be routed and output.

ON/OFF button: Switches the Analog Tone function on/off.

DEPTH knob: Adjusts the depth of the Nutube effect. Pressing this knob pushes it into the panel, to help prevent you from accidentally touching the knob and changing the settings.

→ Adding presence with ANALOG TONE

#### 21 PANEL LOCK button

When you long-press this button, the button blinks and the majority of the buttons, sliders and knobs on the operation panel are disabled. This prevents the sound from being accidentally changed while you're playing. Press the button again to release the panel lock.

→ Panel lock

#### 22 SYSTEM button

The settings that can be made here include overall settings for the Grandstage X including master tune, MIDI, controller functions and so on. When you press the button, the button lights up while the system settings screen is shown on the display.

→ System settings

#### 23 AUDIO IN button

When this button on the front panel is on, you can mix the sound of the device or equipment connected to the AUDIO INPUT jacks on the rear panel with the sound of the Grandstage X. This lets you smoothly turn the mic's audio on/off without touching the mic itself, when you're singing while playing, talking to the audience between songs and so on.

→ AUDIO IN function

#### 24 (I) (Power button)

This is the power button. The button lights up when the power is on. Long-press to turn the power off. → Turning the power on/off

#### Auto power-off function

When four hours have passed without the keyboard or controls being used, the power automatically turns off (this is the factory default setting). Change the auto power-off setting in system settings to disable this feature.

→ Auto power off

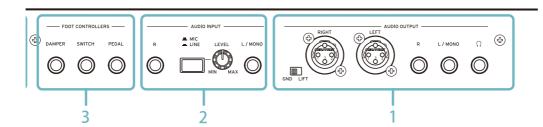


After turning off the power, any settings not saved in the favorites will be lost. Write any settings to memory that you want to keep as favorites. Note that the system settings are automatically saved when you edit them (excluding certain settings).

- → Saving your favorites
- → Types of system settings

# Rear panel





#### 1 AUDIO OUTPUT

You can connect powered monitors, a stereo amp, mixer, or multi-track recorder to these jacks.

#### Headphones jack

Here you can connect a set of headphones equipped with a 1/4" ( $\emptyset$ 6.3 mm) stereo phone-plug. This jack will output the same signals as the AUDIO OUTPUT. Use the VOLUME slider to adjust the volume.

The audio output from other jacks is not turned off when you connect headphones to the headphones iack.

→ Connecting the headphones

#### L/MONO, R jack

These are 6.3 mm TS (unbalanced tip-sleeve) phone jacks for outputting audio.

Use the VOLUME slider to adjust the volume.

If you're using a stereo connection, connect to both L/MONO and R jacks.

If you're using a monaural connection, connect to the L/MONO jack. This jack is used for devices that only have a mono input.

#### LEFT, RIGHT jack

These are XLR (balanced) jacks for stereo audio output.

Use the VOLUME slider to adjust the volume.



If you connect the Grandstage X's LEFT and RIGHT jacks (XLR) to a mixer or similar device, be sure to turn off the phantom power of that device. The Grandstage X might be damaged if you fail to do so.

#### **GND-LIFT** switch

Normally, this switch should be set to GND. When the switch is set to LIFT, the GND of the LEFT and RIGHT jacks will be separated from the ground of the instrument. If ground loop or similar noise occurs, the LIFT setting may resolve the problem.

→ Connecting audio devices

#### 2 AUDIO INPUT

The Grandstage X features audio input jacks for connecting a mic, external audio equipment, other instruments and so on. You can mix this audio input with the sound of the Grandstage X and send this sound to the AUDIO OUTPUT jacks.

#### L/MONO, R jack

These are 6.3 mm TRS phone jacks for inputting audio. Use both the L/MONO and R jacks when connecting from audio equipment in stereo, and use only the L/MONO jack when connecting a monaural audio device or mic to this instrument. Dynamic mics can be used with the Grandstage X.

*Note*: If you want to connect a condenser mic to this device, route it through a mic preamp or other phantom power supply.

*Note*: The AUDIO IN signal is mixed with the sound of this instrument only when the AUDIO IN button on the right side of the operating panel is on (the button lights up).

#### MIC/LINE switch

Set the switch to the MIC position when you connect a microphone to this instrument. Set the switch to the LINE position when connecting other audio equipment or musical instruments.

#### LEVEL knob

Adjusts the input volume.

- → Connecting a mic and playing with this instrument
- → Connecting and playing with a sound source

#### **3** FOOT CONTROLLERS

#### **DAMPER** jack

Connect the damper pedal DS-1H included with the Grandstage X.

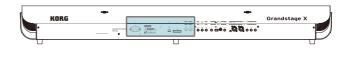
#### SWITCH jack

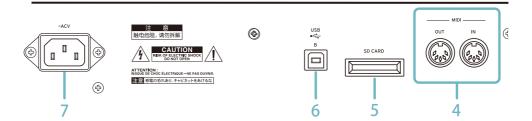
Connect a foot switch (sold separately) here.

#### PEDAL jack

Connect an expression pedal or foot controller (sold separately) here.

→ Foot controllers





#### 4 MIDI

#### IN connector, OUT connector

These connectors allow the Grandstage X to exchange MIDI messages with an external MIDI device.  $\rightarrow$  MIDI connections and settings

#### 5 SD CARD slot

You can use a commercially available SD card to load and save the favorites data from/to the Grandstage X. For instance, you can load the favorites data you saved on the Grandstage X in your home into a Grandstage X at a live performance venue or rehearsal studio, which lets you use the same favorites right away.

→ Storage media that can be used

#### 6 •← USB-B port

Connect the USB port on a Windows PC or Mac to exchange MIDI data.

→ Connecting the Grandstage X to a MIDI device or computer

#### 7 ~ACV (AC power connector)

Connect the included power cord here.

We recommend that you first connect the power cord to the Grandstage X, and then connect the other end of the cord to an AC outlet.

→ Connecting the included power cord

# Connecting and getting ready to play

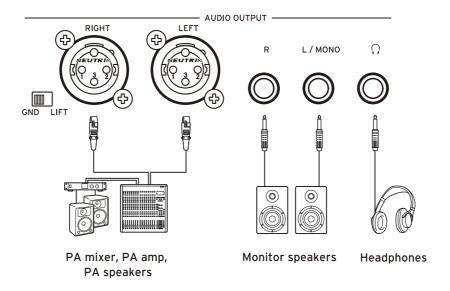
- → <u>Making connections</u>
- $\rightarrow$  Turning the power on/off

# Making connections

This explains how to get the Grandstage X ready to play.

# Connecting audio devices

The Grandstage X does not have built-in speakers. To hear what you play, you'll need to connect audio equipment such as powered monitor speakers or a mixer, or a pair of headphones to the respective AUDIO OUTPUT jacks on the rear panel.



#### Connecting powered monitor speakers or a mixer

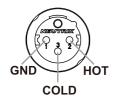


The audio outputs on this keyboard output signal at a higher level than ordinary home audio equipment like CD players. For this reason, playing at an excessive volume may damage your speakers or other audio equipment. Use caution when adjusting the volume.

#### L/MONO, R jack

These are 6.3 mm TS (unbalanced tip-sleeve) phone jacks for outputting audio. For monaural sound only, connect to the L/MONO jack.

#### LEFT, RIGHT jack (XLR)



These are XLR (balanced) jacks for stereo audio output.

Note that these jacks are for balanced connections, and are mainly used for connecting to professional audio equipment. These robustly-designed jacks are not susceptible to noise, and cannot be easily pulled out by accident.

*Note:* The pin connections are as shown in the diagram at right (2=HOT, 3=COLD). Use caution when connecting, as some audio equipment may have the HOT and COLD pins reversed, although this is uncommon.

#### **GND-LIFT** switch

Normally, this switch should be set to GND. When the switch is set to LIFT, the GND of the LEFT and RIGHT jacks will be separated from the ground of the instrument. If ground loop or similar noise occurs, the LIFT setting may resolve the problem.



If you connect the Grandstage X's LEFT and RIGHT jacks (XLR) to a mixer or similar device, be sure to turn off the phantom power of that device. The Grandstage X might be damaged if you fail to do so.

- 1 Turn down the volume on all of your connected equipment, and then turn off the power.
- 2 Connect the L/MONO and R jacks or the LEFT and RIGHT (XLR) jacks from the AUDIO OUTPUT of this instrument to the audio input jacks of your powered monitor speakers or mixer.

*Tip:* The signals outputted from the L/MONO and R jacks are the same as those from the LEFT and RIGHT (XLR) jacks. You can use all of these jacks at the same time.

Tip: For monaural sound only, connect to the L/MONO jack.

#### Connecting the headphones

Connect a set of headphones equipped with a 1/4" ( $\emptyset$ 6.3 mm) stereo phone-plug to the  $\Omega$  (headphones jack) of this instrument. This jack outputs the same signal as the other AUDIO OUTPUT jacks.

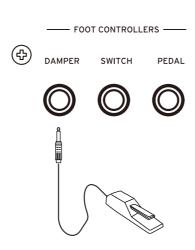
*Note*: The output from the AUDIO OUTPUT is not turned off even if you connect a pair of headphones to the headphones jack.

#### Connecting the damper pedal

Connect the included DS-1H damper pedal to the DAMPER jack on the rear panel.

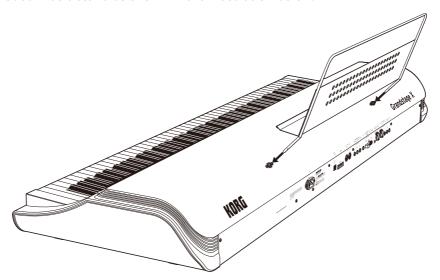


Do not press the pedal while you turn on the power or connect the pedal to the Grandstage X.

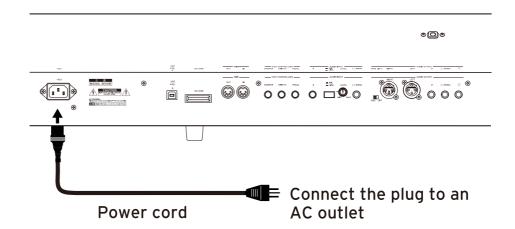


### Attaching the music stand

Attach the included music stand as shown in the illustration below.



# | Connecting the included power cord





Use only the power cord that was included with this instrument. Using any other power cord may cause malfunctions.



Make sure that your AC outlet is the correct voltage for your instrument.

# Turning the power on/off

### | Turning the power on

- 1 Lower the volume of your powered monitor speakers, stereo amp or other external output devices that are connected, and then turn off their power.
- 2 Move the VOLUME slider on the left side of the front panel all the way down to minimize the volume.
- 3 Press the () (power button) on the right side of the front panel.
  Once the name of the sound (program) appears in the display, you're ready to play.
- 4 Turn on the power of the external equipment that's connected to the Grandstage X's AUDIO OUTPUT jacks, such as a mixer or powered monitor speakers.
- 5 Adjust the VOLUME slider on this instrument and the volume on your external equipment to a suitable level.
  - The VOLUME slider adjusts the volume of sound from the AUDIO OUTPUT jacks and headphones jack.

### | Turning the power off

- 1 Lower the volume of your powered monitor speakers, mixer or other external output device, and then turn them off.
- 2 Long-press the () (power button) on the Grandstage X. Once the message "Shutting down..." appears in the display, take your finger off the button.

  Once the display and all buttons go dark, the power automatically turns off.



Do not unplug the power cord before all of the buttons go dark. Doing so may cause a malfunction.

#### Auto power-off function

When a set period of time has passed without playing the keys or using the buttons, knobs or sliders (aside from the VOLUME slider) on this instrument, the power automatically turns off. To change the set period of time or disable this function, refer to "Auto power off" in the Owner's Manual.

→ Auto power off

# Selecting and playing sounds

Each sound, such as piano, strings and so on is referred to as a "program". Programs can be played on their own, or you can combine and play with multiple programs such as by layering or splitting two programs.

The Grandstage X includes 700 programs that are separated into categories (refer to the program list in the "Sound Name List").

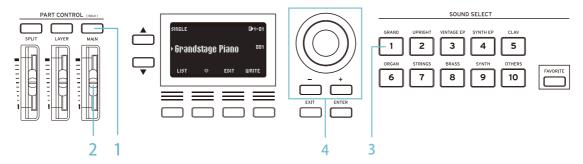
You can also select programs by category or by variation. Also, you can save a program as a favorite, which is useful for quickly recalling the programs you want to use.

→ Creating favorites

- $\rightarrow \underline{\text{Selecting sounds}}$
- → Adjusting the sound
- → Adjusting the key touch and sound
- → Transpose and panel lock
- → AUDIO IN function
- → Using the rhythm for a virtual session with drums and bass

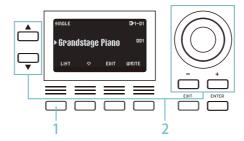
# Selecting sounds

### | Selecting the main sound program



- 1 Press a button in the PART CONTROL section. Only the MAIN part plays by itself (SOLO).
- 2 Use the slider to adjust the volume to the optimal level.
- 3 Press the 1 [GRAND] button in the SOUND SELECT section. This selects the sound programs in the GRAND category.
- 4 Use the value dial or the +/- buttons to the right of the display to select a program.

#### Selecting a program from the program list



1 Press the button marked "LIST" at the bottom left of the display. This shows a list of all programs available for the selected category.



2 Use the value dial or buttons to select the programs you like. Right side of display: Value dial, +/- buttons Left side of display: ▲ button, ▼ button

*Tip:* The program list offers some useful features for selecting sounds.

LIKED: ♥ (the favorite programs you registered) are shown here only.



SUB CAT: Shows programs narrowed down by subcategory.



VARIATION: Shows only the variation programs for the currently selected program.



**Y**: Registers your favorite programs on the Grandstage X.

Use the function buttons to select these functions.

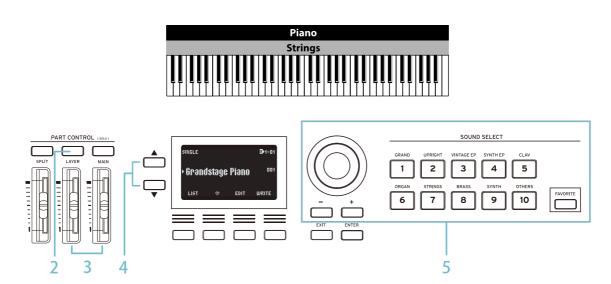


- \*1: Press the leftmost function button corresponding to "LIKED" at the bottom row on the display to filter only the programs (the programs you registered as favorites).
- \*2: Press the second function button from the left corresponding to "SUB CAT" at the bottom row on the display. Each time you press this button, the "SUB CAT" indication on the display and the sub-category name in the upper right will change, and only the programs in that sub-category will be displayed.
- \*3: Press the third function button from the left corresponding to "VARIATION" at the bottom row on the display. Tags are automatically attached to programs, and you can search for programs with the same tag. The name of the tag is displayed at the top left of the display. Each program has multiple tags, and you can narrow down your search for different tags by pressing the function buttons corresponding to << >> on the display.
- \*4: Press the fourth function button from the left corresponding to " \(\mathbf{V}\)" at the bottom row on the display to register your favorite programs to this unit.
- 3 Press the ENTER or EXIT button to close the program list.

### | Selecting sound programs for layers and splits

#### Selecting sounds for layers

When you layer the programs, the programs for the MAIN and LAYER parts play together when you play the keyboard.



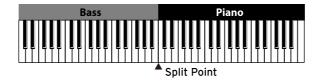
- 1 Select the program to use for the MAIN part.
  - → Selecting the main sound program
- Press the LAYER button in the PART CONTROL section (the button lights up). When you play the keyboard, the programs for two parts are stacked. On the display, the upper row shows the program name for the MAIN part, and the lower row shows the program name for the LAYER part.

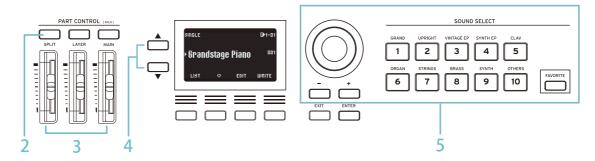


- 3 Use the MAIN and LAYER sliders to adjust the volume.
- 4 Press the ▲ or ▼ buttons to the left of the display to select the name of the program used by the lower LAYER part.
  - The lower part is automatically selected when you switch LAYER from OFF to ON.
- 5 Use the buttons, value dial or the +/- buttons in the SOUND SELECT section to select the programs for the LAYER parts. You can also select the programs from the list.
  - → Selecting a program from the program list

#### Selecting sounds for splits

When you play the keyboard, the right side of the keyboard plays the program for the MAIN part, and the left side of the keyboard plays the program for the SPLIT part.





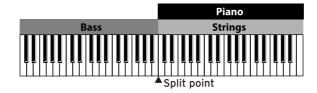
- 1 Select the program to use for the MAIN part.
  - → Selecting the main sound program
- Press the SPLIT button in the PART CONTROL section (the button lights up). In split mode, the keyboard is divided at C4 (default setting) into two parts. On the display, the upper row shows the program name for the MAIN part, and the lower row shows the program name for the SPLIT part.

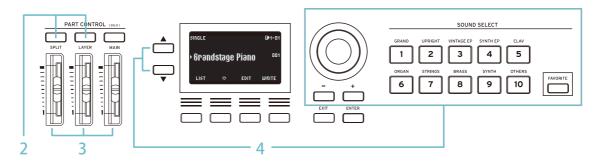


- 3 Use the MAIN and SPLIT part sliders to adjust the volume.
- 4 Press the ▲ or ▼ buttons to the left of the display to select the name of the program used by the lower SPLIT part.
  - The lower part is automatically selected when you switch SPLIT from OFF to ON.
- 5 Use the buttons, value dial or the +/- buttons in the SOUND SELECT section to select the programs for the SPLIT parts. You can also select the programs from the list.
  - → Selecting a program from the program list
- 6 To set the split point (the note on the keyboard where the parts are divided—the default setting is C4), press a key while holding down the SPLIT button.

#### Setting a layer and split at the same time

When you play the keyboard, the right side of the keyboard plays the programs for the MAIN and LAYER parts, and the left side of the keyboard plays the program for the SPLIT part.





- 1 Select the program to use for the MAIN part.
  - → Selecting the main sound program
- Press the LAYER and SPLIT buttons in the PART CONTROL section (both buttons light up). The keyboard is divided at C4 (default setting) into a SPLIT part and a MAIN/LAYER part. On the display, the upper row shows the program name for the MAIN part, the middle row shows the program name for the LAYER part, and the lower row shows the program name for the SPLIT part.

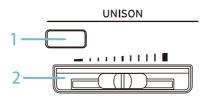


- 3 Use the MAIN, LAYER and SPLIT part sliders to adjust the volume.
- 4 Press the ▲ or ▼ buttons to the left of the display to select the programs used by each part. You can also select the programs from the list.
  - → Selecting a program from the program list

### Using unison to create thick, spacious sounds

This feature stacks and plays the same note together multiple times, creating a thick and spacious sound.

Tip: This is applied only to the MAIN part program by default.



- 1 Press the UNISON section ON/OFF button to turn it ON (the button lights up).
- 2 Move the slider to adjust the number of notes stacked together and the spaciousness of the sound.

Moving the slider to the right increases the number of notes played in unison, giving a thicker and more spacious sound.

*Tip:* To enable the unison effect for the LAYER and SPLIT parts as well, set the "Use Unison" program parameter for each part to "On".

→ Use Unison: On/Off

### | Program categories

#### **GRAND**

There are six piano sounds in total: an Italian piano and a German piano with adjustable balance between DRY (microphone placed right next to the piano) and AMBI (microphone placed far away from the piano), and four sounds of famous grand pianos made in Italy, Germany, and Japan.

#### **UPRIGHT**

Includes various piano sounds, such as two types of upright pianos.

#### VINTAGE EP

- Five classic electric tine piano models (early model I, later model I, II, V and DMP)
- Two electric reed piano models (200, 200A)
- · Other vintage EP

Basic sounds and variation sounds of effects are provided.

#### **SYNTH EP**

Electric piano sounds created using a wide variety of synthesizer sound generators, including FM and analog sounds among others.

#### **CLAV**

Clav sounds. Includes the classic D model and E model with four types of pickups and a regular assortment of effects. Also includes harpsichord sounds.

#### **ORGAN**

Organs. Includes a tonewheel organ, VOX transistor organ, compact transistor organ and three types of vintage organ sounds, as well as pipe organ and accordion sounds.

#### **STRINGS**

Strings, pads and choirs. Includes realistic string ensemble sounds, as well as synth strings sounds optimal for use in layering.

#### **BRASS**

Brass, reed and woodwind instruments. Includes realistic brass sections and wind instruments.

#### **SYNTH**

Synthesizer sounds

- An assortment of many standard sounds, focusing on polyphonic synthesizer sounds like pads and sounds that fade out.
- Lead sounds from mono and polyphonic synths.

#### **OTHERS**

- Bells and guitar sounds. Acoustic sounds that fade out, mainly sounds played with a mallet.
- Bass. Includes a wide variety of bass sounds including acoustic, electric, synth bass and so on from different genres.
- Sound effects, orchestral hits and percussion instruments. Various sounds that offer flexibility in onstage performance.

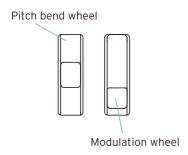
# Adjusting the sound

### Two wheels plus SW1 and SW2

The controls on the left side of the front panel include the pitch bend wheel, modulation wheel, SW1 and SW2 buttons (from left to right). These controllers are configured to make effective use of each sound. See the "Sound Name List" for details.

 $\mathit{Tip:}$  You can turn the respective controllers on/off (enabled/disabled) for each layered and split sound.





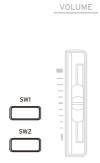
#### Pitch bend wheel

This is mainly used to control the pitch of notes played. Move the wheel up to raise the pitch, and move the wheel down to lower the pitch. This is sometimes used to change the effect speed for piano sounds, or the rotary speaker speed for organ sounds.

#### Modulation wheel

This is mainly used to control effects like vibrato or tremolo that are applied to the sound. Moving the wheel up applies the effect that's set for the respective sound.

#### **SW1, SW2**



These buttons are mainly used to turn the sound variations and effects on/off.

Note: The on and off settings for SW1 and SW2 can be saved as favorites.

### Other buttons and sliders

#### TRANSPOSE button

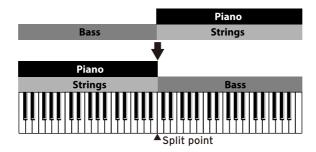
While holding down the TRANSPOSE button, press a key from C3 to B3, or from C#4 to C5 on the keyboard.

This shifts the key within a range of -12 to -1 semitones, or +1 to +12 semitones.

→ Transposing (changing the key)

#### **SWAP SPLIT button**

While playing in split mode, you can swap programs for the upper part (the part of the keyboard to the right of the split point) with the lower part (the part of the keyboard to the left of the split point) by pressing the SWAP SPLIT button.



#### **PANEL LOCK button**

When you long-press this button, the button blinks and the majority of the buttons, sliders and knobs on the operation panel are disabled. This prevents the sound from being accidentally changed while you're playing. Press the button again to release the panel lock.

→ Panel lock

#### SYSTEM button

The settings that can be made here include overall settings for the Grandstage X including master tune, MIDI, controller functions and so on.

→ System settings

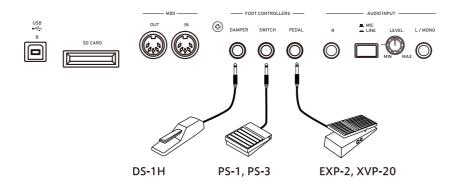
#### **AUDIO IN button**

When this button is on, you can mix the sound of the device or equipment connected to the AUDIO INPUT jacks on the rear panel with the sound of the Grandstage X. This lets you smoothly turn the mic's audio on/off without touching the mic itself, when you're singing while playing, talking to the audience between songs and so on.

- → AUDIO IN function
- $\rightarrow$  Audio In settings

### | Foot controllers

You can control the sound of the Grandstage X using the foot pedals connected to each foot controller jack. You may need to configure the functions controlled by the pedals and adjust the variable range for each pedal.



*Note*: The Grandstage X will automatically detect the polarity of the pedal switch and damper pedal that are connected. The pedal position will be considered to be off when the Grandstage X power is turned on, or when the pedal is connected.

Tip: You can turn the respective controllers on/off (enabled/disabled) for each layered and split sound.

→ Program parameters



Do not press the pedal while you turn on the power or connect the pedal to the Grandstage X.

#### **DAMPER** jack

Connect the damper pedal (DS-1H) included with the Grandstage X. This is used to make sounds sustain after removing your hands from the keys, for a piano damper effect.

When connecting the DS-1H pedal, this functions as a half-damper pedal. This will allow for more delicate damper control of piano and electric piano sounds on this keyboard. When a switch-type pedal is connected, the pedal will act as a damper switch.

→ Calibrating the damper pedal (Damper Pedal Calibration)

#### **SWITCH jack**

Connect an optional PS-1, PS-3 or other foot switch (sold separately) to this jack for on/off switching. This allows you to switch between favorites, as well as control sounds and effects.

The factory-set default settings are front panel and SW2 button on/off (CC#81).

- → Foot Switch (foot switch functions)
- → Calibrating the foot pedal (Foot Pedal Calibration)

#### PEDAL jack

Connect an optional XVP-20 expression/volume pedal or an EXP-2 foot controller here. This is used to control the volume, effects and so on.

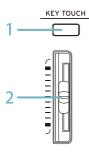
The pedal is set for expression control (CC#11) by factory default, to control the overall volume. However, for preloaded programs that include the pedal wah effect, the pedal is automatically set to control the wah effect. Some of these programs contain the word "Pedal Wah" in the name.

- → Foot Pedal (foot pedal functions)
- → Calibrating the foot pedal (Foot Pedal Calibration)

# Adjusting the key touch and sound

### | Changing the key touch

This shows you how to adjust how the volume and tone change in response to how hard you play the keys (velocity).



- 1 Press the KEY TOUCH section button to turn it ON (the button lights up). Once the button lights up, the slider settings are enabled.
- 2 Use the KEY TOUCH slider to adjust the key touch. When you move the slider up from center position, you can more easily play louder notes (in a forte style) with greater stability. This is good for making your sound stand out when playing in a band ensemble.

On the other hand, when you move the slider down from center position, you can play with a wider range of dynamics from a strong fortissimo to a delicate pianissimo. This is suitable when intonation is important, such as piano solos and vocal accompaniment.

*Note*: The effect controlled may differ, depending on the program. The key touch has no effect on programs whose sounds don't change in volume or tone according to velocity, such as organ sounds or some synth sounds.

*Note*: You can save the key touch settings as favorites.

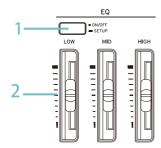
→ Save options for the KEY TOUCH section parameters (Key Touch)

*Note*: The effect will be applied according to the velocity curve that is set.

→ Velocity Curve (Velocity Curve)

### Using the equalizer

You can use the EQUALIZER section to change the characteristics of the overall sound, so that it matches the acoustics of the performance venue.



- 1 Press the ON/OFF button in the EQ section.
  Once the button lights up, the slider settings are enabled.
- You can adjust the overall audio output characteristics with the three equalizer faders: LOW, MID

and HIGH (from left to right).

Slider	Explanation	Adjustable range
LOW	Low-end shelving type	-12-0-+12 dB
MID	Midrange band type	-12-0-+12 dB
HIGH	High-end shelving type	-12-0-+12 dB

Note: You can save these settings as favorites.

→ Save options for the EQUALIZER section parameters (EQ)



Boosting the equalizer too much might make the audio too loud and distorted. If this happens, try lowering the volume of each part.

### Adding presence with ANALOG TONE

The ANALOG TONE feature on this instrument gives you an analog sound that's characteristic of the vacuum tube used on the Nutube.



- 1 Press the ON/OFF button in the ANALOG TONE section (the button lights up).
- Turn the knob to adjust the tone as you like. Turning the knob clockwise increases the natural distortion, harmonics and compression effect that's characteristic of a vacuum tube, adding more presence to the sound so that it doesn't get lost in the mix.

Note: You can save the analog tone settings as favorites.

→ Save options for the ANALOG TONE section parameters (Analog Tone)

#### **About Nutube**

Nutube is a new vacuum tube developed by KORG INC. and Noritake Itron Corporation that utilizes technology from vacuum fluorescent displays. As with conventional vacuum tubes, the Nutube is constructed with an anode, grid and filament, and operates as a complete triode tube. Furthermore, it generates the response and same rich harmonics characteristic of conventional vacuum tubes.



If this instrument is subjected to strong impact, you may hear noise in the high-frequency range from your speakers, headphones and other outputs. This is due to the structure of the Nutube, and is not a malfunction.

### Transpose and panel lock

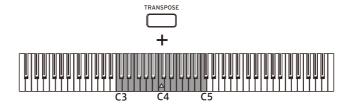
### | Transposing (changing the key)

By changing (transposing) the key in semitones, you can play using fewer black keys, or play along with other instruments that may be in different keys, while still using the fingering you previously memorized.

1 While holding down the TRANSPOSE button, press a key from C3 to B3, or from C#4 to C5 on the keyboard.

This shifts the key within a range of -12 to -1 semitones, or 1 to 12 semitones.

The TRANSPOSE button will light when the keyboard is transposed. The transpose value is shown in the display while you are holding down the TRANSPOSE button.



2 Press the lighted TRANSPOSE button. The button will go dark, and the transpose feature will be cancelled.

*Note:* You can save the transpose settings as favorites.

*Tip:* You can also transpose the key by turning the value dial within a range of -12 to -1 semitones or +1 to +12 semitones while holding down the TRANSPOSE button. The transpose feature is useful when you want to play along with other instruments or vocalists but don't want to play in a different key.

*Note:* The transpose feature will be cancelled when the power is turned off.

*Note*: The split point does not change when transpose is used.

### | Panel lock

The Grandstage X features a Panel Lock function to prevent the programs on the panel from accidentally being changed by hitting the wrong button or knob while playing.

When this function is on, all buttons and knobs on the panel stop responding, except for the pitch bend wheel, modulation wheel, VOLUME slider, SW1 and SW2 buttons, and the PANEL LOCK button.



#### Turning the Panel Lock function ON or OFF (cancel)

- 1 Hold down the PANEL LOCK button for about two seconds to turn Panel Lock ON. The button blinks.
- Press the blinking PANEL LOCK button to turn the panel lock off (cancel). The button will go dark.

*Note*: The panel lock setting will not be saved. When the power is turned off and then on again, the keyboard will reset.

### **AUDIO IN function**

When the AUDIO IN button on the front panel is on (lit), you can mix the sound of the mic or audio equipment connected to the AUDIO INPUT jacks on the rear panel with the sound of the Grandstage X. You can also apply reverb and other effects to the audio that's input to the AUDIO INPUT jacks.

### | Connecting a mic and playing with this instrument

#### Connecting a mic

- 1 Make sure that the Audio In function is off (the AUDIO IN button on the front panel should be dark).
- 2 Connect a mic to the AUDIO INPUT L/MONO jack on the rear panel.
- 3 Set the AUDIO INPUT MIC/LINE switch on the rear panel to the "MIC" position.
- 4 Press the AUDIO IN button on the front panel to activate the Audio In function.
  The AUDIO IN button lights up, and the mic's audio signal is output via AUDIO OUTPUT.
  When you connect a mic or other sound source to the AUDIO INPUT L/MONO jack only, the audio signal is output from both the AUDIO OUT L/MONO and R jacks (monaural sound).

*Tip:* When you want to talk to the audience in between songs, you can smoothly switch the mic audio on/off with the AUDIO IN button, without touching the mic.

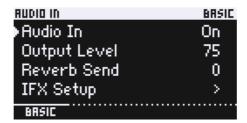
Adjust the mic volume with the AUDIO INPUT LEVEL knob while checking the output audio via AUDIO OUTPUT.

You should adjust the mic audio volume to avoid distortion.

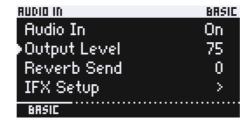
#### Configuring the mic output level and effects

1 Press the AUDIO IN and SYSTEM buttons on the front panel at the same time to set the output level and configure the effects.

The Audio In parameters are shown in the display.



2 Press the ▼ button to select "Output Level", and use the value dial or the +/- buttons to set the output level.



The default output level is 75.

*Note:* To adjust the volume balance between the mic and the programs, use this Output Level setting and the sliders in the PART CONTROL section.

3 Press the  $\triangle/\nabla$  buttons to select "Reverb Send", and use the value dial or the +/- buttons to set the reverb send level.



The audio signal is sent to the REVERB/DELAY section represented on the front panel, at the send level that you set here. Use the buttons and slider in the REVERB/DELAY section to adjust the effect type and depth.

→ Reverb/delay settings

#### Playing the Grandstage X

1 Sing or vocalize into the mic while you're playing.

#### Disconnecting the mic

- 1 Press the AUDIO IN button on the front panel to deactivate the Audio In function (the button goes dark).
- 2 Unplug the mic.

### | Connecting and playing with a sound source

#### Connecting a sound source

- 1 Follow the steps in "Connecting a mic" to connect a sound source.

  If you're using a sound source with stereo outputs, connect the outputs to the AUDIO INPUT L/MONO and R jacks on the Grandstage X.
  - → Connecting a mic
- 2 Set the MIC/LINE switch on the rear panel to the "LINE" position.
- 3 Press the AUDIO IN button on the front panel to activate the Audio In function. The AUDIO IN button lights up.
- 4 Play back music on your music player or other device.
- Adjust the volume with the LEVEL knob while checking the output audio via AUDIO OUTPUT. You should adjust the audio volume to avoid distortion.

#### Setting the Audio In parameters

- 1 Press the AUDIO IN and SYSTEM buttons on the front panel at the same time to set the output level and configure the effects.
  - → Configuring the mic output level and effects

*Note*: To adjust the volume balance between the mic and the programs, use this Output Level setting and the sliders in the PART CONTROL section.

#### Play the Grandstage X

1 Play along with the sound source.

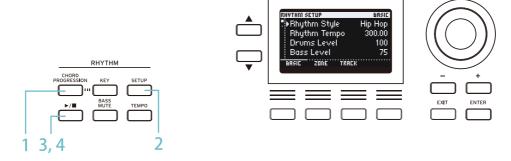
#### Disconnecting the sound source

- 1 Press the AUDIO IN button on the front panel to deactivate the Audio In function (the button goes dark).
- 2 Unplug the sound source.

# Using the rhythm for a virtual session with drums and bass

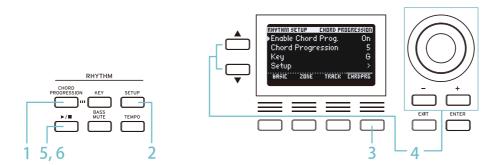
The Grandstage X features an authentic rhythm function with drums and bass. This lets you enjoy a virtual session with drums and bass, which follow the chord progression you play or program in advance.

### | Adding accompaniment to match the chords you play



- 1 Make sure that CHORD PROGRESSION is off (the button should be unlit).
- 2 Press the SETUP button to set the rhythm style and tempo. (You can also do this while the rhythm plays.)
  - Press the  $\triangle/\nabla$  buttons to select a parameter, and use the value dial or the +/- buttons to set the value.
  - → RHYTHM section parameters
- 3 Press the ►/■ button (the button lights up).
  The drums and bass for the rhythm start playing. The bass part follows along automatically with the chords you play.
- 4 To stop the rhythm, press the ▶/■ button again (the button goes dark).

# | Making the chords progress automatically for a virtual session with drums and bass



- 1 Press the CHORD PROGRESSION button to turn it ON (the button lights up).
- Press the SETUP button to set the rhythm style and tempo. (You can also do this while the rhythm plays.)
  - Press the  $\triangle/\nabla$  buttons to select a parameter, and use the value dial or the +/- buttons to set the value.
- 3 Press the function button corresponding to "CHORDPRG" at the bottom right of the display.
- 4 Use the ▲ and ▼ buttons to the left of the display, or the value dial (or even the +/- buttons) to set the "Chord Progression" (chord progression pattern) and "Key" (the key used for the chord progression).
  - If you select "Setup" and press the ENTER button, you can select by seeing the chord names while you play.
- 5 Press the ►/■ button (the button lights up). The drums and bass start playing. The bass part follows along automatically with the chords shown.
- 6 To stop the rhythm, press the ▶/■ button again (the button goes dark).

Tip: Press the BASS MUTE button to silence the bass sound in the rhythm and hear only the drums.

Tip: You can quickly set the tempo by pressing the TEMPO button two or more times at the desired tempo.

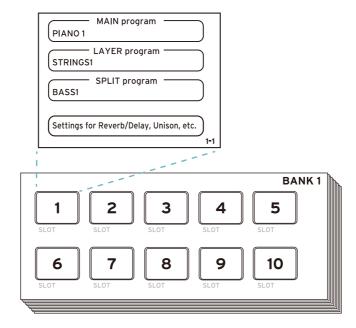
*Tip:* Press the KEY button (the "KEY" setting is shown in the display) and then play a note on the keyboard to instantly change the key of the chord progression.

# **Creating favorites**

- $\rightarrow \underline{\text{Favorites function}}$
- $\rightarrow \underline{\text{Selecting favorites}}$
- → Saving your favorites
- $\to \underline{\text{Editing a program}}$
- → Reverb/delay settings

### **Favorites function**

You can save the MAIN, LAYER and SPLIT settings as well as the front panel settings and other various settings in the display as a "favorite", which you can recall instantly. There are 10 banks of 10 favorites for a total of 100 favorites that you can save.



Favorites include the MAIN, SPLIT and LAYER programs, levels and edit information. Favorite can also include settings for unison, reverb/delay, transpose, split point and so on.

You can select from the 100 favorites by activating the Favorites function (press the FAVORITE button), pressing the SOUND SELECT 1-10 buttons to select a slot, and pressing one of the bank 1-10 buttons while holding down the FAVORITE button to select a bank. (See "Favorite List" in "Sound Name List".)

To create a new favorite, you must modify the programs (single sounds) originally saved, or modify a program with layer/split sounds that uses up to three programs.

Tip: Some of the favorites include recommended settings by factory default.

 $\mathit{Tip}$ : You can back up favorite data using a commercially available SD card and replace the existing data as necessary.

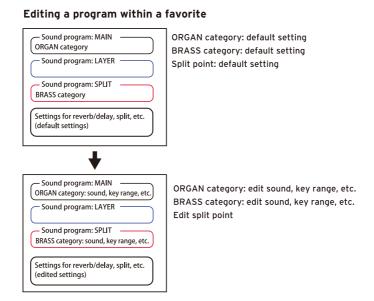
→ FILE

By operating the panel, you can edit the programs and combinations, as well as the reverb/delay settings for each part for the currently selected favorite.

Changing a program within a favorite

#### Single sound in the GRAND category Sound program: MAIN GRAND category Sound program: LAYER Sound program: SPLIT Settings for reverb/delay, etc. Sound program: MAIN Sound program: MAIN ORGAN category GRAND category Sound program: LAYER Sound program: LAYER STRINGS category Sound program: SPLIT Sound program: SPLIT BRASS category Settings for reverb/delay, etc. Settings for reverb/delay, split, etc. Split sound: ORGAN and BRASS Laver sound: GRAND and STRINGS categories categories

You can also edit the sound of the program you are using.



*Note*: Since the edits you make to the program will be saved as part of the favorite, this will not affect the original program. This means that when you edit a program, this will not change the same program's sounds that happen to be used in another favorite.

The "Release" edit parameter and the sound parameters are reset to their original settings when you reselect a program.

#### Parameters that can be saved as a favorite

PART CONTROL

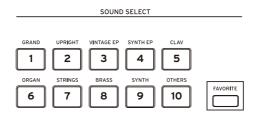
MAIN: ON/OFF, PROGRAM, LEVEL LAYER: ON/OFF, PROGRAM, LEVEL SPLIT: ON/OFF, PROGRAM, LEVEL

- UNISON (ON/OFF, DEPTH)
- REVERB/DELAY (ON/OFF, TYPE, DEPTH, TIME)
- SW1/SW2
- TRANSPOSE, SWAP SPLIT, SPLIT POINT
- PROGRAM EDIT (Octave, Tune, Release, Use Unison, Reverb Send, Sound Parameter 1-n, Damper, SW1,2, Other Controls)

*Tip*: You can also save other parameters as a favorite besides those listed above, including the parameters from each of the following sections: RHYTHM, KEY TOUCH, EQ, ANALOG TONE and AUDIO IN. To save these settings as a favorite, use the BASIC page in system settings to configure them separately.

- → Save options for the RHYTHM section parameters (Rhythm)
- → Save options for the KEY TOUCH section parameters (Key Touch)
- → Save options for the EQUALIZER section parameters (EQ)
- → Save options for the ANALOG TONE section parameters (Analog Tone)
- → Save options for the AUDIO IN section parameters (Audio In)

### Selecting favorites



- 1 Press the FAVORITE button in the SOUND SELECT section.
  - The FAVORITE button and the button in the SOUND SELECT section that corresponds to the currently selected bank number light up blue.
- Press the SOUND SELECT 1-10 buttons in the SOUND SELECT section to select a favorite. The favorite bank and number as well as the program(s) used by the favorite appear in the display.



- 3 To select a favorite in a different bank, long-press the FAVORITE button. The buttons (1-10) for all banks aside from the one that's currently selected blink blue.
- 4 While holding down the FAVORITE button, press the button of the new bank.
- 5 Take your finger off the FAVORITE button and press buttons 1-10 as described in step 2 to select the favorite.
  - → Favorites function

The preloaded favorites in banks 1 and 2 include recommended sounds.

→ "Favorite List" in "Sound Name List"

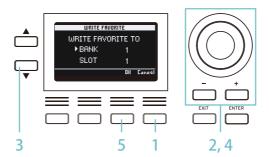
*Tip:* The favorites in banks 3-10 include default settings. Use these banks to conveniently create and save your own original favorites. You can also edit the preloaded favorites and write them to banks 1 and 2.

Note: The preloaded favorites can be restored to their factory default settings.

→ Restoring the factory default settings (Factory Reset)

### Saving your favorites

Favorites that have been changed will return to their previous saved state, if you select a different favorite or turn off the power. Make sure to write any favorites that you've edited to memory if you want to save them. Here's how to do this.



- 1 Press the rightmost function button. "WRITE FAVORITE TO" appears in the display.
- 2 Use the value dial or the +/- buttons to select the bank where you want to save the favorite.
- 3 Press the ▼ button to select SLOT.
- 4 Use either the 1-10 buttons (for the save destination), the value dial or the +/- buttons to select the destination slot.
- 5 To save, press the second function button from the right (OK) below the display. To cancel, press the rightmost button (Cancel).

### Editing a program

You can make basic adjustments to the sound and effects of the programs you select. Edited programs can be saved as a favorite.

### How to edit

1 Select the program to edit.



2 Press the function button that's below EDIT in the display. The parameter is shown in the display.



COMMON: Edits the settings that apply to the favorites overall.

- → Adjusting the sound
- → Adjusting the key touch and sound

PART: Edits the program settings for the currently selected part.

→ <u>Program parameters</u>

REVERB: Edits the parameters of the REVERB section.

→ Reverb/delay settings

The parameters that are more difficult to operate using just the panel, such as the Time setting for Reverb/Delay are shown, letting you adjust multiple parameters for the right balance.

*Note:* This is not used for editing the part programs.

EQ: Edits the parameters of the EQ section.

 $\rightarrow \underline{\text{Using the equalizer}}$ 

Tip: You can use these to adjust the Mid Freq, which can't be done from the panel.

Note: This is not used for editing the part programs.

- 3 Use the  $\triangle/\nabla$  buttons to select a parameter.
- 4 Use the value dial or the +/- buttons to edit the value.
- 5 Repeat steps 3 and 4 to continue editing.

6 To finish editing, press the EXIT button. The program name is shown in the display.



Editing automatically ends if you select a different program or favorite, or switch the Grandstage X to layer or split sound mode.

- **7** To save the settings you've edited, be sure to write the favorite to memory.
  - → Saving your favorites

*Note*: Any changes you make to a favorite will return to the previous saved state if you select a different favorite or turn off the power without saving them. Use caution, as the "Release" and sound parameters will be reset if you select another program.

### | Program parameters

Octave: -3, -2, -1, 0, +1, +2, +3

Sets the pitch of the Grandstage X in octaves. The setting range is ±3 octaves.

Use this when setting the pitch balance between two different programs when setting layers or split sounds.

Normally, this is set to "0".

Tune: -100 ... 0 ... +100 (cents)

Sets the pitch of the Grandstage X in cents (1 semitone=100 cents). The pitch is adjustable within a range of  $\pm 100$  cents.

For instance, this could be used to slightly detune the layered sounds in a program, to create a thicker sound.

The value is set to "0" when this function is not used.

Release: -100 ... 0 ... +100%

This adjusts the release times for the program.

Specify the time from note-off until the sound fades to silence. The value is set to "0" when this function is not used.

This is a value that is relative to the actual release time for each program. A value of "O" means that the release time will be the same as the program parameters. Negative values make shorter release times, and positive values make longer release times.

Use Unison: On/Off

Enables the unison setting for the LAYER and SPLIT parts as well.

Note: This parameter is only shown when using the LAYER or SPLIT part programs.

Reverb Send: 0...100

This adjusts the send level to output from the program, into the REVERB/DELAY section.

Normally, this is set to "80" (0 dB), and the reverb and delay effect depth is adjusted with the DEPTH knob in the REVERB/DELAY section.

To balance the volume between the programs of two or more parts and the reverb/delay when in LAYER or SPLIT mode, adjust the Reverb Send value.

For instance, you can apply a deep reverb to the piano sound, and apply no reverb to the bass sound.

*Note*: If the input level of the REVERB/DELAY section is too loud, the reverb or delay sound may distort. If this happens, lower the Reverb Send value, so that the sound does not distort.

*Note*: When "Use Unison" is ON for a LAYER or SPLIT part program, you can adjust the reverb/delay of that part using Reverb Send for the MAIN part.

#### Sound parameters 1-6

Adjusts the sound parameters of a program.

The editable parameters differ for each program. There are a maximum of six sound parameters already set for effectively adjusting each sound.

See the Program List in the "Sound Name List" for the sound parameters.

#### Damper: Off, On

This sets whether the damper effect is enabled (on) or disabled (off).

Normally, the setting is enabled. When turning off the Damper function for one of the two parts when using split or layered sound, make the setting in each section.

For example, if you are using a split sound, you can enable the Damper function for the piano sound, but disable the Damper function for the bass sound.

#### SW1, 2: Off, On

This sets whether the damper effect for SW1 and SW2 is enabled (on) or disabled (off).

#### Other Controls: Off, On

This sets whether other controllers shown below are enabled (on) or disabled (off).

Note: Controllers cannot be individually enabled or disabled.

- · Pitch bend wheel
- · Modulation wheel
- Pedals connected to the FOOT CONTROLLERS PEDAL jack. (Note that if Foot Pedal in system settings is set to "Master Volume", that pedal function is always enabled, regardless of the setting here.)
  - → Foot Pedal (foot pedal functions)
- Switches connected to the FOOT CONTROLLERS SWITCH jack. (Note that if Foot Switch in system settings is set to "Chord Lock (CC#15)", "Program Up", "Program Down", "Favorite Up" or "Favorite Down", those pedal functions are always enabled, regardless of the setting here.)
   → Foot Switch (foot switch functions)

Normally, the setting is enabled. When turning off either the pitch bend or the expression pedal function for only one of the sounds in layered or split sound, make the setting in each part.

For example, when using layered sound, the volume control using the expression pedal function can be enabled for just the piano sound or the strings sound. Another example is when you are using a split sound, you can disable the pitch bend function for the piano sound, but enable it for the synth lead sound or bass sound.

## Reverb/delay settings

The REVERB/DELAY section adds reverberations or reflections to the sound, as if you were playing in a different space like a hall or on a stage. You can also use this to simulate the spring reverb or tape echo effects found on vintage instruments, as well as effects produced by dedicated effect units like shimmer reverb.

Five types of reverbs and three types of delays can be selected as effects.

#### ΗΔΙΙ

This is a hall-type reverb that simulates the reverberations of a large concert hall or ensemble hall.

#### **STAGE**

This reverb simulates a stage with less reverberations that that of the hall type.

#### **ROOM**

This reverb simulates the reverberations of a small room. The reverb includes multiple initial reflections of the sound from the walls and ceiling.

#### **SPRING**

This reverb simulates the spring reverb sound used in some guitar amps and organs.

#### **SHIMMER**

A reverb that adds overtones to the original audio signal for a shimmering sound.

#### **DELAY**

This is a simple stereo delay.

#### **MOD DELAY**

This effect adds a pitch shift-type effect similar to a chorus effect to a delay, creating a swelling, wobbly delay sound.

#### **TAPE ECHO**

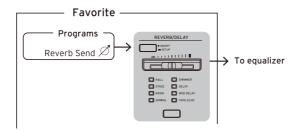
This effect models the analog tape echo found on popular devices. The effect recreates the changes in tone from sound distortion and vibration produced by the rotation of magnetic tape and the motor. This offers a warm echo sound.

- 1 Press the ON/OFF button in the REVERB/DELAY section.
  - The button lights up and the effect is applied.
- 2 Press the button at the bottom of the REVERB/DELAY section to select the effect type (HALL, DELAY, etc.).
- 3 Use the slider to adjust the effect depth.
  - Moving the slider to the right makes the reverberations or delay more pronounced.

*Tip:* The REVERB/DELAY effects are shared in common with all parts (MAIN, LAYER, SPLIT, DRUM and BASS). Adjust the effect volume balance for each part with the Reverb Send parameter for the programs or in RHYTHM SETUP.

*Tip:* Long-press the ON/OFF button for REVERB/DELAY to show the REVERB/DELAY page in EDIT on the display, where you can fine-tune the DEPTH and TIME settings.

The settings in this section can be saved as a favorite.



The sound can be played right after changing the reverb or delay effect settings, but the settings will return to their previous saved state if you select a different favorite or turn off the power. To save your settings, be sure to write the favorite to memory.

→ Saving your favorites

# **Audio In settings**

- $\to \underline{\text{Types of settings}}$
- $\rightarrow \underline{\text{How to make settings}}$
- $\rightarrow \underline{\text{Audio In parameters}}$

# Types of settings

Use these parameters to configure the audio input-related settings.

- · Audio In function on/off
- Output level
- Amount of signal to send to reverb that's input from Audio In
- Insert effects



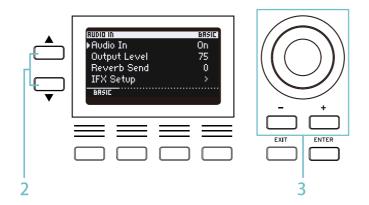
Any changes you make to these settings are automatically written to memory after several seconds, and are retained even after the power is turned off.

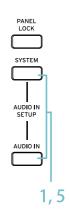
Note: You can save the Audio In parameters as a favorite.

→ Save options for the AUDIO IN section parameters (Audio In)

### How to make settings

The steps for making Audio In settings (described below) basically involve the following operations.





- 1 Press the AUDIO IN and SYSTEM buttons at the same time. The Audio In-related parameters are shown in the display.
- 2 Use the  $\triangle/\nabla$  buttons to select a parameter.
- 3 Use the value dial or the +/- buttons to edit the value. The values and setting details are shown to the right of the parameters.
  Once you edit a value, the change is immediately applied to the Audio In settings, and your changes are retained even after the power is turned off.
  - → <u>Audio In parameters</u>
- 4 If you're using an insert effect (IFX), select "IFX Setup" and press the ENTER button.
- 5 After you are finished with the settings, press the AUDIO IN button or the SYSTEM button.

### Audio In parameters

#### Audio In: On, Off

Enables/disables the Audio In.

When this is set to "On", the audio signal that's input from the AUDIO IN L/MONO and R jacks is output from the AUDIO OUTPUT L/MONO and R jacks, at a level that you set using the Output Level parameter.

This setting works in tandem with the AUDIO IN button on the front panel.

#### Output Level: 0...100

Sets the output level.

#### Reverb Send: 0...100

Specifies the amount of signal to send to reverb that's input from the AUDIO IN L/MONO and R jacks.

#### **IFX Setup:**

Selects the insert effect to use.

#### Off

The insert effect is not used.

#### **Dyna Compressor**

This effect compresses the input signal, giving it a punchier sound to make each note more uniform and clear.

Sensitivity: 1...100

Adjusts the sensitivity.

Attack: 1.00...25.00 [ms]

Adjusts the attack strength.

Output Level: -Inf, -84.9...0.0 [dB]

Adjusts the output level of the compressor.

#### Exciter/Enhancer

This uses an exciter effect to add dynamics for better sonic definition, combined with an enhancer effect to add spaciousness and presence.

#### Emphasis Freq: 3000...24000 [Hz]

Sets the frequency emphasized by the exciter.

Blend: -100...+100

Adjusts the depth of the exciter effect.

Enhancer Depth: 0...100

Adjusts the depth of the enhancer effect.

Low EQ Gain: -15.0...+15.0 [dB]

Sets the gain for the low-range equalizer.

High EQ Gain: -15.0...+15.0 [dB]

Sets the gain for the high-range equalizer.

#### Isolator

This is a stereo effect that divides the input signal into low, mid- and high-frequency bands, letting you control the volume for each band. For instance, you can use this to cut or boost the sound of the kick, snare and hi-hat in the drum kit separately.

#### Preset: Radio, Scooper Mid EQ, No High End, No Low End

Selects the frequency band to extract.

- Radio: Extracts only the frequency bands that are characteristic of audio heard over the radio.
- Scooper Mid EQ: Extracts only the midrange frequency band.
- No High End: Cuts and extracts the high-range frequencies.
- No Low End: Cuts and extracts the low-range frequencies.

Low Gain: -Inf,-84.9...+12.0 [dB]

Sets the gain for the low-range frequency band.

Mid Gain: -Inf,-84.9...+12.0 [dB]

Sets the gain for the midrange frequency band.

High Gain: -Inf,-84.9...+12.0 [dB]

Sets the gain for the high-range frequency band.

#### Multi-Mode Filter

This is a four-type multi-mode filter featuring low-pass, high-pass, bandpass and band reject settings.

Preset: LPF, HPF, BPF, BRF

Selects the filter type.

- LPF: low-pass filter

- HPF: high-pass filter

- BPF: bandpass filter

- BRF: band reject filter

Frequency: 0...100

Sets the cutoff frequency (center frequency).

Resonance: 0...100

Sets the amount of filter resonance.

Drive Gain: 0.0...18.0 [dB]

Sets the amount of driver distortion.

#### **Mastering Limiter**

This is a stereo limiter that's optimized for use in song mastering and so on.

Threshold: -30.0...0.0 [dB]

Sets the signal level at which compression is applied.

OutCeiling: -30.0...0.0 [dB]

Sets the output gain for the limiter.

Release: 0.65...1000.00 [ms]

Sets the release time for the limiter.

#### Limiter

This effect restricts the maximum volume of the input signal to a set level. A limiter works like a compressor, but only signals that exceed the specified level are compressed to bring down unnecessary peaks in sound.

Ratio: 1.0: 1...59.9, Inf: 1

Sets the compression ratio of the signal.

Threshold: -40.0...0.0 [dB]

Sets the signal level at which compression is applied.

Attack: 0.45...500.00 [ms]

Sets the compression attack time.

Release: 0.5...5000.0 [ms]

Sets the compression release time.

Tip: Larger compression attack and release times increase the time it takes for compression to be applied.

Gain Adjust: -Inf, -84.9...+24.0 [dB]

Sets the output gain.

#### **Graphic EQ**

This is a stereo seven-band graphic equalizer. You can switch between 12 different settings for the center frequency of each band, according to the sound you're using.

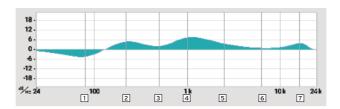
#### **Type**

Selects the combination of center frequencies for each band.

**1:** Wide 1 **2:** Wide 2 **3:** Wide 3 **4:** Half Wide 1 **5:** Half Wide 2 **6:** Half Wide 3

7: Low 8: Wide Low 9: Mid 10: Wide Mid 11: High 12: Wide High

#### 1: Wide 1



#### Center frequencies [Hz]

Band	1	2	3	4	5	6	7
Hz	80	220	500	1000	2500	6300	16000

#### 2: Wide 2



#### Center frequencies [Hz]

Band	1	2	3	4	5	6	7
Hz	120	320	630	1200	3200	8000	18000

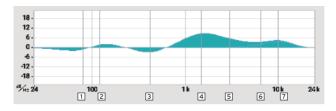
#### 3: Wide 3



#### Center frequencies [Hz]

Band	1	2	3	4	5	6	7
Hz	63	180	550	1200	3200	7500	18000

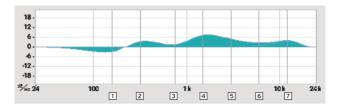
#### 4: Half Wide 1



#### Center frequencies [Hz]

Ī	Band	1	2	3	4	5	6	7
	Hz	80	120	420	1500	3000	6500	10000

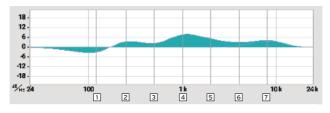
#### 5: Half Wide 2



#### Center frequencies [Hz]

Band	1	2	3	4	5	6	7
Hz	160	320	750	1500	3000	6000	12000

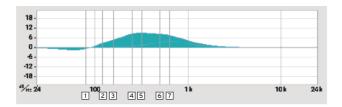
#### 6: Half Wide 3



#### Center frequencies [Hz]

Band	1	2	3	4	5	6	7
Hz	120	250	500	1000	2000	4000	8000

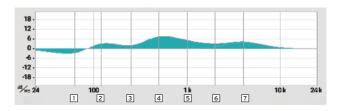
#### 7: Low



#### Center frequencies [Hz]

Ī	Band	1	2	3	4	5	6	7
Ī	Hz	80	120	160	250	320	500	630

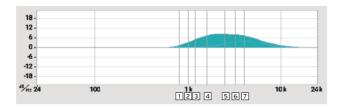
#### 8: Wide Low



#### Center frequencies [Hz]

Ī	Band	1	2	3	4	5	6	7
	Hz	63	120	250	500	1000	2000	4000

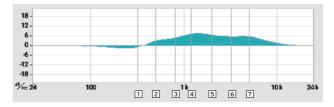
#### 9: Mid



#### Center frequencies [Hz]

Band	1	2	3	4	5	6	7
Hz	800	1000	1200	1600	2500	3200	4000

#### 10: Wide Mid



#### Center frequencies [Hz]

Ī	Band	1	2	3	4	5	6	7
	Hz	320	500	800	1200	2000	3200	5000

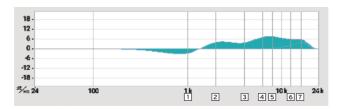
#### 11: High



#### Center frequencies [Hz]

Band	1	2	3	4	5	6	7
Hz	5000	6300	8000	10000	12500	16000	18000

#### 12: Wide High



#### Center frequencies [Hz]

Ī	Band	1	2	3	4	5	6	7
Ī	Hz	1000	2000	4000	6300	8000	12500	16000

#### Band1-7 Gain: -18.0...+18.0 [dB]

Adjusts the gain for bands 1-7.

#### **Modern Compressor**

This is an advanced stereo compressor that lets you configure the compression curve and other detailed settings.

#### Ratio: 1.0: 1...59.9: 1, Inf: 1

Sets the compression ratio of the signal.

#### Threshold: -40...0 [dB]

Sets the signal level at which compression is applied.

#### Soft Knee Width: 0...30 [dB]

Sets the curve with which compression is applied.

Tip: When you increase the Soft Knee Width, the volume changes more gradually around the Threshold level.

#### Attack: 0.45...500.00 [ms]

Sets the compression attack time.

#### Release: 0.5...5000.0 [ms]

Sets the compression release time.

Tip: Larger compression attack and release times increase the time it takes for compression to be applied.

#### Gain Adjust: -Inf, -84.9...+24.0 [dB]

Sets the output gain.

*Tip*: Set the compression ratio of the signal in Ratio. Compression is only applied when the trigger signal exceeds the Threshold level. With the limiter, as the overall level falls when compression is applied, use Gain Adjust to adjust this.

# Setting the rhythm

- $\to \underline{\text{Types of rhythm settings}}$
- $\rightarrow$  Steps for setting the rhythm
- → RHYTHM section parameters

# Types of rhythm settings

You can configure the various rhythm functions including rhythm style, tempo, bass/drum levels and more.

- · Rhythm style
- · Rhythm performance tempo
- · Levels for the bass and drums
- · Bass inversion
- · Chord lock method
- · Chord sync
- · Sync mode
- · Keyboard range over which chords are recognized
- · Reverb send levels for the bass and drums
- · Chord progression function settings



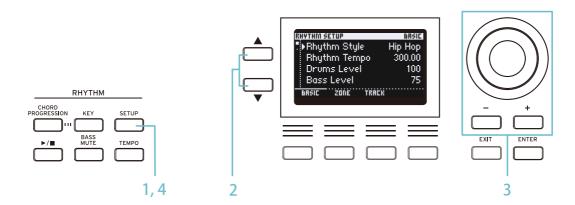
Any changes you make to these settings are automatically written to memory after several seconds, and are retained even after the power is turned off.

Note: You can save the RHYTHM section parameters as a favorite.

→ Save options for the RHYTHM section parameters (Rhythm)

### Steps for setting the rhythm

The steps for making rhythm settings basically involve the following operations.



1 Press the SETUP button in the RHYTHM section. The SETUP button lights up.

The BASIC page for RHYTHM SETUP is shown in the display.



The RHYTHM SETUP page is divided into four pages: BASIC, ZONE, TRACK and CHORD PROGRESSION.

Press the respective function buttons that are below the page names in the display to directly jump to each page.

- 2 Use the  $\triangle/\nabla$  buttons to select a parameter.
- 3 Use the value dial or the +/- buttons to edit the settings.

  The values and setting details are shown to the right of the parameters.

Changing these values will immediately apply them as system settings and save them to memory, even after the power is turned off.

- → RHYTHM section parameters
- 4 After you are finished with the settings, press the SETUP button or the EXIT button. The SETUP button will go dark.

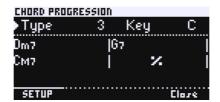
### Chord progression function

#### What is the chord progression function?

You can use the chord progression function to select a template of chord progressions that are often used in rock, pop, jazz on other music styles, and then specify a key for the accompaniment. This is useful when you want to practice melodies, solos and so on.

### | Chord progression function settings

1 Press the CHORD PROGRESSION button in the RHYTHM section. This turns the chord progression function on (the button lights up), and the CHORD PROGRES-SION page is displayed. This page shows the chord progression type, key and the chord progression itself.



2 Press the ▲/▼ buttons to select "Type", and use the value dial or the +/- buttons to select the chord progression.

When the CHORD PROGRESSION page first appears, the Type is automatically selected.

There are 22 chord progression presets and 20 user settings.

See the "Sound Name List" for the types of chord progressions that are available.

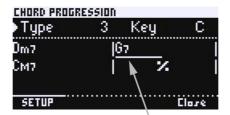
3 Press the ▲/▼ buttons to select "Key", and use the value dial or the +/- buttons to select the key of the accompaniment.

*Tip:* When you press the KEY button on the panel, a dialog box for setting the key appears. You can also use the value dial, the +/- buttons or the keyboard to set the key while the dialog box is shown.



4 Press the ►/■ button.

This starts the accompaniment, which plays with the chord progression and key that you set. The bar shown under the chord indicates the current location within the chord progression that's playing.



Bar indicating the location of the chord progression

*Tip:* You can change the type and key even while the accompaniment is playing. If you've edited these settings, these changes are applied at the beginning of the measure.

- 5 To stop playing, press the ►/■ button.
  The ►/■ button goes dark, and the accompaniment stops.
- 6 Press the CHORD PROGRESSION button to turn the chord progression function off.

#### User settings for the chord progression (user chord progression)

By changing the accompaniment ("Chord Progression") to a type from User 1 to User 20, you can create your own chord progressions as you like, with chord changes every two beats up to 16 measures in length.

1 Set "Type" in the CHORD PROGRESSION page to a type from "User 1" to "User 20".



2 Press the function button corresponding to "USER EDIT", located below the display. The user chord progression edit screen is shown.



3 Set the number of measures using the "Length" parameter.



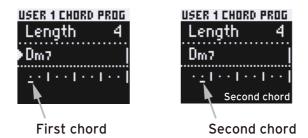
You can set the length from one to 16 measures.

4 Press the ▲/▼ buttons to select the step to set, and use the value dial or the +/- buttons to select the chord root note (C-B). To set a chord type such as minor or major 7th, or to set a repeat symbol, use the value dial or the +/- buttons while holding down the ENTER button.



You can set two chords in one measure.

An underline is shown under the location you're setting within the measure.



5 To specify a bass note for a chord, press the function button that corresponds to "/BASS". This highlights "/BASS" in the display.



6 Press the ▼ button to move the cursor to the chord, and use the value dial to specify the bass note.



7 Once you've inputted all of the chords, press the EXIT button to exit the settings.

### RHYTHM section parameters

#### Rhythm Style

Sets the style for the rhythm.

#### **Rhythm Tempo**

Sets the playback tempo of the rhythm. The tempo can be set within a range of ? =40.00-300.00.

*Tip:* Turn the value dial to edit the integer values. Turn the value dial while holding down the ENTER button to fine-tune the decimal values. For instance, when the tempo value is 100.12 and you turn the value dial, the value changes to 101.00, 102.00 and so on, or to 99.00, 98.00 and so on.

#### **Drums Level**

Sets the drum volume.

#### Bass Level

Sets the bass volume.

#### **Bass Inversion**

Sets whether to recognize the lowest note of the chord you play on the keyboard as the bass note or not.

**On:** The lowest note of any inverted chord you play is regarded as the bass note of that chord. This lets you specify the bass notes in compound chords, such as Am7/G or F/G.

**Off:** The root note and bass note are always considered to be the same for the chords you play, regardless of their inversion.

#### **Chord Lock**

Chord Lock is a function that holds the current chord that's being recognized by auto-accompaniment, and limits moving to chords that are different.

For instance, if you want to make the instrument recognize an E chord and then you want to play a solo phrase over that chord, the auto-accompaniment doesn't respond to any other chord you play besides an E chord as part of the phrase, thus keeping E as the base.

When you set this to a setting besides "Off", chords continue to be recognized while you're either pressing or releasing the pedal. This lets you freely play the keyboard along with auto-accompaniment that matches the chords that are being held. When you want to go to the next chord, release (or press) the pedal and play the new chord on the keyboard.

Note: By default, the MIDI CC#15 message turns chord lock on/off.

 $\it Note$ : You can also control the chord lock function via foot switch or a MIDI CC#15 message.

→ Foot - Switch (foot switch functions)

**Off:** The chords you play on the keyboard are instantly recognized and updated.

**by Damper Off:** The chord that was recognized just before you took your foot off the damper pedal is held. The auto-accompaniment keeps playing without changing the chords you play on the keyboard.

**by Damper On:** The chord that was recognized just before you pressed the damper pedal is held. The auto-accompaniment keeps playing without changing the chords you play on the keyboard.

*Tip:* When Scan Zone is set to "All", you can play over the entire keyboard while the chords you play on the keyboard are used as chord data for the auto-accompaniment.

#### Sync Mode

This sets how auto-accompaniment starts.

**Immediately:** Press the  $\triangleright/\blacksquare$  button to start the accompaniment right away.

**Note On:** The accompaniment starts after you press the  $\blacktriangleright/\blacksquare$  button and then play the keyboard (note-on).

#### Scan Zone

Specifies the keyboard range over which chords are recognized.

**All:** Chords are recognized across the entire keyboard.

**Lower:** Chords are recognized in the key range from the split point down.

**Upper:** Chords are recognized in the key range from the split point up.

**Fixed:** Chords are recognized within the key range you specified using the Scan Bottom and Scan Top parameters.

#### Scan Bottom

#### Scan Top

These set the keyboard range when Scan Zone is set to "Fixed".

#### **Drums Reverb Send**

Sets the reverb send level for the drums.

#### **Bass Reverb Send**

Sets the reverb send level for the bass.

# System settings

- $\rightarrow \underline{\text{Types of system settings}}$
- $\rightarrow \underline{\text{Steps for making system settings}}$
- → <u>System setting parameters</u>

### Types of system settings

The settings that can be made here include overall settings for the Grandstage X including master tune, MIDI, controller functions and so on.

#### [BASIC]

- Master Tune (Tune)
- MIDI local control (Local Control)
- Velocity Curve (Velocity Curve)
- Convert Position (Convert Pos.)
- MIDI channel settings (MIDI ch)
- MIDI channel mode (MIDI ch mode)
- LAYER and SPLIT part MIDI channel settings (Layer Part ch, Split Part ch)
- Save options for the RHYTHM section parameters (Rhythm)
- Save options for the KEY TOUCH section parameters (Key Touch)
- Save options for the EQUALIZER section parameters (EQ)
- Save options for the ANALOG TONE section parameters (Analog Tone)
- Save options for the AUDIO IN section parameters (Audio In)

#### [CTRL]

- Foot Pedal (foot pedal functions)
- Foot Switch (foot switch functions)
- Part slider operation mode (Part Slider Mode)
- <u>Calibrating the damper pedal (Damper Pedal Calibration)</u>
- Calibrating the foot pedal (Foot Pedal Calibration)
- Calibrating the foot switch (Foot Switch Calibration)

#### [SYSTEM]

- Auto power off
- Adjusting the display brightness (Display Brightness)
- Adjusting the illumination of the KORG logo on the rear panel (Rear Illumination)
- Setting the system ID (System ID)
- Configuring the USB network settings (USB Network)
- Restoring the factory default settings (Factory Reset)

#### [FILE]

- Loading favorite data (LOAD Favorites)
- Saving favorite data (SAVE Favorites)



Once you make changes to these settings, they are automatically written to memory within several seconds, and are saved even after the power is turned off.

## Steps for making system settings

The steps for making system settings basically involve the following operations.

- Press the SYSTEM button.
   The SYSTEM button lights up.
   The system parameters are shown in the display.
- 2 Use the  $\triangle/\nabla$  buttons to select a parameter.
- 3 Use the value dial or the +/- buttons to edit the value. The values and setting details are shown to the right of the parameters. Changing these values will immediately apply them as system settings and save them to memory, even after the power is turned off.
- 4 After you are finished with the settings, press the SYSTEM button or the EXIT button. The SYSTEM button will go dark.

## System setting parameters

#### BASIC

#### Master Tune (Tune)

Sets the tuning for the entire keyboard.

Tuning can be set in cents (1 semitone=100 cents), within a range of ±50 cents (427.47...440...452.89 Hz). The default setting is "+0", or 440 Hz (the frequency for A4).

#### MIDI local control (Local Control)

Set whether the Grandstage X's own keyboard, wheels and other controls will control the Grandstage X's sound engine (On), or whether the Grandstage X's own keyboard will only be used to output MIDI messages to external devices, without controlling the Grandstage X's sound engine (Off). Normally, this is "On" when playing the Grandstage X by itself.

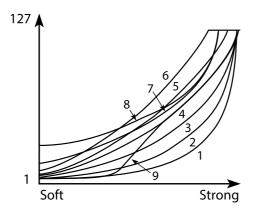
The default setting is "On".

→ MIDI local settings when connecting to an external MIDI sequencer or computer

#### **Velocity Curve (Velocity Curve)**

This sets how the volume and tone will be changed in response to the keyboard velocity (how hard the keys are played) on the Grandstage X.

The default setting is "4 (Normal)".



- 1 (Heavy), 2, 3: These curves produce an effect when you play strongly.
- **4 (Normal):** This is the typical curve.
- **5**, **6**: These curves let you produce dynamic change without having to play very hard.
- 7: This curve provides a flat effect when playing softly.
- 8 (Light): This curve provides an even flatter effect.
- **9 (Wide):** This curve produces an even softer response when you play softly, compared to the standard curve #4.

#### **Convert Position (Convert Pos.)**

This specifies the position at which the transposition and velocity curve will apply. The setting has an effect on MIDI data that is transmitted and received.

*Note:* The transpose value is set from the TRANSPOSE button.

→ Transposing (changing the key)

**Pre-MIDI:** Transposes and applies the velocity curve to data immediately after it is outputted from the keyboard.

**Post-MIDI:** Transposes and applies the velocity curve to data before it enters the sound generator.

This setting does not have an effect when playing the Grandstage X's own sounds using this keyboard.

The default setting is "Pre-MIDI".

→ Applying transpose and velocity curve settings to MIDI

#### MIDI channel settings (MIDI ch)

Specifies the MIDI channels on which the Grandstage X will transmit and receive (from 1-16).

The default setting is "1".

→ MIDI channel settings (MIDI ch)

#### MIDI channel mode (MIDI ch mode)

This selects the MIDI channel mode used by the Grandstage X to transmit and receive MIDI data.

**Global:** Uses only the channels set in "MIDI ch". When you play with layer or split mode programs, this keyboard transmits and receives on only one channel.

**Indiv. (Individual):** Uses the respective channels set in "MIDI ch", "Layer Part ch" and "Split Part ch" to transmit/receive MIDI signals for the MAIN, LAYER and SPLIT parts.

The default setting is "Global".

#### LAYER and SPLIT part MIDI channel settings (Layer Part ch, Split Part ch)

This setting is enabled when MIDI ch mode is set to "Indiv.". Specifies the MIDI channels (1-16) for the LAYER and SPLIT parts of the Grandstage X.

→ MIDI channel settings (MIDI ch)

The default settings are "2" for the LAYER part and "3" for the SPLIT part.

Note: Specify the MIDI channel for the MAIN part in "MIDI ch".

#### Save options for the RHYTHM section parameters (Rhythm)

This sets whether to save the RHYTHM section parameters as a favorite or as global parameters for the Grandstage X.

#### Save options for the KEY TOUCH section parameters (Key Touch)

This sets whether to save the KEY TOUCH section parameters as a favorite or as global parameters for the Grandstage X.

When saving as a favorite, the key touch settings can be saved separately for each favorite. For example, you can create two favorites that use the same sound. One of the favorites can be set for playing louder at a stable level, and the other can be set for playing over a wide dynamic range (from a loud fortissimo down to a delicate pianissimo). In this way, you can select the favorite you want according to the genre you're playing.

#### Save options for the EQUALIZER section parameters (EQ)

This sets whether to save the EQUALIZER section parameters as a favorite or as global parameters for the Grandstage X.

#### Save options for the ANALOG TONE section parameters (Analog Tone)

This sets whether to save the ANALOG TONE section parameters as a favorite or as global parameters for the Grandstage X.

#### Save options for the AUDIO IN section parameters (Audio In)

This sets whether to save the AUDIO IN section parameters as a favorite or as global parameters for the Grandstage X.

### CTRL (CONTROLLERS)

#### Foot - Pedal (foot pedal functions)

This sets the functions that will be controlled when a foot pedal (such as the XVP-20 or EXP-2, sold separately) is connected to the FOOT CONTROLLERS PEDAL jack on the rear panel. This allows the volume and effects to be controlled.

The default setting is "Expression (#11)".

Off: The connected pedal does not function.

**Expression (#11):** Controls the expression pedal. Use this setting to control the output volume of the MAIN, LAYER and SPLIT parts. The value of the MIDI Volume (CC#7) message and the expression are multiplied to get the actual volume. (\*1) (\*2) Some programs operate in a special way. For programs with the words "Pedal Wah" in the name, the pedal controls the pedal wah effect within the program, not the volume.

**Volume (CC#7):** Used to control the volume. Use this setting to control the output volume of the MAIN, LAYER and SPLIT parts. (\*1)

**Master Volume:** Sends a master volume message (universal exclusive message) to control the final volume of all sound source outputs, including the REVERB/DELAY section and the equalizer. (\*3)

Mod Wheel (#1): Lets you control the modulation wheel effect of the Grandstage X by pedal.

**MIDI CC#0...#95, #102... #119:** Outputs the MIDI control change message that is set. If the Grandstage X supports this control change setting, the effect is applied.

\*1: Controls the volume of the REVERB/DELAY section and the equalizer prior to input.

\*2: On the CX-3 type organ programs, this controls the volume before the rotary speaker input. Recreates the effect of an expression pedal used with drawbar organs. The expression pedal effect can be recreated in the same way for VOX organ and electric organ programs as well.

\*3: The effects are applied apart from the VOLUME slider.

#### Foot - Switch (foot switch functions)

This sets the functions that will be controlled when a foot switch (PS-1 or PS-3, sold separately) is connected to the FOOT CONTROLLERS SWITCH jack on the rear panel. This allows you to switch between favorites, as well as control sounds and effects.

The default setting is "SW2 (CC#81)".

**Off:** The connected pedal does not function.

**SW 1 (CC#80):** This controls the SW1 button effect with the foot switch.

**SW 2 (CC#81):** This controls the SW2 button effect with the foot switch.

**Soft (CC#67):** Turns the soft pedal effect on or off.

**Program Up:** Selects the next program number with the foot switch.

**Program Down:** Selects the previous program number with the foot switch.

**Favorite Up:** Selects the next favorite number using a foot switch. At the same time, this sends a program change message.

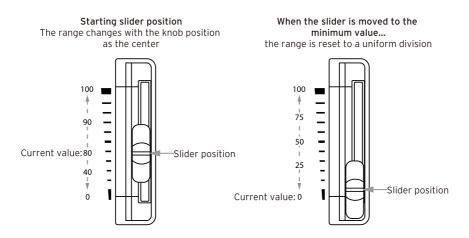
**Favorite Down:** Selects the previous favorite number using a foot switch. At the same time, this sends a program change message.

MIDI CC#0...#95, #102...#119: Outputs the MIDI control change message that's set. If the Grandstage X supports this control setting, the effect will be applied.

#### Part slider operation mode (Part Slider Mode)

This configures what happens when you operate the sliders in the PART CONTROL section.

**Scale:** The slider position is the current parameter value. For the parameter range when you move the slider, the current value decreases when you move the slider down, and the current value increases when you move the slider up. When you move the slider all the way up or down, the range is reset. Refer to the diagram below.



**Jump:** When you move the slider, the parameter value instantly jumps to the value corresponding to that position.

Note: The default setting is "Scale".

#### Calibrating the pedal

#### Calibrating the damper pedal (Damper Pedal Calibration)

Calibrate the damper pedal (such as the DS-1H) that is connected to the DAMPER jack. This will adjust the half-damper variable range.

Tip: The calibration set here will be stored in memory until you perform the calibration again.

- 1 Connect the damper pedal to the Grandstage X.
  - → Foot controllers
- 2 Lift your foot off the damper pedal.
- 3 Press the SYSTEM button, use the ▲/▼ buttons to select "Damper Pedal Calibration" and press the ENTER button.
  - "Damper Pedal Calibration [Press Pedal]" appears on the display.

Note: If you wish to cancel the calibration while "[Press Pedal]" is shown, press the SYSTEM or EXIT button to exit.

4 Press the damper pedal down all the way until it stops, and then lift your foot off the pedal.

*Note*: If nothing happens even when you press the pedal, the pedal may not be connected properly to the DAMPER jack. Check the connections.

5 When the calibration is completed, the word "Completed" appears in the display.

Note: If calibration was not correctly completed, the display does not change. Do step 4 once more.

6 Press the EXIT button.

#### Calibrating the foot pedal (Foot Pedal Calibration)

Calibrate the expression pedal (such as the XVP-20 or EXP-2, sold separately) that is connected to the PEDAL jack. This will adjust the pedal's variable range.

Tip: The calibration set here will be stored in memory until you perform the calibration again.

- 1 Connect the expression pedal to the Grandstage X.
  - → Foot controllers
- 2 Tilt the expression pedal all the way down towards you.
- 3 Press the SYSTEM button, use the  $\triangle/\nabla$  buttons to select "Foot Pedal Calibration" and press the ENTER button.
  - "Expression Calibration [Press Pedal]" appears on the display.

 $\it Note$ : If you wish to cancel the calibration while "Expression Calibration [Press Pedal]" is shown, press the SYSTEM or EXIT button to exit.

4 Press the expression pedal upward all the way until it stops, and then bring the pedal all the way

*Note*: If nothing happens even when you press the pedal, the pedal may not be connected properly to the PEDAL jack. Check the connections.

5 When the calibration is completed, the word "Completed" appears in the display.

*Note*: If calibration was not correctly completed, the display does not change. Do step 4 once more.

6 Press the EXIT button.

#### Calibrating the foot switch (Foot Switch Calibration)

Calibrate the switch-type foot pedal (such as the PS-1 or PS-3, sold separately) that is connected to the SWITCH jack. This will adjust the pedal's variable range.

Tip: The calibration set here will be stored in memory until you perform the calibration again.

- 1 Connect the switch-type foot pedal to the Grandstage X.
  - → Foot controllers
- 2 Lift your foot off the foot pedal.
- 3 Press the SYSTEM button, use the  $\triangle/\nabla$  buttons to select "Foot Switch Calibration" and press the ENTER button.
  - "Foot Switch Calibration [Press Pedal]" appears on the display.

*Note*: If you wish to cancel the calibration while "Foot Switch Calibration [Press Pedal]" is shown, press the SYSTEM or EXIT button to exit.

4 Press the foot pedal down all the way until it stops, and then lift your foot off the pedal.

*Note*: If nothing happens even when you press the pedal, the pedal may not be connected properly to the SWITCH jack. Check the connections.

5 When the calibration is completed, the word "Completed" appears in the display.

Note: If calibration was not correctly completed, the display does not change. Do step 4 once more.

6 Press the EXIT button.

#### SYSTEM

#### Auto power off

When a set period of time has passed without playing the keys, operating the knobs and sliders or pressing the buttons on this keyboard, the power is automatically turned off. This is called "auto power off".

Select a setting of either "Disabled" or "4 Hours".

The default setting is "4 Hours", which means that the power will automatically turn off if the Grandstage X is not used for four hours.

#### Adjusting the display brightness (Display Brightness)

Sets the display brightness.



Continuing to use the Grandstage X while the brightness is set to a high value will have an effect on the life of the display.

#### Adjusting the illumination of the KORG logo on the rear panel (Rear Illumination)

This sets the brightness of the rear panel KORG logo.

#### Setting the system ID (System ID)

When connecting more than one Grandstage X to your computer, set the system ID for each unit to a different number so that they can be individually recognized.

#### Configuring the USB network settings (USB Network)

This configures the protocol used when this instrument communicates with your computer, such as when updating the software.

**RNDIS:** If you're using Windows 7 or 8, use this setting.

**NCM:** If you're using macOS or Windows 10 or later, use this setting.

The default setting is "NCM".



The changes you make to this parameter's setting are enabled after you restart the Grandstage X.

#### Restoring the factory default settings (Factory Reset)

The Grandstage X can be returned to its factory default settings.



This will reset (initialize) the favorite data and system setting data. Any edited or newly created favorite data will be overwritten, and your data will be lost. If you want to keep your favorite data, save the data to an SD card (commercially available). This operation resets all system settings, including calibration data. You will need to make the settings and perform calibration once more.



While resetting, do not turn off the Grandstage X's power, play the keyboard, or move any buttons, knobs or controllers. Doing so may cause the reset operation to fail, and you will be unable to use the Grandstage X.

- 1 Press the SYSTEM button to enter system settings.
- Press the function button corresponding to "SYSTEM" below the display to access the SYSTEM page.
- 3 Use the ▲/▼ buttons to select "Factory Reset", and press the ENTER button. "This will reset all settings and favorites. Press [OK] to start." is shown in the display.

*Note*: To cancel the factory reset operation, press the rightmost function button to exit.

- 4 Press the function button below the display that corresponds to "OK", which is shown at the bottom of the display.

  When the reset is completed, the message "Successfully done." appears.
- 5 Press the rightmost function button to exit the system settings.

### FILE

#### Saving favorite data (SAVE Favorites)

This shows how to save the 100 favorites that have been edited on or written to the Grandstage X to an SD card.

For instance, you could save the favorites that you created in your home studio to an SD card, and then reload these favorites in the studio or onstage to the Grandstage X, which will bring back the favorite sounds you created in your home studio. Also, by managing your favorites that might differ for each live performance or project as a .FAV file, you can instantly prepare a "set" of the favorites that you need each time.

- 1 Insert an SD card into the SD card slot of the Grandstage X.
- Press the SYSTEM button to enter system settings.
- 3 Press the rightmost function button to access the FILE page.
- 4 Use the ▼ button to select "SAVE Favorites", and press the ENTER button. A screen for setting the filename is shown in the display.

Note: To cancel the save operation, press the SYSTEM or EXIT button to exit.

*Note*: If an SD card is not available in the SD card slot, the message "NO VALID MEDIA" appears in the display, and the save operation is canceled. If this happens, press the EXIT button, insert an SD card and then press the ENTER button again.

Press the ▲/▼ buttons to select the character position, and use the value dial or the +/- buttons to select the characters for the filename.

"GSX0001" is shown by default. Filenames can be up to seven characters long.

*Note*: To cancel the filename renaming operation, press the EXIT button. The display returns to the FILE page.

6 Once you've set the filename, press the rightmost function button to save. After the save operation is done, the word "DONE" is shown in the display.

*Note*: If a file with the same name already exists where the file will be saved on the SD card, the message "FILE OVERWRITE" will be shown on the middle row of the display. To overwrite and save the file, press the second function button from the right. To cancel overwriting and saving the file, press the rightmost function button. The display returns to the FILE page. Edit the filename again, and then follow step 4 to save.

7 Press the SYSTEM or EXIT button to finish the system settings.

#### Storage media that can be used

This instrument is compatible with SD cards in FAT16 or FAT32 format.

#### Maximum usable storage capacity

FAT32: Up to 32 GB FAT16: Up to 4 GB

When saving data to storage media on the Grandstage X, the "KORG/Grandstage X" directory is automatically created in the media's root directory. When you execute "SAVE Favorites", a file with the .FAV extension is created in this directory.

If the SD card is not in FAT16 or FAT32 format, the message "NO VALID MEDIA" is shown. Format the storage media on your computer. If there is very little free space remaining on the storage media and data cannot be saved, the message "NO FREE SPACE" is shown. In this case, use your computer to delete any unnecessary files from the storage media to free up disk space. You can also use a different storage media with more capacity.



Only the .FAV files are shown, and you can select or load the files. Note that if you change the directory, folder hierarchy or filename using your computer, you will no longer be able to load



The Grandstage X recognizes the .FAV file extension. If you change the file extension on a computer or other device, the Grandstage X will recognize this as an undefined file, and will not be able to load it. The filenames saved by the Grandstage X are seven characters long. If you add more characters to a filename using your computer or other device, you may no longer be able to display any of the filenames on the storage media.

#### Loading favorite data (LOAD Favorites)

Here's how to load the favorite data (the 100 favorites that were saved to an SD card using the favorite data save function) into the Grandstage X's memory.



This operation overwrites all of the favorite data that's saved on the Grandstage X. If you want to keep your favorite data, save the data to an SD card (commercially available).

- 1 Insert the SD card that contains the favorite data you've saved into the SD card slot of the Grandstage X.
- 2 Press the SYSTEM button, use the ▲/▼ buttons to select "LOAD Favorites", and press the ENTER

The filenames of the data saved on the SD card are shown in the display.

Note: To cancel the load operation, press the SYSTEM or EXIT button to exit the system settings.

Note: If no SD card is inserted in the SD card slot, or if there is no file extension .FAV in either the KORG/ Grandstage X directory or the directory created when you performed "SAVE Favorites" on the Grandstage X, the "NO FAV FILE" appears in the display or "NO FILE/PATH" and the load operation is canceled. If this happens, insert the SD card that contains the .FAV file you saved, use the △/▼ buttons to select "LOAD Favorites", and go to step 2.

- If there is more than one file that can be loaded, use the  $\triangle/\nabla$  buttons to select the name of the file to load.
- 4 Press the ENTER button and press the second function button from the right to load. After the load operation is done, "DONE" is shown in the display.
- 5 Press the SYSTEM or EXIT button to finish the system settings.

## **MIDI** settings

- $\rightarrow \underline{\text{MIDI connections and settings}}$
- → MIDI messages

## MIDI connections and settings

### About MIDI

MIDI stands for Musical Instrument Digital Interface, and is a worldwide standard for exchanging various types of musical data between electronic musical instruments and computers.

When MIDI cables are used to connect two or more MIDI devices, performance data can be exchanged between the devices, even if they were made by different manufacturers. You can also use a USB cable to connect this instrument to your computer.

# | Connecting the Grandstage X to a MIDI device or computer

To exchange MIDI data between devices, connect the MIDI connector of your external device to the Grandstage X.

Note: The transmitting and receiving MIDI channels must be the same.

#### MIDI IN connector

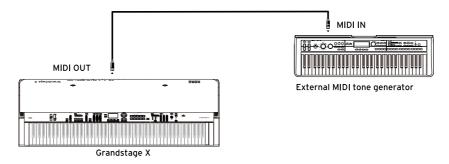
Connect the MIDI OUT connector of your external device to this connector to receive MIDI messages with the Grandstage X.

#### MIDI OUT connector

Connect the MIDI IN connector of your external device to this connector to transmit MIDI messages from the Grandstage X.

Controlling an external MIDI tone generator from the Grandstage X

If you want to use the Grandstage X's keyboard and controllers to play sounds and otherwise control an external MIDI tone generator, connect the Grandstage X's MIDI OUT connector to the external MIDI tone generator's MIDI IN connector with a MIDI cable.

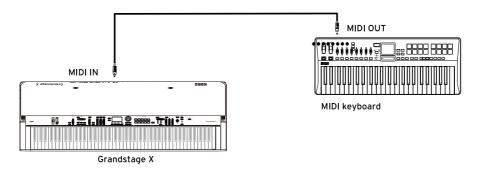


*Tip*: You can use the split function to assign different MIDI channels to the upper and lower parts of the keyboard, and transmit MIDI messages from each part to control the external MIDI tone generator.

- → MIDI channel settings (MIDI ch)
- → LAYER and SPLIT part MIDI channel settings (Layer Part ch, Split Part ch)
- → MIDI ch Mode (MIDI channel mode)

#### Controlling the Grandstage X's tone generator from an external MIDI device

To play or control the Grandstage X's sound generator from another MIDI keyboard, sequencer or similar device, connect the MIDI OUT connector of the external MIDI device to the Grandstage X's MIDI IN connector with a MIDI cable.



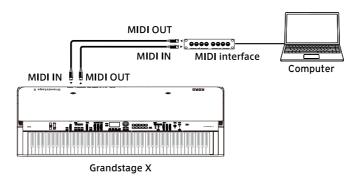
## Connecting the Grandstage X to an external MIDI sequencer, computer or similar device

To record what you play on the Grandstage X to an external MIDI sequencer/computer (connected via MIDI interface) and then use the Grandstage X for monitoring or playback while recording, or to use the Grandstage X as both a keyboard for inputting notes and also as a MIDI tone generator, connect the MIDI OUT/IN connectors of the Grandstage X and your external MIDI sequencer/computer respectively (OUT to IN, and IN to OUT).



You may not be able to exchange the MIDI system exclusive messages of the Grandstage X with certain MIDI interface devices.

Tip: Connecting via the USB port is handy when you want to connect the Grandstage X to your computer.



*Tip:* You can set different MIDI channels for the MAIN, LAYER and SPLIT parts. When the Grandstage X is connected to an external MIDI sequencer, computer or similar device, this lets you control the three parts of this instrument as separate sound sources.

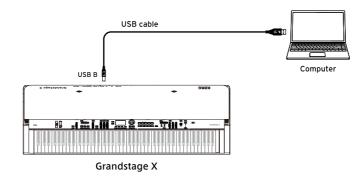
- → MIDI channel settings (MIDI ch)
- → MIDI ch Mode (MIDI channel mode)
- → LAYER and SPLIT part MIDI channel settings (Layer Part ch, Split Part ch)

#### Connecting to a computer via USB

Note: The Grandstage X is compatible with USB 2.0.

#### **USB B port**

Connect the USB A port on your Windows PC or Mac via USB cable to exchange MIDI messages.



#### Configuring various MIDI-related settings after connecting

#### MIDI channel settings (MIDI ch)

To exchange data with a connected external MIDI device, you must set the MIDI channel of the Grandstage X to match the MIDI channel of the external MIDI device.

Use the steps below to set the MIDI channel.

#### Setting the MIDI channel of the Grandstage X

- 1 Press the SYSTEM button. The SYSTEM button lights up, and "SYSTEM" is shown in the display.
- 2 Use the ▲/▼ buttons to select "MIDI ch".
- 3 Use the value dial to set the MIDI channel.
- 4 After you are finished with the settings, press the SYSTEM button or the EXIT button. The SYSTEM button will go dark.

#### MIDI ch Mode (MIDI channel mode)

This selects the MIDI channel mode used by the Grandstage X to transmit and receive MIDI data.

**Global:** Uses only the channel set in "MIDI ch". Only one channel is used for transmitting and receiving data, even when you're using the LAYER or SPLIT parts.

Indiv.: Uses the respective channels set in "MIDI ch", "Layer Part ch" and "Split Part ch" to transmit/ receive MIDI signals for the MAIN, LAYER and SPLIT parts (the default settings are channels 1, 2 and 3). Select this if you want to control an external MIDI device with different MIDI channels using the SPLIT setting, or when you want to play the three part sounds on separate MIDI channels from an external MIDI device.

Normally, this is set to "Global", and the default setting is "Global".

- 1 Press the SYSTEM button.
  The SYSTEM button lights up, and "SYSTEM" is shown in the display.
- 2 Use the ▲/▼ buttons to select "MIDI ch mode".
- 3 Use the value dial to select "Global" or "Indiv.".
- 4 After you are finished with the settings, press the SYSTEM button or the EXIT button. The SYSTEM button will go dark.

#### MIDI channel settings for the LAYER and SPLIT parts (Layer Part ch, Split Part ch)

This setting is enabled when MIDI ch mode is set to "Indiv.". Specifies the MIDI channels on which the Grandstage X will transmit and receive for the LAYER and SPLIT parts.

→ MIDI ch Mode (MIDI channel mode)

Note: Specify the MIDI channel for the MAIN part in "MIDI ch".

- 1 Press the SYSTEM button. The SYSTEM button lights up.
- 2 Use the ▲/▼ buttons to select "Layer Part ch" or "Split Part ch".
- 3 Use the value dial to set the channel.
- 4 After you are finished with the settings, press the SYSTEM button or the EXIT button. The SYSTEM button will go dark.

#### MIDI local settings when connecting to an external MIDI sequencer or computer

If the Grandstage X is connected to an external MIDI sequencer or computer, and the Echo Back setting of the external MIDI sequencer or computer is turned on while the Grandstage X's local control setting is also on, the performance data generated when you play the Grandstage X's keyboard is sent to the external MIDI sequencer, and is also echoed back to trigger the Grandstage X's tone generator a second time. To prevent this kind of echo-back from happening, you can turn off local control on the Grandstage X in system settings (SYSTEM - "Local Control").

#### Setting MIDI local control on the Grandstage X

- 1 Press the SYSTEM button. The SYSTEM button lights up.
- 2 Use the ▲/▼ buttons to select "Local Control".
- 3 Use the value dial to change the setting to "Off".
- 4 After you are finished with the settings, press the SYSTEM button or the EXIT button. The SYSTEM button will go dark.

#### Applying transpose and velocity curve settings to MIDI

Use the Convert Position system setting parameter on the Grandstage X (SYSTEM - Convert Pos.) to specify the position at which the transposition and velocity curve is applied. This setting is applied to MIDI data that's transmitted and received, but has no effect when you play the Grandstage X's own sounds using this keyboard.

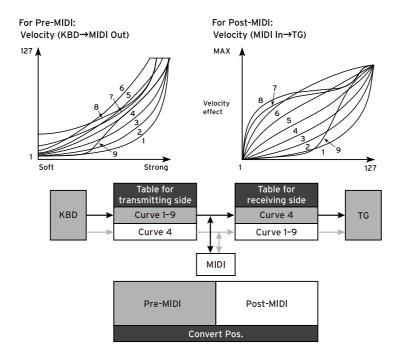
The default setting is "Pre-MIDI".

**Pre-MIDI:** Transposes and applies the velocity curve to data immediately after it is outputted from the keyboard.

- The data to which velocity curve and transpose settings are applied is transmitted from the MIDI OUT when you play the keyboard. This is applied to the MIDI OUT data.
- Data received via MIDI IN is sent to the sound generator as-is.

**Post-MIDI:** Transposes and applies the velocity curve to data before it enters the sound generator.

- Data from this keyboard is transmitted as-is to MIDI OUT. This is not applied to the MIDI OUT
  data
- Velocity curve and transpose settings are applied to the data that's received via MIDI IN, and sent to the sound generator.



### MIDI messages

# | MIDI messages transmitted/received by the Grandstage X

[ ... ] indicates a hexadecimal value.

#### MIDI channel

#### Global MIDI channel

MIDI channels 1-16 are available.

MIDI messages can be exchanged between devices if their MIDI transmit and receive channels are the same.

The MAIN, LAYER and SPLIT part programs use the same MIDI channel by default to transmit and receive data.

This MIDI channel is the base channel used for transmitting and receiving MIDI data on the Grandstage X. The MAIN part always transmits and receives via the global MIDI channel.

#### MIDI channels for the LAYER and SPLIT parts

You can set the LAYER and SPLIT parts to transmit and receive on different MIDI channels from the MAIN part.

→ Configuring various MIDI-related settings after connecting

#### MIDI channel mode

→ MIDI ch Mode (MIDI channel mode)

#### MIDI messages

These are MIDI messages that are transmitted and received to play and mute sounds (turn notes on/off), switch between sounds, control sounds and more.

The following explains the main MIDI messages used by the Grandstage X.

#### Channel messages

#### Playing/muting sounds

Note-on and note-off messages are used to turn notes on and off.

When you play a note on the keyboard of the Grandstage X, a note-on message is transmitted; and when you release a note, a note-off message is transmitted. Also, when this instrument receives these messages, the notes on the Grandstage X are turned on or off, according to the note number and velocity of the data received.

Note On [9n, kk, vv]

Note Off [8n, kk, vv]

n: Channel, kk: Note number, vv: Velocity

The transmit and receive channel for note-on and note-off messages depend on the "MIDI ch mode" setting.

→ MIDI ch Mode (MIDI channel mode)

*Note:* Although not many devices accept velocity data for note-off messages, the Grandstage X both receives and transmits this data.

#### Switching between favorites

#### The favorites on the Grandstage X can be switched using program change messages.

When you switch to a different favorite on the Grandstage X, a program change message corresponding to that favorite number is transmitted. Conversely, when the Grandstage X receives said data, the instrument switches to the corresponding favorite number.

Program Change [Cn, pp]

(n: channel, pp: up to 100 sounds can be selected using program numbers)

The favorites on the Grandstage X (1-01 through 10-10) can be switched using program change messages [Cn, 00]-[Cn, 63].

The instrument transmits and receives via the channel set in "MIDI ch" (the global MIDI channel), regardless of the "MIDI ch mode" setting.

#### Sound control

#### Pitch bend

When you operate the pitch bend wheel on the Grandstage X, the pitch bend effect is applied and a pitch bend change message is transmitted at the same time. When a pitch bend message is received, pitch bend is applied to what you play.

The pitch bend range is set to a value that's optimum for each program.

Pitch Bend Change [En, bb, mm]

(n: channel, bb: lower value, mm: higher value)

Higher value	Lower value		Actual pitch (when the pitch bend value = +2)
127	127	8191	+2
64	00	0	0
00	00	-8192	-2

#### Control change messages

Control change messages are used to control the volume, sound and so on. The Grandstage X transmits control change messages when you operate the modulation wheel, use the foot controllers and so on. Also, when this instrument receives a control change message, various effects are applied according to the control change number to which they are assigned.

Control Change Messages [Bn, cc, vv]

(n: channel, cc: control change number, vv: value)

The transmit and receive channels for pitch bend change and control change messages depend on the "MIDI ch mode" setting.

- → MIDI ch Mode (MIDI channel mode)
  - When "MIDI ch mode" is "Indiv." (Individual)

*Tip*: The CC#64 (damper pedal) can be set to transmit/receive off or on with the Damper Off/On program parameter for each part. Similarly, you can transmit/receive a CC#80/81 (SW1/2) control message when SW1/SW2 are toggled off/on; and set the Other Controls parameter to turn transmit/receive off/on for pitch bend messages, CC#1 (modulation wheel) messages and control change messages for the foot switch and pedal.

#### How to use control change messages on the Grandstage X

There are 128 different control change messages (CC#0 through CC#127), and the effects and functions for each CC message are defined by the MIDI standards.

Sound control: CC#0-95 and CC#102-119 Value and function control: CC#96-101

Sound generator operation and initialization: CC#120-127

You can use the sound control messages (CC#0-95 and CC#102-119) to control and make changes to the sound of the Grandstage X.

#### Frequently-used control change messages

Here's a list of some control change messages supported by the Grandstage X that are typically used.

Note: The functions mentioned here are described in their factory default state.

#### Applying modulation using the modulation wheel

CC#1: Modulation Depth [Bn, O1, vv]

(standard: modulation wheel)

Controls the vibrato effect applied to the sound.

Modulation depth messages are transmitted when you operate the modulation wheel on the Grandstage X. A value of "0" is transmitted when the wheel is all the way down (minimum position).

When this message is received, an effect similar to operating the modulation wheel on the Grandstage X is applied.

#### Volume control

CC#11: Expression [Bn,OB, vv]

Adjusts the volume of the program. Controls the output volume for the MAIN, LAYER and SPLIT parts.

*Note*: On the CX-3 type organ programs, this controls the volume before the rotary speaker input. Recreates the effect of an expression pedal used with drawbar organs. The expression pedal effect can be recreated in the same way for VOX organ and electric organ programs as well.

*Note*: This functions differently from normal in some programs. For programs that include the words "Pedal Wah", the pedal controls the pedal wah effect within the program, not the volume.

When you assign "Expression (CC#11)" to the Foot Pedal function in system settings, you can operate the pedal to transmit expression control change messages, which changes the volume. When this message is received, an effect similar to operating the pedal on the Grandstage X is applied.

CC#7: Volume [Bn, O7, vv]

Adjusts the volume of the program. This controls the output volume of the MAIN, LAYER and SPLIT parts.

When you assign "Volume (CC#7)" to the Foot Pedal function in system settings, you can operate the pedal to transmit volume control change messages, which changes the volume. When this message is received, an effect similar to operating the pedal on the Grandstage X is applied.

*Note*: The program volume is set as a combination of the LEVEL knob value, the volume message value and the expression message value.

*Note*: When you use a universal system exclusive message (master volume) this controls the volume of all outputs, including the REVERB/DELAY section and the equalizer.

#### Panpot (stereo position) control

CC#10: Panpot [Bn, OA, vv]

Controls the position (pan) in the stereo field. This controls the panpot of the output from the MAIN, LAYER and SPLIT parts.

When you assign "CC#10" to the Foot Pedal function in system settings, you can operate the pedal to transmit panpot messages, which changes the panning.

When this message is received, the actual stereo (pan) position of the sound changes (left to center to right), corresponding to the values (0-64-127).

#### Controlling using the various controllers

Here's an explanation of some typical ways to use the various controllers.

You can select "MIDI CC#0" through "MIDI CC#119" for the Foot Pedal and Switch parameters in system settings.

CC#64: Damper Pedal [Bn, 40, vv]

(Standard: DAMPER jack)

This transmits a CC message when you operate the damper pedal (DS-1H, included) that's connected to the DAMPER jack, turning the damper effect on/off.

The DS-1H can also be used for a half-damper effect. When this message is received, an effect similar to operating the damper pedal is applied.

CC#80: SW1 Modulation [Bn, 50, vv] CC#81: SW2 Modulation [Bn, 51, vv] (Standard: SW1 button, SW2 button)

When you operate the SW1 or SW2 buttons, vv=127[7F] is transmitted for ON and vv=0[00] is transmitted for OFF, which switches the effects that are set for each program on/off. When this message is received, the result is similar to operating the SW1 or SW2 buttons (OFF when the value is 63[3F] or less, and ON when the value is 64[40] or more).

CC#66: Sostenuto [Bn, 42, vv]

When the CC numbers shown above are set for the "Foot - Switch" function in system settings and you operate the sostenuto pedal, vv=127[7F] is transmitted for ON and vv=0[00] is transmitted for OFF, which toggles the sostenuto effect on/off. When this message is received, the result is similar to operating the foot switch (OFF when the value is 63[3F] or less, and ON when the value is 64[40] or more).

CC#67: Soft Pedal [Bn, 43, vv]

When the CC numbers shown above are set for the "Foot - Switch" function in system settings and you operate the soft pedal, vv=127[7F] is transmitted for ON and vv=0[00] is transmitted for OFF, which toggles the soft pedal effect on/off. When this message is received, the result is similar to operating the foot switch (OFF when the value is 63[3F] or less, and ON when the value is 64[40] or more).

#### Sound generator operation and initialization

Some special control change messages are used to initialize sound generators. These settings can only be received by this instrument, and can't be transmitted.

CC#123: All Notes Off [Bn, 7B, vv]

CC#120: All Sound Off [Bn, 78, vv]

When an All Notes Off message is received, all notes that are currently playing on that channel are turned off.

This works in the same way as when you take your fingers off the keys, so the release portion of the sound (the part of the sound that rings out) is still heard.

On the other hand, when an All Sound Off message is received, although all sounds that are currently playing on that channel are turned off, not only the notes but also the sound itself stops, so the release portion of the sound is not heard.

These "mute" messages are used only in emergencies, and are not used when you're playing.

CC#121: Reset All Controllers [Bn, 79, vv]

When this message is received, the values for all controllers operating on that channel are reset.

#### System real-time messages

#### Active Sensing [FE]

This MIDI message is used to deal with troubles when you're performing, such as when the transmitting device is turned off, or when the MIDI cable is unplugged or disconnected while you're playing. If more than 300 msec passes without an active sensing message being received, the instrument determines that there is some problem with the MIDI cable, and turns off all MIDI notes as well as resets the controller values.

#### Timing Clocks [F8]

This message is transmitted and received to synchronize this instrument with another MIDI device. The Grandstage X automatically synchronizes with an external device if it receives a dynamic clock from that device. When no dynamic clock is received, this instrument uses the internal tempo to transmit dynamic clocks.

#### System exclusive (SysEx) messages

In addition to channel messages that handle performance data, MIDI also offers messages for transmitting and receiving information, control commands, and settings between MIDI devices. These messages are called "system messages".

A subset of system messages includes MIDI messages that manufacturers can use to expand the functionality of MIDI in unique ways. These messages are called "system exclusive messages". The Grandstage X can't be used to transmit or receive system exclusive messages.

#### Universal system exclusive messages (non-real-time)

Some system exclusive messages have standardized uses that are publicly released. These are called "universal system exclusive" messages.

The Grandstage X supports the following five universal system exclusive messages.

#### - Inquiry Message Request

[F0, 7E, nn, 06, 01, F7]

3rd byte nn: Channel

= 0 - F: Global Channel

= 7F: Any Channel

#### - Inquiry Message

[F0, 7E, 0g, 06, 02, (9 bytes), F7]

When an Inquiry Message Request is received, an inquiry message that states "this is a KORG Grandstage X, system version XXX" is returned.

[F0, 7E, 0g, 06, 02, 42, 6C, 01, 07, 00, vv, ww, xx, 00, F7]

3rd byte g: Global Channel

6th byte 42: KORG ID

7th byte 6C: Grandstage X series LSB ID

8th byte 01: Grandstage X series MSB ID

9th byte 07: Grandstage X member code

11th byte vv: System Version 1st (1 -)

12th byte ww: System Version 2nd (0 -)

13th byte xx: System Version 3rd (0 -)

(i.e. Version 1.0.2: vv=01, ww=00, xx=02)

#### Universal system exclusive messages (real-time)

#### - Master Volume

[F0, 7F, 0g, 04, 01, vv, mm, F7]

(3rd byte g: Global Channel, vv: lower value, mm: upper value, 16,384 steps for both combined)

If you set "Master Volume" for the foot pedal function in system settings, this message is transmitted when you operate the pedal, which changes the output volume at the final stage. When this message is received, an effect similar to operating the pedal on the Grandstage X is applied.

#### - Master Fine Tuning

[F0, 7F, nn, 04, 03, vv, mm, F7]

(set to center when the value is 8192 [mm, vv=40, 00], -50 when the value is 4096 [mm, vv=20, 00], and +50 cents when the value is 12288 [mm, vv=60, 00]).

When this message is received, "Tune(Master Tune)" in system settings is set.

3rd byte nn: Channel

= 0 - F: Global Channel

= 7F: Any Channel

#### - Master Coarse Tuning

[F0, 7F, nn, 04, 04, vv, mm, F7]

(Normally, only the upper value mm is used. This is set to center when the value is 8192 [mm, vv=40, 00], -12 semitones when the value is 6656 [mm, vv=34, 00], and +12 semitones when the value is 9728 [mm, vv=4C, 00]).

When this message is received, Transpose is set.

3rd byte nn: Channel

= 0 - F: Global Channel

= 7F: Any Channel

## How the Grandstage X works when transmitting/receiving control change messages

The way that the Grandstage X works when receiving control change messages, as well as the operations of the controllers on the Grandstage X that correspond to the control change messages and how the settings are related are shown below.

Messages are transmitted and received on the same channel. If you are using two Grandstage X instruments and wish to transmit and receive parameters between them, both instruments must be set to the same transmit and receive MIDI channel.

You can assign either control change number "MIDI CC#0" through "MIDI CC#119" for the Foot Pedal and Switch parameters in system settings. The transmit value ranges are all O-127 for Foot Pedal, and O (Off) or 127 (On) for Foot Switch.

CC#	Control	Value	Function
0	Bank Select (MSB)	0127	-
1	Modulation wheel	0127	Equivalent to operating the modulation wheel
2	Breath Controller	0127	-
3	-	-	-
4	Foot controller	0127	-
5	Portamento Time	0127	-
6	Data Entry (MSB)	0127	-
7	Volume	0127	Volume (output stage of MAIN, LAYER and SPLIT)
8	Balance	0127	-
9	-	-	-
10	Panpot	0127	Pan (output stage of MAIN, LAYER and SPLIT)
11	Expression	0127	Volume (output stage of MAIN, LAYER and SPLIT)
12	Effect Control 1	0127	-
13	Effect Control 2	0127	-
14	-	-	-
15	Controllers (CC#: 15)	063(Off), 64127(On)	Chord Lock Function
16	General Purpose Controller 1	0127	-
17	General Purpose Controller 2	0127	-
18	General Purpose Controller 3	0127	-
19	General Purpose Controller 4	0127	-
2031	-	-	-
32	Bank Select (LSB)	0127	-
3337	-	-	-
38	Data Entry (LSB)	0127	-
3963	-	-	-
64	Damper Pedal	0127	Damper Effect
65	Portamento On/Off	063(Off), 64127(On)	-

CC#	Control	Value	Function
66	Sostenuto On/Off	063(Off), 64127(On)	Turns sostenuto effect on/off
67	Soft	0127	Soft pedal effect
6869	-	-	-
7079	Sound Controllers 110	0127	-
80	Controller (CC#80)	063(Off), 64127(On)	Equivalent to toggling SW1 on/ off
81	Controller (CC#81)	063(Off), 64127(On)	Equivalent to toggling SW2 on/off
8290	-	-	-
91	-	-	-
92	-	-	-
93	-	-	-
94	-	-	-
95	-	-	-
96	Data Increment	0	-
97	Data Decrement	0	-
98	NRPN (LSB)	-	-
99	NRPN (MSB)	-	-
100	RPN (LSB)	-	-
101	RPN (MSB)	-	-
102119	-	-	-

 $<sup>^*</sup>$ 1: The volume control via MIDI channel messages for the Grandstage X is a combination of Volume (CC#7) and Expression (CC#11).

## **Appendices**

- $\to \underline{\text{Troubleshooting}}$
- $\to \underline{\text{Error messages}}$

## **Troubleshooting**

#### Power does not turn on.

- Is the power cord connected to an AC outlet?
- · Have you pressed the power button?

#### Power won't turn off.

• Did you hold down the power button for a while?

#### Power turns off.

• The auto power off function may be enabled.

#### No sound when you play the keyboard.

- Is your powered monitor system or headphones connected to the correct jack(s)?
- Is the connected monitor system powered-on, and is the volume raised?
- · The VOLUME slider might be at the minimum setting.
- Is Local Control turned on?
- The sliders for each section in PART CONTROL might be at the minimum setting.
- The volume of the pedal connected to the FOOT CONTROLLERS PEDAL jack might be at the minimum setting.

#### The sound will not stop.

• Are the settings for the damper pedal correct? Use the damper pedal calibration function to adjust the polarity and half-damper variable range of the pedal.

#### The sound seems to be doubled.

• If you are using an external MIDI device or a DAW, check whether the local control setting of the Granadstage X is turned OFF.

#### The sound is distorted.

Are the inputs of the mixer, powered monitor speakers and so on being overloaded?
 Use the VOLUME slider on the Grandstage X to adjust the output level, as well as the input gains and mixer levels.

#### Chords cannot be played on the keyboard.

• On some programs such as monophonic synthesizer sounds, you will not be able to play chords. This is not a malfunction.

#### The pitch doesn't sound right.

- Is the transpose function set correctly?
- Has "Tune" in the system settings been set correctly, as well as the program's octave and tune edit parameters?

#### Is panel lock on?

• Panel lock might be on (the PANEL LOCK button blinks in this case).

## The equalizer, key touch and reverb/delay effects aren't working or can't be controlled.

- Panel lock might be on (the PANEL LOCK button blinks in this case).
- The KEY TOUCH, EQ or REVERB/DELAY buttons might be off (dark).

#### I hear noise.

- When raising the volume using the KEY TOUCH slider, the EQ LOW/MID/HIGH sliders, the VOL-UME slider or other controls, the levels may become excessive due to digital signal processing, resulting in a distorted or noisy sound. This is not a malfunction. Adjust this by turning down the levels for each section.
- When the REVERB/DELAY section is on, the sound may be distorted or noisy due to excessive input. This is not a malfunction. Adjust this by lowering the sliders in the PART CONTROL section and by lowering the value on the Reverb Send edit parameter.
- Some noise may occur when you change the delay effect time. This is because the delay time is being abruptly changed and becomes non-continuous. This is not a malfunction.
- In certain electrical environments, you may hear noise due to a ground loop or other factors. This noise may be defeated in some cases by switching the LIFT-GND switch to the LIFT side.

#### The sliders and buttons aren't working or can't be controlled.

• Panel lock might be on (the PANEL LOCK button blinks in this case).

## I made a favorite by modifying its program or making other edits, but it's no longer there.

• You may have switched to another favorite or turned off the power before saving your favorite.

## The damper pedal, expression pedal and foot switch connected to the FOOT CONTROLLERS jacks don't work as intended.

• Are you using the correct settings when connecting the pedals? Use the Calibration function to adjust the polarity and variable range.

#### MIDI transmit and receive is not working correctly with external devices.

- Are the MIDI cables connected correctly?
- If connecting via USB-MIDI, is the USB cable correctly plugged in to the USB B port?
- Is the Grandstage X set to transmit and receive MIDI data on the same channel as the external MIDI device?
- Are MIDI messages being transmitted and received that are compatible with the Grandstage X?

#### The Grandstage X is not responding to MIDI program change messages.

• The Grandstage X supports MIDI program change messages for selecting favorites. However, the sound programs for MAIN, LAYER and SPLIT cannot be selected using MIDI program change messages.

#### The KEY TOUCH slider doesn't respond to MIDI input.

• The key touch function only works on notes that you play on this keyboard. Dynamics has no effect on notes received via MIDLIN.

### Error messages

#### **NO VALID MEDIA**

- → Storage media that can be used
- → Saving favorite data (SAVE Favorites)
- → Loading favorite data (LOAD Favorites)

#### NO FILE/PATH

→ Saving favorite data (SAVE Favorites)

#### **NO FREE SPACE**

 $\rightarrow$  Storage media that can be used

#### **SAVE ERROR**

→ An error occurred when writing to the media while executing "Save Favorites". The media may become unusable if it is ejected during a save operation, and data may not be able to be saved to it. Use a computer to back up the data as necessary, and repair the media by reformatting it or by other means.

#### WRITE PROTECTED

 $\rightarrow$  The SD card to which you attempted to write data is write-protected. Disable write protect on the media, and execute the command once again.

## **Specifications**

Operating temperature: +5 - +40°C (avoid condensation)

#### Keyboard

RH3 (Real Weighted Hammer Action 3)

88-key: AO-C8, velocity sensitive, aftertouch not supported

#### Tone generator

Method of Synthesis and Maximum Polyphony\*

SGX-2 (Acoustic Piano Sound Engine)

EP-1 (Electric Piano Sound Engine)

AL-1 (Analog Modeling Sound Engine)

CX-3 (Tonewheel Organ Sound Engine)

VOX Organ (Transistor Organ Sound Engine)

FC-1 (Transistor Organ Sound Engine)

HD-1 (PCM Sound Engine) Maximum Polyphony: 128

\*The actual polyphony will vary depending on the synthesis engines and effects being used.

\*KORG's proprietary system dynamically allocates voice processing power between synth engines as necessary.

Preload PCM Storage Capacity: Approx. 25.5 GB (linear equivalent: approx. 51 GB)

Number of Sounds: 700

Favorite: 100 (including 20 preloads)

#### **Effect**

REVERB/DELAY:

Reverb types: HALL, STAGE, ROOM, SPRING, SHIMMER

Delay types: DELAY, MOD DELAY, TAPE ECHO

AUDIO IN: Dyna Compressor, Exciter/Enhancer, Isolator, Multi-Mode Filter, Mastering Limiter, Lim-

iter, Graphic EQ, Modern Compressor EQ: 3-band equalizer (LOW, MID, HIGH)

ANALOG TONE section: Nutube

#### Panel interface

PART CONTROL section: MAIN button, MAIN slider, LAYER button, LAYER slider, SPLIT button,

SPLIT slider

UNISON section: UNISON button, UNISON slider

KEY TOUCH section: KEY TOUCH button, KEY TOUCH slider

TRANSPOSE button, SWAP SPLIT button

RHYTHM section: CHORD PROGRESSION button, KEY button, SETUP button, ▶/■ button, BASS

MUTE button, TEMPO button

SOUND SELECT section: 1 [GRAND]-10 [OTHERS] buttons, FAVORITE button REVERB/DELAY section: REVERB/DELAY button, TYPE button, DEPTH slider

EQ section: ON/OFF button, LOW, MID, HIGH sliders ANALOG TONE section: ON/OFF button, DEPTH knob

Other controls: ▲/▼ buttons, +/- buttons, function buttons, EXIT button, ENTER button, PANEL

LOCK button, SYSTEM button, AUDIO IN button, power button

#### Controllers

Real-time controllers: pitch bend wheel, modulation wheel, SW1 button, SW2 button

#### Principal specifications

Frequency response: 20 Hz-20 kHz:  $\pm$  1.0 dB, 10 k $\Omega$  load

THD+N: 20 Hz-20 kHz 0.005%, 10 k $\Omega$  load

S/N Ratio: 105 dB, 10 k $\Omega$  load

#### Audio output / input

#### **AUDIO OUTPUT XLR (LEFT, RIGHT)**

Connector: XLR-3-32 type (balanced) + LIFT-GND switch

Output impedance: 600  $\Omega$  Maximum level: +16 dBu Load impedance: 10 k $\Omega$ 

#### AUDIO OUTPUT (L/MONO, R)

Phone connector: Ø6.3 mm TS phone jacks (unbalanced)

Output impedance: 1.1 k $\Omega$  (for stereo output); 600  $\Omega$  mono (for L/Mono and mono output jacks)

Maximum level: +16 dBuLoad impedance:  $10 \text{ k}\Omega$ AUDIO INPUT (L/MONO, R)

Phone connector: ø6.3 mm TRS phone jacks (balanced)

MIC/LINE switch LEVEL knob **Headphones** 

Connector: Ø6.3 mm stereo phone jack

Output impedance: 50  $\Omega$ 

Maximum level: 150 mW + 150 mW @32  $\Omega$ 

#### General

Control inputs: DAMPER (half-damper supported), SWITCH, PEDAL

MIDI: IN, OUT

Card slot: SD card slot USB: USB TYPE B×1

Power supply: AC power supply jack

#### Dimensions (W $\times$ D $\times$ H)

 $1371 \times 461 \times 168 \text{ mm/}53.98$ " × 18.15" × 6.61" (excluding music stand)

#### Weight

25 kg/55.12 lb (excluding music stand)

#### Power consumption

20 W

#### Included items

Quick Start Guide, power cord, music stand, damper pedal (DS-1H)

#### Accessories (sold separately)

Expression/volume pedal: XVP-20

Foot controller: EXP-2 Pedal switch: PS-3, PS-1

Specifications and appearance are subject to change without notice for improvement.

<sup>\*</sup> All product names and company names are the trademarks or registered trademarks of their respective owners.

## **MIDI Implementation Chart**

[STAGE PIANO] Model: Grandstage X

## **MIDI Implementation Chart**

Date: Jun. 1. 2024 Version: 1.0

Function		Transmitted	Recognized	Remarks
Basic Channel	Default Changed	1–16 1–16	1–16 1–16	
Mode	Default Messages Altered	X ******	3 X	
Note Number	True voice	9–120 ******	0–127 0–127	Some sounds will not play across the entire note range
Velocity	Note On Note Off	O 9n, V=1–127 X	O 9n, V=1–127 X	
After Touch	Key's Channel	X X	X X	
Pitch Bend		Х	0	
Control Change	1 7 10 11 15 64 66 67 80. 81 0-95, 102-119 120, 121	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	Modulation  Volume *1  Pan *1  Expression *1*3  Chord Lock *2  Damper  Sostenuto *2  Soft *2  SW1, SW2  Transmits when assigned to the foot switch or foot pedal All Sounds Off, Reset All Controller
Program Change	True Number	O 0–99 *******	O 0–99 0–99	Switches between favorites
System Exclusive		0	0	*4
System Common	Song Position Song Select Tune Request	X X X	X X X	
System Real Time	Clock Commands	O X	O X	
Aux Messages	Local On/Off All Notes Off Active Sensing System Reset	X X O X	O O 123-127 O X	

#### Notes

- \*1: Sent via foot pedal operations when assigned to the foot pedal function in System Edit.
- \*2: Sent via foot switch operations when assigned to the foot switch function in System Edit.
- \*3: Controls the wah effect for the Pedal Wah program.
- \*4: Supports device inquiry of universal system exclusive messages, master volume, master fine tuning and master coarse tuning.

Mode 1: Omni On, Poly Mode 3: Omni Off, Poly Mode 2: Omni On, Mono Mode 4: Omni Off, Mono O: Yes X: No