

Digital Workstation



Reference Manual

This Reference Manual explains advanced features of the PSR-SX600. Please read the Owner's Manual first, before reading this Reference Manual.











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Using the PDF manual

- To quickly jump to items and topics of interest, click on the desired items in the "Bookmarks" index to the left of the main display window. (Click the "Bookmarks" tab to open the index if it is not displayed.)
- Click the page numbers that appear in this manual to go directly to the corresponding page.
- Select "Find" or "Search" from the Adobe Reader "Edit" menu and enter a keyword to locate related information anywhere in the document.

NOTE The names and positions of menu items may vary according to the version of Adobe Reader being used.

- The illustrations and LCD screens as shown in this manual are for instructional purposes only, and may appear somewhat different from those on your instrument.
- The "Data List" and "Smart Device Connection Manual" documents can be downloaded from the Yamaha website: https://download.yamaha.com/
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Voices

Contents

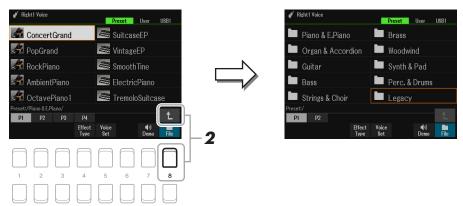
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Selecting MegaVoice, GM, XG, and GM2 voices

This instrument features a variety of Voices ideal for use with sequencer software. These include MegaVoice (page 4), XG and GM. These Voices cannot be called up directly from the VOICE category selection buttons. However, MegaVoice and Legacy Voices can be called up as described below.

Selecting MegaVoice or Legacy Voices

- Press one of the VOICE category selection buttons (other than the [EXPANSION/ USER] button) to call up the Voice Selection display.
- **2** Press the [8 ▲] (↑) button to call up the Voice categories.



- **3** Press the [1 ▲▼]/[2 ▲▼] buttons to select the P1 or P2 folder.
- 4 Use the Cursor buttons [▲][▼][◄][▶] to select the desired Voice category folder from MegaVoice (P2) or Legacy (P1), and then press the [ENTER] button.



Voice Types (Characteristics)

The particular type of a Voice is classified into nine kinds (Owner's Manual, chapter 1). The MegaVoice is covered here.

MegaVoice

With normal Voices, you can control the volume of notes or change the timbre or tone of a sound, depending on key velocity (how strongly or softly you play). However, MegaVoices respond completely differently to velocity and make special use of velocity switching. Each velocity range has a completely different sound. For example, a guitar MegaVoice includes the sounds of various performance techniques. In conventional instruments, different Voices having those sounds would be called up via MIDI and played in combination to achieve the desired effect. In contrast, MegaVoices lets you play a convincing guitar part with just a single Voice, using specific velocity values to play the desired sounds. Because of the complex nature of these Voices and the precise velocities need to play the sounds, they're not intended for actual performance from the keyboard. They are, however, very useful and convenient when creating MIDI data—especially when you want to avoid using several different Voices just for a single instrument part. Actual sound maps for the Mega-Voices are provided in the "Mega Voices Map" in the Data List on the website.

NOTE MegaVoices are not compatible with other instrument models. For this reason, any Song or Style you've created on this instrument using these Voices will not sound properly when played back on the instruments which do not have these types of Voices

NOTE MegaVoices sound differently depending on keyboard range, velocity, touch, etc. Hence, if you turn on the [HARMONY/ ARPEGGIO] button or change the Voice Set parameters, unexpected or undesired sounds may result.

Selecting GM, XG and GM2 Voices

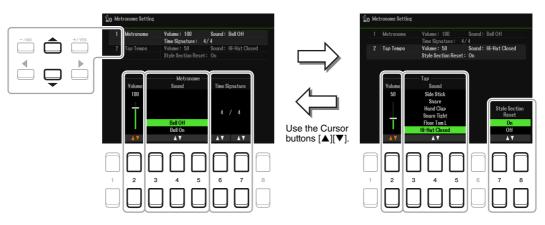
GM & XG voices, as well as GM2 voices, are also available on the instrument—playable by MIDI messages from sequencer software, etc. Songs that correspond to these formats can be properly reproduced by sequence software, and suitable voices will be selected automatically.

Changing Detailed Settings for Metronome or Tap Tempo

The detailed settings for METRONOME (such as volume, sound, or beat) or TAP TEMPO can be accessed in the display below.

- Call up the operation display.

 [MENU] → TAB [◄] Menu1 → Cursor buttons [▲][▼][◄][▶] Metronome Setting → [ENTER]
- 2 Use the Cursor buttons [▲][▼] to select the page to make the settings described below.





1 Metronome

[2 ▲▼]	Volume	Determines the volume of the metronome sound.
[3 ▲▼]- [5 ▲▼]	Sound	Determines whether a bell accent is sounded or not at the first beat of each measure.
[6 ▲▼]/ [7 ▲▼]	Time Signature	Determines the time signature of the metronome sound.

2 Tap

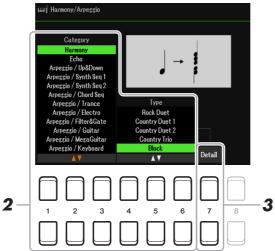
This allows you to set the percussion sound and the velocity which sounds when the [TAP TEMPO] button is tapped.

[2 ▲▼]	Volume	Determines the volume of the percussion sound.
[3 ▲▼]- [5 ▲▼]	Sound	Selects the percussion sound.
[7 ▲▼]/ [8 ▲▼]	Style Section Reset On Off	Turns on or off the Style Section Reset function. On: During playback of a Style, you can rewind to the top of the section ("reset" the playback position, for stutter repeat effects) by tapping the [RESET/TAP TEMPO] button. Off: Returns only to the function of the usual TAP TEMPO. (Owner's Manual, chapter 2)

Making Detailed Settings for Harmony/Arpeggio

This lets you make detailed settings, such as adjusting volume level of added Harmony/Arpeggio sound, or assigning the keyboard part, etc.

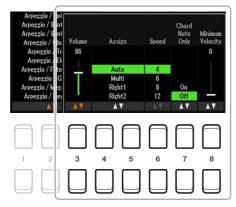
- Call up the operation display.
 [MENU] → TAB [◄] Menu1 → Cursor buttons [▲][▼][◄][▶] Harmony/Arpeggio → [ENTER]
- 2 Select the desired Harmony/Arpeggio CATEGORY by using [1 ▲ ▼]–[3 ▲ ▼] buttons, and then select the desired Type by using [4 ▲ ▼]–[6 ▲ ▼] buttons.



3 Use the [7 ▲▼] (Detail) buttons to call up the detailed setting window.



4 Use the [3 ▲ ▼]–[8 ▲ ▼] buttons to make various Harmony/Arpeggio settings.



When any one of the Arpeggio types is selected, only the parameters indicated by "*" in the list below can be set. None of the parameters in the list below are available when the Harmony category "Multi Assign" type is selected.

[3 ▲▼]	Volume*	Determines the volume level of the Harmony/Arpeggio notes generated by the Harmony/Arpeggio function.
		NOTE When you are using certain Voices, such as Organ Voices, in which the Touch Sense Depth is set to 0 in the Voice Set display (page 14), the volume does not change.
[4 ▲▼]/ [5 ▲▼]	Assign*	Determines the keyboard part to which the effect is assigned. Auto: Applies the effect to the part (RIGHT 1/2) for which PART ON/OFF is on. If the Harmony/Echo category is selected, the RIGHT 1 part is given priority over the RIGHT 2 part when both parts are on. Multi: This parameter is available when the Harmony/Echo category is selected. When both parts are on, the note played on the keyboard is sounded by the RIGHT 1 part and the harmonies (effect) are divided to the RIGHT 1 and RIGHT 2 parts. When only one part is on, the note played on the keyboard and effect are sounded by that part. Right1, Right2: Applies the effect to the selected part (RIGHT 1 or RIGHT 2).
[6 ▲▼]	Speed	This parameter is only available when the "Echo" category (Echo, Tremolo, or Trill) is selected. It determines the speed of the Echo, Tremolo, and Trill effects.
[7 ▲▼]	Chord Note Only	This parameter is only available when the "Harmony" category is selected. When this is set to "On," the Harmony effect is applied only to the note (played in the right-hand section of the keyboard) that belongs to a chord played in the chord section of the keyboard.
[8 ▲▼]	Minimum Velocity	Determines the lowest velocity value at which the harmony, echo, tremolo, or trill will sound in the right-hand area. This allows you to selectively apply the harmony by your playing strength, letting you create harmony accents in the melody. The harmony, echo, tremolo, or trill effect is applied when you play the key strongly (above the set value).

NOTE The settings for the Arpeggio Quantize function and the Arpeggio Hold function can be made on the display called up via [MENU] → TAB [◀] Menu1 → Cursor buttons [▲][▼][◀][▶] Voice Setting → [ENTER] → TAB [◀][▶] Setting/Arpeggio

Pitch-Related Settings

Fine-tuning the Pitch of the Entire Instrument

You can fine-tune the pitch of the entire instrument such as keyboard, Style and Song parts (except the keyboard part played by the Drum Kit or SFX Kit Voices, and audio playback)—a useful feature when playing the PSR-SX600 along with other instruments or audio files.



1 Call up the operation display.

[MENU] → TAB [\blacktriangleright] Menu2 → Cursor buttons [\blacktriangle][\blacktriangledown][\blacktriangleright] Master Tune/Scale Tune → [ENTER] → TAB [\blacktriangleleft] Master Tune

2 Use the $[4 \blacktriangle \blacktriangledown]/[5 \blacktriangle \blacktriangledown]$ buttons to set the tuning in 0.2 Hz steps.

Press both $[\blacktriangle]$ and $[\blacktriangledown]$ buttons (of 4 or 5) simultaneously to reset the value to the factory setting of 440.0 Hz.

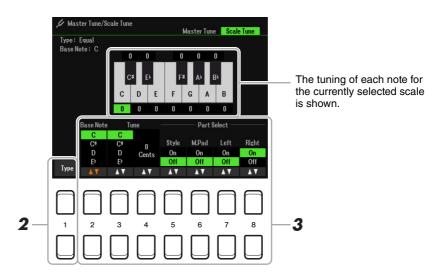
Scale Tuning

You can select various scales for playing in custom tunings for specific historical periods or music genres.

1 Call up the operation display.

[MENU] → TAB [\blacktriangleright] Menu2 → Cursor buttons [\blacktriangle][\blacktriangledown][\blacktriangleright] Master Tune/Scale Tune → [ENTER] → TAB [\blacktriangleright] Scale Tune

2 Use the [1 ▲▼] buttons to select the desired scale.



■ Preset Scale types

Equal	The pitch range of each octave is divided equally into twelve. This is the most commonly used tuning in music today.
Pure Major, Pure Minor	These tunings preserve the pure mathematical intervals of each scale, especially for triad chords (root, third, fifth). You can hear this best in actual vocal harmonies—such as choirs and a cappella singing.
Pythagorean	This scale was devised by the famous Greek philosopher and is created from a series of perfect fifths, which are collapsed into a single octave. The 3rd in this tuning are slightly unstable, but the 4th and 5th are beautiful and suitable for some leads.
Mean-Tone	This scale was created as an improvement on the Pythagorean scale, by making the major third interval more "in tune." It was especially popular from the 16th century to the 18th century. Handel, among others, used this scale.
Werckmeister, Kirnberger	This composite scale combines the Werckmeister and Kirnberger systems, which were themselves improvements on the mean-tone and Pythagorean scales. The main feature of these scales are that each key has its own unique character. These scales were used extensively during the time of Bach and Beethoven, and even now it is often used when performing period music on the harpsichord.
Arabic1, Arabic2	Use these tunings when playing Arabic music.



3 Change the following settings as necessary.

[2 ▲▼]	Base Note	Determines the base note for each scale. When the base note is changed, the pitch of the keyboard is transposed, yet maintains the original pitch relationship between the notes.
[3 ▲▼]/ [4 ▲▼]	Tune	Select the desired note to be tuned by using the $[3 \blacktriangle \blacktriangledown]$ buttons and tune it in cents by using the $[4 \blacktriangle \blacktriangledown]$ buttons.
		NOTE In musical terms a "cent" is 1/100th of a semitone. (100 cents equal one semitone.)
[5 ▲▼]- [8 ▲▼]	Part Select	Determines whether the Scale Tune setting is applied to each part or not.

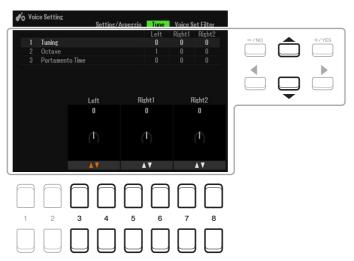
NOTE To register the Scale Tune settings to Registration Memory, be sure to checkmark the Scale Tune item in the Registration Memory display called up via the [MEMORY] button.

Adjusting the Pitch for the Parts

You can adjust the pitch-related parameters (such as Tuning, Octave, etc.) for each part.

1 Call up the operation display.

[MENU] → TAB [\blacktriangleleft] Menu1 → Cursor buttons [\blacktriangle][\blacktriangledown][\bullet] Voice Setting → [ENTER] → TAB [\blacktriangleright] Tune



2 Move the Cursor on the display by using the Cursor buttons [▲][▼][◄][▶], and use the [3 ▲▼]–[8 ▲▼] buttons to edit parameters.

Tuning	Determines the pitch of each keyboard part.
Octave	Determines the range of the pitch change in octaves, over two octaves up or down for each keyboard part. The value set here is added to the setting made via the UPPER OCTAVE [-]/[+] buttons.
Portamento Time	Portamento is a function that creates a smooth transition in pitch from the first note played on the keyboard to the next. The Portamento Time determines the pitch transition time. Higher values result in a longer pitch change time. Setting this to "0" results in no effect. This parameter is available when the selected keyboard part is set to MONO (page 18).

Changing the Part Assignment of the TRANSPOSE Buttons

You can determine to which parts the TRANSPOSE [-]/[+] buttons are applied.

Press the TRANSPOSE [+]/[-] buttons to call up the pop-up display.







2 While the pop-up display is shown, use the Cursor buttons [◀][▶] buttons to select the desired part assignment.

Keyboard	The TRANSPOSE [-]/[+] buttons affect the pitches of the items below—but they do not affect Song playback. • Keyboard played Voices • Style playback (controlled by the performance in the chord section of the keyboard) • Multi Pad playback (when Chord Match is on, and chords are indicated)
Song	The TRANSPOSE [-]/[+] buttons affect only the pitch of Song playback.
Master	The TRANSPOSE [-]/[+] buttons affect the overall pitch of the instrument, except audio playback.

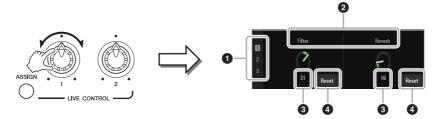
NOTE With the default initial settings, the part assignment is set to "Master."

NOTE You can change the time that elapses before the pop-up displays automatically close. For details, refer to page 109.

The assignment can be confirmed by the pop-up display called up via the TRANSPOSE [-]/[+] buttons.

Using the LIVE CONTROL Knobs

You can add dynamic variations to your performance intuitively in real-time by using the LIVE CONTROL [1] and [2] knobs, to which various functions have been assigned.



When you rotate the knobs, the current status of the knobs is shown in the LIVE CONTROL MONITOR.

0	Assign type	The selected Knob Assign Type will be highlighted.
0	Function name	Displays the currently assigned function name. When a function cannot be operated, it is grayed out in the display.
8	Value	Displays the assigned function's parameter value.
4	Reset	Resets the assigned function's parameter value to the default by pressing the $[4 \blacktriangle \blacktriangledown]/[8 \blacktriangle \blacktriangledown]$ buttons.

NOTE You can select whether the LIVE CONTROL MONITOR is shown or hidden. For details, refer to page 109.

Assigning the Functions to the LIVE CONTROL Knobs

The functions which can be assigned to the LIVE CONTROL knobs are as follows. For instructions on how to assign the functions, refer to Owner's Manual, chapter 1.

■ Assignable Knob Functions

_	
Volume	Adjusts the volume of the selected parts or channels. For details, refer to page 12.
Keyboard Volume	Adjusts the volume of all keyboard parts. This is convenient for adjusting the volume of all keyboard parts together for optimum balance with the others (MIDI Song, Style, Multi Pads, etc.).
Balance	Adjusts the volume balance between the specified parts and other parts. For details, refer to page 12.
MIDI/Audio Song Balance	Adjusts the volume balance between MIDI Song playback and Audio Song playback.
Pan	Determines the stereo position of the selected parts.
Reverb	Adjusts the Reverb depth.
Chorus	Adjusts the Chorus depth.
Reverb & Chorus	Adjusts both Reverb and Chorus depth of the selected parts.
Insertion Effect Depth	Adjusts the Insertion Effect depth of the selected parts.
EQ High Gain	Boosts or attenuates the high EQ band for the selected parts.
EQ Low Gain	Boosts or attenuates the low EQ band for the selected parts.
Cutoff	Adjusts the cutoff frequency of the filter for the selected parts.
Resonance	Adjusts the resonance of the filter for the selected parts.
Cutoff & Resonance	Adjusts the cutoff frequency and resonance of the filter for the selected parts.
Filter	Adjusts parameters such as filter cutoff frequency and resonance for the selected parts. Keep in mind that the parameters do not change uniformly, but are specially programmed to change individually for optimum sound, letting change the filter of the sound for the best musical results.
Attack	Adjusts the length of time until the selected parts reach their maximum level after the key is played.
Release	Adjusts the length of time until the selected parts decay to silence after the key is released.
Attack & Release	Adjusts both the Attack and Release time of the selected parts.
Modulation	Applies vibrato and other effects to notes played on the keyboard.
Tuning	Determines the pitch of the selected keyboard parts.
Octave	Determines the range of the pitch change in octave for the selected keyboard parts.
Pitch Bend Range	Determines the range of the pitch change in octave for the selected keyboard parts.
Portamento Time	Determines the pitch transition time.
	NOTE Portamento is a function that creates a smooth transition in pitch from the first note played on the keyboard to the next.
Kbd Harmony/Arpeggio Volume	Adjusts the volume of the Keyboard Harmony or Arpeggio function.
Arpeggio Velocity	Adjusts the velocity of each note of Arpeggio.
Arpeggio Gate Time	Adjusts the length of each note of Arpeggio.
Arpeggio Unit Multiply	Adjusts the Arpeggio speed.
-	•



Style Retrigger Rate	Adjusts the Style Retrigger length.
Style Retrigger On/Off	Turns the Style Retrigger function on/off. When set to on, a specific length of the first part of the current Style is repeated when the chord is played.
Style Retrigger On/Off & Rate	Turns the Style Retrigger function on/off and adjusts its length. Rotating the knob to the left-most turns the function off; rotating it to the right turns the function on and decreases the length.
Style Track Mute A	Turns playback of the Style channels on/off. Rotating the knob to the left-most position turns on only the Rhythm 2 channel, and the other channels are turned off. By rotating the knob clockwise from that position, channels are turned on in the order of Rhythm 1, Bass, Chord 1, Chord 2, Pad, Phrase 1, Phrase 2, and all channels are turned on when the knob reaches to the right-most position.
Style Track Mute B	Turns playback of the Style channels on/off. Rotating the knob to the left-most position turns on only the Chord 1 channel, and the other channels are turned off. By rotating the knob clockwise from that position, channels are turned on in the order of Chord 2, Pad, Bass, Phrase 1, Phrase 2, Rhythm 1, Rhythm 2, and all channels are turned on when the knob reaches to the right-most position.
Master Tempo	Changes the tempo of the currently selected Style or Song. Rotating the knob to the left makes it slower, while rotating it to the right makes it faster. Setting range is from 50% of the default tempo value to 150%.
No Assign	No function is assigned.

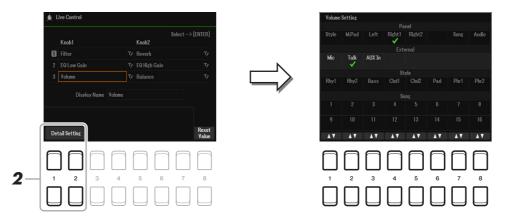
Detailed Settings for Assigned Functions

When a function (such as Volume or Balance) which enables individual detailed settings is selected, Detail Setting appears at the bottom left corner of the display. Pressing the $[1 \blacktriangle \blacktriangledown]/[2 \blacktriangle \blacktriangledown]$ buttons lets you adjust these settings.



■ Detail Setting—Volume function

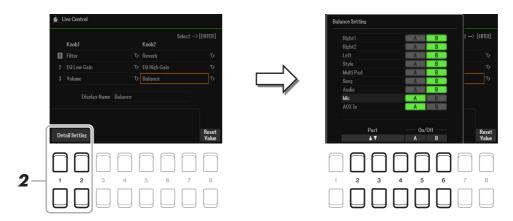
Assigning the Volume function lets you adjust the volume of the selected parts or channels with the LIVE CONTROL knobs. In this example Detail Setting, you can select two or more parts as the target simultaneously for controlling the corresponding volume levels. You can also select one part as the target; for example, by selecting only the Audio part as the target to control the volume, the knobs can be used as a volume controller only for the USB AUDIO PLAYER.



- Assign the Volume function to either of the LIVE CONTROL knobs. For specific instructions, refer to Owner's Manual, chapter 1.
- Press the [1 ▲▼]/[2 ▲▼] (Detail Setting) buttons to call up the operation display.
- 3 Use the Cursor buttons [▲][▼] to select the desired part as the target to control, and then press the [1 ▲▼]–[8 ▲▼] buttons to enter a check mark.
- 4 Press the [EXIT] button to close the operation display.

■ Detail Setting—Balance function

Assigning the BALANCE function lets you adjust the volume balance between the specified parts and other parts. In this example Detail Setting, each part can be sent either to the A group or B group. By sending the sound via external input (a microphone, AUX IN) to the A group and the other parts to the B group, you can conveniently adjust the relative sound volume balance with the LIVE CONTROL knobs.



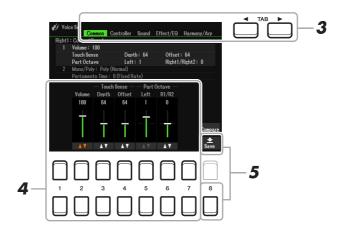
- Assign the Balance function to either of the LIVE CONTROL knobs.
 - For specific instructions, refer to Owner's Manual, chapter 1.
- Press the [1 ▲▼]/[2 ▲▼] (Detail Setting) buttons to call up the operation display.
- 3 Select the desired part by using the [2 ▲▼]–[4 ▲▼] buttons, and then use the [5 ▲▼]/[6 ▲▼] buttons in order to send the part's sound to the A group or B group.
- **4** Press the [EXIT] button to close the operation display.

Editing Voices (Voice Set)

The Voice Set function allows you to create your own Voices by editing some parameters of the existing Voices. Once you've created a Voice, you can save it as a file to internal memory (User drive) or a USB flash drive for future recall.

- Select the Voice to be edited.
- 2 In the Voice selection display, press the [5 ▼] (Voice Set) button to call up the Voice Set display.
- **3** Use the TAB [◀][▶] buttons to call up the relevant setting page.

For information on the available parameters in each page, see the "Editable Parameters in the Voice Set Displays" on page 14.



4 As necessary, use the Cursor buttons [▲][▼] to select the item (parameter) to be edited and edit the Voice by using the [1 ▲▼]–[7 ▲▼] buttons.

While editing, press the $[8 \blacktriangle]$ (Compare) button to compare the sound of the edited Voice with the original (unedited) Voice.

5 Press the [8 ▼] (Save) button to save your edited Voice.

For details on the Save operation, refer to "Basic Operations" in the Owner's Manual.

NOTICE

The settings will be lost if you select another Voice or turn off the power to the instrument without carrying out the Save operation.

Editable Parameters in the Voice Set Displays

The Voice Set parameters are organized into five different pages. The parameters in each page are described separately, below.

NOTE The available parameters differ depending on the Voice.

■ Common Page

1 Volume/Touch Sense/Part Octave

[2 ▲▼]	Volume	Adjusts the volume of the current edited Voice.
[3 ▲▼]/ [4 ▲▼]	Touch Sense	Adjusts the touch sensitivity (velocity sensitivity), or how greatly the volume responds to your playing strength.
		Touch Sense Depth Changes to velocity curve according to VelDepth (with Offset set to 64) Actual Velocity for tone generator Depth = 127 (twice) Depth = 64 (normal) Depth = 32 (half) Depth = 0 Depth = 32 (half) Depends on offset Depends of fiset Changes to velocity curve according to VelOffset (with Depth set to 64) Actual Velocity for tone generator Offset = 96 (+64) Offset = 64 (normal) Offset = 32 (-64) Depends of 4 127 Received Velocity (Actual KeyOn speed) Offset = 0 (-127)
		Depth: Determines the velocity sensitivity, or how much the level of the Voice changes in response to your playing strength (velocity). Offset: Determines the amount by which received velocities are adjusted for the actual velocity effect.
[5 ▲▼]/ [6 ▲▼]	Part Octave	Shifts the octave range of the edited Voice up or down in octaves. When the edited Voice is used as any of the RIGHT 1–2 parts, the R1/R2 parameter is available; when the edited Voice is used as the LEFT part, the LEFT parameter is available.

2 Mono/Poly Portamento Time

[1 ▲▼]/ [2 ▲▼]	Mono/Poly	Determines whether the edited Voice is played monophonically (Mono) or polyphonically (Poly). When selecting "Mono," you can play single, lead sounds such as brass instruments more realistically. Depending on the Voice, Portamento may be produced when notes are played with legato.
		NOTE Portamento is a function that creates a smooth transition in pitch from the first note played on the keyboard to the next.
[3 ▲▼]/ [4 ▲▼]	Mono Type	Determines the behavior of the notes of decaying sounds, such as a guitar Voice, when they are played with legato with the edited Voice set to "Mono" above.
		Normal: The next note sounds after the previous note is stopped. Legato: The sound of the previously played note is maintained and only the pitch changes to that of the next note. Crossfade: The sound smoothly transitions from the previously played note to the next note.
		NOTE This parameter is unavailable for Super Articulation Voices and Drum/SFX Kit Voices, and behaves the same as the "Normal" setting when these Voices are selected. NOTE When Legato or Crossfade is selected, the behavior (other than what is described here) may be different from Normal, depending on the panel settings.



[5 ▲▼]	Portamento Time	Determines the pitch transition time when the edited Voice is set to Mono above. NOTE Portamento is a function that creates a smooth transition in pitch from the first note played on the keyboard to the next. NOTE Setting this to "0" results in no effect.
[6 ▲▼]/ [7 ▲▼]	Portamento Type	Determines how the actual pitch transition time is calculated from the Portamento Time value. Fixed Rate: Determines the pitch change rate from a range of 0: max., 127: min. The actual pitch transition time varies according to the interval between the two notes. Fixed Time: Determines the pitch change rate from a range of 0: min., 127: max. The pitch change rate varies according to the interval between the two notes. NOTE The basic rule of Portamento Time is unchanged even if this setting is changed. When the value of Portamento Time is smaller, the actual time is shorter; when the value is larger, the actual time is longer. NOTE The greater the value of Portamento Time, the clearer the effect of this setting will be.

■ Controller Page

Modulation

The [MODULATION] wheel can be used to modulate the parameters below as well as the pitch (vibrato), the filter (wah), or the amplitude (tremolo). Here, you can set the degree to which the [MODULATION] wheel modulates each of the following parameters.

[2 ▲▼]	Filter	Determines the degree to which the [MODULATION] wheel modulates the Filter Cutoff Frequency. For details about the filter, see below.
[3 ▲▼]	Amplitude	Determines the degree to which the [MODULATION] wheel modulates the amplitude (volume).
[5 ▲▼]	LFO PMOD	Determines the degree to which the [MODULATION] wheel modulates the pitch, or the vibrato effect.
[6 ▲▼]	LFO FMOD	Determines the degree to which the [MODULATION] wheel modulates the Filter modulation, or the wah effect.
[7 ▲▼]	LFO AMOD	Determines the degree to which the [MODULATION] wheel modulates the amplitude, or the tremolo effect.

NOTE LFO (Low Frequency Oscillator) is a device which periodically varies (oscillates) a signal by using a low frequency wave. For example, a vibrato effect can be produced by applying LFO to the pitch, a wah effect can be produced by applying it to the filter, and a tremolo effect can be produced by applying it to the volume of a Voice.



■ Sound Page

1 Filter/EG

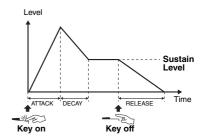
• Filter

Filter is a processor that changes the timbre or tone of a sound by either blocking or passing a specific frequency range. The parameters below determine the overall timbre of the sound by boosting or cutting a certain frequency range. In addition to making the sound either brighter or mellower, Filter can be used to produce electronic, synthesizer-like effects.

[2 ▲▼]	Cutoff	Determines the cutoff frequency or effective frequency range of the filter (see diagram). Higher values result in a brighter sound.	These frequencies are "passed" by the filter. Cutoff range
[3 ▲▼]	Resonance	Determines the emphasis given to the cutoff frequency (resonance), set in BRIGHT. above (see diagram). Higher values result in a more pronounced effect.	Volume Resonance Frequency (pitch)

• EG

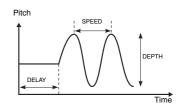
The EG (Envelope Generator) settings determine how the level of the sound changes in time. This lets you reproduce many sound characteristics of natural acoustic instruments—such as the quick attack and decay of percussion sounds, or the long release of a sustained piano tone.



[4 ▲▼]	Attack	Determines how quickly the sound reaches its maximum level after the key is played. The lower the value, the quicker the attack.
[5 ▲▼]	Decay	Determines how quickly the sound reaches its sustain level (a slightly lower level than maximum). The lower the value, the quicker the decay.
[6 ▲▼]	Release	Determines how quickly the sound decays to silence after the key is released. The lower the value, the quicker the decay.

2 Vibrato

Vibrato is a quavering, vibrating sound effect that is produced by regularly modulating the pitch of the Voice.



[3 ▲▼]	Depth	Determines the intensity of the Vibrato effect. Higher settings result in a more pronounced Vibrato.
[4 ▲▼]	Speed	Determines the speed of the Vibrato effect.
[5 ▲▼]	Delay	Determines the amount of time that elapses between the playing of a key and the start of the Vibrato effect. Higher settings increase the delay of the Vibrato onset.



■ Effect Page

1 Reverb Depth/Chorus Depth/DSP Depth/Panel Sustain

[1 ▲▼]/ [2 ▲▼]	Reverb Depth	Adjusts the reverb depth.
[3 ▲▼]/ [4 ▲▼]	Chorus Depth	Adjusts the chorus depth.
[5 ▲▼]	DSP On/Off	Determines whether the DSP effect is on or off. This setting can also be made from the VOICE EFFECT [DSP] button on the panel.
[6 ▲▼]	DSP Depth	Adjusts the DSP depth. If you want to re-select the DSP type, you can do so in the "2 DSP Type" menu explained below.
[7 ▲▼]	Panel Sustain	Determines the sustain level applied to the edited Voice when the sustain effect is on. To turn on/off the sustain effect, press the [SUSTAIN] button, or set it from the display below.
		[MENU] → TAB [\blacktriangleleft] Menu1 → Cursor buttons [\blacktriangle][\blacktriangledown][\bullet] Voice Setting → [ENTER] → TAB [\blacktriangleleft] Voice Control

2 DSP Type

[2 ▲▼]/ [3 ▲▼]	Category	Selects the DSP effect category and type. Select a type after selecting a category.
[4 ▲▼]/ [5 ▲▼]	Туре	
[6 ▲▼]/	Detail	Calls up a detailed setting display. Use the $[2 \blacktriangle \blacktriangledown]$ – $[4 \blacktriangle \blacktriangledown]$ buttons to select the desired parameter, and then use the $[5 \blacktriangle \blacktriangledown]$ – $[6 \blacktriangle \blacktriangledown]$ buttons to adjust the value of the desired parameter. To close the detailed setting display, press the [EXIT] button.

3 EQ

[1 ▲▼]/ [2 ▲▼]	Low Frequency	Determines the desired frequency of the low frequency band to be controlled, over a range of 32Hz–2.0kHz.
[3 ▲▼]	Low Gain	Boosts or attenuates the low EQ band set above over a range of -12dB-12dB.
[4 ▲▼]/ [5 ▲▼]	High Frequency	Determines the desired frequency of the high frequency band to be controlled, over a range of 500Hz–16kHz.
[6 ▲▼]	High Gain	Boosts or attenuates the high EQ band set above over a range of -12dB-12dB.

■ Harmony/Arp Page

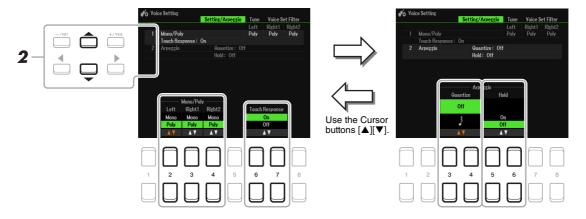
Same as the display called up via [MENU] \rightarrow TAB [\blacktriangleleft] Menu1 \rightarrow Cursor buttons [\blacktriangle][\blacktriangledown][\blacktriangleright] Harmony/Arpeggio \rightarrow [ENTER], with the exception of the following points:

- The parameters set via the $[7 \blacktriangle \nabla]$ (Detail) buttons are shown on the top of the display.
- The $[8 \blacktriangle]$ (Compare) and $[8 \blacktriangledown]$ (Save) buttons are available (see steps 4–5 on page 13).

Changing Detailed Voice Settings (Touch Response, Mono/Poly, Arpeggio)

The common settings for a Voice can be accessed in the display below.

- I Call up the operation display.
 - [MENU] → TAB [\blacktriangleleft] Menu1 → Cursor buttons [\blacktriangle][\blacktriangledown][\blacktriangleright] Voice Setting → [ENTER] → TAB [\blacktriangleleft] Setting/Arpeggio
- **2** Use the Cursor buttons [▲][▼] to select the desired parameter.
- **3** Use the [2 ▲▼]–[7 ▲▼] buttons to edit each parameter.



1 Mono/Poly Touch Response

[2 AV]/ [3 AV]/ [4 AV]	Mono/Poly	Determines whether the Voice of the keyboard part selected above is played monophonically or polyphonically. When Mono is selected, the part's Voice is played monophonically (only one note at the time) with last note priority, letting you play single, lead sounds such as brass instruments more realistically. Depending on the Voice, Portamento may be produced when notes are played with legato. When Poly is selected, the part's Voice is played polyphonically. **NOTE** Portamento is a function that creates a smooth transition in pitch from the first note played on the keyboard to the next.
[6 ▲▼]/ [7 ▲▼]	Touch Response	Turns the Touch Response of the keyboard on or off. When this is set to "Off," the same volume is produced no matter how strongly or softly you play the keyboard. On the display called up via the following operations, you can change the Touch setting (touch sensitivity). For details, refer to the Owner's Manual. [MENU] → TAB [◄] Menu1 → Cursor buttons [▲][▼][◄][▶] Controller → [ENTER] → TAB [▶] Setting

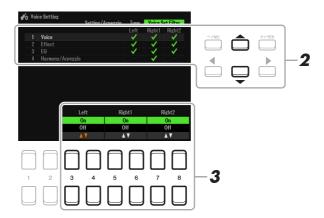
2 Arpeggio

[3 ▲▼]/ [4 ▲▼]	Arpeggio Quantize	Synchronize Arpeggio playback with Song/Style playback—allowing any slight imperfections in the timing to be corrected. When not making it synchronize, select "Off."
[5 ▲▼]/ [6 ▲▼]	Arpeggio Hold	Turns the Arpeggio Hold function on or off. When this is set to "On," while this is set to "On," while the [HARMONY/ARPEGGIO] button is on, Arpeggio playback can be continued even after the note has been released. To stop Arpeggio playback, press the [HARMONY/ARPEGGIO] button to turn it off.

Disabling Automatic Selection of Voice Sets (Effects, etc.)

Each Voice is linked to its default Voice Set parameter settings (page 13). Usually these settings are automatically called up when a Voice is selected. However, you can also disable this feature by the operation in the relevant display as explained below. For example, if you want to change the Voice yet keep the same effect, set the EFFECT parameter to OFF (in the display explained below).

- I Call up the operation display.
 - [MENU] → TAB [\blacktriangleleft] Menu1 → Cursor buttons [\blacktriangle][\blacktriangledown][\blacktriangleright] Voice Setting → [ENTER] → TAB [\blacktriangleright] Voice Set Filter
- 2 Use the Cursor buttons [▲][▼] to select the desired item.



Voice	Corresponds to the parameter settings of the Common, Controller, and Sound pages.
Effect	Corresponds to the parameter settings of 1 and 2 in the Effect page.
EQ	Corresponds to the parameter settings of 3 in the Effect page.
Harmony/Arpeggio	Corresponds to the Harmony/Arp page.

3 Use the [3 ▲▼]–[8 ▲▼] buttons to turn each item for the selected Part on or off.

When the button is set to On, the corresponding parameter settings are called up automatically together with the Voice selection. For information on which parameters are linked to each item, see above.

Adding New Contents—Expansion Packs

Installing Expansion Packs lets you add a variety of optional Voices and Styles to the "Expansion" folder in the User drive.

Installing the Expansion Pack data from the USB Flash Drive

The file which contains the bundled Expansion Packs ("***.ppi," "***.ppi," "***.pqi," or "***.cqi") to be installed to the instrument is referred to as "Pack Installation file." Only one Pack Installation file can be installed to the instrument. If you want to install multiple Expansion Packs, bundle the packs together on your computer by using the "Yamaha Expansion Manager" software. For information on how to use the software, refer to the accompanying manual.

NOTE To obtain the Yamaha Expansion Manager software and its manuals, access the Yamaha Downloads website: https://download.yamaha.com/

NOTICE

You will need to restart the instrument after installation has been completed. Make sure to save all data currently being edited beforehand, otherwise it will be lost.

- Connect the USB flash drive in which the desired Pack Installation file is saved to the [USB TO DEVICE] terminal.
- **2** Call up the operation display.

[MENU] → TAB [\blacktriangleright] Menu2 → Cursor buttons [\blacktriangle][\blacktriangledown][\blacktriangleright] Expansion → [ENTER] → Cursor buttons [\blacktriangle][\blacktriangledown] Pack Installation → [ENTER]

- **3** Use the Cursor buttons [▲][▼][◀][▶] to select the desired Pack Installation file.
- **4** Press the [6 ▼] (INSTALL) button.
- **5** Follow the on-display instructions.

This installs the selected Pack data to the "Expansion" folder in the User drive.

NOTE When a message appears saying the User drive has no space available, move the file from User tab to USB tab, then install the file again. For instructions on moving files, refer to "Basic Operations" in the Owner's Manual.

Song, Style or Registration Memory containing Expansion Voices or Styles

If the Expansion Pack data does not exist in the instrument, Song, Style or Registration Memory containing any Expansion Voices or Styles will not sound properly or cannot be called up.

We recommend that you write down the name of the Expansion Pack when you create the data (Song, Style or Registration Memory) using Expansion Voices or Styles, so that you can easily find and install the Expansion Pack when necessary.

Uninstalling the Expansion Pack data

You can uninstall the Expansion Pack data by carrying out the Reset operation for Files & Folders (see page 113).

NOTICE

When you reset Files & Folders, not only the Expansion Pack data, but all other files and folders in the User drive are deleted.

Saving the Instrument Info File to the USB Flash Drive

If you use the "Yamaha Expansion Manager" software to manage the Pack data, you need to register the Instrument Info file from the instrument as described below. For information on how to use the software, refer to the accompanying manual.

Connect the USB flash drive to the [USB TO DEVICE] terminal.

NOTE Before using a USB flash drive, be sure to read "Connecting USB Devices" in the Owner's Manual, chapter 9.

2 Call up the operation display.

[MENU] → TAB [\blacktriangleright] Menu2 → Cursor buttons [\blacktriangle][\blacktriangledown][\blacktriangleright] → Expansion → [ENTER] → Cursor buttons [\blacktriangle][\blacktriangledown] Export Instrument Info → [ENTER]



3 Follow the on-display instructions.

The Instrument Info file will be saved to the root directory in the USB flash drive. The saved file is named "PSR-SX600_InstrumentInfo.n27."

Styles

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Style Types (Characteristics)

The particular type of Style is indicated at the upper left of the Style name in the main display or the Style Selection display. The defining characteristics of these Styles and their performance advantages are described below.



- Session: These Styles provide even greater realism and authentic backing by mixing in original chord types and changes, as well as special riffs with chord changes, with the Main sections. These have been programmed to add "spice" and a professional touch to your performances of certain songs and in certain genres. Keep in mind, however, that the Styles may not necessarily be appropriate—or even harmonically correct—for all songs and for all chord playing. In some cases for example, playing a simple major triad for a country song may result in a "jazzy" seventh chord, or playing an on-bass chord may result in inappropriate or unexpected accompaniment.
- **DJ:** These Styles can be selected from the category called up via the [DANCE & R&B] button. These contain their own special chord progressions, so you can add chord changes to your performance simply by changing the root key. Keep in mind, however, that you cannot specify the chord type, such as major and minor, when using the DJ Styles.
- Unison: These Styles are compatible with the Unison & Accent function. Unison & Accent gives you expressive and nuanced control over Style playback, making it closely follow your performance. Moreover, the composition of Style playback changes subtly according to the accents of your performance, letting you create various musical variations in the accompaniment.

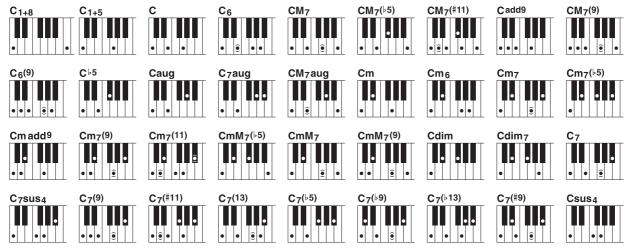
For the Preset Style List, refer to the Data List on the website.

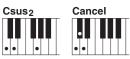
Chord Fingering Types

The Chord Fingering type determines how chords are specified for Style playback. The type can be changed from: $[MENU] \to TAB$ $[\blacktriangleleft]$ Menu1 \to Cursor buttons $[\blacktriangle][\blacktriangledown][\blacktriangleleft][\blacktriangleright]$ Split Point/Chord Fingering \to $[ENTER] \to TAB$ $[\blacktriangleright]$ Chord Fingering.

Fingering Types	Characteristics
Single Finger	Makes it simple to produce orchestrated accompaniment using major, seventh, minor and minor-seventh chords by pressing only one, two or three keys on the Chord section of the keyboard.
	For a major chord, press the root key only. For a major chord, simultaneously press the root key and a white key to its left.
	For a minor chord, simultaneously press the root key and a black key to its left. Cm7 For a minor-seventh chord, simultaneously press the root key and both a white and black key to its left.
Multi Finger	Automatically detects both Single Finger and Fingered chord fingerings, so you can use either type of fingering without having to switch fingering types.
Fingered	Lets you specify the chord by pressing the notes making up a chord in the left hand section of the keyboard when [ACMP] is turned on or the Left part is turned on. For information on which notes to press for each chord, refer to page 24, or use the Chord Tutor function (page 27.)
Fingered On Bass	Accepts the same fingerings as Fingered, but the lowest note played in the Chord section of the keyboard is used as the bass note, allowing you to play "on bass" chords. (In the Fingered type, the root of the chord is always used as the bass note.)
Full Keyboard	Detects chords in the entire key range. Chords are detected in a way similar to Fingered, even if you split the notes between your left and right hands—for example, playing a bass note with your left hand and a chord with your right, or by playing a chord with your left hand and a melody note with your right.
AI Fingered	Basically the same as Fingered, with the exception that less than three notes can be played to indicate the chords (based on the previously played chord, etc.).
AI Full Keyboard	This type is similar to Full Keyboard, with the exception that less than three notes can be played to indicate the chords (based on the previously played chord, etc.). 9th, 11th and 13th chords cannot be played.
Smart Chord	Lets you control Styles by playing the root notes with just a finger, as long as you know the key of the music you're playing—even if you don't know any chord fingerings, such as major, minor, diminished and so on.

NOTE "Al" stands for "Artificial Intelligence."





Chord Name [Abbreviation]	Normal Voicing*	Display for root "C"
1+8	1+8	C1+8
1+5	1+5	C1+5
Major [M]	1+3+5	С
Sixth [6]	1+(3)+5+6	C6
Major seventh [M7]	1+3+(5)+7	CM7
Major seventh flatted fifth [M7♭5]	1+3+5+7	CM7(♭5)
Major seventh add sharp eleventh [M7(#11)]	1+(2)+3+#4+5+7	CM7(#11)
Add ninth [add9]	1+2+3+5	Cadd9
Major seventh ninth [M7_9]	1+2+3+(5)+7	CM7(9)
Sixth ninth [6_9]	1+2+3+(5)+6	C6(9)
Flatted fifth [(\b5)]	1+3+♭5	C♭5
Augmented [aug]	1+3+#5	Caug
Seventh augmented [7aug]	1+3+#5+♭7	C7aug
Major seventh augmented [M7aug]	1+(3)+#5+7	CM7aug
Minor [m]	1+43+5	Cm
Minor sixth [m6]	1+1-3+5+6	Cm6
Minor seventh [m7]	1+1-3+(5)+1-7	Cm7
Minor seventh flatted fifth [m7\b5]	1+63+65+67	Cm7(5)
Minor add ninth [m(9)]	1+2+>3+5	Cm add9
Minor seventh ninth [m7(9)]	1+2+\(3+(5)+\(7	Cm7(9)
Minor seventh eleventh [m7(11)]	1+(2)+\3+4+5+(\7)	Cm7(11)
Minor major seventh flatted fifth [mM7♭5]	1+♭3+♭5+7	CmM7(♭5)
Minor major seventh [mM7]	1+1-3+(5)+7	CmM7
Minor major seventh ninth [mM7(9)]	1+2+1-3+(5)+7	CmM7(9)
Diminished [dim]	1+♭3+♭5	Cdim
Diminished seventh [dim7]	1+43+5+6	Cdim7
Seventh [7]	1+3+(5)+♭7	C7
Seventh suspended fourth [7sus4]	1+4+5+♭7	C7sus4
Seventh ninth [7(9)]	1+2+3+(5)+47	C7(9)
Seventh add sharp eleventh [7(#11)]	1+(2)+3+#4+5+67	C7(#11)
Seventh add thirteenth [7(13)]	1+3+(5)+6+♭7	C7(13)
Seventh flatted fifth [7\b5]	1+3+65+67	C7(♭5)
Seventh flatted ninth [7(\(\beta 9 \))]	1+1/2+3+(5)+1/7	C7(♭9)
Seventh add flatted thirteenth [7(\bar{13})]	1+3+5+6+67	C7(b13)
Seventh sharp ninth [7(#9)]	1+#2+3+(5)+1-7	C7(#9)
Suspended fourth [sus4]	1+4+5	Csus4
One plus two plus five [sus2]	1+2+5	Csus2
cancel	1+52+2	Cancel

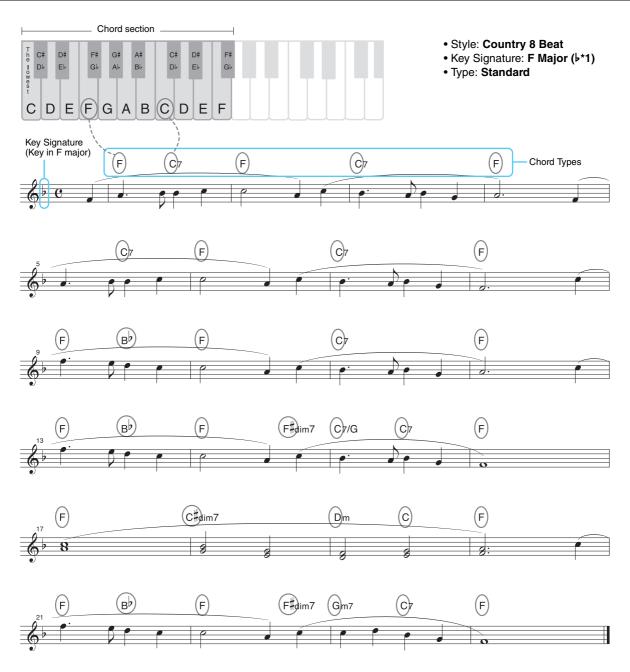
^{*} Notes in parentheses can be omitted.

Playing Styles with the Smart Chord Feature

If you want to fully enjoy playing in various Styles but don't know how to play the appropriate chords, set the Chord Fingering type to Smart Chord. This lets you control Styles with just a single finger, as long as you know the key of the music you're playing—even if you don't know any chord fingering such as major, minor, diminished and so on. Appropriate chords suited for the music genre will sound whenever you press a single note, as if you were playing the "right" chords.

Try out the Smart Chord feature with the following sample score. Simply play the root notes of the chords indicated in this score with your left hand as you play the melody with your right hand, and listen to how the chords with their notes and voicings match the music genre you've set.

Home Sweet Home



Try also selecting the EasyListening Style (via the [LATIN & JAZZ] button) and play using the same score above. The Smart Chord genre changes to Jazz, letting you experience a different feel with the same Song.



Select the desired Style and make sure that the STYLE CONTROL [ACMP] button is on (the lamp is lit).

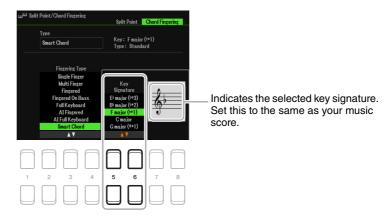
For the example score above, press the [COUNTRY & BALLROOM] button, and then select Country 8Beat.

2 Call up the operation display.

[MENU] → TAB [\blacktriangleleft] Menu1 → Cursor buttons [\blacktriangle][\blacktriangledown][\bullet] Split Point/Chord Fingering → [ENTER] → TAB [\bullet] Chord Fingering

- **3** Use the [2 ▲▼]–[4 ▲▼] (Fingering Type) buttons to select Smart Chord.
- **4** Use the [5 ▲ ▼]/[6 ▲ ▼] Key Signature buttons to select the key signature.

Make sure to select the key signature which is same as that on your music score, or your desired key for playing. For the example score, select F Major ($\flat*1$). After selecting, press the [EXIT] button to close the window.



5 Use the $[7 \blacktriangle \blacktriangledown]/[8 \blacktriangle \blacktriangledown]$ (Type) buttons to select the music genre.

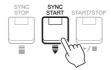
The Smart Chord type selected here determines the specific chord assignment for each scale note in the Chord section. Although selecting a Style in step 1 will automatically set the optimum type, you can select a different type here for more appropriate results, if necessary. For the example score, select Standard.

NOTE Each music type assumes only typical or conventional chord progression for the Style.

NOTE The root of a chord shown at the bottom left of the display during Song recording may be different when the recorded Song is played back.

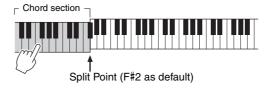
NOTE The actual chord assignments are provided in the Smart Chord Chart on page 27.

6 Press the STYLE CONTROL [SYNC START] button to enable synchronized start.



According to the music score or the chord progression of your performance, play only the root key with the left hand.

Pressing a key will start playback of the Style.



Smart Chord Chart

This chart shows the specific Smart Chords of the various types for the key of C and its relative minor, A minor.

This is just an example for the key of C; chords for the other 11 keys will change accordingly. See examples for F major (Pop) and E minor (Jazz) below.

Smart Chord setting			Root Note										
		С	C#	D	D#	E	F	F#	G	G#	Α	A#	В
Туре	Key Signature	Û	Û	Û	Û	Û	Û	Û	Û	Û	Û	Û	Û
Standard	C major	С	C#dim	Dm	E♭	Em	F	F#dim	G7	G#dim	Am	В♭	G/B
Standard	A minor	С	C#dim	Dm	D#dim7	E7	F	F#dim	G7	E7/G#	Am	В♭	Bm7 ^{♭5}
Don	C major	Cadd9	C#dim7	Dm7	E♭dim7	Em7	FM7	F#dim	G7	G#dim	Am7	В♭	G/B
Рор	A minor	С	C#dim7	Dm7	D#dim7	E7	FM7	F#dim	G7	E7/G#	Am7	В♭	G/B
Jazz	C major	См7 ⁹	C#dim7	Dm7 ⁹	E♭dim7	Em7	F6 ⁹	F#dim7	G7 ⁹	G#dim	Am7 ¹¹	В♭7	Bm7 ^{♭5}
Jazz	A minor	См7 ⁹	C#dim7	Dm7 ⁹	D#dim7	E7	FM7 ⁹	F#m7 ^{♭5}	G7 ⁹	G#7	Am ^{add9}	В♭7	Bm7 ^{♭5}
Donos	C major	С	C#dim	Dm	E♭	Em	F	F#dim	G	G#dim	Am	В♭	G/B
Dance	A minor	Cm	C#m	Dm	D#m	Em	Fm	F#m	Gm	G#	Am	В♭	Bm
Cimple	C major	С	C#dim	Dm	E♭	E1+5	F1+5	F#dim	G7	G#dim	Am	В♭	G/B
Simple	A minor	С	C#dim	Dm	D#dim7	E1+5	F	F#dim	G7	E7/G#	Am	В♭	Bm7 ^{♭5}

Example chords for key of F major, Pop Type setting.

Pop	F major	C7	C#dim	Dm7	E♭	C/E	Fadd9	F#dim7	Gm7	A♭dim7	Am7	В♭м7	Bdim

Example chords for key of E minor, Jazz Type setting.

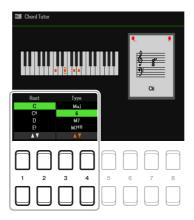
	A#dim7 B7
--	-----------

Learning How To Play Specific Chords (Chord Tutor)

If you know the name of a chord but don't know how to play it, the Chord Tutor function conveniently shows you which notes to play.

1 Call up the operation display.

 $[MENU] \rightarrow TAB \ [\blacktriangleright] Menu2 \rightarrow Cursor buttons \ [\blacktriangle] \ [\blacktriangledown] \ [\blacktriangle] \ [\blacktriangleright] Chord Tutor \rightarrow [ENTER]$



2 Use the [1 ▲▼] /[2 ▲▼] buttons to select the chord root, and use the [3 ▲▼] /[4 ▲▼] buttons to select the chord type.

The notes you need to play are shown in the display.

 ${\it NOTE}$ Depending on the chord, some notes may be omitted.

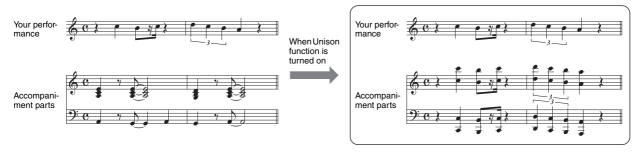
Having Style Playback Follow Your Performance (Unison & Accent)

The Unison & Accent function lets you create various musical variations in the accompaniment, making Style playback closely follow your performance.

Using the Unison Function

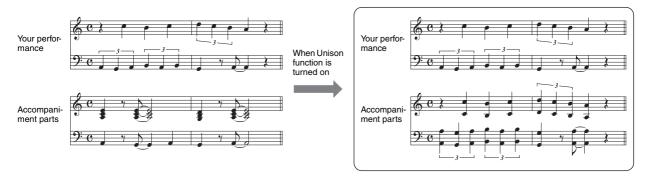
With the Unison function turned on, you can play a melody and have it reproduced in unison (i.e., the same melody is performed by two or more instruments) or tutti (i.e., all players perform at the same time)— expressively enhancing your performance and letting you create dynamic phrases. You can select from three Unison Types: All Parts (suitable for one-hand performance) and Split or Auto Split (suitable for both-hands performance).

■ Example with "All Parts" selected:



All the accompaniment parts follow your performance. This is recommended when playing unison phrases with only one hand.

■ Example with "Split" or "Auto Split" selected:

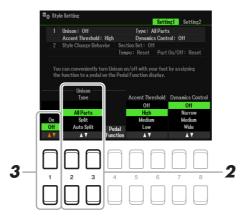


The accompaniment parts that follow your performance are automatically assigned to each hand by automatically detecting the appropriate left-hand and right-hand sections from your performance.

NOTE The above examples are for illustration purposes only. Not all unisons will be in octaves.

Call up the operation display.

[MENU] → TAB [\blacktriangleleft] Menu1 → Cursor buttons [\blacktriangle][\blacktriangledown][\blacktriangleright] Style Setting → [ENTER] → TAB [\blacktriangleleft] Setting1 → Cursor button [\blacktriangle] 1 Unison





2 Use the $[2 \blacktriangle \blacktriangledown]/[3 \blacktriangle \blacktriangledown]$ (Unison Type) buttons to select the Unison Type.

- All Parts: Suitable for a one-hand performance.
- **Split:** Suitable for a both-hands performance. In this type, with the keyboard divided by the Split Point (Left), the accompaniment parts suitable for each hand follow your performance independently. For example, low-pitched sound musical instruments (such as bass guitar, baritone saxophone, and contrabass) follow the left hand, and solo musical instruments (such as flute) follow the right. It is useful for playing with different Voices between left-hand and right-hand.
- Auto Split: Suitable for a both-hands performance. In this type, the accompaniment parts that follow your performance are automatically assigned to each hand by automatically detecting the appropriate left-hand and right-hand sections from your performance. This is recommended when playing tutti with Voices having a wide range, such as piano or strings. It enables enormous flexibility in your performance, freeing you from the limitations of a specific Split Point.
- 3 Press the [1 ▲▼] button to turn the Unison function on.
 - **NOTE** You can use a connected pedal to conveniently turn the Unison function on/off as you perform. To assign the function to a pedal, press the [4 **T**] (Pedal Function) buttons to call up the display for pedal settings, and then select "Unison."
 - **NOTE** You can also assign other functions to the pedal—Punch in/out of Song (page 61) and Registration Sequence (page 78). If you assign multiple functions to the pedal, the priority is: Punch in/out of Song \rightarrow Registration Sequence \rightarrow Functions assigned here.
- 4 Select a Style indicated with "Unison" above the Style name from the Style selection display (Owner's Manual, Chapter 2).

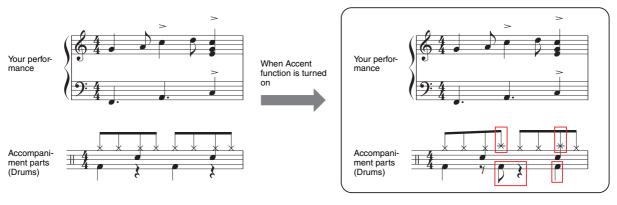
For a list of Styles with which this function can be used, refer to the Data List on the website.

5 Try playing the Style with the Auto Accompaniment (Owner's Manual, Chapter 2).

Using the Accent Function

With the Accent function turned on, the composition of Style playback changes subtly, adding notes according to the accents of your performance. This allows you to temporary change the Style playback to include rhythmic syncopation.

■ Example using the Accent function:



The composition of Style playback changes subtly, adding notes (such as crash cymbal, bass drum, etc.) according to the accents of your performance.



1 Call up the operation display.

[MENU] → TAB [\blacktriangleleft] Menu1 → Cursor buttons [\blacktriangle][\blacktriangledown][\blacktriangleright] Style Setting → [ENTER] → TAB[\blacktriangleleft] Setting1 → Cursor button [\blacktriangle] 1 Unison



- 2 Select one of the settings High, Medium or Low by using the [5 ▲▼]/[6 ▲▼] (Accent Threshold) buttons to enable the Accent function.
 - Off: Turns the Accent function off.
 - High: Requires strong playing in order to let this instrument recognize accents.
 - Medium: Standard setting.
 - Low: Allows this instrument to recognize accents even with relatively light playing strength.
- **3** Select a Style indicated with "Unison" above the Style name from the Style Selection display (Owner's Manual, Chapter 2).

For a list of Styles with which this function can be used, refer to the Data List on the website.

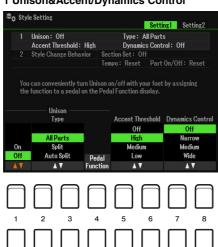
4 Try playing the Style with the Auto Accompaniment (Owner's Manual, Chapter 2).

Style Playback Related Settings

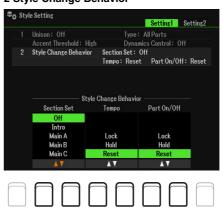
The instrument has a variety of settings for Style playback which can be accessed in the display below.

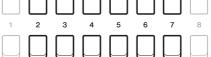
- 1 Call up the operation display.
 - $[MENU] \to TAB \ [\blacktriangleleft] \ Menu1 \to Cursor \ buttons \ [\blacktriangle] [\blacktriangledown] [\blacktriangledown] [\blacktriangleright] \ Style \ Setting \to [ENTER]$
- 2 Use the TAB [◄][▶] buttons and the Cursor buttons [▲][▼] to switch between the pages, and then use the corresponding [1 ▲▼]–[8 ▲▼] buttons for each setting.
 - Setting1 page

1 Unison&Accent/Dynamics Control



2 Style Change Behavior





1 Unison&Accent/Dynamics Control

[1▲▼]	Unison On/Off	Refer to Owner's Manual, chapter 2.
[2 ▲▼]/ [3 ▲▼]	Unison Type	
[4 ▲▼]	Pedal Function	
[5 ▲▼]/ [6 ▲▼]	Accent Threshold	
[7 ▲▼]/ [8 ▲▼]	Dynamics Control	Determines how the Style playback volume changes depending on the playing strength.
		Off: The volume is kept the same regardless of playing strength. Narrow: The volume changes over a narrow range. Medium: The volume changes over a medium range. Wide: The volume changes over a wide range.

2 Style Change Behavior

contained in the selected Style, MAIN C will be called up.	[2 ▲▼]/ [3 ▲▼]	Section Set	Determines the default section that is automatically called up when selecting different Styles (when Style playback is stopped). When set to "Off" and Style playback is stopped, the active section is maintained even if the different Style is selected. When any of the MAIN A–D sections is not included in the Style data, the nearest section is automatically selected. For example, when MAIN D is not contained in the selected Style, MAIN C will be called up.
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[4 ▲▼]/ [5 ▲▼]	Тетро	Determines whether the tempo setting of the Style changes or not when you change Styles.
		 Lock: The previous tempo setting is always maintained. When selecting "Lock," the key icon is indicated at the upper left of the Style name in the main display. Hold: During Style playback, the previous tempo setting is maintained. When Style playback is stopped, the tempo changes to that of the initial default tempo for the selected Style. Reset: The tempo always changes to that of the initial default tempo for the selected Style.
[6 ▲▼]/ [7 ▲▼]	Part On/Off	Determines whether the Style Channel On/Off status changes or not when you change Styles.
		Lock: The Channel On/Off status of the previous Style is always maintained. Hold: During Style playback, the Channel On/Off status of the previous Style is maintained. When Style playback is stopped, all Style Channels are set to On. Reset: All Style Channels are set to On.

■ Setting2 page

1 OTS Link Timing/Multi Pad Synchro Stop



2 Synchro Stop Timing/Stop Acmp



1 OTS Link Timing/Multi Pad Synchro Stop

[1 ▲▼]/ [2 ▲▼]	OTS Link Timing	Determines the timing in which the One Touch Settings change with the MAIN VARIATION [A]–[D] change. (The [OTS LINK] button must be on.) Real Time: One Touch Setting is immediately called up when you press one of the MAIN VARIATION [A]–[D] buttons. Next Bar: One Touch Setting is called up at the next measure, after you press one of the MAIN VARIATION [A]–[D] buttons.
[5 ▲▼]/ [6 ▲▼]	Style Stop On/Off	Determines whether repeat playback of a Multi Pad stops or not when Style playback is stopped.
[7 ▲▼]/ [8 ▲▼]	Style Ending On/ Off	Determines whether repeat playback of a Multi Pad stops or not when the Ending section of a Style is played back.



2 Synchro Stop Timing/Stop Acmp

	1 0 1	1
[3 ▲▼]/ [4 ▲▼]	Synchro Stop Timing	This determines how long you can hold a chord before the Synchro Stop function is automatically cancelled. When the [SYNC STOP] button is turned on and this is set to a value other than "Off," this automatically cancels the Synchro Stop function if you hold a chord for longer than the time set here. This conveniently resets Style playback control to normal, letting you release the keys and still have the Style play. In other words, if you release the keys sooner than the time set here, the Synchro Stop function works.
[5 ▲▼]/ [6 ▲▼]	Stop Acmp	When [ACMP] is turned on and [SYNC START] is off, you can play chords in the chord section of the keyboard with the Style stopped, and still hear the accompaniment chord. In this condition—called "Stop Accompaniment"—any valid chord fingerings are recognized and the chord root/type are shown in the display. Here, you can determine whether the chord played in the chord section will sound or not in the Stop Accompaniment status.
		Off: The chord played in the chord section will not sound. Style: The chord played in the chord section will sound via the Voices for the Pad channel and the Bass channel of the selected Style. Fixed: The chord played in the chord section will sound via the specified Voice, regardless of the selected Style.
		 When the selected Style contains MegaVoices, unexpected sounds may result when this is set to "Style." NOTE When you record a Song, the chord detected by playing the Stop Accompaniment can be recorded regardless of the setting here. Please note that both the sounding Voice and chord data is recorded when set to "Style," and only the chord data is recorded when set to "Off" or "Fixed."

Memorizing Original Settings to One Touch Setting

You can memorize your original panel settings to a One Touch Setting. The newly created One Touch Setting will be saved in the User drive or a USB flash drive as a Style, and you can call up the One Touch Setting as a part of the Style.

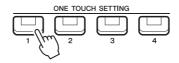
- Select the desired Style to memorize your One Touch Setting.
- 2 Make the desired panel settings, such as those for Voices and effects.
- **3** Press the [MEMORY] button in the REGISTRATION MEMORY section.

The Registration Memory display appears. However you do not need to make any settings here, since the On/Off settings in this display do not affect the One Touch Setting function.



4 Press one of the ONE TOUCH SETTING [1]–[4] buttons to which you wish to memorize your panel settings.

A message appears. If you are sure you want to memorize the current settings to the selected button, press the $[7 \blacktriangle \blacktriangledown]$ (Yes) button. If you want to change the settings, press the $[6 \blacktriangle \blacktriangledown]$ (No) button, then repeat steps 2–4 as necessary.



NOTE For ONE TOUCH SETTING buttons to which your original panel settings have not been memorized, the OTS settings of the original Style will be maintained.

Fress the [7 ▲▼] (Yes) button to call up the Style Selection display and save the One Touch Setting as a Style.

For instructions on the Save operation, refer to "Basic Operations" in the Owner's Manual.

NOTICE

The memorized panel settings (One Touch Settings) will be lost if you change the Style or turn the power off without carrying out the Save operation.

Creating/Editing Styles (Style Creator)

A Style is made up of the different Sections (Intro, Main, Ending, etc.) and each Section has separate parts (rhythm pattern, bass line, chord backing, multi pad, or phrase). Each of those parts of performance data (channel data) is referred to as a "Source Pattern." With the Style Creator function, you can create an original Style by separately recording the Source Pattern, or by copying the Source Pattern data from other existing Styles.

Basic Procedure for Creating a Style

- 1 Select the desired Style to be used as the basis for the new Style.
- **2** Call up the Style Creator display.

 $[MENU] \rightarrow TAB \ [\ \ \ \ \ \]$ Menu2 \rightarrow Cursor buttons $[\ \ \ \ \ \ \ \ \ \]$ Style Creator \rightarrow [ENTER]

A message appears asking if you want to edit the selected style or create a new one.

Press one of the [5 ▲▼]/[6 ▲▼] (Current Style) buttons to edit the selected Style, or press one of the [7 ▲▼]/[8 ▲▼] (New Style) buttons to create a new Style.

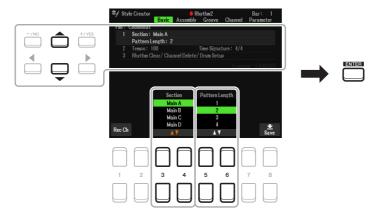
When one of the $[7 \blacktriangle \blacktriangledown]/[8 \blacktriangle \blacktriangledown]$ buttons is pressed, a blank Style (named "NewStyle") for recording is automatically created.

4 In the Basic page, select a Section.

(If the Rec Channel display is shown in the lower half section of the display, press the [EXIT] button.) Use the cursor buttons $[\blacktriangle][\blacktriangledown]$ to select "1 Section," then use the $[3 \blacktriangle \blacktriangledown]/[4 \blacktriangle \blacktriangledown]$ buttons to select a Section. Carry out the following operations as necessary.

- For the current Section, select the pattern length via the [5 ▲▼]/[6 ▲▼] buttons. After selecting, press the [ENTER] button to actually enter the specified length.
- For the entire current Style, use the Cursor buttons $[\blacktriangle][\blacktriangledown]$ to select "2 Tempo," and then set the Tempo via the $[3 \blacktriangle \blacktriangledown]/[4 \blacktriangle \blacktriangledown]$ buttons, and the Time Signature (BEAT) via the $[5 \blacktriangle \blacktriangledown]/[6 \blacktriangle \blacktriangledown]$ buttons.

NOTE Changing the Time Signature (BEAT) clears the data from all sections, and you will need to create the Style from scratch.



- **5** Create the Source Pattern (channel data) for each part.
 - Realtime Recording on the Basic page (page 36)
 Lets you record the Style by simply playing the keyboard.
 - Style Assembly on the Assembly page (page 40)
 Lets you copy various patterns from other preset Styles or Styles you have already created.



- **6** Edit the already recorded Source Pattern (channel data).
 - Editing the channel data on the Groove (page 41), and Channel (page 43) pages Lets you change the rhythmic feel, quantizing and velocity, etc.
 - Editing the SFF parameters on the Parameter page (page 44)
 Lets you edit the SFF (Style File Format) related parameters of the already recorded channels.
 - Editing the rhythm part on the Basic page by using the Drum Setup function (page 48)
 Lets you edit the rhythm part of the Style, such as changing the sounds of the individual instruments.
- 7 Repeat steps 4–6 as desired.
- 8 Press the [8 ▲▼] (Save) button on any of the pages to save the created Style.

For instructions, refer to "Basic Operations" in the Owner's Manual.

NOTICE

The created Style will be lost if you change to another Style or turn off the power to the instrument without carrying out the Save operation.

Realtime Recording

In the Basic page, you can record your original rhythm pattern from the keyboard.

Realtime Recording Characteristics in the Style Creator

• Loop Recording

Style playback repeats the rhythm patterns of several measures in a "loop," and Style recording is also done using loops. For example, if you start recording with a two-measure MAIN section, the two measures are repeatedly recorded. Notes that you record will play back from the next repetition (loop), letting you record while hearing previously recorded material.

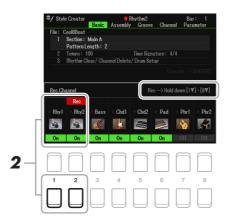
• Overdub Recording

This method records new material to channel data that already contains recorded data, without deleting the original data. In Style recording, the recorded data is not deleted, except when using functions such as Rhythm Clear (page 37) and Delete (pages 37, 39). When creating a Style based on an existing internal Style, overdub recording is applied only to the Source Pattern of Rhythm 1 and Rhythm 2. For all other Source Patterns, you need to delete the original data before recording.

■ Recording Rhythm Channels 1–2

The procedure below applies to step 5 in the Basic Procedure on page 35.

In the Basic page, press the [1 ▲▼] (Rec Ch) button to call up the Rec Channel display in the lower half section of the display.



2 Hold down the [1 ▼] or [2 ▼] button to select the desired channel as the recording target.

A Rhythm channel can be selected as the recording target no matter whether already recorded data is included or not. If already recorded data is included in the selected channel, you can record notes additionally to the existing data.



3 If necessary, select a Voice then practice the rhythm pattern to be recorded.

Press the $[1 \blacktriangle]$ or $[2 \blacktriangle]$ button (selected channel) to call up the Voice Selection display then select the desired Voice—in this case, a Drum Kit, since we'll be creating a rhythm. After selecting, press the [EXIT] button to return to the original Style Creator display. With the selected Voice, practice the rhythm pattern to be recorded.

· Available Voices for recording

For the Rhy1 channel, all Voices can be used for recording. For the Rhy2 channel, only Drum/SFX Kits can be used for recording.

NOTE For information on which key to play for each Drum/SFX sound, refer to the "Drum/SFX Kit List" in the Data List on the website.

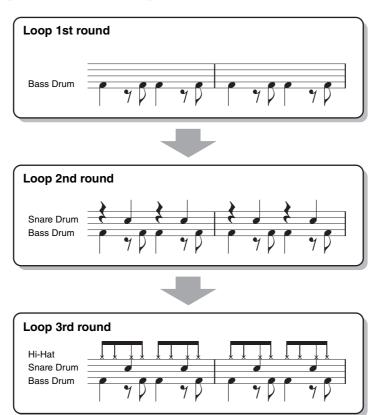
4 Press the STYLE CONTROL [START/STOP] button to start recording.

As the already recorded data plays back, use the $[1 \ \nabla]$ - $[8 \ \nabla]$ buttons to turn each channel on or off as desired.

If necessary, you can delete channel data. Use the Cursor buttons $[\blacktriangle][\blacktriangledown]$ to select "3 Rhythm Clear/Ch Delete/Drum Setup," then press one of the $[4 \blacktriangle \blacktriangledown]/[5 \blacktriangle \blacktriangledown]$ (Channel Delete) buttons to call up the operation display. On the Channel Delete display, press the $[1 \blacktriangle]-[8 \blacktriangle]$ buttons corresponding to the desired channel to delete, then press the [ENTER] button to actually delete the channel data. To close the Channel Delete display, press the [EXIT] button.

5 As soon as loop playback returns to the first beat in the first measure, start playing the rhythm pattern to be recorded.

If the rhythm is difficult to play in real time, break it up into individual parts and play each separately as the playback loops, as shown in the example below.



Deleting mistakenly recorded notes (Rhythm Clear)

If you make a mistake or play any wrong notes, you can delete those specific notes. Use the Cursor buttons $[\blacktriangle][\blacktriangledown]$ to select "3 Rhythm Clear/Ch Delete/Drum Setup." While holding down one of the $[2 \blacktriangle \blacktriangledown]$ / $[3 \blacktriangle \blacktriangledown]$ (Rhythm Clear) buttons, press the corresponding key on the keyboard.

6 Press the [START/STOP] button to stop playback.

If you want to add more notes, press the [START/STOP] button again to continue recording.



7 Press the appropriate [1 ▼] or [2 ▼] button on the Rec Channel display to disable recording.

If the Rec Channel display is not shown, press the $[1 \blacktriangle \blacktriangledown]$ (Rec Ch) button.

Save the recorded Style (see step 8 on page 36).

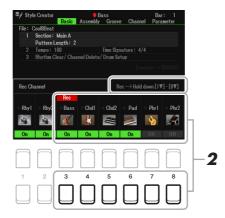
NOTICE

The created Style will be lost if you change to another Style or turn off the power to the instrument without carrying out the Save operation.

■ Recording to the Bass, Chord 1–2, Pad and Phrase 1–2 Channels

The procedure below applies to step 5 in the Basic Procedure on page 35.

I From the Basic page, press [1 ▲▼] (Rec Ch) button to display the Rec Channel display in the lower half section of the display.



2 Hold down one of the [3 ▼]–[8 ▼] buttons to select the desired channel as the recording target.

If a preset Style is selected, a confirmation message appears, prompting you whether or not to delete the already recorded data of the selected channel. Press the [+/YES] button to delete data and the selected channel is specified as the recording target. Note that channel data other than the Rhythm channels of the preset Style cannot be overdubbed.

3 If necessary, select a Voice, and then practice the bass line, chord backing, or phrase to be recorded.

Press one of the $[3 \blacktriangle]$ – $[8 \blacktriangle]$ buttons (selected channel) to call up the Voice Selection display then select the desired Voice. After selecting, press the [EXIT] button to return to the original display. With the selected Voice, practice the phrase or chord backing to be recorded.

- Available Voices for recording
 Any except for the Drum Kit/SFX kit Voices can be used for recording.
- $\bullet \ \ Record\ a\ phrase\ in\ CM7\ (for\ playing\ appropriate\ notes\ while\ chords\ change\ during\ performance)$

Rules when recording a Main or Fill

Before recording the Source Pattern, determine which key you play (Source Root) and which chord type you use (Source Chord). With the default initial settings, the Source Root/Chord (page 45) is set to CM7 (Source Root = C and Source Chord = M7). This means that you should record a Source Pattern using a CM7 scale, which will change according to the chords you specify during normal performance. Record a bass line, phrase or chord backing which you want to hear when CM7 is specified. See below for details.

- Use only the CM7 scale tones when recording the Bass and Phrase channels (i.e., C, D, E, G, A, and B)
- Use only the chord tones when recording the Chord and Pad channels (i.e., C, E, G, and B).





C = Chord note

R = Recommended note

* When recording the Source Pattern, you should use the "C" and "R" notes and avoid the others.

If you observe this rule, Style playback notes are appropriately converted depending on the chord changes you make during your performance.

Rules when recording an Intro or Ending

These Sections are designed assuming that the chord is not changed during playback. This is why you need not observe the rule for Main and Fill-in Sections described above, and you can create special chord progressions when recording. However, follow the rules below since the Source Root/Chord is set to CM7.

- When recording the Intro, make sure that the recorded phrase leads properly into a C scale.
- When recording the Ending, make sure that the recorded phrase begins with or properly follows a C scale.

• Set the Source Root/Chord if necessary

Although the Source Root/Chord is set to CM7 as described above, you can change this to any desired key or chord. Use the TAB [◀][▶] buttons to call up the Parameter page, and set the Source Root (or Play Root) and Chord to the favorite or desired Root and Chord type. Keep in mind that when you change the Source Chord from the default CM7 to another chord, the chord notes and recommended notes will also change. For details, refer to page 45.

4 Press the STYLE CONTROL [START/STOP] button to start recording.

Since already recorded data plays back, use the $[1 \ \nabla]$ - $[8 \ \nabla]$ buttons to turn on or off each channel as desired.

If necessary, you can delete channel data. Use the Cursor buttons $[\blacktriangle][\blacktriangledown]$ to select "3 Rhythm Clear/Ch Delete/Drum Setup," then press one of the $[4 \blacktriangle \blacktriangledown]/[5 \blacktriangle \blacktriangledown]$ (Channel Delete) buttons to call up the operation display. On the Channel Delete display, press the $[1 \blacktriangle]-[8 \blacktriangle]$ buttons corresponding to the desired channel to be deleted, then press the [ENTER] button to actually delete the channel data. To close the Channel Delete display, press the [EXIT] button.

5 As soon as loop playback returns to the first beat in the first measure, start playing the bass line, chord backing or phrase to be recorded.

If you want to start recording from the beginning (with no blank space), use the [SYNC START] button. For details, refer to Owner's Manual, chapter 2.

6 Press the STYLE CONTROL [START/STOP] button to stop playback.

If you want to add more notes, press the STYLE CONTROL [START/STOP] button again to continue recording.

- To hear the playback sound of the already recorded channels with another Source Root/Chord:
 - 1) Use the TAB [◀][▶] buttons to call up the Parameter page.
 - 2) Press the [1 ▲▼] (Rec Ch) button to call up the Rec Channel display, then use the [1 ▼]–[8 ▼] buttons to turn the desired channel On/Off.
 - 3) Press the [EXIT] button to close the Rec Channel display.
 - 4) Press the STYLE CONTROL [START/STOP] button to start playback.
 - 5) On the Parameter page, set the Play Root and Chord to the desired Chord root and Chord type.

The above operation lets you hear how the Source Pattern is played back via chord changes during normal performance.

- **7** Press the [1 ▲▼]/[2 ▲▼] buttons again to stop recording.
- 8 Save the recorded Style (see step 8 on page 36).

NOTICE

The created Style will be lost if you change to another Style or turn off the power to the instrument without carrying out the Save operation.

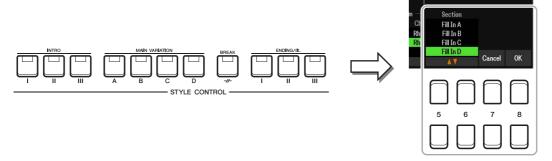
Style Assembly (Assembly)

This allows you to copy channel data as a Source Pattern from another preset Style to the currently created Style. Use this function if you find a favorite rhythm pattern, bass line, chord backing or phrase from another Style.

The instructions below apply to step 5 of the Basic Procedure on page 35. After selecting a Section and make other settings on the Basic page, carry out the instructions below.

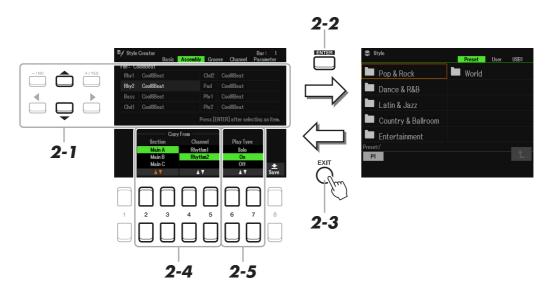
If necessary, select the Section to be edited in the Assembly page.

Even if the Section to be edited has already been selected on the Basic page, you can change the Section also on this page. Press the desired Section button on the panel to call up the Section window, then press the $[8 \blacktriangle \blacktriangledown]$ (OK) button to actually enter the selection. If you want to select a fill-in section (which has no panel button), press any one of the Section buttons and use the $[5 \blacktriangle \blacktriangledown]/[6 \blacktriangle \blacktriangledown]$ buttons to select a fill-in, then press the $[8 \blacktriangle \blacktriangledown]$ (OK) button.



NOTE Intro 4 and Ending 4 can be selected on the display then created as your original Style although they are not available on the panel.

2 Replace the Source Pattern of the specific channel with that of another Style.



- **2-1** Select the desired channel to be replaced via the Cursor buttons [▲][▼].
- 2-2 Press the [ENTER] button to call up the Style Selection display.
- 2-3 Select the desired Style, then press the [EXIT] button to return to the original display.
- **2-4** Select the Section and Channel of the selected Style via the [2 ▲▼]–[5 ▲▼] buttons.
- **2-5** Confirm the sound with the newly assigned Source Pattern by pressing the STYLE CONTROL [START/STOP] button to playback the Style.



Playing the Style During Style Assembly

You can play back the Style while you are assembling a Style, and the playback method can be selected. In the Assembly page, use the $[6 \blacktriangle \blacktriangledown]/[7 \blacktriangle \blacktriangledown]$ (Play Type) buttons to select the type.

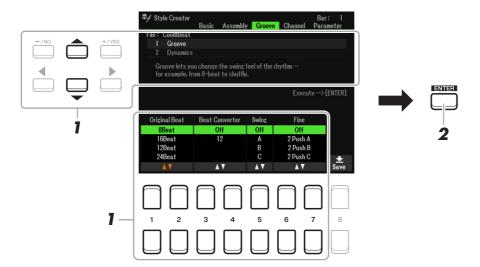
- Solo: Plays back the selected channel in the Assembly page. Any channels set to Rec in the Record display on the Basic page are played back simultaneously.
- On: Plays back the selected channel in the Assembly page. Any channels set to other than Off in the Record display on the Basic page are played back simultaneously.
- Off: Mutes the selected channel in the Assembly page.
- **3** As desired, repeat step 2 for another channel.
- 4 Save the edited Style (see step 8 on page 36).

NOTICE

The created Style will be lost if you change to another Style or turn off the power to the instrument without carrying out the Save operation.

Editing the Rhythmic Feel (Groove)

By changing the timing and velocity of the notes, you can edit the rhythmic feel for each channel of the current Section selected on the Basic page or the panel button. The instructions below apply to step 6 of the Basic Procedure on page 36.



In the Groove page, use the Cursor buttons [▲][▼] to select the edit menu, then edit the data by using the [1 ▲▼]–[7 ▲▼] buttons.

1 Groove

This lets you add swing to the music or change the "feel" of the beat by making subtle shifts in the timing (clock) of the Style. The Groove settings are applied to all channels of the Section selected on the Basic page.

[1 ▲▼]/ [2 ▲▼]	Original Beat	Specifies the beats to which Groove timing is to be applied. In other words, if "8 Beat" is selected, Groove timing is applied to 8th notes; if "12 Beat" is selected, Groove timing is applied to 8th-note triplets.	
[3 ▲▼]/ [4 ▲▼]	Beat Converter	Actually changes the timing of the beats (specified in the Original Beat parameter above) to the selected value. For example, when Original Beat is set to "8 Beat" and Beat Converter is set to "12," all 8th notes in the section are shifted to 8th-note triplet timing. The "16A" and "16B" Beat Converter which appear when Original Beat is set to "12 Beat" are variations on a basic 16th-note setting.	



[5 ▲▼]	Swing	Produces a "swing" feel by shifting the timing of the back beats, depending on the Original Beat parameter above. For example, if the specified Original Beat value is "8 Beat", the Swing parameter will selectively delay the 2nd, 4th, 6th, and 8th beats of each measure to create a swing feel. The settings "A" through "E" produce different degrees of swing, with "A" being the most subtle and "E" being the most pronounced.
[6 ▲▼]/ [7 ▲▼]	Fine	Selects a variety of Groove "templates" to be applied to the selected section. The "Push" settings cause certain beats to be played early, while "Heavy" settings delay the timing of certain beats. The numbered settings (2, 3, 4, 5) determine which beats are to be affected. All beats up to the specified beat—but not including the first beat—will be played early or delayed (for example, the 2nd and 3rd beats, if "3" is selected). In all cases, "A" types produce minimum effect, "B" types produce medium effect, and "C" types produce maximum effect.

2 Dynamics

This changes the velocity/volume (or accent) of certain notes in the Style playback. The Dynamics settings are applied to each channel or all channels of the Section selected on the Basic page.

[2 ▲▼]	Channel	Selects the desired channel (part) to which Dynamics is to be applied. The selected channel is shown at the upper left of the display.	
[3 ▲▼]/ [4 ▲▼]	Accent Type	Determines the type of accent applied—in other words, which notes in the part(s) are emphasized with the Dynamics settings. Various typical patterns from a variety of genres and world music types are available.	
[5 ▲▼]	Strength	Determines how strongly the selected Accent Type (above) will be applied. The higher the value, the stronger the effect.	
[6 ▲▼]	Expand/Comp.	Expands or compresses the range of velocity values. Values higher than 100% expand the dynamic range, while values lower than 100% compress it.	
[7 ▲▼]	Boost/Cut	Boosts or cuts all velocity values in the selected section/channel. Values above 100% boost the overall velocity, while values below 100% reduce it.	

2 Press the [ENTER] button to actually enter the edits for each display.

The values which are shown in the Strength, Expand/Comp. and Boost/Cut parameters are expressed as a percentage of the last set value.

After the operation is completed, "Undo → [ENTER]" is displayed. If you are not satisfied with the Groove or Dynamics results, press the [ENTER] button to restore the original data. The Undo function only has one level; only the previous operation can be undone.

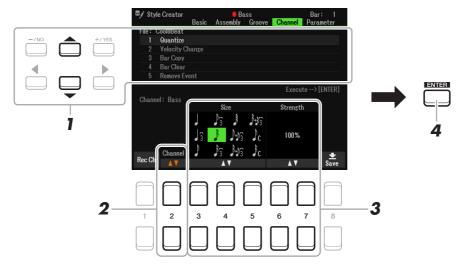
3 Save the edited Style (see step 8 on page 36).

NOTICE

The edited Style will be lost if you change to another Style or turn off the power to the instrument without carrying out the Save operation.

Editing Data for Each Channel (Channel)

You can edit each channel of the recorded data of the current Section selected on the Basic page or via the panel buttons. The instructions below apply to step 6 of the Basic Procedure on page 36.



In the Channel page, use the Cursor buttons [▲][▼] to select the edit menu.

1 Quantize

Same as in the Song Creator (page 64), with the exception of the two additional available parameters below.

 $ho_{
m c}$ Eighth notes with swing

 $ho_{f c}$ Sixteenth notes with swing

2 Velocity Change

Boosts or cuts the velocity of all notes in the specified channel, according to the percentage specified here.

3 Bar Copy

This function allows data to be copied from one measure or group of measures to another location within the specified channel.

[4 ▲▼]	Тор	Specifies the first (TOP) and last (LAST) measures in the region to be copied.
[5 ▲▼]	Last	
[6 ▲▼]	Dest.	Specifies the first measure of the destination location, to which the data is to be copied.

4 Bar Clear

This function clears all data from the specified range of measures within the selected channel.

5 Remove Event

This function lets you remove specific events from the selected channel.

2 Use the [2 ▲▼] (Channel) buttons to select the channel to be edited.

The selected channel is shown at the upper left of the display.

- **3** Use the [3 ▲▼]–[7 ▲▼] buttons to edit the data.
- 4 Press the [ENTER] button to actually enter the edits for each display.

After the operation is completed, "Undo \rightarrow [ENTER]" is displayed. You can restore the original data if you are not satisfied with the results of the edit by pressing the [ENTER] button. The Undo function only has one level; only the previous operation can be undone.

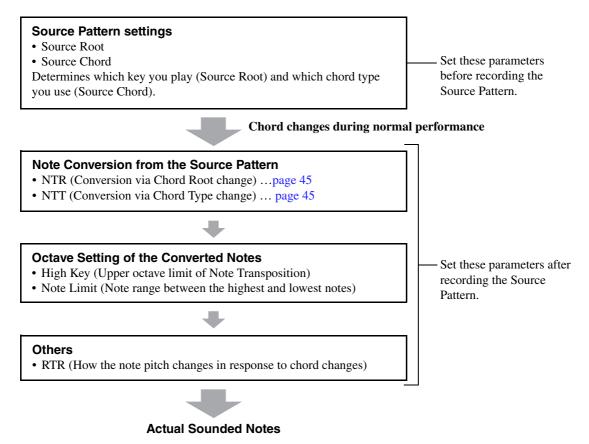
5 Save the edited Style (step 8 on page 36).

NOTICE

The edited Style will be lost if you change to another Style or turn off the power to the instrument without carrying out the Save operation.

Making Style File Format Settings (Parameter)

The Style File Format (SFF) combines all of Yamaha's auto accompaniment (Style playback) know-how into a single unified format. Setting the SFF related parameters determines how the original notes are converted to the actual sounded notes based on the chord you specify in the Chord area of the keyboard. The conversion flow is shown below.

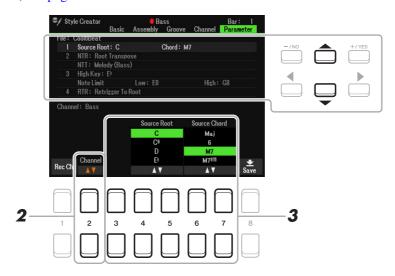


The instructions below apply to step 6 of the Basic Procedure on page 36.

NOTE The parameters you can set here are compatible with the SFF GE format. This is why the Style files created on this instrument can be played back only on instruments which are compatible with SFF GE.

In the Parameter page, use the Cursor buttons [▲][▼] to select the edit menu.

For details of the edit menu, see page 45.





2 Press the [2 ▲▼] (Channel) button to select the channel to be edited.

The selected channel is shown at the upper left of the display.

3 Use the $[3 \blacktriangle \blacktriangledown]$ – $[7 \blacktriangle \blacktriangledown]$ buttons to edit the data.

For details on editable parameters, see pages 45–47.

4 Save the edited Style (see step 8 on page 36).

NOTICE

The edited Style will be lost if you change to another Style or turn off the power to the instrument without carrying out the Save operation.

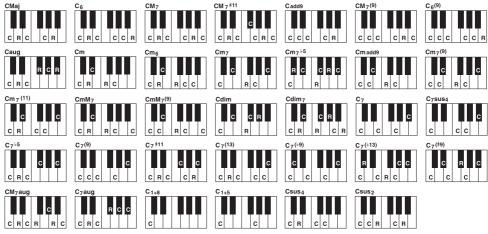
1 Source Root/Chord (Play Root/Chord)

IMPORTANT

The parameters here should be set before recording. If you change the settings after recording, the appropriate note conversion cannot be done even when you specify various chord types.

Before recording, you should set these parameters which determine what key is used for playing when you record the Source Pattern to the Bass, Chord, Pad or Phrase channel. If you set this to "Fm7," your recorded original phrase (Source Pattern) will be triggered by specifying Fm7 during normal performance. CM7 (Source Root = C and Source Chord = M7) is set by default. Depending on the settings here, the playable notes (chord notes and recommended scale notes) will differ. For details, see below.

When the Source Root is C:



C = Chord note

NOTE When the parameters for the selected channel are set to NTR: Root Fixed, NTT: Bypass, and NTT Bass: Off, the parameters here are changed to "Play Root" instead of "Source Root." In this case, you can hear the resulting sound while you change the Chord Root/Type during playback.

NOTE The settings here are not applied when NTR is set to Guitar.

2 NTR/NTT (Note Transposition Rule/Note Transposition Table)

The settings here determine how the original notes of the Source Pattern are converted in response to the Chord change during normal performance.

[3 ▲▼]	NTR	Determines the relative position of the root note in the chord, when converted from the Source Pattern in response to chord changes. Refer to the list below.
[4 ▲▼]- [6 ▲▼]	NTT	Sets the note transposition table for the source pattern. Refer to the list below.
[7 ▲▼]	Bass	The channel for which this is set to On will be played back by the bass root note, when the on-bass chord is recognized by the instrument. When NTR is set to Guitar and this parameter is set to On, only the note which is assigned to bass will be played back by the bass root note.

NOTE Since the Rhythm channels should not be affected by chord changes, make sure the parameters are set to NTR: Root Fixed, NTT: Bypass, and NTT Bass: Off. In this case, "Source Root/Chord" is changed to "Play Root/Chord."



^{*} When recording the Source Pattern, constituting it from C and R is recommended.

NTR (Note Transposition Rule)

Trans (Root Transpose)	When the root note is transposed, the interval between notes is maintained. For example, the notes C3, E3 and G3 in the key of C become F3, A3 and C4 when they are transposed to F. Use this setting for channels that contain melody lines.	When playing a C major chord.	When playing an F major chord.
Fixed (Root Fixed)	The note is kept as close as possible to the previous note range. For example, the notes C3, E3 and G3 in the key of C become C3, F3 and A3 when they are transposed to F. Use this setting for channels that contain chord parts.	When playing a C major chord.	When playing an F major chord.
GTR (Guitar)	This is exclusively for transposing guitar accompaniment approximate the chords played with natural guitar fingeri		ansposed to

NTT (Note Transposition Table)

When NTR is set to Root Transpose or Root Fixed

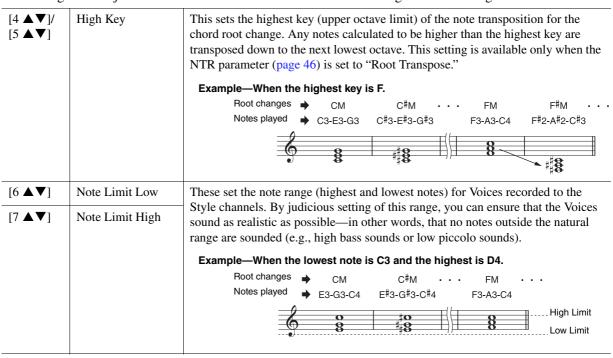
Bypass	When NTR is set to Root Fixed, the transposition table used does not do any note conversion. When NTR is set to Root Transpose, the table used only converts the notes by maintaining the pitch relationship between notes.
Melody	Suitable for melody line transposition. Use this for melody channels such as Phrase1 and Phrase2.
Chord	Suitable for chordal parts transposition. Use this for the Chord1 and Chord2 channels, especially when they contain piano or guitar-like chordal parts.
Melodic Minor	When the played chord changes from a major to a minor chord, this table lowers the third interval in the scale by a semitone. When the chord changes from a minor to a major chord, the minor third interval is raised by a semitone. Other notes are not changed. Use this for melody channels of Sections which respond only to major/minor chords, such as Intros and Endings.
Melodic Minor 5th	In addition to the Melodic Minor transposition above, augmented and diminished chords affect the 5th note of the Source Pattern.
Harmonic Minor	When the played chord changes from a major to a minor chord, this table lowers the third and sixth intervals in the scale by a semitone. When the chord changes from a minor to a major chord, the minor third and flatted sixth intervals are raised by a semitone. Other notes are not changed. Use this for chord channels of Sections which respond only to major/minor chords, such as Intros and Endings.
Harmonic Minor 5th	In addition to the Harmonic Minor transposition above, augmented and diminished chords affect the 5th note of the Source pattern.
Natural Minor	When the played chord changes from a major to a minor chord, this table lowers the third, sixth and seventh intervals in the scale by a semitone. When the chord changes from a minor to a major chord, the minor third, flatted sixth and flatted seventh intervals are raised by a semitone. Other notes are not changed. Use this for chord channels of Sections which respond only to major/minor chords such as in Intros and Endings.
Natural Minor 5th	In addition to the Natural Minor transposition above, augmented and diminished chords affect the 5th note of the Source pattern.
Dorian	When the played chord changes from a major to a minor chord, this table lowers the third and seventh intervals in the scale by a semitone. When the chord changes from a minor to a major chord, the minor third and flatted seventh intervals are raised by a semitone. Other notes are not changed. Use this for chord channels of Sections which respond only to major/minor chords such as in Intros and Endings.
Dorian 5th	In addition to the Dorian transposition above, augmented and diminished chords affect the 5th note of the Source pattern.



All-Purpose This table covers both stroke- and arpeggio-played sounds. Stroke Suitable for strumming sounds of the guitar. Some notes may sound as if they are muted—this is the normal condition when chords are played on guitar by strumming. Arpeggio Suitable for arpeggio-played sound of the guitar, resulting in beautiful four-note arpeggio sounds.

3 High Key/Note Limit

The settings here adjust the Octave of the notes converted from the original ones through NTT and NTR.



4 RTR (Retrigger Rule)

These settings determine whether notes stop sounding or not and how they change pitch in response to chord changes. Use the Cursor buttons $[4 \blacktriangle \blacktriangledown] - [7 \blacktriangle \blacktriangledown]$ to select one of the following types.

Stop	The notes stop sounding.
Pitch Shift	The pitch of the note will bend without a new attack to match the type of the new chord.
Pitch Shift To Root	The pitch of the note will bend without a new attack to match the root of the new chord. However, the octave of the new note remains the same.
Retrigger	The note is retriggered with a new attack at a new pitch corresponding to the next chord.
Retrigger To Root	The note is retriggered with a new attack at the root note of the next chord. However, the octave of the new note remains the same.

Editing the Rhythm Part of a Style (Drum Setup)

The Drum Setup function allows you to edit the rhythm part of the current Style, such as changing the drum instruments and make various settings. The procedure below applies to step 6 in the Basic Procedure on page 36.

From the Basic page, press [1 ▲▼] (Rec Ch) button to call up the Rec Channel display in the lower half section of the display.

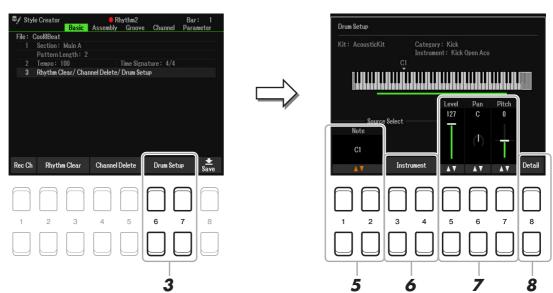


2 Hold down the [1 ▼] or [2 ▼] button corresponding to the desired channel to be edited.

NOTE If the different drum sounds are assigned to each section of the selected channel, the sounds are set to that of the current section in order to use the Drum Setup function.

3 Use the Cursor buttons [▲][▼] to select "3 Rhythm Clear/Ch Delete/Drum Setup," then press one of the [6 ▲▼]/[7 ▲▼] (Drum Setup) buttons to call up the Drum Setup display.

The Drum Setup window is displayed.



4 If necessary, press the STYLE CONTROL [START/STOP] button to start playback of the rhythm part.

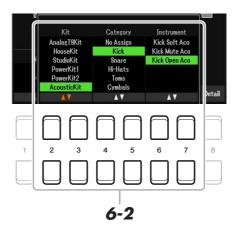
The sounds played back are indicated on the display keyboard, letting you to check the note to edit.

5 Use the [1 ▲▼]/[2 ▲▼] (Note) buttons to select the note to edit.

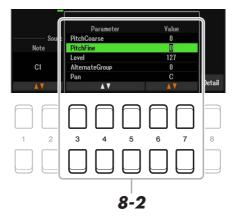
NOTE You can also select the note by pressing the note on the keyboard.



- **6** Select the desired instrument to be used.
 - **6-1** Use the [3 ▲▼]/[4 ▲▼] (Instrument) buttons to call up the window to select the instrument.



- **6-2** Use the [2 ▲▼]–[7 ▲▼] buttons to select the Kit, Category and Instrument in order.
- **6-3** Press the [EXIT] button to close the window.
- **7** If necessary, set the volume Level, Pan or Pitch by using the [5 ▲▼]–[7 ▲▼] buttons.
- 8 If necessary, make more detailed settings.
 - 8-1 Press the [8 ▲▼] (Detail) button to call up the detailed settings window.



8-2 Use the [3 ▲▼]–[5 ▲▼] buttons to select the parameter, then use the [6 ▲▼]/ [7 ▲▼] buttons to set the value.

The parameters with "*" in the list below indicates that the settings here affect the settings in step 7.

Pitch Coarse*	For coarse tuning of the pitch in semitone increments.
Pitch Fine*	For fine tuning of the pitch in cent increments.
	NOTE In musical terms a "cent" is 1/100th of a semitone. (100 cents equal one semitone.)
Level*	For adjusting the volume level.
Alternate Group	Determines the Alternate Group. Any instruments in the same group number cannot sound at the same time. Playing any instrument within a numbered group will immediately stop the sound of any other instrument in the same group of the same number. If this is set to 0, the instruments in the group can sound at the same time.
Pan*	Determines the stereo position.
Reverb Send	For adjusting the reverb depth.



Chorus Send	For adjusting the chorus depth
Variation Send	For adjusting the variation effect (DSP1) depth. When the "Connection" parameter is set to "Insertion" on the Mixer display and this rhythm channel is selected as the assign part, this parameter affects as below.
	When Variation Send is set to 0: No effects are applied to the instrument (Insertion Off).When Variation Send is set to 1–127: Effects are applied to the instrument
	(Insertion On).
Key Assign	Determines the Key Assign mode. This parameter is effective only when the kit's XG parameter "SAME NOTE NUMBER KEY ON ASSIGN" (see the Data List on the website) is set to "INST."
	Single: Each successive playing of the same sound results in the previous being cut off or muted.Multi: Each sound continues to its full decay, even when played successively
	multiple times.
Rcv Note Off	Determines whether note-off messages are received or not.
Rcv Note On	Determines whether note-on messages are received or not.
Filter Cutoff	Determines the cutoff frequency or effective frequency range of the filter. Higher values result in a brighter sound.
Filter Resonance	Determines the emphasis given to the cutoff frequency (resonance), set in Filter Cutoff above. Higher values result in a more pronounced effect.
EG Attack	Determines how quickly the sound reaches its maximum level after the key is played. The higher the value, the quicker the attack.
EG Decay1	Determines how quickly the sound reaches its sustain level (a slightly lower level than maximum). The higher the value, the quicker the decay.
EG Decay2	Determines how quickly the sound decays to silence after the key is released. The higher the value, the quicker the decay.

- **8-3** Press the [EXIT] button to close the window.
- **9** Press the [EXIT] button to close the Drum Setup window and return to the Basic page.
- 10 Save the edited Style (see step 8 on page 36).

NOTICE

The edited Style will be lost if you change to another Style or turn off the power to the instrument without carrying out the Save operation.

3

as the font size of the text. You can change the Score display as desired to suit your personal preferences. The settings here are maintained even when the power is turned off.

To view the music notation of the selected Song, follow the instructions below. You can change settings such

NOTE You can save the settings here as a part of a Song by accessing [MENU] \rightarrow TAB [\blacktriangleright] Menu2 \rightarrow Cursor buttons [\blacktriangle][\blacktriangleright] Song Creator \rightarrow TAB [\blacktriangleright] Setup. See page 60.

NOTE Depending on the particular commercially available Song, Score display may not be possible.

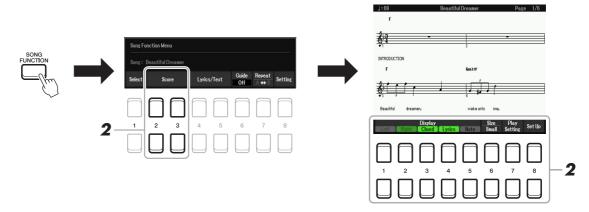
Editing Music Notation (Score) Settings

Songs

Contents

NOTE The score of an audio file cannot be shown because the score is created based only on MIDI events.

Press the [SONG FUNCTION] button to call up the Song Function Menu display.



Press one of the [2 ▲▼]/[3 ▲▼] (Score) buttons.

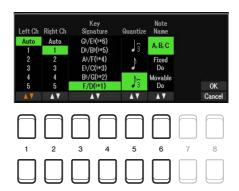
The music notation (Score) appears on the display.

[1 ▲▼]	Left	Enables/disables display of the left-hand notation. Depending on other settings, this parameter may be unavailable and may appear grayed out. If this is the case, go to the detailed setting display and set the Left Ch parameter to any channel except "Auto." Or, go to the Song Setting display and set the Left parameter to any channel except "Off" (page 57). Right (next parameter) and Left cannot be turned off at the same time.
[2 ▲▼]	Right	Enables/disables display of the right-hand notation. Right and Left (above) cannot be turned off at the same time.
[3 ▲▼]	Chord	Enables/disables display of the chords. If the selected Song does not contain chord data, chords are not displayed.



[4 ▲▼]	Lyrics	Enables/disables display of the lyrics. If the selected Song does not contain lyric data, lyrics are not displayed. If the Song contains Pedal events, pressing these buttons switches between "Lyrics" and "Pedal." When "Pedal" is on, pressing these buttons enables display of the Pedal events, instead of displaying Lyrics.
[5 ▲▼]	Note	Enables/disables display of the note name (pitch). The note name is indicated at the left of the note. When the space between the notes is too small, the indication may be moved to the top left of the note. If the Song contains Fingering events, pressing these buttons switches between "Note" and "Fingering." When "Fingering" is on, Fingering events are shown instead of Note names on the display.
[6 ▲▼]	Size Small/ Large	Determines the display zoom level of the notation.
[7 ▲▼]	Play Setting	Lets you cancel or attenuate a particular part of Song, letting you sing "karaoke" style while viewing the music notation of the selected Song. For details, refer to page 54.
[8 ▲▼]	Set Up	Calls up the detailed setting display. See below.

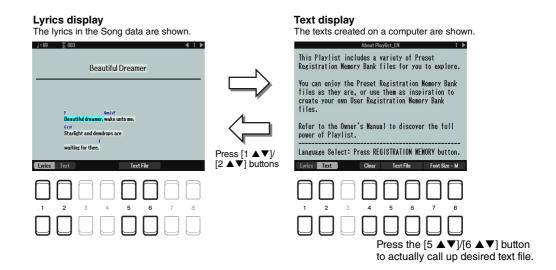
Pressing the [8 $\blacktriangle \blacktriangledown$] (Set Up) button calls up the detailed setting display. You can set the view type by using the [1 $\blacktriangle \blacktriangledown$]–[6 $\blacktriangle \blacktriangledown$] buttons, then press the [8 \blacktriangle] (OK) button.



[1 ▲▼]	Left Ch	Determines which MIDI channel in the Song data is used for the left-hand/right-hand part.	
[2▲▼]	Right Ch	This setting returns to Auto when a different Song is selected. Auto: The MIDI channels in the Song data for the right- and left-hand parts are assigned automatically—setting the parts to the same channel as the channel which is specified in the [MENU] → TAB [◄] Menu1 → Cursor buttons [▲][▼][◄][▶] Song Setting → [ENTER] → TAB [◄] Guide/Channel (page 56). 1–16: Assigns the specified MIDI channel (1–16) to each of the left- and right-hand parts. Off (Available setting only for Left Ch): Assigns no channel to the left-hand part. This disables display of the left-hand key range.	
[3 ▲▼]/ [4 ▲▼]	Key Signature	This lets you enter key signature changes in the middle of a Song, at the stopped position. This menu is useful when the selected Song contains no key signature settings for displaying notation.	
[5 ▲▼]	Quantize	This gives you control over the note resolution in the notation, letting you shift or correct the timing of all displayed notes so that they line up to a particular note value. Make sure to select the smallest note value used in the Song.	
[6 ▲▼]	Note Name	Selects the type of the note name indicated at the left of the note in the notation from among the following three types. The settings here are available when the Note parameter above is set to On. A, B, C: Note names are indicated as letters (C, D, E, F, G, A, B).	
		Fixed Do: Note names are indicated in solfeggio, with the note of C fixed to Do. The notes "C, D, E, F, G, A, B" are always indicated as "Do, Re, Mi, Fa, So, La, Ti" when the language is set to English. Note that the note name indication differs depending on the current language (page 57).	
		Movable Do: Note names are indicated in solfeggio according to the key of the current Song. When a Song in the key of D Major is selected, for example, the notes "D, E, F#, G, A, B, C#" are indicated as "Do, Re, Mi, Fa, Sol, La, Ti" when the language is set to English. Note that the note name indication differs depending on the current language (page 57).	

Editing Lyrics/Text Display Settings

To view the lyrics of the selected Song or the text, press the [SONG FUNCTION] button, followed by one of the $[4 \blacktriangle \blacktriangledown]/[5 \blacktriangle \blacktriangledown]$ (Lyrics/Text) buttons. You can change settings such as the font size of the text.



NOTE When the lyrics are garbled or unreadable, you may need to change the Lyrics Language setting from the [MENU] \rightarrow TAB [\blacktriangleleft] Menu1 \rightarrow Cursor buttons [\blacktriangle][\blacktriangledown] Song Setting \rightarrow [ENTER] \rightarrow Cursor buttons [\blacktriangle][\blacktriangledown] 2 Lyrics Language (page 57).

NOTE When you create a text file on a computer, make sure to enter line breaks manually. This is necessary because the auto line breaks cannot be entered on this instrument. If a sentence extends beyond the display and cannot be shown properly, revise the text data by manually entering appropriate line breaks.

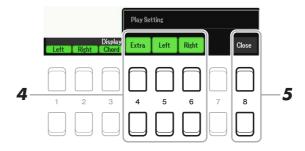
[1 ▲▼]	Lyrics	Switches the screen between the Lyrics display (lyrics data in the Song is shown) and	
[2 ▲▼]	Text	the Text display (a text file selected via the $[5 \blacktriangle \blacktriangledown]/[6 \blacktriangle \blacktriangledown]$ buttons).	
[3 ▲▼]	Clear (only when a text file is selected)	Clears the text from the display. This operation does not delete the text file itself, but results in no text file being selected. If you want to restore the text indication, select the text file again via the $[5 \blacktriangle \blacktriangledown]/[6 \blacktriangle \blacktriangledown]$ buttons.	
[5 ▲▼]/ [6 ▲▼]	Text File	Calls up the text File Selection display. After selecting, press the [EXIT] button to exit the display.	
[7 ▲▼]/ [8 ▲▼]	Font Size-S/M/ L/S(P)/M(P)/ L(P) (only when a text file is selected)	When the display language is set to other than Japanese Determines the font type and size. Font sizes not having the "P" indication (characters have the same width), are suitable for displaying lyrics with chord names, since the positions of chord names are fixed to the corresponding lyrics. Font sizes having the "P" indication (characters have different widths), are suitable for displaying lyrics without chord names or explanatory notes. S, M, and L indicate the font sizes.	
		NOTE For changing the display Language, refer to "Setting Up (Owner's Manual)."	
		When the display language is set to Japanese Determines the font size.	

Playing while Canceling a Particular Part of a Song

This lets you cancel or attenuate a particular part of Song, letting you sing "karaoke" style while viewing the music notation of the selected Song.

- Press the [SONG FUNCTION] button to call up the Song Function Menu display.
- Press one of the [2 ▲▼]/[3 ▲▼] (Score) buttons.

 The music notation (Score) of the selected Song appears on the display.
- 3 Press the [7 ▲▼] (Play Setting) buttons to call up the Play Setting display.



- **4** Use the [4 ▲▼]–[6 ▲▼] buttons to cancel the desired channel of Song.
 - Right: Turns playback on or off for the Right Hand Part.
 - Left: Turns playback on or off for the Left Hand Part.
 - Extra: Turns playback of all Channels on or off, except for those assigned to the Left and Right Hand Parts described above.
- **5** Use the [8 ▲▼] (Close) buttons to exit the display.

Using the Auto Accompaniment Features with Song Playback

When playing back a Song and a Style at the same time, channels 9-16 in the Song data are replaced with Style channels—allowing you to play the accompaniment parts of the Song yourself. Try playing chords along with the Song playback as shown in the instructions below.

- Select a Song.
- 2 Select a Style.
- 3 While holding down the SONG CONTROL [■] (STOP) button, press the [►/ ▮▮] (PLAY/ PAUSE) button to enable synchronized start of the Song.



4 Press the STYLE CONTROL [ACMP] button to turn on the auto accompaniment function, then press the [SYNC START] button to enable synchronized start of the accompaniment.



5 Press the STYLE CONTROL [START/STOP] button or play chords in the chord section.

Both the Song and Style start playing together. You can see the chord information on the score display (page 51) while you play.

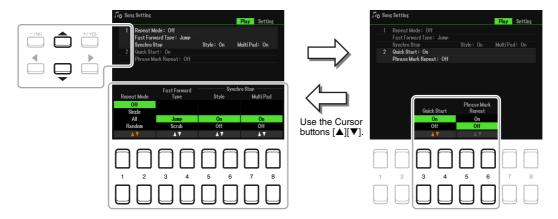
NOTE When playing back a Song and a Style at the same time, the tempo value set in the Song is automatically used. **NOTE** The Style Retrigger function (page 11) cannot be used during Song playback.

When the Song playback is stopped, Style playback is also stopped at the same time.

Song Playback Related Parameters (Guide Function, Channel settings, Repeat settings)

The instrument has a variety of Song playback functions—repeat playback, various guide settings, etc.—which can be accessed in the display below.

- 1 Call up the operation display.
 - $[MENU] \rightarrow TAB \ [\blacktriangleleft] \ Menu1 \rightarrow Cursor \ buttons \ [\blacktriangle] \ [\blacktriangledown] \ [\blacktriangleright] \ Song \ Setting \rightarrow [ENTER]$
- 2 Use the TAB [◄][▶] buttons and the Cursor buttons [▲][▼] to select the page to make settings as described below.
 - **■** Play page



1 Repeat Mode/Fast Forward Type/Style Synchro Stop

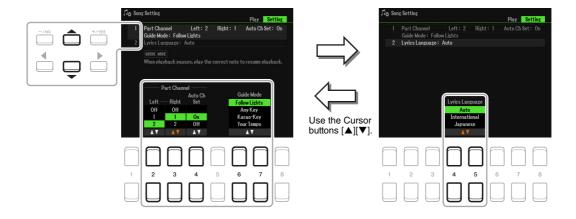
[1 ▲▼]/ [2 ▲▼]	Repeat Mode	Determines the method of repeat playback.
[2 📥 1]		Off: Plays through the selected Song, then stops.
		Single: Plays through the selected Song repeatedly.
		All: Continues playback through all the Songs in the specified folder repeatedly.Random: Continues playback at random through all the Songs in the specified folder repeatedly.
[3 ▲▼]/ [4 ▲▼]	Fast Forward Type	Determines the fast forward type of when pressing [>>] (FF) button during Song playback.
		Jump: Pressing [▶▶] button once instantly sets the playback position to the next measure without sounding. Holding [▶▶] button scrolls forward continuously.
		Scrub: Pressing and holding [▶▶] plays and sounds the Song at high speed.
[5 ▲▼]/ [6 ▲▼]	Style Synchro Stop	Determines whether or not playback of a Style stops when MIDI Song playback is stopped.
[7 ▲▼]/ [8 ▲▼]	Multi Pad Synchro Stop	Determines whether or not the repeat playback of a Multi Pad stops when MIDI Song playback is stopped.



2 Quick Start/Phrase Mark Repeat

[3 ▲▼]/ [4 ▲▼]	Quick Start	On some commercially available Song data, certain settings related to the Song (such as Voice selection, volume, etc.) are recorded to the first measure, before the actual note data. When Quick Start is set to "On," the instrument reads all initial non-note data of the Song at the highest possible speed, then automatically slows down to the appropriate tempo at the first note. This allows you to start playback as quickly as possible, with a minimum pause for reading of data.	
[5 ▲▼]/ [6 ▲▼]	Phrase Mark Repeat	This parameter is available only when the current Song contains Phrase Marks, which specify certain locations (of several measures each) in the Song. When this is set to On, the section corresponding to the Phrase Mark (specified via the SONG CONTROL [◀◀] (REW) and [▶▶] (FF) buttons) is played back repeatedly. Note that this parameter can be set only when the Song playback is stopped.	

■ Setting page



1 Part Channel/Guide Mode

[2 ▲▼]	Left	These parameters determine which MIDI channel in the Song data is assigned to	
[3 ▲▼]	Right	the left- or right-hand part of the Guide function and the Song Score function.	
[4 ▲▼]	Auto Ch Set	When set to "On," this automatically sets the proper MIDI channels for the Right- and Left hand parts pre-programmed in the commercially available Song data. Normally, this should be set to "On."	
[6 ▲▼]/ [7 ▲▼]	Guide Mode	See page 58.	

2 Lyrics Language

[4 ▲▼]/	Lyrics Language	Determines the language displayed in the Lyrics display.
[5 ▲▼]		Auto: When the language is specified in the Song data, the lyrics are displayed accordingly. International: Handles the displayed lyrics as a western language. Japanese: Handles the displayed lyrics as Japanese.

Using the Guide Function

With the Guide function, the instrument indicates the timing you need to play notes in the Score display for ease in learning. This instrument also features convenient vocal practice tools that let you adjust the timing of Song playback to match your vocal performance.

- Select the desired Song for practicing the keyboard or singing.
- 2 Call up the setting display.

[MENU] → TAB [\blacktriangleleft] Menu1 → Cursor buttons [\blacktriangle][\blacktriangledown][\blacktriangleright] Song Setting → [ENTER] → Cursor buttons [\blacktriangle] 1 Part Channel/Guide Mode

3 Use the [6 ▲▼]/[7 ▲▼] buttons to select the desired Guide mode.



■ Guide modes for keyboard practice

Follow Lights

When this is selected, Song playback pauses, waiting for you to play the notes correctly. When you play the correct notes, Song playback continues. Follow Lights was developed for the Yamaha Clavinova series. This function is used for practicing purposes, with built-in lamps on the keyboard indicating the notes to be played. Even though the PSR-SX600 does not have these lamps, you can use the same function by following the indications in the displayed notation with the Song Score function.

Any Key

With this function, you can play the melody of a Song just by pressing a single key (any key is OK) in time with the rhythm. Song playback pauses and waits for you to play any key. Simply play a key on the keyboard in time with the music and Song playback continues.

Your Tempo

The same as Follow Lights, except that Song playback matches the speed at which you play.

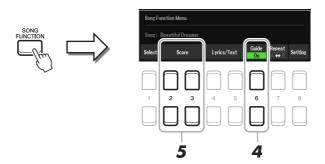
■ Guide mode for singing

Karao-Key

This function lets you control the Song playback timing with just one finger, while you sing along. This is useful for singing to your own performance. Song playback pauses, waiting for you to sing. Simply play any key on the keyboard (playing the keyboard produces no sound) and Song playback continues.



4 Press the [SONG FUNCTION] button to call up the Song Function Menu display, then turn the Guide function on by pressing the [6 ▲▼] (Guide) button.



- **5** Call up the Score display by pressing one of the [2 ▲▼][3 ▲▼] (Score) buttons.
- 6 Press the SONG CONTROL [►/ ▮▮] (PLAY/PAUSE) button to start playback.
 Practice playing the keyboard or singing, along with the Guide mode selected in step 3.
- **7** Press the [■] (STOP) button to stop playback.

NOTE You can save the Guide settings as a part of the Song data (page 61). For Songs to which the Guide settings have been saved, the Guide function will be automatically turned on and the related settings will be recalled when the Song is selected.

After you're finished practicing, press the [6 ▲▼] (Guide) button to turn the guide function off.

NOTE Keeping the Guide function on may cause Song playback to stop.

Creating/Editing Songs (Song Creator)

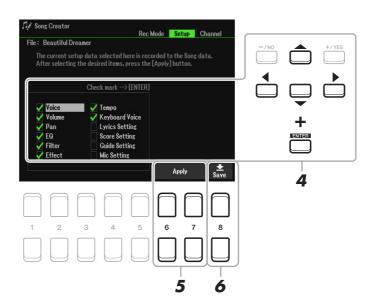
The Owner's Manual covers how to create an original Song by recording your keyboard performance (called "Realtime Recording"). This Reference Manual shows how to edit a recorded Song.

Selecting the Setup Data to be Recorded to the Top Position of the Song (Setup page)

The current settings of the Mixer display and other panel settings you made can be recorded to the top position of the Song as Setup data. The panel settings recorded here are automatically recalled when the Song starts.

- 1 Select the Song to which you want to record the Setup data.
- **2** Call up the operation display.

[MENU] → TAB [\blacktriangleright] Menu2 → Cursor buttons [\blacktriangle][\blacktriangledown][\blacktriangleright] Song Creator → [ENTER] → TAB[\blacktriangleleft][\blacktriangleright] Setup



3 Press the SONG CONTROL [■] (STOP) button to move the Song position to the top of the Song.



4 Use the Cursor buttons [▲][▼][◀][▶] and the [ENTER] button to select the Setup data to be recorded.

Select the items to be automatically called up along with the selected Song. The items selected here can be recorded only to the top position of the Song, except for the Keyboard Voice.

Voice, Volume, Pan, EQ, Filter, Effect, Tempo	Records the tempo setting and all settings made from the Mixer.	
Keyboard Voice	Records the panel settings, including the Voice selection of the keyboard parts (RIGHT 1, 2, and LEFT) and their on/off status. Panel settings recorded here are same as the ones memorized to the One Touch Setting. This can be recorded at any point in a Song, letting you change Voices in the middle of a Song.	
Lyrics Setting	Records the settings in the Lyrics display.	
Score Setting	Records the settings in the Score display.	
Guide Setting	Records the settings of the Guide functions including the Guide On/Off setting.	
Mic Setting	Records the settings in the Mic Setting display.	

Press the [ENTER] button to add or remove a checkmark to/from the selected item.

- Fress the [6 ▲▼]/[7 ▲▼] (Apply) button to record the data.
- **6** Press the [8 ▲▼] (Save) button to carry out the Save operation.

For details, refer to "Basic Operations" in the Owner's Manual.

NOTICE

The edited Song data will be lost if you select another Song or turn off the power to the instrument without carrying out the Save operation.

Re-recording a Specific Section—Punch In/Out (Rec Mode page)

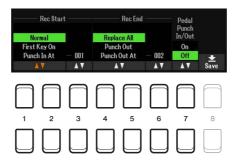
When re-recording a specific section of an already-recorded Song, use the Punch In/Out function. In this method, only the data between the Punch In point and the Punch Out point is overwritten with the newly recorded data. Keep in mind that the notes before and after the Punch In/Out points are not recorded over, although you will hear them play back normally to guide you in the Punch In/Out timing.

NOTE The Style Retrigger function (page 11) cannot be used when recording over existing data (overdubbing).

- 1 Select the desired Song for re-recording.
- **2** Call up the operation display.

[MENU] → TAB [\blacktriangleright] Menu2 → Cursor buttons [\blacktriangle][\blacktriangledown][\blacktriangleright] Song Creator → [ENTER] → TAB [\blacktriangleleft] Rec Mode

3 Determine the settings for recording.

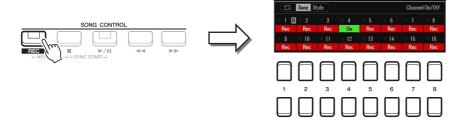




[1 ▲▼]- [3 ▲▼]	Rec Start (Punch In)	Determines the Punch In timing by using the $[1 \blacktriangle \blacktriangledown]/[2 \blacktriangle \blacktriangledown]$ buttons.
[3 🛋 🗸]		Normal: Overwrite recording starts when the Song playback is started via the SONG CONTROL [►/ ■] (PLAY/PAUSE) button or when you play the keyboard in the Synchro Standby mode.
		First Key On: The Song plays back normally, then starts overwrite recording as soon as you play the keyboard.
		Punch In At: The Song plays back normally up to the beginning of the indicated Punch In measure, then starts overwrite recording at that point. You can set the Punch In measure by pressing the [3 ▲ ▼] button.
[4 ▲▼]-	Rec End (Punch	Determines the Punch Out timing by using the $[1 \blacktriangle \blacktriangledown]/[2 \blacktriangle \blacktriangledown]$ buttons.
[6 ▲▼]	Out)	 Replace All: This deletes all data after the point at which recording is stopped. Punch Out: The Song position at which recording is stopped is regarded as the Punch Out point. This setting maintains all data after the point at which recording is stopped. Punch Out At: Actual overwrite recording continues until the beginning of the specified Punch Out measure (set with the corresponding display button), at which point recording stops and normal playback continues. This setting maintains all data after the point at which recording is stopped. You can set the Punch Out measure by pressing the [6 ▲▼] buttons.
[7 ▲▼]	Pedal Punch In/Out	When this is set to On, you can use Foot Pedal 2 to control the Punch In and Punch Out points. While a Song is playing back, pressing (and holding) Foot Pedal 2 instantly enables Punch In recording, while releasing the pedal stops recording (Punch Out). You can press and release Foot Pedal 2 as often as you want during playback to punch in/out of overwrite recording. Note that the current function assignment of the Foot Pedal 2 is cancelled when the Pedal Punch In/Out function is set to On.
		NOTE Pedal Punch In/Out operation may be reversed depending on the particular pedal you've connected to the instrument. If necessary, change the pedal polarity to reverse the control (page 96).

4 Press the SONG CONTROL [REC] button.

The Channel On/Off (Song) display appears. While holding down the [REC] button, press the $[1 \blacktriangle \nabla]$ – $[8 \blacktriangle \nabla]$ buttons to set the desired channel to "Rec."



5 Press the SONG CONTROL [►/ ■] (PLAY/PAUSE) button to start Punch In/Out recording.

According to the settings in step 3, play the keyboard between the Punch In and Punch Out points. Refer to the examples of various settings illustrated below.

6 Press the [8 ▲ ▼] (Save) button to carry out the Save operation.

For details, refer to "Basic Operations" in the Owner's Manual.

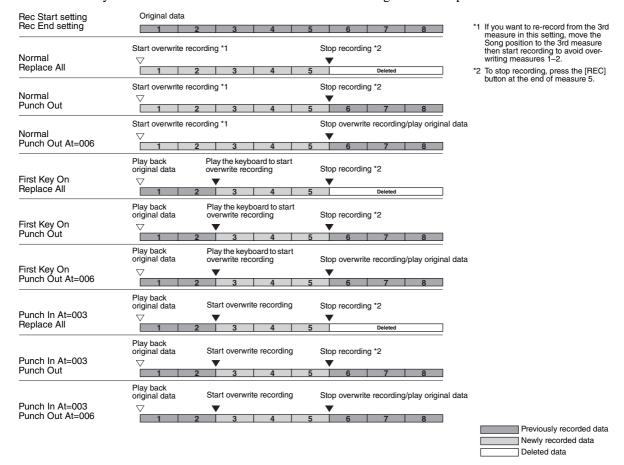
NOTICE

The recorded Song data will be lost if you select another Song or turn off the power to the instrument without carrying out the Save operation.



■ Examples of re-recording with various Punch In/Out settings

This instrument features several different ways you use the Punch In/Out function. The illustrations below indicate a variety of situations in which selected measures in an eight-measure phrase are re-recorded.



Editing Channel Events of Existing Song Data (Channel display)

You can apply various useful functions to already recorded data, such as Quantize and Transpose, on the Channel page.

- **1** Select a Song to be edited.
- **2** Call up the operation display.

[MENU] → TAB [\blacktriangleright] Menu2 → Cursor buttons [\blacktriangle][\blacktriangledown][\blacktriangleright] Song Creator → [ENTER] → TAB [\blacktriangleright] Channel



3 Use the Cursor buttons [▲][▼][◄][▶] to select the item to be edited, then press the [ENTER] button.



4 Edit the data by using the [1 ▲▼]–[7 ▲▼] buttons.

For details of the edit menu and available settings, see pages 64–65.

5 Press the [ENTER] button to carry out the operation for the current display.

After the operation is completed, the "Execute \rightarrow [ENTER]" indication on the display changes to "Undo \rightarrow [ENTER]," letting you restore the original data if you are not satisfied with the operation results. The Undo function only has one level; only the previous operation can be undone.

6 Press the [8 ▲ ▼] (Save) button to carry out the Save operation.

For details, refer to "Basic Operations" in the Owner's Manual.

NOTICE

The edited Song data will be lost if you select another Song or turn off the power to the instrument without carrying out the Save operation.

Ouantize

The Quantize function allows you to align the timing of all the notes in a channel. For example, if you record the musical phrase shown below, you may not play it with absolute precision, and your performance may have been slightly ahead of or behind the precise timing. Quantize is a convenient way of correcting for this.



[1 ▲▼]/ [2 ▲▼]	Channel	Determines which MIDI channel in the Song data is to be quantized.		
[3 ▲▼]- [5 ▲▼]	Size	Selects the quantize size (resolution). For optimum results, you should set the Quantize size to the shortest note value in the channel. For example, if eighth notes are the shortest in the channel, you should use eighth note as the Quantize size. After 1/8 note quantization Settings:		
		1/4 note 1/8 note 1/16 note 1/32 note 1/16 note+		
		In 1/4 note		
		The three Quantize settings marked with asterisks (*) are exceptionally convenient, since they allow you to quantize two different note values at the same time. For example, when the straight eighth notes and eighth-note triplets are contained in the same channel, if you quantize by the straight eighth notes, all notes in the channel are quantized to straight eighth notes—completely eliminating any triplet feel. However, if you use the eighth note + eighth note triplet setting, both the straight and triplet notes will be quantized correctly.		
[6 ▲▼]/ [7 ▲▼]	Strength	Determines how strongly the notes will be quantized. A setting of 100% produces exact timing. If a value less than 100% is selected, notes will be moved toward the specified quantization beats according to the specified percentage. Applying less than 100% quantization lets you preserve some of the "human" feel in the recording. Quarter-note length		
		Original data (assuming 4/4 meter)		
		Quantizing strength =100		
		Quantizing strength =50		

Delete

You can delete the data of the specified channel in the Song. Select the channel whose data is to be deleted by using the Cursor buttons $[\blacktriangle][\blacktriangledown][\blacktriangledown][\blacktriangleright]$, then enter checkmarks by pressing the $[6 \blacktriangle]/[7 \blacktriangle]$ buttons. (To remove checkmarks, use the $[6 \blacktriangledown]/[7 \blacktriangledown]$ buttons.) Press the [ENTER] button to actually delete the channel(s).

NOTE You can enter or remove the checkmarks for all channels by using the [1 ▲ ▼]/[2 ▲ ▼] (All Channels Delete) buttons.

Mix

This function lets you mix the data of two channels and place the results in a different channel. It also lets you copy the data from one channel to another.

[2 ▲▼]/ [3 ▲▼]	Source1	Determines the MIDI channel (1–16) to be mixed. All MIDI events of the channel specified here are copied to the destination channel.	
[4 ▲▼]/ [5 ▲▼]	Source2	Determines the MIDI channel (1–16) to be mixed. Only note events of the channel specified here are copied to the destination channel. Besides the values 1–16, there is a "COPY" setting that allows you to copy the data from Source 1 to the destination channel.	
[6 ▲▼]/ [7 ▲▼]	Destination	Determines the channel into which the mix or copy results will be placed.	

Channel Transpose

This allows you to transpose the recorded data of individual channels up or down by a maximum of two octaves in semitone increments. Select the desired channel to be transposed by using the Cursor buttons $[\blacktriangle][\blacktriangledown][\blacktriangledown][\blacktriangleright]$, then set the value by using the data dial or the [+/YES]/[-/NO] buttons. Press the [ENTER] button to actually transpose the channel(s).

NOTE You can select all channels by pressing the [1 ▲▼]/[2 ▲▼] (All Channels) buttons, letting you transpose all channels at the same time.

NOTE Make sure not to transpose channels 9 and 10. In general, Drum Kits are assigned to these channels. If you transpose the channels of Drum Kits, the instruments assigned to each key will be changed.

USB Audio Player/Recorder

This function is fully explained in the Owner's Manual. Refer to the corresponding chapter in the Owner's Man-

Microphone

Contents

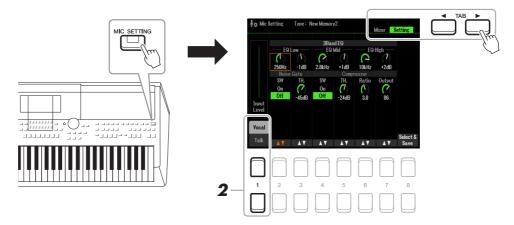
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Making the Microphone Settings

This section lets you set parameters for various Effects that are applied to the microphone sound. You should make both "Vocal" and "Talk" settings—for example, using Vocal for your singing performance, and Talk for making announcements between songs.

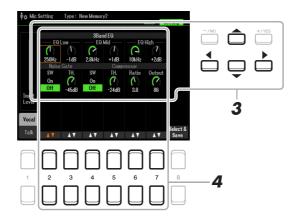
1 Call up the operation display.

[MIC SETTING] \rightarrow TAB [\triangleright] Setting



- 2 Use the [1 ▲] (Vocal) / [1 ▼] (Talk) buttons to select the desired page.
 - NOTE You can use a connected pedal to conveniently switch between Vocal and Talk. For details, refer to page 95.
- **3** Use the Cursor buttons [▲][▼][◀][▶] to select the desired parameter.

For information on each parameter, refer to the next page.





4 Use the $[2 \blacktriangle \blacktriangledown]$ – $[7 \blacktriangle \blacktriangledown]$ buttons to edit parameters.

5 Save the edited setting.

For details, refer to page 71.

NOTICE

After setting, save the settings by referring to page 71. The settings will be lost if you exit from this display or turn the power to the instrument off without executing the Save operation.

Vocal Page



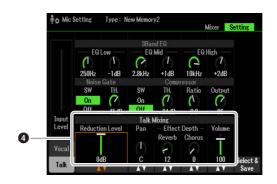
1 3Band EQ	EQ (Equalizer) is a processor that divides the frequency spectrum into multiple bands which can be boosted or cut as required to tailor the overall frequency response. This instrument features a high-grade three-band (Low, Mid and High) digital equalizer function for the microphone sound.		
	Hz	Adjusts the center frequency of the corresponding band.	
	dB	Boosts or cuts the level of the corresponding band by up to 12 dB.	
2 Noise Gate		s the input signal when the input from the microphone falls below a effectively cuts off extraneous noise, allowing the desired signal (vocal,	
	SW (Switch)	Turns the Noise Gate on or off.	
	TH. (Threshold)	Adjusts the input level at which the gate begins to open.	
3 Compressor	specified level. This dynamics. It effective	s down the output when the input signal from the microphone exceeds a is especially useful for smoothing out vocals that have widely varying vely "compresses" the signal, making soft parts louder and loud parts am compression effect, set RATIO to a high setting and adjust the OUT num volume.	
	SW (Switch)	Turns the Compressor on or off.	
	TH. (Threshold)	Adjusts the input level above which the Compressor is applied.	
	Ratio	Adjusts the compression ratio. Higher ratios result in a more compressed sound, with a reduced dynamic range.	
	Out	Adjusts the final output level.	

NOTICE

The settings will be lost if you exit from this display or turn the power to the instrument off without executing the Save operation.

Talk Page

The settings here are for your speech or announcements (NOT for your singing performance). All indications and parameters (with the exception of Talk Mixing below) are the same as in the Vocal page. However, the settings are independent from those in the Vocal page.



4 Talk Mixing	This function lets you making settings for talking or making announcements between song performances.	
	Reduction Level	Determines the amount of reduction to be applied to the overall sound (excepting the microphone input)—allowing you to effectively adjust the balance between your voice and the overall instrument sound.
	Pan	Determines the stereo pan position of the microphone sound.
	Reverb Depth	Determines the depth of the reverb effects applied to the microphone sound.
	Chorus Depth	Determines the depth of the chorus effects applied to the microphone sound.
	Volume	Determines the output volume of the microphone sound.

NOTICE

The settings will be lost if you exit from this display or turn the power to the instrument off without executing the Save operation.

Applying an Insertion Effect to a Vocal Part

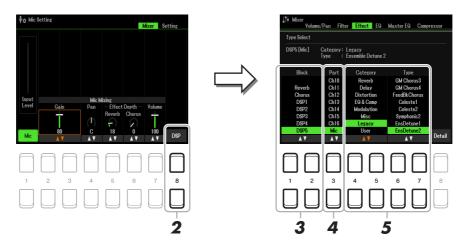
The DSP (Digital Signal Processor) functions built into the instrument feature high-quality effect types, including real Echo and real Delay. You can also apply the DSP effects independently only to a specified target. For example, you can have a polished, consistent sound for the mix by applying common effects (such as Reverb and Chorus) to all parts, and yet have a special Delay effect inserted only to the vocal part. The instructions below show how to apply the DSP effects only to vocal part.

Call up the operation display.

[MIC SETTING] \rightarrow TAB [\blacktriangleleft] Mixer

For details on connecting a microphone, refer to the Owner's Manual, chapter 5.

2 Press the [8 ▲▼] buttons to call up the effect type selection display.



3 Use the [1 ▲▼]/[2 ▲▼] (Block) buttons to select the effect block.

To apply the DSP effects (except Reverb or Chorus) only to vocal part, select DSP5 as the effect block. For the block diagram, refer to page 94.

4 Use the [3 ▲▼] (Part) buttons to select the part to apply the DSP effects.

To apply the DSP effects (except Reverb or Chorus) only to vocal part, select MIC as the part.

5 Use the [4 ▲▼]/[5 ▲▼] (Category) buttons to select the desired category, and then use the [6 ▲▼]/[7 ▲▼] (Type) buttons to select the desired type.

Check the effects while singing into the microphone.

NOTE Reverb has no category.

To make detail setting of the effects, press the [8 ▲▼] (Detail) buttons. For details, refer to "Editing and Saving Your Original Effect Type" (page 89).



6 Save the edited setting.

For details, refer to the next page.

Saving or Calling Up the Mic Settings

All the settings (Vocal/Talk pages) are saved together as a single file. Up to 60 files can be saved to the USER drive.

Saving the Mic Settings

Call up the operation display.

[MIC SETTING] \rightarrow TAB [\triangleright] Setting \rightarrow [8 $\blacktriangle \blacktriangledown$] (Select&Save)

NOTE For ease in future recall, you should assign a sufficiently descriptive name to the file or one that matches your performance. For entering characters, refer to "Basic Operations" in the Owner's Manual.



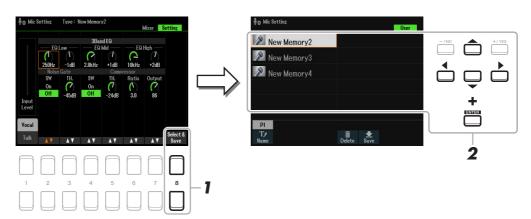
2 Press the [6 ▼] (Save) button to save the settings.

This method only describes how to save the settings to the User drive. If you intend to save to USB, use the instructions in Setup Files (page 112).

Calling Up the Mic Settings

Call up the operation display.

[MIC SETTING] \rightarrow TAB [\triangleright] Setting \rightarrow [8 $\blacktriangle \blacktriangledown$] (Select&Save)



2 Use the Cursor buttons [▲][▼][◀][▶] to select the desired file, and then press the [ENTER] button.

6

Multi Pads

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Creating Multi Pads (Multi Pad Creator)

This feature lets you create your original Multi Pad phrases by recording your performance on the keyboard. The recorded phrases are registered to each of the MULTI PAD CONTROL [1]–[4] buttons and can be saved as a bank. You can also replace some of the Pads in the existing Bank with your recorded phrases and save as a separate Bank.

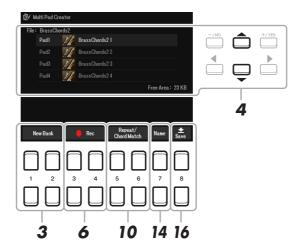
Before starting operation, note the following points:

- Since recording can be done along with and synchronized to Style playback, you should select the desired Style beforehand. However, keep in mind that the Style is not recorded.
- Since only the RIGHT 1 part performance will be recorded as Multi Pad phrases, you should select the desired Voice for the RIGHT 1 part beforehand.
- If you want to create a new Multi Pad in the existing Bank, select the desired Multi Pad Bank via the MULTI PAD CONTROL [SELECT] button.

If you want to create a new Multi Pad in an empty new Bank, this step is unnecessary.

2 Call up the operation display.

[MENU] → TAB $[\triangleright]$ Menu2 → Cursor buttons $[\blacktriangle][\blacktriangledown][\blacktriangledown][\blacktriangleright]$ Multi Pad Creator → [ENTER]



- 3 If you want to create a new Multi Pad in a new Bank, press one of the [1 ▲▼]/[2 ▲▼] (New Bank) buttons.
- **4** Select a particular Multi Pad for recording by using the Cursor buttons [▲][▼].
- **5** If necessary, select the desired Voice via the VOICE category selection buttons. After selecting the Voice, press the [EXIT] button to return to the previous display.



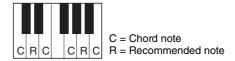
- **O** Press one of the [3 ▲▼]/[4 ▲▼] (Rec Start) buttons to enter recording standby status for the Multi Pad selected in step 4.
- Play the keyboard to start recording.

To ensure that your recording will be in sync with the tempo, press the [METRONOME] button to turn on the metronome.

If you want to insert silence before the actual phrase, press the STYLE CONTROL [START/STOP] to start both the Recording and rhythm playback (of the current Style). Keep in mind that the rhythm part of the current Style plays back during recording although it is not recorded.

Recommended notes for the Chord Match phrase

If you intend to create a Chord Match phrase, make a phrase using the notes of the original chord (C, E, G, B) of CM7, and recommended notes (D, A), as shown below. This ensures that the phrase will stay harmonically constant and match whichever chord you play in the left hand section of the keyboard.



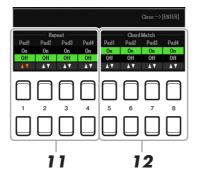
Stop recording.

Press one of the $[3 \blacktriangle \blacktriangledown]/[4 \blacktriangle \blacktriangledown]$ (Rec Stop) buttons or the panel MULTI PAD CONTROL [STOP] button or the STYLE CONTROL [START/STOP] button to stop recording when you've finished playing the phrase.

- Listen back to your newly recorded phrase, by pressing the appropriate MULTI PAD button, [1]-[4]. To re-record the phrase, repeat steps 6-8.
- **10** Press the [5 ▲▼]/[6 ▲▼] (Repeat/Chord Match) button to call up the Repeat/Chord Match setting window.
- **11** Turn the Repeat parameter of each pad On or Off by using the [1 ▲▼]–[4 ▲▼] buttons.

If the Repeat parameter is on for the selected pad, playback of the corresponding pad will continue until the MULTI PAD [STOP] button is pressed. When you press a Multi Pad for which Repeat is turned on during Song or Style playback, playback will start and repeat in sync with the beat.

If the Repeat parameter is off for the selected pad, playback will end automatically as soon as the end of the phrase is reached.



12 Turn Chord Match of each pad On or Off by using the [5 ▲▼]–[8 ▲▼] buttons.

If the Chord Match parameter is on for the selected pad, the corresponding pad is played back according to the chord specified in the chord section of the keyboard generated by turning [ACMP] on, or specified in the LEFT part of the keyboard generated by turning [LEFT] on (when turning the [ACMP] off).



- 13 Press the [EXIT] button to close the Repeat/Chord Match setting window.
- **14** Press the [7 ▲▼] (Name) button to name the recorded Multi Pad.
- 15 If you want to record other Multi Pads, repeat steps 4–14.
- 16 Press the [8 ▲▼] (Save) button to save the Multi Pad data as a Bank containing a set of four Pads.

For details, refer to "Basic Operations" in the Owner's Manual.

The recorded data will be lost if you turn off the power to the instrument without carrying out the Save operation.

Editing Multi Pads

You can manage (rename, copy, paste and delete) your created Multi Pad Bank and each of the Multi Pads belonging to the Bank. For instructions on managing the Multi Pad Bank file, refer to "Basic Operations" in the Owner's Manual. This section covers how to manage each Multi Pad.

- Select the Multi Pad Bank containing the Multi Pad to be edited.
 - 1-1 Press the MULTI PAD CONTROL [SELECT] button to call up the Multi Pad Bank Selection display.
 - **1-2** Use the TAB [◀][▶] buttons to select the tab "Preset," "User" or "USB" (when a USB flash drive is connected), to which the desired Multi Pad is saved.
 - **1-3** Select a Multi Pad Bank by using the Cursor buttons [▲][▼][▼][◆], then press the [ENTER] button.
- Press the [7 ▼] (Edit) button of Menu1 to call up the Multi Pad Edit display.
- Select a particular Multi Pad to be edited by using the Cursor buttons [▲][▼][◀][▶], then press the [ENTER] button.



4 Edit the selected Pad.



[1 ▼]	Name	Changes the name of each Multi Pad.
[3 ▼]	Сору	Copies the Multi Pad(s). See below.
[4 ▼]	Paste	Pastes the Multi Pad(s) copied by the [3 ▼] button.
[5 ▼]	Delete	Deletes the selected Multi Pads.

Copying the Multi Pad

- **1** Press the $[3 \ \nabla]$ (Copy) button in step 4 above.
- 2 Select the Multi Pads to be copied by using the Cursor buttons [▲][▼][◀][▶], then press the [ENTER] button. The selected Multi Pad(s) is copied to the clipboard.
- **3** Press the $[7 \ \nabla]$ (OK) button.
- **4** Select the destination location by using the Cursor buttons [▲][▼][◀][▶]. If you want to copy the selected Pad(s) to another bank, press the [8 ▲] (↑) button to call up the Multi Pad Bank Selection display, select the desired bank, press the [7 ▼] (Edit) button of Menu1, then select the destination.
- **5** Press the [4 ▼] (PASTE) button to carry out the Copy operation.

5 Save the current Bank containing the edited Multi Pads.

Press the [8 \blacktriangle] button to call up the confirmation window, press the [7 $\blacktriangle \blacktriangledown$] (Yes) button to call up the User page, then press the [6 \blacktriangledown] (Save) button to carry out the Save operation.

Registration Memory

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Editing the Registration Memory

You can edit (rename and delete) each of Registration Memories contained in the Bank.

Select the Registration Memory Bank containing the Registration Memory to be edited.

Press the REGIST BANK [+] and [-] buttons simultaneously to call up the Registration Bank Selection display, then use the Cursor buttons $[\blacktriangle][\blacktriangledown][\blacktriangleleft][\blacktriangleright]$ to select the desired Bank.

- **2** Press the [7 ▼] (Edit) button to call up the Registration edit display.
- 3 Make sure that Name and Delete are shown at the bottom of the display.

If they are not shown on the display, press the $[8 \ \nabla]$ (File) button to call them up.



- **4** Edit (delete or rename) the Registration Memory via the following operation.
 - **■** Deleting the Registration Memory

Delete it according to the instructions of "Deleting Files/Folders" in "Basic Operations" in the Owner's Manual.

■ Renaming the Registration Memory

Rename it according to the instructions of "Renaming a File/Folder" in "Basic Operations" in the Owner's Manual.

Fress the [6 ▼] (Save) button to save the current Bank containing the edited Registration Memories.

Disabling Recall of Specific Items (Freeze)

Registration Memory lets you recall all the panel setups you made with a single button press. However, there may be times that you want certain items to remain the same, even when switching Registration Memory setups. When you want to switch the Voice settings but still maintain the Style settings, for example, you can "freeze" only the Style settings and have those Style settings remain, even when you select another Registration Memory number.

- Call up the operation display.
 - [MENU] → TAB [\blacktriangleleft] Menu1 → Cursor buttons [\blacktriangle][\blacktriangledown][\bullet] Regist Sequence/Freeze → [ENTER] → TAB [\triangleright] Freeze
- 2 Select the items that will remain unchanged when pressing the [FREEZE] button.

 Use the Cursor buttons [▲][▼][◀][▶] to select the desired item, and then press the [ENTER] button to enter or remove the checkmark.



3 Use the [1 ▲▼] (Freeze) buttons to turn the Freeze function on.

With this operation, you can "freeze" or maintain checkmarked items, even when you select another Registration Memory number. To turn off the Freeze function, use the $[1 \blacktriangle \blacktriangledown]$ (Freeze) buttons again. Items having checkmarks will be "frozen" when the [FREEZE] button on the panel is turned on.

4 Press the [EXIT] button to exit from the operation display.

NOTICE

Settings in the Freeze display are automatically saved to the instrument when you exit from this display. However, if you turn the power off without exiting from this display, the settings will be lost.

Calling Up Registration Memory Numbers in Order (Registration Sequence)

As convenient as the Registration Memory buttons are, there may be times during a performance when you want to quickly switch between settings. The convenient Registration Sequence function lets you call up the eight setups in any order you specify, by simply using the TAB $[\blacktriangleleft][\blacktriangleright]$ buttons (in the Main display) or the pedal as you play.

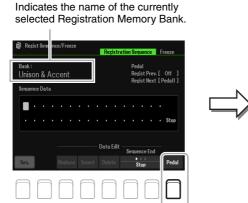
Determining the order of Registration Memory selection

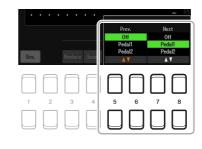
- If you intend to use a pedal or pedals to switch the Registration Memory number, connect the optional pedals to the appropriate FOOT PEDAL jacks.
 - For instructions, refer to chapter 9 of the Owner's Manual.
- **2** Press the REGIST BANK [+] and [-] buttons simultaneously to call up the Registration Bank Selection Display, then select the desired Bank to be programmed.
- **3** Call up the operation display.
 - [MENU] → TAB [\blacktriangleleft] Menu1 → Cursor buttons [\blacktriangle][\blacktriangledown][\bullet] Regist Sequence/Freeze → [ENTER] → TAB [\blacktriangleleft] Registration Sequence
- 4 If you use a pedal, specify here how the pedal will work—to advance or to reverse through the sequence.

Press the $[8 \blacktriangle \blacktriangledown]$ (Pedal) button to call up the operation window. After making setups as described below, press the [EXIT] button to close the window.

- $[5 \blacktriangle \lor]/[6 \blacktriangle \lor]$ (Prev.): Selects which pedal is used for reversing the Registration Sequence.
- $[7 \blacktriangle \lor]/[8 \blacktriangle \lor]$ (Next): Selects which pedal is used for advancing the Registration Sequence.

Note that the pedal settings here (other than Off) will take priority over the settings in the Foot Pedal display (page 95). If you want to use the pedal for a function other than Registration Sequence, make sure to set this to Off.

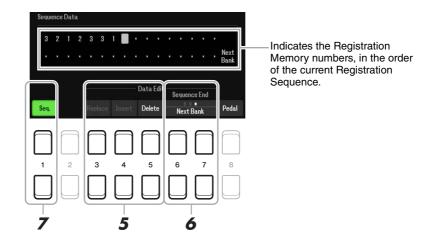






5 Program the Sequence order, from left to right.

Press one of the REGISTRATION MEMORY [1]–[8] buttons on the panel, then press the [4 $\blacktriangle \blacktriangledown$] (Insert) button to input the number. The Cursor position can be moved by using the Cursor buttons [\blacktriangleleft][\blacktriangleright].



[3 ▲▼]	Replace	Replaces the number at the cursor position with the currently selected Registration Memory number.
[4 ▲▼]	Insert	Inserts the number of the currently selected Registration Memory number to the cursor position.
[5 ▲▼]	Delete	Deletes the number at the cursor position.

Press the [6 ▲▼]/[7 ▲▼] (Sequence End) buttons repeatedly to determine how Registration Sequence behaves when reaching the end of the sequence.

Stop: Pressing the TAB [▶] button or the "advance" pedal has no effect. The sequence is "stopped."

Top: The sequence starts again at the beginning.

Next Bank: The sequence automatically moves to the beginning of the next Registration Memory Bank in the same folder.

7 Press the [1 ▲▼] (Seq.) button to turn the Registration Sequence function on.

To turn off the Registration Sequence function, press the [1 ▲▼] (Seq.) button.

8 Press the [EXIT] button to close the operation display.

After the confirmation message appears, press the $[7 \blacktriangle \nabla]$ (Yes) button to store the Registration Sequence program temporarily.

NOTICE

Keep in mind that all Registration Sequence data is lost when changing Registration Memory Banks, unless you've saved it with the Registration Memory Bank file. For details of the instructions, see the section below.

Saving the Registration Sequence Settings

The settings for the Sequence order and how Registration Sequence behaves when reaching the end of the sequence (Sequence End) are included as part of the Registration Memory Bank file. To store your newly programmed Registration Sequence, save the current Registration Memory Bank file.

- Press the REGIST BANK [+] and [-] buttons simultaneously to call up the Registration Bank Selection Display.
- **2** Press the [8 ▼] (File) button to save the Bank file. For details, refer to "Basic Operations" in the Owner's Manual.

Using the Registration Sequence

- Select the desired Registration Bank.
- **2** At the upper left of the Main display, confirm the Registration Sequence.



3 Press the TAB [◄] or [►] button, or press the Foot Pedal to select the first Registration Memory number.

The currently selected Registration Memory number will be highlighted.

4 Use the TAB buttons or Foot Pedal during your keyboard performance.

To return to the status in which no Registration Memory number is selected, press the TAB [◀] and [▶] buttons simultaneously while the Main display is called up.

Registration Memory Samples (Preset Regist)

The instrument also features a variety of pre-programmed Registration Memory samples (Preset Regist) that let you call up convenient settings for various performance situations, without having to specially program Registration Memory settings yourself.

- Press the REGIST BANK [+] and [-] buttons simultaneously to call up the Registration Bank Selection Display.
- 2 Move the cursor to the desired Bank by using the Cursor buttons [▲][▼][◀][▶], and then press the [ENTER] button.

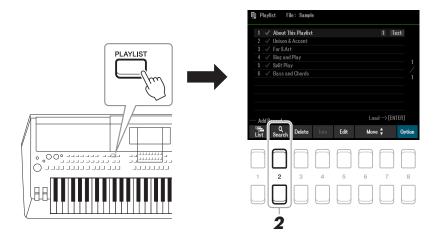
■ Preset Regist

Unison & Accent	Memory 1	Ideal for use with the Unison function, when set to the All Parts type. The Accent function is also enabled here. The Fingering Type is set to AI Fingered.
	Memory 2	Ideal for use with the Unison function, when set to the Split type. The Accent function is also enabled here. The Fingering Type is set to AI Fingered.
	Memory 3	Ideal for use with the Unison function, when set to the Auto Split type. The Accent function is also enabled here. The Fingering Type is set to AI Full Keyboard.
For S.Art	Ideal for performing with S.Art Voices. The special performance techniques unique to each S.Art Voice can be triggered by using FOOT PEDAL 2. Various popular S.Art Voices are registered to each memory.	
Sing and Play	Ideal for singing along with your keyboard performance (piano, electric piano, etc.) and Style playback. The FINGERING TYPE is set to AI Full Keyboard.	
Split Play	Ideal for playing different left-hand and right-hand Voices along with Style playback. Since the FINGERING TYPE is set to AI Full Keyboard, it enables enormous flexibility in your performance without limiting you to only left-hand indicated chord notes.	
Bass and Chords	Ideal for playing chord notes with your right hand and a Manual Bass with your left.	
About This Playlist	This is an explanatory text of the Playlists used for the sample presets.	

Using Playlist

Adding a Record to a Playlist by using Search

Press the [PLAYLIST] button to call up the Playlist display.



- **2** Press the [2 ▲▼] (Search) buttons to call up the Search display.
 - **2-1** Use the Cursor buttons [▲][▼] to select Bank Name or Tag as the target for searching, and then press the [ENTER] button.

NOTE The keyword and genre of the Music Finder are saved as Tag information. Saving Tag information makes it easy to search for desired Records.



- **2-2** Enter the desired file name or the folder name, and then press the [8 ▲] (OK) button. For entering characters, refer to "Basic Operations" in the Owner's Manual.
- **2-3** Press the [7 ▲▼]/[8 ▲▼] (Search) buttons to start searching.

 To clear the search results, use the [3 ▲▼]/[4 ▲▼] (Clear) buttons.

 To update the search information, use the [1 ▲▼]/[2 ▲▼] (Update) buttons. Depending on the amount of files, the update procedure make take a long time.
- 3 Select the desired Bank file to register as a Playlist Record from the search results of searching by using the Cursor buttons [▲][▼][◀][▶], and then press the [ENTER] button.

To select all files, use the $[8 \ \nabla]$ (All) buttons.

4 Press the [7 ▼] (OK) button to add the Records.

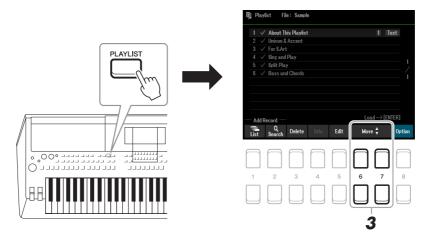
The result window is closed, and then Records are added at the bottom of the current Playlist.

5 Use the [8 ▲▼] (Option) buttons to call up the pop-up display, and then use the [7 ▲▼] (Select&Save) buttons to save the edited Playlist.

For instructions on how to save, refer to "Adding a Record (Link to a Bank file) to a Playlist" (Owner's Manual, chapter 7), and follow the instructions starting with step 5-2.

Changing the Order of the Records in the Playlist

Press the [PLAYLIST] button to call up the Playlist display.



- 2 Select the desired Record to move by using the Cursor buttons [▲][▼].
- **3** Move the desired Record by using the [6 ▲ ▼]/[7 ▲ ▼] (Move) buttons. If you want to move additional Records, repeat steps 2–3.
- 4 Use the [8 ▲▼] (Option) buttons to call up the pop-up display, and then use the [7 ▲▼] (Select&Save) buttons to save the edited Playlist.

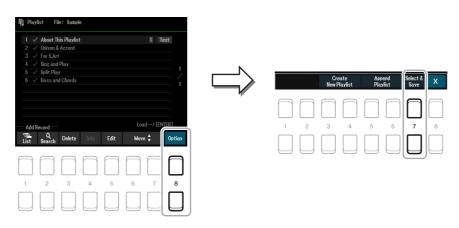
For instructions on how to save, refer to "Adding a Record (Link to a Bank file) to a Playlist" (Owner's Manual, chapter 7), and follow the instructions starting with step 5-2.

Importing Music Finder Records to the Playlist

By importing Music Finder Records (.mfd) used on previous Yamaha digital keyboards (such as the PSR-S670, etc.), you can use the Records on the Playlist of this instrument, just like using the Music Finder function on those other instruments.

For details on using Music Finder, refer to the Owner's Manual of the Yamaha digital keyboards which contains your desired Music Finder Records.

- Connect the USB flash drive which contains the Music Finder file (***.mfd) to the [USB TO DEVICE] terminal.
- **2** Press the [PLAYLIST] button to call up the Playlist display.
- 3 Press one of the [8 ▲▼] (Option) buttons to call up the pop-up display, and then press one of the [7 ▲▼] (Select&Save) buttons to call up the Playlist Selection display.





- 4 Select the desired Music Finder file to import by using the Cursor buttons [▲][▼][◄]]▶], and then press the [ENTER] button.
- 5 After a confirmation message appears, use the [7 ▲▼] (OK) buttons to start importing.

The imported Music Finder Records will be converted to Registration Memory Bank files and saved to a folder (with the same name as the imported file) in the User drive of this instrument. At the same time, a Playlist of the converted Registration Memory Bank files (with the same name as the imported file) will be created in the USB flash drive. The Music Finder settings are registered to Registration Memory number [1] for each Bank.

NOTICE

If a folder with the same name as the Music Finder file already exists, the Registration Memory Bank file with the same name in that folder will be overwritten by the importing data. To avoid overwriting important data, make sure to change the folder name or the Music Finder file name.

6 Turn the [OTS LINK] button on to enable to use of the imported Records in the same way as the original Music Finder function.



7 Select the Record name on the Playlist display and load the settings contained in the Music Finder data.

Searching for Records

Since Music Finder data is saved to Registration Memory, you can search for Records on the Registration Bank Selection display. The keyword and genre of the Music Finder are saved as tag information. For details about searching and the use of tags, refer to page 82.

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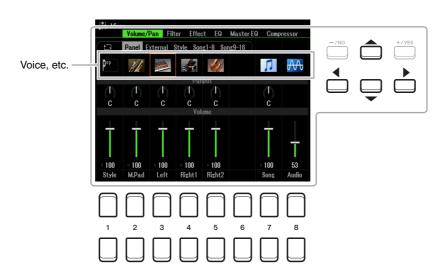
You can edit various parameters for the Parts called up via the [MIXER] button, and then save your edits for future recall. Regarding the Mixer, the Reference Manual covers detailed descriptions of each parameter, while the Owner's Manual covers the basic instructions including the Save operation. The Mixer display consists of 6 pages. Use the TAB [◀]/[▶] buttons to select the various pages that follow. For a visual indication of the signal flow and configuration of the Mixer, refer to the Block Diagram on page 94.



Press the [MIXER] button repeatedly to call up the Mixer display for the relevant parts.

Panel (Right1, Right2, Left, etc.) \rightarrow External \rightarrow Style \rightarrow Song1-8 \rightarrow Song9-16

Editing Vol/Pan/Voice Parameters



Move the Cursor position on the display by using the Cursor buttons $[\blacktriangle][\blacktriangledown][\blacktriangledown][\blacktriangle]$ and use the $[1 \blacktriangle \blacktriangledown]-[8 \blacktriangle \blacktriangledown]$ buttons, [+/YES][-/NO] buttons, or the Data dial to edit parameters.

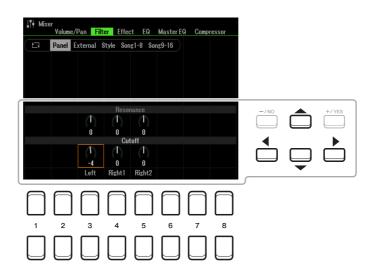


R

Mixe

Voice, etc.	Allows you to re-select the Voices for each keyboard part or each part (channel) of the Style or Song. Use the $[1 \blacktriangle \blacktriangledown] - [8 \blacktriangle \blacktriangledown]$ buttons or $[+/YES]$ $[-/NO]$ buttons to call up the Voice (or file) selection page for the channel (part). After selecting the desired Voice or file, press the $[EXIT]$ button to return to the Mixer display. When the Panel part is selected, the same operation allows you to re-select the Style, Song or Audio file (instead of the Voice) for the corresponding part.	
	 Note the following operation limitations. When a GM Song is selected, only a Drum Kit Voice may be selected for channel 10 (in the Song9-16 page). NOTE For a Style or Song channel, calling up a rhythm/percussion Voice (Drum Kit, etc.) will replace the channel settings with those for the new Voice. In such a case, the original settings may not be restored even if you reselect the original Voice. To restore the original sound, select the same Style or Song again without carrying out the Save operation. 	
Panpot	Determines the stereo position of the selected part (channel).	
Volume	Determines the volume of each part or channel, giving you fine control over the balance of all the parts.	

Editing Filter Parameters



Move the Cursor on the display by using the Cursor buttons $[\blacktriangle][\blacktriangledown][\blacktriangledown]$, and use the $[1 \blacktriangle \blacktriangledown]-[8 \blacktriangle \blacktriangledown]$ buttons, [+/YES] [-/NO] buttons, or the Data dial to edit parameters.

Resonance	Allows you to adjust the Resonance (page 16) for each part.
Cutoff	Determines the brightness of the sound for each part by adjusting the Cutoff Frequency (page 16).

Editing Effect Parameters

This instrument features seven Effect Blocks, giving you powerful tools to richly enhance the sounds of the instrument or completely transform them. The Effects are divided into the following groups:

■ Reverb, Chorus:

The Effects of these Blocks are applied to the overall sound or all Parts. In each of these Effect Blocks, you can select only one Effect Type at a time and adjust the Send Level (Depth) for each Part as well as the Return Level for all Parts.

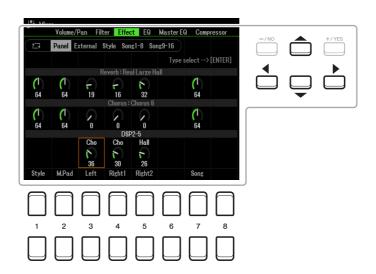
■ DSP1:

When the "Connection" parameter is set to "System" in step 2 of page 89, the Effects of this Block are applied only to the Style and Song sounds. In this status, you can select only one Effect Type at a time and adjust the Send Level (Depth) for each Part as well as Return Level for all Parts. When the "Connection" parameter is set to "Insertion," the Effect of this Block is applied to a specific channel of the Style and Song.

■ DSP2–5:

The Effects of these Blocks are applied to a specific Part or Channel, with the exception of the Multi Pads. Different Effect Types can be selected for each of the available Parts or Channels.

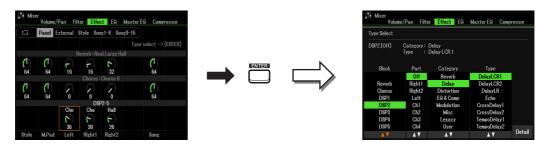
Adjusting the Effect Depth for Each Part



Use the Cursor buttons $[\blacktriangle][\blacktriangledown][\blacktriangledown][\bullet]$ to select the desired Effect Block, then use the $[1 \blacktriangle \blacktriangledown]-[8 \blacktriangle \blacktriangledown]$ buttons, [+/YES][-/NO] buttons, or the Data dial to adjust the Effect Depth for each Part.

Selecting an Effect Type for each Block

Use the Cursor buttons [▲][▼][◀][▶] to select the desired item to change the Effect Type, and then press the [ENTER] button to call up the Effect Type Selection display.



2 Use the [1 ▲▼]/[2 ▲▼] buttons to select the Effect Block.

Effect Block	Effect-applicable parts	Effect characteristics
Reverb	All parts	Recreates the warm ambience of playing in a concert hall or jazz club.
Chorus	All parts	Produces a richly textured sound as if several parts are being played simultaneously. In addition, other type effects (such as reverb, delay, etc.) can also be selected in this effect block.
DSP1	Style Part, Song Channel 1–16	In addition to Reverb and Chorus, a wide variety of Effect Types are provided, such as Distortion and Wah.
DSP2, DSP3, DSP4	Right1, Right2, Left, Song Channel 1–16	In addition to Reverb and Chorus, a wide variety of Effect Types are provided, such as Distortion and Wah. For each of DSP2–5, you can select one of the Parts or Channels listed at left. When you select "Right2" for DSP2, for example, the DSP2 Effect is applied only to the Right2 part. Note that if you select a Song or Style which needs the DSP2–5 Blocks, the Part assignment of these three Blocks will be changed automatically with last priority according to the data.
DSP5	Right1, Right2, Left, Song Channel 1–16, Mic	

3 Use the [3 ▲▼] buttons to select the Part to which you want to apply the effect.

Note that a Part cannot be selected if "Reverb," "Chorus," or "DSP1" (when the "Connection" parameter is set to "System;" see page 89 for details) is selected. This is because only one of the Effect Types can be selected to be commonly applied to all available Parts.

4 Use the [4 ▲▼]/[5 ▲▼] buttons to select the Category, and then use the [6 ▲▼]/ [7 ▲▼] buttons to select the Effect Type.

Note that the Reverb Block has no Categories.

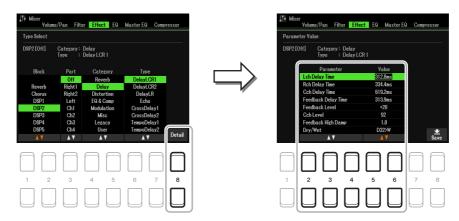
If you want to edit detailed Parameters of the selected Effect Type, press the $[8 \blacktriangle \nabla]$ (Detail) button. For details, refer to the next section.

5 Save the Effect Settings to a Registration Memory, Song or Style.

For instructions, refer to the Owner's Manual, chapter 8.

Editing and Saving Your Original Effect Type

In the Type Select display in the previous section, press one of the [8 ▲▼] (Detail) buttons to call up the display for editing the effect parameters.

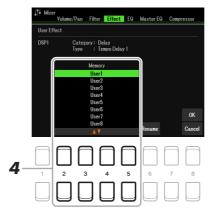


2 Use the [2 ▲▼]-[4 ▲▼] buttons to select a parameter then use the [5 ▲▼]/[6 ▲▼] buttons to edit the value.

When Reverb, Chorus, or DSP1 is selected as the Effect Block, you can adjust the Return Level via the $[7 \blacktriangle \nabla]$ (Effect Return Level) button.



3 Press the [8 ▲▼] (Save) button to call up the display for the Save operation.



4 Use the [2 ▲▼]–[5 ▲▼] buttons to select the destination for saving the settings as a User Effect.

If necessary, change the User Effect name. Press the $[6 \blacktriangle \blacktriangledown]$ (Rename) button to call up the Character Entry window, enter the name, and then press the $[8 \blacktriangle]$ (OK) button.

- **5** Press the [8 ▲] (OK) button to carry out the Save operation.
- **6** Press the [EXIT] button to return to the previous display.

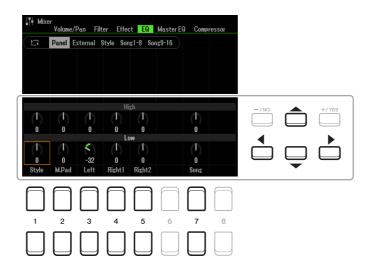
The saved User Effect can be selected from the "User" category of the corresponding Effect Block (page 88).

Editing EQ (EQ/Master EQ) Parameters

Equalizer (also called "EQ") is a sound processor that divides the frequency spectrum into multiple bands that can be boosted or cut as required to tailor the overall frequency response. The EQ page (selected by using the TAB [◀][▶] buttons) lets you adjust the EQ for each corresponding part, while the Master EQ page lets you make overall EQ adjustments for the entire instrument.

Part Equalizer (EQ)

This instrument is equipped with a 2-band digital EQ which can be set to independently process a total of 27 parts—including those for the Keyboard (3 parts), Style (8 parts), and Song (16 parts).



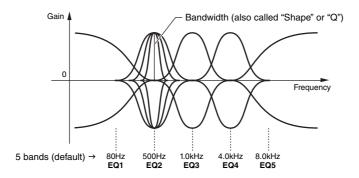
Move the Cursor on the display by using the Cursor buttons $[\blacktriangle][\blacktriangledown][\blacktriangledown]$, and use the $[1 \blacktriangle \blacktriangledown]-[8 \blacktriangle \blacktriangledown]$ buttons, [+/YES] [-/NO] buttons, or the Data dial to edit parameters.

High	Boosts or attenuates the high EQ band for each part.
Low	Boosts or attenuates the low EQ band for each part.

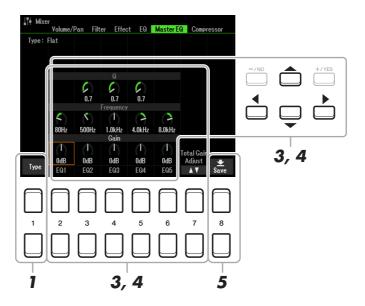
Master Equalizer (Master EQ)

This instrument is equipped with a five-band digital EQ. With this function, a final effect—tone control—can be added to the output of your instrument. You can select one of the five preset EQ types, or can even create your own custom EQ settings by adjusting the frequency bands, and save the settings as User Master EQ types.

NOTE Master EQ cannot be applied to audio playback or the metronome sound.



Press the [1 ▲▼] (Type) button to call up the Master EQ Type window.



2 Use the [1 ▲▼]–[4 ▲▼] buttons to select the desired Master EQ Type, then press the [ENTER] button.

The parameters change according to the selected Master EQ.





Flat: Flat EQ settings. The gain of each frequency is set to 0dB.

Powerful: Powerful EQ settings in which all frequency sounds are emphasized. This can be used to boost the music for parties, etc.

Mellow: Soft and mellow EQ settings in which high-frequency bands are reduced slightly.

Bright: EQ setting for boosting the level of the high frequencies, making the sound brighter.

With Subwoofer: Custom EQ settings in which low-frequency bands are reduced. This is an optimum setting for using this instrument along with a subwoofer, such as the KS-SW100 (sold separately).

User1–30: Your own custom EQ settings saved in step 5.

3 Use the Cursor buttons [▲][▼][◀][▶] to move the cursor to the Gain row, then adjust the GAIN level to boost or cut each of the five bands.

Use the $[2 \blacktriangle \blacktriangledown]$ – $[6 \blacktriangle \blacktriangledown]$ buttons, [+/YES] [-/NO] buttons, or the Data dial to adjust the level. Using the $[7 \blacktriangle \blacktriangledown]$ (Total Gain Adjust) button lets you boost or cut all the five bands at the same time.

4 If desired, adjust the Q (bandwidth) and the Frequency (center frequency) of each band.

To adjust the bandwidth (also called "Shape" or "Q"), use the Cursor buttons $[\blacktriangle][\blacktriangledown][\blacktriangledown][\blacktriangleright]$ to move the cursor to the Q row, then use the $[3 \blacktriangle \blacktriangledown]-[5 \blacktriangle \blacktriangledown]$ buttons. The higher the value of Q, the narrower the band width

To adjust the Frequency (center frequency), use the Cursor buttons $[\blacktriangle][\blacktriangledown][\blacktriangledown][\blacktriangleright]$ to move the cursor to the Frequency row, then use the $[2 \blacktriangle \blacktriangledown]-[6 \blacktriangle \blacktriangledown]$ buttons. The available Frequency range is different for each band.

5 Press the [8 ▲▼] (Save) button to carry out the Store operation.

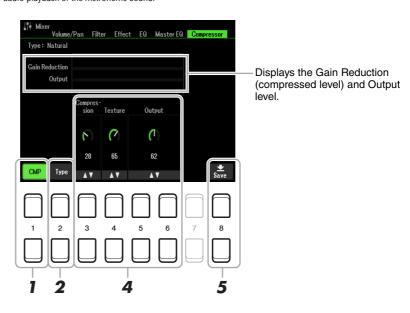
To enter the name, call up the Name operation with the $[6 \blacktriangle \blacktriangledown]$ (Rename) buttons, name the settings as desired, and then press the $[8 \blacktriangle]$ (OK) button to actually save your settings as a User Master EQ Type, which can be called up using instruction steps 1 to 2 above.

Editing Master Compressor Parameters

Compressor is a processor commonly used to limit and compress the dynamics (softness/loudness) of an audio signal. For signals that vary widely in dynamics, such as vocals and guitar parts, it "squeezes" the dynamic range, effectively making soft sounds louder and loud sounds softer. When used with gain to boost the overall level, this creates a more powerful, more consistently high-level sound.

This instrument features the Master Compressor applied to the entire sound of this instrument. Although the preset Master Compressor settings are provided, you can create and save your original Master Compressor by adjusting the related parameters.

NOTE Master Compressor cannot be applied to audio playback or the metronome sound.





- Press the [1 ▲▼] (CMP) button to turn the Master Compressor on.
- **2** Press the [2 ▲▼] (Type) button to call up the Master Compressor Type window.
- 3 Use the [1 ▲▼]–[4 ▲▼] buttons to select the Master Compressor Type, then press the [ENTER] button.



Natural: Natural Compressor settings in which the effect is moderately pronounced.

Rich: Rich Compressor settings in which the instrument's characteristics are optimally enhanced. This is good for enhancing acoustic instruments, jazz music, etc.

Punchy: Highly exaggerated Compressor settings. This is good for enhancing rock music.

Electronic: Compressor settings in which the electronic dance music's characteristics are optimally enhanced.

Loud: Powerful Compressor settings. This is good for enhancing energetic music such as rock or gospel music.

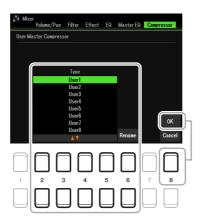
User1–30: Your own custom Compressor settings saved in step 5.

4 Edit the Master Compressor.

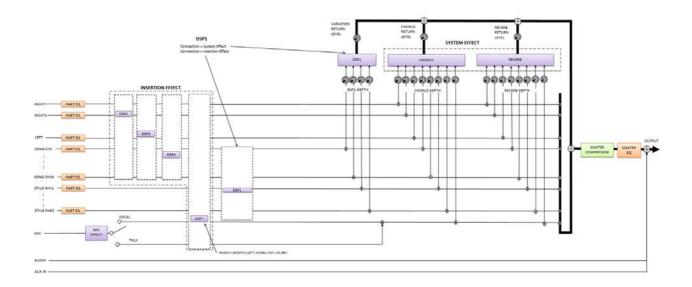
[3 ▲▼]	Compression	Determines the threshold (minimum level at which compression starts).
[4 ▲▼]	Texture	Determines the ratio of compression (how much the dynamic range is compressed).
[5 ▲▼]/ [6 ▲▼]	Output	Determines the output level.

Fress the [8 ▲▼] (Save) button to save the settings as a User Master Compressor type.

Select the destination to which the Master Compressor is to be saved, by using the $[2 \blacktriangle \blacktriangledown]$ – $[5 \blacktriangle \blacktriangledown]$ buttons. If necessary, change the Master Compressor name. Press the $[6 \blacktriangle \blacktriangledown]$ (Rename) button to call up the Character Entry window, enter the name, then press the $[8 \blacktriangle]$ (OK) button. The saved Master Compressor setting can be called up using instruction steps 2 to 3 above.



Block Diagram



9

Connections

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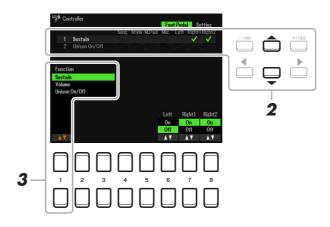
Assigning a Specific Function to Each Pedal

The functions of the foot pedals connected to the FOOT PEDAL [1]/[2] jacks can be changed individually from the default settings (sustain, etc.)—for example, letting you use the footswitch to start/stop Style playback, or use the foot controller to produce pitch bends.

NOTE For information on how to connect a foot pedal or what kinds of pedals can be connected, refer to the Owner's Manual, chapter 9.

- **1** Call up the operation display.
 - [MENU] → TAB [\blacktriangleleft] Menu1 → Cursor buttons [\blacktriangle][\blacktriangledown][\bullet] Controller → [ENTER] → TAB [\blacktriangleleft] Foot Pedal
- 2 Use the Cursor buttons [▲][▼] to select one of the two foot pedals to which the function is to be assigned.

On the display, the numbers 1 and 2 correspond to the FOOT PEDAL jacks [1] and [2] respectively.



3 Use the [1 ▲▼] buttons to select the function to be assigned to the pedal specified in step 2.

For information on available functions, see pages 96–98.

NOTE You can also assign other functions to the pedal—Punch In/Out of Song (page 61) and Registration Sequence (page 78). If you assign multiple functions to the pedal, the priority is: Punch In/Out of Song \rightarrow Registration Sequence \rightarrow Functions assigned here.

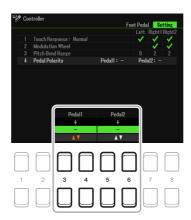


4 Use the [2 ▲ ▼]–[8 ▲ ▼] buttons to set the details of the selected functions (the part for which the function is applied, etc.).

The available parameters differ depending on the function selected in step 3.

5 If necessary, select "4 Pedal Polarity" by pressing the Cursor button [▼], then set the polarity of the pedal.

Pedal on/off operation may differ depending on the particular pedal you've connected to the instrument. For example, pressing down on one pedal may turn the selected function on, while pressing a different make/brand of pedal may turn the function off. If necessary, use this setting to reverse the operation. The $[3 \blacktriangle \blacktriangledown]/[4 \blacktriangle \blacktriangledown]$ buttons are used to set FOOT PEDAL [1] and the $[5 \blacktriangle \blacktriangledown]/[6 \blacktriangle \blacktriangledown]$ buttons are used to set FOOT PEDAL [2].



■ Assignable Pedal Functions

For functions indicated with "*", use only the foot controller; proper operation cannot be done with a footswitch.

Sustain	Allows you to use a pedal to control sustain. When you press and hold the pedal, all notes played on the keyboard have a longer sustain. Releasing the pedal immediately stops (damps) any sustained notes. You can turn this pedal function on or off for each keyboard part on this display.
Volume*	Allows you to use a foot controller to control the volume. You can turn this pedal function on or off for each part on this display.
Unison On/Off	Turns the Unison function (page 28) on or off.
Articulation1	When you use a Super Articulation Voice that has an effect corresponding to this func-
Articulation2	tion, you can enable the effect by pressing the pedal/footswitch/button assigned to this function.
Sostenuto	Allows you to use a pedal to control the Sostenuto effect. If you play a note or chord on the keyboard and press the pedal while holding the note(s), the notes will sustain as long as the pedal is held. However, all subsequent notes will not sustain. This makes it possible to sustain a chord, for example, while other notes are played staccato. You can turn this pedal function on or off for each keyboard part on this display.
	NOTE This function will not affect any of the Organ Flutes and only some of the Super Articulation Voices.
Soft	Allows you to use a pedal to control the Soft effect. Pressing this pedal reduces the volume and changes the timbre of the notes you play. This is effective only for certain appropriate Voices. You can turn this pedal function on or off for each keyboard part on this display.



Glide Up	When the pedal is pressed, the pitch changes, and then returns to normal pitch when the
Glide Down	pedal is released. You can turn this pedal function on or off for each keyboard part on this display.
	 Up/Down: Determines whether the pitch change goes up (is raised) or down (is lowered). Range: Determines the range of the pitch change, in semitones. On Speed: Determines the speed of the pitch change when the pedal is pressed. Off Speed: Determines the speed of the pitch change when the pedal is released.
Portamento	The portamento effect (a smooth slide between notes) can be produced while the pedal is pressed. Portamento is produced when notes are played legato style (i.e., a note is played while the preceding note is still held). The portamento time can also be adjusted from the Voice Set display (page 14). You can turn this pedal function on or off for each keyboard part on this display.
	NOTE This function will not affect any of the Organ Flutes and only some of the Super Articulation Voices.
Pitch Bend Up* Pitch Bend Down*	Allows you to bend the pitch of notes up or down by using the pedal. You can turn this pedal function on or off for each keyboard part on this display.
Then bend bown	Up/Down: Determines whether the pitch change goes up (is raised) or down (is lowered).Range: Determines the range of the pitch change, in semitones.
Modulation*	
Modulation	Applies modulation effects, such as vibrato, to notes played on the keyboard. You can turn this pedal function on or off for each keyboard part on this display.
Modulation Alt	This is a slight variation on Modulation above, in which the effects (waveform) can be alternately turned on/off by each press of the pedal/footswitch.
Pedal Control (Wah)	Applies the wah effect to notes played on the keyboard when the [DSP] button is turned on. You can turn this pedal function on or off for each keyboard part on this display. This parameter is available only when an effect whose category is "Modulation" and whose type is "Wah" is applied.
Organ Rotary Slow/Fast	Switches the Rotary Speaker speed between "Slow" and "Fast." This parameter is available only when an effect which contains "Rotary" in its name is applied.
Kbd Harmony/Arp On/Off	Same as the [HARMONY/ARPEGGIO] button.
Arpeggio Hold	While the pedal is pressed, Arpeggio playback continues even after you release the keyboard, and then Arpeggio stops when the pedal is released. Make sure that any one of the Arpeggio type is selected and the [HARMONY/ARPEGGIO] button is turned on.
Live Control Reset Value	Resets the values of all the assignable functions of Live Control.
Style Start/Stop	Same as the STYLE CONTROL [START/STOP] button.
Synchro Start On/Off	Same as the [SYNC START] button.
Synchro Stop On/Off	Same as the [SYNC STOP] button.
Intro1-3	Same as the INTRO [I]–[III] buttons.
Main A–D	Same as the MAIN VARIATION [A]–[D] buttons.
Fill Down	Plays a fill-in, which is automatically followed by the previous Main section (that of the button on the immediate left).
Fill Self	Plays a fill-in.
Fill Break	Plays a break.
Fill Up	
	Plays a fill-in, followed by the next Main section (that of the button on the immediate right).



Half Bar Fill In	While the pedal is pressed, the "Half Bar Fill In" function is turned on and changing sections of a Style at the first beat of the current section starts the next section from the middle with automatic fill-in. When this function is assigned to the button, each press of the button alternately toggles between the function being turned on and off.
Fade In/Out	Same as the [FADE IN/OUT] button.
Fing/On Bass	The pedal alternately switches between the Fingered and Fingered On Bass modes (page 23).
Bass Hold	While the pedal is pressed, the Accompaniment Style bass note will be held even if the chord is changed during Style playback. If the fingering is set to "AI Full Keyboard," the function does not work.
One Touch Setting +/-	Calls up the next/previous One Touch Setting.
Song Play/Pause	Same as the SONG CONTROL [▶/ ▮▮] (PLAY/PAUSE) button.
Score Page +/-	While the Song is stopped, you can turn to the next/previous score page (one page at a time).
Lyrics Page +/-	While the Song is stopped, you can turn to the next/previous lyrics page (one page at a time).
Text Page +/-	You can turn to the next/previous text page (one page at a time).
Talk On/Off	Switches between Vocal and Talk in the Mic Setting.
Reset/Tap Tempo	Same as the [RESET/TAP TEMPO] button.
Percussion	The pedal plays a percussion instrument selected by the $[4 \blacktriangle \blacktriangledown]$ – $[8 \blacktriangle \blacktriangledown]$ buttons. You can use the keyboard to select the desired percussion instrument.
	NOTE When you select the percussion instrument by pressing a key on the keyboard, the velocity with which you press the key determines the percussion volume.
Right 1 On/Off	Same as the PART ON/OFF [RIGHT 1] button.
Right 2 On/Off	Same as the PART ON/OFF [RIGHT 2] button.
Left On/Off	Same as the PART ON/OFF [LEFT] button.
	I.

MIDI Settings

In this section, you can make MIDI-related settings for the instrument. The PSR-SX600 gives you a set of ten pre-programmed templates that let you instantly and easily reconfigure the instrument to match your particular MIDI application or external device. Also, you can edit the templates and save up to ten of your original templates to the User drive.

NOTE You can save all your original templates as a single file to internal memory (User drive) or a USB flash drive. See page 112.

1 Call up the operation display.

 $[MENU] \rightarrow TAB \ [\ \ \ \ \]$ Menu2 \rightarrow Cursor buttons $[\ \ \ \ \ \ \ \]$ $[\ \ \ \ \ \ \ \]$ MIDI \rightarrow [ENTER]



2 Select a pre-programmed template from the Preset page (page 100).

If you have already created your original template and saved it to the User page, you can also select that template from the User page.

- **3** To edit the template, press the [8 ▼] (EDIT) button to call up the MIDI display.
- **4** Use the TAB [◀][▶] buttons to call up the relevant page, then set various parameters to edit the current MIDI template.
 - System MIDI System Settings (page 101)
 - Transmit MIDI Transmit Settings (page 102)
 - Receive MIDI Receive Settings (page 103)
 - On Bass Note On Bass Note Settings for Style Playback via MIDI Receive (page 104)
 - Chord Detect............ Chord Type Settings for Style Playback via MIDI Receive (page 104)
- **5** When you've finished editing, press the [EXIT] button to return to the MIDI template Selection display.



6 Select the User page by pressing the TAB [▶] button, then press the [6 ▼] (Save) button to save the edited template.

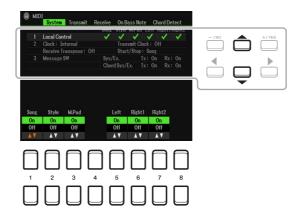
■ Pre-programmed MIDI Templates

All Parts	Transmits all parts including the keyboard parts (RIGHT 1, 2, and LEFT), with the exception of Song parts.
KBD & STYLE	Basically the same as "All Parts" with the exception of how keyboard parts are managed. The right-hand parts are handled together as "UPPER" instead of RIGHT 1 and 2, and the left-hand part is handled as "LOWER."
Master KBD	In this setting, the instrument functions as a "master" keyboard, playing and controlling one or more connected tone generators or other devices (such as a computer/sequencer).
Song	All transmit channels are set to correspond to Song channels 1–16. This is used to play Song data with an external tone generator and to record Song data to an external sequencer.
Clock Ext.	Playback or recording (Song, Style, Multi Pad, etc.) synchronizes with an external MIDI clock instead of the instrument's internal clock. This template should be used when you wish to set the tempo on the MIDI device connected to the instrument.
MIDI Accord1	MIDI accordions allow you to transmit MIDI data and play connected tone generators from the keyboard and bass/chord buttons of the accordion. This template lets you play melodies from the keyboard and control Style playback on the instrument with the left-hand buttons.
MIDI Accord2	Basically the same as "MIDI Accord1" above, with the exception that the chord/bass notes you play with your left hand on the MIDI Accordion are recognized also as MIDI note events.
MIDI Pedal1	MIDI pedal units allow you play connected tone generators with your feet (especially convenient for playing single note bass parts). This template lets you play/control the chord root in Style playback with a MIDI pedal unit.
MIDI Pedal2	This template lets you play the bass part for Style playback by using a MIDI pedal unit.
MIDI Off	No MIDI signals are sent or received.

MIDI System Settings

The explanations here apply to the System page in step 4 on page 99.

Use the Cursor buttons $[\blacktriangle][\blacktriangledown]$ to select the parameters (below), then set the On/Off status by using the $[1 \blacktriangle \blacktriangledown] - [8 \blacktriangle \blacktriangledown]$ buttons.



1 Local Control

Turns the Local Control for each part on or off. When Local Control is set to "On," the keyboard of the instrument controls its own (local) internal tone generator, allowing the internal Voices to be played directly from the keyboard. If you set Local to "Off," the keyboard and controllers are internally disconnected from the instrument's tone generator section so that no sound is output when you play the keyboard or use the controllers. For example, this allows you to use an external MIDI sequencer to play the instrument's internal Voices, and use the instrument keyboard to record notes to the external sequencer and/or play an external tone generator.

2 Clock setting, etc.

■ Clock

Determines whether the instrument is controlled by its own internal clock or a MIDI clock signal received from an external device (USB1, USB2, or Wireless LAN). Internal is the normal Clock setting when the instrument is being used alone or as a master keyboard to control external devices. If you are using the instrument with an external sequencer, MIDI computer, or other MIDI device, and you want to synchronize it to that device, set this parameter to the appropriate setting: USB1, USB2, or Wireless LAN. In this case, make sure that the external device is connected properly (e.g., to the instrument's MIDI IN terminal), and that it is properly transmitting a MIDI clock signal.

NOTE When Clock is set to a value other than Internal, the tempo is indicated as "Ext." on the Main display. This means that playback of this instrument is controlled only from an external MIDI device or computer. In this condition, Styles, Songs, Multi Pads or the Metronome cannot be played back even if you carry out the start operation.

NOTE When a USB wireless LAN adaptor is connected to the [USB TO DEVICE] terminal, the "Wireless LAN" parameter can also be selected.

■ Transmit Clock

Turns MIDI clock (F8) transmission on or off. When set to Off, no MIDI clock or Start/Stop data is transmitted even if a Song or Style is played back.

■ Receive Transpose

Determines whether or not the instrument's transpose setting is applied to the note events received by the instrument via MIDI.

■ Start/Stop

Determines whether incoming FA (start) and FC (stop) messages affect Song or Style playback.

3 Message SW (Message Switch)

■ Sys/Ex.

The "Transmit" setting turns MIDI transmission of MIDI System Exclusive messages on or off. The "Receive" setting turns MIDI reception and recognition of MIDI System Exclusive messages generated by external equipment on or off.

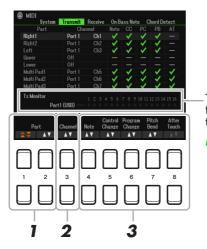


■ Chord Sys/Ex.

The "Transmit" setting turns MIDI transmission of MIDI chord exclusive data (chord detect. root and type) on or off. The "Receive" setting turns MIDI reception and recognition of MIDI chord exclusive data generated by external equipment on or off.

MIDI Transmit Settings

The explanations here apply to the Transmit page in step 4 on page 99. This determines which parts will be sent as MIDI data and over which MIDI channel the data will be sent.



The dots corresponding to each channel (1–16) flash briefly whenever any data is transmitted on the channel(s).

NOTE If "WLAN" is shown, this instrument can handle MIDI messages received via the USB wireless LAN adaptor connected to the [USB TO DEVICE] terminal. When "WLAN" is not shown although the USB wireless LAN adaptor is connected, turn the instrument off then on again.

Use the [1 ▲▼]/[2 ▲▼] (Part) buttons to select the part for changing transmit settings.

You can use the $[1 \blacktriangle \blacktriangledown]$ button to skip up or down through the part type (keyboard part, Multi Pad, and Style), while you can use the $[2 \blacktriangle \blacktriangledown]$ button to move up or down to the next part one by one. The Parts listed on this display are the same as those shown in the Mixer display and Channel On/Off display with the exception of the two parts below.

Upper: A keyboard part played on the right side of the keyboard from the Split Point for the Voices (RIGHT 1 and/or 2).

Lower: A keyboard part played on the left side of the keyboard from the Split Point for the Voices. This is not affected by the on/off status of the [ACMP] button.

2 Use the [3 ▲▼] (Transmit Channel) buttons to select a channel via which the selected part will be transmitted.

NOTE If the same transmit channel is assigned to several different parts, the transmitted MIDI messages are merged to a single channel—resulting in unexpected sounds and possible glitches in the connected MIDI device.

NOTE Protected Songs cannot be transmitted even if the proper Song channels 1–16 are set to be transmitted.

Use the [4 ▲▼]–[8 ▲▼] button to enter checkmarks to the corresponding MIDI messages you wish to be transmitted.

MIDI messages having checkmarks can be transmitted.

• [4 ▲▼] (Note): Note events

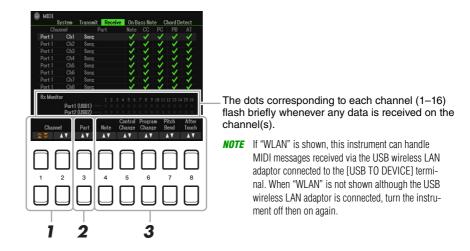
• [5 ▲▼] (CC): Control Change

[6 ▲▼] (PC): Program Change
 [7 ▲▼] (PB): Pitch Bend

• [8 ▲ ▼] (AT): After Touch

MIDI Receive Settings

The explanations here apply to the Receive page in step 4 on page 99. This determines which parts will receive MIDI data and over which MIDI channels the data will be received.



- Use the $[1 \blacktriangle \blacktriangledown]/[2 \blacktriangle \blacktriangledown]$ (Channel) buttons to select the channel to be received.
 - The $[1 \blacktriangle \blacktriangledown]$ button can search the ports while the $[2 \blacktriangle \blacktriangledown]$ button can search each of channels one by one.

You can use the $[1 \blacktriangle \blacktriangledown]$ button to skip up or down through the next port, while you can use the $[2 \blacktriangle \blacktriangledown]$ button to move up or down to the next channel one by one.

The instrument can receive MIDI messages over 32 channels (16 channels x 2 ports) by USB connection.

2 Use the [3 ▲ ▼] (Part) buttons to select the part via which the selected channel will be received.

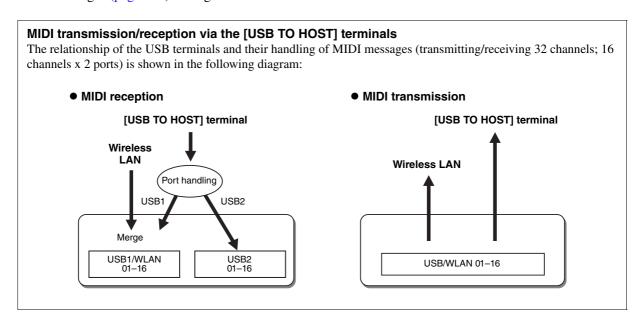
The Parts listed on this display are the same as those shown in the Mixer display and Channel On/Off display with the exception of the following parts.

Keyboard: The received note messages control the parts which can be performed with the keyboard of the instrument.

Extra Part 1–5: There are five parts specially reserved for receiving and playing MIDI data. Normally, these parts are not used by the instrument itself. The instrument can be used as a 32-channel multitimbral tone generator by using these five parts in addition to the other parts of the instrument.

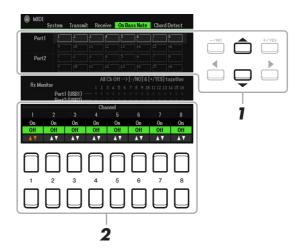
Use the [4 ▲▼]–[8 ▲▼] button to enter checkmarks to the corresponding MIDI messages you wish to be received.

MIDI messages (page 102) having checkmarks can be received.



On Bass Note Settings for Style Playback via MIDI Receive

The explanations here apply to the On Bass Note page in step 4 on page 99. These settings let you determine the bass note for Style playback, based on the note messages received via MIDI. The note on/off messages received at the channel(s) set to "On" are recognized as the bass note of the chord of Style playback. The bass note will be detected regardless of the [ACMP] or split point settings. When several channels are simultaneously set to "ON," the bass note is detected from merged MIDI data received over the channels.

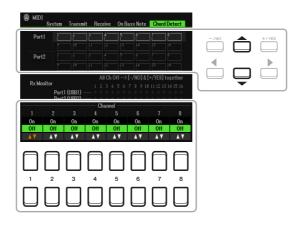


- Use the Cursor buttons [▲][▼] to select the channel.
- 2 Use the [1 ▲ ▼]-[8 ▲ ▼] buttons to set the desired channel to ON or OFF.

 You can also set all channels to OFF by pressing the [-/NO] and the [+/YES] buttons simultaneously.

Chord Type Settings for Style Playback via MIDI Receive

The explanations here apply to the Chord Detect page in step 4 on page 99. This page lets you select the MIDI channels over which the MIDI data from the external device will be used to detect the Chord Type for Style playback. The note on/off messages received at the channel(s) set to "On" are recognized as the notes for detecting chords in Style playback. The chords to be detected depend on the fingering type. The chord types will be detected regardless of the [ACMP] or split point settings. When several channels are simultaneously set to "ON," the chord type is detected from merged MIDI data received over the channels.



The operation procedure is basically the same as that of the On Bass Note display above.

Connecting with a Smart Device via Wireless LAN

By using a USB wireless LAN adaptor (sold separately), you can connect the PSR-SX600 with a smart device via a wireless network. For general operating instructions, refer to the "Smart Device Connection Manual" on the website. This section covers only operations that are specific to the PSR-SX600. Before starting operations, make sure the USB wireless LAN adaptor is connected to the [USB TO DEVICE] terminal and call up the setup display via [MENU] \rightarrow TAB [\blacktriangleright] Menu2 \rightarrow Cursor buttons [\blacktriangle][\blacktriangledown][\blacktriangleright] Wireless LAN \rightarrow [ENTER].

NOTICE

Do not connect this product to public Wi-Fi and/or Internet directly. Only connect this product to the Internet through a router with strong password-protections. Consult your router manufacturer for information on security best practices.

NOTE If the USB wireless LAN adaptor is not recognized by the instrument, "Wireless LAN" is not shown. When "Wireless LAN" is not shown even though a USB wireless LAN adaptor has been connected, turn the instrument off, and then on again.

When the connection is successful, "Connected" is shown at the top of the display, and an icon indicating the signal strength appears at the right of each available connection.

Infrastructure Mode



[1 ▲▼]/ [2 ▲▼]	WPS	Connects this instrument to the network via WPS. Press this button followed by the [7 ▲▼] (Yes) button, then, press the WPS button on your access point within two minutes.
[3 ▲▼]	Mode	Switches to the Access Point Mode.
[4 ▲▼]	Detail	For setting the detailed parameters. After making these settings, press one of the $[7 \blacktriangle \blacktriangledown]/[8 \blacktriangle \blacktriangledown]$ (Save) button to actually save them.
		IP ADDRESS: Sets the IP address and other related parameters. OTHERS: Sets the Host name.
[5 ▲▼]/ [6 ▲▼]	Initialize	Initializes the connection setup to the default factory status.
[7 ▲▼]/ [8 ▲▼]	Connect	Use the Cursor buttons $[\blacktriangle][\blacktriangledown]$ to select the network. Pressing one of the $[7 \blacktriangle \blacktriangledown]/[8 \blacktriangle \blacktriangledown]$ buttons connects to the selected network. If you select "Others," this calls up the Manual Setup display in which you set the SSID, security method, and password. After entering those, press one of the $[7 \blacktriangle \blacktriangledown]/[8 \blacktriangle \blacktriangledown]$ buttons in the Manual Setup display to connect to the network.
		Tressing the TAD [] and [] buttons simultaneously updates the network list on the display.



[3 ▲▼]	Mode	Switches to the Infrastructure Mode.
[4 ▲▼]	Detail	For setting the detailed parameters on the pages below. After making these settings, press one of the $[7 \blacktriangle \blacktriangledown]/[8 \blacktriangle \blacktriangledown]$ (Save) buttons to actually save them.
		Wireless Network: For setting the SSID, security, password, and channel. IP Address: For setting the static IP address and other related parameters. Others: For entering the Host name or showing MAC address, etc.
[5 ▲▼]/ [6 ▲▼]	Initialize	Initializes the connection setup to the default factory status.

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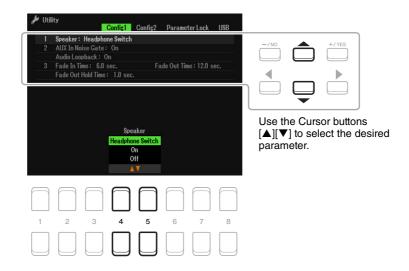
This section covers only the Utility and System displays in the Menu. For other displays, refer to the "Function List" in the Owner's Manual to see where you can find the instructions.

Utility

Call up the operation display.

 $[MENU] \to [\blacktriangleright] \ Menu2 \to Cursor \ buttons \ [\blacktriangle][\blacktriangledown][\blacktriangle][\blacktriangleright] \ Utility \to [ENTER]$

Config1



1 Speaker setting

[4 ▲▼]/ [5 ▲▼]	Speaker	Determines whether or not the sound is output from the speaker of this instrument.
		Headphone Switch: Speaker sounds normally, but is cut off when headphones are connected to the [PHONES] jack.
		On: Speaker sound is always on, even if headphones are connected.
		Off: Speaker sound is off. You can only hear the instrument sound via the head-
		phones or an external device connected to the AUX OUT jacks.



2 External connection-related settings

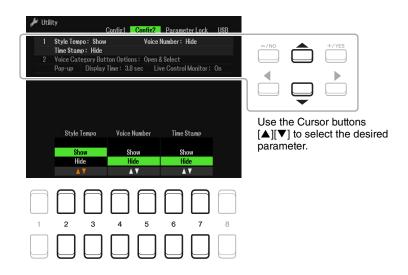
[3 ▲▼]/ [4 ▲▼]	AUX In Noise Gate	Turns on or off the Noise Gate which minimizes noise of the sound input via the [AUX IN] jack.
[5 ▲▼]/ [6 ▲▼]	Audio Loopback	Determines whether audio input from the connected computer or smart device is output to a computer or a smart device or not. For details, refer to the Owner's Manual, Chapter 9.

3 Fade In/Out

These parameters determine how Style or Song playback is faded in/out when using the [FADE IN/OUT] button. The settings here become effective also when the Fade In/Out function is assigned in the pedal settings (page 95).

[2 ▲▼]/ [3 ▲▼]	Fade In Time	Determines the time it takes for the volume to fade in, or go from minimum to maximum (range of 0–20.0 seconds).
[4 ▲▼]/ [5 ▲▼]	Fade Out Time	Determines the time it takes for the volume to fade out, or go from maximum to minimum (range of 0–20.0 seconds).
[6 ▲▼]/ [7 ▲▼]	Fade Out Hold Time	Determines the time the volume is held at 0 following the fade out (range of 0–5.0 seconds).

Config2



1 Display-related settings

[2 ▲▼]/ [3 ▲▼]	Style Tempo	Determines whether the default tempo of each preset Style is shown or hidden above the Style name in the Style Selection display. NOTE This setting is applied only to Preset Styles.
[4 ▲▼]/ [5 ▲▼]	Voice Number	Determines whether the Voice bank and number are shown or hidden in the Voice Selection display. Displaying these is helpful when you want to check which bank select MSB/LSB values and program change number you need to specify when selecting the Voice from an external MIDI device. **NOTE** The numbers displayed here start from "1." Accordingly the actual MIDI program change numbers are one lower, since that number system starts from "0." **NOTE** This setting is applied only to Preset Voices.
[6 ▲▼]/ [7 ▲▼]	Time Stamp	Determines whether the updated date and time are shown or hidden on the File Selection display. NOTE Only files which have been edited/saved on the computer reflect the time stamp updated by the computer. Files saved on the instrument show the date and time set at the factory.

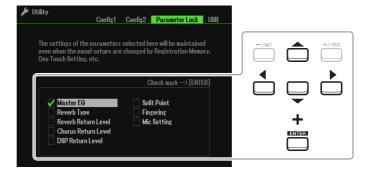


2 Voice Category Button Options / Pop-up display

[2 ▲▼]/ [3 ▲▼]	Voice Category Button Options	Determines how the Voice Selection display is opened when one of the VOICE buttons is pressed.
		 Open & Select: Opens the Voice Selection display with the previously selected Voice in the Voice category automatically selected (when one of the VOICE buttons is pressed). Open Only: Opens the Voice Selection display with the currently selected Voice (when one of the VOICE buttons is pressed).
[4 ▲▼]/ [5 ▲▼]	Pop-Up Display Time	Determines the time in which the pop-up displays close. (Pop-up displays are shown when you press buttons such as TEMPO, TRANSPOSE or UPPER OCTAVE, etc.)
[6 ▲▼]/ [7 ▲▼]	Live Control Monitor	Determines whether the pop-up display indicating the current status of the knobs is shown or hidden when you rotate the knobs.

Parameter Lock

This lets you lock or maintain the settings of specific parameters (such as Effect and Split Point), even when the panel setups are changed by Registration Memory, One Touch Setting, etc.



To set this function, use the Cursor buttons $[\blacktriangle][\blacktriangledown][\bullet]$ to select the desired parameter, and then press the [ENTER] button to enter (or remove) checkmarks. Repeat this step as desired. Items having checkmarks will be locked.

You can set or carry out important USB flash drive-related operations for the instrument.

NOTE Before using a USB flash drive, be sure to read "Connecting USB Devices" in the Owner's Manual, chapter 9.



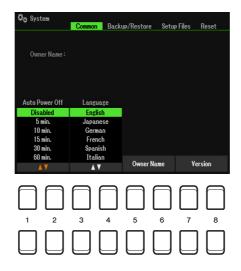
[1 ▲▼]/ [2 ▲▼]	Drive	When a USB flash drive is connected, "USB1" is shown.
[3 ▲▼]/ [4 ▲▼]	Property	Indicates the properties (such as memory capacity, etc.) of the connected USB flash drive.
		NOTE The displayed remaining memory value is an approximate value.
[7 ▲▼]/ [8 ▲▼]	Format	Formats the drive above. For instructions, refer to the Owner's Manual, chapter 9.

System

Call up the operation display.

 $[MENU] \rightarrow TAB \ [\blacktriangleright] Menu2 \rightarrow Cursor buttons \ [\blacktriangle] \ [\blacktriangledown] \ [\blacktriangleright] System \rightarrow [ENTER] \rightarrow TAB \ [\blacktriangleleft] Common$

Common



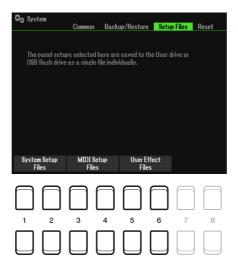
[1 ▲▼]/ [2 ▲▼]	Auto Power Off	Determines the amount of time that elapses before the power is automatically turned off. When "Disabled" is selected, the instrument starts up with the Auto Power Off function disabled.
[3 ▲▼]/ [4 ▲▼]	Language	Determines the language used for the display messages. Once you change this setting, all messages will be shown in the selected language.
[5 ▲▼]/ [6 ▲▼]	Owner Name	Lets you enter your name as the owner. The Owner name is indicated on the opening display when you turn the power on. For instructions on entering characters, refer to "Basic Operations" in the Owner's Manual.
[7 ▲▼]/ [8 ▲▼]	Version	Displays the program version and the hardware ID of this instrument.

Backup/Restore

Refer to "Basic Operations" in the Owner's Manual.

For the items below, you can save your original settings to User or USB drive as a single file for future recall.

- 1 Make all desired settings on the instrument.
- **2** Call up the operation display.



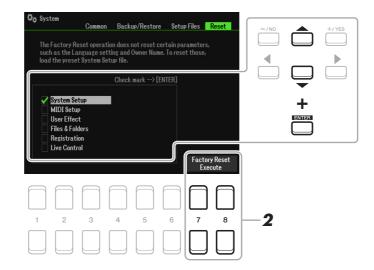
3 Use the [1 ▲▼]–[8 ▲▼] buttons to call up the relevant display for saving your data.

[1 ▲▼]/ [2 ▲▼]	System Setup Files	Parameters set on the various displays, such as the Utility display called up via the [MENU] button, are handled as a single System Setup file. Refer to the "Parameter Chart" in the Data List on the website for details on which parameters belong to System Setup.
[3 ▲▼]/ [4 ▲▼]	MIDI Setup Files	The MIDI settings including the MIDI Setups on the User tab display are handled as a single file.
[5 ▲▼]/ [6 ▲▼]	User Effect Files	The following data can be managed as a single file. • User Effect types

- **4** Use the TAB [◀][▶] buttons to select one of the tabs (User or USB) to which your settings will be saved.
- **5** Press the [6 ▼] (Save) button to save your file.
- **6** To recall your file, select the desired file in the Setup Files.

If you want to call up the factory default files, select the file in the Preset tab. When the file is selected, a message is displayed according to the content of the file. Press the desired button.

This function lets you restore the status of the instrument to the original factory settings.



Use the Cursor buttons [▲][▼] to select the desired item then use the [ENTER] button to enter or remove the checkmark.

When an item is checkmarked, the corresponding parameters will be reset as described below:

System Setup	Resets the System Setup parameters to the original factory settings. Refer to the "Parameter Chart" in the Data List on the website for details about which parameters belong to System Setup.
MIDI Setup	Resets the MIDI settings including the MIDI Setups on the User tab display to the original factory status.
User Effect	Resets the current Effect settings and the following data: • User Effect types
Files & Folders	Deletes all files and folders including the Expansion folder stored in the User tab display.
Registration	Turns off all the Registration Memory [1]–[8] lamps, indicating that no Registration Memory Bank is selected although all the Registration Memory Bank files are maintained. In this status, you can create Registration Memory setups from the current panel settings. **NOTE** The same operation can be done by turning the power on while holding the B5 key (rightmost B key). In this
Live Control	case, you can create Registration Memory setups from the default panel settings. Resets the LIVE CONTROL Setup parameters to the original factory settings.

Press one of the [7 ▲▼]/[8 ▲▼] (Factory Reset Execute) buttons to carry out the Factory Reset operation for all checkmarked items.

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