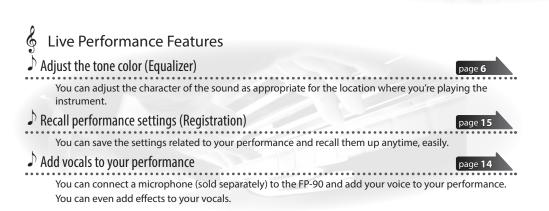




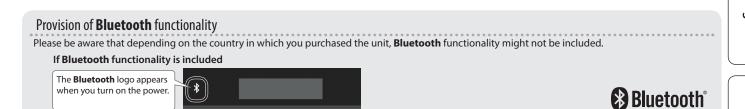
### Roland Digital Piano

### **Owner's Manual**









Before using this unit, carefully read "USING THE UNIT SAFELY" and "IMPORTANT NOTES" (leaflet "USING THE UNIT SAFELY" and Owner's Manual (p. 28)). After reading, keep the document(s) including those sections where it will be available for immediate reference.



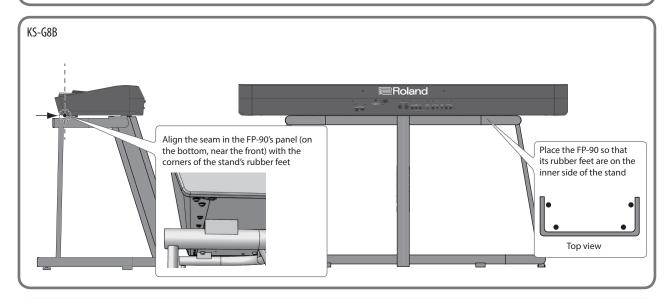
## 💪 Placing the FP-90 on a Stand

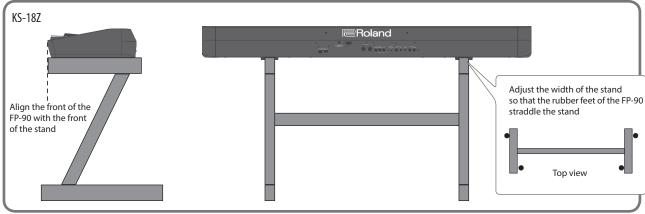
Be careful not to pinch your fingers when setting up the stand.

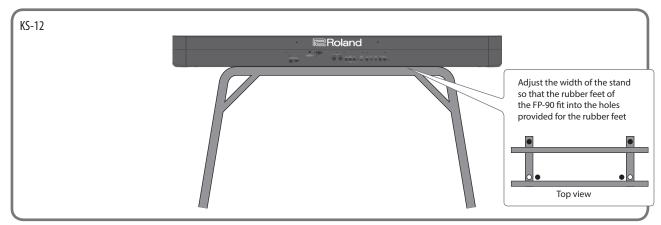
Please use one of the following Roland stands to support your FP-90: KSC-90, KS-G8B, KS-18Z, or KS-12. Refer to the following when using a stand.

KSC-90

Refer to the KSC-90 Owner's Manual.







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## **Main Specifications**

Roland FP-90: Digital Piano

	FP-90
Sound generator	Piano Sound: SuperNATURAL Piano Modeling
Keyboard	PHA-50 Keyboard: Wood and Plastic Hybrid Structure, with Escapement and Ebony/Ivory Feel (88 keys)
Bluetooth function	Audio: Bluetooth Ver 3.0 (Supports SCMS-T content protection)
bluetooth function	MIDI, Turning music sheet: <b>Bluetooth</b> Ver 4.0
Power supply	AC adaptor
Power consumption	12 W
Dimensions	Detached music rest:
	1,340 (W) x 390 (D) x 136 (H) mm, 52-13/16" (W) x 15-3/8" (D) x 5-3/8" (H)
	FP-90 with KSC-90 and music rest:
	1,340 (W) x 418 (D) x 932 (H) mm, 52-13/16" (W) x 16-1/2" (D) x 36-3/4" (H)
\M-:	23.6 kg, 52 lbs 1 oz (FP-90 with music rest)
Weight	37.8 kg, 83 lbs 6 oz (FP-90 with KSC-90, KPD-90, and music rest)

	FP-90
Accessories	Owner's Manual, Leaflet "USING THE UNIT SAFELY," AC adaptor, Power cord, Music rest, Damper pedal (DP-10; capable of continuous detection)
Options (sold separately)	Dedicated stand: KSC-90
	Dedicated pedal board: KPD-90
	Keyboard stand: KS-G8B, KS-18Z, KS-12
	USB Flash Memory (*1)
	*1: Use a commercially available USB flash drive or a USB flash drive sold by Roland. However, we cannot guarantee that all commercially available USB flash drives will work with this unit.

This document explains the specifications of the product at the time that the document was issued. For the latest information, refer to the Roland website.

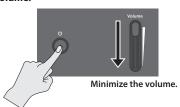


## **Panel Descriptions**

### [එ] button

### Turning the FP-90 On

- \* Once everything is properly connected, be sure to follow the procedure below to turn on their power. If you turn on equipment in the wrong order, you risk causing malfunction or equipment failure.
- Move the [Volume] slider all the way down to minimize the volume.



2. Hold down the [ $\circlearrowleft$ ] button until the display shows "Roland Digital Piano"

The power turns on, and the tone buttons and other buttons illuminate.

3. Move the [Volume] slider to adjust the volume.

### **Turning Off the Power**

- Move the [Volume] slider all the way down to minimize the volume.
- 2. Hold down the [ $\circlearrowleft$ ] button until the display shows "Don't disconnect the power."

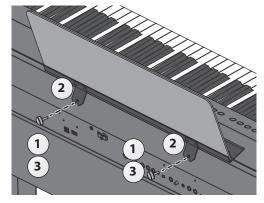
The unit is turned off.

### Concerning the Auto Off function

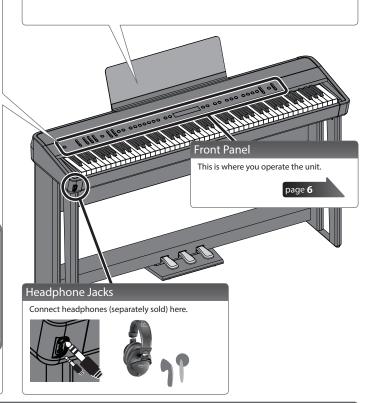
The power to this unit will be turned off automatically after a predetermined amount of time has passed since it was last used for playing music, or its buttons or controls were operated (Auto Off function). If you do not want the power to be turned off automatically, disengage the Auto Off function (p. 20).

- Any settings that you are in the process of editing will be lost when the power is turned off. If you have any settings that you want to keep, you should save them beforehand.
- To restore power, turn the power on again.

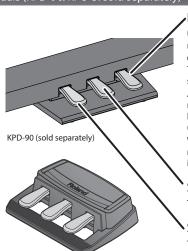
### Attaching the Music Rest



- Loosen the attachment screws.
- 2. Fit the cut-outs of the music rest onto the attachment screws.
- 3. Firmly tighten the attachment screws.



### Pedals (KPD-90/RPU-3: sold separately)



### Damper Pedal

Use this pedal to sustain the sound. While this pedal is held down, notes will be sustained for an extended time even if you release your fingers from the keyboard.

On an acoustic piano, when you step on the damper pedal, you'll first hear the sound of the dampers releasing the strings. Then, you should also be able to hear the sound of strings adjacent to the ones for the notes actually played resonate sympathetically, resulting in a rich, resounding tone.

Additionally, when using half-pedaling techniques, the core of the sound disappears rapidly while a rich, spacious resonance remains, producing a unique form of reverberation. On the unit, the unique, lingering tones produced by the half-pedaling technique are reproduced in addition to released-string sounds (Damper Noise) and resonating sounds (Damper Resonance)

With the damper pedal on an acoustic piano, when you step on the pedal it will at first offer only a slight amount of resistance, but as you press down further it will start to feel much heavier. On KPD-90, this change in the feeling of resistance is simulated.

### Sostenuto Pedal

The notes you are pressing when this pedal is depressed will be sustained.

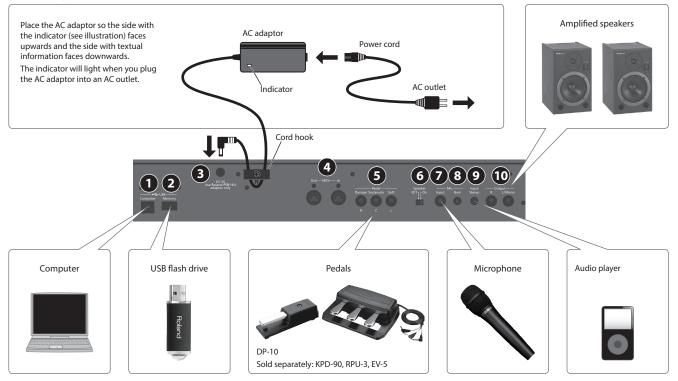
### Soft Peda

This pedal is used to make the sound softer. Playing with the soft pedal depressed produces a sound that is not as strong as when otherwise played with the equivalent strength. This is the same function as the left pedal of a grand piano. The softness of the tone can be varied subtly by the depth to which you press the pedal.

\* When operating the pedal, take care not to pinch your fingers between the moving part and the body of the unit. Pay special attention to this when using the unit where children are present

## Rear Panel

Connect pedals and USB flash drive.



1 USB Computer port

You can use commercially available USB cable to connect the FP-90 to your computer. You can then use MIDI-related software to record and play back FP-90 performances.

2 USB Memory port

You can use USB flash drives to do the following.

- Play WAV files, MP3 files, and standard MIDI files (SMF files) copied from your computer.
- Make audio recordings of your FP-90
- Export/Import a registration set.
- \* Never turn off the power or disconnect a USB flash drive or the power cord while the USB memory access indicator is blinking.
- \* Use a commercially available USB flash drive or a USB flash drive sold by Roland. However, we cannot guarantee that all commercially available USB flash drives will work with this unit.
- **3** DC IN jack

Connect the included AC adaptor here.

4 MIDI Out/In jacks

Connect these jacks to external MIDI devices.

5 Pedal Damper/Sostenuto/Soft jacks

Connect pedals to these jacks.

- \* Do not connect any pedal other than the specified pedal to the Pedal Damper jack.
- \* The EV-5 is compatible only with the Pedal Sostenuto/Soft jack.

6 Speaker [Off/On] switch

Turns the FP-90's speakers on or off.

Mic Input jack

Connect the microphone (sold separately) here.

8 Mic [Gain] knob

Adjust the microphone's gain.

9 Input Stereo jack

Connect an audio player here.

- \* If you use a cable that contains a built-in resistor, the volume of the device connected to the Input Stereo jack might be decreased. Use a connection cable that does not contain a resistor.
- 10 Output R, L/Mono jacks

You can output the sound of FP-90 to amplified speakers.

<sup>\*</sup> To prevent malfunction and equipment failure, always turn down the volume, and turn off all the units before making any connections.

## **Operation Guide**

**Basic operations** Select a setting item Press the [◀] [▶] buttons. Edit a value Press the [-] [+] buttons. Restore the default value Press the [-] [+] buttons simultaneously. Press the [Exit] button. Cancel an operation



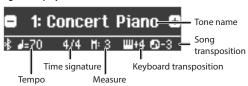
### Selecting a Tone (Single)

In addition to piano sounds, the unit lets you enjoy performing with many other sounds. These sounds are called "Tones." The Tones are divided into six groups, each of which is assigned to a different Tone button

### To select a tone

1. Press a tone button (e.g., [Piano]) and then use the [-] [+] buttons.

Viewing the display



### Tone groups

	Allows you to select various historical instruments, including grand pianos, or harpsichords.
[E. Piano] button	Allows you to select various electric piano sounds used in pop or rock, as well as the sound of instruments played using mallets.

[Strings] button	Allows you to select the sounds of string instruments such as violins, as well as other instruments used in orchestras, which are appropriate when used for Dual Play with a piano sound.	
[Organ] button	Allows you to select organ tones.  If you've selected a tone to which the rotary effect is applied, pressing the [Organ] button will switch the speed of the rotary effect.	
[Pad] button	Allows you to select synth pad tones.	
[Other] button	Allows you to select vocal, brass, and GM2 tones.	

### MEMO

When playing a tone that uses tremolo or has a vibrating quality, you can adjust the speed of the modulation by holding down the current TONE button and pressing the Tempo [Slow] [Fast]

### Auditioning the tones (Tone Demo)

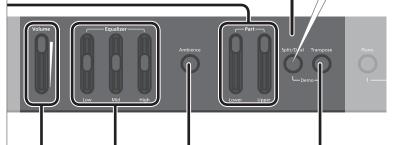
- 1. Hold down the [Split/Dual] button and press the [Transpose] button.
- 2. Press one of the TONE buttons.

The tone used for the demo song depends on which TONE button you press.

### Changing the Keyboard Volume Balance (Part Volume)

When using Split Play or Dual Play, you can adjust the keyboard's volume balance.

	[Lower] slider	[Upper] slider
When using Normal (Single) Play	Not used	Adjusts the volume of the keyboard.
When using Split Play	Adjusts the volume of the region below the split point.	Adjusts the volume of the region above the split point.
When using Dual Play	Adjusts the volume of tone 2.	Adjusts the volume of tone 1.



### Adjusting the Overall Volume (Volume)

You can adjust the speaker volume when using the internal speakers, or the headphone volume when headphones are connected.

### Adjusting the Tone Color (Equalizer)

Use these sliders to boost or cut the sound in the Low, Mid, and High frequency ranges.

page **19** 

### Adjusting the Ambience (Ambience)

- 1. Press the [Ambience] button.
- 2. Press the [-] [+] buttons.

This lets you adjust the acoustical character (ambience) of the sound.

### MEMO

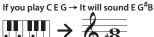
If you press the [▶] button, a screen appears in which you can adjust the acoustical character of the sound that's heard through headphones (Headphones 3D Ambience).

### Transposing Your Performance (Transpose)

The keyboard or song can be transposed in semitone steps.

For example if a song is in the key of E major but you want to play it using the fingering of the C major scale, you would set the  $\,$ keyboard transpose setting to "4."





-6-0-+5 (default value: 0)

## **Kbd Transpose**

You can also change the keyboard transpose setting by holding down the [Transpose] button and pressing the note that will be the tonic (root note) of the transposed key.

**Song Transpose** -12-0-+12 (default value: 0)

**Nederlands** 

You can play two tones simultaneously from a single key. This function is called "Dual Play."

Layering two tones (Dual)

Turning Dual Play on	Press the [Split/Dual] button several times to access the Dual screen.
	MEMO You can also use Dual Play by pressing two tone
	buttons simultaneously.
Changing tone 1 and	1. Use the [◄] [▶] buttons to select "tone 1" or "tone 2."
tone 2	2. Press a tone button.
	<b>3.</b> Use the [–] [+] buttons.
T 2 CL '6	Changes the pitch of tone 2 in units of one octave.
Tone 2 Shift	-2-0-+2 (default value: 0)

- \* Depending on the combination of tones, the effect might not apply to tone 2, causing the sound to appear differently than usual.
- \* If you select a sound from the [Piano] button as tone 2, it might sound different than usual.

#### the "split point." Press the [Split/Dual] button several times to access **Turning Split Play on** the Split screen. 1. Use the [◄] [▶] buttons to select "right-hand tone" or "left-hand tone." Changing the right-hand tone and left-hand tone 2. Press a tone button. 3. Use the [-] [+] buttons. Changes the split point. MEMO You can also specify the split point by holding **Split Point** down the [Split/Dual] button and pressing the key where you want to split the keyboard. B1-B6 (default value: F#3)

Playing Different Tones with the Right and Left Hands (Split)

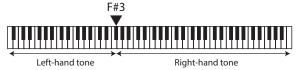
You can play different tones in the areas at the left and right of a specified key. For

piano tone.

Left Shift

example, you can use your left hand to play a bass tone and use your right hand to play a

This feature is called "Split Play," and the point at which the keyboard is divided is called



-2-0-+2 (default value: 0)

Changes the pitch of the left-hand tone in units of

Split point (Power-up default): F#3

one octave

- \* Depending on the combination of tones, the effect might not apply to the lefthand tone, causing the sound to appear differently than usual.
- \* If you select a sound from the [Piano] button as the left-hand tone, it might sound different than usual.

### Reading the note name (e.g., C4)

The alphabetical indication for settings such as Split Point shows the name of the note.

For example, the indication "C4" means "the fourth 'C' from the left edge of the keyboard."



### Recalling Performance Settings (Registration)

 $You can use the registration feature to save the current performance settings into a {\it "registration"} that you can recall whenever you wish.$ 

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### **Recalling a registration**

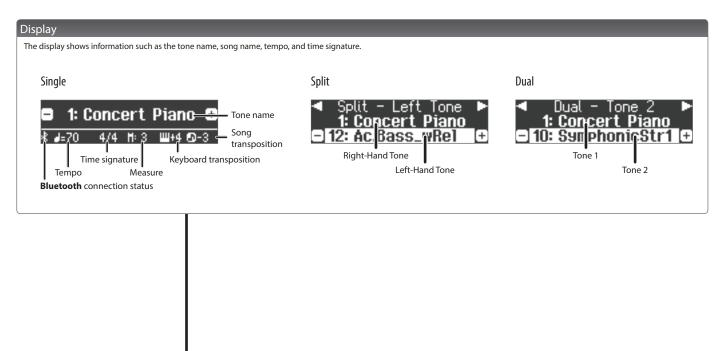
- 1. Press the [Registration] button.
- 2. Press one of the number buttons, from [1] to [6], to select the registration.
- 3. Press the [-] [+] buttons to select the registration variation.

### Saving current settings into a registration

- 1. Set the desired performance settings.
- 2. While holding down the [Registration] button, press a button from [1] to [6] to select a registration and then press the [-] [+] buttons to select a registration variation.
- Use the [-] [+] buttons and the [◄] [▶] buttons to give a name to the registration.
- 4. Press the [Function] button.

Reference For details on the settings that can be stored, refer to "Saved Settings" (p. 26).





### Various Settings (Function Mode)

You can make detailed settings for the unit.

- 1. Press the [Function] button.
- 2. Use the [◄] [▶] buttons to select the item that you want to adjust.
- 3. Use the [-] [+] buttons to adjust the value.

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### Sounding the Metronome

You can sound a metronome while you perform. You can also change the tempo and time signature of the metronome.



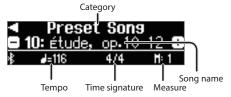
If a song is playing, the metronome sounds at the tempo and time signature of that song.

Sounding the Metronome	Turn the [Metronome] button on.	
Change the tempo	Press the Tempo [Slow] [Fast] buttons.	
change the tempo	10–500	
	Changes the time signature of the metronome.	
	MEMO	
Reat	You can also change the time signature by	
Deat	holding down the [Metronome] button and use the Beat [◄] (Slow) [▶] (Fast) buttons.	
	2/2, 3/2, 2/4, 3/4, 4/4, 5/4, 6/4, 7/4, 3/8, 6/8, 8/8,	
	9/8, 12/8 (default value: 4/4)	
Metronome Down Beat	Sounds a down beat.	
	Off, On (default value: On)	
	Changes the pattern of the metronome.	
Metronome Pattern	Off, Eighth note, Eighth-note triplet, Shuffle,	
Metronome Pattern	Sixteenth note, Quarter-note triplet, Quarter note,	
	Dotted eighth (default value: Off)	
Metronome Volume	Changes the volume of the metronome.	
wetronome volume	Off, 1–10 (default value: 5)	
Metronome Tone	Changes the tone of the metronome.	
	Click, Electronic, Voice (Japanese), Voice (English)	
	(default value: Click)	

### Selecting a Song

Access the song screen, and select a song.

1. Press the [SONG] button to access the song screen.



- 2. Press the [◄] [▶] buttons to select a category.
- 3. Press [-] [+] buttons to select a song.
- 4. Press the [►/■] button to play the song.

#### MEMO

To select a song from a folder on a USB flash drive, proceed as follows.

Enter the folder	Use the [–] [+] buttons to select the folder, and press the [▶/■] button.
Evit the tolder	Use the [–] button to select " (up)" and then press the [►/■] button.

### **Category list**

Category	Explanation	
USB Memory	Songs saved on a USB flash drive	
Internal Memory	Songs saved in internal memor	у
	Song Title	Composer
	Singing Winds	(Original)
	Melancolie	(Original)
	City Lights	(Original)
	The Nutcracker "Waltz of the	Peter Ilyich Tchaikovsky
	Flowers"(Jazz Arrangement) *	Original Arrangement
	Floral Pursuits *	Léo Delibes
Preset Song		Original Arrangement
_	Swan-derful Samba *	Peter Ilyich Tchaikovsky
	Swan-derrui Samba "	Original Arrangement
	Windy Afternoon	(Original)
	The Marriage of Figaro "Overture"	Wolfgang Amadeus Mozart
	Widmung S.566 R.253	Robert Alexander Schumann
		Arranged by Franz Liszt
	Étude, op.10-12	Fryderyk Franciszek Chopin

- \* All rights reserved. Unauthorized use of this material for purposes other than private, personal enjoyment is a violation of applicable laws.
- \* If SMF play mode (p. 19) is set to "Auto-Select" or "Internal," there are some parts whose volume is not changed by the [Song Vol.] slider. If the SMF Play Mode is set to "External," the volume of all parts will change.
- \* Songs marked by an asterisk (\*) are arranged by Roland Corporation. The copyrights to these songs are owned by the Roland Corporation.





### Playing Back or Recording

Here's how to play back or record a song.

Return to the beginning of the song	Press the [I◀] button.
Play/stop	Press the [►/■] button.
Enter record-ready condition	While stopped, press the [●] button.
Record	In record-ready condition, press the [►/■] button.
Play all songs in the selected category (All Song Play)	Hold down the [Song] button and press the [►/■] button.
Change the song tempo	Press the Tempo [◄] [▶] buttons.
Play back the song	Hold down the [►/■] button and press the Tempo [◄] or [▶] button.
at a constant tempo (Tempo Mute)	To clear the tempo mute function, hold down the [▶/■] button once again and press the Tempo [◄] or [▶] button.
Sound a count-in (*1)	Hold down the [Metronome] button and press the [▶/■] button.

\*1 A series of sounds rhythmically played to indicate the tempo before a song starts is called a "count-in." If you sound a count-in, it will be easier for you to synchronize your own performance to the tempo of the playback.

### To make a new recording

- 1. Select the tone that you want to play.
- 2. Press the [●] button.
- 3. Press the [►/■] button to start recording.
- 4. Press the [►/■] button to stop recording.

### Using a Mic (Mic)

You can connect a mic to the FP-90 and mix the sound of its performance with the sound from the mic.

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### Adjusting the Volume of the Song (Song Vol.)

1. Use the [Song Vol.] slider to adjust the volume of the song.

This adjusts the volume of the song (SMF/audio).

\* Some of the tones used in the tone demos are set so that they are adjusted by the Part [Upper] [Lower] sliders. If you want to use the [Song Vol.] slider to adjust all of the parts, change the "SMF Play Mode" (p. 19) setting to "External."

### Song formats that can be played by the unit

The unit can play back data in the following formats.

- MIDI files: SMF format 0/1
- Audio files: WAV format, 44.1 kHz, 16-bit linear
- Audio files: MP3 format, 44.1 kHz, 64 kbps-320 kbps

## 8

## **Advanced Operation**

## → Recording Your Performance

It's easy to record your own performances. You can play back a recorded performance to check your playing, or play along with a recorded performance.

## Type of recording

SMF recording

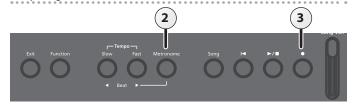
Audio recording

- The performance is recorded as MIDI data. SMF format 0
- Your performance will be recorded as audio data.
   WAV format, 44.1 kHz, 16-bit linear
- \* In order to use audio recording, you must connect a USB flash drive (sold separately) to the USB Memory port.

## SMF Recording

### Recording a New Song

### Preparing to Record



- 1. Select the tone that you want to play (p. 6).
- 2. You can sound the metronome if you like (p. 8).

You can specify the tempo and time signature of the metronome.

### MEMO

The metronome's tempo and time signature settings are stored in the song, so that the metronome plays correctly even when you play back the song.

**3.** Press the [●] button.

The  $[\bullet]$  button lights, the  $[\blacktriangleright/\blacksquare]$  button blinks, and the unit enters record-standby mode.

If you decide to cancel recording, press the [●] button once again.

### Starting your recording and saving it



1. Press the [►/■] button.

After a two-measure count is sounded (the measure number in the lower right of the display indicates "-2" and then "-1"), recording starts.

When recording starts, the [ullet] button and [ullet/ullet] button light.

### MEMO

You can also start recording by playing the keyboard. In this case, a count is not sounded.

2. Press the [►/■] button.

Recording stops, and your performance is automatically saved.

### MEMO

- You can change the name of the song (p. 11).
- You can delete the song (p. 12).

### NOTE

Never turn off the power while "Saving..." is shown in the display.

### Listening to the recorded performance

After you record, the newly recorded song is selected.

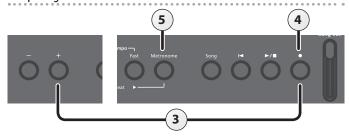
1. Press the [►/■] button.

Playback starts from the beginning of your recorded performance.

### **Recording Audio**

Here's how to record your performance on the unit as audio. The recorded song can be used on your computer.

### Preparing to Record



- Connect your USB flash drive to the USB Memory port (p. 5).
  - \* Audio data can't be stored in internal memory.
- 2. Select the tone that you want to play (p. 6).
- 3. Hold down the [•] button and press the [+] button to select "Audio."

### MEMO

You can also specify this via the Function mode "Recording Mode" setting (p. 19).

**4.** Press the [●] button.

The  $[\bullet]$  button lights, the  $[\blacktriangleright/\blacksquare]$  button blinks, and the unit enters record-standby mode.

If you decide to cancel recording, press the [●] button once again.

### NOTE

Never turn off the power or disconnect the USB flash drive during recording.

5. You can sound the metronome if you like (p. 8).

### Starting your recording and saving it



1. Press the [►/■] button.

Recording starts.

When recording starts, the [●] button and [►/■] button light.

2. Press the [►/■] button.

Recording stops, and your performance is automatically saved.

### MEMO

- You can change the name of the song (p. 11).
- You can delete the song (p. 12).

### Listening to the recorded performance

After you record, the newly recorded song is selected.

1. Press the [►/■] button.

Playback starts from the beginning of your recorded performance.

### Converting an SMF-recorded song to audio

A song recorded as SMF can be re-recorded as audio so that you can play it back on your computer.

- 1. Select the song that you want to convert to audio (p. 9).
- 2. Prepare for audio recording ("Preparing to Record" (p. 10)).
  - 1. Connect your USB flash drive.
  - **2.** Hold down the  $[\bullet]$  button and use the [+] button to select "Audio."
  - **3.** Press the [●] button.
- 3. Press the cursor [▶] button to select the song of step 1.
- 4. Press the [▶/■] button to start audio recording ("Starting your recording and saving it" (p. 10)).
- \* During recording, any sounds that you produce by playing the keyboard or that are input to the unit via the Mic Input jack, the USB port, the Input Stereo jack, or **Bluetooth** audio are included in the audio that is recorded during this conversion.
- \* Depending on the SMF, it might not be possible to convert it into the identical audio as when the song was recorded.

## Renaming a Song (Rename Song)

Here's how to rename a previously-saved song.

- Press the [Function] button, and then use the [◄] [►] buttons to select "Rename Song."
- 2. Press the [Function] (Enter) button.

The Rename Song screen appears.



- Use the [-] [+] buttons to select the media that contains the song that you want to rename.
- **4.** Press the [▶] button.



- **5.** Use the [–] [+] buttons to select the song that you want to rename, and then press the [▶] button.
- 6. Rename the song.

Button	Operation
[◀] [▶] buttons	Select the character to change.
[-] [+] buttons	Change the character.

If you decide to cancel, press the [Exit] button.

7. Press the [Function] (Enter) button.

A confirmation message appears.



If you decide to cancel, press the [Exit] button.

**8.** Use the [▶] button to select "Yes," and then press the [Function] (Enter) button.

The song is renamed.

### NOTE

Never turn off the power or remove the USB flash drives while the screen indicates "Executing..."

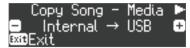
**9.** Press the [Exit] button several times to exit Function mode.

### Copying a Saved Song (Copy Song)

Songs that have been saved in internal memory can be copied to USB flash drive. Alternatively, songs stored on a USB flash drive can be copied to internal memory.

- \* Audio files cannot be copied.
- If a USB flash drive is not connected, you won't be able to perform this operation.
- Press the [Function] button, and then use the [◄] [►] buttons to select "Copy Song."
- 2. Press the [Function] (Enter) button.

The Copy Song screen appears.



- **3.** Use the [–] [+] buttons to select the copy-source and copydestination memory locations.
- **4.** Press the [▶] button.



Use the [-] [+] buttons to select the song that you want to copy.

If you decide to cancel, press the [Exit] button.

6. Press the [Function] (Enter) button.

The copy is executed.

### NOTE

Never turn off the power or remove the USB flash drives while the screen indicates "Executing..."

### MEMO

If a song with the same file name has already been saved, the confirmation message "Overwrite?" appears. To overwrite the song, use the [▶] button to select "Yes," and then press the [Function] (Enter) button.

7. Press the [Exit] button several times to exit Function mode.

## Deleting a Saved Song (Delete Song)

Here's how to delete a song that you saved on an internal memory or USB flash drive.

### MEMO

If you want to delete all songs that have been saved to internal memory or USB flash drive, initialize the memory (p. 17).

- \* If you want to delete a song on the USB flash drive, connect your USB flash drive to the USB Memory port before you continue.
- Press the [Function] button, and then use the [◄] [▶] buttons to select "Delete Song."
- 2. Press the [Function] (Enter) button.

The Delete Song screen appears.



- 3. Use the [-] [+] buttons to select the memory location that contains the song you want to delete.
- **4.** Press the [▶] button.



- Use the [-] [+] buttons to select the song that you want to delete.
- 6. Press the [Function] (Enter) button.

A confirmation message appears.



If you decide to cancel, press the [Exit] button.

7. Use the [▶] button to select "Yes," and then press the [Function] (Enter) button.

The deletion is executed.

### NOTE

Never turn off the power or remove the USB flash drives while the screen indicates "Executing..."

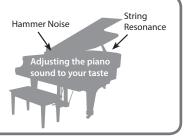
**8.** Press the [Exit] button several times to exit Function mode.

## Personalizing Your Piano Sound (Piano Designer)

### What is Piano Designer?

This unit allows you to personalize your piano sound by adjusting various factors that affect the sound, such as the piano's strings, the resonance produced using the pedals, and the sound of the hammers striking the strings.

This function is called "Piano Designer."



### MEMO

- Piano Designer can be used to customize the sound only for tones of the [Piano] button (1-4).
- Your settings are saved for each tone of the [Piano] button.





- Press the [Function] button, and then use the [◄] [►] buttons to select "Piano Designer."
- 2. Press the [Function] (Enter) button.

The Piano Designer screen appears.



- **3.** Use the [◄] [▶] buttons to select the item that you want to edit.
- **4.** Use the [-] [+] buttons to adjust the value.
- When you're finished using Piano Designer, press the [Exit] button.

A confirmation message appears.



If you decide to cancel, press the [Exit] (Cancel) button.

Use the [▶] button to select "Yes," and then press the [Function] (Enter) button.

The Piano Designer settings are saved.

### MEMO

If you decide to exit without saving the settings, use the [◄] button to select "No" and then press the [Function] (Enter) button.

### Piano designer parameter

Parameter	Value	Explanation
Lid	0–6	Adjusts the extent to which the lid of the grand piano is open.  The sound will become more mellow as you close the lid of the piano in the screen. The sound will become brighter as you open the lid of the piano in the screen.
Key Off Noise	Off, 1–10	Adjusts the action noise that is heard when you release a key. Higher settings produce a louder action noise.
Hammer Noise	-2-0-+2	Adjusts the sound produced when the hammer of an acoustic piano strikes the string.  Higher settings will produce a louder sound of the hammer striking the string.

Parameter	Value	Explanation	
Duplex Scale	Off, 1–10	Adjusts the sympathetic vibrations of an acoustic piano's Duplex Scale. Higher settings will make the sympathetic vibration louder.	
Full Scale String Res.	Off, 1–10	Adjusts the resonant sound of an acoustic piano (the sound produced by the strings of previously-pressed keys vibrating in sympathy with newly played notes, or the sound of other strings vibrating in sympathy with the notes you play while pressing the damper pedal).  Higher settings produce louder sympathetic resonance.	
Damper Resonance	Off, 1–10	Adjusts the overall resonance of the acoustic piano when its damper pedal is pressed (the sound of other strings vibrating in sympathy when you press the damper pedal, and the resonance of the entire instrument).  Higher settings produce louder sympathetic resonance.	
Key Off Resonance	Off, 1–10	Adjusts sympathetic vibrations such as an acoustic piano's key-off sound (the subtle sound that occurs when you release a note).  Higher settings produce greater tonal change during the decay.	
Cabinet Resonance	Off, 1–10	Adjusts the body resonance of the grand piano itself. Higher values will produce a larger body resonance.	
Soundboard Type	1–5	Selects how the soundboard of the acoustic piano will resonate. You can choose from five different types of resonance.	
Damper Noise	Off, 1–10	This adjusts the damper noise of the acoustic piano sound (the sound of the damper releasing the strings when you press the damper pedal).	
Single Note Tuning	-50-0-+50	Specifies a method of tuning (stretch tuning) that is distinctive to the piano, in which the high register is tuned slightly sharper and the low register is tuned slightly flatter.	
Single Note Volume	-50–0	Adjusts the volume of each key. Higher settings increase the volume.	
Single Note Character	-5-0-+5	Adjusts the tonal character of each key. Higher settings produce a harder tone, and lower settings produce a softer tone.	
	Here's how the Piano Designer settings of the selected sound can be returned to their factory-set state.		
	1. Press the [Function] (Enter) button.		
Reset Setting	If you decide to cancel, press the [Exit] button.		

## 88-key settings

Select the Single Note Tuning, Single Note Volume, or Single Note Character, and press the [Function] (Enter) button.

[Function] (Enter) button.

2. Use the [▶] button to select "Yes," and then press the

The settings return to their factory-set state.

2. Play the key that you want to edit, and use the [-] [+] buttons to adjust the settings for that key.

### МЕМО

You can use the  $[\blacktriangleleft]$   $[\blacktriangleright]$  buttons to move to a different 88-key parameter.

3. Press the [Exit] button to return to the previous screen.

### What is the duplex scale?

The Duplex Scale is a system of sympathetically vibrating strings sometimes included in grand pianos.

These sympathetically vibrating strings are not struck directly with hammers, but sound by vibrating in sympathy with the vibrations of other strings. By resonating with the overtones, these strings add richness and brilliance to the sound. These sympathetic strings are added only to the high register above approximately C4. Since they do not have a damper (a mechanism that stops them from sounding), they will continue sounding even after you play a note and then release it to stop the sound of the string that was actually struck.

## → Using the Microphone

You can connect a microphone (sold separately) to the Mic Input jack and sing while playing.

### Connecting a Microphone

Here's how to connect a microphone to the Mic Input jack.





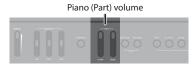
- Move the [Mic Vol.] slider all the way down to minimize the volume.
- **2.** Connect the microphone to the Mic Input jack. The microphone input will turn on.
- **3.** Move the [Mic Vol.] slider to adjust the volume of the mic.
  - \* If the volume is excessive, you may hear noise from the speakers.

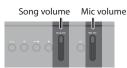
### MEMO

If the sound of the mic is too weak or is distorted, turn the rear panel Mic [Gain] knob to adjust the volume of the mic.

### MEMO

You can adjust the volume balance as with an audio mixer.





## Applying an Effect to the Mic (Mic Effects)

Here's how to apply an effect to the sound of the mic.



1. Press the [Mic] button.

The Mic Effects screen appears.



- Use the [◄] [►] buttons to select the effect that you want to apply.
- 3. Use the [-] [+] buttons to switch the setting on/off.

### Adjusting the Mic Effect

Here's how to adjust how the effect is applied.

- **1.** In the Mic Effects screen, press the [▶] button.
- 2. Adjust the effect.

Indication [◄] [▶] buttons	Parameter [-] [+] buttons	Explanation
Compressor Type	Soft, Normal, Hard	Specifies the amount of the effect that restrains the level in response to the audio input.  Soft, Normal, and Hard settings produce a progressively greater effect.
Doubling Type	One Voice, Two Voice	Produces an effect as though a singing voice is layered multiple times.
Doubling Width	Light, Normal, Deep	Specifies the pitch difference between the layered voice and the original sound. Light, Normal, and Deep settings produce progressively greater pitch difference.
Doubling Level	0–10	Specifies the volume of the doubling effect.
Echo Type	1–7	Selects the type of echo.
Echo Level	0–10	Higher values produce greater reverberance.

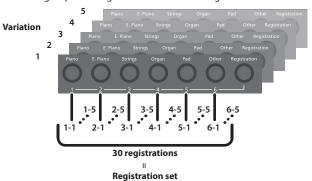
# **Nederlands**

## Saving Performance Settings (Registrations)

### What Is a Registration?

Tone settings and performance settings such as Dual Play or Split Play can be saved as a "registration" and recalled whenever you like. The FP-90 has six registration buttons ([1]–[6]), and you can save five different registrations under each button. This means that you can save as many as 30 registrations.

An entire group of 30 registrations is called a "Registration Set."

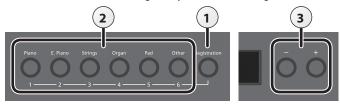


### MEMO

- For more about the settings saved in a registration, refer to "Settings Saved in Registrations" (p. 26).
- You can save registration sets to a USB flash drive (sold separately; p. 16).

## Recalling a Registration

Here's how to recall settings that you've saved in a registration.



1. Press the [Registration] button.

The first time you press the [Registration] button after turning on the power, a screen like the following will appear.



2. Press a number button ([1] to [6]) to choose the location where the desired registration is saved.



**3.** Press the [-] [+] buttons to select the registration variation.

The settings change accordingly.

### MEMO

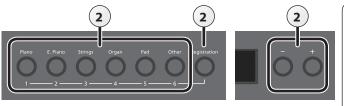
- You can also use a pedal to recall registrations (p. 20).
- You can reload registration sets that you've saved to a USB flash drive (p. 16).
- 4. Press the [Exit] button.

## Saving Current Settings into a Registration

Here's how to save the performance settings to a registration.

### NOTE

When you save a registration into a location, it will overwrite any registration already stored at that location.



- 1. Make the desired performance settings.
- 2. Hold down the [REGISTRATION] button and press one of the [1]–[6] buttons, then press the [-] [+] buttons to which you want to assign the settings.

When you release the [REGISTRATION] button, you will see a screen like the one shown below.



3. Rename the registration.

Button	Operation
[◄] [▶] buttons	Select the character to change.
[-] [+] buttons	Change the character.

If you decide to cancel, press the [Exit] (Cancel) button.

4. Press the [Function] (Store) button.

The performance settings are saved.

The [Registration] button stops blinking and lights up solid.

### NOTE

Do NOT turn off the power while "Executing..." is displayed.

5. Press the [Exit] button.

### MEMO

You can reset all registrations to their factory defaults. For details, refer to "Restoring the Factory Settings (Factory Reset)" (p. 17).

## Saving a Registration Set (Registration Set Export)

Here's how the registration set that's saved in the FP-90 can be saved to a USB flash drive.

- \* If you're saving to a USB flash drive, connect your USB flash drive to the USB MEMORY port before proceeding.
- 1. Press the [Function] button.
- 2. Use the [◄] [▶] buttons to select "Reg. Set Export."
- 3. Press the [Function] (Enter) button.

The Reg. Set Export screen appears.



4. Renaming the registration set.

Button	Operation
[◀] [▶] buttons	Select the character to change.
[-] [+] buttons	Change the character.

If you decide to cancel, press the [Exit] button.

5. Press the [Function] (Enter) button.

The registration set is saved.

### NOTE

Never turn off the power or remove the USB flash drives while the screen indicates "Executing..."

**6.** Press the [Exit] button several times to exit Function mode.

## Loading a Saved Registration Set (Registration Set Import)

Here's how a registration set saved on a USB flash drive can be loaded into the registrations of the FP-90.

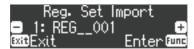
 If you want to load a registration set from a USB flash drive, connect your USB flash drive to the USB MEMORY port before proceeding.

### NOTE

Note that when you load a registration set, it will overwrite (and erase) all of the registrations already in registration memory. If you wish to retain your existing registrations, save them to a USB flash drive.

- 1. Press the [Function] button.
- 2. Use the [◄] [▶] buttons to select "Reg. Set Import."
- 3. Press the [Function] (Enter) button.

The Reg. Set Import screen appears.



- Use the [-] [+] buttons to select the registration set you want to load.
- **5.** Press the [Function] (Enter) button.

A confirmation message appears.



If you decide to cancel, press the [Exit] button.

**6.** Use the [▶] button to select "Yes," and then press the [Function] (Enter) button.

The registration set will be loaded.

### NOTE

Never turn off the power or remove the USB flash drives while the screen indicates "Executing...."

7. Press the [Exit] button several times to exit Function mode.

## **Convenient Functions**

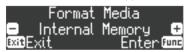
### Reformatting Memory (Format Media)

You can completely erase all songs that were saved in internal memory or on a USB flash drive.

### NOTE

- All data saved in internal memory or on the USB flash drive will be erased when you initialize the media.
- If you want settings other than the internal memory and USB flash drive songs to be returned to their factory-set state, execute a Factory Reset (p. 17).
- 1. If you want to initialize a USB flash drive, connect the USB flash drive to the USB Memory port (p. 5).
- 2. Press the [Function] button, and then use the [◄] [▶] buttons to select "Format Media."
- 3. Press the [Function] (Enter) button.

The Format Media screen appears.



If you decide to cancel, press the [Exit] button.

- **4.** Use the [-] [+] buttons to select the media that you want to format.
- 5. Press the [Function] (Enter) button.

A confirmation message appears.



If you decide to cancel, press the [Exit] button.

**6.** Use the [▶] button to select "Yes," and then press the [Function] (Enter) button.

The memory is formatted.

### NOTE

Do NOT turn off the power or disconnect the USB flash drive while "Executing..." is displayed.

7. Press the [Exit] button several times to exit Function mode.

## Restoring the Factory Settings (Factory Reset)

Here's how to restore all registrations and internally saved settings to the factory-set condition. This function is called "Factory Reset."

### NOTE

A factory reset returns all of your saved settings to their factory values.

### MEMO

Executing this function does not erase the songs in internal memory or on a USB flash drive (sold separately). If you want to erase all songs from internal memory or from a USB flash drive, refer to "Reformatting Memory (Format Media)" (p. 17).

- Press the [Function] button, and then press the [◄] [►] button to select "Factory Reset."
- 2. Press the [Function] (Enter) button.

A confirmation message appears.



If you decide to cancel, press the [Exit] button.

**3.** Press the [▶] button to select "Yes," and then press the [Function] (Enter) button.

The memory is reset to its factory values.

### NOTE

Do NOT turn off the power while "Executing..." is displayed.

4. Turn the power off, then on again (p. 4).

## Retaining Settings After Power-Off (Memory Backup)

Temperament settings, equalizer settings, and other settings are reset to their default values when the FP-90 is turned on. You can automatically restore the desired settings if you save them in internal memory.

### MEMO

For a list of settings saved by Memory Backup, see "Saved Settings" (p. 26)

- Press the [Function] button, and then use the [◄] [►] buttons to select "Memory Backup."
- 2. Press the [Function] (Enter) button.

A confirmation message appears.



If you decide to cancel, press the [Exit] button.

**3.** Press the [▶] button to select "Yes," and then press the [Function] (Enter) button.

Memory Backup will be carried out.

### NOTE

Do NOT turn off the power while "Executing..." is displayed.

4. Press the [Exit] button several times to exit Function mode.

## Various Settings (Function Mode)

## How to Use Function Mode

1. Press the [Function] button.

The [Function] button lights, and the unit is in Function mode.

**2.** Press the [◄] [▶] buttons to select the setting you want to change.

### MEMO

Depending on the item you select, an additional screen may be displayed.

- **3.** Press the [-] [+] buttons to adjust the value.
- 4. Press the [Exit] button to finish.
  - \* The FP-90 settings return to their factory defaults when you turn off the power. But if you backup the current settings into internal memory, they will be restored the next time the power comes on. Refer to "Retaining Settings After Power-Off (Memory Backup)" (p. 17).

Indication	Parameter	Explanation	
[◀] [▶] buttons	[-] [+] buttons	Explanation	
	Adjusting the	e Keyboard Response (Key Touch)	
Key Touch	The way in which the	keyboard responds to your playing strength can be adjusted to your personal taste.	
	Fix, 1–100	Higher values will make the keyboard feel heavier.  If you've specified "Fix," notes will sound at the same volume regardless of how strongly you play the keyboard.	
	Matching the	e Pitch with Other Instruments (Master Tuning)	
Master Tuning		ble with other instruments and in other such instances, you can match the standard pitch to another instrument.	
, J	, ,	enerally refers to the pitch of the note that's played when you finger the middle A key. For a cleaner ensemble sound while or more other instruments, ensure that each instrument's standard pitch is in tune with that of the other instruments.	
		e Tuning Method (Temperament)	
	You can play classical	styles such as Baroque using historic temperaments (tuning methods).	
	but when classical m	are composed and played with the assumption that equal temperament (the most common tuning in use today) will be used, usic was composed, there were a wide variety of other tuning systems in existence. Playing a composition with its original the sonorities of the chords that the composer originally intended.	
	Equal	This temperament divides the octave into twelve equal steps. It is the temperament that is most commonly used on today's pianos. Every interval has the same slight amount of dissonance.	
	Just Major	In these temperaments, the primary triads are perfectly consonant. It is unsuited to playing melodies and cannot be transposed, but is capable of beautiful sonorities.	
	Just Minor	The Just tunings differ from major and minor keys.	
	Pythagorean	This tuning, devised by the philosopher Pythagoras, eliminates dissonance in fourths and fifths.  Although third chord is slightly dissonant, this tuning is suitable for songs that have a simple melody.	
Temperament	Kirnberger I	As in the Just temperaments, the primary triads are consonant in this tuning. Beautiful sonorities are obtained when playing songs that are written in keys appropriate for this tuning.	
	Kirnberger II	This is a revision of Kirnberger I that reduces the limitations on the usable keys.	
	Kirnberger III	This is an improvement of the Meantone and Just tunings that provides a high degree of freedom of modulation.  Performances are possible in all keys. Since the resonance differs depending on the key, chords played in this temperament resonate in diverse ways when compared to equal temperament.	
	Meantone	This temperament slightly narrows the fifth relative to Just temperaments. While the Just temperaments contains two types of whole tone (major whole tone and minor whole tone), meantone temperament uses only one type of whole tone (mean whole tone). Transposition within a limited range of keys is possible.	
	Werckmeister	This temperament consists of eight perfect fifths and four narrowed fifths. Performance in all keys is possible. Since different keys produce different sonorities, chords will resonate in diverse ways when compared to equal temperament (Werckmeister I (III)).	
	Arabic	This tuning is suitable for the music of Arabia.	
	Specifying a	Song's Tonic (Temperament Key)	
Temperament Key	1 , ,	When playing with tuning other than equal temperament, you need to specify the temperament key for tuning the song to be performed (that is, the note that corresponds to C for a major key or to A for a minor key).	
	If you choose an equal temperament, there's no need to select a temperament key.		
	C-B	vous ninno cound by adjusting various alamonts that affort the cound the ninns of why in a things the name of the	
Piano Designer	Lets you personalize your piano sound by adjusting various elements that affect the sound: the piano's physical strings, the resonances produced by the pedals, the sound of hammers striking the strings, and more.		
Hammar Pasnansa		g Your Piano Sound (Piano Designer)" (p. 13).  Adjusts the time from when you play the key until the piane sound is heard. Higher values produce a greater delay.	
Hammer Response	Off, 1–10	Adjusts the time from when you play the key until the piano sound is heard. Higher values produce a greater delay.	

Parameter   Explanations   Explana			
Figurities  Figurities  Figurities  Figurities estating settings, setter the [1-bit botton to select (Figurities) and the figurities of th			Explanation
Figurities  Figurities  Figurities  Figurities estating settings, setter the [1-bit botton to select (Figurities) and the figurities of th		Editing the Equa	lizer Settings
Figuration  Figura			-
Equalitive    Example   Ex			
Figure   F		EQ Low From 20-400	Frequency point in the low-frequency range.
Foundation   100   Response   Designation	Equalizer	(Hz)	·
Description		F() Mid Fred	
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EQ High Free   2000-   Exercise   2000-   Exercise		FO Mid O	
Billesteoth Audio  Refer to Tubing Billesteoth Audio  Refer to Tubing Billesteoth (2.2)  Refer to Tubing Billesteoth (2.			
Refer to 'Using Bluetooth Audio' (p. 21). Refer to 'Superlying the Bluetooth (p. 21). Refer to 'Superlying the Bluetooth (p. 21). Refer to 'Superlying the Bluetooth (p. 21).  Adjusting the Volume of an Audio Playback Device or Bluetooth Audio (Input/Bluetooth Volume)  Adjusting the Volume of an Audio Playback Device or Bluetooth Audio (Input/Bluetooth Volume)  You can adjust the volume of the audio playback when an audio playback device is connected to the Input Stereo jack or via Bluetooth.  O-10  Specifying the Song (SMF) Playback Mode (SMF Play Mode)  When playing back is ang (SMF) Playback Bluetooth (SMF) Play Mode  When playing back is ang (SMF) Play back better the appropriate setting depending on whether you've playing an internal song or external data.  (IEEE)  You can also witch the SMF Play Mode by holding down the   Pril Button and using the  - - - -			
Secretary Bluetooth Vol.  Input/Bluetooth Vol.  Input/Bluetooth Vol.  Adjusting the Volume of an Audio Playback Device or Bluetooth Audio (Input/Bluetooth Volume)  Tou can adjust the volume of the audio playback when an audio playback device is connected to the Input Stereo jack or via Bluetooth Volume)  Specifying the Song (SMF) Playback Mode (SMF Play Mode)  When playing back a song (SMF), select the appropriate setting depending on whether you're playing an internal song or external data.  SMF Play Mode  SMF Play Mode  SMF Play Mode by holding down the IP ■ Il button and using the I-I il button.  Some of the famo Designer effects are not reproduced if the SMF Play Mode to either "Internal" or "External" depending on the song that is being played.  Auto-Select Automatically switches the SMF Play Mode to either "Internal" or "External" depending on the song that is being played.  This setting is feed when playing back as not internal song or a sorig that was recorded on this unit.  Becarrierly selected to not used when you bego bed the song.  This setting is led when playing back as the internal song or a sorig that is song that is being played.  This setting is led when playing back as the internal song or a sorig that is use recorded on this unit.  Becarding Mode  Selecting the Format for Recording (Recording Mode)  Vou can choose whether to record as SMF or as audio.  Selecting the Format for Recording (Recording Mode)  Vou can choose whether to record as SMF or as audio.  Selecting the Format for Recording of SMF or S	Bluetooth Audio		
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Volume   V	Bluetooth ID	Refer to "Specifying the <b>Bl</b>	uetooth ID" (p. 21).
SMF Play Mode  Specifying the Song (SMF) Playback Mode (SMF Play Mode)  When playing back is song (SMF), select the appropriate setting depending on whether you're playing an internal song or external data.  (SMF)  Vox.cra also switch the SMF Play Mode by holding down the [**] will button and using the [-] or button.  Sonne of the Plana Designer effects are not reproduced if the SMF Play Mode bits at to "Sternal"  Auto-Select  Auto-Select  Automatically switches the SMF Play Mode does be playing an internal song or external data.  (Internal  Internal  The song strippe effects are not reproduced if the SMF Play Mode bits at to "Sternal" depending on the song that is being played.  This setting is ideal when playing back an internal song or a song that was recorded on this unit.  The currently selected one is used when pough by back the song.  This setting is ideal when playing back external data such as commercially available music data.  Selecting the Format for Recording (Recording Mode)  You can also switch the Recording Mode by holding down the [**] button and using the [-] [**] button.  SMF  The performance is recorded as MIO data. (SMF format 6)  Audio  The recording will be made as audio data. (WAV format, 44.1 MHz, 16-bit linear)  Refer to "Renaming a Song (Rename Song" (s. 12).  Refer to "Renaming a Song (Bename Song" (s. 12).  Refer to "Refer thing the saved Song (Delete Song" (s. 12).  Page for to "Renaming a Song (Bename Song" (s. 12).  Refer to "Refer thing the saved Song (Delete Song" (s. 12).  Changing How the Pedal Effects Are Applied (Damper Pedal Part)  When you press the pedal connected to the Pedal Damper jack during Dual Play or Spilit Play, the pedal effect is normally applied to both tones, but you can also select the more to which the effect is obe applied.  Institute the formating the formation of the pedal Canner of the pedal Canner Pedal (Canter Pedal)  Layer Solve House of the Solve House of the Pago (seed with provided the pedal Solve House).  Solve House of the Solve House of the Pa			lume of an Audio Playback Device or <b>Bluetooth</b> Audio (Input/ <b>Bluetooth</b>
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You can also switch the SMF Play Mode by holding down the   P-#    button and using the   1-  button.			(SMF), select the appropriate setting depending on whether you're playing an internal song or external data.
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The most suitable tone for the song that's playing is selected.  The currently selected tone is used when playing back an internal song or a song that was necorded on this unit.  The currently selected tone is used when you play back the song. This setting is ideal when playing back external data such as commercially available music data.  Selecting the Format for Recording (Recording Mode)  You can choose whether to record as SMF or as audio.  MERIO  You can also switch the Recording Mode by holding down the [•] button and using the [-] [+] button.  SMF	Sivil 1 lay Mode		
This setting is ideal when playing back an internal song or a song that was recorded on this unit.  External  The currently selected tone is used when you play back the song.  This setting is ideal when playing back external data such as commercially available music data.  Selecting the Format for Recording (Recording Mode)  You can choose whether to record as SMF or as audio.  You can also switch the Recording Mode by holding down the [●] button and using the [─] [□] button.  The performance is recorded as MIDI data. (SMF format 0)  Audio  The recording will be made as audio data. (WAV format 4.4.1 kHz, 16-bit linear)  Refer to "Renaming a Song (Rename Song)" (p. 11).  Copy Song  Refer to "Copying a Saved Song (Copy Song)" (p. 12).  Poletes Song  Refer to "Copying a Saved Song (Copy Song)" (p. 12).  Format Media  Refer to "Reformatting Memory (Format Media)" (p. 17).  Changing How the Pedal Effects Are Applied (Damper Pedal Part)  When you press the pedal connected to the Pedal Damper jack during Dual Play or Split Play, the pedal effect is normally applied to both tones, but you can also select the tone to which the effect is to be applied.  Right & Left All enabled  Right Applied only to the Tone 1 (in Dual Play)/Right-hand Tone (in Split Play)  Changing the Function of the Center Pedal (Center Pedal)  Use this feature to change the function of the pedal connected to the Pedal Sostenuto jack.  Sostenuto *1 Self function to sostenuto pedal.  Sostenuto *1 Self function to sostenuto pedal.  Start/Stop In Dual Play you can only for the Tone 2 (in Dual Play)/Right-hand Tone (in Split Play)  Changing the Function of the Pedal connected to the Pedal Sostenuto jack.  Sostenuto *1 Self function to sostenuto pedal.  Start/Stop In Dual Play you can control of the Tone 2 volume.  Soft *2 Self function to sostenuto pedal.  Start/Stop In Dual Play you can control of the Tone 2 volume.  Soft *2 Self function to soft pedal.  Mic Echo Sw In Dual Play you can control of the Tone 2 volume.  Soft *2 Self function to soft pedal		Auto-select	
External   The currently selected tone is used when you play back the song. This setting is ideal when playing back external data such as commercially available music data.    Selecting the Format for Recording (Recording Mode)		Internal	
Selecting the Format for Recording (Recording Mode)  Vou can choose whether to record as SMF or as audio.  MEMO  Vou can choose whether to record as SMF or as audio.  MEMO  Vou can also switch the Recording Mode by holding down the [•] button and using the [-] [+] button.  MF  The performance is recorded as MIDI data, SMF format (I).  Audio  Rename Song  Refer to "Renaming as Song (Rename Song)" [-1 1].  Copy Song  Refer to Toping a Sawed Song (Copy Song)" [-1 1].  Poletes Song  Refer to Teleting a Sawed Song (Copy Song)" [-1 1].  Changing How the Pedal Effects Are Applied (Damper Pedal Part)  When you press the pedal connected to the Pedal Damper jack during Dual Play or Split Play, the pedal effect is normally applied to both tones, but you can also select the tone to to which the effect is to be applied.  Right Applied only to the Tone 2 in Dual Play/Right-hand Tone (in Split Play)  Left Applied only to the Tone 2 in Dual Play/Right-hand Tone (in Split Play)  Left Applied only to the Tone 2 in Dual Play/Right-hand Tone (in Split Play)  Layer  Changing the Function of the Center Pedal (Center Pedal)  Use this feature to change the function of the pedal connected to the Pedal Sostenuto jack.  Sostenuto *1  Sets function to sostenuto pedal.  Sets function to sostenuto pedal.  Sattr/Stop  The pedal will have the same function as the I=*••* [■] button.  In Dual Play you can control of the Tone 2 volume.  Soft *2  Sets function to soft pedal.  Allows control of the You can control of the Fone 2 volume.  Sets function to soft pedal.  Allows control of the volume. You may find it convenient to connect an expression pedal (EV-5; sold separately). Does not change the recorded performance play.  Master Expression *3  Allows control of the volume. You may find it convenient to connect an expression pedal (EV-5; sold separately). Does not change the recorded performance play.  Men Usubling Sw  Mic Doubling Sw  The pedal will turn Mic effect "Echo on Orff.  Mic Doubling Sw  The pedal will turn Mic effect "Echo orff.  Whe			
You can choose whether to record as SMF or as audio.    MEMO		External	This setting is ideal when playing back external data such as commercially available music data.
Tou can also switch the Recording Mode by holding down the [•] button and using the [-] [+] button.    You can also switch the Recording Mode by holding down the [•] button and using the [-] [+] button.   SMF			5 5
You can also switch the Recording Mode by holding down the [●] button and using the [-] [+] button.  MF The performance is recorded as MIDI data, (SMF format 0) Audio The recording will be made as audio data. (WAV format 4.4.1 kHz, 16-bit linear)  Refer to "Renaming a Song (Rename Song)" (p. 11).  Copy Song Refer to "Copying a Saved Song (Copy Song)" (p. 12).  Polete Song Refer to "Copying a Saved Song (Copy Song)" (p. 12).  Changing How the Pedal Effects Are Applied (Damper Pedal Part)  When you press the pedal connected to the Pedal Damper jack during Dual Play or Split Play, the pedal effect is normally applied to both tones, but you can also select the tone to which the effect is to be applied.  Right Applied only to the Tone 2 (in Dual Play)/Right-hand Tone (in Split Play)  Left Applied only to the Tone 2 (in Dual Play)/Right-hand Tone (in Split Play)  Left Applied only to the Tone 2 (in Dual Play)/Right-hand Tone (in Split Play)  Use this feature to change the function of the pedal connected to the Pedal Sostenuto jack.  Sostenuto "1  Sets function to sostenuto pedal.  Start/Stop The pedal will have the same function as the [▶/■] button.  Layer In Dual Play, you can control of the Tone 2 volume.  Soft "2  Sets function to soft pedal.  Whater Expression Solution to soft pedal of the volume. You may find it convenient to connect an expression pedal (EV-5: sold separately), Does not change the recorded performance play.  Mater Expression Controls the overall volume of the FP-90.  Bend Down "3  Allows control of the volume. You may find it convenient to connect an expression pedal (EV-5: sold separately), Does not change the recorded performance play.  When using the recorded performance play.  What is added when pedal is depressed.  Mic Doubling Sw The pedal will turn Mic effect "Doubling" on/off.  Mic Echo Sw The pedal will turn Mic effect "Doubling" on/off.  Note the pedal Part or Left Pedal Part).  * Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malf	D M J.		
SMF	Recording Mode		
Rename Song Refer to "Renaming a Song (Rename Song)" (p. 11). Copy Song Refer to "Copying a Saved Song (Copy Song)" (p. 12).  Pelete Song Refer to "Copying a Saved Song (Copy Song)" (p. 12).  Refer to "Reformatting Memory (Format Media)" (p. 17).  Changing How the Pedal Effects Are Applied (Damper Pedal Part)  When you press the pedal connected to the Pedal Damper jack during Dual Play or Split Play, the pedal effect is normally applied to both tones, but you can also select the tone to which the effect is to be applied.  Right & Left Right & Left Right & Left Right & Left Applied only to the Tone 1 (in Dual Play)/Right-hand Tone (in Split Play)  Left Applied only to the Tone 2 (in Dual Play)/Left-hand Tone (in Split Play)  Changing the Function of the Center Pedal (Center Pedal)  Use this feature to change the function of the pedal connected to the Pedal Sostenuto jack.  Sostenuto *11  Satt/Stop The pedal will have the same function as the [▶ ▼] button.  Layer In Dual Play, you can control of the Tone 2 volume.  Soft *2  Sets function to soft pedal.  Expression *3  Allows control of the volume. You may find it convenient to connect an expression pedal (EV-5: sold separately). Does not change the recorded performance play.  Master Expression Controls the overall volume of the FP-90.  Bend Up *3  Bend Down *3  Pitch is lowered when pedal is depressed.  Modulation *3  Vibrato is added when pedal is depressed.  Mic Doubling Sw The pedal will turn Mic effect "Doubling" on/off.  Mic Echo Sw The pedal will turn Mic effect "Echobuling" on/off.  When using the rotary effect, switches the rotary effect between slow and fast.  *1 Only works on the Left Pedal Function.  *2 Only works on the Left Pedal Function.  *3 Works only on the tone set as the corresponding pedal part (Center Pedal Part ).  *Use only the specified expression pedal. Sy connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.  Changing How the Pedal Effects Are Applied (Center Pedal Part)  When you press the peda			
Rename Song Refer to "Renaming a Song (Rename Song)" (p. 11).  Copy Song Refer to Copying a Saved Song (Copy Song)" (p. 12).  Refer to "Copying a Saved Song (Copy Song)" (p. 12).  Refer to "Copying a Saved Song (Copt Song)" (p. 12).  Changing How the Pedal Effects Are Applied (Damper Pedal Part)  When you press the pedal connected to the Pedal Damper jack during Dual Play or Split Play, the pedal effect is normally applied to both tones, but you can also select the tone to which the effect is to be applied.  Right & Left   All enabled   Right   Applied only to the Tone 1 (in Dual Play)/Right-hand Tone (in Split Play)  Left   Applied only to the Tone 1 (in Dual Play)/Right-hand Tone (in Split Play)  Changing the Function of the Center Pedal (Center Pedal)  Use this feature to change the function of the pedal connected to the Pedal Sostenuto jack.  Sostenuto "1   Sets function to sostenuto pedal.  Sart/Stop   The pedal will have the same function as the [*/**] button.  Layer   In Dual Play, you can control of the Tone 2 volume.  Soft *2   Sets function to soft pedal.  Expression "3   Allows control of the Volume. You may find it convenient to connect an expression pedal (EV-5: sold separately). Does not change the recorded performance play.  Master Expression   Pitch is lowered when pedal is depressed.  Modulation "3   Vibrato is added when pedal is depressed.  Modulation "3   Vibrato is added when pedal is depressed.  Modulation "3   Vibrato is added when pedal is depressed.  Modulation "3   Vibrato is added when pedal is depressed.  Modulation "3   Vibrato is added when pedal is depressed.  Modulation "3   Vibrato is added when pedal is depressed.  Modulation "3   Vibrato is added when pedal is depressed.  Modulation "3   Vibrato is added when pedal is depressed.  Modulation "3   Vibrato is added when pedal is depressed.  Modulation "3   Vibrato is added when pedal is depressed.  Modulation "3   Vibrato is added when pedal is depressed.  Modulation "4   Vibrato is added when pedal is depressed.  Modulation "5			·
Refer to "Copying a Saved Song (Copy Song)" (p. 12).  Delete Song Refer to "Deleting a Saved Song (Delete Song" (p. 12).  Refer to "Reformatting Memory (Format Media)" (p. 17).  Changing How the Pedal Effects Are Applied (Damper Pedal Part)  When you press the pedal connected to the Pedal Damper jack during Dual Play or Split Play, the pedal effect is normally applied to both tones, but you can also select the tone to which the effect is to be applied.  Right & Left Applied only to the Tone 1 (in Dual Play)/Right-hand Tone (in Split Play)  Left Applied only to the Tone 2 (in Dual Play)/Right-hand Tone (in Split Play)  Changing the Function of the Center Pedal (Center Pedal)  Use this feature to change the function of the pedal connected to the Pedal Sostenuto jack.  Sostenuto *1  Start/Stop The pedal will have the same function as the  ▶✓■  button.  Layer In Dual Play, you can control of the Volume. You may find it convenient to connect an expression pedal (EV-5: sold separately). Does not change the recorded performance play.  Master Expression *3  Allows control of the volume. You may find it convenient to connect an expression pedal (EV-5: sold separately). Does not change the recorded performance play.  Master Expression *3  Master Expression *3  Mic Doubling Sw The pedal will have the pedal is depressed.  Mic Doubling Sw The pedal will turn Mic effect "Doubling" on/off.  Mic Echo Sw The pedal will turn Mic effect "Doubling" on/off.  Mic Echo Sw The pedal will turn Mic effect "Doubling" on/off.  Notary Sw When using the rotary effect, switches the rotary effect between slow and fast.  *1 Only works on the Center Pedal Function.  *2 Only works on the Left Pedal Function.  *3 Works only on the tone set as the corresponding pedal part (Center Pedal Part).  Changing How the Pedal Effects Are Applied (Center Pedal Part)  When you press the pedal connected to the Pedal Sostenuto jack during Dual Play or Split Play, the pedal effect is normally applied to both tones,	Panama Song		
Refer to "Deleting a Saved Song (Delete Song)" (p. 12).    Refer to "Reformatting Memory (Format Media)" (p. 17).    Changing How the Pedal Effects Are Applied (Damper Pedal Part)   When you press the pedal connected to the Pedal Damper jack during Dual Play or Split Play, the pedal effect is normally applied to both tones, but you can also select the tone to which the effect is to be applied.   Right & Left   All enabled   Right   Applied only to the Tone 1 (in Dual Play)/Right-hand Tone (in Split Play)   Left   Applied only to the Tone 2 (in Dual Play)/Left-hand Tone (in Split Play)   Left   Applied only to the Tone 2 (in Dual Play)/Left-hand Tone (in Split Play)   Use this feature to change the function of the Center Pedal (Center Pedal)   Use this feature to change the function of the pedal connected to the Pedal Sostenuto jack.   Sostenuto *1   Sets function to sostenuto pedal.   Start/Stop   The pedal will have the same function as the   ▶ ■			
Refer to "Reformatting Memory (Format Media)" (p. 17).  Changing How the Pedal Effects Are Applied (Damper Pedal Part)  When you press the pedal connected to the Pedal Damper jack during Dual Play or Split Play, the pedal effect is normally applied to both tones, but you can also select the tone to which the effect is to be applied.  Right & Left All enabled Right Applied only to the Tone 1 (in Dual Play)/Right-hand Tone (in Split Play)  Left Applied only to the Tone 2 (in Dual Play)/Left-hand Tone (in Split Play)  Changing the Function of the Center Pedal (Center Pedal)  Use this feature to change the function of the pedal connected to the Pedal Sostenuto jack.  Sostenuto **1  Sostenuto **1  Sets function to sostenuto pedal.  Start/Stop The pedal will have the same function as the [▶ ✓ ■] button.  Layer In Dual Play, you can control of the Tone 2 volume.  Soft **2  Sets function to soft pedal.  Expression **3  Allows control of the volume. You may find it convenient to connect an expression pedal (EV-5: sold separately). Does not change the recorded performance play.  Master Expression  Controls the overall volume of the FP-90.  Bend Up **3  Pitch rises when pedal is depressed.  Modulation **3  Mic Doubling Sw The pedal will turn Mic effect **Doubling* on/off.  Mic Echo Sw The pedal will turn Mic effect **Cho'on/off.  Rotary Sw When using the rotary effect, switches the rotary effect between slow and fast.  **1 Only works on the Center Pedal Function.  **2 Only works on the Left Pedal Function.  **3 Works only on the tone set as the corresponding pedal part (Center Pedal Part or Left Pedal Part).  **Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.  Changing How the Pedal Effects Are Applied (Center Pedal Part)  When you press the pedal connected to the Pedal Sostenuto jack during Dual Play or Split Play, the pedal effect is normally applied to both tones,			
Changing How the Pedal Effects Are Applied (Damper Pedal Part)  When you press the pedal connected to the Pedal Damper jack during Dual Play or Split Play, the pedal effect is normally applied to both tones, but you can also select the tone to which the effect is to be applied.  Right & Left   All enabled   Right   Applied only to the Tone 1 (in Dual Play)/Right-hand Tone (in Split Play)   Left   Applied only to the Tone 2 (in Dual Play)/Left-hand Tone (in Split Play)  Changing the Function of the Center Pedal (Center Pedal)  Use this feature to change the function of the pedal connected to the Pedal Sostenuto jack.  Sostenuto *1  Start/Stop   The pedal will have the same function as the [▶ ▼ ■] button.  Layer   In Dual Play, you can control of the Tone 2 volume.  Soft *2   Sets function to soft pedal.  Expression *3   Allows control of the Volume. You may find it convenient to connect an expression pedal (EV-5: sold separately). Does not change the recorded performance play.  Master Expression   Controls the overall volume of the FP-90.  Bend Up *3   Pitch is lowered when pedal is depressed.  Modulation *3   Vibrato is added when pedal is depressed.  Modulation *3   Vibrato is added when pedal is depressed.  Milc Doubling \$\oint  The pedal will turn Mic effect "Echo" on/off.  Milc Echo \$\oint \text{ The pedal will turn Mic effect "Echo" on/off.  Rotary \$\oint \text{ When using the rotary effect, switches the rotary effect between slow and fast.  *1 Only works on the Center Pedal Function.  *2 Only works on the the Pedal Function.  *3 Works only on the tone set as the corresponding pedal part (Center Pedal Part to.  * Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.  Changing How the Pedal Effects Are Applied (Center Pedal Part)  When you press the pedal connected to the Pedal Sostenuto jack during Dual Play or Split Play, the pedal effect is normally applied to both tones,			
When you press the pedal connected to the Pedal Damper jack during Dual Play or Split Play, the pedal effect is normally applied to both tones, but you can also select the tone to which the effect is to be applied.  Right & Left   All lenabled   Right   Applied only to the Tone 1 (in Dual Play)/Right-hand Tone (in Split Play)  Left   Applied only to the Tone 2 (in Dual Play)/Left-hand Tone (in Split Play)  Changing the Function of the Center Pedal (Center Pedal)  Use this feature to change the function of the pedal connected to the Pedal Sostenuto jack.  Sostenuto *1   Sets function to sostenuto pedal.  Start/Stop   The pedal will have the same function as the  **P/**  button.  Layer   In Dual Play, you can control of the Tone 2 volume.  Soft *2   Sets function to soft pedal.  Expression *3   Allows control of the volume. You may find it convenient to connect an expression pedal (EV-5: sold separately). Does not change the recorded performance play.  Master Expression   Controls the overall volume of the EP-90.  Bend Up *3   Pitch rises when pedal is depressed.  Modulation *3   Vibrato is added when pedal is depressed.  Mic Doubling Sw   The pedal will turn Mic effect "Doubling" on/off.  Mic Echo Sw   The pedal will turn Mic effect. Echo" on/off.  Rotary Sw   When using the rotary effect, switches the rotary effect between slow and fast.  *1 Only works on the Center Pedal Function.  *2 Only works on the Center Pedal Function.  *3 Works only on the tone set as the corresponding pedal part (Center Pedal Part or Left Pedal Part).  *Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.  Changing How the Pedal Effects Are Applied (Center Pedal Part)  When you press the pedal connected to the Pedal Sostenuto jack during Dual Play or Split Play, the pedal effect is normally applied to both tones,	Format Media	Refer to "Reformatting Mei	mory (Format Media)" (p. 17).
you can also select the tone to which the effect is to be applied.  Right & Left   All enabled   Right   Applied only to the Tone 1 (in Dual Play)/Right-hand Tone (in Split Play)  Left   Applied only to the Tone 2 (in Dual Play)/Left-hand Tone (in Split Play)  Changing the Function of the Center Pedal (Center Pedal)  Use this feature to change the function of the pedal connected to the Pedal Sostenuto jack.  Sostenuto *1   Sets function to sostenuto pedal.  Start/Stop   The pedal will have the same function as the [▶/■] button.  Layer   in Dual Play, you can control of the Tone 2 volume.  Soft *2   Sets function to soft pedal.  Allows control of the volume. You may find it convenient to connect an expression pedal (EV-5: sold separately). Does not change the recorded performance play.  Master Expression   Allows control of the Pedal Sostenuto perseed.  Bend Up *3   Pitch rises when pedal is depressed.  Modulation *3   Vibrato is added when pedal is depressed.  Mic Doubling Sw   The pedal will turn Mic effect *Doubling* on/off.  Mic Echo Sw   The pedal will turn Mic effect *Doubling* on/off.  Mic Echo Sw   The pedal will turn Mic effect *Echo* on/off.  Rotary Sw   When using the rotary effect, switches the rotary effect between slow and fast.  *1 Only works on the Left Pedal Function.  *2 Only works on the Left Pedal Function.  *3 Works only on the tone set as the corresponding pedal part (Center Pedal Part).  * Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.  Changing How the Pedal Effects Are Applied (Center Pedal Part)  When you press the pedal connected to the Pedal Sostenuto jack during Dual Play or Split Play, the pedal effect is normally applied to both tones,		3 3	
Right & Left Right Applied only to the Tone 1 (in Dual Play)/Right-hand Tone (in Split Play) Left Applied only to the Tone 2 (in Dual Play)/Left-hand Tone (in Split Play)  Changing the Function of the Center Pedal (Center Pedal)  Use this feature to change the function of the pedal connected to the Pedal Sostenuto jack.  Sostenuto *1 Sets function to sostenuto pedal.  Start/Stop The pedal will have the same function as the [▶/■] button.  Layer In Dual Play, you can control of the Tone 2 volume.  Soft *2 Sets function to soft pedal.  Expression *3 Allows control of the volume. You may find it convenient to connect an expression pedal (EV-5: sold separately). Does not change the recorded performance play.  Master Expression Controls the overall volume of the FP-90.  Bend Up *3 Pitch rises when pedal is depressed.  Modulation *3 Vibrato is added when pedal is depressed.  Mic Doubling Sw The pedal will turn Mic effect "Doubling" on/off.  Rotary Sw When using the rotary effect, switches the rotary effect between slow and fast.  *1 Only works on the Center Pedal Function.  *2 Only works on the Left Pedal Function.  *3 Works only on the tone set as the corresponding pedal part (Center Pedal Part).  * Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.  Changing How the Pedal Effects Are Applied (Center Pedal Part) When you press the pedal connected to the Pedal Sostenuto jack during Dual Play or Split Play, the pedal effect is normally applied to both tones,	Damper Pedal Part	,	
Right Left Applied only to the Tone 1 (in Dual Play)/Right-hand Tone (in Split Play)  Changing the Function of the Center Pedal (Center Pedal)  Use this feature to change the function of the pedal connected to the Pedal Sostenuto jack.  Sostenuto *1 Sets function to sostenuto pedal.  Start/Stop The pedal will have the same function as the [▶/▶] button.  Layer In Dual Play, you can control of the Tone 2 volume.  Soft *2 Sets function to soft pedal.  Expression *3 Allows control of the volume. You may find it convenient to connect an expression pedal (EV-5: sold separately). Does not change the recorded performance play.  Master Expression Controls the overall volume of the FP-90.  Bend Up *3 Pitch rises when pedal is depressed.  Modulation *3 Vibrato is added when pedal is depressed.  Modulation *3 Vibrato is added when pedal is depressed.  Mic Doubling Sw The pedal will turn Mic effect *Doubling* on/off.  Mic Scho Sw The pedal will turn Mic effect *Doubling* on/off.  Rotary Sw When using the rotary effect, switches the rotary effect between slow and fast.  *1 Only works on the Center Pedal Function.  *2 Only works on the Left Pedal Function.  *3 Works only on the tone set as the corresponding pedal part (Center Pedal Part or Left Pedal Part).  * Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.  Changing How the Pedal Effects Are Applied (Center Pedal Part)  When you press the pedal connected to the Pedal Sostenuto jack during Dual Play or Split Play, the pedal effect is normally applied to both tones,		<u> </u>	
Center Pedal  Center Pedal Part  Center Pedal Capta Contend to the Pedal Connected to the Pedal Sostenuto jack during Dual Play or Split Play, the pedal effect is normally applied to both tones,			
Use this feature to change the function of the pedal connected to the Pedal Sostenuto jack.    Sostenuto *1		Left	Applied only to the Tone 2 (in Dual Play)/Left-hand Tone (in Split Play)
Use this feature to change the function of the pedal connected to the Pedal Sostenuto jack.    Sostenuto *1		Changing the Fu	unction of the Center Pedal (Center Pedal)
Sostenuto *1 Sets function to sostenuto pedal. Start/Stop The pedal will have the same function as the [▶/■] button. Layer In Dual Play, you can control of the Tone 2 volume. Soft *2 Sets function to soft pedal.  Allows control of the volume. You may find it convenient to connect an expression pedal (EV-5: sold separately). Does not change the recorded performance play.  Master Expression Send Up *3 Bend Up *3 Pitch rises when pedal is depressed. Bend Down *3 Pitch is lowered when pedal is depressed. Modulation *3 Vibrato is added when pedal is depressed. Mic Doubling Sw The pedal will turn Mic effect "Doubling" on/off. Mic Echo Sw The pedal will turn Mic effect "Doubling" on/off. Rotary Sw When using the rotary effect, switches the rotary effect between slow and fast. *1 Only works on the Center Pedal Function. *2 Only works on the Left Pedal Function. *3 Works only on the tone set as the corresponding pedal part (Center Pedal Part or Left Pedal Part).  * Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.  Changing How the Pedal Effects Are Applied (Center Pedal Part) When you press the pedal connected to the Pedal Sostenuto jack during Dual Play or Split Play, the pedal effect is normally applied to both tones,		3 3	·
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Center Pedal  Center Pedal  Soft *2  Sets function to soft pedal.  Allows control of the volume. You may find it convenient to connect an expression pedal (EV-5: sold separately). Does not change the recorded performance play.  Master Expression  Controls the overall volume of the FP-90.  Bend Up *3  Pitch rises when pedal is depressed.  Bend Down *3  Pitch is lowered when pedal is depressed.  Modulation *3  Vibrato is added when pedal is depressed.  Mic Doubling Sw  The pedal will turn Mic effect "Doubling" on/off.  Mic Echo Sw  The pedal will turn Mic effect "Echo" on/off.  Rotary Sw  When using the rotary effect, switches the rotary effect between slow and fast.  *1 Only works on the Center Pedal Function.  *2 Only works on the Left Pedal Function.  *3 Works only on the tone set as the corresponding pedal part (Center Pedal Part or Left Pedal Part).  * Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.  Changing How the Pedal Effects Are Applied (Center Pedal Part)  When you press the pedal connected to the Pedal Sostenuto jack during Dual Play or Split Play, the pedal effect is normally applied to both tones,			
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Center Pedal  Master Expression		Everacsion *2	
Bend Up *3 Pitch rises when pedal is depressed.  Bend Down *3 Pitch is lowered when pedal is depressed.  Modulation *3 Vibrato is added when pedal is depressed.  Mic Doubling Sw The pedal will turn Mic effect "Doubling" on/off.  Mic Echo Sw The pedal will turn Mic effect "Echo" on/off.  Rotary Sw When using the rotary effect, switches the rotary effect between slow and fast.  *1 Only works on the Center Pedal Function.  *2 Only works on the Left Pedal Function.  *3 Works only on the tone set as the corresponding pedal part (Center Pedal Part or Left Pedal Part).  * Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.  Changing How the Pedal Effects Are Applied (Center Pedal Part)  When you press the pedal connected to the Pedal Sostenuto jack during Dual Play or Split Play, the pedal effect is normally applied to both tones,			
Bend Down *3 Pitch is lowered when pedal is depressed.  Modulation *3 Vibrato is added when pedal is depressed.  Mic Doubling Sw The pedal will turn Mic effect "Doubling" on/off.  Mic Echo Sw The pedal will turn Mic effect "Echo" on/off.  Rotary Sw When using the rotary effect, switches the rotary effect between slow and fast.  *1 Only works on the Center Pedal Function.  *2 Only works on the Left Pedal Function.  *3 Works only on the tone set as the corresponding pedal part (Center Pedal Part or Left Pedal Part).  * Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.  Changing How the Pedal Effects Are Applied (Center Pedal Part)  When you press the pedal connected to the Pedal Sostenuto jack during Dual Play or Split Play, the pedal effect is normally applied to both tones,	Center Pedal	-	
Modulation *3 Vibrato is added when pedal is depressed.  Mic Doubling Sw The pedal will turn Mic effect "Doubling" on/off.  Mic Echo Sw The pedal will turn Mic effect "Echo" on/off.  Rotary Sw When using the rotary effect, switches the rotary effect between slow and fast.  *1 Only works on the Center Pedal Function.  *2 Only works on the Left Pedal Function.  *3 Works only on the tone set as the corresponding pedal part (Center Pedal Part or Left Pedal Part).  * Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.  Changing How the Pedal Effects Are Applied (Center Pedal Part)  When you press the pedal connected to the Pedal Sostenuto jack during Dual Play or Split Play, the pedal effect is normally applied to both tones,		-	· · · · · · · · · · · · · · · · · · ·
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Rotary Sw When using the rotary effect, switches the rotary effect between slow and fast.  *1 Only works on the Center Pedal Function.  *2 Only works on the Left Pedal Function.  *3 Works only on the tone set as the corresponding pedal part (Center Pedal Part or Left Pedal Part).  * Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.  Changing How the Pedal Effects Are Applied (Center Pedal Part)  When you press the pedal connected to the Pedal Sostenuto jack during Dual Play or Split Play, the pedal effect is normally applied to both tones,			The pedal will turn Mic effect "Doubling" on/off.
*1 Only works on the Center Pedal Function.  *2 Only works on the Left Pedal Function.  *3 Works only on the tone set as the corresponding pedal part (Center Pedal Part or Left Pedal Part).  * Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.  Changing How the Pedal Effects Are Applied (Center Pedal Part)  When you press the pedal connected to the Pedal Sostenuto jack during Dual Play or Split Play, the pedal effect is normally applied to both tones,			·
*2 Only works on the Left Pedal Function.  *3 Works only on the tone set as the corresponding pedal part (Center Pedal Part or Left Pedal Part).  * Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.  Changing How the Pedal Effects Are Applied (Center Pedal Part)  When you press the pedal connected to the Pedal Sostenuto jack during Dual Play or Split Play, the pedal effect is normally applied to both tones,			
*3 Works only on the tone set as the corresponding pedal part (Center Pedal Part or Left Pedal Part).  * Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.  Changing How the Pedal Effects Are Applied (Center Pedal Part)  When you press the pedal connected to the Pedal Sostenuto jack during Dual Play or Split Play, the pedal effect is normally applied to both tones,			
* Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.  Changing How the Pedal Effects Are Applied (Center Pedal Part)  When you press the pedal connected to the Pedal Sostenuto jack during Dual Play or Split Play, the pedal effect is normally applied to both tones,			
Changing How the Pedal Effects Are Applied (Center Pedal Part)  When you press the pedal connected to the Pedal Sostenuto jack during Dual Play or Split Play, the pedal effect is normally applied to both tones,		,	
Center Pedal Part  When you press the pedal connected to the Pedal Sostenuto jack during Dual Play or Split Play, the pedal effect is normally applied to both tones,			
Then you press the peak connected to the read posteriate just adming a spirit day, the peak enterts normally applied to both tones,	Contou De del De d		
·	Center redai Part		

Refer to "Changing How the Pedal Effects Are Applied (Damper Pedal Part)" (p. 19).

Indication	Parameter			
[◀] [▶] buttons	[-] [+] buttons	Explanation		
	Changing the	Function of the Left Pedal (Left Pedal)		
Left Pedal				
		nge the function of the pedal connected to the Pedal Soft jack.		
		Function of the Center Pedal (Center Pedal)" (p. 19).		
	Changing Hov	w the Pedal Effects Are Applied (Left Pedal Part)		
Left Pedal Part	When you press the pe	edal connected to the Pedal Soft jack during Dual Play or Split Play, the pedal effect is normally applied to both tones, but you		
		e to which the effect is to be applied.		
	Refer to "Changing Ho	w the Pedal Effects Are Applied (Damper Pedal Part)" (p. 19).		
	Using a Pedal	to Switch Registrations (Reg. Pedal Shift)		
D D 1 15116		to successively switch registrations. Each time you press the pedal, you will switch to the next registration.		
Reg. Pedal Shift	Off	The functions assigned to the Pedal Soft jack and Pedal Sostenuto jack will be available for use.		
	Left Pedal	The pedal connected to the Pedal Soft jack can be used only for switching registrations.		
	Center Pedal	The pedal connected to the Pedal Sostenuto jack can be used only for switching registrations.		
Reg. Set Export		stration Set (Registration Set Export)" (p. 16).		
Reg. Set Import		ved Registration Set (Registration Set Import)" (p. 16).		
	Sending Tone	-Change Information (Transmit MIDI Information)		
	When you switch regis	strations, the FP-90 simultaneously transmits the following: Program Change, Bank Select MSB, and Bank Select LSB.		
	You can also set the tra	ansmit channel.		
Reg. Transmit Ch.	Off, 1–16	Sets the Program Change transmit channel.		
Reg. Bank MSB	0 (00)-127 (7F)	Sets the Bank Select MSB.		
Reg. Bank LSB	0 (00)–127 (7F)	Sets the Bank Select LSB.		
Reg. PC	1 (00)–128 (7F)	Sets the Program Change number.		
	Preventing Do	oubled Notes When Connected to a Sequencer (Local Control)		
		sequencer connected, set this parameter to Local Off.		
		s have their Thru function turned on, notes you play on the keyboard may be sounded in duplicate, or get dropped. To prevent		
Local Control		e "Local Off" setting so that the keyboard and internal sound generator will be disconnected.		
	Off	Local Control is off.		
		The keyboard is disconnected from the internal sound generator. Playing the keyboard will not produce sound.		
	On	Local Control is on.		
	MIDIT	The keyboard is connected to the internal sound generator.		
	MIDI Iransmit	t Channel Settings (MIDI Transmit Ch.)		
MIDI Transmit Ch.	This setting specifies the	he MIDI channel on which the unit will transmit.		
		ll sixteen channels (1–16).		
	Off, 1–16			
	Adjusting the	Brightness of the Display (Display Contrast)		
Display Contrast	Adjusts the brightness	. , , ,		
	1–10	ordieri 20 display.		
	Adjusting the	Brightness of the Buttons (Panel Brightness)		
Panel Brightness	Aujusting the	brightness of the buttons (Fanci brightness)		
, , , , , , , , , , , , , , , , , , ,		phtness of the FP-90's buttons.		
	Dim, Bright			
	Making the Po	ower Automatically Turn Off After a Time (Auto Off)		
Auto Off	With the factory settin	gs, the unit's power will automatically be switched off 240 minutes after you stop playing or operating the unit.		
	If you don't want the p	If you don't want the power to turn off automatically, change the "Auto Off" setting to "Off."		
	Off, 10, 30, 240 (min)			
		urn to their factory defaults when you turn off the power. But if you backup the current settings into internal memory, they will		
Memory Backup		me the power comes on.		
Refer to "Retaining Settings After Power-Off (Memory Backup)" (p. 17).  Factory Reset Refer to "Restoring the Factory Settings (Factory Reset)" (p. 17).				
Factory Reset		thactory Settings (Factory Reset)" (p. 17).  the unit's system program.		
Version	Displays the version of	ите инто зумент ргодгант.		

## Using the Bluetooth® Functionality

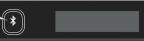
## **Bluetooth**°

### Provision of **Bluetooth** functionality

Please be aware that depending on the country in which you purchased the unit, **Bluetooth** functionality might not be included.

### If **Bluetooth** functionality is included

The **Bluetooth** logo appears when you turn on the power.



### Here's What You Can Do

**Bluetooth** functionality creates a wireless connection between a mobile device such as a smartphone or tablet (subsequently referred to as the "mobile device") and this unit, allowing you to do the following.

### **Bluetooth** audio

page **21** 

Music data played back by the mobile device can be heard through this unit's speakers.

### MIDI data transmission and reception

page **22** 

MIDI data can be exchanged between this unit and the mobile device.

### Page-turning

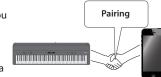
page 22

A music score display app on the mobile device can be controlled from this unit.

### Using **Bluetooth** Audio

## Registering a Mobile Device (Pairing)

"Pairing" is the procedure by which the mobile device that you want to use is registered on this unit (the two devices recognize each other).



Make settings so that music data saved on the mobile device can be played wirelessly via this unit.

### MEMO

- Once a mobile device has been paired with this unit, there is no need to perform pairing again. If you want to connect this unit with a mobile device that has already been paired, refer to "Connecting an Already-Paired Mobile Device" (p. 21).
- Pairing is required again if you execute a Factory Reset (p. 17).
- Place the mobile device that you want to connect nearby this unit.

### MEMO

If you have more than one unit of this model, power-on only the unit that you want to pair (power-off the other units).

- Press the [Function] button, and then use the [◄] [►] buttons to select "Bluetooth Audio."
- 3. Press the [Function] (Enter) button.

The **Bluetooth** Audio screen appears.

**4.** Use the [◄] [▶] buttons to select "Bluetooth Pairing," and then press the [Function] (Enter) button.

The display indicates "Now pairing...," and this unit waits for a response from the mobile device.

### MEMO

If you decide to cancel pairing, press the [Exit] button.

5. Turn on the Bluetooth function of the mobile device.



### MEMO

The explanation here uses the iPhone as an example. For details, refer to the owner's manual of your mobile device.

**6.** Tap "FP-90 Audio" that is shown in the **Bluetooth** device screen of your mobile device.

This unit is paired with the mobile device. When pairing succeeds, "FP-90 Audio" is added to the list of "Paired Devices" on your mobile device.

### MEMO

If the mobile device's screen asks you to enter a "Pass Key," enter "0000" (four zeros).

**7.** Press the [Function] button to exit Function mode.

### Specifying the **Bluetooth** ID

You can specify a number that is added following the device name of this unit when it is displayed by a **Bluetooth** connected application.

If you own multiple units of the same instrument, this is a convenient way to distinguish them.

- Press the [Function] button, and then Use the [◄] [►] buttons to select "Bluetooth ID."
- 2. Press the [Function] (Enter) button.
- **3.** Use the [-] [+] buttons to edit the value of the setting.

P	arameter	Explanation
	0-99	Set to "0": " FP-90 Audio," "FP-90" (default value)
U	1-99	Set to "1": "FP-90 Audio1," "FP-90_1"

## Connecting an Already-Paired Mobile Device

1. Turn on the Bluetooth function of the mobile device.

### MEMO

- If you were unable to establish a connection using the procedure above, tap "FP-90 Audio" that is displayed in the Bluetooth device screen of the mobile device.
- To disconnect, either turn this unit's Bluetooth Audio function "Off" (Function mode → "Bluetooth Audio" → "Bluetooth Audio" Off) or turn the mobile device's Bluetooth function off.

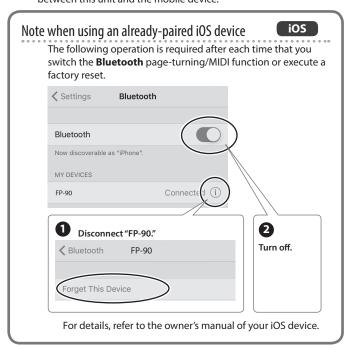
## Adjusting the Volume of **Bluetooth** Audio

Normally you'll adjust the volume on your mobile device. If this does not provide the volume adjustment you want, you can adjust the volume as follows.

- 1. Proceed with steps 2–3 of "Registering a Mobile Device (Pairing)" (p. 21).
- 2. Use the [◄] [▶] buttons to select "Input/Bluetooth Vol." and use the [¬] [+] buttons to adjust the volume.

### Transferring MIDI Data

Here's how to make settings for transmitting and receiving MIDI data between this unit and the mobile device.

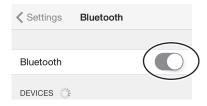


 Place the mobile device that you want to connect nearby this unit.

### MEMO

If you have more than one unit of this model, power-on only the unit that you want to pair (power-off the other units).

- Press the [Function] button, and then use the [◄] [►] buttons to select "Bluetooth Turn/MIDI."
- 3. Press the [Function] (Enter) button.
- 4. Press the [◄] [►] buttons to select "Bluetooth Turn/MIDI," and then use the [-] [+] buttons to select "MIDI."
- 5. Turn on the Bluetooth function of the mobile device.



### MEMO

The explanation here uses the iPhone as an example. For details, refer to the owner's manual of your mobile device.

**6.** In the mobile device's app (e.g., Piano Partner 2), establish a connection with this unit.

### NOTE

Do not tap the "FP-90" that is shown in the **Bluetooth** settings of the mobile device.

## Using the Pedal to Turn Pages on a Music Score App

Here's how to use this unit's pedal to operate (turn pages on) a music score app on your mobile device.

 Place the mobile device that you want to connect nearby this unit.

### МЕМО

If you have more than one unit of this model, power-on only the unit that you want to pair (power-off the other units).

- **2.** Press the [Function] button, and then use the [◄] [▶] buttons to select "Bluetooth Turn/MIDI."
- 3. Press the [Function] (Enter) button.
- **4.** Use the [◄] [▶] buttons to select "Bluetooth Turn/MIDI," and use the [¬] [+] buttons to select "Page Turn."

### MEMO

By selecting "Page Turn&MIDI" here, you can use the page-turning function and the MIDI transmit/receive function simultaneously. For example, this lets you use the pedal to operate the page-turning function while receiving MIDI to play from this instrument.

- 5. Turn on the Bluetooth function of the mobile device.
- 6. On your mobile device, tap "FP-90."

This unit will be paired with the mobile device. When pairing succeeds, the model name of this unit ("FP-90") is added to the "Paired Devices" list of the mobile device.

### MEMO

- If you're using an iOS device (iPhone or iPad), the screen of the iOS device indicates "Bluetooth Pairing Request." Tap the [Pair] button.
- If the screen of the mobile device requests you to enter a "Pass Key," enter "0000" (four zeros).
- 7. Press the [Exit] button several times to exit Function mode.

Start the music score app on your mobile device; now you can use the sostenuto pedal to turn to the next page, or the soft pedal to turn to the previous page.

\* "Page Turn" has a higher priority than "Center/Left Pedal Function" (p. 19) as the pedal function (when using a separately sold pedal).

### If the keyboard is no longer shown on the mobile device

In some cases, depending on the mobile device app that you're using, the keyboard might stop being displayed (i.e., the keyboard might become unavailable).

If you want the mobile device's keyboard to be shown while you're using the page turning function, hold down this unit's [Exit] button and press the [Function] button.

To hide the mobile device's keyboard, once again hold down the [Exit] button and press the [Function] button.

### Connecting an Already-Paired Mobile Device

Turn on the Bluetooth function of the mobile device.
 This unit will be wirelessly connected to the mobile device.

### MEMO

- If the above steps do not succeed in establishing a connection, tap the model name ("FP-90") that is shown in the **Bluetooth** device screen of the mobile device.
- To disconnect, either turn this unit's Bluetooth Page Turn function "Off" (Function mode → "Bluetooth Turn/MIDI" → "Bluetooth Turn&MIDI (\*1)" Off) or turn the mobile device's Bluetooth function off.
- (\*1) Depending on the Function mode "Bluetooth Turn/MIDI" setting, the screen might indicate "Bluetooth Page Turn" or "Bluetooth MIDI."

## Changing the Operating Keys of the Page Turning Function

The key operations for turning pages will differ depending on the music score display app that you're using. You can choose which keys of this unit will operate the page turning function.

- 1. Proceed with steps 2–3 of "Using the Pedal to Turn Pages on a Music Score App" (p. 22).
- 2. Use the [◄] [▶] buttons to select "Page Turn Assign," and use the [¬] [+] buttons to select the function.

Setting	Explanation
Cursor Up/	The [↑][↓] keys of the keyboard are used by the page
Down	turning app.
Page Up/Down	The [Page Up] [Page Down] keys of the keyboard are used
rage op/Down	by the page turning app.
Cursor Left/	The [ $\leftarrow$ ] [ $\rightarrow$ ] keys of the keyboard are used by the page
Right	turning app.

**3.** Press the [Exit] button several times to exit Function mode.

## **Changing the Page-Turn Operation**

You can select the type of pedal operation that turns pages.

- 1. Proceed with steps 2–3 of "Using the Pedal to Turn Pages on a Music Score App" (p. 22).
- 2. Use the [◄] [►] buttons to select "Page Turn Mode" and use the [¬] [+] buttons to select the function.

Value	Explanation	
Once	The page turns when you press the pedal once.	
Twice	The page turns when you press the pedal twice in quick succession.	
IWICE	If you press the pedal once, it performs the usual pedal function.	

3. Press the [Exit] button several times to exit Function mode.

### Connection status between this unit and the mobile device

Depending on the functionality of the mobile device that's connected, this unit's display will show the following icons.

Function	Displayed icon
Bluetooth audio	(AUDIO)
Page-turning	PAGE (PAGE)
MIDI data transmission and reception	≹mioi (MIDI)
Page turning function and MIDI data transmit/receive	P+MID (P+MID)

### Problems with **Bluetooth** functionality

Problem	Items to check/Action			
		Turn the <b>Bluetooth</b> function "On."		
		Bluetooth Audio function:		
		Function mode → "Bluetooth audio" → turn "Bluetooth audio" On		
	Could the <b>Bluetooth</b> function be turned "Off"?	Bluetooth Turn/MIDI function:	p. 21	
		Function mode → "Bluetooth Turn/MIDI" → turn "Bluetooth Turn & MIDI (*1)" On		
This unit does not appear in		(*1) Depending on the Function mode "Bluetooth Turn/MIDI" setting, the screen might indicate		
the <b>Bluetooth</b> device list of		"Bluetooth Page Turn" or "Bluetooth MIDI."		
your mobile device	If <b>Bluetooth</b> Audio function is "On"	A device named "FP-90 Audio" appears.	_	
	If the <b>Bluetooth</b> Page Turn function is "On" and			
	the <b>Bluetooth</b> Turn/MIDI function is "Page Turn" or	A device named "FP-90" appears.		
	"Page Turn&MIDI"  If the <b>Bluetooth</b> Page Turn function is "On" and		-	
	the <b>Bluetooth</b> Page Turn function is On and the <b>Bluetooth</b> Turn/MIDI function is set to "MIDI"	You can check this from a setting inside your app such as Piano Partner 2.		
	or "Page Turn&MIDI"	Tou can check this from a setting inside your app such as Flano Farther 2.		
	If this unit is visible as a device in the mobile	Delete the device's registration, turn the <b>Bluetooth</b> Audio function "Off" and then "On"		
5 / DI	device's <b>Bluetooth</b> settings	again, and establish pairing once again.		
Can't connect to Bluetooth audio		Turn the mobile device's <b>Bluetooth</b> function off and then on again, and initiate pairing		
audio	If this unit is not visible as a device	from this unit to re-establish pairing.		
	Does this unit support <b>Bluetooth</b> Audio function?			
	In some cases, the connection with the mobile device might become unavailable when you switch the <b>Bluetooth</b> Turn/MIDI function.			
Can't connect to Bluetooth	If this unit is not visible as a device in the mobile	After unpairing the "FP-90" that is registered on the mobile device, turn the mobile		
page turning	device's <b>Bluetooth</b> settings	device's <b>Bluetooth</b> function off and then on again, and reconnect it.	p. 21	
, , , , , , , , , , , , , , , , , , , ,	If this unit is not visible as a device	Turn the mobile device's <b>Bluetooth</b> function off and on again, and then reestablish the		
	connection.		-	
Can't connect to Bluetooth	In some cases, the connection with the mobile device might become unavailable when you switch the <b>Bluetooth</b> Turn/MIDI function.			
MIDI	After unpairing the "FP-90" that is registered on the mobile device, turn the mobile device's <b>Bluetooth</b> function off and then on again, and reconnect it.			
		e device's <b>Bluetooth</b> setting but from the setting within Piano Partner 2 or other app	1	
Can't connect via MIDI	that you're using.	e devices bidecodil setting but from the setting within Francis artiel 2 of other app		
Can't establish pairing with			1	
the page turning function	The page turning function and MIDI function are parties is no need to initiate pairing from this unit.	aired when you first select a device on the mobile device and establish a connection.		
and MIDI function	There is no need to initiate pairing from this unit.			
Can't use the page turning			_	
function and MIDI function	Set the <b>Bluetooth</b> Turn/MIDI function to "Page Turr	n&MIDI."		
simultaneously			-	
Can't connect a paired mobile device	If the connection breaks immediately after it is established, or when you switch the page turning function and MIDI data transmit/receive function, turning the <b>Bluetooth</b> device's <b>Bluetooth</b> switch off and then on again may allow connection to occur.			
mobile device	5		-	
Keyboard no longer	When using the page turning function, the keyboard might not be shown (might be unavailable) depending on the mobile device that			
appears (becomes	you're using.			
unavailable) on the mobile	If you want the mobile device's keyboard to be shown while you're using the page turning function, hold down this unit's [Exit] button and press the [Function] button.			
device	I press the I Function I putton			

### MEMO

If checking these points does not solve the problem, please refer to the Roland support website. http://www.roland.com/

## & Troubleshooting

Problem	Items to Check	Action	Page
Even though you're using headphones and the sound is muted, a thumping sound is heard when you play the keyboard	the hammers inside the keyboard, or	Playing the keyboard causes internal hammers to operate, and the vibrations may be transmitted to the floor or walls. To minimize such vibrations, you can move the piano away from the wall, or lay down a commercially available anti-vibration mat designed for use with pianos.	
Power turns off on its own	Could the auto-off setting be something other than "Off"?	If you don't need the power to turn off automatically, turn the Auto Off setting "Off."	p. 20
Power turns on unexpectedly	Is the AC adaptor con	nected correctly?	-
Pedal does not work, or is	Is the pedal connected Could you have disconnected or connected the pedal cord while the power was on?	d correctly?  Power-off the unit before you connect or disconnect the pedal cord.	-
"stuck"	Could you have changed the function of the pedal?	Return the pedal function (Center Pedal, Left Pedal) to its previous setting.	p. 19
	Could you be using the Could you be using Re	e page-turning function?	p. 22 p. 20
Unable to read from/write to USB flash drive	Are you using (optional) Roland USB flash drive?	Use a USB flash drive sold by Roland.	-
"Buzz" is heard	Are the external	If you connect external devices, be	
from external devices	devices connected to more than one AC power outlet?	sure to connect them to the same AC outlet.	-
The volume level of the unit	Could the Input/Bluetooth Vol. he turned down?		p. 19
connected to Input Stereo jack is too low	Could the volume of the connected device be turned down?		-
	Are your amp, speakers, headphones, etc., connected correctly?		
	Is the volume turned down?		
	Could headphones or an adaptor plug be inserted in the Phones jacks? The speakers will not produce sound if headphones or plug are connected to the Phones jacks.		
No sound	Has Local Control been set to "Off"?	Set Local Control to "On."	p. 20
no sound	Could the Speaker [Off/On] switch be "Off"?  If the Speaker [Off/On] switch is "Off," sound is not output		
	from the speakers of the FP-90. Could the Part [Upper] [Lower] sliders both be lowered?		
		owered, no sound is heard.	p. 6
	Could you be using an expression pedal?	Use an expression pedal to adjust the volume.	-
No sound from the microphone Mic sound is not loud enough	ls the [Mic Vol.] slider raised?		p. 14
No sound when you play back a song	Could the [Song Vol.] : be set to "0"?	slider or Part [Lower] [Upper] sliders	p. 6 p. 9
Notes don't sour	nd right		
Pitch of the	Could you have made		p. 6
keyboard or song is	Is the Master Tune setting appropriate? Is the setting for the Temperament correct?		p. 18 p. 18
incorrect	Is the Single Note Tun	ing setting appropriate?	p. 13
Notes are interrupted	Could you be holding down the damper pedal and sounding a large number of notes?		_
C	Is the unit in Dual Play?	ual Play or playing along with a song? Press the [Split/Dual] button to turn off Dual Play.	_
	Could the unit be	If you don't want the other sound module to produce sound, turn your DAW's soft thrus function "off"	
the keyboard is played	connected to an external sequencer?	If Local Control is turned "On," set Local Control to "Off."	
		Local Control to "Off."	-

Problem	Items to Check	Action	Page
Reverberation	Even if the Ambience effect is off, the acoustic piano's own		
remains even	resonance remains.		
if you defeat the Ambience	mbience You can reduce this reverberation by adjusting the Cabinet		p. 13
effect	Resonance.		
Only high or low sound is heard	Could you have adjusted the equalizer?		
The sound		racteristics of an acoustic piano, and is	
of the higher notes suddenly	not a malfunction.  The sound will change where there is a change in the		
changes from a	number of strings per key or a transition from wound strings		
certain key	to unwound strings.	and be a stock as a set to see the st	
	If you don't hear it through headphones: It may be that the unit has malfunctioned. Please contact your dealer or a		
	Roland customer serv		
High-pitched		ugh headphones: To decrease the st the following settings.	p. 13
ringing is heard	Duplex Scale	ic the following settings.	
	Full Scale String Re	s.	
	Ambience		
	Could the volume be set to maximum?	Lower the volume.	p. 6
	If you also hear it thro	ugh headphones: It may be that the	
	unit has malfunctione Roland customer serv	d. Please contact your dealer or a	
Low notes		ough headphones: Objects near the	
sound wrong,	unit are resonating be	cause of the high volume of sound	
or are buzzy	measures to minimize	kers. You can take the following resonances.	-
		s 10–15 cm (4–6 inch) away from walls	
	or other surfaces.	,	
	Keep the volume d		
The selected	Could the SMF	e objects that are resonating.	
sound changes	Play Mode be set	Set the SMF Play Mode to "External."	p. 19
when you play back a song	to "Auto-Select" or "Internal"?	set the sim i lay mode to External	p. 15
Duck a soring	Could you be using a	Use a damper pedal that supports	
Loud "damper	damper pedal other	continuous detection, such as the DP-10 or KPD-90. If you're using the	, F
noise" is heard.	than the specified model?	DP-10, set the DP-10's switch to the	p. 5
Cong door not n		"Continuous" position.	
Song does not p	Could you be	TI 8: 8 :	
The piano's	recording with a tone	The Piano Designer settings might not be reproduced when you play	_
tonal character	that you created in Piano Designer?	back a song.	
changes when you record	Could you be playing		
,	back the audio- recorded sound?	Record as SMF.	p. 10
Only the sound	recorded 30uriu:		
of a particular instrument in a	Could the Part [Upper	] [Lower] sliders both be lowered?	n 6
song does not	If the Part sliders are lo	owered, no sound is heard.	p. 6
play			
Song volume is too low /			
Volume differs		slider or Part [Lower] [Upper] sliders be	p. 6
between recording and	set too low?		p. 9
playback			
		of the format be played? (WAV or MP3)	
Can't play back	Audio files of the following format can be played back.		
WAV format, 44.1 kHz, 16-bit lines     a song saved in extension "wav"			-
USB flash drive	MP3 format	, 44.1 kHz, 64 kbps–320 kbps, File	
	extension ".ı	mp3"	
	Is the filename extens	ion ".MID"? information in the file be blank or	
	consist of only spaces	?	_
Song name in USB flash drive	Is the filename extens	ion ".MID"?	
is not shown	name contain	Rename the file so that it consists	
	two-byte characters	only of single-byte alphanumeric characters.	_
Can't record	(such as Japanese)?		
Can't record	le a LICR flack drive	anacted to the USB Mamaru nort?	
audio	is a USD Hash drive col	nnected to the USB Memory port?	

## & Error Messages

Indication	Meaning
	An error occurred during writing. The external media may be corrupted.
Error 2	Insert other external media and try again. Alternatively, you can initialize the external media (p. 17).
	The internal memory might be damaged. Format the internal memory (p. 17).
Error 10	No external media is inserted. Insert the external media and try again.
Effor 10	The internal memory might be damaged. Format the internal memory (p. 17).
Error 11	There is not sufficient free memory in the save destination.
EHOLLI	Either insert other external media or delete unneeded files and try again.
	An error occurred during reading. The external media may be corrupted.
Error 14	Insert other external media and try again. Alternatively, you can initialize the external media (p. 17).
	The internal memory might be damaged. Format the internal memory (p. 17).
Error 15	The file is unreadable. The data format is not compatible with the unit.
Error 18	This audio format is not supported.
EIIOI 18	Please use 44.1 kHz 16-bit linear WAV format or 44.1 kHz 64 kbps–320 kbps MP3 format audio files.
Error 30	Internal memory capacity of the unit is full.
Error 40	The unit cannot deal with the excessive MIDI data sent from the external MIDI device.
Effor 40	Reduce the amount of MIDI data sent to the unit.
Error 41	A MIDI cable was disconnected. Connect the MIDI cable correctly.
Error 43	A MIDI transmission error has occurred. Check the MIDI cable and connected MIDI device.
Error 51	There may be a problem with the system. Repeat the procedure from the beginning. If it is not solved after you have tried several times, contact the Roland service center.
Error 65	The USB flash drive connector was subjected to excessive current. Make sure that there is no problem with the external media, then turn the power off, then on again.

## § Tone List

## Piano

#	Tone Name
1	Concert Piano
2	Ballad Piano
3	Mellow Piano
4	Bright Piano
5	Upright Piano
6	Mellow Upright
<del>7</del>	Bright Upright
	Rock Piano
9	Ragtime Piano
10	Bright Forte
11	SA Piano 3
12	70's E.Grand
13	Magical Piano
14	Harpsichord
15	Harpsi 8'+4'

### E. Piano

#	Tone Name	
1	1976SuitCase	
3	Tine EP Lite	
3	ModifiedDyno	
4	VR EP 1	
5	Wurly 200	
6	Pure Wurly	
7	Phase EP Mix	
8	80's FM EP	
9	MetalicEP Ex	
10	SA E.Piano 1	
11	SA EP1 Stack	
12	SA E.Piano 2	
13	Tremolo EP	
14	EP Belle	
15	BrillClav DB	
16	BrillClavWah	

## Strings

#	Tone Name
1	Chamber Str
2	String Exp
3	Full Strings
4	Strings forl
5	Epic Strings
6	Rich Strings
7	Orchestra
8	Harpiness
9	OrchestraBrs
10	SymphonicStr1
11	SymphonicStr2

## Organ

#	Tone Name
1	B.Organ Slow
1 2 3	Pipe Organ
3	Nason flt 8'
4	Combo Jz.Org
<del>4</del> 5	Ballad Organ
	ChurchOrgan1
<u>6</u> 7	ChurchOrgan2
8	Gospel Spin
9	Full Stops
10	Mellow Bars
11	Lower Organ
12	Light Organ
13	Animal Mod
14	Surf Monkeys
15	Rising Sun

## Pad

#	Tone Name
1	Super SynPad
2	Choir Aahs 1
3	Choir Aahs 2
4	D50 StackPad
5	Legend Pad
6	Voice of Hvn
7	New Jupiter
8	ChordofCnada
9	JP8 Strings
10	Air Pad
11	Boreal Pad
12	JP8 Hollow
13	Soft Pad
14	Solina
15	Tron Strings

## **Other**

• • • • • • • • • • • • • • • • • • • •		
Tone Name		
Super Saw		
Trancy Synth		
Flip Pad		
D50 Fantasia		
D50 Stac Hvn		
D50 FuturePd		
D50 DigiNDnc		
EQ Lead		
DelyResoSaws		
StrawberyFlt		
Jazz Scat		
Ac.Bass wRel		
Comp'd JBass		
(8-drum sets and 1 SFX set)		
(GM2 Tones)		

		Settings Saved in Registrations	Items Stored by Memory Backup	Settings Stored Immediately When Edited
	Selected tone (including Split or Dual tones)	✓		
	Dual Play On/Off	/		
	Split Play On/Off	/		
	Part Volume	✓		
Split Point	Split Point	/		
Left Shift	Octave shift of the left-hand tone	/		
Tone 2 Shift	Octave shift of tone 2	/		
Transpose	Transpose on/off and transpose value	/		
Ambience	Depth of the ambience effect	/	✓	
Rotary Speed	Modulation speed of the rotary effect	/		
Modulation Speed	Speed at which the sound is modulated	✓		
Key Touch	Key Touch	✓	/	
Damper Pedal Part	Damper pedal part setting	✓		
Center Pedal Part	Center pedal part setting	✓		
Center Pedal	Function of the center pedal	✓		
Left Pedal Part	Left pedal part setting	✓		
Left Pedal	Function of the left pedal	✓		
Reg. Pedal Shift	Registration pedal shift setting	*		
MIDI Transmit Ch.	MIDI transmit channel	✓	/	
Reg. Transmit Ch.				
Reg. PC	To an a south obtain a to form a strong	,		
Reg. Bank MSB	Tone switching information	/		
Reg. Bank LSB				
Mic Effects	Mic effects setting	✓		
Headphones 3D Ambience	Headphone 3D ambience		✓	
Hammer Response	Hammer response		/	
Metronome	Metronome (volume, sound, down beat)		✓ <b>/</b>	
Master Tuning	Master Tuning		/	
Temperament	Tuning method		✓	
Temperament Key	Base note for the tuning method		✓	
Input/Bluetooth Vol.	Input/Bluetooth volume			✓
SMF Play Mode	SMF playback mode		/	
Display Contrast	Display contrast		✓	
Panel Brightness	Brightness of the buttons		✓	
	All settings of the <b>Bluetooth</b> function			✓
Auto Off	Auto off			
Equalizer	Equalizer settings		/	

<sup>\*</sup> The "Reg. Pedal Shift" setting is saved on the USB flash drive when you execute Registration Set Export.

## USING THE UNIT SAFELY

## **WARNING**

### Concerning the Auto Off function

The power to this unit will be turned off automatically after a predetermined amount of time has passed since it was last used for playing music, or its buttons or controls were operated (Auto Off function). If you do not want the power to be turned off automatically, disengage the Auto Off function (p. 20).

### Use only the stand that is recommended

This unit should be used only with a stand that is recommended by Roland.



### Do not place in a location that is unstable

When using the unit with a stand recommended by Roland, the stand must be carefully placed so it is level and sure to remain stable. If not using a stand, you still need to make sure that any location you choose for placing the unit provides a level surface that will properly support the unit, and keep it from wobbling.

### Precautions regarding placement of this unit on a stand

Be sure to follow the instructions in the Owner's Manual carefully when placing this unit on a stand (p. 2).

If it is not set up properly, you risk creating an unstable situation which could lead to the unit falling or the stand toppling, and may result in injury.

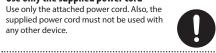
## WARNING

## Use only the supplied AC adaptor and the correct

Be sure to use only the AC adaptor supplied with the unit. Also, make sure the line voltage at the installation matches the input voltage specified on the AC adaptor's body. Other AC adaptors may use a different polarity, or be designed for a different voltage, so their use could result in damage, malfunction, or electric shock.

### Use only the supplied power cord

Use only the attached power cord. Also, the supplied power cord must not be used with any other device.



## CAUTION

### Use only the specified stand(s)

This unit is designed to be used in combination with specific stands (KSC-90, KS-G8B, KS-18Z and KS-12) manufactured by Roland. If used in combination with other stands, you risk sustaining injuries as the result of this product dropping down or toppling over due to a lack of stability.



### Evaluate safety issues before using stands

Even if you observe the cautions given in the owner's manual, certain types of handling may allow this product to fall from the stand, or cause the stand to overturn. Please be mindful of any safety issues before using this



### Cautions when moving this unit

If you need to move the instrument, take note of the precautions listed below. At least two persons are required to safely lift and move the unit. It should be handled carefully, all the while keeping it level. Make sure to have a firm grip, to protect yourself from injury and the instrument from damage.

- Check to make sure the screws securing the unit to the stand have not become loose. Fasten them again securely whenever you notice any loosening.
- Disconnect the power cord.
- Disconnect all cords coming from external devices.
- Remove the music stand.

### Keep small items out of the reach of children

To prevent accidental ingestion of the parts listed below, always keep them out of the reach of small children.





## IMPORTANT NOTES

### **Placement**

- Do not allow objects to remain on top of the keyboard. This can be the cause of malfunction, such as keys ceasing to produce sound.
- · Depending on the material and temperature of the surface on which you place the unit, its rubber feet may discolor or mar the surface.

### Care of the Keyboard

- Do not write on the keyboard with any pen or other implement, and do not stamp or place any marking on the instrument. Ink will seep into the surface lines and become unremovable.
- Do not affix stickers on the keyboard. You may be unable to remove stickers that use strong adhesives, and the adhesive may cause discoloration.
- To remove stubborn dirt, use a commercially available keyboard cleaner that does not contain abrasives. Start by wiping lightly. If the dirt does not come off, wipe using gradually increasing amounts of pressure while taking care not to scratch the keys.

### **Repairs and Data**

· Before sending the unit away for repairs, be sure to make a backup of the data stored within it; or you may prefer to write down the needed information. Although we will do our utmost to preserve the data stored in your unit when we carry out repairs, in some cases, such as when the memory section is physically damaged, restoration of the stored content may be impossible. Roland assumes no liability concerning the restoration of any stored content that has been lost.

### **Additional Precautions**

- · Note when placing a mobile device such as a smartphone or tablet on this unit
  - Handle your device with care to avoid scratching the unit or the mobile device.
  - To prevent your mobile device from overturning or falling, do not move the music rest or the cover
- Any data stored within the unit can be lost as the result of equipment failure, incorrect operation, etc. To protect yourself against the irretrievable loss of data, try to make a habit of creating regular backups of the data you've stored in the unit.

- · Roland assumes no liability concerning the restoration of any stored content that has been lost
- Never strike or apply strong pressure to the display.
- The sound of keys being struck and vibrations produced by playing an instrument can be transmitted through a floor or wall to an unexpected extent. Please take care not to cause annoyance to others nearby
- · Do not apply undue force to the music stand while it
- Use only the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.
- · Do not use connection cables that contain a built-in

### **Using External Memories**

- · Please observe the following precautions when handling external memory devices. Also, make sure to carefully observe all the precautions that were supplied with the external memory device.
  - · Do not remove the device while reading/writing is in progress.
  - To prevent damage from static electricity, discharge all static electricity from your person before handling the device.

### **Caution Regarding Radio Frequency Emissions**

- The following actions may subject you to penalty of law.
  - Disassembling or modifying this device.
  - Removing the certification label affixed to the back of this device.

### **Intellectual Property Right**

- It is forbidden by law to make an audio recording, video recording, copy or revision of a third party's copyrighted work (musical work, video work, broadcast, live performance, or other work), whether in whole or in part, and distribute, sell, lease, perform, or broadcast it without the permission of the copyright owner.
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