Roland Digital Piano
Owner’s Manual

Play the Piano
* Play various sounds
  This unit contains a wide variety of tones (sounds).
  You can freely select and perform using these tones.

* Play two layered tones (Dual Play)
  You can layer two tones on a single key.

* Play different tones with your left and right hands (Split Play)
  You can divide the keyboard into left and right zones, and select a different tone for each zone.

Live Performance Features
* Adjust the tone color (Equalizer)
  You can adjust the character of the sound as appropriate for the location where you’re playing the instrument.

* Recall performance settings (Registration)
  You can save the settings related to your performance and recall them up anytime, easily.

* Add vocals to your performance
  You can connect a microphone (sold separately) to the FP-90 and add your voice to your performance.
  You can even add effects to your vocals.

Convenient Functions
* Record your performances
  You can record your performance. You can record your performance along with a song.

* Bluetooth function
  You can use the Bluetooth-compatible app “Piano Partner 2,” or play back audio from your smartphone.

* Personalize your piano (Piano Designer)
  You can customize the individual sound characteristics of the piano sound to create the perfect tone for your performances.

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.

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.

KS-G8B
Align the seam in the FP-90’s panel (on the bottom, near the front) with the corners of the stand’s rubber feet.
Place the FP-90 so that its rubber feet are on the inner side of the stand.

KS-18Z
Align the front of the FP-90 with the front of the stand.
Adjust the width of the stand so that the rubber feet of the FP-90 straddle the stand.

KS-12
Adjust the width of the stand so that the rubber feet of the FP-90 fit into the holes provided for the rubber feet.
Main Specifications

Roland FP-90: Digital Piano

<table>
<thead>
<tr>
<th>Feature</th>
<th>FP-90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sound generator</td>
<td>Piano Sound: SuperNATURAL Piano Modeling</td>
</tr>
<tr>
<td>Keyboard</td>
<td>PHA-50 Keyboard: Wood and Plastic Hybrid Structure, with Escapement and Ebony/Ivory Feel (88 keys)</td>
</tr>
<tr>
<td>Bluetooth function</td>
<td>Bluetooth Ver 3.0 (Supports SCMS-T content protection) MIDI, Turning music sheet: Bluetooth Ver 4.0</td>
</tr>
<tr>
<td>Power supply</td>
<td>AC adapter</td>
</tr>
<tr>
<td>Power consumption</td>
<td>12 W</td>
</tr>
<tr>
<td>Dimensions</td>
<td>1,340 (W) x 390 (D) x 136 (H) mm, 52-13/16&quot; (W) x 15-3/8&quot; (D) x 5-3/8&quot; (H)</td>
</tr>
<tr>
<td>Weight</td>
<td>23.6 kg, 52 lbs 1 oz (FP-90 with music rest)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accessories</th>
<th>Owner's Manual, Leaflet &quot;USING THE UNIT SAFELY&quot;, AC adapter, Power cord, Music rest, Damper pedal (DP-10, capable of continuous detection)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(sold separately)</td>
<td>*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.</td>
</tr>
</tbody>
</table>

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

**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 Pedal**
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.

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

**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.

1. Move the [Volume] slider all the way down to minimize the volume.

2. Hold down the [L] 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**

1. Move the [Volume] slider all the way down to minimize the volume.

2. Hold down the [L] 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**

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

**Headphone Jacks**
Connect headphones (separately sold) here.
Panel Descriptions

Rear Panel

Connect pedals and USB flash drive.

Place the AC adaptor so the side with the indicator (see illustration) faces upwards and the side with textual information faces downwards. The indicator will light when you plug the AC adaptor into an AC outlet.

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.

7 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.

* 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.

Cancel an operation: Press the [Exit] button.

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

- Tempo
- Time signature
- Measure
- Tone name
- Keyboard transposition

Tone groups

- [Piano] button
  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] buttons.

Auditioning the tones (Tone Demo)

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.

<table>
<thead>
<tr>
<th></th>
<th>Lower slider</th>
<th>Upper slider</th>
</tr>
</thead>
<tbody>
<tr>
<td>When using Normal (Single) Play</td>
<td>Not used</td>
<td>Adjusts the volume of the keyboard.</td>
</tr>
<tr>
<td>When using Split Play</td>
<td>Adjusts the volume of the region below the split point.</td>
<td>Adjusts the volume of the region above the split point.</td>
</tr>
<tr>
<td>When using Dual Play</td>
<td>Adjusts the volume of tone 2.</td>
<td>Adjusts the volume of tone 1.</td>
</tr>
</tbody>
</table>

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.

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 fingerings of the C major scale, you would set the keyboard transpose setting to “4.”

- Kbd Transpose
  -6–0–+5 (default value: 0)

MEMO

If you play C E G → it will sound E G♯ B

- Song Transpose
  -12–0–+12 (default value: 0)
### 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 example, you can use your left hand to play a bass tone and use your right hand to play a piano tone.

This feature is called “Split Play,” and the point at which the keyboard is divided is called the “split point.”

<table>
<thead>
<tr>
<th>Turning Split Play on</th>
<th>Press the [Split/Dual] button several times to access the Split screen.</th>
</tr>
</thead>
</table>
| Changing the right-hand tone and left-hand tone | 1. Use the [◄] [►] buttons to select “right-hand tone” or “left-hand tone.”  
2. Press a tone button.  
3. Use the [–] [+] buttons. |
| Split Point | Changes the split point.  
MEMO: You can also specify the split point by holding down the [Split/Dual] button and pressing the key where you want to split the keyboard. |
| Left Shift | Changes the pitch of the left-hand tone in units of one octave.  
-2–0–+2 (default value: 0) |

### Layering two tones (Dual)

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

| 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 tone 2 | 1. Use the [◄] [►] buttons to select “tone 1” or “tone 2.”  
2. Press a tone button.  
3. Use the [–] [+] buttons. |
| Tone 2 Shift | Changes the pitch of tone 2 in units of one octave.  
-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.

### 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 “registration” that you can recall whenever you wish.

#### 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.  
3. 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).
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**

1. Turn the [Metronome] button on.
2. Change the tempo
   - Press the Tempo [Slow] [Fast] buttons.

   10–500

3. Beat
   - Changes the time signature of the metronome.

   **MEMO**
   - You can also change the time signature by holding down the [Metronome] button and use the Beat [▼] (Slow) [▲] (Fast) buttons.


4. Metronome Down Beat
   - Sounds a down beat.
   - Off, On (default value: On)

5. Metronome Pattern
   - Changes the pattern of the metronome.
   - Off, Eighth note, Eighth-note triplet, Shuffle, Sixteenth note, Quarter-note triplet, Quarter note, Dotted eighth (default value: Off)

6. Metronome Volume
   - Changes the volume of the metronome.
   - Off, 1–10 (default value: 5)

7. Metronome Tone
   - Changes the tone of the metronome.
   - Click, Electronic, Voice (Japanese), Voice (English) (default value: Click)

**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.

**Display**

The display shows information such as the tone name, song name, tempo, and time signature.
Selecting a Song

Access the song screen, and select a song.

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

2. Press the [K] [J] buttons to select a category.

3. Press [-] [+] buttons to select a song.

4. Press the [s] 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 [s] button.

Exit the folder
Use the [-] button to select “(up)” and then press the [s] button.

Category list

<table>
<thead>
<tr>
<th>Category</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>USB Memory</td>
<td>Songs saved on a USB flash drive</td>
</tr>
<tr>
<td>Internal Memory</td>
<td>Songs saved in internal memory</td>
</tr>
<tr>
<td><strong>Preset Song</strong></td>
<td></td>
</tr>
<tr>
<td>Song Title</td>
<td>Composer</td>
</tr>
<tr>
<td>Singing Winds</td>
<td>Original</td>
</tr>
<tr>
<td>Melancolie</td>
<td>Original</td>
</tr>
<tr>
<td>The Nutcracker “Waltz of the Flowers” (Jazz Arrangement)</td>
<td>Peter Ilitch Tchaikovsky Original Arrangement</td>
</tr>
<tr>
<td>Floral Pursuits</td>
<td>Leo Delibes Original Arrangement</td>
</tr>
<tr>
<td>Swan-dorful Samba</td>
<td>Peter Ilitch Tchaikovsky Original Arrangement</td>
</tr>
<tr>
<td>Melody Afternoon</td>
<td>Original</td>
</tr>
<tr>
<td>The Marriage of Figaro “Overture”</td>
<td>Wolfgang Amadeus Mozart</td>
</tr>
<tr>
<td>Widmung S.566 R.253</td>
<td>Robert Alexander Schumann Arranged by Franz Liszt</td>
</tr>
<tr>
<td>Étude, op.10-12</td>
<td>Fryderyk Franciszek Chopin</td>
</tr>
</tbody>
</table>

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* 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 [u] button.

Enter record-ready condition
Press the [s] button.

Record
While stopped, press the [o] button.

Play all songs in the selected category
Hold down the [Song] button and press the [s] button.

Change the song tempo
Press the Tempo [K] [J] buttons.

Play back the song at a constant tempo
Hold down the [s] button and press the Tempo [K] or [J] button.

To clear the tempo mute function, hold down the [s] button once again and press the Tempo [K] or [J] button.

Sound a count-in (*1)
Hold down the [Metronome] button and press the [s] 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 [o] button.
3. Press the [s] button to start recording.
4. Press the [s] 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.

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
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**

<table>
<thead>
<tr>
<th>SMF recording</th>
<th>Audio recording</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The performance is recorded as MIDI data. SMF format 0</td>
<td>• Your performance will be recorded as audio data. WAV format, 44.1 kHz, 16-bit linear</td>
</tr>
<tr>
<td>• Your performance will be recorded as audio data. WAV format, 44.1 kHz, 16-bit linear</td>
<td>• In order to use audio recording, you must connect a USB flash drive (sold separately) to the USB Memory port.</td>
</tr>
</tbody>
</table>

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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 [t] button.
   - The [t] button lights, the [s] button blinks, and the unit enters record-standby mode.
   - If you decide to cancel recording, press the [t] button once again.

Starting your recording and saving it

1. Press the [t] 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 [s] button and [t/s] button light.
     **MEMO**
     You can also start recording by playing the keyboard. In this case, a count is not sounded.
2. Press the [t/s] 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 [t/s] 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

1. 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 [t] 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 [t] button.
   - The [t] button lights, the [t/s] button blinks, and the unit enters record-standby mode.
   - If you decide to cancel recording, press the [t] 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 [t/s] button.
   - Recording starts.
   - When recording starts, the [t/s] button and [t] button light.
2. Press the [t/s] 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 [t/s] 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 [●] 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.

1. Press the [Function] button, and then use the [←/ →] buttons to select “Rename Song.”
2. Press the [Function] (Enter) button.
   The Rename Song screen appears.

3. 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.

<table>
<thead>
<tr>
<th>Button</th>
<th>Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>[←/ →] buttons</td>
<td>Select the character to change.</td>
</tr>
<tr>
<td>[+ / -] buttons</td>
<td>Change the character.</td>
</tr>
</tbody>
</table>

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

7. Press the [Function] (Enter) button.
   A confirmation message appears.

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.

1. 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 copy-destination memory locations.
4. Press the [►] button.
5. 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.

1. 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.
5. 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.

1. 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.
5. When you’re finished using Piano Designer, press the [Exit] button.
   A confirmation message appears.
   ![Write Settings?](image)
   If you decide to cancel, press the [Exit] (Cancel) button.
6. Use the [►] button to select “Yes,” and then press the [Function] (Enter) button.
   The Piano Designer settings are saved.
   ![Reset Setting](image)
   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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lid</td>
<td>0–6</td>
<td>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.</td>
</tr>
<tr>
<td>Key Off Noise</td>
<td>Off, 1–10</td>
<td>Adjusts the action noise that is heard when you release a key. Higher settings produce a louder action noise.</td>
</tr>
<tr>
<td>Hammer Noise</td>
<td>2–0–+2</td>
<td>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.</td>
</tr>
<tr>
<td>Duplex Scale</td>
<td>Off, 1–10</td>
<td>Adjusts the sympathetic vibrations of an acoustic piano's Duplex Scale. Higher settings will make the sympathetic vibration louder.</td>
</tr>
<tr>
<td>Full Scale String Res.</td>
<td>Off, 1–10</td>
<td>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.</td>
</tr>
<tr>
<td>Damp. Resonance</td>
<td>Off, 1–10</td>
<td>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.</td>
</tr>
<tr>
<td>Key Off Resonance</td>
<td>Off, 1–10</td>
<td>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.</td>
</tr>
<tr>
<td>Cabinet Resonance</td>
<td>Off, 1–10</td>
<td>Adjusts the body resonance of the grand piano itself. Higher values will produce a larger body resonance.</td>
</tr>
<tr>
<td>Soundboard Type</td>
<td>1–5</td>
<td>Selects how the soundboard of the acoustic piano will resonate. You can choose from five different types of resonance.</td>
</tr>
<tr>
<td>Damper Noise</td>
<td>Off, 1–10</td>
<td>This adjusts the damper noise of the acoustic piano sound (the sound of the damper releasing the strings when you press the damper pedal).</td>
</tr>
<tr>
<td>Single Note Tuning</td>
<td>-50–0–+50</td>
<td>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.</td>
</tr>
<tr>
<td>Single Note Volume</td>
<td>-50–0</td>
<td>Adjusts the volume of each key. Higher settings increase the volume.</td>
</tr>
<tr>
<td>Single Note Character</td>
<td>-5–0–+5</td>
<td>Adjusts the tonal character of each key. Higher settings produce a harder tone, and lower settings produce a softer tone.</td>
</tr>
</tbody>
</table>

Reset Setting

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. If you decide to cancel, press the [Exit] (Cancel) button.
2. Use the [►] button to select “Yes,” and then press the [Function] (Enter) button.
   The settings return to their factory-set state.

### 88-key settings

1. Select the Single Note Tuning, Single Note Volume, or Single Note Character, and press the [Function] (Enter) button.
2. Play the key that you want to edit, and use the [–] [+] buttons to adjust the settings for that key.

MEMO:
You can use the [◄] [►] 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.

1. 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.

2. 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.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piano (Part) volume</td>
<td>Specifies the volume of the piano (part)</td>
</tr>
<tr>
<td>Song volume</td>
<td>Specifies the volume of the song</td>
</tr>
<tr>
<td>Mic volume</td>
<td>Specifies the volume of the mic</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indication</th>
<th>Parameter</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>[◄] [►] buttons</td>
<td>Compressor Type</td>
<td>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.</td>
</tr>
<tr>
<td>[◄] [►] buttons</td>
<td>Doubling Type</td>
<td>One Voice, Two Voice. Produces an effect as though a singing voice is layered multiple times.</td>
</tr>
<tr>
<td>[◄] [►] buttons</td>
<td>Doubling Width</td>
<td>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.</td>
</tr>
<tr>
<td>[◄] [►] buttons</td>
<td>Doubling Level</td>
<td>0–10. Specifies the volume of the doubling effect.</td>
</tr>
<tr>
<td>[◄] [►] buttons</td>
<td>Echo Type</td>
<td>1–7. Selects the type of echo.</td>
</tr>
<tr>
<td>[◄] [►] buttons</td>
<td>Echo Level</td>
<td>0–10. Higher values produce greater reverberance.</td>
</tr>
</tbody>
</table>
## 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."

### Variation

- Variation 1
  - registrations 1-6
- Variation 2
  - registrations 7-12
- Variation 3
  - registrations 13-18
- Variation 4
  - registrations 19-24
- Variation 5
  - registrations 25-30

### Registration Set

- Registration set 1
  - registrations 1-6
- Registration set 2
  - registrations 7-12
- Registration set 3
  - registrations 13-18
- Registration set 4
  - registrations 19-24
- Registration set 5
  - registrations 25-30

### MEMO

- For more about the settings saved in a registration, refer to “Settings Saved in Registrations” (p. 26).
- 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 (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.

   ![Registration Screen](image)

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

   ![Registration Selection](image)

3. **Press the [-] [+ ] buttons to select the registration variation.**
   
   The settings change accordingly.

   ![Registration Variation](image)

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.**

   ![Registration Save Screen](image)

3. **Rename the registration.**

   ![Registration Rename](image)

   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.
   ![Reg. Set Export](image)
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.
   ![Reg. Set Import](image)
4. Use the [-] [+ buttons to select the registration set you want to load.
5. Press the [Function] (Enter) button.
   A confirmation message appears.
   ![Confirmation Message](image)
   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.
4. Use the [-] [+] buttons to select the media that you want to format.
5. Press the [Function] (Enter) button.
   A confirmation message appears.
   ![Format Media screen]
   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).

1. Press the [Function] button, and then press the [◄] [►] button to select “Factory Reset.”
2. Press the [Function] (Enter) button.
   A confirmation message appears.
   ![Confirmation message]
   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).

1. Press the [Function] button, and then use the [◄] [►] buttons to select “Memory Backup.”
2. Press the [Function] (Enter) button.
   A confirmation message appears.
   ![Confirmation message]
   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.
Advanced Operation

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.
   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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Touch</td>
<td>Adjusting the Keyboard Response (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 &quot;fix,&quot; notes will sound at the same volume regardless of how strongly you play the keyboard.</td>
</tr>
<tr>
<td>Master Tuning</td>
<td>Matching the Pitch with Other Instruments (Master Tuning) When playing ensemble with other instruments and in other such instances, you can match the standard pitch to another instrument. The reference pitch generally refers to the pitch of the note that's played when you finger the middle A key. For a cleaner ensemble sound while performing with one or more other instruments, ensure that each instrument's standard pitch is in tune with that of the other instruments. 415.3Hz–440.0Hz–466.2Hz</td>
</tr>
<tr>
<td>Temperament</td>
<td>Changing the Tuning Method (Temperament) You can play classical styles such as Baroque using historic temperaments (tuning methods). Most modern songs are composed and played with the assumption that equal temperament (the most common tuning in use today) will be used, but when classical music was composed, there were a wide variety of other tuning systems in existence. Playing a composition with its original tuning lets you enjoy 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. 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.</td>
</tr>
<tr>
<td>Temperament Key</td>
<td>Specifying a Song's Tonic (Temperament Key) 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.</td>
</tr>
<tr>
<td>Piano Designer</td>
<td>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. Refer to “Personalizing Your Piano Sound (Piano Designer)” (p. 13).</td>
</tr>
<tr>
<td>Hammer Response</td>
<td>Off, 1–10 Adjusts the time from when you play the key until the piano sound is heard. Higher values produce a greater delay.</td>
</tr>
</tbody>
</table>
### Editing the Equalizer Settings
You can use the equalizer to modify the tone color by boosting or reducing just the low-frequency or high-frequency range of the sound.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQ Low Freq (Hz)</td>
<td>Frequency point in the low-frequency range. This changes the level at and under the specified bandwidth.</td>
</tr>
<tr>
<td>EQ Mid Freq (Hz)</td>
<td>Frequency point in the mid-frequency range. This changes the level of the specified bandwidth centered on this frequency.</td>
</tr>
<tr>
<td>EQ Mid Q 0.5, 1.0, 2.0, 4.0, 8.0</td>
<td>Changes the bandwidth of the mid-frequency range. The bandwidth affected narrows as the value increases.</td>
</tr>
<tr>
<td>EQ High Freq 2000–16000 (Hz)</td>
<td>Frequency point in the high-frequency range. This changes the level at and over the specified bandwidth.</td>
</tr>
</tbody>
</table>

### 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.

- **Auto-Select**
  - Automatically switches the SMF Play Mode to either "Internal" or "External" depending on the song that is being played.
- **Internal**
  - The most suitable tone for the song that's playing is selected.
- **External**
  - The currently selected tone is used when you play back the song.

### 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.

### Selecting the Format for Recording (Recording Mode)
You can choose whether to record as SMF or as audio.

- **SMF**
  - The performance is recorded as MIDI data. (SMF format 0)
- **Audio**
  - The recording will be made as audio data. (WAV format, 44.1 kHz, 16-bit linear)

### 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.

<table>
<thead>
<tr>
<th>Option</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right &amp; Left</td>
<td>All enabled</td>
</tr>
<tr>
<td>Right</td>
<td>Applied only to the Tone 1 (in Dual Play)/Right-hand Tone (in Split Play)</td>
</tr>
<tr>
<td>Left</td>
<td>Applied only to the Tone 2 (in Dual Play)/Left-hand Tone (in Split Play)</td>
</tr>
</tbody>
</table>

### 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.

<table>
<thead>
<tr>
<th>Option</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sostenuto *1</td>
<td>Sets function to sostenuto pedal.</td>
</tr>
<tr>
<td>Start/Stop</td>
<td>The pedal will have the same function as the [&gt;] button.</td>
</tr>
<tr>
<td>Layer</td>
<td>In Dual Play, you can control of the Tone 2 volume.</td>
</tr>
<tr>
<td>Soft *2</td>
<td>Sets function to soft pedal.</td>
</tr>
<tr>
<td>Expression *3</td>
<td>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.</td>
</tr>
<tr>
<td>Master Expression</td>
<td>Controls the overall volume of the FP-90.</td>
</tr>
<tr>
<td>Bend Up *3</td>
<td>Pitch rises when pedal is depressed.</td>
</tr>
<tr>
<td>Bend Down *3</td>
<td>Pitch lowers when pedal is depressed.</td>
</tr>
<tr>
<td>Modulation *3</td>
<td>Vibrato is added when pedal is depressed.</td>
</tr>
<tr>
<td>Mic Doubling Sw</td>
<td>The pedal will turn Mic effect &quot;Doubling&quot; on/off.</td>
</tr>
<tr>
<td>Mic Echo Sw</td>
<td>The pedal will turn Mic effect &quot;Echo&quot; on/off.</td>
</tr>
</tbody>
</table>

*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).  
* Only use the specified expression pedal. By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.
### Indication

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>[&lt;] [&gt;] buttons</td>
<td>Changing the Function of the Left Pedal (Left Pedal) Use this feature to change the function of the pedal connected to the Pedal Soft Jack. Refer to “Changing the Function of the Center Pedal (Center Pedal)” (p. 19).</td>
</tr>
<tr>
<td>[-] [+]+ buttons</td>
<td>Changing How the Pedal Effects Are Applied (Left Pedal Part) When you press the pedal connected to the Pedal Soft 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. Refer to “Changing How the Pedal Effects Are Applied (Damper Pedal Part)” (p. 19).</td>
</tr>
</tbody>
</table>

| Left Pedal Part | Changing How the Pedal Effects Are Applied (Left Pedal Part) When you press the pedal connected to the Pedal Soft 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. Refer to “Changing How the Pedal Effects Are Applied (Damper Pedal Part)” (p. 19). |

### Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reg. Pedal Shift</td>
<td>Using a Pedal to Switch Registrations (Reg. Pedal Shift) You can assign a pedal to successively switch registrations. Each time you press the pedal, you will switch to the next registration.</td>
</tr>
<tr>
<td>Left Pedal</td>
<td>The pedal connected to the Pedal Soft jack can be used only for switching registrations.</td>
</tr>
<tr>
<td>Center Pedal</td>
<td>The pedal connected to the Pedal Sostenuto jack can be used only for switching registrations.</td>
</tr>
</tbody>
</table>

| Reg. Set Export | Refer to “Saving a Registration Set (Registration Set Export)” (p. 16). |
| Reg. Set Import | Refer to “Loading a Saved Registration Set (Registration Set Import)” (p. 16). |

### Sending Tone-Change Information (Transmit MIDI Information)

When you switch registrations, the FP-90 simultaneously transmits the following: Program Change, Bank Select MSB, and Bank Select LSB. You can also set the transmit channel.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reg. Transmit Ch.</td>
<td>Off, 1–16 Sets the Program Change transmit channel.</td>
</tr>
<tr>
<td>Reg. Bank MSB</td>
<td>0 (00)–127 (7F) Sets the Bank Select MSB.</td>
</tr>
<tr>
<td>Reg. Bank LSB</td>
<td>0 (00)–127 (7F) Sets the Bank Select LSB.</td>
</tr>
<tr>
<td>Reg. PC</td>
<td>1 (00)–128 (7F) Sets the Program Change number.</td>
</tr>
</tbody>
</table>

### Local Control

Preventing Doubled Notes When Connected to a Sequencer (Local Control) When you have a MIDI sequencer connected, set this parameter to Local Off. Since most sequencers have their Thru function turned on, notes you play on the keyboard may be sounded in duplicate, or get dropped. To prevent this, you can enable the “Local Off” setting so that the keyboard and internal sound generator will be disconnected.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Local Control is off. The keyboard is disconnected from the internal sound generator. Playing the keyboard will not produce sound.</td>
</tr>
<tr>
<td>On</td>
<td>Local Control is on. The keyboard is connected to the internal sound generator.</td>
</tr>
</tbody>
</table>

### MIDI Transmit Channel Settings (MIDI Transmit Ch.)

This setting specifies the MIDI channel on which the unit will transmit. This unit will receive all sixteen channels (1–16).

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off, 1–16</td>
<td>Off, 1–16</td>
</tr>
</tbody>
</table>

### Display Contrast

Adjusting the Brightness of the Display (Display Contrast)

Adjusts the brightness of the FP-90 display.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off, 1–10</td>
<td>Off, 1–10</td>
</tr>
</tbody>
</table>

### Panel Brightness

Adjusting the Brightness of the Buttons (Panel Brightness)

You can adjust the brightness of the FP-90’s buttons.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dim, Bright</td>
<td>Dim, Bright</td>
</tr>
</tbody>
</table>

### Auto Off

Making the Power Automatically Turn Off After a Time (Auto Off) With the factory settings, 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 power to turn off automatically, change the “Auto Off” setting to “Off.”

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off, 10, 30, 240 (min)</td>
<td>Off, 10, 30, 240 (min)</td>
</tr>
</tbody>
</table>

### Memory Backup

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).

### Factory Reset

Refer to “Restoring the Factory Settings (Factory Reset)” (p. 17).

### Version

Displays the version of the unit’s system program.
Advanced Operation

Using the Bluetooth® Functionality

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

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

Page-turning
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).

1. 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).

2. 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.

1. 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.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–99</td>
<td>Set to “0”: “FP-90 Audio,” “FP-90” (default value)</td>
</tr>
</tbody>
</table>

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.

Note when using an already-paired iOS device

The following operation is required after each time that you switch the Bluetooth page-turning/MIDI function or execute a factory reset.

1. Disconnect “FP-90.”
2. Turn off.

For details, refer to the owner’s manual of your iOS device.

1. 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).

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 then use the [─] [+] buttons to select “MIDI.”

5. Turn on the Bluetooth function of the 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.

1. 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).

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

1. 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 settings 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.

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.

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

### Problems with Bluetooth functionality

<table>
<thead>
<tr>
<th>Problem</th>
<th>Items to check/Action</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>This unit does not appear in the Bluetooth device list of your mobile device</td>
<td>Could the Bluetooth function be turned “Off”? Turn the Bluetooth function “On.” Bluetooth Audio function: Function mode → “Bluetooth audio” → turn ‘Bluetooth audio’ On Bluetooth Turn/MIDI function: Function mode → “Bluetooth Turn/MIDI” → turn ‘Bluetooth Turn &amp; MIDI’ (“*1”) On. Depending on the Function mode “Bluetooth Turn/MIDI” setting, the screen might indicate “Bluetooth Page Turn” or “Bluetooth MIDI.”</td>
<td>p. 21</td>
</tr>
<tr>
<td>Can’t connect to Bluetooth audio</td>
<td>If Bluetooth Audio function is “On” A device named “FP-90 Audio” appears. If the Bluetooth Page Turn function is “On” and the Bluetooth Turn/MIDI function is set to “MIDI” or “Page Turn&amp;MIDI” You can check this from a setting inside your app such as Piano Partner 2.</td>
<td>–</td>
</tr>
<tr>
<td>Can’t connect to Bluetooth page turning</td>
<td>If this unit is visible as a device in the mobile device’s Bluetooth settings Delete the device’s registration, turn the Bluetooth Audio function “Off” and then “On” again, and establish pairing once again.</td>
<td>p. 21</td>
</tr>
<tr>
<td>Can’t connect to Bluetooth MIDI</td>
<td>If this unit is not visible as a device in the mobile device’s Bluetooth settings Turn the mobile device’s Bluetooth function off and then on again, and reconnect it. After unpairing the “FP-90” that is registered on the mobile device, turn the mobile device’s Bluetooth function off and then on again, and reconnect it.</td>
<td>p. 21</td>
</tr>
<tr>
<td>Can’t connect via MIDI</td>
<td>If this unit is not visible as a device Turn the mobile device’s Bluetooth function off and on again, and reestablish the connection.</td>
<td>–</td>
</tr>
<tr>
<td>Can’t establish pairing with the page turning function and MIDI function</td>
<td>The page turning function and MIDI function are paired when you first select a device on the mobile device and establish a connection. There is no need to initiate pairing from this unit. After unpairing the “FP-90” that is registered on the mobile device, turn the mobile device’s Bluetooth function off and then on again, and reconnect it.</td>
<td>–</td>
</tr>
<tr>
<td>Can’t use the page turning function and MIDI function simultaneously</td>
<td>Set the Bluetooth Turn/MIDI function to “Page Turn&amp;MIDI.”</td>
<td>–</td>
</tr>
<tr>
<td>Can’t connect a paired mobile device</td>
<td>If the connection breaks immediately after it is established, or when you switch the page turning function and MIDI data transmit/receive function, turn the Bluetooth device’s Bluetooth switch off and then on again may allow connection to occur.</td>
<td>–</td>
</tr>
<tr>
<td>Keyboard no longer appears (becomes unavailable) on the mobile device</td>
<td>When using the page turning function, the keyboard might not be shown (might be unavailable) depending on the mobile device that you’re using.</td>
<td>–</td>
</tr>
</tbody>
</table>

**MEMO**

If checking these points does not solve the problem, please refer to the Roland support website.

http://www.roland.com/
## Troubleshooting

### Problem: Even though you’re using headphones and the sound is muted, a thumping sound is heard when you play the keyboard.
- **Items to Check:**
  - Could you hear the sound of the hammers inside the keyboard, or vibrations in the floor or walls?
- **Action:**
  - 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.

### Problem: Power turns off.
- **Items to Check:**
  - Could you be disconnecting or connecting the pedal cord while the power was on?
- **Action:**
  - Power-off the unit before you connect or disconnect the pedal cord.

### Problem: Power turns off unexpectedly.
- **Items to Check:**
  - Is the AC adaptor connected correctly?
- **Action:**
  - The AC adaptor was not disconnected or connected to the unit while the power was on.

### Problem: The microphone doesn’t work or is "stuck".
- **Items to Check:**
  - Are you using (optional) Roland USB flash drive?
- **Action:**
  - Use a USB flash drive sold by Roland.

### Problem: The volume level of the unit connected to Input Stereo is too low.
- **Items to Check:**
  - Are you using an expression pedal?
- **Action:**
  - Use an expression pedal to adjust the volume.

### Problem: No sound.
- **Items to Check:**
  - Is the [Mic Vol.] slider raised?
- **Action:**
  - The [Mic Vol.] slider should be set to “0”.

### Problem: No sound from the microphone.
- **Items to Check:**
  - Is the [Mic Vol.] slider raised?
- **Action:**
  - The [Mic Vol.] slider should be set to “0”.

### Problem: No sound when you play back a song.
- **Items to Check:**
  - Could the [Song Vol.] slider or Part [Lower] [Upper] sliders be set to “0”?
- **Action:**
  - If the Part sliders are lowered, no sound is heard.

### Problem: Notes don’t sound right.
- **Items to Check:**
  - Could you have made Transpose settings?
- **Action:**
  - The [Transpose] settings were not applied.

### Problem: Pitch of the keyboard or song is incorrect.
- **Items to Check:**
  - Is the Master Tune setting appropriate?
- **Action:**
  - The [Master Tune] setting is not correct.

### Problem: Notes are interrupted.
- **Items to Check:**
  - Is the Note Tune setting appropriate?
- **Action:**
  - The [Note Tune] setting is not correct.

### Problem: Sounds are heard twice (doubled) when the keyboard is played.
- **Items to Check:**
  - Could the unit be connected to an external sequencer?
- **Action:**
  - If Local Control is turned “On,” set the [Local Control] switch to “Off.”

### Problem: Effect does not apply.
- **Items to Check:**
  - For some combinations of tones, the effect does not apply to Dual Play tone 2 or to the left-hand tone of Split Play.
- **Action:**
  - The effect setting was not applied.

### Problem: Power turns off on its own.
- **Items to Check:**
  - Is the pedal function (Center Pedal, Left Pedal) to its previous setting?
- **Action:**
  - Return the pedal function (Center Pedal, Left Pedal) to its previous setting.

### Problem: Pedal does not work, or is “stuck.”
- **Items to Check:**
  - Can you use the page-turning function?
- **Action:**
  - Could you be using the page-turning function?

### Problem: Unable to read from/write to USB flash drive.
- **Items to Check:**
  - Are you using (optional) Roland USB flash drive?
- **Action:**
  - Use a USB flash drive sold by Roland.

### Problem: “Buzz” is heard from external devices.
- **Items to Check:**
  - Are the external devices connected to more than one AC power outlet?
- **Action:**
  - Return the external devices to their previous setting.

### Problem: The volume of the unit connected to Input Stereo is too low.
- **Items to Check:**
  - Could the volume be set to maximum?
- **Action:**
  - The unit has malfunctioned. Please contact your dealer or Roland customer service center.

### Problem: Low notes sound wrong, or are buzzy.
- **Items to Check:**
  - Could you be using Dual Play or playing along with a song?
- **Action:**
  - Could you be using Dual Play or playing along with a song? Or are the notes sounding a large number of notes?

### Problem: The piano’s tonal character changes when you record with a tone that you created in Piano Designer?
- **Items to Check:**
  - Could you be using a damper pedal other than the specified model?
- **Action:**
  - Could you be using a damper pedal other than the specified model?

### Problem: The piano’s tonal character changes when you record.
- **Items to Check:**
  - Could you be using a damper pedal other than the specified model?
- **Action:**
  - Could you be using a damper pedal other than the specified model?

### Problem: The selected song changes when you play back a song.
- **Items to Check:**
  - Could the SMF Play Mode be set to “Auto-Select” or “Internal”?
- **Action:**
  - Set the SMF Play Mode to “Internal.”

### Problem: High-pitched ringing is heard.
- **Items to Check:**
  - Could you have adjusted the equalizer?
- **Action:**
  - Could you have adjusted the equalizer?

### Problem: The sound of the higher notes suddenly changes from a certain key.
- **Items to Check:**
  - Could you use the page-turning function?
- **Action:**
  - Could you be using the page-turning function?

### Problem: Song does not play correctly.
- **Items to Check:**
  - Could the [Song Vol.] slider or Part [Lower] [Upper] sliders be set to “0”?
- **Action:**
  - Could the Part [Upper] [Lower] sliders both be lowered?

### Problem: Only the sound of a particular instrument in a song does not play.
- **Items to Check:**
  - Could the Part [Upper] [Lower] sliders both be lowered?
- **Action:**
  - Could the Part [Upper] [Lower] sliders both be lowered?

### Problem: Song volume is too low.
- **Items to Check:**
  - Could the [Song Vol.] slider or Part [Lower] [Upper] sliders be set too low?
- **Action:**
  - Could the [Song Vol.] slider or Part [Lower] [Upper] sliders be set too low?

### Problem: Can’t play back a song saved in USB flash drive.
- **Items to Check:**
  - Could the Audio files of the format be played? (WAV or MP3)
- **Action:**
  - Audio files of the following format can be played back.

### Problem: Can’t record.
- **Items to Check:**
  - Is the USB flash drive connected to the USB Memory port?
- **Action:**
  - Is a USB flash drive connected to the USB Memory port?
Error Messages

<table>
<thead>
<tr>
<th>Indication</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error 2</td>
<td>An error occurred during writing. The external media may be corrupted. 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).</td>
</tr>
<tr>
<td>Error 10</td>
<td>No external media is inserted. Insert the external media and try again. The internal memory might be damaged. Format the internal memory (p. 17).</td>
</tr>
<tr>
<td>Error 11</td>
<td>There is not sufficient free memory in the save destination. Either insert other external media or delete unneeded files and try again.</td>
</tr>
<tr>
<td>Error 14</td>
<td>An error occurred during reading. The external media may be corrupted. 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).</td>
</tr>
<tr>
<td>Error 15</td>
<td>The file is unreadable. The data format is not compatible with the unit.</td>
</tr>
<tr>
<td>Error 18</td>
<td>This audio format is not supported. Please use 44.1 kHz 16-bit linear WAV format or 44.1 kHz 64 kbps–320 kbps MP3 format audio files.</td>
</tr>
<tr>
<td>Error 30</td>
<td>Internal memory capacity of the unit is full.</td>
</tr>
<tr>
<td>Error 40</td>
<td>The unit cannot deal with the excessive MIDI data sent from the external MIDI device. Reduce the amount of MIDI data sent to the unit.</td>
</tr>
<tr>
<td>Error 41</td>
<td>A MIDI cable was disconnected. Connect the MIDI cable correctly.</td>
</tr>
<tr>
<td>Error 43</td>
<td>A MIDI transmission error has occurred. Check the MIDI cable and connected MIDI device.</td>
</tr>
<tr>
<td>Error 51</td>
<td>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.</td>
</tr>
<tr>
<td>Error 65</td>
<td>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.</td>
</tr>
</tbody>
</table>

Tone List

### Piano

<table>
<thead>
<tr>
<th>#</th>
<th>Tone Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Concert Piano</td>
</tr>
<tr>
<td>2</td>
<td>Ballad Piano</td>
</tr>
<tr>
<td>3</td>
<td>Mellow Piano</td>
</tr>
<tr>
<td>4</td>
<td>Bright Piano</td>
</tr>
<tr>
<td>5</td>
<td>Upright Piano</td>
</tr>
<tr>
<td>6</td>
<td>Mellow Upright</td>
</tr>
<tr>
<td>7</td>
<td>Bright Upright</td>
</tr>
<tr>
<td>8</td>
<td>Rock Piano</td>
</tr>
<tr>
<td>9</td>
<td>Rhapsody Piano</td>
</tr>
<tr>
<td>10</td>
<td>Bright Forte</td>
</tr>
<tr>
<td>11</td>
<td>SA Piano 3</td>
</tr>
<tr>
<td>12</td>
<td>70's E.Grand</td>
</tr>
<tr>
<td>13</td>
<td>MagicoPiano</td>
</tr>
<tr>
<td>14</td>
<td>Harpsichord</td>
</tr>
<tr>
<td>15</td>
<td>Harpsi 8+4</td>
</tr>
</tbody>
</table>

### Strings

<table>
<thead>
<tr>
<th>#</th>
<th>Tone Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chamber Str</td>
</tr>
<tr>
<td>2</td>
<td>String Exp</td>
</tr>
<tr>
<td>3</td>
<td>Full Strings</td>
</tr>
<tr>
<td>4</td>
<td>Strings For</td>
</tr>
<tr>
<td>5</td>
<td>Epic Strings</td>
</tr>
<tr>
<td>6</td>
<td>Rich Strings</td>
</tr>
<tr>
<td>7</td>
<td>Orchestra</td>
</tr>
<tr>
<td>8</td>
<td>Hapiness</td>
</tr>
<tr>
<td>9</td>
<td>Orchestra8s</td>
</tr>
<tr>
<td>10</td>
<td>SymphonicStr1</td>
</tr>
<tr>
<td>11</td>
<td>SymphonicStr2</td>
</tr>
</tbody>
</table>

### Organ

<table>
<thead>
<tr>
<th>#</th>
<th>Tone Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>B.Organ Slow</td>
</tr>
<tr>
<td>2</td>
<td>Pipe Organ</td>
</tr>
<tr>
<td>3</td>
<td>Naxos flt #</td>
</tr>
<tr>
<td>4</td>
<td>Combo Jazz</td>
</tr>
<tr>
<td>5</td>
<td>Ballad Organ</td>
</tr>
<tr>
<td>6</td>
<td>ChurchOrgan1</td>
</tr>
<tr>
<td>7</td>
<td>ChurchOrgan2</td>
</tr>
<tr>
<td>8</td>
<td>Gospel Spin</td>
</tr>
<tr>
<td>9</td>
<td>Full Stops</td>
</tr>
<tr>
<td>10</td>
<td>Mellow Bars</td>
</tr>
<tr>
<td>11</td>
<td>Lower Organ</td>
</tr>
<tr>
<td>12</td>
<td>Light Organ</td>
</tr>
<tr>
<td>13</td>
<td>Animal Mod</td>
</tr>
<tr>
<td>14</td>
<td>Surf Monkeys</td>
</tr>
<tr>
<td>15</td>
<td>Rising Sun</td>
</tr>
</tbody>
</table>

### Pad

<table>
<thead>
<tr>
<th>#</th>
<th>Tone Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Super SynPad</td>
</tr>
<tr>
<td>2</td>
<td>Choir Ahhs 1</td>
</tr>
<tr>
<td>3</td>
<td>Choir Ahhs 2</td>
</tr>
<tr>
<td>4</td>
<td>E50 StackPad</td>
</tr>
<tr>
<td>5</td>
<td>Legend Pad</td>
</tr>
<tr>
<td>6</td>
<td>Voice of Hvn</td>
</tr>
<tr>
<td>7</td>
<td>New Jupiter</td>
</tr>
<tr>
<td>8</td>
<td>ChordClfRnnda</td>
</tr>
<tr>
<td>9</td>
<td>IP8 Strings</td>
</tr>
<tr>
<td>10</td>
<td>Air Pad</td>
</tr>
<tr>
<td>11</td>
<td>Boreal Pad</td>
</tr>
<tr>
<td>12</td>
<td>IP8 Howell</td>
</tr>
<tr>
<td>13</td>
<td>Soft Pad</td>
</tr>
<tr>
<td>14</td>
<td>Sola</td>
</tr>
<tr>
<td>15</td>
<td>Tron Strings</td>
</tr>
</tbody>
</table>

### E. Piano

<table>
<thead>
<tr>
<th>#</th>
<th>Tone Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1976SuitCase</td>
</tr>
<tr>
<td>2</td>
<td>Tone EP Lite</td>
</tr>
<tr>
<td>3</td>
<td>ModifiedSynth</td>
</tr>
<tr>
<td>4</td>
<td>VR EP 1</td>
</tr>
<tr>
<td>5</td>
<td>Wurl 200</td>
</tr>
<tr>
<td>6</td>
<td>Pure Wurl</td>
</tr>
<tr>
<td>7</td>
<td>Phase EP Mix</td>
</tr>
<tr>
<td>8</td>
<td>90s FM EP</td>
</tr>
<tr>
<td>9</td>
<td>Metallic EP Ex</td>
</tr>
<tr>
<td>10</td>
<td>SA E.Piano 1</td>
</tr>
<tr>
<td>11</td>
<td>SA EP1 Stack</td>
</tr>
<tr>
<td>12</td>
<td>SA E.Piano 2</td>
</tr>
<tr>
<td>13</td>
<td>Tremolo EP</td>
</tr>
<tr>
<td>14</td>
<td>EP Belle</td>
</tr>
<tr>
<td>15</td>
<td>BrillClav DB</td>
</tr>
<tr>
<td>16</td>
<td>BrillClavWah</td>
</tr>
</tbody>
</table>

### Other

<table>
<thead>
<tr>
<th>#</th>
<th>Tone Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Super Saw</td>
</tr>
<tr>
<td>2</td>
<td>Trancy Synth</td>
</tr>
<tr>
<td>3</td>
<td>Flip Pad</td>
</tr>
<tr>
<td>4</td>
<td>DSO Fantasia</td>
</tr>
<tr>
<td>5</td>
<td>DSO Stack Hvn</td>
</tr>
<tr>
<td>6</td>
<td>DSO FuturePd</td>
</tr>
<tr>
<td>7</td>
<td>DSO DigiNDnc</td>
</tr>
<tr>
<td>8</td>
<td>EQ Lead</td>
</tr>
<tr>
<td>9</td>
<td>DebyResoSaws</td>
</tr>
<tr>
<td>10</td>
<td>StrawberryFist</td>
</tr>
<tr>
<td>11</td>
<td>Jazz Scot</td>
</tr>
<tr>
<td>12</td>
<td>Ac.Bass wink</td>
</tr>
<tr>
<td>13</td>
<td>Chomp JfBass</td>
</tr>
<tr>
<td>14–22</td>
<td>(8-drums and 1 SFX set)</td>
</tr>
<tr>
<td>23–278</td>
<td>(GM2 Tones)</td>
</tr>
</tbody>
</table>
# Saved Settings

<table>
<thead>
<tr>
<th>Settings Saved in Registrations</th>
<th>Items Stored by Memory Backup</th>
<th>Settings Stored Immediately When Edited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selected tone (including Split or Dual tones)</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Dual Play On/Off</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Split Play On/Off</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Part Volume</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Split Point</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Octave shift of the left-hand tone</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Tone 2 Shift</td>
<td>Octave shift of tone 2</td>
<td>✓</td>
</tr>
<tr>
<td>Transpose</td>
<td>Transpose on/off and transpose value</td>
<td>✓</td>
</tr>
<tr>
<td>Ambience</td>
<td>Depth of the ambience effect</td>
<td>✓</td>
</tr>
<tr>
<td>Rotary Speed</td>
<td>Modulation speed of the rotary effect</td>
<td>✓</td>
</tr>
<tr>
<td>Speed at which the sound is modulated</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Key Touch</td>
<td>Key Touch</td>
<td>✓</td>
</tr>
<tr>
<td>Damper Pedal Part</td>
<td>Damper pedal part setting</td>
<td>✓</td>
</tr>
<tr>
<td>Center Pedal Part</td>
<td>Center pedal part setting</td>
<td>✓</td>
</tr>
<tr>
<td>Function of the center pedal</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Left Pedal Part</td>
<td>Left pedal part setting</td>
<td>✓</td>
</tr>
<tr>
<td>Function of the left pedal</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Reg. Pedal Shift</td>
<td>Registration pedal shift setting</td>
<td>✓</td>
</tr>
<tr>
<td>MIDI Transmit Ch.</td>
<td>MIDI transmit channel</td>
<td>✓</td>
</tr>
<tr>
<td>Reg. Transmit Ch.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reg. PC</td>
<td>Tone switching information</td>
<td>✓</td>
</tr>
<tr>
<td>Reg. Bank MSB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reg. Bank LS8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mic Effects</td>
<td>Mic effects setting</td>
<td>✓</td>
</tr>
<tr>
<td>Headphones 3D Ambience</td>
<td>Headphone 3D ambience</td>
<td>✓</td>
</tr>
<tr>
<td>Hammer Response</td>
<td>Hammer response</td>
<td>✓</td>
</tr>
<tr>
<td>Metronome</td>
<td>Metronome (volume, sound, down beat)</td>
<td>✓</td>
</tr>
<tr>
<td>Master Tuning</td>
<td>Master Tuning</td>
<td>✓</td>
</tr>
<tr>
<td>Temperament</td>
<td>Tuning method</td>
<td>✓</td>
</tr>
<tr>
<td>Temperament Key</td>
<td>Base note for the tuning method</td>
<td>✓</td>
</tr>
<tr>
<td>Input/Bluetooth Vol.</td>
<td>Input/Bluetooth volume</td>
<td>✓</td>
</tr>
<tr>
<td>SMF Play Mode</td>
<td>SMF playback mode</td>
<td>✓</td>
</tr>
<tr>
<td>Display Contrast</td>
<td>Display contrast</td>
<td>✓</td>
</tr>
<tr>
<td>Panel Brightness</td>
<td>Brightness of the buttons</td>
<td>✓</td>
</tr>
<tr>
<td>All settings of the Bluetooth function</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Auto Off</td>
<td>Auto off</td>
<td>✓</td>
</tr>
<tr>
<td>Equalizer</td>
<td>Equalizer settings</td>
<td>✓</td>
</tr>
</tbody>
</table>

* 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.

![WARNING]

Use only the supplied AC adaptor and the correct voltage
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]

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.

![CAUTION]

Placement
• Do not place the unit on top of other equipment. 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 adhesive, 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 is in use.
• Do not use the unit in a location where there is an unexpected change in temperature or humidity.
• Do not use connection cables that contain a built-in resistor.

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.
• Do not use this product for purposes that could infringe on a copyright held by a third party. We assume no responsibility whatsoever with regard to any infringements of third-party copyrights arising through your use of this product.

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.
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• Handle your device with care to avoid scratching the unit or the mobile device.
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