RhythmTrak
RT-323

ZOOM RhythmTrak RT-323

| LINE IN | 1 | 2 | L/MONO | R | PHONES | | CONTROL IN | | IN | OUT | | DC IN | OFF• POWER •ON |

SUB OUT · OUTPUT · MIDI

28-30 BALLAD SET 00-54 BASS PROGRAMS
25-37 EPIC ROCK 64-127 USER KIT
22-24 FUNK TRAP 49-63 PERCUSSION/SFX
19-21 STANDARD KIT 40-48 GENERAL DRUMS
16-18 STUDIO DRUMS 37-39 TECHNO BEAT
13-15 LIVE ROCK 34-36 RAP/HIPHOP
00-12 BASIC KITS 31-33 DANCE KIT

OUTPUT VALUE

SONG PATTERN GroovePLAY

PAD FUNCTION KIT UTILITY

JAM FUNCTION PAD BANK/OCTAVE
PITCH
VOLUME
PAN
SOUND CHANGE

CARD
BATT
USER
PRESET
KIT
TICK
TEMPO

888888

PAGE
/STEP(REC)

GroovePLAY SmartMedia

SONG PATTERN KIT UTILITY

EDIT ERASE INSERT/DELETE ENTER EXIT MUTE DRUM A DRUM B BASS SONG TRACK TEMPO STEP REC PLAY STOP

REAL-TIME REC

SOUND JAMMER

JAM FUNCTION

PAD FUNCTION

PAD BANK/OCTAVE

TOM 1 2
TOM 2 4
TOM 3 6
CRASH 8
RIDE 10
EXTRA CYMBAL 12

KICK 1 INTRO
SNARE 3 VERSE A
CLOSED HAT 5 FILL A
OPEN HAT 7 VERSE B
EXTRA 1 9 FILL B
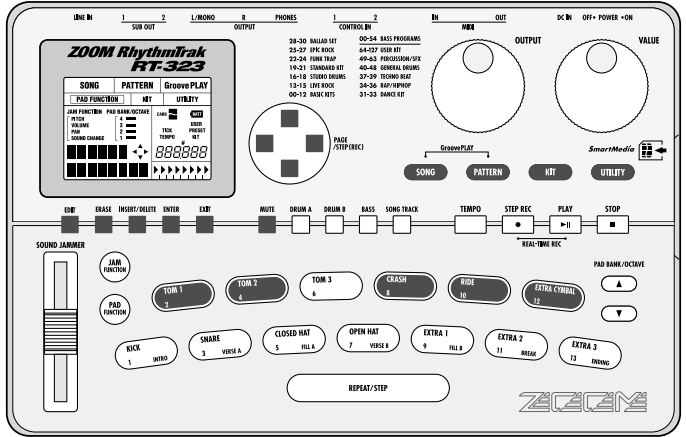EXTRA 2 11 BREAK
EXTRA 3 13 ENDING

REPEAT/STEP

ZOOM

OPERATION MANUAL

USAGE AND SAFETY PRECAUTIONS

Safety Precautions

In this manual, symbols are used to highlight warnings and cautions for you to read so that accidents can be prevented. The meanings of these symbols are as follows:

⚠ **Warning** This symbol indicates explanations about extremely dangerous matters. If users ignore this symbol and handle the device the wrong way, serious injury or death could result.

⚠ **Caution** This symbol indicates explanations about dangerous matters. If users ignore this symbol and handle the device the wrong way, bodily injury and damage to the equipment could result.

Please observe the following safety tips and precautions to ensure hazard-free use of the RT-323.

⚠ **Warning About power**

Since power consumption of this unit is fairly high, we recommend the use of an AC adapter whenever possible. When powering the unit from a battery, use only an alkaline type.

AC adapter operation
• Be sure to use only an AC adapter which supplies 9 V DC, 300 mA and is equipped with a "center minus" plug (Zoom AD-0006).
 The use of an adapter other than the specified type may damage the unit and pose a safety hazard.
• Connect the AC adapter only to an AC outlet that supplies the rated voltage required by the adapter.
• When disconnecting the AC adapter from the AC outlet, always grasp the adapter itself and do not pull at the cable.
• If the unit is not to be used for a long time, disconnect the AC adapter from the outlet.
Battery operation
• Use six IEC R6 (size AA) batteries (alkaline or manganese).
• The RT-323 cannot be used for recharging. Pay close attention to the labelling of the battery to make sure you choose the correct type.
• If the RT-323 is not to be used for an extended period of time, remove the battery from the unit.
• If batteries leakage has occurred, wipe the battery compartment and the battery terminals carefully to remove all remnants of battery fluid.
• While using the unit, the battery compartment cover should be closed.

⚠ **Caution Environment**

Avoid using your RT-323 in environments where it will be exposed to:
• Extreme temperature
• High humidity or moisture
• Excessive dust or sand
• Excessive vibration or shock

⚠ **Caution Handling**

• Since the RT-323 is a precision electronic device, avoid applying excessive force to the controls. Do not operate the keys or controls with your foot.
• Take care that no foreign objects (coins or pins etc.) or liquids can enter the unit.
• Be sure to turn the power to all equipment off before making connections.
• Before moving the unit, turn the power off, and disconnect all cables and the AC adapter.

⚠ **Caution Alterations**

Never open the case of the RT-323 or attempt to modify the product in any way since this can result in damage to the unit.

⚠ **Caution In Case of Trouble**

If there seems to be a defect or a problem with the unit, immediately disconnect the AC adapter or remove the batteries to shut off the power. Then disconnect any other cables connected to the unit.

Usage Precautions

• **Electrical interference**

For safety considerations, the RT-323 has been designed to provide maximum protection against the emission of electromagnetic radiation from inside the device, and protection from external interference. However, equipment that is very susceptible to interference or that emits powerful electromagnetic waves should not be placed near the RT-323, as the possibility of interference cannot be ruled out entirely.

With any type of digital control device, the RT-323 included, electromagnetic interference can cause malfunctioning and can corrupt or destroy data. Care should be taken to minimize the risk of damage.

• **Cleaning**

Use a soft, dry cloth to clean the RT-323. If necessary, slightly moisten the cloth. Do not use abrasive cleanser, wax, or solvents (such as paint thinner or cleaning alcohol), since these may dull the finish or damage the surface.

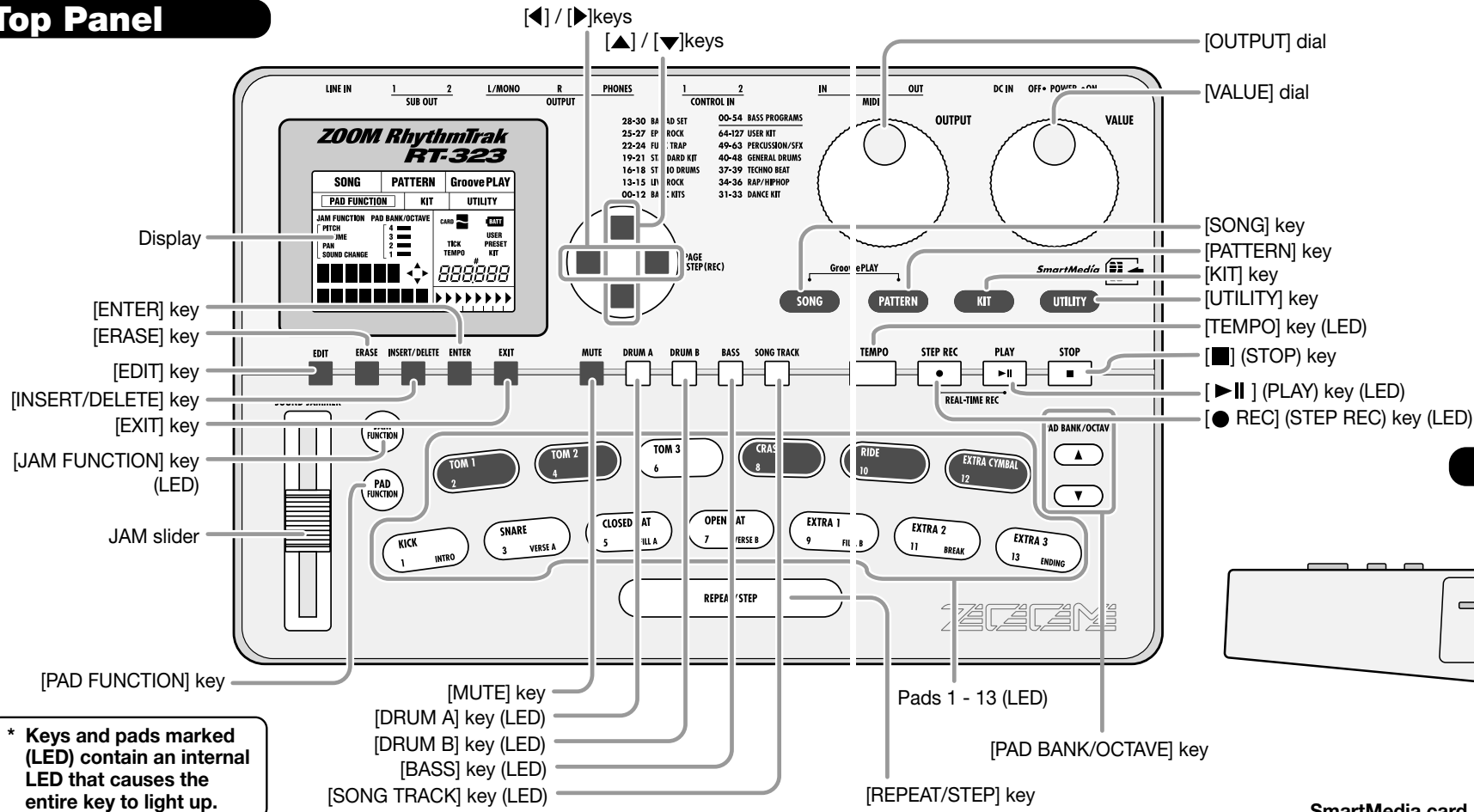Please keep this manual at hand for future reference.

Contents

Names of Parts

Top Panel

[◀] / [▶] keys

[▲] / [▼] keys

[OUTPUT] dial

[VALUE] dial

LINE IN 1 2 L/MONO R PHONES 1 2 IN OUT DC IN OFF• POWER •ON
SUB OUT OUTPUT CONTROL IN MIDI

OUTPUT VALUE

ZOOM RhythmTrak
RT-323

28-30 BA AD SET   00-54 BASS PROGRAMS
25-27 EP ROCK   64-127 USER KIT
22-24 FU TRAP   49-63 PERCUSSION/SFX
19-21 ST DARD KIT   40-48 GENERAL DRUMS
16-18 ST IO DRUMS   37-39 TECHNO BEAT
13-15 LI ROCK   34-36 RAP/HIPHOP
00-12 BA KITS   31-33 DANCE KIT

| SONG | PATTERN | Groove PLAY |
| PAD FUNCTION | KIT | UTILITY |

JAM FUNCTION PAD BANK/OCTAVE CARD BATT
PITCH   4
IME   3
PAN   2   TICK   USER
SOUND CHANGE 1   TEMPO   PRESET
                                 KIT
888888
#

Display

[ENTER] key
[ERASE] key
[EDIT] key
[INSERT/DELETE] key
[EXIT] key
[JAM FUNCTION] key (LED)
JAM slider
[PAD FUNCTION] key

GroovePLAY   SmartMedia

SONG   PATTERN   KIT   UTILITY

[SONG] key
[PATTERN] key
[KIT] key
[UTILITY] key

EDIT ERASE INSERT/DELETE ENTER EXIT MUTE DRUM A DRUM B BASS SONG TRACK TEMPO STEP REC PLAY STOP

PAGE
STEP(REC)

REAL-TIME REC

[TEMPO] key (LED)
[■] (STOP) key
[►❚❚] (PLAY) key (LED)
[● REC] (STEP REC) key (LED)

SOUND JAMMER

FUNCTION

PAD FUNCTION

AD BANK/OCTAV
▲
▼

Side Panel

TOM 1   TOM 2   TOM 3   CRAS   RIDE   EXTRA CYMBAL
2   4   6   8   10   12

KICK   SNARE   CLOSED AT   OPEN AT   EXTRA 1   EXTRA 2   EXTRA 3
1   3   5   7   9   11   13
       VERSE A FILL A   VERSE B   FILL B   BREAK   ENDING
INTRO

REPEAT/STEP

[DATA CARD] slot

[MUTE] key
[DRUM A] key (LED)
[DRUM B] key (LED)
[BASS] key (LED)
[SONG TRACK] key (LED)

Pads 1 - 13 (LED)

[PAD BANK/OCTAVE] key

[REPEAT/STEP] key

* Keys and pads marked (LED) contain an internal LED that causes the entire key to light up.

SmartMedia card

Correct   Wrong
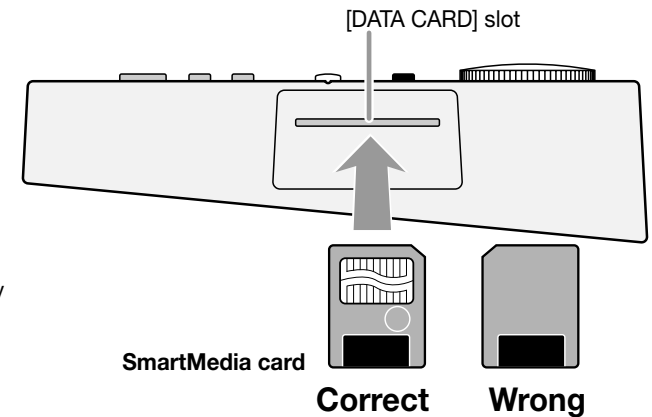
Caution

If the SmartMedia card is inserted with wrong orientation, it will not go all the way into the slot. Do not try to force the card in, because this will damage the card.

Rear Panel

POWER DC9V OUT MIDI IN CONTROL IN OUTPUT SUB OUT LINE IN
ON OFF   2   1   PHONES R L/MONO 2 1

[POWER] switch
[DC IN] jack
[MIDI OUT] connector
[MIDI IN] connector
[CONTROL IN 1/2] jack

[LINE IN] jack
[SUB OUT 1/2] jacks
[R OUT / L/MONO OUT] jacks
[PHONES] jack

ZOOM CORPORATION MADE IN JAPAN
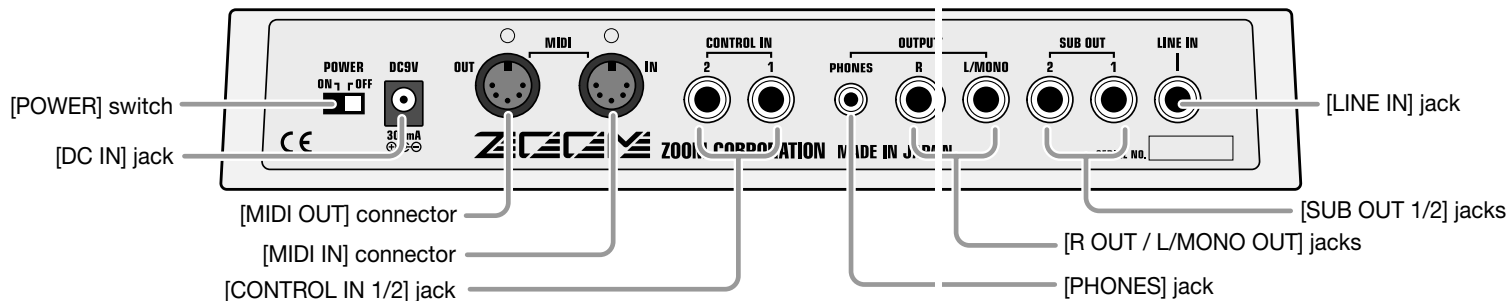
Getting Connected

When a guitar or other instrument is connected to the [LINE IN] jack, the sound from the instrument is mixed with the sound of the RT-323 and output from the [L/MONO/R OUT] jack.

Bass   **Guitar**

For mono playback, connect only the [L/MONO OUT] jack. To selectively use the output signal for certain instrument sounds only, connect a cable to the [SUB OUT 1/2] jack.

Mixer, audio system, or other playback equipment

To play an external MIDI component from the RT-323, connect the [MIDI OUT] connector of the RT-323 to the MIDI IN connector of the external component.
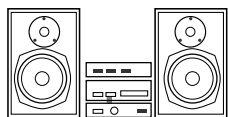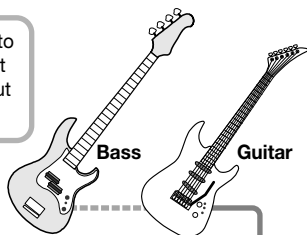
Multi-effect (ZOOM 505II etc.)

Drum sound source module

R OUT   L/MONO OUT   SUB OUT 2   SUB OUT 1   LINE IN

AC adapter

FS01   **FP01/FP02**   **Headphones**

By connecting the optional foot pedal FP01 or FP02 to the [CONTROL IN 1]/[CONTROL IN 2] jack, pitch, volume, or sound can be controlled with the pedal.
Connecting the optional foot switch FS01 to the jack allows activating a sound or switching the tone with your foot.
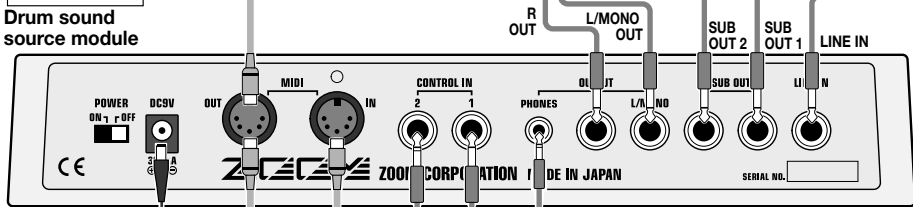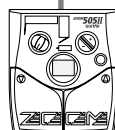
MIDI sequencer (computer MIDI interface)

To synchronize the RT-323 with an external sequencer or to control the sound sources of the RT-323 from an external MIDI component, link the MIDI OUT connector of the equipment with the [MIDI IN] connector on the RT-323.

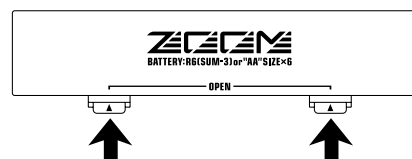DC IN   MIDI OUT   MIDI IN   CONTROL IN 2   CONTROL IN 1   PHONES
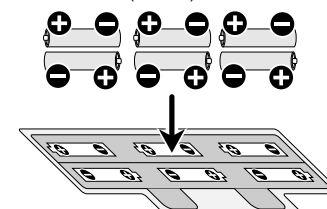
6

Using the Unit on Batteries

The RT-323 can be powered from six IEC R6 (size AA) batteries. Follow the steps below to insert the batteries.

1 Turn the unit over and open the battery compartment cover.

RT-323 rear

**2** Insert six fresh IEC R6 (size AA) alkaline batteries.

Six IEC R6 (size AA)

3 Close the battery compartment cover.

NOTE If the BATT LED lights up while the unit is powered from batteries, the batteries are exhausted. Replace the batteries as soon as possible.

Preparations for Playback

After connections are established, check the sound by performing the following steps.

1 While the playback system is still turned off and the volume is fully turned down, double-check whether all connections have been made correctly.

2 Turn power to the RT-323 on.

Connect the supplied AC adapter to the [DC IN] connector and set the [POWER] switch to ON.
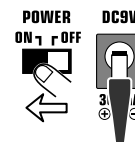
3 Turn power to the playback system on and adjust the volume.

While tapping a pad to produce sound, adjust the [OUTPUT] dial of the RT-323 and the volume control on the playback system to a suitable position.

7
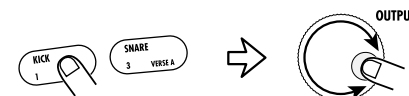
Quick Guide 1 Listening to the Demo

The Quick Guide section of this manual is intended to help you become familiar with the RT-323.
To hear what the unit can do, we recommend that you listen to the built-in demo song which uses a
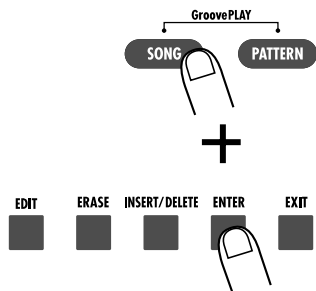variety of sounds.

To Start the Demo Song

While holding down the [SONG] key, press the [ENTER] key

GroovePLAY

SONG   PATTERN

+

EDIT   ERASE   INSERT/DELETE   ENTER   EXIT

The unit goes into demo play mode, and two demo songs are played back alternately.

Sounds just like the backup of a live band, doesn't it? Note how effectively various drum, percussion, and bass sounds are combined. The RT-323 can produce such a great variety of sounds with ease.

To Stop the Demo Song

Press the [STOP] key

TEMPO   STEP REC   PLAY   STOP
●   ►II   ■

REAL-TIME REC
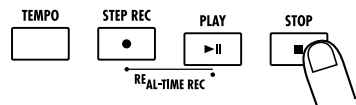
To restart demo song playback, use the [▲]/[▼] keys to select the demo song, and then press the [►II] key.

To Leave the Demo Mode

Press the [EXIT] key

EDIT   ERASE   INSERT/DELETE   ENTER   EXIT
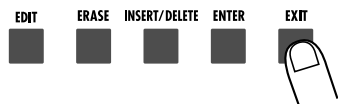
Drum Kits and Bass Programs

The backup sound provided by the RT-323 consists of "drum kits" and "bass programs"

A **drum kit** is a collection of drum sounds including bass drums, snares, and tom-tom percussion sounds, as well congas, as bongos, and various other sound effect. The RT-323 offers 64 preset read-only drum kits (00 - 63), as well as the capacity to store 64 user-programmable drum kits (64 - 127). Up to two of these can be used simultaneously.

A **bass program** provides various types of bass sounds including electric and acoustic bass. The RT-323 includes 55 bass programs (00 - 54), allowing use of only one bass program at a time.
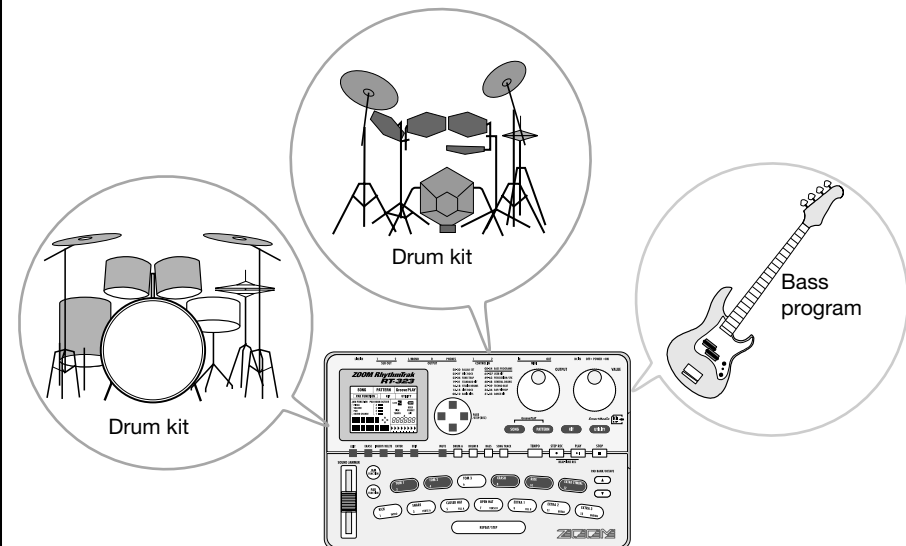
Drum kit

Bass program

Drum kit

The top panel of the RT-323 has 13 pads which serve to play drum kits and bass programs.

Playing a Drum Kit

1 Press the [PATTERN] key

The indication "PATTERN" appears in the top part of the display, showing that the RT-323 is in **pattern mode**. In pattern mode, "patterns" (short backing phrases of a few measures) can be recorded and played. The normal mode for playing a drum kit by hitting the pads is the pattern mode.

2 Press the [DRUM A] key (or [DRUM B] key)

The [DRUM A] key ([DRUM B] key) lights up, and you can play the drum kit with the pads.
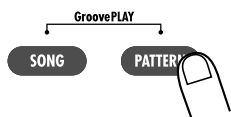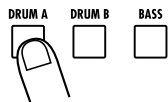
3 Tap the pads
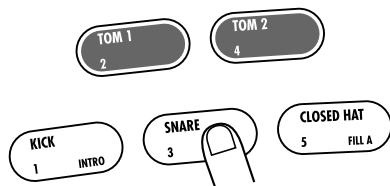
When a drum kit is selected, 13 drum sounds out of the maximum of 39 sounds included in that kit are assigned to the 13 pads. You can play the sounds simply by hitting the pads.

4 Press the [PAD BANK] key to switch the bank
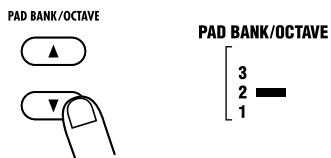
The [PAD BANK] key allows you to switch between pad banks 1 - 3, which will change the sounds that are assigned to pads 1 - 13.

Playing a Bass Program

1 Press the [BASS] key
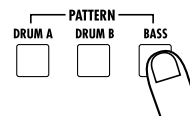
The [BASS] key lights up, and you can play the bass program with the pads.

When a bass program is selected, the same bass sound shifted in pitch by a semitone is assigned to the pads. Therefore you can use the 13 pads like the white and black keys on a keyboard.

2 Switch the pad pitch range by pressing the [OCTAVE] key
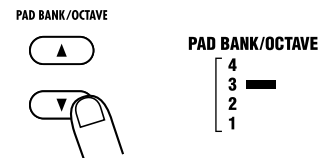
When a bass program is selected, the [OCTAVE] key can be used to shift the pitch range of the pads over 4 octaves (octave 1 - 4).

Changing the Drum Kit/Bass Program

Hold down the [DRUM A]/[DRUM B] key or the [BASS] key, and press one of the [▲]/[▼] keys
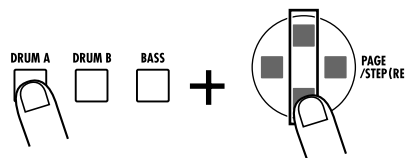
The drum kit number or bass program number is switched by one step up or down, so that the sound assigned to the pads changes. Tap the pads after switching to verify the change.
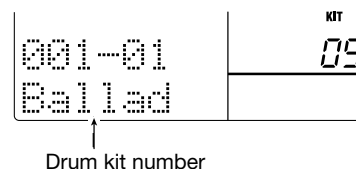
HINT You can also use the [VALUE] dial instead of the [▲]/[▼] keys to switch the sound.

Drum kit number

Quick Guide 3 Listening to Patterns

The RT-323 incorporates 400 preset read-only patterns which you can use as follows.

Playing a Pattern

1 Press the [PATTERN] key

GroovePLAY

SONG   PATTERN

The display shows the currently selected pattern.

PRESET

001-01
Pattern name → ROCK01   000 ▶

2 Press the [▶‖] key

TEMPO   STEP REC   PLAY   STOP

• ▶‖ ■

REAL-TIME REC

Playback of the currently selected pattern starts.

Measure Beat

002-03
ROCK01   000 ▶▶▶
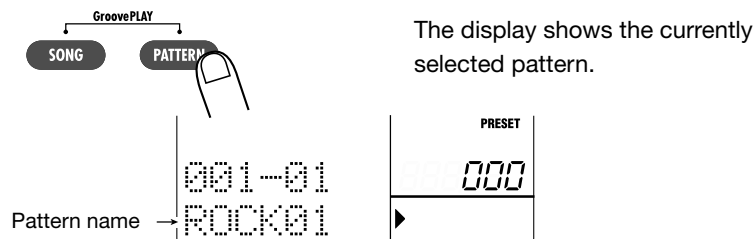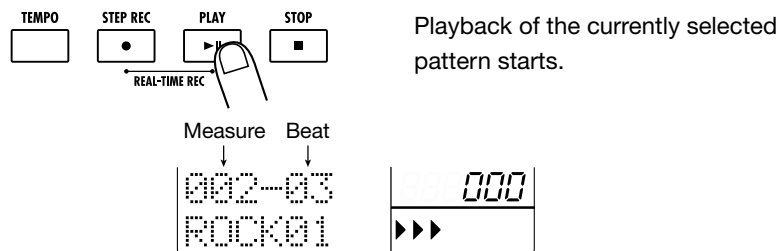
Changing the Pattern

Press one of the [▲]/[▼] keys

PAGE /STEP(REC)
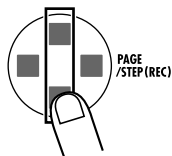
Pressing one of the [▲]/[▼] keys causes the pattern number to be switched by one step up or down. If "EMPTY" is shown on the display, the pattern is empty and cannot be played.

(HINT) You can also use the [VALUE] dial instead of the [▲]/[▼] keys to select the pattern.

Changing the Tempo

While holding down the [TEMPO] key, press one of the [▲]/[▼] keys

TEMPO   STEP REC

• +   PAGE /STEP(REC)

REAL-TIME R

001-02
ROCK01   1200 ▶▶

Current tempo   TEMPO
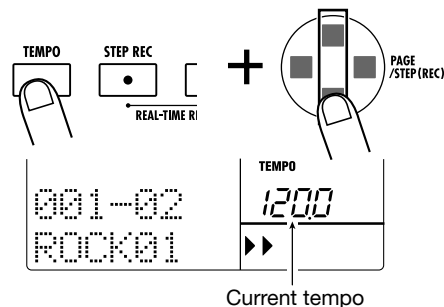
While you hold down the [TEMPO] key, the display shows the current tempo (BPM). Pressing one of the [▲]/[▼] keys shifts the tempo up or down in 0.1 BPM steps.

* BPM: Number of quarter note beats per minute

(HINT) You can also use the [VALUE] dial instead of the [▲]/[▼] keys to select the tempo.

Stopping the Pattern

Press the [■] key

TEMPO   STEP REC   PLAY   STOP

• ▶‖ ■

REAL-TIME REC

Patterns and Tracks

Pattern

Drum A track

Drum B track

Bass track
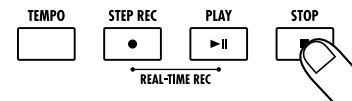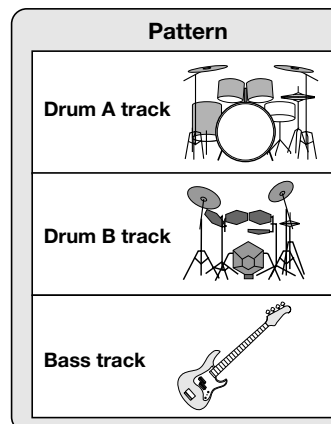
A pattern of the RT-323 is a stored combination of two drum kits and one bass program. The location for each individual drum kit or bass program is called a track. Therefore a pattern of the RT-323 consists of the drum A track, drum B track, and the bass track. Drum tracks A and B each contain a specific drum kit and the bass track contains a bass program.

The RT-323 contains 400 read-only patterns (000 - 399), and 100 read/write patterns (U00 - U99).

Quick Guide 4 Creating a Pattern

The user pattern feature of the RT-323 lets you create your own patterns. You can hit the pads in time with the metronome and play an original pattern to be stored.

Selecting the Record Pattern/Track

1 Press the [PATTERN] key

GroovePLAY

SONG   PATTERN
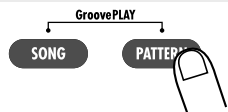
The RT-323 switches to the pattern mode.

2 Use the [▲]/[▼] keys to select a user pattern (U00 - U99)

PAGE /STEP(REC)

USER

U01
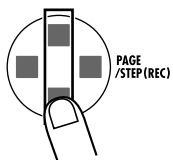
EMPTY

When an empty user pattern is selected, the pattern name field of the display shows "EMPTY".
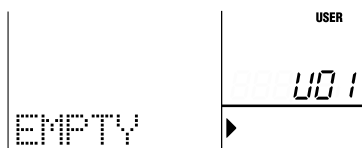
NOTE In the factory default condition, all user patterns of the RT-323 are empty. If you have already created many patterns and there is no more empty user pattern erase a pattern that is no longer needed.

Erasing a pattern → p. 49

HINT You can also use the [VALUE] dial instead of the [▲]/[▼] keys to select the pattern.

3 Press any of the [DRUM A]/[DRUM B]/ [BASS] keys

DRUM A   DRUM B   BASS
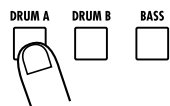
By pressing the [DRUM A] or [DRUM B] key, you select the drum A track or drum B track for recording.
By pressing the [BASS] key, you select the bass track for recording.

HINT To change the sound (drum kit/bass program), hold down the key you selected above, and press one of the [▲]/[▼] keys.

To Start Recording

While holding down the [●REC] key, press the [▶‖] key

TEMPO   STEP REC   PLAY   STOP

REAL-TIME REC

Measure   Beat   USER

002-04   U01

Pat 001   ▶▶▶▶
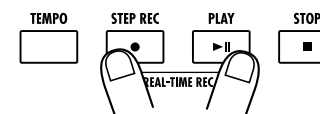
The [●REC] key and [▶‖] key light up, a precount of four beats (one measure) is heard, and then recording starts. While listening to the metronome sound,hit the pads to record a pattern. At the end of a pattern, recording automatically loops to the beginning and continues, allowing you to record over the earlier segment.

[Pattern recording]

STEP REC   PLAY
REAL-TIME REC

Pad   Pad   · · · · · ·

$\frac{4}{4}$ ✗ ✗ ✗ ✗

Precount   Recording loops for two measures
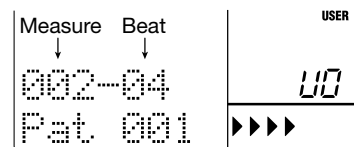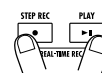
To Stop Recording

Press the [■] key

TEMPO   STEP REC   PLAY   STOP

REAL-TIME REC
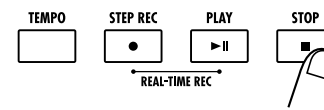
The [●REC] key and [▶‖] key light go out and recording stops. To check the recording, press the [▶‖] key. You can also repeat these steps to record other tracks.

Editing a recorded pattern → p. 47
Changing the pattern length or beat → p.51, p52

Groove play is a special feature of the RT-323 which lets you switch among various patterns simply by tapping the pads. This makes it easy to play with patterns like a DJ spinning records.

To Use Groove Play

Press the [SONG] key and [PATTERN] key together.

GroovePLAY
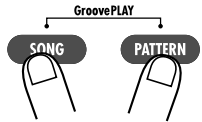
SONG   PATTERN

The indication "GroovePLAY" appears on the display, indicating that the RT-323 is in groove play mode.

SONG	PATTERN	**Groove PLAY**
PAD FUNCTION	KIT	UTILITY

To Play a Pattern with a Pad

Push the pad

KICK 1   SNARE 3 VERSE A   CLOSED HAT 5 FILL A

While you hold down the pad, the pattern assigned to the pad will play. Try out various pads to hear which patterns are assigned to them.

KICK 1   Hold down   KICK 1 INTRO

Pattern assigned to pad

TOM 1 2   TOM 2 4   ④

KICK 1 INTRO   SNARE 3 VE A   CLOSED HAT 5   ③

① ②
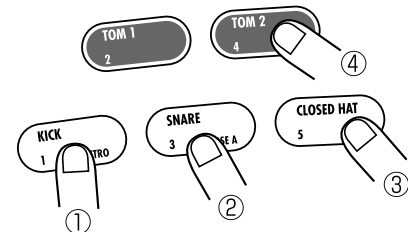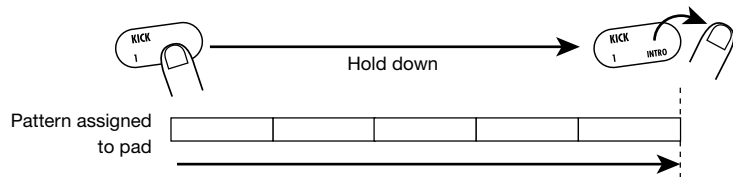
In groove play mode, up to four patterns can be played simultaneously. By shifting the pad press timing, you can create complex rhythms.

To Keep Playing the Pattern After Releasing the Pad

Hold down the [REPEAT] key and push the pad

REPEAT/STEP

+

KICK 1 RO   SNARE 3 VERSE A
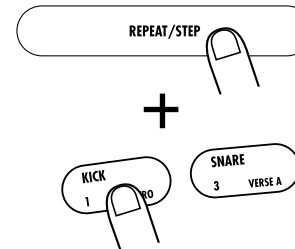
If you hold down the [REPEAT] key while you push a pad, the pattern will continue to play after you release the pad.

REPEAT/STEP

+

KICK 1 RO
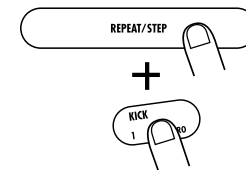
To stop the pattern, push the same pad once more.

KICK 1

Pattern assigned to pad
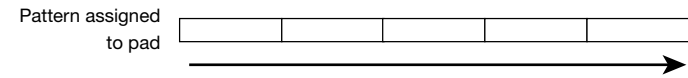
To Terminate Groove Play

Press the [PATTERN] key or [SONG] key

GroovePLAY

SONG   PATTERN

Hands-on Lessons

The RT-323 allows you to line up patterns in a desired order to create an entire backing sequence (song). This section contains several lessons that will show you how you can use the preprogrammed patterns to create your original songs.

What Is a Song?

A song in the RT-323 basically is a playing sequence of patterns (backing of several measures comprising the three tracks drum A, drum B, and bass). To create a song, you sequentially enter information about pattern switching from the beginning. The maximum number of measures in a song is 999.

A song contains not only pattern information. You can also enter the following information.

- Number of drum kit/bass program used for each track
- Tempo information
- Bass track pitch shift (transpose)
- Track volume

This information can also be altered during a song. This lets you for example transpose the bass track pitch according to the chord progression, continuously alter the tempo, perform fade-out at the end of a song, etc. There are no limits to your creative potential.

Lesson 1 Creating a Song [Step Input]

In this lesson, we will create a simple song by using step input. This mode allows you to enter pattern information while the RT-323 is stopped.

● Select an empty song

To create a new song, select an empty song where no pattern is input.

1 **Press the [SONG] key.**

The indication "SONG" appears in the top part of the display, and the unit switches to the song mode for creating and playing songs.
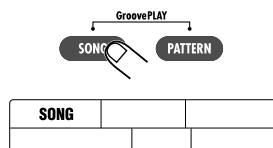
2 **Use the [▲]/[▼] keys or the [VALUE] dial to select an empty song.**

The number and name of the currently selected song appear in the bottom part of the display. When an empty song is selected, the song name field shows "EMPTY".
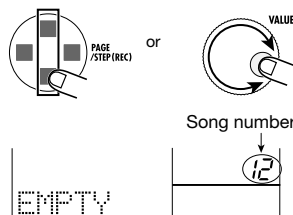
● Enter pattern information

For step input, you start from the beginning of an empty song. In this example, we will repeat a 2-measure pattern four times.

1 **Press the [● REC] key.**

The [● REC] lights up, and step input starts. The display shows the current measure and beat, indicating the current position. Because there is yet no pattern information in the empty song, the display also shows "End".

Measure Beat
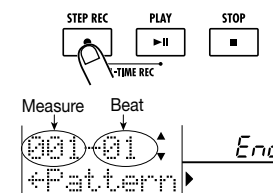
2 **Use the [INSERT] key to bring up the indication "INSERT?" on the display.**

With each push of the [INSERT] key, the display cycles through "INSERT?" → "DELETE?" → "original indication".
When "INSERT?" is shown, a new pattern can be inserted at the current position.

Pattern number Pattern duration
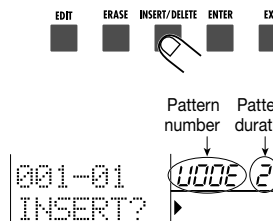
3 **Use the [VALUE] dial to select the pattern.**

Let's select the pattern number "116" here. The duration of 116 is 2 measures, and the bass track plays an E Major chord.
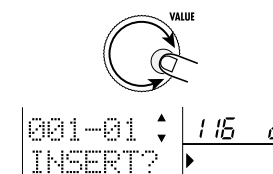
4 **Press the [ENTER] key.**

The pattern "116" is entered at the current location.

(HINT) To check the entered pattern, you can play the pattern with the [►❚❚]/[■] keys.

18

19

5
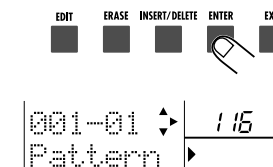
Press the [▶] key.

When you press the [▶] key, the display moves to the point where the next pattern can be input. (In this example, this is the start of the third measure.)

003-01 ◆ End
←Pattern▶

6
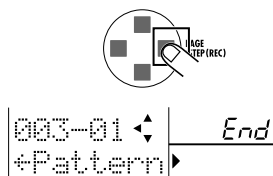
Repeat steps 2 - 6, to enter the same pattern in measures 3, 5, and 7.

You now have created a song with the following eight measures.

Measure number
1	2	3	4	5	6	7	8	9
116		**116**		**116**		**116**		END

Chord   E   E   E   E

7

Press the [■] key.

The [● REC] key light goes out, and step input terminates.

(HINT) When you enter patterns in an empty song, the song name "Songxxx" (where xxx is the song number) is automatically assigned. You can change this name later (→ p. 73).

STEP REC   PLAY   STOP
REAL-TIME REC

008-04 ▲▼   12
Song012 ▶
↑
Song name

8
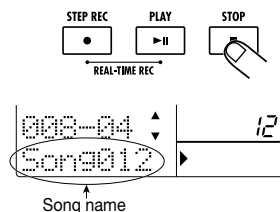
Press the [▶❙❙] key.

The [▶❙❙] key lights up, and song playback starts. The display shows the current measure and beat.

To listen to a finished song, press the [▶❙❙] key. At the end of the song, playback stops automatically. To stop the song midway, press the [■] key.

STEP REC   PLAY   STOP
REAL-TIME REC

Measure   Beat
002 02   12
Song012 ▶▶
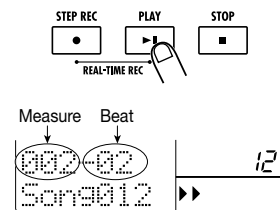
If you have made a mistake during pattern input, you can select the pattern and correct the input as follows.

■ Entering another pattern
(1) Press the [●REC] key.

Step input starts again, and pattern information at the current point can be changed.
(2) Use the [◀]/[▶] keys to move to the position whose pattern you want to change.
(3) Use the [VALUE] dial to select the new pattern.
(4) When the operation is completed, press the [■] key to terminate step input.

● Transposing the bass track

During step input, you can not only select a pattern number but also add various other information such as volume, tempo, bass transpose value, etc. Such pieces of information are called "events". As an example, we will add a bass transpose value here, to shift the pitch of the bass track in accordance with chord progression.

Measure number
1	2	3	4	5	6	7	8	9
116		**116**		**116**		**116**		END

Chord   E   A   B   E

1

Press the [● REC] key.

The [● REC] key lights up, and step input again becomes possible.

STEP REC   PLAY   STOP
TIME REC

001-01 ▲▼   116
Pattern ▶

2
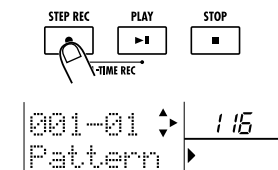
Use the [▲]/[▼] keys to bring the indication "Transps" onto the display.

While "Transps" is shown, you can use the [▲]/[▼] keys to select the event type to be added to the current song position. You can add transpose information or change existing information.

PAGE /STEP (REC)

001-01 ▲▼   0
Transps ▶

3
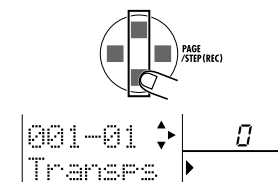
Use the [◀]/[▶] keys to move to the start of the third measure.

In this example, transpose information at the start of the third measure has a setting value of zero.

(HINT)
• When pattern information is input, transpose information with a zero value is also input.
• Event information including pattern information can be entered not only at the start of a measure, but anywhere within the measure (using sixteenth-note steps). For details, see page 66.

PAGE /STEP (REC)

Setting value
003-01 ◆   ↓
Transps ▶   (0)

4
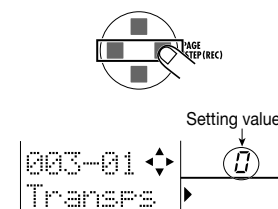
Use the [VALUE] dial to change the transpose value for the third measure.

The transpose value setting range is -12 - 0 - 12 (in semitone steps). For measures 3 and 4, we want to transpose the original E Major pattern to A Major. Therefore, the required

VALUE

setting value is "5" (five semitones higher = perfect fourth higher).
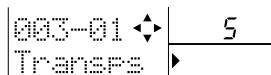
HINT The transpose setting remains active until the point where the next transpose value is entered (start of fifth measure in this example).

```
003-01 ✦     5
Transp  ▶
```

5 Use the [◀]/[▶] keys to move to the start of the fifth measure.

```
005-01 ✦     0
Transp  ▶
```
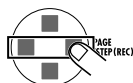
6 Use the [VALUE] dial to change the transpose value for the fifth measure.

For measures 5 and 6, we want to transpose the original E Major pattern to B Major. Therefore, the required setting value is "7" (seven semitones higher = perfect fifth higher).

```
005-01 ✦     7
Transp  ▶
```

HINT For measures 7 and 8, we want to use E Major of the original chord. Therefore there is no need to change the transpose value of zero.

7 Press the [■] key to terminate step input.

To listen to the song with the transpose information, press the [▶ǁ] key.

STEP REC   PLAY   STOP
REAL-TIME REC

If you have made a mistake during transpose information input, you can correct it as follows.

■ **Modifying the transpose information setting value**
After performing steps 1 - 2, use the [◀]/[▶] keys to move to the desired point, and use the [VALUE] dial to enter the new transpose information.

■ **Deleting accidentally entered transpose information**
After performing steps 1 - 2, use the [◀]/[▶] keys to move to the desired point, and press the [ERASE] key. The current transpose information is deleted.

● Entering a fill-in pattern

With the previously described steps, we have created an 8-measure chord progression. But the rhythm simply repeats the same pattern. To add a bit of flourish, proceed as follows.

1 Press the [● REC] key.

The [● REC] key lights up, and step input again becomes possible.

STEP REC   PLAY   STOP
-TIME REC
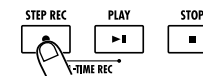
2 Press the [▲] key once.

The indication "EV→" appears on the display.
Other indications such as "PT" or "TS" to the right of "EV→" denote event information for the current position. "PT" stands for pattern information and "TS" for transpose information. For details, see page 66.
While this indication is shown, position information is shown on the display to the right of the measure and beat in "ticks" (1/96 beat).

```
001-01 ▸  0  TICK
EV→PT·TS·  ▶
```
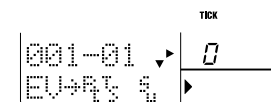
3 Use the [◀]/[▶] keys to move to the start of the eighth measure.

When "EV → " is displayed, the [◀]/[▶] keys can be used to move in measures. The [STEP] key allows movement in steps of 24 ticks.

```
008-01 ▾▸  0  TICK
EV→       ▶
```
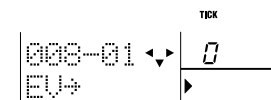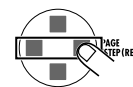
4 Press the [▼] key once.

Pattern information can be input.

HINT When you move to a point where no pattern information is input, the indication "←" is shown to the left of "Pattern". This means that the preceding pattern will continue to play.

```
008-01 ✦
←Pattern  ▶
```

5 Use the [VALUE] dial to enter new pattern information.

With the [VALUE] dial you can enter new pattern information at the current position. In this example, let's select pattern "117". This is a 1-measure fill-in pattern. The bass track uses the same E Major chord as pattern 116.

VALUE

Now measure 7 will play the beginning of the pattern 116, and measure 8 switches to pattern 117.
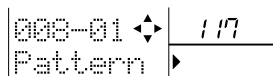
```
008-01 ◆   117
Pattern   ▶
```

Measure number

1	2	3	4	5	6	7	8	9
116		**116**		**116**		**116** first half	**117**	END

Chord   E   A   B   E   E

6

Press the [■] key to terminate step input.

This concludes the actions for this lesson. Press the [▶||] key to listen to the song you have created.

STEP REC   PLAY   STOP
•   ▶|| ■
← REAL-TIME REC →

If you have made a mistake during pattern input, you can correct it as follows.

■ **Entering another pattern**

Press the [● REC] key and then use the [◀]/[▶] keys to move to the desired point. Use the [VALUE] dial to enter the new pattern.

■ **Deleting accidentally entered pattern information**

Press the [● REC] key and then use the [◀]/[▶] keys to move to the desired point. Press the [ERASE] key to delete the current pattern information.

Lesson 2 Editing a Song

Using the song created in lesson 1, this lesson demonstrates how you can extend the song with the copy function, change the bass track contents, and perform various other useful editing functions.

● Copying part of a song

In lesson 1, we have input a song of 8 measures. In this lesson, we will copy the entire song (measure number 1 - 8) to the latter part, to extend it to 16 measures.

Copy

Measure number

1	2	3	4	5	6	7	8	9
116		**116**		**116**		**116** first half	**117**	

Measure number

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
116		**116**		**116**		**116** first half	**117**	**116**		**116**		**116**		**116** first half	**117**

1
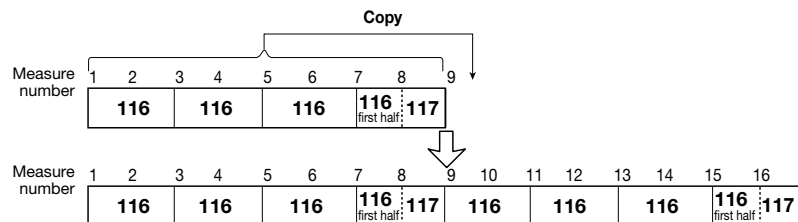
Press the [SONG] key to activate the song mode, and use the [▲]/[▼] keys to select the song created in lesson 1.

```
001-01        12
Song012
```

2

Press the [● REC] key.

The [● REC] key lights up, and step input starts again.

STEP REC   PLAY   STOP
•   ▶|| ■
←-TIME REC

3
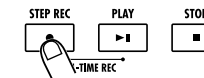
Press the [EDIT] key.

This activates the mode for copying measures.

EDIT   ERASE   INSERT/DELETE   ENTER   EXIT

(HINT) This function can be called up at any time, regardless of the current position.

4

Use the [▲]/[▼] keys or the [VALUE] dial to select the first measure number to be used as copy source.

Because we want to copy 8 measures, we select measure number 1 here.

PAGE /STEP(REC)   or   VALUE

First measure number of copy source

```
COPY       1
START
```

5
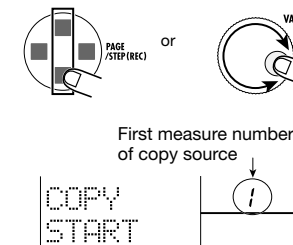
Press the [ENTER] key, and use the [▲]/[▼] keys or the [VALUE] dial to select the last measure number to be used as copy source.

Select measure number 8 here.

EDIT   ERASE   INSERT/DELETE   ENTER   EXIT

Last measure number of copy source

```
COPY       8
END
```

6
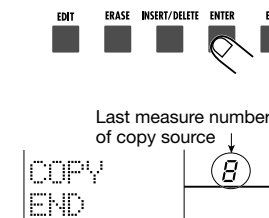
Press the [ENTER] key, and use the [▲]/[▼] keys or the [VALUE] dial to select the measure number of the copy target.
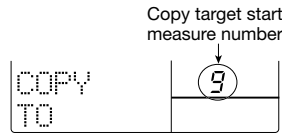
Because we want to copy the measures 1 - 8 as is, select measure number 9 here.

Copy target start measure number

COPY
TO   9

HINT If you have made a mistake entering a value, press the [EXIT] key to return to the previous step.

7

Press the [ENTER] key to execute the copy process.

The 8 measures of the original song are copied to the end of the song, resulting in 16 measures.

● Changing the bass track

The drum B track or bass track of the pattern used in a song can be altered to that of a different pattern. In this example, we will change the bass track of measure 16 to the bass track of pattern 119.

	119
	DRUM A
	DRUM B
	Bass

Measure number	11	12	13	14	15	16	17

116		116		116 first half	117	
DRUM A		DRUM A		DRUM A	DRUM A	
DRUM B		DRUM B		DRUM B	DRUM B	END
Bass		Bass		Bass	Bass	

Chord   A   B   E   E
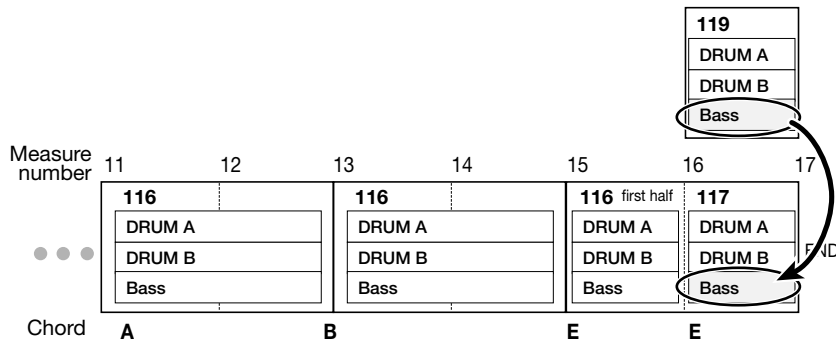
1

Use the [◄]/[►] keys to move to the pattern that you want to replace.

Here we move to the start of measure 16. This position should have an input for pattern 117.

016-01   117
Pattern

2
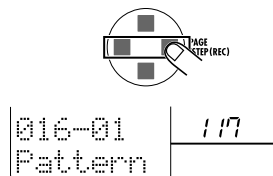
Use the [▲]/[▼] keys to call up "├Bas PTN" on the display.

The bass track replacement is now possible.

HINT To replace the drum B track, use the [▲]/[▼] keys to call up "├DrB PTN".

016-01   117
├BasPTN

3
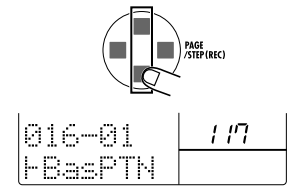
Use the [VALUE] dial to select the pattern to be used as a source for replacing.

Here we will select "119". This will cause the bass track of the last track to be replaced with the bass track of pattern 119.

016-01   119
├BasPTN
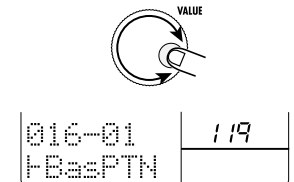
4

Use the [►‖]/[■] keys to verify that the bass track contents only have changed.

HINT
• Replacing with a user pattern (U00 - U99) is also possible. By recording a phrase on the bass track of a user pattern, you can provide your own bass track contents for use in other patterns.
• To replace the drum B track, select the drum A track or drum B track of any pattern. The drum A track is identified by an "A" appended to the pattern number (001A, U99A), and the drum B track by a "b" appended to the pattern number (001b, U99b).
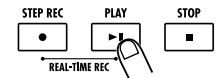
5

Press the [■] key to terminate step input.

This concludes the actions for this lesson. Press the[►‖] key to listen to the song you have created.
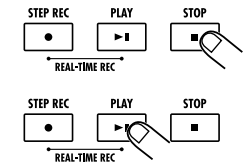
Lesson 3 Creating a Song [Real-time Input]

In the final lesson, we will use "real-time input", which is another method for creating a song. With this method, you assign desired patterns to the pads and play them in real time by hitting the pads. What you play is recorded by the RT-323.

1

In song mode, select the song number (00 - 11) for which you want to perform real-time input.

Normally, when you perform real-time input of a song, you must first assign the patterns you wish to use to the pads. In the default condition of the RT-323, various patterns are already assigned to the pads for songs 00 - 11. In lesson 3, we will use these preassigned patterns. (For information on how to assign your own patterns, see page 56.)

Song number

```
001-01        01
HROKtmp1 ▶
```

(HINT) The pattern assignment for each pad is stored separately for each song.

2
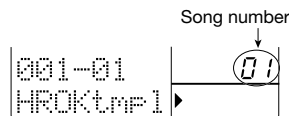
Hit the pads.

Tapping a pad will play the pattern assigned to that pad. This function is similar to groove play mode, but it differs in the following regards.

- Pattern play continues also when you release a pad.
- When you hit another pad while a pattern is playing, the pattern will switch at the beginning of the next measure.
- Only one pattern can be played at a time.

Try out which patterns are assigned to the various pads. To stop pattern play, press the [■] key.

3

While holding down the [● REC] key, press the [▶❙❙] key.

The [● REC] and [▶❙❙] keys lights up, and the unit goes into standby mode for real-time input.

(HINT) Pressing the [■] key cancels real-time input.

STEP REC   PLAY   STOP
REAL-TIME REC

```
START!        01
HROKtmp1 ▶
```

4

Hit the pad with the first pattern to start real-time input.

Hitting a pad in this condition starts real-time input, and the first pattern starts to play. To select the next pattern, hit the desired pad. The pattern will switch at the next measure boundary.

Current beat

Current measure

```
005-03        01
HROKtmp1 ◀▶▶
```

Preceding pattern plays

Measure number 1 2 3 4 5 6 7 8 9 10 11

| Pattern A | ← | Pattern B | ← | Pattern C | ← |

Pattern A   Pattern B   Pattern C
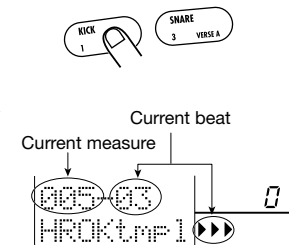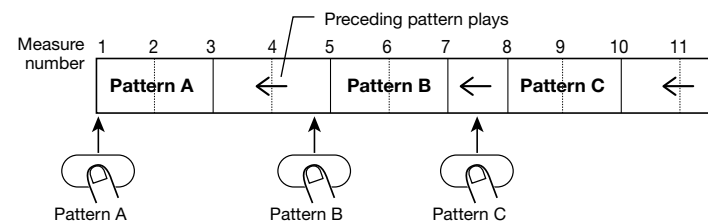
(HINT) In the factory default condition, the song numbers 00 - 11contain only short fill-in patterns assigned to the pads marked FILL 1 and FILL 2. Only when using these pads, the pattern will switch at the beat boundary.

5

To terminate real-time input, press the [■] key.

The [● REC] and [▶❙❙] key light go out, and real-time input stops.

STEP REC   PLAY   STOP
REAL-TIME REC

6
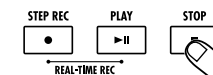
To listen to the recorded song, press the [▶❙❙] key.

The song created with real-time input is played back. To stop playback, press the [■] key.

STEP REC   PLAY   STOP
REAL-TIME REC
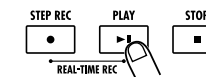
(HINT) A song created with real-time input can be edited in the same way as a song created with step input.

NOTE If you have made a mistake, start the real-time input process from the beginning again. (It is not possible to make correction midway.)

Hands-on Lessons

Application Guide [Pads/JAM Slider]

This section explains the use of the RT-323 pads and the JAM slider.

Playing the Pads

When the RT-323 is in pattern mode, you can play drum kits and bass programs.

1 **Press the [PATTERN] key.**

The RT-323 goes into pattern mode.
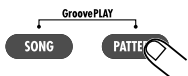
2 **To play a drum kit, press the [DRUM A] key or [DRUM B] key. To play a bass program, press the [BASS] key.**

The selected key lights up.
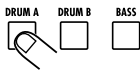
3 **Hit the desired pad.**

4 **To continuously play a pad, hold down the [REPEAT] key while hitting the pad.**
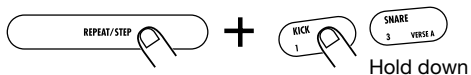
Hold down

The tempo of the sound depends on the current tempo and quantize setting (→ p. 41, 50).

5 **To play another drum sound with the pad, press the [PAD BANK] key while the drum kit is selected.**
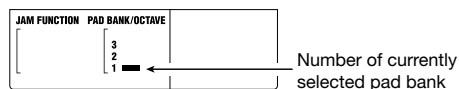
Number of currently selected pad bank

The collection of drum sounds assigned to pads 1 - 13 is called a "pad bank". One drum kit comprises pad banks 1 - 3, allowing you to play up to 39 types of drum sounds. The number of the currently selected pad bank is shown on the display.

6 **To switch the pitch range of the bass program, press the [OCTAVE] key while the bass program is selected.**
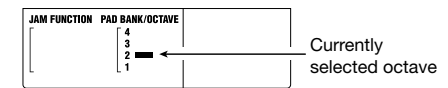
Currently selected octave

The bass programs of the RT-323 allow you to play over a range of four octaves (octave 1 - 4). The number of the currently selected octave is shown on the display.

Adjusting pad pitch/volume/panning/sound in real time (jam function)

By moving the JAM slider while you hit a pad, you can adjust the pitch, volume, panning (left/right stereo balance), and sound parameters in real time.

1 **In pattern mode, press one of the [DRUM A]/[DRUM B]/[BASS] keys.**

2 **Use the [JAM FUNCTION] key to select the parameter to be controlled with the JAM slider.**

The parameter currently controlled by the JAM slider is shown on the display. Each push of the [JAM FUNCTION] key cycles through the settings PITCH → VOLUME → PAN → SOUND CHANGE → no indication (JAM slider inactive).
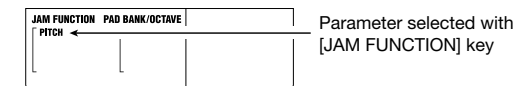
Parameter selected with [JAM FUNCTION] key

The functions of the various parameters are as follows.

■ PITCH

• **For drum kits:** The pitch of the pad is shifted continuously up or down according to the slider movement. The width of the pitch shift depends on the sound.

• **For bass programs:** The pitch of the pad is shifted up or down in 13 discrete steps. The actual pitch depends on the pitch setting for pads 1 - 13.

■ VOLUME

The pad volume changes according to the slider movement.

■ PAN (Panning)

As the JAM slider is moved from up to down, the pan setting (left/right position) of the sound is shifted from right to left.

■ SOUND CHANGE

According to the slider movement, the sound of the pad changes. The actual change depends on the drum kit and bass program.

3 **While moving the JAM slider, hit the pad.**
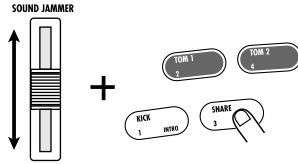
The sound selected in step 2 changes.

> **NOTE** When you change the function of the JAM slider, the parameter that was controlled so far reverts to the original value.

Adjusting the Pad Sensitivity

This setting controls the degree to which the value changes depending on the intensity with which the pad is hit.

1 **Press the [UTILITY] key, and use the [◄]/[►] keys to call up the indication "SENS" on the display.**

```
SENS    ◄ ►
NORMAL
```

2 **Use the [▲]/[▼] keys or the [VALUE] dial to select the sensitivity from one of the following options.**
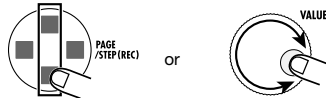
- **SOFT:** Low volume regardless of pad hitting intensity
- **MEDIUM:** Medium volume regardless of pad hitting intensity
- **LOUD:** High volume regardless of pad hitting intensity
- **LITE:** Highest sensitivity setting. Results in loud volume even when pad is hit only lightly.
- **NORMAL:** Medium sensitivity setting (default)
- **HARD:** Low sensitivity setting
- **EX HARD:** Lowest sensitivity setting. Pads must be hit hard to produce volume.

3 **To return to pattern mode, press the [PATTERN] key.**
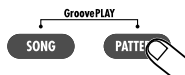
The RT-323 comprises 128 drum kits and 55 bass programs. This section describes the operation steps to control these functions.

Drum Kit Operation

● Switching drum kits

RT-323 incorporates 64 read-only preset drum kits (00 - 63) and 64 rewritable user drum kits (64 - 127). For each pattern, you can select the desired drum kit for the drum A track and drum B track.

1 **In pattern mode, press the [DRUM A] key (or [DRUM B] key).**

While you press the [DRUM A] (or [DRUM B]) key, the display shows the currently selected drum kit number.

```
                              USER
                              KIT
001-01              64  ← Drum kit
FUNK KIT                     number
```
Drum kit name → FUNK KIT

The top part of the display shows "PRESET" when a preset drum kit is selected and "USER" when a user drum kit is selected.

2 **While holding down the [DRUM A] key (for selecting the drum A track drum kit) or [DRUM B] key (for selecting the drum B track drum kit), press the [▲]/[▼] keys or the [VALUE] dial.**
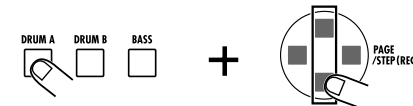
With each push of the [▲]/[▼] keys, the drum kit number is switched up or down by one increment.

3 **Hit the pads to check out the sound of the changed drum kit.**

● Editing pad settings

In a user drum kit, you can change the parameters for each pad, including drum sound, volume, pitch, and output target.

> **NOTE** The preset drum kits cannot be edited. To edit a preset drum kit, copy the contents to a user drum kit and then perform editing (→ p. 37).

1 **In pattern mode, press the [DRUM A] key (or [DRUM B] key) and then the [KIT] key.**

The indication "KIT" appears in the top part of the display, and the name and number of the drum kit to be edited are shown.
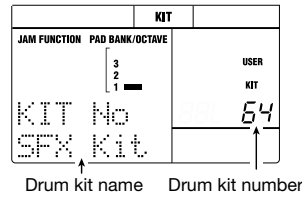
Drum kit name   Drum kit number

2 Use the [▲]/[▼] keys or the [VALUE] dial to select the desired user drum kit (64 - 127), and press the [PAD FUNCTION] key.

3 Use the [PAD BANK] key and pads 1 - 13 to specify the pad whose sound you want to edit.

Pads 1 - 13

4 Use the [◀]/[▶] keys to select the parameter to be edited.

Parameter → INST   367 ← Setting value
Drum sound → IndstriK
name
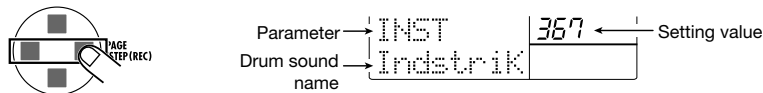
• **INST**

Selects the drum sound to be assigned to the pad from the 377 sounds incorporated in the RT-323. The setting range is 0 - 376.

• **PITCH**

Fine-adjusts the pitch of the drum sound assigned to the pad. The setting range is -7.9 - 0 (reference pitch) - 7.9, in 0.1 (1/10 semitone) steps.

• **PAN MODIFY**

Adjusts the left/right position of the pad sound, as determined by the signal balance at the [L/MONO / R OUT] jack. The setting range is -7 - 0 - 7. The amount of change depends on the sound.

NOTE The PAN setting does not affect the signal at the [SUB OUT 1]/[SUB OUT 2] jack.

• **INST LEVEL**

Adjusts the volume for each pad over the range of 1 - 15.

• **OUTPUT MAIN**

Adjusts the drum sound level at the [L/MONO / R OUT] jacks over the range of 0 - 15.

• **OUTPUT SUB 1**

Adjusts the drum sound level at the [SUB OUT 1] jack over the range of 0 - 15.

• **OUTPUT SUB 2**

Adjusts the drum sound level at the [SUB OUT 2] jack over the range of 0 - 15.

34

HINT When wanting to retrieve the bass drum or snare drum sound separately from the [SUB OUT 1] jack, set the OUTPUT MAIN parameter for the respective pad to zero, and increase the value of the OUTPUT SUB 1 parameter.

• **GROUP**

Determines the sound pattern when a pad is hit in succession (POLY = sound overlaps, MONO = sound does not overlap), and the group to which the pad belongs (0 = no group, 1 - 7 = pad belongs to specified group). Pads belonging to the same group 1 - 7 will not produce sound together.

HINT
• For example, by assigning two pads for open hi-hat and close hi-hat to the same group, the open hi-hat sound will be suppressed when you activate the close hi-hat sound, resulting in a natural effect.
• The group number applies both to POLY/MONO.

5 Use the [▲]/[▼] keys or the [VALUE] dial to change the setting value.

6 Repeat steps 3 - 5 as required to edit other pads.

7 When editing is completed, press the [EXIT] key.

INSERT/DELETE ENTER EXIT

The edited contents are automatically stored, and the unit returns to step 2. To return to the pattern/song mode, press the [PATTERN]/[SONG] key.

Copying a pad setting

Within the user drum kits, you can copy the settings for one pad to another. This is useful for example if you wish to create multiple patterns with very similar settings such as close hi-hat, pedal hi-hat, open hi-hat, and so on.

1 In pattern mode, press the [DRUM A] key (or [DRUM B] key), and then press the [KIT] key.

2 Use the [▲]/[▼] keys or the [VALUE] dial to select the desired user drum kit (64 - 127), and press the [PAD FUNCTION] key.

USER
KIT
KITNAM   64
LiveRock

3 Press the [EDIT] key, and hit the pad to be used as copy source.

The copy source pad is selected.

35

Copy source pad

COPY
SRC PAD   Pad 13 ← Copy source pad

4 **Press the [ENTER] key, and hit the pad to be used as copy target.**

The copy target pad is selected.

Copy target pad

COPY
DST PAD   Pad 6 ← Copy target pad

5 **To execute the copy process, press the [ENTER] key. To cancel the copy process, press the [EXIT] key.**

Execute   Cancel

After the copy process was executed, the unit returns to the condition of step 2. To return to pattern mode, press the [PATTERN] key.

Changing the name of a user drum kit

You can assign a name of up to 8 characters (kit name) to a user drum kit.

1 **In pattern mode, press the [DRUM A] key (or [DRUM B] key), and then press the [KIT] key.**

2 **Use the [▲]/[▼] keys or the [VALUE] dial to select the user drum kit (64 - 127) whose name you want to change.**

3 **Press the [EDIT] key, and use the [◀]/[▶] keys to call up the indication "NAME" on the display.**

NAME   64
SFX Kit

4 **Use the [◀]/[▶] keys to move the underline to the position you want to change.**

NAME   64
SFX Kit
     └ Underline
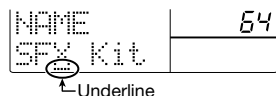
5 **Use the [▲]/[▼] keys or the [VALUE] dial to select the character you want to change from among the following choices.**

Letters: A - Z, a - z
Numerals: 0 - 9
Symbols: <Space> ! " # $ % & ' ( ) ∗ + , - . / : ; < = > ? @ [¥] ^ _ < ` { ı } → ←

6 **When the name is as desired, press the [EXIT] key.**

The drum kit name is updated, and the unit returns to the condition of step 2. To return to pattern mode, press the [PATTERN] key.

Copying a drum kit

You can copy an existing drum kit (preset drum kit or user drum kit) to a user drum kit. This is useful for example to create a variation drum kit where only a part is changed.

1 **In pattern mode, press the [DRUM A] key (or [DRUM B] key), then press the [KIT] key.**

2 **Use the [▲]/[▼] keys or the [VALUE] dial to select the source drum kit (preset drum kit 00 - 63/user drum kit 64 - 127).**

3 **Press the [EDIT] key, and use the [◀]/[▶] keys to bring up the indication "COPY?" on the display.**

COPY?   28

4 **Press the [ENTER] key, and use the [▲]/[▼] keys or the [VALUE] dial to select the target user drum kit.**
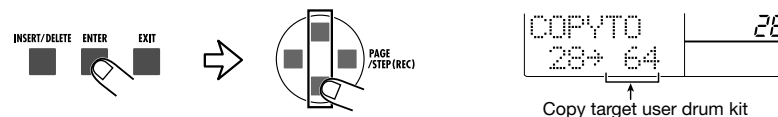
COPYTO   28
28→ 64

Copy target user drum kit

5 **To execute the copy process, press the [ENTER] key. To cancel the copy process, press the [EXIT] key.**

After the copy process was executed, the unit returns to the condition of step 2. To return to pattern mode, press the [PATTERN] key.

Bass Program Operation

Switching bass programs

The RT-323 incorporates 55 types of bass programs (00 - 54). For each pattern, you can select one bass program.

1 **Press the [PATTERN] key to switch to pattern mode, and then press the [BASS] key.**

While you press the [BASS] key, the display shows the currently selected drum kit number (00 - 54).

Bass program name → 001-01 FUNKBASS

PRESET KIT

03 ← Bass program number
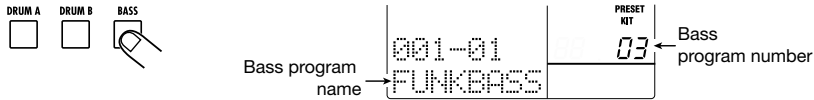
2 **While holding down the [BASS] key, use the [▲]/[▼] keys.**

With each push of the [▲]/[▼] keys, the bass program number is switched up or down by one increment.

3 **Hit the pad to check out the sound of the selected bass program.**

Transposing a bass program

Using the pitch assigned to pad 1 as a reference, the pitch of the entire bass program can be shifted up or down in semitone steps·.

1 **In pattern mode, press the [BASS] key.**

2 **Press the [UTILITY] key, and use the [◀]/[▶] keys to bring up the indication "BASKEY" on the display.**

The pitch of pad 1 appears on the display.

BASKEY

C
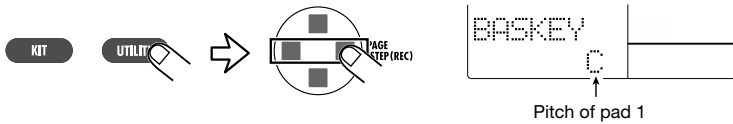
Pitch of pad 1

3 **Use the [▲]/[▼] keys or the [VALUE] dial to set the transpose step width.**

The available settings are F# (-6 semitones) - C (transpose off) - F# (+6 semitones). When the pitch of pad 1 is switched, the other pads are transposed accordingly.

BASKEY

F
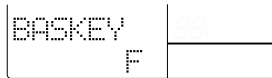
4 **To return to pattern mode when the setting is complete, press the [PATTERN] key.**

NOTE This setting applies to all bass programs.

Adjusting bass program tuning

The tuning of the entire bass program can be adjusted in 1-Hz steps. This makes it possible for example to match a bass program of the RT-323 to an instrument such as an acoustic piano.

1 **In pattern mode, press the [BASS] key.**

2 **Press the [UTILITY] key, and use the [◀]/[▶] keys to call up "TUNING" on the display.**

TUNING

Current setting → 440
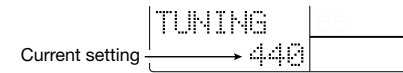
3 **Use the [▲]/[▼] keys or the [VALUE] dial to set the tuning value.**

You can make the setting over the range of 435 Hz - 445 Hz, in 1-Hz steps. The factory default setting is 440 Hz.

4 **To terminate the setting and return to the pattern mode, press the [PATTERN] key.**

NOTE This setting affects all bass programs.

Changing the bass program output level

The bass program output level can be set individually for the [L/MONO / R OUT] jack, [SUB OUT 1] jack, and [SUB OUT 2] jack. This is handy for separately using the bass track and drum track output.

1 **Press the [UTILITY] key, and use the [◀]/[▶] keys to call up "BASOUT" on the display.**

BASOUT

MAIN 15

Currently selected output jack   Volume setting
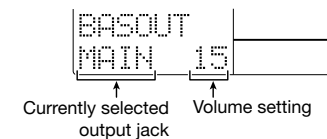
2 **Use the [◀]/[▶] keys to set the output for the bass track to "MAIN" ([L/MONO R/OUT] jack), "SUB1" ([SUB OUT 1] jack), or "SUB2" ([SUB OUT 2] jack).**

In the default condition, "MAIN" ([OUTPUT L/R] jack) is selected.

3 **Use the [VALUE] dial to set the bass program output level (0 - 15).**

The factory default setting is MAIN = 15, SUB1 = 0, SUB2 = 0.

4 **When the setting is completed and you want to return to the pattern mode, press the [PATTERN] key.**

NOTE This setting affects all bass programs.

Application Guide [Patterns]

This section explains various operation steps related to patterns. It also outlines the groove play function which lets you assign various patterns to the pads and play them in real time.

Playing a Pattern

The RT-323 comprises 400 read-only preset patterns (000 - 399) and 100 read/write user patterns (U00 - U99), resulting in a total of 500 available patterns. To select and play a pattern, proceed as follows.

1 **Press the [PATTERN] key.**
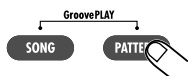
The RT-323 switches to pattern mode. In the lower part of the display, the currently selected pattern name and pattern number are shown.
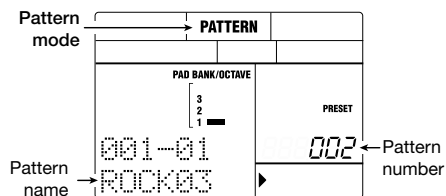
2 **Use the [▲]/[▼] keys or the [VALUE] dial to select the pattern to play.**
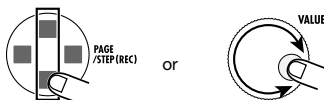
When a preset pattern was selected, the display shows "PRESET". When a user pattern was selected, the display shows "USER". When the RT-323 is in the default condition, all user patterns are empty, and the indication "EMPTY" is shown in the pattern name field.

> **HINT** With the [◄]/[►] keys, you can switch among different categories of preset patterns. For more information on preset pattern categories, please refer to the list at the end of this manual.

3 **Press the [►II] key.**

The selected pattern starts to play.
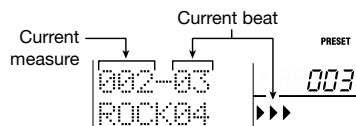
> **HINT** You can also switch patterns while playback is in progress. If you use the [▲]/[▼] keys, the pattern switches immediately. If you use the [VALUE] dial, the pattern switches only after the current pattern has ended.

4 **To stop pattern playback, press the [■] key.**
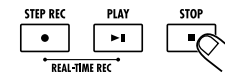
Instead of the [■] key, you can also press the [►II]key to set the unit to pause mode (the [►II] key flashes). Pressing the key once more causes playback to resume from the current point.

Changing the pattern tempo

In pattern mode, you can use the [TEMPO] key to change the tempo of the pattern.

1 **Hold down the [TEMPO] key and use the [▲]/[▼] keys or the [VALUE] dial to change the tempo value.**

While holding down the [TEMPO] key, the current tempo value is shown on the display.
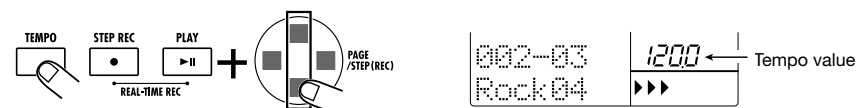
The tempo value range is 40 - 250 (BPM), in steps of 0.1 BPM. When the desired tempo is set, release the [TEMPO] key.

2 **To enter the tempo value manually, tap the [TEMPO] key twice in the desired interval (tempo tap input).**
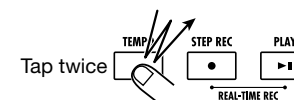
Tap twice

If you tap the [TEMPO] key twice while a pattern is playing or stopped, the tapping interval is taken as the quarter note tempo. This allows you to simply set the tempo in sync with a song.

Muting a track

With the [MUTE] key, you can selectively mute the tracks of a pattern (drum A/drum B/bass).

1 **While holding down the [MUTE] key, press the key corresponding to the track you want to mute ([DRUM A]/[DRUM B]/[BASS]).**
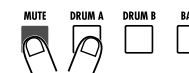
The key lights up, and the corresponding track is muted. While you hold the [MUTE] key, you

can check the light on/off status of the [DRUM A]/[DRUM B]/[BASS] keys to see which tracks are muted.

2 **To cancel muting, hold the [MUTE] key down and press the [DRUM A]/[DRUM B]/[BASS] key again.**

Using the Groove Play Function

When the RT-323 is in groove play mode, patterns assigned to the pads can be played in real time. Up to 4 patterns can be played simultaneously, letting you create complex rhythms or loop patterns like a DJ.

1 **Press the [SONG] key and [PATTERN] key simultaneously.**

The RT-323 switches to groove mode.

2 **Press any pad you like.**

While you hold down the pad, the pattern assigned to the pad is played. The overall pattern volume depends on the hitting intensity of the pad. The pattern name and pattern number of the currently played pattern are shown on the display.

Currently pressed pad

Number of pattern assigned to pad

Name of pattern assigned to pad
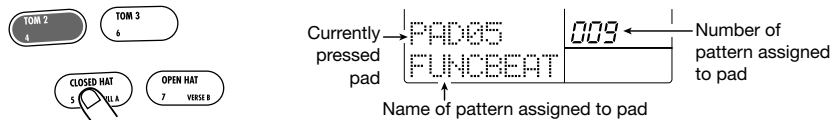
3 **To change a pattern assigned to a pad, hold down the pad and use the [▲]/[▼] keys or the [VALUE] dial to select the pattern.**
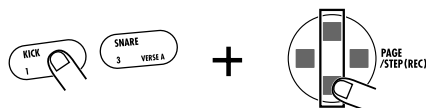
You can select either a preset or a user pattern.

🔍 **HINT** When a pattern for which "PAD" is displayed is assigned to a pad, hitting the pad in pattern mode will play the original sound (drum sound for drum kit or bass sound for bass program).

4 **To continuously play the pattern after releasing the pad, hold down the [REPEAT] key while hitting the pad.**
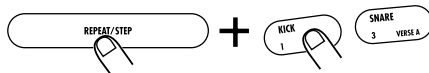
The pattern is played back in a loop. Pressing the same pad again cancels the loop.

5 **To play multiple patterns simultaneously, you can press several pads together.**

In groove play mode, you can play up to four patterns.

📋 **NOTE**
- If you press five or more pads, the most recently pressed four pads will be active.
- When you have pressed several pads, the start and stop timing is adjusted automatically, according to the selected quantize method (→ p. 50).
- The various patterns are played in the same tempo as the currently selected song.

Smallest quantize unit

Smallest quantize unit
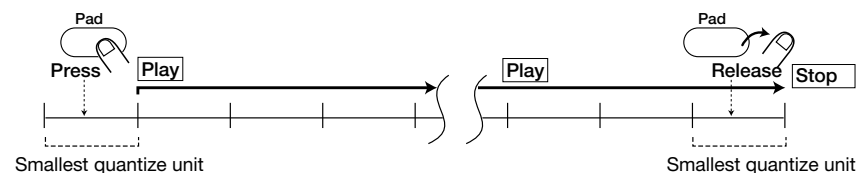
🔍 **HINT** In groove play mode, the [►❙❙]/[■] keys can be used to start/stop playback of the currently selected song.

6 **To continuously vary the pitch, volume, panning, and sound of the pattern, use the [JAM FUNCTION] key to select the parameter and then adjust it with the JAM slider.**
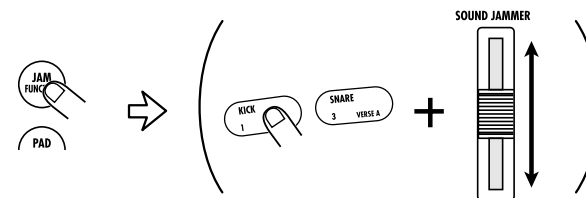
In groove play mode, you can use the JAM slider to adjust parameters such as pitch, volume, tone, etc. of the currently playing pattern. The JAM slider affects only the currently selected track (selected with [DRUM A]/[DRUM B]/[BASS] key). (For details on the JAM slider operation, please refer to p. 31.)

7 **To return from the groove play mode to the pattern/song mode, press the [PATTERN]/[SONG] key.**

Real-Time Pattern Input

This section explains how you can perform real-time input, using the metronome to hit pads and create a user pattern.

1 **In pattern mode, select an empty user pattern (U00 - U99).**

When you select an empty pattern, the indication "EMPTY" appears on the display.

```
001-01          U00
EMPTY      ▶
```

NOTE You cannot perform pattern input on a preset pattern.

2 **Use the [DRUM A]/[DRUM B]/[BASS] key to select the track (drum A/drum B/bass) for which to perform real-time input.**

DRUM A DRUM B BASS
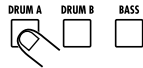
The key for the selected track lights up.

3 **To change the sound (drum kit/bass program), hold down the key selected in step 2 and use the [▲]/[▼] keys or the [VALUE] dial.**

DRUM A DRUM B BASS + PAGE /STEP(REC)

The sound last selected for each track is stored for the pattern. If required, you can use the [PAD BANK]/[OCTAVE] key to select the pad bank or the bass pitch.

4 **Hold down the [● REC] key and press the [▶‖] key.**

TEMPO STEP REC PLAY STOP
REAL-TIME REC
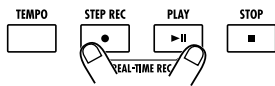
The [● REC] and [▶‖] keys light up, a precount of four beats (one measure) is heard, and then real-time input starts.

5 **Hit the pads in time with the metronome. When the last measure of the pattern is reached, input loops back to the first measure and continues.**

■ **Drum track recording**

The drum sound assigned to the pad is heard, and the play contents are recorded in accordance with the currently selected quantize settings.
While recording the pattern, you can use the [PAD BANK] key to switch the pad bank. This changes the drum sounds assigned to pads 1 - 13.

HINT If you press the [● REC] key during recording, the key starts to flash, and recording is paused. In this condition, you can hit a pad to check which sound is assigned to it. Press the [● REC] key again to resume recording.

HINT During pattern real-time input, you can also input notes via a MIDI keyboard or other component connected to the [MIDI IN] jack.

■ **Bass track recording**

In the factory default condition, a scale with semitone pitch steps such as C, C#, D, D#,...B, C is assigned to the pads, except for pad 6. Hitting a pad produces the bass sound of the assigned pitch, and recording is performed with the currently selected quantize setting.
Note that, unlike the drum track, the bass track also records the duration of the pad press. For example, to record the following example, the pad to which A2 is assigned and the pad to which E2 is assigned must be pressed for the duration of a quarter note each.

A2 pad → E2 pad →
Hold down   Hold down
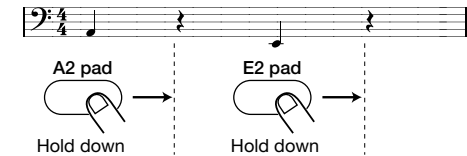
While recording the bass track, the [OCTAVE] key can be used to switch the bass range.

HINT In the factory default condition, the quantize setting of the RT-323 is a sixteenth note, but this setting can be changed if desired (→ p. 50).

6 **To erase the play contents from a specific pad, hold down the [ERASE] key and press the pad.**

EDIT ERASE INSERT/DELETE ENTER + Pads 1 - 13

While you hold down the [ERASE] key, the sound assigned to that pad is erased from the pattern.

To erase the entire track, hold down the [ERASE] key and press the key for the track ([DRUM A]/[DRUM B]/[BASS]) key. While you keep both keys depressed, all sound from the respective track is erased from the pattern.

ERASE + [PAD1](KICK)   ERASE + [PAD13](EXTRA 3)

Drum track A
Snare drum
Bass drum

Snare drum
Bass drum
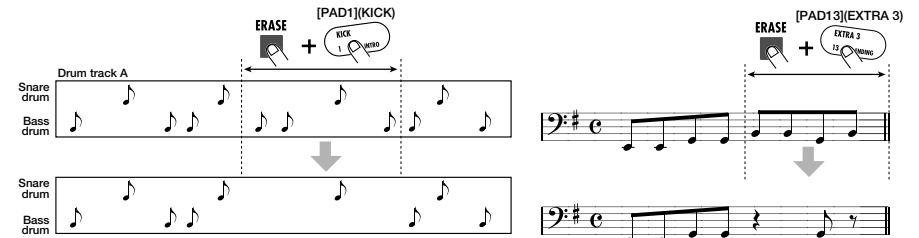
7 **To record a JAM slider operation in the pattern, use the [JAM FUNCTION] key to select the function and then move the JAM slider while holding down the pad.**

You can record changes in pitch, volume, panning position, and sound. (For details on using the JAM slider, see page 31.)

NOTE

The JAM slider operation is only effective for a sound currently played with a current pad. Moving the JAM slider by itself has no effect on the recorded sound.

8 **To terminate real-time input, press the [■] key.**

The [● REC] and [►‖] keys light go out, and real-time input finishes.

HINT

When you create a new pattern, it is assigned a name such as "Pat xxx" (where xxx is the user pattern number). This pattern name can be changed as desired (→ p. 54).

9 **Press the [►‖] key to check the recorded contents.**

Pattern Step Input

For step input, you enter each note separately, while the RT-323 is in the stop condition. This makes it easy to enter complex drum patterns or bass lines that might be difficult to achieve with real-time input.

1 **In pattern mode, select an empty user pattern (U00 - U99).**

When an empty pattern is selected, the indication "EMPTY" appears on the display.

2 **Use the [DRUM A]/[DRUM B]/[BASS] key to select the track for step input (drum A/drum B/bass).**

3 **To change the sound (drum kit/bass program), hold down the key selected in step 2, and operate the [▲]/[▼] keys or the [VALUE] dial.**

The sound last selected for each track is recorded as the pattern.

4 **Press the [● REC] key.**
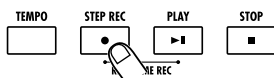
The [● REC] key lights up, and pattern step input becomes possible.

5 **Use the pads and [STEP] key to enter notes and pauses.**

■ Drum track recording

When you press a pad after pressing the [STEP] key, the drum sound assigned to the pad is entered. If you just press the [STEP] key without pressing a pad, no note is entered and the present position advances by the quantize value. For example, with a quantize setting of a

sixteenth note, to enter a rhythm kick as shown in the score below, operate the pads and [STEP] key as follows.
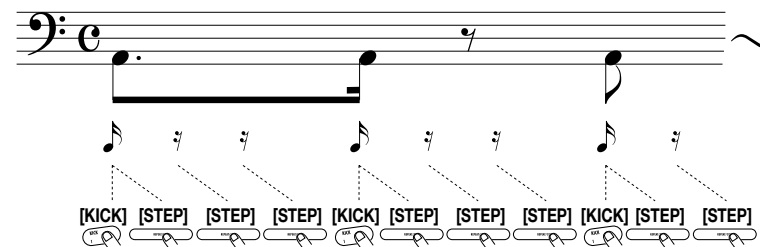
During step input, the [PAD BANK] key can be used to switch between pad banks.

■ Bass track recording

Pressing the [STEP] key while holding down a pad enters a note of the pitch assigned to that pad. Pressing only the [STEP] key enters no note, and the present position advances by the quantize value. The duration of the note depends on the number of times the [STEP] key is pressed while holding down a pad. For example, with a quantize setting of a sixteenth note, to enter a rhythm kick as shown in the score below, operate the pads and [STEP] key as follows.
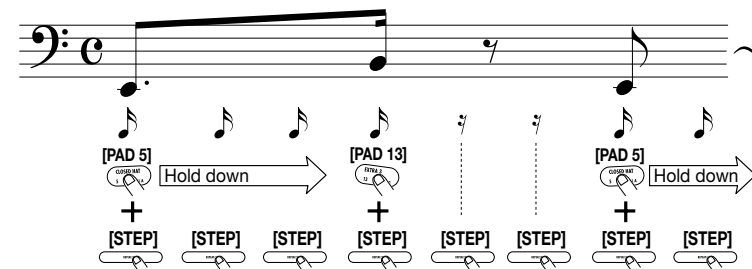
During step input, you can also use the [OCTAVE] key to switch the bass pitch.

HINT

- When entering notes with step input, the hitting intensity of the pad is also stored.
- When the end of the pattern is reached, the unit automatically returns to the first measure, allowing you to continue with step input.
- In the factory default condition, the quantize setting of the RT-323 is a sixteenth note, but this setting can be changed if desired (→ p. 50).

6 **If you have made a mistake during input, use the [STEP] key to move to the note you want to correct, and then hold down the [ERASE] key while pressing the respective pad.**
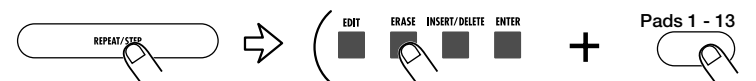
■ Drum track

When you use the [STEP] key to move within the pattern, the pad input for the current position lights up. When you press a lit pad while holding down the [ERASE] key, the pad light goes out,

and the note at that position is cleared.
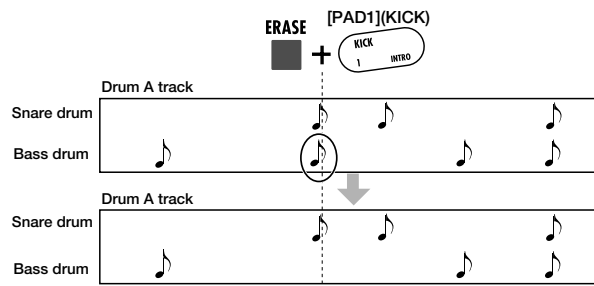
■ Bass track

To clear a specific note from the bass track, use the [STEP] key as for the drum track to move to the start of the note (the pad for the pitch lights up). Then hold down the [ERASE] key and press the lit pad.

By holding down the [ERASE] key and pressing the pad at a point within the note, you can make the note shorter.
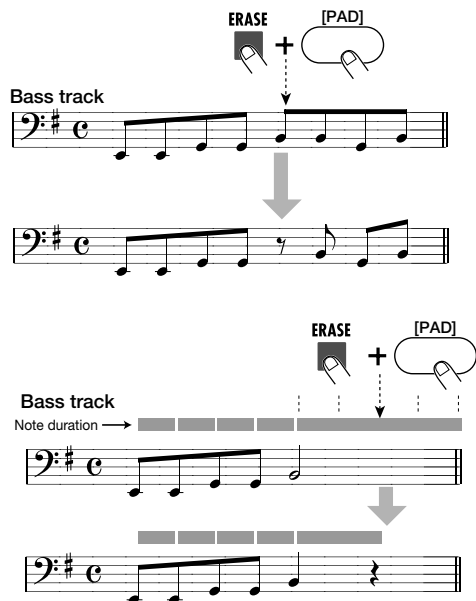
7 **To terminate step input, press the [■] key.**

The [● REC] key light goes out, and the step input condition is terminated.

Deleting a User Pattern

This clears all playing information from the currently selected user pattern, returning it to the empty condition.

1 **In pattern mode, use the [▲]/[▼] keys or the [VALUE] dial to select the user pattern you want to delete.**

2 **While the pattern is stopped, press the [DELETE] key.**

The indication "SURE?" appears on the display.

3 **To execute the delete process, press the [ENTER] key. To cancel the delete process, press the [EXIT] key.**

When the [ENTER] key is pressed, the pattern is deleted and the indication "EMPTY" is shown on the display.

Deleting a Track

You can delete any track from the currently selected user pattern.

1 **In pattern mode, use the [▲]/[▼] keys or the [VALUE] dial to select the user pattern from which you want to delete a track.**

2 **While holding down the [ERASE] key, press the key for the track ([DRUM A]/[DRUM B]/[BASS] key) you want to delete.**

3 **To execute the delete process, press the [ENTER] key. To cancel the delete process, press the [EXIT] key.**

When the [ENTER] key is pressed, the specified track is deleted.

Copying a Pattern

You can copy an existing pattern (preset/user pattern) to any user pattern.

1 **In pattern mode, select the pattern to be used as copy source, and press the [EDIT] key.**
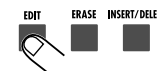
2 **Use the [◀]/[▶] keys to bring up the indication "COPY?" on the display.**

Application Guide [Patterns]

Application Guide [Patterns]

```
COPY?  ◄ ►      001
```
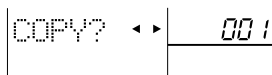
3 **Press the [ENTER] key, and use the [▲]/[▼] keys or the [VALUE] dial to select the copy target user pattern (U00 - U99).**
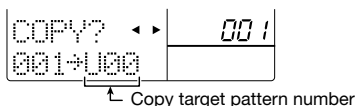
```
COPY?  ◄ ►      001
001→U00
```
└ Copy target pattern number

4 **To execute the copy process, press the [ENTER] key. To cancel the copy process, press the [EXIT] key.**

When the [ENTER] key is pressed, the copy is carried out and the unit returns to step 1.

Changing Pattern Settings

This section describes how to change settings that are common to all patterns, and settings that are user pattern specific (such as beat and tempo).

Setting the quantize value

The quantize value is the smallest unit for real-time input/step input of a pattern.

1 **In pattern mode, press the [EDIT] key.**

2 **Use the [◄]/[►] keys to call up the indication "QUNTIZ" on the display.**
You can now select the smallest unit for the note.

```
QUNTIZ ◄ ►      U00
         16
```
Current setting
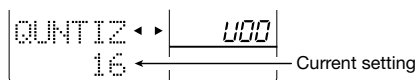
3 **Use the [▲]/[▼] keys or the [VALUE] dial to select the smallest unit note from the following available settings.**

4: Quarter note
8: Eighth note
12: Eighth triplet note
16: Sixteenth note
24: Sixteenth triplet note

32: Thirty-second note
48: Thirty-second triplet note
Hi: 1 tick (quantize function off)
    * **1 tick is (1/96 of quarter note)**

This setting affects the following four functions.
- Smallest unit for real-time input
- Smallest unit for step input
- Smallest unit for continuous sound interval when pad is hit while holding down [REPEAT] key
- Smallest unit for pattern play start/stop timing adjustment during groove play

4 **When the setting is complete, press the [EXIT] key.**
The new setting becomes active and the unit returns to the pattern mode.

(HINT) If you press the [● REC] key instead of the [EXIT] key in step 4, the notes recorded in the current pattern are aligned to the quantize setting.

Adjusting the rhythm flourish (swing)

This lets you control the amount of rhythm flourish (swing) used by the pattern. Higher values result in more pronounced swing.

(NOTE) This setting affects all patterns.

1 **In pattern mode, press the [EDIT] key.**

2 **Use the [◄]/[►] keys to call up the indication "SWING" on the display.**
You can now set the swing value.

```
SWING  ◄ ►
         50
```
Current setting

3 **Use the [▲]/[▼] keys or the [VALUE] dial to set the swing value (50 - 75).**
The default setting is 50 (no swing).

4 **When the setting is complete, press the [EXIT] key.**
The setting is updated, and the unit returns to pattern mode.

Changing the pattern length

The length of a user pattern (number of measures) can be adjusted. This setting is stored for each user pattern individually.

1 **In pattern mode, select the user pattern for which you want to make the setting, and press the [EDIT] key.**

2 **Use the [◄]/[►] keys to call up the indication "BARLEN" on the display.**

```
BARLEN ◄ ►      U01
          2
```
Current setting

3 **Use the [▲]/[▼] keys or the [VALUE] dial to set the number of measures.**
The setting range is 1 - 99. The default length for empty patterns is 2 measures.

When changing the length of a pattern that has already been input, the playback content changes as follows.

■ **More measures than current setting**
Blank measures are added to the end of the current pattern.

■ Fewer measures than current setting

The excessive measures are cut off. After returning to pattern mode, the deleted measures cannot be restored.

NOTE When you change the setting with the [▲]/[▼] keys or the [VALUE] dial, the indication "E" appears on the display. When you return the setting to the original value, the "E" disappears.

4 **When the setting is complete, press the [EXIT] key.**

The new setting becomes active and the unit returns to the pattern mode.

Changing the pattern beat

The beat (timing signal) of a user pattern can be adjusted. This setting is stored for each user pattern individually.

1 **In pattern mode, select the user pattern for which you want to make the setting, and press the [EDIT] key.**

2 **Use the [◀]/[▶] keys to call up "TIMSIG" on the display.**

```
TIMSIG ◄ ►|    U01
Current setting ─────► 4
```
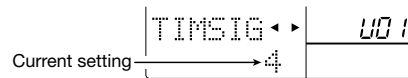
3 **Use the [▲]/[▼] keys or the [VALUE] dial to set the beat.**

The setting range is 1 (1/4 beat) - 16 (16/4 beat). The initial setting for empty patterns is 4 (4/4 beat).

It is possible to change the beat for a pattern that is already input. In this case, the playback content changes as follows.

■ Longer beat than current setting

Blank space is added to each measure.

■ Shorter beat than current setting

Excessive section of each measure is cut off. After returning to pattern mode, the deleted part cannot be restored.

NOTE When you change the setting with the [▲]/[▼] keys or the [VALUE] dial, the indication "E" appears on the display. When you return the setting to the original value, the "E" disappears.

4 **To update the setting, press the [ENTER] key. To cancel the process, press the [EXIT] key.**

When you press the [ENTER] key the unit returns to pattern mode.

● Setting the volume balance for each track

You can adjust the volume of the drum A, drum B, and bass track in a user pattern. This setting is stored for each user pattern individually.

1 **In pattern mode, select the user pattern for which you want to make the setting, and press the [EDIT] key.**

2 **Use the [◀]/[▶] keys to call up "MIXLVL" on the display.**

```
MIXLVL ◄ ►|    U01
Dr A 15
```
Current track   Current setting
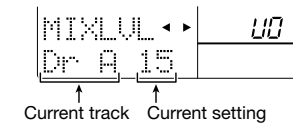
3 **Use the [◀]/[▶] keys to select the track for which you want to change the volume.**

4 **Use the [▲]/[▼] keys or the [VALUE] dial to set the volume for the track (0 - 15).**

When a new pattern is created, the volume for all tracks is set to 15. When wishing to adjust the volume for other tracks, repeat steps 3 and 4.

5 **When the setting is complete, press the [EXIT] key.**

The unit returns to pattern mode.

● Changing the play timing (shift)

You can change the play timing of the currently selected user pattern.

1 **In pattern mode, select the user pattern for which you want to make the setting, and press the [EDIT] key.**

2 **Use the [◀]/[▶] keys to call up "SHIFT" on the display.**

```
SHIFT ◄ ►|    U01
              0 ◄─────── Current setting
```
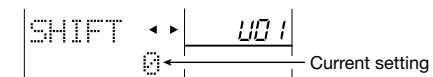
3 **Use the [▲]/[▼] keys or the [VALUE] dial to shift the timing.**

The setting range is -192 to 192 ticks (+-2 beats) in units of 1 tick (1/96 of a quarter note). For example, when the setting value is 24, the pattern changes as follows.

Shift   Setting value = 24 (sixteenth note)

Pause of same length
as setting value

Deleted

NOTE
When you change the setting with the [▲]/[▼] keys or the [VALUE] dial, the indication "E" appears on the display. When you return the setting to the original value, the "E" disappears.

4 **To accept the setting, press the [EXIT] key.**

The unit returns to pattern mode.

NOTE
This setting directly alters the play data stored for the pattern. After you return to pattern mode, the original contents cannot be restored.

● Changing the pattern name

When you create a new pattern, the pattern name "PTN xxx" (where xxx is the user pattern number) is automatically assigned.

1 **In pattern mode, select the user pattern for which you want to make the setting, and press the [EDIT] key.**

2 **Use the [◄]/[►] keys to call up "NAME" on the display.**

The pattern name is shown under "NAME" with an underline.

Underline

3 **Use the [◄]/[►] keys to move the underline, and use the [▲]/[▼] keys or the [VALUE] dial to select the desired character. (For a list of usable characteristics, see p. 36.)**

4 **When the pattern name has been changed, press the [EXIT] key.**

The unit returns to pattern mode.

Application Guide [Song]

This section explains various operation steps related to song playback, creating new songs, and editing existing songs.

Song Playback

The RT-323 can store up to 100 songs.

1 **Press the [SONG] key to switch to song mode.**

The RT-323 switches to the song mode which lets you create and play your own songs.
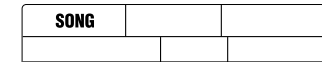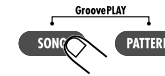
2 **Use the [▲]/[▼] keys or the [VALUE] dial to select the song number (00 - 99).**

You can also switch songs while a song is playing. When you use the [▲]/[▼] keys, the song is switched immediately. When you use the [VALUE] dial, the song is switched when playback of the current song completed.

Song name — Song number

When you select an empty song, the indication "EMPTY" is shown in the song name field.

3 **Press the [►‖] key.**

The [►‖] key lights up, and the selected song is played.

Current measure   Current beat

4 **To change the song tempo, hold down the [TEMPO] key and use the [▲]/[▼] keys or the [VALUE] dial while the song is playing (or stopped).**

The song tempo can be set in the range from 40 - 250 (BPM). The setting is stored together with the song.

5 **To mute a specific track, hold down the [MUTE] key and press the [DRUM A]/[DRUM B]/[BASS] key.**

MUTE DRUM A DRUM B BASS
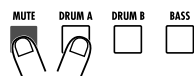
The key lights up, and the selected track is muted. To cancel muting, hold down the [MUTE] key and press the same key once more.

> **NOTE** When you mute a track, the song track will also be muted at the same time. (For information on the song track, see page 69.)

6 **To stop the song, press the [■] key.**

STEP REC   PLAY   STOP
REAL-TIME REC

The song returns to the start position.

> **HINT** If you press the [►‖] key instead of the [■] key, the unit goes into pause mode. Pressing the [►‖] key again resumes playback. During pause, you can use the [VALUE] dial to adjust the position in measure units.

Real-time Song Input

This section explains how to record songs in real time by assigning patterns to pads and playing them by hitting the pads in the desired sequence.

● Assigning a pattern to a pad

To perform real-time input of a song, you must first assign the patterns to be used in the song.

1 **In song mode, use the [▲]/[▼] keys or the [VALUE] dial to select an empty song.**

When you select an empty song, the indication "EMPTY" is shown in the song name field.

> **HINT**
> • In the factory default condition, songs 00 - 11 have various patterns assigned to the pads. (For more information, see the list at the end of this manual.)
> • When you select a song for which "EMPTY" is shown (in the factory default condition songs 12 - 99), the pattern-to-pad assignment of the most recent song is used automatically.

2 **Press the [PAD FUNCTION] key.**

FUNCTION

PAD
FUNC

The various pad settings can now be edited.

3 **Press the pad to which you want to assign a pattern.**

You can now assign a pattern to the selected pad.

KICK   SNARE
1   3   VERSE A

Pattern name → Ptn
INTRO14   371 ← Pattern number
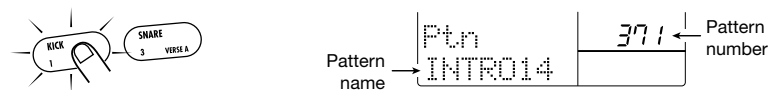
4 **Use the [VALUE] dial to select the pattern number (000 - 399, U00 - U99).**

VALUE

5 **Repeat steps 3 - 4 to assign patterns to other pads.**

6 **When the required patterns have been assigned, press the [EXIT] key.**

The unit returns to the song mode.

When you hit a pad in this condition, the pattern assigned to the pad is played. This allows you to play the backing for a song by switching patterns in real time. This is similar to groove play mode, but you cannot play multiple patterns at the same time, and the pattern switching occurs only at the measure (or beat) change.

> **HINT** The pattern information assigned to the pads is stored for each song individually.

● Changing the playing information of a pattern assigned to a pad

In song mode, you can transpose the pitch of a pattern assigned to a pad, and select the operation that will be performed after the pattern is played.

1 **In song mode, while the song is stopped, press the [PAD FUNCTION] key.**

2 **Hit the pad with the pattern you want to edit.**

KICK   SNARE
1   3   VERSE A

3 **Use the [◄]/[►] keys to select the parameter from the following.**

PAGE
STEP (REC)

Parameter → Next
Setting value → 10 Fill
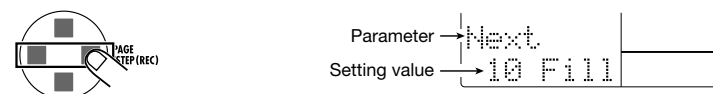
The parameters and setting ranges are as shown in the following table.

Parameter	Content	Setting Range
Ptn	Pattern number assigned to pad	000 – 399,U00 –U99
Dr B	Drum B track playing information	000A –399A, U00A –U99A, 000b –399b, U00b –U99b
Bass	Bass track playing information	000 –399, U00 –U99
Transp	Bass track transpose setting	-12 – 0 –12 (Semitone units)
Next	Operation when number of measures set with BARLEN is exceeded	1 - 13: Play pattern of specified pad 1 Fill - 13 Fill: Switch pattern at beat boundary STOP: Stop play

NOTE The Next parameter specifies which operation occurs when the pattern assigned to the pad was played. If set to "1" - "13", the specified pattern is played. If set to "1 Fill" - "13 Fill", the specified pattern is also played, but pattern switching occurs at the bar boundary. If set to "STOP", playback stops at that point (suitable for ending patterns).

4 **Use the [VALUE] dial to change the setting value.**

Setting value → Next STOP

5 **To terminate the editing process, press the [EXIT] key.**

INSERT/DELETE   ENTER   EXIT

The unit returns to the song mode.

NOTE When hitting pads for song real-time input, the parameter settings will be recorded as song events.

● Recording a pattern sequence

After all patterns to be used in a song have been assigned to patterns, hit the pads in the desired sequence to record the song.

1 **Use the [▲]/[▼] keys to select the song for which the pattern have been assigned.**

12 ← Song number

EMPTY

2 **Hold down the [● REC] key and press the [▶‖] key.**

The unit goes into standby mode for real-time song input.

TEMPO   STEP REC   PLAY   STOP

REAL-TIME REC

START!   12
Song012
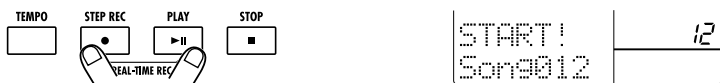
3 **Hit the pad with the first pattern.**

This starts the real-time input mode, and the pattern is played back. Also when you release the pad, the pattern will continue to play until the preset number of measures is reached, or until another pad is hit. The display shows the current measure and beat.

KICK   SNARE
1   3 VERSE A

Pad with first pattern

Current — Current beat
measure

002-03   Pad 1
Song012 ▶▶▶
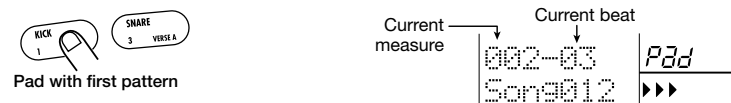
4 **To switch the pattern, hit the pad for the pattern within the immediately preceding measure.**

EXTRA 2   EXTRA 3
11 BREAK   13 ENDING

Pad with next pattern

Measure number for recording

1	2	3	4	5	6	7	8
Pattern A		PatternA		PatternB		PatternB	

Pad with pattern A   Pad with pattern B
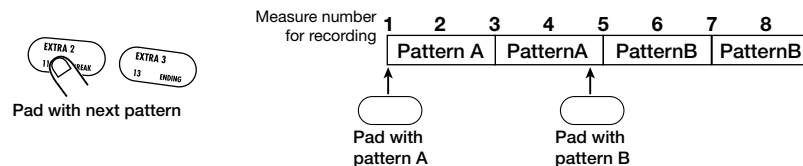
The pattern assigned to the pad is reserved, and will start playing from the beginning of the next measure.

HINT When you hit a pad for which the Next parameter (→ p. 58) is set to "1 Fill" - "13 Fill", the unit switches to the new pattern at the bar boundary. Because the new pattern also starts at the bar boundary, there is no bar change for this measure.

5 **Record other patterns in the same way.**

6 **To terminate real-time input, press the [■] key.**

Real-time input stops at the beginning of the next measure.

HINT
- When wanting to automatically end real-time input after a certain pattern (for example an ending pattern), has played, set the NEXT parameter of the pad to "STOP" (→ p. 58).
- A song created with real-time input can be edited in the same way as a song created with step input. For details, see page 61.

Song Step Input

For song step input, you enter various information (pattern, tempo, bass transpose, etc.) separately, while the RT-323 is in the stop condition. To do this, proceed as follows.

● Pattern information step input

You can enter patterns one by one in the desired playing sequence. This is suitable for example to create the backing for a song arrangement.

1 **In song mode, use the [▲]/[▼] keys or the [VALUE] dial to select an empty song.**

2 **Press the [● REC] key.**

The [● REC] key lights up, and song step input becomes possible. The display shows the current measure and beat.
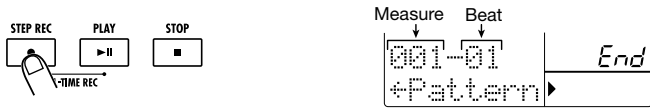
3 **Use the [INSERT] key to bring up the indication "INSERT?" on the display.**

The pattern for input to the song can be selected.

HINT When the indication "End" is shown on the display, you can use the [VALUE] dial to call up the indication "INSERT?".

4 **Use the [VALUE] dial to select the number of the pattern to assign to the first step (000 - 399, U00 - U99).**

The pattern number and duration (number of measures) are shown on the display.
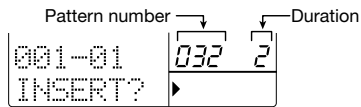
HINT
- If a user pattern is empty, the indication "E" is shown to the right of the pattern number.
- If you input an empty user pattern into a song, the sound will be muted for the duration of the pattern. (The duration is shown on the display.)

5 **If required, use the [▲]/[▼] keys to change the duration of the pattern.**

The pattern duration can be adjusted in the range of 1 - 99. If you make it longer than the original setting, the same pattern will be repeated. If you make it shorter, the pattern will be cut off midway when switching to the next pattern.

6 **To enter the selected pattern, press the [ENTER] key.**

To check the entered pattern, you can play the pattern with the [►‖]/[■] keys.

7 **To enter the next pattern, press the [►] key.**

The current position advances for the duration of the pattern.

HINT By using the [◄]/[►] keys during pattern input, you can move directly to pattern information that has already been entered.

8 **Repeat steps 3 - 7 to select the patterns for a song.**

If you make a mistake during input, you can correct it as follows.

■ To change an entered pattern

Use the [◄]/[►] keys to move to the respective pattern, and use the [VALUE] dial to select a new pattern.

■ To insert a new pattern

Use the [◄]/[►] keys to move to the respective pattern, and carry out steps 3 - 6. This inserts a pattern at the current position, and shifts all later patterns back by the duration of the inserted pattern.
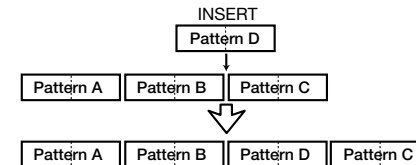
■ To delete a pattern

Use the [◄]/[►] keys to move to the pattern you want to delete, and press the [ERASE] key. The song length remains the same, but the current pattern information is deleted. The display indication changes to " ←Pattern". This means that the preceding pattern will continue to play.
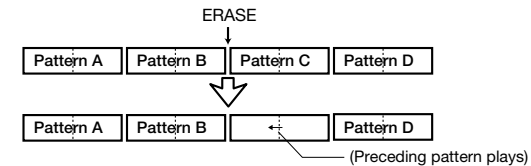
NOTE If you delete the first pattern in a song, the sound will be muted until the next pattern information.

■ **To delete a measure**

Use the [◄]/[►] keys to move to the start of the measure you want to delete, and press the [DELETE] key. The indication "DELETE?" appears on the display. Press the [ENTER] key to delete the measure from the current song. Subsequent patterns are shifted forward. If you delete the first measure of a 2-measure pattern, the first measure remains in the song, with the indication "←Pattern". This means that the immediately preceding pattern is played. If required, delete this measure using the same procedure.

DELETE

| Pattern A | Pattern B | Pattern C | Pattern D |

| Pattern A | Pattern B | ← | Pattern D |

(Preceding pattern plays)
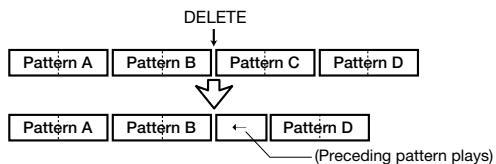
9 **When one song is completed, press the [■] key.**

The [● REC] key light goes out, and song step input is terminated.
When you press the [►‖] key, the song is played.

Switching midway to another pattern

It is also possible to have the unit switch to another pattern while a pattern is playing. For example, you could change the second half of a 2-measure pattern to a fill-in 1-measure pattern.

1 **In song mode, select the song and press the [● REC] key.**

The [● REC] key lights up, and song step input becomes possible.

2 **Press the [▲] key.**

The indication "EV→" is shown on the display. While this indication is shown, you can use the [◄]/[►] keys to adjust the position in measure units. Other indications such as "PT" or "TS" to the right of "EV→" denote event information for the current position. (For details, see page 66.)

Measure Beat

```
001-01    0  ← Tick
EV→PT TS  ►
```
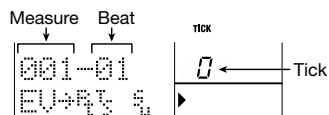
3 **Use the [◄]/[►] keys to move to the measure where you want to input pattern information.**

```
004-01    0
EV→     ►
```
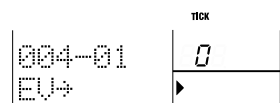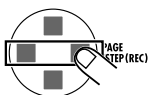
4 **When wishing to input pattern information midway in the measure, use the [STEP] key to shift the current position.**

With each push of the [STEP] key, the current position is shifted by a sixteenth note (24 ticks).

REPEAT/STEP

```
004-02    48
EV→      ►►
```

HINT The [STEP] key cannot be used to move back. If you have moved past the desired position, use the [◄] key to return to the start of the measure, and then start over with the [STEP] key.

5 **Press the [▼] key once.**

Pattern information can be input at the current position.

```
004-02
←Pattern ►►
```

HINT Also while the "EV→" indication is not shown, you can use the [STEP] key to shift the current position by a sixteenth note (24 ticks). In this case, the current tick count is shown only while the [STEP] key is pressed.

6 **Use the [VALUE] dial to select the pattern for input.**

Immediately after turning the [VALUE] dial, pattern information is input for the current position. When pattern information is input midway in a measure, the indication "F" appears to the right of the pattern number.

```
004-02    033F
Pattern   ►►
```

If the pattern was switched midway in a measure, the new pattern does not play from the beginning, but from the point where the pattern is switched.

Pattern A

Pattern B

SONG
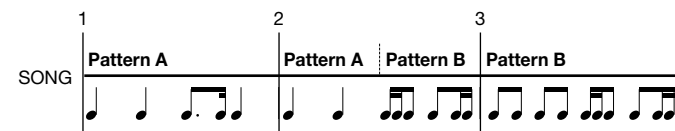
HINT
• The pattern entered here is repeated until the point where the next pattern information exists.
• When you press the [ENTER] key for a pattern with "F" appended to the number, the "F" indication disappears and the pattern starts from the beginning. (In this case, the current position becomes the new start of the measure.) By pressing the [ENTER] key again, you can return to the pattern with "F".

7 **Press the [■] key to terminate the operation.**

Transposing the bass track

This section explains how to shift (transpose) the pitch of the bass track of a pattern input for a song. Using the transpose function, you can create various chord progressions from a small number of patterns.

1 In song mode, select the song, and press the [● REC] key.

The [● REC] key lights up, and song step input becomes possible.

2 Use the [▲]/[▼] keys to call up "Transps" on the display.

Transpose information can now be entered or edited. If there is already transpose information at the current position, the setting value is shown.

```
001-01      0 ←── Transpose
Transps  ▶         setting value
```
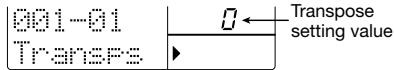
> **HINT** When pattern information is input, transpose information with a zero value is also input.

3 Use the [◀]/[▶] keys to move to the measure where you want to enter transpose information.

While "Transps" is shown, you can use the [◀]/[▶] keys to shift the current position in measure units. (If transpose information is entered within a measure, you can move to that position.)

```
003-01
←Transps ▶
```

> **NOTE**
> • The transpose information need not be input at the same position as the pattern information. It can be input at the start of any measure in a pattern, or within a measure.
> • If no transpose information is input for the current point, the indication "←" is shown. This means that the preceding transpose information continues to apply.

4 To transpose from midway through a measure, use the [STEP] key to adjust the current position.

With each push of the [STEP] key, the current position is advanced by one sixteenth note (24 ticks).

```
( REPEAT/STEP )
```

> **HINT**
> • The current tick count is shown while the [STEP] key is pressed.
> • The [STEP] key cannot be used to move back. If you have moved past the desired position, use the [◀] key to return to the start of the measure, and then start over with the [STEP] key.

5 Use the [VALUE] dial to set the transpose value.

The transpose value can be set in semitone steps over the range of -12 (1 octave lower) - 0 - 12 (1 octave higher).

```
003-01      5
Transps  ▶
```

> **HINT** The entered transpose information remains valid until the next transpose input.

6 Repeat steps 3 - 5 to enter any desired transpose information at other points.

7 To terminate the operation, press the [■] key.

Replacing the drum B/bass track

The drum B track or bass track of the pattern used in a song can be altered to that of a different pattern. This is useful for example to utilize the fill-in phrase from another pattern after pattern input for a song has been completed.

1 In song mode, select the song, and press the [● REC] key.

2 Use the [◀]/[▶] keys to move to the position of the pattern where you want to replace the drum B track/bass track.

3 Use the [▲]/[▼] keys to call up "⊦DrBPTN" (to replace the drum B track) or "⊦BasPTN" (to replace the bass track) on the display.

```
003-01     032
⊦BasPTN  ▶
```

> **HINT** In this condition, you can use the [◀]/[▶] keys to move the current position in measure units.

4 To change the play contents from within a measure, use the [STEP] key to shift the current position.

With each push of the [STEP] key, the current position is advanced by one sixteenth note (24 ticks). If you have moved past the desired position, use the [◀] key to return to the start of the measure, and then start over with the [STEP] key.

5 Use the [VALUE] dial to select a setting from the following.

```
003-01      035 ←── Setting value
⊦BasPTN  ▶
```

■ **Replacing the drum B track (DrBPTN)**
  • Pattern numbers ending in A (Example: 001A, U99A)
    Will be replaced by the contents of the drum A track of the applicable pattern.

- Pattern numbers ending in b (Example: 001b, U99b)

  Will be replaced by the contents of the drum B track of the applicable pattern.

■ Replacing the bass track (BasPTN)

- Pattern number (Example: 001, U99)

  Will be replaced by the bass track contents of the respective pattern.

(HINT) The contents replaced as described here will remain effective until the point where the next pattern information is input.
If the track contents were switched midway in a measure, the new contents are not played from the beginning, but from the point where the switch was made.

6 To terminate the operation, press the [■] key.

● Step input for various events

During step input of a song, you can not only enter pattern information and transpose information, but also add various other information such as the volume and sound of each track (drum kit/bass program). Such pieces of information are called "events". This section describes how to add new events and change the setting value of existing events.

1 In song mode, select the song you want to edit, and press the [● REC] key.

2 Use the [▲]/[▼] keys to select one of the following event types for editing.

```
001-01
Event type ──→ └←BasVOL  ▶
```
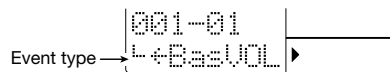
Editable event types along with setting range and setting resolution are listed below.

Event type	Symbol	Content	Setting range
Pattern		Pattern number	000 399, U00 – U99
Transps		Bass track transpose information	-12 – 0 – 12 (semitone units)
Tempo		Tempo information	40 – 250 (BPM)
DrBPTN		Drum B track play information	----, 000A – 399A, U00A – U99A, 000b – 399b, U00b – U00b
BasPTN		Bass track play information	---, 000 – 399, U00 – U99
DrAKIT		Drum A track drum kit	00 – 127
DrBKIT		Drum B track drum kit	00 – 127
BasPRG		Bass track bass program	00 – 54
DrAVOL		Drum A track volume	0 – 15
DrBVOL		Drum B track volume	0 – 15
BasVOL		Bass track volume	0 – 15

(HINT)
- The smallest unit for entering each event information is one sixteenth note.
- When the DrBPTN event was set to "----" or the BasPTN event to "---", the respective track is muted until the play information of another pattern is selected (or the pattern itself is switched).

(NOTE) If you press the [▲] key while a pattern event is selected, the indication "EV→" appears on the display. While this indication is shown, the number of ticks (1/96 of a beat) for the current position is shown to the right of the measure and beat, and movement in steps of 24 ticks is possible. (While "EV→" is displayed, pattern event input or editing is not possible.) Pressing the [▼] key turns off the "EV→" indication and returns to the pattern event selection mode.

3 Use the [◀]/[▶] keys to move to the position where you want to input event information.

If there is an event for the current position, the display will show its value. If there is no event for the current position, "←" is shown on the display. This indicates that the last event setting is still active.

```
005-01
└←BasVOL  ▶
```

(HINT)
- While a pattern event is displayed, you can use the [◀]/[▶] keys to directly move to points where pattern information is input (or to the end of the song).
- When another event is displayed, you can use the [◀]/[▶] keys to move in measure units. If there is an event midway in a measure, you can move to that point.

4 If required, adjust the current position with the [STEP] key.

While any event is displayed, you can use the [STEP] key to advance the current position by one sixteenth note (24 ticks).

(HINT)
- The current tick count is shown while the [STEP] key is pressed.
- If you have used the [STEP] key to move past the target position, press the [◀] key to return to the start of the step, and then press the [STEP] key again to move to the target position.

5 Use the [VALUE] dial to enter the value.

A new event information is now entered at the current position (for information on the setting range for each event, see the table on the previous page).

```
005-01    10 ←── Setting value
└BasVOL  ▶
```
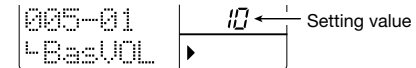
6 Repeat steps 2 - 5 until all required events have been input.

Any entered events can be edited as shown below.

■ Changing the event setting value
Use the [▲]/[▼] keys to select the event type. Use the [◀]/[▶] keys and [STEP] key to move to the position of the event you want to modify, and use the [VALUE] dial to change the setting.

■ Deleting an event
Use the [▲]/[▼] keys to select the event type. Use the [◀]/[▶] keys and [STEP] key to move to the position of the event you want to delete, and press the [ERASE] key.

7 To add or edit events, press the [■] key.

Copying Specific Measures

You can use measure units to copy a part of a song for which pattern information has been input. This is useful for example to repeat parts of a song.
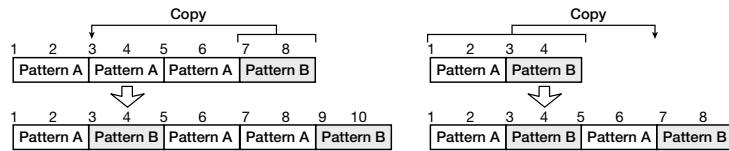
1 In song mode, press the [● REC] key.

The [● REC] key lights up.

2 Press the [EDIT] key.

You can now specify the number of the first measure of the copy source.

3 Use the [VALUE] dial to specify the first measure number of the copy source, and then press the [ENTER] key.

```
COPY        8  ─── First measure number
START          of copy source
```
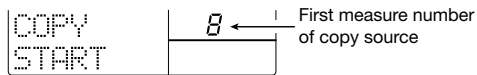
4 Use the [VALUE] dial to specify the last measure number of the copy source, and then press the [ENTER] key.
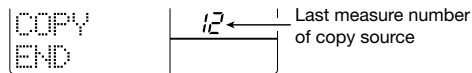
```
COPY       12  ─── Last measure number
END            of copy source
```

5 Use the [VALUE] dial to specify the first measure number of the copy target.

```
COPY       13  ─── Copy target start position
TO             measure number
```
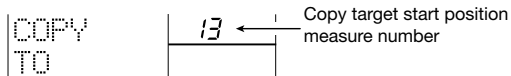
NOTE If the copy target range exceeds the end of the song, the song duration is automatically extended.

6 To execute the copy process, press the [ENTER] key.

Deleting a Song

You can delete the currently selected song, to return it to the empty condition.

1 In song mode, select the song you want to delete.

2 Press the [DELETE] key.

The following indication appears on the display.

```
DELETE     01
SURE?
```
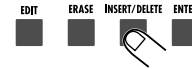
3 To carry out the delete process, press the [ENTER] key. To cancel the process, press the [EXIT] key.

When you carry out the delete process, the unit will return to the song mode with the empty song selected.

NOTE When you delete a song, the song and MIDI track recording contents as well as the patterns assigned to the pads are also deleted.

Copying a Song

The currently selected song can be copied to any other song.

1 In song mode, select the copy source song and press the [EDIT] key.

2 Use the [◄]/[►] keys to bring up the indication "COPY?" on the display, and press the [ENTER] key.

```
COPYTO     01
 01 ⇒ 02
```
Copy source song   Copy target song
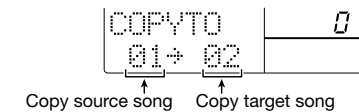
3 Use the [▲]/[▼] keys or the [VALUE] dial to specify the number of the copy target song.

4 To execute the copy process, press the [ENTER] key. To cancel the process, press the [EXIT] key.

When the copy is completed, the unit returns to the condition of step 1. To return to song mode, press the [EXIT] key.

NOTE If there is a song already stored in the copy target number, its contents will be overwritten by the new song.

Song Track Operation

The song tracks are special auxiliary tracks which are separate from the pattern information recorded for that song. These allow you to record pad playing information. For example, you could add some fill-in parts after you have finished a song.

A song in the RT-323 has three song tracks: drum A, drum B, and bass. The sound (drum kit/bass program) used by each track is the same as for the drum A/drum B/bass pattern track.

HINT You can also select an empty song where no pattern information is recorded, and record on the song track. Later, you may add pattern information to such a song for which only the song track is recorded.

Song

Drum A song track / Drum B song track / Bass song track

Pattern A | Pattern B | ← | Pattern C
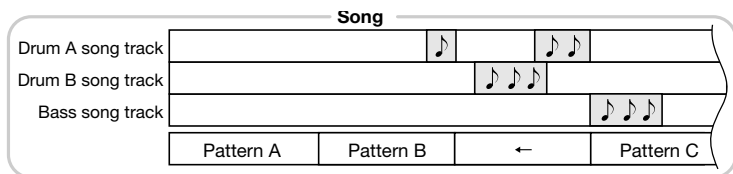
● Real-time input of drum/bass to song track

This section explains how to perform real-time input of drum/bass phrases on a song track. (The song tracks do not support step input.)

1 **In song mode, press the [SONG TRACK] key while the song is stopped.**

The [SONG TRACK] key lights up.

DRUM A   DRUM B   BASS   SONG TRACK
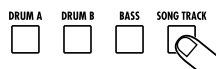
2 **Use the [DRUM A]/[DRUM B]/[BASS] key to select the song track to record.**

The selected key lights up, and the respective song track is selected. When you hit pads 1 - 13 in this condition, the sound of the drum kit/bass program assigned to the selected track is heard.

DRUM A   DRUM B   BASS   SONG TRACK
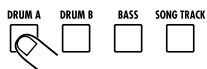
3 **Hold down the [● REC] key and [►‖] key.**

Song playback starts, and song track real-time input becomes possible.

TEMPO   STEP REC   PLAY   STOP   Measure ┐   ┌ Beat

REAL-TIME REC

```
002-03        04
SONG 04  ▶▶▶
```
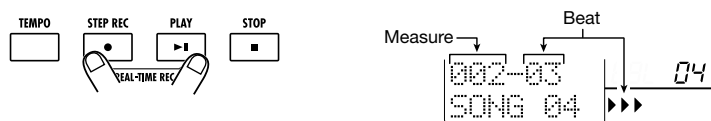
> **(HINT)** To start recording from halfway into a song, press the [►‖] (pause) key during recording, and then use the [VALUE] dial to move to the measure where you want to start. Press the [►‖] key to start recording.

4 **While listening to the song, hit the pads.**

Your pad play is recorded.

KICK   1   SNARE   3   VERSE A

> **(HINT)**
> • In the factory default condition, the quantize setting of the RT-323 is a sixteenth note, but this setting can be changed if desired (→ p. 72).
> • Instead of hitting pads, you can also play a MIDI keyboard or other component connected to the [MIDI IN] jack and record the performance on the drum A/drum B/bass tracks.
> • The song track can hold up to 999 measures, regardless of the length of the currently selected song.

> **(HINT)** • If the duration of the contents of the song track is longer than the duration of the song, the end point of the song track will become the new end point of the song. In this case, the last pattern entered for the song is repeated until the new end point.

5 **To record JAM slider operation on the song track, select the parameter with the [JAM FUNCTION] key and then move the JAM slider while pressing the pad.**

JAM FUNC   PAD   ⇨   KICK 1   SNARE 3 VERSE A   +   SOUND JAMMER
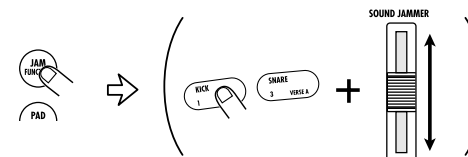
When you move the JAM slider while holding down the pad, you can record changes in pitch, volume, panning position, and sound. (For details on using the JAM slider, see page 31.)

6 **To stop the recording, press the [■] key.**

Song track recording stops. (When the end of the song is reached, song track recording stops automatically.) When you press the [►‖] key, the recorded song track is played back along with the song.

> **(HINT)**
> • If you hold down the [MUTE] key and press the [SONG TRACK] key, you can mute the entire song track. Performing the same step once more cancels the mute condition.
> • The song track can be rerecorded without affecting the contents of a recorded song.
> • If you hold down the [ERASE] key and press the [DRUM A]/[DRUM B]/[BASS] key during song track recording, you can mute the sound of the respective pad (or song track).

7 **To cancel the song track selection, press the [SONG TRACK] key.**

The [SONG TRACK] key light goes out. Also when the [SONG TRACK] key is out, the song track will be played back when the song is played.

● Deleting a song track

The contents of each song track (drum A/drum B/bass) entered with real-time input can be deleted selectively.

1 **Select the song from which you want to delete a song track, and press the [SONG TRACK] key.**

The [SONG TRACK] key lights up.

2 **Press the [ERASE] key, and use the [DRUM A]/[DRUM B]/[BASS] key to select the song track.**

ERASE   INSERT/DELETE   ⇨   DRUM A   DRUM B   BASS

```
ERASE
DRUM A?
```

3 To delete, press the [ENTER] key. To cancel the process, press the [EXIT] key.

Editing Song Settings

This section describes how to alter settings that affect the entire song, such as tempo, song name, etc.

Transposing an entire song

The bass track of an entire song can be transposed in semitone steps. This setting also affects the bass song track.

1 In song mode, select the song whose settings you want to change, and press the [EDIT] key.

2 Use the [◄]/[►] keys to bring up the indication "KEY" on the display.

```
KEY      ◄ ►      01
         0
```
Transpose value
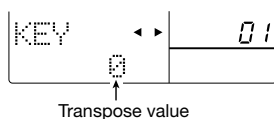
3 Use the [▲]/[▼] keys to set the transpose value.
The setting range is -6 - 0 - 6 (semitones).

4 When the setting is complete, press the [EXIT] key.
The setting is updated, and the unit returns to the song mode.

> **NOTE** This setting does not affect the MIDI track data.
> For information about the MIDI track, see page 91.

Setting the quantize value

For recording the song track, the quantize value must be set. In song mode, the [EDIT] key needs to be pressed first, but otherwise the procedure is the same as when setting the quantize value in pattern mode. For details, see page 50.

Song repeat playback setting

You can set song repeat to on or off, and you can control the repeat range.

1 In song mode, select the song whose settings you want to change, and press the [EDIT] key.

2 Use the [◄]/[►] keys to bring up the indication "REPEAT" on the display.

```
REPEAT   ◄ ►      01
         OFF
```
Current repeat setting

3 Use the [▲]/[▼] keys to specify the number of the measure where repeat playback is to be triggered.
Possible settings are OFF (repeat playback disabled) and 1 - last measure of song. When a setting of 1 or higher is selected, the song plays up to the specified measure number and then is automatically repeated.

4 When the setting is complete, press the [EXIT] key.
The setting is updated, and the unit returns to the song mode.

Changing the song name

When a song is newly created, the name "SONG xxx" (where xxx is the song number) is automatically assigned.

1 In song mode, select the song whose name you want to change, and press the [EDIT] key.

2 Use the [◄]/[►] keys to call up "NAME" on the display.
The song name is shown under "NAME" with an underline.
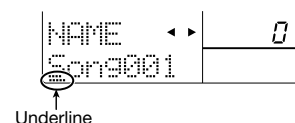
```
NAME     ◄ ►      01
Song001
```
Underline

3 Use the [◄]/[►] keys to move the underline, and use the [▲]/[▼] keys or the [VALUE] dial to select the desired character. (For a list of usable characters, see page 36.)

4 When the song name has been changed, press the [EXIT] key.
The unit returns to the song mode.

Application Guide [SmartMedia]

This section describes various uses of the SmartMedia card facility.

Formatting a SmartMedia Card

Before a SmartMedia card can be used for saving and loading data, it must be formatted (initialized) as follows.

NOTE The formatting process erases any data already present on the SmartMedia card. These data cannot be restored.

1 Insert the SmartMedia card into the [DATA CARD] slot on the side panel of the RT-323.

For information on how to insert the SmartMedia card, see page 5.

2 Press the [UTILITY] key, and use the [◄]/[►] keys to call up "CARD?" on the display.

3 Press the [ENTER] key, and use the [◄]/[►] keys to call up "FORMAT" on the display.
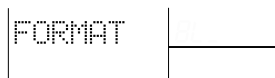
NOTE If the indication "NOCARD" appears, the SmartMedia card is not recognized. Make sure that the SmartMedia card is inserted properly in the [DATA CARD] slot and that the metal section of the card is not dirty.

4 Press the [ENTER] key.

The indication "SURE?" appears on the display.

5 To execute the formatting process, press the [ENTER] key. To cancel the process, press the [EXIT] key.

Execute   Cancel

When formatting is completed, the indication "Done" appears on the display. To return to the pattern/song mode, press the [EXIT] key.

Saving Data on the SmartMedia Card

The entire data of the RT-323 can be saved (stored) on a formatted SmartMedia card as a file.

1 Insert a formatted SmartMedia card into the [DATA CARD] slot on the side panel of the RT-323.

2 Press the [UTILITY] key, and use the [◄]/[►] keys to call up the indication "CARD?" on the display. Then press the [ENTER] key.

3 Use the [◄]/[►] keys to call up the indication "SAVE" on the display. Then press the [ENTER] key.

Underline

4 To give a name to the file to be saved, use the [◄]/[►] keys to move the underline, and use the [VALUE] dial to change the character.
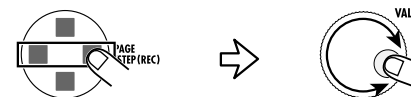
The following characters can be used.

Letters: A - Z
Numerals: 0 - 9
Symbols: ! # $ % ' _ [ ] ^ - { }

On the same SmartMedia card, there cannot be duplicate file names.

5 Press the [ENTER] key.

The indication "SURE?" appears on the display. If a file with the same name already exists on the SmartMedia card, the indication "Over Wr?" appears on the display.

6 To carry out the save process, press the [ENTER] key. To cancel the process, press the [EXIT] key.

When data saving is complete, the indication "Done" appears on the display. To return to the pattern/song mode, press the [EXIT] key several times.

NOTE • While the SmartMedia card is being accessed, the symbol shown at right appears on the display. While this symbol is shown, never remove the SmartMedia card or turn off the unit. Otherwise the data may be destroyed.

CARD

Loading Data from the SmartMedia Card

To load saved data from the SmartMedia card into the RT-323, proceed as follows.

1 **Insert the SmartMedia card with the saved data into the [DATA CARD] slot on the side panel of the RT-323.**

2 **Press the [UTILITY] key, and use the [◀]/[▶] keys to bring up the indication "CARD?" on the display. Then press the [ENTER] key.**

3 **Use the [◀]/[▶] keys to call up the indication "LOAD", and press the [ENTER] key.**

```
LOAD
BACKUP1  ←————— File name
```

4 **Use the [▲]/[▼] keys to select the file with the data you want to load, and press the [ENTER] key.**

The indication "SURE?" appears on the display.

If the indication "ERROR" appears, the SmartMedia card is defective or the data are damaged. Try formatting the card again.

5 **To carry out the loading process, press the [ENTER] key. To cancel the process, press the [EXIT] key.**

When data loading is complete, the indication "Done" appears on the display. To return to the pattern/song mode, press the [EXIT] key several times.

Partial Import of Data from a SmartMedia Card

From any file stored on a SmartMedia card, you can load partial data such as song information, user pattern information, user drum kit information, etc.

1 **Insert a SmartMedia card containing RT-323 data into the [DATA CARD] slot on the side panel.**

2 **Press the [UTILITY] key, and use the [◀]/[▶] keys to bring up the indication "CARD?" on the display. Then press the [ENTER] key.**

3 **Use the [◀]/[▶] keys to call up the indication "IMPORT" on the display, and press the [ENTER] key.**

```
IMPORT
BACKUP1  ←————— Import source file
```
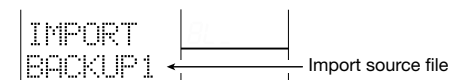
4 **Use the [▲]/[▼] keys to select the file from which you want to import data, and press the [ENTER] key.**

5 **Use the [◀]/[▶] keys to select the type of data you want to import, and press the [ENTER] key.**

```
                         IMPORT
Data type to import ———→ KIT
```

- **KIT:** Specified user drum kit
- **PTN:** Specified user pattern
- **SONG:** Specified song
- **GLOBAL:** General RT-323 settings

6 **If you have selected KIT/PTN/SONG as data to import, proceed to the next step.**

- **KIT was selected**
  (1) Use the [▲]/[▼] keys to select the number of the user drum kit to use as import source, and press the [ENTER] key.

  (2) Use the [▲]/[▼] keys to select the number of the user drum kit to use as import target.

```
KIT
64→ 70
```
Import source user drum kit   Import target user drum kit
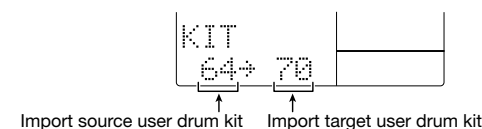
- **PTN was selected**
  (1) Use the [▲]/[▼] keys to select the number of the user pattern to use as import source, and press the [ENTER] key.

  (2) Use the [▲]/[▼] keys to select the number of the user pattern to use as import target.

```
PTN
U01→U20
```
Import source user pattern   Import target user pattern
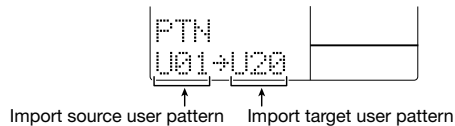
- **SONG was selected**
  (1) Use the [▲]/[▼] keys to select the number of the song to use as import source, and press the [ENTER] key.

  (2) Use the [▲]/[▼] keys to select the number of the song to use as import target.

```
SONG
 01→ 03
```
Import source song   Import target song
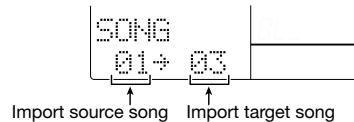
> **NOTE** If the song selected as import source contains user patterns, the respective user patterns will also be imported automatically, and empty user patterns are assigned as import target. (If there are no empty user patterns, allocation will be made sequentially, starting from user pattern number U00.)

7 Press the [ENTER] key.

The indication "SURE?" appears on the display.

8 To carry out the import process, press the [ENTER] key. To cancel the process, press the [EXIT] key.

When data importing is complete, the indication "Done" appears on the display. To return to the pattern/song mode, press the [EXIT] key several times.

Deleting Data From the SmartMedia Card

Files saved on the SmartMedia card can be selectively deleted. If there is not enough space on the card to save new data, you can delete data that is no longer needed.

1 Insert a SmartMedia card containing RT-323 data into the [DATA CARD] slot on the side panel.

2 Press the [UTILITY] key, and use the [◀]/[▶] keys to bring up the indication "CARD?" on the display. Then press the [ENTER] key.

3 Use the [◀]/[▶] keys to call up "DELETE" on the display, and press the [ENTER] key.

```
DELETE
BACKUP1
```
File to delete
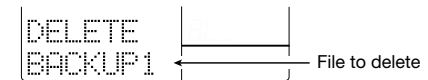
4 Use the [▲]/[▼] keys to select the file to be deleted, and press the [ENTER] key.

```
SURE?
```
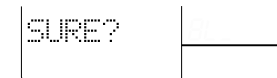
5 To carry out the delete process, press the [ENTER] key. To cancel the process, press the [EXIT] key.

When data deleting is complete, the indication "Done" appears on the display. To return to the pattern/song mode, press the [EXIT] key several times.

Import/Export of PS-02 SmartMedia Data

The RT-323 is compatible with pattern data of the ZOOM Palmtop Studio PS-02. This section explains how you can import data saved on a SmartMedia card with the PS-02, and how you can export RT-323 data to the PS-02.

Reading a PS-02 pattern into the RT-323 (pattern import)

You can read in PS-02 pattern data stored on a SmartMedia card into the RT-323 as user pattern data. It is also possible to edit the pattern with the RT-323 and then write it back to the PS-02 SmartMedia card.

1 Insert a PS-02 start-up SmartMedia card into the [DATA CARD] slot on the side panel of the RT-323.

> **NOTE** When you edit pattern data on the RT-323 and then write the data back to the PS-02 SmartMedia card, the original data will be overwritten. If you want to keep the original pattern of the PS-02, create a backup of the PS-02 SmartMedia card first. (For details, refer to the PS-02 Operation Manual.)

2 Press the [UTILITY] key, and use the [◀]/[▶] keys to call up "PS-02?" on the display. Then press the [ENTER] key.

```
PS-02?
```

3 Use the [◀]/[▶] keys to call up the indication "IMPORT" on the display, and press the [ENTER] key.

You now can select a pattern to import from the PS-02 SmartMedia card.

```
IMPORT    PS    0  ← PS-02 pattern number
M8-1-1
```
PS-02 pattern name → M8-1-1

PS-02 pattern number
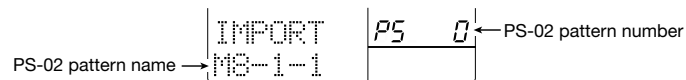
4 **Use the [▲]/[▼] keys or the [VALUE] dial to select the pattern, and press the [ENTER] key.**

The target user pattern number is shown on the display.

```
SURE?     rt U00  ← RT-323 pattern
EMPTY              number
```
RT-323 pattern name → EMPTY

5 **Use the [▲]/[▼] keys or the [VALUE] dial to select the target user pattern in the RT-323.**

6 **To carry out the import process, press the [ENTER] key. To cancel the process, press the [EXIT] key.**

When data read-in is complete, the indication "Done" appears on the display. To return to the pattern/song mode, press the [EXIT] key several times.

The imported pattern can be edited in the same way as a normal pattern, using edit mode.

NOTE
- When changing the sound (drum kit/bass program) of pattern data imported to the RT-323, select only PS-02 compatible sounds. (For details, see the list at the end of this documentation.) If you select RT-323 specific drum kit/bass program sounds and export the data to the PS-02, normal playback may not be possible.
- Do not change the names of patterns imported to the RT-323. Otherwise the pattern name may not display correctly after the pattern is exported again to the PS-02.
- The bass line included in PS-02 pattern data is imported with the "C" root (no transposition) and "NON" chord (no transformation) setting.
- When editing the bass track of an imported pattern on the RT-323, note that entering a phrase with a different root or chord type may result in improper playback when the data are exported again to the PS-02.

● **Writing a RT-323 pattern to a PS-02 SmartMedia card (pattern export)**

After editing pattern data imported from the PS-02 to the RT-323, you can write the data to the PS-02 SmartMedia card again. This lets you then use the pattern data in the PS-02.

1 **Insert a PS-02 start-up SmartMedia card into the [DATA CARD] slot on the side panel of the RT-323.**

NOTE
When you edit pattern data on the RT-323 and then write the data back to the PS-02 SmartMedia card, the original data will be overwritten. If you want to keep the original pattern of the PS-02, create a backup of the PS-02 SmartMedia card first. (For details, refer to the PS-02 Operation Manual.)

2 **Press the [UTILITY] key, and use the [◄]/[►] keys to call up "PS-02?" on the display. Then press the [ENTER] key.**

```
PS-02?
```

3 **Use the [◄]/[►] keys to call up "EXPORT" on the display, and press the [ENTER] key.**

A PS-02 pattern on the SmartMedia card is shown as export target.

```
EXPORT    PS  125  ← PS-02 pattern number
M-13-2
```
PS-02 pattern name → M-13-2
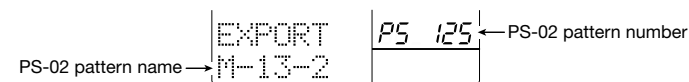
When there is an export-enabled pattern in the RT-323, the pattern number is shown.

NOTE
When writing an edited pattern to the SmartMedia card, the data of the original pattern number on the card will be overwritten.

4 **Use the [▲]/[▼] keys or the [VALUE] dial to select the PS-02 pattern to export to.**

The RT-323 user pattern to export from is shown.

```
EXPORT    rt U01  ← RT-323 pattern number
M-13-2
```
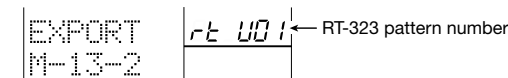
5 **Use the [▲]/[▼] keys or the [VALUE] dial to select the RT-323 pattern to export from.**

6 **To carry out the export process, press the [ENTER] key. To cancel the process, press the [EXIT] key.**

When data exporting is complete, the indication "Done" appears on the display. To return to the pattern/song mode, press the [EXIT] key several times.

If you start up the PS-02 with that card, the exported pattern will be usable in the same way as an internal pattern.

NOTE
- The selected user pattern is exported with the contents of drum B track merged onto the drum A track.
- The maximum number of simultaneous sounds that the PS-02 can produce is four drum voices and one bass voice. If a pattern that exceeds these numbers is exported, correct playback with the PS-02 will not be possible.

Application Guide [Remote Control]

This section describes how to use the [CONTROL IN] jack in conjunction with an optional foot pedal or foot switch, to perform remote control of the RT-323.

Controlling the RT-323 With a Foot Pedal (FP01/FP02)

When you connect the separately available foot pedal (FP01/FP02) to one of the [CONTROL IN] jacks on the RT-323, you can use the FP01/FP02 instead of the JAM slider to adjust parameters such as pitch or sound change of the currently operated pad.

1 **Connect the FP01/FP02 to the [CONTROL IN] jack on the rear panel.**

For information on connections, see page 6.

> **(HINT)** You can connect the FP01/FP02 to the [CONTROL IN 1] or the [CONTROL IN 2] jack. The two jacks have the same function.

2 **Press the [UTILITY] key, and use the [◀]/[▶] keys to bring up the indication "CTRLIN" on the display.**

3 **Operate the FP01/FP02.**

The RT-323 detects the FP01/FP02, and the parameter that is controlled by the foot pedal is shown on the display.

Number of [CONTROL IN] jack where FP01/FP02 is connected

FP01 — Assigned parameter
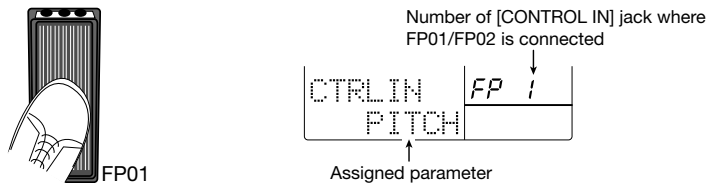
4 **Use the [JAM FUNCTION] key to select the parameter to be controlled with the pedal.**

The available settings are "PITCH", "VOLUME", "PAN" (panning), and "SOUND CHANGE" (pad sound switching).

5 **Press the [PATTERN] key to return to pattern mode.**

6 **Operate the FP01/FP02 while hitting the pad.**
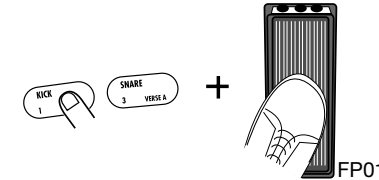
The effect of moving the pedal is the same as when operating the JAM slider.

Controlling the RT-323 With a Foot Switch (FS01)

When you connect the separately available foot switch (FS01) to one of the the [CONTROL IN] jacks on the RT-323, you can control a specific pad with the foot switch or control start/stop of song and pattern playback.

1 **Connect the FS01 to the [CONTROL IN] jack on the rear panel.**

For information on connections, see page 6.

> **(HINT)** You can connect the FS01 to the [CONTROL IN 1] or the [CONTROL IN 2] jack. The two jacks have the same function.

2 **Press the [UTILITY] key, and use the [◀]/[▶] keys to bring up the indication "CTRLIN" on the display.**

3 **Push the FS01.**

Number of [CONTROL IN] jack where FS01 is connected

Function assigned to FS01
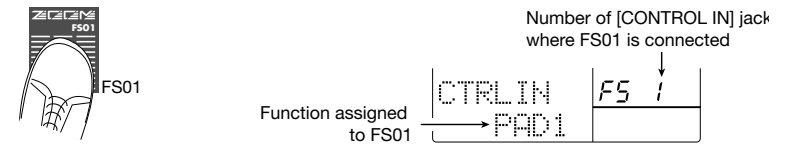
The RT-323 detects the FS01, and the parameter that is controlled by the foot pedal is shown on the display.

4 **While holding down the FS01, press the key or pad that you want to control.**
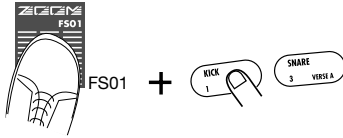
The function controlled by the FS01 will be assigned depending on which key or pad was operated when holding down the FS01. The available choices and the required operations are listed below.

Push FS01 + RT-323 operation	Function	Display
Push one of pads 1 - 13	In pattern mode, pushing FS01 produces sound from that pad.	(xx = pad number)
Push two different pads twice	The sound of the first pad can be switched with the FS01. When the FS01 is pressed, the sound of the first pad is heard. When you release the foot switch, the sound of the second pad is heard. (For example, you could use the FS01 to toggle between the sound of an open and closed hi-hat.)	PADxx→yy (xx,yy = pad number)
Push [■] key	In pattern mode/song mode, pushing FS01 switches through [Start play] → [Stop] → [Start play from beginning]	START
Push [►ıı] key	In pattern mode/song mode, pushing FS01 switches through [Start play] →[Pause] → [Start play from pause position]	CONTINUE
Push [DRUM A]/[DRUM B]/ [BASS] key	In pattern mode/song mode, pushing FS01 switches specified track muting on/off	MUTE xxx (xxx = DrA, DrB, Bas)
Push [TEMPO] key	In pattern mode/song mode, two subsequent pushed of FS01 specify the tempo (tap tempo input)	TAP
Push [REPEAT] key	In pattern mode, pushing a pad while depressing FS01 produces sound from that pad continuously	REPEAT

5 **Press the [PATTERN] key/[SONG] key, to return to pattern mode/song mode.**

6 **Operate the FS01.**

The FS01 performs the function set in step 4 (activating the sound of a pad or performing start/stop remote control.

Application Guide [MIDI]

This section describes the various MIDI related settings of the RT-323 and gives information on MIDI track operation.

Available MIDI Functions

The RT-323 incorporates the following MIDI functions.

● **Send/receive note information**

MIDI note information can be sent out when hitting the pads, and note information can be received to operate the drum kit and bass program of the RT-323 from an external component.

● **Send/receive control change information**

Control change information triggered by JAM slider operation can be sent out. Control change information can be received to obtain the same effect as when operating the JAM slider, for adjusting the track volume or pitch.

● **Send/receive program change information**

Program change information triggered by switching the drum kit/bass program can be sent out. Program change information can be received to switch the drum kit/bass program from an external component.

● **Send/receive MIDI sync messages**

MIDI sync messages such as MIDI clock, start, stop, etc. can be sent and received, to synchronize operation of the RT-323 to an external component such as a MIDI sequencer or rhythm machine.

● **Save internal data as bulk dump**

Internal RT-323 data and setting information can be sent out as MIDI messages and stored on an external component such as a MIDI sequencer. By sending these data back to the RT-323, a previous condition can be restored at any time.

● **Recording playing information on a MIDI track**

The RT-323 incorporates a MIDI track which allows recording of MIDI messages in real time. This is useful for example to record a MIDI sequencer in conjunction with song accompaniment.

Changing the MIDI Setting

● Basic steps

The basic steps for changing MIDI settings are similar for all MIDI items. Proceed as follows.

1 **Press the [UTILITY] key, and use the [◄]/[►] keys to call up the indication "MIDI?" on the display.**

2 **Press the [ENTER] key, and use the [◄]/[►] keys to select the setting item.**

INSERT/DELETE   ENTER   EXIT

PAGE
STEP(REC)

Currently selected → MIDIch
item   Dr A   10

MIDIch: Set MIDI send/receive channel for drum A/drum B/bass separately.
CTRL: Enable/disable control change information send.
PRG: Enable/disable program change information send.
SYNC: Enable/disable MIDI send/receive of sync messages (MIDI clock etc.).
MIDI TR: Enable/disable output of data stored on MIDI track.
MIDI PC DRUM: Assign program change number to drum kit (00 - 127).
MIDI PC BAS: Assign program change number to bass program (00 - 54).

3 **When the desired item is shown, use the [▲]/[▼] keys or the [VALUE] dial and other controls to make the setting.**

For detailed information on operation, see the sections on the various items.

4 **When the setting is complete, press the [EXIT] key.**

The unit returns to the condition of step 1. To return to pattern/song mode, press the [PATTERN]/[SONG] key.

● Set MIDI send/receive channel for each track (MIDIch)

This allows you to set the MIDI send/receive channel for the drum A, drum B, and bass tracks.
While the indication "MIDIch" is shown on the display, use the [▲]/[▼] keys to select the track for which to set the MIDI channel. Then use the [VALUE] dial to select one of the following settings.

• **1 - 16:** MIDI channel 1 - 16 (Default setting: DRUM A = 10, DRUM B = 11, BASS = 9)
• **OFF:** Send/receive off

MIDIch
Dr A   10
↑   ↑
Track   Setting
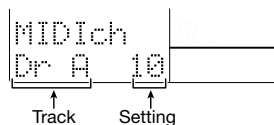
🔍 **HINT** MIDI messages such as note information, control change information, and program change information will be sent and received in this channel.

● Enable/disable control change information send (CTRL)

Determines whether the RT-323 sends control change information. While the indication "CTRL" is shown on the display, use the [▲]/[▼] keys or the [VALUE] dial to select "ON" (send enabled; default setting) or "OFF" (send disabled).

Current setting ────→ CTRL
                      ON

When control change send is enabled, operating the JAM slider causes control change information to be output from the [MIDI OUT] jack.

🔍 **HINT** Control change receive is always On. Even if this setting is Off, control change messages sent to the [MIDI IN] jack from external equipment can be used to achieve the same effect as moving the JAM slider, or to adjust volume and pitch for a specific track. (For details on control change messages recognized by the RT-323, see the list at the end of this manual.)

● Enable/disable program change information send (PRG)

Determines whether the RT-323 sends program change information. While the indication "PRG" is shown on the display, use the [▲]/[▼] keys or the [VALUE] dial to select "ON" (send enabled; default setting) or "OFF" (send disabled).

Current setting ────→ PRG
                      ON

When program change send is enabled, switching the drum kit/bass program at the RT-323 causes program change information to be output from the [MIDI OUT] jack.

🔍 **HINT** • Program change receive is always On. Even if this setting is Off, program change messages sent to the [MIDI IN] jack from external equipment can be used to switch the sound (drum kit/bass program) for a specific track.
• In the factory default condition, a separate program change number is assigned to each drum kit/bass program. The program change number assignment can be changed if desired (→ p. 89).

● Enable/disable MIDI send/receive of sync messages (SYNC)

Determines whether the RT-323 sends and receives MIDI sync messages. While the indication "SYNC" is shown on the display, use the [▲]/[▼] keys or the [VALUE] dial to select one of the following settings.

• **INT:** When the RT-323 carries out playback, MIDI sync messages are sent (default setting). This allows for example playing a MIDI sequencer in sync with the tempo of the RT-323.

- **MIDI:** When MIDI sync messages are received from an external component, the RT-323 functions accordingly. This allows for example operating the RT-323 in sync with the tempo of an external MIDI sequencer.

Current setting ⟶ SYNC
INT

> **NOTE** Note that if the "MIDI" setting is selected, the RT-323 will not perform pattern or song playback unless MIDI sync messages are received.

● Enable/disable output of data stored on MIDI track (MIDI TR)

This setting controls the output of data stored on the MIDI track via the [MIDI OUT] jack. (For information about the MIDI track, see page 91). While the indication "MIDI TR" is shown on the display, use the [▲]/[▼] keys to select one of the following settings.

Current setting ⟶ MIDI TR
NO OUT

NO OUT: Data stored on MIDI track are not output via [MIDI OUT] jack or internal sound source (default setting).
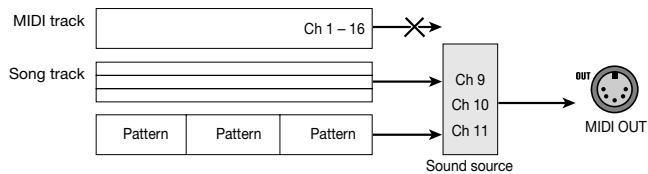
OUT: Data stored on MIDI track are sent only to [MIDI OUT] jack.
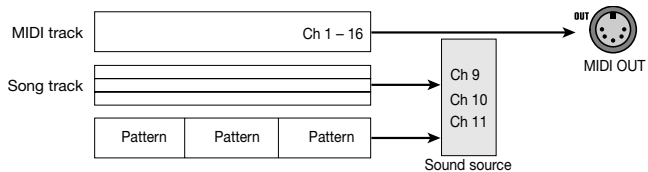
EX OUT: Among data stored on MIDI track, those matching the MIDI channel of internal sound source are sent to internal sound source, and other data are sent to [MIDI OUT] jack.
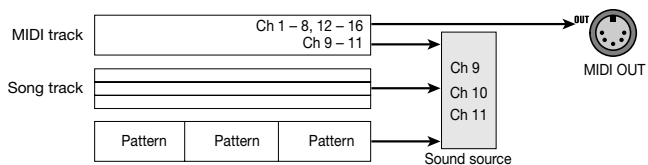
> **NOTE** When "THRU" or "EX THRU" is selected, no MIDI messages for hitting pads or playing patterns are output via the [MIDI OUT] jack.

● Assign program change number to drum kit (PC DRUM)

This item allows you to change the default program change numbers allocated to the drum kits. While the indication "MIDI PC DRUM" is shown, press the [ENTER] key, and use the [VALUE] dial to specify the drum kit number (00 - 127). Then use the [▲]/[▼] keys to set the program change number (001 - 128).
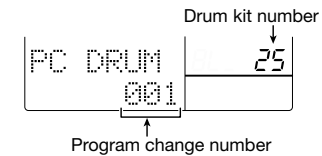
Drum kit number
PC DRUM   25
001
Program change number

When you have made the required settings, press the [EXIT] key.

> **HINT** For details on factory default settings, see the list at the end of this manual.

● Assign program change number to bass program (PC BASS)

This item allows you to change the default program change numbers allocated to the bass programs.
While the indication "MIDI PC BASS" is shown, press the [ENTER] key, and use the [VALUE] dial to specify the bass program number (00 - 54). Then use the [▲]/[▼] keys to set the program change number (001 - 128).
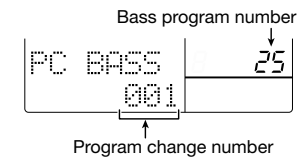
Bass program number
PC BASS   25
001
Program change number

When you have made the required settings, press the [EXIT] key.

> **HINT** For details on factory default settings, see the list at the end of this manual.

Saving RT-323 Internal Data on MIDI Equipment

The internal data of the RT-323 including all setting information can be converted to MIDI messages and output via the [MIDI OUT] jack (bulk dump). This function allows you to store all RT-323 settings or only selected data on an external component such as a MIDI sequencer.

NOTE Before starting the bulk dump operation, make sure that the [MIDI OUT] jack of the RT-323 is connected to the MIDI IN jack of the other component.

1 Press the [UTILITY] key, and use the [◄]/[►] keys to bring up the indication "MIDI?". Then press the [ENTER] key.

2 Use the [◄]/[►] keys to bring up the indication "DUMP" on the display, and press the [ENTER] key.

3 Use the [◄]/[►] keys to select the bulk dump type from the following, then press the [ENTER] key.

- **SEQUENCE:** User pattern and song data
- **SYSTEM:** Global RT-323 settings
- **ALL KITS:** All user drum kits

```
DUMP
ALL KITS ◄──── Bulk dump data type
```
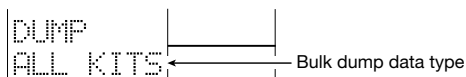
4 Press the [ENTER] key.

The confirmation message "SURE?" appears on the display. Make sure that the external MIDI component is ready to record MIDI messages.

5 To carry out the bulk dump process, press the [ENTER] key. To cancel the process, press the [EXIT] key.

While bulk dump is being carried out, the indication "TX" is shown.

6 When bulk dump is completed, press the [EXIT] key.

The unit returns to the condition of step 1.

To restore the condition of the RT-323 using set data stored on an external MIDI component, connect the MIDI OUT jack of the external component to the [MIDI IN] jack of the RT-323, and send the data while the RT-323 is in the stop condition. (No special steps are required at the RT-323.)

NOTE When setting data are sent from an external MIDI component to the RT-323, all data in the RT-323 are overwritten. Take care not to accidentally patterns or songs that you wish to keep.

MIDI Track Operation

The RT-323 incorporates a MIDI track that can record MIDI messages such as output for example by an external MIDI keyboard in real time. You can record and play such data in conjunction with an existing song. The following types of MIDI messages can be recorded.

- • Note data (note on/off, velocity)
- • Pitch bend
- • Program change
- • Control change
- • Polyphonic key player
- • Channel pressure

When messages are recorded and played, their original MIDI channel (1 - 16) assignment does not change.

Note that you cannot record on a send/receive channel set to the drum A/drum B/bass track. To record on such a MIDI channel, set the send/receive channel for the respective track to OFF (→ p. 86).

● MIDI track recording

This section explains the steps for MIDI track recording, using the example of recording a MIDI synthesizer performance on the MIDI track.

1 Connect the RT-323 and MIDI synthesizer as shown in the illustration.

RT-323

[MIDI OUT] jack   [MIDI IN] jack

MIDI IN   MIDI OUT
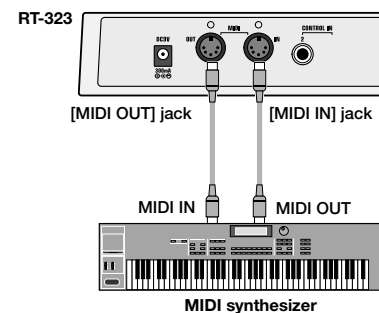
MIDI synthesizer

NOTE The MIDI messages input to the [MIDI IN] jack of the RT-323 are not sent through to the [MIDI OUT] jack. Therefore you must set the MIDI synthesizer to "Local = On".

2 Press the [UTILITY] key, and use the "MIDI TR" item to enable the MIDI track output. (For setting information, see page 88.)

3 Set the RT-323 to song mode and select a song.

(HINT) You can also select an empty song where no pattern information is recorded, and record MIDI messages on the MIDI track. Later, you may add pattern information to such a song for which only the MIDI track is recorded.

4 Hold down the [SONG TRACK] key for at least 1 second.

MUTE   DRUM A   DRUM B   BASS   SONG TRACK
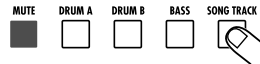
Press for 1 second

The [SONG TRACK] key lights up and the MIDI track is ready for recording. The procedure for MIDI track recording, stop, and playback is the same as for the song track. For details, see page 69.

NOTE When the MIDI track is in the recording mode, hitting the pads will not produce sound.

(HINT)
• The MIDI track is always recorded without quantize (minimum note unit = 1 tick).
• When you record on the MIDI track again, previous data are not erased. Instead, overdubbing of MIDI data occurs. If the MIDI synthesizer supports multi-timbre, changing the MIDI channel and sending a different timbre allows you to create sound overlays.

5 To delete the MIDI track data, hold down the [ERASE] key and press the [SONG TRACK] key and then the [ENTER] key.

When you press the [SONG TRACK] key while holding down the [ERASE] key, the indication "ERASE MIDI?" appears on the display. When you press the [ENTER] key in this condition, all data on the MIDI track are erased.

6 To terminate the MIDI track recording condition, press the [SONG TRACK] key.

The [SONG TRACK] key light goes out. The MIDI track will still be played together with song playback also in this condition.

(HINT)
• The data recorded on the MIDI track are stored as part of the song data in the RT-323.
• The MIDI track can hold up to 999 measures, regardless of the length of the currently selected song.
• If the duration of the contents of the MIDI track is longer than the duration of the song, the end point of the MIDI track will become the new end point of the song. In this case, the last pattern entered for the song is repeated until the new end point.

Application Guide [Other Functions]

This section describes how to use the metronome, how to return the RT-323 to the factory default condition, and other auxiliary functions.

Metronome Operation

Adjusting the metronome volume

You can adjust the volume of the metronome sound heard when performing pattern real-time input.

1 Press the [UTILITY] key, and use the [◀]/[▶] keys to bring up the indication "CLICK" on the display.

KIT   UTILITY   ⇨   PAGE /STEP(REC)

CLICK
10 ← Metronome volume
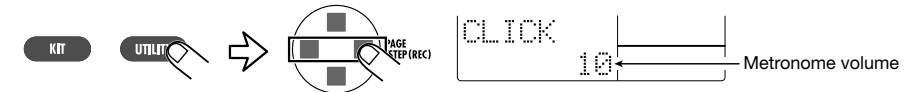
2 Use the [▲]/[▼] keys or the [VALUE] dial to set the metronome volume (1 - 15).

PAGE /STEP(REC)   or   VALUE
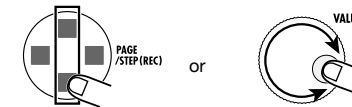
The factory default setting is 10.

3 When the setting is complete, return to the pattern/song mode by pressing the [PATTERN]/[SONG] key.

GroovePLAY
SONG   PATTERN
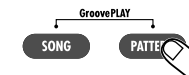
Setting the precount

When the RT-323 is in the default condition, the metronome counts down the time before the start of real-time input (precount) for 1 measure. The number of measures can be changed, and precount can also be turned off.

1 Press the [UTILITY] key, and use the [◀]/[▶] keys to bring up the indication "COUNT" on the display.

COUNT
1 ← Precount setting

2 Use the [▲]/[▼] keys or the [VALUE] key to select one of the following settings.

OFF: Precount is off. Recording starts immediately when activated.

1: A precount of 1 measure is carried out before recording starts (default setting).

2: A precount of 2 measures is carried out before recording starts.

PAD: Precount is off. Recording starts immediately when a pad is hit.

3 To terminate the setting and return to pattern mode, press the [PATTERN] key.

Other Special Functions

Checking the memory free amount

You can check the remaining memory capacity of the RT-323.

1 Press the [UTILITY] key, and use the [◄]/[►] keys to bring up the indication "MEMORY" on the display.

```
MEMORY
92%FREE ◄─── Remaining memory
```
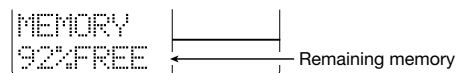
The current amount of free memory in the RT-323 is shown. This display is for information only, it cannot be changed.

2 To return to the pattern/song mode, press the [PATTERN]/[SONG] key.

Returning the unit to the factory default settings

This section shows how to initialize the RT-323. This will return all data and settings to the factory default condition.

1 Hold down the [● REC] key while turning power to the RT-323 on.

The following indication appears on the display, and initialization is carried out automatically.

```
STEP REC    PLAY    STOP              POWER
  •          ►I      ■                ON  OFF        INIT
        ME REC                    +
```

When initialization is performed, the RT-323 will restart.

NOTE Use this function with care. Initialization will clear all user pattern and song information that you have created.

Troubleshooting

Check the following items first if there seems to be a problem with the RT-323.

■ **Power does not come on**

• Check that the correct AC adapter or batteries are used.

■ **No sound or very low volume**

• Is RT-323 connected correctly to playback system?
• Is volume of RT-323 set to a suitable position?

■ **No sound or very low volume when hitting pad**

• Press the [UTILITY] key to call up the "SENS" item and try changing the setting to an option other than "SOFT" or "EX HARD".

■ **The indication "FULL" appears and no user pattern/song can be recorded**

• There is not enough free memory in the RT-323. Delete unneeded user patterns or songs.

■ **Song/pattern playback does not start when [►II] key is pressed**

• Press the [UTILITY] key to call up the "SYNC" item, and verify that the setting is "INT".

■ **JAM slider has no effect**

• In song mode, operating the JAM slider has no effect. Switch to pattern mode or groove play mode.

■ **No MIDI data supplied from [MIDI OUT] jack**

• Press the [UTILITY] key to call up the "MIDI TR" item, and verify that the setting is "NO OUT".
• Press the [UTILITY] key to call up the items "CTRL" and "PRG", and verify that the setting is "ON".

■ **FP01/FS01 has no effect**

• The FP01/FS01 function may not be correctly assigned. To assign a function, be sure to push down the FS01 (or operate the FP01).

■ **Data cannot be stored on SmartMedia card**

• SmartMedia card is not formatted. Before a new card can be used, it must be formatted in the RT-323 (→ p. 74).
• If the indication "NOCARD" is shown, the SmartMedia card is not recognized. Verify that the card is correctly inserted in the [DATA CARD] slot.
• If the indication "WRITE PROTECT" is shown, the SmartMedia card is write-protected. Remove the write-protect tab or use another card.
• If the indication "CARD FULL" is shown, the SmartMedia card does not have enough free space. Delete unneeded files (→ p. 78) or use another card.

Reference

RT-323 Specifications

Sampling Frequency:	48 kHz
D/A Conversion:	24-bit, 8-times oversamoling
Maximum Polyphony:	30 voices
Resolution:	96 PPQN
Tempo:	40.0 to 250.0 BPM
Maximum Notes:	40,000
Drum Sounds:	377
Bass Programs:	55
Drum Kits:	128 (Preset: 64 User: 64)
Rhythm Patterns:	500 (Preset: 400 User: 100)
Songs:	100

Pads: 13 pad (with velocity sensor)

Display: 640-segment custom LCD

Connectors for external equipment
  Control: FP-01, FP-02/FS-01 input x 2
  MIDI: IN, OUT

Inputs/Outputs
  LINE IN: Mono, Standard phone jack, analog mix
    Input impedance 10 kilohms
    Rated input level -10dBm
  OUTPUT: Line Out (L/MONO) Standard phone jack
    Line Out (R) Standard phone jack
    SUB Out 1 Standard phone jack
    SUB Out 2 Standard phone jack
    Output impedance 1 kilohm max.
    Rated output level -10dBm
    Phones: Mini phone jack
    50mW (32 ohms load)

Data card
  SmartMedia: SSFDC   4 MB - 128 MB, 3.3 V

Dimensions: 265 (W) x 175 (D) x 55 (H)
 Weight: 870 g
 Power Requirements: 9 V DC, 300mA (from AC adapter AD- 0006)
    Batteries :IEC R6 (size AA) x 6;
      continuous operation 7 hours minimum
 Supplied accessories: Instruction Manual
    AC adapter

Drum Kit List

* The PC# can be changed as required.

* In the factory default condition, user kits 64 - 115 contain LiveRock.
* User kits 116 - 127 are PS-02 compatible kits.

PRESET KIT	No.	PC#	Display	Kit name
BASIC KITS	0	2	LiveRock	Live Rock
	1	3	StudioDr	Studio Drums
	2	4	Standard	Standard Kit
	3	5	FunkTrap	Funk Trap
	4	6	EpicRock	Epic Rock
	5	7	Ballad	Ballad Set
	6	9	Dance	Dance Kit
	7	10	Hiphop	Rap/Hiphop
	8	11	Techno	Techno Beat
	9	0	Drum#9	Drum#9
	10	12	GenePerc	General Percussion
	11	13	EnhPower	Enhanced Power
	12	14	Dist	DISTORTION
LIVE ROCK	13	15	Live 1	Live Rock 1
	14	17	Live 2	Live Rock 2
	15	18	Live 3	Live Rock 3
STUDIO DRUMS	16	19	Studio1	Studio Drums 1
	17	20	Studio2	Studio Drums 2
	18	21	Studio3	Studio Drums 3
STANDARD KIT	19	22	Standrd1	Standard Kit 1
	20	23	Standrd2	Standard Kit 2
	21	26	Standrd3	Standard Kit 3
FUNK TRAP	22	27	Funk 1	Funk Trap 1
	23	28	Funk 2	Funk Trap 2
	24	29	Funk 3	Funk Trap 3
EPIC ROCK	25	30	Epic 1	Epic Rock 1
	26	31	Epic 2	Epic Rock 2
	27	33	Epic 3	Epic Rock 3
BALLAD SET	28	34	Ballad 1	Ballad Set 1
	29	35	Ballad 2	Ballad Set 2
	30	36	Ballad 3	Ballad Set 3
DANCE KIT	31	37	Dance 1	Dance Kit 1
	32	38	Dance 2	Dance Kit 2
	33	39	Dance 3	Dance Kit 3
RAP/HIPHOP	34	41	HipHop 1	Rap/Hiphop 1
	35	42	HipHop 2	Rap/Hiphop 2
	36	43	HipHop 3	Rap/Hiphop 3
TECHNO BEAT	37	44	Techno 1	TechnoBeat 1
	38	45	Techno 2	TechnoBeat 2
	39	46	Techno 3	TechnoBeat 3
GENERAL DRUMS	40	8	General1	General Kit 1
	41	32	General2	General Kit 2
	42	1	General3	General Kit 3
	43	47	General4	General Kit 4
	44	16	General5	General Kit 5
	45	40	General6	General Kit 6
	46	49	General7	General Kit 7
	47	25	General8	General Kit 8
	48	24	General9	General Kit 9
PERCUSSION/ SFX	49	50	DrumSkin	DRUM SKINS
	50	51	Indian	Indian Percussion
	51	52	Gamelan	Agogo Gamelan
	52	53	Clk&Stk	Clicks and Sticks
	53	54	SnglPerc	Single Percussion
	54	48	Orchestr	Orchestral Set
	55	55	Cymbals	CymbalSet
	56	63	LoPercus	Lo Percussion
	57	57	HiPercus	Hi Percussion
	58	58	VariPer1	Various Percussion 1
	59	59	VariPer2	Various Percussion 2
	60	60	VariPer3	Various Percussion 3
	61	61	VariPer4	Various Percussion 4
	62	62	VariPer5	Various Percussion 5
	63	56	SFX Kit	SFX Kit

USER KIT	No.	PC#	Display	Kit name
	64 ⟩ 115	64 ⟩ 115	Default	Default
PS-02 COMPATIBLE	116	116	PsStndrd	PS-02 STANDARD
	117	117	PsRock	PS-02 ROCK
	118	118	PsJazz	PS-02 JAZZ
	119	119	PsAnalg1	PS-02 ANALOG 1
	120	120	PsPower	PS-02 POWER
	121	121	PsFunk1	PS-02 FUNK 1
	122	122	PsScrtch	PS-02 SCRATCH
	123	123	PsAnalg2	PS-02 ANALOG 2
	124	124	PsDist	PS-02 DISTORTION
	125	125	PsElectr	PS-02 ELECTRONIC
	126	126	PsBrush	PS-02 BRUSH
	127	127	PsFunk2	PS-02 FUNK 2

Bass Program List

No.	PC#	Display	Program name
0	0, 63, 118	LiveBass	Live Bass
1	1, 34, 64, 119	StudioBS	Studio Bass
2	2, 65, 120	EpicBass	Epic Bass
3	3, 66, 121	FunkBass	Funk Bass
4	4, 67,122	BalladBS	Ballad Bass
5	5, 32, 123	AcostcBS	Acoustic Bass
6	6, 69, 124	ModernBS	Modern Bass
7	7, 38, 70	Synth BS	Synth Bass
8	8, 39, 71 126	TechnoBS	Techno Bass
9	9, 72, 127	BigBtmBS	Big Bottom Bass
10	10, 37, 73	SubSlpBS	SubSlap Bass
11	11, 74	DigiAcBS	Digital Acoustic
12	12, 75	BSHrmnic	Bass Harmonics
13	13, 35, 76	No Frets	No Frets
14	14, 77	Aco Jazz	Acoustic Jazz
15	15, 78	DigiPick	Digital Pick
16	16, 79	TechAnlg	TechnoAnalog
17	17, 80	Tabla BS	Tabla Bass Tones
18	18, 81	TightAna	Tight Analog
19	19, 82	Analog5#	Analog Fifths
20	20, 83	TempleTN	Temple Tones
21	21, 84	QuadraBS	Quadra Bass
22	22, 85	AnaTouch	Analog Touch
23	23, 86	Pick Aco	Picked Acoustic
24	24, 87	BassDive	Bass Dive
25	25, 88	AnaOctav	AnalogOctaves
26	26, 89	SynTomBS	SynthTom Bass
27	27, 90	Lo Sine	Lo Sine
28	28, 91	DigiSlap	Digi Slap Bass
29	29, 92	TmbaTone	Tumba Tones
30	30, 93	CongKeys	Conga Keys
31	31, 94	PowTom BS	Power Tom Bass
32	40, 95	BecmngBS	Becoming Bass
33	41, 96	HrmnicBS	Harmonics Bass
34	42, 97	BassHarm	Bass with Harmonics
35	43, 98	PickFunk	Picked Funk Bass
36	44, 99	PickJazz	Picked Jazz
37	45, 100	PickTech	Picked Techno
38	46, 101	Aco Tech	Acoustic Techno
39	47, 102	PowerFnk	Power Funk
40	48, 103	PopsPull	Pops/Pull Split
41	49, 104	EpicJam1	Epic Bass Jam/1
42	50, 105	TrblJam2	Tribal Bass Jam/2
43	51, 106	WoodBass	Wooden Bass
44	33, 52, 107	JazzBass	Jazz Bass
45	36, 53, 108	FunkPops	Funk Pops
46	54, 109	FunkPull	FunkPulls
47	55, 110	PickBass	Picked Bass
48	56, 111	AnalogBS	Analog Bass
49	57, 112	DigiBass	Digi Bass
50	58, 113	Saw Wave	Saw Wave
51	59, 114	Square	Square Wave
52	60, 115	Hi Sine	Hi Sine
53	61, 116	Drive BS	Drive Bass
54	62, 117	FuzzBass	Fuzz Bass

Drum PAD NOTE# List

PAD No	PAD NAME	BANK1	BANK2	BANK3
PAD1	KICK	36	35	61
PAD2	TOM1	50	48	64
PAD3	SNARE	38	40	60
PAD4	TOM2	47	45	62
PAD5	CLOSED HAT	42	44	68
PAD6	TOM3	43	41	63
PAD7	OPEN HAT	46	54	67
PAD8	CRASH	49	57	66
PAD9	EXTRA 1	37	70	71
PAD10	RIDE	51	59	65
PAD11	EXTRA 2	39	52	72
PAD12	EXTRA CYMBAL	53	55	69
PAD13	EXTRA 3	56	58	73

MIDI NOTE # List

Note No	DRUM KIT INST No	DRUM KIT INST NAME	BASS Programs
24			From note 0
25			
26			
27	349	HighQ	
28	290	Slap	
29	358	Scratch1	
30	359	Scratch2	
31	275	ShortStk	BASS range
32	318	SquarClk	
33	321	MetroClk	
34	329	MtrBell	
35			
36			
37			
38			
39 ≀ 66		PAD BANK 1 ≀ PAD BANK 3	
67			
68			
69			
70			
71			
72			
73			
74	74	GuiroL1	
75	75	Claves1	
76	76	WoodBlkH	
77	77	WoodBlkL	
78	78	CuicaHi	
79	79	CuicaLo	
80	80	MtTrangl	
81	81	OpTrangl	
82	82	Shaker1	
83	83	JBell1	
84	84	Belltre1	
85	85	Castnet1	
86	86	MtSurdo	
87	87	OpSurdo	
88			

The highest note number that can be produced depends on the bass program.
The PAD BANK 1 - 3 INST No, INST NAME depend on the kit.
The range of note numbers that can be produced by the pads of the RT-323 is 12 - 63.

Instrument List

No.	Display	Instrument name
0	HvyKick	Heavy Kick
1	TightKic	Tight Kick
2	DistKick	Dist Kick
3	ScrchKic	Scratch Kick
4	Live K11	Live Kick 11
5	Live K12	Live Kick 12
6	Live K13	Live Kick 13
7	Live K14	Live Kick 14
8	StdioK11	Studio Kick 11
9	StdioK12	Studio Kick 12
10	StdioK13	Studio Kick 13
11	StdioK14	Studio Kick 14
12	StnddK11	Standard Kick 11
13	StnddK12	Standard Kick 12
14	StnddK13	Standard Kick 13
15	StnddK14	Standard Kick 14
16	StnddK21	Standard Kick 21
17	Funk K11	Funk Kick 11
18	Funk K12	Funk Kick 12
19	Funk K13	Funk Kick 13
20	Funk K14	Funk Kick 14
21	Epic K11	Epic Kick 11
22	Epic K12	Epic Kick 12
23	Epic K13	Epic Kick 13
24	Epic K14	Epic Kick 14
25	Epic K21	Epic Kick 21
26	Blld K11	Ballad Kick 11
27	Blld K12	Ballad Kick 12
28	Blld K13	Ballad Kick 13
29	Blld K14	Ballad Kick 14
30	Blld K21	Ballad Kick 21
31	Blld K22	Ballad Kick 22
32	DanceK11	Dance Kick 11
33	DanceK12	Dance Kick 12
34	DanceK13	Dance Kick 13
35	DanceK14	Dance Kick 14
36	Hip K11	HipHop Kick 11
37	Hip K12	HipHop Kick 12
38	Hip K13	HipHop Kick 13
39	Hip K14	HipHop Kick 14
40	Hip K21	HipHop Kick 21
41	Tec K11	Techno Kick 11
42	Tec K12	Techno Kick 12
43	Tec K13	Techno Kick 13
44	Tec K21	Techno Kick 21
45	Gene K11	General Kick 11
46	Gene K12	General Kick 12
47	Gene K13	General Kick 13
48	Gene K14	General Kick 14
49	Gene K15	General Kick 15
50	Gene K16	General Kick 16
51	Gene K17	General Kick 17
52	Gene K18	General Kick 18
53	Gene K21	General Kick 21
54	Gene k22	General Kick 22
55	Gene K23	General Kick 23
56	OrchKick	Orchestra Kick
57	RoomSnar	Room Snare
58	TightSnr	Tight Snare
59	HvySnare	Heavy Snare
60	DistSnar	Dist Snare
61	ScrchSnr	Scratch Snare
62	Live S11	Live Snare 11

No.	Display	Instrument name
63	Live S12	Live Snare 12
64	Live S13	Live Snare 13
65	Live S14	Live Snare 14
66	Live S21	Live Snare 21
67	StdioS11	Studio Snare 11
68	StdioS12	Studio Snare 12
69	StdioS13	Studio Snare 13
70	StdioS14	Studio Snare 14
71	StdioS21	Studio Snare 21
72	StdioS22	Studio Snare 22
73	StnddS11	Standard Snare 11
74	StnddS12	Standard Snare 12
75	StnddS13	Standard Snare 13
76	StnddS14	Standard Snare 14
77	StnddS21	Standard Snare 21
78	StnddS22	Standard Snare 22
79	Funk S11	Funk Snare 11
80	Funk S12	Funk Snare 12
81	Funk S13	Funk Snare 13
82	Funk S14	Funk Snare 14
83	Epic S11	Epic Snare 11
84	Epic S12	Epic Snare 12
85	Epic S13	Epic Snare 13
86	Epic S14	Epic Snare 14
87	Epic S21	Epic Snare 21
88	Blld S11	Ballad Snare 11
89	Blld S12	Ballad Snare 12
90	Blld S13	Ballad Snare 13
91	Blld S14	Ballad Snare 14
92	Blld S21	Ballad Snare 21
93	Blld S22	Ballad Snare 22
94	DanceS11	Dance Snare 11
95	DanceS12	Dance Snare 12
96	DanceS13	Dance Snare 13
97	DanceS14	Dance Snare 14
98	DanceS21	Dance Snare 21
99	Hip S11	HipHop Snare 11
100	Hip S12	HipHop Snare 12
101	Hip S13	HipHop Snare 13
102	Hip S14	HipHop Snare 14
103	Tec S11	TechnoBeat Snare 11
104	Tec S12	TechnoBeat Snare 12
105	Tec S13	TechnoBeat Snare 13
106	Tec S14	TechnoBeat Snare 14
107	Gene S11	General Snare 11
108	Gene S12	General Snare 12
109	Gene S13	General Snare 13
110	Gene S14	General Snare 14
111	Gene S15	General Snare 15
112	Gene S16	General Snare 16
113	Gene S17	General Snare 17
114	Gene S18	General Snare 18
115	Gene S19	General Snare 19
116	Gene S21	General Snare 21
117	Gene S22	General Snare 22
118	Gene S23	General Snare 23
119	Gene S24	General Snare 24
120	Gene S25	General Snare 25
121	OrchSnar	Orchestra Snare
122	Live Tm1	Live TOM 1
123	Live Tm2	Live TOM 2
124	Live Tm3	Live TOM 3
125	StdioTm1	Studio TOM 1

No.	Display	Instrument name
126	StdioTm2	Studio TOM 2
127	StdioTm3	Studio TOM 3
128	StnddTm1	Standard TOM 1
129	StnddTm2	Standard TOM 2
130	StnddTm3	Standard TOM 3
131	Funk Tm1	Funk TOM 1
132	Funk Tm2	Funk TOM 2
133	Funk Tm3	Funk TOM 3
134	Epic Tm1	Epic TOM 1
135	Epic Tm2	Epic TOM 2
136	Epic Tm3	Epic TOM 3
137	Blld Tm1	Ballad TOM 1
138	Blld Tm2	Ballad TOM 2
139	Blld Tm3	Ballad TOM 3
140	DanceTm1	Dance TOM 1
141	DanceTm2	Dance TOM 2
142	DanceTm3	Dance TOM 3
143	Hip Tm1	HipHop TOM 1
144	Hip Tm2	HipHop TOM 2
145	Hip Tm3	HipHop TOM 3
146	Tec Tm1	TechnoBeat TOM 1
147	Tec Tm2	TechnoBeat TOM 2
148	Tec Tm3	TechnoBeat TOM 3
149	GeneTm11	Genaral TOM 11
150	GeneTm12	Genaral TOM 12
151	GeneTm13	Genaral TOM 13
152	GeneTm21	Genaral TOM 21
153	GeneTm22	Genaral TOM 22
154	GeneTm23	Genaral TOM 23
155	GeneTm31	Genaral TOM 31
156	GeneTm32	Genaral TOM 32
157	GeneTm33	Genaral TOM 33
158	GeneTm41	Genaral TOM 41
159	GeneTm42	Genaral TOM 42
160	GeneTm43	Genaral TOM 43
161	GeneTm51	Genaral TOM 51
162	GeneTm52	Genaral TOM 52
163	GeneTm53	Genaral TOM 53
164	GeneTm61	Genaral TOM 61
165	GeneTm62	Genaral TOM 62
166	GeneTm63	Genaral TOM 63
167	GeneTm71	Genaral TOM 71
168	BrushTom	Brush TOM
169	Orch Tom	Orchestra Tom
170	DlyLivT1	Delayed Live TOM 1
171	DlyLivT2	Delayed Live TOM 2
172	DlyLivT3	Delayed Live TOM 3
173	DlyStuT1	Delayed Studio TOM 1
174	DlyStuT2	Delayed Studio TOM 2
175	DlyStuT3	Delayed Studio TOM 3
176	DlyStdT1	Delayed Standard TOM 1
177	DlyStdT2	Delayed Standard TOM 2
178	DlyStdT3	Delayed Standard TOM 3
179	DlyFnkT1	Delayed Funk TOM 1
180	DlyFnkT2	Delayed Funk TOM 2
181	DlyFnkT3	Delayed Funk TOM 3
182	DlyEpcT1	Delayed Epic TOM 1
183	DlyEpcT2	Delayed Epic TOM 2
184	DlyEpcT3	Delayed Epic TOM 3
185	DlyBldT1	Delayed Ballad TOM 1
186	DlyBldT2	Delayed Ballad TOM 2
187	DlyBldT3	Delayed Ballad TOM 3
188	DlyDncT1	Delayed Dance TOM 1

No.	Display	Instrument name
189	DlyDncT2	Delayed Dance TOM 2
190	DlyDncT3	Delayed Dance TOM 3
191	DlyHipT1	Delayed HipHop TOM 1
192	DlyHipT2	Delayed HipHop TOM 2
193	DlyHipT3	Delayed HipHop TOM 3
194	DlyTecT1	Delayed TechnoBeat TOM 1
195	DlyTecT2	Delayed TechnoBeat TOM 2
196	DlyTecT3	Delayed TechnoBeat TOM 3
197	Lrg CHH	Large Close HiHat
198	LrgHfOHH	Large Half Open HiHat
199	EpicC-HH	Epric Close HiHat
200	LiveC-HH	Live Close HiHat
201	Live PHH	Live Pedal HiHat
202	Live OHH	Live Open HiHat
203	StnddCHH	Standard Close HiHat
204	StnddOHH	Standard Open HiHat
205	SmallCHH	Small Close HiHat
206	SmallOHH	Small Open HiHat
207	Hip CHH	HipHop Close HiHat
208	Hip OHH	HipHop Open HiHat
209	Tec CHH	Techno Close HiHat
210	Tec OHH	Techno Open HiHat
211	Gane CHH	General Close HiHat
212	Gane OHH	General Open HiHat
213	DanceCHH	Dance Close HiHat
214	DanceOHH	Dance Open HiHat
215	RmHedCHH	Room Head Close HiHat
216	RmRimCHH	Room Rim Close HiHat
217	RoomOHH	Room Open HiHat
218	GenHfOHH	General Half Open HiHat
219	Gene PHH	Genaral Pedal HiHat
220	DancePHH	Dance Pedal HiHat
221	LargCrsh	Large Crash Cymbal
222	SmlCrsh1	Small Crash Cymbal 1
223	SmlCrsh2	Small Crash Cymbal 2
224	SmlCrsh3	Small Crash Cymbal 3
225	HipCrash	HipHop Crash Cymbal
226	EleCrsh1	Electric Crash Cymbal 1
227	EleCrsh2	Electric Crash Cymbal 2
228	GaneCrsh	General Crash Cymbal
229	ChinsCym	Chinese Cymbal
230	RideCym1	Ride Cymbal 1
231	RideCym2	Ride Cymbal 2
232	RidBell1	Ride Bell Cymbal 1
233	RidBell2	Ride Bell Cymbal 2
234	LiveSpls	Live Splash Cymbal
235	GenSpls1	General Splash Cymbal 1
236	GenSpls2	General Splash Cymbal 2
237	TecSplsh	Techno Splash Cymbal
238	HiBongo	High Bongo
239	LowBongo	Low Bongo
240	BongoVb1	Bongo Reverb 1
241	BongoVb2	Bongo Reverb 2
242	MtHiCong	Mute High Conga
243	OpHiCong	Open High Conga
244	LowConga	Low Conga
245	LivCong1	Live Conga 1
246	loosCng1	Loose Conga 1
247	loosCng2	Loose Conga 2
248	LivCong2	Live Conga 1
249	Doumbek 1	Doumbek 1
250	Doumbek 2	Doumbek 2
251	Doumbek 3	Doumbek 3

No.	Display	Instrument name
252	Doumbek 4	Doumbek 4
253	Doumbek 5	Doumbek 5
254	Tabla 1	Tabla 1
255	Tabla 2	Tabla 2
256	Tabla 3	Tabla 3
257	Tabla 4	Tabla 4
258	Tabla 5	Tabla 5
259	Timbale1	Timbale1
260	Timbale2	Timbale2
261	Timbale3	Timbale3
262	Timbale4	Timbale4
263	Tumba 1	Tumba 1
264	Tumba 2	Tumba 2
265	Tumba 3	Tumba 3
266	HandTom	Hand Tom
267	MtSurdo	Mute Surdo
268	OpSurdo	Open Surdo
269	Claps1	Hand Claps 1
270	Claps2	Hand Claps 2
271	EleClpMn	Electric Claps Mono
272	EleClpSt	Electric Claps Stereo
273	Castnet1	Castanet 1
274	Castnet2	Castanet 2
275	ShortStk	Short Stick
276	GeneStk	General Stick
277	LiveStk	Live Stick
278	X-Stick	Cross Stick
279	StkVerb1	Stick Reverb 1
280	StkVerb2	Stick Reverb 2
281	StkVerb3	Stick Reverb 3
282	Claves 1	Claves 1
283	Claves 2	Claves 2
284	Claves 3	Claves 3
285	EleClvs	Electric Claves
286	LatnSel1	Latin Sell 1
287	LatnSel2	Latin Sell 2
288	WoodBlkH	Wood Block High
289	WoodBlkL	Wood Block Low
290	Slap	Slap
291	BrushSlp	Brush Slap
292	GuiroS1	Short Guiro 1
293	GuiroS2	Short Guiro 2
294	GuiroS3	Short Guiro 3
295	GuiroL1	Long Guiro 1
296	GuiroL2	Long Guiro 2
297	GuiroL3	Long Guiro 3
298	Vibslap1	Vibra Slap 1
299	Vibslap2	Vibra Slap 2
300	Vibslap3	Vibra Slap 3
301	Shaker 1	Shaker 1
302	Shaker 2	Shaker 2
303	Shaker 3	Shaker 3
304	Cabasa	Cabasa
305	Marcas	Maracas
306	RimBrush	Rim Brush
307	Cuica Hi	Cuica High
308	Cuica Lo	Cuica Low
309	Whistle1	Whistle1
310	Whistle2	Whistle2
311	Whistle3	Whistle3
312	CowBelLo	CowBell Lo
313	CowBelHi	CowBell Hi
314	GeneCwBl	General CowBell

No.	Display	Instrument name
315	EleCwBel	Electric CowBell
316	DancCwBl	Dance CowBell
317	EleSnap	Electric Snap
318	SquarClk	Square Click
319	StdioClk	Studio Click
320	WoodClk	Wood Click
321	MetroClk	Metronome Click
322	Agogo 1	Agogo 1
323	Agogo 2	Agogo 2
324	Agogo 3	Agogo 3
325	Agogo 4	Agogo 4
326	MtTrangl	Muted Triangle
327	OpTrangl	Open Triangle
328	Gamelan	Gamelan
329	MtrBell	Metronome Bell
330	SteelPip	Steel Pipe
331	Belltre1	Bell tree 1
332	Belltre2	Bell tree 2
333	Belltre3	Bell tree 3
334	JBell1	Jingle Bell 1
335	JBell2	Jingle Bell 2
336	JBell3	Jingle Bell 3
337	Tambrin1	Tambourine 1
338	Tambrin2	Tambourine 2
339	Tambrin3	Tambourine 3
340	Tambrin4	Tambourine 4
341	Tambrin5	Tambourine 5
342	Tambrin6	Tambourine 6
343	Ratchet1	Ratchet 1
344	Ratchet2	Ratchet 2
345	FngCym1	Finger Cymbal 1
346	FngCym2	Finger Cymbal 2
347	FngCym3	Finger Cymbal 3
348	FngCym4	Finger Cymbal 4
349	HighQ	HighQ
350	Bass 1	Bass 1
351	Bass 2	Bass 2
352	Bass 3	Bass 3
353	Bass 4	Bass 4
354	Noise 1	Noise 1
355	Noise 2	Noise 2
356	Noise 3	Noise 3
357	NoiseSlp	Noise Slap
358	Scratch1	Scratch 1
359	Scratch2	Scratch 2
360	Scratch3	Scratch 3
361	RevCym1	Reverse Cymbal 1
362	RevCym2	Reverse Cymbal 2
363	RevCym3	Reverse Cymbal 3
364	RevSnr	Reverse Snare
365	RvrsKick	Reverse Kick
366	BreathDr	Breath Drum
367	IndstriK	Industrial Kick
368	EleBomb	Electric Bomb
369	SineWave	SineWave
370	Whirl	Whirl
371	Sfx Clap	Sfx Clap
372	Sfx Slap	Sfx Slap
373	SfxTambr	Sfx Tambourine
374	SfxVerb1	Sfx Reverb 1
375	SfxVerb2	Sfx Reverb 2
376	SfxWhisl	Sfx Whistle

Preset Patterns

* 0 - 99 is the user area.

* When you press the [◀]/[▶] keys in pattern mode, the unit jumps to the first pattern in the section divided by bold lines.
* Songs in the same frame contain similar patterns, making it easy to create songs.
* Fill-in patterns are indicated by a * in the "Fill" column.

	Pattern number	Fill	Pattern name	Recommended tempo	Kit number DRUM A	DRUM B	BASS
	000		ROCK01	120	4	21	1
	001		ROCK02	140	4	9	3
	002		ROCK03	107	4	0	1
	003		ROCK04	136	11	11	53
	004		ROCK05	120	1	18	23
	005		ROCK06	115	22	4	1
	006		ROCK07	117	13	0	23
	007		ROCK08	117	0	0	0
	008		ROCK09	120	11	11	9
	009		ROCK10	136	22	0	1
	010		ROCK11	112	22	22	4
	011		ROCK12	140	1	0	4
	012		ROCK13	120	0	0	15
	013		ROCK14	120	20	22	3
	014		ROCK15	120	19	57	4
	015		ROCK16	116	20	20	0
	016		ROCK17	92	0	22	0
	017		ROCK18	96	21	0	4
	018		ROCK19	96	0	0	4
	019		ROCK20	112	21	0	4
	020		ROCK21	137	16	16	9
	021		ROCK22	103	0	0	0
	022		ROCK23	120	6	2	5
	023		ROCK24	99	3	57	5
	024		ROCK25	132	1	8	53
	025		ROCK26	96	33	40	4
	026		ROCK27	120	21	22	1
	027		ROCK28T	120	1	0	2
Song	028		ROCKs1VA	120	3	6	14
	029	*	ROCKs1FA	120	3	6	14
	030		ROCKs1VB	120	3	6	14
	031	*	ROCKs1FB	120	3	6	24
Song	032		ROCKs2VA	110	3	6	1
	033	*	ROCKs2FA	110	3	6	1
	034		ROCKs2VB	110	3	6	1
	035	*	ROCKs2FB	110	3	6	1
Song	036		ROCKs3VA	124	16	21	9
	037	*	ROCKs3FA	124	16	21	9
	038		ROCKs3VB	124	16	21	9
	039	*	ROCKs3FB	124	16	21	9
Song	040		ROCKs4VA	130	5	22	1
	041	*	ROCKs4FA	130	5	22	1
	042		ROCKs4VB	130	5	22	1
	043	*	ROCKs4FB	130	5	22	1
	044	*	ROCKs4BR	130	5	22	1
	045		HRK 01	130	0	0	0
	046		HRK 02	113	4	0	2
	047		HRK 03	96	0	63	2
	048		HRK 04	120	16	18	1
	049		HRK 05	121	0	0	0
	050		HRK 06	136	0	57	0
	051		HRK 07	120	0	0	0
Song	052		HRK s1VA	120	1	4	1
	053	*	HRK s1FA	120	1	4	1
	054		HRK s1VB	120	1	4	1
	055	*	HRK s1FB	120	1	4	1
Song	056		HRK s2VA	115	11	0	14
	057	*	HRK s2FA	115	11	0	14
	058		HRK s2VB	115	11	0	14
	059	*	HRK s2FB	115	11	0	14

	Pattern number	Fill	Pattern name	Recommended tempo	Kit number DRUM A	DRUM B	BASS
Song	060		MTL 01	98	0	25	0
	061		MTL 02	103	25	25	53
	062		MTL 03	112	1	5	0
	063		MTL 04	150	0	0	0
Song	064		MTL s1VA	128	3	6	2
	065	*	MTL s1FA	128	3	6	2
	066		MTL s1VB	128	3	6	2
	067	*	MTL s1FB	128	3	6	2
	068		THRS01	135	4	4	2
	069		THRS02	186	0	0	54
	070		PUNK01	160	15	0	0
	071		PUNK02	158	22	4	54
Song	072		TP s1VA	129	3	13	0
	073	*	TP s1FA	129	3	13	0
	074		TP s1VB	129	3	13	0
	075	*	TP s1FB	129	3	13	0
	076		FUS 01	124	26	13	14
	077		FUS 02	120	3	2	2
	078		FUS 03	113	1	10	5
	079		FUS 04	105	6	2	15
	080		FUS 05	120	3	2	2
	081		FUS 06	120	22	24	14
	082		FUS 07	120	40	10	15
	083		FUS 08	94	18	0	1
Song	084		FUS s1VA	110	24	2	1
	085	*	FUS s1FA	110	24	2	1
	086		FUS s1VB	110	24	2	1
	087	*	FUS s1FB	110	3	2	1
Song	088		FUS s2VA	124	9	0	39
	089	*	FUS s2FA	124	9	0	39
	090		FUS s2VB	124	9	0	39
	091	*	FUS s2FB	124	9	0	39
Song	092		FUS s3VA	118	4	0	0
	093	*	FUS s3FA	118	4	0	0
	094		FUS s3VB	118	4	0	0
	095	*	FUS s3FB	118	4	0	0
Song	096		INDTs1VA	134	8	63	7
	097	*	INDTs1FA	134	8	63	7
	098		INDTs1VB	134	8	63	34
	099		INDTs1VC	134	0	63	11
	100		POP 01	120	22	21	1
	101		POP 02	142	16	9	4
	102		POP 03	108	5	9	4
	103		POP 04	120	22	21	1
	104		POP 05	112	2	57	0
	105		POP 06	80	57	2	5
	106		POP 07	100	2	43	4
	107		POP 08	117	34	57	4
	108		POP 09	120	22	0	0
	109		POP 10	120	22	21	0
	110		POP 11	120	22	21	1
	111		POP 12T	140	5	18	4
Song	112		POP s1VA	126	20	0	1
	113	*	POP s1FA	126	20	0	1
	114		POP s1VB	126	20	0	1
	115	*	POP s1FB	126	20	0	1
Song	116		POP s2VA	134	3	0	0
	117	*	POP s2FA	134	3	0	0
	118		POP s2VB	134	3	0	0
	119	*	POP s2FB	134	3	0	0
Song	120		POP s3VA	120	22	21	1
	121	*	POP s3FA	120	22	21	1
	122		POP s3VB	120	22	21	1
	123	*	POP s3FB	120	22	21	1

	Pattern number	Fill	Pattern name	Recommended tempo	Kit number		
					DRUM A	DRUM B	BASS
	124		RnB 01	138	3	9	27
	125		RnB 02	100	19	57	0
	126		RnB 03	120	34	0	3
	127		RnB 04	168	3	22	0
	128		RnB 05	100	22	57	3
	129		RnB 06	120	3	0	2
	130		RnB 07	146	2	7	0
	131		RnB 08	92	2	55	4
	132		RnB 09	116	3	4	0
	133		RnB 10	104	3	22	0
Song	134		RnB s1VA	130	22	0	0
	135	*	RnB s1FA	130	22	0	0
	136		RnB s1VB	130	22	49	0
	137	*	RnB s1FB	130	22	0	0
	138		FUNK01	112	2	3	3
	139		FUNK02	120	22	0	3
	140		FUNK03	112	3	5	3
	141		FUNK04	121	3	34	3
	142		FUNK05	98	24	13	8
	143		FUNK06	94	24	57	3
	144		FUNK07	92	3	49	9
	145		FUNK08	99	19	52	5
	146		FUNK09	112	2	3	10
	147		FUNK10	125	36	58	27
	148		FUNK11	92	22	5	10
	149		FUNK12	110	15	55	3
Song	150		FUNKs1VA	120	31	22	10
	151	*	FUNKs1FA	120	31	22	10
	152		FUNKs1VB	120	31	22	10
	153	*	FUNKs1FB	120	31	22	10
Song	154		FUNKs2VA	118	6	2	3
	155	*	FUNKs2FA	118	6	2	3
	156		FUNKs2VB	118	6	2	3
	157	*	FUNKs2FB	118	6	2	3
	158		HIP 01	98	16	36	22
	159		HIP 02	91	7	50	32
	160		HIP 03	86	36	34	8
	161		HIP 04	96	2	57	10
	162		HIP 05	112	3	7	5
	163		HIP 06	112	2	7	4
	164		HIP 07	103	0	53	16
	165		HIP 08	92	7	51	5
	166		HIP 09	99	34	57	4
	167		HIP 10	85	8	10	27
	168		HIP 11	96	0	58	27
	169		HIP 12	116	48	0	22
	170		HIP 13	148	8	2	22
	171		HIP 14	107	3	57	5
	172		HIP 15	104	7	35	38
	173		HIP 16	120	34	22	8
	174		HIP 17	98	16	36	22
	175		HIP 18	102	7	6	22
	176		HIP 19	99	37	21	4
	177		HIP 20	91	8	35	5
	178		HIP 21	88	12	11	5
	179		HIP 22	88	35	37	4
	180		HIP 23	136	7	53	22
Song	181		HIP s1VA	96	7	2	0
	182	*	HIP s1FA	96	7	2	4
	183		HIP s1VB	96	7	2	4
	184	*	HIP s1FB	96	7	2	4
	185		HIP s1VC	96	7	2	4
	186		HIP s1VD	96	7	2	4

	Pattern number	Fill	Pattern name	Recommended tempo	Kit number		
					DRUM A	DRUM B	BASS
Song	187		HIP s2VA	110	12	63	0
	188	*	HIP s2VB	110	12	0	4
	189	*	HIP s2FB	110	12	11	0
	190		HIP s2VC	110	12	11	4
	191		HIP s2VD	110	12	11	4
Song	192		HIP s3VA	112	2	1	0
	193		HIP s3VB	112	2	1	5
	194		DANC01	111	8	2	8
	195		DANC02	102	3	34	4
	196		DANC03	120	8	52	3
	197		DANC04	180	34	61	27
	198		DANC05	103	33	57	27
	199		DANC06	120	6	57	10
Song	200		DANCs1VA	110	37	36	22
	201	*	DANCs1FA	110	37	36	22
	202		DANCs1VB	110	37	34	22
	203	*	DANCs1FB	110	37	36	22
Song	204		DANCs2VA	120	7	31	4
	205	*	DANCs2FA	120	7	31	4
	206		DANCs2VB	120	7	31	4
	207	*	DANCs2FB	120	7	31	4
	208		HOUS01	120	34	60	27
	209		HOUS02	126	34	52	4
	210		HOUS03	120	37	8	8
	211		HOUS04	120	31	52	7
Song	212		HOUSs1VA	120	34	19	22
	213	*	HOUSs1FA	120	34	19	22
	214		HOUSs1VB	120	8	58	22
	215	*	HOUSs1FB	120	8	58	22
	216		TECH01	148	7	37	50
	217		TECH02	125	8	39	22
	218		TECH03	125	8	37	22
	219		TECH04	160	36	8	8
	220		TECH05	164	7	52	27
	221		TECH06	118	6	8	22
	222		TECH07	140	34	52	27
	223		TECH08	136	34	52	27
	224		TECH09	119	25	37	22
	225		TECH10	127	48	57	52
Song	226		TECHs1VA	135	8	36	8
	227	*	TECHs1FA	135	8	36	8
	228		TECHs1VB	135	8	37	8
	229	*	TECHs1FB	135	8	37	8
	230		DnB 01	163	42	0	2
	231		DnB 02	150	3	7	27
	232		DnB 03	150	34	7	27
	233		DnB 04	144	7	8	27
	234		DnB 05	154	12	37	5
	235		DnB 06	154	24	49	27
Song	236		DnB s1VA	150	7	34	5
	237	*	DnB s1FA	150	7	34	5
	238		DnB s1VB	150	47	46	27
	239	*	DnB s1FB	150	47	46	5
	240		TRIP01	120	34	7	5
	241		TRIP02	75	45	57	14
	242		TRIP03	101	47	50	13
	243		TRIP04	97	63	56	4

	Pattern number	Fill	Pattern name	Recommended tempo	Kit number DRUM A	DRUM B	BASS
	244		AMB 01	106	8	50	21
	245		AMB 02	98	47	52	4
	246		AMB 03	157	46	7	27
	247		AMB 04	89	7	0	27
Song	248		AMB s1VA	114	7	57	8
	249	*	AMB s1FA	114	7	57	8
	250		AMB s1VB	114	3	7	27
	251	*	AMB s1FB	114	3	36	0
	252		BALD01	76	5	22	4
	253		BALD02	75	2	55	4
	254		BALD03	65	5	55	4
	255		BALD04	65	5	19	4
	256		BALD05	108	2	1	0
	257		BALD06	99	2	3	4
	258		BALD07	80	1	3	13
	259		BALD08	75	25	0	4
	260		BALD09	110	2	3	5
	261		BALD10	105	22	21	4
	262		BALD11T	112	15	0	4
Song	263		BALDs1VA	96	2	3	4
	264	*	BALDs1FA	96	2	3	4
	265		BALDs1VB	96	2	3	4
	266	*	BALDs1FB	96	2	3	4
	267		BLUS01	120	3	0	4
	268		BLUS02	72	21	2	4
	269		BLUS03	120	3	0	4
	270		BLUS04	111	21	28	4
	271		BLUS05	91	5	6	0
	272		BLUS06	105	31	21	5
Song	273		BLUSs1VA	136	16	0	1
	274	*	BLUSs1FA	136	16	0	1
	275		BLUSs1VB	136	16	0	1
	276	*	BLUSs1FB	136	16	0	1
	277		CNTR01	120	2	0	4
	278		CNTR02	120	0	2	5
	279		CNTR03	95	2	0	4
	280		CNTR04	115	45	0	0
Song	281		CNTRs1VA	118	16	0	5
	282	*	CNTRs1FA	118	16	0	5
	283		CNTRs1VB	118	16	0	5
	284	*	CNTRs1FB	118	16	0	5
	285		JAZZ01	102	9	21	5
	286		JAZZ02	100	2	58	4
	287		JAZZ03	110	40	7	5
	288		JAZZ04	125	3	61	5
	289		JAZZ05	110	40	27	5
	290		JAZZ06	123	19	59	5
	291		JAZZ07P	180	21	9	5
Song	292		JAZZs1VA	150	9	21	5
	293	*	JAZZs1FA	150	9	21	5
	294		JAZZs1VB	150	9	21	5
	295	*	JAZZs1FB	150	9	21	5
	296		SHFL01	125	3	0	4
	297		SHFL02	120	0	22	11
	298		SHFL03	122	3	19	22
	299		SHFL04	120	22	21	6
	300		SHFL05	120	3	21	3
Song	301		SHFLs1VA	115	3	6	2
	302		SHFLs1Va	115	3	6	2
	303	*	SHFLs1FA	115	3	6	2
	304		SHFLs1VB	115	3	6	2
	305	*	SHFLs1FB	115	3	6	2

	Pattern number	Fill	Pattern name	Recommended tempo	Kit number DRUM A	DRUM B	BASS
	306		SKA 01	160	22	60	4
	307		SKA 02	141	2	3	0
	308		SKA 03	160	2	57	14
	309		SKA 04	144	2	0	4
	310		REGG01	132	21	57	4
	311		REGG02	161	3	0	4
	312		REGG03	129	3	50	5
	313		REGG04	150	3	0	4
Song	314		REGGs1VA	132	2	1	4
	315	*	REGGs1FA	132	2	1	4
	316	*	REGGs1VB	132	2	4	0
	317		REGGs1FB	132	2	1	4
	318		AFRO01	123	5	49	4
	319		AFRO02	98	50	56	13
	320		AFRO03	115	22	56	3
	321		AFRO04	111	22	49	5
	322		AFRO05	106	19	10	3
	323		AFRO06	92	57	56	4
	324		AFRO07	116	36	56	27
	325		AFRO08	106	57	56	5
Song	326	*	AFROs1VA	117	24	10	6
	327		AFROs1FA	117	24	10	6
	328	*	AFROs1VB	117	24	10	6
	329		AFROs1FB	117	24	10	6
	330		LATN01	116	9	21	4
	331		LATN02	130	9	21	4
	332		LATN03	118	2	10	4
	333		LATN04	88	10	10	4
	334		LATN05	109	1	57	4
	335		LATN06	150	3	2	5
	336		LATN07	141	19	10	4
	337		LATN08	112	9	3	4
	338		LATN09	104	22	10	4
	339		LATN10	100	49	57	5
	340		LATN11	78	10	56	4
	341		LATN12	109	22	56	0
Song	342	*	LATNs1VA	126	9	0	4
	343		LATNs1FA	126	9	0	4
	344	*	LATNs1VB	126	9	0	4
	345		LATNs1FB	126	9	21	4
Song	346	*	LATNs2VA	112	3	0	5
	347		LATNs2FA	112	3	0	5
	348	*	LATNs2VB	112	3	0	5
	349		LATNs2FB	112	3	0	5
	350		MidE01	112	2	56	4
	351		MidE02	122	2	56	5
	352		MidE03	122	16	49	4
	353		MidE04T	112	57	2	5
Song	354	*	MidEs1VA	118	19	57	4
	355		MidEs1FA	118	19	57	4
	356	*	MidEs1VB	118	19	50	4
	357		MidEs1FB	118	19	50	4

Pattern number	Fill	Pattern name	Recommended tempo	Kit number DRUM A	Kit number DRUM B	Kit number BASS
358		INTRO01	---	3	6	14
359		INTRO02	---	22	21	0
360		INTRO03	---	11	21	14
361		INTRO04	---	16	21	1
362		INTRO05	---	3	21	0
363		INTRO06	---	3	21	0
364		INTRO07	---	22	21	0
365		INTRO08	---	6	0	2
366		INTRO09	---	3	21	0
367		INTRO10	---	3	21	0
368		INTRO11	---	3	21	0
369		INTRO12	---	9	21	39
370		COUNT	---	3	21	0
371		INTRO14	---	2	1	4
372		INTRO15	---	9	21	5
373		INTRO16	---	3	0	0
374		INTRO17	---	40	21	1
375		INTRO18	---	3	21	0
376		INTRO19	---	3	0	0
377		ENDING01	---	3	0	0
378		ENDING02	---	3	21	0
379		ENDING03	---	3	21	1
380		ENDING04	---	3	0	0
381		ENDING05	---	9	21	5
382		ENDING06	---	3	21	1
383		ENDING07	---	9	21	4
384		Grv Arp1	PAD 2	0	0	12
385		Grv Arp2	PAD 4	0	0	12
386		Grv Drm1	PAD 1	42	40	0
387		Grv Drm2	PAD 5	6	0	0
388		Grv Drm3	PAD 7	7	0	0
389		Grv Drm4	PAD 8	7	8	0
390		Grv Perc	PAD 6	14	0	0
391		Grv Bas1	PAD13	0	0	5
392		Grv Bas2	PAD 9	0	0	4
393		Grv Bas3	PAD12	0	0	34
394		Grv Bas4	PAD11	0	0	2
395		Grv Pad	PAD10	0	0	51
396		GrvSnrFl	PAD 3	4	0	0
397		METRO4/4	---	2	55	0
398		METRO3/4	---	2	55	0
399		All Mute	---	0	0	0

Preset Song Pad Parameter Defaults

SONG00	ROCK tmpl	120BPM		KEY=E	
PAD No	PtnA	DrumB	Bass	Transp	Next
PAD 1	358	358	358	0	3
PAD 2	28	28	28	5	2
PAD 3	28	28	28	0	3
PAD 4	28	28	28	7	4
PAD 5	29	29	29	0	7 FILL
PAD 6	30	30	30	5	6
PAD 7	30	30	30	0	7
PAD 8	30	30	30	7	8
PAD 9	31	31	31	0	3 FILL
PAD10	28	28	28	-2	10
PAD11	379	379	379	0	3 FILL
PAD12	30	30	30	-2	12
PAD13	377	377	377	0	0

SONG03	TRSHtmpl	129BPM		KEY=D	
PAD No	PtnA	DrumB	Bass	Transp	Next
PAD 1	363	363	363	-2	3
PAD 2	72	72	72	3	2
PAD 3	72	72	72	-2	3
PAD 4	72	72	72	5	4
PAD 5	73	73	73	-2	7 FILL
PAD 6	74	74	74	1	6
PAD 7	74	74	74	-2	7
PAD 8	74	74	74	5	8
PAD 9	75	75	75	-2	3 FILL
PAD10	72	72	72	-2	12 FILL
PAD11	377	67	377	-2	11
PAD12	74	74	74	-2	12
PAD13	377	377	377	-2	0

SONG01	HROKtmpl	115BPM		KEY=G	
PAD No	PtnA	DrumB	Bass	Transp	Next
PAD 1	360	360	360	3	3
PAD 2	56	56	56	6	2
PAD 3	56	56	56	3	3
PAD 4	56	56	56	8	4
PAD 5	57	57	57	3	7 FILL
PAD 6	58	58	58	6	6
PAD 7	58	58	58	3	7
PAD 8	58	58	58	8	8
PAD 9	59	59	59	3	3 FILL
PAD10	49	49	49	1	12
PAD11	58	58	None	3	11 FILL
PAD12	50	50	50	3	12
PAD13	378	378	378	3	0

SONG04	FUS tmpl	124BPM		KEY=C	
PAD No	PtnA	DrumB	Bass	Transp	Next
PAD 1	369	369	369	-4	3
PAD 2	88	88	88	-2	2
PAD 3	88	88	88	-4	3
PAD 4	88	88	88	-1	4
PAD 5	89	89	89	-4	7 FILL
PAD 6	90	90	90	11	6
PAD 7	90	90	90	8	7
PAD 8	90	90	90	1	8
PAD 9	91	91	91	-2	3 FILL
PAD10	386	386	None	-4	10
PAD11	386	None	None	-4	11
PAD12	386	386	88	-4	12
PAD13	378	378	378	-4	0

SONG02	METLtmpl	128BPM		KEY=D	
PAD No	PtnA	DrumB	Bass	Transp	Next
PAD 1	365	365	365	-2	3
PAD 2	64	64	64	3	2
PAD 3	64	64	64	-2	3
PAD 4	64	64	64	5	4
PAD 5	65	65	65	-2	7 FILL
PAD 6	66	66	66	1	6
PAD 7	66	66	66	-2	7
PAD 8	66	66	66	5	8
PAD 9	67	67	67	-2	3 FILL
PAD10	65	65	66	-2	12 FILL
PAD11	64	64	None	-2	11
PAD12	63	63	66	-2	12
PAD13	380	380	380	-2	0

SONG05	R&B tmpl	130BPM		KEY=D	
PAD No	PtnA	DrumB	Bass	Transp	Next
PAD 1	364	364	364	-2	3
PAD 2	134	134	134	0	2
PAD 3	134	134	134	-2	3
PAD 4	134	134	134	1	4
PAD 5	135	135	135	-2	7 FILL
PAD 6	136	136	136	0	6
PAD 7	136	136	136	-2	7
PAD 8	136	136	136	3	8
PAD 9	137	137	137	-2	3 FILL
PAD10	131	131	131	1	10
PAD11	137	67	None	0	3 FILL
PAD12	131	131	131	4	12
PAD13	380	380	380	-2	0

SONG06	HIP tmpl	96BPM		KEY=E	
PAD No	PtnA	DrumB	Bass	Transp	Next
PAD 1	181	181	181	0	1
PAD 2	182	182	182	0	3 FILL
PAD 3	183	183	183	0	3
PAD 4	183	190	183	0	4
PAD 5	184	184	184	0	7 FILL
PAD 6	185	176	185	0	6
PAD 7	185	185	185	0	7
PAD 8	399	186	185	0	8
PAD 9	186	186	186	0	3 FILL
PAD10	158	158	183	0	10
PAD11	158	158	None	0	11
PAD12	158	158	185	0	12
PAD13	399	399	186	0	0

SONG09	JAZZtmpl	150BPM		KEY=Bb	
PAD No	PtnA	DrumB	Bass	Transp	Next
PAD 1	372	372	372	-6	3
PAD 2	292	292	292	-1	2
PAD 3	292	292	292	6	3
PAD 4	292	292	292	1	4
PAD 5	293	293	293	-6	7 FILL
PAD 6	294	294	294	-1	6
PAD 7	294	294	294	-6	7
PAD 8	294	294	294	1	8
PAD 9	295	295	295	-6	3 FILL
PAD10	285	285	285	-1	10
PAD11	285	285	285	6	11
PAD12	285	285	285	1	12
PAD13	381	381	381	6	0

SONG07	TECHtmpl	135BPM		KEY=F#	
PAD No	PtnA	DrumB	Bass	Transp	Next
PAD 1	221	221	221	2	1
PAD 2	219	221	221	2	3
PAD 3	226	226	226	2	3
PAD 4	226	228	226	2	4
PAD 5	227	227	227	2	7 FILL
PAD 6	221	226	226	2	6
PAD 7	228	228	228	2	7
PAD 8	228	234	228	2	8
PAD 9	229	229	229	2	3 FILL
PAD10	224	222	224	2	10
PAD11	224	224	224	2	11
PAD12	224	219	217	-1	12
PAD13	223	223	223	2	0

SONG10	LATNtmpl	126BPM		KEY=E	
PAD No	PtnA	DrumB	Bass	Transp	Next
PAD 1	343	343	None	0	3
PAD 2	342	342	342	1	2
PAD 3	342	342	342	0	3
PAD 4	342	342	342	3	4
PAD 5	343	343	343	0	7 FILL
PAD 6	344	344	344	1	6
PAD 7	344	344	344	0	7
PAD 8	344	344	344	3	8
PAD 9	345	345	None	0	3 FILL
PAD10	342	342	342	5	10
PAD11	345	None	None	0	3 FILL
PAD12	344	344	344	5	12
PAD13	383	383	383	0	0

SONG08	METLtmpl	136BPM		KEY=A	
PAD No	PtnA	DrumB	Bass	Transp	Next
PAD 1	361	361	361	5	3
PAD 2	273	273	273	10	2
PAD 3	273	273	273	5	3
PAD 4	273	273	273	0	4
PAD 5	274	274	274	5	7 FILL
PAD 6	275	275	275	10	6
PAD 7	275	275	275	5	7
PAD 8	275	275	275	0	8
PAD 9	276	276	276	5	3 FILL
PAD10	44	44	44	10	10
PAD11	44	44	44	5	11
PAD12	44	44	44	0	12
PAD13	377	377	377	5	0

SONG11	RAGGtmpl	135BPM		KEY=F#	
PAD No	PtnA	DrumB	Bass	Transp	Next
PAD 1	371	371	371	0	3
PAD 2	314	314	314	3	2
PAD 3	314	314	314	0	3
PAD 4	314	314	314	5	4
PAD 5	315	315	315	0	7 FILL
PAD 6	316	316	316	3	6
PAD 7	316	316	316	0	7
PAD 8	316	316	316	5	8
PAD 9	317	317	317	0	3 FILL
PAD10	314	314	314	-2	10
PAD11	312	312	None	0	3 FILL
PAD12	316	316	316	-2	12
PAD13	378	378	378	0	0

MIDI Implementation

```
1. Recognized Messages

    Status   1st    2nd       Description
    ---------------------------------------------------------------------------
    8nH      kk     vv        Note Off  kk: note number
                                        vv: velocity will be ignored
    9nH      kk     00H       Note Off  kk: note number
    9nH      kk     vv        Note On   kk: note number
                                        vv: velocity
    BnH      07H    vv        Channel Volume      vv: volume value
    BnH      10H    vv        Channel Panpot      vv: panpot value
    BnH      11H    vv        Channel Expression  vv: expression value
    BnH      51H    vv        Channel JamPitch    vv: JamPitch value
    BnH      52H    vv        Channel JamPan      vv: JamPan value
    BnH      53H    vv        Channel JamSound    vv: JamSound value
    BnH      78H    xx        All Sounds Off
    BnH      79H    xx        Reset All Controllers
    BnH      7BH    xx        All Notes Off
    CnH      pp               Program Change      pp: program number
    EnH      bl     bh        Pitch Bender   bh: bender value high
                                             bl: bender value low will be ignored
    F2H      sl     sh        Song Position Pointer  shsl: song position
    F3H      ss               Song Select  ss: song number
    F8H                       Timing Clock
    FAH                       Start
    FBH                       Continue
    FCH                       Stop


2. Transmitted Messages

    Status   1st    2nd       Description
    ---------------------------------------------------------------------------
    8nH      kk     40H       Note Off  kk: note number
    9nH      kk     vv        Note On   kk: note number
                                        vv: velocity
    BnH      07H    vv        Channel Volume      vv: volume value
    BnH      51H    vv        Channel JamPitch    vv: JamPitch value
    BnH      52H    vv        Channel JamPan      vv: JamPan value
    BnH      53H    vv        Channel JamSound    vv: JamSound value
    BnH      78H    00H       All Sounds Off
    BnH      79H    00H       Reset All Controllers
    BnH      7BH    00H       All Notes Off
    CnH      pp               Program Change      pp: program number
    F2H      sl     sh        Song Position Pointer  shsl: song position
    F3H      ss               Song Select  ss: song number
    F8H                       Timing Clock
    FAH                       Start
    FBH                       Continue
    FCH                       Stop


3. System Exclusive Messages

  1) Identity Request : Recognized Only

    Byte     Description
    ---------------------------------------------------------------------------
    F0H      System Exclusive Message Status
    7EH      Universal System Exclusive non real time header
    cc       MIDI Channel 00H - 0FH
    06H      Sub ID #1 : General Information
    01H      Sub ID #2 : Identity Request
    F7H      End Of Exclusive


  2) Identity Reply : Transmitted Only

    Byte     Description
    ---------------------------------------------------------------------------
    F0H      System Exclusive Message Status
    7EH      Universal System Exclusive non real time header
    cc       MIDI Channel 00H - 0FH
    06H      Sub ID #1 : General Information
```

```
02H      Sub ID #2 : Identity Reply
52H      Manufacturer : ZOOM Corporation
26H      Machine ID low  : RT-323
00H               high :
00H      Family ID low
00H      Family ID high
rr       Revision    1st digit in ASCII code
rr       Revision   10th digit in ASCII code
rr       Revision  100th digit in ASCII code
rr       Revision 1000th digit in ASCII code
F7H      End Of Exclusive
```

3) All Kits Dump

```
   Byte    Description
   -------------------------------------------------------------------
   F0H     System Exclusive Message Status
   52H     ZOOM Corporation
   cc      MIDI Channel of DrumA , 00H-0FH
   26H     RT-323
   26H     All Kit Dump
           data    All kit data
   F7H     EOX
```

4) Sequence Dump

```
   Byte    Description
   -------------------------------------------------------------------
   F0H     System Exclusive Message Status
   52H     ZOOM Corporation
   cc      MIDI Channel of DrumA , 00H-0FH
   26H     RT-323
   27H     Sequence Dump
           data    Sequence data
   F7H     EOX
```

```
   Note: All sequence in user area will be cleared and replaced
         when this message is received.
         Empty patterns/songs should not be sent.
```

5) System Dump

```
   Byte    Description
   -------------------------------------------------------------------
   F0H     System Exclusive Message Status
   52H     ZOOM Corporation
   cc      MIDI Channel of DrumA , 00H-0FH
   26H     RT-323
   28H     System Dump
           data    System data
   F7H     EOX
```

4. Recordable Messages

```
   Status  1st   2nd    Description
   ------------------------------------------------------------------------
   8nH     kk    vv     Note Off  kk: note number
                                  vv: velocity will be ignored
   9nH     kk    00H    Note Off  kk: note number
   9nH     kk    vv     Note On   kk: note number
                                  vv: velocity
   AnH     kk    vv     Polyphonic Key Pressure kk: note number
                                  vv: pressure value
   BnH     cc    vv     Control Change  cc: control number 0-119
                                  vv: control value
   BnH     78H   xx     All Sounds Off
   BnH     79H   xx     Reset All Controllers
   BnH     7BH   xx     All Notes Off
   CnH     pp           Program Change     pp: program number
   DnH     vv           Channel Pressure  vv: pressure value
   EnH     bh    bl     Pitch Bender  bh: bender value high
                                  bl: bender value low will be ignored
```

MIDI Implementation Chart

```
[ MultiTrack Rhythm Machine     ]                    Date :15.DEC.2000
  Model RhythmTrack  RT-323   MIDI Implementation Chart   Version :1.00
```

Function ...		Transmitted	Recognized	Remarks
Basic Channel	Default	1-16,OFF	1-16,OFF	Memorized
	Changed	1-16,OFF	1-16,OFF	See Note1
Mode	Default	3	3	
	Messages	x	x	
	Altered	******************		
Note Number		0-127	0-127	
	True voice	******************		
Velocity	Note ON	o	o	
	Note OFF	x	x	
After Touch	Key's	x	x	
	Ch's	x	x	
Pitch Bend		x	o	MS7bits
Control			7	Volume
			10	Panpot
		80	80	JAM VOLUME
		81	81	JAM PITCH
Change		82	82	JAM PAN
		83	83	SOUND CHANGE
			120	All Sounds Off
			121	Reset All Ctrls
Prog Change		o 0-127	o 0-127	
	True #	******************		
System Exclusive		o	o	
System Common	Song Pos	o	o	
	Song Sel	o	o	
	Tune	x	x	
System Real Time	Clock	o	o	
	Commands	o	o	
Aux Mes-sages	Local ON/OFF	x	x	
	All Notes OFF	x	o	
	Active Sense	x	o	
	Reset	x	x	
Notes		No transmitted messages.		

```
Mode 1 : OMNI ON,  POLY     Mode 2 : OMNI ON,  MONO        o : Yes
Mode 3 : OMNI OFF, POLY     Mode 4 : OMNI OFF, MONO        x : No
```

Index

ZOOM

CATCH US IF YOU CAN