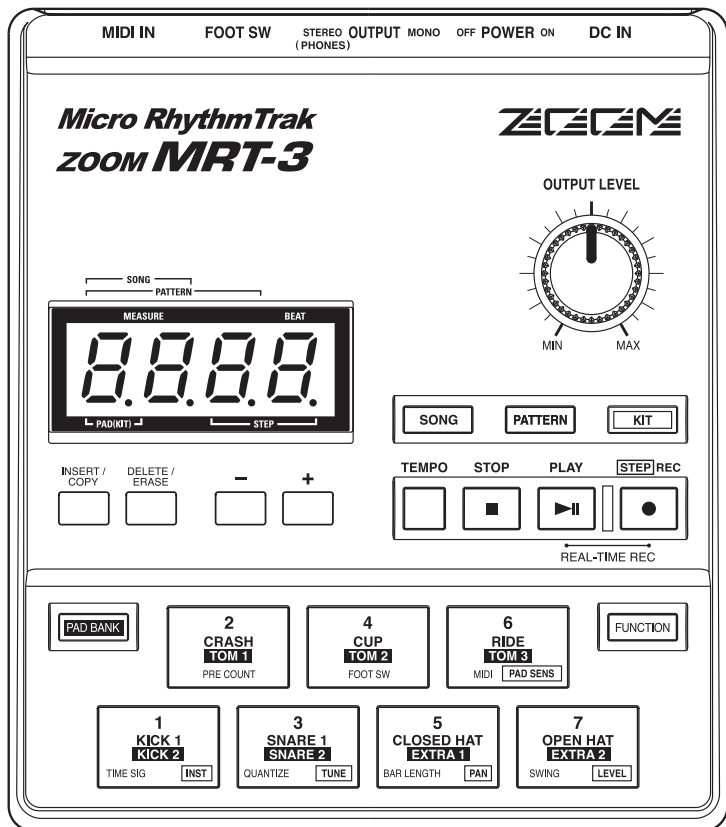# Micro RhythmTrak
ZOOM MRT-3

Operation Manual

Safety Precautions/ Usage 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 MRT-3.

⚠ **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 the batteries, 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 four IEC R6 (size AA) batteries (alkaline or manganese).
• The MRT-3 cannot be used for recharging.
  Pay close attention to the labelling of the battery to make sure you choose the correct type.
• If the MRT-3 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 MRT-3 in environments where it will be exposed to:
• Extreme temperature
• High humidity or moisture
• Excessive dust or sand
• Excessive vibration or shock

⚠ Handling

Caution
- Since the MRT-3 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.

⚠ Alterations

Caution Never open the case of the MRT-3 or attempt to modify the product in any way since this can result in damage to the unit.

⚠ In Case of Trouble

Caution 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 MRT-3 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 MRT-3, as the possibility of interference cannot be ruled out entirely.

With any type of digital control device, the MRT-3 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 MRT-3. 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

Introduction

Thank you for purchasing **the ZOOM Micro RhythmTrak MRT-3** (subsequently referred to as "**the MRT-3**").
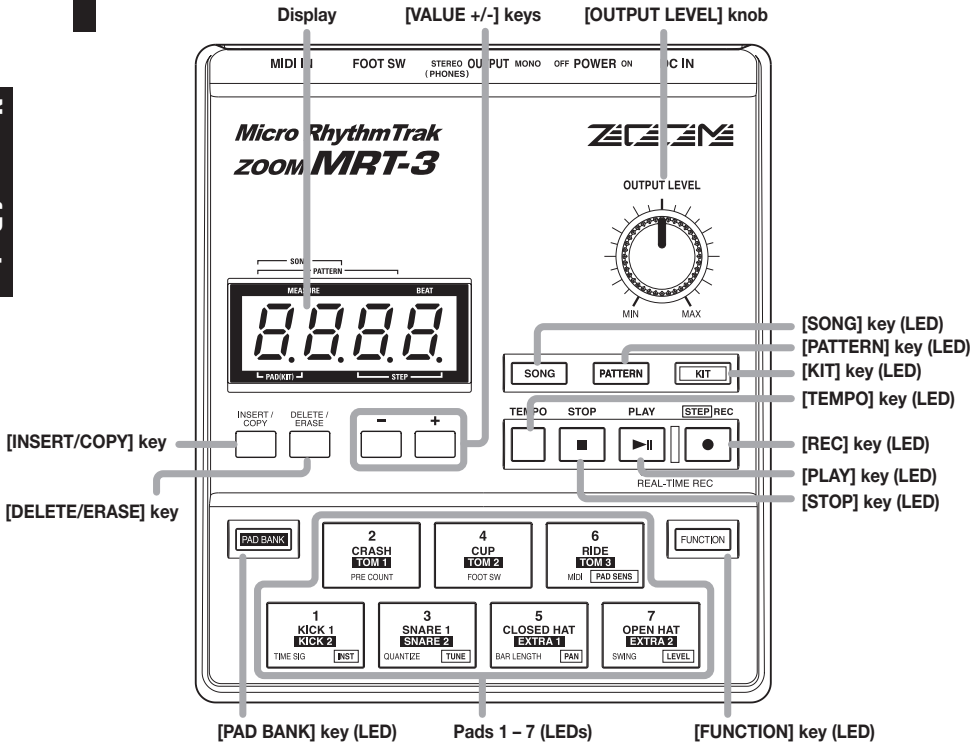
The MRT-3 offers the following attractive features.

- Sophisticated rhythm machine incorporates 199 super-realistic drum and percussion sounds in an amazingly compact body. A full 396 preset patterns contain a wide variety of preprogrammed rhythms. 99 additional patterns can be programmed and stored by the user.

- Create a backing sequence (song) with up to 99 patterns. As many as 99 such songs can be stored for immediate use at any time.

- Internally lit pads let you follow the rhythm pattern visually during song playback or when using a pattern.

- Choose up to 14 sounds from the built-in drum and percussion sources, and then adjust level, tuning, and panning individually to create your very own drum kit. This gives you the flexibility to realize your creative vision.

- Perfectly intuitive and simple design lets you master the unit right away, even if you have never used a drum machine before.

- Optional foot switch FS01 allows pattern start/stop control or tempo switching. You can also operate an assigned sound such as bass drum or open/closed hi-hat.

- MIDI IN connector allows use with an external MIDI sequencer or other device. The Multitrak Recording Studio ZOOM MRS-4 is an ideal match, letting you synchronize the audio tracks from the recorder with the rhythm track from the MRT-3. Playing the sounds of the MRT-3 with an external MIDI component is also possible.

Please take the time to read this manual carefully so as to get the most out of your MRT-3 and to ensure optimum performance and reliability.

Names of Parts

Top Panel

Display   [VALUE +/-] keys   [OUTPUT LEVEL] knob

MIDI IN   FOOT SW   STEREO OUTPUT MONO   OFF POWER ON   DC IN
(PHONES)

Micro RhythmTrak
ZOOM **MRT-3**

ZOOM

SONG   PATTERN
MEASURE   BEAT

PAD(KIT)   STEP

OUTPUT LEVEL
MIN   MAX

[SONG] key (LED)
[PATTERN] key (LED)
[KIT] key (LED)

SONG   PATTERN   KIT

[TEMPO] key (LED)

TEMPO   STOP   PLAY   STEP REC

INSERT / COPY   DELETE / ERASE

[INSERT/COPY] key

[DELETE/ERASE] key

‒   +

[REC] key (LED)
[PLAY] key (LED)
[STOP] key (LED)

REAL-TIME REC

PAD BANK

| 2 CRASH TOM 1 PRE COUNT | 4 CUP TOM 2 FOOT SW | 6 RIDE TOM 3 MIDI PAD SENS | FUNCTION |

| 1 KICK 1 KICK 2 TIME SIG INST | 3 SNARE 1 SNARE 2 QUANTIZE TUNE | 5 CLOSED HAT EXTRA 1 BAR LENGTH PAN | 7 OPEN HAT EXTRA 2 SWING LEVEL |

[PAD BANK] key (LED)   Pads 1 – 7 (LEDs)   [FUNCTION] key (LED)

○ NOTE ○

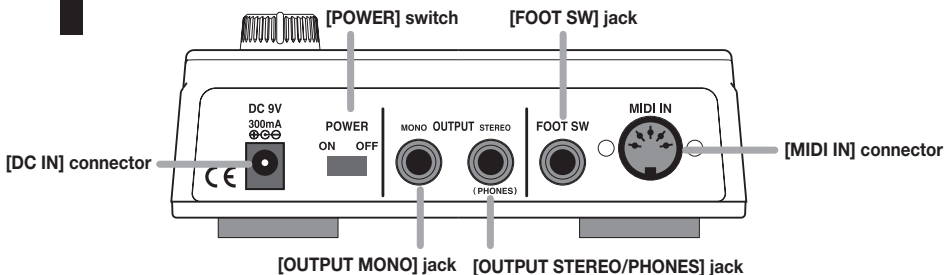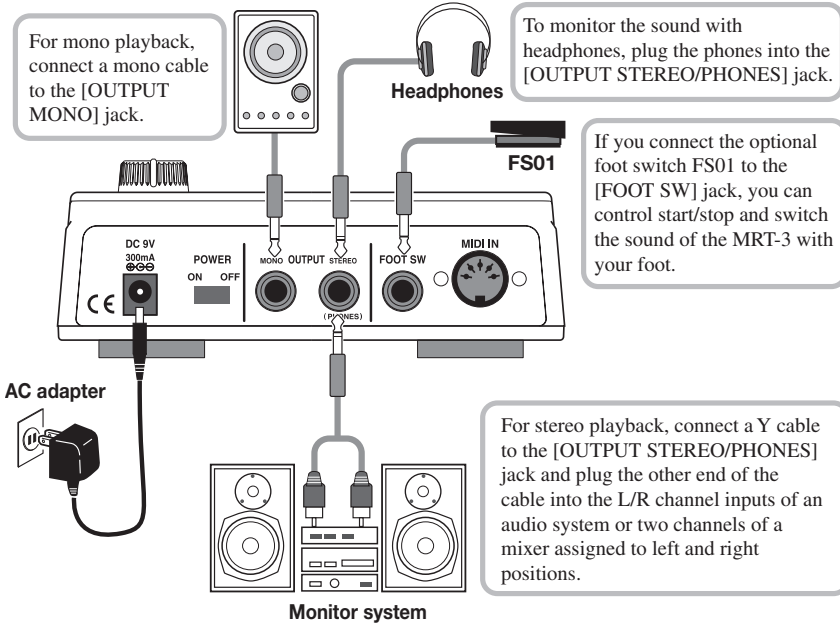Keys marked (LED) have an integrated LED that causes the key itself to light up.

HINT

Names of top panel controls and rear panel connectors are indicated with angle brackets [ ] in this manual.

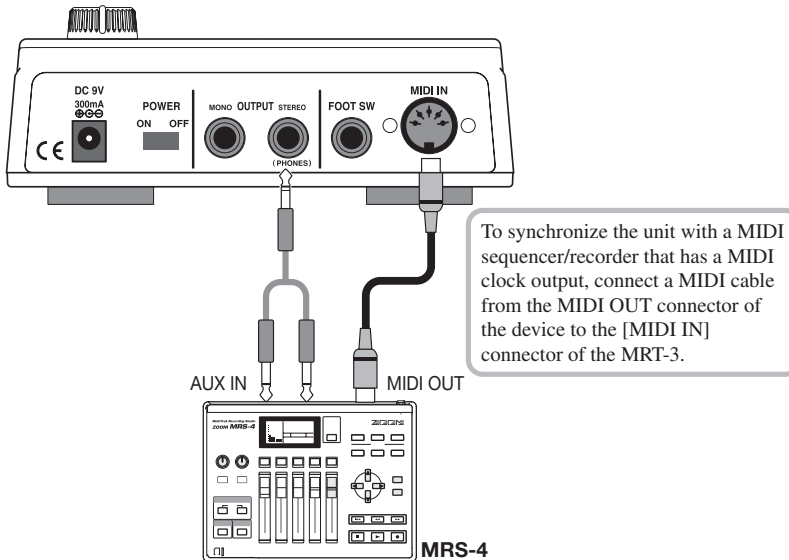## Rear Panel

[POWER] switch   [FOOT SW] jack

DC 9V
300mA

POWER
ON   OFF

MONO OUTPUT STEREO

FOOT SW

MIDI IN

[DC IN] connector

(PHONES)

[MIDI IN] connector

[OUTPUT MONO] jack   [OUTPUT STEREO/PHONES] jack

Getting Connected

Connection Example 1

For mono playback, connect a mono cable to the [OUTPUT MONO] jack.

Headphones

To monitor the sound with headphones, plug the phones into the [OUTPUT STEREO/PHONES] jack.

FS01

If you connect the optional foot switch FS01 to the [FOOT SW] jack, you can control start/stop and switch the sound of the MRT-3 with your foot.

DC 9V
300mA
POWER
ON OFF
MONO OUTPUT STEREO
(PHONES)
FOOT SW
MIDI IN

AC adapter

For stereo playback, connect a Y cable to the [OUTPUT STEREO/PHONES] jack and plug the other end of the cable into the L/R channel inputs of an audio system or two channels of a mixer assigned to left and right positions.

Monitor system

Connection Example 2

DC 9V
300mA
POWER
ON OFF
MONO OUTPUT STEREO
(PHONES)
FOOT SW
MIDI IN

To synchronize the unit with a MIDI sequencer/recorder that has a MIDI clock output, connect a MIDI cable from the MIDI OUT connector of the device to the [MIDI IN] connector of the MRT-3.

AUX IN   MIDI OUT

MRS-4

Preparations

When connections are complete, set the volume as follows.

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.**

If cables are connected or disconnected while power is on, or if power is turned on with the volume turned up, damage to the speakers may occur.
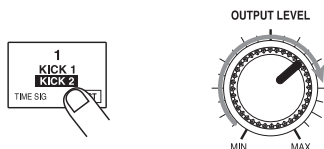
2. **Turn power to the MRT-3 on.**
Set the [POWER] switch to ON.
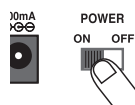
3. **Turn power to the playback system on and set the volume to about midway.**
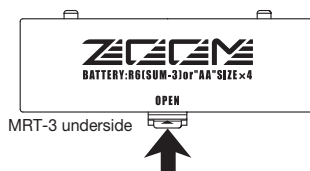
4. **While tapping a pad to produce sound, adjust the [OUTPUT LEVEL] knob of the MRT-3 to obtain a suitable volume.**
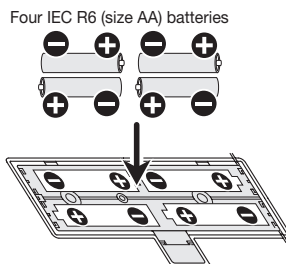
Using Batteries

The MRT-3 can be powered from batteries (not supplied). Follow the steps below to insert the batteries.

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

MRT-3 underside

2. **Insert four fresh IEC R6 (size AA) batteries into the battery compartment. The use of alkaline batteries is recommended.**

Four IEC R6 (size AA) batteries

3. **Close the battery compartment cover.**

● NOTE ●

When using batteries, a flashing dot at the right side of the display means that the batteries are nearly exhausted. Insert fresh batteries as soon as possible.
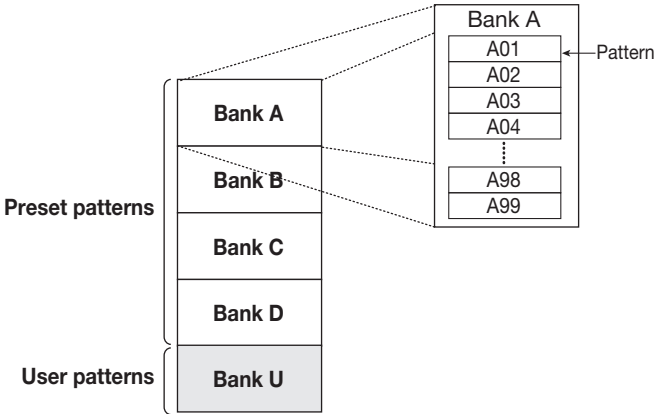
Terms Used in This Manual

This section explains some important concepts of the MRT-3.

■ Pattern

Playing a rhythm using sounds stored in the MRT-3 is called playing a pattern. The information stored in a pattern includes data such as pattern length, beat, and which kit (combination of drum/percussion sounds) is used.

The patterns are organized in banks (A – D, U) and numbers (01 – 99). The MRT-3 has 396 read-only preset patterns (A01 – D99) and 99 read/write user patterns (U01 – U99).
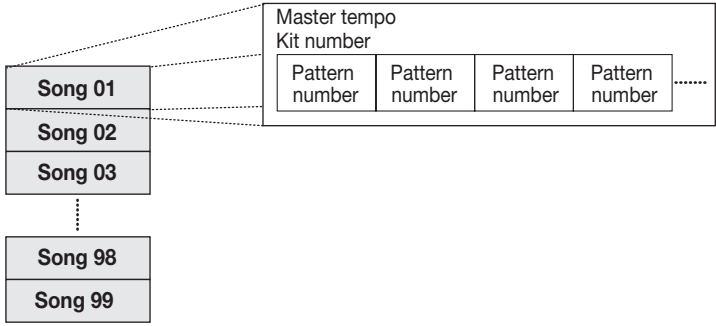

■ Song

A song is a sequence of patterns played in subsequent steps. The maximum number of steps in a song is 99. Provided that there is free memory, the MRT-3 has the capability to store up to 99 songs.

A song includes data such as pattern number, overall song tempo (master tempo), tempo change information, volume change information, dedicated kit information, etc.

■ **Kit**

The MRT-3 lets you select 14 sounds from the built-in drum and percussion sources to use for playing with the pads. A combination of such sounds, together with pad sensitivity information and level/tuning information for each pad is called a kit. The MRT-3 has a capacity for 70 kits. Kits 01 – 50 are read-only preset kits and kits 51 – 70 are read/write user kits.

■ **Pad/Pad Bank**

Each pad on the MRT-3 can be used to play the currently selected sound, and to record it as a phrase in a pattern.

To be able to play 14 sounds with the 7 pads on the unit, pads are grouped in two banks (A and B) which can be switched with the [PAD BANK] key. When the [PAD BANK] key is out, bank A is selected. When the key is lit, bank B is selected.
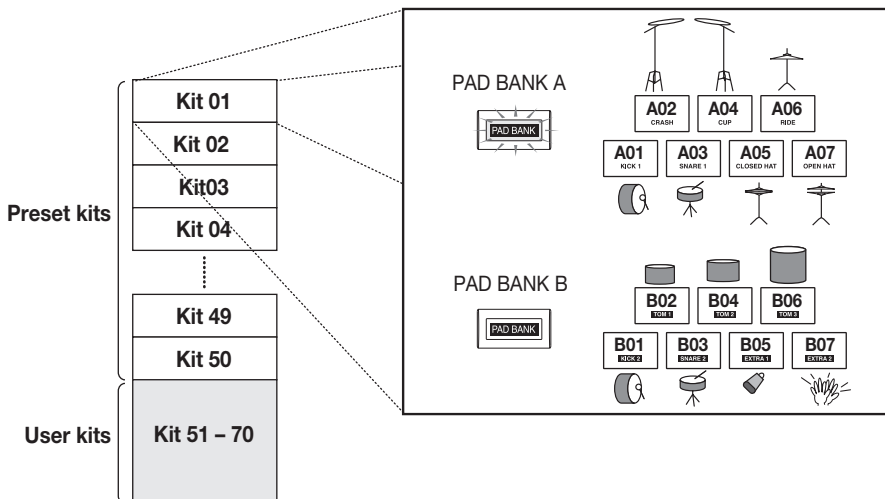
Listening to the Demo Song

The MRT-3 comes with a demo song already built in. Listen to this song to hear for yourself what the MRT-3 can do.

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

The [FUNCTION] key flashes.
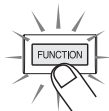
2. **Press the [SONG] key.**

The indication "dEMo" appears on the display and the demo song starts. The display indication changes and the pads light up in sync with the song.
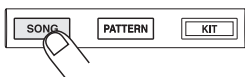
The demo song is played repeatedly until you stop it.

3. **To stop the demo song, press the [PATTERN] key or the [SONG] key.**
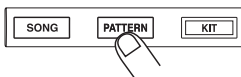
Playing the Pads (Manual Play)

The pads on the top panel of the MRT-3 each produce a different sound when hit. The sound depends on the currently selected kit and pad bank. Try hitting the pads to hear the realistic sounds of the MRT-3.

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

The [PATTERN] key lights up and the MRT-3 goes into pattern mode (in which rhythm pattern playback and recording can be carried out).

2. **Hit any pad.**

The pad lights up briefly, and the sound assigned to it is played. The volume of the sound depends on the intensity with which the pad is hit.

3. **To switch the bank, press the [PAD BANK] key so that the key lights up.**

The key lights up, and the sound assigned to pads 1 – 7 changes. To return to the earlier sound, press the [PAD BANK] key once more.

🔲 HINT 🔲

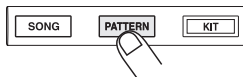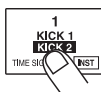When the [PAD BANK] key is out, bank A is selected. When the key is lit, bank B is selected.

4. **To switch the kit played by the pads, press the [KIT] key.**

The [KIT] key lights up, and the MRT-3 goes into kit mode. In this mode, you select the kit for playing the pads and patterns. The display shows the currently selected kit number.

Kit number

"P" indicates a preset kit and "U" a user kit.

⚪ NOTE ⚪

The kit can only be changed for a user pattern, not for a preset pattern.

5. **Use the [VALUE +/-] keys to select a kit number.**
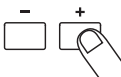
The kit numbers are switched in the order 01P – 50P, 51U – 70U.

Try hitting the pads and switching the pad bank to check out which sounds are available in the newly selected kit.

6. **When you have found the desired kit, press the [PATTERN] key to return to the pattern mode.**

SONG   PATTERN   KIT

Playing the Pads (Manual Play)

Using Patterns (Pattern Mode)

This section shows how to play and record patterns of the MRT-3 in pattern mode.

Playing a Pattern

The MRT-3 has 396 read-only preset patterns (A01 – D99) and 99 read/write user patterns (U01 – U99). To select and play a pattern, proceed as follows.

⬤ NOTE ⬤

In the factory default condition, all user patterns are empty.

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

The [PATTERN] key lights up and the MRT-3 goes into pattern mode. The display shows the bank and number of the currently selected pattern.

Bank (A - D, U) ——————   —————— Pattern number
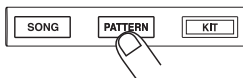
For an empty user pattern, "E" is shown here.
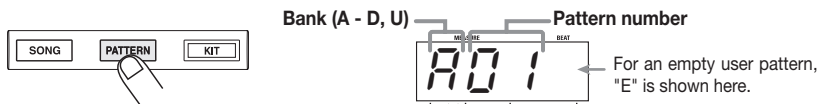
2. **Use the [VALUE +/-] keys to select the pattern number.**
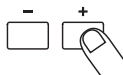
In pattern mode, the [VALUE +/-] keys serve to select the pattern. For example, if you repeatedly press the [VALUE +] key, the patterns are switched in the order U01 ... U99 →A01 ... A99 → B01 ... B99 → C01 ... C99 → D01 ... D99 → U01.

3. **To directly switch the bank, press the [FUNCTION] key and then use the [VALUE +/-] keys.**

This switches only the bank and keeps the pattern number.

🔲 HINT 🔲

The [FUNCTION] key serves for making various settings of the MRT-3. The actual effect of pressing the key depends on the currently selected mode and on which other keys are used together with it.

4. **Press the [PLAY] key.**

The [PLAY] key lights up and the pattern is played repeatedly. During playback, the [TEMPO] key flashes in sync with the tempo. The display shows the current position in the pattern (measure/beat).

Measure   Beat
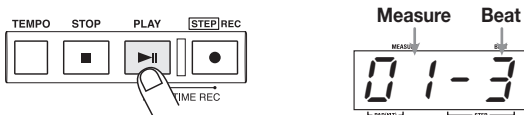
🔲 *HINT* 🔲

• While a pattern is playing, you can also manually play the pads.

• While a pattern is playing, you can also switch to a different bank and pattern number. The new pattern will begin playing as soon as you switch to it.

5. **To stop pattern playback, press the [STOP] key.**
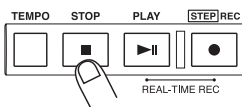
If you press the [PLAY] key instead of the [STOP] key, the unit goes into pause mode, and the [PLAY] key flashes. If you press the [PLAY] key again in this condition, playback resumes from the same position.

Changing the Tempo of Pattern Playback

In pattern mode, you can adjust the play tempo in the range of 40 – 250 BPM (quarter note beats per minute).

1. **Press and hold the [TEMPO] key.**

The [TEMPO] key lights up and the current tempo is shown on the display.

Tempo value (BPM)
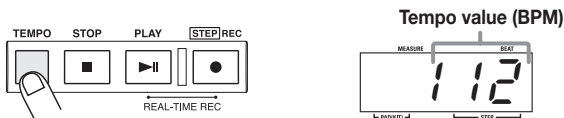
2. **While keeping the [TEMPO] key depressed, use the [VALUE +/-] keys to adjust the tempo.**
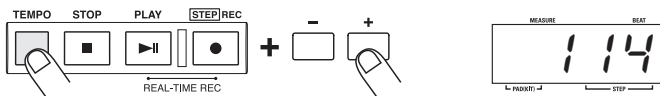
3. When the tempo is as desired, release the [TEMPO] key.

4. To specify the tempo manually, tap the [TEMPO] key twice or more in the desired tempo (tap input function).
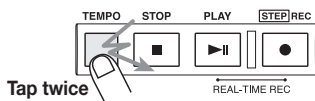
Tap twice

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

○NOTE○

The tempo set in pattern mode applies to all patterns. It is not possible to set the tempo for a pattern individually.

Real-Time Pattern Recording

The MRT-3 has 99 user pattern slots which can be filled with your own patterns. Creating and recording a pattern is possible in two ways: by actually playing the pattern on the pads (real-time recording), or by entering each sound individually (step recording).
This section describes the procedure for real-time recording.

1. In pattern mode, select an empty user pattern (U01 – U99). If necessary, select a kit.

When you select an empty user pattern, the indication "E" appears on the right side of the display.

▣ HINT ▣

• If you change the kit in pattern mode while a user pattern is selected, the last selected kit will be stored for that pattern.

• You can also erase a recorded user pattern to return it to the empty state. See page 24.

2. Press the [FUNCTION] key and then pad 3 (QUANTIZE).
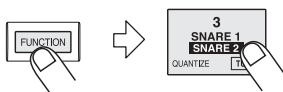
The display shows the current quantize setting. Quantization refers to the degree of detail with which notes are recorded. By setting the quantize value to the shortest note that you

Using Patterns (Pattern Mode)

want to use for the pattern, recording can be carried out while automatically maintaining precise timing.

3. **Use the [VALUE +/-] keys to set the quantize value (shortest note to be recorded).**

The following settings are available.
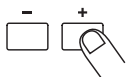
4 •••••••• Quarter note	24 ••••••• Sixteenth triplet note
8 •••••••• Eighth note	32 ••••••• Thirty-second note
12 ••••••• Eighth triplet note	48 ••••••• Thirty-second triplet note
16 ••••••• Sixteenth note	Hi ••••••• 1 tick (1/96 of quarter note)

The selected setting will be used as shortest note for real-time recording.

4. **Press the [FUNCTION] key again.**

FUNCTION

🔲 *HINT* 🔲

• The quantize setting applies to all patterns. When recording another pattern with the same resolution, it is not necessary to set the quantize value again.

• By changing the quantize setting after recording is completed, you can add another part with different resolution to the same pattern. For example, after recording bass drum and snare drum using sixteenth notes, you may want to record a hi-hat sequence with thirty-second notes.

• If desired, you can change the resolution of a recorded phrase afterwards. For details, see the section "Changing User Pattern Resolution After Recording".

5. **While holding down the [REC] key, press the [PLAY] key.**

TEMPO   STOP   PLAY   STEP REC

►II   ●

TIME
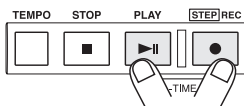
The [REC] key and [PLAY] key light up. The [TEMPO] key flashes in sync with the tempo, and one measure of precount clicks is heard before recording starts. During recording, metronome clicks are heard, and the display shows the current position in the pattern (measure/beat).

Metronome sound | Tock tock tock tock | Clack clack clack clack clack

Precount | Recording start →

Measure   **Beat**

$\sqcup$ / - $\exists$
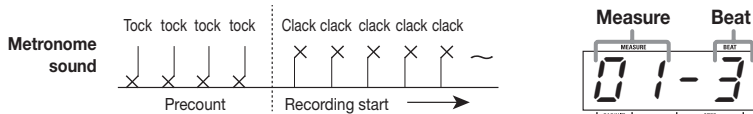
🔲 *HINT* 🔲

• Unless specified otherwise, the beat and duration of an empty pattern where nothing has been recorded are the same as those of the most recently selected recorded pattern. If desired, you can change the beat and number of measures for the pattern (→ p. 21 – 22).

• If desired, the duration of the precount can be changed, or it can be turned off (→ p. 48).

6. **Adjust the tempo if necessary.**

The pattern tempo can be changed at any time. For recording a difficult phrase, it might be helpful to temporarily reduce the tempo.

7. **Tap the pads in accordance with the metronome sound.**

The sound of the respective pad is heard, and it is recorded for the duration set with the quantize value. You can verify the current position in the pattern by checking the display. When the end of the pattern is reached, the recording loops back to the beginning and continues, allowing you to add to the recording as often as desired. (If necessary, use the [PAD BANK] key to change the pad bank.)

8. **To temporarily pause pattern recording, press the [REC] key while real-time recording is in progress.**
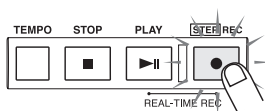
The [REC] key starts to flash. If you hit a pad in this condition, the sound will be heard, but it is not recorded. This is useful to check the phrasing and sound before actually recording. To resume recording, press the [REC] key once more.

9. **To erase the sound from a specific pad, push the pad while holding down the [DELETE/ERASE] key.**

While the key is held down, the sound from that pad is erased from the pattern.
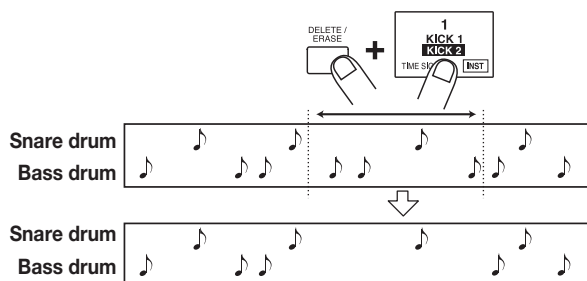
10. **When recording is completed, press the [STOP] key.**

🔵 *NOTE* 🔵

• If a MIDI clock signal is being received, real-time recording is not possible. For details, please refer to page 44.

• When there is not enough remaining free memory in the MRT-3, the indication "FULL" appears on the display, and further recording is not possible. Erase unneeded patterns.

Using Patterns (Pattern Mode)

Pattern Step Recording

This section describes step recording, which allows you to enter and record each sound separately, step by step, while the MRT-3 is in the stop condition. Even without mastering how to play the pads in real time, you can easily create complex drum and bass patterns. And you don't need to stop there, because you can even create patterns that would be impossible to play in real time.

For step recording, you select the shortest note that is to be used as unit, and you create the pattern by pressing a pad (note) or the [REC] key (rest) for each step.
For example, to create the following bass drum pattern with step recording, select an eighth note as smallest unit and make the entry as follows:

When the end of a pattern is reached, it loops automatically back to the beginning, allowing you to add other instrument sounds, to complete the pattern. By hitting two pads at the same time, you can enter two sounds in the same position.

1. **In pattern mode, select an empty user pattern.**

2. **If required, select the kit for recording.**
The kit selection procedure is the same as for manual play (→ p. 12).

3. **Press the [FUNCTION] key and then pad 3 (QUANTIZE).**
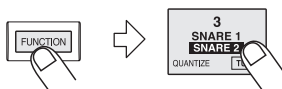
The current quantize setting appears on the display. The minimum unit (shortest note) for step recording is determined by this setting.

○NOTE○
The quantize setting applies to all patterns.

4. **Use the [VALUE +/-] keys to set the quantize value (shortest note to be recorded).**
The following settings are available.
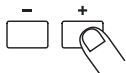
4 ⋯⋯⋯ Quarter note	24 ⋯⋯⋯ Sixteenth triplet note
8 ⋯⋯⋯ Eighth note	32 ⋯⋯⋯ Thirty-second note
12 ⋯⋯⋯ Eighth triplet note	48 ⋯⋯⋯ Thirty-second triplet note
16 ⋯⋯⋯ Sixteenth note	Hi ⋯⋯⋯ 1 tick (1/96 of quarter note)

5. **Press the [REC] key.**

The [REC] key and [START] key light up, indicating that the MRT-3 is ready for recording.
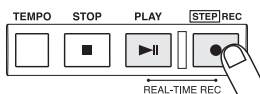
6. **To enter a note, hit the pad corresponding to the desired sound.**

For example, tapping pad 1 will enter a bass drum note (pad 1 lights up). The tapping intensity will also be recorded. When you press the [REC] key, the current position advances by the minimum unit. You can verify the current position (measure/beat) in the pattern by checking the display.

7. **To enter a rest, press the [REC] key.**
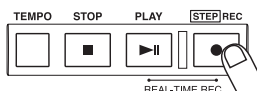
No sound is recorded, and the position advances by one step. If you press the [REC] key, the current position within the beat is shown as number of ticks.

○**NOTE**○

• If you press the [PLAY] key, the current position within the beat is shown as number of ticks, for as long as the button is held.

• When there is not enough remaining free memory in the MRT-3, the indication "FULL" appears on the display, and further recording is not possible. Erase unneeded patterns.

When the end of the pattern is reached, the recording loops back to the beginning and continues, allowing you to add to the recording as often as desired. (If necessary, use the [PAD BANK] key to change the pad bank.)

8. **To erase a sound, use the [REC] key to move to the desired position. Then press the corresponding pad while holding down the [DELETE/ERASE] key.**
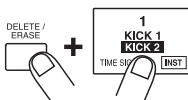
As you move the position with the [REC] key, the pad that has been input for the current position lights up. Pressing the pad while holding the [DELETE/ERASE] key down causes the pad to go out and the sound will be erased.

9. **When recording is completed, press the [STOP] key.**

The [REC] key goes out and step recording terminates.

Using Patterns (Pattern Mode)

Changing User Pattern Resolution After Recording

The resolution that is recorded together with the play information of a user pattern can be changed later. For example, when a user pattern was recorded without quantization, it can be later set to a sixteenth note for dynamic matching.

1. In pattern mode, select the user pattern for which you want to change the resolution.

2. Press the [FUNCTION] key and then pad 3 (QUANTIZE).
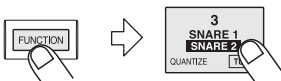
The current quantize setting appears on the display.

3. Use the [VALUE +/-] keys to set the quantize value (shortest note to be recorded).
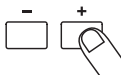
4. Press the [REC] key.
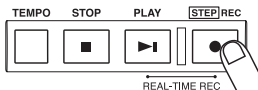
The resolution of the recorded user pattern is changed, and the unit returns to the pattern mode.

○ *NOTE* ○

If you select a quantize value in step 3 that is finer than the value with which the pattern was recorded, no change will be made to the pattern.

Changing the User Pattern Length

You can change the length (number of measures) of a user pattern.

1. Select the user pattern whose length you want to change.

2. Press the [FUNCTION] key and then pad 5 (BAR LENGTH).

The number of measures for the user pattern selected in step 1 is shown.

Using Patterns (Pattern Mode)

3. **Use the [VALUE +/-] keys to set the new bar length.**
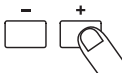
The bar length (number of measures) can be set in the range from 1 – 99.

4. **Press the [FUNCTION] key.**

The pattern length is changed. When a recorded pattern was made shorter, the excess measures at the end of the pattern will be cut off. When a recorded pattern was made longer, blank measures will be added at the end of the pattern.

Changing the User Pattern Beat

The beat (time signature) of an empty user pattern can be changed as follows.

1. **Select the user pattern whose beat you want to change.**

2. **Press the [FUNCTION] key and then pad 1 (TIME SIG).**
The beat of the user pattern selected in step 1 is shown.

3. **Use the [VALUE +/-] keys to set the new beat.**
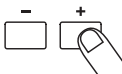
The available settings for the beat are as follows: 2 (2/4), 3 (3/4), 4 (4/4), 5 (5/4), 6 (6/4), 7(7/4).

Using Patterns (Pattern Mode)

4. **Press the [FUNCTION] key.**

The pattern beat is changed.

Copying a Pattern

The currently selected pattern (user pattern or preset pattern) can be copied to any other user pattern number. This is useful for example when wishing to change only a part of a pattern, or to add a fill-in phrase.

1. **In pattern mode, select the pattern to be used as copy source.**
The copy source can be either a preset pattern or a user pattern, but an empty user pattern (where "E" is shown on the right side of the display) cannot be selected as copy source.

Copy source pattern number

2. **Press the [INSERT/COPY] key.**
The [INSERT/COPY] key flashes and the current pattern is selected as copy source.
When the copy source is a user pattern, the indication "CoPy" flashes on the display.

When the copy source is a preset pattern, a user pattern with the same number as the source is selected and flashes.

3. **Use the [VALUE +/-] keys to select a user pattern (U01 – U99) as copy target.**
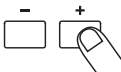
Only user patterns can be selected as copy targets.

• When the copy is executed, the existing contents of the user pattern selected as copy target will be erased. Make sure that the pattern you have selected is one that you don't mind erasing.

• When the copy source is a user pattern, the same pattern is first selected after step 2. However, it is not possible to copy a pattern onto itself.

4. **To execute the copy process, press the [INSERT/COPY] key. To cancel the process, press the [STOP] key.**

When copying is completed, the unit returns to the pattern mode with the copy target pattern being selected.
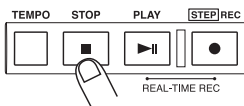
If copying was canceled, the unit returns to the pattern mode with the copy source pattern being selected.

Erasing a Single User Pattern

When you no longer need a certain user pattern, you can erase its contents to return it to the empty state. This is useful to make room for new patterns and free up memory of the unit.

NOTE

Once you have erased a user pattern, you will not be able to restore it. Make sure that you really want to erase the pattern before carrying out the following steps.

1. **In pattern mode, select the user pattern to be erased (U01 – U99).**

The pattern number is shown on the display.

2. **Press the [DELETE/ERASE] key.**

The [DELETE/ERASE] key flashes and the indication "dEL" alternates on the display with the pattern number.

3. To execute the erase process, press the [DELETE/ERASE] key. To cancel the process, press the [STOP] key.

When erasing is completed, the unit returns to the pattern mode with the empty user pattern being selected.

If erasing was canceled, the unit returns to the pattern mode with the original user pattern being selected.

Deleting All User Patterns

If desired, you can erase all user patterns in one operation.

○**NOTE**○

Once you have deleted the user patterns, you will not be able to restore them. Make sure that you really want to delete the patterns before carrying out the following steps.

1. In pattern mode, with playback stopped, press the [FUNCTION] key.
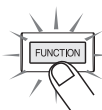
The [FUNCTION] key flashes.

2. Press the [DELETE/ERASE] key.

The indications "dEL" and "ALL" alternate on the display.

3. To execute the delete process, press the [DELETE/ERASE] key. When wishing to cancel the process, press the [STOP] key.

When you press the [DELETE/ERASE] key, all user patterns U01 – U99 are returned to the empty state.

Creating Your Own Kit (Kit Mode)

This section describes how you can edit a user kit and copy any preset kit or user kit into another user kit.

Editing a User Kit

In kit mode, you can select a user kit and change parameters such as sound, level, and pitch assigned to each pad.

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

The [KIT] key lights up and the MRT-3 goes into kit mode. In this mode, you can select kits to use for patterns and songs, and you can create your own user kits. The display shows the currently selected kit number.

Kit number

"P" indicates a preset kit and "U" a user kit.
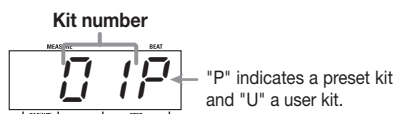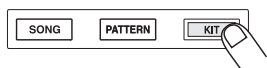
2. **Use the [VALUE +/-] keys to select the user kit to edit (from kit numbers 51 – 70).**
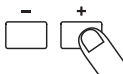
3. **Press the [FUNCTION] key.**

The [FUNCTION] key flashes.
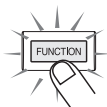
4. **Press pad 1 or 3 – 7 to select the item to change.**

The selected pad lights up and the corresponding item can be edited. (The display indication depends on which item is selected.) The following items are assigned to the pads.

■ **Items for individual pads (instrument sound)**

- Pad 1 (PAD INST): ······· Select instrument sound for each pad
- Pad 3 (INST TUNE): ····· Adjust instrument sound pitch
- Pad 5 (INST PAN): ······· Adjust instrument sound panning (left/right stereo position)
- Pad 7 (INST LEVEL): ···· Adjust instrument sound level

■ **Items common to entire kit**

- Pad 4 (KIT LEVEL): ······ Overall kit level
- Pad 6 (PAD SENS): ······ Pad sensitivity (response to hitting intensity) for overall kit

🔲 *HINT* 🔲

For details on the various items, see "Kit Items".

5. **If you have selected an item for individual pads in step 4 (pad 1, 3, 5, 7), use the [PAD BANK] key and then press the pad to specify which pad to edit.**
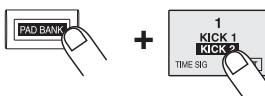
The currently selected pad can be checked from the [PAD BANK] key lit/out status and the pad number shown at the left of the display.

Pad number   Setting of currently selected item
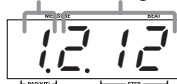
6. **Use the [VALUE +/-] keys to adjust the value of the item selected in step 4.**

7. **If you have selected an item for individual pads in step 4, repeat steps 5 and 6 to adjust the value for other pads.**

8. **Press the [FUNCTION] key once more.**

The unit returns to the kit mode. If necessary, repeat steps 3 – 8 to set other items.

Kit Items

This section describes the items that make up a kit, as well as their setting range.

Pad 1: PAD INST

Selects the instrument sound to be used for each pad. When this item is selected, a number for the general sound category and a number for each instrument sound is shown.

Category number

Pad number — — **Instrument number**

Each push of the [VALUE +/-] keys moves the instrument number one increment up or down. When the highest or lowest instrument number for that category is reached, the unit switches to the next category. The number of instruments differs for the various categories. For a list of categories and instrument sounds, refer to the "Reference" section at the end of this manual.

🔲 HINT 🔲

Pads 5 and 7 of pad bank A are special pads. The sound assigned to these two pads cannot be produced simultaneously. (When one pad is hit while the other is playing, the first sound stops.) This is useful for assigning two sounds that should not be played together, such as open/closed hi-hat.

Pad 3: INST TUNE

Allows tuning the pitch of the instrument sound assigned to a pad. Adjustment is possible from zero over a range of ±7.9 semitones, in 0.1 semitone steps.

Pad number   INST TUNE value
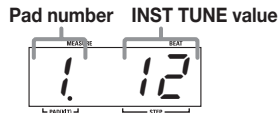
Pad 5: INST PAN

Allows adjusting the panning (stereo left/right position) of the instrument sound assigned to a pad. Adjustment is possible over a range of L63 (fully left) – C (center) – R63 (fully right).

Pad number   INST PAN value
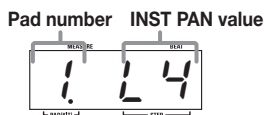
Pad 7: INST LEVEL

Allows adjusting the level of an instrument sound assigned to a pad. Adjustment is possible over a range of 1 – 15.

Pad number   INST LEVEL value

```
MEASURE          BEAT
   I.    I□
└ PAD(KIT) ┘   └ STEP ┘
```

Pad 4: KIT LEVEL

Allows adjusting the level of the entire kit. This adjustment is relative to the INST LEVEL setting. Adjustment is possible over a range of 1 – 15.

KIT LEVEL value

```
MEASURE          BEAT
         I□
└ PAD(KIT) ┘   └ STEP ┘
```

Pad 6: PAD SENS

Allows adjusting the pad sensitivity for the entire kit. The following 7 settings are available.

- Soft (Fixed Soft): .... Gives a soft sound regardless of the tapping intensity.
- MEd (Fixed Medium): ... Gives a medium sound regardless of the tapping intensity.
- Loud (Fixed Loud): .... Gives a loud sound regardless of the tapping intensity.
- LItE (Light): .... This setting gives the highest sensitivity.
- norM (Normal): .... This setting gives medium sensitivity.
- HArd (Hard): .... This setting gives low sensitivity.
- Ehrd (Extra Hard): .... This setting gives the lowest sensitivity. To achieve a loud sound, the pads must be hit very hard.

PAD SENS value

```
MEASURE          BEAT
  norM
└ PAD(KIT) ┘   └ STEP ┘
```
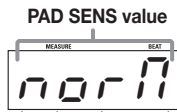
Copying a Kit

A kit of the MRT-3 (preset kit or user kit) can be copied to any other user kit number (51 – 70). This is useful for example when wishing to change only a part of a kit.

1. **In kit mode, select the kit to be used as copy source.**

The copy source can be either a user kit or a preset kit.

Copy source kit number

2. **Press the [INSERT/COPY] key.**

The [INSERT/COPY] key flashes and the current kit is selected as copy source.
When the copy source is a user kit, the indication "CoPy" flashes on the display.

When the copy source is a preset kit, the user kit "51U" is selected as default target, and the number flashes on the display.

3. **Use the [VALUE +/-] keys to select a user kit (U51 – U70) as copy target.**

Only user kits can be selected as copy targets.
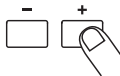
● *NOTE* ●

- When the copy is executed, the existing contents of the user kit selected as copy target will be erased. Make sure that the kit you have selected is one that you don't mind erasing.
- When the copy source is a user kit, the same kit is first selected after step 2. However, it is not possible to copy a kit onto itself.

Creating Your Own Kit (Kit Mode)

4. To execute the copy process, press the [INSERT/COPY] key. When wishing to cancel the process, press the [STOP] key.

When copying is completed, the unit returns to the kit mode with the copy target kit being selected.

If copying was canceled, the unit returns to the kit mode with the copy source kit being selected.

Creating Your Own Kit (Kit Mode)

Creating Songs (Song Mode)

This section describes how to line up user patterns in a desired order to create an entire song. This mode of operation is called the song mode.

What Is a Song?

A song is a programmed sequence of preset patterns or user patterns that are played automatically. A song consists of multiple slots (called "steps"), each of which contains one pattern. The maximum length of a song is 99 steps. The maximum number of songs that can be stored in the MRT-3 is 99. (The actual number of available steps and songs will depend on the number of distinct sounds in user patterns and the number of steps in other songs.)
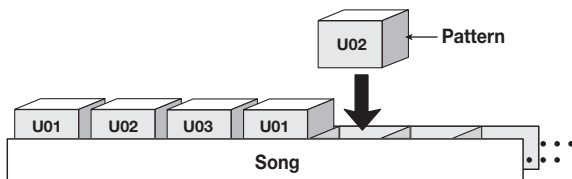
Note that the number of steps is not equal to the number of measures. The length of each step depends on the pattern that is contained in the step. For example, in the song in the above illustration, if the length of the pattern U01 is 2 measures and the length of patterns U02 and U03 1 measure, the song will look as follows.

Step 1	Step 2	Step 3	Step 4	Step 5
U01	U02	U03	U01	U02

Besides the pattern number, each song step can contain the following information.

Settings for entire song

- Song kit: ⋯⋯⋯⋯⋯⋯ Number of kit to be used for entire song
- Master tempo: ⋯⋯⋯⋯⋯ Tempo information for entire song

Settings for individual patterns

- Tempo change: ⋯⋯⋯⋯⋯ Information for changing the tempo within the song
- Volume change: ⋯⋯⋯⋯ Information for changing the volume within the song

◯ NOTE ◯

It is also possible to not specify a song kit and memorize individual kits for each pattern. In this case, the kit will be switched together with the pattern.

Recording Song Patterns

This section describes how you can collect a number of patterns into a song.

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

The MRT-3 goes into song mode, and the [SONG] key lights up. The display shows the currently selected song number.
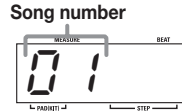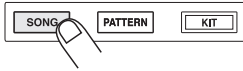
Song number

2. **Use the [VALUE +/-] keys to select an empty song number.**

When you select an empty song, the indication "E" appears on the right side of the display.
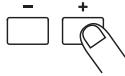
3. **Press the [REC] key.**

The [REC] key lights up, indicating that the MRT-3 is ready for song recording. The last two digits of the display show the step number.

Step number
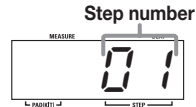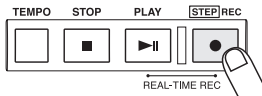
4. **Use the [VALUE +/-] keys to select the user pattern number to be assigned to the first step.**

When you press a [VALUE +/-] key, the [PATTERN] key flashes and the display shows the pattern bank and number.

Bank / pattern number
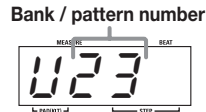
🔲 *HINT* 🔲

• You can also directly switch the pattern bank by pressing the [FUNCTION] key and then the [VALUE +/-] key.

• You can listen to the currently selected pattern by pressing the [PLAY] key.

5. **To proceed to the next step, press the [REC] key.**

The last two digits of the display now show the second step number, and the first two digits show "EE" which indicates the end of the song. In this condition, you can select the pattern for the second step.
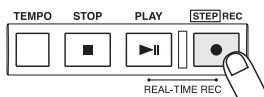
Indicates the last step of the song

HINT

• By holding down the [SONG] key while pressing the [VALUE +/-] keys, you can move back and forth among steps.

• When there is not enough remaining free memory in the MRT-3, the indication "FULL" appears on the display, and further recording is not possible. Erase unneeded songs.

6. **Use the [VALUE +/-] keys to assign a pattern to the second step.**

7. **Repeat steps 5 – 6 to create the entire song.**

One song can have up to 99 (01 – 99) steps (patterns).

8. **If you want to insert a step in a song, select the step where you want to insert a pattern, and press the [INSERT/COPY] key.**

A new step is inserted before the currently selected step, and subsequent steps are shifted one count back. Select the pattern for the inserted keys with the [VALUE +/-] keys as necessary.
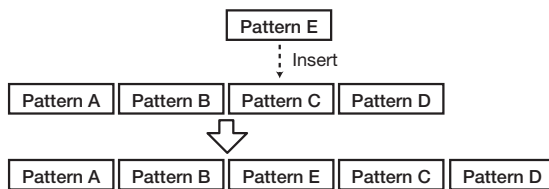
9. **To delete a step from a song, select the step and press the [DELETE/ERASE] key.**

The currently selected step is deleted, and subsequent steps are shifted one count forward.

Delete

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

⬇

| Pattern A | Pattern B | Pattern D |
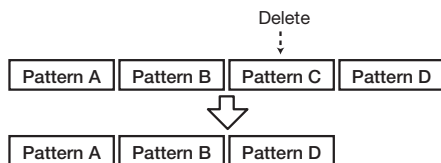
10. **When one song is completed, press the [STOP] key.**

TEMPO   STOP   PLAY   STEP REC

REAL-TIME REC
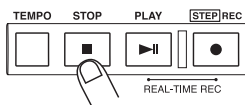
The [REC] key LED goes out, and song recording stops. The song position returns to step 1.

11. **To listen to the song, press the [PLAY] key.**

The [PLAY] key lights up and the song is played back. The [TEMPO] key flashes according to the tempo of the song. During playback, the first two digits of the display show the song number, and the last two digits show the current step number.

TEMPO   STOP   PLAY   STEP REC

IME REC

Song number   Step number

MEASURE   BEAT

0103

PAD(KIT)   STEP
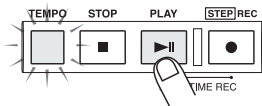
Pressing the [PATTERN] key during playback causes the display to show the number of measures since the start of the song.

SONG   PATTERN   KIT
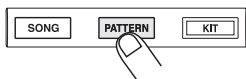
Measure count from start of song

MEASURE   BEAT

0125

PAD(KIT)   STEP

🔵 **HINT** 🔵

• If you switch the song during playback, the new song is played immediately.

• If you want to insert a pause in the song, program an empty pattern as a step.

12. **Press the [STOP] key whenever you want to terminate playback.**

TEMPO   STOP   PLAY   STEP REC

REAL-TIME REC

The song returns to the start position. By pressing the [PLAY] key again, you can start playback of the song again from the beginning.

🔵 **HINT** 🔵

• Pressing the [PLAY] key instead of the [STOP] key causes the PAUSE key to flash, and playback is paused. To resume playback from the same point, press the [PLAY] key once more.

• Also during playback of a song, you can use the pads for manual play.

13. **To start playback from a point within a song, hold down the [SONG] key while pressing the [VALUE +/-] keys.**

When you press the [VALUE +] key, the step number shown on the display advances by 1, and when you press the [VALUE -] key, the step number goes backwards by 1. By pressing the [PLAY] key you can start playback from the selected step.

14. **To change the tempo of the song, hold down the [TEMPO] key while pressing the [VALUE +/-] keys. This adjusts the BPM value.**

As in pattern mode, you can also tap the [TEMPO] key twice or more to specify the tempo.

🔲 **HINT** 🔲

The MRT-3 automatically stores the tempo ("master tempo") for each song. When you switch a song, the tempo that was last selected for that song will be selected.

Changing the Tempo Within a Song

This section describes how you can change the tempo within a song that has already been recorded.

1. **In song mode, select the song whose tempo you want to alter.**

2. **Press the [REC] key.**

The [REC] key lights up, and the song can be edited.
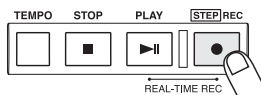
3. **Hold down the [SONG] key while pressing the [VALUE +/-] keys to select the step you want to edit.**

The second two digits of the display show the step number.

Step number
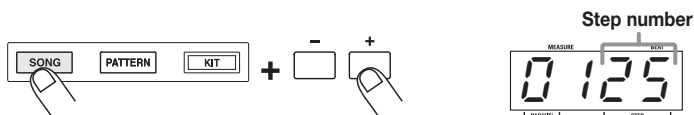
4. **Hold down the [TEMPO] key.**

While the [TEMPO] key is being pressed, the tempo change information for that step is shown on the display. If no tempo change information is stored for that step, the indication is "---".

5. **While holding down the [TEMPO] key, use the [VALUE +/-] keys to set the tempo value (40 – 250).**
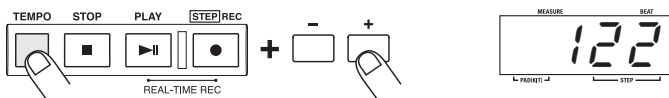
6. **If desired, set the tempo for other song steps as well by repeating steps 3 – 5.**

7. **When you have completed the tempo change input, press the [STOP] key.**

Changing the Song Volume

This section describes how you can change the pattern volume within a song that has already been recorded.

1. **In song mode, select the song whose volume you want to alter.**

2. **Press the [REC] key.**

The [REC] key lights up, and the song can be edited.
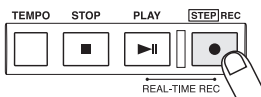
3. **Hold down the [SONG] key while pressing the [VALUE +/-] keys to select the step you want to edit.**

The last two digits of the display show the step number.

Step number
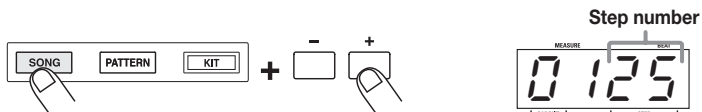
4. **Hold down the [FUNCTION] key.**

While the [FUNCTION] key is being pressed, the volume change information for that step is shown on the display. If no volume information is stored for that step, the indication is "---".
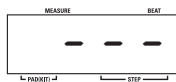
5. **While holding down the [FUNCTION] key, use the [VALUE +/-] keys to set the volume value (0 – 63).**

6. **If desired, set the volume for other song steps as well by repeating steps 3 – 5.**

7. **When you have completed the volume change input, press the [STOP] key.**

○ NOTE ○

It is not possible to record both tempo change information and volume change information in the same step. The most recently made setting will be valid.

Selecting a Dedicated Song Kit

Unless specified otherwise, the kits stored for the respective patterns will be used during playback of a song. (When the pattern is switched, the kit is also switched.) It is also possible to specify a dedicated song kit so that this kit will be used for the entire song.

1. **In song mode, select the song for which you want to specify a kit.**

2. **Press the [FUNCTION] key and then the [KIT] key.**

The kit number for that song is shown on the display. The default setting is "Pat", which means that the kit selected for the respective pattern will be used.

3. **Use the [VALUE +/-] keys to select a dedicated kit for that song.**
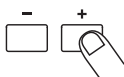
4. **When you have selected the kit, press the [FUNCTION] key.**

The kit for that song is stored, and the unit returns to the song mode.

Checking the Amount of Remaining Memory for Songs

You can call up a display that shows the remaining free memory for songs as a percentage. Proceed as follows.

1. In song mode, press the [FUNCTION] key, and then the [PATTERN] key.

The amount of free memory is shown in percent on the display. This indication is for information only and cannot be changed.
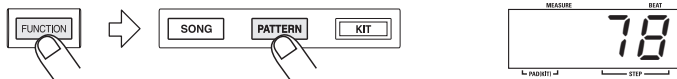
2. Press the [FUNCTION] key again.

The unit returns to the song mode.

Copying a Song

This section describes how you can copy a song.

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

Copy source song number

2. Press the [INSERT/COPY] key.

The [INSERT/COPY] key flashes and the current song is selected as copy source.
The indication "CoPy" flashes on the display.

Creating Songs (Song Mode)

3. Use the [VALUE +/-] keys to select a song number as copy target.
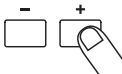
○ NOTE ○

When the copy is executed, the existing contents of the song selected as copy target will be erased. Make sure that the song you have selected is one that you don't mind erasing.

4. To execute the copy process, press the [INSERT/COPY] key. When wishing to cancel the process, press the [STOP] key.

When copying is completed, the unit returns to the song mode with the copy target song being selected.
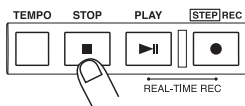
If copying was canceled, the unit returns to the song mode with the copy source song being selected.

Deleting a Song

If you wish to delete a song, proceed as follows.

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

2. Press the [DELETE/ERASE] key.

The [DELETE/ERASE] key flashes and the indication "dEL" alternates on the display with the song number.
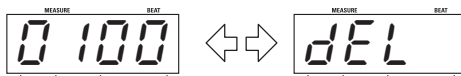
3. To execute the delete process, press the [DELETE/ERASE] key. To cancel the process, press the [STOP] key.

When deleting is completed, the unit returns to the song mode with an empty song being selected.

If deleting was canceled, the unit returns to the song mode with the original song pattern being selected.

Once deleted, a song cannot be restored. Proceed with care to prevent inadvertently deleting a song.

🔲 HINT 🔲

You can also reset the unit to the factory default condition, with all songs, user patterns, and user kits returned to the original state. For details, see "Returning the MRT-3 to the Factory Default Condition" (→ p. 48).

Deleting All Songs

If desired, you can delete all songs.

⚪ NOTE ⚪

Once deleted, the songs cannot be restored. Proceed with care to prevent inadvertently deleting songs.

1. **In song mode, while playback is stopped, press the [FUNCTION] key.**
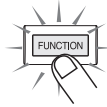
2. **Press the [DELETE/ERASE] key.**

The indications "dEL" and "ALL" alternate on the display.

3. **To execute the delete process, press the [DELETE/ERASE] key. When wishing to cancel the process, press the [STOP] key.**

When you press the [DELETE/ERASE] key, all songs in numbers 01 - 99 are erased (returned to the empty state).

Other Functions

This section describes other convenient functions of the MRT-3 and how to return the unit to the factory default condition.

Controlling the MRT-3 With a Foot Switch

The separately available foot switch FS01 can be used to control various functions of the MRT-3.

1. **Connect the FS01 to the [FOOT SW] jack on the rear panel.**

2. **In pattern mode, press the [FUNCTION] key and then pad 4 (FOOT SW).**
The currently selected foot switch function is shown on the display.

3. **Use the pads and keys to select the foot switch function.**
The subsequent operation steps are different, depending on which function is to be controlled with the foot switch. The following functions can be selected.

- **Use FS01 to produce the sound of a pad**

    This function allows you to produce the sound of a specific pad when you operate the foot switch. This is convenient for example to play the sound of a bass drum with your foot.
    To select this function, press the [FUNCTION] key and then pad 4 (FOOT SW). Then press the foot switch, release it, and use the [PAD BANK] key and pads 1 – 7 to select the pad sound to assign to the foot switch. (The intensity with which you hit the pad when making the selection is also memorized.)
    The display shows the pad number as A1 – A7, B1 – B7.

- **Use FS01 to switch between the sounds of two pads**

    This function allows you to assign two drum or percussion sounds to a pad and use the foot switch to control which sound is produced. This is convenient for example to switch between open and closed hi-hat sound with your foot.

    To select this function, press the [FUNCTION] key and then pad 4 (FOOT SW). Then press the foot switch and release it. Finally, push the first pad, followed by the second pad.
    The number of the first pad is shown on the first two digits of the display, and the number of the second pad on the lower last digits.

Second pad   **First pad**
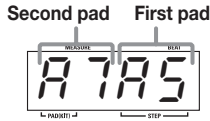
The sound of the first pad can now be toggled with the foot switch. While the foot switch is pressed, the sound of the first pad is produced. When the foot switch is released, the sound of the second pad is produced. Also without hitting the pad, pressing the foot switch produces the sound of the first pad.

• Use FS01 to set the tempo

The foot switch can be made to function in the same way as the [TEMPO] key. To specify the tempo, you can press the foot switch twice or more in the desired tempo (tap input function).

To select this function, press the [FUNCTION] key and then pad 4 (FOOT SW). Then press the [TEMPO] key (the indication "tAP" appears on the display).

• Use FS01 to control start/pause

The foot switch can be made to function in the same way as the [PLAY] key. Pressing the foot switch then toggles between play and pause: "Start play" → "Pause" → "Resume play" etc.

To select this function, press the [FUNCTION] key and then pad 4 (FOOT SW). Then press the [PLAY] key (the indication "Cont" appears on the display).

• Use FS01 to control start/stop

The foot switch can be made to function in the same way as the [PLAY] and [STOP] keys. Pressing the foot switch then toggles between play and stop: "Start play" → "Stop" → "Start play from beginning" etc.

To select this function, press the [FUNCTION] key and then pad 4 (FOOT SW). Then press the [STOP] key (the indication "Strt" appears on the display).

• Use FS01 to mute a pattern/song

The foot switch can be made to mute the pattern or song while pressed. (Playback continues also while the sound is muted.)

To select this function, press the [FUNCTION] key and then pad 4 (FOOT SW). Then press the [KIT] key (the indication "MutE" appears on the display).

4. **When you have selected the function, press the [FUNCTION] key once more.**

The FS01 function is now set, and the MRT-3 returns to the previous mode. Try pressing the foot switch while using the MRT-3, to check the effect.

◯ NOTE ◯

The setting cannot be canceled. If you want to select another function, repeat the above procedure.

Other Functions

Synchronizing Playback With an External Device

You can synchronize operation of the MRT-3 to an external device with MIDI OUT, such as a MIDI sequencer or recorder. The MRT-3 then performs pattern or song playback using the tempo supplied by the external device.

1. **Connect the MIDI OUT jack of the MIDI sequencer/recorder to the [MIDI IN] connector of the MRT-3, using a MIDI cable.**

The illustration shows an example for connecting the Multitrak Recording Studio ZOOM MRS-4 to the MRT-3. If you connect the output of the MRT-3 to the AUX IN jack of the MRS-4, as shown here, the MRT-3 can be used to supply a dedicated rhythm track without taking up any audio tracks of the MRS-4
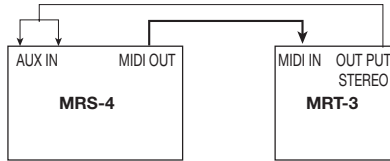
⬤ NOTE ⬤
Make sure that the external MIDI sequencer can send MIDI Clock, Start, Stop, and Continue signals.

2. **In pattern mode, press the [FUNCTION] key and then pad 6 (MIDI).**
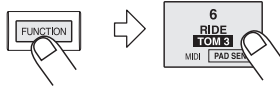
The clock currently used by the MRT-3 is shown on the display.
The meaning of the indication is as follows.

• **Int (Internal)**

The MRT-3 operates with its internal clock (default setting). This is the setting for using the MRT-3 on its own.

• **Midi (MIDI clock)**

The MRT-3 receives a clock signal from an external source (MIDI sequencer/recorder etc.) and synchronizes the playback tempo to this signal. Transport operations (playback start, stop, restart) and locate operations (moving the current position) can also be controlled remotely from the external device.

• **rMt (Remote)**

The MRT-3 operates on its internal clock, as with "Int". However, transport operations only can be controlled remotely from an external device.

Other Functions

The clock source and supported MIDI messages with the various settings are shown below.

	Int	Midi	rMt
Clock source	Internal clock	MIDI clock	Internal clock
Start/Stop/Continue supported	No	Yes	Yes
Song Position Pointer supported	No	Yes	No

3. **Use the [VALUE +/-] keys to select the "Midi" or "rMt" setting.**
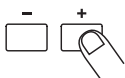
When wishing to control the tempo, transport operations, and locate operations all from the external device, select "Midi". In this case, the internal tempo settings of the MRT-3 have no effect. Set the tempo at the external device.

When wishing to control only transport operations from the external device, select "rMt". In this case, the internal tempo settings of the MRT-3 are active. (Because the tempo of the MRT-3 and the tempo of the external device are not synchronized, position matching within a song for playback is not possible.)

4. **Press the [FUNCTION] key once more.**
The unit returns to the previous mode.

5. **Select a song or pattern for synchronized playback.**

6. **Start playback at the MIDI sequencer/recorder.**

• **When "Midi" is selected as clock source**
The MRT-3 starts playback from the start of the sequence/song in sync with the MIDI clock tempo. When the MIDI sequencer/recorder is stopped, the MRT-3 also stops.
When the MIDI sequencer/recorder is moved to a position within the song for playback, the MRT-3 also starts playback from that position.

• **When "rMt" is selected as clock source**
The MRT-3 starts playback from the start of the sequence/song, using its internal tempo setting. When the MIDI sequencer/recorder is stopped, the MRT-3 also stops.
If the MIDI sequencer/recorder is moved to a position within the song for playback, the MRT-3 cannot start playback from that position.

Playing MRT-3 Sounds From an External MIDI Component

Using an external MIDI sequencer or MIDI keyboard, you can play the sound sources of the MRT-3. To do this, the MIDI receive channel setting of the MRT-3 must match the MIDI send channel of the external device.

1. **Connect the MIDI OUT jack of the MIDI sequencer or similar to the [MIDI IN] connector of the MRT-3, using a MIDI cable.**
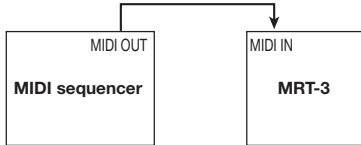
```
        MIDI OUT          MIDI IN

      MIDI sequencer        MRT-3
```

2. **In pattern mode, press the [FUNCTION] key and then pad 6 (MIDI).**

The clock currently used by the MRT-3 is shown on the display.

3. **Press and hold the [KIT] key.**

While the [KIT] key is being pressed, the display shows the current MIDI receive channel setting (default setting: 10).

4. **Use the [VALUE +/-] keys to select the MIDI receive channel.**

The MIDI receive channel can be set to OFF (no MIDI messages are received), or 1 – 16.

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

The unit returns to the previous mode.

Other Functions

6. **Play the external MIDI sequencer or keyboard.**

The MRT-3 produces drum/percussion sound according to the note numbers received via the [MIDI IN] connector. For information on note number assignments, please refer to the "Reference" section at the end of this manual.

It is also possible to send a program change message to the MRT-3 to switch the kit. For information on program change number assignments, please refer to the "Reference" section at the end of this manual.

Setting the Pattern/Song Playback Swing

You can adjust the swing amount (rhythm flourish) for playback of patterns and songs. This setting affects all patterns and songs.

1. **In pattern mode or song mode, press the [FUNCTION] key and then pad 7 (SWING).**

The current swing amount setting is shown on the display (default setting: 50).

2. **Use the [VALUE +/-] keys to adjust the swing amount.**
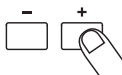
The setting range is 50 – 75. Raising the setting from the default of 50 (no swing) increases the interval between upbeat and downbeat in a measure, resulting in a swinging rhythm.

Swing=50%   Swing=60%   Swing=75%

HINT

If necessary, press the [PLAY] key to play a pattern and check the effect.

3. **When the setting is complete, press the [FUNCTION] key again.**

The unit returns to the previous mode.

Setting the Precount for Real-Time Recording

The MRT-3 can perform a countdown before the start of real-time recording. The number of precount measures can be changed, and precount can also be turned off. This setting affects all patterns.

1. **In pattern mode, press the [FUNCTION] key and then pad 2 (PRE COUNT).**

The current precount setting is shown on the display (default setting: 1).

2. **Use the [VALUE +/-] keys to select one of the following settings.**
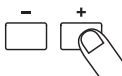
    0:    No precount
    1:    Precount of 1 measure
    2:    Precount of 2 measures
  PAd: Recording starts when any pad is hit.

🔲 HINT 🔲

When "PAd" is selected, holding down the [REC] key while pressing the [PLAY] key in pattern mode brings up the indication "rEAdy" on the display, and the unit goes into recording standby mode.

3. **When the setting is complete, press the [FUNCTION] key again.**

The unit returns to the previous mode.

Other Functions

Returning the MRT-3 to the Factory Default Condition

You can return all stored data and settings of the MRT-3 to the factory default condition. This is called initialization.

◯ NOTE ◯

Use this function with care. Initialization will clear all user pattern data, user kit data, and song data that you have created.

1. **Hold down the [REC] key while turning power to the MRT-3 on.**

The display shows "Init".

2. **To carry out the initialization process, press the [REC] key once more. To cancel the operation, press the [STOP] key.**
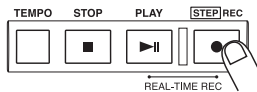
When initialization is performed, all data and settings of the MRT-3 will return to the factory default condition, and the unit will restart.

If the operation is canceled, the unit comes on normally.

Other Functions

Troubleshooting

Check the following items first if there seems to be a problem with the MRT-3.

No sound or very low volume.

- **Is the [POWER] switch set to ON?**

  Turn power on, as described in the section "Preparations" (page 8).

- **Is [OUTPUT] jack connected correctly to the playback system?**

  Make connections as described in "Getting Connected" (page 7).

- **Is there a problem with the shielded cable?**

  Try using another cable.

- **Is the connected playback system operating normally and is the volume setting appropriate?**

  Check the system and make sure that the level is adjusted properly.

- **Is [OUTPUT LEVEL] control of MRT-3 set correctly?**

  Set the control to a suitable position.

Sound is distorted or intermittent.

- **Is output level of MRT-3 set too high?**

  Set [OUTPUT LEVEL] control of MRT-3 to a suitable position.

Cannot record pattern.

- **Is MRT-3 set to mode other than pattern mode?**

  Activate pattern mode (→ p. 14).

- **Is memory capacity limit reached?**

  Check remaining memory capacity(→ p. 39), and delete unneeded patterns and songs.

Song cannot be recorded.

- **Is MRT-3 set to mode other than song mode?**

  Activate song mode (→ p. 33).

- **Is memory capacity limit reached?**

  Check remaining memory capacity(→ p. 39), and delete unneeded patterns and songs.

Playback sound is not in stereo.

- **Is Y cable connected to [OUTPUT STEREO/PHONES] jack?**

  Make connections as described in "Getting Connected" (page 7).

- **Is the panning setting appropriate?**

  Check whether the pan parameter for the instrument sounds in the currently used kit is set properly (→ p. 28).

FS01 has no effect.

- **Is foot switch connected correctly to the [FOOT SW] jack?**

  Make connections as described in "Getting Connected" (→ page 7)

- **Is correct function selected for FS01?**

  Use [FUNCTION] key and pad 4 (FOOT SW) to select the proper setting (→ p. 42).

Specifications

Sampling frequency:	47.6 kHz
D/A Converter:	16-bit linear
Maximum polyphony:	21 voices
Resolution:	96 clock ticks per quarter note
Tempo:	40 – 250 BPM
Maximum notes/events:	20,000
Instrument sounds:	199
Drum kits:	70 (50 preset, 20 user)
Rhythm patterns:	495 (396 preset, 99 user)
Songs:	99
Pads:	7 pads (with velocity sensor)
Display:	4-digit, 7-segment LED display

Inputs
Control:	FOOT SW IN
MIDI:	MIDI IN

Outputs
MONO OUT	Standard mono phone jack (Maximum output level +3 dBm, into load impedance of 10 kilohms or higher)
STEREO OUT	Standard stereo phone jack/headphone jack (Maximum output level +3 dBm, into load impedance of 10 kilohms or higher)

Power Requirements:	AC adapter 9 V DC, center minus, 300 mA (ZOOM AD-0006) Batteries IEC R6 (size AA) x 4 Battery life for continuous operation: approx. 15 hours (with alkaline batteries)
External Dimensions:	144 mm (W) x 165 mm (D) x 52 mm (H)
Weight:	440 g (without batteries)
Supplied accessories:	Instruction Manual

0 dB = 0.775 Vrms

Design and specifications subject to change without notice.

Reference

Kit List

KIT#	KIT NAME	MIDI PC#
01	Live Rock	3
02	Studio	4
03	Standard	5
04	Funk Trap	6
05	Epic Rock	7
06	Ballad	8
07	Modern	10
08	Rap/HipHop	11
09	Techno Beat	12
10	General Drum	13, 33
11	Live Rock variation 1	14
12	Live Rock variation 2	15
13	Live Rock variation 3	16
14	Studio variation 1	18
15	Studio variation 2	2, 19
16	Studio variation 3	20
17	Standard variation 1	1, 21
18	Standard variation 2	22
19	Standard variation 3	23
20	Funk Trap variation 1	24
21	Funk Trap variation 2	27
22	Funk Trap variation 3	28
23	Epic Rock variation 1	29
24	Epic Rock variation 2	30
25	Ballad variation 1	31
26	Ballad variation 2	32
27	Modern variation 1	34
28	Modern variation 2	35
29	Rap/HipHop variation 1	36
30	Rap/HipHop variation 2	37
31	Rap/HipHop variation 3	38
32	Techno Beat variation 1	39
33	Techno Beat variation 2	40
34	Techno Beat variation 3	42
35	General Drum Room	9, 43
36	General Drum Power	17, 44
37	General Drum Electronic	25, 45
38	General Drum Analog	26, 46
39	General Drum Brush	41, 47
40	Latin Special	48
41	Percussions	49
42	Live Rock Mastering	50
43	Studio Mastering	51
44	Funk Trap Mastering	52
45	Epic Rock Mastering	53
46	Ballad Mastering	54
47	Modern Mastering	55
48	Power-benddown	56
49	Special Effect Sounds 1	57
50	Special Effect Sounds 2	58

KIT#	KIT NAME	MIDI PC#
51	USER 51	59
⟨	⟨	⟨
70	USER 70	78

	KIT NAME	MIDI PC#
	PRESET 01	79
	⟨	⟨
	PRESET 50	128

MIDI Note Number Chart

Note #	INST NAME	PAD #
24		
25		
26		
27	High Q	
28	Slap	
29	Scratch Push	
30	Scratch Pull	
31	Sticks	
32	Square Click	
33	Metronome Click	
34	Metronome Bell	
35	KICK 2	PAD B-1
36	KICK 1	PAD A-1
37	EXTRA1(Side Stick)	PAD B-5
38	SNARE 1	PAD A-3
39	EXTRA2(Hand Clap)	PAD B-7
40	SNARE 2	PAD B-3
41	(TOM 3)	(PAD B-6)
42	CLOSED HAT	PAD A-5
43	TOM 3	PAD B-6
44	Pedal HiHat	
45	(TOM 2)	(PAD B-4)
46	OPEN HAT	PAD A-7
47	TOM 2	PAD B-4
48	(TOM 1)	(PAD B-2)
49	CRASH	PAD A-2
50	TOM 1	PAD B-2
51	RIDE	PAD A-6
52	Chinese Cymbal	
53	CUP	PAD A-4
54	Tambourine	
55	Splash Cymbal	
56	Cowbell	
57	Crash Cymbal 2	(PAD A-2)
58	Vibraslap	
59	Ride Cymbal 2	

* MIDDLE C

Note #	INST NAME	
60	High Bongo	
61	Low Bongo	
62	Mute High Conga	
63	Open High Conga	
64	Low Conga	
65	High Timbale	
66	Low Timbale	
67	High Agogo	
68	Low Agogo	
69	Cabasa	
70	Maracas	
71	Short Whistle	
72	Long Whistle	
73	Short Guiro	
74	Long Guiro	
75	Claves	
76	High Wood Block	
77	Low Wood Block	
78	Mute Cuica	
79	Open Cuica	
80	Mute Triangle	
81	Open Triangle	
82	Shaker	
83	Jingle Bell	
84	Belltree	
85	Castanets	
86	Mute Surdo	
87	Open Surdo	
88		

Instrument List

Category	Inst #	Name
1: KICK	**1**	Live Kick 1
	2	Live Kick 2
	3	Studio Booth Kick
	4	Small Booth Kick
	5	Middle Booth Kick
	6	Muted Kick
	7	Tight Shell Kick
	8	Huge Kick
	9	Deep Hard beater Kick
	10	Ambient Kick
	11	Stage Ambient Kick 1
	12	Stage Ambient Kick 2
	13	Dry Kick
	14	Resonated Kick
	15	Deep Shell Kick
	16	Deep Muffed Kick
	17	Analog Kick
	18	Short Analog Kick
	19	DIGI-ANA Kick
	20	Long DIGI-ANA Kick
	21	Synth Kick
	22	Velocity Bend Kick
2: SNARE	**1**	Live Ambient 1
	2	Live Ambient 2
	3	Booth Ambient
	4	Booth Dry
	5	Dry Snappy
	6	Dry High Tuned
	7	High Tuned 1
	8	High Tuned 2
	9	High Tuned 3
	10	Deep Body Ambient
	11	Deep Snappy
	12	High Tensioned Snappy
	13	Tight Muted
	14	Resonated Tuning
	15	Tighten Gate
	16	Mono Analog
	17	Stereo Analog
	18	Mono DIGI-ANA
	19	Stereo DIGI-ANA
	20	Reverb Snare 1
	21	Reverb Snare 2
	22	Room Snare
	23	Power Snare
	24	Electric Snare
	25	Brush Short
	26	Brush Long
	27	Brush Slap
	28	Bend Down

Category	Inst #	Name
3: TOM	**1**	Live Tom 1
	2	Live Tom 2
	3	Live Floor
	4	Studio Tom 1
	5	Studio Tom 2
	6	Studio Floor
	7	Dry Tom 1
	8	Dry Tom 2
	9	Dry Floor
	10	Loose Tom 1
	11	Loose Tom 2
	12	Loose Floor
	13	Ambient Tom 1
	14	Ambient Tom 2
	15	Ambient Floor
	16	Low Tune Tom 1
	17	Low Tune Tom 2
	18	Low Tune Floor
	19	Hard Hit Tom 1
	20	Hard Hit Tom 2
	21	Hard Hit Floor
	22	808 Tom 1
	23	808 Tom 2
	24	808 Floor
	25	Power Gate Tom 1
	26	Power Gate Tom 2
	27	Power Gate Floor
	28	Acoustic Tom 1
	29	Acoustic Tom 2
	30	Acoustic Floor
	31	Room Tom 1
	32	Room Tom 2
	33	Room Floor
	34	Electric Tom 1
	35	Electric Tom 2
	36	Electric Floor
	37	Bend Down Tom 1
	38	Bend Down Tom 2
	39	Bend Down Floor
	40	TOMVERB
	41	FLOORVERB
	42	Synth Drum Tom
4: HI HATS	**1**	Live Close-Hat
	2	Live Open-Hat
	3	Studio Close-Hat
	4	Clear Close-Hat
	5	Clear Open-Hat
	6	Analog Close-Hat
	7	Analog Open-Hat
	8	DIGI-ANA Close-Hat

Category	Inst #	Name
4: HI HATS	9	DIGI-ANA Open-Hat
	10	Acoustic Foot-Hat
	11	Acoustic Short Foot
	12	Analog Foot-Hat
	13	Bend Down Close-Hat
	14	Bend Down Open-Hat
	15	Bend Down Foot-Hat
5: CYMBAL	1	Crash 1
	2	Crash 2
	3	Analog Crash
	4	Thin Crash
	5	Splash 1
	6	Splash 2
	7	Bend Down Crash
	8	China 1
	9	China 2
	10	Ride 1
	11	Ride 2
	12	Ride 3
	13	Bend Down Ride
	14	Cup
	15	SFX Cup
6: EXTRA	1	Live Rim
	2	Live Long Rim
	3	Dry Rim
	4	Velocity Bend Down Rim
	5	Cowbell 1
	6	Analog Cowbell
	7	Velocity Bend Down Cowbell
	8	Live Tambourine
	9	Velocity Bend Down Tambourine
	10	Clap
	11	Filtered Clap
	12	Velocity Bend Down Clap
	13	Analog Claves
	14	DIGI-ANA Snap
	15	Click Noise
7: GLOBAL	1	High Q
	2	Slap
	3	Scratch Push
	4	Scratch Pull
	5	Sticks
	6	Square Click
	7	Metronome Click
	8	Metronome Bell
	9	Tambourine
	10	Vibraslap
	11	High Bongo
	12	Low Bongo
	13	Mute High Conga

Category	Inst #	Name
7: GLOBAL	14	Open High Conga 1
	15	Open High Conga 2
	16	Low Conga
	17	High Timbale
	18	Low Timbale
	19	High Agogo
	20	Low Agogo
	21	Cabasa
	22	Maracas
	23	Short High Whistle
	24	Long Whistle
	25	Short Guiro
	26	Long Guiro
	27	Claves
	28	High Wood Block
	29	Low Wood Block
	30	Mute Cuica
	31	Open Cuica
	32	Mute Triangle
	33	Open Triangle
	34	Shaker
	35	Jingle Bell
	36	Bell Tree
	37	Castanets
	38	Mute Surdo
	39	Open Surdo
8: SFX	1	Filter Swept Cymbal
	2	Gamelan
	3	Bass Slide
	4	REV Wet 1
	5	REV Wet 2
	6	Bell
	7	Odaiko
	8	ChuDaiko
	9	Oedo
	10	Chinese Temple
	11	Mokugyo
	12	Huge Clock
	13	UFO
	14	Door Close
	15	Door Open
	16	Kishimi
	17	Sliding
	18	Engine Cell
	19	Sonar
	20	Space
	21	Sequence
	22	Minor7
	23	Major7

Pattern List

Display	Pattern name	KIT		Display	Pattern name	KIT
A01	08Beat01	1		A51	Rock21(shuffle)	2
A02	08Beat02	1		A52	Rock22(shuffle)	14
A03	08Beat03	1		A53	Rock23	4
A04	08Beat04	1		A54	Rock24	1
A05	08Beat05	2		A55	Rock25	1
A06	08Beat06	2		A56	Rock26	4
A07	08Beat07	4		A57	Rock27	1
A08	08Beat08	4		A58	Rock28	4
A09	08Beat09	4		A59	Rock29	1
A10	08Beat10	4		A60	Rock30	2
A11	08Beat11	20		A61	Rock31	1
A12	08Beat12	20		A62	Rock32	4
A13	16Beat01	35		A63	Rock33	1
A14	16Beat02	35		A64	Rock34	14
A15	16Beat03	6		A65	Rock35T	1
A16	16Beat04	6		A66	HRK01	1
A17	16Beat05	6		A67	HRK02	24
A18	16Beat06	6		A68	HRK03	13
A19	16Beat07	2		A69	HRK04	13
A20	16Beat08	2		A70	HRK05	17
A21	16FUS01	36		A71	HRK06	5
A22	16FUS02	36		A72	HRK07(shuffle)	17
A23	JAZZ01	14		A73	HRK08	1
A24	JAZZ02	26		A74	HRK09	24
A25	JAZZ03	25		A75	HRK10	2
A26	JAZZ04	14		A76	HRK11	1
A27	BOSSA	40		A77	MTL01	11
A28	CNTRY	3		A78	MTL02	1
A29	68BLUS	6		A79	MTL03	1
A30	DANCE	10		A80	MTL04	35
A31	Rock01	5		A81	MTL05	1
A32	Rock02	15		A82	MTL06	4
A33	Rock03	23		A83	THRS01	36
A34	Rock04	4		A84	THRS02	36
A35	Rock05	4		A85	THRS03	1
A36	Rock06	7		A86	PUNK01	24
A37	Rock07	23		A87	PUNK02	11
A38	Rock08	36		A88	FUS01	20
A39	Rock09	3		A89	FUS02	4
A40	Rock10	7		A90	FUS03	20
A41	Rock11	2		A91	FUS04	22
A42	Rock12	1		A92	FUS05	22
A43	Rock13	20		A93	FUS06	18
A44	Rock14	20		A94	FUS07	4
A45	Rock15	3		A95	FUS08	17
A46	Rock16	3		A96	FUS09	4
A47	Rock17	1		A97	FUS10	10
A48	Rock18	3		A98	FUS11	10
A49	Rock19	36		A99	FUS12	3
A50	Rock20	1				

Display	Pattern name	KIT	Display	Pattern name	KIT
B01	POP01	3	B51	16ROCK03	4
B02	POP02	3	B52	16ROCK04	4
B03	POP03	18	B53	16ROCK05	4
B04	POP04	18	B54	16ROCK06	2
B05	POP05	3	B55	GrvDrm01	40
B06	POP06	17	B56	GrvDrm02	4
B07	POP07	17	B57	GrvDrm03	1
B08	POP08	17	B58	BALD01	40
B09	POP09	17	B59	BALD02	2
B10	POP10(shuffle)	4	B60	BALD03	40
B11	POP11(shuffle)	22	B61	BALD04	6
B12	POP12	32	B62	BALD05	20
B13	POP13	33	B63	BALD06	20
B14	POP14	22	B64	BALD07(shuffle)	3
B15	POP15	40	B65	BALD08(shuffle)	3
B16	POP16	2	B66	BALD09(shuffle)	3
B17	POP17	35	B67	BALD10(shuffle)	7
B18	POP18	20	B68	BALD11(shuffle)	7
B19	POP19T	26	B69	BALD12T	4
B20	RnB01	20	B70	BALD13T	5
B21	RnB02	4	B71	BLUS01(shuffle)	11
B22	RnB03	6	B72	BLUS02(shuffle)	20
B23	RnB04	2	B73	BLUS03(shuffle)	20
B24	RnB05	4	B74	BLUS04(shuffle)	11
B25	RnB06	27	B75	BLUS05(shuffle)	11
B26	RnB07	10	B76	BLUS06T	7
B27	RnB08	11	B77	BLUS07T	1
B28	RnB09(shuffle)	15	B78	BLUS08T	17
B29	RnB10	1	B79	CNTR01	18
B30	RnB11	4	B80	CNTR02	3
B31	RnB12	22	B81	CNTR03	3
B32	RnB13	8	B82	CNTR04	17
B33	RnB14	35	B83	CNTR05	40
B34	FUNK01	22	B84	JAZZ01	3
B35	FUNK02	4	B85	JAZZ02	4
B36	FUNK03	14	B86	JAZZ03	4
B37	FUNK04	14	B87	JAZZ04	3
B38	FUNK05	13	B88	JAZZ05	4
B39	FUNK06	21	B89	JAZZ06	40
B40	FUNK07	4	B90	JAZZ07	7
B41	FUNK08	4	B91	JAZZ08T	3
B42	FUNK09	4	B92	JAZZ09P	40
B43	FUNK10	19	B93	SHFL01	15
B44	FUNK11	3	B94	SHFL02	15
B45	FUNK12	19	B95	SHFL03	14
B46	FUNK13	6	B96	SHFL04	2
B47	FUNK14	22	B97	SHFL05	2
B48	FUNK15	2	B98	SHFL06	4
B49	16ROCK01	20	B99	SHFL07	4
B50	16ROCK02	21			

Display	Pattern name	KIT	Display	Pattern name	KIT
C01	HIP01	33	C51	TECH06	9
C02	HIP02	8	C52	TECH07	8
C03	HIP03	17	C53	TECH08	40
C04	HIP04	9	C54	DnB01	32
C05	HIP05	8	C55	DnB02	8
C06	HIP06	24	C56	DnB03	4
C07	HIP07	9	C57	DnB04	9
C08	HIP08	9	C58	DnB05	30
C09	HIP09	1	C59	DnB06	22
C10	HIP10	3	C60	DnB07	29
C11	HIP11	3	C61	TRIP01	34
C12	HIP12	39	C62	TRIP02	3
C13	HIP13	8	C63	TRIP03	34
C14	HIP14	24	C64	AMB01	22
C15	HIP15	1	C65	AMB02	2
C16	HIP16	31	C66	AMB03	1
C17	HIP17	9	C67	AMB04	4
C18	HIP18	30	C68	INDUSTRIAL01	23
C19	HIP19	11	C69	INDUSTRIAL02	24
C20	HIP20	4	C70	INDUSTRIAL03	9
C21	HIP21	4	C71	REGG01	18
C22	HIP22	3	C72	REGG02	21
C23	HIP23	30	C73	REGG03	40
C24	HIP24	5	C74	REGG04	40
C25	HIP25	8	C75	SKA01	20
C26	HIP26	4	C76	SKA02	18
C27	HIP27	9	C77	SKA03	15
C28	HIP28	30	C78	LATN01	40
C29	HIP29	33	C79	LATN02	40
C30	HIP30	33	C80	LATN03	40
C31	HIP31	40	C81	LATN04	40
C32	HIP32	40	C82	LATN05	40
C33	DANC01	33	C83	LATN06	40
C34	DANC02	21	C84	LATN07	40
C35	DANC03	40	C85	LATN08	40
C36	DANC04	21	C86	LATN09	40
C37	DANC05	9	C87	LATN10	4
C38	DANC06	40	C88	LATN11	4
C39	DANC07	33	C89	LATN12	18
C40	HOUS01	40	C90	BOSSA01	40
C41	HOUS02	8	C91	SAMBA01	4
C42	HOUS03	40	C92	SAMBA02	22
C43	HOUS04	40	C93	AFRO01	16
C44	HOUS05	9	C94	AFRO02	40
C45	HOUS06	34	C95	AFRO03	40
C46	TECH01	8	C96	MidE01	13
C47	TECH02	9	C97	MidE02	3
C48	TECH03	9	C98	MidE03	40
C49	TECH04	8	C99	MidE04T	22
C50	TECH05	9			

Display	Pattern name	KIT
D01	INTRO01	1
D02	INTRO02	1
D03	INTRO03	2
D04	INTRO04	4
D05	INTRO05	3
D06	INTRO06	20
D07	INTRO07	5
D08	INTRO08	6
D09	INTRO09(shuffle)	1
D10	INTRO10	5
D11	INTRO11	20
D12	INTRO12	2
D13	INTRO13	3
D14	INTRO14	20
D15	INTRO15	3
D16	INTRO16	6
D17	INTRO17	19
D18	INTRO18	4
D19	INTRO19	14
D20	ROCK-FILL01	2
D21	ROCK-FILL02	2
D22	ROCK-FILL03	1
D23	ROCK-FILL04	1
D24	ROCK-FILL05	4
D25	ROCK-FILL06	5
D26	ROCK-FILL07	1
D27	ROCK-FILL08	4
D28	ROCK-FILL09	5
D29	HARDROCK-FILL01	14
D30	HARDROCK-FILL02	4
D31	HARDROCK-FILL03	6
D32	HARDROCK-FILL04	14
D33	METAL-FILL01	6
D34	METAL-FILL02	6
D35	THRASH-FILL01	2
D36	FUSION-FILL01	22
D37	FUSION-FILL02	35
D38	FUSION-FILL03	35
D39	FUSION-FILL04	4
D40	FUSION-FILL05	4
D41	FUSION-FILL06	4
D42	POPS-FILL01	3
D43	POPS-FILL02	17
D44	POPS-FILL03	18
D45	POPS-FILL04	3
D46	POPS-FILL05	17
D47	POPS-FILL06	17
D48	POPS-FILL07	18
D49	RnB-FILL01	7
D50	RnB-FILL02	19

Display	Pattern name	KIT
D51	FUNK-FILL01	4
D52	FUNK-FILL02	4
D53	FUNK-FILL03	20
D54	FUNK-FILL04	20
D55	GROOVE-FILL01	4
D56	GROOVE-FILL02	22
D57	BALAD-FILL01	7
D58	BALAD-FILL02	7
D59	BLUES-FILL03	20
D60	BLUES-FILL04	20
D61	COUNTRY-FILL01	3
D62	COUNTRY-FILL02	3
D63	JAZZ-FILL01	6
D64	JAZZ-FILL02	6
D65	SHUFFLE-FILL01	23
D66	SHUFFLE-FILL02	1
D67	HIP-FILL01	8
D68	HIP-FILL02	30
D69	DANCE-FILL01	9
D70	DANCE-FILL02	9
D71	DANCE-FILL03	32
D72	DANCE-FILL04	33
D73	HOUSE-FILL01	4
D74	HOUSE-FILL02	40
D75	TECHNO-FILL01	9
D76	TECHNO-FILL02	9
D77	DRUMnBAS-FILL01	22
D78	DRUMnBAS-FILL02	21
D79	AMBIENT-FILL01	24
D80	AMBIENT-FILL02	4
D81	INDUSTRIAL-FILL01	23
D82	SHUFFLE-FILL01	15
D83	REGGAE-FILL01	21
D84	REGGAE-FILL02	21
D85	LATIN-FILL01	4
D86	LATIN-FILL02	4
D87	BOSSA-FILL01	18
D88	BOSSA-FILL02	4
D89	AFRO-FILL01	40
D90	AFRO-FILL01	40
D91	MidE-FILL01	4
D92	MidE-FILL02	40
D93	ENDING01	1
D94	ENDING02	2
D95	ENDING03	4
D96	ENDING04	3
D97	ENDING05	6
D98	ENDING06	6
D99	ENDING07	4

MIDI Implementation

1. Recognized Messages

```
   Status   1st    2nd       Description

--------------------------------------------------------------------------------
    8nH     kk     vv        Note Off  kk: note number                (See Note 1)
                                       vv: velocity will be ignored

    9nH     kk     00H       Note Off  kk: note number                (See Note 1)

    9nH     kk     vv        Note On   kk: note number
                                       vv: velocity

    BnH     07H    vv        Channel Volume     vv: volume value
    BnH     11H    vv        Channel Expression vv: expression value
    BnH     78H    xx        All Sounds Off
    BnH     7BH    xx        All Notes Off

    CnH     pp               Program Change     pp: program number  (See Note 2)

    F2H     sl     sh        Song Position Pointer  shsl: song position (See Note 3)
    F3H     ss               Song Select  ss: song number 0-98

    F8H                      Timing Clock
    FAH                      Start
    FBH                      Continue
    FCH                      Stop


        NOTE: n = MIDI Channel Number ( 0000 - 1111 )
          1. Note Off Messages is recognized but will be ignored.
          2. Relationship between Program Numbers and Kit Numbers are assigned as
             "Kits List" attached.
          3. SongPositionPointer for a pattern, new location is wrapped around
             the bar length of the pattern.
          4. Note On messages can be recorded into a pattern.
```

2. Transmitted Messages

   NONE.

3. System Exclusive Messages

   No SysEx messages are recognized/transmitted.

MIDI Implementation Chart

```
[DRUM MACHINE                          ]              Date :  20.Feb.,2002
  Model MRT-3      MIDI Implementation Chart           Version :1.00
```

Function ...	Transmitted	Recognized	Remarks
Basic Default Channel Changed		1–16 1–16	Memorized

Mode   Default
       Messages
        Altered
	******************	3	

Note Number True voice	******************	0–127	
Velocity Note ON Note OFF		o x	
After Key's Touch Ch's		x x	
Pitch Bend		x	
Control Change		7 11 120	Volume Expression All Sounds Off
Prog Change True #	******************	o 0–127	
System Exclusive		x	
System Song Pos Song Sel Common Tune		o o x	
System Clock Real Time Commands		o o	
Aux Local ON/OFF All Notes OFF Mes- Active Sense sages Reset		x o x x	
Notes	No messages will be transmitted.		

```
Mode 1 : OMNI ON,  POLY      Mode 2 : OMNI ON,  MONO        o : Yes
Mode 3 : OMNI OFF, POLY      Mode 4 : OMNI OFF, MONO        x : No
```

Reference

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ZOOM

CATCH US IF YOU CAN