Roland

EXPANDABLE ARRANGER E-A7

Reference Manual

Contents

An Overview of the E-A7

Basic Structure

Broadly speaking, the E-A7 consists of a controller section, a sound generator section, an arranger/song player section, and a sampler section.

Controller Section

The controller section is what you perform on. For example, the performer's actions such as **"playing the keyboard"** are sent from the controller section to the sound generator section, causing it to produce sound.
The controller section includes the keyboard, assignable lever, the panel sliders and buttons, and the pedals connected to the rear panel.

Sound Generator Section

This section produces the sound. It receives performance data from the controller section, the arranger/song player section, and external MIDI devices, and produces a variety of sounds in response to such data.

Arranger/Song Player Section

The arranger detects chords by analyzing the operations from the keyboard controller, and plays the appropriate style data.
The song player plays back audio files or sends MIDI messages from SMF data to the sound generator.

Sampler Section

The sampler captures sounds from an audio device or mic connected to the input jacks, or audio files (WAV files) from a USB flash drive, and saves them as User Samples.
You can use these user samples to create user sounds (User Tones, User Drum Kits).

Units of Sound

Tone

Tones are the units of sound with which you perform.
Tones that you created by editing the built-in tones, or by loading a waveform (User Sample) you created using the sampling function, are called **"User Tones."**

Drum Kit

A drum kit is a group of percussion instrument sounds.
In a drum kit, a different percussion instrument sound is played by each key (note number) you press.
The sounds (mainly percussion instrument sounds) that are assigned to each note of the internal drum kits are called Drum Inst.
The drum inst of the internal drum kits or waveforms (user samples) that you captured using the sampling function can be freely assigned to the keyboard to create your own original drum kit.
A drum kit created by the user is called a **"User Drum Kit."**

User Sample

A waveform captured by the sampling function is called a **"User Sample."**
User samples are the material from which you can create user sample tones and user drum kits.

User Program (UPG)

A User Program (UPG) contains tone settings for the four parts that are assigned as the Keyboard Parts (Upper1, Upper2, Upper3, Lower). The style and song settings, as well as all settings that are loaded with them (for example, the intro and ending status, and settings for the selected variation), are also handled together within the user program (UPG).
You can store one hundred UPGs as a User Program Set (UPS).

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You can store one hundred UPGs as a User Program Set (UPS).
UPG data is managed in units of UPS (.UPS files).

UPG settings data
- Keyboard Part Mixer
- Style Part Mixer
- Melody Intelligent
- Arranger Setting
- Split
- Transpose
- Scale Tune
- Pad Setting
- Assignable Setting
- Other
  Intro, Variation, and Ending status
  Auto Fill on/off
  Sync Start/Stop on/off
  Bass Inversion on/off

User Program (UPG)

Keyboard Part

Upper1 / Upper2 / Upper3 / Lower → **Keyboard Part Effects** (EQ, MFX)

Style/Song Part

*   Style and Song (SMF, Audio) cannot be played simultaneously.

Style (ACC1–6, Bass, Drum) → **Style/Song Part Effects (*)** (EQ, MFX A, MFX B)

Song (SMF) Part 1–16

Song (Audio) Wav/MP3

(*) Chorus, Reverb

Mastering Tools EQ, Compressor

*   Style/Song Effect, Chorus, and Reverb settings are located in Makeup Tools.

Within a user program, the E-A7 can save settings for the style, the song, and the tones.
However, it is not the case that the user program contains the actual data (file) for the style, the song, and the tones; rather, the user program contains references to these items of data.

For style, song, and phrase data, the user program remembers the location and name of that data.
For example, if, after saving a user program, you then rename, delete, or move a style, the user program will no longer be able to reference the style data that it originally used. If a user program references style data from a USB flash drive, that style data can't be referenced if the USB flash drive is disconnected.
In such cases, you'll have to return the style data to its original location and name at the time when the user program was saved, or re-select the style. The same applies to song and phrase data.

For user tone and user drum kit data, the user program remembers the location (tone number) of the data.
If the user program or style uses (contains) a user tone or user drum kit, and you then change the tone number, the tone used when the data was saved can no longer play. In such cases, you'll have to return the tone number (location) to its original state at the time that the user program or user style was saved, or re-select the user tone or user drum kit.

If you want to save or exchange the user data in its entirety, it's convenient to use Backup/Restore (p. 67).
You can back up data such as user programs, user styles, and user tones from internal storage as a single unit. You can then restore this data to return to the original state.
However, the data (user programs and user styles) in external storage (USB memory) is not backed-up.
We recommend that you also make a copy of the user data on USB flash drive along with the backup file.

Effects

The E-A7 contains the following effects units. You can make settings independently for each of them.

MFX (Multi Effects)

This is a general-purpose multi-effect that modifies the sound itself, potentially giving it a completely different tonal character.
A wide variety of types are provided, and you can choose the type that's most appropriate for your purpose.
There are a total of three MFX units: one unit dedicated to the keyboard part, and two units for backing.

Chorus

Chorus is an effect that adds depth and spaciousness to the sound. You can choose whether to use this effect unit as chorus or as delay.
The depth of chorus can be adjusted individually for each part.

Reverb

Reverb is an effect that gives the sound a spatial ambience that's characteristic of a performance in a hall.
Several types are provided, and you can choose the type that's most appropriate for your purpose.
The depth of reverb can be adjusted individually for each part.

Input EFX

This unit can apply reverb or other effects to the sound from the input jacks.

Mastering Tools

The mastering tools consist of a mastering compressor and equalizer that are applied to all parts.

About the Styles

The E-A7 can generate interactive accompaniments based on the style you select.
Styles are assigned to the Style buttons by category, and each Style button is also divided into sub-categories.
In addition to using the internal styles, you can also create your own original styles.

➡ **"Style Composer"** (p. 39)

Style data is a collection of accompaniment patterns (called **"divisions"**) each consisting of up to eight parts. Based on four accompaniment variations for different energy levels of the main song, they include divisions such as intros, endings, and fills.
By using the panel buttons to switch between these divisions, you can freely create the structure of the song while you perform.
As you perform, the accompaniment changes according to the chords that you play on the keyboard.

Style

Performance data

Part \ Division	Intro 1–4	Variation 1–4	Fill 1–4	Ending 1–4
ACC1				
ACC2				
ACC3				
ACC4				
ACC5				
ACC6				
Bass				
Drum				

Performance data for each Part, each Division
- Note
- Program Change
- Control Change

etc...

Makeup Tools (various settings) (p. 50)
- Offset values for Volume and Pan etc.
- EQ
- MFX A/B
- Chorus/Reverb
* These settings are made for each tone or drum kit included in the style.

One Touch 1–4 (p. 23)
One Touch memorizes the settings of the Keyboard Part (such as Upper1).
Use these when you want to recall performance settings that are appropriate for the style.

About the Memory

The state of the E-A7's parameters and the data that you create are held in memory.
This memory is divided into three categories: **"temporary memory," "rewritable memory,"** and **"non-rewritable memory."**

Temporary memory (Temporary area)

A user program (UPG) that you load during a performance, and the panel settings that you modify while performing, are held in temporary memory (the temporary area).
When you edit a User Tone or user drum kit, this data is also held in the temporary area during that time.
Settings in the temporary area are temporary, and will be lost when you turn off the power or recall other settings. If you want to keep the settings that are in the temporary area, you must save them to rewritable memory.

Memory Structure

Data related

Internal Storage
- UPS (User Program)
- User Style, Song
- Phrase
  etc…

External Storage (USB Memory)
- UPS (User Program)
- User Style, Song
- Phrase
  etc…

System Memory
- Global
- My Setup
- Favorite
- Scale Memory 1–3

Preset Memory
- Music Assistant
- Preset Tone / Drum Kit
- Preset Style
- *   Non-rewritable memory

Wave related

User Sample Memory
- Sample Wave

Preset Wave Memory
- Preset (Internal) Wave
- *   Non-rewritable memory

Internal Storage
The memory that lets you store data inside the E-A7 is called Internal Storage.
This holds user programs sets (UPS), user styles, User Tone settings, and user drum kit settings.

External Storage
You can insert a USB flash drive and store data outside the E-A7. Such external memory (a USB flash drive) is called External Storage, and can be used in the same way as internal storage.
External storage can also be used as an audio recording destination, or to back up data.

System Memory
System Memory is located inside the E-A7, and stores system settings that determine the overall operation of the E-A7.

Preset Memory
This memory holds parameters for the internal sounds, internal styles, and Music Assistant. Its data cannot be rewritten.

User Sample Memory
This is memory that stores user samples that were captured by sampling or that were imported by the sample import function.

Preset Wave Memory
This memory contains waveform data used by the internal sounds. Its data cannot be rewritten.

Menu Options

By pressing the E-A7's **[Menu]** button you can access various settings and functions.
The menu contains the following items.

1. **Press the [Menu] button.**
The Menu screen appears.

2. **Use the direct buttons to select a function or parameter group.**
Switch pages as necessary.

Group	Explanation
Global	Make settings for the entire E-A7 or for the system.
User Program Edit	Make User Program settings.
One Touch Setting	Access the One Touch Setting screen.
Sampling Menu	Access sampling-related items.
Style Composer	Access items related to Style Composer. Style Composer is a function that creates user styles.
Makeup Tools	Access items related to Makeup Tools. Makeup Tools are functions for easily editing a style or SMF.
SMF Mark&Jump	Access the SMF Mark&Jump function setting screen (p. 55).
Lyrics	Allow lyric data to be displayed on the E-A7 (limited to SMF or mp3 files that contain lyric data) (p. 56).
Mastering Tools	Adjust the compressor and equalizer that are applied to the output.
MIDI	Make MIDI-related settings.
File Utility	Perform operations on the files that are saved in the E-A7's internal storage and external storage (p. 66).
Utility	Perform operations for the entire E-A7 (such as initialization and backup).

3. **In the screen that appears after you make the selection, edit the parameters or execute the command.**

> **MEMO**
>
> - Press the **[Exit]** button once to return to the next higher level.
> - Long-press the **[Exit]** button to return to the Main screen.
> - When the main page is shown in the left display, you can press the **[Option]** button located at the left to jump to some of the functions.
>   - When in Style mode
>   - ○ Style Composer
>   - ○ Makeup Tools
>   - ○ One Touch Setting
>   - When in Song (SMF) mode
>   - ○ SMF Mark & Jump
>   - ○ Makeup Tools

Global Parameters

The settings of the **"Global"** parameters can be saved to the E-A7's global memory.
Global parameters are automatically saved when you exit the page or turn off the power.
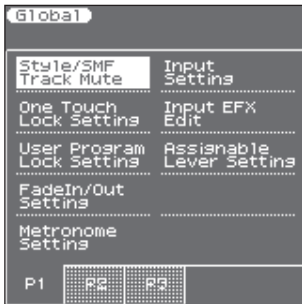
Style/SMF Track Mute

See **"Muting a Specific Track (Track Mute)"** on Owner's Manual: p. 24.

One Touch Lock Setting

This parameter can be selected using **[MENU]** → **"Global"** → **"One Touch Lock Setting."**
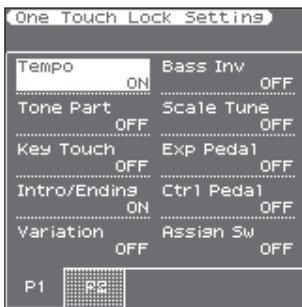
The parameters on this page allow you to filter certain **"One Touch"** settings. Select **"On"** for the settings you do not want to load along with the remaining One Touch settings when you press a ONE TOUCH button.

Parameter	Value
Tempo	OFF, ON
Keyboard Part	OFF, ON
Key Touch	OFF, ON
Intro/Ending	OFF, ON
Variation	OFF, ON
Bass Inv	OFF, ON
Scale Tune	OFF, ON
Exp Pedal	OFF, ON
Ctrl Pedal	OFF, ON
Assign Sw	OFF, ON
Pad	OFF, ON

User Program Lock Setting

This page can be selected using **[MENU]** → **"Global"** → **"User Program Lock Setting."**
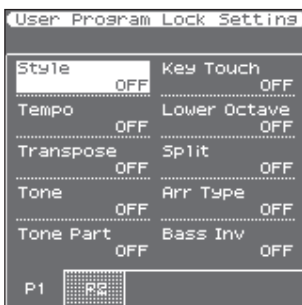
The parameters on this page allow you to filter certain User Program settings. Select **"On"** for the settings you do not want to load

along with the remaining settings when you select a User Program memory.

Parameter	Value
Style	OFF, ON
Tempo	OFF, ON
Transpose	OFF, ON
Tone	OFF, ON
Keyboard Part	OFF, ON
Key Touch	OFF, ON
Lower Octave	OFF, ON
Split	OFF, ON
Arr Type	OFF, ON
Bass Inv	OFF, ON
Scale Tune	OFF, ON
Exp Pedal	OFF, ON
Ctrl Pedal	OFF, ON
Assign Sw	OFF, ON
Pad	OFF, ON

* If the UPG Lock button is enabled (lit), parameters that are turned on will be locked.
* If you long-press one of the Style category buttons, the Style is temporarily locked. If you long-press one of the Tone category buttons, Tone, Lower Octave, and Key Touch are temporarily locked. If you long-press the Transpose **[+]** or **[-]** button, Transpose is temporarily locked.

Fade In/Out Setting

These parameters can be selected using **[MENU]** → **"Global"** → **"FadeIn/Out Setting."**

Parameter	Value	Explanation
Time In	0–20s	Use this parameter to change the Fade In duration.
Time Out		Use this parameter to change the Fade Out duration.
Time Hold	1–10s	Use this parameter to set how long it takes for the volume to return to the master **[VOLUME]** setting after completing the fade-out.

Metronome Setting

See **"Using the Metronome"** on Owner's Manual: p. 19.

Input Setting
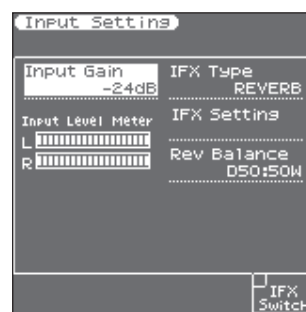
Parameter	Value	Explanation
Input Gain	-24 dB - 48 dB	Adjusts the input gain. If the input sound is not loud enough, raise this setting. (This adjusts L/MONO, MIC - R Input. It does not adjust the EXT IN input level.)
IFX Type	OFF, REVERB, DELAY	Selects the type of input effect.
IFX Edit		Accesses the edit screen of the effect that's selected in IFX Type.
IFX Balance	D100:0W– D0:100W	Specifies the balance between the original sound (D) and the effect sound (W).
IFX Switch (**[F5]** button)		Turns the input effect on/off.

Parameter	Value	Explanation
Input Level Meter		Adjusts the input level. Use the Input Gain and the panel Mic/Line In Volume to adjust the level so that the maximum is not reached.

Input EFX Edit

This parameter is not shown if the Input Setting parameter IFX Type is set to OFF.

If the Input Setting parameter IFX Type is set to REVERB

Parameter	Value	Explanation
Reverb Type	ROOM1, ROOM2, STAGE1, STAGE2, HALL1, HALL2	Specifies the type of reverb.
Time	0–127	Time length of reverberation
HF Damp (High Frequency Dump)	200 Hz, 250 Hz, 315 Hz, 400 Hz, 500 Hz, 630 Hz, 800 Hz, 1000 Hz, 1250 Hz, 1600 Hz, 2000 Hz, 2500 Hz, 3150 Hz, 4000 Hz, 5000 Hz, 6300 Hz, 8000 Hz, BYPASS	Frequency at which to cut the high-frequency portion of the reverb sound. (BYPASS: no cut)
Rev Balance	D100:W0–D50:W50–D0:W100	Volume balance between the direct sound (D) and the effect sound (W)
Level	0–127	Adjusts the volume of the reverb sound.

If the Input Setting parameter IFX Type is set to DELAY

Parameter	Value	Explanation
Delay Type	SINGLE, PAN	Selects the type of delay.
Delay (Sync)	OFF, ON	If this is on, tempo-synchronized delay is applied.
Delay (msec)	0–2600 msec	Adjusts the delay time.
Delay (note)	Note	
Tap Time	0–100%	Adjusts the delay time of the L-channel relative to the R-channel delay time taken as 100%. * This can be set if Type = PAN.
Feedback	0–98%	Proportion of delay sound that is returned to the input.
HF Damp (High Frequency Dump)	200 Hz, 250 Hz, 315 Hz, 400 Hz, 500 Hz, 630 Hz, 800 Hz, 1000 Hz, 1250 Hz, 1600 Hz, 2000 Hz, 2500 Hz, 3150 Hz, 4000 Hz, 5000 Hz, 6300 Hz, 8000 Hz, BYPASS	Frequency at which to cut the high-frequency portion of the delay sound returned to the input (BYPASS: no cut).
Dly Balance	D100:W0–D50:W50–D0:W100	Volume balance between the direct sound (D) and the effect sound (W)
Level	0–127	Adjusts the volume of the delay sound.

Assignable Lever Setting

Here you can select the parameters that are assigned to the assignable lever.
You can specify up to five sets of parameters that are controlled when you move the lever horizontally or vertically.
The AsgnLeverSet parameter specifies which set is assigned to the assignable lever.

Parameter	Value	Explanation
AsgnLeverSet	1–5	Select the parameter settings (1–5) that you want to assign to the assignable lever.

Parameter	Value	Explanation
Set1 Horizon Set2 Horizon Set3 Horizon Set4 Horizon Set5 Horizon	Pitch Bend, Cutoff, Resonance, Attack, Decay, Release, Vibrato Rate, Vibrato Depth, Vibrato Delay, Pan	Select the parameter that is controlled when you move the assignable lever horizontally (left/right). For details about each value, refer to the related item in **"Keyboard Part Mixer Parameters"** (p. 11).
Set1 Vertical Set2 Vertical Set3 Vertical Set4 Vertical Set5 Vertical	Bend Up, Bend Down, Modulation, Cutoff (*), Resonance (*), Attack (*), Decay (*), Release (*), Vibrato Rate (*), Vibrato Depth (*), Vibrato Delay (*), Porta Time, Chorus Send, Reverb Send, C1	Select the parameter that is controlled when you move the assignable lever vertically (upward). **[*]** These settings produce change in the **"+"** direction. For details about each value, refer to the related item in **"Keyboard Part Mixer Parameters"** (p. 11).

NOTE

When the power is turned on, or when UPG is switched, this is always set to Assignable Lever Set 1.

Auto Off

This parameter allows you to cause the E-A7 to switch itself off after the selected number of minutes if you are not using it. The default setting is **"240."** Select **"Off"** if you prefer not to use this function. The values in parentheses indicate when the pop-up countdown appears.

Parameter	Value
Auto Off	Off, 10 (5) 30 (15) 240 (30)

When the E-A7 has been switched off by this function, you need to press the **[POWER]** button, wait a few seconds, then press the button again to switch the E-A7 back on. (Do not switch it on too quickly.)

Display Contrast L/R

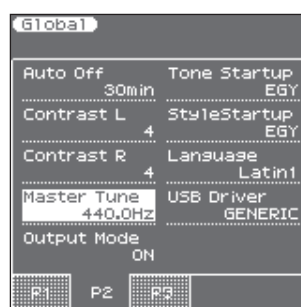This parameter can be selected using **[MENU]** → **"Global"** → **"Display Contrast L"** or **"Display Contrast R."**
It is used to change the contrast of the E-A7's display in case you find it difficult to read.

Parameter	Value
Display Contrast L Display Contrast R	1–10

Master Tune

This parameter can be selected using **[MENU]** → **"Global"** → **"Master Tune."**

This parameter allows you to tune your E-A7 to acoustic instruments that cannot be tuned. The default is 440.0 Hz.

Parameter	Value
Master Tune	415.3–466.2 Hz

Output Mode

Parameter	Value	Explanation
Output Mode	OFF, ON	Switches the acoustical character of the sound that is output from the Phones jack/Output jacks and the E-A7's speakers. **ON (When the button is lit):** Settings are optimized for the response of the E-A7's speakers. **OFF (When the button is unlit):** The Mastering Tools function's Compressor and Equalizer settings will be enabled. The factory settings (Type: Standard) or the User settings are applied. * The **"Standard"** compressor and equalizer type settings are optimal for use when the Phones jack or Output jacks are connected to an external speaker or PA system.

Tone Startup

Parameter	Value	Explanation
Tone Startup	INDONESIA, VIETNAM, INDIA, THAILAND, ORIENTAL, EGYPT, TURKEY, EAST EUROPE, ETHNIC, FRETTED, PERCUSSION	Specifies the tone list that is first selected when you press the Tone category [WORLD] button immediately after turning the power on.

StyleStartup

Parameter	Value	Explanation
StyleStartup	INDONESIA, VIETNAM, INDIA, THAILAND, CHINA, KHALIGI, ORIENTAL, MAGHREBI, TURKISH, EAST EUROPE, LATIN AMERICA, BRAZIL	Specifies the style list that is first selected when you press the Style category [WORLD] button immediately after turning the power on.

Language

This parameter allows you to choose the character set to be used for the following:
- **"Finder"** functions (Owner's Manual: p. 44)
- **"Name"** function (Owner's Manual: p. 16)

Parameter	Value
Language	Latin, Cyrillic, East Europe

SMF QuickStart

Parameter	Value
SMF QuickStart	Off, 2nd-Bar, 1st-Note

Off: Playback starts at the very beginning of the song file (which may contain a few silent bars).

2nd-Bar: Causes playback to start from measure 2 of the selected Standard MIDI File.
1st-Note: This is basically the same as the above, except that playback starts on the first note of the selected song.

UPG NextSong

At the end of the current song, the next song in the UPG List starts automatically.
If the UPG List step refers to a style, the style in question is loaded, but you will need to start manually by pressing the **[START/STOP]** button.

Parameter	Value
UPG NextSong	OFF, ON

UP EQ/MfxLink

If you select **"on,"** the E-A7 selects suitable MFX and equalizer settings for each Tone you assign to the Upper 1 part.

Parameter	Value
UP EQ/MFX Link	Off, On

Rec Level

Allows you to set the recording level for your own performances (see p. 41). The setting of the **[Master Volume]** knob does not affect the recording level. (Default setting: +0 dB)

Parameter	Value
Rec Level	-24, -18, -12, -6, 0 dB

RecAudioSync

Parameter	Value
Rec Audio Sync	OFF, ON

Off: Choose this setting when you want to start recording before starting style or song playback.
On: Choose this setting when you want to be able to start recording simultaneously with style/song playback. When you choose this setting, pressing the **[REC]** button will stop both playback and the recorder.

Recall MIDI

This parameter selects the MIDI Set whose settings are loaded when the E-A7 is switched on. Select **"Off"** if no MIDI Set should be recalled when the E-A7 is switched on.

Parameter	Value
Recall MIDI	Off, Tone/Style, PK Series, Song, User 1–8

USB Driver

Parameter	Value
USB Driver	GENERIC, VENDOR

GENERIC: Choose this if you want to use the standard USB driver that was included with your computer. Normally, you should use this mode.
VENDOR: Choose this if you want to use a USB driver downloaded from the Roland website (www.roland.com).

User Program Edit Parameters

The following parameters can be set for each Performance memory:

Parameter/Group	Explanation
Keyboard Part Mixer	Here you can make settings for the keyboard parts (UP1, UP2, UP3, LWR).
Keyboard Part MFX	Here you can make effect settings for the keyboard parts (UP1, UP2, UP3, LWR).
Style Part Mixer	Here you can make settings for the style parts.
Arranger Setting	This function group allows you to specify where and how the selected Style should scan the note messages generated by your playing for chord information.
Melody Intelligent	Here you can make settings for the Melody Intelligent function. Melody Intelligent is a function that automatically adds harmony to the keyboard parts.
Split	Here you can specify the split point of the keyboard.
Scale Tune Switch	Here you can specify the parts for which the Scale Tune setting is enabled.
Scale Tune	Here you can specify how the pitch will be adjusted in units of one cent (1/100 of a semitone) relative to equal temperament.
Pad Setting	Here you can make settings for the pads.
Assignable Setting	Here you can make settings for the assignable switches and control pedal.

Keyboard Part Mixer Parameters

This function group can be selected using **[MENU]** → **"User Program Edit"** → **"Keyboard Part Mixer."** You can also access the Keyboard Part Mixer screen by pressing the **[F1]** button (Kbd Mixer) of the left main screen.
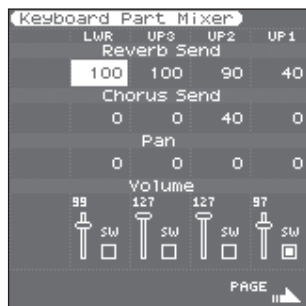
The vertical columns correspond to each keyboard part (UP1, UP2, UP3, LWR).
The horizontal rows show parameters that you can edit.
Use the direct buttons and Cursor buttons to select the desired parameter, and use the Value **[-] [+]** buttons or the Balance/Value knob (when the LED is unlit) to edit the value.
The following parameters are available:

Reverb Send

Signal level sent from each part to reverb

Parameter	Value
Reverb Send	0–127

Chorus Send

Signal level sent from each part to chorus

Parameter	Value
Chorus Send	0–127

Pan

Pan (left/right position) of each part

Parameter	Value
Pan	L64–0–R63

Volume/Part Switch

Volume and on/off setting of each part

Parameter	Value
Volume	0–127

MFX Switch

The E-A7 provides one multi-effect (MFX) for the keyboard parts. For each part, you can specify whether the MFX is applied.

Parameter	Value
MFX Switch	Off, On

Key Touch (velocity sensitivity)

Here you can make settings for the keyboard touch.

Parameter	Value	Explanation
Key Touch Curve	High, Medium, Low, Fixed*	**High:** Select this setting for maximum expressiveness. Even small variations of the force with which you strike a key produce audible changes. The trade-off is, however, that you have to strike the keys forcefully to reach the maximum volume. **Medium:** Medium velocity sensitivity. The keyboard responds to velocity changes, but the maximum volume can be obtained more easily than with **"High."** (This is the default setting.) **Low:** Select this setting if you are used to playing on an electronic organ or if you do not want velocity changes to bring about major volume changes. **Fixed:** Select this setting if all notes you play on the keyboard should have the same velocity value. When you set this parameter, the **"Key Touch Fixed"** field can be edited
Key Touch Min	1–126	This parameter allows you to set the smallest velocity value with which you can trigger the selected part.
Key Touch Max	2–127	This parameter allows you to set the highest velocity value with which you can trigger the selected part.
Key Touch Fixed*	1–127	Allows you to set the value when **"Curve"** is set to **"Fixed."**

[*] This parameter can only be edited if the **"Key Touch Curve"** parameter is set to **"Fixed."**

EQ

Here you can make equalizer (EQ) settings for each keyboard part.

Parameter	Value	Explanation
EQ Switch	Off, On	This parameter allows you to switch the equalizer on and off.
High Freq (Hz)	1500, 2000, 3000, 4000, 6000, 8000, 12000	Allows you to set the cutoff frequency of the high band (this is a shelving filter).
High Gain (dB)	-15–+15	Use this parameter to set the level of the selected **"High"** frequency. Positive values boost (increase the volume of) that frequency band, negative values cut (attenuate) it.
Mid Freq (Hz)	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000	Allows you to set the cutoff frequency of the middle band (this is a peaking filter).
Mid Gain (dB)	-15–+15	Use this parameter to set the level of the selected **"Mid"** frequency.

Parameter	Value	Explanation
Mid Q	0.5, 1.0, 2.0, 4.0, 8.0	Use this parameter to specify the width of the "Mid Frequency" band that you want to boost or cut. Smaller values mean that neighboring frequencies above/below that value are also affected.
Low Freq (Hz)	90, 150, 180, 300, 360, 600	Allows you to set the cutoff frequency of the low band (this is a shelving filter).
Low Gain (dB)	-15–+15	Use this parameter to set the level of the selected "Low" frequency.

Expression Pedal

This parameter allows you to specify whether the expression pedal effect is applied to each part.

Parameter	Value
Expression Pedal	Off, On

Expression Pedal Up/Down

The expression pedal allows you to control the volume of all parts by foot.

"Up" and "Down" refer to the volume that is used when the expression pedal is pressed ("Up," highest volume) or in the upright position ("Down," lowest volume).

You do not need to specify "0" for the "Down" position. Selecting any other values will reduce the volume of the selected part up to the "Down" value.

Likewise, you do not need to specify "127" as maximum value for "Up."

NOTE

The expression pedal sends MIDI Expression commands (CC11). It is perfectly possible to set the "Down" value to "127" and the "Up" value to "0," so that the selected part only sounds when the expression pedal is in the upright position. This can be used for some clever effects: instead of alternating between the Upper1 and Upper2 parts by varying your velocity (which requires a considerable amount of "striking precision," see "Min Value" and "Max Value" on p. 11), you could invert UP2's response to the expression pedal, so that UP1 doesn't sound when UP2 does, and vice versa.

Parameter	Value
Expression Pedal Up/Down	0–127

Hold Pedal

This parameter allows you to specify whether and how a hold/damper pedal you connect to the PEDAL HOLD socket should respond to Hold messages (CC64).

Parameter	Value
Hold Pedal	Auto, On, Off

"Auto" means that the part in question only responds to Hold messages if it is assigned to the right half (Split) or the entire keyboard.

"On" means that the part in question always responds to Hold messages, even if it is assigned to the left half of the keyboard.

"Off," finally, means that the part does not respond to Hold messages.

Control Pedal

This parameter allows you to specify whether the control pedal effect is applied to each part.

Parameter	Value
Control Pedal	Off/On

Assignable Lever Horizontal

This parameter allows you to specify for each keyboard part how it should respond to left/right movements of the assignable lever.

Parameter	Value
Assignable Lever Horizontal	Auto, On, Off

"Auto": The keyboard part only responds to left/right movements of the lever when no split setting causes it to be to the left of other keyboard parts. In other words: parts you can play with your left hand after selecting a split no longer respond. But they will while the keyboard is not split.

"On": The keyboard part always responds to left/right movements of the assignable lever.

"Off": The part in question does not respond to left/right movements of the assignable lever.

Assignable lever Vertical

This parameter allows you to specify for each keyboard part how it should respond to backward movements of the assignable lever.

Parameter	Value
Assignable lever Vertical	Auto, On, Off

"Auto": The keyboard part only responds to vertical movements of the assignable lever when no split setting causes it to be to the left of other keyboard parts. In other words: parts you can play with your left hand after selecting a split no longer respond. But they will while the keyboard is not split.

"On": The keyboard part always responds to vertical movements of the assignable lever.

"Off": The part in question does not respond to vertical movements of the assignable lever.

Pitch Bend Range

This parameter allows you to specify the amount of pitch change (in semitone units) that occurs if pitch bend is assigned to the assignable lever or control pedal.

Parameter	Value
Pitch Bend Range	0–24

Octave Shift

Allows you to transpose the selected keyboard part in octave steps.

Parameter	Value
Octave Shift	-4–0–+4

Coarse Tune

Changes the pitch of the selected keyboard part in semi-tone steps.

Parameter	Value
Coarse Tune	-24–0–+24

NOTE

You can't change the Coarse Tune setting of the UP3 part.

Fine Tune

Changes the pitch of the selected part in steps of 1 cent (1/100 semi-tone).

Parameter	Value
Fine Tune	-100–0–+100

NOTE

You can't change the Fine Tune setting of the UP3 part.

Mono/Poly

You can set the selected part to mono(phonic) mode.

"Mono" means that you can only play one note at a time. You could select this mode to play a trumpet or woodwind part in a more natural way.
"Poly," on the other hand, means that you can play chords using the selected part.

Parameter	Value
Mono/Poly	Poly, Mono

NOTE

You can't change the Mono/Poly setting of the UP3 part.

Portamento Time

"Portamento" means that the pitch doesn't change in clearly defined steps: it produces glides from one note to the next. Use the this parameter to specify the speed at which those glides are carried out. The higher the value, the slower the transitions.
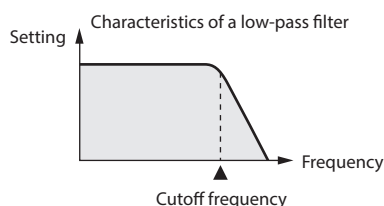
Parameter	Value
Portamento Time	0–127

NOTE

You can't change the Portamento Time setting of the UP3 part.

Cut Off

This filter parameter allows you to make the selected sound darker or brighter. Positive settings mean that more overtones will be allowed to pass, so that the sound becomes brighter. The further this value is set in the negative direction, the fewer overtones will be allowed to pass and the sound will become softer (darker).

Characteristics of a low-pass filter

Setting

Frequency

Cutoff frequency

NOTE

For some sounds, positive (+) Cutoff settings will cause no noticeable change because the preprogrammed Cutoff parameter is already set to its maximum value.

Parameter	Value
Cut Off	-64–+63

Resonance

When the Resonance value is increased, the overtones in the area of the cutoff frequency will be emphasized, creating a sound with a strong character.

Parameter	VALUE
Resonance	-64–+63

NOTE

For some sounds, negative (–) **"Resonance"** settings may produce no noticeable change because the Resonance is already set to the minimum value.

Attack (only for Tones)

This parameter adjusts the onset of the sound. Negative values speed up the attack, so that the sound becomes more aggressive.

Parameter	Value
Attack	-64–+63

Decay

This parameter adjusts the time over which the sound's volume and cutoff frequency fall from the highest point of the attack down to the sustain level.

Parameter	Value
Decay	-64–+63

NOTE

Percussive sounds usually have a sustain level of **"0."** Piano and guitar sounds are in this category. Holding the keys for a long time will have little effect on the duration of the notes you are playing, even if you select a high value here.

Release

This parameter adjusts the time over which the sound will decay after the note is released until it is no longer heard. The cutoff frequency will also fall according to this setting.

Parameter	Value
Release	-64–+63

Vibrato Rate

This parameter adjusts the speed of the pitch modulation. Positive (+) settings make the preset pitch modulation faster and negative (–) settings make it slower.

Parameter	Value
Vibrato Rate	-64–+63

Vibrato Depth

This parameter adjusts the intensity of the pitch modulation. Positive (+) settings mean that the **"wobble"** becomes more prominent, while negative (–) settings make it shallower.

Parameter	Value
Vibrato Depth	-64–+63

Vibrato Delay

This parameter adjusts the time required for the vibrato effect to begin. Positive (+) settings increase the time before vibrato will begin and negative settings shorten the time.

Parameter	Value
Vibrato Delay	-64–+63

Keyboard Part MFX Parameters

This function group can be selected using **[MENU]** → **"User Program Edit"** → **"Keyboard Part MFX."** Your E-A7 contains a multi-effects processor that can be used for processing any keyboard part you like (There are also 2 Mfx processors for the style parts).
Type: Selects the MFX type.
Keyboard MFX Edit: Accesses a page where you can edit the parameters of the selected MFX.
MFX Switch ([F5] button): Turns MFX on/off. Turn this off if you don't want to apply MFX.

Mfx Type

The E-A7 provides 84 different multi-effect types, some of which are combinations of two effects for added flexibility. This parameter allows you to select the desired type. The available types are:

1. Thru	29. OD → Delay	57. VK Rotary
2. Stereo EQ	30. DST → Chorus	58. 3D Chorus
3. Overdrive	31. DST → Flanger	59. 3D Flanger
4. Distortion	32. DST → Delay	60. 3D Step Flgr
5. Phaser	33. EH → Chorus	61. Band Chorus
6. Spectrum	34. EH → Flanger	62. Band Flanger

13

7. Enhancer	35. EH → Delay	63. Band Step Flg
8. Auto Wah	36. Chorus → DLY	64. VS Overdrive
9. Rotary	37. Flanger → DLY	65. VS Distortion
10. Compressor	38. CHO → Flanger	66. GT Amp Simul
11. Limiter	39. CHO/DLY	67. Gate
12. Hexa-Chorus	40. Flanger/DLY	68. Long Delay
13. Trem Chorus	41. CHO/Flanger	69. Serial Delay
14. Space-D	42. Isolator	70. MLT Tap DLY
15. St. Chorus	43. Low Boost	71. Reverse DLY
16. St. Flanger	44. Super Filter	72. Shuffle DLY
17. Step Flanger	45. Step Filter	73. 3D Delay
18. St. Delay	46. Humanizer	74. Long Time DLY
19. Mod. Delay	47. Speaker Sim	75. Tape Echo
20. 3 Tap Delay	48. Step Phaser	76. LoFi Noise
21. 4 Tap Delay	49. MLT Phaser	77. LoFi Comp
22. Time Delay	50. Inf Phaser	78. LoFi Radio
23. 2 Pitch Shifter	51. Ring Modul	79. Telephone
24. FBK Pitch	52. Step Ring	80. Phonograph
25. Reverb	53. Tremolo	81. Step Pitch
26. Gate Reverb	54. Auto Pan	82. Sympa Reso
27. OD → Chorus	55. Step Pan	83. Vib-Od-Rotary
28. OD → Flanger	56. Slicer	84. Center Canc

Mfx Edit

The first two parameters for each Mfx type are **"Chorus Send"** (0–127) and **"Reverb Send"** (0–127). They allow you to specify whether—and to what extent—the Mfx signal should be processed by the Chorus and/or Reverb effect.

Style Part Mixer Parameters

This function group can be selected using **[MENU] → "User Program Edit" → "Style Part Mixer."**
You can also access the Style Part Mixer screen by pressing the **[F2]** button (Style Mixer) of the left main screen.

The parameters of this function group apply to the eight Arranger parts (i.e. the parts used to play back the selected style).

The vertical columns correspond to each style part (ADR is the drum part, and ABS is the bass part). The horizontal rows show parameters that you can edit.
Use the direct buttons and Cursor buttons to select the desired parameter, and use the Value **[-] [+]** buttons or the Balance/Value knob (when the LED is unlit) to edit the value.
The following parameters are available:

Solo

Allows you to solo the selected part, which means that all other style parts are switched off.

Parameter	Value
Solo	Off, On

Part Switch

Turns each part on/off.

Parameter	Value
Part Switch	Off, On

Expression Pedal

Select **"Off"** if you don't need pedal expression for the selected part. This means that the style part in question no longer responds to an expression pedal you may have connected to the EXPRESSION socket.

Parameter	Value
Expression Pedal	Off, On

Volume

Adjusts the volume of the selected style part.
Selecting **"0"** means that the part in question is no longer audible.

Parameter	Value
Volume	0–127

Accomp AllOff ([F1] button)

Turns off all parts ACC1–6.

Accomp AllOn ([F2] button)

Turns on all parts ACC1–6.

Exp. Pdl AllOff ([F4] button)

Turns off the expression pedal connection of all parts Drum, Bass, and ACC1–6.

Exp. Pdl AllOn ([F5] button)

Turns on the expression pedal connection of all parts Drum, Bass, and ACC1–6.

Arranger Setting Parameters

This function group can be selected using **[MENU] → "User Program Edit" → "Arranger Setting."**
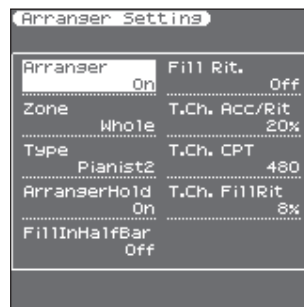
The parameters of this function group apply to the Arranger as a whole and allow you to fine-tune its behavior.

Arr Switch (Arranger Switch)

Select **"Off"** if you only need the drum part of the selected style and no melodic accompaniment parts (ABass, ACC1–6).

Parameter	Value
Arr Switch	Off, On

You can also turn the arranger switch on/off by pressing the **[F5]** (Arr Switch) button of the left main screen.
If you turn the arranger switch Off and then On again, chord detection will resume when you play a chord.

Zone

When you press the **[SPLIT]** button, the selected style pattern is controlled by the chords you play in the left half of the keyboard.
You can also tell the Arranger to scan another part of the keyboard for usable chords. Though **"Left"** is probably the most popular setting, you could select **"Right"** to have the Arranger scan the right half of the keyboard.

Switch off the **[SPLIT]** button if the Arranger should scan the entire keyboard (**"Whole"**).

The range of the left and right keyboard areas depends on the **"Split Point"** setting (Owner's Manual: p. 18).

Parameter	Value
Zone	Off, Left, Right, Whole

Type

Another important choice is how you want to transmit note information to the Arranger.

Parameter	value
Type	Standard, Pianist1, Pianist2, Intelligent, Easy

> **NOTE**
>
> If the **"Arr Type"** parameter (p. 8) is set to **"On,"** this **"Type"** setting has no effect.

Standard: This is the normal chord recognition mode.

Pianist1: In this mode, the E-A7 only recognizes chords that consist of at least three notes. Playing only two notes will not cause the style's key to change.

Pianist2: Same as **"Pianist1"** while the Hold pedal is not pressed. If you press the Hold pedal, the E-A7 even recognizes **"chords"** when you press only one note. If the hold pedal is still pressed, chord recognition continues up to a maximum of 5 played keys.

Intelligent: Select this option when you want the chord recognition function to supply the missing notes of the chords you play.

Easy: This is another **"intelligent"** chord fingering system. It works as follows:

Major chords	Press the key that corresponds to the chord's fundamental.
Minor chords	Fundamental + any black key to the left of the fundamental.
Seventh chords	Fundamental + any white key to the left of the fundamental.
Minor seventh chords	Fundamental + any black key to the left + any white key to the left.

Arranger Hold

This function sustains the notes you play in the chord recognition area (**"Zone"**). Select **"Off"** if you want the accompaniment to stop as soon as the keys in that zone are released. This parameter is switched **"On"** by default.

Parameter	Value
Arranger Hold	Off, On

Fill In Half Bar

When this parameter is **"On,"** the length of the Fill-Ins, which are played when the **[AUTO FILL IN]** button lights, is halved.

Parameter	Value
Fill In Half Bar	Off, On

Certain pop songs in 4/4 contain bars that only last two beats. The usual place for such a bar is between the first and the second verse. Another favorite position for **"halved"** bars is at the end of a chorus or the bridge. Your E-A7 allows you to faithfully reproduce these **"anomalies"** using this function. This does not change style playback right away. Only when a fill-in or another VARIATION pattern starts will the **"Fill-in Half Bar"** function be activated and play half the number of beats of the accompaniment pattern you selected.

Fill Rit. (Fill Ritardando)

The FILL RIT function is suitable for ballads. It causes the next Fill-In to slow down (**"ritardando"**). See **"Tempo Change Fill Rit"** below for how to set how strongly the tempo should be decreased.

Parameter	Value
Fill Rit.	Off, On

As the name implies, it is only available while the **[AUTO FILL-IN]** button lights.
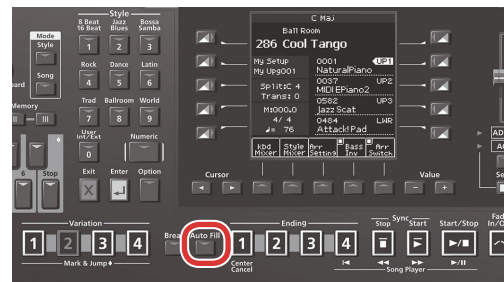
a. Set **"Fill Rit."** to **"On."**

b. Start Arranger playback.

c. Press a VARIATION **[1]–[4]** button.

The E-A7 plays a Fill-In. The tempo slows down while the fill is being played. At the end of the fill, return to the original tempo.

Tempo Change Accel/Ritard, CPT, Fill Rit

The **"T. Ch. Acc/Rit"** (Tempo Change Acceler/Ritard) parameter allows you to speed up or slow down the style tempo by the amount you set here. To use these functions, you must assign them to an optional footswitch (p. 21).

There are three Ritardando functions: one for all style patterns, one for Ending patterns and one for fill-ins (see **"Fill Rit."** above). They all use the **"Tempo Change"** settings on the following page.
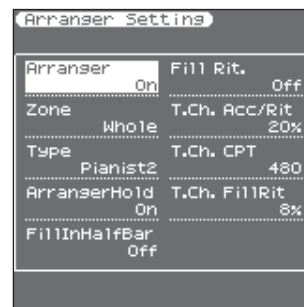
Parameter	Value
T. Ch. Acc/Rit	5%–92%
T. Ch. CPT	0–3825
T. Ch. FillRit	5%–92%

T. Ch. Acc/Rit (Tempo Change Accel/Ritard): Allows you to set the degree (ratio) by which the tempo changes when the **"Acceler"** or **"Ritard"** function is triggered. Example: if the tempo is currently ♩= 100, the value **"20%"** means that the tempo drops to ♩= 80 or rises to ♩= 120.

T. Ch. CPT (Tempo Change CPT): Use this parameter to specify how long a ritardando/accelerando should take. In most cases, 480 CPT (i.e. one measure) is probably the most musical choice.

T. Ch. FillRit (Tempo Change Fill Rit): This parameter allows you to specify to what extent fill-in playback should be slowed down when the **"Fill Ritardando"** function is on.

■ Using the Ritardando/Accelerando functions

For general applications (any style division) proceed as follows:

- Assign the **"Arr Rit"** or **"Arr Acc"** function to an optional footswitch (p. 21).
- Press the **[START/STOP]** button to start style playback.
- Press the assigned footswitch.

For ritardandos that apply to Ending patterns proceed as follows:
- Press the **[START/STOP]** button to start playback.
- Press the **[ENDING]** button twice in succession (**"double-click"**).

Melody Intelligent Parameters

This function group can be selected using **[MENU]** → **"User Program Edit"** → **"Melody Intelligent."**

The Melody Intelligent part on/off setting and some of the parameters can also be edited in the Keyboard Part Mixer screen.

➡ Keyboard Part Mixer (p. 11)

```
EditMelodyIntel

Switch          Type
        Off        Traditional
2nd Tone        Intell Thresh
        -----              0
Level           Exp Pedal
        100                On
Hold Pedal      Bend Assign
        Auto             Auto
Bender Range    Mod Assign
        2                Auto
```

The following parameters are available:

Switch

Select **"On"** if you want to add a MELODY INTELL part.

This part is triggered by the chord recognition of the E-A7's Automatic Accompaniment and plays automatic harmonies that are added to the melody that you are playing using the Upper 1 part. You can choose from among 18 harmony types (see below).

Parameter	Value
Switch	Off, On

> **NOTE**
>
> This **"Switch"** parameter can also be assigned to an optional pedal switch. See **"Pedal Switch and Pedal Control"** (p. 21).

Type

Allows you to select one of the 18 harmony types:

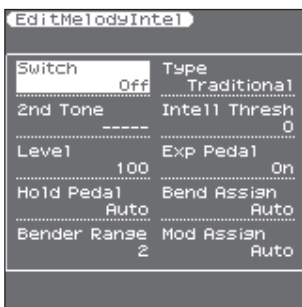| Parameter	Value
Type	**1:** Duet, **2:** Organ **3:** Combo, **4:** Strings, **5:** Choir, **6:** Block, **7:** Big Band, **8:** Country, **9:** Traditional, **10:** Brodway, **11:** Gospel, **12:** Romance, **13:** Latin, **14:** Country Guitar, **15:** Country Ballad, **16:** Waltz Organ, **17:** Octave Type1, **18:** Octave Type2

> **NOTE**
>
> The most suitable tone for the Type is assigned. When you switch the Type, this means that the tone of the Upper1 part may also change. After selecting the desired Type, you can select the Upper1 tone.

2nd Tone

Depending on the selected **"Type"** setting, a second harmony is added to the **"Melody Intelligent"** part. If you like, you can select the desired Tone for the second harmony voice using this parameter.

Parameter	Value
2nd	The Tone of the selected family

Intell Threshold

This value represents the lowest velocity value (between **"0"** and **"127"**) of the Upper 1 part that triggers the **"Melody Intelligent"** part.

If you don't need this switching function, select **"0."**

Parameter	Value
Intell Threshold	0–127

The following parameters are valid for the 2nd tone.

Level

Allows you to set the level of the **"Melody Intelligent"** part to ensure that the harmonies blend in with the rest.

Parameter	Value
Level	0–127

Expression Pedal

This parameter allows you to specify whether or not the **"Melody Intelligent"** part should respond to movements of the optional expression pedal you connected, and change its volume accordingly.

Parameter	Value
Expression Pedal	Off, On

Hold Pedal

This parameter allows you to specify whether or not the **"Melody Intelligent"** part's notes can be held with the pedal switch connected to the PEDAL HOLD/SWITCH socket.

Parameter	Value
Hold Pedal	Auto, On, Off

"Auto" means that the **"Melody Intelligent"** part only responds to Hold messages if it is assigned to the right half (Split) or the entire keyboard.

"On" means that the **"Melody Intelligent"** part always responds to Hold messages, even if it is assigned to the left half of the keyboard.

"Off" means that the **"Melody Intelligent"** part does not respond to Hold messages.

Asgn Lever H (Assignable Lever Horizontal)

This parameter allows you to specify for each keyboard part how it should respond to left/right movements of the assignable lever.

Parameter	Value
Asgn Lever H	Auto, On, Off

"Auto": The keyboard part only responds to left/right movements of the lever when no split setting causes it to be to the left of other keyboard parts. In other words: parts you can play with your left hand after selecting a split no longer respond. But they will while the keyboard is not split.

"On": The keyboard part always responds to left/right movements of the assignable lever.

"Off": The part in question does not respond to left/right movements of the assignable lever.

Bender Range (Pitch Bend Range)

This parameter specifies the amount of pitch change (in semitone units) that occurs if pitch bend is assigned to the assignable lever or control pedal.

Parameter	Value
Bender Range	0–24

Asgn Lever V (Assign Lever Vertical)

This parameter allows you to specify for each keyboard part how it should respond to backward movement of the assignable lever.

Parameter	Value
Modulation Assign	Auto, On, Off

"Auto": The keyboard part only responds to backward movements of the assignable lever when no split setting causes it to be to the left of other keyboard parts. In other words: parts you can play with your left hand after selecting a split no longer respond to modulation messages. But they will while the keyboard is not split.

"On": The keyboard part always responds to backward movements of the assignable lever.

"Off": The part in question does not respond to backward movements of the assignable lever.

Reverb Send

Level of signal sent to reverb

Parameter	Value
Reverb Send	0–127

Chorus Send

Level of signal sent to chorus

Parameter	Value
Chorus Send	0–127

Pan

Pan (left/right position)

Parameter	Value
Pan	L64–0–R63

Split

This page allows you to set two keyboard-related parameters. It can be selected using **[MENU]** → **"User Program Edit"** → **"Split."**

NOTE

This page can also be selected by pressing and holding the **[SPLIT]** button.

Split Point

The **"Split Point"** parameter allows you to set the split point.

Parameter	Value
Split Point	C#2–B6

You can change the split point by using the Value **[-] [+]** buttons or the **[Balance/Value]** knob (when the LED is unlit).
You can also change it by pressing the key that you want to assign as the split point.

Lower Hold

This parameter allows you to set the Hold function for the LWR part.

Parameter	Value
Lower Hold	Off, On

If you set this parameter to **"On,"** the notes of the LWR part go on sounding until you play other notes in the left keyboard area. (This function is only available while the **[SPLIT]** button lights.) If you

select **"Off,"** the LWR part stops sounding as soon as you release all keys in the left area.

Scale Tune Switch

This parameter can be selected using **[MENU]** → **"User Program Edit"** → **"Scale Tune Switch."**
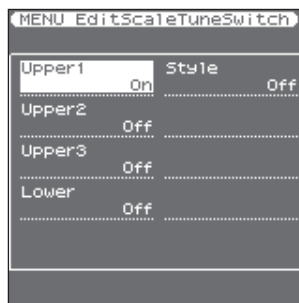
Parameter	Value	Explanation
Upper1 Upper2 Upper3	Off, On	Select **"On"** if the **"Scale Tune"** settings (see below) should apply to the Upper1 (+ Melody Intell), Upper2, Upper3 part.
Lower	Off, On	Select **"On"** if the **"Scale Tune"** settings (see below) should apply to the Lower part.
Style	Off, On	Select **"On"** if the **"Scale Tune"** settings (see below) should apply to the Style parts and Pad phrases.

Scale Tune

This parameter can be selected using **[MENU]** → **"User Program Edit"** → **"Scale Tune."**
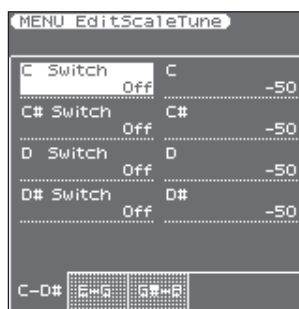
This parameter allows you to change the tuning of all notes of one octave, which may come in handy to create oriental tunings.

Parameter	Value	Explanation
C–B (Each note can be set individually)	-64–0–+63	Changes the pitch of the notes C–B in steps of 1 cent. The value that you specify is applied to all notes of the same name. If you change the tuning of the **"C,"** that value is added to, or subtracted from, all Cs (C1, C2, C3, etc.). (**"–50"** means that the note in question is tuned a quarter tone down.)
Switch	Off,On	Specifies whether the change for each note is enabled. The on/off setting for each note can also be set by using the keyboard buttons (when the Scale Tune/Pad LED is lit). **NOTE** The setting and on/off status for each note is specified and saved for each UPG. You can save your favorite tuning values and use the keyboard buttons to instantly turn them on/off.

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Using Scale Tunings

Your E-A7 allows you to change the tuning of the keys, which then applies to all notes of the same name.
Here's an example: if you press the Keyboard **[Bb]** button (indicator lights), that note's tuning is lowered by a quarter tone (–50 cents). This setting applies to all B-flat keys on the keyboard.

Tuning individual notes a quarter tone down

1. Press the [Scale Tune/Pad] button to make it light.
Now you can use the Keyboard buttons as the Scale Tune buttons.

2. Press a Keyboard button to tune the corresponding note a quarter tone down (the button must light).
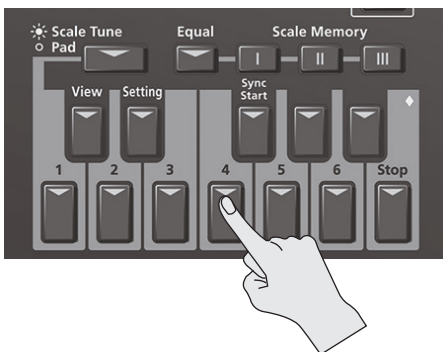
3. If you also want to tune down other notes, press the corresponding button(s).
If you pressed the wrong button (indicator lights), press it again so that its indicator goes dark again.
The pitch of the corresponding notes returns to normal.

4. Long-press one of the Keyboard buttons.
The Scale Tune settings screen appears in the right display.
For each note, you can specify how much the tuning will be adjusted when Scale Tune is enabled (button lit).
You can also access this page via **[Menu]** → **"User Program Edit"** → **"Scale Tune."**

5. Use the direct buttons and function buttons (page buttons) to select the note whose value you want to change, and use the Value [-] [+] buttons to change the value.
Setting Range : -64– 63 cents
In this screen you can also switch the Scale Tune setting on/off for each note.
Use one of the **[L1]**–**[L4]** buttons to select a note, and use the Value **[-] [+]** buttons to switch the setting on/off.

> **MEMO**
>
> You can save the edited settings in a User Program.
> ➡ **"Saving Settings as a User Program"** (Owner's Manual: p. 46)

Saving an edited scale tuning in Scale Memory

A scale tuning that you've edited can be saved in a user program or in Scale Memory 1–3. To recall a scale tuning that you've saved, press a Scale Memory button (to make the button light).

1. Tune the notes to your liking (see p. 17).

2. Press and hold the Scale Memory button ([I]–[III]) that corresponds to the memory where you wish to save your tuning settings.
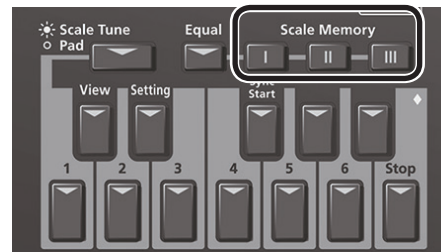
3. Wait until all three MEMORY indicators briefly light, then release the button you pressed.
If necessary, you can now select another, Scale memory by briefly pressing the MEMORY button assigned to the settings you wish to use.
To return to the tuning you were using before selecting a memory, press the MEMORY button in question again so that its indicator goes dark, and/or switch off all USER SCALE buttons whose indicators light.
In the second case, the MEMORY indicator of the last memory you selected starts flashing to signal that the current USER SCALE settings no longer correspond to the ones of the last memory you select. I.e. that memory is still selected, but has since been modified (**"edited"**).

> **MEMO**
>
> If you press the **[Equal]** button (to make the button light), the scale is set to equal temperament. If you press it again (to make the button go dark), the scale returns to the previous state.

> **NOTE**
>
> See also **"Scale Tune Switch"** on p. 17 for deciding which sections should be affected by the Scale Tune settings.

Pad Setting Parameters

Playing the Pads

When the **[Scale Tune/Pad]** button is unlit, the keyboard buttons perform the Pad function.
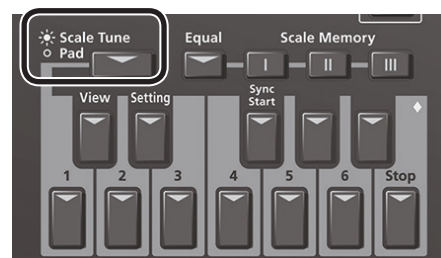
You can use the Pad function to do the following two things.

Play Phrases

Phrases are sequence data for a single part such as guitar strumming or a shaker.
Phrases are tempo-synchronized with the Style or SMF, and also support chord detection.

* Phrases will not synchronize with WAV or MP3 songs.

--- Play Tones ---

You can play a specific note number (keyboard location) of a tone. This is a convenient way to play sound effects or drum sounds.

Playing the Pads

1. **Press any one of the Pad [1]–[6] buttons.**
   A sound or phrase is heard according to the settings of Pad Setting 1.
   ➡ **"Editing the Pad Settings"** (p. 19)

   MEMO
   You can play up to six pads simultaneously.

Stopping the Pad Sound

1. **Press the Pad [Stop] button to stop all sound.**
   If multiple pads are sounding, pressing one of the sounding pad buttons stops the sound of only that pad button.
   If you press a pad button while a tone is sounding, the tone begins sounding again.

Pad Settings

Viewing the Pad Settings

1. **With the [Scale Tune/Pad] button unlit, press the View button.**
   The Pad Assign View screen appears.
   In this screen you can view the phrases or tones that are assigned to each pad.

Editing the Pad Settings

1. **With the [Scale Tune/Pad] button unlit, press [Setting] button.**
   The Pad Setting screen for the selected pad appears.
   If you want to switch the Pad number, select **"Pad number"** with direct button, then use the Value [-] [+] buttons.

   MEMO
   You can also access this via **[Menu]** → **"User Program Edit"** → **"Pad Setting."** You can also access from **"Pad Assign View"** screen.

2. **Use the direct buttons to select Pad Type.**

3. **Use the Value [-] [+] buttons to edit the Pad Type.**

Pad Type	Explanation
Off	No assign
Phrase	A phrase is assigned to Pad
Tone	A tone is assigned to Pad

   MEMO
   - The setting items differ depending on the Pad Type.
   - If you specify Off, pressing that pad does not produce sound.

4. **Use the direct buttons to make other settings.**
   The following items are available for each Pad Type.

   --- Phrase ---

Parameter	Value	Explanation
Phrase	Phrase Name	Select a Phrase.
Volume	0–127	Volume of the phrase.
Reverb Send	0–127	Adjusts the reverb send amount.
Chorus Send	0–127	Adjusts the chorus send amount.

Parameter	Value	Explanation
MFX	Off, Mfx, A, B	Select the routing to Effect **Mfx:** Effect used on Keyboard Parts **A or B:** Effect used on Accomp Parts
Loop	Off, On	If this is On, the phrase continues playing repeatedly.
Sync Switch	Off, On	If this is On, the phrase starts at the beginning of measure divisions in the Arranger or SMF.
Sync Start	Off, On	If this parameter set ON, Style and SMF playback start then also begins to ring Phrase at the same time. While Style and SMF stop, Pads what this param set ON is blinking.

   Selecting a Phrase

   If you select the Phrase parameter, the Phrase List screen appears. Use the direct buttons to select a phrase.

   MEMO
   You can switch Sync Start setting On/Off, when you hold down the Pad **[Sync Start]** button and press the Pad **[1]–[6]** button.
   * Valid only when the Pad Type is set to Phrase.

   --- Tone ---

Parameter	Value	Explanation
Tone	Tone Num, Name	Tone number, name
Note	0 (C-)–127 (G9)	Note number
Velocity	1–127	Velocity
Volume	0–127	Tone volume
Reverb Send	0–127	Adjusts the reverb send amount.
Chorus Send	0–127	Adjusts the chorus send amount.
MFX	Off, Mfx, A, B	Select the routing to Effect **Mfx:** Effect used on Keyboard Parts **A or B:** Effect used on Acomp Parts
Hold	On, Off	Holds the sound. **MEMO** A sample that is set to Loop On can be played continuously (Loop setting: p. 19). A short audio phrase or a drum pattern can be imported as a sample, and then assigned to a tone so that you can play it from the pads.

   MEMO
   In the case of a tone, you can't specify Loop or Sync.

   Selecting a Tone

   If the Pad Type is set to Tone, the Tone List screen appears in the right display.
   Use the direct buttons of the right display to select a Tone.
   You can also select a user tone or user drum kit.
   However you might not hear any sound if the sample has been deleted or if the user tone number has changed.

5. **When you have finished making settings, press the [Exit] button several times to return to the previous screen.**

Saving the Pad Settings

Pad settings are saved in a user program or in a One Touch memory.
➡ **"Saving Settings as a User Program"** (Owner's Manual: p. 46)
➡ **"Creating Your Own One Touch Memories (One Touch Settings)"** (Owner's Manual: p. 26)
Normally, when the Write operation is executed, it will be saved as a User Program parameters.

NOTE
If one of the One Touch settings is selected (one of the One Touch **[1]–[4]** buttons lit), writing a user program will save the One Touch settings to the user program (the Pad settings are also included).

If you want to save it as a One Touch memory parameters, execute the save operation in the following procedure.

1. Call the One Touch you want to change the Pad setting by One Touch [1]–[4] button.

2. Change the Pad Setting.

3. When finished making changes, enter the One Touch Setting screen.
   ➡ **"Editing and Saving the One Touch Settings of a Style"** (Owner's Manual: p. 26)
   Edit mark is attached to the One Touch that is currently selected.

4. Press the [Option] button.

5. Use the direct buttons to select "Save Style."
   ➡ **"Editing and Saving the One Touch Settings of a Style"** (Owner's Manual: p. 26) → **"Step 7"** (Owner's Manual: p. 27)

Note

- If you want to save the Pad setting in One Touch, first call the One Touch you want to change. If you recall a different One Touch memory while editing a One Touch memory, the state of your editing is lost.
- If a phrase or tone is assigned in the pad settings, the UPG or One Touch remembers only the link to that phrase or file.
  This means that if the link-destination file cannot be found, for example because you renamed, deleted, or moved the user phrase, or disconnected the external storage, no sound is heard.

Creating a Phrase to Play from a Pad (Phrase Recording)

You can create your own original phrases.
To create an original phrase, use the Phrase Recording function.
Here's how to use the Phrase Recording function.

1. Press the Setting button.
   The Pad Setting screen appears.
   Select the Pad (Pad Number) to which you want to assign the recorded phrase.
   If Pad Type is not set to **"Phrase,"** select **"Phrase."**

2. Press the [Rec] button.
   Phrase Recording Standby screen appears.
   If you decide to cancel, press the [Rec] button once again.

3. Use the direct buttons to make settings.

Parameter	Value	Explanation
Phrase Type	Drum, Bass, Accomp	Specifies the type of phrase that will be recorded. In the case of Drum, you can't select the **"Key"** parameter.
Rec Mode	New	New recording
	Mix	Mix recording
Tempo	20–250	Specifies the tempo at which the phrase is recorded.
Octave	–4–+4	Specifies the octave of the recorded part, shifting it to the region in which you want to perform.
Key	C, C#, D, Eb, E, F, F#, G, Ab, A, Bb, B	Sets the KEY in which the phrase is performed while recording. The key of Drum Kit parts cannot be set.
Tone	Tone Name	Tone name
Time Signature	1/16, 1/4–4/4...	Sets the time signature. (selectable only if Rec Mode is set to New)
Measure Length	Off, 1–16	Specifies the number of measures in the phrase. If this is Off, the measure length is set automatically according to the length that you record, up to 16 measures.
Count In	Off, 1Meas, 2Meas, Wait Note	Specifies how long the count-in should be before recording starts. **Wait Note:** Recording starts as soon as you play a note on the keyboard. (There will be no count-in.)

Parameter	Value	Explanation
Input Quantize	Off, 1/4, 1/8, 1/8T, 1/16, 1/16T, 1/32, 1/32T, 1/64	Corrects minor timing problems. It shifts the notes whose timing is not exactly right to the nearest **"correct"** unit. Always select a resolution value that is fine enough to accept all note values you play.

Selecting a Tone
When you select a tone, the Tone List screen of the part selected for the pad is shown in the right display.
Use the Tone [0]–[9] buttons and the direct buttons of the right display to select a tone.

4. Press the [Start/Stop] button to start recording.

5. Perform a phrase.

6. Press the [Start/Stop] button once again to stop recording.
   The phrase save screen appears.
   MEMO
   If Measure Length is specified, recording stops automatically at the measure length that you specified.
   If you use Mix recording, loop recording occurs.

7. Use the [R1] (Int/Ext) button to switch the copy-destination between Internal Storage and External Storage.
   MEMO
   The Phrase file is placed in the **"My Phrases"** folder. If this folder does not exist, it is created automatically. The **"My Phrases"** folder exists in both internal storage and external storage.

8. Press the [Enter] button.
   Assign a name.
   ➡ For details on assigning a name, refer to **"Assigning Names"** (Owner's Manual: p. 16).
   If you decide to cancel, press the [Exit] button.

9. Press the [F5] (Exec) button.
   The phrase is saved.
   MEMO
   If there is already a file with the same name as the name you entered, a screen asks you to confirm the overwrite.
   If you want to save, select **"YES"** to replace it with the file you renamed.
   If you decide to rename the file, select **"NO"** and return to the page where you can rename the file.
   NOTE
   The phrase does not play if the Arranger Switch is Off, nor if Arranger Hold is Off.

Assignable Setting Parameters

This parameter can be selected using [MENU] → **"User Program Edit"** → **"Assignable Setting."**
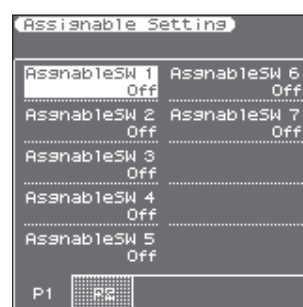
Here you can specify the parameters that are assigned to the assignable switches and the control pedal.

Pedal Switch and Pedal Control

You can connect two types of Pedal Switch to the E-A7's CONTROL jack (Not Continuous or Continuous).

The **"Not Continuous"** pedal (e. g. DP-2) has only two states: Off and On.

The **"Continuous"** pedal (e. g. DP-10) has more states between On/off.

The E-A7 recognizes the type of pedal switch you connect to the CONTROL jack:

Pedal Switch Jack Type	How E-A7 recognizes the pedal switch
◁▯▮▮▮▮▯▯▷	**Mono Type:** Not Continuous
◁▯▮▮▮▯▯▷	**Stereo Type:** Continuous

The function that you can assign changes depending on the pedal you connect.

If a Not Continuous pedal is connected, the parameter specified by **"CtrlPedalSW"** is enabled. If a Continuous pedal is connected, the parameter specified by **"CtrlPedalCont"** is enabled.

Parameter	Value	Explanation
AsgnableSW 1 AsgnableSW 2 AsgnableSW 3 AsgnableSW 4 AsgnableSW 5 AsgnableSW 6 AsgnableSW 7 CtrlPedalSW (*): CtrlPedalSW only	Off	Off
	Start/Stop	Starts and stops style or song playback. Same function as the **[START/STOP]** button.
	Intro 1–4	Same functions as the **[INTRO]**, **[ENDING]**, **[VARIATION1]**, **[VARIATION2]**, **[VARIATION3]**, **[VARIATION4]**, **[BASS INV]** buttons.
	Ending 1–4	
	Variation 1–4	
	Bass Inv.	
	Arr. Hold	Allows you to switch the Arranger Hold function on and off. See page 15.
	Arr. ChordOff	Allows you to switch the Arranger's chord recognition off, in which case only the drum/percussion part is played. This is linked with the Arr Switch on/off setting.
	FillInHalfBar	Allows you to switch the **"Fill In Half Bar"** function on and off. See page 15.
	Break Mute	Turns the **[Break]** button on/off.

Parameter	Value	Explanation
AsgnableSW 1 AsgnableSW 2 AsgnableSW 3 AsgnableSW 4 AsgnableSW 5 AsgnableSW 6 AsgnableSW 7 CtrlPedalSW (*): CtrlPedalSW only	Reset/Start	This function allows you to have the E-A7 start on the first beat of the currently selected Style pattern when you press the assigned switch. Use it when you are accompanying a singer or soloist whose timing is a little shaky and suddenly notice that the playback lags one or two beats behind the singer/soloist.
	Split	Turns the **[Split]** button on/off.
	Scale Upper	Allows you to assign the selected Scale Tune (see p. 17) setting to the three Upper parts.
	Scale Lower	Allows you to assign the selected Scale Tune (see p. 17) setting to the Lower part.
	Change Upper	Allows you to switch off the UPPER 1 part and activate the UPPER 2 part– and vice versa. **NOTE** If neither **[UPPER1]** or **[UPPER2]** buttons are on when you first press the Assign Switch button, one of them is activated.
	UPG Up UPG Down	Allows you to select the next or previous User Program.
	Portamento	Pressing the switch activates the **"Portamento Time"** setting. When the switch is released, the **"Portamento Time"** setting is not used. To hear this effect, you need to set a **"Portamento Time"** value (p. 13).
	Mono/Poly	Switches between mono/poly.
	Hold (*) Soft (*) Sostenuto (*)	The assigned footswitch can be used as a Soft, Sostenuto or Sustain (Hold pedal).
	Lower Hold	The switch is assigned to the **"Lower Hold"** function (see p. 17).
	Track Mute	Same function as the **[TRACK MUTE]** button. If an MP3 or WAV file is playing, this turns Center Cancel on/off.
	AudioXfade	The switch can be used to activate a crossfade between two files. To make this work, select a different song while the current song is being played back and press the switch. The E-A7 creates a brief blend between the current and the next song. (This function is only available between two audio songs.)
	Fade In	Fading in means that the volume of both the style and Keyboard parts gradually increases, giving the impression that you have been playing for a long time before what you play becomes audible. The volume is automatically set to zero and then gradually increased to the value specified with the **[VOLUME]** knob. To change the Fade In time duration see **"Fade In/Out Setting"** (p. 8)
	Fade Out	This function gradually decreases the volume until it reaches zero. At that time, song or style playback stops automatically.
	MelodyIntelli	Allows you to control the **"Switch"** parameter of the **"Melody Intelligent Parameters"** (p. 16)
	Mfx Switch	Allows you to switch the MFX for the keyboard parts on and off.
	Arr. RitTempo	Allows you to activate the Arranger's **"Tempo Change Accel/Ritard, CPT, Fill Rit"** (p. 15).
	Arr. AccTempo	Allows you to activate the Arranger's **"Tempo Change Accel/Ritard, CPT, Fill Rit"** (p. 15).
	RotSlow/Fast	Allows you to select the slow or fast speed of the Rotary effect.

| Parameter	Value	Explanation
AsgnableSW 1 **AsgnableSW 2** **AsgnableSW 3** **AsgnableSW 4** **AsgnableSW 5** **AsgnableSW 6** **AsgnableSW 7** **CtrlPedalSW** **(*): CtrlPedalSW only**	Piano/Std	By pressing the Assign Switch button, you alternate between the **"Standard"** and **"Pianist2"** Style Arranger type (p. 15). When the former is selected, the chord recognition area is automatically set to **"Left."** When you switch to Piano Style, the chord recognition area is automatically set to **"Whole."** Furthermore, the Upper 1 part is activated (if it was off).
	UPG Lock	Turns the UPG Lock button on/off.
	Pad 1–6	Plays the phrase or sound effect that's assigned to the pad.
	Pad Stop	Stops playback for all pads.
	Scale Equal	Sets the Scale Tune to equal temperament.
	Scale Memory 1–3	Recalls **"Scale Memory I–III."**
	ScaleTune C–B	Turns on/off the Scale Tune setting of each note.
	Lever Set 1–5	Assigns the parameter specified by the Assignable Lever Setting (Set 1–5) to the assignable lever. You can reach the Assignable Lever Setting via **[Menu]** button **"Global."**
	Tap Tempo	Changes the tempo of the current style or song according to the interval at which you press the button.
CtrlPedalCnt	Bend Up	Raises the pitch.
	Bend Down	Lowers the pitch.
	Modulation	Applies modulation.
	Cutoff	For details on the function of each value, refer to the corresponding item in **"Keyboard Part Mixer Parameters"** (p. 11).
	Resonance	
	Attack	
	Decay	
	Release	
	Vibrato Rate	
	Vibrato Depth	
	Vibrato Delay	
	Porta Time	
	Chorus Send	
	Reverb Send	
	C1	

* To allow the parameter assigned to the control pedal to affect each keyboard part, turn on the Control Pedal switch on the Keyboard Part Mixer.

One Touch Setting

By using One Touch memories you can quickly select performance settings that are appropriate for the atmosphere of the current style. There are four One Touch memories for each Style.

Selecting a One Touch Memory

1. Select the desired Style (Owner's Manual: p. 22).
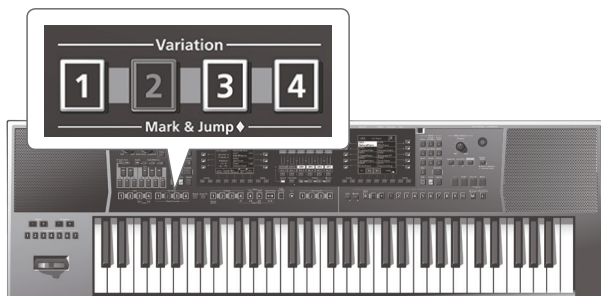
2. Press the One Touch [1]–[4] buttons.
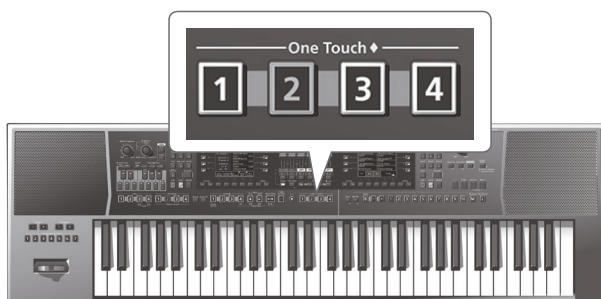
The selected button lights.

> **MEMO**
>
> If you have not yet selected a One Touch memory since you powered-on the E-A7, the One Touch [1]–[4] buttons are unlit. If you have selected a One Touch memory even once, the One Touch memory of the number you selected is automatically recalled even if you change styles.

3. Play back the Style (Owner's Manual: p. 21).

4. Play a melody on the keyboard.

5. Press a different One Touch [1]–[4] button.

6. Once again, play a melody on the keyboard.
A different tone is selected according to the newly selected One Touch memory. When you select a One Touch memory, Style settings are also selected as well as a tone.

> **MEMO**
>
> • By long-pressing a One Touch [1]–[4] button, you can check the keyboard part tone and part switch settings of One Touch memories 1–4.
> • The E-A7 has a function that lets you lock specific settings when you select a different One Touch memory. For details, refer to **"Locking One Touch Memories Settings (One Touch Lock)"** (p. 23).

Canceling the One Touch Memories

1. Press the lit One Touch [1]–[4] button to make it go dark.
The One Touch function is canceled, and you return to the settings prior to using the One Touch memory.

Locking One Touch Memories Settings (One Touch Lock)

Several settings can be locked so that they do not change when you select a One Touch memory.

1. Press the [Menu] button.

2. Use the direct buttons to select "Global."

3. Use the direct buttons to select "One Touch Lock Setting."
The One Touch Lock Setting screen appears.

4. Use the direct buttons to select the items that you want to lock.
Use the Value [-] [+] buttons to turn the setting on/off.

> **MEMO**
>
> This setting is automatically saved when you exit the screen.

Creating Your Own One Touch Memories (One Touch Settings)

One Touch memories are saved in the style.
Changes that you made to a One Touch memory can be saved as a user style.
For preset styles as well, if you've edited the One Touch memory, you can save the settings to internal storage or external storage as a user style.

Editing and Saving the One Touch Settings of a Style

1. Select the desired Style (Owner's Manual: p. 22).

2. Press the One Touch [1]–[4] button whose settings you want to edit.

3. Edit the settings.
One Touch memories can store the state of the panel buttons and the state of the style.

4. Long-press a One Touch [1]–[4] button.
The screen changes as follows.

You can also access this page via **[Menu]** → **"One Touch Setting."**
If the left display shows the Style main page, you can also access this page by pressing the **[Option]** button and then pressing the **[L2]** (One Touch Setting) button.

MEMO

When you edit the One Touch settings, the screen indicates **"EDITED"** to indicate this.

5. Press the **[Option]** button.

6. Use the direct buttons to select **"Save Style."**

7. Use the direct buttons and the function buttons to select the writing destination.

Button	Explanation
[R1] (Int/Ext)	Switches between Internal Storage and External Storage.
[F4] [F5] (Page)	Switch pages.
[L1] Up folder	Exits the folder.

Normally, the My Styles folder in Internal Storage is selected.

8. Press the **[Enter]** button.

Assign a name.

➡ For details on how to assign a name, refer to **"Assigning Names"** (Owner's Manual: p. 16).

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

9. Press the **[F5] (Exec)** button.

The style is saved.

MEMO

If there is a file with the same name as the name you entered, a screen asks you to confirm the overwrite.

If you want to save, select **"YES"** to replace it with the file you renamed.

If you decide to rename the file, select **"NO"** and return to the page where you can rename the file.

MEMO

After the settings are saved, the user Style that you saved is selected as the Style.

NOTE

If you recall a different One Touch memory while editing a One Touch memory, the state of your editing is lost.

Copying a User Program or One Touch Memory to Another One Touch Memory

Copying a User Program to a One Touch Memory

Here's how to copy user program settings to a One Touch memory.

1. With no One Touch memory selected (i.e., when all of the One Touch [1]–[4] buttons are unlit), open the One Touch Setting screen.

2. Press one of the [L1] [L2] [L4] [L5] buttons to move the cursor to the One Touch memory to which you want to copy the user program.

3. Save the Style via [Option] → "Save Style."

The current user program settings are copied to the One Touch memory that's selected by the cursor.

Copying One Touch settings to another One Touch Memory

Here's how to copy One Touch settings to another One Touch memory.

1. Press a One Touch [1]–[4] button to select the copy-destination One Touch memory.

2. The One Touch Setting screen opens.

3. Press one of the [L1] [L2] [L4] [L5] buttons to move the cursor to the copy-destination One Touch memory.

4. Save the Style via [Option] → "Save Style."

The current (copy-source) One Touch settings are copied to the One Touch memory that's selected by the cursor.

Sampling Menu

Overall Workflow

The E-A7 lets you add new waveforms and play them from the keyboard as pitched sounds.
You can also freely add the sounds of specific ethnic instruments and local instruments.
The following diagram shows the overall workflow for creating new sounds.

Obtaining Waveforms

Sampling

You can sample audio waveform data from a mic or audio playback device via the E-A7's INPUT jacks directly into a user sample.

Sample import

You can import WAV format waveform data (44.1 kHz, 16 bit, WAV format only) from external storage (USB flash drive).
➡ **"Importing Samples"** (p. 26)

Save

Save

User Sample

The waveform data that you sample or import is saved as a user sample.
A **"multisample"** is a set of different samples assigned to each note of the keyboard (p. 28).

Reference

Reference

Creating a Tone from the User Sample

➡ **"Creating a User Tone"** (p. 29)

User Tone Edit

You can assign a pitch to the added waveform (user sample) and edit it so that it can be played from the keyboard. You can also make your keyboard playing dynamics affect the color of the sound, and you can edit other tone parameters.

Creating a personalized Drum Kit

➡ **"Creating a User Drum Kit"** (p. 33)

User Drum Kit Edit

You can create an original drum kit by editing the drum inst that are assigned to the drum kit, or by assigning an another user sample.

Obtaining Waveforms

Here's how you can directly sample audio waveform data from a mic or external audio playback device connected to the E-A7's INPUT jacks.
Alternatively, you can import a WAV format file from a USB flash drive into User Sample Memory.
You can use the sampled waveform data to create a tone or drum kit (p. 29, p. 33).

User Sample

A user sample is waveform data that was obtained by sampling or by importing a sample.

Connecting an External Device

* Before you connect an external device, set the Mic/Line In **[Volume]** knob to the minimum position, and turn the **[Input ON]** button off (unlit).

1. **Set the rear panel input switch.**
   LINE: If connecting an audio device or keyboard
   MIC: If connecting a microphone

   * If the switch is set to the Mic position, the signal that's input to the Input R jack is ignored. The same signal is input to both the R and L sides.

2. **Connect your external device to the INPUT jacks.**

   * If connecting a microphone, connect it to the L/MONO, MIC jack. Condenser microphones are not supported.

3. **Press the [Input On] button to turn on external input.**
   The button lights. To turn it off, press the button once again to make it go dark.

4. **Use the Mic/Line In [Volume] knob to adjust the volume of the input.**

5. **If you want to apply an effect to the input, press the [Input EFX] button to turn it on.**
The button lights. For more about the input effects, refer to **"Input Setting"** (p. 8).

Sampling

1. **Press the [Sampling] button.**
The Sampling Menu screen appears (you can also access this via the Menu).

2. **Press the [L1] (Sampling) button.**
The Sampling Standby screen appears.

```
(Sampling Standby)

Stereo Switch    Rec Level
       STEREO           0dB
Auto Trigger     Auto Trig Lvl
        OFF            5

Input Level Meter  Free Memory
L IIIIIIIIIIIIIIII  128MB(100.0%)
R IIIIIIIIIIIIIIII
                         START
```

Input Level Meter
The input level is shown. Use the input volume to adjust the input level so that the sound does not distort.

Free memory capacity
The display shows the amount of free memory in which samples can be saved. If the memory capacity is used up during sampling, sampling ends.

Parameter	Value	Explanation
Stereo Switch	Mono, Stereo	Specify whether sampling is done in stereo or monaural. Mono sampling takes only half the amount of memory. **MONO:** The sound is sampled as a single waveform. The left and right channels of stereo sound are mixed. **STEREO:** The sound is sampled as two waveforms, L and R.
Auto Trigger	ON, OFF	If Auto Trigger is ON, sampling starts automatically when sound input is detected.
Auto Trig Level	1–10	If Auto Trig is ON, specify the volume at which sampling starts. 1–10 (1 is the minimum)
Rec Level	-24, -18, -12, -6, 0 dB	Rec level

3. **Press the [F5] (Start) button to start sampling.**

MEMO

- If Auto Trigger is ON, sampling starts automatically when input is detected.
- Depending on the Auto Trigger Level setting, the beginning of the sound might be cut off. In this case, lower the Auto Trigger Level setting.

**4.** **Press the [F5] (Stop) button to stop sampling.**
The Sample Edit screen appears.

NOTE

The sampled data is discarded if you select another sample without saving the sampled data. Be sure to save important samples.

Importing Samples

Audio files (WAV format, 44.1 kHz/16-bit only) can be imported from a USB flash drive into the E-A7.

1. **Place the audio files on your USB flash drive in the following folder structure.**

```
(Root)
└IMPORT
  ├TEST1.wav
  ├TEST2.wav
  ├TEST3.wav
  ├TEST4.wav
  └TEST5.wav
```
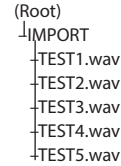
MEMO

Create a folder named **"IMPORT"** and place the files to be imported in that folder.
If you use the E-A7 to format a USB flash drive, an **"IMPORT"** folder is created.

2. **Connect the USB flash drive to the E-A7.**

3. **Press the [Sampling] button.**
The Sampling Menu screen appears (you can also access this via the Menu).

4. **Press the [L2] (Sample Import) button.**
The audio files inside the IMPORT folder are listed.

5. **Use the direct buttons to select the file that you want to import.**

MEMO

You can select multiple files.
If you select **[F1]** (Select All), all of the files are selected. Press the button again to clear the selection of all files.

6. **Press the [Enter] button.**
The E-A7 imports the selected file(s). When import is completed, the Sample List screen appears.

NOTE

- Import may take several minutes if you're importing multiple files or if the file size is large. Never turn off the power while the screen indicates **"Executing..."**
- Import is not possible if sample memory is full.
- If there is insufficient free memory for Sample Import, a message asks whether you want to Optimize.
- When you compare the original sampled or imported sound to the sound that's played back by the E-A7, you may notice a difference in the character of the sound.
  This is due to the settings of the E-A7; the character of the sound may be affected by settings such as the effect settings of each part, or the compressor and EQ settings of the Mastering Tools.
- In order for an imported sound to be played from the keyboard, it must first be edited.

Sample Editing

1. **Press the [Sampling] button.**
The Sampling Menu screen appears (you can also access this via the Menu).

2. **Press the [R1] (Sample List) button.**
The Sample List screen appears.

3. **Use the direct buttons to select the sample that you want to edit.**

MEMO

By using the direct buttons to select a sample and pressing the **[F3]** (Preview) button, you can audition that sample.

4. **Press the [Option] button.**
The Sample Option screen appears.

5. **Use the direct buttons to select "Edit."**

The Sample Edit screen appears.
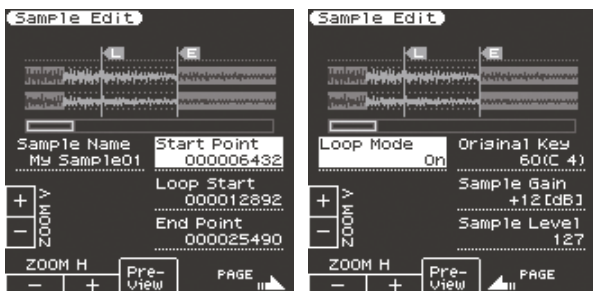
6. Edit the sample.

Use the direct buttons to select the parameter that you want to edit. Use the Value **[-] [+]** buttons to edit the value. Alternatively, you can use the **[Balance/Value]** knob (when the Value function is active / LED unlit) to edit the value.

Page	Button	Explanation
1	**[F1]** (Zoom H -)	Zooms-out horizontally.
	[F2] (Zoom H +)	Zooms-in horizontally.
	[F3] (Preview)	Auditions the currently-edited sample.
	[F5] (Page+)	Moves to the next page.
	[L3] (Sample Number)	Displays the sample number.
	[L4] (Zoom V +)	Zooms-in vertically.
	[L5] (Zoom V -)	Zooms-out vertically.
	[R3] (Start Point)	This is the playback start point. By editing this you can skip an unwanted portion at the beginning of the waveform so that the sample starts at the right moment.
	[R4] (Loop Start)	This is the point at which repeated playback (the second and subsequent plays) will start. Set this if you want to loop from a point that is different than the start point.
	[R5] (End Point)	This is the playback end point. By editing this you can omit an unwanted portion at the end of the sample.
2	**[F5]** (Page -)	Moves to the previous page.
	[R3] (Original Key)	Specifies the note number that plays the sample at its original pitch. C0–B8
	[L3] (Loop Mode)	Turns loop playback on/off. **If the loop start position has been specified** After the Sample played back from START to END, it will then be repeatedly played back in the forward direction, from the LOOP to END.
	[R4] (Sample Gain)	Adjusts the gain of the sample. 0, +6, +12 dB **NOTE** In some cases, raising Sample Gain will make the sound clip (distort).
	[R5] (Sample Level)	Adjusts the volume of the sample. 0–127

> **MEMO**
>
> A sample or multisample can be played from the keyboard while you edit it. In this case, the sample or multisample is assigned to the UP1 part. The sound will be affected by the effect settings of the UP1 part, by the Split status, and by the on/off status of the other parts.

7. To save the sample, press the [Write] button.

A screen appears in which you can name the sample.
➡ **"Assigning Names"** (Owner's Manual: p. 16)
If you decide to cancel, press the **[Exit]** button.

8. Press the [F5] (Exec) button.

9. Use the direct buttons and function buttons to select the save-destination.

10. Press the [Enter] button.

A confirmation message appears.

11. To save, select "Yes."

If you want to change the save-destination, select **"No"** to return to the page where you can specify the save-destination.

> **NOTE**
>
> If a sample already exists in the save-destination, the previous sample is deleted.
> If you want to keep that sample, use the UST Export or UDK Export function to save it (p. 33, p. 37).

Deleting a Sample

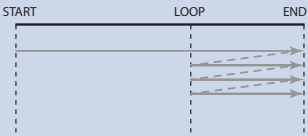### 1. Press the [Sampling] button.

The Sampling Menu screen appears (you can also access this via the Menu).

2. Press the [R1] (Sample List) button.

The Sample List screen appears.

> **MEMO**
>
> By using the direct buttons to select a sample and pressing the **[F3]** (Preview) button, you can audition that sample.

3. Press the [Option] button.

The Sample Option screen appears.

4. Use the direct buttons to select "Delete."

5. Use the direct buttons to select the sample that you want to delete.

> **MEMO**
>
> You can select multiple samples.
> If you choose **[F1]** (Select All), all samples are selected. Press the button again to clear the selection.

6. Press the [Enter] button.

A confirmation message appears.

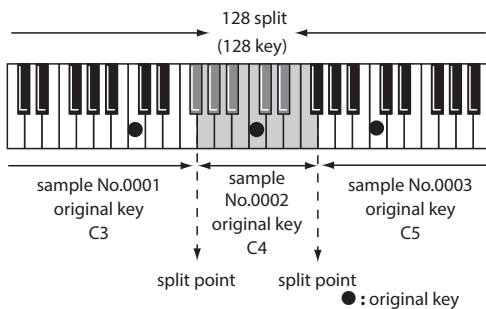### 7. Use the function buttons to select "YES."

The sample is deleted.
If you decide not to delete, select **"NO."**

Creating a Multisample (Create Multisample)

A **"multisample"** is a set of different samples assigned to each note of the keyboard. One multisample lets you assign up to 128 samples that are split (divided) across the notes of the keyboard.

> You can't listen to a multisample unless it's assigned to a tone. When creating a multisample, you start by selecting multiple samples to create the multisample, and then assign the multisample to a tone for use.

If, for example, only one note (e.g., the sound of the C4 key) is sampled from a wide-ranging instrument such as a piano, and assigned to the entire range of keys, it will sound unnatural when played significantly below or above its original pitch. If the instrument is sampled at several different pitches and assigned to different ranges of the keyboard, this unnatural effect can be minimized.

128 split
(128 key)

sample No.0001
original key
C3

sample No.0002
original key
C4

sample No.0003
original key
C5

split point   split point
● : original key

In the Create Multisample function, the split points are automatically determined according to the original key of each sample.
Before you begin this process, you should set the original key of each sample to the range where you want it to be assigned.

1. **Press the [Sampling] button.**
   The Sampling Menu screen appears (you can also access this via the Menu).

2. **Press the [R1] (Sample List) button.**
   The Sample List screen appears.
   > **MEMO**
   > By using the direct buttons to select a sample and pressing the [F3] (Preview) button, you can audition that sample.

3. **Press the [Option] button.**
   The Sample Option screen appears.

4. **Use the direct buttons to select "Create Multisample."**

5. **Use the direct buttons to select samples.**
   > **MEMO**
   > You can select multiple samples.
   > If you choose [F1] (Select All), all samples are selected. Press the button again to clear the selection.

6. **Press the [Enter] button.**
   The multisample is created.
   A screen appears in which you can name the multisample.
   ➡ **"Assigning Names"** (Owner's Manual: p. 16)
   If you decide to cancel, press the [Exit] button.

7. **Press the [F5] (Exec) button.**

8. **Use the direct buttons and function buttons to select the save-destination.**

9. **Press the [Enter] button.**
   A confirmation message appears.

10. **To save, select "Yes."**

If you want to change the save-destination, select **"No"** to return to the page where you can specify the save-destination.

> **NOTE**
> If there is a multisample in the save-destination, the original multisample is overwritten.

The multisample is created, and the multisample list appears.
Use the multisample to create a user tone or user drum kit (p. 29, p. 33).

> **MEMO**
> You can access the multisample list via the Sampling Menu screen.

Multisample Editing

1. **Press the [Sampling] button.**
   The Sampling Menu screen appears (you can also access this via the Menu).

2. **Press the [R2] (Multisample List) button.**
   The Multisample List screen appears.

3. **Use the direct buttons to select the sample that you want to edit.**

4. **Press the [Option] button.**
   The Multisample Option screen appears.

5. **Use the direct buttons to select "Edit."**
   The Multisample Edit screen appears.

6. **Use the keyboard or the cursor buttons to select the Sample (Key) that you want to edit.**
   You can perform the following operations.

Operation	Explanation
Split K J	Changes the split point.
Org Key	Changes the original key. A window appears, allowing you to change the original key. Use the Value [-] [+] buttons to change the setting. If you change the original key, the change is saved in the sample when you write the multisample. If you exit without saving, the setting reverts to the previous key. Note that if the same sample is used by other multisamples, they will also be affected by the change.
Erase	Deletes the selected sample from the multisample. * Although the sample will no longer be referenced by the multisample, the sample itself will remain.
Assign	Assigns the sample to the selected key. Select the sample to be assigned from the sample list.
Select	You can specify a region by pressing two keys.

> **MEMO**
> You can play the sample or multisample from the keyboard while you edit it. In this case, the sample or multisample sounds as if it is assigned to the UP1 part. The sound is affected by the effect settings of the UP1 part, the Split setting, and the on/off status of other parts.

7. **To save the multisample, press the [Write] button.**
   A screen appears in which you can name the multisample.
   ➡ **"Assigning Names"** (Owner's Manual: p. 16)
   If you decide to cancel, press the [Exit] button.

8. **Press the [F5] (Exec) button.**

9. **Use the direct buttons and function buttons to select the save-destination.**

10. **Press the [Enter] button.**
    A confirmation message appears.

11. **To save, select "Yes."**
    If you want to change the save-destination, select **"No"** to return to the page where you can specify the save-destination.

NOTE

If a multisample already exists in the save-destination, the previous multisample is deleted.
If you want to keep that sample, use the UST Export or UDK Export function to save it (p. 33, p. 37).

Deleting a Multisample

1. **Press the [Sampling] button.**
   The Sampling Menu screen appears (you can also access this via the Menu).

2. **Press the [R2] (Multisample List) button.**
   The Multisample List screen appears.

3. **Press the [Option] button.**
   The Multisample Option screen appears.

4. **Use the direct buttons to select "Delete."**

5. **Use the direct buttons to select the multisample that you want to delete.**

   MEMO

   You can select multiple multisamples. If you press **[F1]** (Select All), all multisamples are selected. Press the button again to clear the selection.

6. **Press the [Enter] button.**
   A confirmation message appears.

7. **Use the function buttons to select "YES."**
   The multisample is deleted.
   If you decide not to delete, select **"NO."**
   Although the sample will no longer be referenced by the multisample, the sample itself will remain.

User Tone

On the E-A7, you can use user samples and multisamples to create your own original tones (User Tones).
You can also edit an internal tone (Preset Tone) and save it as a User Tone).
In this manual we will sometimes abbreviate **"User Tone"** as **"UST."**

NOTE

- Some of the internal tones can't be edited. (The screen indicates **"Can't edit this tone."** and you are unable to enter the edit screen.)
- Tones with an **"E"** symbol shown at the right of the tone number in the tone list screen can be edited.
- When you edit the settings of a tone, the **"E"** symbol is replaced by an **"*"** symbol. When you save the tone settings, the **"*"** symbol disappears.
- If you turn off the power, select another tone, or enter the sample or multisample edit screen, the changes you made are lost. If you want to keep the changes you made, you must save the settings.
Check the tone list to see whether you can edit a tone.

How a tone is structured

A tone is the unit of sound used for performing. Each tone consists of up to four partials.

Each partial can be turned on/off individually, allowing you to select which partials will be heard.
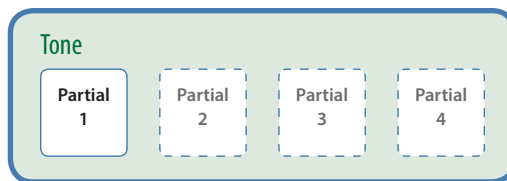
Example 1: A tone consisting of a single partial (Partials 2–4 are turned off)
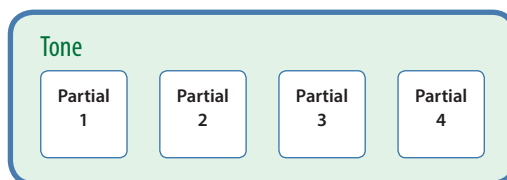
Example 2: A tone consisting of four partials

Partial

The partial is the smallest unit of sound. However, it's not possible to play just a partial by itself. The unit of sound used for performing is the tone, and partials are the materials from which a tone is constructed.
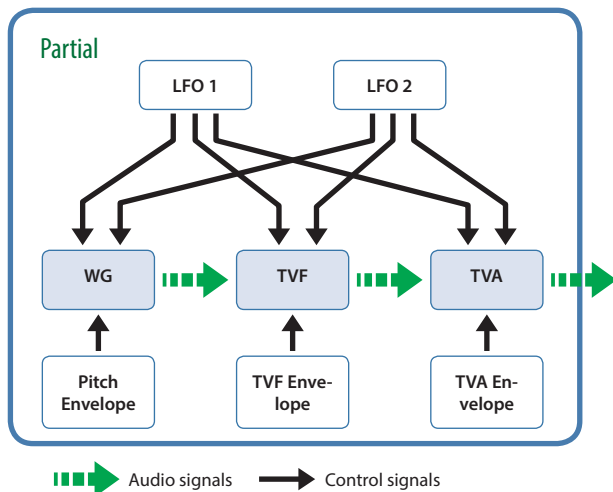
WG (Wave Generator)
   This selects the waveform (wave) that is the basis of the sound, and specifies how the pitch will change.
TVF (Time Variant Filter)
   This specifies change in the frequency response of the sound.
TVA (Time Variant Amplifier)
   This specifies change in volume and pan.
Envelope
   An envelope specifies a change over time.
LFO (Low Frequency Oscillator)
   An LFO specifies cyclic change (modulation).
- There are two LFOs, and each can be used to apply an effect to the WG (pitch), TVF (filter), or TVA (volume).
- Using the LFO to apply change to the WG pitch produces a vibrato effect, applying change to the TVF cutoff frequency produces a wah effect, and applying change to the TVA volume produces a tremolo effect.

Creating a User Tone

On the E-A7, you can use user samples and multisamples to create your own original sound (User Tone). Here's how to create a new User Tone.

* User Tone is sometimes abbreviated as UST.

1. **In the Tone section, press the [User] button.**

The User Tone list appears.

- Each time you press the [User] button, the contents of the list switch between UST and UDK.

2. **Use the direct buttons to select the Tone that you want to edit.**

MEMO

If you want to create a new user tone, select "Empty."

3. **Press the [Option] button.**

The UST Option screen appears.

4. **Use the direct buttons to select "Edit."**

The UST Edit screen appears.

On the E-A7, one tone consists of four elements of sound (Partial 1–4).

For each of these partials, you can change the waveform (Wave) and specify the keyboard region in which it will produce sound.

Use the cursor buttons or direct buttons to select the parameter that you want to edit, and use the Value [-] [+] buttons to edit the value. Alternatively, you can edit the value by using the [Balance/Value] knob (when the Value function is active / LED unlit).

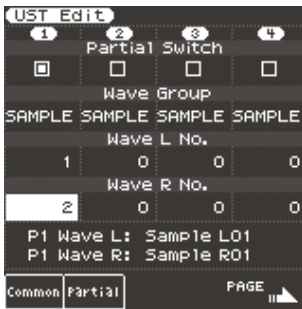| Parameter	Value	Explanation
Partial Switch	ON, OFF	Partial on/off
Wave Group	INT, SAMPLE, MULTISAMPLE	Group of the waveform (Wave) to assign to the partial **INT:** Internal tone waveforms **SAMPLE:** Sample waveforms **MSAM:** Multisample waveforms * If you select samples, the pitch won't change for keys more than two octaves away from the original key.
Wave No. L (Mono) Wave No. R	OFF, 1 -	Selects the waveform. Along with the wave number, the wave name is also shown in the lower part of the screen. If you want to use mono, specify only the left side (L). If you want to use stereo, specify the right side (R) as well. * If you use a multisample in stereo, specify the same number for L and R. * If you use a sample in stereo, you should likewise specify the same wave for L and R.
Key Range Lower	C-1–UPPER	For each partial, specifies the lowest key of the range in which it will sound.
Key Range Upper	LOWER–G9	For each partial, specifies the highest key of the range in which it will sound.
Velocity Range Lower	1–UPPER	Specifies the lowest keyboard playing strength that will sound the partial. Make this setting if you want to use keyboard playing strength to switch between partials.
Velocity Range Upper	LOWER–127	Specifies the highest keyboard playing strength that will sound the partial. Make this setting if you want to use keyboard playing strength to switch between partials.

For details on other parameters, refer to the **"User Tone Parameters"** (p. 30) later in this manual.

5. **To save the User Tone, press the [Write] button.**

A screen appears in which you can name the user tone.

➡ **"Assigning Names"** (Owner's Manual: p. 16)

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

6. **Press the [F5] (Exec) button.**

7. **Use the direct buttons and function buttons to select the save-destination.**

8. **Press the [Enter] button.**

A confirmation message appears.

9. **To save, select "Yes."**

If you want to change the save-destination, select "No" to return to the page where you can specify the save-destination.

NOTE

If there is a user tone in the save-destination, the original user tone is overwritten.

User Tone Parameters

The following parameters can be edited.

Common parameters

These parameters apply to the entire tone.

The list of Common parameters appears when you press the [F1] (Common) button in the Tone Edit screen.

Partial parameters

These parameters can be edited for each individual partial.

The list of Partial parameters appears when you press the [F2] (Partial) button in the Tone Edit screen.

Tone Common

Item/Parameter	Value	Explanation
Tone Level	0 - 127	Tone volume
Octave Shift	-3 - +3	Tone pitch (in octave units)
Tone Coarse Tune	-48 - +48	Tone pitch (in semitone units, ± 4 octaves)
Tone Fine Tune	-50 - +50	Tone pitch (in units of 1 cent = 1/100th of a semitone)
Legato Switch	OFF, ON	Specifies whether LEGATO SW is used (ON) or not used (OFF). LEGATO SW is effective if the Keyboard Part Mixer's Mono/Poly parameter is set to "MONO." If LEGATO SW is "ON," and you press another key while a previous key is still held down, the pitch smoothly changes to the newly-pressed key while maintaining the continuity of that note. This lets you obtain effects similar to the hammering-on or pulling-off techniques of a guitarist.
Legato Retrigger	OFF, ON	Specifies whether the note is retriggered (ON) or not retriggered (OFF) when you play legato. Normally you'll leave this "ON." LEGATO RETRIGGER is effective if the Keyboard Part Mixer parameter Mono/Poly is set to "MONO" and LEGATO SW is turned "ON." If this is "OFF," only the pitch will change when you press another key while still holding down the previous key, and the attack of the later-played note will not be heard. You should use the "OFF" setting when playing phrases on a wind instrument or bowed string instrument sound, or when simulating a mono synth keyboard.
Portamento Mode *1	NORMAL, LEGATO	**NORMAL:** Portamento is always applied. **LEGATO:** Portamento is applied only when you play legato.
Portamento Type *1	RATE, TIME	**RATE:** The speed of the pitch change is fixed (the time occupied by the pitch change is proportional to the distance between the pitches). **TIME:** The time of the pitch change is fixed (unaffected by the distance between the pitches).

Item/Parameter	Value	Explanation
Portamento Start *1	PITCH, NOTE	**PITCH:** If you press another key while the pitch is changing, new portamento starts from the pitch that was sounding at the moment you pressed the key. Portamento Start: PITCH **NOTE:** New portamento starts from the note at which pitch change ended. Portamento Start: NOTE
Cutoff Offset *2	-63 - +63	Frequency at which the filter begins to take effect.
Resonance Offset *2	-63 - +63	Amount by which the sound in the region of the cutoff frequency is boosted, giving the sound a distinctive character. If this is raised excessively, oscillation might occur, causing the sound to distort.
Attack Time Offset *2	-63 - +63	Time from when the key is pressed until the attack is completed
Release Time Offset *2	-63 - +63	Time from when the key is released until the sound disappears

Tone Partial

Item / Parameter	Value	Explanation
Partial Switch	OFF, ON	Partial on/off
WG **Modifies the pitch of the waveform or sound.**		
Wave Group	INT, SAMPLE, MULTISAMPLE	Group of the waveform (wave) that is assigned to the partial **INT:** Internal tone waveforms **SAMPLE:** Sample waveforms **MSAM:** Multisample waveforms * If you select Sample, the pitch will not change for keys that are more than two octaves above the original key.
Wave No.L (Mono) Wave No.R	OFF, 1 -	Selects the waveform. Together with the wave number, the wave name is also shown at the bottom of the screen. If you're using mono, specify only the left side (L). If you're using stereo, specify the right side (R) as well. * If you're using a multisample in stereo, specify the same number for L and R. * Likewise, when using a sample in stereo, specify the same wave for L and R.
Wave Gain	-6, 0, +6, +12 **[dB]**	Gain (amplitude) of the waveform Raising this 6 dB (decibels) doubles the gain.
Pitch Coarse Tune	-48–+48	Pitch of the partial (semitone units, ± 4 octaves)
Pitch Fine Tune	-50–+50	Pitch of the partial (units of one cent = 1/100th of a semitone)
TVF **The filter cuts a specific frequency region, modifying the brightness or thickness of the sound.**		

Item / Parameter	Value	Explanation
TVF Filter Type	OFF, LPF, BPF, HPF, PKG, LPF2, LPF3	Type of filter **OFF:** Filter is not used **LPF:** Low Pass Filter. Cuts the frequency region above the cutoff, making the sound more mellow. **BPF:** Band Pass Filter. Cuts the sound, leaving only the region near the cutoff. This is useful for creating sounds with a distinctive character. **HPF:** High Pass Filter. Cuts the frequency region below the cutoff. This is useful for creating percussion instrument sounds whose character lies in the high frequency region. **PKG:** Peaking Filter. Boosts the region of the cutoff. Using the LFO to cyclically modulate the cutoff frequency produces a wah effect. **LPF2:** Low Pass Filter 2. This cuts the frequency region above the cutoff, but the filter sensitivity is half that of LPF. This is useful when simulating instrumental sounds such as acoustic piano. **LPF3:** Low Pass Filter 3. This cuts the frequency region above the cutoff, but the filter sensitivity changes depending on the cutoff frequency. This is useful when simulating acoustic instruments, but produces a different nuance than LPF2 even with the same TVF Envelope settings. * If **"LPF2"** or **"LPF3"** are selected, the Resonance setting is ignored.
TVF Cutoff Frequency	0–127	Frequency at which the filter starts to apply
TVF Resonance	0–127	Amount by which the sound in the region of the cutoff frequency is boosted, applying a distinctive character to the sound * Raising this excessively may produce oscillation, causing the sound to distort.
TVF Env Depth	-63–+63	TVF envelope depth Increasing this value increases the change produced by the TVF envelope. Negative **"-"** values invert the shape of the envelope.
TVF Env Attack	0–127	TVF envelope time Increasing this value lengthens the time it takes to reach the next cutoff frequency. Adjusts ENV T1.
TVF Env Decay	0–127	TVF envelope time Adjusts ENV T3.
TVF Env Sustain	0–127	TVF envelope level Adjusts ENV L3.
TVF Env Release	0–127	TVF envelope time Adjusts ENV T4.

TVF Envelope

TVA
These settings determine the volume.

Item / Parameter	Value	Explanation
TVA Tone Level	0–127	Partial volume This is used mainly to adjust the volume balance between tones.
TVA Tone Pan	L64–63R	Partial panning (left/right position)
TVA Env Attack	0–127	TVA envelope time Increasing this value lengthens the time it takes to reach the next volume. Adjusts ENV T1.
TVA Env Decay	0–127	TVA envelope time Adjusts ENV T3.
TVA Env Sustain	0–127	TVA envelope level Specifies how the volume at each point will change relative to the LEVEL setting. Adjusts ENV L3.
TVA Env Release	0–127	TVA envelope time Adjusts ENV T4.

Item / Parameter	Value	Explanation

TVA Envelope
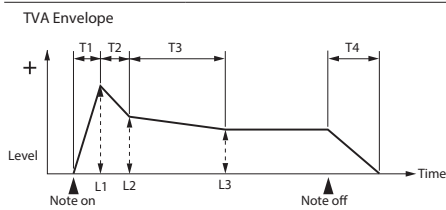
LFO

An LFO (Low Frequency Oscillator) applies cyclic change to the sound. There are two LFOs for each tone (LFO1/LFO2), and you can use them to cyclically modulate the pitch, cutoff frequency, or volume to produce modulation effects such as vibrato, wah, or tremolo. Both LFOs have the same parameters.

Item / Parameter	Value	Explanation
LFO Waveform	SIN, TRI, SAW-UP, SAW-DW, SQR, RND, BEND-UP, BEND-DW, TRP, S&H, CHS, VSIN, STEP	LFO waveform **SIN:** Sine wave **TRI:** Triangle wave **SAW-UP:** Sawtooth wave **SAW-DW:** Sawtooth wave (negative polarity) **SQR:** Square wave **RND:** Random wave **BEND-UP:** A waveform that rises and then holds at the reference level when it is reached **BEND-DW:** A waveform that falls and then holds at the reference level when it is reached **TRP:** Trapezoidal wave **S&H:** Sample and Hold wave (the LFO value changes once each cycle) **CHS:** Chaos wave **VSIN:** A modified sine wave. The amplitude of the sine wave changes randomly once every cycle. **STEP:** A waveform that is created by the LFO Step 1–16 settings. It produces stepped change in a fixed pattern. * For some tones, **"BEND-UP"** or **"BEND-DW"** might not produce an effect.
LFO Rate	0–127	LFO cycle speed * This setting has no effect if WAVEFORM is set to **"CHS."**
LFO Delay Time	0–127	Time from when you press (release) the key until the LFO effect applies (continues) When performing with a sound such as violin or wind instrument, it is effective to apply vibrato after the sound has sustained for a while, rather than as soon as the sound begins. * Make the settings appropriate to your purpose as described in **"How to Apply the LFO"** (below).
LFO Fade Mode	ON-IN, ON-OUT, OFF-IN, OFF-OUT	Using LFO * Make the settings appropriate to your purpose as described in **"How to Apply the LFO"** (below).
LFO Fade Time	0–127	Time until the LFO amplitude reaches the maximum (minimum) * Make the settings appropriate to your purpose as described in **"How to Apply the LFO"** (below).
LFO Pitch Depth	-63–+63	Depth to which LFO affects the pitch
LFO TVF Depth	-63–+63	Depth to which LFO affects the cutoff frequency
LFO TVA Depth	-63–+63	Depth to which LFO affects the volume

How to Apply the LFO

Apply the LFO gradually after the key is pressed		
		FADE MODE: ON-IN **DELAY TIME:** Time from when the keyboard is played until the LFO begins to be applied **FADE TIME:** Time over which the LFO amplitude will reach the maximum after the DELAY TIME has elapsed
Apply the LFO immediately when the key is pressed, and then gradually begin to decrease the effect		
		FADE MODE: ON-OUT **DELAY TIME:** Time that the LFO will continue after the keyboard is played **FADE TIME:** Time over which the LFO amplitude will reach the minimum after the DELAY TIME has elapsed
Apply the LFO gradually after the key is released		
		FADE MODE: OFF-IN **DELAY TIME:** Time from when the keyboard is released until the LFO begins to be applied **FADE TIME:** Time over which the LFO amplitude will reach the maximum after the DELAY TIME has elapsed
Apply the LFO from when the key is pressed until it is released, and gradually begin to decrease the effect when the key is released		
		FADE MODE: OFF-OUT **DELAY TIME:** Time that the LFO will continue after the keyboard is released **FADE TIME:** Time over which the LFO amplitude will reach the minimum after the DELAY TIME has elapsed

KEY RANGE

These settings let you play different partials in different regions (note numbers) of the keyboard.

Keyboard Range Lower	C-1–UP-PER	Specifies the lowest key of the keyboard range for each partial
Keyboard Range Upper	LOWER–G9	Specifies the highest key of the keyboard range for each partial.

VELOCITY RANGE

These settings let you play different partials according to your playing strength (velocity) on the keyboard.

Velocity Range Lower	1–UPPER	Specifies the lowest playing strength that will sound the partial. Set this if you want to play different partials according to your playing strength.
Velocity Range Upper	LOWER–127	Specifies the highest playing strength that will sound the partial. Set this if you want to play different partials according to your playing strength.

Deleting a User Tone

1. In the Tone section, press the **[User]** button.
The User Tone list appears.

2. Use the direct buttons to select the tone that you want to delete.

3. Press the **[Option]** button.
The UST Option screen appears.

4. Use the direct buttons to select **"Delete."**
A confirmation message appears.

5. Use the function buttons to select **"YES."**
The User Tone is deleted.
If you decide not to delete, select **"NO."**

* Samples and multisamples are not deleted.

Exporting User Tones to a USB Flash Drive (UST Export)

1. In the Tone section, press the [User] button.
The User Tone list appears.

2. Use the direct buttons to select the tone that you want to export.

3. Press the [Option] button.
The UST Option screen appears.

4. Use the direct buttons to select "Export."
A screen appears in which you can name the tone.
➡ **"Assigning Names"** (Owner's Manual: p. 16)
If you decide to cancel, press the [Exit] button.

5. Press the [F5] (Exec) button.

MEMO

The exported tone is placed in the **"My UST"** folder of the USB flash drive. The tone is exported with its user samples and multisamples.
It may take some time for the export to be completed if the data size is large.

NOTE

* It is possible to change the file name when executing UST Export/UDK Export.
However, this changes only the file name; it does not change the name of the tone.
This means that if you import a UST or UDK whose file name was changed, the original tone names are displayed. Since you won't be able to tell the original tone names, we recommend that you not change the file name when exporting.
* When you export, the samples and multisamples remain in the E-A7. (The data is copied and saved on the USB flash drive.)
If you want to increase the amount of free memory, export the data, then delete unneeded user tones, and execute sample clean up (p. 38).
If more than one User Tone uses the same user samples or multisamples, the user samples are not deleted until all related User Tones are deleted (i.e., the amount of free memory will not increase).

Loading Exported User Tones

1. In the Tone section, press the [User] button.
The User Tone list appears.

2. Use the direct buttons or function buttons to select the import destination.

3. Press the [Option] button.
The UST Option screen appears.

4. Use the direct buttons to select "Import."
Files that can be imported from the USB flash drive are shown.

5. Use the direct buttons to select the file that you want to import.
A confirmation message appears.

6. To import the data, select "Yes."
If you want to change the import destination, select **"No"** to return to the page where you can change the import destination.

NOTE

If the user sample memory is full, you can't import user tones. Increase the amount of free memory and then import once again.

MEMO

Place the files you want to import in the **"My UST"** folder of the USB flash drive.

If there is no **"My UST"** folder in External Storage (USB flash drive), you can either use the E-A7 to format the USB flash drive, or create a folder named **"My UST."**

User Drum Kit

The E-A7 lets you use user samples or multisamples to create your own original drum kit (User Drum Kit).
You can also edit an internal drum kit (Preset Drum Kit) and save it as a User Drum Kit.
In this manual we will sometimes abbreviate **"User Drum Kit"** as **"UDK."**

NOTE

* Some of the internal drum kits contain tones that cannot be edited. The screen indicates **"Can't edit this tone."** and you won't be able to enter the edit screen.
* Tones with an **"E"** symbol at the right of the tone number in the tone list screen can be edited.
* When you edit the settings of a tone, an **"*"** symbol appears in place of the **"E"** symbol. When you save the tone, the **"*"** symbol disappears.
* If you turn off the power, select another tone, or enter the sample or multisample edit screen, the changes you made are lost. If you want to keep the changes you made, you must save the settings.

Each drum instrument in a drum kit can be copied from a different drum kit and reused (the Drum Inst copy function).
This lets you combine drum instruments from the internal drum kits to create a new drum kit, or replace specific drum instruments of an internal drum kit with user drum instruments that use samples.

How a drum kit is structured

A drum kit is a group of multiple percussion instrument sounds (drum instruments).
Percussion instrument sounds are not typically used to play melodies, so there is no need to be able to play them at different pitches from the keyboard. It's also important to be able to play a large number of different percussion instrument sounds at once. For these reasons, a drum kit lets you play different percussion instrument sounds by playing different keys (note numbers).
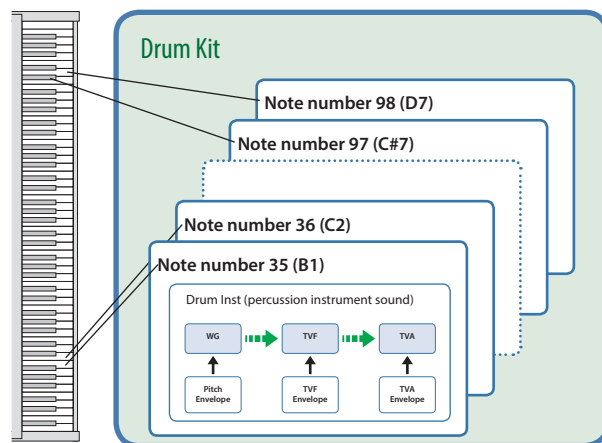
* Each drum instrument consists of four elements of sound (WAVE1–4).
* Drum instruments do not have an LFO.

Creating a User Drum Kit

The E-A7 lets you create your own original drum kit (User Drum Kit) from user samples and multisamples. Here's how to create a new user drum kit.

* User Drum Kit is sometimes abbreviated as UDK.

1. In the Tone section, press the [User] button.

The User Tone list appears.

Each time you press the [User] button, you'll switch between the UST and UDK lists.

2. Use the direct buttons to select the UDK that you want to edit.

MEMO

If you want to create a new UDK, select "Empty."

3. In the User Drum Kit list page, press the [Option] button.

The UDK Option screen appears.

4. Use the direct buttons to select "Edit."

The UDK Edit screen appears.

In a drum kit, you can assign a different drum sound (Drum inst) to each note of the keyboard.

A single drum tone consists of four elements of sound (Wave 1–4). For each wave, you can change the waveform and edit the parameters.

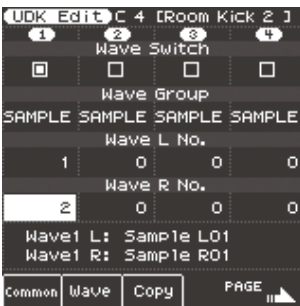**5. From the keyboard, select the drum inst (key) that you want to edit.**

The screen indicates the number (key position) and name of the selected drum inst.

* The name of the Drum Inst shows the name of the waveform that's assigned to No.L of Wave1.

Use the cursor buttons or direct buttons to select the parameter that you want to edit, and use the Value [-] [+] buttons to edit the value. Alternatively, you can use the [Balance/Value] knob to edit the value (when the Value function is active / LED unlit).

Parameter	Parameter	Explanation
Wave Switch	ON, OFF	Wave on/off
Wave Group	INT, SAMPLE, MULTISAMPLE	Group of the waveform (wave) that you want to assign. **INT:** Internal sound waveforms **SAMPLE:** Sample waveforms **MSAM:** Multisample waveforms * If you select sample, the pitch will not change for keys that are more than two octaves away from the original key.
Wave No. L (Mono) Wave No. R	OFF, (wave number)	Selects the waveform. Along with the wave number, the wave name is also shown at the bottom of the screen. If you want to use mono, specify only the left side (L). If you want to use stereo, specify the right side (R) as well. * If you want to use a multisample in stereo, specify the same number for L and R.
Velocity Range Lower	1–UPPER	Specifies the lowest keyboard playing strength that will sound the wave. Make this setting if you want to use keyboard playing strength to switch between waves.
Velocity Range Upper	LOWER–127	Specifies the highest keyboard playing strength that will sound the wave. Make this setting if you want to use keyboard playing strength to switch between waves.

Parameter	Parameter	Explanation
Inst Coarse Tune	C-1–G9	Selects the pitch of the note that will sound the drum instrument. * The default value is 60 (C4). Edit this value if you have selected a sample or multisample and want it to sound at a different key.

For details on other parameters, refer to "User Drum Kit Parameters" (p. 35).

6. If you want to copy a drum inst from a different drum kit, press the [F3] (Copy) button.

Use the direct buttons to move the cursor, and use the Value [-] [+] buttons to change the value.

* Select the drum instrument (key position) of the copy-source drum kit. The copy-source drum kit can be selected from "Current" (the currently-edited drum kit), "Preset" (internal drum kits), or "User" (user drum kits). After selecting one of these, use the direct buttons to move the cursor, and use the Value buttons to select the drum kit number and name. After selecting the drum kit, move the cursor and change the drum instrument (key position).

* The copy-destination drum kit will be the currently-edited drum kit. Move the cursor and change the copy-destination drum instrument (key position). You can also use the keyboard to specify the key position.

Select the copy-source and copy-destination, and then press the [Enter] button.

To execute, select [F5](Yes).

Press the [Exit] button to exit the Copy screen.

MEMO

If you want to rename the drum instrument, press the [Option] button in the UDK Edit page, and then press the [L1](Drum Kit Name) button. Edit the name, and then press the [F5](Exec) button.

7. To save the user drum kit, press the [Write] button.

A screen appears in which you can name the UDK.

➡ "Assigning Names" (Owner's Manual: p. 16)

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

8. Press the [F5] (Exec) button.

9. Use the direct buttons and function buttons to select the save-destination.

10. Press the [Enter] button.

A confirmation message appears.

11. To save, select "Yes."

If you want to change the save-destination, select "No" to return to the page where you can specify the save-destination.

You can also edit the built-in drum kits. In the Tone section, press the [Drums] button. Then in the Drum List screen, select the drum kit that you want to edit, press the [Option] button, and use the direct buttons to select "Edit."

The currently selected drum kit can be edited.

If you've edited a built-in drum kit and save it, it is saved as a user drum kit.

User Drum Kit Parameters

You can edit the following parameters.

Common parameters

These parameters applied to the entire drum kit.
The Common parameters appear when you press the **[F1]** (Common) button in the User Drum Kit Edit screen.

Wave parameters

These parameters can be edited for each individual element of sound (wave). Some of the parameters are common to the entire drum instrument.
The list of Wave parameters appears when you press the **[F2]** (Wave) button in the User Drum Kit Edit screen.

Drum Kit Common

Item / Parameter	Value	Explanation
Drum Kit Level	0 - 127	Drum kit volume

Drum Kit Wave/Inst

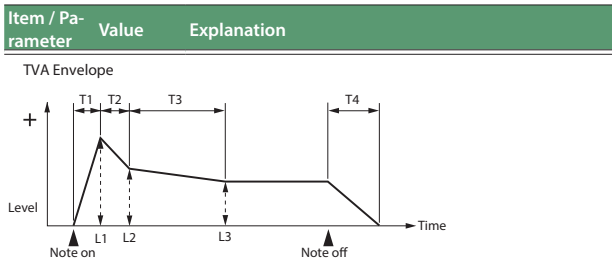| Item / Parameter	Value	Explanation
Wave Switch	OFF, ON	Wave on/off
WG Modifies the pitch of the waveform or sound.		
Wave Group	INT, SAMPLE, MULTIS-AMPLE	Group of the waveform (Wave) to be assigned as the wave **INT:** Waveforms of internal sounds **SAMPLE:** Sample waveforms **MSAM:** Multisample waveforms
Wave No.L (Mono) Wave No.R	OFF, (wave number)	Specifies the waveform. The wave name is also displayed at the bottom of the screen together with the wave number (in the case of INT, the name is not displayed). If you're using mono, specify only the left (L). If you're using stereo, specify the right (R) as well. * If you're using a sample or multisample in stereo, specify the same number for L and R.
Wave Gain	-6, 0, +6, +12 **[dB]**	Waveform gain (amplitude) An increase of 6 dB (decibels) doubles the gain.
Wave Coarse Tune	-48–+48	Waveform pitch (semitone units, ± 4 octaves)
Wave Fine Tune	-50–+50	Waveform pitch (units of one cent = 1/100th of a semitone)
Wave Level	0–127	Waveform volume
Wave Pan	L64–63R	Waveform panning (left/right position)
VELOCITY RANGE These settings let you play different waves according to your playing strength (velocity) on the keyboard.		
Velocity Range Lower	1–UPPER	Specifies the lowest playing strength that will sound the wave. Set this if you want to play different waves according to your playing strength.
Velocity Range Upper	LOW-ER–127	Specifies the highest playing strength that will sound the wave. Set this if you want to play different waves according to your playing strength.

The following parameters are for the entire drum instrument, not for individual waves

Item / Parameter	Value	Explanation
PITCH These parameters adjust the pitch.		
Inst Coarse Tune	C-1–G9	Selects the pitch of the note that plays the drum instrument. * The default is 60 (C4). Edit this value if you have selected a sample or multisample, and want it to sound at a different key.
Inst Fine Tune	-50–+50	Pitch of the drum instrument (one cent = 1/100th of a semitone)
TVF The filter cuts a specific frequency region, modifying the brightness or thickness of the sound.		

Item / Parameter	Value	Explanation
TVF Filter Type	OFF, LPF, BPF, HPF, PKG, LPF2, LPF3	Type of filter **OFF:** Filter is not used **LPF:** Low Pass Filter. Cuts the frequency region above the cutoff, making the sound more mellow. **BPF:** Band Pass Filter. Cuts the sound, leaving only the region near the cutoff. This is useful for creating sounds with a distinctive character. **HPF:** High Pass Filter. Cuts the frequency region below the cutoff. This is useful for creating percussion instrument sounds whose character lies in the high frequency region. **PKG:** Peaking Filter. Boosts the region of the cutoff. Using the LFO to cyclically modulate the cutoff frequency produces a wah effect. **LPF2:** Low Pass Filter 2. This cuts the frequency region above the cutoff, but the filter sensitivity is half that of LPF. This is useful when simulating instrumental sounds such as acoustic piano. **LPF3:** Low Pass Filter 3. This cuts the frequency region above the cutoff, but the filter sensitivity changes depending on the cutoff frequency. This is useful when simulating acoustic instruments, but produces a different nuance than LPF2 even with the same TVF Envelope settings. * If **"LPF2"** or **"LPF3"** are selected, the Resonance setting is ignored.
TVF Cutoff Frequency	0–127	Frequency at which the filter starts to apply
TVF Resonance	0–127	Amount by which the sound in the region of the cutoff frequency is boosted, applying a distinctive character to the sound * Raising this excessively may produce oscillation, causing the sound to distort.
TVF Env Depth	-63–+63	TVF envelope depth Increasing this value increases the change produced by the TVF envelope. Negative **"-"** values invert the shape of the envelope.
TVF Env Attack	0–127	TVF envelope time Increasing this value lengthens the time it takes to reach the next cutoff frequency. Adjusts ENV T1.
TVF Env Decay	0–127	TVF envelope time Adjusts ENV T3.
TVF Env Sustain	0–127	TVF envelope level Specifies the amount by which the cutoff frequency is changed from the CUTOFF setting. Adjusts ENV L3.
TVF Env Release	0–127	TVF envelope time Adjusts ENV T4.

TVF Envelope

Item / Parameter	Value	Explanation
TVA These settings determine the volume.		
TVA Tone Level	0–127	Drum instrument volume This is used mainly to adjust the volume balance between drum instruments.
TVA Tone Pan	L64–63R	Drum instrument panning (left/right position)
TVA Env Attack	0–127	TVA envelope time Increasing this value lengthens the time it takes to reach the next volume. Adjusts ENV T1.
TVA Env Decay	0–127	TVA envelope time Adjusts ENV T3.
TVA Env Sustain	0–127	TVA envelope level Specifies how the volume will change relative to the LEVEL setting. Adjusts ENV L3.
TVA Env Release	0–127	TVA envelope time Adjusts ENV T4.

Item / Parameter	Value	Explanation

TVA Envelope

CONTROL
These settings determine how the sound is played.

Item / Parameter	Value	Explanation
Assign Type	MULTI, SINGLE	Specifies how the sound is played when you press the same key multiple times. **SINGLE:** Notes played on the same key are heard only one at a time. If you play a sustained sound multiple times in succession, the previous note is silenced and the next note is sounded. **MULTI:** Notes played on the same key are sounded together. Even if you play a sustained sound multiple times in succession, the notes are sounded together without silencing the previous notes.
Mute Group	OFF, 1–31	This setting lets you prevent drum instruments with the same settings from sounding together. On an acoustic drum set, it is not possible to play the open hi-hat and closed hi-hat sounds simultaneously. You can use this setting to reproduce this situation. You can specify 31 groups. With the **"OFF"** setting, the drum instrument will not belong to any group.

Item / Parameter	Value	Explanation
Envelope Mode	NO-SUS, SUSTAIN	When a loop waveform (p. 31) is selected, the sound will normally continue as long as the key is pressed. If you want the sound to decay naturally even if the key remains pressed, set this to **"NOSUS."** * If a one-shot type wave is selected, it will not sustain even if this parameter is set to **"SUSTAIN."**

Note when selecting a waveform

The E-A7 uses complex PCM waveforms as the basis for its sounds. For this reason, you should be aware that if you specify a waveform that is very different than the original waveform, the result may not be what you expect. The E-A7's internal waveforms can be categorized into the following two types.

One-shot:

These are sounds with a short decay time. One-shot waveforms contain the entire duration of the sound from the attack until it decays to silence. Some of these waveforms capture a complete sound such as a percussion instrument, but there are also many attack component sounds such as the hammer strike of a piano or the fret noise of a guitar.

Loop:

These are sounds with a long decay, or sustaining sounds. Looped waveforms will repeatedly play a portion of a sound once it has reached a relatively stable state. These sounds also include numerous component sounds, such as a vibrating piano string or a resonating pipe.

The following illustration shows an example of a sound created by combining a one-shot waveform with a loop waveform. (This example is of an electric organ.)
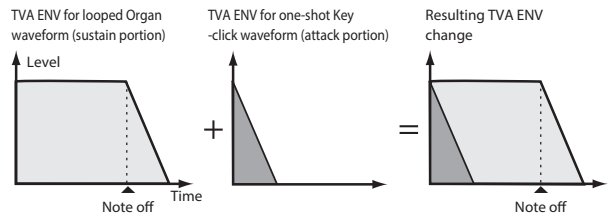
Note when selecting a one-shot waveform

It's not possible to use the envelope settings to give a one-shot waveform a longer decay than the original waveform contains, or to make it a sustaining sound. Even if you made this type of envelope setting, you would be trying to bring out something that doesn't exist in the original waveform.

Note when selecting a looped waveform

Many acoustic instruments such as piano or sax are marked by a sudden change in timbre at the very beginning of the sound, and this rapid change is what gives the instrument its distinctive character. When using these waveforms, it's best to use the complex tonal changes in the attack portion of the sound without attempting to modify them; use the envelope only to modify the decay portion of the sound as desired. If you use the envelope to modify the attack as well, the envelope settings will be affected by the attack of the waveform itself, and you may not get the result you intend.
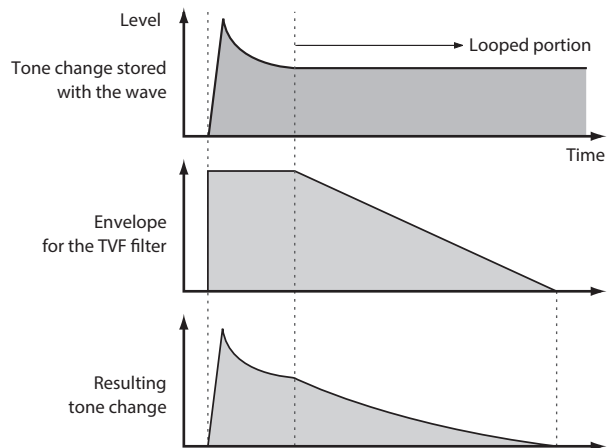
Deleting a User Drum Kit

1. **In the Tone section, press the [User] button.**
   The User Tone list appears. Press the **"User"** button several times to access the User Drum Kit list.

2. **Use the direct buttons to select the drum kit that you want to delete.**

3. **Press the [Option] button.**
   The UDK Option screen appears.

4. **Use the direct buttons to select "Delete."**
   A confirmation message appears.

5. **Use the function buttons to select "YES."**
   The user drum kit is deleted.
   If you decide not to delete, select **"NO."**
   * Samples and multisamples are not deleted.

Exporting User Drum Kits to a USB Flash Drive (UDK Export)

1. **In the Tone section, press the [User] button.**
   The User Tone list appears. Press the **"User"** button several times to access the User Drum Kit list.

2. **Use the direct buttons to select the drum kit that you want to export.**

3. **Press the [Option] button.**
   The UDK Option screen appears.

4. **Use the direct buttons to select "Export."**
   A screen appears in which you can name the UDK.
   ➡ **"Assigning Names"** (Owner's Manual: p. 16)
   If you decide to cancel, press the **[Exit]** button.

5. **Press the [F5] (Exec) button.**

   MEMO

   The exported drum kit is placed in the **"My UDK"** folder of the USB flash drive. It is exported with its user samples and multisamples.
   It may take some time for the export to be completed if the data size is large.

   NOTE

   - It is possible to change the file name when executing UST Export/UDK Export.
     However, this changes only the file name; it does not change the name of the tone.
     This means that if you import a UST or UDK whose file name was changed, the original tone names are displayed. Since you won't be able to tell the original tone names, we recommend that you not change the file name when exporting.
   - When you export, the samples and multisamples remain in the E-A7. (The data is copied and saved on the USB flash drive.)
     If you want to increase the amount of free memory, export the data, then delete unneeded user drum kits, and execute sample Clean Up.
     If multiple user drum kits use the same drum insts, user samples, or multisamples, the user samples are not deleted until all related user drum kits are deleted (i.e., the amount of free memory will not increase).

Loading Exported User Drum Kits (UDK Import)

1. **In the Tone section, press the [User] button.**
   The User Tone list appears. Press the **"User"** button several times to access the User Drum Kit list.

2. **Use the direct buttons or function buttons to select the import destination.**

3. **Press the [Option] button.**
   The UDK Option screen appears.

4. **Use the direct buttons to select "Import."**
   Files that can be imported from the USB flash drive are shown.

5. **Use the direct buttons to select the file that you want to import.**
   A confirmation message appears.

6. **To import the data, select "Yes."**
   If you want to change the import destination, select **"No"** to return to the page where you can change the import destination.

   NOTE

   If the user sample memory is full, you can't import user drum kits. Increase the amount of free memory and then import once again.

   MEMO

   Place the files that you want to import in the **"My UDK"** folder of the USB flash drive.
   If there is no **"My UDK"** folder in External Storage (USB flash drive), you can either use the E-A7 to format the USB flash drive, or create a folder named **"My UDK."**

Increasing the Amount of Free Sample Memory

If sample memory is full, you can increase the amount of free sample memory as follows.

Truncating a Sample

Truncate is an operation that removes data that is outside the Start/End points.

1. Press the [Sampling] button.
The Sampling Menu screen appears (you can also access this via the Menu).

2. Press the [R1] (Sample List) button.
The Sample List screen appears.

3. Press the [Option] button.
The Sample Option screen appears.

4. Use the direct buttons to select "Truncate."

5. Use the direct buttons to select the sample that you want to truncate.

> **MEMO**
> You can select multiple samples.
> If you choose **[F1]** (Select All), all samples are selected. Press the button again to clear the selection.

6. Press the [Enter] button.
A confirmation message appears.

7. Use the function buttons to select "YES."
The sample is truncated.
If you decide not to truncate, select **"NO."**

> **MEMO**
> - When you execute Truncate, data that is outside the Start/End points is deleted, so you will no longer be able to move the Start Point backward or the End Point forward.
> - Perform the Optimize operation after truncating.

Sample Clean Up

Clean Up is an operation that deletes samples that are not used by user tones or user drum kits.
Simply deleting a user tone or user drum kit does not delete its samples; you'll need to execute Clean Up.

1. Press the [Sampling] button.
The Sampling Menu screen appears (you can also access this via the Menu).

2. Press the [L3] (Clean Up) button.
A confirmation message appears.

3. Use the function buttons to select "YES."
Clean Up is executed.
If you decide not to execute Clean Up, select **"NO."**

> **NOTE**
> It will take several tens of minutes to execute Clean Up. Never turn off the power while the screen indicates **"Executing..."**

Optimizing Sample Memory

Optimize is an operation that rearranges the vacant areas that are fragmented in memory, allowing the memory to be used optimally.

1. Press the [Sampling] button.
The Sampling Menu screen appears (you can also access this via the Menu).

2. Press the [L4] (Optimize) button.
A confirmation message appears.

3. Use the function buttons to select "YES."
Optimize is executed.
If you decide not to execute Optimize, select **"NO."**

> **NOTE**
> It will take several tens of minutes to execute Optimize. Never turn off the power while the screen indicates **"Executing..."**

> **MEMO**
> If there is still insufficient free memory after executing Optimize, you can delete unneeded user tones and user drum kits, and then execute the sample Clean Up and Optimize operations.
> Before deleting the data, you can export the user tones and user tracks, and save them on external storage (USB flash drive).

Notes Regarding User Tones and User Drum Kits

If a UST or UDK is referenced by a user program or style, editing the reference-source UST or UDK will also affect the sound that is recalled by the user program or style.
The user program or style references the number in the UST or UDK list, so if you delete the UST or UDK, or if it is overwritten by imported data, you might hear no sound or a completely different sound.

When you perform a user data backup, data such as the UDKs, USTs, and user samples, as well as the user programs and styles in internal storage, are all saved together. By restoring this data, you can reproduce the same state.
➡ For details on backup/restore, refer to **"Backing Up or Initializing Data (Utility)"** (p. 67).
However, user programs and user styles in external storage (USB flash drive) are not backed up.
We recommend that user backup files be saved together with the necessary user programs (.UST file) and styles.

Style Composer

The E-A7 allows you to program your own styles.
Before explaining the details, there are a few concepts you need to familiarize yourself with.

What Are Style?

Patterns (Divisions)

Styles are short sequences, or patterns you can select in real-time. Pattern-based accompaniments usually consist of the following elements:

- The basic groove, i.e. the style that is the backbone of the song.
- Several alternatives for the basic groove that keep the accompaniment interesting and suggest some kind of **"evolution"** or **"variation."** The divisions that are assigned to the Variation **[1]**–**[4]** buttons are called Main 1–4.
- Fill-Ins to announce the beginning of new parts.
- An introduction and a closing section (ending).

Programming four to eight patterns for a three-minute song is usually enough. Just use them in the right order to make them suitable for your song.

Some Patterns are selected on the basis of the chords you play in the chord recognition area of the keyboard (major, minor, seventh).

Tracks

Unlike a drum machine, a E-A7 style not only contains the rhythm part (drums & percussion) but also a melodic accompaniment, such as piano, guitar, bass and strings lines. That is why the styles work with tracks–eight to be precise.

> **NOTE**
>
> If necessary, you can even record a second drum track.
> The reason why the AccDrums part is assigned to the first track and the ABass part to the second is that most programmers and recording artists start by laying down the rhythm section of a song.
> There are exceptions to this rule, however, so feel free to start with any other part if that is easier for the style you are programming.

> **NOTE**
>
> Though there are six (melodic) ACC tracks, most styles only contain two or three melodic accompaniment lines. In most cases, less means more, i.e. do not program six melodic accompaniments just because the E-A7 provides that facility. If you listen very carefully to a CD, you will discover that it is not the number of instruments you use that makes a song sound **"big"** but rather the right notes at the right time.

Looped vs. one-shot patterns

The E-A7 uses two kinds of patterns: looped divisions and one-shot divisions.

Looped divisions: Looped divisions are accompaniments that are repeated until you select another division or press **[▶/■]** to stop Arranger playback.

The E-A7 provides four programmable looped divisions (VARIATION **[1]**–**[4]**).

Looped divisions do not select other divisions when they are finished (because they never end): they keep playing until you select another division by hand (or by foot).

One-shot divisions: One-shot patterns (or **"Divisions"**) are only played once and then select a looped division or stop the Arranger. The E-A7 uses the following one-shot divisions: INTRO **[1]**–**[4]**, FILL UP **[1]**–**[4]** and ENDING **[1]**–**[4]**.

The division type also determines how the respective tracks are played back. Any track of a looped pattern that is shorter than another track is repeated until the longest track is finished. Then, a new cycle begins.

Here's how you can take advantage of that: if the drums play the same notes during four measures, while the rhythm guitar or piano needs four measures to complete a cycle, recording only one drum measure is enough, because it is automatically repeated until the longest track is finished.

Several drum tracks are possible

The Style Composer allows you to assign a Drum Set to any **"Accomp"** track, thereby turning it into an additional drum track.

Using the Style Composer

Access the Style Composer page.

1. Press the **[Menu]** button.

2. Use the direct buttons to select **"Style Composer."**
The Style Composer screen of the currently selected style appears.

Main screen
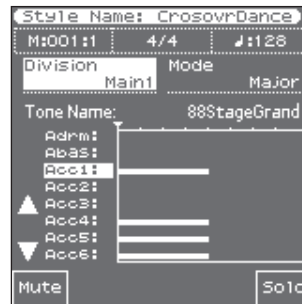
The right screen shows the status of each track of the division. This screen shows you what kind of data is in each track, and how many measures there are.
You can perform the following operations.
[L1] (Division) button: Use the Value **[-]** **[+]** buttons to change the division (Intro, Main, Fill, Ending).
[R1] (Mode) button: Use the Value **[-]** **[+]** buttons to change the chord (Major, Minor, 7th).
[R4] [R5] buttons: Select the track.
[F1] (Mute) button: Mute the sound of only the selected track.
[F5] (Solo) button: Play the sound of only the selected track.

Menu screen

The Style Composer provides the following functions.
Track Edit: For each track, you can delete or copy a specified region of measures.
Micro Edit: You can edit the details of the style.
Initialize: You can return a style to its default state.
Undo: You can return the data to its state prior to when you edited it by Track Edit or Micro Edit.
Save: You can save a style that you created or edited.

Initializing a Style (Initialize)

If you want to create a style from scratch, start by initializing (Initialize) the style.

> **NOTE**
>
> Initializing a preset style will not erase the data.

Be aware that if you initialize and then overwrite a user style, the previous data is lost.

1. In the Style Composer Menu screen, select "Initialize."
The display changes to:

```
Style Composer Initialize
Rec Track          Tone Name:
         Adrm      New Pop
Tempo              Reverb
           128            100
Time Sign          Chorus
         4/4                0
Expression         Panpot
         100               64

                          Exec
```

The settings shown on this display page are suggested as defaults for every new style you program.
Feel free to change them depending on the kind of accompaniment you want to prepare:

2. Use the direct buttons to select the desired parameter, and use the Value [-] [+] buttons or [Balance] knob (when the LED is unlit) to change the value.

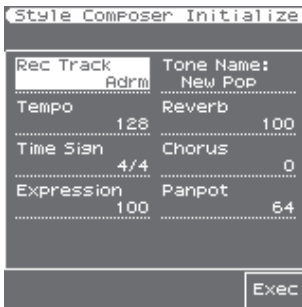| Parameter	Value	Explanation
Rec Track	Adrm, Abas, Acc1, Acc2, Acc3, Acc4, Acc5, Acc6	This parameter allows you to select the track whose settings you want to change.
Tempo	20–250	You can already set the tempo here or leave that for later.
Time Sign (Time Signature)	1/16, 1/4–4/4…	This value needs to be set when you initialize the Style. All Divisions and Modes use this time signature. You could, however, edit the patterns at a later stage (see "Time Signature" on p. 20) and specify that VARIATION [1] should use "4/4," MAIN [2] "6/8," etc.
Expression	0–127	Temporary volume changes (CC11).
Tone Name	(Tone assigned to the track)	This is where you select a sound (or Drum) for the track marked for recording ("Rec Track"). To change the sound, use the right screen.
Reverb	0–127	Reverb Send (CC91), i.e. how strongly the selected track should be processed by the reverb effect.
Chorus	0–127	Chorus Send (CC93), i.e. how strongly the selected track should be processed by the chorus effect.
Panpot	0–127	The track's stereo placement (00 [L]–64–127 [R]).

3. Press the [F5] (Exec) button.
A confirmation message appears.

4. Press the [F5] (Yes) button to execute.
The display returns to the **"Style Composer"** page, which only contains the sound assignments you have just made.
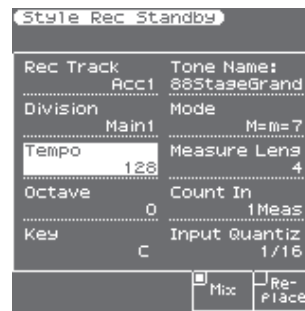If you decide to cancel, press the [F1] (No) button.

> **MEMO**
> - You cannot use the UNDO function after Initialize.
> - When you enter the Initialize screen, default values are assigned to empty tracks that contain no data.

Getting Ready to Record

1. On the "Style Composer" page, use the [L1] button to select the "Division" parameter.

2. Use the Value [-] [+] buttons to select the Division you want to record ("Intro," "Main," "Fill" or "Ending").

3. Press the [REC] button.
The display changes to:

```
Style Rec Standby
Rec Track          Tone Name:
         Acc1      885StageGrand
Division           Mode
         Main1            M=m=7
Tempo              Measure Leng
           128            4
Octave             Count In
           0             1Meas
Key                Input Quantiz
           C             1/16
                   Mix    Re-
                          place
```

4. Use the direct buttons to select the parameter whose setting you want to change, and use the Value [-] [+] buttons or [Balance] knob (when the LED is unlit) to change the value.

Parameter	Value	Explanation
Rec Track*	Adrm, Abas, Acc1, Acc2, Acc3, Acc4, Acc5, Acc6	This parameter allows you to select the track whose settings you want to record.
Division*	Intro, Main, Fill, Ending	Select the pattern you want to create. This parameter is linked to the division you select on the main "Style Composer" page.
Tempo	20–250	The tempo value you set here is recorded and regarded as preset tempo. You can change it at any stage in Style Composer mode, so start by selecting a tempo that allows you to record the music the way you want it to sound.
Octave	–4–+4	This parameter allows you to transpose the keyboard in octave steps, which may be convenient for extremely high or low notes–or for using the special "noises" of certain sounds.
Key	C, C#, D, Eb, E, F, F#, G, Ab, A, Bb, B	If you want to use the accompaniment in a musically meaningful way, you need to tell the E-A7 what key you are recording in. This is to ensure that the chords you play during everyday use of your style with the E-A7's Arranger lead to the correct real-time transpositions of the selected Division. The E-A7 allows you to record styles in any key. But do set the KEY parameter to the right value before recording. The key of AccDrums parts cannot be set (because that doesn't make sense).
Tone Name	(Tone assigned to the track)	This is where you select a sound (or Drum) for the track marked for recording ("Rec Track"). When you use the direct buttons to select [Tone Name], the tone list appears in the right screen. If you want to change the sound, use the right screen.
Mode**	Major, Minor, 7th, M=m, M=7, m=7, M=m=7	This parameter allows you to specify whether you are about to record the accompaniment for major, minor or seventh chords. If you listen to the style prepared by Roland, you will notice that there are slight differences in the looped patterns–and sometimes striking differences for Intros and Endings, with completely different phrases. Such variations can be prepared using the "Mode" parameter.

Parameter	Value	Explanation
Measure Length***	Off, 1–136	Specifies the number of bars the pattern should contain. The setting range is 1–136 (or more, depending on the time signature) and **"Off."** Select **"Off"** if you haven't decided how long the pattern should be. In that case, the length is set when you stop recording. It is perfectly possible to specify a different length value for each track and Division.
Count In	Off, 1Meas, 2Meas, Wait Note	Specifies how long the count-in should be before recording starts. **Off:** No count-in. Recording starts as soon as you press the **[START/STOP]** button (while **[REC]** flashes). **1Meas:** Recording starts after a 1-bar count-in. **2Meas:** Recording starts after a 2-bar count-in. **Wait Note:** Recording starts as soon as you play a note on the keyboard. (There will be no count-in.)
Input Quantize	Off, 1/4, 1/8, 1/8T, 1/16, 1/16T, 1/32, 1/32T, 1/64	This corrects minor timing problems. It shifts the notes whose timing is not exactly right to the nearest **"correct"** unit. Always select a resolution value that is fine enough to accept all note values you play. If the shortest notes of your accompaniment are 1/16th-note triplets, set the value to **"1/16T."** The preset value, **"1/16,"** is OK for most situations. If you do not want to quantize your playing while recording, set this parameter to **"Off."** You can also quantize the track after recording it (p. 39).
Rec Mode**** ([F4] [F5] buttons)	Replace, Mix	**Replace:** Everything you record replaces the data of the selected track. This mode is automatically selected when you activate the record function for a track that does not yet contain data. If you select a track that already contains data, this parameter is set to **"Mix"** but could be changed to **"Replace"** if you wanted to overwrite the previous version. **Mix:** The data you record are added to the existing data of the selected track.

[*] The AccDrums track can only use Drum Kits (only the TONE [DRUMS] button is available for this track). On the other hand, you can use a second (or third) drum track by assigning the value 111 to control change CC00 of the Acc1–Acc6 track(s). You can turn any Acc1–6 track into an additional drum track when you start recording. The AccBass track, however, can only be used for bass parts. If you want to record multiple divisions simultaneously, select **"=."**

[**] You can use one clone function that allows you to record one part and copy it to up to three Modes each. The **"="** sign means that more than one pattern will be recorded.

[***] Every style pattern must have a set length. Setting the **"Measure Length"** value now will help you avoid a lot of confusion once you start recording.

The Arranger tends to add blank bars at the end of a track, which is usually due to the fact that you stopped recording a little late (i.e.

after the last bar you played). This means that you often **"record"** 5 measures instead of 4, for example:

If you press **[START/STOP]** after bar 4…

…your rhythm looks like this (5 bars):

Furthermore, in Style Composer mode, all patterns are looped and played back until you press the **[START/STOP]** button. A wrong number of measures (5 rather than 4, for example) is very likely to put you off, so do take the time to set the pattern length before you start recording.

[****] If you use the **"="** setting for the division in the Mix settings, the result of mix-recording to the first division (for example, Main 2 if Main 2 = 4) is overwritten onto Main 4. Note that if Main 2 and Main 4 contain different data, the original Main 4 data is overwritten.

Recording a Track

1. Press the [▶/■] button.

If you decide to cancel recording, press the **[Rec]** button once again or press the left **[Exit]** button.

Depending on the count-in setting, the metronome now counts down, after which recording starts.

> If you need a metronome during your performance, press the **[TAP TEMPO]** button while the main Style Composer page is displayed. If you also need the metronome while listening to what you have recorded, select another metronome mode.
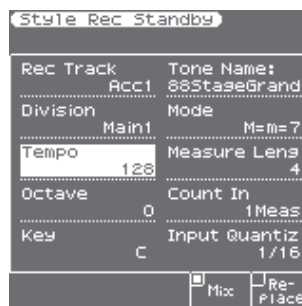
NOTE

You can also start recording using an optional footswitch connected to the Control socket. See **"Start/Stop"** on p. 21.

You could start by playing only the bass drum part. If you specified the track length before recording, the Style Composer jumps back to the beginning of the pattern after the set number of measures. The second time around you could add the snare drum, the third time the Hi-Hat, and so on.

When recording another part (ABass–Acc6), do everything you would do during a live performance: add modulation, Pitch Bend and to use an optional pedal connected to the Control jack.

2. Press [▶/■] again to stop recording.

3. Press the [▶/■] button to audition the recorded track.

- If you recorded multiple chords simultaneously, you can audition the other chords by changing the Mode.
- If you want to save the recorded track, perform the Save operation (p. 42).
- If you want to return the recorded track to the state prior to recording, execute the UNDO operation.

Returning a Recorded Track to the State Prior to Recording (UNDO)

If you want to return the recorded track to the state prior to recording, execute the UNDO operation.

1. In the Style Composer Menu screen, select "UNDO."
A confirmation message appears.

2. To execute, select "Yes."
If you decide not to execute UNDO, select **"No."**

> **NOTE**
> The UNDO operation returns the data to the state immediately prior to the previous recording. If you have recorded multiple times in succession, the data will not return to its original state even if you execute UNDO.

Saving Your Style

Make it a habit to save your style as frequently as possible. After all, if someone decided to switch off your E-A7 now, you would lose everything you have programmed so far.

1. In the Style Composer Menu screen, select "Save."

2. Use the direct buttons or function buttons to select the save-destination.

Button	Explanation
[R1] (Int/Ext)	Switches between Internal Storage and External Storage (USB flash drive).
[F4] [F5] (Page)	Switch pages.
[L1] Up folder	Exits the folder.

3. Press the [Enter] button.
Assign a name.
➡ For details on how to assign a name, refer to **"Assigning a Name"** (Owner's Manual: p. 16).
If you decide to cancel, press the **[Exit]** button.

4. Press the [F5] (Exec) button.
The style is saved.

> **MEMO**
> If there is a file with the same name as the name you entered, a screen asks you to confirm that you want to overwrite it.
> If you want to save, select **"YES"** to replace it with the file you renamed.
> If you decide to rename the file, select **"NO"** and return to the page where you can rename the file.

Muting Tracks While Recording Others

After recording a few tracks, you may find that certain parts tend to confuse you. That is why the E-A7 allows you to mute tracks that you do not want to hear during recording.

1. In the Style Composer page, use the [L4] [L5] buttons to select a track.
The field below the **"TRACK"** parameter shows the name of the Tone or Drum Kit assigned to the selected track.

2. Press the [F1] (Mute) button.

An **"M"** appears next to the track you have just muted.
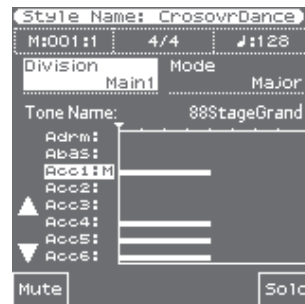
3. Press the [F1] (Mute) button again to switch off the mute function (the "M" disappears).

> **NOTE**
> This mute setting only applies to the Style Composer page. During normal Arranger playback, all tracks that contain data are played back. Use the **"Erase"** function to remove parts that should not appear in your accompaniments (p. 43).

Solo

This function causes only the selected single track to play.

1. In the Style Composer page, use the [L4] [L5] buttons to select a track.
The field below the **"TRACK"** parameter shows the name of the Tone or Drum Kit assigned to the selected track.

2. Press the [F5] (Solo) button.
An **"S"** appears next to the track you have just muted.

3. To turn off the Solo function, press the [F5] (Solo) button once again.

Playback in Arranger Mode

> **NOTE**
> Save your style before trying it out with the Arranger.
> If the style stops unexpectedly during playback in Arranger mode, try different chords. Chances are that you only programmed the major pattern, so that the Arranger selects an empty pattern when you play a minor or seventh chord. Remember to set the Mode parameter to **"M=m=7"** until you have come to grips with the possibilities of the E-A7's Arranger. That way, those three patterns will sound alike, but at least you are sure that the Arranger does not stop when you play a minor or seventh chord.

Style Track Edit Functions

The **"Track Edit"** level of the Style Composer provides 12 functions: Quantize, Erase, Delete, Copy, Insert, Key, Change Velo, Change Gate Time, Global Change, Shift Clock, Track Length and Time Signal. There is also a **"Micro Edit"** environment that allows you to add, delete or change individual events. See page 47 for details.

1. In the Style Composer Menu screen, select "Track Edit."
The Track Edit page appears.

2. Use the direct buttons to select the operation that you want to execute.

Quantize

Use this function if you chose not to quantize your music during recording and now realize that the timing is not quite what you expected it to be. If only certain notes in a given time range need to be quantized, you should narrow down the edit range using the **"From"**/**"To"** parameters.

Parameter	Value	Explanation
Track	Adrm–Acc6, ALL	Allows you to select the track you wish to edit. You can also select **"ALL"** here, in which case the operation applies to all tracks.
Mode	Major, Minor, 7th	Allows you to select the Mode to be edited.
Division	Intro 1–4, Main 1–4, Fill 1–4, End 1–4	Use this parameter to select the Division you want to edit.
From Bar	1–[**last measure of the track or pattern**]	Refers to the first measure to be edited. By default, the **"From"** value is set to the beginning of the selected track(s).
From Beat	1–[**number of beats per bar**]	Specifies the beat position. The number of selectable beats depends on the selected time signature.
From CPT	0–119	Refers to the starting CPT position. **"CPT"** is short for **"Clock Pulse Time,"** the smallest unit used by the E-A7. (There are 120 CPTs to every beat of a 4/4 bar.) Change this setting only if your edit operation should start after the selected beat.
To Bar	1–[**last measure of the track or pattern**]	This is where you specify the last measure to be edited. By default, the **"To"** position is set to the last event of the selected track (or the last event of the longest track when you select **"All"**).
To Beat	1–[**number of beats per bar**]	Specifies the beat position. The number of selectable beats depends on the selected time signature.
To CPT	0–119	Refers to the last clock that should be affected by the edit operation. Change this setting only if your edit operation should not end exactly on the selected beat.
Resolution	1/4, 1/8, 1/8T, 1/16, 1/16T, 1/32, 1/32T, 1/64	This parameter sets the resolution of the Quantize function. Be sure to always select the value of the shortest note you recorded. Otherwise, your part no longer sounds the way you played it, because shorter notes are shifted to the wrong positions.
Strength	0%–100%	Use this parameter to specify how precise the timing correction should be. **"0%"** means that the selected **"Resolution"** value is not applied (**"0% correction"**), while **"100%"** means that all notes are shifted to the mathematically correct positions.
From Note	0 C- –127 G9	This parameter allows you to set the note (or lower limit of the note range) to be modified within the specified **"From/To"** time range.
To Note	0 C- –127 G9	This parameter allows you to set the upper limit of the note range to be modified within the specified **"From/To"** time range.

Specify the parameters, and press the **[Exec]** (F5) button to execute the operation.

NOTE

• If you want to save the modified data, save the style (p. 42).
• If you want to return to the state prior to editing, execute the UNDO operation (p. 42).

Erase

"Erase" allows you to selectively delete data either within a specified range of measures, beats or clocks or from the entire track(s).
When **"Data Type"** is set to **"All,"** **"Erase"** substitutes the required number of rests for the data you delete, so that you end up with the equivalent number of blank measures. If you also want to eliminate the measures themselves, use **"Delete"** (see below).
When you execute Erase, the performance data is erased.

Parameter	Value	Explanation
Track	Adrm–Acc6, ALL	Allows you to select the track you wish to edit. You can also select **"ALL"** here, in which case the operation applies to all tracks.
Mode	Major, Minor, 7th	Allows you to select the Mode to be edited.
Division	Intro 1–4, Main 1–4, Fill 1–4, End 1–4	Use this parameter to select the Division you want to edit.
From Bar	1–[**last measure of the track or pattern**]	Refers to the first measure to be edited. By default, the **"From"** value is set to the beginning of the selected track(s).
From Beat	1–[**number of beats per bar**]	Specifies the beat position. The number of selectable beats depends on the selected time signature.
From CPT	0–119	Refers to the starting CPT position. **"CPT"** is short for **"Clock Pulse Time,"** the smallest unit used by the E-A7. (There are 120 CPTs to every beat of a 4/4 bar.) Change this setting only if your edit operation should start after the selected beat.
To Bar	1–[**last measure of the track or pattern**]	This is where you specify the last measure to be edited. By default, the **"To"** position is set to the last event of the selected track (or the last event of the longest track when you select **"All"**).
To Beat	1–[**number of beats per bar**]	Specifies the beat position. The number of selectable beats depends on the selected time signature.
To CPT	0–119	Refers to the last clock that should be affected by the edit operation. Change this setting only if your edit operation should not end exactly on the selected beat.
Data Type (select the data to be edited)	ALL	All parameters listed below.
	Note	Only note messages.
	Modulation	CC01 messages usually used for adding vibrato (i.e. use of the BENDER/ MODULATION lever).
	PanPot	CC10 messages that specify the stereo position.
	Expression	CC11 messages that are used for temporary volume changes.
	Reverb	Reverb Send messages (how strongly the part should be processed by the reverb effect).
	Chorus	Chorus Send messages (how strongly the part should be processed by the chorus effect).
	Program Change	Program change messages, used to select sounds or Drum Kits. Note: by deleting program change messages you also dispose of the related CC00 and CC32 bank select) messages.
	P. Bender:	Pitch Bend data (i.e. use of the lever).
From Note	0 C- –127 G9	This parameter is only displayed if **"Data Type"** (see above) is set to **"Note."** It allows you to set the note (or lower limit of the note range) to be modified within the specified **"From/To"** time range.
To Note	0 C- –127 G9	This parameter allows you to set the upper limit of the note range to be modified within the specified **"From/To"** time range.

Specify the parameters, and press the **[Exec]** (F5) button to execute the operation.

> **NOTE**
> - If you want to save the modified data, save the style (p. 42).
> - If you want to return to the state prior to editing, execute the UNDO operation (p. 42).

Delete

Unlike the **"Erase"** function, **"Delete"** not only erases the data but also the measures, beats and/or CPT units, so that all data that lie behind the **"To"** position are shifted towards the beginning of the track(s). You cannot choose the data type to be erased.

Parameter	Value	Explanation
Track	Adrm–Acc6, ALL	Allows you to select the track you wish to edit. Select **"ALL"** to edit all tracks.
Mode	Major, Minor, 7th	Allows you to select the Mode to be edited.
Division	Intro 1–4, Main 1–4, Fill 1–4, End 1–4	Use this parameter to select the Division you want to edit.
From Bar– To CPT	See page 43.	

Specify the parameters, and press the **[Exec]** (F5) button to execute the operation.

> **NOTE**
> - If you want to save the modified data, save the style (p. 42).
> - If you want to return to the state prior to editing, execute the UNDO operation (p. 42).

Copy

This function can be used to copy individual tracks, Modes and Divisions to replace existing parts.

1. Press the [F2] (Src) button to access the copy-source settings page.

The following parameters are displayed:

Parameter	Value	Explanation
Style		Selects the copy-source style. Use the style category buttons to open the style list, and select a style. After you have selected a style, use the **[Exit]** button to return to the previous page. You can also press the style **[User Int/Ext]** button to select user styles that are saved in Internal Storage or External Storage (USB flash drive).
Track	Adrm–Acc6, ALL	Allows you to select the track you wish to copy. Select **"ALL"** to edit all tracks.
Mode	Major, Minor, 7th	Allows you to select the Mode to be copied.
Division	Intro 1–4, IntroALL, Main 1–4, MainALL, Fill 1–4, End 1–4, EndALL	Use this parameter to select the Division you want to copy.
From Bar– To CPT	See page 43.	

You can press the **[F4]** (Prev) button to audition the copy-source data.
However, auditioning is not possible if All is selected for Track or Division.

2. Press the [F1] (Dest) button to access the copy-destination settings page.

Parameter	Value	Explanation
Track	Adrm–Acc6, ALL	Allows you to select the track you wish to edit. Select **"ALL"** only to replace all tracks.
Mode	Major, Minor, 7th	Allows you to select the Mode to be edited.
Division	Intro 1–4, Main 1–4, Fill 1–4, End 1–4	Allows you to select the Mode to be edited.
Into Bar Into Beat Into CPT		The" Into" position indicates where the beginning of the source excerpt will be after the copy operation. To copy the source data to the beginning of the destination track, select BAR= **"1,"** BEAT= **"1"** and CPT= **"0."**
Copy Mode	Replace	The data in the selected range of the source track overwrite the destination track.
	Mix	The data in the selected range of the source track are added to the data on the destination track.
Copy Times	1–255	Allows you to specify the number of copies to be made. Select **"1"** to copy the excerpt only once.

You can press the **[F4]** (Prev) button to audition the copy-destination data.
However, auditioning is not possible if All is selected for Track or Division.

> **NOTE**
> - AccDrums data can also be copied to other tracks (preferably Acc1–Acc6). You can only copy ABass data to other ABass tracks. If you selected **"ALL"** for **"Source–Track,"** this **"Track"** parameter is also set to **"ALL."**
> - If you selected **"ALL"** for **"Source–Mode"** or **"Source–Division,"** this **"Mode"** or **"Division"** parameter is also set to **"ALL."**

Specify the parameters, and press the **[Exec]** (F5) button to execute the operation.

> **NOTE**
> - If you want to save the modified data, save the style (p. 42).
> - If you want to return to the state prior to editing, execute the UNDO operation (p. 42).

Insert

"Insert" allows you to insert space and shift data that lie behind the **"From"** position further towards the end of the track (this is the exact opposite of **"Delete"**). The empty measures you create can be **"filled"** using the **"Copy"** function or by recording new phrases in that area.

NOTE

This function provides no **"To"** pointer. Instead, you need to specify the length of the insert using the **"For"** values.

Parameter	Value	Explanation
Track	Adrm–Acc6, ALL	Allows you to select the track you wish to edit. You can also select **"ALL"** here, in which case the operation applies to all tracks.
Mode	Major, Minor, 7th	Allows you to select the Mode to be edited.
Division	Intro 1–4, Main 1–4, Fill 1–4, End 1–4	Use this parameter to select the Division you want to edit.
From Bar– To CPT	See page 43.	
For Bar, For Beat, For CPT	Specifies how many bars, beats and CPTs are to be inserted.	

Specify the parameters, and press the **[Exec]** (F5) button to execute the operation.

NOTE

- If you want to save the modified data, save the style (p. 42).
- If you want to return to the state prior to editing, execute the UNDO operation (p. 42).

Transposition

This function allows you to transpose the notes of the selected track (non-note data obviously cannot be transposed).

Parameter	Value	Explanation
Track	Adrm–Acc6, ALL	Allows you to select the track you wish to edit. You can also select **"ALL"** here, in which case the operation applies to all tracks.
Mode	Major, Minor, 7th	Allows you to select the Mode to be edited.
Division	Intro 1–4, Main 1–4, Fill 1–4, End 1–4	Use this parameter to select the Division you want to edit.
From Bar– From CPT	See page 43.	
Value	-127–127	This is where you set the transposition interval in semi-tone steps. Select **"2,"** for example, to transpose a pattern in **"C"** to **"D."** Be careful when applying **"Transposition"** to the AccDrums track. Transposing all notes of this track leads to dramatic changes.
From Note	0 C- –127 G9	This parameter allows you to set the note (or lower limit of the note range) to be modified within the specified **"From"**/**"To"** time range.
To Note	0 C- –127 G9	This parameter allows you to set the upper limit of the note range to be modified within the specified **"From"**/ **"To"** time range.

Specify the parameters, and press the **[Exec]** (F5) button to execute the operation.

NOTE

- If you want to save the modified data, save the style (p. 42).
- If you want to return to the state prior to editing, execute the UNDO operation (p. 42).

Change Velocity

The **"Change Veloc"** function allows you to modify the dynamics (called **"velocity"**) of a track or excerpt. Only note events can be changed.

Parameter	Value	Explanation
Track	Adrm–Acc6, ALL	Allows you to select the track you wish to edit. You can also select **"ALL"** here, in which case the operation applies to all tracks.
Mode	Major, Minor, 7th	Allows you to select the Mode to be edited.
Division	Intro 1–4, Main 1–4, Fill 1–4, End 1–4	Use this parameter to select the Division you want to edit.
From Bar– To CPT	See page 43.	
Bias*	–99–99	Allows you to specify by how much the velocity values should change. Select a positive value to increase the velocity (the value is added to the velocity value of the affected notes) or a negative value to decrease the velocity values (that value is subtracted). Select **"0"** if you prefer to work with the **"Magnify"** parameter (see below).
Magnify**	0–200%	This parameter works like a **"Compander"** effect (a dynamics processor that simultaneously acts as compressor and expander), although it processes MIDI data: by selecting a value above **"100%"** you increase the differences between high and low velocity values in the selected range. Values below **"64"** are lowered, while values above **"64"** are increased. The result is therefore that the difference between pianissimo and fortissimo becomes far more pronounced.
From Note/ To Note	0 C- –127 G9	**"From Note"** refers to the lower limit of the note range you want to change. **"To Note"** represents the upper limit.

[*] Even the highest positive or negative value doesn't allow you to go beyond **"1"** or **"127."** There is a reason why **"0"** is impossible: that value is used to indicate the end of a note (note-off). **"127,"** on the other hand, is the highest velocity value the MIDI standard can muster. Adding a high positive velocity value may thus lead to all notes being played at **"127."**

[**] **"Magnify"** values below **"100%"** have the opposite effect: they push all velocity towards the imaginary center of **"64,"** thus reducing differences in playing dynamics.

Specify the parameters, and press the **[Exec]** (F5) button to execute the operation.

NOTE

- If you want to save the modified data, save the style (p. 42).
- If you want to return to the state prior to editing, execute the UNDO operation (p. 42).

Change Gate Time

This function allows you to modify the duration of the notes in the selected time (**"From"**/**"To"**) and note (**"From Note"**/**"To Note"**) ranges. We recommend you only use this function to shorten notes that suddenly seem too long when you assign a different sound to the track in question. You cannot view the duration of the notes here, which makes editing the data **"en bloc"** a little bit hazardous. See **"Editing Individual Style Events (Micro Edit)"** (p. 47) for how to change the duration of individual notes.

After selecting a sound with a slow release (i.e. a sound that lingers on after all notes have been released), however, **"Change Gate Time"** will help you cut the notes down to size and thus avoid undesirable overlaps.

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Parameter	Value	Explanation
Track	Adrm–Acc6, ALL	Allows you to select the track you wish to edit. You can also select **"ALL"** here, in which case the operation applies to all tracks.
Mode	Major, Minor, 7th	Allows you to select the Mode to be edited.
Division	Intro 1–4, Main 1–4, Fill 1–4, End 1–4	Use this parameter to select the Division you want to edit.
From Bar– To CPT	See page 43.	
Bias	–1920–1920	This parameter sets the amount by which the duration (or gate time) of the selected notes is to change. The shortest possible **"Gate Time"** value is **"1"** (used for all drum notes), so that selecting **"–1000"** for notes with a **"Gate Time"** value of **"1"** in the specified time range still leaves you with the same value.
Magnify	0–200%	Use this parameter rather than **"Bias"** to produce proportional changes to the affected **"Gate Time"** values. Values below **"100%"** decrease the duration, while anything above **"100%"** increases it. Select **"100%"** if you prefer to work with the **"Bias"** parameter (see above).
From Note/ To Note	0 C- –127 G9	**"From Note"** refers to the lower limit of the note range you want to change. **"To Note"** represents the upper limit.

Specify the parameters, and press the **[Exec]** (F5) button to execute the operation.

NOTE

- If you want to save the modified data, save the style (p. 42).
- If you want to return to the state prior to editing, execute the UNDO operation (p. 42).

Global Change

This function allows you to make quick changes to certain settings. The changes always apply to entire tracks (you cannot use **"Global Change"** for just a few measures). You can apply global changes to the four editable styles track parameters (**"Express," "Reverb," "Panpot"** and **"Chorus"**) when you notice that the effect is too prominent or not strong enough.
You can also use it to **"upgrade"** older styles to ensure that they use the E-A7's new sounds.

Parameter	Value	Explanation
Track	Adrm–Acc6, ALL	Allows you to select the track you wish to edit. You can also select **"ALL"** here, in which case the operation applies to all tracks.
Mode	Major, Minor, 7th	Allows you to select the Mode to be edited.
Division	Intro 1–4, Main 1–4, Fill 1–4, End 1–4	Use this parameter to select the Division you want to edit.
Alteration Mode*	Nearest, Degree, ---	This message type is only available for melodic style tracks (i.e. not for ADrums or ABass tracks). Style tracks you only just recorded do not contain it. See also **"About "Alteration Mode" Messages"** (p. 48). **Nearest****: Refers to a more musical system for real-time shifts of the recorded style notes during Arranger playback. **Degree:** This setting refers to the **"old"** system for real-time conversion of track information during style playback. See page 48. Select **"---"** if the selected pattern should ignore this setting.

Parameter	Value	Explanation
From/To… CC00, CC32, PC	---, 0–127, ALL 1–128	Enter the original data value (i.e. the value that is being used right now by the selected track(s)) for **"From."** For **"To,"** specify the new value that should replace the **"From"** value. These are what we call **"absolute"** changes: you don't add or subtract values, you replace them with other values. This system is only available for messages that allow you to select sounds or sound banks.***
Inc/Dec… Expression, Reverb, Chorus, Panpot	–127–127	These parameters allow you to add (+) or subtract (–) a given value to/from the current Expression, Pan, Reverb Send or Chorus Send values. This may come in handy if the real-time changes you recorded turn out to be too high or too low.

[*] This parameter is not available for: ADrums and ABass tracks, Intro3 & 4 and End3 & 4 patterns.
[**] The notes of the melodic style tracks are compared against the chords played in the recognition area. If the next chord you play contains the note the selected part is already sounding (based on the previous chord), that note is maintained. If the new chord does not contain that note, the style part in question uses the closest (**"Nearest"**) note. This produces a more musical behavior than any other system on the market.
[***] CC00 messages are the so-called **"MSB"** bank select messages. They allows you to select the Capital Tone (select **"0"**) of a sound address. Select **"---"** if the current setting must not change. The CC32 control change is the so-called **"LSB"** bank select message. Use the PC parameter to change the address, a.k.a. program change number, of a sound (e.g. from **"1"** to **"2"**).
Specify the parameters, and press the **[Exec]** (F5) button to execute the operation.

NOTE

- If you want to save the modified data, save the style (p. 42).
- If you want to return to the state prior to editing, execute the UNDO operation (p. 42).

Shift Clock

"Shift Clock" allows you to shift the notes within the selected **"From"**/**"To"** range. It can be used for two things:

- To correct **"slow"** notes due to a slow(er) attack. You may want to use **"Shift Clock"** after assigning a sound to a track that has a considerably slower attack than the sound you used for recording the part in question. This technique is frequently used in pop music to **"time"** 1/16-note string arpeggios played with a **"slow"** pad sound. Rather than have the notes begin at the mathematically correct time (e.g. 2-1-0), you could shift them to the left (e.g. to 1-4- 115), so that the peak volume of the attack is reached on the next beat:

Original positions (slow attack, timing seems off)

Shift= –5 (timing sounds OK)
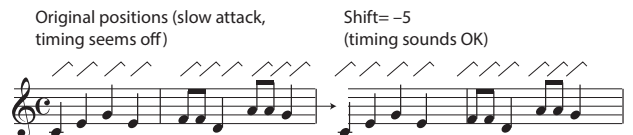
- To correct the timing of notes recorded via MIDI without quantizing them.
  You can use external sequences as raw material for your songs. Recording such excerpts via MIDI may cause a slight delay (e.g. 5 CPT). If that is not acceptable, use **"Shift Clock"** to **"push"** the recorded data to the left (select **"–5"**). That allows you to preserve any irregularities the original may contain because it was not quantized. After selecting a sound with a slow release (i.e. a sound that lingers on after all notes have been released),

however, **"Change Gate Time"** will help you cut the notes down to size and thus avoid undesirable overlaps.

Parameter	Value	Explanation
Track	Adrm–Acc6, ALL	Allows you to select the track you wish to edit. You can also select **"ALL"** here, in which case the operation applies to all tracks.
Mode	Major, Minor, 7th	Allows you to select the Mode to be edited.
Division	Intro 1–4, Main 1–4, Fill 1–4, End 1–4	Use this parameter to select the Division you want to edit.
From Bar–To CPT	See page 43.	
Data Type	See page 43.	
Value (CPT)	–4800–4800	This parameter sets the amount by which the notes are shifted. The value refers to CPT units (one CPT= 1/120 q). Notes on the first beat of the first bar cannot be shifted further to the left, because that would mean shifting them to the **"0"** measure, which doesn't exist.
From Note, To Note	0 C- –127 G9	**"From Note"** allows you to set the note (or lower limit of the note range) to be modified within the specified **"From"/"To"** time range. **"To Note"** allows you to set the upper limit of the note range to be modified.

Specify the parameters, and press the **[Exec]** (F5) button to execute the operation.

> **NOTE**
> - If you want to save the modified data, save the style (p. 42).
> - If you want to return to the state prior to editing, execute the UNDO operation (p. 42).

Track Length

This function allows you to modify the length (number of bars, beats and clocks) of a pattern after recording. Data that lie outside the range you decided to keep are discarded. Obviously, you only need to change the settings of the Mode whose length you want to modify.

> **NOTE**
> There is no way to recall the previous version, so be sure to save your style before continuing (see p. 42).

Parameter	Value	Explanation
Track	Adrm–Acc6, ALL	Allows you to select the track you wish to edit. You can also select **"ALL"** here, in which case the operation applies to all tracks.
Division	Intro 1–4, Main 1–4, Fill 1–4, End 1–4	Use this parameter to select the Division you want to edit.
Length Bar		Specifies the length of a bar.
Length Beat	1–[number of beats per bar]	Specifies the beat position. The number of selectable beats depends on the selected time signature.
Length CPT		This parameter allows you to **"fine-tune"** the length. In most cases, you will probably work with multiples of q notes (i.e. 120CPT) because 120CPT represent one beat of an X/4 bar (1/4, 2/4, 3/4, 4/4, etc.).
Mode	Major, Minor, 7th, M=m, M=7, M=m=7, m=7	Choose the Modes to which the new length setting should apply. You can also switch on two or all three button icons. If you set **"Track"** to **"ALL,"** all three Modes are selected automatically (and that cannot be changed).

Specify the parameters, and press the **[Exec]** (F5) button to execute the operation.

> **NOTE**
> - If you want to save the modified data, save the style (p. 42).
> - If you want to return to the state prior to editing, execute the UNDO operation (p. 42).

Editing Individual Style Events (Micro Edit)

Select this mode if you need to change just one aspect of an otherwise perfect style.

In this section, we will use the word **"event"** for any kind of message. An event is thus a command (or instruction) for the Arranger.

You can only view and edit one track at a time. Therefore, be sure to check the **"Track"** setting before editing the events displayed on this page.

1. **Access the style composer main screen.**

2. **Use the "Track," "Mode" and "Division" parameters to select the pattern you want to edit.**

3. **Use the direct buttons to select "Micro Edit."**
The display changes to:

```
(Micro Edit)
 Acc1      Major      Main1
001:01:000
CC    00: Bank MSB    0
001:01:000
CC    32: Bank LSB    5
001:01:000
PC    Program Change 1
001:01:000
CC    10: Panpot    50
001:01:000
CC    11: Expression 86
 Up   Down        Multi  Edit
                  Select
```

> **NOTE**
> This page doesn't allow you to select a different style pattern. Be sure to select the correct button before calling up the **"Micro Edit"** page.

1. **Use the [F1] (Up) button, [F2] (Down) button, and direct buttons to select the event that you want to edit.**

2. **Use the direct buttons and the cursor buttons to move the cursor to the parameter that you want to edit.**

```
(Micro Edit)
 Acc1      Major      Main1
001:01:000
CC    91: Reverb    55
001:01:000
CC    93: Chorus    0
001:01:000
Note 36: C 2      72    475
001:01:000
Note 55: G 3      61    115
001:01:000
Note 60: C 4      64    115
 Up   Down        Multi  Edit
                  Select
```

3. **Use the Value [-] [+] buttons and [Balance] knob (when the LED is unlit) to change the value.**

General notes about "Micro Edit"

Position indications: Sequencers only register **"events"** whose positions and distances specify when the notes are to be sounded or when they should change (i.e. their **"sequence"**).

Each event is executed at a given point in time, which is why they all have a position indication (**"1-01-119,"** for example). The first figure refers to the bar, the second to the beat within that bar and the third to the clock (CPT) between the current beat and the next. Each beat of a 4/4 bar comprises 120 clocks.

Monitoring note events: The Style Composer can play back the note events you select. This may help you identify the occurrence you want to edit. When you move the cursor to a note event, it is played back.

General procedure

To change information already available on the selected track, proceed as follows:

Parameters you can change

● Note velocity and gate time messages—These messages always come in pairs. The first value (**"42:F#2,"** for example) refers to the note itself and the second (**"72"**) to the velocity (playing dynamics). The **"Micro Edit"** page adds a third message to that pair. It describes the duration of the note in question.
You may remember this value from the **"Track Edit"** environment, where it is called **"Gate Time."**

● CC—These messages usually add something to the notes being played, like modulation, a different volume, a new stereo position… The E-A7 recognizes (and allows you to edit) all control change numbers the Arranger uses (CC01, 10, 11, 91, 93) and displays their **"official"** name.

> **NOTE**
>
> CC64 (Hold) events generated by a footswitch connected to the HOLD socket are converted into the equivalent GATE TIME values at the time of recording. You may therefore have to change the duration of the notes themselves.

● PC/Program Change—These messages are used to select sounds within the current bank. As there are only 128 possibilities, these messages are usually preceded by control changes CC00 and CC32. That's why the E-A7 inserts all three when you use the **"Create Event"** function. To assign a Drum Kit to an Acc1–6 track, you must create a **"CC00"** event with the value **"111."**

> **NOTE**
>
> The CC00 value of ADrums tracks cannot be edited.

● Pitch Bend—These messages are used for temporary changes to the pitch of the notes being played at that time. Pitch Bend messages can be positive (higher) or negative (lower). Setting range: –128– 128.

● Alteration Mode—This event allows you to specify how the notes recorded for a style track will be used during Arranger playback. See below for details.

> **NOTE**
>
> This parameter is not available for ADrums tracks or the Intro3, Intro4, Ending3, Ending4 divisions.

Editing events

Editing Pitch Bend messages

Pitch Bend messages can be positive or negative (the range is –128–128). The value **"0"** means that the pitch of notes being played in that area is not altered.
If a Pitch Bend occurrence is not reset to **"0"** at some stage, all notes will keep sounding flat when you no longer want them to.

Editing control changes

These messages (CC) can be set to the desired value (0–127) when the corresponding effect is needed–but they also need to be reset to **"0"** to avoid unpleasant surprises.

About the 'Note' messages

As stated above, note messages comprise a note number, a velocity value and a Gate Time value.
The range for note numbers is **"0 (C–)"**–**"127 (G9)."**
Velocity messages can be set anywhere between **"1"** (extremely soft) and **"127."** The value **"0"** cannot be entered, because it would effectively switch off the note.

About "Alteration Mode" Messages

This message type is only available for melodic style tracks (i.e. not for ADrums or ABass tracks) and needs to be inserted by hand (using **"Create Event"**). Style tracks you only just recorded do not contain it.

It allows you to use a revolutionary system for adapting the recorded notes to a more natural behavior (also known as **"voicing"**). There are two options:

● Degree—This setting refers to the **"old"** system for real-time conversion of style track information for Arranger playback. Based on the fundamentals of the chords you play during Arranger playback, it often leads to odd jumps of certain parts.

● Nearest—Refers to a more musical system for real-time shifts of the recorded style notes during Arranger playback. Let us first look at an illustration:
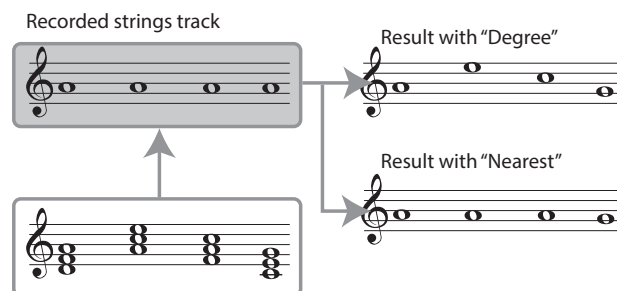
Chords played in the recognition area.

This new system is called **"Adaptive Chord Voicing."**
The notes of the melodic style tracks are compared against the chords played in the recognition area. If the next chord you play contains the note the selected part is already sounding (based on the previous chord), that note is maintained.
If the new chord does not contain that note, the style part in question uses the closest (**"Nearest"**) note. In the example above, the **"G"** is closer to the **"A"** sounded by the strings part than the **"C."** This produces a more musical behavior than any other system on the market.
Both **"Degree"** and **"Nearest"** allow you to specify the note range (**"Limit Low"** and **"Limit High"**) the selected part may play. Notes that would fall outside that range during Arranger playback are automatically transposed to values inside the selected range.
Rather than specifying two note values, you can also choose **"Std,"** which means that the E-A7 decides automatically when extremely high (or low) notes need to be shifted down (or up) by one or several octaves.

Other edit operations

The **"Micro Edit"** page allows you to select several functions.

1. Select the event you want to edit.

2. Press the [F5] (Edit) button.

> **MEMO**
>
> You can select multiple events by holding down the **[F4]** (Multi select) button and pressing the **[F1]** (Up) or **[F2]** (Down) button.

The display changes to:

```
(Micro Edit Menu)
   001:01:000 Note 36: C 2
Create Event

Erase Event

Move Event

Copy Event

Place Event
```
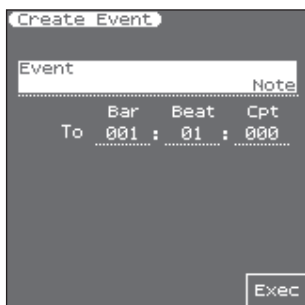
The top line shows the event type that can be edited (**"CC00 Bank MSB"** for example) and its location (**"001:01:000"**). You cannot change the event type on this page.

3. **Use the direct buttons to select the operation that you want to execute.**

Create Event

Select this function to add a new event to the selected track.

```
(Create Event)
Event
                          Note
         Bar    Beat    Cpt
   To   001 :  01  :  000


                          Exec
```

If the position for which you create a new event already contains other events, the new event is added at the end of that group.

Parameter	Value	Explanation
Event	Note, Control Change, Program Change, Pitch Bend, Alteration Mode	Allows you to specify the event type you want to add.
To Bar, To Beat, To CPT	See page 43.	Specifies the position where your new event will be inserted.

The selected event is inserted with a default value:

Note: Note Number: 60 C4
On Velocity: 100
Gate Time: 60

Program Change: CC00 Bank Select MSB, value **"0"**
CC32 Bank Select LSB, value **"4"**
Program Change Number **"1"** (The bank select messages are added automatically: you don't have to worry about that.)

Pitch Bend: **"0"**

Alteration Mode: Nearest
Limit Low: Std
Limit High: Std

Obviously, you will then need to change the default settings depending on the result you want to achieve.
Press the **[F5]** (Exec) button to confirm your settings and add the new event. The E-A7 returns to the **"Micro Edit"** page.

Erase Event

This function allows you to remove one or several events without changing the positions of the remaining events.
Executing **"Erase Event"** erases the selected event(s).

Move Event

This function allows you to move one or several events.

1. **Specify the move-destination for the selected event(s).**

Parameter	Value	Explanation
To Bar, To Beat, To CPT	See page 43.	Specifies the position to which the first event (in chronological order) of the selected group should be shifted.

2. **Press the [F5] (Exec) button; the selected event(s) are moved.**

> **NOTE**
> * If the position to which you move the selected event already contains other events, the moved event is added at the end of that group.
> * Events located at **"1-01-00"** cannot be moved further to the left.

Copy Event

This function allows you to copy one or several events. Use **"Place Event"** to insert a copy of those events at the desired position.
Executing **"Copy Event"** copies the selected event(s).
Use the **"Place Event"** function described below to specify the paste-destination for the copied event(s).

Place Event

This function is only available if the Style Composer's clipboard already contains events that you copied using **"Copy Event."**

1. **Specify the paste-destination for the selected event(s).**

Parameter	Value	Explanation
To Bar, To Beat, To CPT	See page 43.	Specifies the position where the first event you copied should be inserted.

2. **Press the [F5] (Exec) button; the copied event(s) are pasted.**

> **NOTE**
> Events inserted with **"Place Event"** are added to any events that may already exist in that area. Existing events are not pushed towards the end of the track.

Undoing a Micro Edit operation

You can undo a Micro Edit operation.
When you exit the Micro Edit page and execute UNDO in the Style Composer screen, the data returns to the state prior to when you entered the Micro Edit page.
However, be aware that if you exit the Micro Edit page and then re-enter the Micro Edit page and perform an editing operation, you will only be able to undo the edit that you performed after re-entering the page.

Makeup Tools (Styles and SMF)

These functions allow you to actually edit the selected style or SMF song (Standard MIDI File) without paying too much attention to the underlying parameters.

Using the Makeup Tools

1. **Select the style or SMF song you wish to modify (see Owner's Manual: p. 22, p. 38).**

2. **Press the [►/■] button to start playback of the SMF or style.**
This allows you to listen to the song or style before you start editing it. Press the **[START/STOP]** button again to halt playback.

3. **Press the [MENU] button.**

4. **Use the direct buttons to select the "Makeup Tools."**
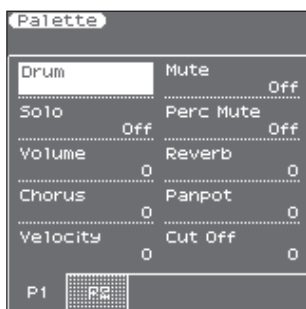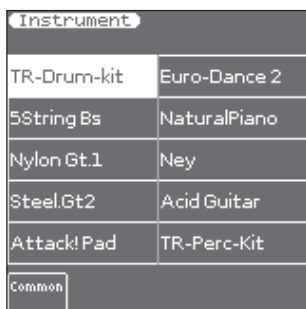
The left screen shows a list of the instruments that are used by the style or SMF.
The right screen shows a list of the parameters (Palette) that can be assigned for the instrument that is selected in the left screen.
If you press the **[F1]** (Common) button of the left screen, the right screen shows parameters that are related to the style or the entire song.

Common
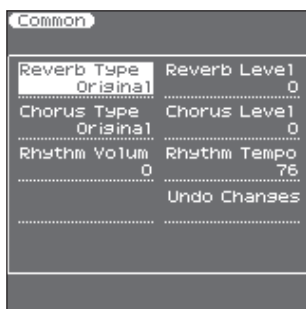
The **"Common"** parameters on this page apply to the entire song or style.

1. **Use the direct buttons or Cursor buttons to select the desired parameter, and use the Value [-] [+] buttons or**

the Balance/Value] knob (when the LED is unlit) to edit the value.
The following parameters are available:

Reverb Type: This parameter allows you to specify what kind of reverb effect you need. The available reverb types are:

Parameter	Explanation
Original	This setting means that the song uses its own (programmed) reverb settings.
Room1, Room2, Room3	These types simulate the reverb characteristics of a room. The higher the number (1, 2 or 3), the bigger the **"room"** becomes.
Hall1, Hall2	These types simulate the reverb of a small (1) or large (2) concert hall and thus sound much **"bigger"** than the Room types above.
Plate	This algorithm simulates the acoustics of a concert hall.
Delay	A delay effect (no reverb). Works a lot like an echo effect and thus repeats the sounds.
Pan Delay	This is a stereo version of the above delay effect. It creates repetitions that alternate between the left and right channels.

Chorus Type: Chorus broadens the spatial image of the sound and creates a stereo impression. You can choose from 8 types of chorus.

Parameter	Explanation
Original	The song uses its own (programmed) chorus settings.
Chorus 1–4	These are conventional chorus effects that add spaciousness and depth to the sound.
Fbk Chorus	This is a chorus with a flanger-like effect and a soft sound.
Flanger	This is an effect that sounds somewhat like a jet airplane taking off and landing.
ShortDly	This is a full-fledged delay effect that can be used instead of a chorus or flanger. As you will see, there are a lot of parameters you can program.
ShortDlyFb	This is a short delay with many repeats.

Reverb Level & Chorus Level: These parameters allow you to modify the output level of the Reverb (or Chorus) processor.

Style Volume/Song Volume: This parameter allows you to set the overall volume of the selected style or song if you think it is too loud/soft.

Style Tempo/Song Tempo: Allows you to change the style's or song's tempo (♩ = 20–250).

Key: This parameter allows you to transpose all song parts (except the drums) up to 12 semitones (1 octave) up or down. This value is written to the song data and used every time you play back this song.

NOTE

This parameter is not available for styles.

Undo Changes: Cancels all of the Common settings, returning to the previously-saved version.

2. **Save the edited song or style.**
See **"Saving Your New Style or Song (SMF) Version"** (p. 54).

NOTE

The changes you make using the procedure described above can be **"burned"** into the style/song file using the **"Freeze Data"** command (see p. 54). Doing so will allow you to hear those changes on any sequencer (software) you use. Changes you don't **"freeze"** are nevertheless stored when you save the edited style/song file—but only the E-A7 can read them.

50

Instrument

```
(Instrument)
TR-Drum-kit    Euro-Dance 2
5String Bs     NaturalPiano
Nylon Gt.1     Ney
Steel.Gt2      Acid Guitar
Attack! Pad    TR-Perc-Kit
Common
```

The display now shows all instruments used by the selected style or SMF song.

1. Use the direct buttons to select the instrument you want to change (left display).

The right screen shows the Palette screen for the selected instrument.

```
(Palette)
Drum          Mute
                      Off
Solo          Perc Mute
        Off           Off
Volume        Reverb
        0             0
Chorus        Panpot
        0             0
Velocity      Cut Off
        0             0

P1    P2
```

2. By pressing the [F2] (Preview) button of the left screen, you can jump to the location at which the instrument is used.

Playback starts automatically from that point.

3. Use the direct buttons or Cursor buttons of the right screen to select the desired parameter, and use the Value [-] [+] buttons or the [Balance/Value] knob (when the LED is unlit) to edit the value.

NOTE

If you select a Drum Kit above, the parameter list looks slightly different than for instruments that do not use a Drum Kit. **"Drum Kits"** are special **"Tones"** that assign different sounds to most keys/note numbers, allowing you to play realistic drum and percussion parts.

* In the following, **"(T)"** refers to parameters that are only available for regular instruments (also called **"Tones"**), while **"(D)"** refers to parameters that are only available for Drum Kits.

The following parameters are available:

Tone (T), Drum (D)

Allows you to select a different Tone within the active Tone family. See the separate booklet for a list of available Tones and Drum Kits. While selecting a Tone, you can press a TONE button to select a different family.

Parameter	Explanation
Tone (T) Drum (D)	The number of Tones depends on the selected family.

Mute (T)/Drum Mute (D)

Switches the selected instrument off. The corresponding part is no longer played back. (This setting only applies to the selected instrument and thus not necessarily to the entire track.)

NOTE

In the case of the drums, you can mute two instrument groups (**"Drum Mute"** and **"Perc Mute,"** see below) separately.

Parameter	Value
Mute (T) Drum Mute (D)	Off, On

Solo

Switches off all instruments except the selected instrument.

Parameter	Value
Solo	Off, On

Perc Mute (D)

Suppresses (or adds) the percussion sounds used by the drum part.

Parameter	Value
Perc Mute	Off, On

Volume

Adjusts the volume of the selected instrument. Negative values decrease the current volume, positive values increase it. (This is a relative setting that is added to, or subtracted from, the original setting.)

Parameter	Value
Volume	-127–0–+127

Reverb

Use this parameter to set the reverb send level. Negative values decrease the current reverb send level, positive values increase it. (This is a relative setting that is added to, or subtracted from, the original setting.)

Parameter	Value
Reverb	-127–0–+127

Chorus

Use this parameter to set the chorus send level. Negative values decrease the current chorus send level, positive values increase it. (This is a relative setting that is added to, or subtracted from, the original setting.)

Parameter	Value
Chorus	-127–0–+127

Panpot

Use this parameter to change the stereo placement of the selected instrument. **"0"** means **"no change,"** negative (–) values shift the instrument towards the left and positive (+) values shift it towards the right.

Parameter	Value
Panpot	-127–0–+127

NOTE

In the case of Drum Kits, this setting applies to all drum/percussion instruments. There is also a parameter that can be set for specific drum instruments. See page 53.

Octave (T)

Use this parameter to transpose the selected instrument up or down by up to 4 octaves.

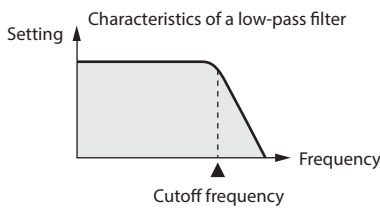| Parameter	Value
Octave	-4–0–+4

Velocity

This parameter allows you to modify the velocity range of the instrument in question. **"0"** means that the recorded velocity values are left untouched, negative values reduce all velocity values by the same amount (leaving differences between notes intact), while positive settings increase all velocity values.

Parameter	Value
Velocity	-127–+127

Cut Off

This filter parameter allows you to make the selected sound darker or brighter. Positive settings mean that more overtones are allowed to pass, so that the sound becomes brighter. The further this value is set in the negative direction, the fewer overtones will be allowed to pass and the sound will become softer (darker).

Characteristics of a low-pass filter

Parameter	Value
Cut Off	-127–+127

> **NOTE**
>
> For some sounds, positive (+) **"Cut Off"** settings will cause no noticeable change because the preprogrammed **"Cut Off"** parameter is already set to its maximum value.

Resonance

This is a parameter one invariably associates with a synthesizer. When the **"Resonance"** value is increased, the overtones in the area of the cutoff frequency will be emphasized, creating a sound with a strong character.

Parameter	Value
Resonance	-127–+127

> **NOTE**
>
> For some sounds, negative (–) **"Resonance"** settings may produce no noticeable change because the resonance is already set to the minimum value.

The following parameters allow you to set the sound's **"envelope."** The envelope parameters affect both the volume (TVA) and the filter (TVF). The cutoff frequency will rise as the envelope rises and fall as the envelope falls.

Attack (T)

This parameter adjusts the onset of the sound. Negative values speed up the attack, so that the sound becomes more aggressive.

Parameter	Value
Attack	-127–+127

Decay (T)

This parameter adjusts the time over which the sound's volume and cutoff frequency fall from the highest point of the attack down to the sustain level.

Parameter	Value
Decay	-127–+127

> **NOTE**
>
> Percussive sounds usually have a sustain level of **"0."** Piano and guitar sounds are in this category. Holding the keys for a long

time will have little effect on the duration of the notes you are playing, even if you select a high value here.

Release (T)

This parameter adjusts the time over which the sound will decay after the note is released until it is no longer heard. The cutoff frequency will also fall according to this setting.

Parameter	Value
Release	-127–+127

Use the following three parameters if you think the instrument in question has too much (or could use a little more) vibrato.

> **NOTE**
>
> Some sounds already contain natural (sampled) vibrato whose depth or speed cannot be changed.

Vibrato Rate (T)

This parameter adjusts the speed of the pitch modulation. Positive (+) settings make the preset pitch modulation faster, and negative (–) settings make it slower.

Parameter	Value
Vibrato Rate	-127–+127

Vibrato Depth (T)

This parameter adjusts the intensity of the pitch modulation. Positive (+) settings mean that the **"wobble"** becomes more prominent, while negative (–) settings make it shallower.

Parameter	Value
Vibrato Depth	-127–+127

Vibrato Delay (T)

This parameter adjusts the time required for the vibrato effect to begin. Positive (+) settings increase the time before vibrato will begin and negative settings (–) shorten the time.

Parameter	Value
Vibrato Delay	-127–+127

Mfx

The E-A7 contains 2 multi-effects processors (**"Mfx"**), one reverb processor and one chorus processor that can be used to process styles or Standard MIDI Files.
Select **"Off"** for instruments that don't need to be processed by any Mfx.

Parameter	Value
Mfx	Off, A, B

> **NOTE**
>
> If you select **"A"** or **"B,"** additional parameters can be edited (see below).

Mfx Type

Allows you to select the desired Mfx type, i.e. the kind of effect you need. Each Mfx (**"A"** and **"B"**) can be assigned to as many instruments as you like. Be aware, however, that selecting a different type will affect all instruments that use this Mfx processor. See page 13 for a list of the available Mfx types.

> **NOTE**
>
> While the **"Mfx"** parameter is set to **"Off,"** you cannot select a different type. In that case, the display will show the message **"---."**

Mfx Edit

If you also want to edit the parameters of the selected effect type, press the **"Mfx Edit"** button to jump to the **"Mfx Edit"** page. You can then edit the available parameters.

Equalizer

Activate this setting if you want to change the timbre of the selected instrument.

Parameter	Value
Equalizer	Off, On

EQ Edit

To edit the equalizer parameters, press the **"EQ Edit"** button to jump to the **"EQ Edit"** page. You can then edit the available parameters:

Parameter	Value	Explanation
Equalizer	Off, On	Activate this setting if you want to change the timbre of the selected instrument. This parameter duplicates the **"Equalizer"** above and was added for your convenience.
Low Freq	90 Hz, 150 Hz, 180 Hz, 300 Hz, 360 Hz, 600 Hz	Allows you to set the cutoff frequency of the low band (this is a shelving filter).
Low Gain	-15–+15 dB	Use this parameter to set the level of the selected **"Low"** frequency.
Mid Freq	200–8000 Hz	Allows you to set the cutoff frequency of the middle band (this is a peaking filter).
Mid Q	0.5, 1, 2, 4, 8	Use this parameter to specify the width of the **"Mid Freq"** band that you want to boost or cut. Smaller values mean that neighboring frequencies above/below that value are also affected.
Mid Gain	-15–+15 dB	Use this parameter to set the level of the selected **"Mid Freq."** Positive values boost (increase the volume of) that frequency, negative values cut (attenuate) it.
High Freq	1500 Hz, 2000 Hz, 3000 Hz, 4000 Hz, 6000 Hz, 8000 Hz, 12000 Hz	Allows you to set the cutoff frequency of the high band (this is a shelving filter).
High Gain	-15–+15 dB	Use this parameter to set the level of the selected **"High"** frequency. Positive values boost (increase the volume of) that frequency, negative values cut (attenuate) it.

Undo Changes

This cancels all settings of the selected instrument, returning to the previously-saved version.

Drum Instrument (D)

If you want to edit the settings for specific instruments of the selected Drum Kit, press the **"Drum Inst"** button to jump to the **"Drum Instrument"** page.
All instruments of the Drum Kit being used are displayed.
Use the direct buttons of the left screen to select the desired instrument.
Use the direct buttons of the right screen to select the desired parameter, and use the Value **[-] [+]** buttons or the **[Balance/Value]** knob (when the LED is unlit) to edit the value.

Parameter	Value	Explanation
Inst	All Drum Set Instruments	Select the drum instrument you want to edit.
Parameters for the selected instrument		
Mute	Off, On	Suppress (or add) the selected instrument.
Solo	Off, On	Switch off all instruments except the selected instrument.
Volume	-127–+127	Use this parameter to set the volume of the selected drum instrument.
Reverb	-127–+127	Use this parameter to set the reverb send level of the selected drum instrument. The effect itself can be changed on the **"Common"** page.
Chorus	-127–+127	Use this parameter to set the chorus send level of the selected drum instrument. The effect itself can be changed on the **"Common"** page.
Panpot	-127–+127	Use this parameter to set the stereo placement of the selected drum instrument. **"0"** means **"no change,"** negative values shift the instrument towards the left and positive values shift it towards the right.
Velocity	-127–+127	This parameter allows you to modify the velocity range of the drum instrument in question. **"0"** means that the recorded values are left untouched, a negative setting reduces all velocity values by the same amount (leaving variations intact). A positive setting shifts all velocity values in a positive direction.
EQ Status	Global, Instr, Off	**Global:** The drum instrument uses the equalizer settings of the Drum Kit it belongs to. **Instr:** The drum instrument uses its own equalizer settings (see below). **Off:** The drum instrument is not equalized.
EQ Edit		Provides access to the EQ parameters of the currently selected drum instrument (if **"EQ Status"** is set to **"Int"**). See **"EQ Edit"** on p. 53 for a description of the available parameters.
Pitch	-127–+127	Use this parameter to tune the selected drum instrument higher or lower. **"0"** means that the pitch is left unchanged.
Undo Changes		This function allows you to cancel the **"Drum Instrument (D)"** settings of the currently selected instrument and to revert to the previously saved version.

4. If you are satisfied with your changes and wish to preserve them, save your style/song.
See **"Saving Your New Style or Song (SMF) Version"** (p. 54).

NOTE

The changes you make using the procedure described above can be **"burned"** into the style/song file using the **"Freeze Data"** command (see p. 54). Doing so will allow you to hear those changes on any sequencer (software) you use. Changes you don't **"freeze"** are nevertheless stored when you save the edited style/song file—but only the E-A7 can read them.

Freeze Data

By executing **"Freeze Data"** you can embed your edited settings into the style file or SMF file. Execute **"Freeze Data,"** and then save the file to embed the changes you made on the E-A7 into the file. This function is convenient when you want to use the edited file with other backing equipment, a computer, or a sequencer (software).

In contrast, if you don't want the changes you made on the E-A7 to be embedded in the style file or SMF, save without executing **"Freeze Data."** In this case, your changes will be reflected only when you use the same style file or SMF on the E-A7, and the original settings will be used when that file is used with another device.

1. **With the Instrument screen shown in the left screen, press the [Option] button.**
The Makeup Tools Option screen appears.

2. **Press the [L1] (Freeze Data) button.**
Freeze Data is executed.

> **MEMO**
>
> When you execute Freeze, the following parameters are written into the data.
> - Volume
> - Reverb
> - Chorus
> - Panpot
> - Octave
> - Velocity

Saving Your New Style or Song (SMF) Version

1. **With the Instrument screen shown in the left screen, press the [Option] button.**

2. **Use the direct buttons to select "Save."**

3. **Use the direct buttons and function buttons to select the save-destination.**

Button	Explanation
[R1] (Int/Ext)	Switches between Internal Storage and External Storage (USB flash drive).
[F4] [F5] (Page)	Switch pages.
[L1] Up folder	Exits the folder.

4. **Press the [Enter] button.**
Assign a name.
➡ For details on how to assign a name, refer to **"Assigning Names"** (Owner's Manual: p.16).
If you decide to cancel, press the **[Exit]** button.

5. **Press the [F5] (Exec) button.**
The style or song is saved.

> **MEMO**
>
> If there is a file with the same name as the name you entered, a screen asks you to confirm that you want to overwrite it.
> If you want to save, select **"YES"** to replace it with the file you renamed.
> If you decide to rename the file, select **"NO"** and return to the page where you can rename the file.

Using the Mark and Jump Function (SMF Songs Only)

The E-A7 lets you **"mark"** up to four (storable) locations in the current song (SMF) and then **"jump"** to a stored location.
Use the Variation **[1]**–**[4]** buttons to select the four **"mark and jump"** locations.
When you select a song that contains markers, the Variation **[1]**–**[4]** buttons are lit.
If you select a song that does not contain markers, the Variation **[1]**–**[4]** buttons are unlit.
Here's how to specify the mark and jump locations.

Creating/Deleting Markers

1. **Load an SMF song.**
➡ **"Selecting a Song"** (Owner's Manual: p. 38)

2. **Open the "Smf Mark Jump Edit" page:**
You have two ways to do it:

a. **Long-press the Variation [1]–[4] button.**

b. **Press the [MENU] button and select the "Smf Mark Jump Edit" page.**

As you can see there are four markers:

Parameter	Value	Explanation
Mark 1	OFF, 1–measures in the song	• OFF No markers (Variation **[1]**–**[4]** buttons unlit) • Number of measures in the song Measure to which you want to jump
Mark 2		
Mark 3		
Mark 4		

The following operation can be performed whether the song is playback or not.

3. **Use the Variation [1]–[4] buttons or the direct buttons to select the marker that you want to assign.**

4. **Press the [▶/■] button to play back the song, and listen until you reach the location at which you want to assign a marker.**

5. **Use the function button to press the "Mark Set."**
A mark is assigned to the current measure number.
The indicator of the corresponding button (Variation **[1]**–**[4]**) lights, and the following mark is selected.

6. **To assign the next marker, repeat steps 3–5.**

7. **Press the [▶/■] button to stop song playback.**

8. **To delete a marker, use the function buttons to select "Mark Off."**
The indicator of the corresponding button (Variation **[1]**–**[4]**) goes dark.

Saving a Song That Contains Markers

1. **Specify a marker location in the song.**
➡ **"Creating/Deleting Markers"** (p. 55)

2. **Open the "Smf Mark Jump Edit" page.**
There are two ways to do this.

a. **Long-press the Variation [1]–[4] button.**

b. **Press the [MENU] button and select the "Smf Mark Jump Edit" page.**

3. **Press the [Option] button.**

4. **Use the direct buttons to select "Save Song."**

5. **Use the direct buttons and function buttons to select the save-destination.**

Button	Explanation
[R1] (Int/Ext)	Switches between Internal Storage and External Storage.
[F4] [F5] (Page)	Switch pages.
[L1] Up folder	Exits the folder.

6. **Press the [Enter] button.**
Assign a name.
➡ For details on how to assign a name, refer to **"Assigning Names"** (Owner's Manual: p. 16).
If you decide to cancel, press the **[Exit]** button.

7. **Press the [F5] (Exec) button.**
The song is saved.

> **MEMO**
>
> If there is a file with the same name as the name you entered, a screen asks you to confirm that you want to overwrite it.
> If you want to save, select **"YES"** to replace it with the file you renamed.
> If you decide to rename the file, select **"NO"** and return to the page where you can rename the file.

Using Markers to Perform

1. **Load an SMF song that contains markers.**
➡ **"Selecting a Song"** (Owner's Manual: p. 38)

2. **Press the [▶/■] button to play back the song.**

3. **Press a Variation [1]–[4] button to jump to the marker.**

Lyrics

When playing an SMF or MP3 that contains lyrics data, you can make the lyrics appear on the E-A7's display.

1. **Select a song that contains lyrics data.**

2. **Press the [Menu] button.**
   The Menu screen appears.

3. **Use the direct buttons to select [R3] (Lyrics).**
   The lyrics screen appears.
   In the case of an SMF file, the chords of the song are also shown.

   MEMO

   Press the [F5] (Zoom) button to magnify the lyrics. Press the button once again to return to the original size.

Mastering Tools

The E-A7 contains an effects processor that applies to all keyboard parts, style and SMF song parts.
This processor is called **"Mastering Tools,"** because it allows you to perfect the signal mix to adapt it to the sound system you are using. The parameters discussed here can be selected using **[MENU]** → **"Mastering Tools."**

MEMO

If Output Mode is on (the Output Mode button is lit), the Mastering Tools parameters are fixed to match the response of the built-in speakers.
If you want to edit the Mastering Tools parameters, turn Output Mode off.

Mastering Comp

This multi-band compressor/limiter allows you to process three frequency ranges separately. A compressor reduces high levels (peaks) and boosts low levels, smoothing out fluctuations in volume. To edit the Compressor parameters, use **[MENU]** → **"Mastering Tools"** → **"Mastering Comp."**

1. **Open the Mastering Comp screen.**

2. **Use the [F5] (Switch) button to set it "On" to activate the compressor.**
   The compressor is now active. (Select **"Off"** to switch the compressor back off.)

3. **Use the direct buttons to select the "Type" parameter.**

4. **Use the Value [-] [+] buttons to select one of the available presets.**

5. **If none of the preset memories contains the settings you need, use the direct buttons and Value buttons to select and set the following parameters.**

Parameter	Value	Explanation
Type	Type 1–5, Standard, User	
Level	0–127	Use this parameter to set the compressor's input level. The higher the value, the stronger the three frequency bands are compressed. The value you set here is added to the **"Level"** settings of the three bands. Do not set this parameter to **"0"** if the compressor is switched on, because doing so means that the keyboard parts, the SMF song or Style parts are no longer audible.

Parameter	Value	Explanation
Gain	-12–0–+12 dB	Use this parameter to correct the level at the compressor's outputs. If the settings of the remaining parameters lead to a significantly lower level, select a positive value. If your settings lead to a significantly higher level, select a negative value. **"0"** means that the level is neither boosted nor attenuated.
Split High	2000, 2500, 3150, 4000, 5000, 6300, 8000, 9000, 10000, 11000, 12000 Hz	These two parameters specify the frequency where two bands are separated. The compressor has three bands, and so there are two crossover frequencies you can set: **"High"** between the **"Mid"** and **"High"** ranges; and **"Low"** between the **"Mid"** and **"Low"** ranges.
Split Low	80, 100, 150, 200, 250, 315, 400, 500, 630, 800 Hz	

High/Mid/Low: Because **"Attack," "Release," "Threshold," "Ratio"** and **"Level"** are the same for each band, we will only discuss them once. As you see, each of the three frequency ranges has its own set of parameters that allow you to specify their behavior.

Parameter	Value	Explanation
Attack	0–100 ms	Use this parameter to specify how fast the compressor of the band in question should start processing the signal once the level of that band exceeds the **"Threshold"** level. Choose a smaller value if you prefer a compression similar to that of FM radio stations. Higher values may yield a **"snappier"** or **"funkier"** sound.
Release	50–5000 ms	This parameter allows you to specify how fast the compressor of the corresponding band should stop working when the signal level drops below the **"Threshold"** value.
Threshold	-36–0 dB	This parameter allows you to set the level the frequency band (**"High," "Mid"** or **"Low"**) must reach to trigger its compressor. The lower the value, the more noticeable the compression will be.
Ratio	1:1.0–1:INF	Use this parameter to specify how strongly the level should be reduced when the band's level exceeds the **"Threshold"** level. **"1:2.0,"** for example, means that level values above the **"Threshold"** level are halved. **"1:INF"** is useful if you set **"Threshold"** to **"0 dB"** or thereabout. This produces a limiter effect, which means that no signal level will ever exceed the **"Threshold"** value. This may help you protect the speakers of the PA system etc.
Gain	-24–+24 dB	This parameter allows you to establish the desired mix among the three compressor bands. Choose a negative value to decrease the level, or a positive one to increase it. Choose **"0"** for a band whose level is OK as is.

Write User

This function allows you to save the settings you made on the **"Compressor"** page.

1. **Press the [WRITE] button.**
   The display shows a confirmation message.

2. **Press the [F5] (YES) button to save the current settings.**
   If you decide to cancel, press the **[F1]**(NO) button.
   The E-A7 then returns to the **"Compressor"** page.

NOTE

- There is only one **"User"** memory for your own settings. By saving new settings, you therefore overwrite the previous ones.
   Once you save the settings as User, the Type will subsequently always be **"User."** For example, if you want to return to the **"Standard"** setting, select **"Standard"** as the Type and then perform the Write operation. After writing, the indication shows

"User" but the parameters are saved in the same state as **"Standard."**

- When you write the Mastering Comp settings, the Mastering EQ settings are also written as the User settings.
- When you switch on the E-A7, it automatically loads the **"User"** settings.

Mastering EQ

To edit the Equalizer parameters, use **[MENU]** → **"Mastering Tools"** → **"Mastering Eq."**

```
Mastering EQ

Type          MID FREQ
    1:Flat       1000Hz
LEVEL         MID GAIN
      127           0dB
GAIN          MID Q
       0dB           0.5
LOW FREQ      HI FREQ
     400Hz        4000Hz
LOW GAIN      HI GAIN
       0dB           0dB

                  Switch
```

The equalizer has the same function as the TREBLE, MID and BASS knobs on a mixer: it allows you to color the sound, or to apply tonal corrections.

1. **Open the Mastering Eq screen.**

2. **Use the [F5] (Switch) button to set it "On" to activate the equalizer.**
   The equalizer is now active. (Select **"Off"** to switch the equalizer back off.)

3. **Use the direct buttons to select the "Type" parameter.**

4. **Use the Value [-] [+] buttons to select one of the available presets.**

5. **If none of the preset memories contains the settings you need, use the direct buttons and Value [-] [+] buttons to select and set the following parameters.**

Parameter	Value	Explanation
Type	Type 1–5, Standard, User	
LEVEL	0–127	Use this parameter to set the equalizer's input level. This may be necessary when the level of the input signals is so high that the sound distorts. **NOTE** Do not set this parameter to **"0"** if the equalizer is switched on, because doing so means that the keyboard parts, SMF song/style is/are no longer audible.
GAIN	-9–0–9 dB	Use this parameter to correct the level at the equalizer's outputs. If the settings of the remaining parameters lead to a significantly lower level, select a positive value. If your settings lead to a significantly higher level, select a negative value. **"0"** means that the level is neither boosted nor attenuated.
LOW FREQ	50, 80, 100, 150, 200, 250, 300, 400 Hz	Allows you to set the cutoff frequency of the low band (this is a shelving filter).
LOW GAIN	-15–15 dB	Use this parameter to set the level of the selected **"Low"** frequency.
MID FREQ	200–8000 Hz	Allows you to set the cutoff frequency of the middle band (this is a peaking filter).
MID GAIN	-15–15 dB	Use this parameter to set the level of the selected **"Mid"** frequency.
MID Q	0.5, 1, 2, 4, 8	Use this parameter to specify the width of the **"Mid Frequency"** band that you want to boost or cut. Smaller values mean that neighboring frequencies above/below that value are also affected.

Parameter	Value	Explanation
HI FREQ	2000–12000 Hz	Allows you to set the cutoff frequency of the high band (this is a shelving filter).
HI GAIN	-15–15 dB	Use this parameter to set the level of the selected **"High"** frequency. Positive values boost (increase the volume of) that frequency band, negative values cut (attenuate) it.

Write User

This function allows you to save the settings you made on the **"Equalizer"** page.

1. **Press the [WRITE] button.**
   A confirmation message appears.

2. **Press the [F5] (YES) button to save the current settings.**
   If you decide to cancel, press the **[F1]**(NO) button.
   The E-A7 then returns to the **"Equalizer"** page.

   NOTE

   - There is only one **"User"** memory for your own settings. By saving new settings, you therefore overwrite the previous ones.
     Once you save the settings as User, the Type will subsequently always be **"User."** For example, if you want to return to the **"Standard"** settings, select **"Standard"** as the Type and then perform the Write operation. After writing, the indication shows **"User"** but the parameters are saved in the same state as **"Standard."**
   - When you write the Mastering Eq settings, the Mastering Comp settings are also written as the User settings.
   - When you switch on the E-A7, it automatically loads the **"User"** settings.
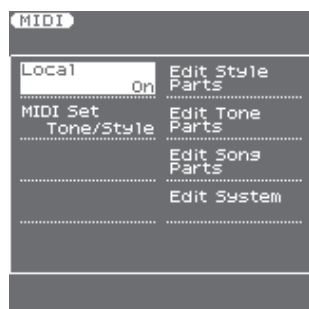
MIDI Parameters

This section discusses the E-A7's MIDI parameters and the associated memories called **"MIDI Sets."**

What's MIDI

"MIDI" stands for **"Musical Instrument Digital Interface."**
It is a universal standard that allows performance data to be exchanged among electronic musical instruments and computers. The E-A7 provides a MIDI IN and MIDI OUT socket so that performance data can be received from other MIDI instruments.
It is also equipped with a COMPUTER port (USB) that can receive and transmit MIDI data from a computer.
The MIDI parameters can be selected using **[MENU]** → **"MIDI."**

The E-A7's MIDI environment contains the following options:

MIDI parameter group	Explanation
Local	This setting allows you to establish or remove the connection between the E-A7's keyboard and the internal tone generator.
MIDI Set	Allows you to load a MIDI Set ("Tone/Style," "PK Series," "Song," "User1"–"8."
Edit style Parts	Here, you can edit all MIDI parameters of the style parts (ADrum, ABass, Acc1–6). See page 59.
Edit Tone Parts	Here, you can edit all MIDI parameters related to the keyboard parts (UP1, UP2, UP3, LWR and Mel. Intell). See page 61.
Edit Song Parts	Here, you can edit all MIDI parameters of the Song parts. See page 61.
Edit System	This groups contains all MIDI parameters that apply to the E-A7 as a whole. See page 61.

Local

This setting allows you to establish or remove the connection between the E-A7's keyboard and the internal tone generator.

Parameter	Value
Local	On, Off (---)

If you select **"On"** (default), playing on the E-A7's keyboard or playing back a song/style causes the corresponding notes to sound. If you select **"Off,"** the corresponding MIDI messages are no longer sent to the internal tone generator–but they are still transmitted to the MIDI OUT socket (or USB COMPUTER port) and hence to external MIDI instruments. When a parameter is modified inside a part, the display shows **"---."**

Loading a MIDI Set

The MIDI Set environment contains two options with preset settings. All you need to do is select them to restore the default settings for the sections or aspects in question. In addition, there are 8 MIDI Set memories where you can save your own settings.

Parameter	Value
MIDI Set	Tone/Style, PK Series, Song, User1–8

Tone/Style

This option recalls the factory MIDI settings for the keyboard parts (UP1, UP2, UP3, LWR, MELODY INT) and the style parts (ADRUM, ABASS, ACC1–6). The most important (and practical) use for this field is resetting the MIDI transmit/receive channels of the real-time and style parts and to switch off MIDI transmission/reception of the song parts.

> **NOTE**
>
> This parameter applies to both reception (RX) and transmission (TX). The E-A7 indeed allows you to set separate TX and RX channels for each part.

PK Series

This option prepares the E-A7 for MIDI control using a PK-series MIDI pedalboard. The most important settings are: **"Part Switch"** is set to **"Int"** and **"Style PcRx"** is set to **"On."**

Song

This option restores the factory settings for the E-A7's SMF song parts and switches off the MIDI transmission and reception of the real-time and style parts.
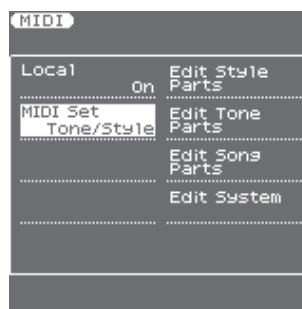
User1–8

The E-A7 also allows you to store and recall 8 different MIDI configurations.

> **NOTE**
>
> Loading a MIDI Set only changes the MIDI settings and has no effect on the remaining parameters.
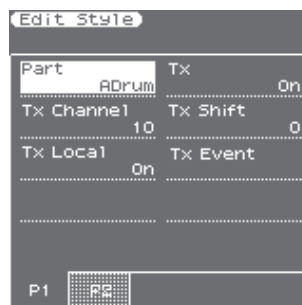
1. Use the direct button to select the **"MIDI Set"** field.

2. Use the **[–] [+]** buttons to edit the **"MIDI Set."**

Edit Style Parts

The following parameters are located on the display page that can be selected using **[MENU]** → **"MIDI"** → **"Edit Style Parts."**

1. Use the direct buttons to select **"Part,"** and use the Value **[-] [+]** buttons to select the part that you want to edit.
The display now shows the settings for the selected part.

Tx

Select **"On"** if you want the selected part to transmit MIDI data.

Parameter	Value
Tx	Off, On

Tx Ch

Allows you to assign a MIDI transmit channel to the selected part.

Parameter	Value
Tx Ch	1–16

Tx Shift

This parameter allows you to transpose the note messages before they are transmitted to an external MIDI instrument or computer. The maximum possible transposition is four octaves up (+48) or down (–48).
Each step represents a semi-tone.

Parameter	Value
Tx Shift	–48–0–+48

Tx Local

This is where you can disconnect the part from the internal sound source (**"Off"**)–or re-establish that connection (**"On"**).

Parameter	Value
Tx Local	Off, On

Tx Event

The **"TX Event"** section provides a number of filters that allow you to specify whether the messages in question should be transmitted (On) or not (Off).

Filter	Value	Explanation
Program Change	Off, On	Select **"On"** to transmit program change and bank select (CC00, CC32) messages.
Pitch Bender	Off, On	Select **"On"** to transmit Pitch Bend messages.
Modulation	Off, On	Select **"On"** to transmit Modulation messages (CC01).
Volume	Off, On	Select **"On"** to transmit Volume messages (CC07).
Panpot	Off, On	Select **"On"** to transmit Panpot messages (CC10).
Expression	Off, On	Select **"On"** to transmit Expression messages (CC11).
Reverb	Off, On	Select **"On"** to transmit Reverb messages (CC91).
Chorus	Off, On	Select **"On"** to transmit Chorus messages (CC93).
All	Off, On	Select **"On"** to transmit all MIDI message listed above.

Rx

Select **"On"** if you want the selected part to receive MIDI data.

Parameter	Value
Rx	Off, On

Rx Ch

Allows you to assign a MIDI receive channel to the selected part.

Parameter	Value
Rx Ch	1–16

Rx Shift

This parameter allows you to transpose the note messages received from an external MIDI instrument or computer. The maximum possible transposition is four octaves up (+48) or down (–48). Each step represents a semi-tone.

Parameter	Value
Rx Shift	–48–0–+48

Rx Limit Low/Limit High

"Limit Low" and **"Limit High"** allow you to set the note range to be received. If not all note messages received on a given MIDI channel should be played by the selected E-A7 part, narrow down the range.

Parameter	Value
Rx Limit Low	C- –G9
Rx Limit High	C- –G9

NOTE

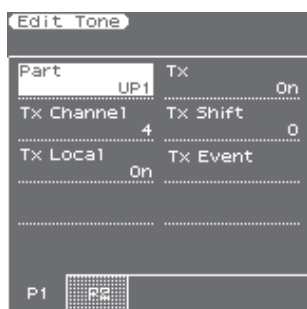The **"Limit Low"** value cannot be higher than the **"Limit High"** value (and vice versa).

Rx Event

The **"Rx Event"** section provides a number of filters that allow you to specify whether the messages in question should be received (On) or not (Off).

Filter	Value	Explanation
Program Change	Off, On	Select **"On"** to receive program change and bank select (CC00, CC32) messages.
Pitch Bender	Off, On	Select **"On"** to receive Pitch Bend messages.
Modulation	Off, On	Select **"On"** to receive Modulation messages (CC01).
Volume	Off, On	Select **"On"** to receive Volume messages (CC07).
Panpot	Off, On	Select **"On"** to receive Panpot messages (CC10).
Expression	Off, On	Select **"On"** to receive Expression messages (CC11).
Reverb	Off, On	Select **"On"** to receive Reverb messages (CC91).
Chorus	Off, On	Select **"On"** to receive Chorus messages (CC93).
Hold	Off, On	Select **"On"** to receive Hold messages (CC64).
Sostenuto	Off, On	Select **"On"** to receive Sostenuto messages (CC66).
Soft	Off, On	Select **"On"** to receive Soft messages (CC67).
Caf (Channel aftertouch)	Off, On	Select **"On"** to receive Caf-Channel aftertouch.
RPN	Off, On	Select **"On"** to receive Registered parameter number messages (CC100/101).
NRPN	Off, On	Select **"On"** to receive Non-registered parameter number messages (CC98/99).
System Exclusive	Off, On	Select **"On"** to receive System Exclusive messages.
CC16	Off, On	General purpose controller that allows you to influence the **"C1"** parameter. Select **"On"** to receive this message type.
All	Off, On	Select **"On"** to receive all MIDI message listed above.

Edit Tone Parts

The following parameters are located on the display page that can be selected using **[MENU]** → **"MIDI"** → **"Edit Tone Parts."**

```
(Edit Tone)
Part          Tx
      UP1            On
Tx Channel    Tx Shift
      4               0
Tx Local      Tx Event
      On

P1    RG
```

1. Use the direct buttons to select "Part" and use the Value [-][+] buttons to select the part that you want to edit (Upper1, Upper2, Upper3, Lower, M.INT).
The display now shows the settings for the selected part.

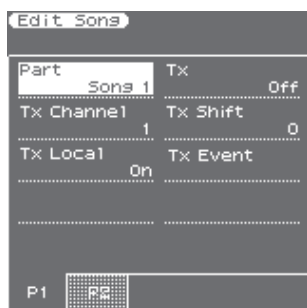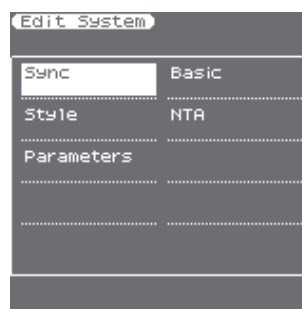Tx, Tx Ch, Tx Shift, Tx Local, Tx Event

For the explanation of these parameters, refer to page 59.

Rx, Rx Ch, Rx Shift, Rx Limit Low/High, Rx Event

For the explanation of these parameters, refer to page 59.

Edit Song Parts

The following parameters are located on the display page that can be selected using **[MENU]** → **"MIDI"** → **"Edit Song Parts."**

```
(Edit Song)
Part          Tx
    Song 1          Off
Tx Channel    Tx Shift
      1               0
Tx Local      Tx Event
      On

P1    RG
```

1. Use the direct buttons to select "Part" and use the Value [-] [+] buttons to select the part that you want to edit (Part 1–16).
The display now shows the settings for the selected part.

Tx, Tx Ch, Tx Shift, Tx Local, Tx Event

For the explanation of these parameters, refer to page 59.

Rx, Rx Ch, Rx Shift, Rx Limit Low/High, Rx Event

For the explanation of these parameters, refer to page 59.

Edit System

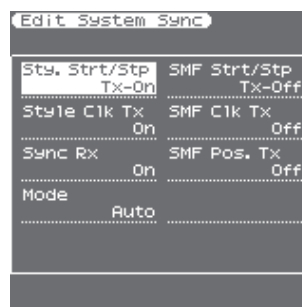The following parameters are located on the display page that can be selected using **[MENU]** → **"MIDI"** → **"Edit System."**

```
(Edit System)
Sync          Basic
Style         NTA
Parameters
```

The **"Edit System"** group contains the following parameters:

Edit System	Explanation
Sync	These parameters are used to synchronize external MIDI devices. See below.
Basic	The parameters of this group affect the E-A7's Basic channel. The Basic channel is used to receive and transmit Program Change and Bank Select messages for selecting Performances as well as for the reception and transmission of other kinds of messages that are not directly related to a specific MIDI channel. See page 62.
Style	The parameters of this group affect the E-A7's Style channel. The Style channel is used for receiving program change and bank select messages that select style and volume messages that change the style volume. See page 63.
NTA	These parameters allow you to assign MIDI channels to the E-A7's NTA parts (Note-to-Arranger). Only notes received on one of these channels are considered chord information that can be used to transpose style playback in real-time. See page 63.
Parameters	This group contains MIDI parameters that are not related to the previous groups. See page 64.

Sync

The following parameters are located on the display page that can be selected using **[MENU]** → **"MIDI"** → **"Edit System"** → **"Sync."**

```
(Edit System Sync)
Sty. Strt/Stp   SMF Strt/Stp
      Tx-On           Tx-Off
Style Clk Tx    SMF Clk Tx
      On              Off
Sync Rx         SMF Pos. Tx
      On              Off
Mode
      Auto
```

The **"Sync"** parameters allow you to specify whether or not the E-A7 should send MIDI real-time messages when you start style or song playback. This allows you to synchronize external instruments or (software) sequencers with your E-A7.

Style Start/Stop Tx

If you activate this option, the E-A7 sends start or stop messages when you start (or stop) style playback.

Parameter	Value
Style Start/Stop Tx	Off, On

Style Clock Tx

If you activate this option the style playback sends MIDI Clock messages.

Parameter	Value
Style Clock Tx	Off, On

SMF Start/Stop Tx

Similar to **"Style Start/Stop Tx"** but for songs.

Parameter	Value
SMF Start/Stop Tx	Off, On

SMF Clock Tx

Similar to **"Style Clock Tx"** but for songs.

Parameter	Value
SMF Clock Tx	Off, On

SMF Position Tx

If you switch this parameter on, the song playback sends Song Position Pointer (SPP) messages that indicate the current playback position.

Parameter	Value
SMF Position Tx	Off, On

Sync Rx

This parameter is used to specify whether style and song playback should be synchronized by an external MIDI device.

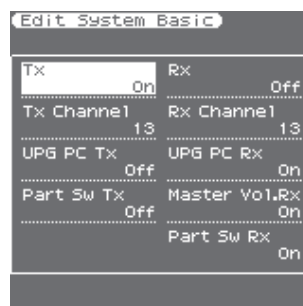| Parameter	Value
Sync Rx	Off, On

Mode

Parameter	Value
Mode	Internal, Auto, MIDI, Remote

Internal: Song or style playback uses E-A7 internal tempo.
Auto: A good setting for remote control of song or style playback (using a PK-series dynamic MIDI pedal board, for example). If the E-A7 receives a MIDI Start message (FA), it waits for Clock messages that specify the tempo. If those Clock messages are not received, the E-A7 starts playback using its internal tempo. If, however, Clock messages (F8) follow after the Start message, the E-A7 uses the external tempo.
MIDI: Song or style playback can be started or stopped with MIDI real-time messages (Start, Stop, Clock) received from an external clock source.
Remote: Song or style playback waits for a start message to start playback at its own tempo. When it receives a stop message, playback stops. External clock messages are ignored.

Basic

The following parameters are located on the display page that can be selected using **[MENU]** → **"MIDI"** → **"Edit System"** → **"Basic."**

```
(Edit System Basic)

Tx              Rx
          On            Off
Tx Channel      Rx Channel
          13            13
UPG PC Tx       UPG PC Rx
          Off           On
Part Sw Tx      Master Vol.Rx
          Off
                Part Sw Rx
                          On
```

The Basic channel is used to receive and transmit Program Change and Bank Select messages for selecting Performances, as well as for the reception and transmission of other kinds of messages that are not directly related to a specific MIDI channel.

NOTE

If you select another channel, messages intended for the Basic parameters might also cause other parameters to change when you don't want them to.
The following parameters are available here:

Tx

Switches the transmission of MIDI messages on the Basic channel on or off.

Parameter	Value
Tx	Off, On

Tx Channel

The channel used to transmit MIDI messages.

Parameter	Value
Tx Channel	1–16

Performance PC Tx

This parameter is used to enable or disable the transmission of program change and bank select messages related to Performance selection.

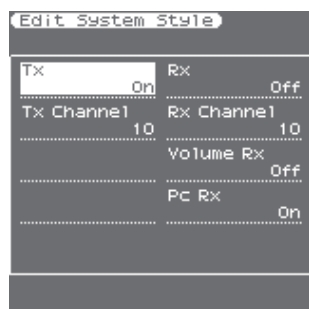| Parameter	Value
Performance PC Tx	Off, On

Part Switch Tx

Whenever you mute or un-mute a part on the **"Style Parts"** page, the E-A7 transmits an NRPN message that describes your action. Not sending this message may be useful to keep your external sequencer from recording it—or the receiving GS module from muting the part assigned to that MIDI channel.

Parameter	Value
Part Switch Tx	Off, On

Rx

Switches the reception of MIDI messages on the Basic channel on or off.

Parameter	Value
Rx	Off, On

Rx Channel

Use this parameter to assign a MIDI transmit channel to the **"Basic"** channel.

Parameter	Value
Rx Channel	1–16

User Program PC Rx

This parameter is used to enable or disable the reception of program change and bank select messages related to User Program selection.

Parameter	Value
UPG PC Rx	Off, On

Master Volume Rx

Allows you to enable or disable the reception of Master Volume messages that would change the E-A7's overall volume. This is an exclusive message common to all newer MIDI devices.

Parameter	Value
Master Volume Rx	Off, On

Part Switch Rx

Whenever you mute or un-mute a part on the **"Style Parts"** page, the E-A7 transmits an NRPN message that describes your action. You can keep the E-A7 from responding to such messages to avoid that external instruments mute its parts.

Parameter	Value
Part Switch Rx	Off, On

Style

The following parameters are located on the display page that can be selected using **[MENU]** → **"MIDI"** → **"Edit System"** → **"Style."**

```
Edit System Style
Tx              Rx
          On            Off
Tx Channel      Rx Channel
         10             10
                Volume Rx
                        Off
                Pc Rx
                         On
```

The Style channel is used for receiving program change and bank select messages that select styles and volume messages that change the style's volume.
The MIDI address of a style consists of three elements: a CC00 number, a CC32 number and a program change number. The values assigned to CC00 and CC32 define the style (see the separate booklet), whereas the program change number defines the Division (Intro, Ending, etc.).
Sending only a program change number selects another Division of the currently active style. Be aware, however, that only sending CC00 and CC32 messages (without a program change) has no effect.

> **NOTE**
>
> When you select another style on your E-A7, it transmits a CC00–CC32–PC cluster on the Style channel, which you could record using an external sequencer.

Tx

Switches the transmission of MIDI messages on the Style channel on or off.

Parameter	Value
Tx	Off, On

Tx Channel

The channel used to transmit MIDI messages.

Parameter	Value
Tx Channel	1–16

Rx

Switches the reception of MIDI messages on the Style channel on or off.

Parameter	Value
Rx	Off, On

Rx Channel

Use this parameter to assign a MIDI receive channel to the Style section.

Parameter	Value
Rx Channel	1–16

Volume Rx

Allows you to enable or disable the reception of volume messages relating the style.

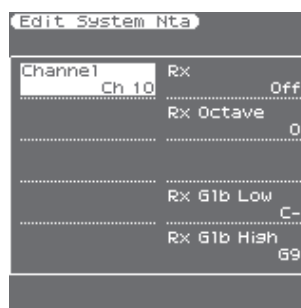| Parameter	Value
Volume Rx	Off, On

Pc Rx

This parameter allows you to enable or disable the reception of program change and bank select messages for style selection.

Parameter	Value
Pc Rx	Off, On

NTA

The following parameters are located on the display page that can be selected using **[MENU]** → **"MIDI"** → **"Edit System"** → **"NTA."**

```
Edit System Nta
Channel         Rx
      Ch 10           Off
                Rx Octave
                          0

                Rx Glb Low
                          C-
                Rx Glb High
                          G9
```

NTA notes are only received (from an external MIDI instrument). What you play in the chord recognition area of the keyboard to feed the Arranger is automatically converted to the corresponding MIDI note numbers, so that all style parts transmit their notes to external instruments. There is thus no need to transmit the note messages of what you play in the chord recognition area (NTA) separately.
These parameters allow you to specify on which MIDI channels the E-A7 should receive chord information used to change the style's key in real-time.

Channel

Allows you to select the MIDI channel on which the E-A7 should receive NTA messages.

Parameter	Value
Channel	Ch1–Ch16

Rx

This parameter allows you to specify whether (**"On"**) or not (**"Off"**) the selected MIDI channel should be used to receive chord information.

Parameter	Value
Rx	Off, On

Rx Octave

Use this parameter to transpose the notes received on the selected MIDI channel (**"Ch"**) in steps of one octave.

Parameter	Value
Rx Octave	−4–0–4

Rx Global Limit Low/High

These parameters allow you to set the note range to be received. If not all note messages of the selected MIDI channel should be received by the NTA **"part,"** set the range to the desired values.

Parameter	Value
Rx Global Limit Low	C- –G9
Rx Global Limit High	C- –G9

> **NOTE**
>
> The **"Limit Low"** value cannot be higher than the **"Limit High"** value (and vice versa).

Parameters

The following parameters are located on the display page that can be selected using **[MENU]** → **"MIDI"** → **"Edit System"** → **"Parameters."**

```
(Edit System Param)

Part Switch      Rx Velocity
    Int.+MIDI             On
Tx Velocity      Rx Sysex
         On              On
Tx Sysex         Rx Transpose
         On             Off
Tx Data Chg      Soft Thru
        Off             Off
Tx Octave
    Absolute
```
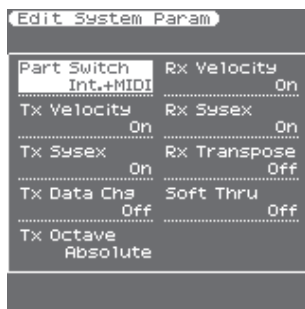
This page contains several parameters that are not related to one another (the other MIDI pages always concentrate on one aspect).

Part Switch

This parameter allows you to specify whether or not a muted part should go on sending MIDI messages:

Parameter	Value
Part Switch	Internal, Int+MIDI

Internal: A muted part can no longer be played via the E-A7's keyboard or Arranger/song player but continues to send MIDI messages. Selecting **"Internal"** and muting a part thus has the same effect as selecting **"Local Off"** (see page 59).

Int+MIDI: A muted part can no longer be played via the E-A7's keyboard or Arranger/song player and no longer sends MIDI messages.

Tx Velocity

Your E-A7 is equipped with a velocity-sensitive keyboard and a tone generator capable of responding to velocity messages. Use this parameter to switch the transmission (TX) of velocity messages on or off.
If you don't select **"On,"** specify which velocity value to use instead of the continuous flux. The value you set will be used for all notes sent to MIDI OUT/USB COMPUTER.

Parameter	Value
Tx Velocity	On, 1–127

Tx SysEx

Use this parameter to specify whether (**"On"**) or not (**"Off"**) the E-A7 should send SysEx messages.
Such messages are not standardized, so that each manufacturer can use them ad lib for temporary (or permanent) changes to the way a part behaves.
Effects parameters, for instance, can only be changed via SysEx messages.
Such messages may slow down playback on external MIDI instruments or yield no effect at all, which is why you have the option to switch off their transmission in the first place.

Parameter	Value
Tx Sysex	Off, On

Tx Data Change

This parameter allows you to specify how the original program changes of the songs you play back are transmitted via MIDI. The E-A7 may change sound addresses (usually CC00 and CC32 values) so as to play back all songs with the best possible quality.
If you switch this parameter on, such real-time transformations are also transmitted via MIDI. If you switch this parameter off, the original sound addresses are transmitted to the receiving device. (But the E-A7's tone generator continues to **"enhance"** the songs you play back.)

Parameter	Value
Tx Data Chg	Off, On

Octave Tx

The **"Octave Tx"** parameter can be set to Absolute or Relative. You may have noticed that if you assign a bass sound to the UP1 or UP2 part in SPLIT mode, the notes are transposed to allow you to play meaningful bass lines using the UP1/2 part. **"Relative"** means that this internal (and automatic) transposition is translated into MIDI note numbers.
In **"Absolute"** mode, however, the MIDI note numbers sent to other instruments will be the ones of the keys you actually press.

Parameter	Value
Octave Tx	Relative, Absolute

Rx Velocity

Your E-A7 is equipped with a velocity-sensitive keyboard and a tone generator capable of responding to velocity messages. This parameter allows you to switch the reception (RX) of velocity messages on or off. If you don't need **"On,"** specify which velocity value to use instead of the continuous flux. This value will be used for all notes received via MIDI.

Parameter	Value
Rx Velocity	On, 1–127

Using File Utility

Here you can perform operations for the files saved in the E-A7's internal storage and external storage (USB flash drive).

Displaying the File List

1. **Press the [Menu] button.**

2. **Use the direct buttons to select "File Utility."**
   The File List screen appears.

Button	Explanation
[R1] (Int/Ext)	Switches between Internal Storage and External Storage.
[F4] [F5] (Page)	Switch pages.
[L1] (Up folder)	Moves to the folder one level above.

3. **Press the [Option] button.**
   The screen shows the functions that can be executed.

Function	Explanation
Rename	Renames a file or folder.
Copy	Copies a file or folder.
Delete	Deletes a file or folder.
Create Folder	Creates a new folder.

4. **Use the function buttons to select the function that you want to execute.**

Renaming a File or Folder (Rename)

1. **In the File List screen ([Menu] → "File Utility"), press the [Option] button.**

2. **Use the direct buttons to select "Rename."**

3. **Use the direct buttons to select the file or folder that you want to rename.**

4. **Press the [Enter] button.**

5. **Assign a name.**
   ➡ **"Assigning Names"** (Owner's Manual: p. 16)

6. **Use the function buttons to select "Exec."**
   A confirmation message appears.

7. **To execute, use the function buttons to select "Yes."**
   The file is renamed.
   If you decide to cancel, select **"No."**

Copying a File or Folder (Copy)

1. **In the File List screen ([Menu] → "File Utility"), press the [Option] button.**

2. **Use the direct buttons to select "Copy."**

3. **Use the direct buttons to select the file or folder that you want to copy.**

   > **MEMO**
   >
   > By selecting multiple files or folders, you can copy them in a single operation.
   > If you select **[F1]** (Select All), all files in the list are selected. Press the button again to clear the selection.

4. **Press the [Enter] button.**

5. **Use the direct buttons to select the copy-destination folder.**

6. **Press the [Enter] button.**
   A confirmation message appears.

7. **To execute, use the function buttons to select "Yes."**

The copy is executed.
If you decide to cancel, select **"No."**

> **MEMO**
>
> If the copy-destination contains an identically named file or folder, a confirmation message appears.
> • If you want to replace the file, select **"Yes."**
> • If you decide to cancel, select **"No."**

Deleting a File or Folder (Delete)

1. **In the File List screen ([Menu] → "File Utility"), press the [Option] button.**

2. **Use the direct buttons to select "Delete."**

3. **Use the direct buttons to mark the files or folders that you want to delete.**

   > **MEMO**
   >
   > You can select multiple files.
   > If you choose **[F1]** (Select All), all files are selected. Press the button again to clear the selection.

4. **Press the [Enter] button.**
   A confirmation message appears.

5. **To execute, use the function buttons to select "Yes."**
   The deletion is executed.
   If you decide to cancel, select **"No."**

Creating a New Folder (Create Folder)

1. **In the File List screen ([Menu] → "File Utility"), press the [Option] button.**

2. **Use the direct buttons to select "Create Folder."**

3. **Assign a name to the newly created folder.**
   ➡ **"Assigning Names"** (Owner's Manual: p. 16)

4. **Use the function buttons to select "Exec."**

Backing Up or Initializing Data (Utility)

Utility functions let you save user data to USB flash drive or restore data from USB flash drive back to the E-A7. You'll also use these utility functions when you want to return the E-A7 to its factory settings, or initialize USB flash drive.

> **MEMO**
>
> Use USB flash drive sold by Roland. We cannot guarantee correct operation if other products are used.

> **NOTE**
>
> While executing Backup, Restore, Factory Reset, or USB Memory Format, do not operate the keyboard or pedals, or input data via MIDI or USB. Doing so may cause malfunctions.

Saving Data to USB Flash Drive (Backup)

Here's how to save user data to USB flash drive. This operation is called **"Backup."**

User data that is backed up

- User Tones/User Drum Kits (including samples and multisamples)
- User Program
- User Style, Song, and Phrase data saved in internal storage
- Favorite, My Setup
- Various settings (Global, Mastering Tools, MIDI, Scale Memory)

> **NOTE**
>
> User Program, User Style, and Phrase data that is saved in external storage (USB flash drive) is not backed up.
> However, reference data (for example, that indicates which user styles or phrase data on the USB flash drive is used by a specific user program) is saved. Reference data is lost if you change the Style name or if you change the folder.
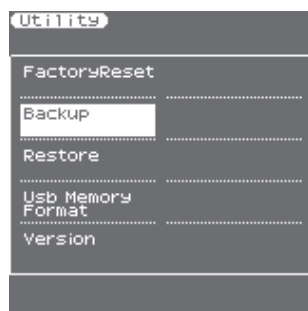> In order to completely reproduce the original state, we recommend that you also keep a copy of the user data on the USB flash drive together with the backup data.

1. Press the [Menu] button.
The Menu screen appears.

2. Use the direct buttons to select "Utility."
The Utility screen appears.

```
(Utility)

FactoryReset ..............................
Backup .......................................
Restore ......................................
Usb Memory
Format .......................................
Version
```

3. Use the direct buttons to select "Backup."
A confirmation message appears.

4. Press the [F5] (Yes) button.
If you decide to cancel, press the [F1] (No) button.
When the backup has been completed, you return to the Utility screen.

> **NOTE**
>
> - When you execute Backup, a folder named **"BACKUP"** is created on the USB flash drive. If you rename this folder or modify the files inside this folder, it might become impossible to restore the data correctly.
> - If the root folder of the USB flash drive contains a **"BACKUP"** file and you execute Backup again, the message **"Backup already exists"** is displayed, and Backup will not occur. Using your computer or File Utility, move the **"BACKUP"** file from the USB flash drive to somewhere other than the root folder of the USB flash drive, and then execute Backup once again.

- If there is a large amount of sample data, Backup might take several tens of minutes. Never turn off the power while the display indicates **"Executing..."**

Restoring Saved Data from USB Memory Back into the E-A7 (Restore)

Here's how to restore backed-up user data from USB flash drive into the E-A7. This operation is called **"Restore."**

> **NOTE**
>
> All user data will be rewritten when you execute the Restore operation. If the E-A7 contains important data, make a backup before you execute Restore.

1. Press the [Menu] button.
The Menu screen appears.

2. Use the direct buttons to select "Utility."
The Utility screen appears.

3. Use the direct buttons to select "Restore."
A confirmation message appears.

4. Press the [F5] (Yes) button.
If you decide to cancel, press the [F1] (No) button.

5. Turn the power of the E-A7 off, then on again.

> **NOTE**
>
> - When performing Restore, place the **"BACKUP"** folder in the root folder of the USB flash drive. Restore is not possible if the name of the folder has been changed or if it is in the incorrect location.
> - If the amount of data is large, such as when samples are included, Restore might take several tens of minutes. Never turn off the power while the display indicates **"Executing..."**

Initializing USB Flash Drive (USB Memory Format)

This function allows you to format the connected USB flash drive. When you format, the necessary folder is automatically created on the E-A7.

> **NOTE**
>
> If the USB flash drive contains important data, be aware that all data will be lost when you execute this operation. Before you format the USB flash drive, we recommend that you copy your important data to your computer.

Returning to the Factory Settings (Factory Reset)

The following function allows you to recall the E-A7's original factory settings. This has no effect on the data stored on a USB flash drive.

> **NOTE**
>
> If the E-A7's internal memory contains important data that you've created, be aware that all user data will be lost when you execute the factory reset. If you want to keep this data, make a Backup.
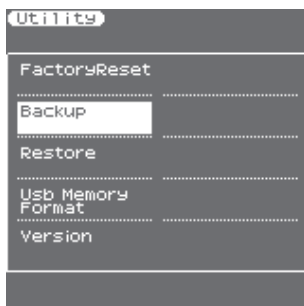
Viewing the Version (Version Info)

Shows the version number of the E-A7's operating system.

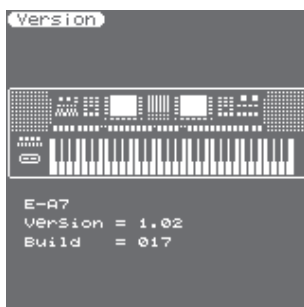**1. Press the [Menu] button.**
The Menu screen appears.

2. Use the direct buttons to select "Utility."

The Utility screen appears.

3. Use the direct buttons to select "Version."

The Version screen appears.

E-A7 Troubleshooting

Q: When you select a user program, the display indicates "Style not found" and the style is not selected.
A: A user program does not contain the style data (file) itself; rather, it contains a reference to the style data (the name of the style and its location). If after saving a UPG, you then rename, delete, or move the style on the USB flash drive, it will no longer be possible to reference that style data. If style data on a USB flash drive was being referenced, that style data can no longer be referenced if the USB flash drive is disconnected. To solve this problem, you can either return the location and name of the style to the state at the time that the UPG was saved, or re-select the style and then save the UPG.
For the same reason, you may see an error message such as **"Song not found"** for an SMF file, or **"Audio File load error"** for a WAV/ MP3 file.

Q: A phrase assigned to a pad no longer sounds.
A: Phrases assigned to a pad do not sound if the Arranger Switch or Arranger Hold is OFF.

Q: Regarding compatibility of UPS data with the BK series.
A: The E-A7 can load UPS data that was created on the Roland BK series.
However, the following limitations apply.

- **For the BK-5/BK-5OR**
  Both sounds and styles are built into the E-A7. However, the following styles are not built into the E-A7.
  If you want to use these, load them as user styles.
  Survive Disco, Earth Boogie, Country Pop

- **For models other than the BK-5/BK-5OR**
  Sounds and styles are not built into the E-A7. User program (UPG) settings can be loaded.
  If you want to use a style, load it as a user style. Also re-select the tones from the tones of the E-A7.

Q: Unintended MIDI messages are transmitted when powering-off.
A: Rarely, unintended messages may be transmitted from the E-A7 when it is powered-off, but this is not a malfunction.

Q: The E-A7 no longer produces sound when I connect it to a PC.
A: When you connect the E-A7 to a PC and start a DAW, the MIDI **"Local"** parameter might automatically be turned **"Off."** (If this setting is **"Local Off,"** the E-A7 will produce sound in response to MIDI messages from an external device, but will not produce sound in response to its built-in keyboard.) Change the setting to Local On if necessary.

Q: When the right display shows the Track Mute screen, the left display becomes less responsive.
A: This is not a malfunction. If it causes a problem with operation, close the Track Mute screen.

Q: Even though I raise the Mic/Line In volume, the sound is too soft, and the sound is distorted when I raise the volume of the audio input.
A: Raising the Input Gain will raise the input volume. (To access the Input Gain, go to **[Menu]** → **"Global"** → **"Input Setting."**)

Q: Harmony is not produced when I turn on Melody Intelligent Switch.
A: The Melody Intelligent function does not add harmony if the Arranger Switch is Off (chord detection is off).
Also, in cases such as when you play rapidly, it might not be possible for chords to be detected, so that harmony is not added.

Q: When I attempt to edit a tone or drum kit, the message "Can't edit this tone" appears, and I'm unable to edit.
A: Not all of the E-A7's preset tones and tracks can be edited.
When you move the cursor to a tone that can be edited, an **"E"** symbol appears beside the tone number.
You can also refer to the separate **"Tone List"** to see which tones can be edited.

Q: Playing back a style in the usual state sounds different than playing back a style within Style Composer.
A: When you play back a style in Style Composer, the offset data of Makeup Tools (parameters for which Freeze has not been executed) is ignored. The Part Volume and Part On/Off settings specified in the Style Part Mixer are also ignored.
For this reasons, there may be a difference in the sound.

E-A7 Error Messages

Internal Storage/External Storage (Problems with USB Memory)

Message	Meaning	Action
Device Full	There is insufficient free space in Internal Storage or External Storage (USB flash drive).	Increase the amount of free space by deleting or moving unneeded data.
Disk Error	An error has occurred in the memory.	Restart the E-A7. If this does not solve the problem, contact your dealer or Roland customer service.
Flash Write Error.	Failed to write data.	Try writing the data again. If this does not solve the problem, restart the E-A7.
USB Device Not Inserted	A USB flash drive is not inserted.	Insert a USB flash drive.
USB Device Protected	The USB flash drive's protect is enabled.	Disable the USB flash drive's protect.
Cannot read this disk	The USB flash drive cannot be read.	Format the USB flash drive. If this does not solve the problem, use a different USB flash drive.
Formatting failed	Failed to format the USB flash drive.	Try re-formatting the USB flash drive. If this does not solve the problem, use a different USB flash drive.

Problems with Files or Data

Message	Meaning	Action
Style (Song) not found / Audio File load error	The specified style (SMF) cannot be found.	Refer to "Troubleshooting."
	The specified song (WAV or MP3) cannot be found.	
Cannot read this file	There might be something wrong with the selected file, or it might be damaged.	Don't use this file.
	Failed to write data.	Try writing the data again. If this does not solve the problem, restart the E-A7.
Unsupported file format	There is something wrong with the file's type (format), or it might be damaged.	Don't use this file.
Not Exist	The specified file or folder does not exist.	—
Same name folder (file) exist!	Execution is not possible because a folder (file) of the same name exists.	Move, delete, or rename the folder (file).
Please enter a valid file name	The selected file uses characters that cannot be used on the E-A7.	Rename the file.
The file name is too long. Rename in less than 10 characters.	The phrase file name is too long.	Rename the phrase file name to ten characters or less.
Too many events	The SMF file size is too large (it contains too much data).	The file exceeds the size of data that the E-A7 can handle. Do not use this file.
Too many Lyrics data	The size of the lyrics data is too large (it contains too much data).	The lyrics exceeds the size of data that the E-A7 can handle. Do not use this file.

Problems with Operations or Functions

Message	Meaning	Action
Can't Execute. Song (Style) Is Running.	This operation cannot be executed while a song (style) is playing.	Stop the song (style) and then execute the operation.
Too many files selected	Too many files were found by the Finder function.	The Finder function can find a maximum of 99 files. Reduce the number of files, for example by increasing the number of characters for which you are searching.
Backup already exists on selected device	A backup folder already exists.	Move, delete, or rename the existing backup folder.

Problems with Sampling or Sample Import

Message	Meaning	Action
Memory Full!	Saving is not possible because there is insufficient user sample memory.	Delete unneeded data by executing delete, optimize, truncate, or cleanup.
No Room!	No further samples can be saved.	Delete unneeded samples.
Unknown Format!	This file is a format (type) that the E-A7 cannot import. (Only 44.1 kHz 16-bit WAV format files can be imported.)	—
Cannot Read!	Failed to load data from USB flash drive.	Make sure that the USB flash drive is inserted correctly.
Sample Length Too Short!	The sample is too short to use.	—
Sample Length Too Long!	The sample is too long to use.	—
Empty Sample!	The sample contains no data.	Select a sample that contains data.
Cannot Execute!	Execution is not possible because no data (file) is selected.	Select data (file) containing data on which the operation can be executed.