CR-78 Software Rhythm Composer

Owner's Manual

Contents

Introduction

For details on settings in your DAW software, refer to the help contents or the owner's manual of the DAW software you're using.
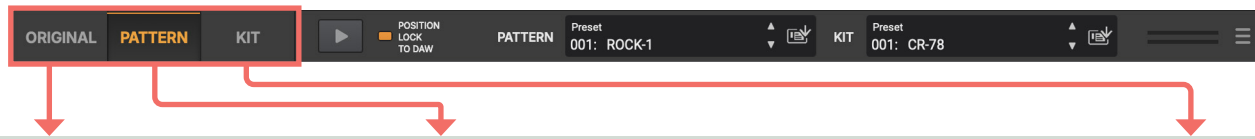
About trademarks

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Screen layout

Switch between the ORIGINAL panel, the PATTERN panel and the KIT panel in the main window to use the CR-78.

Main window

Header (p. 5)
Contains the basic functions that you need when using the CR-78.

ORIGINAL panel (p. 7)

This is a recreation of the panel used on the original unit.

This lets you access the operations as with the original unit.

* Some operations differ from the original unit for the sake of convenience.

PATTERN panel (p. 7)

This panel is for editing the patterns.

You can also use it for adjusting the main kit parameters.

KIT panel (p. 8)

This panel is for editing kits.

You can adjust all of the kit parameters here.

Memory manager window (PATTERN) (p. 9)
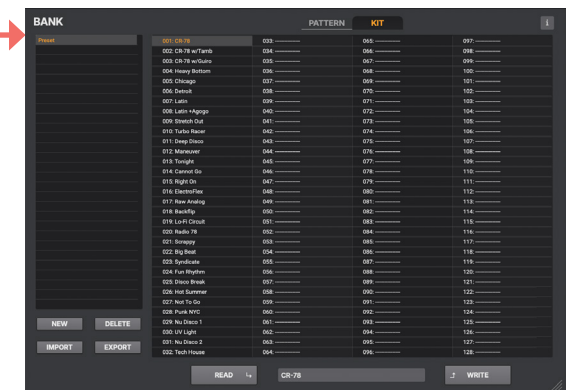Use this to manage the patterns. You can open this from the header.
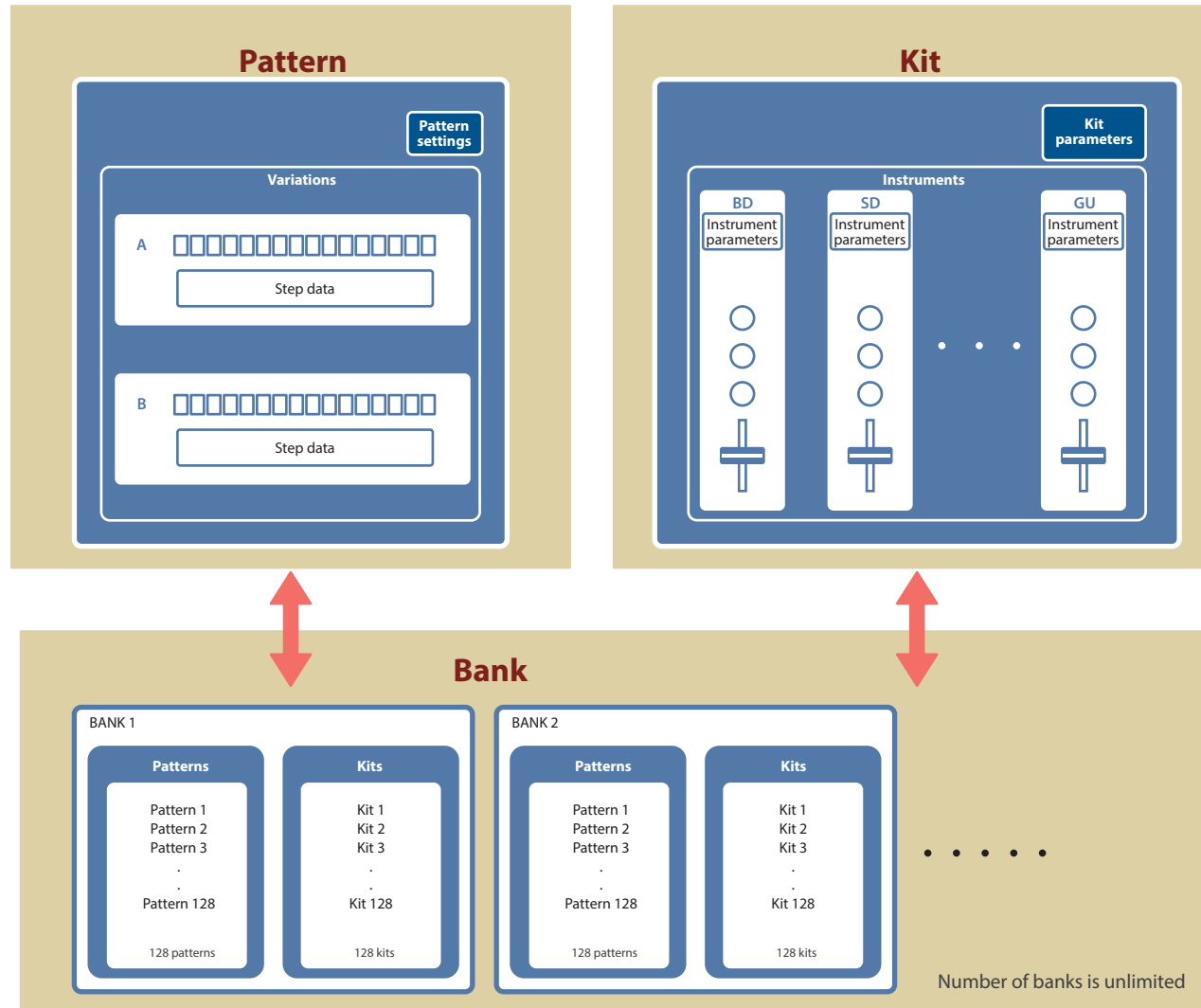

Header (main window)

Memory manager window (KIT) (p. 9)
Use this to manage the kits. You can open this from the header.

How the sound module is structured

Pattern

Pattern settings

Variations

A
⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜

Step data

B
⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜

Step data

Kit

Kit parameters

Instruments

BD	SD	...	GU
Instrument parameters	Instrument parameters		Instrument parameters

Bank

BANK 1

Patterns	Kits
Pattern 1	Kit 1
Pattern 2	Kit 2
Pattern 3	Kit 3
.	.
.	.
Pattern 128	Kit 128
128 patterns	128 kits

BANK 2

Patterns	Kits
Pattern 1	Kit 1
Pattern 2	Kit 2
Pattern 3	Kit 3
.	.
.	.
Pattern 128	Kit 128
128 patterns	128 kits

• • • • •

Number of banks is unlimited

What's a pattern?

The performance data stored in memory is called a "pattern".

Each pattern can have two variations (A, B).

When playing back a pattern, you can play while switching between variations by using the [A] and [B] buttons in the main window and the MIDI information (p. 10).

What's a kit?

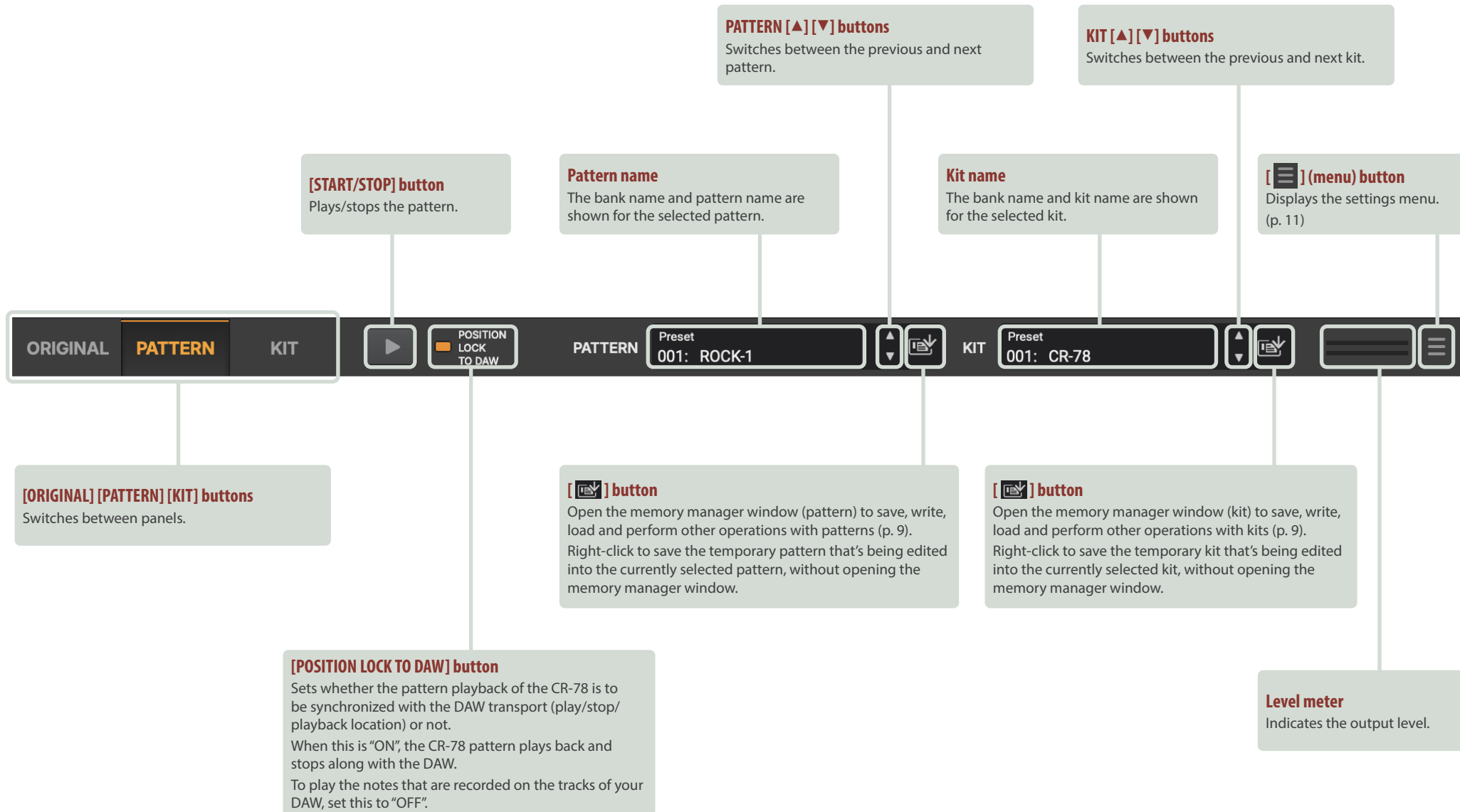A collection of 11 types of instrument parameters is called a "kit".

The patterns play the currently selected kit.

What's a bank?

A collection of 128 patterns/kits is called a "bank".

You can switch between banks to recall many different patterns and kits.

Banks can be saved as files (p. 9).

Header

PATTERN [▲] [▼] buttons
Switches between the previous and next pattern.

KIT [▲] [▼] buttons
Switches between the previous and next kit.

[START/STOP] button
Plays/stops the pattern.

Pattern name
The bank name and pattern name are shown for the selected pattern.

Kit name
The bank name and kit name are shown for the selected kit.

[☰] (menu) button
Displays the settings menu. (p. 11)

[ORIGINAL] [PATTERN] [KIT] buttons
Switches between panels.

[🖫] button
Open the memory manager window (pattern) to save, write, load and perform other operations with patterns (p. 9).
Right-click to save the temporary pattern that's being edited into the currently selected pattern, without opening the memory manager window.

[🖫] button
Open the memory manager window (kit) to save, write, load and perform other operations with kits (p. 9).
Right-click to save the temporary kit that's being edited into the currently selected kit, without opening the memory manager window.

[POSITION LOCK TO DAW] button
Sets whether the pattern playback of the CR-78 is to be synchronized with the DAW transport (play/stop/playback location) or not.
When this is "ON", the CR-78 pattern plays back and stops along with the DAW.
To play the notes that are recorded on the tracks of your DAW, set this to "OFF".

Level meter
Indicates the output level.

ORIGINAL panel

VOLUME slider
Adjusts the overall volume.

BALANCE slider
Adjusts the balance of the percussion sounds.

Raise the slider to emphasize the higher-pitched percussion sounds (cymbal, hi-hat, maracas), and lower the slider to emphasize the lower-pitched percussion sounds (bass drum).

CY HH METALLIC BEAT slider
This slider is for adjusting the volume of the metallic beat, which customizes the sound of the CY and HH.

The metallic beat can be played at the same time as the respective patterns for CY and HH.

ADD VOICE

TAMBOURINE slider
This slider adjusts the tambourine volume.

GUIRO slider
This slider adjusts the guiro volume.

ACCENT knob
Adjusts the strength of the accent.
Turn the knob clockwise to emphasize the accent.

SHUFFLE knob
Adjusts the strength of the shuffle feel.

* This setting works in tandem with the shuffle setting in pattern edit for each instrument. When the shuffle value for an instrument is "0", turning this knob has no effect on the shuffle setting.

[CANCEL VOICE] button
Cancels (mutes) the sound per instrument from a pattern.

* Controls the [M] (mute) button that's in the PATTERN panel (p. 7) or the KIT panel (p. 8).

FILL IN

FILL IN selector
Selects the fill-in pattern.

Parameter	Explanation
TYPE: W1–7	Patterns 022–028 are played.
ROLLING: HB, SD	Patterns 029–030 are played.
OFF	No fill-in is played.
VARIATION (A⇌B)	The pattern not selected by the VARIATION switch is played.
BREAK	A break (silence in all beats other than the first) is played.

MEASURE selector
Selects the fill-in cycle when a fill-in is automatically played.
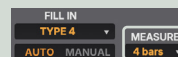
AUTO/MANUAL switch
To automatically play fill-ins, set this to "AUTO", and to manually play fill-ins, set this to "MANUAL".

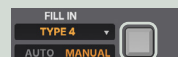### MANUAL button
Press this button to manually play a fill-in.
A fill-in is played from the first beat of the next measure, even when pressed in the middle of a measure.

INSTRUMENTS

BEAT indicator
Shows the beat that's now playing when a pattern is playing.

INSTRUMENTS SELECTOR knob
Selects the instrument that plays when you press the [PREVIEW] button.

ALT selector
Selects which sound to play if there is an alternate sound for the instrument that's selected by the INSTRUMENTS SELECTOR knob.

[PREVIEW] button
Previews the instrument that's selected by the INSTRUMENTS SELECTOR knob.

[PANEL] button
Switches between designs for the ORIGINAL panel.

Parameter	Explanation
WOOD	Wood-grain cabinet
BLACK	Black cabinet

FADE IN selector
Selects "LONG" or "SHORT" for the fade-in (an effect that gradually increases the volume from the start, until it reaches a specific volume) transition time.

When the fade-in is not used, set this to "OFF".

FADE OUT selector
Selects "LONG" or "SHORT" for the fade-out (the effect in which the volume is gradually lowered and then stops) transition time.

When the fade-out is not used, set this to "OFF".

[START/STOP] button
Plays/stops the pattern.

Zoom
Drag the bottom-right corner of the window to resize (zoom).

Pattern select

PROGRAM PATTERN [I]–[IV]
Lets you select patterns 097–100.

Upper row [ROCK-1]–[CANCEL]
Lets you select patterns 001–006 and 020.

Lower row [WALTZ]–[CANCEL]
Lets you select patterns 008–018 and 020.

VARIATION switch
Each pattern select button has two variations: A and B.

Use this switch to select the variation.

Press the buttons in the upper and lower rows in combination to select even more patterns. The buttons to press and the corresponding patterns that you can select are shown below.

	A-FOX TROT B-TANGO	ENKA	BOSSA NOVA	SAMBA	A-MANBO B-CHACHA	A-BEGUNE B-RHUMBA
ROCK-1	033	034	035	036	037	038
ROCK-2	040	041	042	043	044	045
ROCK-3	047	048	049	050	052	052
ROCK-4	065	066	067	068	069	070
DISCO-1	072	073	074	075	076	077
DISCO-2	079	080	081	082	083	084

* You can't use the [WALTZ], [SHUFFLE], [SLOW ROCK], [SWING] and [BOOGIE] buttons in the lower row in combination.

PATTERN panel

ACCENT knob
Adjusts the strength of the accent.
Turn the knob clockwise to emphasize the accent.

SHUFFLE knob
Adjusts the strength of the shuffle feel.

* This setting works in tandem with the shuffle setting in pattern edit for each instrument. When the shuffle value for an instrument is "0", turning this knob has no effect on the shuffle setting.

[PREVIEW] button
Previews the instrument.

* You can preview the alternate sound by right-clicking.

ACCENT, GUIRO 1/2–BASS DRUM
The accent and instrument name are shown.

When the pattern length (LAST STEP) differs depending on the instrument, an orange outline appears around the instrument name to indicate which instrument the accent step button playback position follows. Click to switch to the instruments outlined in orange.

Right-click the ACCENT button or instrument name to show the utility menu (p. 11).

[M] (mute) button

[S] (solo) button
Specifies mute/solo for each instrument (solo is given priority).

SHUFFLE slider
Adjusts the strength of the shuffle feel for each instrument.

No effect is applied when the SHUFFLE knob on the top of the panel is set to "0".
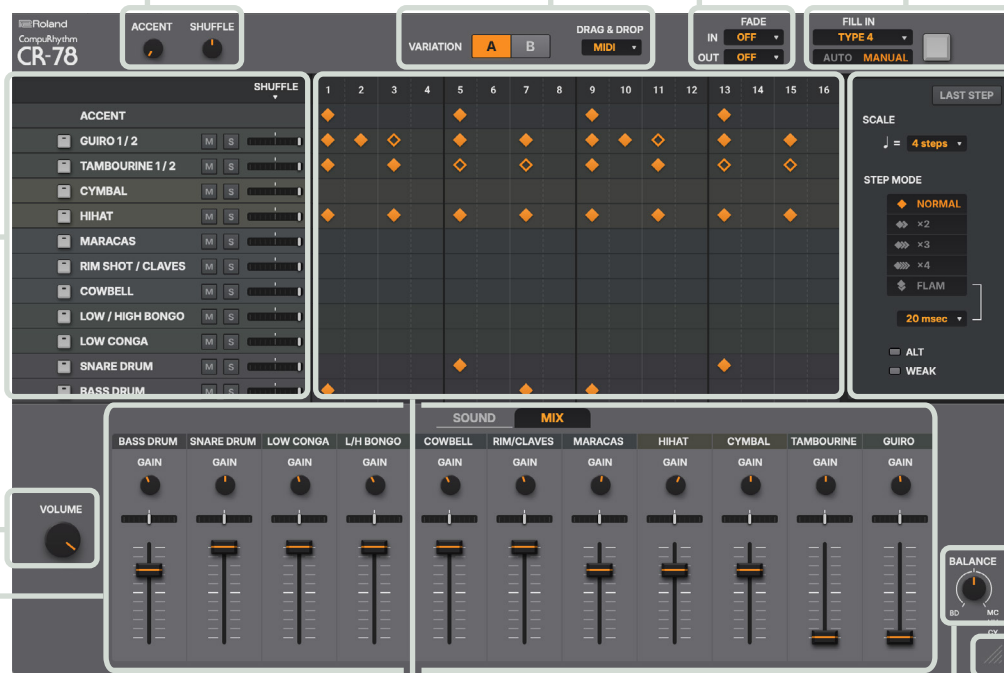
VOLUME knob
Adjusts the overall volume.

* To save this parameter, save the kit (p. 9).

SOUND/MIX tabs
Use these to adjust the kit by switching between the sound-related parameters and the mixing-related parameters.

See the KIT panel for details on each parameter (p. 8).

* To save these parameters, save the kit (p. 9).

VARIATION select buttons
Switches between the variation to play (A, B).
The button of the variation that's playing blinks.
Right-click the button to show the utility menu (p. 11).

DRAG&DROP
Sets whether the variation performance data is placed in the DAW as MIDI data or as audio data.

FADE IN
FADE OUT
Selects "LONG" or "SHORT" for the fade-in/out transition time.
Select "OFF" when not in use.

Step input area
Specifies how the notes sound for each step.
This shows the playback position for each instrument during playback.

ACCENT
Marks the steps that you want to accent.

GUIRO 1/2–BASS DRUM
Sets whether the instrument plays or not.
Notes play for the steps that are marked.

FILL IN
Selects the fill-in pattern.

AUTO/MANUAL
To automatically play fill-ins, set this to "AUTO", and to manually play fill-ins, set this to "MANUAL".

BALANCE knob
Adjusts the balance of the percussion sounds.
Turn clockwise to emphasize the higher-pitched percussion sounds (cymbal, hi-hat, maracas), and turn counterclockwise to emphasize the lower-pitched percussion sounds (bass drum).

* This controls the LEVEL parameter for each instrument. To save this parameter, save the kit (p. 9).

Zoom
Drag the bottom-right corner of the window to resize (zoom).

MEASURE
Selects the fill-in cycle when a fill-in is automatically played.

MANUAL button
Use this button to manually play a fill-in.

LAST STEP
When this is turned "ON", you can set the pattern length for each instrument in the step input area.
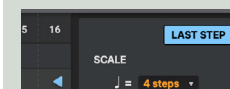
SCALE
Selects the scale (the number of steps for each quarter note).

STEP MODE
Selects how the step input plays the notes.

STEP MODE	Explanation
NORMAL	Normal
x2–x4	Sub steps (2–4 notes played in a row)
FLAM	Flam You can also set the time interval for the flam.

* You can also right-click during step input to switch between step modes without using the STEP MODE selector.

ALT
When you input a step with this turned on, you can use the alternate sound.
In this case, the input switches in this manner: alternate sound → normal sound → "OFF".

Alternate sounds
You can choose different sounds for each step for the following instruments.

* GUIRO 1/**2**
* TAMBOURINE 1/**2**
* RIM SHOT/**CLAVES**
* LOW/**HIGH BONGO**

WEAK
When you input the steps while this is "ON", a weak beat is input.

* Even without this turned "ON", you can click a step while holding down the Shift key on your keyboard to input a weak beat.

KIT panel

ACCENT knob
Adjusts the strength of the accent.
Turn the knob clockwise to emphasize the accent.

SHUFFLE knob
Adjusts the strength of the shuffle feel.

* This setting works in tandem with the shuffle setting in pattern edit for each instrument. When the shuffle value for an instrument is "0", turning this knob has no effect on the shuffle setting.

VARIATION select buttons
Switches between the variation to play (A, B).
The button of the variation that's playing blinks.
Right-click the button to show the utility menu (p. 11).

DRAG&DROP
Sets whether the variation performance data is placed in the DAW as MIDI data or as audio data.

FADE IN
FADE OUT
Selects "LONG" or "SHORT" for the fade-in/out transition time.
Select "OFF" when not in use.

FILL IN
Selects the fill-in pattern.

AUTO/MANUAL
To automatically play fill-ins, set this to "AUTO", and to manually play fill-ins, set this to "MANUAL".

MEASURE
Selects the fill-in cycle when a fill-in is automatically played.

MANUAL button
Use this button to manually play a fill-in.
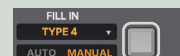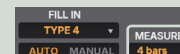
VOLUME knob
Adjusts the overall volume.

TUNE knob
Adjusts the pitch of each instrument.

DECAY knob
Adjusts how long each instrument rings out (decays).
Turn counterclockwise for a crisp sound, and turn clockwise for a sustaining sound.

ATTACK knob
Adjust the head tension of the bass drum.

SNAPPY knob
Adjusts the effect of the snare wires on the snare drum.
Turn this counterclockwise to loosen the wires.

METALLIC BEAT knob
Adjusts the volume of the metallic beat, where you can customize the sounds of the hi-hat and cymbal.

* Turn the center knob to adjust the hi-hat and cymbal together, same as the CY HH METALLIC BEAT slider in the ORIGINAL panel.
The metallic beat can be played at the same time as the respective patterns for the hi-hat and cymbal.

GAIN knob
Adjusts the gain for each instrument.

PAN slider
Adjusts the pan (stereo position) for each instrument.

LEVEL slider
Adjusts the volume for each instrument.

BALANCE knob
Adjusts the balance of the percussion sounds.
Turn clockwise to emphasize the higher-pitched percussion sounds (cymbal, hi-hat, maracas), and turn counterclockwise to emphasize the lower-pitched percussion sounds (bass drum).

* This controls the LEVEL parameter for each instrument.

[M] (mute) button

[S] (solo) button
Specifies mute/solo for each instrument (solo is given priority).

[PREVIEW] button
Previews the instrument.

* You can preview the alternate sound by right-clicking.

Zoom
Drag the bottom-right corner of the window to resize (zoom).

OUTPUT selector
Select the output destination for each instrument.

Output destination	Explanation
MAIN	Mixes the instrument selected in MAIN and outputs it from the main out. You can adjust the volume with the VOLUME knob.
SUB	When this software is used as a plug-in for a host application that supports multi-output, each instrument outputs from a separate sub out. The VOLUME knob has no effect.

The output assignments are shown in the table at right.

Output	Instrument
Main out	Mix
Sub out 1	BASS BRUM
Sub out 2	SNARE DRUM
Sub out 3	LOW CONGA
Sub out 4	LOW/HIGH BONGO
Sub out 5	COWBELL
Sub out 6	RIM SHOT/CLAVES
Sub out 7	MARACAS
Sub out 8	HIHAT
Sub out 9	CYMBAL
Sub out 10	TAMBOURINE 1/2
Sub out 11	GUIRO1/2

Memory manager window

You can open this from the [⌨] button in the header.

PATTERN/KIT tab
Switches between the pattern list and the kit list.

"i" mark
Hover the mouse cursor (mouse pointer) over this mark to display a list of shortcuts.

Bank list
The bank list is shown here.

Click to select a bank. The selected bank is shown in orange, and its contents are shown in the pattern/kit list at right.

You can click the currently selected bank to rename it.

[NEW] button
Creates an initial bank or a preset bank.

[DELETE] button
Deletes the selected bank.

[IMPORT] button
Loads a bank from a file.

[EXPORT] button
Writes the bank to a file.

Pattern list/kit list
The contents of the bank selected in the bank list are shown here.

Click to select the patterns or kits to save/recall.

The selected pattern/kit is shown in orange.

You can click the selected pattern/kit to rename it.

Double-click to select a pattern/kit and show it in the main window. (This does not close the memory manager window.)

Color icons
The pattern list shows the color icons that correspond to the pattern select buttons in the ORIGINAL panel (p. 6).

[READ] button
Recalls a pattern/kit from a bank so that it can be played and edited in the main window.

[WRITE] button
Saves the pattern/kit that you edited in the main window to a bank.

* Press the [WRITE] button after selecting either the PATTERN tab to save the pattern or the KIT tab to save the kit.

Pattern name/kit name
Shows the name of the pattern/kit being played and edited in the main window.

Zoom
Drag the bottom-right corner of the window to resize (zoom).

MIDI

How the note number and instrument/variation selection are related

The instruments or variations that correspond to the note numbers received by the CR-78 are shown below.

Note number	Function/instrument
24, 25	Variation Select A, B
32	Start Step Sequencer
33	Stop Step Sequencer
35, 36	BASS DRUM
38, 40	SNARE DRUM
41, 43	LOW CONGA
47	LOW BONGO
45	HIGH BONGO
48, 50	COWBELL

Note number	Instrument
37	RIM SHOT
56	CLAVES
39, 54	MARACAS
42, 44	HIHAT
46, 55	CYMBAL
49	TAMBOURINE 1
57	TAMBOURINE 2
51	GUIRO 1
59	GUIRO 2

* When switching variations using note numbers, the variation switches right away without waiting for the next measure to start.
* Once variations have been switched using note numbers, the [VARIATION] button will be disabled until playback is stopped.
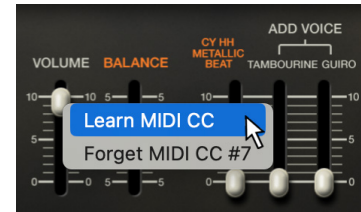
CC (control change) messages

The CR-78 receives the following CC messages.

CC#	Parameter
7	VOLUME
9	SHUFFLE
20	BASS DRUM TUNE
21	BASS DRUM ATTACK
23	BASS DRUM DECAY
24	BASS DRUM LEVEL
25	SNARE DRUM TUNE
26	SNARE DRUM SNAPPY
28	SNARE DRUM DECAY
29	SNARE DRUM LEVEL
46	LOW CONGA TUNE
47	LOW CONGA DECAY
48	LOW CONGA LEVEL
49	LOW / HIGH BONGO TUNE
50	LOW / HIGH BONGO DECAY
51	LOW / HIGH BONGO LEVEL
52	COWBELL TUNE
53	COWBELL DECAY
54	COWBELL LEVEL
55	RIM SHOT / CLAVES TUNE

CC#	Parameter
56	RIM SHOT / CLAVES DECAY
57	RIM SHOT / CLAVES LEVEL
58	MARACAS TUNE
59	MARACAS DECAY
60	MARACAS LEVEL
61	HIHAT TUNE
62	HIHAT DECAY
63	HIHAT LEVEL
71	ACCENT
80	CYMBAL TUNE
81	CYMBAL DECAY
82	CYMBAL LEVEL
83	TAMBOURINE 1 / 2 TUNE
84	TAMBOURINE 1 / 2 DECAY
85	TAMBOURINE 1 / 2 LEVEL
86	GUIRO 1 / 2 TUNE
87	GUIRO 1 / 2 DECAY
88	GUIRO 1 / 2 LEVEL
107	HIHAT METALLIC BEAT
108	CYMBAL METALLIC BEAT

MIDI learn function

You can make the MIDI control change messages correspond to the sound parameters for controlling the sound.

How to make the settings

1. **Right-click the sound parameter controller (knob/slider).**

2. **Select "Learn MIDI CC".**

3. **Operate the external MIDI device to send control change messages.**

   NOTE

   You can't assign more than one MIDI control change message to a single controller. Only the last received control change message is valid.

How to delete the settings

1. **Right-click the sound parameter controller (knob/slider).**

2. **Select "Forget MIDI CC".**

Settings

Menu

1. **Click the [▤] (menu) button in the header.**

2. **Select the item to set.**
The name of the selected parameter is shown with a ✓.

Item	Explanation
Initialize MIDI Control Mapping	Reverts the MIDI control change message assignments to the factory settings (p. 10).
Clear MIDI Control Mapping	Clears all MIDI control change message assignments.
Drag & Drop Pattern as MIDI	Places the variation performance data into your DAW as MIDI data.
Drag & Drop Pattern as Audio	Places the variation performance data into your DAW as audio data.
Optimize for Lower CPU Usage	Set this to "ON" if your CPU usage is high and notes are getting cut off.
Send Pattern to TR-8S	Transmits pattern data to the TR-8S.
Get Pattern from TR-8S	Receives pattern data from the TR-8S.
Setup...	Opens the setup screen.
Authentication...	Authenticates the user of the CR-78.
Help...	Shows the Owner's Manual (PDF).
About...	Shows the About screen.

Settings

1. **Click the [▤] (menu) button in the header.**

2. **Click "SETUP...".**
The setup screen opens.

* Flip Scroll Direction is only available on Macs.

3. **Edit the parameter.**

Parameter	Explanation
MIDI CTRL Input	Selects "TR-8S CTRL".
MIDI CTRL Output	* The "TR-8S CTRL" shown as a MIDI connectors is the port used by the CR-78. Do not use this port from your DAW.
Flip Scroll Direction (Mac only)	Reverses the direction of rotation when you change values with the mouse scroll wheel.

* This applies to all CR-78 instances if you are running more than one.

Utility menu

Editing a variation

Right-click on the VARIATION select buttons to access the following functions.
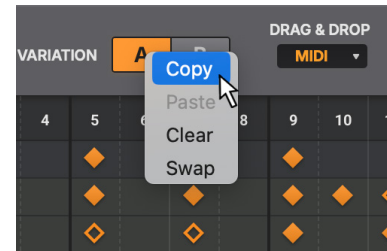
Function	Explanation
Copy	Copies the pattern for the variation you selected.
Paste	Pastes the variation you copied into the selected variation. This overwrites the variation.
Clear	Erases the selected variation.
Swap	Swaps the selected variation with another variation.

Editing an instrument

When you right-click ACCENT or an instrument name, the following functions are available.
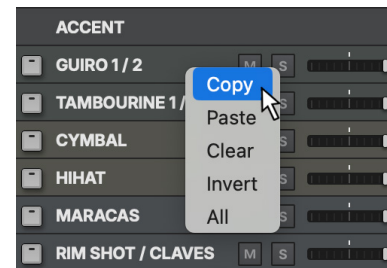
Function	Explanation
Copy	Copies the pattern for the instrument you selected.
Paste	Pastes the copied pattern into the selected instrument. This overwrites the instrument.
Clear	Erases the pattern of the selected instrument.
Invert	Swaps the steps that sound with the steps that do not sound in the selected instrument.
All	Inputs notes for every step of the selected instrument.