CT-S1000V Casiotone

USER'S GUIDE

Getting Ready to Play

Preparing a Power Supply

Connecting Headphones (Option)

Connecting a Pedal (Option)

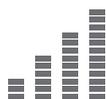Playing Lyric Tones (Vocal Synthesis)

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CASIO

Included and Optional Accessories

Use only accessories that are specified for use with this Digital Keyboard.
Use of unauthorized accessories creates the risk of fire, electric shock, and personal injury.

NOTE

• You can get information about accessories that are sold separately for this product from the CASIO catalog available from your retailer, and from the CASIO website.
https://support.casio.com/global/en/emi/manual/CT-S1000V/

■About Music Score data

You can download music score data as a PDF file from the CASIO website. You will then be able to view music scores on your smart device. You can jump from the PDF file table of contents directly to the music score you want, and you can print out scores as needed.
https://support.casio.com/global/en/emi/manual/CT-S1000V/

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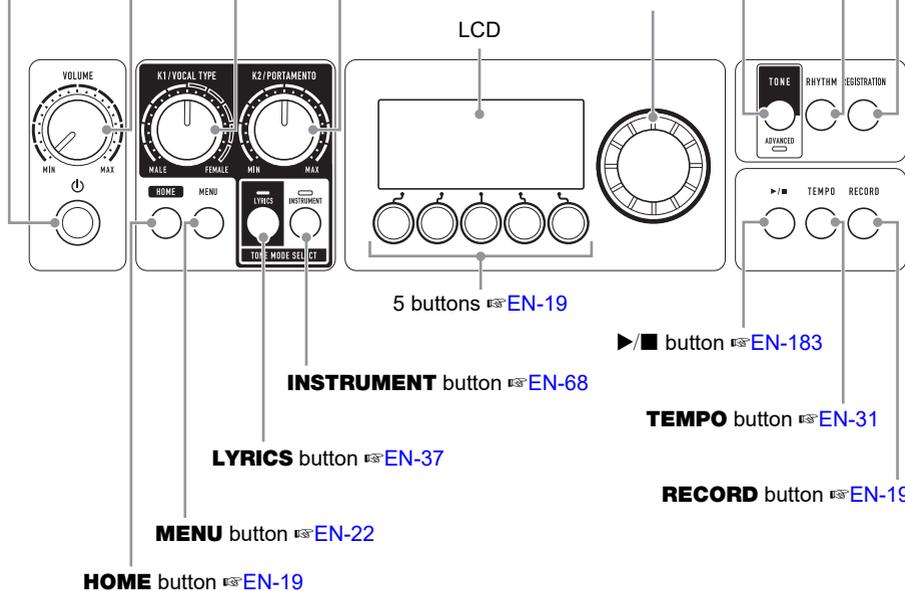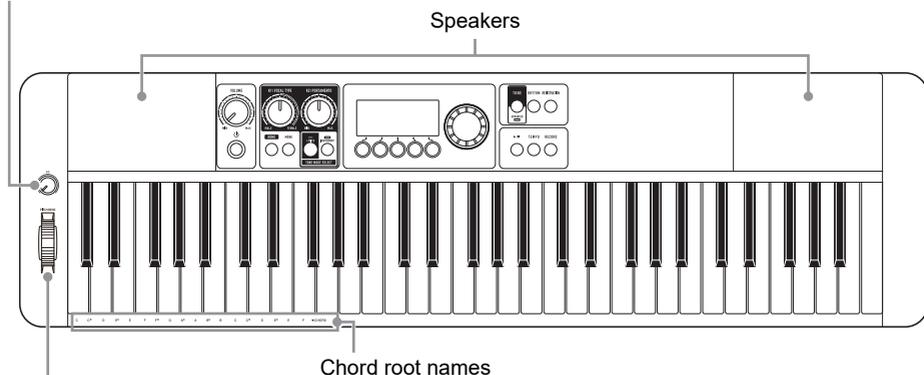
PITCH BEND wheel ☞EN-89

• The numbers to the right of the ☞ symbol are reference page numbers.

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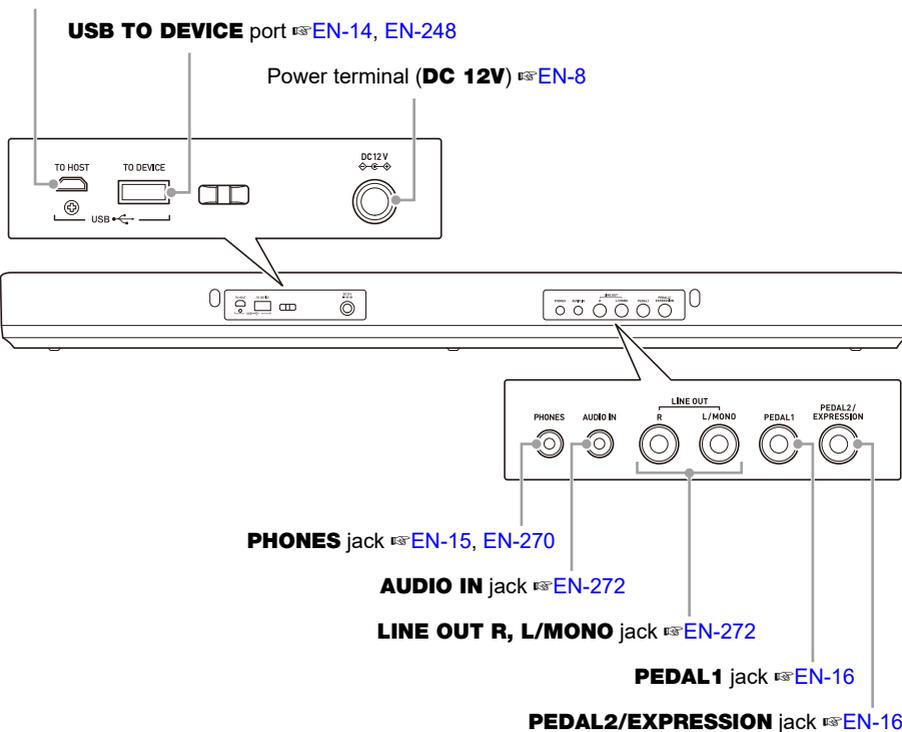
• The numbers to the right of the ☞ symbol are reference page numbers.

Getting Ready to Play

Preparing a Power Supply

Though either an AC adaptor or batteries can be used for power, use of AC adaptor power is normally recommended.

Using the AC Adaptor

Use only the AC adaptor (JEITA Standard with unified polarity plug) specified for this Digital Keyboard. Use of a different type of AC adaptor can cause malfunction.

AC Adaptor Type: AD-A12150LW (JEITA Standard plug)
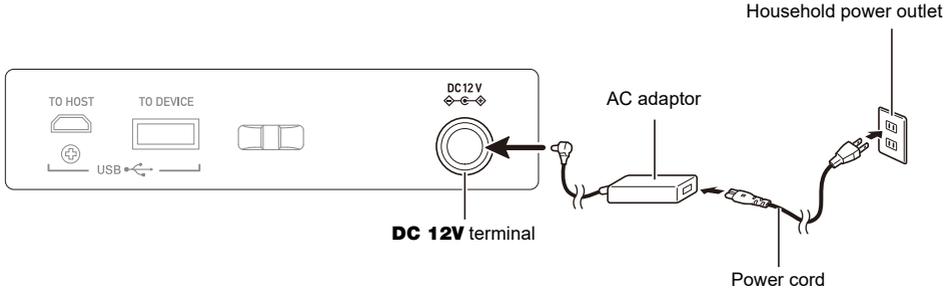
⚠ IMPORTANT!

• **Never connect the AC adaptor (JEITA Standard, with unified polarity plug) that comes with this Digital Keyboard to any other device besides this Digital Keyboard. Doing so creates the risk of malfunction.**
• **Be sure to turn off Digital Keyboard power before connecting or disconnecting the AC adaptor.**
• **The AC adaptor will become warm to the touch after very long use. This is normal and does not indicate malfunction.**
• **Note the following important precautions to avoid damage to the power cord.**

   During Use
   • Never pull on the cord with excessive force.
   • Never repeatedly pull on the cord.
   • Never twist the cord at the base of the plug or connector.

   During Movement
   • Before moving the Digital Keyboard, be sure to unplug the AC adaptor from the power outlet.

   During Storage
   • Loop and bundle the power cord, but never wind it around the AC adaptor.

- Never insert metal, pencils, or any other objects into the product's DC12V terminal. Doing so creates the risk of accident.
- Do not try to use the power cord that comes with the product with another device.
- Use the AC adaptor so its label surface is pointed downwards. The AC adaptor becomes prone to emitting electromagnetic waves when the label surface is facing upwards.
- Plug the AC adaptor into a power outlet that is close to the Digital Keyboard. This lets you immediately unplug from the power outlet should any problem occur.
- The AC adaptor is intended for indoor use only. Do not leave it in a location where it can become wet. Also, do not place a vase or any other container of liquid on the AC adaptor.
- Make sure that the AC adaptor does not become covered with a newspaper, table cloth, curtain, or any other type of fabric.
- If you do not plan to use the Digital Keyboard for a long time, unplug the AC adaptor from the power outlet.
- The AC adaptor cannot be repaired. If your AC adaptor malfunctions or becomes damaged, you need to purchase a new one.
- AC Adaptor Usage Environment
    Temperature: 0 to 40°C
    Humidify: 10% to 90%RH
- Output Polarity: ◇–ⵛ–◇

Using Batteries for Power

⚠ IMPORTANT!

• **Be sure to turn off power before loading batteries.**
• **Use commercially available AA-size alkaline batteries or AA-size rechargeable nickel metal hydride batteries.**
• **Low battery power can cause abnormal operation. If this happens, replace batteries with new ones. If you are using rechargeable batteries, charge them.**
• **Actual continuous operation time may be shorter due to battery type, performance type, and usage environment. In particular, Active DSP (page EN-98) or Equalizer (page EN-138) function settings can dramatically shorten the battery operation time. Power the Digital Keyboard with the AC adaptor when using these functions.**

■ Batteries

Note the precautions below when using rechargeable batteries.
• Use Panasonic Group AA-size eneloop rechargeable batteries. Do not use any other type of batteries.
• Use only the specified charger to charge batteries.
• Rechargeable batteries must be removed from the product for charging.
• For information about using eneloop batteries or their specified charger, be sure to read the user documentation and precautions that come with each item, and use them only as directed.

Be sure to replace batteries at least once a year, even if there is no indication of low battery power. Dead rechargeable batteries (eneloop) in particular may deteriorate if they are left in the product. Remove rechargeable batteries from the product as soon as possible after they go dead.

1. Open the battery cover on the back of the Digital Keyboard.
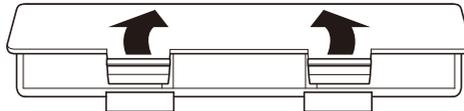
2. Load six AA-size batteries into the battery compartment.

• Load batteries with their positive (+) and negative (–) ends facing correctly.

EN-10
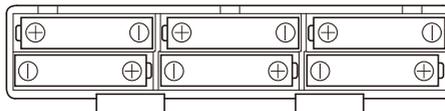
3. Insert the tabs of the battery cover into the holes, and close the cover.

• Configure the setting below to specify the type of batteries you loaded.

Tab
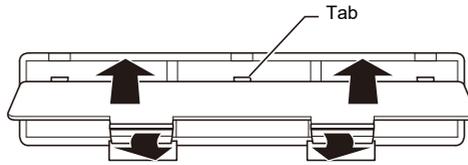
■ **Specifying the Battery Type**

1. Turn on the Digital Keyboard.

• See "Turning Power On or Off" (page EN-26).

2. Press MENU.

This displays the menu screen.

```
[MENU]                1/8


  <   EXIT  MY    ACTV   >
           SETUP  DSP
```

3. Use < and > to select the 5 buttons menu (page EN-19) that includes SETTING.

```
[MENU]                8/8


  <   HOME  SET   DEMO   >
      CSTM  TING
```
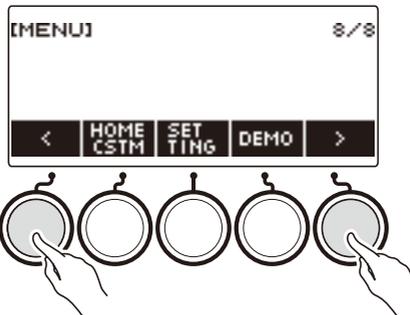
4. Press SETTING.

This displays the setting screen.

5. **Use ❮ and ❯ to select "Battery".**

```
[SETTING]
❮        Battery        ❯
—        Alkaline       +

EXIT    ❮    ❯    —    +
```
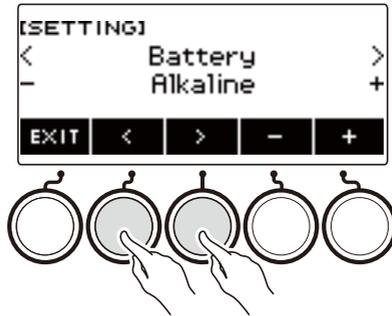
6. **Rotate the dial or use – and + to select "Alkaline" (alkaline batteries) or "Ni-MH" (nickel-metal hydride batteries).**

```
[SETTING]
❮        Battery        ❯
—        Alkaline       +

EXIT    ❮    ❯    —    +
```

7. **To exit the setting operation, press EXIT.**

■ Low Battery Indication

A battery icon appears on the display to let you know when battery power is getting low.

Declining Battery Power

Black battery icon (not flashing)

```
[LYRICS/RHY]        ▮        T122
        1:Do you hear …

KNOB │ BAL  │ WIRE │ MY    │ DEMO
     │ ANCE │ LESS │ SETUP │
```

Battery Replacement Required

White battery icon (flashing)

```
[LYRICS/RHY]        ☐        T122
        1:Do you hear …

KNOB │ BAL  │ WIRE │ MY    │ DEMO
     │ ANCE │ LESS │ SETUP │
```

NOTE

• Low battery power may cause notes to become distorted, or other problems.
• You can conserve battery power by using headphones and by reducing the volume level.

IMPORTANT!

• **Continued use with low batteries may cause power to turn off suddenly. This can cause stored data to be corrupted or lost.**

Preparing the Music Stand

Insert the music stand legs into the back of the Digital Keyboard.

Music stand
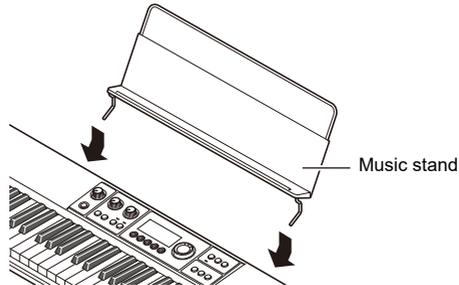
Connecting the Wireless MIDI & audio adaptor

To pair this Digital Keyboard with a Bluetooth® capable external device, you need to plug the Wireless MIDI & audio adaptor into the product's **USB TO DEVICE** port.

Wireless MIDI & audio adaptor

USB TO DEVICE port
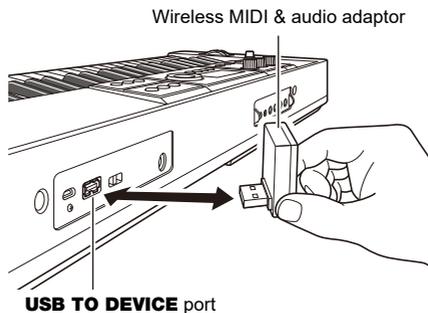
⚠ IMPORTANT!

• **Turn off the Digital Keyboard before disconnecting the Wireless MIDI & audio adaptor.**

🔍 NOTE

• When connecting with a Bluetooth audio capable device, refer to "Sounding a Bluetooth Audio Capable Device (Bluetooth Audio Pairing)" (page EN-273).
• When connecting to an external Bluetooth Low Energy MIDI compatible device, refer to "Connection with a Bluetooth Low Energy MIDI Device" (page EN-277).
• To use the app, refer to "Linking with a Smart Device and Using CASIO MUSIC SPACE" (page EN-264).
• The Wireless MIDI & audio adaptor may not be sold in certain countries or geographic areas.

Connecting Headphones (Option)

Plugging in headphones cuts off output from the built-in speakers, which means you can practice playing even late at night without disturbing others.
• Be sure to turn down the volume level before connecting headphones.

Stereo mini plug

PHONES jack (3.5mm stereo mini jack)
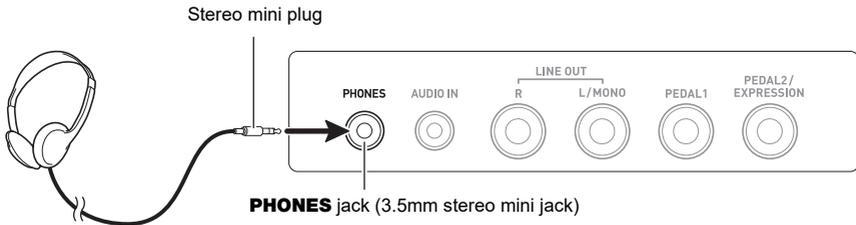
NOTE

• Headphones do not come with this Digital Keyboard.
• Use the optional (CP-16) or a commercially available headphones.
• The surround effect is not applied while you are listening over headphones.

IMPORTANT!

• **Do not listen to output over headphones at very high volume levels for long periods. Doing so creates the risk of hearing damage.**
• **The headphones you use must have a 3.5mm 3-pole stereo mini plug. Use of other types of plugs is not supported.**
• **If the plug of the headphones does not match the PHONES jack, use a commercially available adaptor plug.**
• **If you are using headphones that require an adaptor plug, make sure you do not leave the adaptor plugged in when removing the headphones.**

Connecting a Pedal (Option)

To use a pedal, connect it to the **PEDAL1** or **PEDAL2/EXPRESSION** jack on the back of the Digital Keyboard. The jack you should use depends on the operation you want the pedal to perform.

PEDAL1 jack (6.3mm standard jack)

PEDAL2/EXPRESSION jack (6.3mm standard jack)
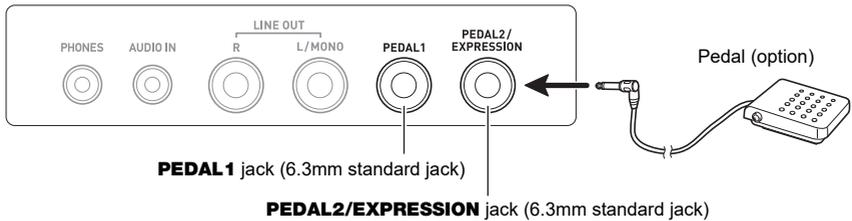
📝 **NOTE**
- This Digital Keyboard does not come with a pedal unit.
- You can use the **PEDAL1** jack to connect an optional (SP-3, SP-20) sustain pedal. You can use the **PEDAL2/EXPRESSION** jack to connect a commercially available sustain pedal or expression pedal.

⚠️ **IMPORTANT!**
- **Before using an expression pedal connected to the PEDAL2/EXPRESSION jack, you will need to specify the expression pedal's polarity and calibrate the pedal. For more information, see "Using Volume Pedal" (page EN-75).**

■ **Connectable Expression Pedals**
You can connect a commercially available expression pedal that satisfies the specifications below to the **PEDAL2/EXPRESSION** jack. Use of a pedal whose operation has been confirmed (see below) is recommended.
- Expression pedal with a maximum resistance value within the range of 10kΩ±20% to 50kΩ±20%

Polarity Type 1   Polarity Type 2*

* Operation Confirmed Pedals
  Roland EV-5 (Set minimum volume to 0.)
  KURZWEIL CC-1
  FATAR VP-25, VP-26

📝 **NOTE**
- Note that pedal polarity depends on the manufacturer. Use the procedure under "Using Volume Pedal" (page EN-75) to configure the polarity type setting.

Attaching a Strap (Commercially Available)

1. Attach a strap (commercially available) to the left and right strap pins on the bottom of the Digital Keyboard.

2. Cover the strap pins with the strap locks.

Strap (commercially available)

Strap lock

Strap pin
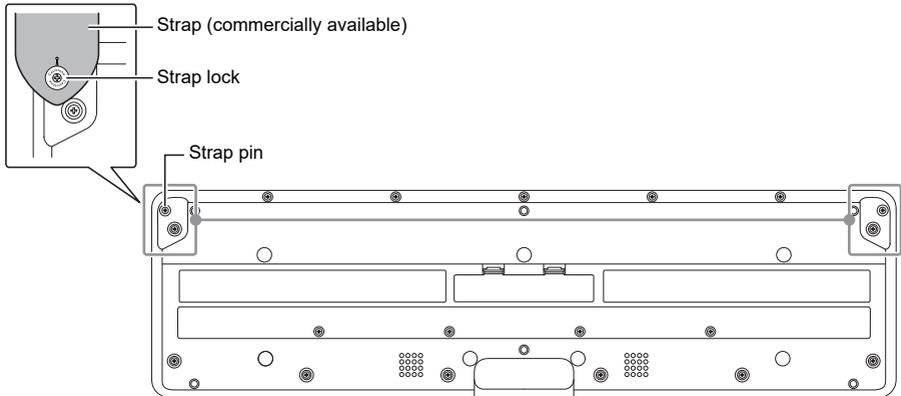
⚠ IMPORTANT!

• After attaching the strap, check to make sure that the strap is securely attached to the Digital Keyboard.
• Do not pick up the Digital Keyboard by the strap alone. Doing so creates the risk of the Digital Keyboard detaching from the strap and falling.
• The recessed area on the bottom of the Digital Keyboard IS NOT intended to be used as a handle. Be sure to use both hands when picking up the Digital Keyboard.
• Should a strap lock ever become deformed or damaged, replace it.

Operations Common to All Modes

Display Screen Contents

① ② ③ ④

[RHYTHM] ▮ **REC** **T122**

⑤ **1:Future Disco** M1
B1 ⑥

⑦ No Chord

⑧ V1 FILL SYN.SP AC

⑨ **INTRO** **VARI ATION** **FILL -IN** **END ING** **ACCMP**

[INST/RHYTHM] T122

⑩ **U2** 272:Mellow Str.1

LV NORMAL

SPLIT **LAYER** **TOUCH** **SUS** **ARP**

[REGISTRATION] **STORE** ⑪

Sure?

BANK 1-1

BACK **NO** **YES**

[SETTING]

⑫ **<** Battery **>**

⑬ **–** Alkaline **+**

EXIT **<** **>** **–** **+**

① Setting name
② Battery icon
③ Recording status
④ Tempo
⑤ Setting
⑥ Measure/Beat
⑦ Sub-display

⑧ Status
⑨ 5 buttons menu items
⑩ Part
⑪ Sub-title
⑫ Setting item
⑬ Setting

- Display contents may become difficult to read at certain viewing angles.
- For information about how to adjust display contrast, see "Configuring Settings" (page EN-230).

Home Screen

Pressing **HOME** causes [LYRICS/RHY] or [INST/RHYTHM] to appear, which indicates the tone selection screen. This is the home screen. You can use the home screen to select the lyrics and instrument tone you want to use, and to configure various settings.

| HOME |

```
[LYRICS/RHY]        T122
   1:Do you hear …

KNOB BAL  WIRE MY   DEMO
     ANCE LESS SETUP
```

```
[INST/RHYTHM]       T122
   1:Stage Piano

KNOB BAL  WIRE MY   DEMO
     ANCE LESS SETUP
```

NOTE

• You can customize the home screen to suit your specific needs. For details, see "Customizing the Home Screen (Home Customization)" (page EN-226).

5 buttons

Operations assigned to the 5 buttons along the bottom of the display change according to the setting you are configuring. Operations currently assigned to the display buttons are indicated by labels above the buttons (5 buttons menu).

5 buttons Examples

■ Home screen (Tone Selection Screen)

```
[LYRICS/RHY]        T122
   1:Do you hear …


KNOB BAL  WIRE MY   DEMO
     ANCE LESS SETUP
```
— 5 buttons menu

— 5 buttons

■ **Setting Screen (SETTING)**

5 buttons menu

5 buttons
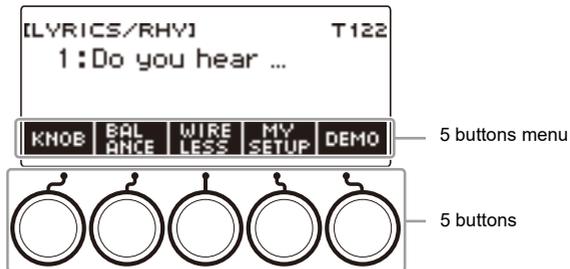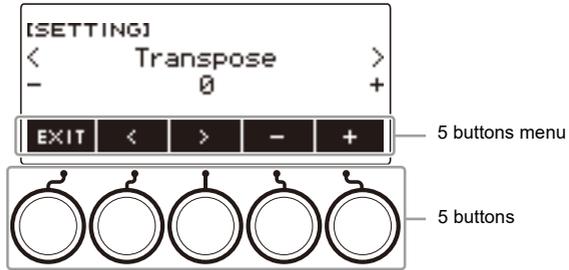
- Long-pressing – or + when selecting a number or value scrolls through settings at high speed.
- To return a number or value to its initial default or recommended setting, press – and + at the same time.
- Long-pressing < or > when changing to another item or page scrolls through items or pages at high speed.

Changing the Button Long-press Time

You can specify the required button long-press time.
- Note that you cannot change the required long-press time for the power off operation.

1. Press **MENU**.
   This displays the menu screen.

2. Use < and > to select the 5 buttons menu that includes SETTING.
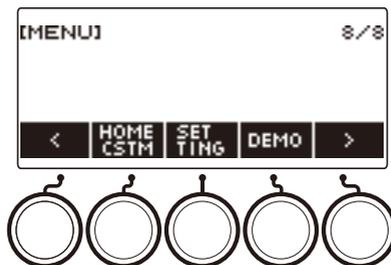
3. Press SETTING.
   This displays the setting screen.

4. **Use < and > to select "Button Long Press Time".**

```
[SETTING]
<Button Long Press Time>
–        Normal        +

EXIT  |  <  |  >  |  –  |  +
```
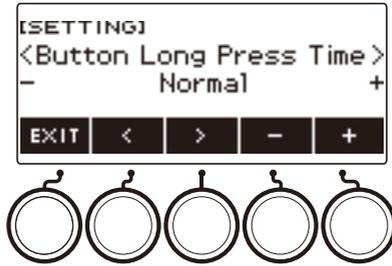
5. **Rotate the dial or use – and + to change the button long-press time value.**

Setting	Display Name
Short	Short
Normal	Normal
Long	Long

6. **To exit the setting operation, press** **EXIT**.

Dial Operations

Rotate the dial to change a number (tone number, etc.) or value (tempo value, etc.)
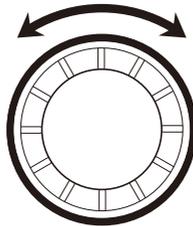
Selecting a Function from a Menu

You can use the menu screen to select from a variety of different functions.

1. Press MENU.

This displays the menu screen.

MENU

[MENU]   1/8

| < | EXIT | MY SETUP | ACTV DSP | > |

2. Use 〈 and 〉 to select the 5 buttons menu that includes the function you want to select.

• To return to the previous screen or exit the setting operation, press EXIT.

Menu Item List

Item	Display Name
MY SETUP	MY SETUP
Active DSP	ACTV DSP
Balance	BALANCE
Octave shift	OCT SHIFT
Sustain	SUSTAIN
Portamento	PORTAMENTO
Pedal	PEDAL
Pitch Bend Wheel	PITCH BEND
Knob	KNOB
Arpeggiator	ARPEGGI
Auto Harmonize	AUTO HRM
Sampling	SAMPLING
Song	SONG
Metronome	METRONOME
System Effects	SYS FX
Equalizer	EQ
Scale Tuning	SCALE
MIDI controller	MIDI CTRL
Wireless	WIRELESS
Media	MEDIA
Home Customization	HOME CSTM
Setting	SETTING
Demo	DEMO

3. Press the button of the function you want to select.

- This displays the screen of the function you select.
- To exit the menu screen, press **MENU**, or press EXIT on the first page of the menu screen.

Inputting Characters

Use the procedures below to edit MY SETUP data names and USB flash drive file names (user data names).

Cursor (flashing) ——

NOTE

- USB flash drive (page EN-253) file names can be up to 231 characters long.
- Up to 22 characters can appear on the display at a time. If you input more than 22 characters, the display will scroll horizontally, and a numeric page indicator (such as 1/11) will appear on the display.

Page information

- A file with a name that begins with "." or " " (blank space) cannot be saved.

Inserting Characters

1. Use < and > to move the cursor to the right of the location where you want to insert a character.

2. Press INSERT.

This inserts "A".
- If you positioned the cursor to the right of the end of a character string, you can also rotate the dial or use – and + to insert characters.

Replacing a Character with a Different One

1. Use **<** and **>** to move the cursor to the character you want to replace.

2. Rotate the dial to change the character.
This displays the –/+ screen.

```
[MY SETUP]            RENAME
Piano
_

BACK    <    >    –    +
```
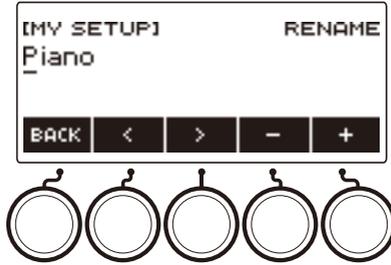
- After you rotate the dial once to select a character, you can change the selection further using – and +.
- To go back to the previous screen, press BACK.
- Repeat steps 1 and 2 as required.
- The characters shown in the table below are supported for USB flash drive file names.

	!	#	$	%	&	'	(	)	+	,	–	.
0	1	2	3	4	5	6	7	8	9	;	=	@
A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
[	]	^	_	`	a	b	c	d	e	f	g	h
i	j	k	l	m	n	o	p	q	r	s	t	u
v	w	x	y	z	{	}	~					

(First cell in the above table is blank.)

- The characters shown in the table below are supported for file names on a FAT 32 formatted USB flash drive.

$	&	'	(	)	–	0	1	2	3	4	5	6
7	8	9	@	A	B	C	D	E	F	G	H	I
J	K	L	M	N	O	P	Q	R	S	T	U	V
W	X	Y	Z	^	_	`	{	}	~			

- The characters shown in the table below are supported for user data (MY SETUP) names.

	!	"	#	$	%	&	'	(	)	*	+	,
–	.	/	0	1	2	3	4	5	6	7	8	9
:	;	<	>	=	?	@	A	B	C	D	E	F
G	H	I	J	K	L	M	N	O	P	Q	R	S
T	U	V	W	X	Y	Z	[	]	\	^	_	`
a	b	c	d	e	f	g	h	i	j	k	l	m
n	o	p	q	r	s	t	u	v	w	x	y	z
{	}	|										

(First cell in the above table is blank.)

Deleting a Character

1. Use **<** and **>** to move the cursor to the character you want to delete.

2. Press DELETE.

Exiting a Character Delete or Edit Operation

Perform the step below after you are finished editing characters.

1. Press CONFIRM.

This displays a confirmation screen for the character string you edited.

- Next, the message "Cancel?" appears in the following cases.
  – If the current user data or file name has not been changed.
  – If the user data or file name does not contain any characters (0 character count)
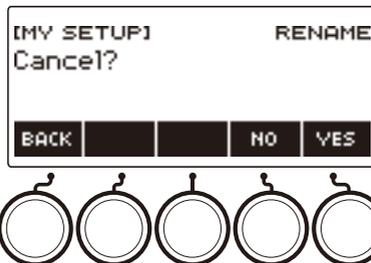
- To exit character string editing, press YES.
- To continue with character string editing, press NO or BACK to return to the character string editing screen.

Playing on the Keyboard

Turning Power On or Off

1. **Press ⏻ (Power) to turn on Digital Keyboard power.**

"Casiotone" is displayed while startup is in progress.
- Your Digital Keyboard is ready to use when the home screen appears on the display after startup is complete.
- Depending on the user lyric tone addition status, the usage status of samples and other data, it may take some time for the Digital Keyboard to become ready for use.

⏻

2. **To turn off power, long-press ⏻ (Power) until the display goes blank.**

⚠ IMPORTANT!

- **Turning off power normally causes the tone and rhythm number and other settings to return to their initial defaults. However, the settings below are remembered.**
  - **PEDAL2 pedal type**
  - **PEDAL2 calibration**
  - **Sampled melody tone (type, loop note value and repeats)**
  - **Sampled drum tone (note off, type, loop note value and repeats)**
  - **MY SETUP power on recall**
  - **Wireless setting**
  - **MIDI OUT Channel (Upper1, Upper2, Lower)**
  - **MIDI Sync Mode**
  - **Auto Power Off**
  - **Battery type**
  - **Display contrast**
  - **Button long-press time**

🔍 NOTE

- Pressing the ⏻ (Power) to turn off power actually puts the Digital Keyboard into a standby state. Minute amounts of current continue to flow within the Digital Keyboard in the standby state. If you do not plan to use the Digital Keyboard for a long time or if there is a lightning storm in your area, be sure to unplug the AC adaptor from the power outlet.
- You can configure Digital Keyboard settings so MY SETUP settings are recalled whenever power is turned on. See "Enabling MY SETUP Power On Recall" (page EN-144).
- Do not touch the **PITCH BEND** wheel when turning on power.

Auto Power Off

While Auto Power Off is enabled, power turns off automatically after about 30 minutes of non-operation.

NOTE

• Auto Power Off is disabled while a song is playing and while the APP function is being used.

■ Disabling Auto Power Off

You can disable Auto Power Off to ensure that power does not turn off automatically during a concert, etc.

1. Press MENU.

This displays the menu screen.

MENU

[MENU]   1/8

<   EXIT MY   ACTV   >
          SETUP   DSP

2. Use < and > to select the 5 buttons menu that includes SETTING.

[MENU]   8/8

<   HOME   SET   DEMO   >
    CSTM   TING

3. Press SETTING.
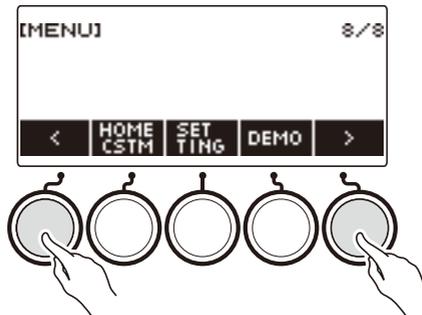
This displays the setting screen.

[SETTING]
<   Transpose   >
–   0   +
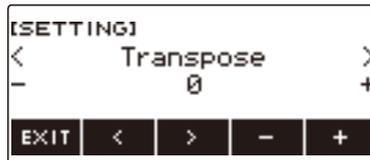
EXIT   <   >   –   +

4. Use **<** and **>** to select "Auto Power Off".

```
[SETTING]
<     Auto Power Off     >
-            On           +

EXIT  |  <  |  >  |  -  |  +
```
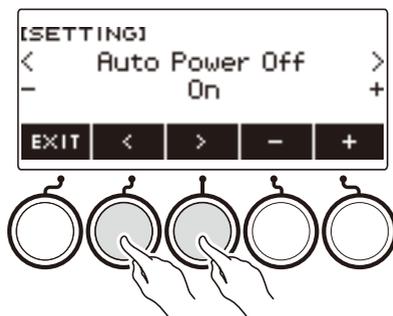
5. Rotate the dial or use – and + to select "Off".

6. To exit the setting operation, press EXIT.

Adjusting the Volume Level

1. Rotate the **VOLUME** knob.

This changes the volume level.

```
VOLUME
MIN      MAX
```

TONE Button

Pressing **TONE** button displays a screen for selecting tones. This is the "tone screen".
Pressing the **TONE MODE SELECT LYRICS** button while the tone screen is displayed will display the lyric tone screen, and pressing **INSTRUMENT** button will display the instrument tone screen. See "Playing Lyric Tones (Vocal Synthesis)" (page EN-35) for information about the lyric tone screen and "Controlling the Sound of a Performance" (page EN-68) for information about the instrument tone screen.

Using the Metronome

The metronome lets you play and practice along with a steady beat to help keep you on tempo. You can also set a tempo that is suitable for your practice.

Start/Stop

1. Press MENU.

This displays the menu screen.

2. Use < and > to select the 5 buttons menu that includes METRONOME.

```
[MENU]                    5/8



     <   SAM   SONG METRO   >
         PLING      NOME
```

3. Press METRONOME.

This displays the metronome screen.

```
[METRONOME]              T122
Beat:4



  EXIT BEAT  VOL       START
            UME
```
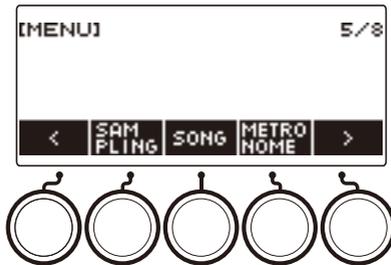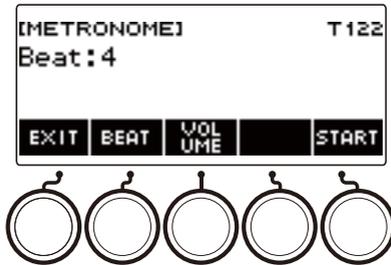
4. Press START.

This starts the metronome, and displays measure and beat numbers.

[METRONOME]   T122
                               M1
Beat:4   B1

EXIT | BEAT | VOL UME | | STOP
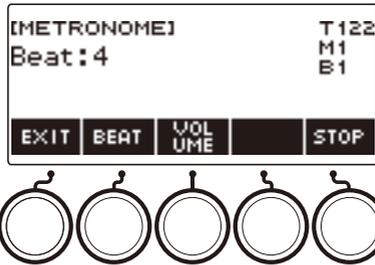
5. To stop the metronome, press STOP.

[METRONOME]   T122

Beat:4

EXIT | BEAT | VOL UME | | START

NOTE

• If you are using the rhythm function or SONG function, pressing ▶/■ does not start the metronome. If you want the metronome to start when you press ▶/■, long-press **TONE** to quit the rhythm function or SONG function.

• The metronome is disabled while a song is playing.

Changing the Metronome Tempo

Use the procedure below to change the tempo of the metronome.

1. Press TEMPO.

This displays the tempo screen.

TEMPO


```
[TEMPO]              T122
122



EXIT  TAP   TAP    –    +
     TEMPO START
```

2. Rotate the dial or use – and + to change the tempo value.

• You can specify a tempo value in the range of 20 to 255.
• To return to the recommended setting, press – and + at the same time.

3. To exit the setting operation, press EXIT.

Specifying the Metronome Beats Per Measure

You can use the procedure below to configure a setting that sounds a chime on the first beat of each measure, and a click for the remaining beats.
• Available settings are Off, or a value of 1 to 16 beats.

1. Press MENU.

This displays the menu screen.

2. Use ‹ and › to select the 5 buttons menu that includes METRONOME.

3. Press METRONOME.

This displays the metronome screen.

4. Rotate the dial to change the beat value.

```
[METRONOME]         T122
Beat:4


BACK            ─     +
```
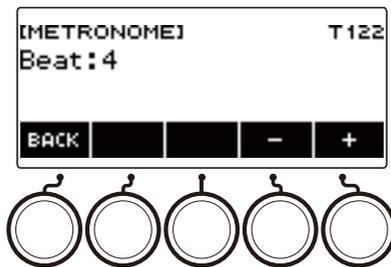
• After you rotate the dial once to select a value, you can change the value further using – and +.
• Selecting "Off" disables the chime. Use this setting when you want to practice without worrying about the first beat of each measure.
• To return the setting to its initial default, press – and + at the same time.
• To go back to the previous screen, press BACK.

Changing the Metronome Sound Volume Level

1. Press **MENU**.

This displays the menu screen.

2. Use **<** and **>** to select the 5 buttons menu that includes METRONOME.

3. Press METRONOME.

This displays the metronome screen.

4. Press VOLUME.

This displays the metronome volume level setting screen.

```
[METRONOME]        T122
Volume:110


EXIT BEAT VOL   START
          UME
```

5. Rotate the dial to adjust the volume level.

```
[METRONOME]        T122
Volume:110


BACK           -    +
```
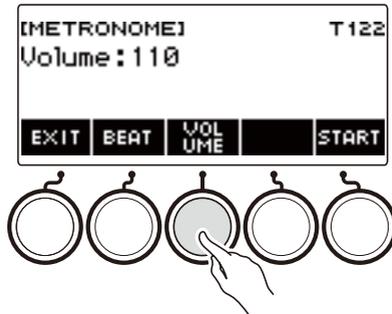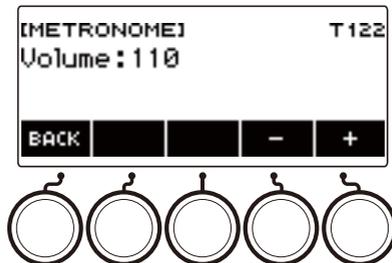
- You can specify a volume level value from 0 to 127.
- After you rotate the dial once to select a value, you can change the selection further using – and +.
- To return the setting to its initial default, press – and + at the same time.
- To go back to the previous screen, press BACK.
- To return to the beat setting screen, press BEAT.

Listening to Demo Play

1. Press HOME.

This displays the home screen.

2. Press DEMO.

This displays the demo screen and starts demo song play.

```
[DEMO]                    T124
        Demo Tune 1       M0
                          B1
DEMO
EXIT         |      |  −  |  +
```
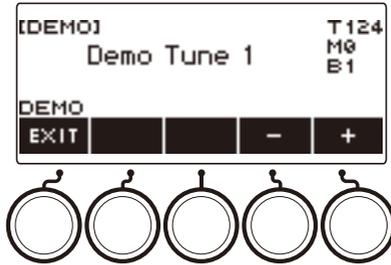
- After playback of one song finishes, playback of the next song starts automatically. Playback returns to the first song after playback of the final song is complete.
- The LYRICS LED flashes while demo play is in progress. This indicates that some of the demo songs are sounding with lyrics tones.
- The tone assigned to the keyboard changes according to the demo song.

3. To select a song for demo play, rotate the dial or use – and +.

4. To stop playback, press EXIT or ▶/■.

- This stops playback and exits the demo screen.

NOTE

- You can also display the demo screen by pressing MENU and then DEMO.
- Depending on Home Customization settings, the DEMO button may not be shown on the display.

Playing Lyric Tones (Vocal Synthesis)

This digital keyboard has a Vocal Synthesis function that lets you play a singing voice on the keyboard. You can create various singing voices by selecting the lyrics to be sung and adjusting the voice quality. You can also configure various performance settings, such as how the performance advances through the lyrics when playing on the keyboard.

You can use an app running on a phone or tablet to perform with lyrics you created, to perform lyrics using animal sounds, and more.

■What is Vocal Synthesis?

Vocal Synthesis is a function that creates an artificial singing voice.

This digital keyboard has a Vocal Synthesis sound source for singing voices.

The Vocal Synthesis sound source was created using machine learning to statistically model singing voices based on research by the Nagoya Institute of Technology.

The sound source can synthesize a smooth singing voice using simple lyrics and without any special adjustment.

The conventional PCM sound source method reproduces pre-recorded instrument sounds in accordance with the pitch played on the keyboard. Vocal Synthesis sound sources offer a whole new musical instrument experience that was not possible with conventional methods.

Main Features of the Vocal Synthesis Sound Source

1. **Support for English and Japanese**
   You can create lyrics in either of two languages.

2. **Vocal timbre creation in real-time**
   Simple knob operations let you instantly change singing voice characteristics, such as gender and age.

3. **Lyric play on the keyboard**
   Not only can you play single notes, but you can also play chorus group-like harmonies using chords.

Vocal Synthesis Sound Source Block Diagram

Machine-learning acoustic model

ぁAa

Lyrics (lyric tone)

Singing voice parameter generation (Vocalist)

Vocal cord/vocal tract simulation

Singing voice output

Lyric Creator app (English, Japanese)

Control knob (age, gender, etc.)

Keyboard performance
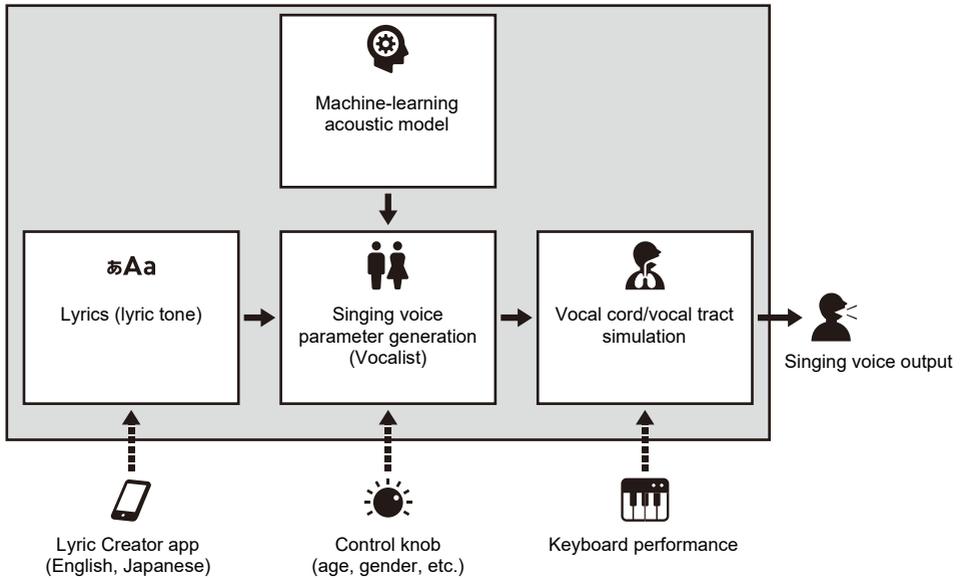
Selecting and Playing with a Lyric Tone

You can produce a singing voice by selecting the lyric tone you want and playing notes on the keyboard.

1. Press LYRICS.

The LYRICS LED of the **TONE MODE SELECT** buttons lights, and the lyric tone screen appears on the display.
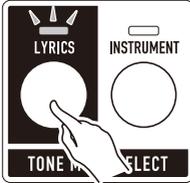
- The ADVANCED LED of the **TONE** button will be lit while the digital keyboard is in the Lyric Tone Mode.
- Knob and pedal functions change in accordance with Lyric Tone Mode settings.

2. Rotate the dial to select a lyric tone.

This displays the –/+ screen and with the category name displayed.

- The setting range is 1 to 150.
- After you rotate the dial once to select a setting, you can adjust it further using – and +.
- If you want to select a category, use CAT– and CAT+.
- Lyric tones are also divided into categories of 50 lyric tones each: 1 to 50, 51 to 100, and 101 to 150.
- To go back to the previous screen, press BACK.
- You can replace preset lyric tones 1 through 100 with your own user lyric tones*.
- You can also store user lyric tones* in blank areas 101 through 150.

* You can create user lyric tones with the "Lyric Creator" smart device app. You can transfer your lyric tones to this digital keyboard and enjoy playing with original lyrics. For details, see "Linking with a Smart Device and Using Lyric Creator" (page EN-262).

3. Play something on the keyboard.

Lyrics advance and sound, and the corresponding lyrics appear on the display while keyboard keys are held down.

```
[LYRICS/RHY]        T122        [LYRICS/RHY]        T122        [LYRICS/RHY]        T122
  1:Do you hear …                 1:Do you hear …                 1:Do you hear …
Do                              you                             hear
               PHRASE                         PHRASE                         PHRASE
SPLIT LAYER KEY  PLAY VOCAL     SPLIT LAYER KEY  PLAY VOCAL     SPLIT LAYER KEY  PLAY VOCAL
            CTRL MODE 1ST                   CTRL MODE 1ST                   CTRL MODE 1ST
```

```
[LYRICS/RHY]        T122        [LYRICS/RHY]        T122        [LYRICS/RHY]        T122
  1:Do you hear …                 1:Do you hear …                 1:Do you hear …
the                             mu-                             sic?
               PHRASE                         PHRASE                         PHRASE
SPLIT LAYER KEY  PLAY VOCAL     SPLIT LAYER KEY  PLAY VOCAL     SPLIT LAYER KEY  PLAY VOCAL
            CTRL MODE 1ST                   CTRL MODE 1ST                   CTRL MODE 1ST
```

- The speed at which lyrics advance depends on the tempo setting. For information about setting the tempo, see "Changing the Metronome Tempo" (page EN-31).

NOTE

- If the lyric tone performance mode is NOTE mode, the lyric advance speed does not depend on the tempo setting. For information about the lyric tone performance modes, see "Changing How Lyric Advancement is Performed When a Keyboard Key is Pressed" (page EN-47).
- You can use layer and split functions in the same way as you do in the instrument tone mode. For details, see "Layering and Splitting Tones" (page EN-123).
- Lyric tones can be used for the UPPER1 part only during keyboard play. In addition, of all the parts that include recorded song playback, MIDI IN sound production, etc., only one part can use a lyric tone. The lyric tone sounds in the part where the lyric tone is selected last, and the timbre of the part for which the lyric tone was selected before that is replaced.
- When UPPER1 is a lyric tone, the sound produced by auto-harmonize is equivalent to the sound produced by the above alternate tone.
- Due to the characteristics of the singing voice, you may hear noise in the sound that is produced due to plosives, consonants, and overlapping vowels.

Adding Lyric Tones (User Lyric Tones)

You can create lyric tones with the "Lyric Creator" app.
You can transfer lyrics you create to this digital keyboard and enjoy playing with your own original lyrics. For details, see "Linking with a Smart Device and Using Lyric Creator" (page EN-262).

B

Changing the Voice Use to Sound Lyrics (Vocalist)

You can change the type of voice (Vocalist) used to sound your lyrics to perform them in various ways.

1. Press LYRICS.

The LYRICS LED of the **TONE MODE SELECT** buttons lights, and the lyric tone screen appears on the display.
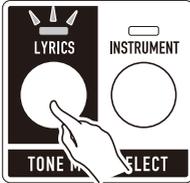
2. Press VOCALIST.
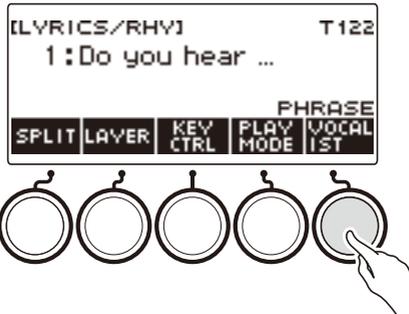
This displays the vocalist selection screen.

3. Rotate the dial or use – and + to change the voice to use for the lyric tone.

- The setting range is 1 to 23.
- Number 23 is a user vocalist*.

* You can create user vocalists with the "Lyric Creator" smart device app. You can transfer a user vocalist to the digital keyboard and enjoy playing with a singing voice of your own creation. For details, see "Linking with a Smart Device and Using Lyric Creator" (page EN-262).

4. To exit the setting operation, press BACK.

🔍 **NOTE**

- Changing the vocalist resets the gender, age, and other vocalist parameters.

Adjusting the Voice Used to Sound Lyrics

You can make fine adjustments to a singing voice by changing the vocalist's gender, age, and other parameters.

Changing the Gender Setting

1. Press **LYRICS**.

The LYRICS LED of the **TONE MODE SELECT** buttons lights, and the lyric tone screen appears on the display.

2. Press **VOCALIST**.

This displays the vocalist selection screen.

```
[LYRICS/RHY]        VOCALIST
        1:Choir Group


BACK  PARA          -     +
      METER
```

3. Press **PARAMETER**.

This displays the vocalist setting screen, with the gender item displayed.

```
[LYRICS/RHY]          PARAM
<         Gender          >
-           50            +

BACK    <     >     -     +
```

4. Rotate the dial or use – and + to change the gender setting.

• The setting range is 0 to 50. The closer the setting is to 0, the more masculine the voice, while a setting closer to 50 produces a more feminine voice.

5. To exit the setting operation, press **BACK**.

Changing the Age Setting

1. **Press LYRICS.**

The LYRICS LED of the **TONE MODE SELECT** buttons lights, and the lyric tone screen appears on the display.

2. **Press VOCALIST.**

This displays the vocalist selection screen.

```
[LYRICS/RHY]      VOCALIST
        1:Choir Group


BACK PARA
     METER          −     +
```

3. **Press PARAMETER.**

This displays the vocalist setting screen, with the gender item displayed.

```
[LYRICS/RHY]        PARAM
<         Gender         >
−           50           +
BACK    <    >    −    +
```

4. **Use the ＜ and ＞ to select Age.**

This displays the age setting screen.

```
[LYRICS/RHY]        PARAM
<          Age          >
−           45           +
BACK    <    >    −    +
```
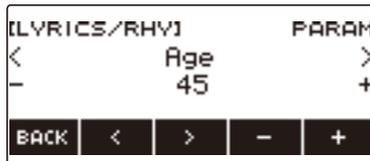
5. **Rotate the dial or use – and + to change the age setting.**

- The setting range is 0 to 50. 45 is the standard setting. The closer the setting is to 0, the more childish the voice, while a setting closer to 50 produces a more adult voice.

6. **To exit the setting operation, press BACK.**

Setting Other Vocalist Parameters

1. Press **LYRICS**.

The LYRICS LED of the **TONE MODE SELECT** buttons lights, and the lyric tone screen appears on the display.
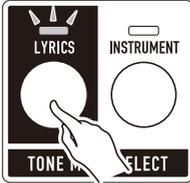
2. Press **VOCALIST.**

This displays the vocalist selection screen.

3. Press **PARAMETER.**

This displays the vocalist setting screen, with the gender item displayed.
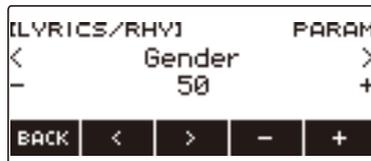
4. Use the **<** and **>** to select the item whose setting you want to change.

5. **Rotate the dial or use – and + to change the setting.**

Parameter	Displayed Item Name	Displayed Setting Values
Gender	Gender	0 to 50
Age	Age	0 to 50
Octave shift	Octave Shift	–3 to 0 to +3
Attack Time	Attack Time	–64 to 0 to +63
Release Time	Release Time	–64 to 0 to +63
Cutoff	Cutoff	–64 to 0 to +63
Modulation Range	Modulation Range	0 to 63
Vibrato Rate	Vibrato Rate	–64 to 0 to +63
Vibrato Depth	Vibrato Depth	–64 to 0 to +63
Vibrato Delay	Vibrato Delay	–64 to 0 to +63
Portamento	Portamento	Off, On
Portamento Time	Portamento Time	0 to 127

6. **To exit the setting operation, press BACK.**

🔍 **NOTE**

• The Vocal Synthesis sound source work in a way that may cause a preceding sound to affect the next sound.
  This becomes noticeable if, for example, the attack time and release time are set to extreme values. Experiment with the settings that control the sound production of the Vocal Synthesis sound source to find the combination that produces the sound you want for your performance.
• For details about how parameters affect the sound, see the table of adjustable functions under "To change the knob function" (page EN-93).

Changing the Functions of the Knobs in the Lyric Tone Mode

When playing lyric tones, you can use the knobs to change vocalist parameters. You can also change the functions assigned to the knob.

1. Press LYRICS.

The LYRICS LED of the **TONE MODE SELECT** buttons lights, and the lyric tone screen appears on the display.

- The ADVANCED LED of the **TONE** button will be lit while the digital keyboard is in the Lyric Tone Mode.
- Knob and pedal functions change in accordance with Lyric Tone Mode settings.

2. Press HOME.

This displays the home screen.

3. Press KNOB.

This displays the knob screen.
- You can use the knob screen to assign exclusive functions to the knobs on the lyric tone mode.

Function	Display Indicator	Displayed Setting Values	Default	Recommended Function*
Gender and Age	Gender & Age	0 to 127	Depends on the vocalist.	Portamento Time
Gender and Octave Shift	Gender & Oct Shift	0 to 127	Depends on the vocalist.	Age and Modulation
Age and Modulation	Age & Modulation	0 to 127	Depends on the vocalist.	Gender and Octave Shift

* Under initial default settings, changing the function of either Knob 1 or Knob 2 also changes the other knob to a corresponding recommended function.

4. Change the knob function.

- For information about how to change a knob function, see "To change the knob function" (page EN-93).

NOTE

- If you assign a function dedicated to the lyric tone mode to a knob, the knob affects only the UPPER1 part.
- If you change the Gender and Age of a knob function from 0 to 127, the gender setting changes from 0 to 50. The age setting is 0 when the Gender and Age setting is 64. The age setting decreases from 50 to 0 and increases from 0 to 50.
- If the Gender & Octave Shift setting of the knob function is 0 to 63, the octave shift becomes –1 relative to the current value.
- If you change the age & modulation of the knob function from 0 to 127, the age setting will change to 50 and the modulation will change from 0 to 127.
- You can also display the knob screen by pressing **MENU** and then KNOB.
- KNOB may not be displayed on the home screen due to the Home Customization setting.
- You can also use the lyric tone controller to change this function. For details, refer to "Change knob functions" under "Controlling a Lyric Tone with the Keyboard (Lyric Tone Controller)" (page EN-49).

Using the Recommended Lyric Tone Settings

You can recall recommended vocalists and performance settings for each lyric tone.

1. Press LYRICS.

The LYRICS LED of the **TONE MODE SELECT** buttons lights, and the lyric tone screen appears on the display.
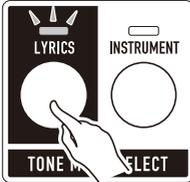
2. Rotate the dial to select the lyric tone you want.

3. Long-press LYRICS.

This momentarily displays "RECOMMENDED" and changes the settings to those recommended for the lyric tone.

> **NOTE**
> • The recommended settings for preset lyric tones are all the same. When creating user lyric tones with the "Lyric Creator" smart device app, you can select a recommended vocalist and performance settings for each lyric tone. For details, see "Linking with a Smart Device and Using Lyric Creator" (page EN-262).

Changing How Lyric Advancement is Performed When a Keyboard Key is Pressed

The way the lyrics progress when you press a key depends on your current lyric tone performance mode setting.

In the PHRASE mode, lyrics continue to advance as long as a keyboard key is depressed, while the NOTE mode causes lyrics to advance syllable by syllable each time you press a keyboard key.

1. Press LYRICS.

The LYRICS LED of the **TONE MODE SELECT** buttons lights, and the lyric tone screen appears on the display.
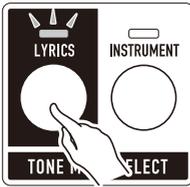
2. Press PLAY MODE.

This displays "NOTE" and causes lyrics to advance syllable by syllable each time a keyboard key is pressed.
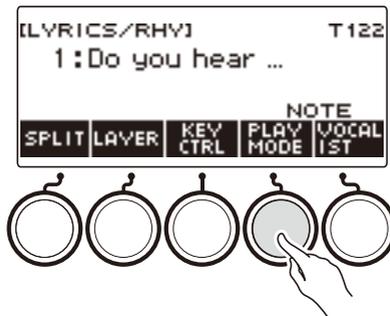
- In the NOTE mode, how lyrics advance is affected by how chords are played. Japanese lyrics advance by mora (beats), not syllables.

3. Press PLAY MODE again to return the keyboard setting to continue producing sound when keyboard keys are released.

This displays "PHRASE" and causes lyrics to advance as long as a keyboard key is depressed.

🔍 **NOTE**

- The functions below are disabled while PHRASE is selected as the play mode.
  - Lyric tone speed
  - Lyric syllable attack balancer
  - Syllable chord control function
  - Random syllable sequence
  - Syllable stay notes
- Under initial default settings, if you hold down the highest note keyboard key and hold down three or more keys, the lyrics will not advance even if you press a keyboard key that is lower than the highest note. For more information, see "Changing the Number of Chord Component Notes at Which Lyrics do not Advance (Syllable stay notes)" (page EN-57).
- You can have lyrics advance each time you change to another chord on the low-end keyboard. For details, see "Making Lyrics Advance With Chord Play on the Low-end Keyboard (Syllable Chord Control Function)" (page EN-56).

Controlling a Lyric Tone with the Keyboard (Lyric Tone Controller)

You can use part of the keyboard as switches for specifying the syllable position of a lyric tone and for controlling various functions.

1. Press **LYRICS**.

The LYRICS LED of the **TONE MODE SELECT** buttons lights, and the lyric tone screen appears on the display.

2. Press **KEY CTRL**.

This causes "KC" to appear on the display and enables the lyric tone controller keyboard.

Performance keyboard

Lyric Tone controller keyboard

B

EN-49
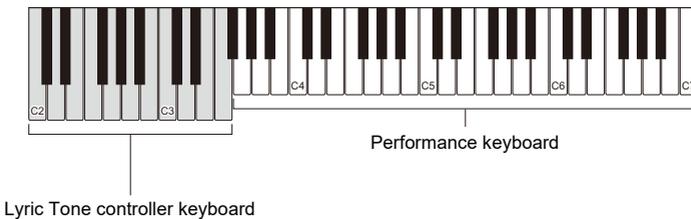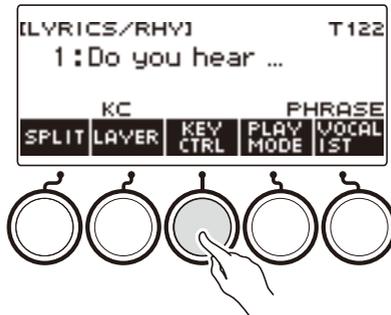
3. **Play your performance on the keyboard in combination with the lyric tone controller keyboard.**

Function		Keyboard Note Name	Description	Settings
Syllable Location Specification	Syllable 1	C2	You can specify the syllable position to be played next. Sounding is from the specified syllable position while a keyboard key is depressed. Pressing one of these keys causes "SYLLABLE POSITION:n" (n is a syllable position number) to appear on the display momentarily.	
	Syllable 2	D2		
	Syllable 3	E2		
	Syllable 4	F2		
	Syllable 5	G2		
	Syllable 6	A2		
	Syllable 7	B2		
	Syllable 8	C3		
	Syllable 9	D3		
	Syllable 10	E3		
	Syllable 11	F3		
Syllable chord control function		C#2	Lyrics are advanced when you change the chord being played on the low-end of the performance keyboard. While this function is enabled, "CHD" is shown on the lyric tone screen. (Disabled in PHRASE mode.)	Off, On (Default: Off)
Random syllable sequence		E♭2	Randomly selects the next syllable to be played. Pressing this key causes "RANDOM ON" or "RANDOM OFF" to appear on the display momentarily. (Disabled in PHRASE mode.)	Off, On (Default: Off)
Retrigger		F#2	While performance keyboard keys are held down, operation is performed as if keys are periodically played and released. While this function is enabled, "RTG" is shown on the lyric tone screen.	Off, On (Default: Off)
Retrigger cycle unit note value	−	A♭2	Specifies the note values to be used for the retrigger cycle unit. The rate is determined by multiplying this unit by the number of unit note values that can be set separately. Pressing one of these keys causes "RETRIGGER UNIT n" (n is a note value) to appear on the display momentarily.	1, 1t, 2, 2t, 4, 4t, 8, 8t, 16, 16t, 32, 32t (Default: 4)
	+	B♭2		

Function	Key-board Note Name	Description	Settings
Retrigger Hold	C♯3	When retrigger is enabled, retrigger continues to operate even if you release the keyboard keys you are playing. Pressing this key causes "RETRIGGER HOLD ON" or "RETRIGGER HOLD OFF" to appear on the display momentarily.	Off, On (Default: Off)

Change knob functions	E♭3	You can change the functions of the K1 and K2 knobs while playing lyric tones. Pressing this keyboard key causes one of the messages below to appear momentarily.
		• K1 knob: Gender and Age
		  K2 knob: Portamento Time
		  "K1/2:GENDER&AGE/PORT T"
		• K1 knob: Gender & Octave shift
		  K2 knob: Age & Modulation
		  "K1/2:GENDER&OCT/AGE&MOD"
		• K1 Knob: Vibrato Depth
		  K2 knob: Vibrato Rate
		  "K1/2:VIB DEPTH/VIB RATE"
			(Default: K1 knob/ Gender and age K2 knob/ Portamento Time)

4. **Press KEY CTRL again to return the keyboard setting to continue producing sound when keyboard keys are released.**

"KC" disappears from the display, and the lyric tone controller keyboard is disabled.

NOTE

• If both the lyric tone controller function and a function that uses the rhythm chord input keyboard are enabled, the rhythm function is given priority.
• If both the lyric tone controller function and split are enabled, the lyric tone controller function is given priority within the lyric tone controller keyboard key range.

Adjusting the Timing When Lyrics are Sounded

Lyric tones have the elements of "sounding speed (Lyric Tone Speed)" and "sound attack speed (Lyric Tone Attack Balancer/Lyric Tone Attack)". You can adjust these elements if the lyric tone performance mode is NOTE mode. The lyric tone attack element can also be adjusted in the PHRASE mode.

Adjusting the Speed of Lyric Advancement (Lyric Tone Speed)

Whether lyrics are sung slowly or fast affects the length of consonant pronunciation, and the way syllables are linked. You can achieve a more natural-sounding singing voice by setting the lyric tone speed to the tempo you will actually play. If the sound when playing the lyric tone is unnatural or if you are concerned about sound timing, try adjusting the lyric tone speed.

1. **Press LYRICS.**

The LYRICS LED of the **TONE MODE SELECT** buttons lights, and the lyric tone screen appears on the display.

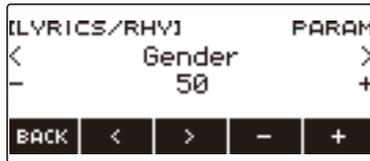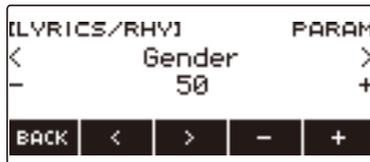**2.** **If the lyric tone performance mode is PHRASE mode, press PLAY MODE to switch to NOTE mode.**

3. **Long-press KEY CTRL.**

This displays the Lyric tone setting screen.

```
[LYRICS/RHY]      SETTING
Lyrics Speed:160


BACK  LYR   AT   ATK   >
     SPEED TACK BAL
```

4. **Rotate the dial to adjust the lyric tone speed.**

This displays the –/+ screen.

```
[LYRICS/RHY]      SETTING
Lyrics Speed:160


BACK              −   +
```
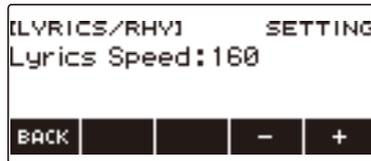
- The setting range is 20 to 255.
- After you rotate the dial to select a setting, you can adjust it further using – and +.
- To go back to the previous screen, press BACK.

5. **To exit the setting operation, press BACK.**

Making the Timing When Lyrics Sound Easier to Play on the Keyboard (Lyric Tone Attack Balancer)

When playing lyrics that include consonants with the lyric tone, it may take some time for the vowels to be pronounced and the sound may seem delayed because consonants start to be pronounced after the keyboard key is pressed.

When the lyric tone attack balancer is enabled, the consonant pronunciation time can be shortened by a certain percentage to make the singing voice easier to play on the keyboard.

If you have a problem playing a lyric tone due to delayed pronunciation, try enabling the lyric tone attack balancer.

1. **Press LYRICS.**

The LYRICS LED of the **TONE MODE SELECT** buttons lights, and the lyric tone screen appears on the display.

**2.** **If the lyric tone performance mode is PHRASE mode, press PLAY MODE to switch to NOTE mode.**

3. **Long-press KEY CTRL.**

This displays the lyric tone setting screen.

```
[LYRICS/RHY]        SETTING
Lyrics Speed:160


BACK   LYR   AT    ATK    >
       SPEED TACK  BAL
```
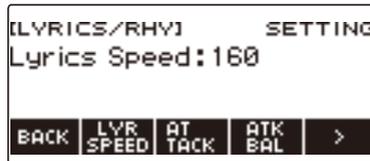
4. **Press ATK BAL.**

This displays "ATTACK BALANCER" and enables the lyric tone attack balancer, which adjusts the timing of the sounding of lyrics, making it easier to play them on the keyboard.

```
[LYRICS/RHY]        SETTING
Lyrics Speed:160

             ATTACK BALANCER
BACK   LYR   AT    ATK    >
       SPEED TACK  BAL
```
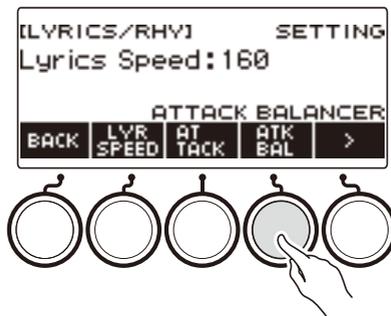
5. **Press ATK BAL again to disable the lyric tone attack balancer.**

"ATTACK BALANCER" disappears from the display.

6. **To exit the setting operation, press BACK.**

Specifying the Timing of Lyric Sounding (Lyric Tone Attack)

By changing the lyric tone attack setting, you can adjust the timing when lyrics sound by uniformly shortening the beginning of the sounding of the lyric tone.

1. Press LYRICS.

The LYRICS LED of the **TONE MODE SELECT** buttons lights, and the lyric tone screen appears on the display.

2. Long-press KEY CTRL.

This displays the lyric tone setting screen.

```
[LYRICS/RHY]        SETTING
Lyrics Speed:160


BACK | LYR  | AT   | ATK  |  >
     |SPEED |TACK  |BAL   |
```

3. Press ATTACK.

This displays lyric attack setting items.

```
[LYRICS/RHY]        SETTING
Lyrics Attack:0


BACK | LYR  | AT   | ATK  |  >
     |SPEED |TACK  |BAL   |
```
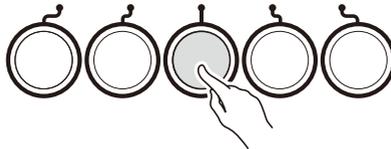
4. Rotate the dial to adjust the timing of when lyrics sound.

This displays the –/+ screen.

```
[LYRICS/RHY]        SETTING
Lyrics Attack:0



BACK |      |      |  −   |  +
```
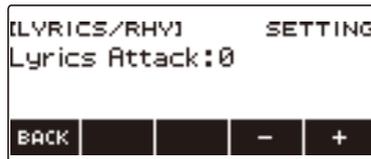
- The setting range is 0 to 30.
- After you rotate the dial to select a setting, you can adjust it further using – and +.
- To go back to the previous screen, press BACK.

5. To exit the setting operation, press BACK.

Changing the Syllable Advancement Control Setting in NOTE Mode

When the lyric tone performance mode is NOTE mode, you can randomly advance the lyrics by playing on the keyboard and by changing the low side note of chord performance, and you can change the number of chords that advance the lyrics.

Making Lyrics Sound Randomly (Random Syllable Sequence)

1. Press **LYRICS**.

The LYRICS LED of the **TONE MODE SELECT** buttons lights, and the lyric tone screen appears on the display.

2. If the lyric tone performance mode is PHRASE mode, press PLAY MODE to switch to NOTE mode.

3. Long-press KEY CTRL.

This displays the lyric tone setting screen.

```
[LYRICS/RHY]      SETTING
Lyrics Speed:160


BACK  LYR   AT    ATK    >
      SPEED TACK  BAL
```

4. Press ❯ to select the 5 buttons menu that includes SYLLABLE.

5. Press SYLLABLE.

This displays the syllable progress setting screen.

```
[LYRICS/RHY]      SYLLABLE
Syllable Stay Note:3


BACK  CHORD RAN
      CTRL  DOM
```

6. Press RANDOM.

This displays "RANDOM" and causes the next played syllable position to be selected randomly.
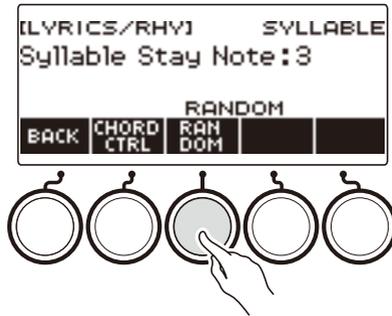
- You can also use the lyric tone controller to enable this function. For details, refer to "Random syllable sequence" under "Controlling a Lyric Tone with the Keyboard (Lyric Tone Controller)" (page EN-49).

7. Press RANDOM again to disable the random syllable sequence.

"RANDOM" disappears from the display.

8. To exit the syllable progress setting screen, press BACK.

Making Lyrics Advance With Chord Play on the Low-end Keyboard (Syllable Chord Control Function)

1. Press LYRICS.

The LYRICS LED of the **TONE MODE SELECT** buttons lights, and the lyric tone screen appears on the display.

2. If the lyric tone performance mode is PHRASE mode, press PLAY MODE to switch to NOTE mode.

3. Long-press KEY CTRL.

This displays the lyric tone setting screen.

4. Press ❯ to select the 5 buttons menu that includes SYLLABLE.

5. Press SYLLABLE.

This displays the syllable progress setting screen.

```
[LYRICS/RHY]      SYLLABLE
Syllable Stay Note:3


BACK CHORD RAN
     CTRL  DOM
```
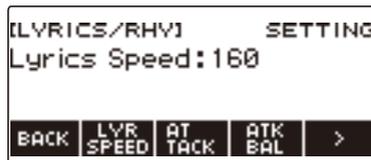
6. Press CHORD CTRL.

This displays "CHD".

• Lyrics are advanced with a change in the chord being played on the low-end keyboard.

```
[LYRICS/RHY]      SYLLABLE
Syllable Stay Note:3

       CHD
BACK CHORD RAN
     CTRL  DOM
```
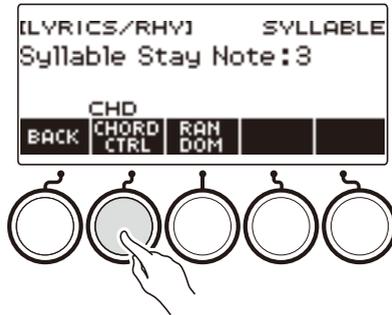
• You can also use the lyric tone controller to enable this function. For details, refer to "Syllable chord control function" under "Controlling a Lyric Tone with the Keyboard (Lyric Tone Controller)" (page EN-49).

• While this function is enabled, "CHD" is shown on the lyric tone screen.

7. Press CHORD CTRL again to disable the syllable chord control function.

"CHD" disappears from the display.

8. To exit the syllable progress setting screen, press BACK.

Changing the Number of Chord Component Notes at Which Lyrics do not Advance (Syllable stay notes)

1. Press LYRICS.

The LYRICS LED of the **TONE MODE SELECT** buttons lights, and the lyric tone screen appears on the display.

2. If the lyric tone performance mode is PHRASE mode, press PLAY MODE to switch to NOTE mode.

3. Long-press KEY CTRL.

This displays the lyric tone setting screen.

```
[LYRICS/RHY]        SETTING
Lyrics Speed:160


BACK │ LYR  │ AT   │ ATK  │  >
     │SPEED │TACK  │BAL   │
```

4. Press > to select the 5 buttons menu that includes SYLLABLE.

5. Press SYLLABLE.

This displays the syllable progress setting screen.

```
[LYRICS/RHY]        SYLLABLE
Syllable Stay Note:3


BACK │CHORD │ RAN  │      │
     │CTRL  │ DOM  │      │
```

6. Rotate the dial to change the number of chord component notes.

This displays the –/+ screen.
• You can change the ease of advancement of the lyrics by changing the number of chord component notes.

```
[LYRICS/RHY]        SYLLABLE
Syllable Stay Note:3


BACK │      │      │  −   │  +
```
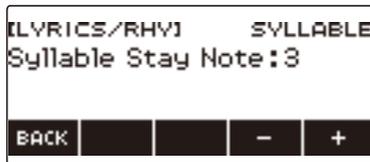
• The setting range is 1 to 5.
• The lyrics will not advance if you are holding down at least the specified number of chord component notes to play a chord and then change one of the component notes to a note that is lower than the current component notes. The larger the setting value, the easier it is for lyrics to advance.
• After you rotate the dial to select a setting, you can adjust it further using – and +.
• To go back to the previous screen, press BACK.

7. To exit the syllable progress setting screen, press BACK.

NOTE
• The number of chord constituent notes has no effect when the syllable chord control function is enabled.

Making the Lyrics Advance Even if You Hold Down Keyboard Keys (Retrigger)

With this method, the singing voice sounds as if you are repeatedly pressing keys at preset intervals, even if you hold down keyboard keys.

1. Press LYRICS.

The LYRICS LED of the **TONE MODE SELECT** buttons lights, and the lyric tone screen appears on the display.
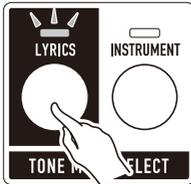
2. Long-press KEY CTRL.

This displays the lyric tone setting screen.

3. Press > to select the 5 buttons menu that includes RETRIG.

4. Press RETRIG.

This displays the retrigger setting screen.

5. Press RTG.

This displays "RTG" and causes the lyric tone to sound automatically at a fixed interval, as if keyboard keys are being pressed again.
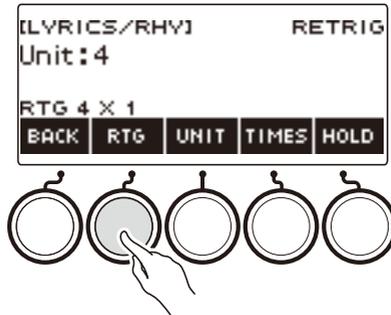
- You can also use the lyric tone controller to enable this function. For details, see "Retrigger" under "Controlling a Lyric Tone with the Keyboard (Lyric Tone Controller)" (page EN-49).
- While this function is enabled, "RTG" is shown on the lyric tone screen.

6. Press RTG again to disable retriggering.

"RTG" disappears from the display.

7. To exit the retrigger setting screen, press BACK.

NOTE

- If both the retrigger function and the arpeggiator function are enabled, the arpeggiator function is given priority.

Selecting the Note Value Cycle Unit

1. **Press LYRICS.**

The LYRICS LED of the **TONE MODE SELECT** buttons lights, and the lyric tone screen appears on the display.

2. **Long-press KEY CTRL.**

This displays the lyric tone setting screen.

```
[LYRICS/RHY]        SETTING
Lyrics Speed:160


BACK  LYR   AT    ATK    >
      SPEED TACK  BAL
```

3. **Press > to select the 5 buttons menu that includes RETRIG.**

4. **Press RETRIG.**

This displays the retrigger setting screen.

```
[LYRICS/RHY]        RETRIG
Unit:4

RTG 4 X 1
BACK  RTG  UNIT  TIMES HOLD
```
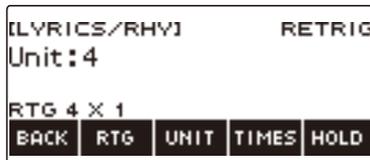
5. **Rotate the dial to select the note value to be used for the retrigger cycle unit.**

This displays the –/+ screen.

```
[LYRICS/RHY]        RETRIG
Unit:4

RTG 4 X 1
BACK              -    +
```
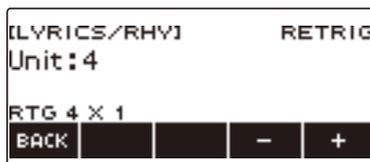
- Available settings are "1, 1t, 2, 2t, 4, 4t, 8, 8t, 16, 16t, 32, 32t".
- After you rotate the dial to select a setting, you can adjust it further using – and +.
- To go back to the previous screen, press BACK.
- You can also use the lyric tone controller to select this setting. For details, refer to "Retrigger cycle unit note value" under "Controlling a Lyric Tone with the Keyboard (Lyric Tone Controller)" (page EN-49).

6. **To exit the retrigger setting screen, press BACK.**

Selecting the Note Value Count

1. Press LYRICS.

The LYRICS LED of the **TONE MODE SELECT** buttons lights, and the lyric tone screen appears on the display.

2. Long-press KEY CTRL.

This displays the lyric tone setting screen.

```
[LYRICS/RHY]        SETTING
Lyrics Speed:160


BACK  LYR   AT   ATK    >
     SPEED TACK  BAL
```

3. Press > to select the 5 buttons menu that includes RETRIG.

4. Press RETRIG.

This displays the retrigger setting screen.

```
[LYRICS/RHY]        RETRIG
Unit:4

RTG 4 X 1
BACK  RTG  UNIT TIMES HOLD
```
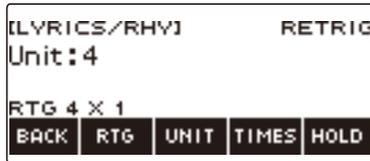
5. Press TIMES.

This displays a screen for setting the note value count.

```
[LYRICS/RHY]        RETRIG
Times:1

RTG 4 X 1
BACK  RTG  UNIT TIMES HOLD
```
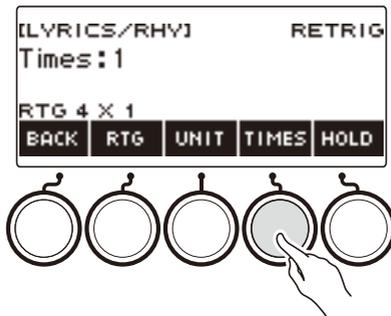
6. **Rotate the dial to select the number of unit note values.**

This displays the –/+ screen.

```
[LYRICS/RHY]        RETRIG
Times:1

RTG 4 X 1
BACK           |   –   |   +
```
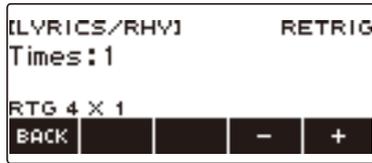
- The setting range is 1 to 9.
- After you rotate the dial to select a setting, you can adjust it further using – and +.
- To go back to the previous screen, press BACK.

7. **To return to the setting screen of the note value, which is the unit of the cycle, press the UNIT.**

8. **To exit the retrigger setting screen, press BACK.**

Making the Retrigger Function Notes Continue to Sound When Keyboard Keys are Released

1. **Press LYRICS.**

The LYRICS LED of the **TONE MODE SELECT** buttons lights, and the lyric tone screen appears on the display.
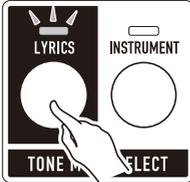
2. **Long-press KEY CTRL.**

This displays the lyric tone setting screen.

3. **Press > to select the 5 buttons menu that includes RETRIG.**

4. **Press RETRIG.**

This displays the retrigger setting screen.

5. **Press RTG to turn on the retrigger function.**

6. Press HOLD.

This displays "HOLD" and enables retrigger hold.
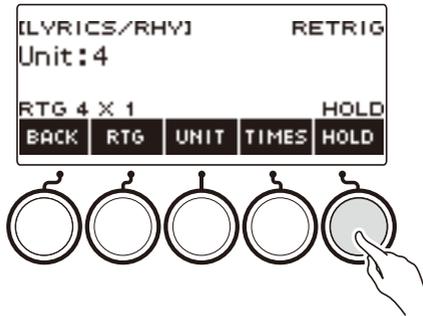
- You can also use the lyric tone controller to enable this function. For details, refer to "Retrigger Hold" under "Controlling a Lyric Tone with the Keyboard (Lyric Tone Controller)" (page EN-49).

7. Press and release a keyboard key.

- Even after you release the key, the retrigger function causes notes to continue to play.

8. To disable retrigger hold, press HOLD again.

This causes "HOLD" to disappear from the display and stops note play.

9. To exit the retrigger setting screen, press BACK.

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Changing the Function of a Pedal in the Lyric Tone Mode

You can change the pedal function to a lyric tone function. For example, lyric tone change, resetting the syllable position, etc.

1. Press **LYRICS**.

The LYRICS LED of the **TONE MODE SELECT** buttons lights, and the lyric tone screen appears on the display.
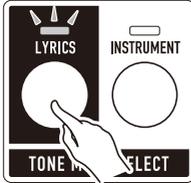
- The ADVANCED LED of the **TONE** button will be lit while the digital keyboard is in the Lyric Tone Mode.
- Knob and pedal functions change in accordance with Lyric Tone Mode settings.

2. Press **MENU**.

This displays the menu screen.

3. Use **<** and **>** to select the 5 button menu that includes PEDAL.

4. Press **PEDAL**.

This displays the pedal screen.
- In addition to functions assigned to the pedal (page EN-74), the following functions can also be assigned.

Setting	Description	Display Indicator
Lyric tone forward	A short-press advances to the next lyric tone. A long-press returns to the previous lyric tone.	Next Lyrics
Lyric tone back	A short-press returns to the previous lyric tone. A long-press advances to the next lyric tone.	Prev Lyrics
Lyric syllable reset	Resets the tone syllable position to the beginning.	Syllable Reset
Lyric tone hold	Depressing the pedal while PHRASE mode is selected as the lyric tone performance mode will cause lyrics to continue to sound up to the final syllable even if you release the keyboard keys, and the vowel of the final syllable will continue to sound. Depressing the pedal while NOTE mode is selected as the lyric tone performance mode will cause the vowel of the current syllable to be retained. Even if you press a keyboard key, the vowel sounds without advancing to the next syllable, for a melismatic performance.	Lyrics Hold

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5. Change the pedal function.

- For information about how to change a pedal function, see "To change the switch pedal function" (page EN-72).

NOTE

- If you assign a function dedicated to the lyric tone mode to a pedal, the pedal affects only the UPPER1 part.

Controlling the Sound of a Performance

Selecting a Musical Instrument Tone

Your Digital Keyboard lets you select tones for a wide variety of musical instrument sounds, including violin, flute, and more. The same song can sound completely different when played with a different instrument type.

Selecting a Tone

1. **Press INSTRUMENT.**

The INSTRUMENT LED of the **TONE MODE SELECT** buttons lights, and the instrument tone screen appears on the display.

• The tone number and tone name appear on the display.

Tone Number ——— 1:Stage Piano ——— Tone name
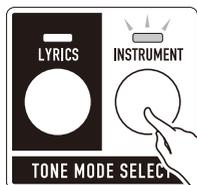
2. **Rotate the dial to select a tone.**

• For tone information, see the "Tone List" (page EN-288).
• Tone numbers 801 and 802 are for sampled tones. For details, see "Capturing Sounds as Tones" (page EN-211).
• After you rotate the dial once to select a tone, you can change the selection further using – and +.
• To return to the first tone in the Tone List, press – and + at the same time.
• If you want to select a category, use CAT–/CAT+.
• To go back to the previous screen, press BACK.
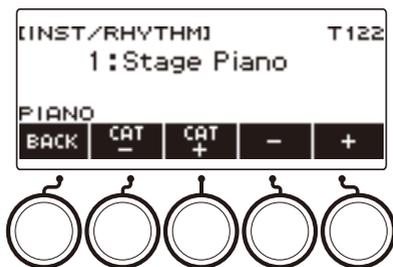
■ Advanced Tones

A tone that causes the ADVANCED LED to light is called an "advanced tone".
Advanced tones provide enhanced sound source control, and enable advanced expressive techniques, tone expression, and more.

Lit
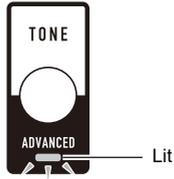
Playing with Touch Response

Touch Response alters tone volume in accordance with keyboard pressure (press velocity). This provides you some of the same expression capabilities you get on an acoustic piano.

Changing Touch Response Sensitivity

1. Press **INSTRUMENT**.

This displays the instrument tone screen.

2. Press TOUCH and then select the Touch Response setting you want.

```
[INST/RHYTHM]          T122
        1:Stage Piano

              NORMAL
SPLIT LAYER TOUCH  SUS   ARP
```
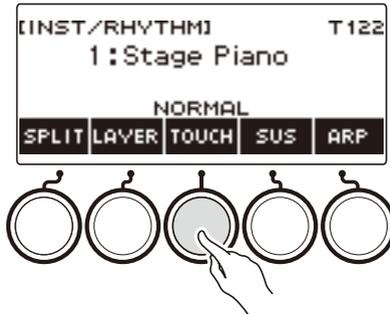
Touch Response settings are described in the table below.

Setting (Display Text)	Description
Off (OFF)	Keyboard pressure does not affect volume.
Light (LIGHT)	Easier to produce a louder sound than the Normal setting, for a lighter feel.
Normal (NORMAL)	Normal Touch Response.
Heavy (HEAVY)	More difficult to produce a louder sound, for a heavier feel.

B

■ **Adjusting Volume When Touch Response is Disabled (Touch off Velocity)**

1. Press INSTRUMENT.

This displays the instrument tone screen.

2. Long-press TOUCH.

This displays the setting screen, which shows setting items for touch off velocity.

```
[SETTING]
<    Touch Off Velocity    >
-            100            +
EXIT   <     >     -     +
```
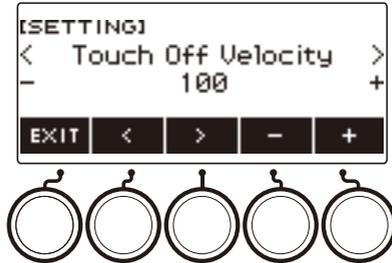
3. Rotate the dial or use – and + to change the setting.

• You can specify a value from 1 to 127.

4. To exit the setting operation, press EXIT.

B

Using a Pedal

Connecting a pedal lets you perform pedal operations that add various effects during your performances. The **PEDAL1** jack is compatible with switch pedals that pedal release, and the **PEDAL2/EXPRESSION** jack is compatible with both volume pedals and switch pedals that detect the amount of depression.

This Digital Keyboard does not come with a pedal unit. Purchase one separately.

- You can also use a pedal to change the registration setup. For details, see "Using the Pedal to Recall the Settings Sequentially (Registration Sequence)" (page EN-177).

Using a Switch Pedal

1. Connect a pedal to the **PEDAL1** or **PEDAL2/EXPRESSION** jack.
- Under initial default settings, pedal sustain is assigned to the **PEDAL1** jack so it can be used as a damper pedal.
- Under initial default settings, the soft function is assigned to the **PEDAL2/EXPRESSION** jack so it can be used as a soft pedal.

2. Depress and release the pedal as you play the keyboard.
- With the pedal sustain function, notes are sustained as long as you hold down the pedal, even if you release the keyboard keys.
- With the soft function, notes become slightly quieter and softer while the pedal is depressed.

■ To change the switch pedal function

1. Press **MENU**.
This displays the menu screen.

2. Use ❮ and ❯ to select the 5 buttons menu that includes PEDAL.

3. Press PEDAL.

This displays the pedal screen.

```
[PEDAL]
P1:PEDAL SUSTAIN
P2:SOFT

EXIT  PEDAL  PEDAL
        1      2
```
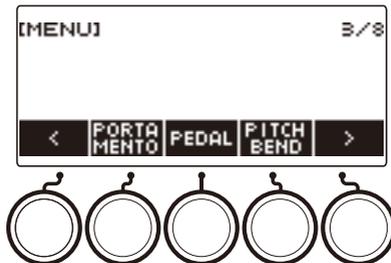
4. Press the button for the pedal jack whose function you want to change.

This displays the pedal setting screen.

```
[PEDAL]           PEDAL 1
1:Pedal Sustain

                  U1 U2 L
BACK  UP    UP   LOWER
      PER1  PER2
```

- If SWITCH appears when you press PEDAL2, it means that the pedal type setting is switch pedal. If the pedal type setting is not switch pedal, refer to "Using a Pedal" (page EN-72) and change the setting.
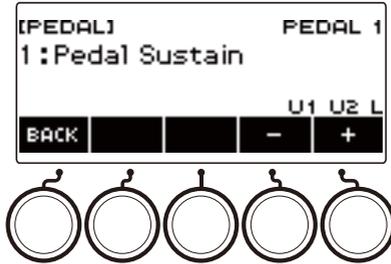
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5. Rotate the dial to change the pedal function.

The table below shows the available pedal function settings.

Setting (Display Text)	Description
Pedal Sustain (Pedal Sustain)	Playing notes while the pedal is depressed causes the notes to be sustained, even if the keyboard keys are released.
Sostenuto (Sostenuto)	Playing notes and then pressing the pedal before the keyboard keys are released causes the notes to be sustained.
Soft (Soft)	Pressing the pedal and playing notes causes the notes to be slightly softened.
Start/Stop (Start/Stop)	The pedal has the same functions as ▶/■. It can be used to start and stop the metronome and rhythm play.
Fill-in (Fill-In)	Plays a fill-in (page EN-166) when the pedal is depressed while an Auto Accompaniment is playing.
Arpeggiator Hold (Arpeggiator Hold)	When the arpeggiator (page EN-239) is turned on, arpeggiator hold is applied by depressing the pedal.

• After you rotate the dial once to select an option, you can change the selection further using – and +.
• To go back to the previous screen, press BACK.

6. Press BACK to return to the pedal screen.

7. To exit the setting operation, press EXIT.

Using Volume Pedal

1. **Connect a volume pedal to the** PEDAL2/EXPRESSION **jack.**
   • When connecting a commercially available expression pedal, refer to "Connectable Expression Pedals" (page EN-16).

2. **Press** MENU**.**
   This displays the menu screen.

3. **Use ⟨ and ⟩ to select the 5 buttons menu that includes PEDAL.**

4. **Press PEDAL.**
   This displays the pedal screen.

```
[PEDAL]
P1:PEDAL SUSTAIN
P2:SOFT

EXIT  PEDAL PEDAL
       1     2
```
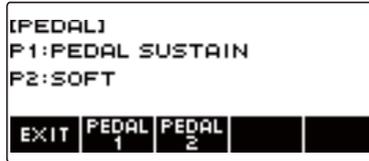
5. **Press PEDAL2.**
   This displays the PEDAL2 pedal setting screen.

```
[PEDAL]              PEDAL 2
3:Soft

SWITCH               U1 U2 L
BACK   UP    UP   LOWER TYPE
       PER1  PER2
```
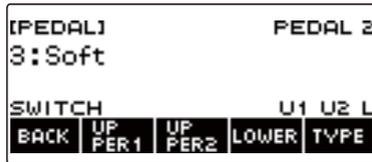
■ **When connecting for the first time, use the procedure below to specify the pedal type and to calibrate the pedal.**

(1) Press TYPE.

This displays the PEDAL2 pedal type setting screen.

(2) Press VOL TYPE1 or VOL TYPE2 according to the polarity of the volume pedal.

VOL TYPE1 button	Select this setting when connecting a Polarity Type 1 expression pedal.
VOL TYPE2 button	Select this setting when connecting a Polarity Type 2 expression pedal.
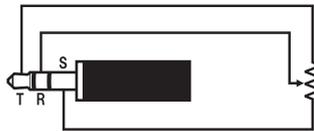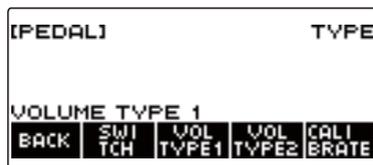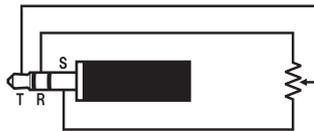
This displays "VOLUME TYPE 1" or "VOLUME TYPE 2".

• Press SWITCH to return the pedal type setting to switch pedal. This displays "SWITCH" and returns the pedal type setting to switch pedal.

(3) Press CALIBRATE.
This displays "Sure?".

```
[PEDAL]              CAL
Sure?


BACK          NO   YES
```
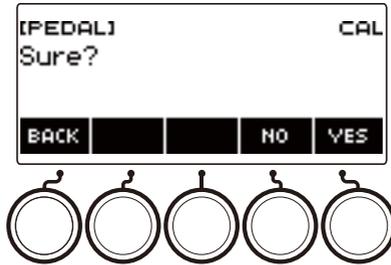
(4) Press YES.

(5) Depress the toe end of the volume pedal, and then press YES.

```
[PEDAL]              CAL
Sure?


BACK          NO   YES
```
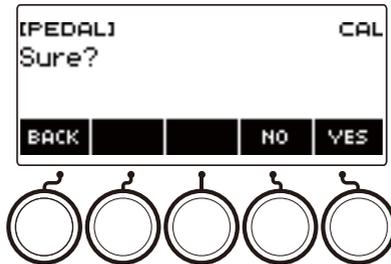
(6) Depress the heel end of the volume pedal and then press YES.
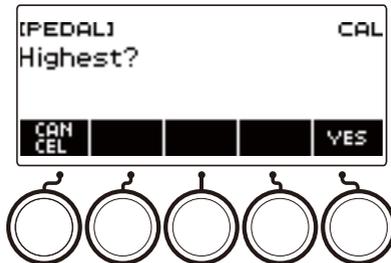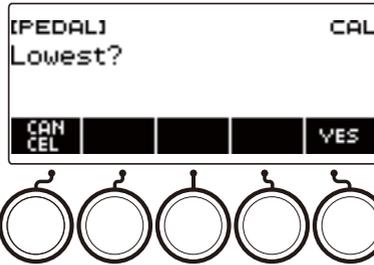
```
[PEDAL]              CAL
Highest?


CAN
CEL              YES
```

(7) Press OK.

[PEDAL]   CAL

Lowest?

CAN CEL   YES

This displays the PEDAL2 pedal type setting screen.

[PEDAL]   TYPE

VOLUME TYPE 1

BACK | SWI TCH | VOL TYPE1 | VOL TYPE2 | CALI BRATE

(8) Press BACK.

[PEDAL]   PEDAL 2

1:Expression

VOLUME TYPE 1   U1 U2 L

BACK | UP PER1 | UP PER2 | LOWER | TYPE

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6. Rotate the dial to change the pedal function.

```
[PEDAL]            PEDAL 2
1:Expression

VOLUME TYPE 1     U1 U2 L
BACK              -    +
```
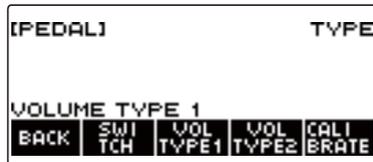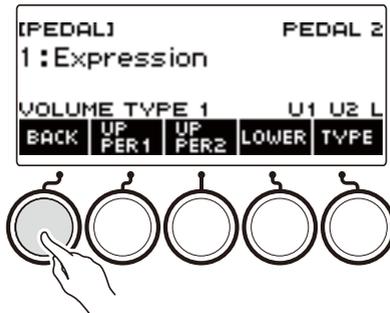
The table below shows the available pedal function settings.

Setting (Display Text)	Description
Expression (Expression)	Adjusts the volume level independently of the part volume.
Part Volume (Part Volume)	Adjusts the part volume level.
Rhythm Volume (Rhythm Volume)	Adjusts the rhythm volume level.
Master Volume (Master Volume)	Adjusts the overall volume of the Digital Keyboard independent of the volume knob.
Tempo (Tempo)	Adjusts the tempo.

- After you rotate the dial once to select an option, you can change the selection further using – and +.
- To go back to the previous screen, press BACK.

7. Press BACK to return to the pedal screen.

8. To exit the setting operation, press EXIT.

Disabling the Pedal Effect for Individual Parts

1. Press **MENU**.
This displays the menu screen.

2. Use **<** and **>** to select the 5 buttons menu that includes PEDAL.

3. Press **PEDAL**.
This displays the pedal screen.

4. Press the button for the pedal jack whose part setting you want to change.
This displays the pedal setting screen.

```
[PEDAL]            PEDAL 1
1:Pedal Sustain

                  U1 U2 L
BACK  UP   UP  LOWER
      PER1 PER2
```

5. Press UPPER1.

"U1" disappears from the display, indicating that the pedal effect is no longer applied to the UPPER 1 part.
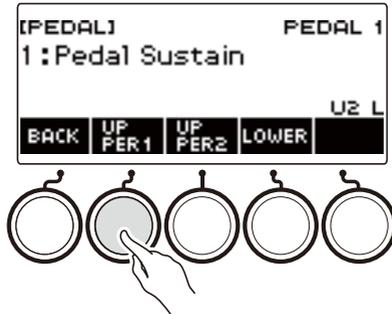
6. To apply the pedal effect to the UPPER1 part, press UPPER1 again.

- In the same way, you can stop the pedal effect from being applied to the note by pressing UPPER2 and to the LOWER part by pressing LOWER. Pressing UPPER2 causes "U2" to disappear from the display, while pressing LOWER causes "L" to disappear.

7. Press BACK to return to the pedal screen.

8. To exit the setting operation, press EXIT.

NOTE

- For information about parts, see "Layering and Splitting Tones" (page EN-123).
- Pedal part settings do not affect any of the following settings: start/stop, fill-in, arpeggiator hold, master volume, tempo.
- When layer and split are enabled, the pedal effect is applied to the corresponding UPPER2 part and to the LOWER part in accordance with how much the pedal is depressed.

Sustaining Notes After Keyboard Keys Are Released

While sustain is enabled, notes are sustained longer when keyboard keys are released.

1. Press INSTRUMENT.

This displays the instrument tone screen.

```
[INST/RHYTHM]              T122
         1:Stage Piano

              NORMAL
 SPLIT LAYER TOUCH   SUS   ARP
```

2. Press SUS.

This displays "SUS".

```
[INST/RHYTHM]              T122
         1:Stage Piano

           NORMAL  SUS
 SPLIT LAYER TOUCH   SUS   ARP
```
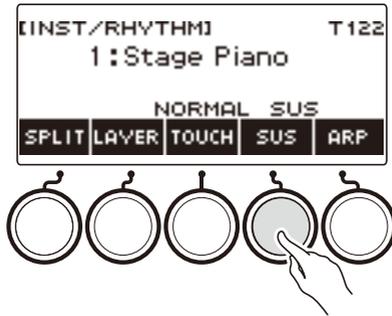
- If the UPPER PORT button is displayed, switch it to the SUS button (page EN-84).

3. Press and release keyboard keys.

The notes are sustained for a relatively long time.

4. To disable sustain, press SUS again.

🔍 **NOTE**

- Effects are not applied to drum tones.

■ Adjusting the Note Sustain Time

Use the procedure below to change the sustain time when sustain is enabled.

1. Press **INSTRUMENT**.

This displays the instrument tone screen.

2. Long-press SUS.

This displays the sustain screen, which shows setting items for the UPPER1 part sustain time.
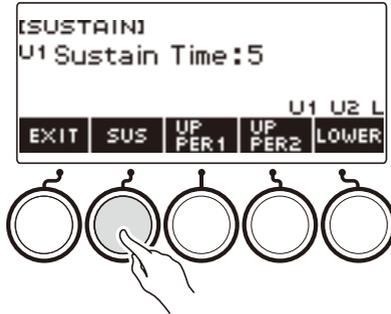
3. If required, press UPPER1, UPPER2, and LOWER to select the part whose setting you want to configure.

4. Rotate the dial to change the setting.

- You can set a sustain time within the range of 0 to 9.
- After you rotate the dial once to select a value, you can change the value further using – and +.
- To return the setting to its initial default, press – and + at the same time.
- To go back to the previous screen, press BACK.
- Setting a value of "0" causes the indicator for the applicable part ("U1", "U2", "L") to disappear from the display.

5. To exit the setting operation, press EXIT.

🔍 NOTE

• You can also display the sustain screen by pressing **MENU** and then SUSTAIN.
• For details about parts, see "Layering and Splitting Tones" (page EN-123).

Switching From the SUS (Sustain) Button to the UPPER PORT (Upper Portamento) Button

A single button is used to control sustain (page EN-81) and upper portamento (page EN-85).

1. Press MENU.

This displays the menu screen.

2. Use < and > to select the 5 buttons menu that includes SETTING.
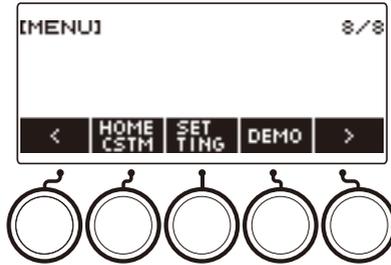
3. Press SETTING.

This displays the setting screen.
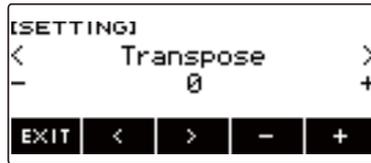
4. Use < and > to select "SUS/UPPER PORT Button".

5. Rotate the dial or use – and + to change the button function.

Switching from SUS to UPPER PORT displays UPPER PORT on the instrument tone screen.
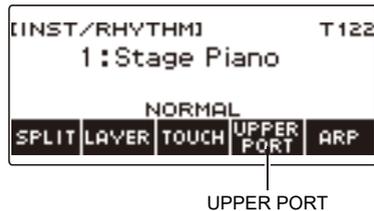
UPPER PORT

6. To exit the setting operation, press EXIT.

Transitioning Smoothly Between Upper Part Notes (Upper Portamento)

Portamento makes it possible to slide smoothly between notes, as is done with string and woodwind instruments.

1. Press **INSTRUMENT**.

This displays the instrument tone screen.

2. Press UPPER PORT.

This displays "PORT".
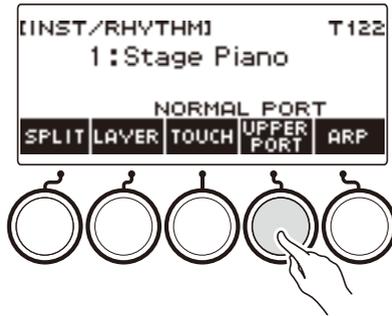
• If the SUS button is displayed, switch it to the UPPER PORT button (page EN-84).

3. After pressing upper keyboard keys, press other upper keyboard keys.

This results in smooth transitions between the upper part notes.

4. To turn off upper portamento, press UPPER PORT again.

This causes "PORT" to disappear from the display.

NOTE

• You can also turn on upper portamento by pressing **MENU** and then PORTAMENTO. Next, on the portamento screen that appears, press UPPER PORT.
• For information about the Upper Part, see "Layering and Splitting Tones" (page EN-123).
• You can use upper portamento and part portamento (page EN-86) to configure portamento settings. If you used part portamento to turn on the upper part, the notes of the turned-on upper part transition smoothly between each other even if upper part portamento is turned off.
• Effects are not applied to drum tones.

■ **Configuring Portamento Settings for Each Part (Part Portamento)**

1. **Press INSTRUMENT.**
This displays the instrument tone screen.

2. **Long-press UPPER PORT.**
This displays the portamento screen.

[PORTAMENTO]

EXIT | UPPER PORT | PART PORT | TIME
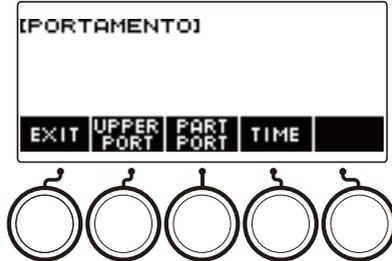
3. **Press PART PORT.**
This displays the part portamento screen.

[PORTAMENTO]　　PART

BACK | UP PER1 | UP PER2 | LOWER
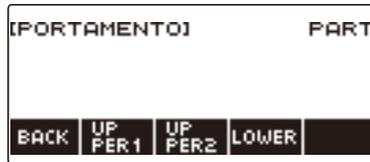
4. **Use UPPER1, UPPER2, and LOWER to select the part whose setting you want to configure.**
- "U1", "U2", or "L" appear on the display depending on the selected part, and the notes of the selected part transition smoothly between each other.
- If you press the button of the same part again, "U1", "U2", or "L" will disappear from the display, and the notes of the selected part will no longer transition smoothly between each other.

[PORTAMENTO]　　PART

U1
BACK | UP PER1 | UP PER2 | LOWER
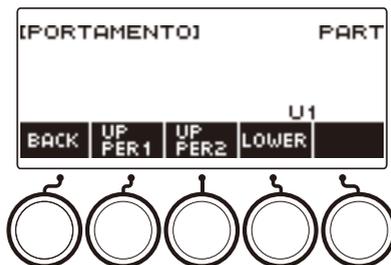
5. Press BACK to return to the portamento screen.

6. To exit the setting operation, press EXIT.

 NOTE

- You can also display the portamento screen by pressing **MENU** and then PORTAMENTO.
- The part portamento settings for a part whose instrument tone or vocalist has been changed will be the recommended settings for that instrument tone or vocalist.
- For information about parts, see "Layering and Splitting Tones" (page EN-123).
- Effects are not applied to drum tones.

■ To change the note connection time of each part (Part Portamento Time)

1. Press **INSTRUMENT**.

This displays the instrument tone screen.

2. Long-press UPPER PORT.

This displays the portamento screen.
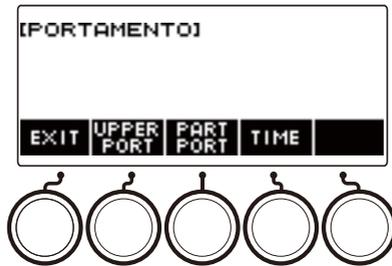
3. Press TIME.

This displays the part portamento time screen.

4. Use UPPER1, UPPER2, and LOWER to select the part whose setting you want to change.

5. Rotate the dial to change the setting.

```
[PORTAMENTO]          TIME
ᵁ1 Portamento Time:20


BACK              −      +
```

- You can specify a value from 0 to 127.
- After you rotate the dial once to select a setting, you can change the selection further using – and +.
- To return the setting to its initial default, press – and + at the same time.
- To go back to the previous screen, press BACK.

6. Press BACK to return to the portamento screen.

7. To exit the setting operation, press EXIT.

NOTE

- You can also display the portamento screen by pressing **MENU** and then PORTAMENTO.
- The part portamento time setting for a part whose instrument tone or vocalist has been changed will be the recommended setting for that instrument tone or vocalist.
- For information about parts, see "Layering and Splitting Tones" (page EN-123).

Using the Pitch Bend Wheel

You can use the pitch bend wheel to smoothly slide the pitch of notes you are playing upwards and downwards.

1. While playing a note on the keyboard with your right hand, rotate the PITCH BEND wheel upwards or downwards with your left hand.

The amount the note bends depends on how much you rotate the pitch bend wheel.
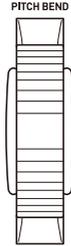
PITCH BEND

Changing How Much the Pitch is Affected When the Pitch Bend Wheel is Used

You can use the procedure below to specify, in semitone units, how much the pitch of each part changes when the PITCH BEND wheel is at maximum rotation in either direction.

1. Press MENU.

This displays the menu screen.

2. Use ❮ and ❯ to select the 5 buttons menu that includes PITCH BEND.

```
[MENU]                    3/8




  <   PORTA  PEDAL PITCH   >
      MENTO        BEND
```
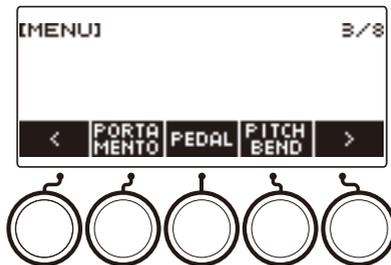
3. Press PITCH BEND.

This displays the pitch bend wheel screen, which shows setting items for the UPPER1 part pitch bend range.

```
[PITCH BEND]
U1 Bend Range:2

                    U1 U2 L
  EXIT  UP    UP   LOWER
        PER1  PER2
```

4. **If required, press UPPER1, UPPER2, or LOWER to select the part whose setting you want to configure.**

5. **Rotate the dial to change the setting.**

```
[PITCH BEND]
U1 Bend Range:2

                    U1 U2 L
BACK             -    +
```

- You can specify a pitch bend in the range of 0 to 24.
- After you rotate the dial once to select a value, you can change the value further using – and +.
- To return the setting to its initial default, press – and + at the same time.
- To go back to the previous screen, press BACK.
- Setting a value of "0" causes the indicator for the applicable part ("U1", "U2", "L") to disappear from the display, and disable the pitch bend wheel effect.

```
[PITCH BEND]
U1 Bend Range:0

                       U2 L
BACK             -    +
```

6. **To exit the setting operation, press EXIT.**

🔍 **NOTE**

- For details about parts, see "Layering and Splitting Tones" (page EN-123).

Using the Knobs to Change the Sound

You can use the Digital Keyboard's three knobs to change the keyboard sound and add more expressiveness to your performances.

The example below shows how to change the instrument tone.

For instrument tones, default settings are Cutoff for the **K1** knob, Resonance for the **K2** knob, and Modulation for the **K3** knob.

1. Rotate a knob.

This temporarily displays the name of the function and the setting value, and applies the effect in accordance with how far the knob was rotated.

```
[INST/RHYTHM]          T122
        1:Stage Piano

K1:CUTOFF 0
 KNOB  BAL   WIRE   MY   DEMO
       ANCE  LESS  SETUP
```
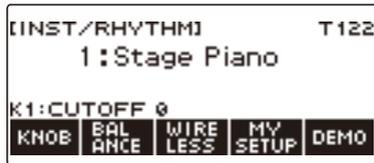
To reset the knob effect

1. Press HOME.

This displays the home screen.

2. Press KNOB.

This displays the knob screen.

```
[KNOB]
K1:CUTOFF 0
K2:RESONANCE 0
K3:MODULATION 0
 EXIT  KNOB  KNOB  KNOB   PRM
         1     2     3   RESET
```
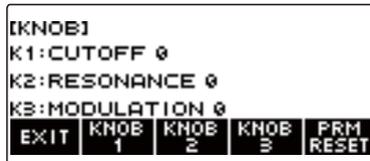
3. Press PRM RESET.

This displays "Sure?".

```
[KNOB]               RESET
Sure?


 BACK              NO    YES
```

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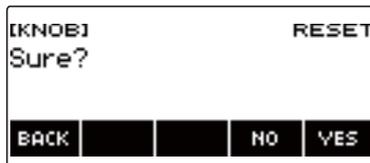
4. Press YES.

This resets the knob effect.
• To cancel, press NO.
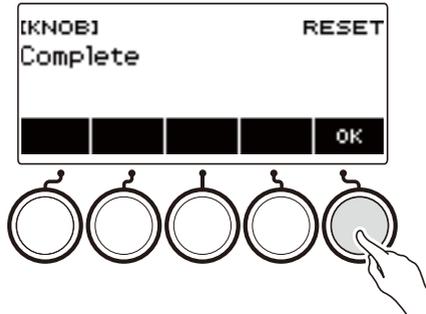
5. When "Complete" appears on the display, press OK.

6. To exit the setting operation, press EXIT.

NOTE

• You can also display the knob screen by pressing **MENU** and then KNOB.
• KNOB may not be displayed on the home screen due to the Home Customization setting.

To change the knob function

1. Press HOME.

This displays the home screen.

2. Press KNOB.

This displays the knob screen.

```
[KNOB]
K1:CUTOFF 0
K2:RESONANCE 0
K3:MODULATION 0
EXIT  KNOB  KNOB  KNOB  PRM
       1     2     3   RESET
```

3. Press the button of the knob whose function you want to change.

This displays the knob setting screen.

```
[KNOB]
K1    1:Cutoff
0
LINK                    U1 U2 L
BACK   UP    UP   LOWER K1-2
      PER1  PER2        LINK
```
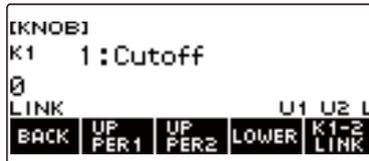
- Under initial default settings, changing the function of either Knob 1 or Knob 2 will change the other knob to the corresponding recommended function and turn on Knob K1-K2 linking. Pressing K1-2 LINK causes "LINK" to disappear from the display and turns off Knob K1-K2 linking.

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4. **Rotate the dial to change the function.**

```
[KNOB]
K1    1:Cutoff
0
LINK              U1 U2 L
BACK            |       | - | +
```
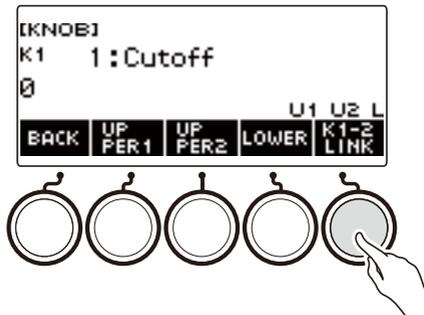
Function settings you can select are shown in the table below.

Setting	Indicator	Description
Cutoff	Cutoff	Adjusts timbre by attenuating the components of a note's frequency characteristics that are higher than a certain frequency (cutoff frequency). A larger value specifies a brighter, harder sound, while a lower value specifies a mellower, softer sound.
Resonance	Resonance	Adjusts the degree to which the gain of the overtone component is increased near the frequency specified by Cutoff. A larger value specifies a more unusual sound.
Attack Time	Attack Time	Adjusts the time after a key is pressed from when the note starts to sound until it reaches maximum volume. A larger value specifies a slower attack. Note Volume A: Attack Time R: Release Time
Release Time	Release Time	Adjusts how long notes linger after keyboard keys are released. A larger value specifies a longer release.
Part Portamento Time	Portamento Time	Adjusts the duration of the portamento notes.
Modulation	Modulation	Adjusts the level of the vibrato effect of the applicable part.
Modulation Range	Modulation Range	Adjusts the maximum pitch of the vibrato effect of a tone.

Setting	Indicator	Description
Vibrato Rate	Vibrato Rate	Adjusts the speed of vibrato of a tone.
Vibrato Depth	Vibrato Depth	Specifies the depth of vibrato of a tone.
Vibrato Delay	Vibrato Delay	Adjusts the time until the vibrato of the tone starts after a note is sounded.
Part Volume	Part Volume	Adjusts the volume level of a part.
Pan	Pan	Adjusts the stereo center of the sound. 0 indicates the middle, while a smaller value shifts to the left and a larger value shifts to the right.
Reverb Send	Reverb Send	Specifies how much reverb is applied for each tone.
Chorus Send	Chorus Send	Specifies how much chorus is applied for each tone.
Delay Send	Delay Send	Adjusts how delay is applied to a tone.
Equalizer Low Gain	EQ Low Gain	Adjusts the amplification in each equalizer range.
Equalizer Midrange 1 Gain	EQ Mid1 Gain	
Equalizer Midrange 2 Gain	EQ Mid2 Gain	
Equalizer High Gain	EQ High Gain	
Equalizer Input Level	EQ Input Level	Adjusts the equalizer input level.
Equalizer Output Level	EQ Output Level	Adjusts the equalizer output level.

- After you rotate the dial to select a value, you can change the selection further using – and +.
- To return the setting to its initial default, press – and + at the same time.
- To go back to the previous screen, press BACK.

5. Press BACK to return to the knob screen.

6. To exit the setting operation, press EXIT.

IMPORTANT!
- **Certain settings may result in strong distortion.**

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⊙ NOTE

- Even if you change the function of a knob, the effect applied by the previous knob function remains in effect. To apply the effects of multiple functions and return the effects to their initial default settings, see "To reset the knob effect" (page EN-91).
- The effect of the following functions will be the recommended value of the tone when the tone of the corresponding part is changed.
  - Cutoff
  - Resonance
  - Attack Time
  - Release Time
  - Part Portamento Time
  - Modulation Range
  - Vibrato Rate
  - Vibrato Depth
  - Vibrato Delay
  - Reverb Send
  - Chorus Send
  - Delay Send

Disabling the Knob Effect for Individual Parts

1. Press **HOME**.

This displays the home screen.

2. Press **KNOB**.

This displays the knob screen.

3. Press the button of the knob whose effect you want to disable.

This displays the knob setting screen.

4. Press **UPPER1**.

- "U1" disappears from the display, indicating that the Knob effect is no longer applied to the UPPER 1 part.
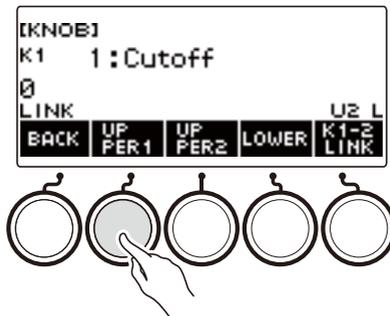
5. Pressing UPPER1 again applies the knob effect to the UPPER1 part.

- In the same way, you can stop the knob effect from being applied to the UPPER2 part or LOWER part by pressing UPPER2 or LOWER. Pressing UPPER2 causes "U2" to disappear from the display, while pressing LOWER causes "L" to disappear.

6. Press BACK to return to the knob screen.

7. To exit the setting operation, press EXIT.

NOTE

- For information about parts, see "Layering and Splitting Tones" (page EN-123).
- Turning on Layer and Split causes the effect to be applied to the UPPER2 part and LOWER part in accordance with the knob rotation position.

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Applying the Effect You Want to a Tone (Active DSP)

■ Active DSP

A DSP (Digital Signal Processor) is a type of effect connected between the sound source and output. DSP types are equalizer, tremolo, limiter, wah, etc. Many of the built-in tones of your Digital Keyboard are preset with DSPs that are suited for each tone. Such tones are called "DSP tones". Your Digital Keyboard is equipped with Active DSP, which allows you to change DSP settings. The Digital Keyboard DSPs that can be configured using Active DSP are configured as shown below.

DSP
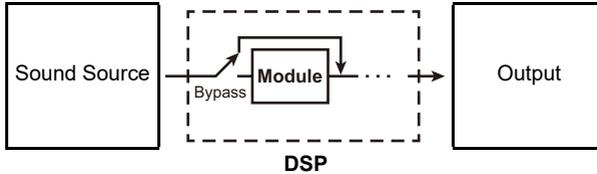
- A DSP consists of one or more DSP modules ("Module" in the above illustration).
- Your Digital Keyboard comes with 100 preset DSPs. The number of DSP modules and the module type (equalizer, tremolo, limiter, wah, etc.) are defined for each DSP.
- You can use the knobs to manipulate DSP parameters in real-time.

For an Active DSP, first you need to select a preset DSP. You can use the knobs to manipulate DSP parameters in real-time. You can also fine-tune the parameters, if you want.
For details about DSP types, DSP modules, and the parameters of each DSP module, see the "DSP List" on page EN-323 and the "DSP Effect List" on page EN-326.

The example below shows how to change the instrument tone.

1. Press MENU.

This displays the menu screen.

2. Use ⟨ and ⟩ to select the 5 buttons menu that includes ACTV DSP.

3. Press ACTV DSP.

This enables Active DSP and displays the Active DSP screen.

```
[ACTIVE DSP]          T122
U1    1:Tone

                      U1 U2
 CHG   ACT  PARA  KNOB HOLD
PART  PART METER
```
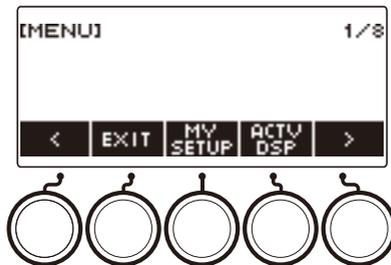
- Keyboard tone effects and knob functions are switched to dedicated Active DSP settings.

4. Use CHG PART to select the part whose effect you want to change.

This causes the selected part's indicator ("U1", "U2", "L") to appear in the upper left of the display.
- Each press of CHG PART cycles between parts whose effect will be changed.

```
[ACTIVE DSP]          T122
U2    1:Tone

                      U1 U2
 CHG   ACT  PARA  KNOB HOLD
PART  PART METER
```

- Under initial default settings, effects are applied to the UPPER1 and UPPER2 parts only, so even if you change the effect for the lower part, that effect is not applied. For information about applying an effect to the lower part, see "To change the part where the effect is applied" on page EN-101.

5. Rotate the dial to change the effect to apply to the part.

```
[ACTIVE DSP]          T122
U1    1:Tone

                      U1 U2
 BACK              -    +
```
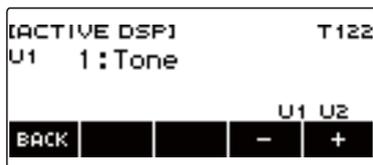
- You can select an effect value from 1 to 101.
- The "1:Tone" setting applies effects that depend on the selected keyboard tone. The knob function also changes to the recommended parameters for that effect.
- After you rotate the dial once to select a value, you can change the value further using – and +.
- To go back to the previous screen, press BACK.

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6. **Active DSP is also turned off if you press HOME or if you exit the Active DSP screen some other way.**

- The effects and knob functions applied to keyboard tones return to the settings in effect before Active DSP was turned on.
- You can use other functions with Active DSP left turned on. See "To use other functions with Active DSP turned on" (page EN-106).

NOTE

- Changing the effect causes the knob functions to change to the parameters recommended for the effect.
- If the parameters have been changed (page EN-103), changing the effect will reset the parameters to their initial default settings.
- If the knob functions are recommended parameters for an effect, they will be assigned to the knobs in recommendation descending order (most recommended to least).
- For information about parts, see "Layering and Splitting Tones" (page EN-123).

■ **To change the part where the effect is applied**

1. Press MENU.

This displays the menu screen.

2. Use < and > to select the 5 buttons menu that includes ACTV DSP.

```
[MENU]                          1/8




    <    EXIT   MY     ACTV    >
              SETUP   DSP
```
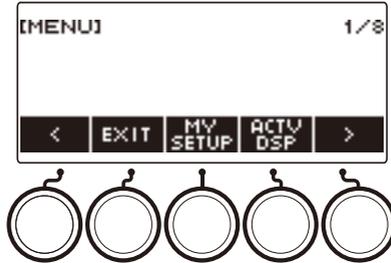
3. Press ACTV DSP.

This turns on Active DSP and displays the Active DSP screen.

```
[ACTIVE DSP]             T122
U1    1:Tone


                         U1 U2
  CHG    ACT   PARA  KNOB  HOLD
 PART   PART  METER
```

4. Press ACT PART.

This displays the Active DSP part setting screen.

```
[ACTIVE DSP]         ACT PART
U1    1:Tone


                         U1 U2
 BACK   UP    UP   LOWER  CHG
      PER1   PER2        PART
```
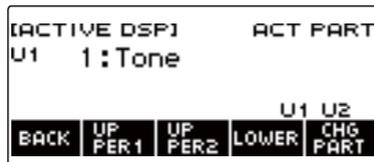
- On this screen as well, you can press CHG PART to select the part whose effect you want to change the effect, or you can turn a dial to change the effect applied to the part.

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5. **Press UPPER1, UPPER2, or LOWER to select the parts to which you want to apply the effect. This causes the selected part indicators ("U1", "U2", "L") to appear in the lower right of the display.**

• Effects can be applied to up to two parts at the same time.

```
[ACTIVE DSP]     ACT PART
U1    1:Tone

                    U1     L
BACK | UP    | UP    |LOWER| CHG
     | PER1  | PER2  |     | PART
```
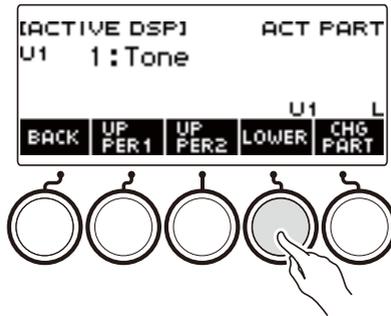
6. **Press UPPER1, UPPER2, or LOWER to select the part for which you want to disable application of the effect. This causes the selected part indicator ("U1", "U2", "L") to disappear from the lower right of the display.**

```
[ACTIVE DSP]     ACT PART
U1    1:Tone

                    U1
BACK | UP    | UP    |LOWER| CHG
     | PER1  | PER2  |     | PART
```
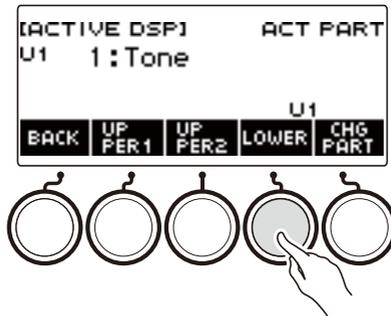
7. **To exit the setting operation, press BACK.**

NOTE

• For information about parts, see "Layering and Splitting Tones" (page EN-123).

■ **To change effect parameter settings**

1. Press MENU.

This displays the menu screen.

2. Use ❮ and ❯ to select the 5 buttons menu that includes ACTV DSP.

```
[MENU]                    1/8




  <   EXIT  MY   ACTV   >
           SETUP DSP
```

3. Press ACTV DSP.

This enables Active DSP and displays the Active DSP screen.

```
[ACTIVE DSP]           T122
U1    1:Tone


                       U1 U2
CHG   ACT  PARA  KNOB HOLD
PART  PART METER
```
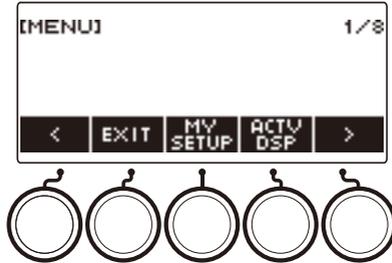
4. Press PARAMETER.

This displays the module selection screen.

```
[ACTIVE DSP]          PARAM
U1    1:Tone


BACK STREO
     SEQ
```
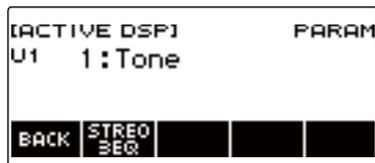
• You can rotate the dial to change the part effect while this screen is displayed.

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5. **Press the button of the module whose parameters you want to change.**

This displays the module parameter setting screen.

```
[ACTIVE DSP]        PARAM
<          EQ1 Freq      >
–          160Hz         +
U1 M1 STREO 3 EQ
BACK   <     >     –     +
```

6. **Use < and > to select the parameter you want to change.**

7. **Rotate the dial or use – and + to change the setting**

8. **Press BACK to return to the module selection screen.**

9. **To exit the setting operation, press BACK.**

◯ **NOTE**

• Bypass is a special parameter. Enabling it stops the effect from being applied to the module.

■ **To change knob functions while Active DSP is turned on**

1. **Press** **MENU.**

This displays the menu screen.

2. **Use < and > to select the 5 buttons menu that includes ACTV DSP.**

```
[MENU]              1/8




<   EXIT   MY    ACTV   >
          SETUP  DSP
```

3. Press ACTV DSP.

This enables Active DSP and displays the Active DSP screen.

```
[ACTIVE DSP]          T122
U1   1:Tone


                       U1 U2
 CHG   ACT  PARA  KNOB HOLD
PART  PART METER
```

4. Press KNOB.

This displays the knob screen.

```
[KNOB]
K1:M1 EQ1 GAIN 0
K2:M1 EQ3 GAIN 3
K3:M1 EQ2 GAIN 0
 EXIT  KNOB KNOB KNOB  PRM
         1    2    3  RESET
```
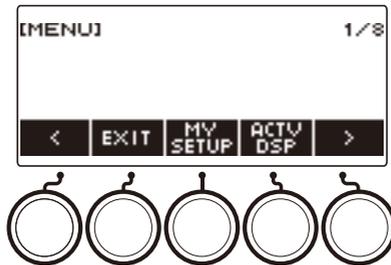
- While Active DSP is turned on, you can configure effect parameter settings in addition to the functions assigned to the knobs.

5. Change the knob function.

- For information about to do this, see "To change the knob function" (page EN-93).

NOTE

- If effect parameters are assigned to the knobs, you can select only one part that has a knob effect applied.
- When Knob K1-K2 linking is turned on, the part to which the effect is applied is the same part for Knob 1 and Knob 2. If you change the function of either Knob 1 or Knob 2, the unchanged knob will have a different recommended function than the one whose function you changed.
- Changing the part to which knob effects are applied while effect parameters are assigned to knobs causes the knob functions to become the recommended settings of the effect of the changed part.
- You can also display the knob screen by pressing **MENU** and then KNOB.
- If Active DSP Hold (page EN-106) is enabled, you can also display the dedicated Active DSP knob setting screen by pressing the KNOB button on the Home Screen.
- The KNOB button may not be displayed on the home screen due to the Home Customization setting.

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■ **To use other functions with Active DSP turned on**

1. Press MENU.

This displays the menu screen.

2. Use **<** and **>** to select the 5 buttons menu that includes ACTV DSP.

```
[MENU]                    1/8




    <  | EXIT | MY   | ACTV |  >
              SETUP | DSP
```

3. Press ACTV DSP.

This enables Active DSP and displays the Active DSP screen.

```
[ACTIVE DSP]              T122
U1    1:Tone

                         U1 U2
 CHG  | ACT  | PARA | KNOB | HOLD
PART | PART | METER
```
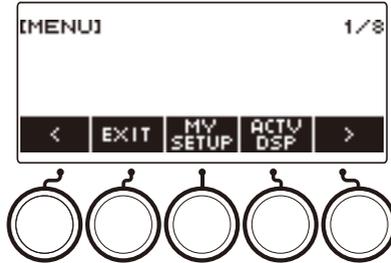
4. Press HOLD.

This displays "HOLD", which indicates you can configure the settings of other functions while keeping Active DSP on.

```
[ACTIVE DSP]              T122
U1    1:Tone

              HOLD    U1 U2
 CHG  | ACT  | PARA | KNOB | HOLD
PART | PART | METER
```
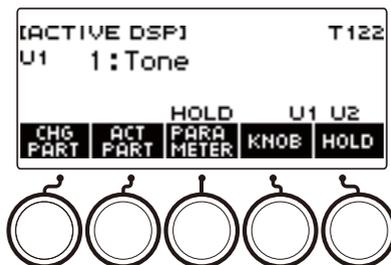
5. Press HOLD again to return to the DSP screen and turn off Active DSP.

This causes "HOLD" to disappear from the display, indicating that configuring another function's setting will turn off Active DSP.

Playing with Reverb

You can use the procedure below to add reverb to the notes you play.

1. **Press MENU.**

This displays the menu screen.

2. **Use ⟨ and ⟩ to select the 5 buttons menu that includes SYS FX.**
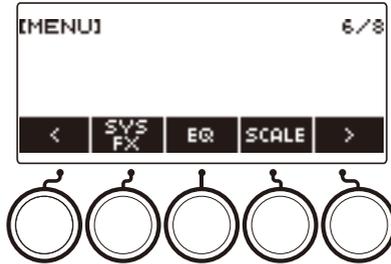
3. **Press SYS FX.**

This displays the system effect screen.
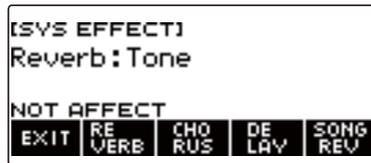
4. Rotate the dial to select the reverb type.

The following shows the available reverb type settings.

Setting	Display Name
Off	Off
Reverb Recommended for Each Tone	Tone
Room 1 to 5	Room 1 to 5
Large Room 1 or 2	Large Room 1 or 2
Hall 1 to 6	Hall 1 to 6
Stadium 1 to 3	Stadium 1 to 3
Plate 1 or 2	Plate 1 or 2
Delay	Delay
Pan Delay	Pan Delay
Long Delay 1, 2	Long Delay 1, 2
Church	Church
Cathedral	Cathedral

- After you rotate the dial once to select a reverb type, you can change the selection further using – and +.
- To return the setting to its initial default, press – and + at the same time.
- To go back to the previous screen, press BACK.

5. To exit the setting operation, press EXIT.

NOTE

- You can also use the knobs to adjust how reverb is applied to a tone. For more information, see "Using the Knobs to Change the Sound" (page EN-91).

Changing the Relationship of Keyboard and Song Reverb Effects

You can use this procedure to sync the reverb effect of keyboard play and built-in song playback so they do not clash with each other.

1. Press **MENU**.

This displays the menu screen.

2. Use **<** and **>** to select the 5 buttons menu that includes SYS FX.

```
[MENU]                    6/8




   <      SYS    EQ   SCALE    >
          FX
```

3. Press SYS FX.

This displays the system effect screen.

```
[SYS EFFECT]
Reverb:Tone

NOT AFFECT
EXIT  RE    CHO   DE   SONG
      VERB  RUS   LAY  REV
```
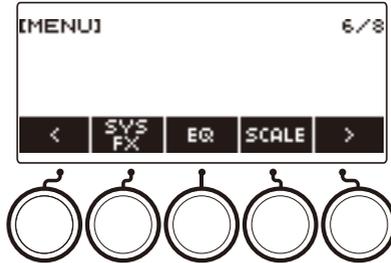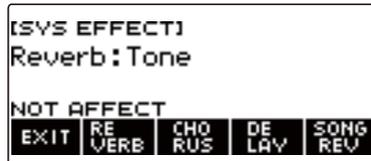
4. Press SONG REV to change the setting.

Available settings are shown in the table below.

Setting (Display Text)	Description
Synchronize (SYNC)	When a reverb setting is configured for the keyboard, the same reverb effect is also applied to songs. Conversely, any change in the reverb effect of a song is also applied to the keyboard reverb.
Keyboard reverb priority (FORCE KEYBOARD)	Song reverb effects are always the same as those of the keyboard reverb settings.
No effect (NOT AFFECT)	There is no change in keyboard reverb settings based on song reverb.

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Adding the Chorus Effect to a Tone

Chorus is a function that adds depth and breadth to notes.

1. Press **MENU**.

This displays the menu screen.

2. Use **<** and **>** to select the 5 buttons menu that includes SYS FX.
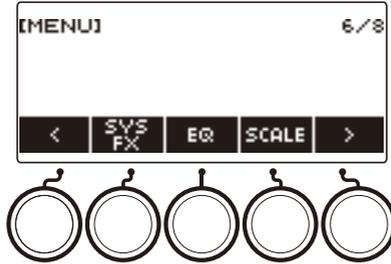
3. Press **SYS FX**.

This displays the system effect screen.

4. Press **CHORUS**.
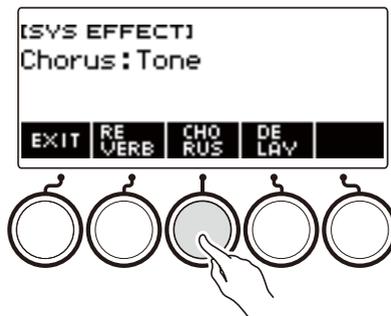
5. Rotate the dial to select the chorus type.

Available chorus type settings are shown in the table below.

Setting	Display Name
Chorus setting recommended for each tone	Tone
Chorus 1 to 4	Chorus 1 to 4
Feedback Chorus	Feedback Chorus
Deep Chorus	Deep Chorus
Flanger 1 to 4	Flanger 1 to 4
Short Delay 1, 2	Short Delay 1, 2

- After you rotate the dial once to select a chorus type, you can change the selection further using – and +.
- To return the setting to its initial default, press – and + at the same time.
- To go back to the previous screen, press BACK.
- To return to the Reverb screen, press REVERB.

6. To exit the setting operation, press EXIT.

NOTE

- Selecting a chorus type other than Tone increases the Chorus Send of the keyboard part.
- You can also use the knobs to adjust how chorus is applied to a tone. For more information, see "Using the Knobs to Change the Sound" (page EN-91).

Delaying Notes (Delay)

Delay stores a sound and repeats it periodically with a slight delay before each repeat, which creates an echo effect. Delay is different from reverb, which creates a reverberation effect.

1. Press MENU.

This displays the menu screen.

2. Use ＜ and ＞ to select the 5 buttons menu that includes SYS FX.
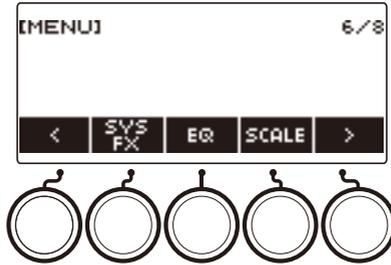
3. Press SYS FX.

This displays the system effect screen.

4. Press DELAY.
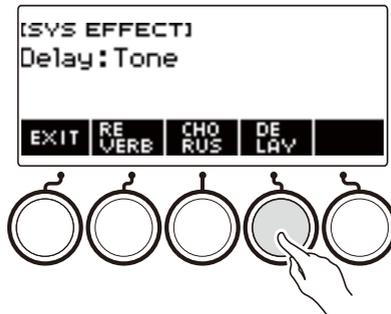
5. Rotate the dial to select the delay type.

```
[SYS EFFECT]
Delay:Tone


BACK          –    +
```
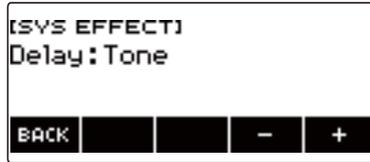
Delay types are shown in the table below.

Setting Type	Display Name
Recommended Delay for Each Tone	Tone
Short 1, 2	Short 1, 2
Echo	Echo
Tempo Sync Short	Tempo Sync Short
Tempo Sync Middle	Tempo Sync Middle
Tempo Sync Long	Tempo Sync Long
Ambiance	Ambiance
Middle 1, 2	Middle 1, 2
Long 1, 2	Long 1, 2
Middle Pan	Middle Pan
Long Pan 1 to 3	Long Pan 1 to 3

- After you rotate the dial once to select a delay type, you can change the selection further using – and +.
- To return the setting to its initial default, press – and + at the same time.
- To go back to the previous screen, press BACK.

6. To exit the setting operation, press EXIT.

NOTE

- Selecting a delay type other than Tone increases the Delay Send the keyboard part.
- You can also use the knobs to adjust how delay is applied to a tone. For more information, see "Using the Knobs to Change the Sound" (page EN-91).

Playing with a More Expanded Sound (Surround)

Enabling surround creates a virtual surround effect.

1. **Press MENU.**

This displays the menu screen.

2. **Use < and > to select the 5 buttons menu that includes SETTING.**
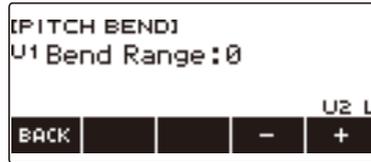
3. **Press SETTING.**

This displays the setting screen.

```
[SETTING]
<        Transpose        >
-            0             +

EXIT  |  <  |  >  |  -  |  +
```
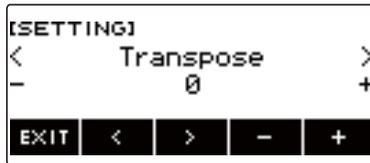
4. **Use < and > to select "Surround".**

5. **Rotate the dial or use – and + to select "On".**

6. **To exit the setting operation, press EXIT.**

NOTE

- Effects of the surround function are not applied to the **LINE OUT** jack outputs.
- The surround effect is not applied while you are listening over headphones.
- Connecting headphones disables the surround effect.

Sounding Arpeggio Phrases Automatically (Arpeggiator)

With the arpeggiator, you can play various arpeggios and other phrases automatically by simply pressing keys on the keyboard. You can select from several different arpeggio options, including playing arpeggios from a chord, playing various phrases automatically, and more.

1. Press **INSTRUMENT**.

This displays the instrument tone screen.

```
[INST/RHYTHM]         T122
      1:Stage Piano

           NORMAL
SPLIT LAYER TOUCH  SUS  ARP
```

2. Press **ARP**.

This displays "ARP" and enables the arpeggiator.

```
[INST/RHYTHM]         T122
      1:Stage Piano

           NORMAL      ARP
SPLIT LAYER TOUCH  SUS  ARP
```
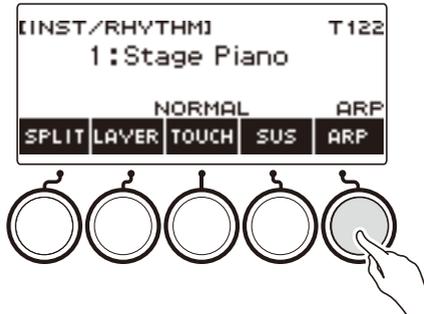
- If AH is displayed, switch it to ARP (page EN-120).

3. Long-press **ARP**.

This displays the arpeggiator screen, which shows the currently selected arpeggiator type number and name.

```
[ARPEGGIATOR]         T122
      1:Screw Up

        ARP       UPPER 1&2
EXIT  ARP  HOLD  PART
```

EN-115

4. Rotate the dial to select the arpeggiator type.

```
[ARPEGGIATOR]         T122
  1:Screw Up

          ARP        UPPER 1&2
  BACK             |   -   |   +
```
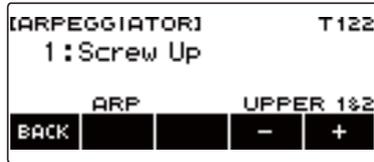
- You can specify an arpeggiator type within the range of 1 to 150. See "Arpeggiator List" (page EN-313).
- After you rotate the dial once to select a type, you can change the selection further using – and +.
- To go back to the previous screen, press BACK.

5. Hold down a key of the accompaniment keyboard.

The arpeggiator starts to play in accordance with the keys you press.

6. Remove your fingers from the keyboard keys.

This stops arpeggiator play.

7. To disable the arpeggiator, press ARP.

"ARP" disappears from the display.
- You can also enable and disable the arpeggiator by pressing ARP on the arpeggiator screen.

8. To exit the setting operation, press EXIT.

◯ NOTE

- You can also display the arpeggiator screen by pressing **MENU** and then ARPEGGI.

EN-116

■ Configuring Recommended Arpeggiator Settings

1. Press INSTRUMENT.

This displays the instrument tone screen.

2. Press ARP.

This displays "ARP" and enables the arpeggiator.

3. Long-press ARP.

This displays the arpeggiator screen.

4. Long-press ARP.

This momentarily displays "RECOMMENDED" and changes the tone to its recommended arpeggiator type setting.

```
[ARPEGGIATOR]          T122
   1:Screw Up

RECOMMENDED
EXIT | ARP | HOLD | PART |
```

■ **Configuring Settings so the Arpeggiator Pattern Keeps Playing After You Release Keyboard Keys**

1. Press INSTRUMENT.

This displays the instrument tone screen.

2. Press ARP.

This displays "ARP", which indicates the arpeggiator is enabled.

3. Long-press ARP.

This displays the arpeggiator screen.

4. Press HOLD.

This displays "HOLD", which indicates arpeggiator hold is enabled.
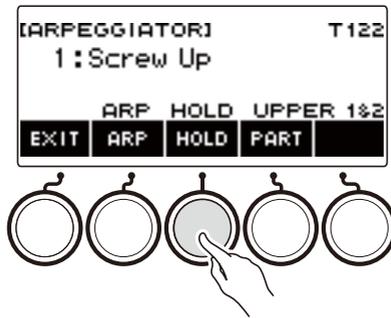
5. Press and release a keyboard key.

Even after you release the keys, the arpeggiator continues to play.

6. To stop arpeggio play, press HOLD again.

"HOLD" disappears from the display and turns off arpeggiator hold. The note you are playing stops sounding at this time.

■ **Changing the Part that Sound Arpeggiator Play**

1. **Press INSTRUMENT.**

This displays the instrument tone screen.

2. **Press ARP.**

This displays "ARP", which indicates the arpeggiator is enabled.

3. **Long-press ARP.**

This displays the arpeggiator screen.

4. **Press PART and then select the part you want to sound with the arpeggiator.**

```
[ARPEGGIATOR]              T122
    1:Screw Up

           ARP         UPPER 1&2
  EXIT  ARP  HOLD  PART
```
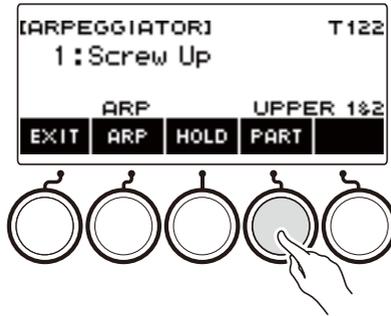
Parts you can select are shown in the table below.

Setting	Display Name
Upper1, Upper2	UPPER 1&2
Upper1	UPPER 1
Upper2	UPPER 2
Lower	LOWER

🔍 **NOTE**

• For details about parts, see "Layering and Splitting Tones" (page EN-123).

Switching the Button Function from ARP (Arpeggiator) to AH (Auto Harmonize)

A single button is used to control the arpeggiator (page EN-115) and auto harmonize (page EN-121).

1. Press MENU.

This displays the menu screen.

2. Use ❮ and ❯ to select the 5 buttons menu that includes SETTING.

```
[MENU]                  8/8




   ❮   HOME  SET   DEMO   ❯
       CSTM  TING
```

3. Press SETTING.

This displays the setting screen.

```
[SETTING]
❮        Transpose        ❯
−            0            +
 EXIT   ❮     ❯     −     +
```
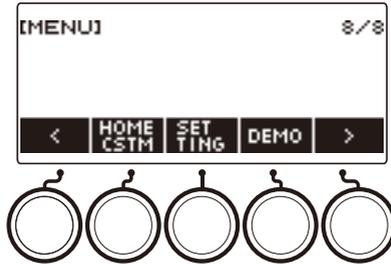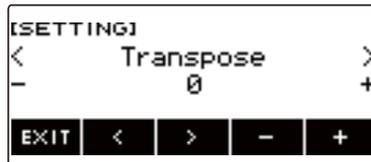
4. Use ❮ and ❯ to select "ARP/AH Button".

5. Rotate the dial or use − and + to toggle between button functions.

Switching the button function from ARP to AH displays the AH button label on the instrument tone screen.

```
[INST/RHYTHM]           T122
      1:Stage Piano

          NORMAL
 SPLIT LAYER TOUCH  SUS   AH ──── AH button
```

6. To exit the setting operation, press EXIT.

Adding Harmony to Melody Notes (Auto Harmonize)

This function adds harmony to the melody sound when a chord is specified, such as when a chord is input by the rhythm function.

1. Press RHYTHM.

This displays the currently selected rhythm number and name.

2. Press ACCMP.

This enables chord play.
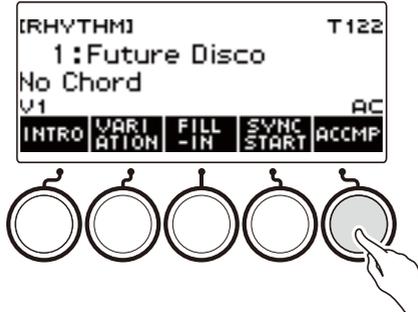
3. Press INSTRUMENT.

This displays the instrument tone screen.

4. Press AH.

This displays "AH", which indicates auto harmonize is enabled.
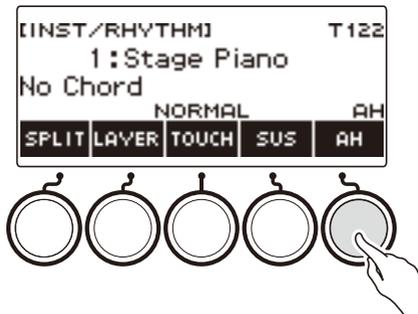
• If ARP is displayed, switch it to AH (page EN-120).

5. Long-press AH.

This displays the auto harmonize screen.

```
[AUTO HARMO]        T122
 1:Duet 1
No Chord
          AH    AC
EXIT │ AH │ACCMP│  −  │  +
```

6. Rotate the dial or use – and + to select an auto harmonize type.

• You can specify an auto harmonize type from 1 to 12.

Type (displayed)	Description
1: Duet 1	Adds closed (separated by 2 to 4 degrees) 1-note harmony below the melody note.
2: Duet 2	Adds open (separated by more than 4 to 6 degrees) 1-note harmony below the melody note.
3: Country	Adds country style harmony.
4: Octave	Adds the note from the next lower octave.
5: 5th	Adds the fifth degree note.
6: 3-Way Open	Adds 2-note open harmony, for a total of three notes.
7: 3-Way Close	Adds 2-note closed harmony, for a total of three notes.
8: Strings	Adds harmony that is optimal for strings.
9: 4-Way Open	Adds 3-note open harmony, for a total of four notes.
10: 4-Way Close	Adds 3-note closed harmony, for a total of four notes.
11: Block	Adds block chord notes.
12: Big Band	Adds big band style harmony.

7. Play chords on the accompaniment keyboard and the melody on the standard keyboard.

Harmony is added to your melody notes based on the chords you play.

8. To disable auto harmonize, press AH.

"AH" disappears from the display.
• You can also enable and disable auto harmonize by pressing AH on the auto harmonize screen.
• While the rhythm function is in use, you can also enable or disable the accompaniment keyboard by pressing ACCMP while the auto harmonize screen is displayed.

9. To exit the setting operation, press EXIT.

⬭ NOTE

• You can also display the auto harmonize screen by pressing **MENU** and then AUTO HRM.

Layering and Splitting Tones

You can configure the keyboard to play two different tones at the same time (Layer) or to play different tones in the left and right ranges (Split). You can even use Layer and Split in combination with each other and play three different tones at the same time.

The part that is used when playing a single tone is called the UPPER1 part. If you layer two parts, the layered part is the UPPER2 part. If the keyboard is split between two tones, the low-range part is called the LOWER part.

• **Sounding a single tone across the entire keyboard (page EN-68)**
With this configuration, only the UPPER1 part is used (Layer: Off, Split: Off).
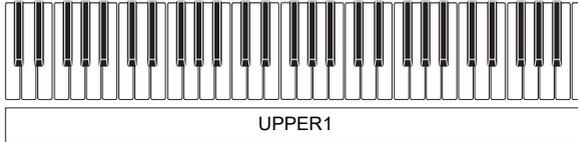
UPPER1

• **Layering two tones across the entire keyboard (page EN-125)**
With this configuration, the UPPER1 and UPPER2 parts are both used (Layer: On, Split: Off).
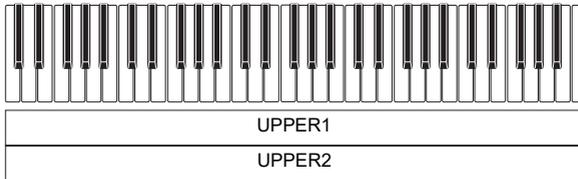
UPPER1

UPPER2

• **Splitting the keyboard into two ranges (left, right), and assigning different tones to each range (page EN-126)**
With this configuration, the UPPER1 part and LOWER part are both used (Layer: Off, Split: On).
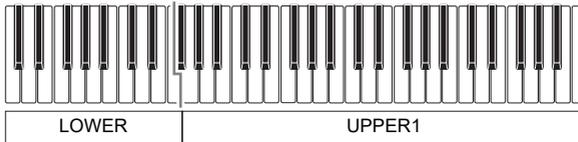
LOWER   UPPER1

- **Splitting the keyboard into two ranges (left, right), and assigning two layered tones to the right side and a single tone to the left side (pages EN-125, EN-126)**
  With this configuration, the UPPER1, UPPER2, and LOWER parts are all used (Layer: On, Split: On).

LOWER	UPPER1
	UPPER2
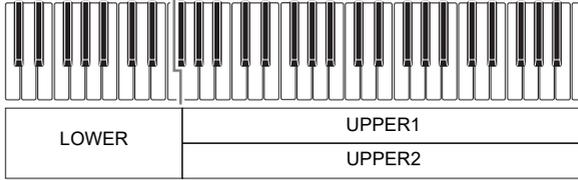
NOTE

- Changing the tone setting affects the UPPER2 part when layer is turned on, and the LOWER part when split is turned on.
- While you are using split and layer together, you can select the tone of the keyboard's LOWER part.

Layering Two Tones

1. Press **TONE**.

This displays the tone screen.

```
[INST/RHYTHM]              T122
         1:Stage Piano

              NORMAL
SPLIT LAYER TOUCH   SUS   ARP
```

2. Press **LAYER**.

This displays "U2" to the left of the tone number and "LY" below it. "U2" is short for the UPPER2 part.

```
[INST/RHYTHM]              T122
U2 272:Mellow Str.1

       LY   NORMAL
SPLIT LAYER TOUCH   SUS   ARP
```

3. Rotate the dial to select the layer tone.

- For tone information, see the "Tone List" (page EN-288).
- After you rotate the dial once to select a tone, you can change the selection further using – and +.
- To return to the first tone in the Tone List, press – and + at the same time.
- If you want to select a category, use CAT–/CAT+.
- To go back to the previous screen, press BACK.

4. Play something on the keyboard.

This layers the tone you select here on the tone you selected in step 3.

- Pressing LAYER again turns layering off.

EN-125

Splitting the Keyboard Between Two Different Tones

1. Press TONE.

This displays the tone screen.

```
[INST/RHYTHM]          T122
      1:Stage Piano

            NORMAL
SPLIT LAYER TOUCH  SUS  ARP
```

2. Press SPLIT.

This displays "L" to the left of the tone number and "SP" below it. "L" indicates the LOWER part.

```
[INST/RHYTHM]          T122
L  212:Acous.Bass 1

SP          NORMAL
SPLIT LAYER TOUCH  SUS  ARP
```
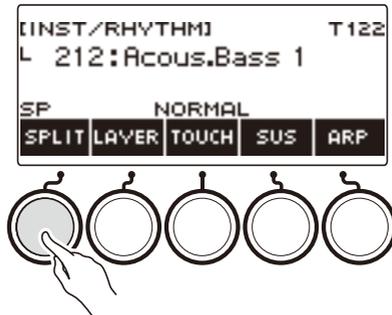
3. Rotate the dial to select the tone to be assigned to the low range keyboard.

- For tone information, see the "Tone List" (page EN-288).
- After you rotate the dial once to select a tone, you can change the selection further using – and +.
- To return to the first tone in the Tone List, press – and + at the same time.
- If you want to select a category, use CAT–/CAT+.
- To go back to the previous screen, press BACK.

4. Play something on the low range of the keyboard.

This sounds the selected tone.

LOWER   UPPER1

Split point

F3
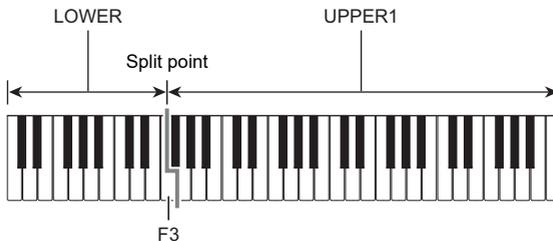
- To turn off split, press SPLIT again.

■ **Changing the Split Point**

1. Press TONE.

This displays the tone screen.

2. Long-press SPLIT.

This displays the setting screen, which shows setting items for the split point.
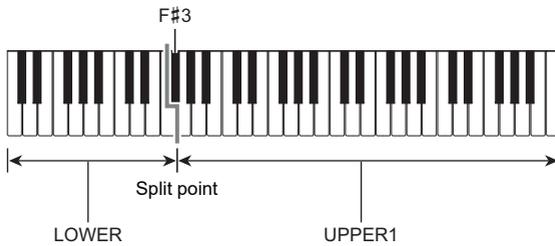
3. Rotate the dial or use – and + to specify the split point.
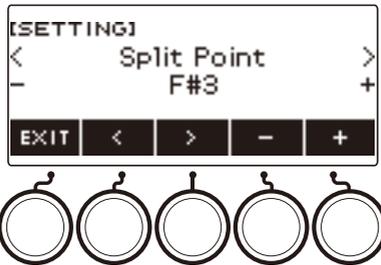
4. To exit the setting operation, press EXIT.

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Changing the Volume Balance Between Keyboard Play and Rhythm Play (Balance)

1. Press HOME.

This displays the home screen.

2. Press BALANCE.

This displays the balance screen, which shows volume level setting items for the UPPER1 part.

```
[BALANCE]
U1 Part Volume:127


EXIT | UP   | UP   | LOW | RHY
     | PER1 | PER2 | ER  | THM
```
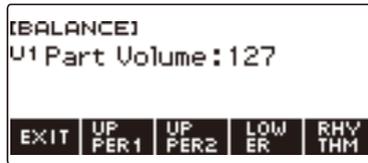
3. Press UPPER1, UPPER2, LOWER, or RHYTHM as required to select the item whose volume level you want to adjust.

4. Rotate the dial to change the setting value.

This displays the –/+ screen.

```
[BALANCE]
U1 Part Volume:127


BACK |      |      | –   | +
```

- You can specify a value in the range of 0 to 127.
- After you rotate the dial once to select a setting, you can change the setting further using – and +.
- To go back to the previous screen, press BACK.

5. To exit the setting operation, press EXIT.

NOTE

- You can also display the balance screen by pressing **MENU** and then BALANCE.
- The BALANCE button may not be displayed on the home screen due to the Home Customization setting.
- You can also change the rhythm volume level using the procedure under "Changing the Volume Level of a Rhythm" (page EN-151).

Changing the Pitch in Octave Units (Octave Shift)

You can use the procedure below to raise or lower pitch in octave units.

Shifting the Pitch of the UPPER Tone in Octave Units (Upper Octave Shift)

You can use the procedure below to raise or lower the pitch of the UPPER part in octave units.

1. Press TONE.

This displays the tone screen.

2. Long-press LAYER.

This displays the octave shift screen, which shows setting items for the upper octave shift.

```
[OCTAVE SHIFT]
Upper Octave Shift:0


EXIT UPPER UP    UP    LOWER
           PER1  PER2
```

3. Rotate the dial to change the shift amount.

• You can specify a value in the range of –3 to +3 octaves.
• After you rotate the dial once to select a shift amount, you can change the shift amount further using – and +.
• To return the setting to its initial default, press – and + at the same time.
• To go back to the previous screen, press BACK.

4. To exit the setting operation, press EXIT.

NOTE

• You can also display the octave shift screen by pressing MENU and then OCT SHIFT.
• With the home custom function, you can display the upper octave shift –/+ buttons on the home screen.
• For information about the Upper Part, see "Layering and Splitting Tones" (page EN-123).

Changing the Pitch of Each Part in Octave Units (Part Octave Shift)

1. Press TONE.

This displays the tone screen.

2. Long-press LAYER.

This displays the octave shift screen.

3. Press the button that corresponds to the part whose pitch you want to change.

```
[OCTAVE SHIFT]
U1 Part Octave Shift:0


EXIT UPPER  UP     UP    LOWER
            PER1   PER2
```

4. Rotate the dial to change the shift amount.

```
[OCTAVE SHIFT]
U1 Part Octave Shift:0


BACK            −      +
```

- You can specify a value in the range of –3 to +3 octaves.
- After you rotate the dial once to select a shift amount, you can further change the shift amount using the – and +.
- To return the setting to its initial default, press – and + at the same time.
- To go back to the previous screen, press BACK.

5. To exit the setting operation, press EXIT.

NOTE

- The part octave shift setting of the part whose tone or vocalist has been changed will be the recommended value for that instrument tone or vocalist. For information about tone recommended values, see the "Tone List" (page EN-288).
- You can also display the octave shift screen by pressing **MENU** and then OCT SHIFT.

Changing the Pitch in Semitone Units (Transpose)

You can use the procedure below to raise the overall pitch in semitone steps. You can use this feature to raise or lower the key of the keyboard to make it easier to play a piece written in a difficult key, or to adjust to a key that better matches a vocalist, or another musical instrument.

1. Press **MENU**.

This displays the menu screen.

2. Use **<** and **>** to select the 5 buttons menu that includes SETTING.
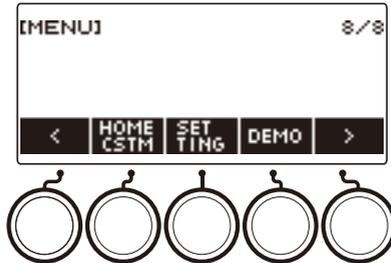
3. Press SETTING.

This displays the setting screen.
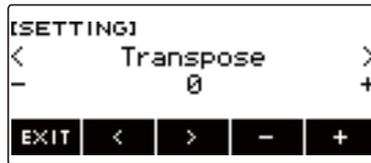
4. Use **<** and **>** to select "Transpose".

5. Rotate the dial or use – and + to change the setting.
- The setting range is from one octave up (+12 semitones) to one octave down (–12 semitones).
- To return the setting to its initial default, press – and + at the same time.

6. To exit the setting operation, press EXIT.

NOTE
- With the home custom function, you can display the Transpose –/+ buttons on the home screen.

Fine Tuning (Tuning)

You can use the procedure below to adjust the overall pitch by changing the frequency of A4. (0.1Hz units)
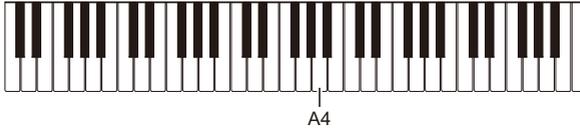
A4

1. **Press MENU.**

This displays the menu screen.

2. **Use ⟨ and ⟩ to select the 5 buttons menu that includes SETTING.**
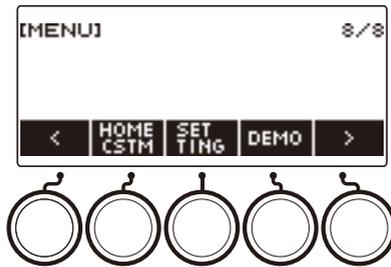
3. **Press SETTING.**

This displays the setting screen.

4. **Use ⟨ and ⟩ to select "Tuning".**

5. **Rotate the dial or use – and + to adjust the tuning.**
   - You can specify a frequency in the range of 415.5 to 465.9 Hz.
   - To return the setting to its initial default, press – and + at the same time.

6. **To exit the setting operation, press EXIT.**

Changing the Keyboard Scale Tuning

You can change the scale tuning of the keyboard from the standard equal temperament to another tuning that is more suitable for playing Indian music, Arabic music, classical music, etc. You can select from among 17 preset scale tunings.

■ Changing the Scale Tuning

1. Press MENU.

This displays the menu screen.

2. Use < and > to select the 5 buttons menu that includes SCALE.

3. Press SCALE.

This displays the scale tuning screen.

EN-133
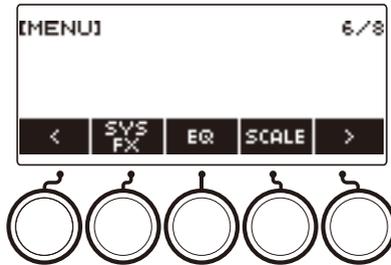
4. Rotate the dial to select the scale.

Scale settings you can select are shown in the table below.

Setting (Displayed Setting Name)	Scale Tuning Name
Equal	Equal temperament
Pure Major	Just major intonation
Pure Minor	Just minor intonation
Pythagorean	Pythagorean tuning
Kirnberger 3	Kirnberger III
Werckmeister	Werckmeister 1-3(III)
Mean-Tone	Mean-tone tuning
Rast	Rast
Bayati	Bayati
Hijaz	Hijaz
Saba	Saba
Dashti	Dashti
Chahargah	Chahargah
Segah	Segah
Gurjari Todi	Gurjari Todi
Chandrakauns	Chandrakauns
Charukeshi	Charukeshi

• After you rotate the dial once to select a scale, you can change the selection further using – and +.
• To return the setting to its initial default, press – and + at the same time.
• To go back to the previous screen, press BACK.

5. To exit the setting operation, press EXIT.

■ **Specifying the Base Note of the Scale Tuning**

1. Press **MENU**.

This displays the menu screen.

2. Use **<** and **>** to select the 5 buttons menu that includes SCALE.

3. Press **SCALE.**

This displays the scale tuning screen.

4. Press **ROOT.**

```
[SCALE]
Root:C

                PIANO STRCH
EXIT  TYPE  ROOT  AC    PIANO
                 SCALE  STRCH
```

5. Rotate the dial to change the setting.

```
[SCALE]
Root:C

                PIANO STRCH
BACK              −      +
```
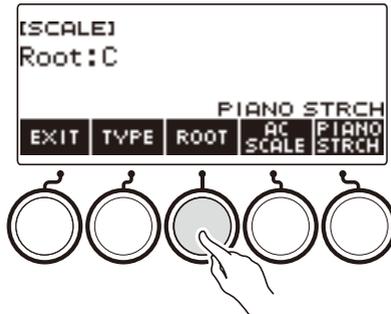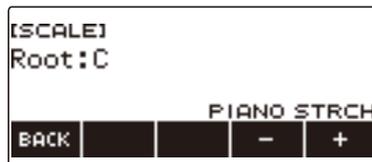
- You can specify a base note in the range of C to B.
- After you rotate the dial once to select a setting, you can change the selection further using − and +.
- To return the setting to its initial default, press − and + at the same time.
- To go back to the previous screen, press BACK.

6. To exit the setting operation, press **EXIT.**

■ **Reflecting the Scale Setting in the Rhythm Accompaniment as Well**

1. **Press MENU.**

This displays the menu screen.

2. **Use < and > to select the 5 buttons menu that includes SCALE.**

3. **Press SCALE.**

This displays the scale tuning screen.

4. **Press AC SCALE.**

This displays "AC SCALE", and reflects the scale setting in rhythm accompaniment as well.
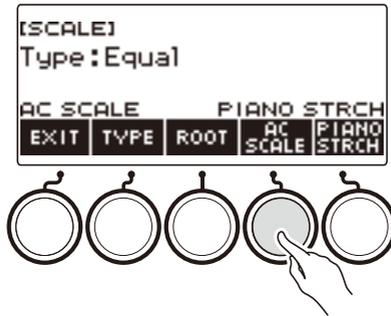
5. **To cancel the scale setting for rhythm accompaniment, press AC SCALE again.**

This causes "AC SCALE" to disappear from the display.

6. **To exit the setting operation, press EXIT.**

EN-136

■ Disabling Piano Stretch Tuning

Stretch tuning makes high notes relatively higher and low notes relatively lower than equal temperament tuning for a wider frequency differential between high and low notes.

1. **Press MENU.**

This displays the menu screen.

2. **Use < and > to select the 5 buttons menu that includes SCALE.**

3. **Press SCALE.**

This displays the scale tuning screen.

4. **Press PIANO STRCH.**

"PIANO STRCH" disappears from the display and piano stretch tuning is disabled.
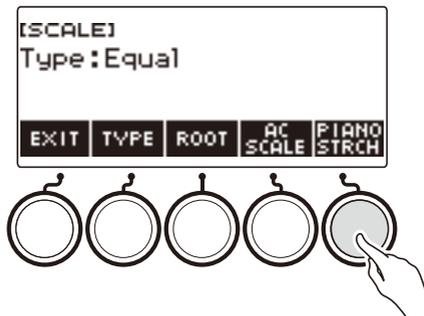
5. **To enable piano stretch tuning, press PIANO STRCH again.**

This displays "PIANO STRCH".

6. **To exit the setting operation, press EXIT.**

Using the Equalizer

You can use the equalizer to configure settings that boost or cut specific frequency components.

1. **Press MENU.**

This displays the menu screen.

2. **Use ❮ and ❯ to select the 5 buttons menu that includes EQ.**
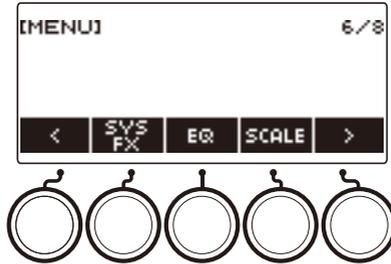
3. **Press EQ.**

This displays the equalizer screen.

4. **Rotate the dial or use – and + to change the setting.**

The table below shows available equalizer settings.

Setting (Display Text)	Description
Standard (Standard)	Standard setting
Loudness (Loudness)	Boosts all ranges.
Treble + (Treble +)	Boosts the high range.
Bass + (Bass +)	Boosts the low range.
Mellow (Mellow)	Produces a mellow sound.
Bright (Bright)	Produces a bright sound.
Rock (Rock)	Produces a sound optimized for rock music.
Jazz (Jazz)	Produces a sound optimized for jazz music.
Dance (Dance)	Produces a sound optimized for dance music.
Classic (Classic)	Produces a sound optimized for classical music.
User Equalizer (User)	Produces a sound in accordance with equalizer settings adjusted by you.

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5. **To exit the setting operation, press EXIT.**

Configuring Your Own Equalizer Settings (User Equalizer)

1. **Press MENU.**
This displays the menu screen.

2. **Use < and > to select the 5 buttons menu that includes EQ.**

3. **Press EQ.**
This displays the equalizer screen.

4. **Rotate the dial or use – and + to change the user setting.**

5. **Press PARAMETER.**
This displays the user equalizer setting screen.

6. **Use < and > to select the item.**

7. **Rotate the dial or use – and + to change the setting.**
The table below shows available equalizer settings.

Setting (Display Text)	Settings
Low-range Cutoff Frequency (Low Cutoff Frequency)	50 Hz, 63 Hz, 80 Hz, 100 Hz, 125 Hz, 160 Hz, 200 Hz, 250 Hz, 315 Hz, 400 Hz, 500 Hz, 630 Hz, 800 Hz
Low Gain (Low Gain)	–12 to +12
Midrange 1 Center Frequency (Mid1 Center Frequency)	100 Hz, 125 Hz, 160 Hz, 200 Hz, 250 Hz, 315 Hz, 400 Hz, 500 Hz, 630 Hz, 800 Hz, 1.0 kHz, 1.3 kHz, 1.6 kHz, 2.0 kHz, 2.5 kHz, 3.2 kHz, 4.0 kHz, 5.0 kHz, 6.3 kHz, 8.0 kHz
Midrange 1 Gain (Mid1 Gain)	–12 to +12
Midrange 2 Center Frequency (Mid2 Center Frequency)	100 Hz, 125 Hz, 160 Hz, 200 Hz, 250 Hz, 315 Hz, 400 Hz, 500 Hz, 630 Hz, 800 Hz, 1.0 kHz, 1.3 kHz, 1.6 kHz, 2.0 kHz, 2.5 kHz, 3.2 kHz, 4.0 kHz, 5.0 kHz, 6.3 kHz, 8.0 kHz
Midrange 2 Gain (Mid2 Gain)	–12 to +12
High-range Cutoff Frequency (High Cutoff Frequency)	2.0 kHz, 2.5 kHz, 3.2 kHz, 4.0 kHz, 5.0 kHz, 6.0 kHz, 8.0 kHz, 10 kHz, 13 kHz, 16 kHz
High Gain (High Gain)	–12 to +12
Input Level (Input Level)	0 to 127
Output Level (Output Level)	0 to 127

8. **To return to the equalizer screen, press BACK.**

9. **To exit the setting operation, press EXIT.**

Saving and Recalling a Setup (MY SETUP)

You can up to four setups (tone, rhythm, and other settings) of the Digital Keyboard. You can recall a saved setup when you need it to perform a particular song, etc.

NOTE
• Four setups are pre-stored in MY SETUP by default. If you store setups, they replace the pre-stored setups.

Saving to MY SETUP

1. Press MENU.
This displays the menu screen.

2. Press MY SETUP.
This displays the MY SETUP screen.

```
[MY SETUP]
1:Piano


EXIT | SAVE | LOAD | AT     | >
                     PW-ON
```

NOTE
• You can also display the MY SETUP screen from the home screen.
• Depending on Home Customization settings, the MY SETUP button may not be shown on the display.

3. Rotate the dial to select the setup number you want to specify as the storage destination.
This displays the –/+ screen.

```
[MY SETUP]
1:Piano


BACK |      |      | –   | +
```
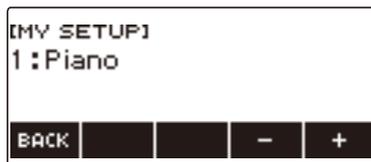
• You can select a setup number from 1 to 4.
• After you rotate the dial once to select a setup number, you can change the selection further using – and +.
• To go back to the previous screen, press BACK.

4. Press SAVE.

This displays "Sure?". The name of the main setting (TONE, RHYTHM, SONG, Registration) you are using also appears.

```
[MY SETUP]              SAVE
Sure?
TO   1:Piano
RHYTHM
 BACK            NO   YES
```
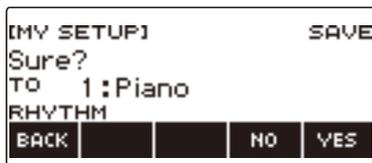
5. Press YES.

This saves the current setup to MY SETUP.
• To cancel, press NO. This returns to the MY SETUP screen at the beginning of the procedure.

6. When "Complete" appears on the display, press OK.

This exits the save operation.

```
[MY SETUP]              SAVE
Complete


                      OK
```
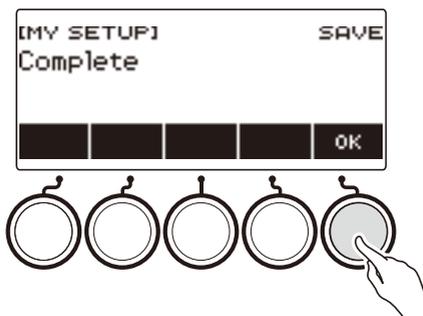
Savable Settings

The settings listed below can be saved with MY SETUP.
• Functions currently in use (TONE, RHYTHM, SONG, REGISTRATION)
• Tones (UPPER1, UPPER2, LOWER)
• Vocal Synthesis (Lyric tone, Lyric tone sequence, Lyric tone performance mode,
  Lyric tone controller, Lyric tone speed, Lyric syllable attack balancer, Lyric syllable attack,
  Random syllable advance, Syllable chord control function, Syllable stay notes, Lyric tone retrigger,
  Vocalist)
• Touch Response
• Touch off velocity
• Pedal (PEDAL1, PEDAL2)
• Pedal Effect Part (UPPER1, UPPER2, and LOWER for PEDAL1 and PEDAL2)
• Sustain
• Sustain times (UPPER1, UPPER2, LOWER)
• Upper Portamento
• Part Portamento (UPPER1, UPPER2, LOWER)
• Portamento Time (UPPER1, UPPER2, LOWER)
• Pitch Bend Range (UPPER1, UPPER2, LOWER)
• Knob Type (K1, K2, K3)

- Knob Effect Part (UPPER1, UPPER2, and LOWER for each of the knobs: K1, K2, K3)
- Knob K1-K2 Link
- Layer
- Split
- Split point
- Balance (UPPER1, UPPER2, LOWER, Rhythm)
- Upper octave shift
- Part Octave Shift (UPPER1, UPPER2, LOWER)
- Transpose
- SUS/UPPER PORT button
- Surround
- Reverb
- Song Reverb
- Delay
- Chorus
- Equalizer (Type, User Equalizer settings)
- Scale tuning type
- Scale tuning base note
- Accompaniment scale
- Piano Stretch Tuning
- Tuning
- Arpeggiator (type, hold, part)
- Auto Harmonize
- ARP/AH button
- Active DSP* (Effect Change Part, Effect, Effect Part, Parameter, Active DSP Hold)
- Metronome beat
- Metronome volume level
- Tempo
- Tempo tap start
- AUDIO IN center cancel
- Rhythm (number, pattern, fill, accompaniment, chord mode, Synchro Start, Synchro Stop, volume level, auto setting, operation type)
- Registration (bank, Freeze, Freeze item, auto exit, Registration sequence)
- Song (number, count, part off, volume level, SMF part)
- Multi-track recording settings (track mute, mixing)
- Recording settings (beat, count, track)
- MIDI Controller (Program Change, Control Change)
- Home Customization
- Speaker
- Speaker enabled when PHONES connected

* Active DSP settings can be saved only when Active DSP Hold is enabled.

Recalling a MY SETUP

1. **Press MENU.**

   This displays the menu screen.

2. **Press MY SETUP.**

   This displays the MY SETUP screen.

3. **Rotate the dial to select the setup number you want to recall.**

   • If you rotated the dial, press BACK.

4. **Press LOAD.**

   This displays "Sure?" and the main setting's name (TONE, RHYTHM, SONG, REGISTRATION) saved to the setup.

```
[MY SETUP]          LOAD
Sure?

RHYTHM
BACK              NO   YES
```
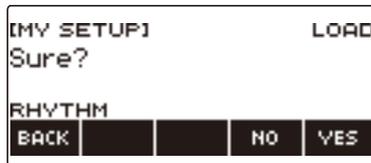
5. **Press YES.**

   This recalls the saved settings.

   • To cancel, press NO. This returns to the MY SETUP screen at the beginning of the procedure.

6. **When "Complete" appears on the display, press OK.**

   This exits the recall operation.

```
[MY SETUP]          LOAD
Complete


                     OK
```
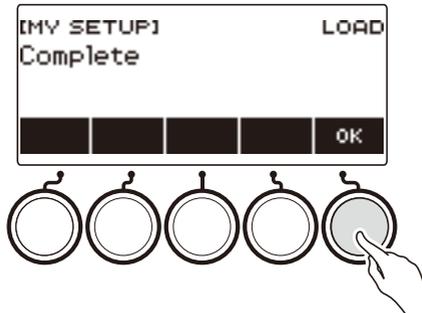
Enabling MY SETUP Power On Recall

Use the procedure below to enable MY SETUP power on recall, which causes MY SETUP settings to be recalled whenever power is turned on.

1. Press MENU.

This displays the menu screen.

2. Press MY SETUP.

This displays the MY SETUP screen.

3. Rotate the dial to select the setup number you want to recall at startup.
- If you rotated the dial, press BACK.

4. Press AT PW-ON.

This specifies that the MY SETUP number you selected in step 3 of this procedure should be recalled and applied when the Digital Keyboard is turned on.

```
[MY SETUP]
1:Piano

          LOAD 1 AT POWER-ON
EXIT  SAVE  LOAD   AT     >
                  PW-ON
```
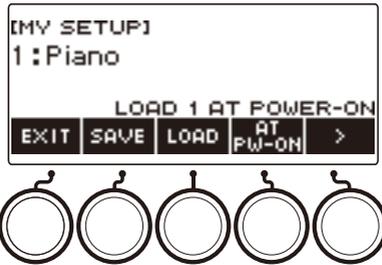
5. To cancel MY SETUP power on recall, select the currently set MY SETUP setup number and then press AT PW-ON again.

6. To exit the setting operation, press EXIT.

Renaming a MY SETUP

1. **Press MENU.**

This displays the menu screen.

2. **Press MY SETUP.**

This displays the MY SETUP screen.

3. **Rotate the dial to select the setup number you want to rename.**
- If you rotated the dial, press BACK.

4. **Use ❯ to select the 5 buttons menu that includes RENAME.**

```
[MY SETUP]
1:Piano


RE     CLEAR              <
NAME
```

5. **Press RENAME.**

6. **Edit the data name.**
- For information about viewing and editing text, see "Inputting Characters" (page EN-23).

7. **To confirm the data name, press CONFIRM.**

This displays "Sure?".

```
[MY SETUP]        RENAME
Sure?
PianoA

BACK              NO   YES
```
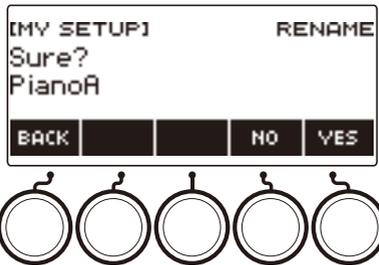
8. **Press YES.**

This changes the name.
- To return to the data name editing screen, press NO.

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9. **When "Complete" appears on the display, press OK.**

This exits the rename operation.
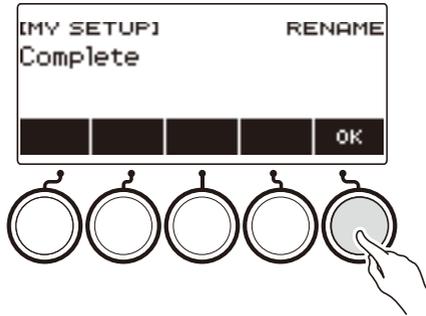
🔍 **NOTE**

• A MY SETUP name can have up to 12 characters.

Deleting a MY SETUP

1. **Press MENU.**

This displays the menu screen.

2. **Press MY SETUP.**

This displays the MY SETUP screen.

3. **Rotate the dial to select the setup number you want to delete.**
- If you rotated the dial, press BACK.

4. **Use > to select the 5 buttons menu that includes CLEAR.**

```
[MY SETUP]
1:Piano


RE    CLEAR              <
NAME
```

5. **Press CLEAR.**

This displays "Sure?".

```
[MY SETUP]          CLEAR
Sure?
      1:Piano

BACK              NO   YES
```
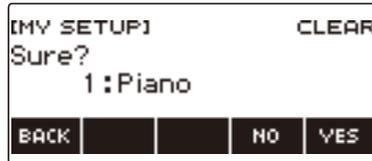
- You can also delete a MY SETUP by long-pressing **MENU**.

6. **Press YES.**

This deletes the currently selected MY SETUP.
- To cancel, press NO.

7. **When "Complete" appears on the display, press OK.**

This exits the MY SETUP delete operation.

```
[MY SETUP]          CLEAR
Complete


                    OK
```
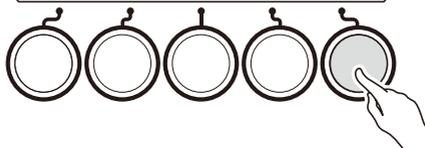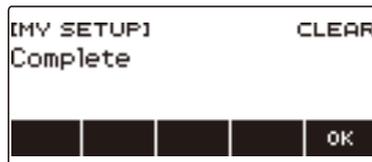
Playing with a Rhythm Backing

You can use the procedures in this section to select the rhythm you want, and then automatically play accompaniments to suit it simply by playing chords with your left hand. It's like having a personal backup group along with you wherever you go.

NOTE

• Auto Accompaniments are made up of the parts (instruments) below.
  – Rhythm (percussion instruments)
  – Bass (bass instruments)
  – Harmony (other instruments)
  You can have only the rhythm part play, or you can have all three parts play at the same time.

Rhythm

The rhythm part is the foundation of each Auto Accompaniment.
Your Digital Keyboard comes with a variety of built-in rhythms, including 8-beat and waltz. Use the procedure below to play the basic rhythm part.

Using the Rhythms

1. Press RHYTHM.

This displays the currently selected rhythm number and name, indicating that the rhythm function is enabled.

RHYTHM

```
[RHYTHM]              T122
   1:Future Disco

V1
INTRO VARI  FILL  SYNC  ACCMP
      ATION -IN   START
```

• To exit the rhythm function, long-press TONE.

Playing a Rhythm

1. **Press RHYTHM.**

This displays the currently selected rhythm number and name.

2. **Rotate the dial to select a rhythm.**

This displays the category name of the selected rhythm.
- For information about rhythm types, see the "Rhythm List" (page EN-310).
- After you rotate the dial once to select an option, you can change the selection further using – and +.
- If you want to select a category, use CAT–/CAT+.
- To go back to the previous screen, press BACK.

```
[RHYTHM]              T122
   1:Future Disco

POPS
BACK  CAT   CAT   –    +
       –    +
```

3. **Press ▶/■.**

This starts the rhythm and displays the beat number.

▶/■

```
[RHYTHM]              T122
                      M1
   1:Future Disco     B1

V1
INTRO VARI  FILL  END  ACCMP
      ATION -IN   ING
```

4. **To stop playback, press ▶/■ again.**

Changing the Tempo

Use the procedure below to change tempo to a speed that suits you.

1. Press RHYTHM.

This displays the currently selected rhythm number and name.

2. Rotate the dial to select the name of the rhythm whose tempo you want to change.

3. Press TEMPO.

This displays the tempo screen.

4. Rotate the dial or use – and + to change the tempo value.
- You can specify a tempo value in the range of 20 to 255.
- To return to the recommended setting, press – and + at the same time.

```
[TEMPO]              T122
122

EXIT  TAP   TAP    −    +
     TEMPO START
```
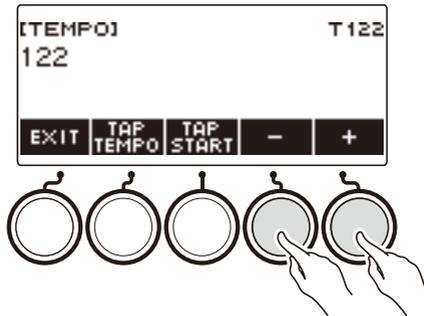
5. To exit the setting operation, press EXIT.

Changing the Volume Level of a Rhythm

Use the procedure below to adjust the balance between the volume levels of keyboard play and the rhythm.

1. Press MENU.

This displays the menu screen.

2. Use ❮ and ❯ to select the 5 buttons menu that includes SETTING.
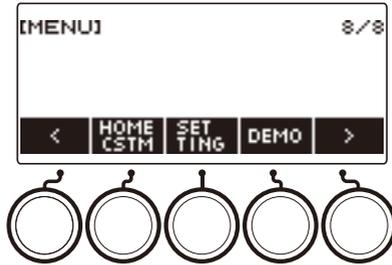
3. Press SETTING.

This displays the setting screen.
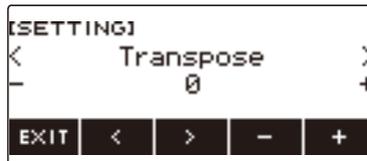
4. Use ❮ and ❯ to select "Rhythm Volume".

5. Rotate the dial or use – and + to change the rhythm volume level.

• You can specify a volume value from 0 to 127.

6. To exit the setting operation, press EXIT.

NOTE

• You can also adjust the volume level of the rhythm using the procedure under "Changing the Volume Balance Between Keyboard Play and Rhythm Play (Balance)" (page EN-128).

Changing the Keyboard Tone While a Rhythm is Playing

1. **While a rhythm is playing, press TONE.**

This displays the currently selected tone number and name.

```
[LYRICS/RHY]           T122
  1:Do you hear …

                     PHRASE
SPLIT LAYER  KEY  PLAY VOCAL
             CTRL MODE IST
```

2. **Rotate the dial to select a tone.**
- For tone information, see the "Lyric Tone List" (page EN-307) and the "Tone List" (page EN-288).
- After you rotate the dial once to select an option, you can change the selection further using – and +.
- To return the setting to its initial default, press – and + at the same time.
- To go back to the previous screen, press BACK.

Using Recommended Rhythm Settings (One Touch Presets)

You can use the procedure below to configure tone and tempo settings that are most suitable for a particular rhythm pattern.

1. **Press RHYTHM.**

This displays the currently selected rhythm number and name.

2. **Rotate the dial to select the name of the rhythm whose setting you want to configure.**

3. **Long-press RHYTHM.**

This momentarily displays "RECOMMENDED", which indicates the recommended rhythm settings are configured.

```
[RHYTHM]              T122
   1:Future Disco
No Chord
RECOMMENDED
INTRO VARI FILL SYNC ACCMP
      ATION -IN START
```

Adjusting the Tempo by Tapping (Tap Tempo)

1. **Press TEMPO.**

This displays the tempo screen.

2. **Tap the TAP TEMPO button at least twice at a steady pace.**

This sets the tempo in accordance with your tapping.

```
[TEMPO]               T122
122

EXIT  TAP   TAP   −   +
     TEMPO START
```

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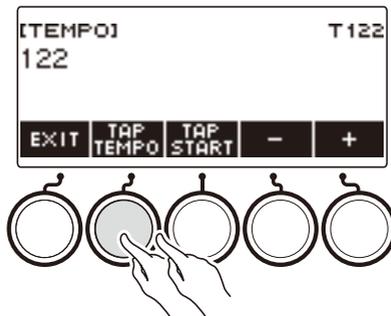
Sounding Rhythm as You Use Tap Tempo

1. Press **RHYTHM**.

This displays the currently selected rhythm number and name.

2. **Rotate the dial to select the name of the rhythm whose setting you want to configure.**

3. Press **TEMPO**.

This displays TAP START above one of the 5 buttons.

```
[TEMPO]                  T122
122


EXIT  TAP   TAP    −    +
      TEMPO START
```
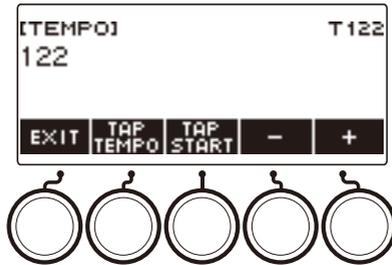
4. **Press TAP START.**

This displays "TAP START".

```
[TEMPO]                  T122
122

TAP START
EXIT  TAP   TAP    −    +
      TEMPO START
```
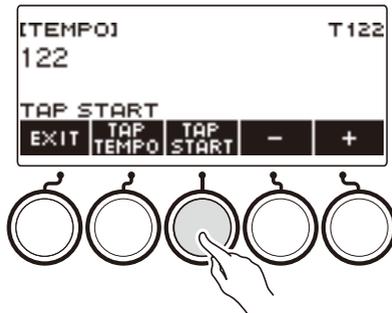
5. **Tap the TAP TEMPO button at least twice at a steady pace that matches the rhythm beat.**

The rhythm starts playing from the first beat of the next measure.

Changing the Rhythm Pattern

You can use the procedure below to add liveliness to your rhythm pattern. Use the procedure below to play intro and ending patterns, to play fill-in patterns, and to play variations of basic rhythm patterns.

Switching Between the Basic Pattern and Variation Pattern

Each rhythm number has a basic pattern (V1) and a variation pattern (V2). You can switch to the variation pattern to add a bit of variation to your performances.

1. **Press RHYTHM.**

This displays the currently selected rhythm number and name.

2. **Rotate the dial to select the name of the rhythm whose setting you want to configure.**

- If you rotated the dial, press BACK.

3. **Press VARIATION.**

This displays "V2".
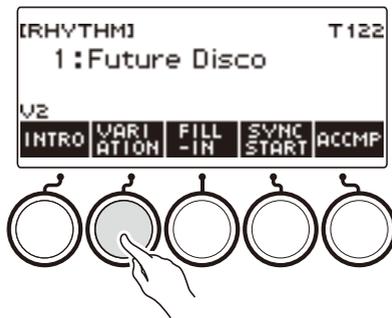
- To return to "V1", press VARIATION again.
- Pressing VARIATION while a rhythm is playing, the rhythm toggles between V1 and V2 from the next measure.

4. **Press ▶/■.**

This starts the currently selected rhythm pattern.

Inserting an Intro

The intro you insert at the beginning of a song is followed by the basic pattern (V1) or variation pattern (V2).

1. **Press RHYTHM.**

This displays the currently selected rhythm number and name.

2. **Rotate the dial to select the name of the rhythm whose setting you want to configure.**

- If you rotated the dial, press BACK.

3. **Press INTRO.**

This displays "I >V1".

- "I >V1" indicates that "V1" starts to play following the introduction.
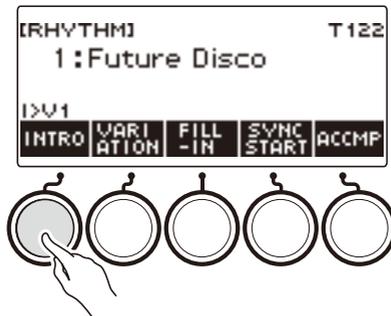
- To remove an intro, press VARIATION.
- If you press INTRO while a rhythm is playing, the rhythm changes to the intro from the next measure.

4. **To change the rhythm pattern that is played after the intro from the basic pattern (V1) to the variation pattern (V2), press INTRO again.**

This displays "I >V2".

- Press INTRO again to return to "I >V1".

5. **Press ▶/■.**

This plays the intro. After the intro is complete, the rhythm pattern you selected in steps 3 and 4 starts to play.

- Pressing VARIATION while an intro is playing interrupts the intro play up to the current measure and then plays the rhythm pattern you specified in steps 3 and 4.
- To play the other rhythm pattern while the intro is playing, press VARIATION twice in quick succession.

Inserting an Ending

Inserting an ending causes it to play for the final measures of a song.

1. While a rhythm is playing, press ENDING.

This displays "E". The ending plays from the next measure and then the rhythm stops.

```
[RHYTHM]              T122
  1:Future Disco       M2
                       B1
E
INTRO VARI FILL  END  ACCMP
      ATION -IN  ING
```
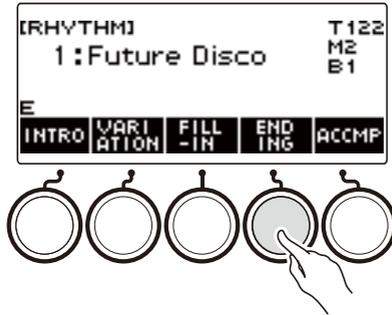
- Pressing VARIATION while an ending is playing interrupts the ending play up to the current measure and then plays the current rhythm pattern (V1 or V2).
- To play the other rhythm pattern while the ending is playing, press VARIATION twice in quick succession.

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Inserting a Fill-in Phrase

A "fill-in" is a short phrase played where you want to change the mood of a song. A fill-in pattern can be used to create a link between two melodies or as an accent.

1. **While a rhythm is playing, press VARIATION and then select a rhythm pattern (V1 or V2).**

2. **Press FILL-IN.**

This inserts a fill-in phrase that matches the current rhythm pattern (V1 or V2). The phrase continues to the end of the measure, and "FILL" is displayed at the bottom of the screen while the fill-in is playing.

- To extend the fill-in into the next measure, keep FILL-IN depressed until rhythm play enters the next measure.
- Pressing FILL-IN while a rhythm is stopped inserts the fill-in and causes it to be played when rhythm play is started.
  To cancel the inserted fill-in before starting rhythm play, press FILL-IN again.
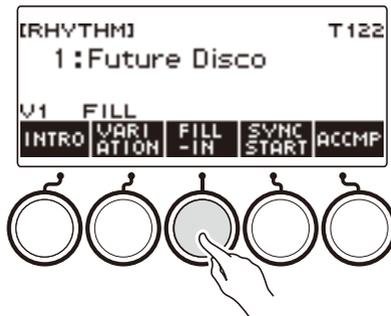
Fingering a Chord to Play a Rhythm Accompaniment

Playing a chord with your left hand automatically adds bass and harmony accompaniment parts to the currently selected rhythm. It is just like having a personal back up group on call.

1. Press RHYTHM.

This displays the currently selected rhythm number and name.

2. Rotate the dial to select the name of the rhythm whose chords you want to input.
- If you rotated the dial, press BACK.

3. Press ACCMP.

"AC" and "No Chord" appear on the display, indicating that the accompaniment keyboard is enabled for accompaniment play.

Accompaniment keyboard
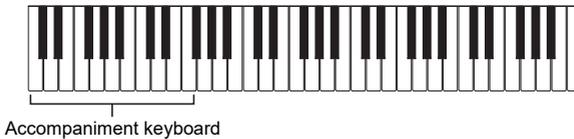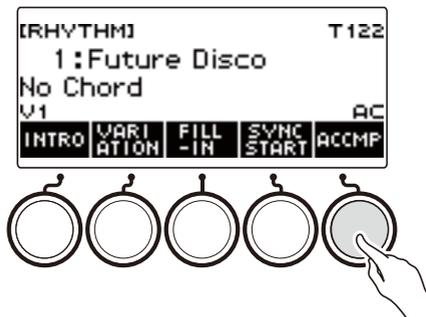
4. Press ▶/■ to start the rhythm.

5. Play a chord on the accompaniment keyboard.

This sounds the bass, harmony, and other non-rhythm part instruments.

NOTE
- The accompaniment keyboard range is the same as the Split Point (page EN-127).
- Playing a chord while rhythm play is stopped sounds the chord only as long as the keyboard keys are pressed.
- You can use Synchro Start (page EN-163) to start rhythm play when you play a chord.

6. Press ACCMP again to stop the accompaniment.

Selecting a Chord Fingering Mode

You can select from among the six chord fingering modes below.
- CASIO CHORD
- FINGERED 1
- FINGERED 2
- FINGERED ON BASS
- FINGERED ASSIST
- FULL RANGE CHORD

1. **Press MENU.**

This displays the menu screen.

2. **Use ❮ and ❯ to select the 5 buttons menu that includes SETTING.**

```
[MENU]                  8/8



   <   HOME  SET  DEMO   >
       CSTM  TING
```

3. **Press SETTING.**

This displays the setting screen.

```
[SETTING]
<        Transpose        >
-            0            +

EXIT    <    >    -    +
```
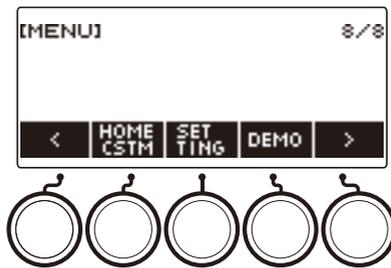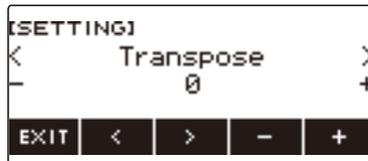
4. **Use ❮ and ❯ to select "Chord Mode".**

5. **Rotate the dial or use – and + to select the chord fingering mode.**

6. **To exit the setting operation, press EXIT.**

■ CASIO CHORD

With CASIO CHORD, you can use simplified fingerings to play the four types of chords described below

Accompaniment keyboard

Chord Type	Example
Major Chords Letters below the accompaniment keyboard indicate the name of the chord assigned to each key. Accompaniment keyboard keys marked with the same chord name play exactly the same chord.	C (C Major)
Minor Chords Press the key that corresponds to the major chord, while also pressing one other accompaniment area key to the right.	Cm (C Minor)
Seventh Chords Press the key that corresponds to the major chord, while also pressing two other accompaniment area keys to the right.	C7 (C Seventh)
Minor Seventh Chords Press the key that corresponds to the major chord, while also pressing three other accompaniment area keys to the right.	Cm7 (C Minor Seventh)

NOTE

• When playing a minor, seventh, or minor seventh chord on the accompaniment keyboard, it makes no difference whether the additional keys you press are black or white.

■ FINGERED

With this chord fingering mode, you play chords on the accompaniment keyboard using their normal chord fingerings. Note that some chords can also be formed using abbreviated fingerings of one or two keys. For information about the types of chords you can finger and their fingerings, see the "Fingering Guide" (page EN-345).

Accompaniment keyboard
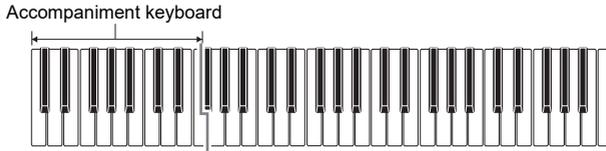
● FINGERED 1
Play the component notes of the chord on the keyboard.

● FINGERED 2
Unlike Fingered 1, 6th input is not possible with this mode.

● FINGERED ON BASS
Play the component notes of the chord on the keyboard. This mode allows input of fraction chords with the lowest keyboard note as the base note.

● FINGERED ASSIST
In addition to FINGERED 1 input, you can also use the fingerings below to play the three chord types.

Minor Chords (Cm)	One keyboard key for the base note and the nearest black key to the left.
Seventh Chords (C7)	One keyboard key for the base note and the nearest white key to the left.
Minor Seventh Chords (Cm7)	One keyboard key for the base note and the nearest black key and white key to the left.

■ FULL RANGE CHORD

With this chord fingering mode, you can use the full range of the keyboard to play chords and the melody.

Accompaniment Keyboard/Melody Keyboard
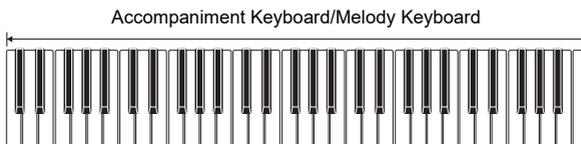
Starting Rhythm Play when a Chord is Played (Synchro Start)

Synchro Start automatically starts the rhythm when something is played on the keyboard.

1. Press RHYTHM.

This displays the currently selected rhythm number and name.

2. Rotate the dial to select the name of the rhythm you want to synchro start with.

• If you rotated the dial, press BACK.

3. Press SYNC START.

This enters the synchro start standby state, with "SYN.ST" flashing on the display in time with the currently set tempo.
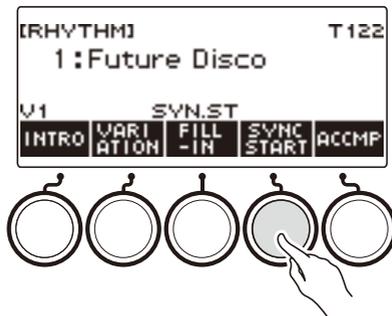
4. Play a chord on the accompaniment keyboard.

This causes "SYN.ST" to disappear from the display and starts rhythm play.

• Pressing ACCMP to display "AC" causes rhythm and accompaniment to sound simultaneously.

Configuring Rhythm Play to Stop Automatically when Chord Play is Stopped (Synchro Stop)

Releasing the accompaniment keyboard keys stops rhythm play and automatically enables Synchro Start.

1. Press RHYTHM.

This displays the currently selected rhythm number and name.

2. Rotate the dial to select the name of the rhythm you want to synchro stop with.

• If you rotated the dial, press BACK.

3. Long-press ACCMP.

This displays "SYN.SP", which indicates Synchro Stop is enabled.
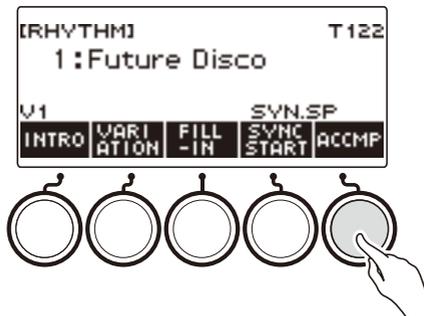
4. Press ACCMP to enable chord input.

5. Press SYNC START to enter synchro start playback standby.

6. Hold down a chord on the accompaniment keyboard.

This starts the rhythm.

7. Remove your fingers from the keyboard keys.

This stops the rhythm and enters synchro start standby.

8. The rhythm pattern repeats as long as accompaniment keyboard keys are depressed.

Changing the Rhythm Pattern and the Fill-in Operation Type

You can use the procedure below to change the rhythm pattern change operation method and fill-in operation method.

■ **Changing the rhythm operation type to Type 2**

1. Press **MENU**.

This displays the menu screen.

2. Use **<** and **>** to select the 5 buttons menu that includes SETTING.

```
[MENU]                    8/8




      <   HOME  SET  DEMO   >
          CSTM  TING
```

3. Press **SETTING**.

This displays the setting screen.

```
[SETTING]
<         Transpose         >
–             0              +

EXIT    <     >     –     +
```
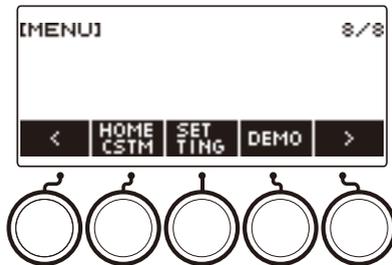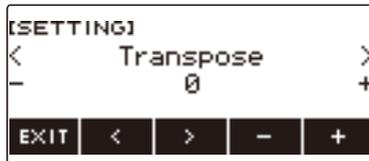
4. Use **<** and **>** to select "Rhythm Controller Type".

5. Rotate the dial or use **–** and **+** to select the rhythm operation type.
  • You can change the rhythm operation type to Type 2.

6. To exit the setting operation, press EXIT.

NOTE

- Changing the rhythm operation type to Type 2 causes the 5 buttons menu on the rhythm screen to appear as shown below.

```
[RHYTHM]                T122
  1:Future Disco


INTRO VAR1 VAR2 SYNC ACCMP
              START
```

- Changing the rhythm operation type can cause the rhythm to stop and/or the rhythm to be reset to its initial default setting.
- In the case of rhythm operation Type 2, the rhythm pattern is not set when a rhythm is selected, even if rhythm auto setting (page EN-168) is enabled.

■ **Switching Between the Basic Pattern and Variation Pattern**

1. Press ▶/■ to start rhythm play.

This plays the "V1" rhythm.
- While rhythm play is stopped, pressing VAR1 plays "V1", while pressing VAR2 plays "V2".
- Pressing VAR2 while "V1" is being played changes to the "V2" rhythm pattern from the next measure. Pressing VAR1 while "V2" is being played changes to the "V1" rhythm pattern.

■ **Fill-in**

1. While "V1" is playing press VAR1, or while "V2" is playing press VAR2.

This displays "FILL" and inserts a fill-in at the end of the current measure.
- To extend the fill-in into the next measure, keep VAR1 or VAR2 depressed until rhythm play enters the next measure.

■ Intro

1. **While rhythm play is stopped, press INTRO.**

This displays "I" and plays the intro.

```
[RHYTHM]              T122
     1:Future Disco   M1
                      B1

I
INTRO  VAR1  VAR2  END   ACCMP
                   ING
```
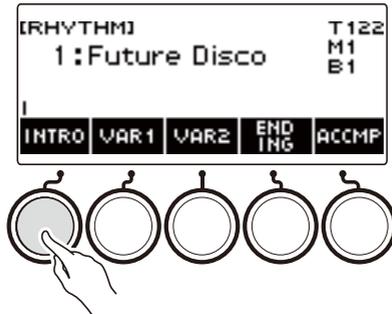
- Pressing VAR1 while an intro is playing displays "I >V1". Pressing VAR2 displays "I >V2".
- If "I" is left on the display without changing it, "V1" starts to play following the introduction.
- After you press VAR1 ("I >V1" displayed) or VAR2 ("I >V2" displayed), pressing the same button (VAR1 or VAR2) again interrupts the intro play up to the current measure and then plays the current rhythm pattern (V1 or V2).
- If you press INTRO while a rhythm is playing, the rhythm changes to the intro from the beginning of the next measure, and "I" appears on the display.

■ Ending

1. **While a rhythm is playing, press ENDING.**

When rhythm play enters the next measure, "E" appears on the display to indicate that an ending is being played. After the ending, rhythm play stops.
- Pressing VAR1 while an ending is playing switches to "V1" from the next measure. Pressing VAR2 switches to "V2".

■ Synchro Start

While in Synchro Start standby, you can preset the pattern that plays when rhythm play starts by pressing INTRO ("I" flashes), VAR1 ("V1" flashes), or VAR2 ("V2" flashes).

Disabling Automatic Setting of the Tempo and Pattern when a Rhythm is Selected

Selecting a rhythm causes its recommended tempo and pattern to be automatically applied. You can disable auto setting, if you want.

1. Press MENU.

This displays the menu screen.

2. Use ‹ and › to select the 5 buttons menu that includes SETTING.
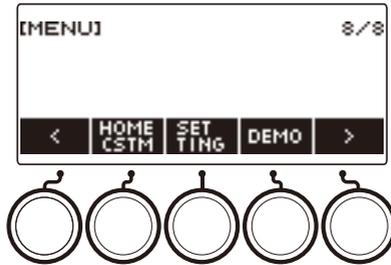
3. Press SETTING.

This displays the setting screen.
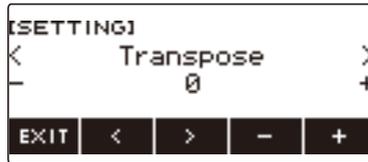
4. Use ‹ and › to select "Rhythm Auto Set".

5. Rotate the dial or use – and + to select "Off".

• To enable auto setting, select "On" for this setting.

6. To exit the setting operation, press EXIT.

◯ NOTE

• When Type 2 is selected as the rhythm operation type (page EN-165), selecting a rhythm will not automatically set the pattern to the recommended value when the rhythm is selected, even if rhythm auto setting is enabled.

Increasing the Number of Rhythms (User Rhythms)

A USB flash drive song can be loaded as a user rhythm. (Rhythm number: 244 to 293)
The file name extensions for loaded rhythms are AC7, CKF, and Z00.
– For information about loading a USB flash drive rhythm data as a user rhythm, see "USB Flash Drive Operations" on page EN-253.

Deleting User Rhythm Data Stored in Digital Keyboard Memory

1. Press RHYTHM.

This displays the currently selected rhythm number and name.

2. Rotate the dial to select the user rhythm you want to delete.

3. Long-press MENU.

This displays "Sure?".

4. Press YES.

This deletes the user rhythm.
• To cancel, press NO.

5. When "Complete" appears on the display, press OK.
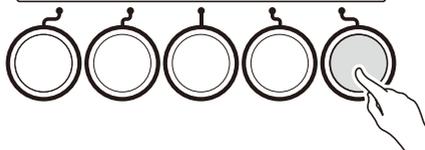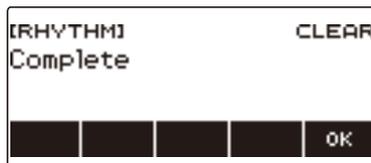
Saving and Recalling Setups (Registration)

Registration memory lets you store keyboard setups (tone, rhythm, etc.) for instant recall whenever you need them. When recalling a setup, you can specify items that you do not want to include in the recall (Freeze). Registration memory simplifies performance of complex pieces that require successive tone and rhythm changes.

■ Registration Memory Setup Data Contents

- Tones (UPPER1, UPPER2, LOWER)
- Vocal Synthesis (Lyric tone, Lyric tone sequence, Lyric tone performance mode, Lyric tone controller, Lyric tone speed, Lyric syllable attack balancer, Lyric syllable attack, Random syllable advance, Syllable chord control function, Syllable stay notes, Lyric tone retrigger, Vocalist)
- Touch Response
- Touch off velocity
- Pedal (PEDAL1, PEDAL2)
- Pedal effect part (UPPER1, UPPER2, LOWER)
- Sustain
- Sustain times (UPPER1, UPPER2, LOWER)
- Upper Portamento
- Part Portamento (UPPER1, UPPER2, LOWER)
- Portamento Time (UPPER1, UPPER2, LOWER)
- Pitch Bend Range (UPPER1, UPPER2, LOWER)
- Knob Type (K1, K2, K3)
- Knob Effect Part (UPPER1, UPPER2, LOWER)
- Knob K1-K2 Link
- Layer
- Split
- Split point
- Balance (UPPER1, UPPER2, LOWER, Rhythm)
- Upper octave shift
- Part Octave Shift (UPPER1, UPPER2, LOWER)
- Transpose
- SUS/UPPER PORT button
- Reverb
- Chorus
- Delay
- Scale tuning type
- Scale tuning base note
- Accompaniment scale
- Piano Stretch Tuning
- Arpeggiator (type, hold, part)
- Auto Harmonize
- ARP/AH button
- Active DSP* (Effect Change Part, Effect, Effect Part, Parameter, Active DSP Hold)
- Tempo
- Rhythm (number, pattern, fill, accompaniment, chord mode, Synchro Start, Synchro Stop, volume level)

* Active DSP settings can be saved only when Active DSP Hold is enabled.

Saving a Setup

Setup registrations are stored in a memory location that is divided into 16 banks.
Each bank has four storage areas, which means you can register up to 64 (16 banks × 4 areas) setups.

1. **Set up the Digital Keyboard with the tone, rhythm and other settings you want to save to the setup.**

2. **Press REGISTRATION.**

This displays the registration screen.

REGISTRATION

[REGISTRATION]   T122
Bank:1

| 1 | 2 | 3 | 4 | > |
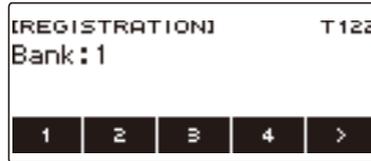
3. **Use > to select the 5 buttons menu that includes STORE.**

4. **Press STORE.**

This displays a screen for selecting the destination bank number and area number.

[REGISTRATION]   STORE
Bank:1

| BACK | 1 | 2 | 3 | 4 |
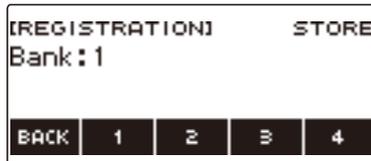
5. **Rotate the dial to select a bank number.**

• You can specify a bank number in the range of 1 to 16.

6. **Use buttons 1 through 4 to select an area.**

This displays "Sure?" along with the selected destination bank number and area number.

[REGISTRATION]   STORE
Sure?

BANK 1-1
| BACK | | | NO | YES |
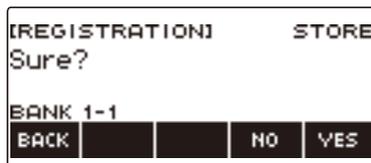
7. **Press YES.**

This saves the setup to registration memory.

• To cancel, press NO.

8. When "Complete" appears on the display, press OK.

```
[REGISTRATION]        STORE
Complete


                        OK
```
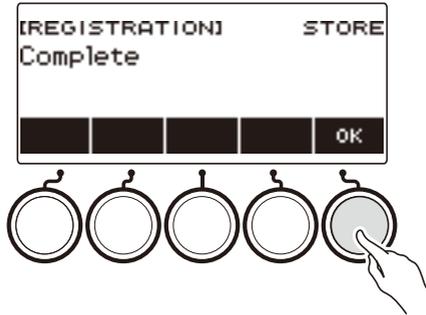
9. To exit the setting operation, press REGISTRATION.

NOTE

• During any type of playback, the display shows the current measure and beat numbers.

```
[REGISTRATION]        T120
Bank:1                M1
                      B1 ─── Measure, Beat

   1
   1    2    3    4    >
```
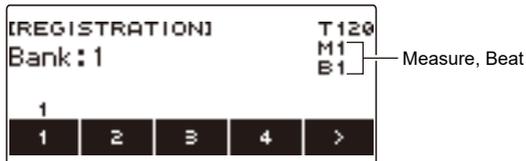
• Note that registration operation memory operations are not supported while the SONG function is being used. Pressing REGISTRATION in this case causes the message "CANNOT USE" to appear momentarily.

```
[SONG]                T120
    1:UserSong 1
LEFT 3   RIGHT 4
CANNOT USE
PART  COUNT  CHAN
             NEL
```

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Recalling a Saved Setup

1. Press REGISTRATION.

This displays the registration screen.

2. Rotate the dial to select a bank number.

3. Use buttons 1 through 4 to select an area.

This causes the bank number and area number to appear momentarily.
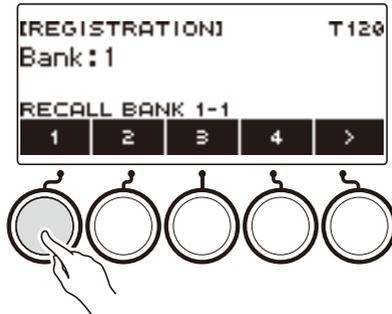
- If the last recalled bank number is selected, the area number will be displayed at the bottom of the LCD.

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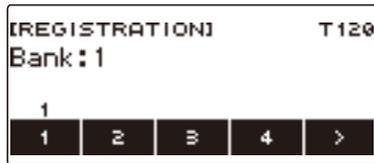
Disabling Recall of Specific Settings (Freeze)

Recalling a setup normally causes all settings that can be modified by a recall to be replaced by the recalled settings. With the Freeze Function, you can disable overwriting of specific setting items whenever setup data is recalled.

1. Press REGISTRATION.

This displays the registration screen.

2. Use > to select the 5 buttons menu that includes FREEZE.

```
[REGISTRATION]        T122
Bank:1


STORE  FR   FRZ  AUTO   <
       EEZE ITEM EXIT
```

3. Press FREEZE.

This displays "FRZ" and enables the freeze function.

```
[REGISTRATION]        T122
Bank:1

                       FRZ
STORE  FR   FRZ  AUTO   <
       EEZE ITEM EXIT
```
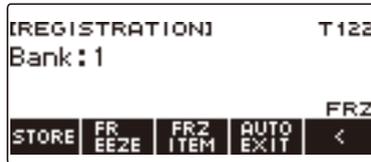
4. Press FRZ ITEM.

This displays a freeze item settings screen.

```
[REGISTRATION]   FRZ ITEM
<         Rhythm        >
           On
BACK   <    >    OFF   ON
```

5. Use < and > to select the items you do not want recalled.

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6. Rotate the dial to the right or press ON.

This displays "On", which indicates the displayed item is not recalled and applied to the setup.

```
[REGISTRATION]    FRZ ITEM
<           Rhythm           >
              On
 ┌──────┬─────┬─────┬─────┬─────┐
 │ BACK │  <  │  >  │ OFF │  ON │
 └──────┴─────┴─────┴─────┴─────┘
```
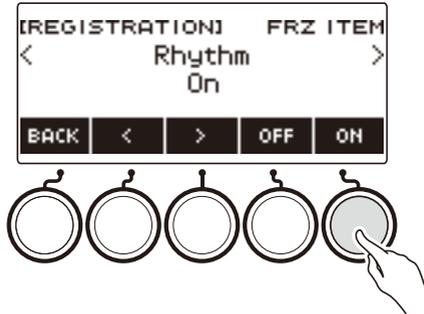
- If an item's status is currently FRZ ITEM ON (not recalled), you can change it back to FRZ ITEM OFF (recalled) by rotating the dial to the left or by pressing OFF. This displays "Off" for the setting.

7. To disable freeze, return to the registration screen and then press FREEZE.

This causes "FRZ" to disappear from the display, indicating that freeze is disabled.

■ Freeze Item List

- Rhythm (Rhythm)
- Tempo (Tempo)
- Tone (Tone)
- Split Point (Split Point)
- Arpeggiator/Auto Harmonize (ARP/AH)
- Transpose (Transpose)
- Scale Tuning (Scale Tuning)
- Touch Response (Touch Response)
- Effect (Effect)
- Controller (Controller)

NOTE

- Changing the tone resets some settings classified as controllers. If you want to freeze the controller settings, also freeze the tone setting.
- Settings that can be frozen by turning on the effect of the freeze item are: Reverb Type, Chorus Type, and Delay Type. If you want to freeze Reverb Send, Chorus Send, or Delay Send, also freeze Controller and Tone.

Enabling Auto Exit of the Registration Screen when a Setup is Recalled

1. **Press REGISTRATION.**

This displays the registration screen.

2. **Use ❯ to select the 5 buttons menu that includes AUTO EXIT.**

```
[REGISTRATION]        T122
Bank:1

STORE │ FR   │ FRZ  │ AUTO │  <
      │ EEZE │ ITEM │ EXIT │
```
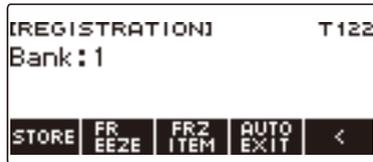
3. **Press AUTO EXIT.**

This displays "AUTO EXIT", which indicates the registration screen will be exited automatically when you recall a setup.

```
[REGISTRATION]        T122
Bank:1

         AUTO EXIT
STORE │ FR   │ FRZ  │ AUTO │  <
      │ EEZE │ ITEM │ EXIT │
```
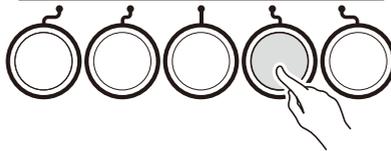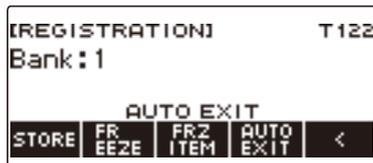
4. **To disable auto exit, press AUTO EXIT again.**

This causes "AUTO EXIT" to disappear, which indicates the registration screen is not exited automatically when you recall a setup.

Using the Pedal to Recall the Settings Sequentially (Registration Sequence)

Each press of the pedal cycles through the currently selected bank's registrations (setups) in area number sequence.

1. Press **REGISTRATION**.

This displays the registration screen.

2. Use **>** to select the 5 buttons menu that includes AUTO EXIT.

3. Long-press AUTO EXIT.

This causes "SEQ" to appear on the display and makes the Pedal 1 function the registration sequence function.

```
[REGISTRATION]          T122
Bank:1

SEQ
STORE  FR    FRZ   AUTO   <
       EEZE  ITEM  EXIT
```
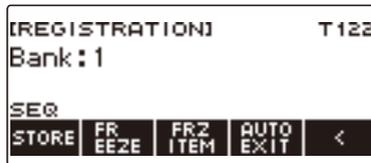
4. Press Pedal 1.

This recalls the settings of the next area and displays the recalled bank number and area number.

```
[INST/RHYTHM]           T120
      1:Stage Piano

RECALL BANK 1-1
SPLIT LAYER TOUCH  SUS   ARP
```

- If the last area recalled from is Area 4, pressing Pedal 1 recalls the settings from Area 1.

5. If you want to move back to the previous area for recall, long-press the Pedal 1.

This recalls the settings of the previous area and displays the recalled bank number and area number.

- If the last area recalled from is Area 1, long-pressing Pedal 1 recalls the settings from Area 4.

NOTE

- If you have not yet recalled a registration setup, the initial setup to be recalled is Bank 1 Area 1.

Playing a Song

Songs

Normally, the word "song" means a musical piece with lyrics. Your Digital Keyboard uses the term "song" (SONG) to mean a set of song data. With this unit, you can play back and listen to songs stored on a USB flash drive and songs imported into Digital Keyboard memory. In addition to playing songs for your listening pleasure, you can also practice along with song playback.

Using the SONG Function

1. Press **MENU**.

This displays the menu screen.

2. Use **<** and **>** to select the 5 buttons menu that includes SONG.
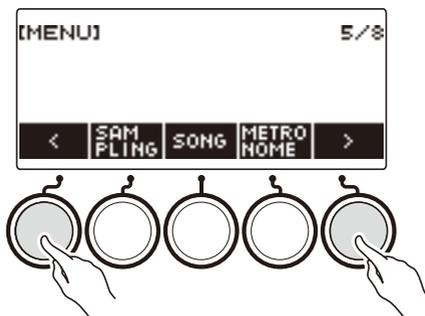
3. Press SONG.

This displays the song screen.

4. To exit the SONG function, press **HOME** or long-press **TONE**.

📄 NOTE

• You can also display the song screen by long-pressing **REGISTRATION**.

Selecting a Song on a USB Flash Drive

You can use the same operations as those for built-in songs to play back MIDI files* stored in the "MUSICDAT" folder on a USB flash drive. For information about the procedure for saving a MIDI file to a USB flash drive, see "Saving Digital Keyboard Data to a USB Flash Drive" (page EN-254).

* Standard MIDI files (SMF format 0/1) and CASIO MIDI files (CMF format)

1. Insert the USB flash drive into the Digital Keyboard's **USB TO DEVICE** port.
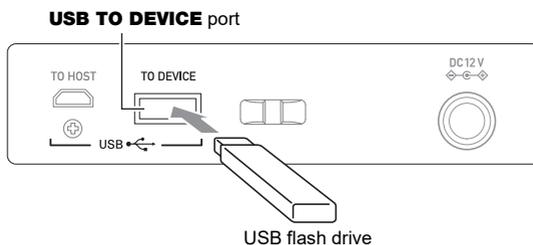
USB flash drive

- When you perform a USB flash drive operation or turn on the Digital Keyboard while a USB flash drive is plugged in, the Digital Keyboard initially needs to perform a "mounting" process to prepare for data exchange with the USB flash drive. Digital Keyboard operations are momentarily disabled while a mounting process is being performed.
- "MOUNTING" is shown on the display while the USB flash drive mounting process is being performed.
- Do not attempt to perform any operation on the Digital Keyboard while a mounting process is in progress.
- After the mounting process is complete, it may take up to 10 or 20 seconds or even longer before you can perform any operation on the Digital Keyboard. "LISTING" is shown on the display during this period of non-operation.
- The USB flash drive mounting process needs to be performed each time it is connected to the Digital Keyboard.

2. Press **MENU**.

This displays the menu screen.

3. Use **<** and **>** to select the 5 buttons menu that includes SONG.

4. Press **SONG**.

This displays the song screen.

5. Rotate the dial to select a song.

- Song numbers are assigned automatically in sequence to MIDI files on the USB flash drive. The files are sorted in file name sequence. The first MIDI file (file name sequence) is assigned song number 18.

NOTE

- Certain songs can take time to load. During a load operation, the message "LOADING" is displayed along with a progress percentage.

```
[SONG]                    T120
  18:MediaSong 1

LOADING... 50%
BACK   CAT   CAT    -     +
        -     +
```

- Only numbers that are allocated to the USB flash drive can be selected.
- Only songs that can be displayed in the USB flash drive song category can be selected.

Increasing the Selection of Songs (User Songs)

Song data transferred to the Digital Keyboard from a USB flash drive or the APP function can be recalled and played as Song Bank user songs (numbers 1 to 10). For details, see "Loading Data From a USB Flash Drive to Digital Keyboard Memory" (page EN-256), and "Connecting with External Devices" (page EN-262).

CMF (CASIO MIDI files) and SMF (standard MIDI files) can be imported into Digital Keyboard memory. Supported formats for SMF songs are 0 and 1.

Specifying a Channel for an SMF User Song Part

1. Press **MENU**.

This displays the menu screen.

2. Use **<** and **>** to select the 5 buttons menu that includes SONG.

3. Press **SONG**.

This displays the song screen.

4. Rotate the dial to select an SMF user song.

5. Press BACK.

```
[SONG]                T120
  1:My Song
LEFT 3   RIGHT 4

PART COUNT CHAN  
           NEL
```

- A channel cannot be specified for a song for which the CHANNEL button is not displayed.

6. Press CHANNEL.

This displays channel setting items for the right-hand part.

```
[SONG]           CHANNEL
Right:4
LEFT 3   RIGHT 4

BACK LEFT RIGHT  −    +
```
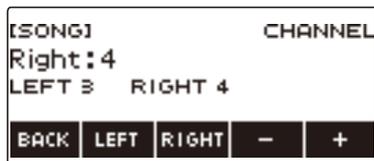
7. Rotate the dial or use − and + to change the setting.

- You can specify a value from 1 to 16.
- To return the setting to its initial default, press − and + at the same time.
- To specify a channel for the left-hand part, press LEFT and then repeat the same operation as above.

Deleting a User Song

1. Press MENU.
This displays the menu screen.

2. Use < and > to select the 5 buttons menu that includes SONG.

3. Press SONG.
This displays the song screen.

4. Rotate the dial to select the user song you want to delete.

5. Long-press MENU.
This displays "Sure?".

```
[SONG]              CLEAR
Sure?
  1:My Song

BACK            NO   YES
```

6. Press YES.
This deletes the user song.
• To cancel, press NO.

7. When "Complete" appears on the display, press OK.
This exits the user song delete operation.
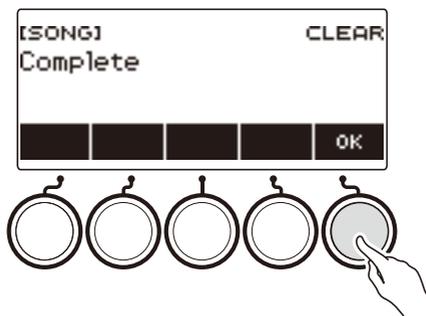
Playing Songs

Starting or Stopping Song Play

1. Press MENU.

This displays the menu screen.

2. Use 〈 and 〉 to select the 5 buttons menu that includes SONG.

3. Press SONG.

This displays the song screen.

```
[SONG]                  T120
  1:My Song
LEFT 3   RIGHT 4

PART COUNT CHAN      
           NEL       
```

4. Rotate the dial to select a song.

This displays the –/+ screen.

```
[SONG]                  T120
  1:My Song
LEFT 3   RIGHT 4
USER SONG
BACK CAT  CAT   −   +
     −    +
```

No.	Category
1 to 10	User Songs (page EN-181)
11	Tone Recording Songs (page EN-190)
12	Rhythm Recording Songs (page EN-190)
13 to 17	Multi-track Recording Songs (page EN-190)
18 to 999	USB Memory Songs (page EN-179)

- After you rotate the dial once to select a song, you can change the selection further using – and +.
- To return to the initial song, press – and + at the same time.
- If you want to select a category, use CAT–/CAT+.
- To go back to the previous screen, press BACK.

5. Press ▶/■ to start playback.

This displays current measure and beat numbers.
- If the song includes chord information, a chord also appears on the display.

6. To stop playback, press ▶/■ again.

NOTE

- Starting to use the SONG function while the metronome is sounding stops the metronome. Or you can sound a count in time with a song. See "Sounding a Count in Time with a Song" (page EN-189).
- To make the keyboard reverb have the same effect as the song reverb during song playback, select "SYNC" for the reverb setting. See "Changing the Relationship of Keyboard and Song Reverb Effects" (page EN-109).

Skip Forward and Skip Back

Use the operations in this section to skip forward and skip back.

■ Skip Forward

While a song is playing, press FF to skip forward.

- Pressing FF once skips forward one measure, while long-pressing it skips until the button is released.
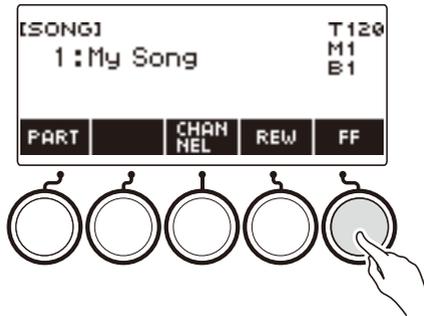
■ Skip Back

While a song is playing, press REW button to skip back.

- Pressing REW once skips back one measure, while long-pressing it skips back until the button is released.
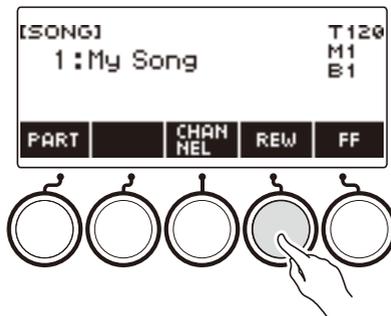
Changing a Song's Tempo (Speed)

1. **Press** MENU**.**

This displays the menu screen.

2. **Use ❬ and ❭ to select the 5 buttons menu that includes SONG.**

This displays the song screen.

3. **Press SONG.**

4. **Rotate the dial to select the song whose tempo you want to change.**

5. **Press** TEMPO**.**

This displays the tempo screen.

6. **Rotate the dial or use – and + to change the tempo value.**

- You can specify a tempo value in the range of 20 to 255.
- To return to the recommended setting for the current song, press – and + at the same time.

7. **To exit the setting operation, press EXIT.**

Adjusting the Song Volume Level

Use the procedure below to adjust the balance between the volume levels of song play and what you play on the keyboard.

1. Press **MENU**.

This displays the menu screen.

2. Use **<** and **>** to select the 5 buttons menu that includes SETTING.

```
[MENU]                    8/8



  <   HOME  SET  DEMO   >
      CSTM  TING
```

3. Press SETTING.

This displays the setting screen.

```
[SETTING]
<       Transpose        >
−           0            +
EXIT    <    >    −    +
```
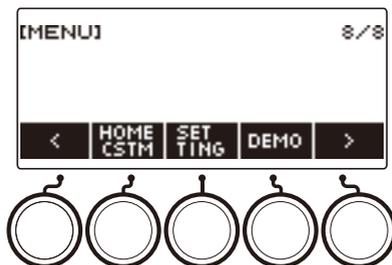
4. Use **<** and **>** to select "Song Volume".

5. Rotate the dial or use – and + to change the SONG volume level.
- You can specify a volume value from 0 to 127.
- To return the setting to its initial default, press – and + at the same time.

6. To exit the setting operation, press EXIT.

Changing the Keyboard Tone While a Song Playing

1. **While a song is playing, press TONE.**

The selected tone number and instrument name appears on the display.

2. **Rotate the dial to select a tone.**

- For tone information, see the "Lyric Tone List" (page EN-307) and the "Tone List" (page EN-288).
- After you rotate the dial once to select an option, you can change the selection further using – and +.
- To return to the first tone in the Tone List, press – and + at the same time.
- To go back to the previous screen, press BACK.
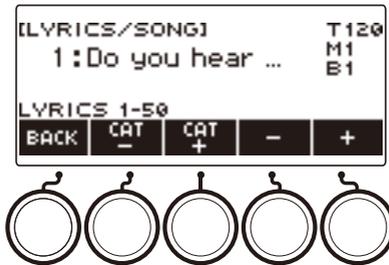
Practicing a Song Part (Part Off)

You can turn off the right-hand part or the left-hand part of a song you are playing and practice along with the remaining part. Use this when you feel that a song is initially too difficult for you to play with both hands at the same time.

1. **While a song is playing or stopped, press PART.**

Each press of PART cycles between the lesson parts.

Setting	Display Name	Description
Normal		Normal playback
Right-hand part off	RIGHT OFF	Inserts one blank measure at the beginning of the song, and mutes the right-hand part.
Left-hand part off	LEFT OFF	Inserts one blank measure at the beginning of the song, and mutes the left-hand part.
Both off	BOTH OFF	Inserts one blank measure at the beginning of the song, and mutes both hand parts.

NOTE

• For SMF user songs, the part specified under "Specifying a Channel for an SMF User Song Part" (page EN-181) is changed.

Sounding a Count in Time with a Song

You can configure count settings to sound a count in time with a song and to sound a pre-count before a song starts.

If pre-count is enabled, a pre-count sounds to help you determine when to start playing along.

1. **While the song stopped, press COUNT.**

This displays a count setting item.

Each press of COUNT changes the setting.

Setting (Displayed Setting Name)	Description
Off	Count does not sound.
Count (COUNT)	Inserts one blank measure at the beginning of the song and sounds a count.
Pre-count (PRECOUNT)	Inserts one blank measure at the beginning of the song and sounds a count for that measure only.

2. **Press ▶/■ to start playback.**

If you selected the COUNT option, a count sounds as the song plays.

NOTE
- When PRE-COUNT is selected as the count setting for built-in songs and CMF (CASIO MIDI file) songs, the count sounds for the first measure, and it continues to sound for any rests in the measure after that.
- When COUNT or PRE-COUNT is selected for Tone recordings, Rhythm recordings or Multi-track recordings, a blank measure is not inserted as the first measure.
- When PRE-COUNT is selected as the count setting for SMF (standard MIDI files), tone recordings, rhythm recordings, and multi-track recordings, the count sounds for the rests in the first measure.

Recording Your Keyboard Play

You can use the procedures in this section to record your keyboard play for later playback.

There are two ways to record: Easy Recording, which simplifies recording of your performances, and Multi-track Recording, which lets you overdub record performances.

Your recordings can be saved to Song Bank locations 11 through 17 (Tone Recordings: 11, Rhythm Recording: 12, Multi-track Recording: 13 to 17).

■ Easy Recording

For Easy Recording, you can specify Tone Recording, and Rhythm Recording.
• You can use the tone screen to save a recorded performance as a Tone Recording.
• You can use the rhythm screen to save a recorded performance as a Rhythm Recording.

■ Multi-track Recording

A Multi-track Recording consists of a single system track to which a performance that uses layer, split, and rhythm function can be recorded, and five solo tracks for recording with the UPPER1 part.
• There is memory for up to five multi-track recordings.
  Also, you can copy a Tone Recording and Rhythm Recording as a Multi-track Recording (page EN-196).

■ Recorded Information

The recorder records information about the operations of the functions listed below.
  – Keyboard play
  – Pitch Bend Wheel
  – Tone
  – Vocal Synthesis[1]
  – Touch Response
  – Pedal[2]
  – Knob[2]
  – Sustain
  – Portamento
  – Layer[3]
  – Split[3]
  – Balance
  – Active DSP[4]
  – Octave shift
  – System Effects[3] (Reverb, Chorus, Delay)
  – Scale Tuning[3]
  – Arpeggiator
  – Auto Harmonize[3]
  – Tempo[3]
  – Rhythm[3]
  – Registration[3]
  – Recording settings beat[3]

[1] Of all the parts, including keyboard play, recorded song playback, MIDI-in sound production, etc., only one part can use the lyric tone. The part for which the lyric tone was selected last is given priority, and the tone of the part for which the lyric tone was selected previously becomes the alternate tone.
[2] Some assigned functions cannot be recorded.
[3] Cannot be recorded to the solo track.
[4] Using Active DSP with multiple tracks may remove tone effects and change the timbre of the tone.

NOTE
• The Multi-track Recording solo track does not record UPPER2 part and LOWER part operations.

Easy Keyboard Play Recording

Use the procedure below to record a performance using tone and rhythm functions.

1. Press TONE or RHYTHM.
- To record as a tone recording, press and hold **TONE** to exit the rhythm function.
- If you are using the SONG function, exit the function.

2. Rotate the dial to select a tone or rhythm.

3. Press RECORD.
This displays "(REC)" and enters record standby.

RECORD

```
[LYRICS/RHY]      (REC)T122
     1:Do you hear ...
                      BEAT 4
                      PHRASE
  SPLIT LAYER KEY   PLAY VOCAL
              CTRL  MODE IST
```

- With Tone Recording, the initial default beat setting is the metronome beat setting.
- With Rhythm Recording, the initial default time signature setting is the rhythm time signature setting.
- For information about changing the beat setting to be used for recording, see "Changing the Beat Setting for Recording" (page EN-193).
- When the panic function is enabled, pressing **RECORD** will display the Base Display you selected with Home Customization.

4. Play something on the keyboard.
This displays "REC" along with the current measure and beat numbers, indicating that recording has started.

```
[LYRICS/RHY]       REC T122
     1:Do you hear ...  M1
                        B2
                      PHRASE
  SPLIT LAYER KEY   PLAY VOCAL
              CTRL  MODE IST
```

5. To exit the recording operation, press RECORD again.
After recording is complete, the song screen appears with the saved song recording displayed.
- A Tone Recording is displayed in the case of Tone Recording, while a Rhythm Recording is displayed in the case of Rhythm Recording.

```
[SONG]              T122
   12:RhythmRec
                   BEAT 4

  CLEAR COUNT MTR
              COPY
```

B
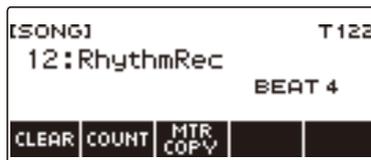
6. To start playback of what you recorded, press ▶/■.

Each press of ▶/■ starts and stops playback.

NOTE

- The maximum size of a single song recording is approximately 40,000 notes or 999 measures. "(REC)" appears on the display when there are 100 or fewer notes or 32 or fewer measures of free space remaining in memory. "(REC)" disappears from the display, and recording stops automatically when memory becomes full.
- When the panic function is enabled, pressing **HOME** exits recording standby or recording. Exiting an ongoing record operation causes any data recorded during that operation to be deleted.
- Tone Recording, and Rhythm Recording cannot be combined within a single recording operation.

Changing the Beat Setting for Recording

1. **Press TONE or RHYTHM.**
   - To record as a tone recording, press and hold **TONE** to exit the rhythm function.
   - If you are using the SONG function, exit the function.

2. **Rotate the dial to select a tone or rhythm.**

3. **Press RECORD.**
   This displays "(REC)" and enters record standby.

4. **Long-press RECORD.**
   This displays a record settings screen.

```
[REC SETTING]     (REC)T122
Beat:4
                  BEAT 4

BACK  COUNT              REC
                        START
```

5. **Rotate the dial to change the beat value.**

```
[REC SETTING]     (REC)T122
Beat:4
                  BEAT 4

BACK              -     +
```
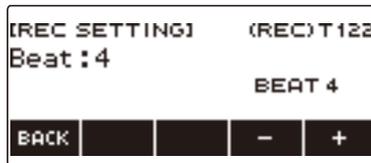
   - For the beat setting, you can select Off, or a value of 1 to 16.
   - After you rotate the dial once to select a value, you can change the value further using – and +.
   - To go back to the previous screen, press BACK.

6. **To exit the setting operation, press BACK.**

Sounding a Count While Recording

1. **Press TONE or RHYTHM.**
- To record as a tone recording, press and hold **TONE** to exit the rhythm function.
- If you are using the SONG function, exit the function.

2. **Rotate the dial to select a tone or rhythm.**

3. **Press RECORD.**
This displays "(REC)" and enters record standby.

4. **Long-press RECORD.**
This displays a record settings screen.

5. **Press COUNT and then select a count operation.**

```
[REC SETTING]     (REC)T122
Beat:4
                  BEAT 4

BACK COUNT              REC
                       START
```

Each press of COUNT changes the setting.

Setting (Displayed Setting Name)	Description
Off	Count does not sound.
Count (COUNT)	Inserts one blank measure before recording starts, and sounds a count.
Pre-count (PRECOUNT)	Inserts one blank measure before recording starts, and sounds a count for that measure only.

6. **To exit the setting operation, press BACK.**

Deleting an Easy Recording

1. Press MENU.

This displays the menu screen.

2. Use ‹ and › to select the 5 buttons menu that includes SONG.

3. Press SONG.

This displays the song screen.

4. Rotate the dial to select the Easy Recording you want to delete.

• If you rotated the dial, press BACK.

```
[SONG]                    T120
 12:RhythmRec
                      BEAT 4

CLEAR COUNT  MTR
             COPY
```

5. Press CLEAR.

This displays "Sure?".

```
[SONG]                    CLEAR
Sure?
 12:RhythmRec

BACK              NO    YES
```

• You can also delete an Easy Recording by long-pressing MENU.

6. Press YES.

This deletes the Easy Recording.
• To cancel, press NO.

7. When "Complete" appears on the display, press OK.

This exits Easy Recording delete.

```
[SONG]                    CLEAR
Complete


                           OK
```

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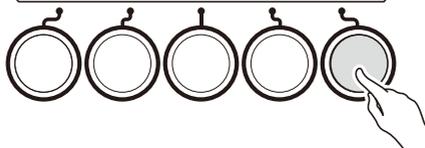
Overdub Recording (Multi-track Recording)

1. **Long-press** RECORD**.**

```
[SONG]               T120
 13:MultiTrkRec1
TRACK S          BEAT 4
TRACK
MUTE  COUNT  MIX  MAN
                  AGE
```

2. **Rotate the dial to select the Multi-track Recording you want to overdub.**

3. **Press** RECORD**.**

This enters record standby.

4. **Long-press** RECORD**.**

This displays a record settings screen.

5. **Press REC TRACK.**

```
[REC SETTING]    (REC)T120
Rec Track:System
TRACK S          BEAT 4
BACK  COUNT  BEAT  REC    REC
                  TRACK  START
```
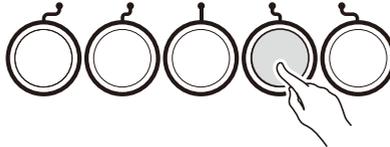
6. **Rotate the dial to select the record destination track.**

```
[REC SETTING]    (REC)T120
Rec Track:Solo 1
TRACK S 1        BEAT 4
BACK              −    +
```
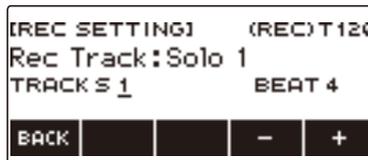
- After you rotate the dial once to select a record destination track, you can change the selection further using – and +.
- To go back to the previous screen, press BACK.
- The beat can be changed only when the record destination is the system track.

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7. Press REC START.

Recording starts from the first measure, which is a preparation measure. Playback of the recorded track starts simultaneously. Now you can play along with the playback.

- If you want to record your performance from the beginning without a preparation measure, start playing without pressing REC START.

8. Press **RECORD** to exit the recording operation.

Exiting the recording operation displays the song screen, which shows the Multi-track Recording you just saved.

```
[SONG]                    T120
 13:MultiTrkRec1
TRACK S 1           BEAT 4

TRACK  COUNT  MIX   MAN
MUTE               AGE
```

9. Repeat steps 3 through 8 of the procedure to overdub your play.

NOTE

- If the lyric tone setting is recorded at the same timing as multi-track recording, it will play starting from the system track, and then from solo track 1 through solo track 5. Because of this, making adjustments beforehand as to which track you want to play the lyric tone.
- Regarding the lyric tone number setting recorded at the start of recording, the first recorded track has priority, and the later recorded tracks are recorded with the above alternative tone numbers.

Copying a Tone Recording or Rhythm Recording as a Multi-track Recording

1. Press **MENU**.

This displays the menu screen.

2. Use **<** and **>** to select the 5 buttons menu that includes SONG.

3. Press **SONG.**

This displays the song screen.

4. Rotate the dial to select the Tone Recording or Rhythm Recording you want to copy as a multi-track recording.

• If you rotated the dial, press BACK.

5. Press **MTR COPY.**

This displays "Sure?".

```
[SONG]          MTR COPY
Sure?
TO    13:MultiTrkRec1

BACK          NO   YES
```

6. Press **YES.**

This copies the data to a blank Multi-track Recording number.

• To cancel, press NO.

7. When "Complete" appears on the display, press OK.

This exits the copy operation.
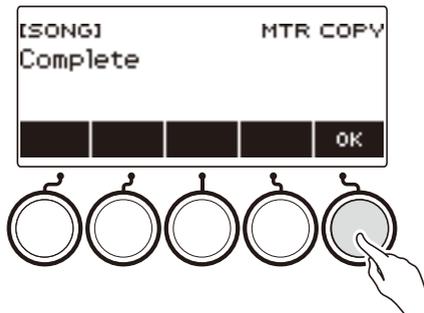
Muting a Multi-track Recording Track

1. Press MENU.

This displays the menu screen.

2. Use < and > to select the 5 buttons menu that includes SONG.

3. Press SONG.

This displays the song screen.

4. Rotate the dial to select the Multi-track Recording you want to mute.

- If you rotated the dial, press BACK.

```
[SONG]                    T120
 13:MultiTrkRec1
TRACK S 1              BEAT 4

TRACK  COUNT  MIX   MAN
MUTE                AGE
```

5. Press TRACK MUTE.

This displays the track mute setting screen.

```
[SONG]                TRK MUTE
 13:MultiTrkRec1
TRACK S 1

BACK    S     1     2     >
```
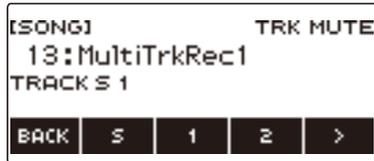
6. Use < and > to select the 5 buttons menu that includes the number of the track you want to mute.

7. Press the button for the number of the track you want to mute.

The track that corresponds to the button you press is muted, which is indicated by a broken line under its track number.
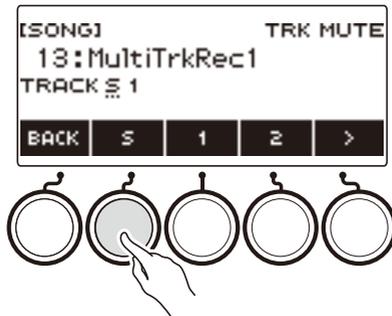
- To unmute a track, press its track number button again.

8. Press BACK to exit the setting operation.

Adjusting the Volume Level and Pan of Each Track of a Multi-track Recording (Mixing)

1. Press MENU.

This displays the menu screen.

2. Use ‹ and › to select the 5 buttons menu that includes SONG.

3. Press SONG.

This displays the song screen.

4. Rotate the dial to select the Multi-track Recording you want to adjust.
  • If you rotated the dial, press BACK.

5. Press MIX.

This displays the parameter selection screen.

```
[SONG]                    MIX
 13:MultiTrkRec1
TRACK S 1

BACK   VOL    PAN           SAVE
       UME
```

6. To adjust the volume level, press VOLUME. To adjust the pan, press PAN.

This displays the track selection screen.

```
[SONG]                    MIX
TS Upper1 Vol:0
TRACK S 1

BACK  TRK S  TRK S    ‹     ›
      U1     U2
```

VOLUME: Adjusts the volume level.
PAN: Adjusts the stereo center. 0 indicates the middle, while a smaller value shifts to the left and a larger value shifts to the right.

7. Use ‹ and › to select the 5 buttons menu that includes the track you want to adjust.
  • System track consists of UPPER1, UPPER2, LOWER, and rhythm parts. Each part can be adjusted individually.
  • The pan of system track rhythm cannot be adjusted.

8. Press the button that corresponds to the track you want to adjust.

9. Rotate the dial to adjust.

- The original (pre-adjusted) track is retained until you save your adjustments in steps 12 and 13 below. If you want to discard your adjustments and revert to the original (pre-adjusted) track, select press NO in step 13.

```
[SONG]                    MIX
TS Upper1 Vol:0
TRACK S 1

BACK              -     +
```

- Recorded volume values range from 0 to 127, and pan values range from –64 to +63. You can adjust the volume and pan values relative to this value in the range –127 to +127. You cannot adjust a value so it is outside its recorded value range.
- After you rotate the dial once to adjust, you can adjust further using – and +.
- To return the setting to its initial default, press – and + at the same time.
- To go back to the previous screen, press BACK.

10. To adjust other tracks, repeat the steps of this procedure from step 7.

11. To adjust the settings of other parameters, use the $<$ and $>$ buttons to display page 1 of the menu, press the BACK button to return to the parameter selection screen, and then repeat this procedure from step 6.

12. Press SAVE to save your adjustments.

This displays "Sure?".

```
[SONG]              MIX SAVE
Sure?
TRACK S 1

BACK              NO    YES
```

13. Press YES.

This saves your adjustments.

- To cancel, press NO.

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14. When "Complete" appears on the display, press OK.

This displays the parameter selection screen.
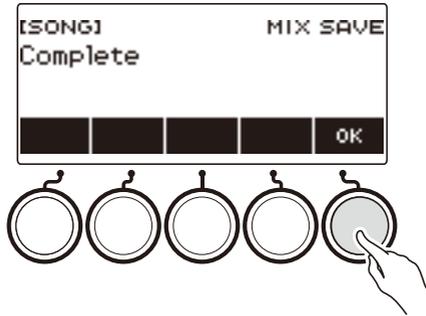
## Copying a Multi-track Recording

1. Press **MENU**.

This displays the menu screen.

2. Use **<** and **>** to select the 5 buttons menu that includes SONG.

3. Press **SONG**.

This displays the song screen.

4. Rotate the dial to select the Multi-track Recording you want to copy.
   • If you rotated the dial, press BACK.

5. Press **MANAGE.**

This displays the Multi-track Recording management screen.

```
[SONG]                    MANAGE
 13:MultiTrkRec1
TRACK S 1

BACK  SONG  SONG  TRACK TRACK
      COPY  CLEAR COPY  CLEAR
```

6. Press **SONG COPY.**

This displays the multi-track copy destination selection screen.

```
[SONG]                  SONG CPY
FROM  13:MultiTrkRec1
TO    13:MultiTrkRec1
TRACK S 1
BACK        SE    -    +
            LECT
```
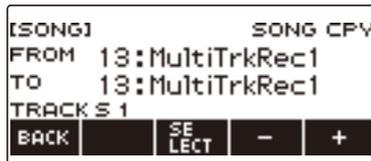
7. Rotate the dial or use – and + to select the copy destination.

8. Press **SELECT.**

This displays "Sure?".

```
[SONG]                  SONG CPY
Sure?
TO    14:MultiTrkRec2
TRACK
BACK              NO   YES
```
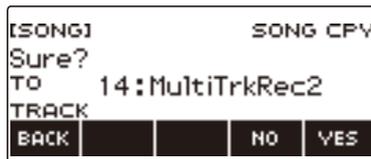
9. Press **YES.**

This copies the multi-track recording.
   • To cancel, press NO.

10. When "Complete" appears on the display, press OK.

This completes the multi-track copy operation.
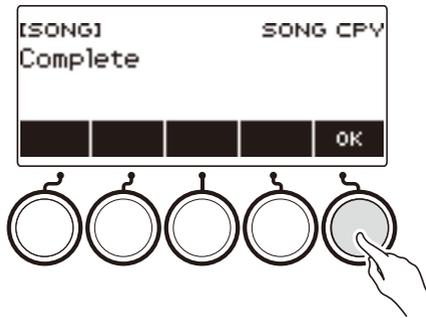
Deleting One or More of the Multi-track Recordings in Memory

1. Press MENU.

This displays the menu screen.

2. Use ‹ and › to select the 5 buttons menu that includes SONG.

3. Press SONG.

This displays the song screen.

4. Rotate the dial to select the Multi-track Recording you want to delete.

• If you rotated the dial, press BACK.

5. Press MANAGE.

This displays the Multi-track Recording management screen.

6. Press SONG CLEAR.

This displays "Sure?".

```
[SONG]              SONG CLR
Sure?
 13:MultiTrkRec1
TRACK S 1
BACK          NO   YES
```
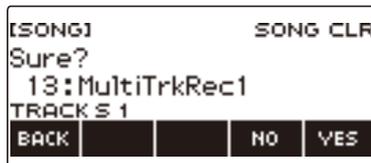
7. Press YES.

This deletes the multi-track recording.

• To cancel, press NO.

8. When "Complete" appears on the display, press OK.

This completes the multi-track delete operation.
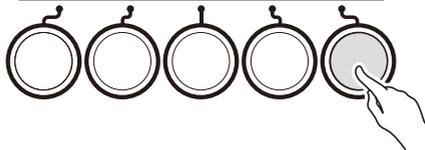
NOTE

• In place of steps 5 and 6, you can also long-press MENU to delete the multi-track recording.

Copying the Solo Track of a Multi-track Recording

1. **Press** MENU**.**

This displays the menu screen.

2. **Use** ❮ **and** ❯ **to select the 5 buttons menu that includes SONG.**

3. **Press SONG.**

This displays the song screen.

4. **Rotate the dial to select the Multi-track Recording whose solo track you want to copy.**

• If you rotated the dial, press BACK.

5. **Press MANAGE.**

This displays the Multi-track Recording management screen.

6. **Press TRACK COPY.**

This displays the solo track copy source selection screen.

```
[SONG]              TRK CPY
FROM Track:Solo 1

TRACK S 1
BACK         SE      -    +
             LECT
```

7. **Rotate the dial or use – and + to select the copy source.**

8. **Press SELECT.**

This displays the solo track copy destination selection screen.

```
[SONG]              TRK CPY
FROM Track:Solo 1
TO   Track:Solo 1
TRACK S 1
BACK         SE      -    +
             LECT
```
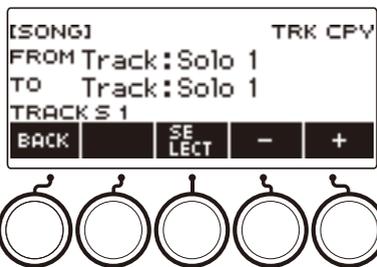
9. **Rotate the dial or use – and + to select the copy destination.**

10. Press SELECT.

This displays "Sure?".

```
[SONG]              TRK CPY
Sure?
TO    Track:Solo 2
TRACK S 1
BACK          |      | NO | YES
```

11. Press YES.

This copies the solo track.
• To cancel, press NO.

12. When "Complete" appears on the display, press OK.

This exits the solo track copy operation.

```
[SONG]              TRK CPY
Complete


              |      |      | OK
```
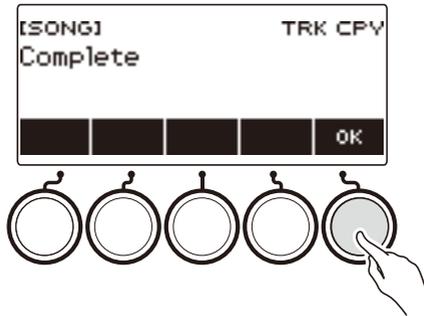
Deleting a Multi-track Recording Track

1. **Press MENU.**

This displays the menu screen.

2. **Use ⟨ and ⟩ to select the 5 buttons menu that includes SONG.**

3. **Press SONG.**

This displays the song screen.

4. **Rotate the dial to select the Multi-track Recording whose track you want to delete.**

• If you rotated the dial, press BACK.

5. **Press MANAGE.**

This displays the Multi-track Recording management screen.

6. **Press TRACK CLEAR.**

This displays the track delete selection screen.

```
[SONG]                    TRK CLR
Track:System

TRACK S 1
 BACK          SE         −     +
              LECT
```
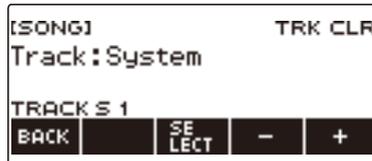
7. **Rotate the dial or use − and + to select a track.**

8. **Press SELECT.**

This displays "Sure?".

```
[SONG]                    TRK CLR
Sure?
Track:System
TRACK S 1
 BACK                  NO    YES
```
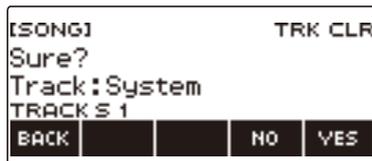
9. **Press YES.**

This deletes the track.

• To cancel, press NO.

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10.When "Complete" appears on the display, press OK.

This exits the track delete operation.
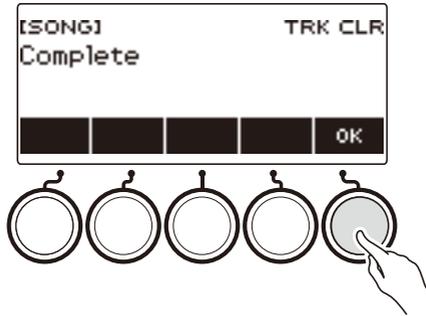
Recording and Playing the Sounds You Want (Sampling)

Capturing Sounds as Tones

Your Digital Keyboard lets you record any sounds you like from a portable audio player or smart device, and play them on the keyboard. For example, if you record the bark of a dog, you will be able to play an entire melody of dog barks. The sampling feature is a great way to create new sounds that are highly creative.

Selecting the Sampled Tone Type

Two types of sampled sounds can be captured: a sampled melody tone and sampled drum tone.
- Sampled Melody Tone (Tone Number 801)
  Playing in the high range of the keyboard produces a high captured sound, while playing in the low range, plays a low sound. You can play melodies with the captured sound.
- Sampled Drum Tone (Tone Number 802)
  You can change each of the keyboard keys of the drum set to sampled sounds. You can add multiple different sampled sounds to a single drum set.

1. Press MENU.

This displays the menu screen.

2. Use ‹ and › to select the 5 buttons menu that includes SAMPLING.

[MENU]   5/8

    ‹   SAM   SONG METRO   ›
        PLING   NOME

3. Press SAMPLING.

This displays the sampling screen.

[SAMPLING]

    EXIT MEL   DRUM
          ODY
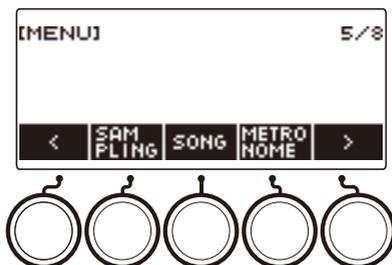
4. **Press the button that corresponds to the melody sampling tone type.**

This displays a sampling tone setting screen.

```
[SAMPLING]          MELODY



NOT EXIST
BACK AUDIO MEDIA
      IN  WAVE
```

🔍 NOTE

• When you display each sampling tone setting screen, the upper octave shift, upper 1 part octave shift, layer, and split settings are reset to their initial default settings.
• You cannot use octave shift while the sampling screen is displayed.

To sample sound from an external device connected to the **AUDIO IN** jack

1. Press **MENU**.

This displays the menu screen.

2. Use **<** and **>** to select the 5 buttons menu that includes SAMPLING.

3. Press SAMPLING.

This displays the sampling screen.

```
[SAMPLING]


EXIT  MEL  DRUM
      ODV
```

4. Press the button that corresponds to the melody sample tone type.

This displays a sampling tone setting screen.

```
[SAMPLING]          MELODY


NOT EXIST
BACK  AUDIO MEDIA
       IN   WAVE
```

- If there are no sampled sounds, "NOT EXIST" appears on the display.

5. If you selected a sampled drum tone, you can select the import destination by rotating the dial or by pressing a keyboard key.

- In the case of a note of a built-in drum tone that is a base, "BASE DRUM INST" appears on the display.

6. Connect the external device to the **AUDIO IN** jack and prepare to play the sound you want to capture.

- When connecting with an external device, refer to "Sounding Input From an External Device on This Digital Keyboard" (page EN-272).
- Before pressing AUDIO IN in step 7, do not produce a sound by pressing a keyboard key.

7. Press AUDIO IN.

"Input" appears on the display, indicating that the Digital Keyboard is in the sampling standby mode.

```
[SAMPLING]          MELODY
Input


BACK
```

- For sampled drum tones, the maximum number of sounds that can be sampled is 16.

8. On the external device, produce the sound you want to capture.

"Sampling" appears on the display, indicating that sampling has started.

```
[SAMPLING]          MELODY
Sampling


                     END
```
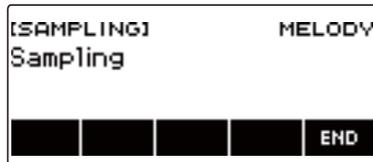
- Sampling may not start if the volume of the external device is low.

9. To exit the sampling operation, press END.

This displays a sample tone setting screen.
- The maximum sampling time is about 10 seconds for a melody tone and about three seconds for a drum tone. Sampling stops automatically after the maximum sampling time.

10. Play something on the keyboard.

- In the case of sampled melody tones, pressing the C4 key sounds the original sound (the actual sampled sound). Pressing any other key sounds the sampled sound with its pitch adjusted accordingly.
- For sampled drum tones, the sampled sound is be played when you press the sample import destination key.

IMPORTANT!

- **When you capture sound, the data previously recorded at the capture destination is deleted.**

NOTE

- The sound quality of sampled sounds is linear PCM, 16bit, 44.1kHz, stereo.

To import WAV files from a USB flash drive

1. **Insert the USB flash drive where the WAV file you want to import is stored into the** USB TO DEVICE **port of the Digital Keyboard.**
   - For information about USB flash drives, see "Using a USB Flash Drive" (page EN-248).

2. **Press** MENU**.**
   This displays the menu screen.

3. **Use** < **and** > **to select the 5 buttons menu that includes SAMPLING.**

4. **Press SAMPLING.**
   This displays the sampling screen.

```
[SAMPLING]



EXIT │ MEL │ DRUM │       │
     │ ODY │      │       │
```

5. **Press the button that corresponds to the melody sample tone type.**
   This displays a sample tone setting screen.

```
[SAMPLING]            MELODY



NOT EXIST
BACK │AUDIO│MEDIA│     │
     │ IN  │WAVE │     │
```

6. **If you selected a sample drum tone, you can select the import destination by rotating the dial or by pressing a keyboard key.**

7. **Press MEDIA WAVE.**

```
[SAMPLING]              LOAD
   1:Wave1


MELODY                   WAV
BACK │     │ SE  │  –  │  +  │
     │     │LECT │     │     │
```
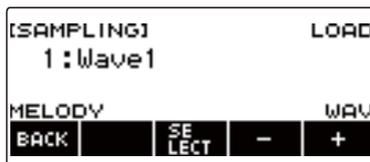
   - For sampled drum tones, the maximum number of sounds that can be imported is 16.

8. **Rotate the dial or use the – or + button to select the WAV file you want to import.**

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9. Press SELECT.

This displays "Sure?".


```
[SAMPLING]          LOAD
Sure?

MELODY              AREA
BACK        | NO  | YES
```
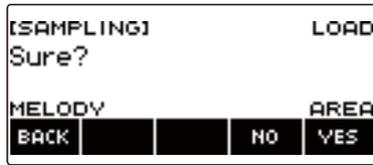
- "Replace?" appears if data already exists in the destination.

10. Press YES.

This imports the file.
- To cancel, press NO.

11. When "Complete" appears on the display, press OK.

This completes the file import operation.


```
[SAMPLING]          LOAD
Complete

                    OK
```
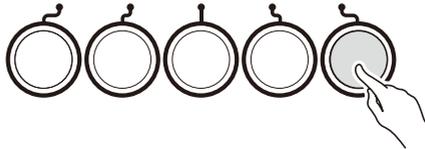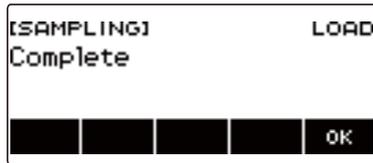
> **NOTE**
- When importing a WAV file, it takes up to about 10 seconds for a sampled melody tone and about 3 seconds for a sampled drum tone.
- Importing a WAV file that exceeds the maximum time causes the part that is in excess of the maximum time to be deleted.

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To select a built-in drum tone as a base for the sampled drum tone

1. Press MENU.

This displays the menu screen.

2. Use ⟨ and ⟩ to select the 5 buttons menu that includes SAMPLING.

3. Press SAMPLING.

This displays the sampling screen.

```
[SAMPLING]



EXIT | MEL  | DRUM |      |
     | ODY  |      |      |
```

4. Press DRUM.

This displays the sampled drum tone setting screen.

```
[SAMPLING]          DRUM C2
C2

BASE DRUM INST
BACK |AUDIO|MEDIA|BASE |
     | IN  |WAVE |DRUM |
```

5. Press BASE DRUM.

This displays the bass built-in drum tone selection screen.

```
[SAMPLING]          BASE DR
765:StandardSet1


BACK |     | SE   |  -  |  +  |
     |     | LECT |     |     |
```

6. Rotate the dial or use – and + to select the built-in drum tone you want to use as the base.

7. Press SELECT.

This selects the built-in drum tone to be used as the base and displays the sampled drum tone setting screen.

To configure the keyboard setting so the sound stops playing when you release the keyboard key

1. Press MENU.

This displays the menu screen.

2. Use ❮ and ❯ to select the 5 buttons menu that includes SAMPLING.

3. Press SAMPLING.

This displays the sampling screen.

```
[SAMPLING]



EXIT | MEL  | DRUM |      |
     | ODY  |      |      |
```

4. Press DRUM.

This displays the sampled drum tone setting screen.

```
[SAMPLING]          DRUM C2
C2

ONESHOT
BACK |AUDIO|MEDIA|BASE|SET
     | IN  |WAVE |DRUM|TING
```

5. Press SETTING.

This displays the keyboard operation setting screen.

```
[SAMPLING]          DRUM C2



ONESHOT
BACK | NOTE |TYPE |     |
     | OFF  |     |     |
```
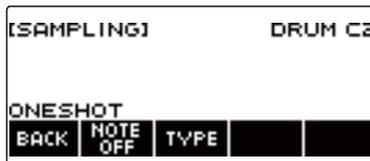
6. Press NOTE OFF.

This displays "NOTE OFF", which means that the sound will stop when you release the keyboard key.

```
[SAMPLING]          DRUM C2



ONESHOT            NOTE OFF
BACK | NOTE |TYPE |     |
     | OFF  |     |     |
```
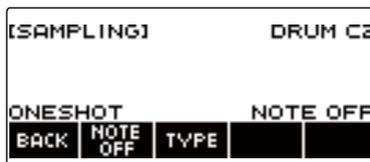
7. Press and release a keyboard key.

The sound will stop when you release the keyboard key.

8. Press NOTE OFF again to return the keyboard setting to continue producing sound when keyboard keys are released.

This causes "NOTE OFF" to disappear from the display.

NOTE

• The sound also stops when you release the keyboard key in the case of a looped sound (page EN-220).

Sounding a Looped Sound

1. Press MENU.

This displays the menu screen.

2. Use **<** and **>** to select the 5 buttons menu that includes SAMPLING.

3. Press SAMPLING.

This displays the sampling screen.

```
[SAMPLING]



EXIT | MEL  | DRUM |      |
       ODY
```

4. Press the button that corresponds to the melody sample tone type.

This displays a sample tone setting screen.

```
[SAMPLING]              MELODY


ONESHOT
BACK | AUDIO | MEDIA | SET  |
        IN     WAVE    TING
```

5. Press SETTING.

This displays the keyboard operation setting screen.

```
[SAMPLING]              MELODY


ONESHOT
BACK | TYPE |      |      |
```

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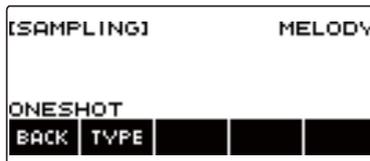
6. Press TYPE.

This displays "LOOP", which means that the sound will loop.
- In the case of a looped sound, the loop time is determined according to the note value used as the unit and the number of loops.

```
[SAMPLING]          MELODY
Unit:4

LOOP 4 × 1
BACK  TYPE  UNIT  TIMES
```

7. Rotate the dial to select the note value.

This displays the –/+ screen.

```
[SAMPLING]          MELODY
Unit:4

LOOP 4 × 1
BACK            -    +
```

- After you rotate the dial once to select a note value, you can change the selection further using – and +.
- To go back to the previous screen, press BACK.

8. Press TIMES.

```
[SAMPLING]          MELODY
Times:1

LOOP 4 × 1
BACK  TYPE  UNIT  TIMES
```

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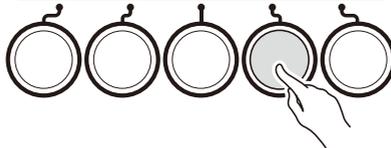
9. Rotate the dial to select the unit note value loops.

This displays the –/+ screen.

```
[SAMPLING]          MELODY
Times:1

LOOP 4 X 1
BACK          |    -  |  +
```
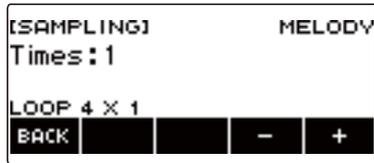
- After you rotate the dial once to select a number of loops, you can change the selection further using – and +.
- To go back to the previous screen, press BACK.

10. Press a keyboard key.

- For sampled melody tones, the sound loops as long as the keyboard key is depressed.
- For sampled drum tones, the sampled sound is played as a loop when you press a keyboard key. To stop the loop, press the keyboard key again.

NOTE

- If both the loop function and the arpeggiator are turned on, the arpeggiator is given priority.

To delete sampled data

1. **Press MENU.**

This displays the menu screen.

2. **Use ＜ and ＞ to select the 5 buttons menu that includes SAMPLING.**

3. **Press SAMPLING.**

This displays the sampling screen.

```
[SAMPLING]




EXIT | MEL | DRUM |    |
       ODY
```

4. **Press the button that corresponds to the melody sample tone type.**

This displays a sample tone setting screen.

```
[SAMPLING]            MELODY



ONESHOT
BACK |AUDIO|MEDIA|SET |
      IN   WAVE  TING
```

5. **If you sampled a drum tone, rotate the dial or press the applicable keyboard key to select the sampled data you want to delete.**

6. **Long-press MENU.**

This displays "Sure?".
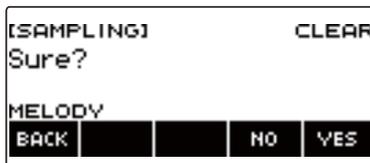
```
[SAMPLING]             CLEAR
Sure?


MELODY
BACK |    |    | NO | YES
```

7. **Press YES.**

This deletes the sample data.

- To cancel, press NO.

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8. When "Complete" appears on the display, press OK.

This exits the sample data delete operation.
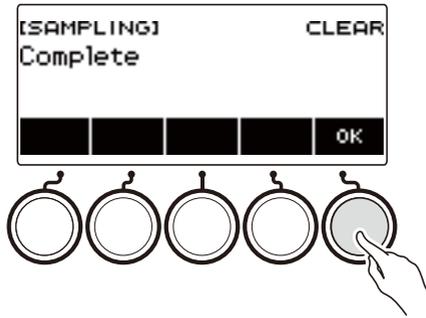
To delete a sampled tone

1. Press **INSTRUMENT**.

This displays the instrument tone screen.

2. Rotate the dial to select a sampled tone.

```
[INST/RHYTHM]          T122
    801:SamplingM1dy

          NORMAL
SPLIT LAYER TOUCH  SUS   ARP
```

3. Long-press **MENU**.

This displays "Sure?".

```
[SAMPLING]          CLEAR
Sure?
801:SamplingM1dy

BACK           NO   YES
```

4. Press YES.

This deletes the sample data.

• To cancel, press NO.

5. When "Complete" appears on the display, press OK.

This exits the sample data delete operation.

```
[SAMPLING]          CLEAR
Complete


                    OK
```
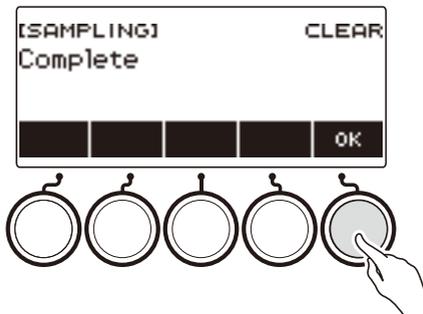
Customizing the Home Screen (Home Customization)

You can change the Home Screen's Base Display and/or the 5 buttons to customize the screen as you like. You can also configure a setting so various type of playback do not stop when you press **HOME**.

Base display

5 buttons menu items
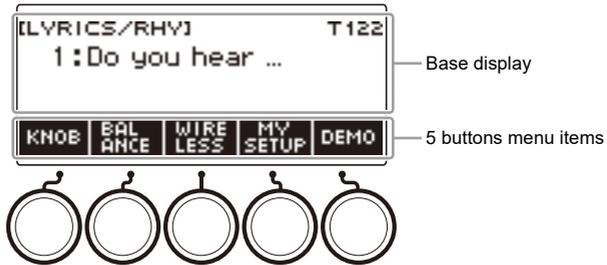
📝 **NOTE**
• Saving Customize contents in MY SETUP keeps them from being deleted when the Digital Keyboard is turned off. You also can configure Digital Keyboard settings so MY SETUP settings are recalled whenever Digital Keyboard power is turned on (page EN-144).

Changing the Home Screen Base Screen

1. Press MENU.
This displays the menu screen.

2. Use < and > to select the 5 buttons menu that includes HOME CSTM.

3. Press HOME CSTM.
This displays the Home Customization screen, which shows Base Display items.

4. Rotate the dial to change the Base Display.

Screens you can select are shown in the table below.

Setting	Display Name
Tone screen	Tone
Rhythm screen	Rhythm
Tone/rhythm screen	Tone/Rhythm

• After you rotate the dial once to select a setting, you can change the setting further using – and +.
• To go back to the previous screen, press BACK.

5. To exit the setting operation, press EXIT.

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Changing the Function of Each 5 buttons

1. **Press MENU.**

This displays the menu screen.

2. **Use ‹ and › to select the 5 buttons menu that includes HOME CSTM.**

3. **Press HOME CSTM.**

This displays the Home Customization screen, which shows Base Display items.

4. **Press 5 BTN (5 buttons).**

This displays the 5 buttons (5 BTN) setting screen.

```
[HOME CUSTOM]        5 BTN
 13:Knob on Menu
BUTTON 1 2 3 4 5
MENU
BACK    <    >    -    +
```

5. **Use ‹ and › to select the button whose function you want to change.**

```
[HOME CUSTOM]        5 BTN
 13:Knob on Menu
BUTTON 1 2 3 4 5
MENU
BACK    <    >    -    +
```
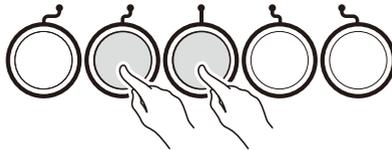
6. **Rotate the dial or use – and + to change the function.**

For information about the functions that can be assigned to the 5 buttons see "Home Customization 5 buttons Function List" (page EN-340).

7. **Press BACK to exit the setting operation.**

NOTE

- With some functions, the current settings of its parameters will appear above the corresponding 5 buttons. In some cases, the current setting name will be abbreviate due to space limitations.
- The target part of recommended functions 1, 2 and 3 of the active DSP that can be assigned to the 5 buttons is the part specified by the effect change part.
- The target part of the active DSP bypass change module that can be assigned to the 5 buttons is the part specified by the effect change part.

Stopping All Types of Playback when HOME is Pressed (PANIC function)

Pressing the **HOME** normally stops all types of playback. This is the "PANIC function". This lets you stop playback instantly, even if you do not know how to stop a particular type of playback.

1. Press **MENU**.

This displays the menu screen.

2. Use **<** and **>** to select the 5 buttons menu that includes HOME CSTM.

3. Press HOME CSTM.

This displays the Home Customization screen, which shows base screen items.

4. Press PANIC.

This displays "PANIC" and enables the panic function.
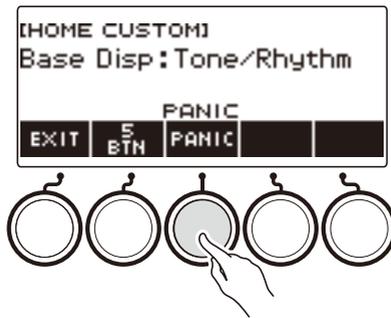
5. To disable the PANIC function, press PANIC again.

🔍 NOTE

• Playback may stop even when the PANIC function is disabled.

Configuring Settings

Setting Operation

Use the procedure below to configure settings.

1. Press MENU.

This displays the menu screen.

2. Use ❮ and ❯ to select the 5 buttons menu that includes SETTING.

3. Press SETTING.

This displays the setting screen.

```
[SETTING]
<        Transpose         >
-             0            +

EXIT  |  <  |  >  |  -  |  +
```

4. Use ❮ and ❯ to select a setting item.

5. Rotate the dial or use – and + to change the setting.

6. To exit the setting operation, press EXIT.

Setting Item List

Function Name	Description	Display Name	Setting
Transpose	Can be used to raise the overall pitch in semitone steps to make it easier to play a piece written in a difficult key, or to adjust to a key that better matches a vocalist, another musical instrument, etc.	Transpose	−12 to 0 to +12 (Initial Default: 0)
Touch off velocity	Can be used to specify the velocity value when Touch Response is disabled.	Touch Off Velocity	1 to 127 (Initial Default: 100)
Split point	Can be used to change the range of the lower keyboard and/or the accompaniment keyboard.	Split Point	C2 to C7 (Initial Default: F#3)
Rhythm auto setting	Can be used to disable automatic setting of the tempo and pattern when a rhythm is selected.	Rhythm Auto Set	Off, On (Initial Default: On)
Chord fingering mode	Can be used to specify the chord fingering mode.	Chord Mode	CASIO Chord, Fingered 1, Fingered 2, Fingered on Bass, Fingered Assist, Full Range Chord (Initial Default: Fingered 1)
Rhythm Controller Type	Can be used to change the control method of rhythm patterns and fill-ins.	Rhythm Controller Type	Type 1, Type 2 (Initial Default: Type 1)
Sustain/Upper Portamento Button	You can assign sustain or upper portamento to one of the 5 buttons on the tone screen.	SUS/UPPER PORT Button	SUS, UPPER PORT (Initial Default: SUS)
Arpeggiator/Auto Harmonize Button	Can be used to assign arpeggiator or auto harmonize to one of the 5 buttons on the tone screen.	ARP/AH Button	ARP, AH (Initial Default: ARP)
Rhythm volume level	Can be used to adjust the rhythm volume level.	Rhythm Volume	0 to 127 (Initial Default: 115)
Song volume level	Can be used to adjust the song volume level.	Song Volume	0 to 127 (Initial Default: 127)

Function Name	Description	Display Name	Setting
Tuning	Can be used to fine tune the overall pitch by changing the frequency of A4 in 0.1Hz units.	Tuning	415.5Hz to 440.0Hz to 465.9Hz (Initial Default: 440.0)
Surround	Can be used to create a more expansive sound.	Surround	Off, On (Initial Default: Off)
AUDIO IN center cancel	Can be used to cancel the center part of audio input using the **AUDIO IN** jack or Bluetooth audio.	Audio In Center Cancel	Off, On (Initial Default: Off)
MIDI OUT Channel UPPER1	Can be used to change the channel of MIDI messages that are MIDI output by UPPER1 play.	MIDI Out Ch Upper1	Off, 1 to 16 (Initial Default: 1)
MIDI OUT Channel UPPER2	Can be used to change the channel of MIDI messages that are MIDI output by UPPER2 play.	MIDI Out Ch Upper2	Off, 1 to 16 (Initial Default: 2)
MIDI OUT Channel LOWER	Can be used to change the channel of MIDI messages that are MIDI output by LOWER play.	MIDI Out Ch Lower	Off, 1 to 16 (Initial Default: 3)
Local Control	Selecting "Off" disables output of sound when something is played on the Digital Keyboard.	Local Control	Off, On (Initial Default: On)
MIDI Sync Mode	You can synchronize the tempo with an external MIDI device or music software running on your computer.	MIDI Sync Mode	Off, Master, Slave (Initial Default: Off)
Auto Power Off	Can be used to enable/disable Auto Power Off.	Auto Power Off	Off, On (Initial Default: On)
Battery type	Can be used to specify the type of batteries being used.	Battery	Alkaline, Ni-MH (Initial Default: Alkaline)
Display Contrast	Can be used to adjust display contrast.	LCD Contrast	1 to 12 (Initial Default: 7)
Button long-press time	Can be used to adjust the button long-press time.	Button Long Press Time	Short, Normal, Long (Initial Default: Normal)
Speaker	You can disable speaker output.	Speaker	Off, On (Initial Default: On)
Speaker enabled when PHONES connected	With this setting, you can continue sound output from the speaker when something is connected to the **PHONES** jack.	Phone Speaker	Off, On (Initial Default: Off)

Function Name	Description	Display Name	Setting
Initialize	Can be used to return settings to their initial factory defaults.	Setting Initialize	
Initialize All	Can be used to return the entire Digital Keyboard to its initial factory default state.	All Initialize	
Version Information	Can be used to view version information.	Version	

⚠ IMPORTANT!

• **Some settings are retained even when the Digital Keyboard is turned off. See "Turning Power On or Off" (page EN-26).**

B

Returning Settings to Their Initial Factory Defaults

1. Press MENU.
This displays the menu screen.

2. Use ❮ and ❯ to select the 5 buttons menu that includes SETTING.

3. Press SETTING.
This displays the setting screen.

4. Use ❮ and ❯ to select "All Initialize".

```
[SETTING]
❮        All Initialize        ❯


EXIT  |  ❮  |  ❯  |     | ENTER
```
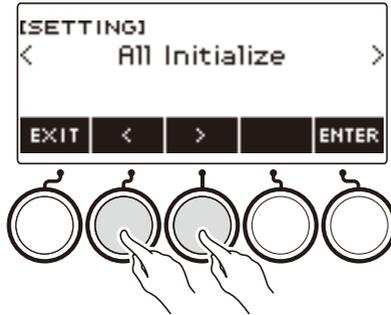
5. Press ENTER.
This displays "Sure?".

```
[SETTING]              ALL INIT
Sure?


BACK  |     |     |  NO | YES
```

6. Press YES.
After initialization is complete, the message "Complete" appears for a few seconds, and then the Digital Keyboard restarts.
• To cancel, press NO.

```
[SETTING]              ALL INIT
Complete

GOING TO RESTART
```

NOTE
• Initializing the Digital Keyboard will no restore preset lyric tones to their factory defaults.

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Using the MIDI Controller

■ MIDI Controllers

Your Digital Keyboard has a MIDI controller function that allows you to connect to an external device such as a personal computer and send a variety of performance information (MIDI data) to the composition software of the computer. You can also output performance information and other data that is not output during normal performance of this Digital Keyboard by operating knobs and buttons. For information about connecting with a computer, see "Connecting to a Computer and Using MIDI" (page EN-267).

1. Press MENU.

This displays the menu screen.

2. Use ＜ and ＞ to select the 5 buttons menu that includes MIDI CTRL.
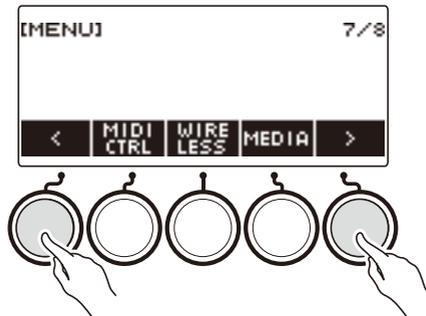
3. Press MIDI CTRL.

This displays the MIDI controller screen.
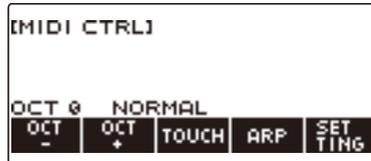
4. To exit the MIDI Controller screen, press HOME.

NOTE

• Sound output from the Digital Keyboard is disabled while the MIDI Controller is being used.

To change the pitch of NOTE message notes in octave units

1. **Press MENU.**

This displays the menu screen.

2. **Use ⟨ and ⟩ to select the 5 buttons menu that includes MIDI CTRL.**

3. **Press MIDI CTRL.**

This displays the MIDI controller screen.
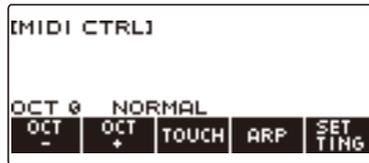
4. **Use OCT– and OCT+ to change the shift amount.**

The displayed "OCT" value changes in accordance with your setting and the NOTE message note pitch changes in octave units.
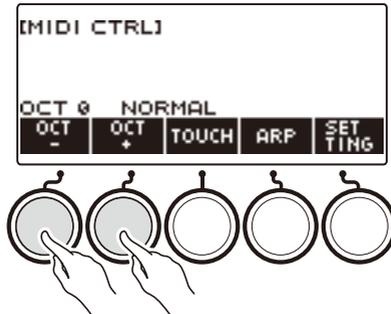
- You can specify a value in the range of –3 to +3 octaves.
- To restore the "OCT" value to zero, press OCT– and OCT+ at the same time.

To adjust the velocity of the NOTE ON message in accordance with key press intensity

1. **Press MENU.**

This displays the menu screen.

2. **Use ‹ and › to select the 5 buttons menu that includes MIDI CTRL.**

3. **Press MIDI CTRL.**

This displays the MIDI controller screen.
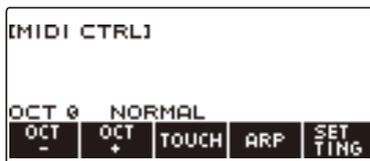
4. **Press TOUCH and then select the setting you want.**

This displays the setting on the screen.
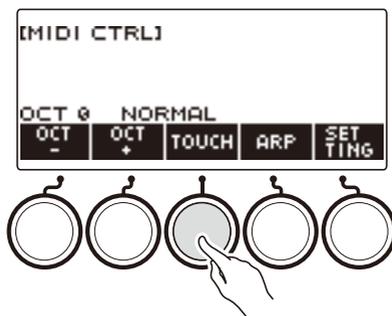
Each press of TOUCH changes the setting.

Setting Type	Display Name
Off	OFF
Light	LIGHT
Normal	NORMAL
Heavy	HEAVY

5. **If you selected Off for the setting, rotate the dial to adjust the velocity of the NOTE ON message.**

```
[MIDI CTRL]
Touch Off Velocity:100

OCT 0    OFF
 OCT   OCT           SET
  -     +   TOUCH ARP TING
```
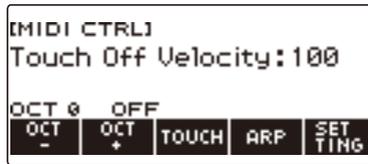
- After you rotate the dial once to select a value, you can change the velocity setting further using – and +.
- To return the setting to its initial default, press – and + at the same time.
- To go back to the previous screen, press BACK.

Using the Arpeggiator

1. Press MENU.

This displays the menu screen.

2. Use < and > to select the 5 buttons menu that includes MIDI CTRL.

3. Press MIDI CTRL.

This displays the MIDI controller screen.
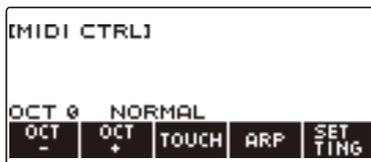
4. Press ARP.

This displays "ARP", which indicates the arpeggiator is turned on.
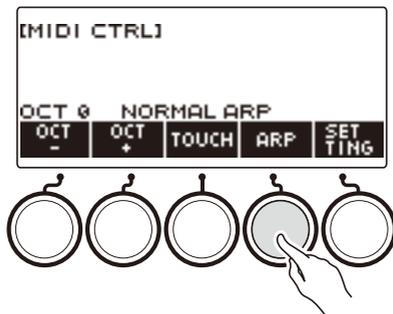
5. Long-press ARP.

This displays the arpeggiator screen.
- For information about arpeggiator operations, see "Sounding Arpeggio Phrases Automatically (Arpeggiator)" (page EN-115).
- Part settings cannot be configured when this function is used in combination with the MIDI controller.

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Changing the Channel Message Channel

1. Press **MENU**.

2. Use **<** and **>** to select the 5 buttons menu that includes MIDI CTRL.

3. Press **MIDI CTRL.**
This displays the MIDI controller screen.

```
[MIDI CTRL]


OCT 0   NORMAL
 OCT │ OCT │TOUCH│ ARP │ SET
  -  │  +  │     │     │TING
```

4. Press **SETTING.**
This displays the MIDI controller setting screen.

```
[MIDI CTRL]        SETTING
Channel:1


BACK│PRO │ K1 │ K2 │ K3
    │GRAM│ CC │ CC │ CC
```
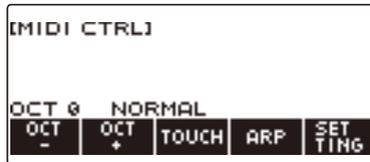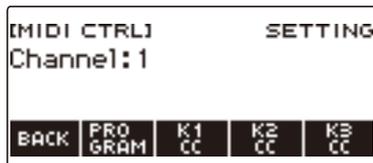
5. Rotate the dial to change the channel message channel.
This displays the –/+ screen.

```
[MIDI CTRL]        SETTING
Channel:1


BACK│    │    │ - │ +
```
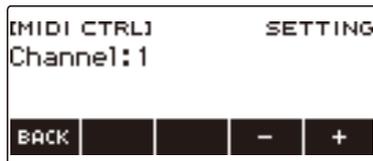
- Select a channel within the range of 1 to 16.
- After you rotate the dial once to select a channel, you can change the selection further using – and +.
- To go back to the previous screen, press BACK.

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Sending a Program Change Message

1. Press MENU.
This displays the menu screen.

2. Use < and > to select the 5 buttons menu that includes MIDI CTRL.

3. Press MIDI CTRL.
This displays the MIDI controller screen.

```
[MIDI CTRL]



OCT 0   NORMAL
 OCT    OCT  |TOUCH| ARP | SET
  -      +                TING
```

4. Press SETTING.
This displays the MIDI controller setting screen.

```
[MIDI CTRL]        SETTING
Channel:1


BACK |PRO | K1 | K2 | K3
     |GRAM| CC | CC | CC
```
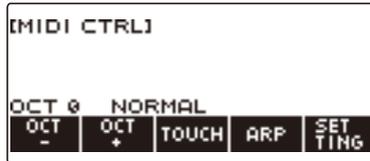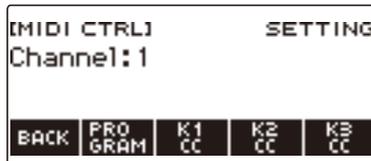
5. Press PROGRAM.
This displays the program change send screen.

```
[MIDI CTRL]        PROGRAM
Program Change:0


BACK |    |SEND | - | +
```

6. Rotate the dial or use – and + to select a program change number.

7. Press SEND.
This sends the program change message.

Sending a Control Change Message

■ **To use a knob for continuous send**

1. Press **MENU**.
This displays the menu screen.

2. Use **<** and **>** to select the 5 buttons menu that includes MIDI CTRL.

3. Press MIDI CTRL.
This displays the MIDI controller screen.

```
[MIDI CTRL]



OCT 0   NORMAL
 OCT    OCT  |TOUCH| ARP | SET
  -      +                 TING
```

4. Press SETTING.
This displays the MIDI controller setting screen.

```
[MIDI CTRL]        SETTING
Channel:1


BACK| PRO | K1 | K2 | K3
    |GRAM | CC | CC | CC
```

5. Press the button that corresponds to the knob where you want to assign the Control Change.
This displays the knob setting screen.

```
[MIDI CTRL]        KNOB1 CC
CC:0 Bank MSB


BACK| DATA| LSB |    |
```
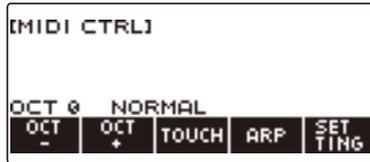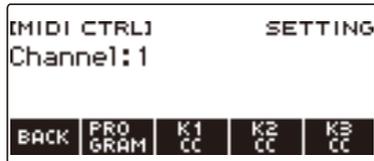
6. Rotate the dial to select a control change number.

This displays the –/+ screen.

```
[MIDI CTRL]        KNOB1 CC
CC:0 Bank MSB


BACK            │    -  │  +
```
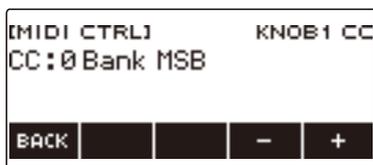
- You can select a control change number in the range of 0 to 127.
- After you rotate the dial once to select a control change number, you can change the selection further using – and +.
- To go back to the previous screen, press BACK.

7. Rotate a knob.

This displays the send value and continually sends the control change message.

■ To use a button operation to send

1. Press MENU.

This displays the menu screen.

2. Use **<** and **>** to select the 5 buttons menu that includes MIDI CTRL.

3. Press MIDI CTRL.

This displays the MIDI controller screen.

```
[MIDI CTRL]



OCT 0   NORMAL
 OCT │ OCT │      │     │ SET
  -  │  +  │TOUCH │ ARP │TING
```

4. Press SETTING.

This displays the MIDI controller setting screen.

```
[MIDI CTRL]        SETTING
Channel:1



BACK │PRO │ K1 │ K2 │ K3
     │GRAM│ CC │ CC │ CC
```

5. Press the button that corresponds to the knob where you want to assign the Control Change.

This displays the knob setting screen.

```
[MIDI CTRL]          KNOB1 CC
CC:0 Bank MSB


BACK | DATA | LSB
```
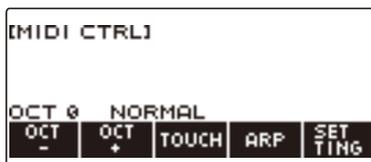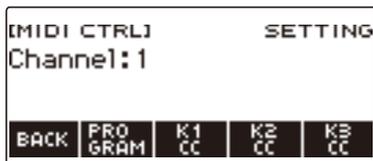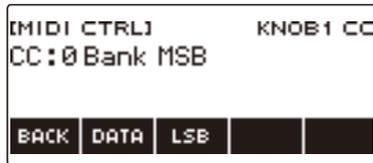
6. Press DATA.

This displays the data send screen.

```
[MIDI CTRL]          KNOB1 CC
Data:0

BANK MSB
BACK | LSB | SEND | — | +
```

7. Rotate a knob or the dial, or use – and + to select the data you want.

- Rotating a knob while the data transmission screen is displayed does not send a control change message.

8. Press SEND.

This sends a control change message.

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To switch between the control change MSB and LSB

1. Press **MENU**.

This displays the menu screen.

2. Use **<** and **>** to select the 5 buttons menu that includes MIDI CTRL.

3. Press MIDI CTRL.

This displays the MIDI controller screen.

```
[MIDI CTRL]



OCT 0   NORMAL
 OCT |  OCT | TOUCH | ARP | SET
  -  |   +  |       |     | TING
```

4. Press SETTING.

This displays the MIDI controller setting screen.

```
[MIDI CTRL]        SETTING
Channel:1



BACK | PRO  | K1 | K2 | K3
     | GRAM | CC | CC | CC
```

5. Press the button that corresponds to the knob where you want to assign the Control Change.

This displays the knob setting screen.

```
[MIDI CTRL]        KNOB1 CC
CC:0 Bank MSB



BACK | DATA | LSB |    |
```
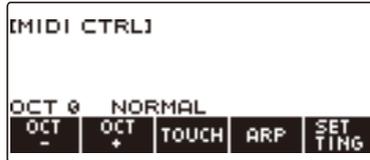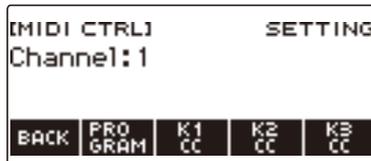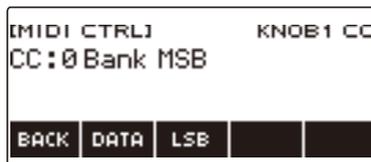
6. Select the Control Change MSB or LSB.

This displays the LSB or MSB button.

```
[MIDI CTRL]        KNOB1 CC
CC:0 Bank MSB



BACK | DATA | LSB |    |
```

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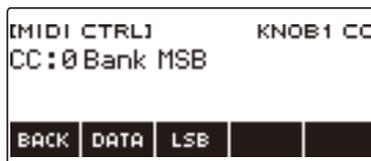
7. **Press LSB or MSB.**

This selects the corresponding control change LSB or MSB.

```
[MIDI CTRL]        KNOB1 CC
CC:32 Bank LSB


BACK  DATA  MSB
```
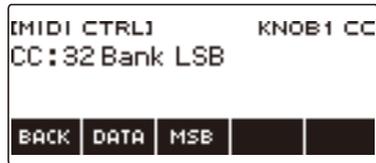
• This displays the LSB or MSB button, so you can switch between them if you like.

```
[MIDI CTRL]        KNOB1 CC
Data:0

BANK MSB
BACK  LSB  SEND   −    +
```

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To send a system real-time message start/stop

1. Press MENU.
This displays the menu screen.

2. Use < and > to select the 5 buttons menu that includes MIDI CTRL.

3. Press MIDI CTRL.
This displays the MIDI controller screen.

```
[MIDI CTRL]


OCT 0   NORMAL
 OCT  | OCT  |       |     | SET
  -   |  +   |TOUCH | ARP |TING
```
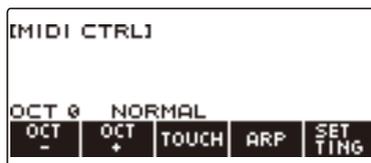
4. Press ▶/■.
This displays "PLAYING" and sends a system real-time message start.

5. Press ▶/■ again.
This causes "PLAYING" to disappear from the display and sends a system real-time message stop.

Using a USB Flash Drive

Your Digital Keyboard supports the use of a commercially available USB flash drive to perform the operations below.

- Formatting USB flash drives.
- Saving of Digital Keyboard MY SETUP, recorded song, and other data to a USB flash drive.
- Importing of MY SETUP, recorded song, and other data from a USB flash drive to Digital Keyboard memory.
- Using the Digital Keyboard to play back general song data (MIDI file audio file) copied to a USB flash drive using a computer.
  - For information about how to save song data to a USB flash drive, see "Saving Digital Keyboard Data to a USB Flash Drive" (page EN-254).
  - For the song data playback operation, see "Selecting a Song on a USB Flash Drive" (page EN-179).

USB Flash Drive and USB TO DEVICE Port Precautions

IMPORTANT!

- **Be sure to observe the precautions provided in the documentation that comes with the USB flash drive.**
- **Avoid using a USB flash drive under the following conditions. Such conditions can corrupt data stored on a USB flash drive.**
  - **Areas subjected to high temperature, high humidity, or corrosive gas**
  - **Areas subjected to strong electrostatic charge and digital noise**
- **Never remove the USB flash drive while data is being written to or loaded from it. Doing so can corrupt the data on the USB flash drive and damage the USB TO DEVICE port.**
- **Never insert anything besides a CASIO specified device or a USB flash drive into the USB TO DEVICE port. Doing so creates the risk of malfunction.**
- **A USB flash drive can become warm after very long use. This is normal and does not indicate malfunction.**
- **Electrostatic charge discharging from your fingers or the USB flash drive to the USB TO DEVICE port can cause malfunction of the Digital Keyboard. If this happens, turn the keyboard off and then back on again.**

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Inserting and Removing a USB Flash Drive on the Digital Keyboard

Supported USB Flash Drives

Your Digital Keyboard supports USB flash drives formatted to FAT (FAT32 or exFAT). If your USB flash drive is formatted to a different file system, use the Windows format function on a computer to reformat it to FAT (FAT32 or exFAT). Do not use quick format.

⊘ IMPORTANT!

- **Never insert anything besides a CASIO specified device or a USB flash drive into the USB TO DEVICE port.**
- **When you perform a USB flash drive operation or turn on the Digital Keyboard while a USB flash drive is plugged in, the Digital Keyboard initially needs to perform a "mounting" process to prepare for data exchange with the USB flash drive. Digital Keyboard operations are momentarily disabled while a mounting process is being performed.**
  - **"MOUNTING" is shown on the display while a mounting process is in progress.**
  - **Do not attempt to perform any operation on the Digital Keyboard while a mounting process is in progress.**
  - **It may take up to 10 or 20 seconds or even longer for the USB flash drive mounting process to finish.**
  - **A USB flash drive mounting process needs to be performed each time it is connected to the Digital Keyboard.**
- **In the case of an exFAT format USB flash drive, the number of importable files may be limited if long file names are used.**

🔍 NOTE

- Mounting a USB flash drive on this Digital Keyboard creates a folder named "MUSICDAT" in the drive's root directory (if a MUSICDAT folder does not already exist there). Use this folder when exchanging data between the Digital Keyboard and USB flash drive.

Mounting a USB Flash Drive on the Digital Keyboard

1. **As shown in the illustration below, insert a USB flash drive into the Digital Keyboard's USB TO DEVICE port.**
  - Carefully push the USB flash drive in as far as it goes. Do not use undue force when inserting the USB flash drive.

USB TO DEVICE port
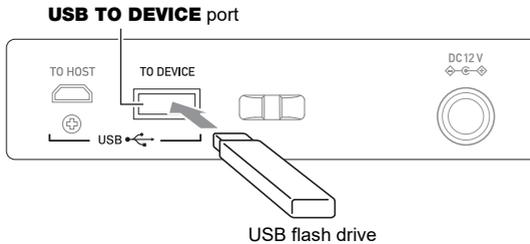
USB flash drive

Removing a USB Flash Drive From the Digital Keyboard

1. **Check to confirm that there is no data exchange operation being performed, and then pull the USB flash drive straight out.**

USB Flash Drive Formatting

⚠ IMPORTANT!

- **Be sure to format a USB flash drive on the Digital Keyboard before using it for the first time.**
- **Formatting a USB flash drive deletes all data currently stored on it. Before formatting a USB flash drive, make sure it does not have any valuable data stored on it.**
- **The format operation performed by this Digital Keyboard is a "quick format". If you want to completely delete all of the data on a USB flash drive, format it on your computer or some other device.**

USB flash drive formatting

1. **Insert the USB flash drive you want to format into the Digital Keyboard's USB TO DEVICE port.**

2. **Press MENU.**

This displays the menu screen.

3. **Use ❮ and ❯ to select the 5 buttons menu that includes MEDIA.**

4. **Press MEDIA.**

This displays the media screen.

- This screen does not appear until the mounting process is complete.

5. **Use ❮ and ❯ to select the 5 buttons menu that includes FORMAT.**

6. **Press FORMAT.**

This displays "Sure?".

7. **Press YES.**

This formats the USB flash drive.
- To cancel, press NO.

8. When "Complete" appears on the display, press OK.

This exits the formatting operation.
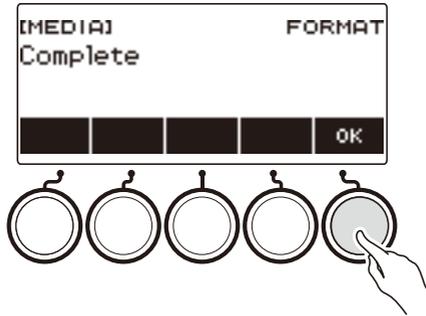
NOTE

• Formatting a USB flash drive on the Digital Keyboard creates a folder named "MUSICDAT" in its root directory. Use this folder when exchanging data between the Digital Keyboard and USB flash drive.

USB Flash Drive Operations

The section provides information about the operations below.
• Saving Digital Keyboard data to a USB flash drive
• Importing Data (Files) from a USB Flash Drive to Digital Keyboard Memory
• Deleting Digital Keyboard Importable Data (Files) on a USB Flash Drive
• Renaming Digital Keyboard Importable Data (Files) on a USB Flash Drive

■ Data Types

Data types supported by your Digital Keyboard are those shown in the table below. The text in the "Displayed Type Name" column is displayed for the data type on the Digital Keyboard's LCD.

• **Digital Keyboard → USB Flash Drive**
You can store the data shown in the table below onto a USB flash drive.

Data Type		Displayed Type Name	File Name Extension
Songs	Tone Recording	TONE REC	TRF, MID
	Rhythm Recording	RHYTHM REC	RRF, MID
	Multi-track Recording	MULTI TRACK REC	MRF, MID
Registration Memory (Bank Unit)		REGISTRATION BANK	RBK
MY SETUP		MY SETUP	MYS
Sampling	Sampled melody	SAMPLING MELODY	SPM
	Sampled drum	SAMPLING DRUM	SPD
All data above + All Lyric Tones		ALL DATA	DAL

• **USB Flash Drive → Digital Keyboard**
You can import the data shown in the table below from a USB flash drive into Digital Keyboard memory, rename it, and delete it.

Data Type		Displayed Type Name	File Name Extension
Songs	User Songs	USER SONG	CMF, MID
	Tone Recording	TONE REC	TRF
	Rhythm Recording	RHYTHM REC	RRF
	Multi-track Recording	MULTI TRACK REC	MRF
User Rhythms		USER RHYTHM	AC7, CKF, Z00
Registration Memory (Bank Unit)		REGISTRATION BANK	RBK
MY SETUP		MY SETUP	MYS
Sampling	Sampled melody	SAMPLING MELODY	SPM
	Sampled drum	SAMPLING DRUM	SPD
All data above + All Lyric Tones		ALL DATA	DAL

🚫 IMPORTANT!

• **Even if a file name has one of the extensions shown in the table above, you may not be able to import it into Digital Keyboard memory if the data was created with a non-compatible device, etc.**

Saving Digital Keyboard Data to a USB Flash Drive

1. Insert the USB flash drive into the Digital Keyboard's **USB TO DEVICE** port.

2. Press **MENU**.

This displays the menu screen.

3. Use **<** and **>** to select the 5 buttons menu that includes MEDIA.

4. Press **MEDIA**.

This displays the media screen.

5. Press **SAVE**.

6. Press the button that corresponds to the data type you want to save.

- If you select ALL DATA as the data type, steps 7 and 8 are not necessary. Proceed to step 9.
- If you pressed the SONG button, press the button that corresponds to the type of song data you want to save. If you pressed the TONE button or RHYTHM button as the data type, next select the file type and then advance to step 9. If you pressed the PART OFF button for the data type, advance to step 9. If you pressed SAMPLING, press the button that corresponds to the type of sampled data you want to save and then advance to step 9.
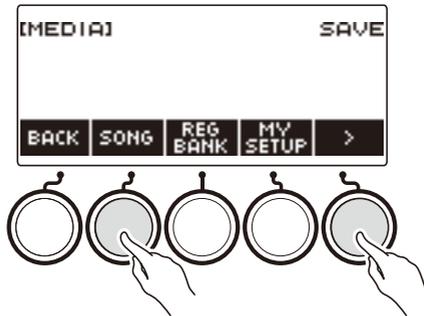
7. Rotate the dial or use − and + to select the data you want to save.

8. Press **SELECT**.

- If the data type you want to save is a multi-track recording, you also need to select a file type (file name extension).

9. Rename the file.

- For information about viewing and editing text, see "Inputting Characters" (page EN-23).

10. To confirm the file name, press **CONFIRM**.

This displays "Sure?".

- The message "Replace?" appears if there is already data with the same name in the USB flash drive's "MUSICDAT" folder.

11.Press YES to save the file.

This saves the file to the USB flash drive.
- To cancel, press NO.
- If you are saving ALL DATA, the save operation can take several minutes.

12.When "Complete" appears on the display, press OK.
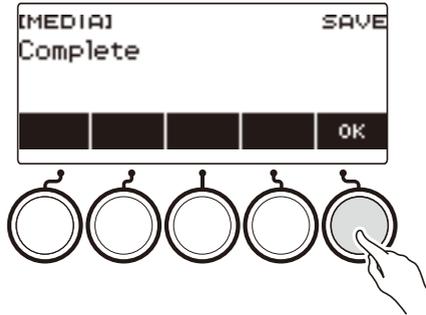
NOTE

- When saving Multi-track Recording data as a standard MIDI file (SMF), only the system track data is saved if the system track contains data. If the system track does not contain any data, only the solo track data is saved.

Loading Data From a USB Flash Drive to Digital Keyboard Memory

1. Insert the USB flash drive into the Digital Keyboard's **USB TO DEVICE** port.

2. Press **MENU**.

This displays the menu screen.

3. Use **<** and **>** to select the 5 buttons menu that includes MEDIA.

4. Press **MEDIA**.

This displays the media screen.

5. Press LOAD.

6. Press the button that corresponds to the type of data you want to load.

- If you pressed SONG, press the button that corresponds to the type of song data you want to load. If you pressed SAMPLING, press the button that corresponds to the type of sampled data you want to load.
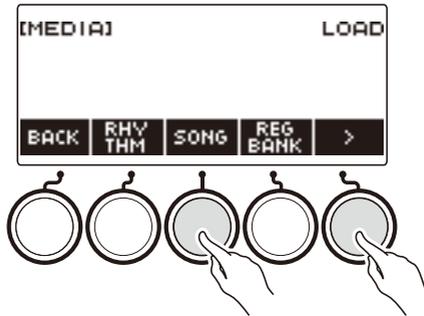
7. Rotate the dial or use – and + to select the file you want to load.

This displays the file name extension of the selected file.

8. Press SELECT.

- If you are importing tone recording, rhythm recording, sampled, or all data, advance to step 11.

9. Rotate the dial to select the import destination number.

10. Press SELECT.

This displays "Sure?".

- "Replace?" is displayed if data already exists in the destination.

11.Press YES.

This loads the file.
- To cancel, press NO.
- If you are saving ALL DATA, the save operation can take several minutes.

12.When "Complete" appears on the display, press OK.
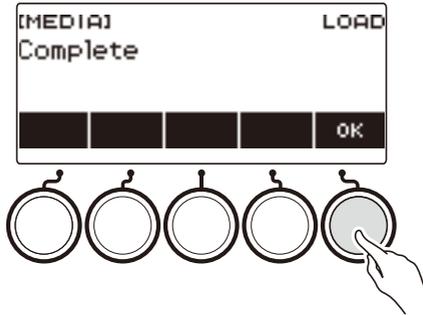
◯ NOTE

- Connecting a smart device running the Lyric Creator app to this Digital Keyboard and loading ALL DATA will not synchronize the list of lyric tones. Reconnect the smart device with this Digital Keyboard. This reflects the correct information.

Deleting a USB Flash Drive File

1. Insert the USB flash drive into the Digital Keyboard's **USB TO DEVICE** port.

2. Press **MENU**.
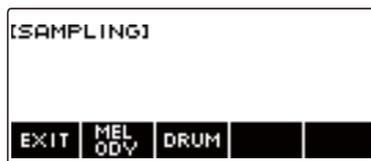
This displays the menu screen.

3. Use **<** and **>** to select the 5 buttons menu that includes MEDIA.

4. Press **MEDIA.**

This displays the media screen.

5. Press DELETE.

6. Touch the data type of the data you want to delete.
- If you pressed SONG, press the button that corresponds to the song type you want to delete. If you pressed SAMPLING, press the button that corresponds to the type of sampled data you want to delete.
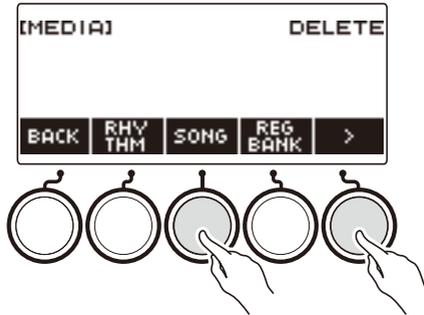
7. Rotate the dial or use – and + to select the file you want to delete.

This displays the file name extension of the selected file.

8. Press SELECT.

This displays "Sure?".

9. Press YES.

This deletes the file.
- To cancel, press NO.

10. **When "Complete" appears on the display, press OK.**
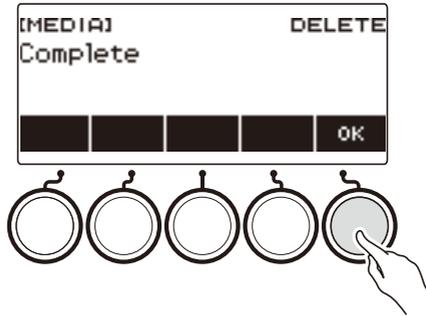
Renaming a File on a USB Flash Drive

1. Insert the USB flash drive into the Digital Keyboard's **USB TO DEVICE** port.

2. Press **MENU**.

This displays the menu screen.

3. Use **<** and **>** to select the 5 buttons menu that includes MEDIA.

4. Press **MEDIA**.

This displays the media screen.

5. Use **<** and **>** to select the 5 buttons menu that includes RENAME.

6. Press **RENAME**.

7. Press the button that corresponds to the data type you want to rename.
- If you pressed SONG, press the button that corresponds to the song data you want to rename. If you pressed SAMPLING, press the button that corresponds to the type of sampled data you want to rename.
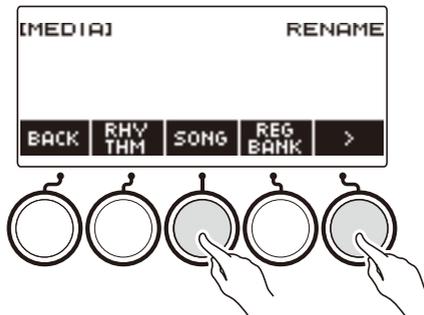
8. Rotate the dial or use **–** and **+** to select the file you want to rename.

This displays the file name extension of the selected file.

9. Press **SELECT**.

10. Rename the file.
- For information about how to edit characters, see "Inputting Characters" (page EN-23).

11. To confirm the file name, press **CONFIRM**.

This displays "Sure?".
- The message "Replace?" appears if there is already data with the same name in the USB flash drive's "MUSICDAT" folder.

12.Press YES.

This renames the file.
• To cancel, press NO.

13.When "Complete" appears on the display, press OK.
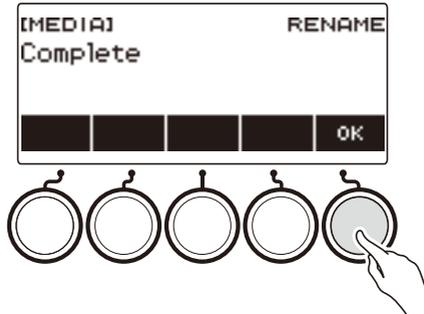
NOTE

• Changing the letters in a file name from upper case to lower case or vice versa does not count as a name change. Change the file name to something else.

Connecting with External Devices

This Digital Keyboard can be connected to various types of external devices. You can enhance your enjoyment by connecting with a smart device (APP function) or a computer.

Linking with a Smart Device and Using Lyric Creator

After using a cable to connect this Digital Keyboard with a smartphone, tablet or other smart device, you can use the Lyric Creator app to perform the operations below.
• Transferring lyric, sequence, and vocalist data created with the app to the Digital Keyboard
• Checking the lyric tones stored in Digital Keyboard memory and remaining memory capacity

■ Downloading the Smart Device App

Download the Lyric Creator from the CASIO website and install it on the smart device.
https://support.casio.com/global/en/emi/manual/CT-S1000V/

Connecting with a Smart Device

Use a commercially available USB cable for connection.
• You cannot use Bluetooth to connect with a Smart Device.

■ Using a Cable to Connect the Digital Keyboard with a Smart Device

For information about the requirements for a cable used for connection, visit the website below.
https://web.casio.com/app/en/lyric_creator/support/connect.html

• When connecting a USB cable, you may need an adapter in addition to a commercially available USB cable.
• The adapter you may need depends on your phone or tablet.
• Some phones and tablets do not support USB cable connection.

1. **Referring to "Downloading the Smart Device App" (page EN-262), install the app on the smart device.**

2. **Use a commercially available USB cable to connect the smart device port to the Digital Keyboard's USB TO HOST port.**
   • After connecting the smart device to the Digital Keyboard, use the smart device app to perform operations. For details about operations, refer to the user documentation of the app.
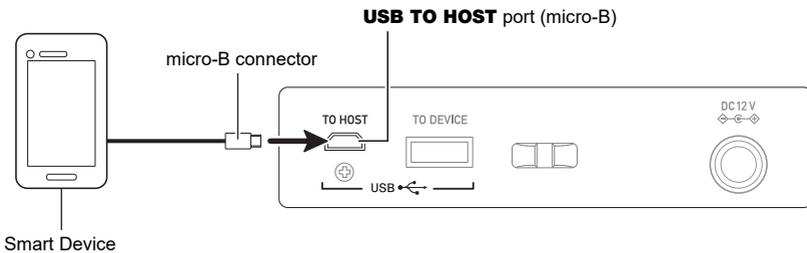
IMPORTANT!

• **Connect using a USB cable that is no more than two meters long.**
• **Do not connect a USB cable and audio cable to a smart device at the same time.**
• **If you are connecting with a USB cable, do not use the USB TO DEVICE port if you plan to use the CASIO smart device app.**

Linking with a Smart Device and Using CASIO MUSIC SPACE

After connecting this Digital Keyboard to a smartphone, tablet, or other smart device, you can use the CASIO MUSIC SPACE app to perform the operations below.

- Sending song data from the smart device app
- Using the lesson functions of an app on the smart device to play notes on the Digital Keyboard
- Using the Digital Keyboard sound source to sound music data played using an app on the smart device

■ Downloading the Smart Device App

Download the CASIO MUSIC SPACE from the CASIO website and install it on the smart device.
https://support.casio.com/global/en/emi/manual/CT-S1000V/

Connecting with a Smart Device

There are two ways to connect with a smart device: Bluetooth and a commercially available USB cable.

■ Using Bluetooth to Connect the Digital Keyboard with a Smart Device

You can use the Wireless MIDI & audio adaptor for Bluetooth connection.

1. **Referring to "Downloading the Smart Device App" (page EN-264), install the app on the smart device.**

2. **Plug the Wireless MIDI & audio adaptor into the USB TO DEVICE port (page EN-14).**
   - After connecting the smart device to the Digital Keyboard, use the smart device app to perform operations. For details about operations, refer to the user documentation of the app.

Wireless MIDI & audio adaptor

USB TO DEVICE port

TO HOST

TO DEVICE

DC 12 V

USB
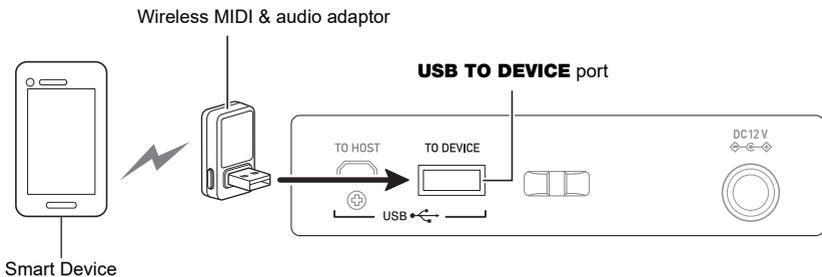
Smart Device

🔊 IMPORTANT!

- **Do not perform any Digital Keyboard operation while it is in the process of connecting with the smart device app.**
- **With a Bluetooth connection, some communication environments and use of smart device functions may cause a noticeable sound distortion. If this happens, try the countermeasures below.**
   - **Refer to the app's user documentation for information about MIDI playback quality.**
   - **If your smart device is connected by Wi-Fi to another device, turn off the smart device Wi-Fi.**
   - **Use a cable connection instead of Bluetooth.**
- **If you are connecting with Bluetooth, do not use the USB TO HOST port if you plan to use the CASIO smart device app.**

■ **Using a Cable to Connect the Digital Keyboard with a Smart Device**

For information about cables required for connection, refer to the connection settings of the CASIO MUSIC SPACE app.

1. Referring to "Downloading the Smart Device App" (page EN-264), install the app on the smart device.

2. Use a commercially available USB cable to connect the smart device port to the Digital Keyboard's USB TO HOST port.
   • After connecting the smart device to the Digital Keyboard, use the smart device app to perform operations. For details about operations, refer to the user documentation of the app.

USB TO HOST port (micro-B)

micro-B connector

TO HOST

TO DEVICE

DC 12 V

USB

Smart Device

⚠ IMPORTANT!

• **Connect using a USB cable that is no more than two meters long.**
• **Do not connect a USB cable and audio cable to a smart device at the same time.**
• **If you are connecting with a USB cable, do not use the USB TO DEVICE port if you plan to use the CASIO smart device app.**

Connecting to a Computer and Using MIDI

You can connect the Digital Keyboard to a computer and exchange MIDI data between them. You can record your performance using computer music software, and use the Digital Keyboard to play data sent from a computer.

■ Minimum Computer System Requirements

The following shows the minimum computer system requirements for sending and receiving MIDI data. Be sure to check your computer system setup before trying to install the driver.

● Supported Operating Systems

Windows 8.1*1
Windows 10*2
macOS (OS X/Mac OS X) 10.7, 10.8, 10.9, 10.10, 10.11, 10.12, 10.13, 10.14, 10.15, 11.0

*1 Windows 8.1 (32-bit versions, 64-bit versions)
*2 Windows 10 (32-bit versions, 64-bit versions)

● USB port

IMPORTANT!

• **Connecting with a computer running an operating system that is not one of those above can cause malfunction of the computer. Never connect the Digital Keyboard to a computer running a non-supported operating system.**

NOTE

• For the latest news about supported operating systems, visit the website at the URL below.
  https://support.casio.com/global/en/emi/manual/CT-S1000V/

■ **Connecting to a Computer**

IMPORTANT!

- **Incorrect connections can make data exchange impossible. Be sure to follow the steps of the procedure below.**

1. Turn off the Digital Keyboard and then start up your computer.
- Do not start up the music software on your computer yet!

2. Use a commercially available USB cable to connect your computer to the Digital Keyboard's USB TO HOST port.
- Use a USB 2.0 or 1.1 A-micro-B connector type USB cable that supports data communication.

3. Turn on the Digital Keyboard.
- If this is the first time you are connecting, the driver required to transfer data will automatically be installed on your computer.

4. Start up commercially available music software on your computer.

5. Use the settings of your computer's commercially available music software to select "CASIO USB- MIDI" as the MIDI device.
- For information about how to select the MIDI device, refer to the user documentation that comes with the music software you are using.

IMPORTANT!

- **Be sure to turn on the Digital Keyboard before starting up your computer's music software.**

NOTE

- Once you are able to connect successfully, you can leave the USB cable connected when you turn off your computer and/or this Digital Keyboard.
- For detailed specifications and connections that apply to MIDI data communication by this Digital Keyboard, see the latest support information provided on the website at the URL below.
https://support.casio.com/global/en/emi/manual/CT-S1000V/

■ MIDI Sync Mode

Entering the MIDI sync mode lets you synchronize the tempo with an external MIDI device or music software running on your computer. There are two modes: a master mode that syncs to the tempo of this Digital Keyboard, and a slave mode that syncs to the tempo of an external MIDI device or music software running on your computer.

MIDI timing clock messages are used for tempo synchronization, so the external MIDI device and computer music software must also support such messages. In addition to the settings of this unit, you also need to adjust the settings related to the MIDI timing clock on the music software running on your external MIDI device or computer.

To change the MIDI Sync Mode setting, use the procedure under "Configuring Settings" (page EN-230).

Setting	Indicator	Description
Off	Off	Disables sending and receiving of a MIDI timing clock.
Master	Master	Continually sends a MIDI timing clock at an interval that depends on the Digital Keyboard's tempo.
Slave	Slave	Enables reception of a MIDI timing clock. The tempo is determined in accordance with the continuously received interval, and functions such as rhythms and songs operate according to the tempo. The tempo cannot be set on the Digital Keyboard.

NOTE

• When using the MIDI sync mode, a USB cable connection with the external MIDI device or computer is recommended. Bluetooth Low Energy MIDI connection using the Wireless MIDI & audio adaptor may result in noticeable data communication delay.
• When the MIDI sync mode is slave mode, the functions below will not operate unless the MIDI timing clock is continuously received.
  – Metronome
  – Rhythm
  – Songs
  – Recorder
  – Arpeggiator
  – Sample tone looping
  – Lyric tone retrigger
• When the MIDI sync mode is slave mode, the displayed tempo value is replaced with "Slave", "S", or "SLV", which all stand for "Slave".

■ Configuring MIDI Settings

For about the MIDI settings below, see the "Setting Item List" (page EN-231).
• MIDI OUT Channel (Upper1, Upper2, Lower)
• Local Control
• MIDI Sync Mode

Using a Cable to Connect with an Audio Device

You can connect this Digital Keyboard to a commercially available playback device or amplifier, or to a recording device. You can also use this Digital Keyboard to sound output from a portable audio player or another device, and use that as backing for your keyboard play.

■ Sounding Output from the Digital Keyboard on an External Device

● To connect an external device to the **PHONES** jack

Connection requires commercially available connecting cords, supplied by you.

Use a connecting cord that has a stereo mini plug on one end for connection to this Digital Keyboard, and a plug that matches the configuration of the input jack of external device on the other end.

IMPORTANT!

- **Turn off the external device and the Digital Keyboard before connecting them. Before turning power on or off, turn down the volume level of this Digital Keyboard and external devices.**
- **After connecting, turn on this Digital Keyboard first and then the external device.**
- **If this Digital Keyboard's notes are distorted when they are sounded on an external audio device, lower the Digital Keyboard's volume level.**
- **The headphones you use must have a 3.5mm 3-pole stereo mini plug. Use of other types of plugs is not supported.**

Stereo mini plug

Audio equipment, amplifier, etc.

LINE OUT

PHONES   AUDIO IN   R   L/MONO   PEDAL1   PEDAL2/EXPRESSION

PHONES jack (3.5mm stereo mini jack)
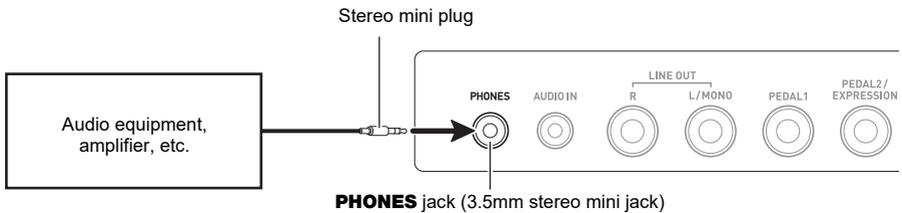
● **To connect an external device to the LINE OUT jack**
You can use a commercially available connecting cable for connection.
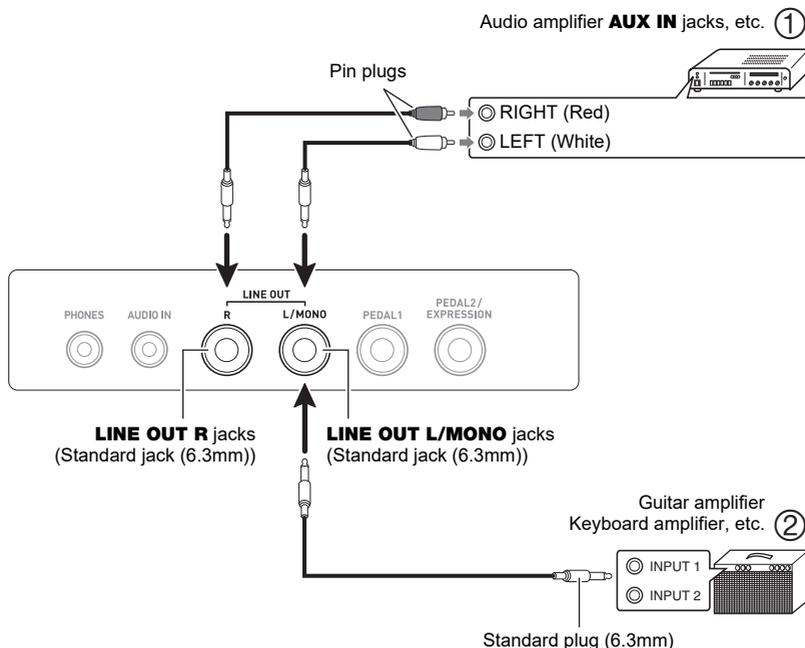
• **When connected with an audio device (Figure ①)**
LINE OUT R (right) is the right channel and LINE OUT L/MONO (left) is the left channel.
Use a commercially available connection cable for connection as shown in Figure ①. Normally, you should set the input selector of the audio equipment to the jack where the Digital Keyboard is connected (AUX IN, etc.)

• **When connected with a music amplifier (Figure ②)**
Connecting to the LINE OUT L/MONO jack only outputs a mixture of both channels. Use a commercially available connection cable as shown in Figure ②.

■ **Speaker Audio Output**

If you want to disable sound output from the Digital Keyboard speaker while using the LINE OUT jack, use the procedure under "Configuring Settings" (page EN-230) to change the "Speaker" setting to "Off". Use the procedure under "Configuring Settings" (page EN-230) to change the "Speaker enabled when PHONES connected" setting to "On".

🔍 **NOTE**

• If "Off" is selected for the "Speaker" setting, nothing will be output from the speaker of the Digital Keyboard even if "On" is selected for the "Speaker enabled when PHONES connected" setting.
• Selecting "Off" for the "Speaker" setting turns off the surround function.

■ Sounding Input From an External Device on This Digital Keyboard

Connection requires commercially available connecting cords, supplied by you.

The connecting cord should have a stereo mini plug on one end for connection to this Digital Keyboard and a plug that matches the configuration of the output jack of external device on the other end. When sounding input from an external device with this Digital Keyboard, use the external device controls to adjust the volume level. In this case, you cannot adjust the volume level on this Digital Keyboard.

◯ IMPORTANT!

- **Turn off this Digital Keyboard before connecting. Before turning power on or off, turn down the volume level of the Digital Keyboard and external devices.**
- **After connecting, turn on the external device and then this Digital Keyboard.**
- **If external device notes sounded by this Digital Keyboard are distorted, lower the external device's volume level.**
- **If the volume level of the external device notes sounds by this Digital Keyboard is lower than the volume level of the notes you are playing on the keyboard, adjust the volume balance of the Digital Keyboard. See "Changing the Volume Balance Between Keyboard Play and Rhythm Play (Balance)" on page EN-128.**
- **Setting the volume level of the external device too high can cause Digital Keyboard power to turn off in order to protect it against damage. If this happens, lower the volume of the external device.**
- **The end of the connecting cord you connect to the Digital Keyboard must have a 3.5mm 3-pole stereo mini plug. Use of other types of plugs is not supported.**

Stereo mini plug

PHONES   AUDIO IN   LINE OUT   R   L/MONO   PEDAL1   PEDAL2/ EXPRESSION

AUDIO IN jack (3.5mm stereo mini jack)

Portable audio player, etc.
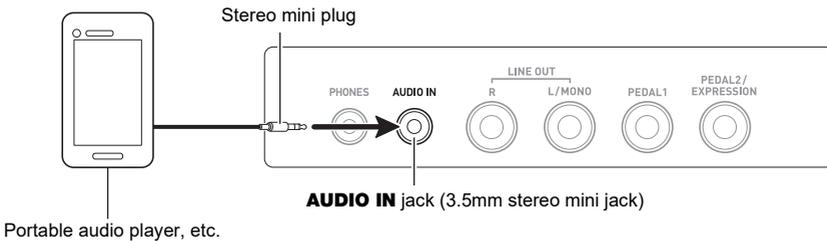
■ AUDIO IN center cancel (Vocal Cut)

Enabling Vocal Cut removes (mutes or minimizes) the vocal part from the **AUDIO IN** jack input or the input using Bluetooth audio. Note that this function cancels the sound in the center position of the audio, which may (depending on how the original audio was mixed) end up canceling something else other than the vocal part. How vocal cut is performed depends on the sound being input.

For information about how to configure settings, see the "Setting Item List" (page EN-231).

◯ NOTE

- Digital Keyboard built-in effects (reverb, other) are not applied to **AUDIO IN** jack or Bluetooth audio input.

Sounding a Bluetooth Audio Capable Device (Bluetooth Audio Pairing)

You can use a Wireless MIDI & audio adaptor (WU-BT10) to pair this Digital Keyboard with an external Bluetooth audio capable audio device and then playback from the external device through this Digital Keyboard's speakers.

⚠ IMPORTANT!

- **Before performing the pairing operation, turn down the volume levels of this Digital Keyboard and the external device.**
- **If external device notes sounded by this Digital Keyboard are distorted, lower the external device's volume level.**
- **If the volume level of the external device notes sounds by this Digital Keyboard is lower than the volume level of the notes you are playing on the keyboard, adjust the volume balance of the Digital Keyboard. See "Changing the Volume Balance Between Keyboard Play and Rhythm Play (Balance)" on page EN-128.**
- **Setting the volume level of the external device too high can cause Digital Keyboard power to turn off in order to protect it against damage. If this happens, lower the volume of the external device.**
- **Due to Bluetooth wireless technology characteristics, you may notice some lag in notes. If that happens, connect using a USB cable.**

1. **Long-press the ⏻ (Power) button to turn off the Digital Keyboard.**

2. **Plug the Wireless MIDI & audio adaptor into the USB TO DEVICE port (page EN-14).**

3. **Press the ⏻ (Power) button to turn on the Digital Keyboard.**
This displays the Bluetooth icon.

Bluetooth icon

```
[LYRICS/RHY]    ✳      T122
      1:Do you hear…

KNOB  BAL   WIRE  MY    DEMO
      ANCE  LESS  SETUP
```

4. **Press WIRELESS.**
This displays the wireless screen.

```
[WIRELESS]      ✳



        ON
EXIT  ADAP  PAIR  REG
      TOR   ING   CLEAR
```

EN-273
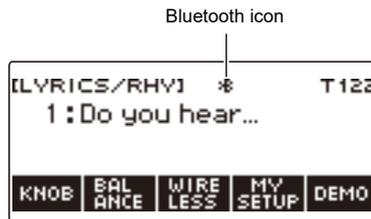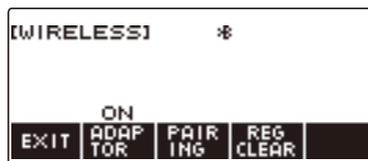
5. Press PAIRING.

This displays the Bluetooth audio pairing screen with "Pairing" shown, indicating Bluetooth audio pairing.

```
[WIRELESS]        ☀
Pairing

         ON
 CAN
 CEL
```
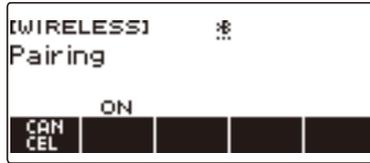
- A broken line is under the Bluetooth icon while the Digital Keyboard is Bluetooth audio paired with another device.
- To stop Bluetooth audio pairing, press CANCEL.

6. Use the setting screen of the Bluetooth-capable audio device to select "WU-BT10 AUDIO" to pair with this Digital Keyboard.

Connecting with a Bluetooth audio-capable device causes "AUDIO" to appear on the Digital Keyboard display.

```
[WIRELESS]        ☀


AUDIO ON
 EXIT ADAP PAIR REG
      TOR  ING  CLEAR
```
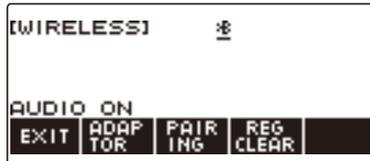
- This causes a solid line to appear under the Bluetooth icon.

7. Produce sound on the Bluetooth audio capable device.

Output from the audio Bluetooth capable device will sound from the Digital Keyboard's speakers.

🔍 **NOTE**

- You need to turn on both the Digital Keyboard's wireless function and the Bluetooth audio device's Bluetooth function.
- To change the Digital Keyboard's wireless function settings, see "Disabling Wireless Functions" (page EN-278).
- Information about the last Bluetooth audio device connected to this Digital Keyboard is saved on the Wireless MIDI & audio adaptor. Because of this, it can automatically perform Bluetooth audio pairing with the same device, so you do not need to perform the Bluetooth audio pairing operation every time.
- You can also display the wireless screen by pressing **MENU** and then WIRELESS.
- The WIRELESS button may not be displayed on the home screen due to the Home Customization setting.

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Deleting Bluetooth Audio Capable Device Pairing Registration

NOTE

- Performing the procedure below will delete the pairing registration between this Digital Keyboard and it's currently paired Bluetooth audio capable device. If you are experiencing connectivity problems with a Bluetooth audio capable device, perform the procedure below and then perform the procedure under "Sounding a Bluetooth Audio Capable Device (Bluetooth Audio Pairing)" (page EN-273).
- After performing the procedure below, you should also clear this Digital Keyboard's pairing registration on the Bluetooth audio capable device. For information about how to do this, refer to the user documentation of each Bluetooth audio device.

1. **Long-press the ⏻ (Power) button to turn off the Digital Keyboard.**

2. **Plug the Wireless MIDI & audio adaptor into the USB TO DEVICE port (page EN-14).**
  - You cannot delete a Bluetooth audio pairing registration unless a Wireless MIDI & audio adaptor is connected to the Digital Keyboard.

3. **Press ⏻ (Power) to turn on the Digital Keyboard.**

4. **Press WIRELESS.**
This displays the wireless screen.

```
[BLUETOOTH]    ✳

          BT
EXIT   BT  PAIR  REG
           ING  CLEAR
```

5. **Press REG CLEAR.**
This displays "Sure?".

```
[WIRELESS]   ✳   REG CLR
Sure?

BACK          NO   YES
```
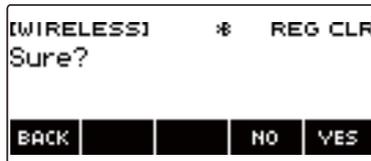
6. **Press YES.**
This deletes the Bluetooth audio pairing registration.
  - To cancel, press NO.

7. When "Complete" appears on the display, press OK.

This exits the Bluetooth audio-capable pairing registration delete operation.
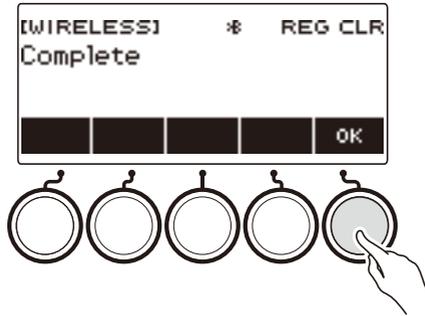
NOTE

• You can also display the wireless screen by pressing **MENU** and then WIRELESS.
• The WIRELESS may not be displayed on the home screen due to the Home Customization setting.

Connection with a Bluetooth Low Energy MIDI Device

You can use the Wireless MIDI & audio adaptor to connect the Digital Keyboard with a Bluetooth Low Energy MIDI device.

1. **Long-press ⏻ (Power) to turn off the Digital Keyboard.**

2. **Plug the Wireless MIDI & audio adaptor into the USB TO DEVICE port (page EN-14).**

3. **Press ⏻ (Power) to turn on the Digital Keyboard.**

4. **On the setting screen of the app installed on your Bluetooth Low Energy MIDI device, select "WU-BT10 MIDI" to connect with the Digital Keyboard.**
Connecting with a Bluetooth Low Energy MIDI-capable device causes "MIDI" to appear on the display.
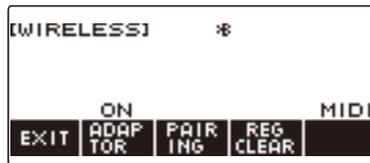
```
[WIRELESS]      *

            ON              MIDI
EXIT | ADAP | PAIR | REG
     | TOR  | ING  | CLEAR
```

IMPORTANT!
• **Do not perform any Digital Keyboard operation while it is in the process of connecting with a Bluetooth Low Energy MIDI device. Wait until the connection operation is finished.**
• **Due to Bluetooth wireless technology characteristics, there may be some delay in data transfer. If that happens, connect using a USB cable.**

NOTE
• You need to turn on both the Digital Keyboard's wireless function and the Bluetooth Low Energy MIDI device's Bluetooth function.
• For information about this Digital Keyboard's wireless function, see "Disabling Wireless Functions" (page EN-278).
• You need to perform the above connection operation each time you connect with a Bluetooth Low Energy MIDI device.

Disabling Wireless Functions

You can disable the Digital Keyboard's wireless function when you are not using the Wireless MIDI & audio adaptor for Bluetooth connection.

1. Press **HOME**.

This displays the home screen.

2. Press **WIRELESS**.

This displays the wireless screen.
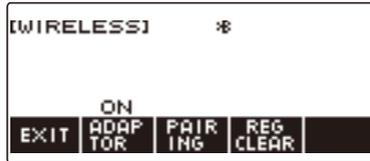
3. Press **ADAPTOR**.

The Bluetooth icon disappears from the display, indicating that wireless is turned off.

Bluetooth icon (not displayed)
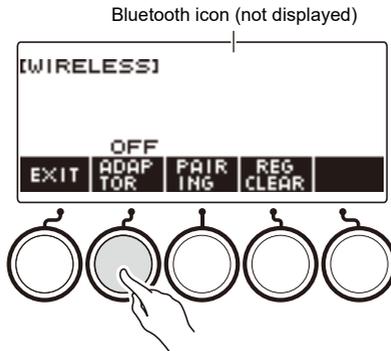
4. To enable the wireless function, press ADAPTOR again.

This displays the Bluetooth icon.

NOTE

- While a wireless on/off operation is in progress, ◇ displayed in place of the Bluetooth icon.
- You can also display the wireless screen by pressing **MENU** and then WIRELESS.
- The WIRELESS may not be displayed on the home screen due to the Home Customization setting.

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Reference

Troubleshooting

Symptom	Required Action
Included Accessories	
I can't find included items during unpacking.	Carefully check inside all of the packing materials.
Power Requirements	
Power does not turn on.	• Check the AC adaptor or make sure that the batteries are facing correctly (page EN-8). • Replace the batteries with new ones. Or use AC adaptor power (page EN-8).
When ⏻ (Power) is pressed, the display appears momentarily, but power does not turn on.	Press ⏻ (Power) to turn power back on.
The Digital Keyboard suddenly turns off after outputting a loud sound.	• Replace the batteries with new ones. Or use AC adaptor power (page EN-8). • Lower the volume of the external device.
The Digital Keyboard suddenly turns off after about 30 minutes.	Disable Auto Power Off (page EN-27).
Display Name	
The display keeps going dark or keeps flickering.	Replace the batteries with new ones (page EN-10). Or use AC adaptor power (page EN-8).
Screen contents are visible only from a fixed angle.	This is due to the Digital Keyboard's production limitations. It does not indicate malfunction.
Sound	
Nothing happens when I press a keyboard key.	• Adjust the volume level (page EN-28). • Review volume level related settings of the balance function, etc. • Confirm that nothing is plugged into the **PHONES** jack on the back of the Digital Keyboard. • Check to make sure that the "Speaker" setting (page EN-231) is not turned off. • Turn the Digital Keyboard off and then back on (page EN-26). This will initialize settings. Settings are not initialized if MY SETUP power on recall is enabled.
Nothing happens or notes do not play normally when I play on the accompaniment (left-side) keyboard.	Press ACCMP to disable chord play with the accompaniment keyboard (page EN-159).

Symptom	Required Action
Nothing happens when I start an Auto Accompaniment.	• With rhythms 234 to 243, nothing sounds if you do not play a chord on the keyboard. Try playing a chord (page EN-160). • Check and adjust the rhythm volume level (page EN-151). • If you have not saved user rhythms to rhythm numbers 244 to 293, nothing will sound if you select one of these rhythms and press ▶/■ (page EN-169). • Turn the Digital Keyboard off and then back on (page EN-26). This will initialize settings. Settings are not initialized if MY SETUP power on recall is enabled.
Nothing happens when I start playing a song's Auto Accompaniment.	• It takes a little time after you press the button until the song starts to play. Wait for the song to start. • Check and adjust the song volume level (page EN-186). • If the song data is not saved, pressing ▶/■ does not start the song (page EN-183). • Turn the Digital Keyboard off and then back on (page EN-26). This will initialize settings. Settings are not initialized if MY SETUP power on recall is enabled.
The metronome does not sound.	• Check and adjust the metronome volume level (page EN-33). • Turn the Digital Keyboard off and then back on (page EN-26). This will initialize settings. Settings are not initialized if MY SETUP power on recall is enabled.
Notes keep sounding, without stopping.	• Turn the Digital Keyboard off and then back on (page EN-26). This will initialize settings. Settings are not initialized if MY SETUP power on recall is enabled. • Replace the batteries with new ones. Or use AC adaptor power (page EN-8).
Some notes are cut off while they are playing.	This happens whenever the number of notes being sounded exceeds the maximum polyphony value of 64 (32 for some tones). It does not indicate malfunction.
The volume level or tone setting I configured has changed.	• Adjust the volume level (page EN-28). • Turn the Digital Keyboard off and then back on (page EN-26). This will initialize settings. Settings are not initialized if MY SETUP power on recall is enabled. • Replace the batteries with new ones. Or use AC adaptor power (page EN-8).
With certain volume levels and tones, the sound of notes played in one keyboard range will sound different from those played in another keyboard range.	This is due to system limitations and does not indicate malfunction.
With some tones, octaves do not change at the far ends of the keyboard.	This is due to system limitations, and does not indicate malfunction.

Symptom	Required Action
The pitch of the notes does not match other accompanying instruments or notes sound strange when played along with other instruments.	• Check and adjust the transpose setting (page EN-131) and tuning setting (page EN-132). • Turn the Digital Keyboard off and then back on (page EN-26). This will initialize settings. Settings are not initialized if MY SETUP power on recall is enabled.
The reverb of notes seems to change suddenly.	• Check and adjust the reverb setting (page EN-107). • Turn the Digital Keyboard off and then back on (page EN-26). This will initialize settings. Settings are not initialized if MY SETUP power on recall is enabled.
Operation	
Tone, rhythm, and other settings revert to their initial defaults whenever I turn on the Digital Keyboard.	Turning power off and then back on again initializes Digital Keyboard settings (page EN-26). Settings are not initialized if MY SETUP power on recall is enabled. You can save settings to MY SETUP (page EN-140) or registration memory (page EN-170).
Connecting to a computer	
I can't send or receive MIDI data.	• Check to make sure that the USB cable is connected to the Digital Keyboard and your computer, and that the correct device is selected with your computer's music software (page EN-267). • Turn off the Digital Keyboard and then exit the music software on your computer. Next, turn the Digital Keyboard back on and then restart the music software on your computer.

Error Indicators

Display Name	Cause	Action
Measure Limit	You are attempting to record more than 1,000 measures.	Make your recordings up to 999 measures long.
Memory Full	You are attempting a recording that exceeds the allowable per-song size limit.	Keep song recordings with the allowable per-song size limit
Data Full	You are attempting to copy a Tone Recording and Rhythm Recording as a Multi-track Recording when there is no empty Multi-track Recording number.	Delete one or more of the multi-track recordings in memory.
	You are attempting to sample more than 17 drum tones.	Delete some existing data to make room for new data.
No Media	The USB flash drive is not plugged correctly into the Digital Keyboard's **USB TO DEVICE** port.	Plug the USB flash drive correctly into the **USB TO DEVICE** port.
	The USB flash drive was removed while some operation was in progress.	Do not remove the USB flash drive while any operation is in progress.
	The USB flash drive is write-protected.	Write-enable the USB flash drive.
	The USB flash drive is protected by anti-virus software.	Use a USB flash drive that is not protected by anti-virus software.
No File	There is no loadable or playable file in the "MUSICDAT" folder.	Move the file you want to load or play to the "MUSICDAT" folder.
Read Only	A read-only file with the same name you are trying to use is already stored on the USB flash drive.	Use a different name.
		Remove the read-only attribute from the existing USB flash drive file and overwrite it with the new data you want to save.
		Move the file USB flash drive file into its "MUSICDAT" folder.
Media Full	There is not enough room available on the USB flash drive.	Delete some of the files on the USB flash drive to make room for new data.
		Use a different USB flash drive.
Not SMF 0/1	You are attempting to load or play back an SMF Format 2 file.	The Digital Keyboard supports SMF Format 0 or Format 1 files only.
Size Too Large	The file on the USB flash drive is too large to import and play on the Digital Keyboard.	In the case of a standard MIDI file, use a file whose size is 320 KB maximum.
Wrong Data	The file on the USB flash drive is corrupted.	Use a file that is not corrupted.

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Display Name	Cause	Action
Version Not Supported	The USB flash drive file version is not supported by the Digital Keyboard.	Use a version that is supported by the Digital Keyboard.
Unformatted	The USB flash drive format is not compatible with the Digital Keyboard.	Use a computer to format the USB flash drive to a format that is compatible with the Digital Keyboard.
	The USB flash drive is corrupted.	Use a different USB flash drive.

Product Specifications

Model	CT-S1000V
Keyboard	61 keys
Touch Response	3 types, Off
Maximum Polyphony	64 notes
Tones	
Preset Tones	900 preset tones (including 100 lyric tones)
Other	Layer, Split, Sustain, Portamento
Vocal Synthesis	Language (Japanese, English); Vocalist (22 types); User vocalist; Vocalist parameters (gender, age, voice); Lyric tone performance modes (PHRASE Mode, NOTE Mode); Syllable control; Lyric Tone retrigger; Lyric Tone sequence; Up to 150 user lyric tones
Effects	Reverb (24 types, Tone, Off); Chorus (12 types, Tone); Delay (15 types, Tone); Active DSP (100 types, Tone)
Master Effects	Equalizer (10 types, User)
Active Effects	Volume sync equalizer, Surround
External Input Effects	Center cancel (vocal cut) of AUDIO IN jack input or Bluetooth audio input
Metronome	
Beat	Beat chime off, 1 to 16 beats
Tempo	20 to 255
Song Bank	
User Songs	10*1
Part Off	Left hand, right hand, both hands
Auto Accompaniment	
Preset Rhythms	243 types
User Rhythms	50 types*2
One Touch Presets	243 types
Other	INTRO, ENDING; chord fingering mode switching
Registration	Maximum 64 setups (4 setups × 16 banks), Registration sequence, Freeze
Demo Function	2 Demo Songs
Function Volume Adjustment	Metronome; Rhythm; Song

MIDI Recorder	Real-time recording, playback
Tone Recording	1 song
Rhythm Recording	1 song
Multi-track Recording	5 songs, 6 tracks (1 system track, 5 solo tracks)
Capacity	1 song, approximately 40,000 notes
Sampling	Sampled melody × 1, sampled drum set × 1 (16 notes)
Sampling Frequencies	44.1 kHz
Sampling Channels	Stereo
Sampling Bits	16
Other	loop function
Other Functions	
Transpose	±1 octave (−12 to 0 to +12 semitones)
Octave Shift	−3 to 0 to +3 octaves
Tuning	A4 = 415.5 to 465.9Hz (Initial Default: 440.0Hz)
Scales	17 preset scales
Auto Harmonize	12 types
Arpeggiator	150 types
Pitch Bend Wheel	0 to 24 semitones
Control Knobs	3, Knob parameter control
APP Function	
Supported Devices	iOS, Android
MIDI Function	16-channel multi-timbre receive; GM Level 1 standard
Jacks	
PHONES jack	Stereo mini jack (3.5 mm)
LINE OUT jack	Standard jack (6.3mm) × 2
AUDIO IN jack	Stereo mini jack (3.5 mm) (Input impedance: 10 kΩ; Input sensitivity: 200 mV)
USB TO HOST port	micro-B
USB TO DEVICE port	Type A
PEDAL 1 jack	Standard jack (6.3mm) (pedal sustain, sostenuto, soft, start/stop, fill-in, arpeggiator hold, registration sequence, Lyric Change, Syllable Reset, Lyric tone hold)
PEDAL 2/EXPRESSION jack	Standard jack (6.3mm) (PEDAL 1 settings, expression, master volume, balance, tempo)
AC adaptor terminal	12V DC

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Power Requirements	2-Way Power
Batteries	6 AA-size alkaline batteries or AA-size rechargeable nickel-metal hydride batteries
Continuous Operation	Approximately 3 hours (alkaline batteries), approximately 3 hours (rechargeable nickel-metal hydride batteries)*3
	Actual continuous operation time may be shorter due to battery type, performance type, and usage environment.
AC adaptor	AD-A12150LW (JEITA Standard with unified polarity plug)
Auto Power Off	After approximately 30 minutes of non-operation; Can be disabled.
Speakers	13 cm × 6 cm (oval) × 2 (Output: 2.5 W + 2.5 W)
Power Consumption	12 V $=$ 7.5 W
LCD	Adjustable contrast
Dimensions	93.0 (W) × 25.8 (D) × 9.1 (H) cm (36 5/8 × 10 3/16 × 3 9/16 inch)
Weight	Approximately 4.7 kg (10.4 lbs) (Excluding batteries)

*1 Maximum capacity per song: Approximately 320 kilobytes
*2 Maximum capacity per rhythm: Approximately 64 kilobytes
*3 Measured values while using eneloop batteries.
  eneloop is a registered trademark of Panasonic Corporation.

• Specifications and designs are subject to change without notice.

AC Adaptor Handling Precautions

Model: AD-A12150LW

1. Read these instructions.
2. Keep these instructions on hand.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this product near water.
6. Clean only with a dry cloth.
7. Do not install near radiators, heat registers, stoves, or any other source of heat (including amplifiers).
8. Use only attachments and accessories specified by the manufacturer.
9. Refer all servicing to qualified service personnel. Servicing is required after any of the following occurs: when the product is damaged, when the power supply cord or plug is damaged, when liquid is spilled into the product, when a foreign object falls into the product, when the product is exposed to rain or moisture, when the product does not operate normally, when the product is dropped.
10. Do not allow the product to be exposed to dripping or splashing liquid. Do not place any object containing liquid on the product.
11. Do not allow the electrical load output to exceed the label rating.
12. Make sure the surrounding area is dry before plugging into a power source.
13. Make sure the product is oriented correctly.
14. Unplug the product during lightning storms or when you do not plan to use it for a long time.
15. Do not allow product ventilation openings to become blocked. Install the product in accordance with the manufacturer's instructions.
16. Take care the power cord is located where it will not be stepped upon or bent severely, particularly in locations close to plugs and convenience receptacles, and in locations where it exits from the product.
17. The AC adaptor should be plugged into a power outlet as close to the product as possible to allow immediate disconnection of the plug in case of emergency.

The symbol below is an alert indicating un-insulated hazardous voltage inside the product's enclosure, which may be sufficient to constitute the risk of electric shock to users.

The symbol below is an alert indicating the presence of important operating and maintenance (servicing) instructions in the documentation that accompanies the product.

Tone List

No.	Tone Name	Program Change	Bank Select MSB	Bank Select LSB *1	DSP Tone	Advanced Tone	Advanced Layer Tone *2	Part Octave Shift	Mono Mode
PIANO									
1	STAGE PIANO	0	1	0/64	✓				
2	CLASSIC GRAND	0	24	0/64					
3	BALLAD PIANO	0	25	0/64	✓				
4	BRIGHT PIANO	1	1	0/64	✓				
5	MELLOW ROCK PIANO	0	26	0/64	✓				
6	MELLOW PIANO	0	2	0/64	✓				
7	DYNAMIC PIANO	1	24	0/64	✓				
8	ADV PIANO PAD	0	28	0/64		✓	✓		
9	GRAND PIANO	0	3	0/64					
10	AMBIENT PIANO	0	39	0/64	✓				
11	POP PIANO	0	32	0/64	✓				
12	ROCK PIANO	1	2	0/64	✓				
13	DANCE PIANO	1	3	0/64	✓				
14	LA PIANO	1	4	0/64					
15	BREEZING PIANO	0	27	0/64	✓				
16	TACK PIANO	0	33	0/64					
17	WIDE GRAND PIANO	0	5	0/64					
18	MONO PIANO	0	4	0/64					
19	HONKY-TONK 1	3	32	0/64					
20	HONKY-TONK 2	3	34	0/64					
21	OCTAVE PIANO 1	3	33	0/64					
22	OCTAVE PIANO 2	3	35	0/64					
23	BASS/PIANO	0	31	0/64	✓				
24	STRINGS PIANO	0	34	0/64					
25	PIANO PAD	0	35	0/64					
26	MODULATED PIANO	0	36	0/64	✓	✓			
27	VOICE PIANO	0	37	0/64					
28	NEW AGE PIANO	0	38	0/64	✓	✓			
29	ELEC.GRAND PIANO	2	32	0/64	✓				
30	AMP E.GRAND	2	34	0/64	✓				
31	MODERN E.G.PIANO	2	33	0/64					
HARPSICHORD									
32	HARPSICHORD 1	6	1	0/64	✓				
33	HARPSICHORD 2	6	32	0/64					
34	COUPLED HARPSICHORD	6	33	0/64	✓				
35	AMBIENT HARPSICHORD	6	35	0/64	✓				
ELEC.PIANO									
36	STAGE E.PIANO	4	24	0/64	✓				
37	GALAXIA EP	5	32	0/64	✓				
38	PHASER E.PIANO	4	7	0/64	✓	✓			
39	DYNO E.PIANO	4	33	0/64	✓				
40	AMP 60'S E.PIANO	4	35	0/64	✓	✓			
41	LUCENT EP	5	33	0/64	✓				

No.	Tone Name	Program Change	Bank Select MSB	Bank Select LSB *1	DSP Tone	Advanced Tone	Advanced Layer Tone *2	Part Octave Shift	Mono Mode
42	DYNAMIC EP	4	32	0/64					
43	ELEC.PIANO 1	4	1	0/64	✓				
44	ELEC.PIANO 2	4	2	0/64	✓				
45	ELEC.PIANO 3	4	3	0/64	✓				
46	ELEC.PIANO 4	4	4	0/64					
47	ELEC.PIANO 5	5	34	0/64					
48	ELEC.PIANO 6	4	5	0/64	✓				
49	TREM 60'S E.PIANO	4	25	0/64	✓				
50	60'S E.PIANO	4	6	0/64	✓				
51	AMP E.PIANO 1	4	36	0/64	✓				
52	AMP E.PIANO 2	4	37	0/64	✓				
53	PAN E.PIANO	4	26	0/64	✓				
54	DIGITAL E.PIANO 1	5	1	0/64					
55	DIGITAL E.PIANO 2	5	2	0/64					
56	DIGITAL E.PIANO 3	5	3	0/64	✓				
57	WIDE E.PIANO	4	8	0/64					
58	MELLOW E.PIANO	4	9	0/64					
59	WAH E.PIANO	4	38	0/64	✓				
60	CRUNCH E.PIANO	4	39	0/64	✓				
61	DIZZY E.PIANO	4	40	0/64	✓				
62	ADV E.PIANO PAD 1	4	27	0/64	✓	✓	✓		
63	ADV E.PIANO PAD 2	5	24	0/64	✓	✓	✓		
64	E.PIANO PAD	4	34	0/64					
CLAVI									
65	CLAVI 1	7	24	0/64	✓				
66	WAH CLAV	7	25	0/64	✓	✓			
67	AMP CLAVI	7	34	0/64	✓				
68	CLAVI 2	7	1	0/64					
69	CLAVI 3	7	32	0/64					
70	CLAVI 4	7	2	0/64					
71	CLAVI 5	7	33	0/64					
72	CLAVI 6	7	3	0/64					
VIB./CHROM.PERC.									
73	VIBRAPHONE 1	11	24	0/64	✓	✓			
74	AMBIENT VIBRAPHONE	11	32	0/64	✓				
75	VIBRAPHONE 2	11	1	0/64	✓				
76	VIBRAPHONE 3	11	2	0/64					
77	VIBRAPHONE WIDE	11	3	0/64					
78	ADV VIBRAPHONE PAD	11	25	0/64	✓	✓	✓		
79	MARIMBA	12	32	0/64					
80	ADV MARIMBA PAD	12	24	0/64		✓	✓		
81	XYLOPHONE	13	1	0/64					
82	CELESTA	8	1	0/64				+1	
83	GLOCKENSPIEL	9	1	0/64				+1	
84	MUSIC BOX	10	32	0/64				+1	
85	ORGEL	10	33	0/64	✓				

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No.	Tone Name	Program Change	Bank Select MSB	Bank Select LSB *1	DSP Tone	Advanced Tone	Advanced Layer Tone *2	Part Octave Shift	Mono Mode
86	TUBULAR BELL	14	32	0/64					
87	CHURCH BELLS	14	33	0/64	✓				
ELEC.ORGAN									
88	JS ORGAN	17	32	0/64	✓				
89	AMP ORGAN 1	16	24	0/64	✓				
90	ROCK ORGAN 1	18	24	0/64	✓				
91	HARD ROCK ORGAN	18	25	0/64	✓				
92	GOSPEL ORGAN 1	20	24	0/64	✓				
93	VELO.ORGAN	16	25	0/64	✓	✓			
94	F-ORGAN	16	26	0/64	✓				
95	V-ORGAN	16	27	0/64	✓				
96	RTF FD ORGAN	16	32	0/64	✓				
97	ROCK OD ORGAN	18	32	0/64	✓				
98	TREMOLO ORGAN	16	5	0/64	✓				
99	DP ORGAN	16	4	0/64	✓				
100	JAZZ ORGAN 1	17	33	0/64	✓				
101	JAZZ ORGAN 2	17	34	0/64	✓				
102	ELEC.ORGAN 1	16	1	0/64	✓				
103	ELEC.ORGAN 2	16	2	0/64	✓				
104	ELEC.ORGAN 3	16	33	0/64	✓				
105	ELEC.ORGAN 4	16	34	0/64	✓				
106	ELEC.ORGAN 5	16	35	0/64	✓				
107	PERC.ORGAN 1	17	1	0/64	✓				
108	PERC.ORGAN 2	17	35	0/64	✓				
109	GOSPEL ORGAN 2	17	38	0/64	✓				
110	FULL DRAWBAR	16	3	0/64	✓				
111	ROCK ORGAN 2	18	1	0/64	✓				
112	ROCK ORGAN 3	18	2	0/64	✓				
113	CLICK ORGAN	17	37	0/64	✓				
114	70'S ORGAN	17	36	0/64	✓				
115	ORGAN PAD	16	6	0/64					
116	THEATER ORGAN	19	1	0/64					
117	PERC.ORGAN 3	17	39	0/64	✓				
118	ELEC.ORGAN 6	16	36	0/64	✓				
119	AMP ORGAN 2	16	37	0/64	✓				
120	AMP ORGAN 3	16	38	0/64	✓				
121	ORGAN FLUTE	19	35	0/64					
122	PUFF ORGAN	20	33	0/64					
123	REED ORGAN	20	25	0/64	✓				
124	ROTARY F-ORGAN	16	28	0/64	✓				
125	ROTARY V-ORGAN	16	29	0/64	✓				
PIPE ORGAN									
126	CHAPEL ORGAN	19	34	0/64	✓				
127	PIPE ORGAN 1	19	2	0/64	✓				
128	PIPE ORGAN 2	19	32	0/64					
129	PIPE ORGAN 3	19	33	0/64					

No.	Tone Name	Program Change	Bank Select MSB	Bank Select LSB [1]	DSP Tone	Advanced Tone	Advanced Layer Tone [2]	Part Octave Shift	Mono Mode
ACCORDION									
130	ACCORDION FRENCH 1	21	32	0/64	✓				
131	ACCORDION FRENCH 2	21	33	0/64					
132	ACCORDION FRENCH 3	21	34	0/64					
133	ACCORDION ITALY 1	21	1	0/64					
134	ACCORDION ITALY 2	21	35	0/64					
135	ACCORDION	21	2	0/64					
136	BANDONEON	23	32	0/64					
137	BANDONEON SOLO	23	1	0/64					
138	HARMONICA 1	22	32	0/64					
139	HARMONICA 2	22	33	0/64	✓				
ACOUS.GUITAR									
140	DYNAMIC NYLON GUITAR	24	24	0/64	✓	✓			
141	DYNAMIC STEEL GUITAR	25	24	0/64	✓	✓			
142	GUITAR PAD	25	72	0/64		✓	✓		
143	NYLON GUITAR VELO.SLIDE	24	32	0/64					
144	STEEL GUITAR VELO.SLIDE	25	32	0/64					
145	NYLON STR.GUITAR 1	24	1	0/64					
146	NYLON STR.GUITAR 2	24	2	0/64					
147	NYLON STR.GUITAR 3	24	4	0/64	✓				
148	STEEL STR.GUITAR 1	25	1	0/64					
149	STEEL STR.GUITAR 2	25	2	0/64					
150	STEEL STR.GUITAR 3	25	3	0/64					
151	STEEL STR.GUITAR 4	25	4	0/64					
152	12 STR.GUITAR	25	5	0/64					
153	MANDOLIN	25	40	0/64					
154	UKULELE	24	3	0/64					
155	VERSATILE NYLON GUITAR	24	8	0/64					
156	VERSATILE STEEL GUITAR	25	8	0/64					
ELEC.GUITAR									
157	CLEAN LEAD GUITAR	27	24	0/64	✓				
158	DISTORTION GUITAR 1	30	2	0/64	✓				
159	DOUBLE TRACK GUITAR	27	25	0/64	✓	✓			
160	SOLO FEEDBACK GUITAR	30	25	0/64	✓	✓			✓
161	CRY DIST GUITAR	30	24	0/64	✓	✓			
162	TALK GUITAR OH-YEAH	30	30	0/64	✓	✓			
163	SOLO GUITAR SYNTH	62	24	0/64	✓	✓			✓
164	JAZZ GUITAR 1	26	1	0/64					
165	JAZZ GUITAR 2	26	32	0/64					
166	OD OCT JAZZ GUITAR	26	2	0/64	✓				
167	CRUNCH JAZZ GUITAR	26	3	0/64	✓				
168	CLEAN GUITAR 1	27	32	0/64	✓				
169	CLEAN GUITAR 2	27	1	0/64	✓				
170	CLEAN GUITAR 3	27	2	0/64	✓				
171	CLEAN GUITAR 4	27	3	0/64					
172	CLEAN GUITAR 5	27	4	0/64					

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No.	Tone Name	Program Change	Bank Select MSB	Bank Select LSB *1	DSP Tone	Advanced Tone	Advanced Layer Tone *2	Part Octave Shift	Mono Mode
173	CLEAN GUITAR 6	27	33	0/64					
174	CLEAN GUITAR 7	27	7	0/64					
175	CHORUS CLEAN GUITAR 1	27	5	0/64	✓				
176	CHORUS CLEAN GUITAR 2	27	6	0/64					
177	WAH CLEAN GUITAR	27	34	0/64	✓				
178	CRUNCH ELEC.GUITAR 1	29	3	0/64	✓				
179	CRUNCH ELEC.GUITAR 2	29	32	0/64	✓				
180	CRUNCH ELEC.GUITAR 3	27	8	0/64					
181	CHORUS CRUNCH GUITAR	29	4	0/64	✓				
182	MUTE GUITAR	28	1	0/64					
183	CRUNCH MUTE GUITAR	28	2	0/64	✓				
184	OVERDRIVE MUTE GT	28	5	0/64					
185	PHASER MUTE GUITAR	28	3	0/64	✓				
186	AMBIENT MUTE GUITAR	28	4	0/64	✓				
187	HUM BLUES GUITAR	29	5	0/64	✓				
188	OVERDRIVE GUITAR 1	29	1	0/64	✓				
189	OVERDRIVE GUITAR 2	29	2	0/64					
190	LFO WAH OD GUITAR	29	6	0/64	✓				
191	WAH OD GUITAR	29	33	0/64	✓				
192	CRY OD GUITAR	29	34	0/64	✓				
193	FLANGER OD GUITAR	29	35	0/64	✓				
194	DISTORTION GUITAR 2	30	1	0/64	✓				
195	DISTORTION GUITAR 3	30	3	0/64	✓				
196	DISTORTION GUITAR 4	30	5	0/64					
197	WAH DIST GUITAR	30	4	0/64	✓				
198	PHASER DRIVE GUITAR	29	36	0/64	✓				
199	VINTAGE OD GUITAR	29	37	0/64	✓				
200	AMP GUITAR 1	30	35	0/64	✓				
201	AMP GUITAR 2	30	36	0/64	✓				
202	METAL AMBIENT GUITAR	30	32	0/64	✓				
203	FRONT DRIVE GUITAR	30	33	0/64	✓				
204	UPPER OCT GUITAR	27	35	0/64	✓				
205	C+R CRUNCH GUITAR	29	40	0/64	✓				
206	OCT METAL GUITAR	30	34	0/64	✓				
207	TALK GUITAR UUH-WAH	30	28	0/64	✓	✓			
208	TALK GUITAR DOO-CHU	30	29	0/64	✓	✓			
209	FEEDBACK GUITAR	30	26	0/64	✓	✓			
210	GUITAR SYNTH	62	25	0/64	✓				
211	VERSATILE SINGLE COIL E.GUITAR	27	9	0/64					
ACOUS.BASS									
212	ACOUSTIC BASS 1	32	1	0/64				−1	
213	ACOUSTIC BASS 2	32	32	0/64	✓			−1	
214	RIDE BASS	32	33	0/64				−1	
ELEC.BASS									
215	FINGERED BASS 1	33	6	0/64				−1	
216	FINGERED BASS 2	33	5	0/64				−1	

No.	Tone Name	Program Change	Bank Select MSB	Bank Select LSB *1	DSP Tone	Advanced Tone	Advanced Layer Tone *2	Part Octave Shift	Mono Mode
217	FINGERED BASS VELO.SLAP 1	33	33	0/64				−1	
218	FINGERED BASS VELO.SLAP 2	33	32	0/64				−1	
219	SLAP BASS 1	36	1	0/64				−1	
220	FINGER SLAP BASS 1	36	5	0/64				−1	
221	CHORUS FINGERED BASS 1	33	39	0/64	✔			−1	
222	PHASER FINGERED BASS	33	40	0/64	✔			−1	
223	AMP FINGERED BASS	33	38	0/64	✔			−1	
224	WAH FINGERED BASS 1	33	36	0/64	✔			−1	
225	WAH SLAP BASS 1	36	36	0/64	✔			−1	
226	FINGERED BASS 3	33	1	0/64				−1	
227	FINGERED BASS 4	33	2	0/64				−1	
228	FINGERED BASS 5	33	3	0/64				−1	
229	FINGERED BASS 6	33	4	0/64				−1	
230	FINGERED BASS 7	33	7	0/64				−1	
231	CHORUS FINGERED BASS 2	33	8	0/64	✔			−1	
232	WAH FINGERED BASS 2	33	9	0/64	✔			−1	
233	PICKED BASS 1	34	1	0/64				−1	
234	PICKED BASS 2	34	2	0/64				−1	
235	MUTE PICKED BASS	34	5	0/64				−1	
236	SLAP BASS 2	36	32	0/64				−1	
237	SLAP BASS 3	36	2	0/64				−1	
238	CHORUS SLAP BASS	36	33	0/64				−1	
239	AMP SLAP BASS	36	3	0/64	✔			−1	
240	WAH SLAP BASS 2	36	34	0/64	✔			−1	
241	FRETLESS BASS	35	32	0/64				−1	
242	CHORUS FRETLESS BASS	35	33	0/64	✔			−1	
243	AMP FRETLESS BASS	35	34	0/64	✔			−1	
244	FINGER SLAP BASS 2	36	4	0/64				−1	
245	FINGER SLAP BASS 3	36	35	0/64				−1	
246	VERSATILE ELECTRIC BASS 1	33	10	0/64				−1	
247	VERSATILE ELECTRIC BASS 2	33	24	0/64				−1	
SYNTH-BASS									
248	SYNTH-BASS 1	39	3	0/64				−1	
249	SYNTH-BASS 2	38	6	0/64	✔			−1	
250	SYNTH-BASS 3	38	1	0/64				−1	
251	SYNTH-BASS 4	38	2	0/64				−1	
252	SYNTH-BASS 5	39	1	0/64				−1	
253	SYNTH-BASS 6	39	2	0/64				−1	
254	SYNTH-BASS 7	38	32	0/64	✔			−1	
255	SYNTH-BASS 8	39	33	0/64				−1	
256	SYNTH-BASS 9	39	4	0/64				−1	
257	SYNTH-BASS 10	39	5	0/64				−1	
258	SYNTH-BASS 11	38	4	0/64				−1	
259	SYNTH-BASS 12	38	5	0/64				−1	
260	SYNTH-BASS 13	39	6	0/64				−1	
261	ORGAN BASS	39	7	0/64					

No.	Tone Name	Program Change	Bank Select MSB	Bank Select LSB *1	DSP Tone	Advanced Tone	Advanced Layer Tone *2	Part Octave Shift	Mono Mode
SOLO STRINGS									
262	SOLO VIOLIN	40	32	0/64					
263	VIOLIN	40	33	0/64					
264	SLOW VIOLIN	40	34	0/64					
265	VIOLA	41	32	0/64					
266	CELLO	42	32	0/64				−1	
267	SLOW CELLO	42	33	0/64				−1	
268	CONTRABASS	43	32	0/64				−1	
269	HARP 1	46	32	0/64					
270	HARP 2	46	34	0/64	✓				
STRING ENSEMBLE									
271	STEREO STRINGS	48	32	0/64	✓				
272	MELLOW STRINGS 1	49	1	0/64					
273	MELLOW STRINGS 2	48	1	0/64					
274	BRIGHT STRINGS 1	49	2	0/64					
275	BRIGHT STRINGS 2	48	38	0/64	✓				
276	STRINGS	48	3	0/64					
277	SLOW STEREO STRINGS	49	37	0/64	✓				
278	SLOW STRINGS 1	48	2	0/64	✓				
279	SLOW STRINGS 2	49	32	0/64					
280	STRING ENSEMBLE	48	4	0/64					
281	WARM STRINGS	48	5	0/64					
282	PIZZICATO STRINGS	45	32	0/64					
283	CHAMBER	48	33	0/64					
284	OCTAVE STRINGS	48	34	0/64					
285	ORCHESTRA HIT 1	55	4	0/64					
286	ORCHESTRA HIT 2	55	32	0/64					
287	ORCHESTRA HIT 3	55	33	0/64	✓				
288	BRASS & STRINGS	48	36	0/64	✓				
289	VIOLIN SECTION	48	6	0/64					
290	STRING QUARTET	48	37	0/64					
291	HARP & STRINGS	49	3	0/64					
SOLO BRASS									
292	SOLO TRUMPET	56	1	0/64					
293	TRUMPET 1	56	32	0/64	✓				
294	TRUMPET 2	56	2	0/64					
295	TRUMPET 3	56	36	0/64	✓				
296	MELLOW TRUMPET	56	3	0/64					
297	MUTE TRUMPET	59	1	0/64					
298	AMBIENT TRUMPET	56	33	0/64	✓				
299	FLUGELHORN	56	37	0/64	✓				
300	TROMBONE	57	32	0/64				−1	
301	JAZZ TROMBONE	57	33	0/64				−1	
302	FRENCH HORN	60	32	0/64					
303	FRENCH HORN SECTION	60	1	0/64					
304	TUBA	58	32	0/64				−2	

No.	Tone Name	Program Change	Bank Select MSB	Bank Select LSB *1	DSP Tone	Advanced Tone	Advanced Layer Tone *2	Part Octave Shift	Mono Mode
BRASS ENSEMBLE									
305	SYMPHONIC BRASS	61	40	0/64					
306	STEREO BRASS	61	1	0/64	✓				
307	BRASS	61	2	0/64					
308	BRASS SECTION 1	61	3	0/64					
309	BRASS SECTION 2	61	4	0/64					
310	BRASS SECTION 3	61	37	0/64					
311	AMBIENT BRASS	61	38	0/64	✓				
312	BIG BAND BRASS	61	32	0/64					
313	HARD BRASS	61	5	0/64					
314	BRASS SFZ	61	33	0/64					
315	TRUMPET & TROMBONE & SAX	61	39	0/64					
316	BRASS VELO.FALL	61	34	0/64					
317	BRASS VELO.SHAKE	61	35	0/64					
318	BRASS VELO.GLISSANDO	61	36	0/64					
319	VERSATILE BRASS 1	61	8	0/64					
320	VERSATILE BRASS 2	61	9	0/64					
SYNTH-BRASS									
321	SYNTH-BRASS 1	62	32	0/64	✓				
322	SYNTH-BRASS STAB	62	39	0/64	✓				
323	SYNTH-BRASS 2	62	33	0/64					
324	SYNTH-BRASS 3	62	1	0/64					
325	SYNTH-BRASS 4	62	34	0/64					
326	SYNTH-BRASS 5	62	37	0/64	✓				
327	WARM SYNTH-BRASS 1	62	35	0/64					
328	WARM SYNTH-BRASS 2	62	38	0/64	✓				
329	ANALOG SYNTH-BRASS	62	36	0/64					
330	80'S SYNTH-BRASS	62	2	0/64					
331	TRANCE BRASS	63	32	0/64					
SAX									
332	SOLO TENOR SAX 1	66	5	0/64	✓	✓		−1	✓
333	SOLO TENOR SAX 2	66	1	0/64				−1	
334	SOLO ALTO SAX	65	42	0/64	✓	✓			✓
335	VELO.ALTO SAX	65	36	0/64					
336	BREATHY ALTO SAX	65	33	0/64	✓				
337	SOLO SOPRANO SAX 1	64	37	0/64	✓	✓			✓
338	SOLO SOPRANO SAX 2	64	32	0/64					✓
339	VELO.SOPRANO SAX	64	35	0/64					
340	BREATHY S.SAX	64	34	0/64					
341	ALTO SAX GROWL	65	37	0/64					
342	ALTO SAX 1	65	39	0/64	✓				
343	ALTO SAX 2	65	1	0/64	✓				
344	TENOR SAX	66	2	0/64	✓			−1	
345	BREATHY TENOR SAX	66	3	0/64	✓			−1	
346	SOPRANO SAX 1	64	36	0/64					
347	SOPRANO SAX 2	64	33	0/64					

No.	Tone Name	Program Change	Bank Select MSB	Bank Select LSB *1	DSP Tone	Advanced Tone	Advanced Layer Tone *2	Part Octave Shift	Mono Mode
348	BARITONE SAX	67	1	0/64				−1	
349	AMBIENT SAX 1	65	38	0/64	✓				
350	AMBIENT SAX 2	67	33	0/64	✓			−1	
351	HARD ALTO SAX	65	2	0/64					
352	TENOR SAXYS	66	4	0/64					
353	SAX SECTION 1	65	40	0/64					
354	SAX SECTION 2	65	41	0/64					
REED									
355	SOLO OBOE	68	32	0/64					
356	SOLO BASSOON	70	32	0/64				−1	
357	CLARINET	71	32	0/64					
358	VELO.CLARINET	71	1	0/64					
359	OBOE	68	1	0/64					
360	ENGLISH HORN	69	32	0/64					
361	BASSOON	70	33	0/64				−1	
PIPE									
362	SOLO FLUTE 1	73	32	0/64					
363	SOLO FLUTE 2	73	33	0/64					
364	FLUTE 1	73	1	0/64					
365	FLUTE 2	73	36	0/64					
366	JAZZ FLUTE 1	73	2	0/64					
367	JAZZ FLUTE 2	73	37	0/64	✓				
368	PICCOLO	72	32	0/64				+1	
369	RECORDER	74	32	0/64					
370	PAN FLUTE 1	75	32	0/64					
371	PAN FLUTE 2	75	33	0/64					
372	BOTTLE BLOW	76	32	0/64					
373	WHISTLE	78	1	0/64					
374	OCARINA	79	32	0/64					
375	SHAKUHACHI	77	32	0/64					
376	PIPE SECTION	72	33	0/64					
377	FLUTE & OBOE	73	38	0/64					
378	TAPE FLUTE 1	73	39	0/64	✓				
379	TAPE FLUTE 2	73	40	0/64	✓				
SYNTH-LEAD									
380	SAW LEAD 1	81	51	0/64	✓				✓
381	AMP SAW LEAD	81	52	0/64					✓
382	DRIVE SAW LEAD	81	53	0/64	✓				✓
383	SUPER SAW LEAD 1	81	16	0/64					
384	SUPER SAW LEAD 2	81	17	0/64	✓				
385	TRANCE POLY LEAD	81	18	0/64					
386	TRANCE PLUCK	81	38	0/64	✓				
387	PROGRESSIVE PLUCK	81	39	0/64	✓				
388	SAW PLUCK	81	40	0/64	✓				
389	DIRTY PLUCK	80	38	0/64	✓				
390	POP LEAD	81	43	0/64					

No.	Tone Name	Program Change	Bank Select MSB	Bank Select LSB *1	DSP Tone	Advanced Tone	Advanced Layer Tone *2	Part Octave Shift	Mono Mode
391	HOUSE CHORD SYNTH	81	44	0/64	✓				
392	POPULAR PLUCK 1	81	19	0/64	✓				
393	POPULAR PLUCK 2	81	20	0/64	✓				
394	VOCAL CHOP SYNTH 1	85	16	0/64					✓
395	VOCAL CHOP SYNTH 2	85	17	0/64					✓
396	DSP MODULATED SYNTH 1	81	45	0/64	✓				
397	DSP MODULATED SYNTH 2	81	46	0/64	✓				
398	DSP MODULATED SYNTH 3	81	47	0/64	✓	✓			
399	X SYNTH LEAD 1	81	7	0/64					
400	X SYNTH LEAD 2	80	36	0/64					
401	X SYNTH LEAD 3	81	32	0/64	✓				
402	X SYNTH LEAD 4	80	37	0/64					
403	X SYNTH LEAD 5	81	33	0/64					
404	X SYNTH LEAD 6	80	6	0/64					
405	VA SYNTH 1	80	3	0/64					
406	VA SYNTH 2	80	4	0/64					
407	VA SYNTH 3	80	5	0/64					
408	VA SYNTH SEQ-BASS 1	81	10	0/64					
409	VA SYNTH SEQ-BASS 2	81	11	0/64					
410	VA SYNTH SEQ-BASS 3	81	12	0/64				−1	
411	VA SYNTH SEQUENCE 1	81	13	0/64				−1	
412	VA SYNTH SEQUENCE 2	81	14	0/64					
413	SAW LEAD 2	81	1	0/64					
414	SAW LEAD 3	81	2	0/64	✓				
415	SAW LEAD 4	81	3	0/64					
416	MELLOW SAW LEAD	81	4	0/64					
417	PULSE SAW LEAD	81	5	0/64					
418	TRANCE LEAD	81	6	0/64					
419	SS LEAD	81	34	0/64					
420	SQUARE LEAD 1	80	32	0/64					
421	SQUARE LEAD 2	80	41	0/64	✓				
422	SLOW SQUARE LEAD	80	1	0/64					
423	PHASER SQUARE LEAD	80	42	0/64	✓				
424	PULSE LEAD 1	80	33	0/64					
425	PULSE LEAD 2	80	43	0/64					
426	SQUARE PULSE LEAD	80	34	0/64					
427	SINE LEAD	80	2	0/64					
428	VELO.SINE LEAD	80	44	0/64		✓			
429	SYNTH SEQUENCE	80	8	0/64					
430	SEQUENCE SAW	81	15	0/64					
431	SEQUENCE SINE	80	7	0/64					
432	8BIT ARPEGGIO 1	80	9	0/64					
433	8BIT ARPEGGIO 2	80	45	0/64					
434	8BIT WAVE	80	35	0/64					
435	SAW ARPEGGIO 1	81	8	0/64					
436	SAW ARPEGGIO 2	81	9	0/64					

No.	Tone Name	Program Change	Bank Select MSB	Bank Select LSB *1	DSP Tone	Advanced Tone	Advanced Layer Tone *2	Part Octave Shift	Mono Mode
437	DSP MODULATED LEAD 1	81	48	0/64	✓				
438	DSP MODULATED LEAD 2	81	49	0/64	✓				
439	DSP MODULATED LEAD 3	81	50	0/64	✓	✓			
440	VENT LEAD	82	32	0/64					
441	CHURCH LEAD	85	32	0/64					
442	DOUBLE VOICE LEAD	85	34	0/64					
443	SYNTH-VOICE LEAD	85	1	0/64					
444	FIFTH LEAD	86	32	0/64					
445	FIFTH SAW LEAD	86	33	0/64					
446	FIFTH SQUARE LEAD	86	34	0/64					
447	FOURTH LEAD	86	35	0/64					
448	SEVENTH SEQUENCE	86	36	0/64					
449	BASS+LEAD	87	32	0/64					
450	SYNTH-BASS+LEAD	87	33	0/64					
451	REED LEAD	87	34	0/64					
452	G FUNK LEAD	81	41	0/64					✓
453	HOP LEAD	80	39	0/64					
454	HIP LEAD	80	40	0/64					
455	WIRE LEAD	81	35	0/64					
456	FIRE WIRE	81	36	0/64					
SYNTH-PAD									
457	SYNTH-STRINGS 1	50	36	0/64					
458	SYNTH-STRINGS 2	50	37	0/64					
459	SYNTH-STRINGS 3	50	38	0/64	✓				
460	PROGRESSIVE VOICE	88	4	0/64	✓				
461	SUPER SAW PAD	90	6	0/64					
462	OLD TAPE PAD	88	5	0/64	✓				
463	SOUND TRACK 1	97	34	0/64	✓				
464	FANTASIA	88	33	0/64	✓				
465	XENON PAD	88	32	0/64	✓				
466	HOUSE CHORD PAD	97	33	0/64	✓				
467	MAGNI SYNTH PAD	90	39	0/64	✓	✓	✓		
468	ADVANCED PAD 1	90	40	0/64	✓	✓	✓		
469	ADVANCED PAD 2	90	41	0/64	✓	✓	✓		
470	DSP MODULATED PAD 1	90	36	0/64	✓				
471	DSP MODULATED PAD 2	90	37	0/64	✓				
472	DSP MODULATED PAD 3	90	38	0/64	✓				
473	X SYNTH PAD 1	90	32	0/64	✓				
474	X SYNTH PAD 2	90	33	0/64	✓				
475	X SYNTH PAD 3	90	34	0/64	✓				
476	SYNTH-STRINGS 4	51	32	0/64	✓				
477	SYNTH-STRINGS 5	50	1	0/64					
478	SYNTH-STRINGS 6	50	2	0/64					
479	70'S SYNTH-STR.1	50	3	0/64					
480	70'S SYNTH-STR.2	50	32	0/64					
481	80'S SYNTH-STR.1	50	33	0/64					

No.	Tone Name	Program Change	Bank Select MSB	Bank Select LSB *1	DSP Tone	Advanced Tone	Advanced Layer Tone *2	Part Octave Shift	Mono Mode
482	80'S SYNTH-STR.2	50	34	0/64					
483	DIGITAL SYNTH-STR.1	51	33	0/64	✓				
484	DIGITAL SYNTH-STR.2	50	4	0/64	✓				
485	FAST SYNTH-STRINGS	50	5	0/64					
486	SLOW SYNTH-STRINGS	50	35	0/64					
487	OCTAVE SYNTH-STRINGS	51	35	0/64					
488	FANTASY	88	1	0/64					
489	NEW AGE	88	2	0/64					
490	WARM PAD	89	1	0/64					
491	FAT SAW PAD	89	2	0/64					
492	SOFT PAD	89	3	0/64					
493	POLYSYNTH PAD	90	35	0/64	✓	✓			
494	SYNTH-PAD	90	1	0/64					
495	VA SYNTH-PAD	90	2	0/64	✓	✓			
496	POLY SAW	90	3	0/64					
497	BRIGHT SAW PAD 1	90	4	0/64					
498	BRIGHT SAW PAD 2	90	5	0/64					
499	GLASS PAD	92	32	0/64					
500	BOTTLE PAD	92	33	0/64					
501	ETHNIC PAD	93	32	0/64					
502	SWEEP PAD	95	1	0/64					
503	WOOD PAD	96	32	0/64					
504	SOUND TRACK 2	97	1	0/64					
505	VIBRAPHONE BELL	98	32	0/64					
506	ATMOSPHERE PAD	99	1	0/64					
507	STEEL PAD	99	32	0/64					
508	BRIGHTNESS	100	1	0/64					
509	BRIGHT BELL PAD	100	2	0/64					
510	SPACE PAD	103	1	0/64					
511	EDM PAD	88	3	0/64	✓				
CHOIR									
512	VOCODER	54	33	0/64	✓	✓			
513	SYNTH CHOIR	54	34	0/64	✓				
514	DSP MODULATED VOICE 1	52	34	0/64	✓				
515	DSP MODULATED VOICE 2	52	35	0/64	✓	✓			
516	DSP MODULATED VOICE 3	52	37	0/64	✓	✓			
517	CHOIR AAHS	52	1	0/64					
518	STRINGS VOICE	52	33	0/64					
519	SLOW CHOIR	52	32	0/64					
520	VOICE DOO	53	32	0/64					
521	VOICE UUH	53	33	0/64					
522	SYNTH-VOICE 1	54	1	0/64					
523	SYNTH-VOICE 2	52	36	0/64					
524	VOICE ENSEMBLE	54	2	0/64					
525	SYNTH-VOICE PAD	54	32	0/64					
526	WARM VOX	89	32	0/64					

No.	Tone Name	Program Change	Bank Select MSB	Bank Select LSB *1	DSP Tone	Advanced Tone	Advanced Layer Tone *2	Part Octave Shift	Mono Mode
527	SPACE CHOIR	91	32	0/64					
528	STAR VOICE	91	33	0/64	✓				
529	ECHO VOICE	102	32	0/64					
EDM SYNTH									
530	EDM KICK & BASS	96	8	0/64					
531	EDM LEAD SYNTH	96	36	0/64					
532	EDM PER SYNTH	97	10	0/64					
533	EDM LAZER 1	96	9	0/64					
534	EDM LAZER 2	96	10	0/64					✓
535	EDM THEME SYNTH 1	96	11	0/64					
536	EDM THEME SYNTH 2	96	34	0/64					
537	EDM THEME HIT	97	8	0/64					
538	EDM BRASS HIT	96	12	0/64				+1	
539	EDM BASS	97	9	0/64				−1	
540	EDM SE BEND	96	13	0/64					✓
541	EDM SE VOX SYNTH	96	14	0/64					
542	EDM SE WHITE	96	15	0/64					
543	EDM SE	96	35	0/64					
CASIO CLASSIC									
544	VL-TONE	40	35	0/64					
545	CT E.PIANO	5	35	0/64					
546	CT HARP	46	35	0/64					
547	CZ BASS	38	33	0/64				−1	
548	CZ TRUMPET	56	38	0/64					
549	CZ VIOLIN	40	36	0/64					
550	CZ PIANO	5	36	0/64					
551	CZ GUITAR	25	33	0/64					
552	CZ LEAD 1	81	54	0/64	✓				✓
553	CZ LEAD 2	81	55	0/64	✓				✓
554	VZ SEEGOD	90	83	0/64					
555	VZ BRASS	62	40	0/64					
556	VZ BASS	38	34	0/64				−1	
557	VZ HARP	46	36	0/64					
558	VZ LEAD 1	81	56	0/64	✓				✓
559	VZ LEAD 2	81	57	0/64					✓
INDIAN									
560	SITAR 1	104	32	0/64					
561	SITAR 2	104	1	0/64					
562	SITAR 3	104	33	0/64					
563	SITAR PAD	104	34	0/64					
564	TANPURA 1	104	2	0/64					
565	TANPURA 2	104	35	0/64					
566	HARMONIUM 1	20	32	0/64					
567	HARMONIUM 2	20	1	0/64					
568	SANTUR 1	15	1	0/64					
569	SANTUR 2	15	32	0/64					

No.	Tone Name	Program Change	Bank Select MSB	Bank Select LSB *1	DSP Tone	Advanced Tone	Advanced Layer Tone *2	Part Octave Shift	Mono Mode
570	SAROD 1	105	10	0/64					
571	SAROD 2	105	41	0/64					
572	SARANGI 1	110	8	0/64					
573	SARANGI 2	110	43	0/64					
574	VEENA 1	104	36	0/64					
575	VEENA 2	104	37	0/64					
576	SHANAI	111	1	0/64					
577	BANSURI	72	9	0/64					
578	PUNGI	111	8	0/64					
579	TABLA	116	41	0/64					
INDONESIAN									
580	ANGKLUNG TREM.	12	40	0/64					
581	GENDER	11	40	0/64					
582	CAK	25	12	0/64					
583	CUK	24	40	0/64					
584	CELLO FINGERED	32	12	0/64				−1	
585	SASANDO	46	40	0/64					
586	SHORT SULING	77	40	0/64					
587	SULING BAMBOO 1	77	41	0/64				+1	
588	SALUANG	77	43	0/64					
589	SULING BAMBOO 2	77	42	0/64					
ARABIC									
590	OUD 1	105	11	0/64					
591	OUD 2	105	42	0/64					
592	SAZ	15	4	0/64					
593	KANUN 1	15	5	0/64					
594	KANUN 2	15	33	0/64					
595	BOUZOUKI	105	43	0/64					
596	RABAB	105	44	0/64					
597	KEMENCHE	110	44	0/64					
598	NEY 1	72	10	0/64					
599	NEY 2	72	41	0/64					
600	ZURNA	111	9	0/64					
601	ARABIC ORGAN	16	7	0/64					
602	ARABIC STRINGS	48	7	0/64					
CHINESE									
603	ER HU 1	110	9	0/64					
604	ER HU 2	110	40	0/64					
605	ER HU 3	110	41	0/64					
606	ER HU 4	110	42	0/64					
607	YANG QIN 1	15	2	0/64					
608	YANG QIN 2	15	3	0/64					
609	YANG QIN 3	15	34	0/64					
610	ZHENG 1	107	8	0/64					
611	ZHENG 2	107	40	0/64					
612	PI PA 1	105	8	0/64					

No.	Tone Name	Program Change	Bank Select MSB	Bank Select LSB *1	DSP Tone	Advanced Tone	Advanced Layer Tone *2	Part Octave Shift	Mono Mode
613	PI PA 2	105	9	0/64					
614	PI PA 3	105	40	0/64					
615	CHINESE HARP	46	33	0/64					
616	DI ZI 1	72	8	0/64					
617	DI ZI 2	72	40	0/64					
618	XIAO	77	8	0/64					
619	SHENG 1	109	8	0/64					
620	SHENG 2	109	40	0/64					
621	SUO NA 1	111	10	0/64					
622	SUO NA 2	111	32	0/64	✓				
BRAZILIAN									
623	CAVAQUINHO	104	38	0/64					
624	VIOLA CAIPIRA	104	39	0/64					
625	BERIMBAU	104	40	0/64					
626	PANDEIRO	116	40	0/64					
ETHNIC OTHERS									
627	BANJO	105	32	0/64					
628	MUTE BANJO	105	1	0/64					
629	STEEL DRUMS	114	1	0/64					
630	FIDDLE 1	110	32	0/64					
631	SHAMISEN	106	32	0/64					
632	KOTO	107	32	0/64					
633	THUMB PIANO	108	32	0/64					
634	BAGPIPE	109	32	0/64					
635	FIDDLE 2	110	33	0/64					
636	CAJON	116	42	0/64					
GM TONES									
637	GM PIANO 1	0	0	0					
638	GM PIANO 2	1	0	0					
639	GM ELEC.GRAND PIANO	2	0	0					
640	GM HONKY-TONK	3	0	0					
641	GM E.PIANO 1	4	0	0					
642	GM E.PIANO 2	5	0	0					
643	GM HARPSICHORD	6	0	0					
644	GM CLAVI	7	0	0					
645	GM CELESTA	8	0	0					
646	GM GLOCKENSPIEL	9	0	0					
647	GM MUSIC BOX	10	0	0					
648	GM VIBRAPHONE	11	0	0					
649	GM MARIMBA	12	0	0					
650	GM XYLOPHONE	13	0	0					
651	GM TUBULAR BELL	14	0	0					
652	GM DULCIMER	15	0	0					
653	GM ORGAN 1	16	0	0					
654	GM ORGAN 2	17	0	0					
655	GM ORGAN 3	18	0	0					

No.	Tone Name	Program Change	Bank Select MSB	Bank Select LSB *1	DSP Tone	Advanced Tone	Advanced Layer Tone *2	Part Octave Shift	Mono Mode
656	GM PIPE ORGAN	19	0	0					
657	GM REED ORGAN	20	0	0					
658	GM ACCORDION	21	0	0					
659	GM HARMONICA	22	0	0					
660	GM BANDONEON	23	0	0					
661	GM NYLON STR.GUITAR	24	0	0					
662	GM STEEL STR.GUITAR	25	0	0					
663	GM JAZZ GUITAR	26	0	0					
664	GM CLEAN GUITAR	27	0	0					
665	GM MUTE GUITAR	28	0	0					
666	GM OVERDRIVE GT	29	0	0					
667	GM DISTORTION GT	30	0	0					
668	GM GT HARMONICS	31	0	0					
669	GM ACOUSTIC BASS	32	0	0					
670	GM FINGERED BASS	33	0	0					
671	GM PICKED BASS	34	0	0					
672	GM FRETLESS BASS	35	0	0					
673	GM SLAP BASS 1	36	0	0					
674	GM SLAP BASS 2	37	0	0					
675	GM SYNTH-BASS 1	38	0	0					
676	GM SYNTH-BASS 2	39	0	0					
677	GM VIOLIN	40	0	0					
678	GM VIOLA	41	0	0					
679	GM CELLO	42	0	0					
680	GM CONTRABASS	43	0	0					
681	GM TREMOLO STRINGS	44	0	0					
682	GM PIZZICATO	45	0	0					
683	GM HARP	46	0	0					
684	GM TIMPANI	47	0	0					
685	GM STRINGS 1	48	0	0					
686	GM STRINGS 2	49	0	0					
687	GM SYNTH-STRINGS 1	50	0	0					
688	GM SYNTH-STRINGS 2	51	0	0					
689	GM CHOIR AAHS	52	0	0					
690	GM VOICE DOO	53	0	0					
691	GM SYNTH-VOICE	54	0	0					
692	GM ORCHESTRA HIT	55	0	0					
693	GM TRUMPET	56	0	0					
694	GM TROMBONE	57	0	0					
695	GM TUBA	58	0	0					
696	GM MUTE TRUMPET	59	0	0					
697	GM FRENCH HORN	60	0	0					
698	GM BRASS	61	0	0					
699	GM SYNTH-BRASS 1	62	0	0					
700	GM SYNTH-BRASS 2	63	0	0					
701	GM SOPRANO SAX	64	0	0					

No.	Tone Name	Program Change	Bank Select MSB	Bank Select LSB [*1]	DSP Tone	Advanced Tone	Advanced Layer Tone [*2]	Part Octave Shift	Mono Mode
702	GM ALTO SAX	65	0	0					
703	GM TENOR SAX	66	0	0					
704	GM BARITONE SAX	67	0	0					
705	GM OBOE	68	0	0					
706	GM ENGLISH HORN	69	0	0					
707	GM BASSOON	70	0	0					
708	GM CLARINET	71	0	0					
709	GM PICCOLO	72	0	0					
710	GM FLUTE	73	0	0					
711	GM RECORDER	74	0	0					
712	GM PAN FLUTE	75	0	0					
713	GM BOTTLE BLOW	76	0	0					
714	GM SHAKUHACHI	77	0	0					
715	GM WHISTLE	78	0	0					
716	GM OCARINA	79	0	0					
717	GM SQUARE LEAD	80	0	0					
718	GM SAW LEAD	81	0	0					
719	GM CALLIOPE	82	0	0					
720	GM CHIFF LEAD	83	0	0					
721	GM CHARANG	84	0	0					
722	GM VOICE LEAD	85	0	0					
723	GM FIFTH LEAD	86	0	0					
724	GM BASS+LEAD	87	0	0					
725	GM FANTASY	88	0	0					
726	GM WARM PAD	89	0	0					
727	GM POLYSYNTH	90	0	0					
728	GM SPACE CHOIR	91	0	0					
729	GM BOWED GLASS	92	0	0					
730	GM METAL PAD	93	0	0					
731	GM HALO PAD	94	0	0					
732	GM SWEEP PAD	95	0	0					
733	GM RAIN DROP	96	0	0					
734	GM SOUND TRACK	97	0	0					
735	GM CRYSTAL	98	0	0					
736	GM ATMOSPHERE	99	0	0					
737	GM BRIGHTNESS	100	0	0					
738	GM GOBLINS	101	0	0					
739	GM ECHOES	102	0	0					
740	GM SF	103	0	0					
741	GM SITAR	104	0	0					
742	GM BANJO	105	0	0					
743	GM SHAMISEN	106	0	0					
744	GM KOTO	107	0	0					
745	GM THUMB PIANO	108	0	0					
746	GM BAGPIPE	109	0	0					
747	GM FIDDLE	110	0	0					

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No.	Tone Name	Program Change	Bank Select MSB	Bank Select LSB *1	DSP Tone	Advanced Tone	Advanced Layer Tone *2	Part Octave Shift	Mono Mode
748	GM SHANAI	111	0	0					
749	GM TINKLE BELL	112	0	0					
750	GM AGOGO	113	0	0					
751	GM STEEL DRUMS	114	0	0					
752	GM WOOD BLOCK	115	0	0					
753	GM TAIKO	116	0	0					
754	GM MELODIC TOM	117	0	0					
755	GM SYNTH-DRUM	118	0	0					
756	GM REVERSE CYMBAL	119	0	0					
757	GM GT FRET NOISE	120	0	0					
758	GM BREATH NOISE	121	0	0					
759	GM SEASHORE	122	0	0					
760	GM BIRD	123	0	0					
761	GM TELEPHONE	124	0	0					
762	GM HELICOPTER	125	0	0					
763	GM APPLAUSE	126	0	0					
764	GM GUNSHOT	127	0	0					
DRUM SET									
765	STANDARD SET 1	0	120	0				Drum	
766	STANDARD SET 2	1	120	0				Drum	
767	STANDARD SET 3	2	120	0				Drum	
768	STANDARD SET 4	3	120	0				Drum	
769	STANDARD SET 5	4	120	0				Drum	
770	DANCE SET 1	26	120	0				Drum	
771	DANCE SET 2	27	120	0				Drum	
772	DANCE SET 3	28	120	0				Drum	
773	DANCE SET 4	29	120	0				Drum	
774	DANCE SET 5	34	120	0				Drum	
775	DANCE SET 6	35	120	0				Drum	
776	TRANCE SET	31	120	0				Drum	
777	HIP-HOP SET	9	120	0				Drum	
778	ROOM SET	8	120	0				Drum	
779	POWER SET	16	120	0				Drum	
780	ROCK SET	17	120	0				Drum	
781	ELECTRONIC SET	24	120	0				Drum	
782	DRUM MACHINE SET 1	25	120	0				Drum	
783	DRUM MACHINE SET 2	30	120	0				Drum	
784	DRUM MACHINE SET 3	33	120	0				Drum	
785	JAZZ SET	32	120	0				Drum	
786	BRUSH SET	40	120	0				Drum	
787	ORCHESTRA SET	48	120	0				Drum	
788	LATIN SET 1	49	120	0				Drum	
789	LATIN SET 2	50	120	0				Drum	
790	INDONESIAN SET	53	120	0				Drum	
791	INDIAN SET	54	120	0				Drum	
792	ARABIC SET	52	120	0				Drum	

No.	Tone Name	Program Change	Bank Select MSB	Bank Select LSB *1	DSP Tone	Advanced Tone	Advanced Layer Tone *2	Part Octave Shift	Mono Mode
793	CHINESE SET	51	120	0				Drum	
794	SFX SET 1	60	120	0				Drum	
795	SFX SET 2	61	120	0				Drum	
796	SNARE SET 1	64	120	0				Drum	
797	SNARE SET 2	65	120	0				Drum	
798	KICK SET	66	120	0				Drum	
799	CYMBAL SET	67	120	0				Drum	
800	TOM SET	68	120	0				Drum	
SAMPLING MELODY									
801	SAMPLING MELODY	1	113	0/64					
SAMPLING DRUM									
802	SAMPLING DRUM	2	113	0/64				Drum	

*1 When 64 is received, the chorus, delay, and reverb types change to match the tone. There is no change when 0 is received.

*2 When three or more keyboard keys are pressed at the same time, new notes are added for those pitches.

> **NOTE**
> - Tone names that start with "VERSATILE" (such as 155 VERSATILE NYLON GUITAR) are the names of "versatile tones". See "Versatile Tone Map" (page EN-321).
> - DRUM SET assigns different percussive instruments to keyboard keys. Keyboard keys that do not have a tone assigned do not produce any sound. See "Drum Assignment List" (page EN-315).

Lyric Tone List

No.	Title	Program Change	Bank Select MSB	Bank Select LSB	No.	Title	Program Change	Bank Select MSB	Bank Select LSB
1	Do you hear the music?	0	108	0	48	I can't stop	47	108	0
2	I know you see me	1	108	0	49	I can't stop the feeling	48	108	0
3	I want you	2	108	0	50	I don't want nobody	49	108	0
4	Raise your hands up!	3	108	0	51	I got it	50	108	0
5	Oh, yeah!	4	108	0	52	I got the power	51	108	0
6	I know what you mean	5	108	0	53	I just can't get enough	52	108	0
7	Let's go	6	108	0	54	I know I got it	53	108	0
8	Deep in my soul	7	108	0	55	I know what you're saying	54	108	0
9	I said shake it	8	108	0	56	I love you	55	108	0
10	CASIO	9	108	0	57	I love your style	56	108	0
11	All I wanna do	10	108	0	58	I make a world	57	108	0
12	All night long	11	108	0	59	I miss you	58	108	0
13	Are you ready?	12	108	0	60	I need you	59	108	0
14	Better	13	108	0	61	I wanna be with you	60	108	0
15	Bring it up	14	108	0	62	I was born to love you	61	108	0
16	Can I get with you?	15	108	0	63	I'm on fire	62	108	0
17	Can't stop the feeling	16	108	0	64	It's Christmas	63	108	0
18	Check it out	17	108	0	65	Just do it	64	108	0
19	Close your eyes	18	108	0	66	Just like that	65	108	0
20	Come on and work it	19	108	0	67	Keep on movin'	66	108	0
21	Come together	20	108	0	68	La la la la	67	108	0
22	Daa	21	108	0	69	Let it go	68	108	0
23	Da da da	22	108	0	70	Let's do it for real	69	108	0
24	Dance with me	23	108	0	71	Let's make a snowman	70	108	0
25	Don't believe me	24	108	0	72	Merry Christmas	71	108	0
26	Don't tell me	25	108	0	73	Oh	72	108	0
27	Doo-wop	26	108	0	74	One more time	73	108	0
28	Every single day	27	108	0	75	Put your hands up	74	108	0
29	Faster	28	108	0	76	Set me free	75	108	0
30	Feel so good	29	108	0	77	Shake it	76	108	0
31	Feel the music	30	108	0	78	Sha la la la	77	108	0
32	Get lucky	31	108	0	79	Silent night	78	108	0
33	Give it to me	32	108	0	80	Sunday morning	79	108	0
34	Go for it	33	108	0	81	Take it easy	80	108	0
35	Hallelujah	34	108	0	82	Tell me why	81	108	0
36	Happy birthday to you	35	108	0	83	That's all I know	82	108	0
37	Happy Christmas	36	108	0	84	The show must go on	83	108	0
38	Happy new year	37	108	0	85	Throw your hands up	84	108	0
39	Harder	38	108	0	86	Up all night	85	108	0
40	Here we go	39	108	0	87	Walk away	86	108	0
41	Hold me tight	40	108	0	88	Watching you	87	108	0
42	Hold on	41	108	0	89	We'll give it a shot	88	108	0
43	Holy night	42	108	0	90	What do you mean?	89	108	0
44	Honey, you will survive	43	108	0	91	What do you want?	90	108	0
45	I can dance	44	108	0	92	What's going on?	91	108	0
46	I can fly	45	108	0	93	What's up?	92	108	0
47	I can't help myself	46	108	0	94	Wo woo	93	108	0

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No.	Title	Program Change	Bank Select MSB	Bank Select LSB
95	Wow wow	94	108	0
96	Yeah	95	108	0
97	You can't make me cry	96	108	0
98	You know you're right	97	108	0
99	Arigatou	98	108	0
100	Konnichiwa	99	108	0
101	Empty	100	108	0
102	Empty	101	108	0
103	Empty	102	108	0
104	Empty	103	108	0
105	Empty	104	108	0
106	Empty	105	108	0
107	Empty	106	108	0
108	Empty	107	108	0
109	Empty	108	108	0
110	Empty	109	108	0
111	Empty	110	108	0
112	Empty	111	108	0
113	Empty	112	108	0
114	Empty	113	108	0
115	Empty	114	108	0
116	Empty	115	108	0
117	Empty	116	108	0
118	Empty	117	108	0
119	Empty	118	108	0
120	Empty	119	108	0
121	Empty	120	108	0
122	Empty	121	108	0
123	Empty	122	108	0
124	Empty	123	108	0
125	Empty	124	108	0
126	Empty	125	108	0
127	Empty	126	108	0
128	Empty	127	108	0
129	Empty	0	108	1
130	Empty	1	108	1
131	Empty	2	108	1
132	Empty	3	108	1
133	Empty	4	108	1
134	Empty	5	108	1
135	Empty	6	108	1
136	Empty	7	108	1
137	Empty	8	108	1
138	Empty	9	108	1
139	Empty	10	108	1
140	Empty	11	108	1
141	Empty	12	108	1
142	Empty	13	108	1
143	Empty	14	108	1
144	Empty	15	108	1

No.	Title	Program Change	Bank Select MSB	Bank Select LSB
145	Empty	16	108	1
146	Empty	17	108	1
147	Empty	18	108	1
148	Empty	19	108	1
149	Empty	20	108	1
150	Empty	21	108	1

VOCALIST List

No.	Name	DSP Tone	Part Octave Shift	Mono Mode
1	CHOIR GROUP		−1	
2	CHOIR WHISPER		−1	
3	CHOIR FULL		−1	
4	CHOIR TRIO	✓	−1	
5	VOCODER 1		−2	
6	VOCODER 2	✓	−2	
7	TALKBOX	✓	−1	
8	FEMALE	✓	−1	
9	BOSSA NOVA	✓	−1	
10	OPERA	✓	−1	
11	ENKA	✓	−1	
12	CHILD	✓	−1	
13	CUTE	✓	−1	
14	BOY	✓	−1	
15	HUSKY	✓	−2	
16	ANIMATION 1	✓	−2	✓
17	ANIMATION 2	✓	−1	
18	DEATH VOICE	✓	−1	
19	WAH	✓	−1	
20	GHOST	✓	−1	
21	WHISPER	✓	−1	
22	ANIMALS			
23	USER		−1	

Rhythm List

No.	Rhythm Name	No.	Rhythm Name
POPS		46	SLOW BLUES
1	FUTURE DISCO POP	47	6/8 BLUES
2	CHART HIP-HOP	48	R&B
3	ELECTRO DANCE POP	49	80's SUPER ROCK
4	ELECTRO FUNK POP	50	80's ROCK
5	R&B POP SHUFFLE	51	60's ROCK 1
6	ELECTRO POP	52	60's ROCK 2
7	JAZZ FUNK	53	SLOW ROCK
8	80's POP STAR	54	ROCK & ROLL
9	80's FUNK POP	55	50's PIANO ROCK
10	80's SYNTH POP	56	50's ROCK
11	USA FOLK ROCK	57	NEW ORLNS R&R
12	6/8 POP	**DANCE**	
13	ACOUSTIC POP ROCK	58	DISCO SHUFFLE
14	POP SHUFFLE	59	R&B FUNK
15	OLDIES POP	60	POP DISCO
16	UK BEAT	61	FUNK GROOVE
17	FUNK SHUFFLE	62	BIGROOM HOUSE
18	SLOW SOUL	63	CHART DANCE
19	FAST SOUL	64	70's DISCO POP
20	OLDIES SOUL	65	DANCE POP
21	60's POP	66	ELECTRONIC HIP-HOP
22	60's SHUFFLE	67	HIP-HOP
23	DOO-WOP	68	DISCO POP
8 BEAT		69	TRANCE
24	ACOUSTIC GUITAR 8 BEAT	70	MODERN R&B
25	STRAIGHT 8 BEAT	71	TECHNO
26	GUITAR 8 BEAT	72	LATIN HOUSE
27	MELLOW 8 BEAT	**JAZZ**	
28	OLDIES 8 BEAT	73	STEADY JAZZ
29	60's 8 BEAT	74	UP TEMPO JAZZ
16 BEAT		75	PIANO JAZZ WALTZ
30	FUNK 16 BEAT	76	COOL JAZZ
31	16 BEAT POP	77	ORCHESTRA SWING 1
32	16 BEAT SHUFFLE 1	78	BIG BAND SWING
33	16 BEAT	79	MODERN BIG BAND
34	16 BEAT SHUFFLE 2	80	FAST BIG BAND
35	FUNK SOUL	81	ORCHESTRA SWING 2
36	SMOOTH JAZZ	82	SWING
ROCK		83	SLOW SWING
37	ROCK ANTHEM	84	JAZZ WALTZ
38	80's POP ROCK	85	5/4 JAZZ
39	HARD ROCK	86	FOX TROT
40	SOFT SHUFFLE ROCK	87	QUICKSTEP
41	BOOGIE BLUES 1	**TRAD**	
42	BOOGIE BLUES 2	88	WALTZ 1
43	SHUFFLE ROCK	89	WALTZ 2
44	ROCK WALTZ	90	WALTZ 3
45	SHUFFLE BLUES	91	ENGLISH WALTZ

No.	Rhythm Name
92	VIENNESE WALTZ
93	ITALIAN WALTZ
94	FRENCH WALTZ
95	TANGO 1
96	MARCH 1
97	MARCH 2
98	GERMAN MARCH
LATIN I	
99	BOSSA NOVA 1
100	ORCHESTRA BOSSA
101	BOSSA NOVA 2
102	BEGUINE
103	SAMBA 1
104	SAMBA 2
105	MAMBO
106	RHUMBA
107	CHA-CHA-CHA
108	POP RHUMBA
109	POP CHA CHA
110	MERENGUE
111	BOLERO
112	SALSA 1
113	SALSA 2
114	SALSA DANCE
115	REGGAE
116	POP REGGAE
117	REGGAE DANCE
118	SKA
119	TANGO 2
120	FOLKLORE
LATIN II	
121	REGGAETON
122	CUMBIA 1
123	CUMBIA 2
124	OLD SAMBA
125	CALIPSO
126	FORRO UNIVERSITARIO
127	XOTE SERTANEJO
128	BAIAO
129	PAGODE
130	BANDA
131	NORTENO
132	PASILLO
133	TECHNO CUMBIA
134	VALLENATO
135	ARGENTINE CUMBIA
136	PUNTA
137	BACHATA
WORLD I	
EUROPEAN	
138	SCHLAGER

No.	Rhythm Name
139	POLKA
140	POP POLKA
141	PASODOBLE
142	CAUCASIAN
143	RUSSIAN CHANSON 1
144	RUSSIAN CHANSON 2
145	POLISH WALTZ
AMERICAN	
146	DIXIE
147	TEX-MEX
148	FAST GOSPEL
149	SLOW GOSPEL
150	HAWAIIAN
ARABIC/ORIENTAL	
151	SAIDI
152	MALFOUF
153	BALADI
154	KHALIJI
155	MUS
156	SIRTAKI
SOUTH AFRICAN	
157	KWAITO
WORLD II	
INDIAN	
158	BHANGRA
159	DADRA
160	GARBA
161	KEHARWA
162	DANDIYA
163	TEEN TAAL
164	BHAJAN
165	JHAP TAAL
166	RUPAK
167	DEEPCHANDI
168	INDIAN POP 1
169	INDIAN POP 2
CHINESE	
170	GUANGDONG
171	JIANGNAN
172	BEIJING
173	DONGBEIYANGGE
174	JINGJU
175	HUANGMEIXI
176	QINQIANG
177	YUJU
178	YAOZU
179	DAIZU
180	MIAOZU
181	MENGGU
182	XINJIANG
183	ZANGZU

No.	Rhythm Name
184	CHINESE POP
INDONESIAN	
185	KRONCONG
186	DANGDUT
JAPANESE	
187	ENKA 1
188	ENKA 2
189	SHOUKA 1
190	SHOUKA 2
COUNTRY	
191	COUNTRY POP
192	COUNTRY ROCK
193	COUNTRY 8 BEAT
194	COUNTRY BALLAD
195	COUNTRY SHUFFLE
196	FINGER PICKING COUNTRY
197	COUNTRY WALTZ
198	BLUEGRASS
199	HOEDOWN
ENSEMBLE/ORCHESTRA	
200	CHRISTMAS SONG
201	CHRISTMAS WALTZ
202	SCREEN SWING
203	HABANERA
204	SERENADE
205	STRING QUARTET
BALLAD	
206	16 BEAT BALLAD
207	AOR BALLAD
208	90's BALLAD
209	PIANO ROCK BALLAD
210	SLOW BALLAD 1
211	SLOW BALLAD 2
212	ELECTRIC BALLAD
213	R&B BALLAD
214	BRUSH BALLAD
215	POP BALLAD
216	PIANO WALTZ BALLAD
217	90's 6/8 BALLAD
218	6/8 BALLAD 1
219	6/8 BALLAD 2
220	EASY LISTENING BALLAD
221	UNPLUGGED BALLAD
222	ROCK BALLAD
223	6/8 ROCK BALLAD
PIANO RHYTHMS	
224	PIANO 8 BEAT
225	PIANO BALLAD 1
226	PIANO BALLAD 2
227	EP BALLAD 1
228	EP BALLAD 2

No.	Rhythm Name
229	BLUES BALLAD
230	JAZZ COMBO 1
231	JAZZ COMBO 2
232	RAGTIME
233	BOOGIE-WOOGIE
234	PIANO ROCK & ROLL
235	ARPEGGIO 1
236	ARPEGGIO 2
237	ARPEGGIO 3
238	PIANO MARCH 1
239	PIANO MARCH 2
240	STRIDE PIANO
241	WALTZ 4
242	WALTZ 5
243	WALTZ 6
USER RHYTHMS	
244-293	USER RHYTHM 1-50

Arpeggiator List

No.	Type Name	No.	Type Name
1	Screw Up	54	Poly 2
2	Screw Down	55	Poly 3
3	Panning Up	56	Poly 4
4	Filtering	57	Poly 5
5	Skip Up	58	Poly 6
6	Skip Down	59	Poly 7
7	Up Up Down	60	Poly 8
8	Down Down Up	61	Odd Beat 1
9	Step Arp 1	62	Odd Beat 2
10	Step Arp 2	63	Odd Beat 3
11	Seq Lines	64	Odd Beat 4
12	Synth Seq 1	65	Odd Beat 5
13	Synth Seq 2	66	Odd Beat 6
14	Seq Line 1	67	Odd Beat 7
15	Seq Line 2	68	Odd Beat 8
16	Seq Line 3	69	Odd Beat 9
17	Seq Line 4	70	Odd Beat 10
18	Seq Line 5	71	Up 1Oct 1
19	Seq Line 6	72	Up 2Oct 1
20	Seq Line 7	73	Up 3Oct 1
21	Prelude	74	Up 4Oct 1
22	Arp 2Oct	75	Up 1Oct 2
23	9th Arp 1	76	Up 2Oct 2
24	9th Arp 2	77	Up 3Oct 2
25	9th Arp 3	78	Up 4Oct 2
26	Soul Bass 1	79	Up 1Oct 3
27	Soul Bass 2	80	Up 2Oct 3
28	Shuffle Bass	81	Up 3Oct 3
29	Funk Bass	82	Up 4Oct 3
30	Bossa Bass	83	Down 1Oct 1
31	8 Beat Bass	84	Down 2Oct 1
32	R&B Bass	85	Down 3Oct 1
33	Bass Line 1	86	Down 4Oct 1
34	Bass Line 2	87	Down 1Oct 2
35	Scale 1	88	Down 2Oct 2
36	Scale 2	89	Down 3Oct 2
37	Scale 3	90	Down 4Oct 2
38	Scale 4	91	Down 1Oct 3
39	Blues Scale	92	Down 2Oct 3
40	Penta Scale	93	Down 3Oct 3
41	Funky EP	94	Down 4Oct 3
42	Ragtime	95	UpDownA1Oct1
43	Riff	96	UpDownA2Oct1
44	Ska	97	UpDownA3Oct1
45	8 Beat	98	UpDownA4Oct1
46	12/8	99	UpDownA1Oct2
47	Shuffle	100	UpDownA2Oct2
48	Waltz	101	UpDownA3Oct2
49	Shuffle Pop	102	UpDownA4Oct2
50	Hard Rock	103	UpDownA1Oct3
51	Echo	104	UpDownA2Oct3
52	Trill	105	UpDownA3Oct3
53	Poly 1	106	UpDownA4Oct3

No.	Type Name
107	UpDownB1Oct1
108	UpDownB2Oct1
109	UpDownB3Oct1
110	UpDownB4Oct1
111	UpDownB1Oct2
112	UpDownB2Oct2
113	UpDownB3Oct2
114	UpDownB4Oct2
115	UpDownB1Oct3
116	UpDownB2Oct3
117	UpDownB3Oct3
118	UpDownB4Oct3
119	Random1Oct 1
120	Random2Oct 1
121	Random3Oct 1
122	Random4Oct 1
123	Random1Oct 2
124	Random2Oct 2
125	Random3Oct 2
126	Random4Oct 2
127	Random1Oct 3
128	Random2Oct 3
129	Random3Oct 3
130	Random4Oct 3
131	Repeat 1
132	Repeat 2
133	Add 5th Up
134	Add 5th Down
135	Add 5th U/D
136	5th Up 1
137	5th Up 2
138	Octave Up 1
139	Octave Up 2
140	Octave Down
141	Poly Up
142	Poly Down
143	Poly Line
144	4th Up
145	4th Down
146	New Age
147	Gtr Strk 1
148	Gtr Strk 2
149	Latin Pf 1
150	Latin Pf 2

Drum Assignment List

Key	Note No.	DRUMS SET NAME					
		765 : STANDARD SET 1	766 : STANDARD SET 2	767 : STANDARD SET 3	768 : STANDARD SET 4	769 : STANDARD SET 5	770 : DANCE SET 1
C-1	0	Tabla Ge					Dance1 Kick 1
C#-1	1	Tabla Ka					Dance1 Kick 2
D-1	2	Tabla Te					Dance1 Kick 3
E♭-1	3	Tabla Na					Dance1 Kick 4
E-1	4	Tabla Tun					Dance1 Kick 5
F-1	5	Dholak Ge					Dance1 Snare 1
F#-1	6	Dholak Ke					Dance1 Snare 2
G-1	7	Dholak Ta 1					Dance1 Snare 3
A♭-1	8	Dholak Ta 2					Dance1 Snare 4
A-1	9	Dholak Na					Dance1 Snare 5
B♭-1	10	Dholak Ta 3					Dance1 Snare 6
B-1	11	Dholak Ring					Dance1 Snare 7
C0	12	Mridangam Tha					Dance1 Snare 8
C#0	13	Mridangam Dhom					Dance1 Snare 9
D0	14	Mridangam Dhi					Dance1 Tambourine
E♭0	15	Mridangam Dhin					Hip-Hop Snare 4
E0	16	Mridangam Num					Hip-Hop Snare 3
F0	17						Techno Snare
F#0	18						Hip-Hop Rim Shot
G0	19						Hip-Hop Snare 3 Rev.
A♭0	20						DM2 Kick 1 Rev.
A0	21						Reverse Cymbal Gate
B♭0	22						Hip-Hop Snare 4 Gate
B0	23			Standard3 Snare 1 mp			Hip-Hop Snare 3 Gate
C1	24			Standard3 Snare 1 mf			Techno Snare Gate
C#1	25			Standard3 Snare 2 mp			Hand Clap 2 Gate
D1	26			Standard3 Snare 2 mf			
E♭1	27	High Q	←	←	←	←	←
E1	28	Slap	←	←	←	←	←
F1	29	Scratch Push	←	←	←	←	Hip-Hop Scratch 1
F#1	30	Scratch Pull	←	←	←	←	Hip-Hop Scratch 2
G1	31	Sticks	Standard2 Sticks	Standard2 Sticks	Standard2 Sticks	Standard2 Sticks	Standard2 Sticks
A♭1	32	Square Click	←	←	←	←	←
A1	33	Metronome Click	←	←	←	←	←
B♭1	34	Metronome Bell	←	←	←	←	←
B1	35	Standard1 Kick 2	Standard2 Kick 2	Standard3 Kick 2	Standard4 Kick 2	Standard5 Kick 2	DM2 Kick 1
C2	36	Standard1 Kick 1	Standard2 Kick 1	Standard3 Kick 1	Standard4 Kick 1	Standard5 Kick 1	DM2 Kick 2
C#2	37	Standard1 Side Stick	Standard2 Side Stick	Standard2 Side Stick	Standard2 Side Stick	Standard5 Side Stick	Standard2 Side Stick
D2	38	Standard1 Snare 1	Standard2 Snare 1	Standard3 Snare 1	Standard4 Snare 1	Standard5 Snare 1	DM2 Snare 1
E♭2	39	Hand Clap 1	←	←	←	Standard5 Hand Clap	Standard5 Hand Clap
E2	40	Standard1 Snare 2	Standard2 Snare 2	Standard3 Snare 2	Standard4 Snare 2	Standard5 Snare 2	DM2 Snare 2
F2	41	Standard1 Low Tom 2	Standard2 Low Tom 2	Standard3 Low Tom 2	Standard4 Low Tom 2	Standard5 Low Tom 2	DM2 Low Tom 2
F#2	42	Standard1 Closed Hi-Hat	Standard2 Closed Hi-Hat	Standard3 Closed Hi-Hat	Standard4 Closed Hi-Hat	Standard5 Closed Hi-Hat	DM2 Closed Hi-Hat 1
G2	43	Standard1 Low Tom 1	Standard2 Low Tom 1	Standard3 Low Tom 1	Standard4 Low Tom 1	Standard5 Low Tom 1	DM2 Low Tom 1
A♭2	44	Standard1 Pedal Hi-Hat	Standard2 Pedal Hi-Hat	Standard3 Pedal Hi-Hat	Standard4 Pedal Hi-Hat	Standard5 Pedal Hi-Hat	DM2 Closed Hi-Hat 2
A2	45	Standard1 Mid Tom 2	Standard2 Mid Tom 2	Standard3 Mid Tom 2	Standard4 Mid Tom 2	Standard5 Mid Tom 2	DM2 Mid Tom 2
B♭2	46	Standard1 Open Hi-Hat	Standard2 Open Hi-Hat	Standard3 Open Hi-Hat	Standard4 Open Hi-Hat	Standard5 Open Hi-Hat	DM2 Open Hi-Hat
B2	47	Standard1 Mid Tom 1	Standard2 Mid Tom 1	Standard3 Mid Tom 1	Standard4 Mid Tom 1	Standard5 Mid Tom 1	DM2 Mid Tom 1
C3	48	Standard1 High Tom 2	Standard2 High Tom 2	Standard3 High Tom 2	Standard4 High Tom 2	Standard5 High Tom 2	DM2 High Tom 2
C#3	49	Standard1 Crash Cymbal 1	Standard2 Crash Cymbal 1	Standard3 Crash Cymbal 1	Standard3 Crash Cymbal 1	Standard3 Crash Cymbal 1	Standard3 Crash Cymbal 1
D3	50	Standard1 High Tom 1	Standard2 High Tom 1	Standard3 High Tom 1	Standard4 High Tom 1	Standard5 High Tom 1	DM2 High Tom 1
E♭3	51	Standard1 Ride Cymbal 1	Standard2 Ride Cymbal 1	Standard3 Ride Cymbal 1	Standard3 Ride Cymbal 1	Standard3 Ride Cymbal 1	Standard3 Ride Cymbal 1
E3	52	Standard1 Chinese Cymbal	Standard2 Chinese Cymbal	Standard3 Chinese Cymbal	Standard3 Chinese Cymbal	Standard3 Chinese Cymbal	Standard3 Chinese Cymbal
F3	53	Standard1 Ride Bell	Standard2 Ride Bell	Standard3 Ride Bell	Standard3 Ride Bell	Standard3 Ride Bell	Standard3 Ride Bell
F#3	54	Tambourine					
G3	55	Standard1 Splash Cymbal	Standard2 Splash Cymbal	Standard3 Splash Cymbal	Standard3 Splash Cymbal	Standard3 Splash Cymbal	Standard3 Splash Cymbal
A♭3	56	Cowbell					
A3	57	Standard1 Crash Cymbal 2	Standard2 Crash Cymbal 2	Standard3 Crash Cymbal 2	Standard3 Crash Cymbal 2	Standard3 Crash Cymbal 2	Standard3 Crash Cymbal 2
B♭3	58	Vibraslap	←	←	←	←	
B3	59	Standard1 Ride Cymbal 2	Standard2 Ride Cymbal 2	Standard3 Ride Cymbal 2	Standard3 Ride Cymbal 2	Standard3 Ride Cymbal 2	Standard3 Ride Cymbal 2
C4	60	High Bongo	←	←	←	←	DM1 Kick 2
C#4	61	Low Bongo	←	←	←	←	DM1 Rim Shot
D4	62	Mute High Conga	←	←	←	←	DM1 Snare 1
E♭4	63	Open High Conga	←	←	←	←	DM1 Hand Clap
E4	64	Open Low Conga	←	←	←	←	DM1 Snare 2
F4	65	High Timbale	←	←	←	←	DM1 Low Tom 2
F#4	66	Low Timbale	←	←	←	←	DM1 Closed Hi-Hat 1
G4	67	High Agogo 1	←	←	←	←	DM1 Low Tom 1
A♭4	68	Low Agogo 1	←	←	←	←	DM1 Closed Hi-Hat 2
A4	69	Cabasa 1	←	←	←	←	DM1 Mid Tom 2
B♭4	70	Maracas 1	←	←	←	←	DM1 Open Hi-Hat
B4	71	High Whistle 1	High Whistle 2	High Whistle 2	High Whistle 2	High Whistle 2	DM1 Mid Tom 1
C5	72	Low Whistle 1	Low Whistle 2	Low Whistle 2	Low Whistle 2	Low Whistle 2	DM1 High Tom 2
C#5	73	Short Guiro	←	←	←	←	DM1 Crash Cymbal
D5	74	Long Guiro	←	←	←	←	DM1 High Tom 1
E♭5	75	Claves 1	←	←	←	←	DM1 Ride Cymbal
E5	76	High Wood Block	←	←	←	←	Standard3 Chinese Cymbal
F5	77	Low Wood Block	←	←	←	←	Standard3 Ride Bell
F#5	78	Mute Cuica	←	←	←	←	DM1 Tambourine
G5	79	Open Cuica	←	←	←	←	Standard3 Splash Cymbal
A♭5	80	Mute Triangle 1	←	←	←	←	DM1 Cowbell
A5	81	Open Triangle 1	←	←	←	←	Standard3 Crash Cymbal 2
B♭5	82	Shaker	←	←	←	←	Vibraslap
B5	83	Jingle Bell 1	←	←	←	←	DM1 Kick 3
C6	84	Bell Tree	←	←	←	←	Hip-Hop Kick 3
C#6	85	Castanets	←	←	←	←	Standard4 Kick 1
D6	86	Mute Surdo	←	←	←	←	Standard4 Snare 1
E♭6	87	Open Surdo 1	←	←	←	←	Hand Clap 3
E6	88	Applause 1	←	←	←	←	Standard4 Snare 2
F6	89	Applause 2	←	←	←	←	Elec.Low Tom 2
F#6	90						Hip-Hop Closed Hi-Hat
G6	91						Elec.Low Tom 1
A♭6	92						Hip-Hop Pedal Hi-Hat
A6	93						Elec.Mid Tom 2
B♭6	94						Hip-Hop Open Hi-Hat
B6	95						Elec.Mid Tom 1
C7	96	Jingle Bell 2					Elec.High Tom 2
C#7	97	Open Surdo 2					Techno Cymbal
D7	98	Cabasa 2					Elec.High Tom 1
E♭7	99	Maracas 2					Techno Ride
E7	100	Shaker 2					
F7	101	Mute Triangle 2					Standard3 Low Tom 2
F#7	102	Open Triangle 2					Room Closed Hi-Hat
G7	103	High Agogo 2					Standard3 Low Tom 1
A♭7	104	Low Agogo 2					Room Pedal Hi-Hat
A7	105						Standard3 Mid Tom 2
B♭7	106						Room Open Hi-Hat
B7	107						Standard3 Mid Tom 1
C8	108						Standard3 High Tom 2
C#8	109	Tablah 1					Standard3 High Tom 1
D8	110	Tablah 2					Standard3 Crash Cymbal 1
E♭8	111	Tablah 3					Standard3 Ride Cymbal 1
E8	112	Daf 1					
F8	113	Daf 2					Tambourine 2
F#8	114	Riq 1					Tambourine 3
G8	115	Riq 2					Cabasa 3
A♭8	116	Davul 1					Maracas 3
A8	117	Davul 2					Claves 2
B♭8	118	Zill 1					Mute Triangle 2
B8	119	Zill 2					Open Triangle 2
C9	120	Ban Gu					Shaker 2
C#9	121	Hu Yin Luo					Hand Clap 1
D9	122	Xiao Luo					Hand Clap 2
E♭9	123	Xiao Bo					
E9	124						
F9	125	Low Tang Gu					
F#9	126	Mid Tang Gu					
G9	127	High Tang Gu					

• "←" indicates a key is assigned the same tones as it is for 765:STANDARD SET 1.

Key	Note No.	771 : DANCE SET 2	772 : DANCE SET 3	773 : DANCE SET 4	774 : DANCE SET 5	775 : DANCE SET 6	776 : TRANCE SET
C-1	0			Dance1 Kick 1			
C#-1	1			Dance1 Kick 2			
D-1	2			Dance1 Kick 3			
E♭-1	3			Dance1 Kick 4			
E-1	4			Dance1 Kick 5			
F-1	5			Dance1 Snare 1			
F#-1	6			Dance1 Snare 2			
G-1	7			Dance1 Snare 3			
A♭-1	8			Dance1 Snare 4			
A-1	9			Dance1 Snare 5			
B♭-1	10			Dance1 Snare 6			
B-1	11			Dance1 Snare 7			
C0	12			Dance1 Snare 8			
C#0	13			Dance1 Snare 9			
D0	14			Dance1 Tambourine			
E♭0	15			Hip-Hop Snare 4			
E0	16			Hip-Hop Snare 3			
F0	17			Techno Snare			
F#0	18			Hip-Hop Rim Shot			
G0	19			Hip-Hop Snare 3 Rev.		Dance6 Rev.Snare 1	
A♭0	20			DM2 Kick 1 Rev.		Dance6 Open Hi-Hat 1	
A0	21			Reverse Cymbal Gate		Dance6 Crash 1	
B♭0	22			Dance4 Snare Rev.		Dance6 SE Noise	
B0	23			Dance4 Open Hi-Hat Rev.		Dance6 Noise Down	
C1	24			Techno Snare Gate	Dance5 Kick 2	Dance6 Gate Snare	
C#1	25			Hip-Hop Side Stick Gate		Dance6 SE Exp.	
D1	26			Hand Clap 2 Gate		Dance6 Open Hi-Hat 2	
E♭1	27	←	←	←			←
E1	28						
F1	29	←	←	Dance4 Scratch Push		Dance6 Gate Snare	←
F#1	30			Dance4 Scratch Pull			
G1	31	Standard2 Sticks	Standard2 Sticks				Standard2 Sticks
A♭1	32	←	←	←			←
A1	33						
B♭1	34	←	←	←			←
B1	35	Hip-Hop Kick 3	Dance1 Kick 2	Dance4 Kick 2	Dance5 Kick 1	Dance6 Kick 1	Trance Kick 2
C2	36	Hip-Hop Kick 5	Dance1 Kick 4	Dance4 Kick 4	Dance5 Kick 3	Dance6 Kick 2	Trance Kick 1
C#2	37	Hand Clap 3	Hip-Hop Side Stick Gate	Dance4 Hand Clap 1	Dance5 Snare 1	Dance6 Snare 1	Trance Side Stick
D2	38	Dance1 Snare 7	Dance1 Snare 2	Dance4 Snare 1	Dance5 Snare 2	Dance6 Snare 2	Trance Snare 1
E♭2	39	Hand Clap 2	DM1 Hand Clap	Dance4 Hand Clap 2	Dance5 Clap	Dance6 Rev.Snare 1	Trance Hand Clap
E2	40	Techno Snare	Dance1 Snare 1 Gate	Dance1 Snare 1 Gate	Dance5 Snare 3		Trance Snare 2
F2	41	DM2 Low Tom 2	Standard5 Low Tom 2	Dance4 Low Tom 2	Dance5 Low Tom 2		Standard3 Low Tom 2
F#2	42	Trance Closed Hi-Hat	Standard5 Closed Hi-Hat	Dance4 Closed Hi-Hat 1	Dance5 Closed Hi-Hat	Dance6 Closed Hi-Hat 1	Trance Closed Hi-Hat
G2	43	DM2 Low Tom 1	Standard5 Low Tom 1	Dance4 Low Tom 1	DM1 Low Tom 1		Standard3 Low Tom 1
A♭2	44	Trance Open Hi-Hat 1	Standard5 Pedal Hi-Hat	Dance4 Closed Hi-Hat 2	Dance5 Open Hi-Hat 1	Dance6 Open Hi-Hat 1	Trance Open Hi-Hat 1
A2	45	DM2 Mid Tom 2	Standard5 Mid Tom 2	Dance4 Mid Tom 2	DM1 Mid Tom 2		Standard3 Mid Tom 2
B♭2	46	Trance Open Hi-Hat 2	Standard5 Open Hi-Hat	Dance4 Open Hi-Hat 1	Dance5 Open Hi-Hat 2		Trance Open Hi-Hat 2
B2	47	DM2 Mid Tom 1	Standard5 Mid Tom 1	Dance4 Mid Tom 1	DM1 Mid Tom 1		Standard3 Mid Tom 1
C3	48	DM2 High Tom 2	Standard5 High Tom 2	Dance4 High Tom 2	Dance5 High Tom 2		Standard3 High Tom 2
C#3	49	DM2 High Tom 1	Standard3 High Tom 1	Dance4 High Tom 2	DM1 High Tom 2		Standard3 High Tom 1
D3	50	Standard3 Crash Cymbal 1	Standard3 Crash Cymbal 1	Dance4 High Tom 1	DM1 High Tom 1	Dance6 Crash 2	Standard3 Crash Cymbal 1
E♭3	51	Standard3 Ride Cymbal 1	Standard3 Ride Cymbal 1	Standard3 Ride Cymbal 1	DM1 Ride Cymbal		Standard3 Ride Cymbal 1
E3	52	Standard3 Chinese Cymbal	Standard3 Chinese Cymbal	Standard3 Chinese Cymbal	Standard3 Chinese Cymbal		Standard3 Chinese Cymbal
F3	53	Standard3 Ride Bell	Standard3 Ride Bell	Standard3 Ride Bell	Standard3 Ride Bell		Standard3 Ride Bell
F#3	54				DM1 Tambourine	Dance6 Filter Hi-Hat L	Trance Tambourine
G3	55	Standard3 Splash Cymbal	Standard3 Splash Cymbal	Standard3 Splash Cymbal	Standard3 Splash Cymbal		Standard3 Splash Cymbal
A♭3	56				DM1 Cowbell	Dance6 Filter Hi-Hat R	
A3	57	Standard3 Crash Cymbal 2	Standard3 Crash Cymbal 2	Standard3 Crash Cymbal 2	Standard3 Crash Cymbal 2		Standard3 Crash Cymbal 2
B♭3	58						
B3	59	Standard3 Ride Cymbal 2	Standard3 Ride Cymbal 2	Dance4 Kick 4			Standard3 Ride Cymbal 2
C4	60	←	←	Dance4 Kick 3	Dance5 SFX Sound 1	Wobble 1	←
C#4	61	←	←	Dance4 Hand Clap 3	Dance5 SFX Sound 2		←
D4	62	←	←	Dance4 Hand Clap 4	Dance5 SFX Sound 3	Wobble 2	←
E♭4	63	←	←	Dance4 Hand Clap 5	Dance5 SFX Sound 4		←
E4	64	←	←	Dance4 Snare 3	Dance5 SFX Sound 5	Wobble 3	←
F4	65	←	←	DM1 Low Tom 2	Dance5 SFX Sound 6	Wobble 4	←
F#4	66	←	←	Dance4 Closed Hi-Hat 3	Dance5 SFX Sound 7	Dance6 Closed Hi-Hat 2	←
G4	67	←	←	DM1 Low Tom 1	Dance5 SFX Sound 8		←
A♭4	68	←	←	Dance4 Closed Hi-Hat 4	Dance5 SFX Sound 9	Dance6 Closed Hi-Hat 3	←
A4	69	Cabasa 2	Cabasa 2	DM1 Mid Tom 2	Dance5 SFX Sound 10		Cabasa 2
B♭4	70	Maracas 2	Maracas 2	Dance4 Open Hi-Hat 4	Dance5 SFX Sound 11	Dance6 Open Hi-Hat 3	Maracas 2
B4	71	High Whistle 2	High Whistle 2	DM1 High Tom 1	Dance5 SFX Sound 12	Dance6 SE Snare	High Whistle 2
C5	72	Low Whistle 2	Low Whistle 2	DM1 High Tom 2	Dance5 SFX Sound 13		Low Whistle 2
C#5	73	←	←	DM1 Crash Cymbal	Dance5 SFX Sound 14	Dance6 SE Noise	←
D5	74	←	←	DM1 High Tom 1	Dance5 SFX Sound 15	Dance6 SE Rev.Snare 1	←
E♭5	75	←	←	DM1 Ride Cymbal	Dance5 SFX Sound 16	Dance6 SE Noise Down	←
E5	76	←	←	Standard3 Chinese Cymbal	Dance5 SFX Sound 17	Dance6 Gate Snare	←
F5	77	←	←	Standard3 Ride Bell	Dance5 SFX Sound 18	Dance6 Rev.Snare 2	←
F#5	78	←	←	DM1 Tambourine	Dance5 SFX Sound 19		←
G5	79	←	←	Standard3 Splash Cymbal	Dance5 SFX Sound 20	Dance6 SE Exp.	←
A♭5	80	←	Mute Triangle 2	DM1 Cowbell	Dance5 SFX Sound 21		Mute Triangle 2
A5	81	Open Triangle 2	Open Triangle 2	Standard3 Crash Cymbal 2	Dance5 SFX Sound 22	Dance6 SE Rev.Snare 2	Open Triangle 2
B♭5	82	Shaker 2	Shaker 2	Vibraslap	Dance5 SFX Sound 23		Shaker 2
B5	83	←	←	DM1 Kick 3	Dance5 SFX Sound 24		←
C6	84	←	←	Dance4 Kick 5	Dance5 SFX Sound 25	Dance6 Kick 3	←
C#6	85	←	←	Dance4 Snare 1	Dance5 SFX Voice 1		←
D6	86	←	←	Dance4 Hand Clap 6	Dance5 SFX Voice 2	Dance6 Snare 3	←
E♭6	87	←	←	Dance4 Snare 2	Dance5 SFX Voice 3	Dance6 Clap	←
E6	88	←	←	Elec.Low Tom 2	Dance5 SFX Voice 4		←
F6	89	←	←	Elec.Low Tom 1	Dance5 SFX Voice 5		←
F#6	90			Elec.Closed Hi-Hat 5	Dance5 SFX Voice 6	Dance6 Closed Hi-Hat 4	
G6	91			Elec.Low Tom 1	Dance5 SFX Voice 7		
A♭6	92			Elec.Closed Hi-Hat 6	Dance5 SFX Voice 8		
A6	93			Elec.Mid Tom 2	VL Snare		
B♭6	94			Dance4 Open Hi-Hat 3	VL Pong	Dance6 Noise Hi-Hat	
B6	95			Elec.Mid Tom 1	VL Ping		
C7	96			Elec.High Tom 2			
C#7	97			Techno Cymbal			
D7	98			Elec.High Tom 1			
E♭7	99			Techno Ride			
E7	100						
F7	101			Standard3 Low Tom 2			
F#7	102			Room Closed Hi-Hat			
G7	103			Standard3 Low Tom 1			
A♭7	104			Room Pedal Hi-Hat			
A7	105			Standard3 Mid Tom 2			
B♭7	106			Room Open Hi-Hat			
B7	107			Standard3 Mid Tom 1			
C8	108			Standard3 High Tom 2			
C#8	109			Standard3 Crash Cymbal 1			
D8	110			Standard3 High Tom 1			
E♭8	111			Standard3 Ride Cymbal 1			
E8	112						
F8	113			Tambourine 2			
F#8	114			Tambourine 3			
G8	115			Cabasa 2			
A♭8	116			Maracas 2			
A8	117			Claves 2			
B♭8	118			Mute Triangle 2			
B8	119			Open Triangle 2			
C9	120			Shaker 2			
C#9	121			Hand Clap 1			
D9	122			Hand Clap 2			
E♭9	123						
E9	124						
F9	125						
F#9	126						
G9	127						

• "←" indicates a key is assigned the same tones as it is for 765:STANDARD SET 1.

Key	Note No.	777 : HIP-HOP SET	778 : ROOM SET	779 : POWER SET	780 : ROCK SET	781 : ELECTRONIC SET	782 : DRUM MACHINE SET 1
C-1	0						
C#-1	1						
D-1	2						
E♭-1	3						
E-1	4						
F-1	5						
F#-1	6						
G-1	7						
A♭-1	8						
A-1	9						
B♭-1	10						
B-1	11						
C0	12						
C#0	13						
D0	14						
E♭0	15						
E0	16						
F0	17						
F#0	18						
G0	19						
A♭0	20						
A0	21						
B♭0	22						
B0	23						
C1	24						
C#1	25						
D1	26						
E♭1	27	←	←	←	←	←	←
E1	28	←	←	←	←	←	←
F1	29	←	←	←	←	←	←
F#1	30	←	←	←	←	←	←
G1	31	Standard2 Sticks	Standard2 Sticks	Standard2 Sticks	←	Standard2 Sticks	Standard2 Sticks
A♭1	32	←	←	←	←	←	←
A1	33	←	←	←	←	←	←
B♭1	34	←	←	←	←	←	←
B1	35	Hip-Hop Kick 2	Room Kick 2	Power Kick 2	Rock Kick 2	Elec.Kick 2	DM1 Kick 2
C2	36	Hip-Hop Kick 1	Room Kick 1	Power Kick 1	Rock Kick 1	Elec.Kick 1	DM1 Kick 1
C#2	37	Hip-Hop Side Stick	Standard2 Side Stick	Standard2 Side Stick	←	Standard2 Side Stick	DM1 Rim Shot
D2	38	Hip-Hop Snare 1	Room Snare 1	Power Snare 1	Rock Snare 1	Elec.Snare 1	DM1 Snare 1
E♭2	39	Hip-Hop Hand Clap	←	←	←	←	DM1 Hand Clap
E2	40	Hip-Hop Snare 2	Room Snare 2	Power Snare 2	Rock Snare 2	Elec.Snare 2	DM1 Snare 2
F2	41	Standard3 Low Tom 2	Room Low Tom 2	Room Low Tom 2	Rock Low Tom 2	Elec.Low Tom 2	DM1 Low Tom 2
F#2	42	Hip-Hop Closed Hi-Hat	Room Closed Hi-Hat	Room Closed Hi-Hat	Rock Closed Hi-Hat	Room Closed Hi-Hat	DM1 Closed Hi-Hat 1
G2	43	Standard3 Low Tom 1	Room Low Tom 1	Room Low Tom 1	Rock Low Tom 1	Elec.Low Tom 1	DM1 Low Tom 1
A♭2	44	Hip-Hop Pedal Hi-Hat	Room Pedal Hi-Hat	Room Pedal Hi-Hat	Rock Pedal Hi-Hat	Room Pedal Hi-Hat	DM1 Closed Hi-Hat 2
A2	45	Standard3 Mid Tom 2	Room Mid Tom 2	Room Mid Tom 2	Rock Mid Tom 2	Elec.Mid Tom 2	DM1 Mid Tom 2
B♭2	46	Hip-Hop Open Hi-Hat	Room Open Hi-Hat	Room Open Hi-Hat	Rock Open Hi-Hat	Room Open Hi-Hat	DM1 Open Hi-Hat
B2	47	Standard3 Mid Tom 1	Room Mid Tom 1	Room Mid Tom 1	Rock Mid Tom 1	Elec.Mid Tom 1	DM1 Mid Tom 1
C3	48	Standard3 High Tom 2	Room High Tom 2	Room High Tom 2	Rock High Tom 2	Elec.High Tom 2	DM1 High Tom 2
C#3	49	Standard3 Crash Cymbal 1	Standard3 Crash Cymbal 1	Standard3 Crash Cymbal 1	Rock Crash Cymbal 1	Standard3 Crash Cymbal 1	DM1 Crash Cymbal
D3	50	Standard3 High Tom 1	Room High Tom 1	Room High Tom 1	Rock High Tom 1	Elec.High Tom 1	DM1 High Tom 1
E♭3	51	Standard3 Ride Cymbal 1	Standard3 Ride Cymbal 1	Standard3 Ride Cymbal 1	Rock Ride Cymbal 1	Standard3 Ride Cymbal 1	DM1 Ride Cymbal
E3	52	Standard3 Chinese Cymbal	Standard3 Chinese Cymbal	Standard3 Chinese Cymbal	Rock Chinese Cymbal	Reverse Cymbal	Standard3 Chinese Cymbal
F3	53	Standard3 Ride Bell	Standard3 Ride Bell	Standard3 Ride Bell	Rock Ride Bell	Standard3 Ride Bell	Standard3 Ride Bell
F#3	54	←	←	←	←	←	DM1 Tambourine
G3	55	Standard3 Splash Cymbal	Standard3 Splash Cymbal	Standard3 Splash Cymbal	Rock Splash Cymbal	Standard3 Splash Cymbal	Standard3 Splash Cymbal
A♭3	56	←	←	←	←	←	DM1 Cowbell
A3	57	Standard3 Crash Cymbal 2	Standard3 Crash Cymbal 2	Standard3 Crash Cymbal 2	Rock Crash Cymbal 2	Standard3 Crash Cymbal 2	Standard3 Crash Cymbal 2
B♭3	58	←	←	←	←	←	←
B3	59	Standard3 Ride Cymbal 2	Standard3 Ride Cymbal 2	Standard3 Ride Cymbal 2	Rock Ride Cymbal 2	Standard3 Ride Cymbal 2	DM1 Ride Cymbal 2
C4	60	←	←	←	←	←	DM1 High Bongo
C#4	61	←	←	←	←	←	DM1 Low Bongo
D4	62	←	←	←	←	←	DM1 Mute High Conga
E♭4	63	←	←	←	←	←	DM1 Open High Conga
E4	64	←	←	←	←	←	DM1 Open Low Conga
F4	65	←	←	←	←	←	←
F#4	66	←	←	←	←	←	←
G4	67	←	←	←	←	←	←
A♭4	68	←	←	←	←	←	←
A4	69	←	←	←	←	Cabasa 2	Cabasa 2
B♭4	70	←	←	←	←	Maracas 2	DM1 Maracas
B4	71	High Whistle 2	High Whistle 2	High Whistle 2	High Whistle 2	High Whistle 2	DM1 Maracas
C5	72	Low Whistle 2	Low Whistle 2	Low Whistle 2	Low Whistle 2	Low Whistle 2	Low Whistle 2
C#5	73	←	←	←	←	←	←
D5	74	←	←	←	←	←	←
E♭5	75	←	←	←	←	←	DM1 Claves
E5	76	←	←	←	←	←	←
F5	77	←	←	←	←	←	←
F#5	78	←	←	←	←	←	←
G5	79	←	←	←	←	←	←
A♭5	80	←	←	←	←	Mute Triangle 2	Mute Triangle 2
A5	81	←	←	←	←	Open Triangle 2	Open Triangle 2
B♭5	82	←	←	←	←	Shaker 2	Shaker 2
B5	83	←	←	←	←	←	←
C6	84	←	←	←	←	←	←
C#6	85	←	←	←	←	←	←
D6	86	←	←	←	←	←	←
E♭6	87	←	←	←	←	←	←
E6	88	←	←	←	←	←	←
F6	89	←	←	←	←	←	←
F#6	90						
G6	91						
A♭6	92						
A6	93						
B♭6	94						
B6	95						
C7	96						
C#7	97						
D7	98						
E♭7	99						
E7	100						
F7	101						
F#7	102						
G7	103						
A♭7	104						
A7	105						
B♭7	106						
B7	107						
C8	108						
C#8	109						
D8	110						
E♭8	111						
E8	112						
F8	113						
F#8	114						
G8	115						
A♭8	116						
A8	117						
B♭8	118						
B8	119						
C9	120						
C#9	121						
D9	122						
E♭9	123						
E9	124						
F9	125						
F#9	126						
G9	127						

• "←" indicates a key is assigned the same tones as it is for 765:STANDARD SET 1.

Key	Note No.	783 : DRUM MACHINE SET 2	784 : DRUM MACHINE SET 3	785 : JAZZ SET	786 : BRUSH SET	787 : ORCHESTRA SET	788 : LATIN SET 1
C-1	0						Timbal Slap
C#-1	1						Timbal Open
D-1	2						Timbal Bass
E♭-1	3						Timbal Moff
E-1	4						Surdo Body
F-1	5						Surdo Close
F#-1	6						Surdo Hand 1
G-1	7						Surdo Hand 2
A♭-1	8						Surdo Hand 3
A-1	9						Surdo Hand Off
B♭-1	10						Surdo Open 1
B-1	11						Surdo Open 2
C0	12						Surdo Rim
C#0	13						
D0	14						
E♭0	15						
E0	16						
F0	17						
F#0	18						
G0	19					Finger Snap 3	
A♭0	20					Brush Slap 1 mp	
A0	21					Brush Slap 1 mf	
B♭0	22					Brush Slap 2	
B0	23			Jazz Snare 2 mp	Brush Swirl 1		
C1	24			Jazz Snare 1 mp	Brush Swirl 3		
C#1	25			Jazz Snare 1 mf	Brush Swirl 4		
D1	26			Jazz Rim	Brush Swirl 5		
E♭1	27	←	←	←	←	Standard3 Closed Hi-Hat	
E1	28	←	←	←	←	Standard3 Pedal Hi-Hat	
F1	29	←	Dance4 Scratch Push	←	←	Standard3 Open Hi-Hat	
F#1	30	←	Dance4 Scratch Pull	←	←	Standard3 Ride Cymbal 1	
G1	31	Standard2 Sticks	Standard2 Sticks	Standard2 Sticks	Standard2 Sticks	Standard2 Sticks	Standard2 Sticks
A♭1	32	←	←	←	←	←	←
A1	33	←	←	←	←	←	←
B♭1	34	←	←	←	←	←	←
B1	35	DM2 Kick 2	DM3 Kick 2	Jazz Kick 2	Jazz Kick 2	Concert BD 2	Standard3 Kick 2
C2	36	DM2 Kick 1	DM3 Kick 1	Jazz Kick 1	Brush Kick	Concert BD 1	Standard3 Kick 1
C#2	37	DM1 Rim Shot	DM3 Rim Shot	Jazz Side Stick	Jazz Side Stick	←	Standard2 Side Stick
D2	38	DM2 Snare 1	DM3 Snare 1	Jazz Snare 1	Brush Snare	Concert SD	Standard3 Snare 1
E♭2	39	←	DM3 Hand Clap 1	←	Brush Slap 1	Castanets	←
E2	40	DM2 Snare 2	DM3 Snare 2	Jazz Snare 2	Brush Slap 1	Concert SD	Standard3 Snare 2
F2	41	DM2 Low Tom 2	DM3 Low Tom 2	Jazz Low Tom 2	Brush Low Tom 2	Timpani F	Standard3 Low Tom 2
F#2	42	DM2 Closed Hi-Hat 1	DM3 Closed Hi-Hat 1	Room Closed Hi-Hat	Room Closed Hi-Hat	Timpani F#	Room Closed Hi-Hat
G2	43	DM2 Low Tom 1	DM3 Low Tom 1	Jazz Low Tom 1	Brush Low Tom 1	Timpani G	Standard3 Low Tom 1
A♭2	44	DM2 Closed Hi-Hat 2	DM3 Closed Hi-Hat 2	Room Pedal Hi-Hat	Room Pedal Hi-Hat	Timpani G#	Standard3 Pedal Hi-Hat
A2	45	DM2 Mid Tom 2	DM3 Mid Tom 2	Jazz Mid Tom 2	Brush Mid Tom 2	Timpani A	Standard3 Mid Tom 2
B♭2	46	DM2 Open Hi-Hat	DM3 Open Hi-Hat 1	Room Open Hi-Hat	Room Open Hi-Hat	Timpani A#	Standard3 Open Hi-Hat
B2	47	DM2 Mid Tom 1	DM3 Mid Tom 1	Jazz Mid Tom 1	Brush Mid Tom 1	Timpani B	Standard3 Mid Tom 1
C3	48	DM2 High Tom 2	DM3 High Tom 2	Jazz High Tom 2	Brush High Tom 2	Timpani C+	Standard3 High Tom 2
C#3	49	Standard3 Crash Cymbal 1	DM3 Crash Cymbal 1	Standard3 Crash Cymbal 1	Brush Crash Cymbal 1	Timpani C#+	Standard3 Crash Cymbal 1
D3	50	DM2 High Tom 1	DM3 High Tom 1	Jazz High Tom 1	Brush High Tom 1	Timpani D+	Standard3 High Tom 1
E♭3	51	Standard3 Ride Cymbal 1	DM3 Ride Cymbal 1	Standard3 Ride Cymbal 1	Brush Ride Cymbal 1	Timpani D#+	Standard3 Ride Cymbal 1
E3	52	Standard3 Chinese Cymbal	Standard3 Chinese Cymbal	Standard3 Chinese Cymbal	Standard3 Chinese Cymbal	Timpani E+	Standard3 Chinese Cymbal
F3	53	Standard3 Ride Bell	Standard3 Ride Bell	Standard3 Ride Bell	Brush Ride Bell	Timpani F+	Standard3 Ride Bell
F#3	54	←	←	←	Brush Tambourine	←	←
G3	55	Standard3 Splash Cymbal	Standard3 Splash Cymbal	Standard3 Splash Cymbal	Standard3 Splash Cymbal	Standard3 Splash Cymbal	Standard3 Splash Cymbal
A♭3	56	DM1 Maracas	←	←	←	←	←
A3	57	Standard3 Crash Cymbal 2	Standard3 Crash Cymbal 2	Standard3 Crash Cymbal 2	Brush Crash Cymbal 2	Concert Cymbal 2	Standard3 Crash Cymbal 2
B♭3	58	←	←	←	←	←	←
B3	59	Standard3 Ride Cymbal 2	DM3 Kick 4	Standard3 Ride Cymbal 2	Brush Ride Cymbal 2	Concert Cymbal 1	Standard3 Ride Cymbal 2
C4	60	←	DM3 Kick 3	←	←	←	←
C#4	61	←	DM3 Hand Clap 2	←	←	←	←
D4	62	←	DM3 Snare 3	←	←	←	←
E♭4	63	←	DM3 Snare 4	←	←	←	←
E4	64	←	DM3 Snare 5	←	←	←	←
F4	65	←	DM3 Low Tom 4	←	←	←	←
F#4	66	←	DM3 Closed Hi-Hat 3	←	←	←	←
G4	67	←	DM3 Low Tom 3	←	←	←	High Agogo 3
A♭4	68	←	DM3 Closed Hi-Hat 4	←	←	←	Low Agogo 3
A4	69	Cabasa 2	DM3 Mid Tom 4	←	←	←	Agogo 2 Crash
B♭4	70	←	DM3 Open Hi-Hat 2	←	←	←	Shaker 3
B4	71	High Whistle 2	DM3 Mid Tom 3	High Whistle 2	High Whistle 2	High Whistle 2	High Whistle 2
C5	72	Low Whistle 2	DM3 High Tom 4	Low Whistle 2	Low Whistle 2	Low Whistle 2	Low Whistle 2
C#5	73	←	DM3 Crash Cymbal 2	←	←	←	Zabumba Open
D5	74	←	DM3 High Tom 3	←	←	←	Zabumba Mute 1
E♭5	75	DM1 Claves	DM3 Ride Cymbal 2	←	←	←	Zabumba Mute 2
E5	76	←	Standard3 Chinese Cymbal	←	←	←	Zabumba Rim
F5	77	←	Standard3 Ride Bell	←	←	←	Ganza
F#5	78	←	Standard3 Splash Cymbal	←	←	←	Ganza Bottom
G5	79	←	DM3 Tambourine	←	←	←	Triangle 3 Mute 1
A♭5	80	Mute Triangle 2	DM3 Cowbell	←	←	←	Triangle 3 Mute 2
A5	81	Open Triangle 2	Standard3 Crash Cymbal 2	←	←	←	Triangle 3 Open
B♭5	82	Shaker 2	Vibraslap	←	←	←	Triangle 3 Half Mute
B5	83	←	DM3 Conga	←	←	←	Pandeiro 1 P
C6	84	←	DM3 Cabasa	←	←	←	Pandeiro 1 D
C#6	85	←	←	←	←	←	Pandeiro 1 G
D6	86	←	Finger Snap 1	←	←	←	Pandeiro 1 GDM
E♭6	87	←	←	←	←	←	Pandeiro 1 T
E6	88	←	Finger Snap 2	←	←	←	Pandeiro 1 /G
F6	89	←	Clap Reverb	←	←	←	Pandeiro 1 G/DM
F#6	90						Pandeiro 1 Jingle
G6	91						Pandeiro 1 Roll
A♭6	92						Tamborim Head 1
A6	93						Tamborim Head 2
B♭6	94						Tamborim Head Edge
B6	95						Tamborim Head Finger 1
C7	96						Tamborim Head Finger 2
C#7	97						Tamborim 1 Finger
D7	98						Tamborim Roll
E♭7	99						Pandeiro 2 P
E7	100						Pandeiro 2 D
F7	101						Pandeiro 2 G
F#7	102						Pandeiro 2 GDM
G7	103						Pandeiro 2 T
A♭7	104						Pandeiro 2 /G
A7	105						Pandeiro 2 G/DM
B♭7	106						Pandeiro 2 Jingle
B7	107						
C8	108						
C#8	109						
D8	110						
E♭8	111						
E8	112						
F8	113						
F#8	114						
G8	115						
A♭8	116						
A8	117						
B♭8	118						
B8	119						
C9	120						
C#9	121						
D9	122						
E♭9	123						
E9	124						
F9	125						
F#9	126						
G9	127						

• "←" indicates a key is assigned the same tones as it is for 765:STANDARD SET 1.

Key	Note No.	789 : LATIN SET 2	790 : INDONESIAN SET	791 : INDIAN SET	792 : ARABIC SET	793 : CHINESE SET	794 : SFX SET 1
C-1	0		←	Morsing B 1			
C#-1	1		←	Morsing B 2			
D-1	2		←	Morsing B 3			
D#-1	3		←	Morsing B 4			
E-1	4		←	Morsing B 5			
F-1	5		←	Morsing E 1			
F#-1	6		←	Morsing E 2			
G-1	7		←	Morsing E 3			
G#-1	8		←	Morsing E 4			
A-1	9		←	Morsing E 5			
A#-1	10		←	Morsing G 1			
B-1	11		←	Morsing G 2			
C0	12		←	Morsing G 3			
C#0	13		←	Morsing G 4			
D0	14		←	Morsing G 5			
D#0	15		←	Gatham Dom			
E0	16		←	Gatham Ta			
F0	17			Gatham Dim			
F#0	18			Gatham Nam			
G0	19			Thavil Nam			
G#0	20			Thavil Ki			
A0	21			Thavil Kun			
A#0	22			Thavil Jou			
B0	23			Thavil Kirara			
C1	24			Kanjira Ta			
C#1	25			Kanjira Di			
D1	26			Kanjira Don			
D#1	27			Kanjira Don BendShort	←		
E1	28				←		
F1	29				←		
F#1	30				←		
G1	31	Standard2 Sticks	Standard2 Sticks	Standard2 Sticks	Standard2 Sticks	Standard2 Sticks	
G#1	32	←	←	←	←	←	
A1	33	←	←	←	←	←	
A#1	34	←	←	←	←	←	
B1	35		Standard3 Kick 2	Standard3 Kick 2	Standard3 Kick 2	Standard3 Kick 2	
C2	36	Surdo Body	Standard3 Kick 1	Standard3 Kick 1	Standard3 Kick 1	Standard3 Kick 1	Rain
C#2	37	Surdo Close	Standard3 Side Stick	Standard3 Side Stick	Standard3 Side Stick	Standard3 Side Stick	Seashore
D2	38	Surdo Hand 1	Standard3 Snare 1	Standard3 Snare 1	Standard3 Snare 1	Standard3 Snare 1	Thunder
D#2	39	Surdo Hand 2	←	←	←	←	Wind
E2	40	Surdo Hand 3	Standard3 Snare 2	Standard3 Snare 2	Standard3 Snare 2	Standard3 Snare 2	Bubble
F2	41	Surdo Hand Off	Standard3 Low Tom 2	Standard3 Low Tom 2	Standard3 Low Tom 2	Standard3 Low Tom 2	Bird
F#2	42	Surdo Open 1	Room Closed Hi-Hat	Room Closed Hi-Hat	Room Closed Hi-Hat	Room Closed Hi-Hat	Cat
G2	43	Surdo Open 2	Standard3 Low Tom 1	Standard3 Low Tom 1	Standard3 Low Tom 1	Standard3 Low Tom 1	Rooster
G#2	44	Surdo Rim	Room Pedal Hi-Hat	Room Pedal Hi-Hat	Room Pedal Hi-Hat	Room Pedal Hi-Hat	Cow
A2	45	Tamborim Head 1	Standard3 Mid Tom 2	Standard3 Mid Tom 2	Standard3 Mid Tom 2	Standard3 Mid Tom 2	Dog
A#2	46	Tamborim Head 2	Room Open Hi-Hat	Room Open Hi-Hat	Room Open Hi-Hat	Room Open Hi-Hat	Donkey
B2	47	Tamborim Head Edge	Standard3 Mid Tom 1	Standard3 Mid Tom 1	Standard3 Mid Tom 1	Standard3 Mid Tom 1	Elephant
C3	48	Tamborim Head Finger 1	Standard3 High Tom 2	Standard3 High Tom 2	Standard3 High Tom 2	Standard3 High Tom 2	Goat
C#3	49	Tamborim Head Finger 2	Standard3 Crash Cymbal 1	Standard3 Crash Cymbal 1	Standard3 Crash Cymbal 1	Standard3 Crash Cymbal 1	Horse
D3	50	Tamborim Tail Finger	Standard3 High Tom 1	Standard3 High Tom 1	Standard3 High Tom 1	Standard3 High Tom 1	Horse Gallop
D#3	51	Tamborim Roll	Standard3 Ride Cymbal 1	Standard3 Ride Cymbal 1	Standard3 Ride Cymbal 1	Standard3 Ride Cymbal 1	Lion Roar
E3	52	Standard2 Snare 2	Standard3 Chinese Cymbal	Standard3 Chinese Cymbal	Standard3 Chinese Cymbal	Standard3 Chinese Cymbal	Nightingale
F3	53	Standard2 Snare 2	Standard3 Ride Bell	Standard3 Ride Bell	Standard3 Ride Bell	Standard3 Ride Bell	Peacock
F#3	54	←	←	←	←	←	Applause 3
G3	55	←	Standard3 Splash Cymbal	Standard3 Splash Cymbal	Standard3 Splash Cymbal	Standard3 Splash Cymbal	Footsteps
G#3	56	←	←	←	←	←	Heartbeat
A3	57	←	Standard3 Crash Cymbal 2	Standard3 Crash Cymbal 2	Standard3 Crash Cymbal 2	Standard3 Crash Cymbal 2	Child Crying
A#3	58	←	←	←	←	←	Child Laughing
B3	59	←	Standard3 Ride Cymbal 2	Standard3 Ride Cymbal 2	Standard3 Ride Cymbal 2	Standard3 Ride Cymbal 2	Man Laughing
C4	60	←	←	←	←	←	Punch
C#4	61	←	←	←	←	←	Scream
D4	62	←	←	←	←	←	Roller Coaster
D#4	63	←	←	←	←	←	Bike Vroom
E4	64	←	←	←	←	←	Car Passing
F4	65	←	←	←	←	←	Car Crash
F#4	66	←	←	←	←	←	Car Engine Ignition
G4	67	←	←	←	←	←	Car Horn
G#4	68	←	←	←	←	←	Jet Plane
A4	69	←	Ketipung L Dang Deng	←	Tablah 1	Ban Gu	Submarine
A#4	70	←	Ketipung L Dang Deng Mute	←	Tablah 2	Hu Yin Luo	Car Tires Squeal
B4	71	←	Ketipung L Dang Dhuk 1	Tabla Ge	Tablah 3	Xiao Luo	Train
C5	72	←	Ketipung L Dang Dhuk 2	Tabla Ka	Daf 1	Xiao Bo	Buzzer
C#5	73	Timbal Slap	Ketipung L Dang Dhuk 3	Tabla Te	Daf 2	Low Tang Gu	Coin
D5	74	Timbal Open	Ketipung L Dang Dhuk Fast	Tabla Na	Riq 1	Mid Tang Gu	Scratch
D#5	75	Timbal Bass	Ketipung L Dang Dhuk Long	Tabla Tun	Riq 2	High Tang Gu	Shankh
E5	76	Timbal Moff	Ketipung L Dang Finger Rim	Dholak Ge	Riq 3	Gong 1	Clock Tick-tock
F5	77	Ganza	Ketipung L Dang Skin Left	Dholak Ke	Davul 1	Gong 2	Whistle 1
F#5	78	Ganza Bottom	Ketipung L Dang Thumb Rim	Dholak Ta 1	Davul 2	Yun Luo F#	Whistle 2
G5	79	Triangle 3 Mute 1	Ketipung H Dut Flam Right Finger	Dholak Ta 2	Zill 1	Yun Luo G	Whistle 3
G#5	80	Triangle 3 Mute 2	Ketipung H Dut Ket	Dholak Na	Zill 2	Yun Luo G#	Ambulance Siren
A5	81	Triangle 3 Open	Ketipung H Dut Pok	Dholak Ta 3		Yun Luo A	Blast
A#5	82	Triangle 3 Half Mute	Ketipung H Dut Skin Right	Dholak Ring		Yun Luo A#	Bar Chimes
B5	83	Pandeiro 2 P	Ketipung H Dut Tak	Mridangam Tha		Yun Luo B	Doorbell
C6	84	Pandeiro 2 D	Ketipung H Dut Tang	Mridangam Dhom		Yun Luo C+	Door Slam
C#6	85	Pandeiro 2 G	Ketipung H Dut Tex	Mridangam Dhi		Yun Luo C#+	Door Squeak
D6	86	Pandeiro 2 GDM	Ketipung H Dut Tung	Mridangam Dhin		Yun Luo D+	Firework
D#6	87	Pandeiro 2 T	Rebana Hadroh D1	Mridangam Num		Yun Luo D#+	Gunshot
E6	88	Pandeiro 2 /G	Rebana Hadroh D2	Tabla Ge Slide 1	Riq Jingle	Yun Luo E+	Machine Gun
F6	89	Pandeiro 2 G/DM	Rebana Hadroh D&D	Tabla Ge Slide 2	Riq Slap	Yun Luo F+	Police Siren
F#6	90	Pandeiro 2 G/DM	Rebana Hadroh T1	Bhangra Alra	Riq Tek 1	Yun Luo F#+	Telephone Call
G6	91	Pandeiro 2 Jingle	Rebana Hadroh T2	Bhangra Chakde	Riq Tek 2	Yun Luo G+	Telephone Ring
G#6	92		Rebana Hadroh T&T	Bhangra Ashke		Yun Luo G#+	Temple Bell
A6	93			Bhangra Hoye		Yun Luo A+	
A#6	94			Bhangra Oho		Yun Luo A#+	
B6	95			Bhangra Oh-Balle		Yun Luo B+	
C7	96			Bhangra Oh-Shava		Yun Luo C++	
C#7	97			Nagada Rim 1			
D7	98			Nagada Rim 2			
D#7	99			Duff Close			
E7	100			Duff Open			
F7	101			Duffli Close 1			
F#7	102			Duffli Close 2			
G7	103			Duffli Close 3			
G#7	104			Duffli Open 1			
A7	105			Duffli Open 2			
A#7	106			Duffli Jingle 1			
B7	107			Duffli Jingle 2			
C8	108			Dhol L			
C#8	109		←	Dhol H			
D8	110		←	Dumru			
D#8	111		←	Ghungroo 1			
E8	112		←	Ghungroo 2			
F8	113		←	Ghungroo 3			
F#8	114		←	Tasha 1			
G8	115		←	Tasha 2			
G#8	116		←	Tabla Chi			
A8	117		←				
A#8	118		←				
B8	119		←				
C9	120						
C#9	121						
D9	122						
D#9	123						
E9	124						
F9	125						
F#9	126						
G9	127						

• "←" indicates a key is assigned the same tones as it is for 765:STANDARD SET 1.

Key	Note No.	795 : SFX SET 2	796 : SNARE SET 1	797 : SNARE SET 2	798 : KICK SET	799 : CYMBAL SET	800 : TOM SET
C-1	0						
C#-1	1						
D-1	2						
E♭-1	3						
E-1	4						
F-1	5						
F#-1	6						
G-1	7						
A♭-1	8						
A-1	9					Concert Cymbal 2	
B♭-1	10					Concert Cymbal 1	
B-1	11					Brush Crash Cymbal 1	
C0	12					Brush Ride Cymbal 1	
C#0	13					Brush Ride Bell	
D0	14					Brush Splash Cymbal	
E♭0	15					Brush Crash Cymbal 2	
E0	16					Brush Ride Cymbal 2	
F0	17					DM2 Closed Hi-Hat 1	
F#0	18					DM2 Closed Hi-Hat 2	
G0	19					DM2 Open Hi-Hat	
A♭0	20					DM1 Closed Hi-Hat 1	
A0	21					DM1 Closed Hi-Hat 2	
B♭0	22					DM1 Open Hi-Hat	
B0	23					DM1 Crash Cymbal	
C1	24					DM1 Ride Cymbal	Jazz Low Tom 2
C#1	25					Reverse Cymbal	Jazz Low Tom 1
D1	26					Rock Closed Hi-Hat	Jazz Mid Tom 2
E♭1	27					Rock Pedal Hi-Hat	Jazz Mid Tom 1
E1	28					Rock Open Hi-Hat	Jazz High Tom 2
F1	29					Rock Crash Cymbal 1	Jazz High Tom 1
F#1	30					Rock Ride Cymbal 1	Brush Low Tom 2
G1	31					Rock Chinese Cymbal	Brush Low Tom 1
A♭1	32					Rock Ride Bell	Brush Mid Tom 2
A1	33					Rock Splash Cymbal	Brush Mid Tom 1
B♭1	34					Rock Crash Cymbal 2	Brush High Tom 2
B1	35					Rock Ride Cymbal 2	Brush High Tom 1
C2	36	Car Horn	Standard1 Snare 1	4inch Shot L Edge	Standard1 Kick 2	Standard1 Closed Hi-Hat	Standard1 Low Tom 2
C#2	37		Standard1 Snare 2	4inch Close Rim	Standard1 Kick 1	Standard1 Pedal Hi-Hat	Standard1 Low Tom 1
D2	38		Standard2 Snare 1	4inch Shot L	Standard2 Kick 2	Standard1 Open Hi-Hat	Standard1 Mid Tom 2
E♭2	39		Standard2 Snare 2	4inch Close Rim Edge	Standard2 Kick 1	Standard1 Crash Cymbal 1	Standard1 Mid Tom 1
E2	40		Standard3 Snare 1	4inch Shot R	Standard3 Kick 2	Standard1 Ride Cymbal 1	Standard1 High Tom 2
F2	41		Standard3 Snare 2	4inch Flam	Standard3 Kick 1	Standard1 Chinese Cymbal	Standard1 High Tom 1
F#2	42		Standard4 Snare 1	4inch Ghost	Standard4 Kick 2	Standard1 Ride Bell	Standard2 Low Tom 2
G2	43		Standard4 Snare 2	4inch Snappie Off	Standard4 Kick 1	Standard1 Splash Cymbal	Standard2 Low Tom 1
A♭2	44		Standard5 Snare 1	4inch Snappie Off Edge	Standard5 Kick 2	Standard1 Crash Cymbal 2	Standard2 Mid Tom 2
A2	45		Standard5 Snare 2	4inch Roll	Standard5 Kick 1	Standard1 Ride Cymbal 2	Standard2 Mid Tom 1
B♭2	46		Dance1 Snare 1	4inch Roll Cres.	Dance1 Kick 1	Standard2 Closed Hi-Hat	Standard2 High Tom 2
B2	47		Dance1 Snare 2		Dance1 Kick 2	Standard2 Pedal Hi-Hat	Standard2 High Tom 1
C3	48	Train	Dance1 Snare 3	5inch Shot L Edge	Dance1 Kick 3	Standard2 Open Hi-Hat	Standard3 Low Tom 2
C#3	49		Dance1 Snare 4	5inch Close Rim	Dance1 Kick 4	Standard2 Crash Cymbal 1	Standard3 Low Tom 1
D3	50		Dance1 Snare 5	5inch Shot L	Dance1 Kick 5	Standard2 Ride Cymbal 1	Standard3 Mid Tom 2
E♭3	51		Dance1 Snare 6	5inch Close Rim Edge	DM2 Kick 1 Rev.	Standard2 Chinese Cymbal	Standard3 Mid Tom 1
E3	52		Dance1 Snare 7	5inch Shot R	DM2 Kick 2	Standard2 Ride Bell	Standard3 High Tom 2
F3	53		Dance1 Snare 8	5inch Flam	DM1 Kick 1	Standard2 Splash Cymbal	Standard3 High Tom 1
F#3	54		Dance1 Snare 9	5inch Ghost	DM1 Kick 2	Standard2 Crash Cymbal 2	Dance4 Low Tom 2
G3	55		Hip-Hop Snare 4	5inch Snappie Off	DM1 Kick 3	Standard2 Ride Cymbal 2	Dance4 Low Tom 1
A♭3	56		Hip-Hop Snare 5	5inch Snappie Off Edge	Hip-Hop Kick 3	Standard3 Closed Hi-Hat	Dance4 Mid Tom 2
A3	57		Techno Snare	5inch Roll	Dance4 Kick 4	Standard3 Pedal Hi-Hat	Dance4 Mid Tom 1
B♭3	58		Hip-Hop Snare 3 Rev.	5inch Roll Cres.	Dance4 Kick 5	Standard3 Open Hi-Hat	Dance4 High Tom 2
B3	59		Hip-Hop Snare 4 Gate		Dance6 Kick 1	Standard3 Crash Cymbal 1	Dance4 High Tom 1
C4	60	Buzzer	Hip-Hop Snare 3 Gate	6inch Shot L Edge	Dance6 Kick 4	Standard3 Ride Cymbal 1	DM3 Low Tom 2
C#4	61		Techno Snare Gate	6inch Close Rim	DM3 Kick 2	Standard3 Chinese Cymbal	DM3 Low Tom 1
D4	62		DM2 Snare 1	6inch Shot L	DM3 Kick 3	Standard3 Ride Bell	DM3 Mid Tom 2
E♭4	63		DM2 Snare 2	6inch Close Rim Edge	DM3 Kick 4	Standard3 Splash Cymbal	DM3 Mid Tom 1
E4	64		DM1 Snare 1	6inch Shot R	Dance5 Kick 2	Standard3 Crash Cymbal 2	DM3 Low Tom 4
F4	65		DM1 Snare 2	6inch Flam	Dance5 Kick 1	Standard3 Ride Cymbal 2	DM3 Low Tom 3
F#4	66		Dance1 Snare 1 Gate	6inch Ghost	Dance5 Kick 3	Standard4 Closed Hi-Hat	DM3 High Tom 1
G4	67		Dance4 Snare Rev.	6inch Snappie Off	Dance6 Kick 2	Standard4 Pedal Hi-Hat	DM3 Mid Tom 4
A♭4	68		Dance4 Snare 1	6inch Snappie Off Edge	Dance6 Kick 3	Standard4 Open Hi-Hat	DM3 Mid Tom 3
A4	69		Dance4 Snare 2	6inch Roll	Dance5 Kick 3	Standard5 Closed Hi-Hat	DM3 High Tom 3
B♭4	70		Dance4 Snare 3	6inch Roll Cres.	Dance6 Kick 2	Standard5 Pedal Hi-Hat	DM3 High Tom 2
B4	71		Dance6 Snare 1		Dance6 Kick 3	Standard5 Open Hi-Hat	DM3 High Tom 1
C5	72	Clock Tick-tock	Dance6 Snare 2	Orch. Shot	Dance6 Kick 3	Reverse Cymbal Gate	Rock Low Tom 2
C#5	73		DM3 Snare 1	Orch. Roll Cres.	Trance Kick 2	Techno Cymbal	Rock Low Tom 1
D5	74		DM3 Snare 2	Orch. Roll	Trance Kick 1	Dance4 Open Hi-Hat Rev.	Rock Mid Tom 2
E♭5	75		DM3 Snare 3		Hip-Hop Kick 2	Dance4 Closed Hi-Hat 1	Rock Mid Tom 1
E5	76		DM3 Snare 4	Brush2 Press Tap L	Hip-Hop Kick 1	Dance4 Closed Hi-Hat 2	Rock High Tom 1
F5	77		Dance5 Snare 1	Brush2 Tap L	Room Kick 2	Dance4 Closed Hi-Hat 3	Elec.Low Tom 2
F#5	78		Dance5 Snare 2	Brush2 Tap R	Room Kick 1	Dance4 Closed Hi-Hat 4	Elec.Low Tom 1
G5	79		Dance5 Snare 3	Brush2 Press Tap R	Power Kick 2	Dance4 Closed Hi-Hat 5	Elec.Mid Tom 2
A♭5	80		VL Snare	Brush2 Rubbing Short	Power Kick 1	Dance4 Closed Hi-Hat 6	Elec.Mid Tom 1
A5	81		Dance6 Noise Down	Brush2 Hit-Rubbing Short	Rock Kick 2	Dance4 Open Hi-Hat 1	Elec.High Tom 2
B♭5	82		Dance6 Snare 2	Brush2 Rubbing Long	Rock Kick 1	Dance4 Open Hi-Hat 2	Elec.High Tom 1
B5	83		Dance6 SE Snare	Brush2 Hit-Rubbing Long	Elec.Kick 2	DM3 Closed Hi-Hat 1	Elec.High Tom 1
C6	84	Door Squeak	Dance6 SE Rev.Snare 2	Brush2 Var.1	Elec.Kick 1	DM3 Closed Hi-Hat 2	Standard5 Low Tom 2
C#6	85		Dance6 Gate Snare	Brush2 Var.2	Rock Kick 1	DM3 Open Hi-Hat 1	Standard5 Low Tom 1
D6	86		Dance6 Rev.Snare 2		Jazz Kick 2	DM3 Open Hi-Hat 2	Standard5 Mid Tom 2
E♭6	87				Jazz Kick 1	DM3 Ride Cymbal 1	Standard5 Mid Tom 1
E6	88				Brush Kick	DM3 Closed Hi-Hat 3	Standard5 High Tom 2
F6	89					DM3 Crash Cymbal 1	Standard5 High Tom 1
F#6	90					DM3 Crash Cymbal 2	Room Low Tom 2
G6	91					DM3 Ride Cymbal 2	Room Low Tom 1
A♭6	92					Dance5 Closed Hi-Hat	Room Mid Tom 2
A6	93					Dance5 Open Hi-Hat 1	Room Mid Tom 1
B♭6	94					Dance5 Open Hi-Hat 2	Room High Tom 1
B6	95						
C7	96						
C#7	97					Dance6 Open Hi-Hat 1	DM1 Low Tom 2
D7	98					Dance6 Open Hi-Hat 2	DM1 Low Tom 1
E♭7	99					Dance6 Closed Hi-Hat 1	DM1 Mid Tom 2
E7	100					Dance6 Crash 2	DM1 Mid Tom 1
F7	101					Dance6 Filter Hi-Hat L	DM1 High Tom 2
F#7	102					Dance6 Filter Hi-Hat R	DM1 High Tom 1
G7	103					Dance6 Closed Hi-Hat 2	DM2 Low Tom 2
A♭7	104					Dance6 Closed Hi-Hat 3	DM2 Low Tom 1
A7	105					Dance6 Closed Hi-Hat 4	DM2 Mid Tom 2
B♭7	106					Dance6 Noise Hi-Hat	DM2 Mid Tom 1
B7	107					Trance Closed Hi-Hat	DM2 High Tom 2
C8	108					Trance Open Hi-Hat 1	DM2 High Tom 1
C#8	109					Trance Open Hi-Hat 2	
D8	110					Hip-Hop Closed Hi-Hat	
E♭8	111					Hip-Hop Pedal Hi-Hat	
E8	112					Hip-Hop Open Hi-Hat	
F8	113					Room Closed Hi-Hat	
F#8	114					Room Pedal Hi-Hat	
G8	115					Room Open Hi-Hat	
A♭8	116						
A8	117						
B♭8	118						
B8	119						
C9	120						
C#9	121						
D9	122						
E♭9	123						
E9	124						
F9	125						
F#9	126						
G9	127						

• "←" indicates a key is assigned the same tones as it is for 765:STANDARD SET 1.

Versatile Tone Map

Key	Velocity	Sound
155 VERSATILE NYLON GUITAR		
	1-30	Normal mp
	31-60	Normal mf
	61-75	Ghost Note
C1 - B6	76-90	Mute
	91-105	Hammering
	106-120	Glissando
	121-127	Open Harmonics
C7	1-127	Strum 1
C#7	1-127	Strum 2
D7	1-127	Strum 3
E♭7	1-127	Strum 4
E7	1-127	Strum 5
F7	1-127	Strum 6
F#7	1-127	Strum 7
G7	1-127	Strum 8
A♭7	1-127	Strum 9
A7	1-127	Strum 10
B♭7	1-127	Strum 11
B7	1-127	Strings Slap 1
C8	1-127	Strings Slap 2
C#8	1-127	Strings Slap 3
D8	1-127	Strings Slap 4
E♭8	1-127	Strings Slap 5
E8	1-127	Body 1
F8	1-127	Body 2
F#8	1-127	Body 3
G8	1-127	Body 4
A♭8	1-127	Body 5
A8	1-127	Body 6
B♭8	1-127	Body 7
B8	1-127	Body 8
C9	1-127	Fret Noise1
C#9	1-127	Fret Noise2
D9	1-127	Fret Noise3
E♭9	1-127	Fret Noise4
E9	1-127	Fret Noise5
F9	1-127	Head String1
F#9	1-127	Head String2
G9	1-127	Head String3
156 VERSATILE STEEL GUITAR		
	1-30	Normal mp
	31-60	Normal mf
	61-75	Ghost Note
C1 - B6	76-90	Mute
	91-105	Hammering
	106-120	Glissando
	121-127	Open Harmonics
C7	1-127	Strum 1

Key	Velocity	Sound
C#7	1-127	Strum 2
D7	1-127	Strum 3
E♭7	1-127	Strum 4
E7	1-127	Strum 5
F7	1-127	Strum 6
F#7	1-127	Strum 7
G7	1-127	Strum 8
A♭7	1-127	Strum 9
A7	1-127	Strings Slap 1
B♭7	1-127	Strings Slap 2
B7	1-127	Strings Slap 3
C8	1-127	Strings Slap 4
C#8	1-127	Strings Slap 5
D8	1-127	Strings Slap 6
E♭8	1-127	Strings Slap 7
E8	1-127	Body 1
F8	1-127	Body 2
F#8	1-127	Body 3
G8	1-127	Body 4
A♭8	1-127	Body 5
A8	1-127	Body 6
B♭8	1-127	Body 7
B8	1-127	Body 8
C9	1-127	Fret Noise1
C#9	1-127	Fret Noise2
D9	1-127	Fret Noise3
E♭9	1-127	Fret Noise4
E9	1-127	Fret Noise5
F9	1-127	Head String1
F#9	1-127	Head String2
G9	1-127	Head String3
211 VERSATILE SINGLE COIL E.GUITAR		
	1-30	Normal mp
	31-60	Normal mf
	61-75	Ghost Note
C1 - B6	76-90	Mute
	91-105	Hammering
	106-120	Glissando
	121-127	Open Harmonics
C7	1-127	Strum 1
C#7	1-127	Strum 2
D7	1-127	Strum 3
E♭7	1-127	Strum 4
E7	1-127	Strum 5
F7	1-127	Strum 6
F#7	1-127	Strum 7
G7	1-127	Strum 8
A♭7	1-127	Strum 9
A7	1-127	Strum 10

Key	Velocity	Sound
B♭7	1-127	Strum 11
B7	1-127	Strum 12
C8	1-127	Strum 13
C♯8	1-127	Strum 14
D8	1-127	Low Ghost Note 1
E♭8	1-127	Low Ghost Note 2
E8	1-127	Low Ghost Note 3
F8	1-127	Low Ghost Note 4
F♯8	1-127	Low Ghost Note 5
G8	1-127	Low Ghost Note 6
A♭8	1-127	Low Ghost Note 7
A8	1-127	Low Ghost Note 8
B♭8	1-127	Low Ghost Note 9
B8	1-127	Low Ghost Note 10
C9	1-127	Fret Noise1
C♯9	1-127	Fret Noise2
D9	1-127	Fret Noise3
E♭9	1-127	Fret Noise4
E9	1-127	Fret Noise5
F9	1-127	Fret Noise6
F♯9	1-127	Fret Noise7
G9	1-127	Fret Noise8
246 VERSATILE ELECTRIC BASS 1		
C1 - B6	1-60	Normal mf
	61-80	Normal ff
	81-120	Ghost Note
	121-127	Slap
C7	1-127	Gliss 1
C♯7	1-127	Gliss 2
D7	1-127	Gliss 3
E♭7	1-127	Gliss 4
E7	1-127	Gliss 5
F7	1-127	Gliss 6
F♯7	1-127	Gliss 7
G7	1-127	Fret Noise 1
A♭7	1-127	Fret Noise 2
247 VERSATILE ELECTRIC BASS 2		
C1 - B6	1-60	Normal mf
	61-80	Normal ff
	81-120	Ghost Note
	121-127	Slap
C7	1-127	Gliss 1
C♯7	1-127	Gliss 2
D7	1-127	Gliss 3
E♭7	1-127	Gliss 4
E7	1-127	Gliss 5
F7	1-127	Gliss 6
F♯7	1-127	Gliss 7
G7	1-127	Fret Noise 1
A♭7	1-127	Fret Noise 2

Key	Velocity	Sound
319 VERSATILE BRASS 1		
C1 - G9	1-20	Normal mf
	21-40	Normal f
	41-60	Normal ff
	61-80	Attack
	81-90	Schoop
	91-100	Shake
	101-110	Falls Fast mf
	111-120	Falls Fast f
	121-127	Gliss up
320 VERSATILE BRASS 2		
C1 - G9	1-30	Normal f
	31-60	Normal ff
	61-75	Attack
	76-90	Schoop
	91-105	Shake
	106-120	Falls Fast f
	121-127	Gliss up

🔍 **NOTE**

• Versatile tones are intended for DTM (desktop music, or computer music). Performance sounds of stringed instruments, wind instruments, and other instruments, as well as noise peculiar to instruments are assigned in accordance with the key press strength (velocity). Because of this, when playing on the keyboard, relatively slight changes in keyboard pressure can result in large changes in volume, or changes in keyboard pressure may be opposite what is expected.

DSP List

DSP No.	Indicator	Module1	Module2	Module3	Module4
1	Mono 1BandEQ	Mono 1-Band EQ			
2	Mono 2BandEQ	Mono 2-Band EQ			
3	Mono 3BandEQ	Mono 3-Band EQ			
4	Stereo1BndEQ	Stereo 1-Band EQ			
5	Stereo2BndEQ	Stereo 2-Band EQ			
6	Stereo3BndEQ	Stereo 3-Band EQ			
7	Tone Control	Tone Control			
8	Compressor	Compressor			
9	Limiter	Limiter			
10	Enhancer	Enhancer			
11	Phaser	Phaser			
12	Chorus	Chorus			
13	Flanger	Flanger			
14	Tremolo	Tremolo			
15	Auto Pan	Auto Pan			
16	Rotary	Rotary			
17	Drive Rotary	Drive Rotary			
18	LFO Wah	LFO Wah			
19	Auto Wah	Auto Wah			
20	Modeling Wah	Modeling Wah			
21	Pitch	Pitch			
22	Ring Mod	Ring Modulator			
23	Piano Effect	Piano Effect			
24	Distortion	Distortion			
25	Drive	Drive	Tone Control		
26	Amp Cab	Amp Cab			
27	Re-Amp 1	Compressor	Amp Cab	Enhancer	Tone Control
28	Re-Amp 2	Compressor	Limiter	Amp Cab	Delay
29	Re-Amp 3	Compressor	Limiter	Amp Cab	Mono 2-Band EQ
30	Re-Amp 4	Compressor	Limiter	Amp Cab	Delay
31	Re-Amp 5	Distortion	Delay		
32	Drive Amp 1	Mono 3-Band EQ	Drive	Tone Control	Amp Cab
33	Drive Amp 2	Drive	Tone Control	Amp Cab	Tremolo
34	Drive Amp 3	Drive	Tone Control	Amp Cab	AutoPan
35	Drive Amp 4	Drive	Tone Control	Amp Cab	Phaser
36	Drive Amp 5	Drive	Tone Control	Amp Cab	Flanger
37	Drive Amp 6	Drive	Tone Control	Amp Cab	Pitch Shifter
38	OctaveDrvAmp	Pitch Shifter	Drive	Tone Control	Amp Cab
39	PhaseDrvAmp	Phaser	Drive	Tone Control	Amp Cab
40	DelayDrvAmp	Drive	Tone Control	Amp Cab	Delay
41	Comp Amp 1	Compressoror	Drive	Mono 1-Band EQ	Amp Cab
42	Comp Amp 2	Drive	Compressoror	Mono 1-Band EQ	Amp Cab
43	Deley OD Amp	Drive	Enhancer	Amp Cab	Delay
44	Wah Drv Amp	Modeling Wah	Drive	Amp Cab	
45	DelayWahAmp	LFO Wah	Drive	Amp Cab	Delay
46	Auto Wah Amp	Auto Wah	Drive	Amp Cab	Delay

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DSP No.	Indicator	Module1	Module2	Module3	Module4
47	DriveAmpMod1	Drive	Amp Cab	Phaser	Flanger
48	DriveAmpMod2	LFO Wah	Drive	Amp Cab	Tremolo
49	S/H DriveAmp	LFO Wah	Drive	Amp Cab	Auto Pan
50	PhaseDrvAmp2	Drive	Amp Cab	Phaser	Delay
51	FlngrDelyAmp	Drive	Amp Cab	Flanger	Delay
52	PitchModAmp	Drive	Amp Cab	Pitch Shifter	Delay
53	Drive Rotary	Drive	Rotary		
54	DrvRotaryEQ	Drive Rotary	Stereo 3-Band EQ		
55	DrvRotaryPan	Drive Rotary	Auto Pan		
56	PhaserAmpPan	Drive	Amp Cab	Phaser	Auto Pan
57	FlangrAmpPan	Drive	Amp Cab	Flanger	Auto Pan
58	ReflctAmpPan	Drive	Amp Cab	Reflection	Auto Pan
59	DualDriveAmp	Drive	Drive	Mono 2-Band EQ	Amp
60	DualDrvAmpDl	Drive	Drive	Amp Cab	Delay
61	BassAmpAmbi	Tone Control	Compressor	Amp Cab	Delay
62	Comp Ambi 1	Tone Control	Compressor	Enhancer	Reflection
63	Comp Ambi 2	Tone Control	Compressor	Amp Cab	Delay
64	Comp Ambi 3	Drive	Compressor	Amp Cab	Delay
65	Comp Ambi 4	Drive	Compressor	Amp Cab	Delay
66	EnhanceAmbi1	Drive	Enhancer	Amp Cab	Delay
67	EnhanceAmbi2	Drive	Reflection	Amp Cab	Delay
68	Comp Mod 1	Tone Control	Compressor	Tremolo	Tone Control
69	Comp Mod 2	Tone Control	Compressor	Phaser	Reflection
70	Comp Mod 3	Tone Control	Compressor	Flanger	Phaser
71	Comp Mod 4	Compressor	Tremolo	Flanger	Delay
72	VibraphonTrm	Vibraphone Tremolo			
73	EQ Mod 1	Tone Control	Tone Control	Phaser	Amp Cab
74	EQ Mod 2	Tone Control	Flanger	Tone Control	Delay
75	EQ Mod 3	Tone Control	Chorus	Tone Control	Delay
76	EQ Mod 4	Tone Control	Tremolo	Chorus	Delay
77	Double Phase	Amp Cab	Phaser	Phaser	Enhancer
78	DoubleFlang1	Amp Cab	Flanger	Flanger	Tone Control
79	DoubleFlang2	Amp Cab	Flanger	Flanger	Phaser
80	Tremolo Spin	Tremolo	Drive Rotary	Tone Control	
81	AmbientEnh 1	Enhancer	Reflection	Delay	Tone Control
82	AmbientEnh 2	Tone Control	Enhancer	Reflection	Delay
83	AmbientEnh 3	Tone Control	Drive	Amp Cab	Delay
84	AmbientEnh 4	Piano Effect	Delay	Tone Control	
85	AmbientEnh 5	Enhancer	Delay	Tone Control	
86	AmbientEnh 6	Drive	Delay	Tone Control	
87	Pitch Delay	Delay	Pitch	Phaser	Auto Pan
88	ReflectDelay	Reflection	Enhancer	Auto Pan	Delay
89	Drive Delay	Drive	Delay	Tone Control	
90	Pitch Mod 1	Tone Control	Phaser	Delay	Pitch
91	Pitch Mod 2	Pitch	Delay	Phaser	Tone Control
92	Double Enhan	Amp Cab	Enhancer	Enhancer	
93	Drive Enhan	Drive	Enhancer	Enhancer	
94	Reflection 1	Reflection	Delay	Tone Control	
95	Reflection 2	Delay	Reflection	Enhancer	Tone Control

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DSP No.	Indicator	Module1	Module2	Module3	Module4
96	Mod Tremolo	Phaser	Chorus	Flanger	Tremolo
97	Wah Phase	LFO Wah	Phaser	Delay	Tone Control
98	Wah Flanger	Flanger	Flanger	LFO Wah	Tone Control
99	Lo Cut EQ	Tone Control	Tone Control	Tone Control	
100	Hi Cut EQ	Tone Control	Tone Control	Tone Control	

DSP Effect List

DSP Module List

Module Number	DSP Module Name	Indicator	Description
①	Mono 1-Band EQ	MONO 1EQ	This is a single-band monaural equalizer.
②	Mono 2-Band EQ	MONO 2EQ	This is a dual-band monaural equalizer.
③	Mono 3-Band EQ	MONO 3EQ	This is a three-band monaural equalizer.
④	Stereo 1-Band EQ	STREO 1EQ	This is a single-band stereo equalizer.
⑤	Stereo 2-Band EQ	STREO 2EQ	This is a dual-band stereo equalizer.
⑥	Stereo 3-Band EQ	STREO 3EQ	This is a three-band stereo equalizer.
⑦	Tone Control	TONE CTRL	Monaural tone control that adjusts low, mid, and high frequencies.
⑧	Tremolo	TREMOLO	Uses an LFO to shift the volume of the input signal.
⑨	Auto Pan	AUTO PAN	Uses an LFO to shift the phase of the input signal.
⑩	Compressor	COMPRESS	Compresses the input signal and suppresses level variation.
⑪	Limiter	LIMITER	Limits the input signal level so it does not rise above a preset level.
⑫	Enhancer	ENHANCER	Enhances the profiles of the low range and high range of the input signal.
⑬	Phaser	PHASER	Produces a distinctive pulsating, broad sound by using an LFO to change the phase of the input signal and then mixes it with the original input signal.
⑭	Chorus	CHORUS	Gives notes depth and breadth.
⑮	Flanger	FLANGER	Applies wildly pulsating and metallic reverberation to notes. Enables selection of the LFO waveform.
⑯	Rotary	ROTARY	This effect is a rotary speaker simulator.
⑰	Drive Rotary	DRIVE ROT	A rotary speaker simulator that makes overdrive possible.
⑱	Pitch Shifter	PITCH	This effect transforms the pitch of the input signal.
⑲	Ring Modulator	RING MOD	Multiplies the input signal with an internal oscillator signal to create a metallic sound.
⑳	Reflection	REFLECT	An effect that simulates the initial reflection of reverberation. Applies acoustic ambiance and presence to notes.
㉑	Delay	DELAY	Delays the input signal and feeds it back to create a repeating effect.
㉒	Piano Effect	PIANO	An effect suited to acoustic piano play.
㉓	LFO Wah	LFO WAH	"Wah" effect that can automatically affect the frequency using an LFO.
㉔	Auto Wah	AUTO WAH	"Wah" effect that can automatically shift the frequency according to the input signal level.

Module Number	DSP Module Name	Indicator	Description
㉕	Modeling Wah	MODEL WAH	Simulates various types of wah pedals. An effect that can automatically shift the frequency according to the level of the input signal.
㉖	Distortion	DISTORT	Distortion, wah, and amp simulator combined into a single effect.
㉗	Drive	DRIVE	Simulates the drive of a musical instrument amplifier.
㉘	Amp Cab	AMP CAB	Simulates an amp without distortion-generating drive and speaker cabinet.
㉙	Vibraphone Tremolo	VIB TREM	An effect that simulates the tremolo effect of vibraphone.

DSP Parameter List

DSP Module		Description	Settings
Indicator	Parameter Name		
① Mono 1-Band EQ		This is a single-band monaural equalizer.	
EQ Freq	EQ Frequency	Adjusts the center frequency of Equalizer.	*1 (page EN-337)
EQ Gain	EQ Gain	Adjusts the gain of Equalizer.	−12 to 00 to 12
In Level	Input Level	Adjusts the input level.	000 to 127
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127
② Mono 2-Band EQ		This is a dual-band monaural equalizer.	
EQ1 Freq	EQ1 Frequency	Adjusts the center frequency of Equalizer 1.	*1 (page EN-337)
EQ1 Gain	EQ1 Gain	Adjusts the gain of Equalizer 1.	−12 to 00 to 12
EQ2 Freq	EQ2 Frequency	Adjusts the center frequency of Equalizer 2.	*1 (page EN-337)
EQ2 Gain	EQ2 Gain	Adjusts the gain of Equalizer 2.	−12 to 00 to 12
In Level	Input Level	Adjusts the input level.	000 to 127
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127
③ Mono 3-Band EQ		This is a three-band monaural equalizer.	
EQ1 Freq	EQ1 Frequency	Adjusts the center frequency of Equalizer 1.	*1 (page EN-337)
EQ1 Gain	EQ1 Gain	Adjusts the gain of Equalizer 1.	−12 to 00 to 12
EQ2 Freq	EQ2 Frequency	Adjusts the center frequency of Equalizer 2.	*1 (page EN-337)
EQ2 Gain	EQ2 Gain	Adjusts the gain of Equalizer 2.	−12 to 00 to 12
EQ3 Freq	EQ3 Frequency	Adjusts the center frequency of Equalizer 3.	*1 (page EN-337)
EQ3 Gain	EQ3 Gain	Adjusts the gain of Equalizer 3.	−12 to 00 to 12
In Level	Input Level	Adjusts the input level.	000 to 127
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127
④ Stereo 1-Band EQ		This is a single-band stereo equalizer.	
EQ Freq	EQ Frequency	Adjusts the center frequency of Equalizer.	*1 (page EN-337)
EQ Gain	EQ Gain	Adjusts the gain of Equalizer.	−12 to 00 to 12
In Level	Input Level	Adjusts the input level.	000 to 127
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127

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DSP Module		Description	Settings
Indicator	Parameter Name		
⑤ Stereo 2-Band EQ		This is a dual-band stereo equalizer.	
EQ1 Freq	EQ1 Frequency	Adjusts the center frequency of Equalizer 1.	*1 (page EN-337)
EQ1 Gain	EQ1 Gain	Adjusts the gain of Equalizer 1.	−12 to 00 to 12
EQ2 Freq	EQ2 Frequency	Adjusts the center frequency of Equalizer 2.	*1 (page EN-337)
EQ2 Gain	EQ2 Gain	Adjusts the gain of Equalizer 2.	−12 to 00 to 12
In Level	Input Level	Adjusts the input level.	000 to 127
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127
⑥ Stereo 3-Band EQ		This is a three-band stereo equalizer.	
EQ1 Freq	EQ1 Frequency	Adjusts the center frequency of Equalizer 1.	*1 (page EN-337)
EQ1 Gain	EQ1 Gain	Adjusts the gain of Equalizer 1.	−12 to 00 to 12
EQ2 Freq	EQ2 Frequency	Adjusts the center frequency of Equalizer 2.	*1 (page EN-337)
EQ2 Gain	EQ2 Gain	Adjusts the gain of Equalizer 2.	−12 to 00 to 12
EQ3 Freq	EQ3 Frequency	Adjusts the center frequency of Equalizer 3.	*1 (page EN-337)
EQ3 Gain	EQ3 Gain	Adjusts the gain of Equalizer 3.	−12 to 00 to 12
In Level	Input Level	Adjusts the input level.	000 to 127
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127
⑦ Tone Control		Monaural tone control that adjusts low, mid, and high frequencies.	
Low Freq	Low Frequency	Adjusts the cutoff frequency of Low-range	*2 (page EN-337)
Low Gain	Low Gain	Adjusts the Low-range gain.	−12 to 00 to 12
Mid Freq	Mid Frequency	Adjusts the center frequency of Mid-range.	*1 (page EN-337)
Mid Gain	Mid Gain	Adjusts the Mid-range gain.	−12 to 00 to 12
HighFreq	High Frequency	Adjusts the cutoff frequency of High-range	*3 (page EN-337)
HighGain	High Gain	Adjusts the High-range gain.	−12 to 00 to 12
In Level	Input Level	Adjusts the input level.	000 to 127
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127

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DSP Module		Description	Settings
Indicator	Parameter Name		
⑧ Tremolo		Uses an LFO to shift the volume of the input signal.	
Rate	LFO Rate	Adjusts the LFO rate.	000 to 127
Depth	LFO Depth	Adjusts the LFO depth.	000 to 127
Waveform	LFO Waveform	Selects the LFO waveform.	Sine, Triangle, Trapzoid
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127
⑨ Auto Pan		Uses an LFO to shift the phase of the input signal.	
Rate	LFO Rate	Adjusts the LFO rate.	000 to 127
Depth	LFO Depth	Adjusts the LFO depth.	000 to 127
Waveform	LFO Waveform	Selects the LFO waveform.	Sine, Triangle, Trapzoid
Manual	Manual	Adjusts the pan (stereo position). –64 is full left, 0 is center, and +63 is full right.	–64 to 00 to 63
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127
⑩ Compressor		Compresses the input signal and suppresses level variation.	
Attack	Attack	Adjusts the time until compression goes into effect. A smaller value causes prompt compressor operation, which suppresses the attack of the input signal. A larger values delays compressor operation, which causes the attack of the input signal to be output as-is.	000 to 127
Release	Release	Adjusts the time until compression is released after the input signal drops below a prescribed level. When an attack feeling is desired (no compression at the onset of the sound), set this parameter to as low a value as possible. To have compression applied at all times, set a high value.	000 to 127
Ratio	Ratio	Adjusts the compression ratio of the audio signal.	1:1, 2:1, 4:1, 8:1, 16:1, 32:1, Inf:1
WetLevel	Wet Level	Adjusts the level of the effect sound. Output volume changes in accordance with the Ratio setting and the characteristics of the input tone.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127

DSP Module		Description	Settings
Indicator	Parameter Name		
⑪ Limiter		Limits the input signal level so it does not rise above a preset level.	
Limit	Limit	Adjusts the volume level of the limit at which limiting is applied.	000 to 127
Attack	Attack	Adjusts the time until the compression effect starts. A smaller value causes prompt limiter operation, which suppresses the attack of the input signal. A larger values delays limiter operation, which causes the attack of the input signal to be output as-is.	000 to 127
Release	Release	Adjusts the time until compression is released after the input signal drops below a prescribed level.	000 to 127
WetLevel	Wet Level	Adjusts the level of the effect sound. Output volume changes in accordance with the Limit setting and the characteristics of the input tone. Use this parameter to correct for such changes.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127
⑫ Enhancer		Enhances the profiles of the low range and high range of the input signal.	
Low Freq	Low Frequency	Adjusts the low range enhancer frequency.	000 to 127
Low Gain	Low Gain	Adjusts the low range enhancer gain.	000 to 127
HighFreq	High Frequency	Adjusts the high range enhancer frequency.	000 to 127
HighGain	High Gain	Adjusts the high range enhancer gain.	000 to 127
In Level	Input Level	Adjusts the input level.	000 to 127
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127
⑬ Phaser		Produces a distinctive pulsating, broad sound by using an LFO to change the phase of the input signal and then mixes it with the original input signal.	
Resonanc	Resonance	Adjusts the strength of feedback.	000 to 127
Manual	Manual	Adjusts the reference phaser shift amount.	−64 to 00 to 63
Rate	LFO Rate	Adjusts the LFO rate.	000 to 127
Depth	LFO Depth	Adjusts the LFO depth.	000 to 127
Waveform	LFO Waveform	Selects the LFO waveform.	Sine, Triangle, Random
In Level	Input Level	Adjusts the input level.	000 to 127
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127

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DSP Module		Description	Settings
Indicator	Parameter Name		
⑭ Chorus		Gives notes depth and breadth.	
Rate	LFO Rate	Adjusts the LFO rate.	000 to 127
Depth	LFO Depth	Adjusts the LFO depth.	000 to 127
Waveform	LFO Waveform	Selects the LFO waveform.	Sine, Triangle
Feedback	Feedback	Adjusts the strength of feedback	–64 to 00 to 63
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
Polarity	Polarity	Inverts the LFO of one channel.	Negative, Positive
In Level	Input Level	Adjusts the input level.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127
⑮ Flanger		Applies wildly pulsating and metallic reverberation to notes. Enables selection of the LFO waveform.	
Rate	LFO Rate	Adjusts the LFO rate.	000 to 127
Depth	LFO Depth	Adjusts the LFO depth.	000 to 127
Waveform	LFO Waveform	Selects the LFO waveform.	Sine, Triangle, Random
Feedback	Feedback	Adjusts the strength of feedback	–64 to 00 to 63
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
In Level	Input Level	Adjusts the input level.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127
⑯ Rotary		This effect is a rotary speaker simulator.	
Type	Type	Selects the rotary speaker type.	0 to 3
Speed	Speed	Switches the speed mode between fast and slow.	Slow, Fast
Brake	Brake	Stops speaker rotation.	Rotate, Stop
FallAcel	Fall Accel	Adjusts acceleration when the speed mode is switched from fast to slow.	000 to 127
RiseAcel	Rise Accel	Adjusts acceleration when the speed mode is switched from slow to fast.	000 to 127
SlowRate	Slow Rate	Adjusts the speaker rotation speed in the slow speed mode.	000 to 127
FastRate	Fast Rate	Adjusts the speaker rotation speed in the fast speed mode.	000 to 127
Vib/Cho	Vibrato/Chorus	Selects the vibrato and the chorus type.	Off, Vibrato1, Chorus 1, Vibrato2, Chorus 2, Vibrato3, Chorus 3
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127

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DSP Module		Description	Settings
Indicator	**Parameter Name**		
⑰ Drive Rotary		A rotary speaker simulator that makes overdrive possible.	
Type	Type	Selects the rotary speaker type.	0 to 3
OD Gain	Overdrive Gain	Adjusts overdrive gain.	000 to 127
OD Level	Overdrive Level	Adjusts the overdrive output level.	000 to 127
Speed	Speed	Switches the speed mode between fast and slow.	Slow, Fast
Brake	Brake	Stops speaker rotation.	Rotate, Stop
FallAcel	Fall Accel	Adjusts acceleration when the speed mode is switched from fast to slow.	000 to 127
RiseAcel	Rise Accel	Adjusts acceleration when the speed mode is switched from slow to fast.	000 to 127
SlowRate	Slow Rate	Adjusts the speaker rotation speed in the slow speed mode.	000 to 127
FastRate	Fast Rate	Adjusts the speaker rotation speed in the fast speed mode.	000 to 127
Vib/Cho	Vibrato/Chorus	Selects the vibrato and the chorus type.	Off, Vibrato1, Chorus 1, Vibrato2, Chorus 2, Vibrato3, Chorus 3
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127
⑱ Pitch Shifter		This effect transforms the pitch of the input signal.	
Pitch	Pitch	Adjusts the pitch shift amount in quarter tone steps.	−24 to 00 to 24
HighDamp	High Damp	Adjusts the high-range damp. A smaller number increases damping.	000 to 127
Feedback	Feedback	Adjusts the feedback amount.	000 to 127
In Level	Input Level	Adjusts the input level.	000 to 127
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127
Fine	Fine	Adjusts the pitch shift amount. −50 is a quarter note decrease, while +50 is a quarter note increase.	−50 to 00 to 50
⑲ Ring Modulator		Multiplies the input signal with an internal oscillator signal to create a metallic sound.	
OSC Freq	OSC Frequency	Sets the reference frequency of the internal oscillator.	000 to 127
Rate	LFO Rate	Adjusts the LFO rate.	000 to 127
Depth	LFO Depth	Adjusts the LFO depth.	000 to 127
Tone	Tone	Adjusts the timbre of the ring modulator input sound.	000 to 127
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127

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DSP Module		Description	Settings
Indicator	**Parameter Name**		
⑳ Reflection		An effect that simulates the initial reflection of reverberation. Applies acoustic ambiance and presence to notes.	
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
Feedback	Feedback	Adjusts the repeat of the reflected sound.	000 to 127
Tone	Tone	Adjusts the tone of the reflected sound.	000 to 127
In Level	Input Level	Adjusts the input level.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127
㉑ Delay		Delays the input signal and feeds it back to create a repeating effect.	
Time	Delay Time	Adjusts the total delay time in 1 ms units.	0001 to 1099
TmRatioL	Delay Ratio L	Adjusts the ratio of the left channel relative to the total delay time.	000 to 127
TmRatioR	Delay Ratio R	Adjusts the ratio of the right channel relative to the total delay time.	000 to 127
Level L	Delay Level L	Adjusts the level of the left channel.	000 to 127
Level R	Delay Level R	Adjusts the level of the right channel.	000 to 127
FdbkType	Feedback Type	Selects the feedback type. Stereo: Stereo feedback Cross: Cross feedback	Stereo, Cross
Fdbk Lvl	Feedback	Adjusts the feedback amount.	000 to 127
Hi Damp	High Damp	Adjusts the high-range damp. A smaller number increases damping.	000 to 127
TmpoSync	Delay Tempo Sync	Specifies how the actual total delay time is synced with tempo. Off: Uses Delay Time value. 1/4 to 1: Uses value in accordance with number of beats.	Off, 1/4, 1/3, 3/8, 1/2, 2/3, 3/4, 1
In Level	Input Level	Adjusts the input level.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
㉒ Piano Effect		An effect suited to acoustic piano play.	
Lid Type	Lid Type	Adjusts how sound resonates in accordance with the opening state of a piano lid.	Closed, SemiOpen, FullOpen
RefLevel	Reflection Level	Adjusts the level of the initial reflection.	000 to 127
In Level	Input Level	Adjusts the input level.	000 to 127
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127

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DSP Module		Description	Settings
Indicator	**Parameter Name**		
㉓ LFO Wah		"Wah" effect that can automatically affect the frequency using an LFO.	
In Level	Input Level	Adjusts the input level. The input signal can become distorted when the level of the sound being input, the number of chords, or the Resonance value is large. Adjust this parameter to eliminate such distortion.	000 to 127
Resonanc	Resonance	Adjusts the strength of feedback	000 to 127
Manual	Manual	Adjusts the wah filter reference frequency.	000 to 127
Rate	LFO Rate	Adjusts the LFO rate.	000 to 127
Depth	LFO Depth	Adjusts the LFO depth.	000 to 127
Waveform	LFO Waveform	Selects the LFO waveform.	Sine, Triangle, Random
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127
㉔ Auto Wah		"Wah" effect that can automatically shift the frequency according to the input signal level.	
In Level	Input Level	Adjusts the input level. The input signal can become distorted when the level of the sound being input, the number of chords, or the Resonance value is large. Adjust this parameter to eliminate such distortion.	000 to 127
Resonanc	Resonance	Adjusts the strength of feedback	000 to 127
Manual	Manual	Adjusts the wah filter reference frequency.	000 to 127
Depth	Depth	Adjusts the depth of the wah in accordance with the level of the input signal. Setting a positive value causes the wah filter to open in direct proportion with the size of the input signal, producing a bright sound. Setting a negative value causes the wah filter to close in direct proportion with the size of the input signal, producing a dark sound.	–64 to 00 to 63
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127

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DSP Module		Description	Settings
Indicator	**Parameter Name**		
㉕ Modeling Wah		Simulates various types of wah pedals. An effect that can automatically shift the frequency according to the level of the input signal.	
OutLevel	Level	Adjusts the wah level.	000 to 127
Type	Type	Selects the wah type. | 1	CAE	3	IBZ	5	FAT	7	7STR
2	CRY	4	VO	6	LIGHT	8	RESO		1 to 8
Manual	Manual	Adjusts the wah filter reference frequency.	000 to 127
Depth	Depth	Adjusts the depth of the wah in accordance with the level of the input signal. Setting a positive value causes the wah filter to open in direct proportion with the size of the input signal, producing a bright sound. Setting a negative value causes the wah filter to close in direct proportion with the size of the input signal, producing a dark sound.	−64 to 00 to 63
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127
㉖ Distortion		Distortion, wah, and amp simulator combined into a single effect.	
DistGain	Dist Gain	Adjusts the distortion input signal gain.	000 to 127
Dist Lvl	Dist Level	Adjusts the distortion output level.	000 to 127
Dist Low	Dist Low	Adjusts the distortion low-range gain.	000 to 127
DistHigh	Dist High	Adjusts the distortion high-range gain.	000 to 127
Wah Type	Wah Type	Specifies the wah type. 	1	LPF	3	V-Wah	5	L-Wah
2	C-Wah	4	F-Wah	6	H-Wah		1 to 6
WahDepth	Wah Depth	Adjusts the depth of the wah in accordance with the level of the input signal.	−64 to 00 to 63
Wah Manu	Wah Manual	Adjusts the wah filter reference frequency.	000 to 127
Routing	Routing	Specifies the distortion and wah connection.	Dist, Wah, Wah-Dist, Dist-Wah
Amp	Amp	Specifies the amp type. 	0	Bypass	6	VX-AC3	12	MB-RCTF
1	FD-PRNST	7	ML-DC3	13	PV-51-SK
2	FD-TWRV1	8	MB-MK1	14	BASS-CMB
3	RL-J12	9	MS-STK	15	FD-BMAN
4	FD-TWD	10	FD-TWRV2	16	BASS-STK
5	FD-DXRV	11	SL-SLO				0 to 16
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127

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DSP Module		Description	Settings
Indicator	**Parameter Name**		
㉗ Drive		Simulates the drive of a musical instrument amplifier.	
Type	Drive Type	Selects the drive type.*4 (page EN-337)	1 to 20
Gain	Gain	Adjusts the driver input signal gain.	000 to 127
OutLevel	Level	Adjusts the drive output level.	000 to 127
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127
㉘ Amp Cab		Simulates an amp without distortion-generating drive and speaker cabinet.	
Type	Type	Selects the amp cabinet type. (page EN-338)	1 to 92
Vari	Variation	Selects a variation that changes the setup of the currently selected amp. The number of variations (page EN-338) depends on the amp type.	1 to 4
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127
㉙ Vibraphone Tremolo		An effect that simulates the tremolo effect of vibraphone.	
Rate	LFO Rate	Adjusts the LFO rate.	000 to 127
Depth	LFO Depth	Adjusts the LFO depth.	000 to 127
In Level	Input	Adjusts the input level.	000 to 127
WetLevel	Wet Level	Adjusts the level of the effect sound.	000 to 127
DryLevel	Dry Level	Adjusts the level of the direct sound.	000 to 127

*1 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1.0kHz, 1.3kHz, 1.6kHz, 2.0kHz, 2.5kHz, 3.2kHz, 4.0kHz, 5.0kHz, 6.3kHz, 8.0kHz
*2 50Hz, 63Hz, 80Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz
*3 2.0kHz, 2.5kHz, 3.2kHz, 4.0kHz, 5.0kHz, 6.0kHz, 8.0kHz, 10kHz, 13kHz, 16kHz
*4

Settings	Drive Type	Display	Description
1 to 4	Clean1 to 4	Clean1 to 4	Simulates a clean sound with little distortion.
5 to 8	Crunch1 to 4	Crunch1 to 4	Simulates a crisp crunch sound with little distortion.
9 to 12	Overdrive1 to 4	Overdrv1 to 4	Simulates an overdrive sound with mellow distortion.
13 to 16	Distortion1 to 4	Distort1 to 4	Simulates a hard, straight distortion sound.
17 to 20	Metal1 to 4	Metal1 to 4	Simulates an extreme and weighty distortion sound that is suitable for heavy metal music.

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Amp Cab Type List

Type Number	Indicator	Number of variations	Type Number	Indicator	Number of variations
1	FD-PRNST	1	49	MB-TX+DI	4
2	FD-TWRV1	1	50	MS-VS80	4
3	RL-J12	1	51	MS-J800	4
4	FD-TWD	1	52	MS-J2401	2
5	FD-DXRV	1	53	MS-J2000	3
6	VX-AC3	1	54	MS-J2+MB	2
7	ML-DC3	1	55	MS-PLX	3
8	MB-MK1	1	56	MS-J1+DI	2
9	MS-STK	1	57	MT-CFT	4
10	FD-TWRV2	1	58	OR-O15	4
11	SL-SLO	1	59	PN-P7	2
12	MB-RCTF	1	60	PR-SE3	3
13	PV-51-SK	1	61	PV-51II	4
14	BASS-CMB	1	62	PV-65MH	4
15	FD-BMAN	1	63	RA-NBK	3
16	BASS-STK	1	64	RL-J20	2
17	65-MQ	3	65	RL-J120	2
18	AD-MP+CA	3	66	RV-30	2
19	BC-HC30	2	67	SA-PS1	4
20	BN-SHV	3	68	SL-X8	2
21	BN-ECS	3	69	SL-X9	2
22	BN-UBR	3	70	SP-1624	3
23	CV-LG3	3	71	SP-1695	3
24	DR-MZ38	2	72	SU-BGR3	3
25	DZ-V4	2	73	VH-SP6	2
26	DZ-HA	2	74	VX-A15	3
27	EG-TWK	4	75	VX-A15TB	2
28	EG-VEN	3	76	VX-A30	3
29	EN-G15	2	77	VX-A30TB	3
30	EN-INV	1	78	YM-DG8	4
31	EN-BM	1	79	YM-F112	4
32	EN-53+DI	2	80	YM-F115	4
33	EV-51III	4	81	RD-PET-PRE	4
34	FD-CHMP	3	82	RD-PET-PRE-TRM	4
35	FD-TWN	3	83	RD-MK1-PRE	4
36	FD-TWRV3	3	84	RD-MK1-PRE-TRM	4
37	FU-OD	2	85	RD-MK2-PRE	4
38	GB-LANC	2	86	RD-MK2-PRE-TRM	4
39	HK-TM18	3	87	RD-DMY-PRE	4
40	HK-SBL	3	88	RD-PRE-STWT	4
41	KH-STDT	2	89	YM-CP-PRE	4
42	KR-RV	3	90	YM-CP-PRE-TRM	4
43	LY-IRST	4	91	WR-200-PRE	4
44	MB-MK3	3	92	CLV-TAB-PRE	4
45	MB-F3+DI	3	93	CLV-CMB-PRE	4
46	MB-D5	1	94	LES-CMB-PRE	4
47	MB-DRCT	4	95	RL-VP-PRE	4
48	MB-TX+.5	1	100	AC-360	2

Type Number	Indicator	Number of variations
101	AP-SV4DI	2
102	EB-C450	2
103	FD-BMNtw	2
104	FD-BMNsv	2
105	FD-BMNbk	2
106	FD-STBAS	2
107	GK-150	3
108	MK-T501	3
109	SW-PB20	3
110	SW-SM50	3
111	RL-CBKB	1
112	LY-3C-AC	1
113	AC-SIM	4
114	AP-EXT-VIN	4
115	STR-EXT	4
116	MG-MIN-VCF-NEG	4
117	MG-MIN-VCF-POS	4
118	MG-MIN-VCF-TOP	3
119	MG-MIN-VCF-OVL	4
120	MG-MIN-VCF-OVL-T	4
121	SSL-LCUT	4
122	SSL-LMCUT	4
123	HI-BST	4
124	PARA-BST	4
125	BASFIL-DEP	4
126	BASFIL-SHL	4
127	EH-SS-SPRK	4

Home Customization 5 buttons Function List

Category	Screen	Display Name	Screen
BLANK	BLANK	Empty	Blank
MENU	MENU	Menu Item My Setup	My Setup on Menu
		Menu Item Active DSP	Active DSP on Menu
		Menu Item Metronome	Metronome on Menu
		Menu Item Balance	Balance on Menu
		Menu Item Octave Shift	Octave Shift on Menu
		Menu Item Sustain	Sustain on Menu
		Menu Item Portamento	Portamento on Menu
		Menu Item Pedal	Pedal on Menu
		Menu Item Pedal1	Pedal 1 on Menu
		Menu Item Pedal2	Pedal 2 on Menu
		Menu Item Pitch Bend Wheel	Pitch Bend on Menu
		Menu Item Knob	Knob on Menu
		Menu Item Knob1	Knob 1 on Menu
		Menu Item Knob2	Knob 2 on Menu
		Menu Item Knob3	Knob 3 on Menu
		Menu Item Arpeggiator	Arpeggiator on Menu
		Menu Item Auto Harmonize	Auto Hrm on Menu
		Menu Item Sampling	Sampling on Menu
		Menu Item Song	Song on Menu
		Menu Item System Effects	System FX on Menu
		Menu Item Equalizer	Equalizer on Menu
		Menu Item Scale Tuning	Scale on Menu
		Menu Item MIDI Controller	MIDI Ctrl on Menu
		Menu Item Wireless	Wireless on Menu
		Menu Item Media	Media on Menu
		Menu Item Setting	Setting on Menu
		Menu Item Demo	Demo on Menu

Category	Screen	Display Name			Screen
TONE	TONE	Tone	Upper1		Tone Upper1
			Upper2		Tone Upper2
			Lower		Tone Lower
		Split			Split
		Layer			Layer
		Touch Response			Touch Response
		Lyric tone performance mode			Lyrics Play Mode
		Lyric tone controller			Lyrics Key Ctrl
		Random syllable advance			Syllable Random
		Syllable chord control function			Syllable Chord Ctrl
		Lyric tone retrigger			Lyrics Retrigger
			Retrigger cycle unit note value	+	Lyrics Rtg Unit +
			Retrigger cycle unit note value	–	Lyrics Rtg Unit –
			Hold		Lyrics Rtg Hold
		Vocalist			Vocalist
Active DSP	ACTIVE DSP	Recommended Setting 1			Act DSP Recommend 1
		Recommended Setting 2			Act DSP Recommend 2
		Recommended Setting 3			Act DSP Recommend 3
		Bypass Change Module			Bypass Module
		Bypass			Module Bypass
		Effect Change Part			Act DSP Chg Part
		Effect Part	Upper1		Act DSP Upper1
			Upper2		Act DSP Upper2
			Lower		Act DSP Lower
		Active DSP Hold			Act DSP Hold
BALANCE	BALANCE	Upper1			Part Volume Upper1
		Upper2			Part Volume Upper2
		Lower			Part Volume Lower
		Rhythm (Same as Rhythm volume)			Rhythm Volume
OCTAVE SHIFT	OCTAVE SHIFT	Upper octave shift	+		Upper Octave Shift +
			–		Upper Octave Shift –
		Upper			Upper Octave Shift
		Upper1			Part Octave Shift U1
		Upper2			Part Octave Shift U2
		Lower			Part Octave Shift L
SUSTAIN	SUSTAIN	Sustain			Sustain

Category	Screen	Display Name			Screen
Portamento	PORTAMENTO	Upper Portamento			Upper Portamento
		Part Portamento	Upper1		Part Portamento U1
			Upper2		Part Portamento U2
			Lower		Part Portamento L
PEDAL	PEDAL	Pedal1	Effect Part	Upper1	Pedal1 Upper1
				Upper2	Pedal1 Upper2
				Lower	Pedal1 Lower
		Pedal2	Effect Part	Upper1	Pedal2 Upper1
				Upper2	Pedal2 Upper2
				Lower	Pedal2 Lower
Knob	KNOB	Knob1	Effect Part	Upper1	Knob1 Upper1
				Upper2	Knob1 Upper2
				Lower	Knob1 Lower
		Knob2	Effect Part	Upper1	Knob2 Upper1
				Upper2	Knob2 Upper2
				Lower	Knob2 Lower
		Knob3	Effect Part	Upper1	Knob3 Upper1
				Upper2	Knob3 Upper2
				Lower	Knob3 Lower
ARPEGGIATOR	ARPEGGIATOR	Arpeggiator			Arpeggiator
			Hold		Arpeggiator Hold
			Part		Arpeggiator Part
AUTO HARMONIZE	AUTO HARMONIZE	Auto Harmonize			Auto Harmonize
METRONOME	METRONOME	Start/Stop			Metronome St/Sp
TEMPO	TEMPO	+			Tempo +
		–			Tempo –
		Tap tempo			Tap Tempo

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Category	Screen	Display Name		Screen
REGISTRATION	REGISTRATION	1		Registration Area 1
		2		Registration Area 2
		3		Registration Area 3
		4		Registration Area 4
		Next bank		Reg Bank Next
		Previous bank		Reg Bank Prev
		Next area		Reg Area Next
		Previous area		Reg Area Prev
		Freeze		Reg Freeze
		Freeze item	Rhythm	Reg Frz Item Rhythm
			Tempo	Reg Frz Item Tempo
			Tone	Reg Frz Item Tone
			Split point	Reg Frz Item Split P
			Arpeggiator/Auto Harmonize	Reg Frz Item ARP/AH
			Transpose	Reg Frz Item Trs
			Scale Tuning	Reg Frz Item Scale
			Touch Response	Reg Frz Item Touch R
			Effects	Reg Frz Item Sys FX
			Controllers	Reg Frz Item Ctrl
RHYTHM	RHYTHM*1	Intro		Rhythm Intro
		Variation		Rhythm Variation*2
		FILL-IN		Rhythm Fill-in*3
		Accomp		Rhythm Accomp
		Chord mode		Rhythm Chord Mode
		Synchro start		Rhythm Sync Start
		Synchro stop		Rhythm Sync Stop
		Volume		Rhythm Volume
SYSTEM EFFECT	SYSTEM EFFECT	Reverb type		Reverb
		Chorus type		Chorus
		Delay Type		Delay
MIDI	MIDI	MIDI OUT channel	Upper1	MIDI Out Ch Upper1
			Upper2	MIDI Out Ch Upper2
			Lower	MIDI Out Ch Lower
		Local Control		Local Control

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Category	Screen	Display Name		Screen
SETTING	SETTING	Transpose	+	Transpose +
			–	Transpose –
		Transpose		Transpose
		Tuning		Tuning
		Surround		Surround
		Audio center cancel		Audio In Center Cxl

*1 Not shown on the tone screen.
*2 Rhythm Variation 1 in the case of Operation Type 2.
*3 Rhythm Variation 2 in the case of Operation Type 2.

Fingering Guide

■ FINGERED 1, FINGERED 2 Chords

C	*6 / *6
Cm	*6
Cdim	
Caug *3	
C♭5	
Csus4 *3	
Csus2 *3	
C7	*6
Cm7 *3	
CM7	*6
CmM7	
Cdim7 *3	*6
CdimM7	
C7♭5 *3	
Cm7♭5 *3	

CM7♭5	
Caug7	
CaugM7	
C7sus4	
C6 *1 *3	
Cm6 *2 *3	
Cadd9	
Cmadd9	
C69 *3	
Cm69 *3	
C7(♭9)	
C7(9)	
C7(♯9)	
C7(♯11)	
C7(♭13)	
C7(13)	
Cm7(9)	
Cm7(11) *3	

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CmM7$^{(9)}$	
C5 *4	
C8 *5	

*1 With FINGERED 2, interpreted as Am7.
*2 With FINGERED 2, interpreted as Am7$^{\flat5}$.
*3 Inverted form not supported in some cases.
*4 Chord consisting of root and 5th only.
*5 Not a standard chord, but used when you want Auto Accompaniment with the root note only, or the root with an octave added.
*6 These fingerings are special fingerings for Digital Keyboard chord input, and so they are not suitable for normal keyboard play.

■ FINGERED ON BASS, FULL RANGE CHORD

In addition to the chords that can be fingered with FINGERED 1 and FINGERED 2, the chords below also are recognized.

$$\frac{C\sharp}{C} \cdot \frac{D}{C} \cdot \frac{F}{C} \cdot \frac{F\sharp}{C} \cdot \frac{G}{C} \cdot \frac{A\flat}{C} \cdot \frac{A}{C} \cdot \frac{B\flat}{C} \cdot \frac{C\sharp m}{C} \cdot \frac{Dm}{C} \cdot \frac{Fm}{C}$$

$$\frac{F\sharp m}{C} \cdot \frac{Gm}{C} \cdot \frac{A\flat m}{C} \cdot \frac{Am}{C} \cdot \frac{B\flat m}{C} \cdot \frac{Bm}{C} \cdot \frac{C\sharp dim}{C} \cdot \frac{Ddim}{C}$$

$$\frac{Fdim}{C} \cdot \frac{F\sharp dim}{C} \cdot \frac{Gdim}{C} \cdot \frac{A\flat dim}{C} \cdot \frac{Adim}{C} \cdot \frac{Bdim}{C} \cdot \frac{F7}{C} \cdot \frac{A\flat 7}{C}$$

$$\frac{Fm7}{C} \cdot \frac{FM7}{C} \cdot \frac{A\flat M7}{C} \cdot \frac{F\sharp m7^{\flat5}}{C} \cdot \frac{Gm7}{C} \cdot \frac{G7}{C} \cdot \frac{A\flat add9}{C}$$

NOTE

- With FINGERED ON BASS, the lowest note fingered is interpreted as the base note. Inverted forms are not supported.
- With FULL RANGE CHORD, when the lowest note fingered is a certain distance from the neighboring note, the chord is interpreted as a fraction chord.
- Unlike FINGERED 1, 2, and FINGERED ON BASS, FULL RANGE CHORD requires pressing of at least three keys to form a chord.

Chord Example List

*1 / *2	C	C♯/(D♭)	D	(D♯)/E♭	E	F
M						
m						
dim						
aug						
♭5						
sus4						
sus2						
7						
m7						
M7						
mM7						
dim7						
dimM7						
7♭5						
m7♭5						
M7♭5						
aug7						
augM7						
7sus4						

*1 Root *2 Chord Type

- Since the chord input range is limited, this model may not support some of the chords shown above.
- You can use the split point to change the size of the accompaniment keyboard range (page EN-127).

*2 \ *1	C	C♯/(D♭)	D	(D♯)/E♭	E	F
6						
m6						
add9						
madd9						
69						
m69						
7(♭9)						
7(9)						
7(♯9)						
7(♯11)						
7(♭13)						
7(13)						
m7(9)						
m7(11)						
M7(9)						
mM7(9)						
5						
8						

*1 Root *2 Chord Type
- Since the chord input range is limited, this model may not support some of the chords shown above.
- You can use the split point to change the size of the accompaniment keyboard range (page EN-127).

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*1 / *2	F♯/(G♭)	G	(G♯)/A♭	A	(A♯)/B♭	B
M						
m						
dim						
aug						
♭5						
sus4						
sus2						
7						
m7						
M7						
mM7						
dim7						
dimM7						
7♭5						
m7♭5						
M7♭5						
aug7						
augM7						
7sus4						

*1 Root *2 Chord Type
• Since the chord input range is limited, this model may not support some of the chords shown above.
• You can use the split point to change the size of the accompaniment keyboard range (page EN-127).

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*1 \ *2	F♯/(G♭)	G	(G♯)/A♭	A	(A♯)/B♭	B
6						
m6						
add9						
madd9						
69						
m69						
7(♭9)						
7(9)						
7(♯9)						
7(♯11)						
7(♭13)						
7(13)						
m7(9)						
m7(11)						
M7(9)						
mM7(9)						
5						
8						

*1 Root *2 Chord Type
- Since the chord input range is limited, this model may not support some of the chords shown above.
- You can use the split point to change the size of the accompaniment keyboard range (page EN-127).

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```
##################################################################
hts_engine API
##################################################################
```

```
----------------------------------------------------------------
The HMM-Based Speech Synthesis Engine "hts_engine API"
developed by HTS Working Group
http://hts-engine.sourceforge.net/
----------------------------------------------------------------
```

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```
##################################################################
Sinsy
##################################################################
```

```
----------------------------------------------------------------
The HMM-Based Singing Voice Synthesis System "Sinsy"
developed by Sinsy Working Group
http://sinsy.sourceforge.net/
----------------------------------------------------------------
```

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```
################################################################
CRF++
################################################################
```

```
################################################################
SPTK
################################################################
```

```
################################################################
Optional notices
################################################################
```

Some parts of the following software tools were used in speech analysis
step.
We are very grateful to the following people and projects for their
contributions to this product:

- Speech Analysis and Syntheisis System: WORLD (Masanori Morise)
  http://www.isc.meiji.ac.jp/~mmorise/world/english/

MIDI Implementation Chart

Function		Transmitted	Recognized	Remarks
Basic Channel	Default	1	1 - 16	
	Changed	1 - 16	1 - 16	
Mode	Default	Mode 3	Mode 3	
	Messages	X	X	
	Altered	✳ ✳ ✳ ✳ ✳ ✳ ✳	✳ ✳ ✳ ✳ ✳ ✳ ✳	
Note Number		0 - 127	0 - 127	
	True voice	✳ ✳ ✳ ✳ ✳ ✳ ✳	0 - 127 *1	
Velocity	Note ON	O 9nH v = 1 - 127	O 9nH v = 1 - 127	**: no relation
	Note OFF	X 8nH v = 64	X 9nH v = 0, 8nH v =**	
After Touch	Key's	X	X	
	Ch's	X	O	
Pitch Bender		O	O	
Control Change *4	0	O	O	Bank select
	1	O	O	Modulation
	5	O	O	Portamento Time
	6, 38	O *3	O *3	Data entry LSB/MSB
	7	O	O	Volume
	10	O	O	Pan
	11	O *2	O	Expression
	64	O *2	O	Hold 1
	65	O	O	Portamento Switch
	66	O *2	O	Sostenuto
	67	O *2	O	Soft pedal
	71	O	O	Filter resonance
	72	O	O	Release time
	73	O	O	Attack time
	74	O	O	Brightness
	76	O	O	Vibrato rate
	77	O	O	Vibrato depth
	78	O	O	Vibrato delay
	84	X	O	Portamento Control
	91	O	O	Reverb send level
	93	O	O	Chorus send level
	94	X	O	Delay send level
	100, 101	O *3	O *3	RPN LSB/MSB
Program Change		O	O	
	True #	✳ ✳ ✳ ✳ ✳ ✳ ✳	0 - 127	
Exclusive		O *3	O *3	
System Common	Song Pos	X	X	
	Song Sel	X	X	
	Tune	X	X	
System Real Time	Clock	O	O	
	Commands	X *5	X	
Aux Messages *4	All sound off	X	O	
	Reset all controller	X	O	
	Local ON/OFF	X	X	
	All notes OFF	X	O	
	Active Sense	X	O	
	System Reset	X	X	
Remarks		*1: Depends on tone.		

*1: Depends on tone.
*2: Sent in accordance with pedal effect setting.
*3: For details about RPN and system exclusive messages, see MIDI Implementation at
    https://support.casio.com/global/en/emi/manual/CT-S1000V/
*4: All control changes can be sent by MIDI Controller function.
*5: Start/Stop can be sent by MIDI Controller function.

Mode 1 : OMNI ON, POLY	Mode 2 : OMNI ON, MONO	O : Yes
Mode 3 : OMNI OFF, POLY	Mode 4 : OMNI OFF, MONO	X : No

CASIO

MA2201-B