# Regarding the locations where samples are stored

The MC-909 can use two types of memory; sample memory and DIMM whose contents are lost when you turn off the power, and user area and memory card whose contents are preserved even when the power is off.

When shipped from the factory, the MC-909 has 16 MB of sample memory and 16 MB of user area. By adding a DIMM module you can expand the sample memory to a maximum of 272 MB (if a 256 MB DIMM is used).

The user area can hold up to 16 MB, but by using a memory card you can store a maximum of 128 MB in addition to the user area.

When you record a sample on the MC-909 or play a patch that uses a sample, the sample is loaded into sample memory (including the DIMM). However when you turn off the power, the contents of the sample memory and DIMM will be lost. This means that if you want to keep the sample, you must use the Write operation to save it in the user area or on a memory card.

When managing data from your computer or from the MC-909's Utility menu, you can manage only the data located in the user area or the memory card. You cannot manage data that is located in sample memory or DIMM.
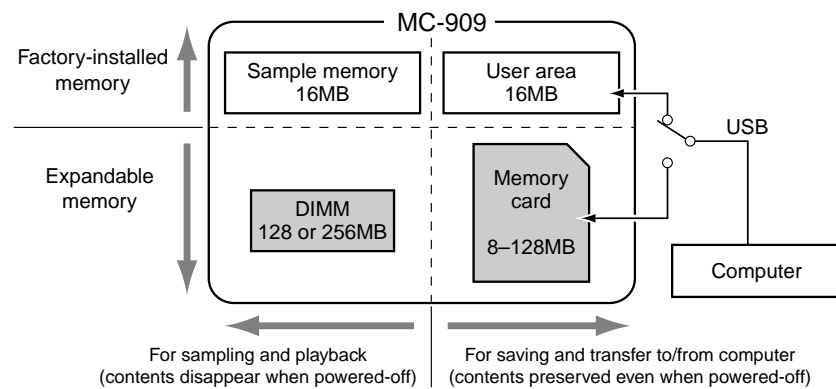
Be aware that because of this, the MC-909 can play samples larger than 128 MB, but **cannot save samples larger than 128 MB**.

MC-909 About the Added Functions

New functions have been added to the MC-909 from version 1.10.
Please make the following additions and changes to the "MC-909 Owner's Manual."

Version checking screen (New)

The System menu [F6 (System Info)] screen now tells you the version of the internal system program (**[F4 (Version)]**).

1. **From the top screen of any mode, press [MENU].**
2. **Use [CURSOR (up/down)] to select "System."**
3. **Press [ENTER].**
4. **Press [F6 (System Info)].**
5. **Press [F4 (Version)].**
   The version of the internal program will be displayed.

Specify the pattern selected at power-on

You can now specify the pattern that will be initially selected when the power is turned on.
- In the "Sequencer/MIDI" table on p. 128
  Change [F2 (Song)] to [F2 (Song/Pattern)], and add the following parameters

Parameter	Range	Explanation
Startup Ptn Mode	LAST WRITTEN, USER DEFINABLE	How the pattern will be selected at power-on **LAST WRITTEN:** The pattern that was most recently written prior to the last power-off will be selected. **USER DEFINABLE:** The pattern specified by the following parameter will be selected.
Startup Ptn Bank	Preset, User, Card	The pattern that will be selected at power-on
Startup Ptn Number	001–*** * Depends on the bank.	

Selecting the metronome output destination

You can now select the output destination for the metronome sound.
- Add to p. 25, right column: "Turning the metronome (click) on/off"

1. **From the top screen of any mode, or from any recording screen other than step recording, press [F6 (BPM/Click)] to open the BPM window.**
2. **Use [CURSOR (up/down)] to move the cursor to "Output Asgn."**
3. **Use [VALUE] or [INC/DEC] to select the output destination.**

MIX	Output from the MIX OUT jacks and the headphones.
DIR1	Output from the DIRECT 1 OUTPUT jack.
DIR2	Output from the DIRECT 2 OUTPUT jack.

Default mute

You can now instantly restore the part mute settings to the state stored in the pattern.
- Add to p. 26: "Muting (silencing) a part"
  When you hold down [SHIFT] and press [PART] (SELECT/MUTE), the part mute settings will return to the state stored in the pattern.

RPS realtime modify

You can now use the panel knobs and sliders to modify the sound of the phrase being played by RPS (p. 28).

1. **Press [RPS] to make the indicator light.**
2. **Press a velocity pad to play back a phrase.**
3. **While holding down a pad, you can operate the following knobs or sliders to modify the sound of the phrase.**
   PITCH: FINE/COARSE TUNE, ENV DEPTH/A/D
   FILTER: CUTOFF, RESONANCE, ENV DEPTH/A/D/S/R
   AMP: LEVEL, ENV DEPTH/A/D/S/R
   LFO1:   PITCH DEPTH, FILTER DEPTH, AMP DEPTH, PAN DEPTH, RATE, WAVEFORM

* *Your changes will affect the sound of the phrase assigned to the pad you pressed last.*
* *If you take your finger off the pads, the changes you make will apply to the sound of the current part. The same is true even if you are playing back a phrase with [HOLD] turned on.*
* *Operating MATRIX CONTROL 1, RANDOM MODIFY, or FAT will always affect the sound of the current part.*

Select the recording method for realtime recording

When realtime-recording, you can now select whether the new performance data will be added to the existing data or replace it.
- Add to p. 37, right column: "Realtime recording" table

Parameter	Range	Explanation
Rec Mode	MIX, REPLACE	**MIX:** Newly recorded data will be added to the previously-recorded data. **REPLACE:** Previously-recorded data will be replaced by the newly-recorded data.

Added functions for Part Edit

Selecting a part for editing

During pattern editing, you can now press a part button to select a part for editing even after you have selected the content for editing.

Splitting a rhythm set (Extract a Rhythm Instrument)

This new command extracts data of a specific note number from the specified part, and moves it to another part.

1. **In "Basic procedure for pattern editing" (p. 43) step 5, press [SHIFT] + [F1 (Extract Rhythm)].**
   A sub-window will appear.

2. **Specify the move-source part (Src Part) and the note number that you want to move (Extract Note).**

3. **Press [F6 (Select)].**

4. **Select the move-destination part (Dest Part).**

5. **Press [F6 (Execute)].**
   The data of specified note number will be moved from one part to the other part.

   * *If the move-source part does not contain any data of the note number specified by Extract Note, a message of "Cannot Extract!" will appear.*

   * *If the move-destination part contains no performance data, the setup parameters (p. 26) of the move-source part will be copied.*

   * *If the move-destination part does contain performance data, only the note data will be moved. This means that the note data will be played using the sound of the patch selected for the move-destination part.*

   • On p. 43, right column, partially modify the table in "Basic procedure for pattern editing"

[SHIFT] + [F1 (Extract Rhythm)]	Splits the rhythm set.
[SHIFT] + [F2 (Velocity Duration)] (Change Velocity / Change Duration)	Modifies the velocity/duration of the notes. (pp. 44–45) * A sub-window now lets you select either velocity or duration. Each function is as explained in the owner's manual.

Copying/erasing specific control change data

In the Pattern Copy and Erase operations, you can now execute the operation on a specified range of CC (control change) numbers.

   • On p. 44, add to the tables for "Pattern Copy" and "Erase"

Parameter	Range	Explanation
Min Max	CC#0–CC#127	Control change message to be copied/erased Messages in the specified range will be erased * You can set this only if Event is set to "CC."

Added functions for Sample List / File Utility

In Sample List (p. 115) or File Utility (p. 134), you can now select two or more samples or files simultaneously.

   • On p. 115, right column, change the function button table in "Sample List" as follows.

[F1 (Preset)]	Select from the preset samples.
[F2 (User)]	Select from the user area samples.
[F3 (Card)]	Select from memory card samples.
[F4 (Mark Clear)]	Remove the check mark from the sample.
[F5 (Mark Set)]	Add a check mark to the sample.
[F6 (Select)]	Display the edit screen for the selected sample.
[SHIFT] + [F1 (Delete Sample)]	Delete all checked samples with their files. (*1)
[SHIFT] + [F2 (Erase)]	Erase all checked samples from memory. (The files will not be deleted.) (*1)
[SHIFT] + [F3 (Load)]	Load the checked samples into memory. (*1)
[SHIFT] + [F4 (Mark Clear All)]	Clear the check marks from all samples.
[SHIFT] + [F5 (Mark Set All)]	Add a check mark to all samples.
[SHIFT] + [F6 (Create Rhythm)]	Execute "Create Rhythm" (p. 119) on all checked samples.

*1: If not even one check mark is assigned, the operation will be executed on the sample selected by the cursor.

   • On p. 134, "File Utility" left column, change the table following step 4 as follows.

[F3 (Card Format)]	Initialize a memory card.
[F4 (Mark Clear)]	Remove the check mark from the file.
[F5 (Mark Select)]	Add a check mark to the file.
[F6 (Move)]	Move the checked files to another folder. (*2)
[SHIFT] + [F3 (Delete)]	Delete the checked files. (*2)
[SHIFT] + [F4 (Mark Clear All)]	Clear the check mark from all files in the folder.
[SHIFT] + [F5 (Mark Set All)]	Add a check mark to all files in the folder.
[SHIFT] + [F6 (Copy)]	Copy the checked files to another folder. (*2)

*2: If not even one check mark is assigned, the operation will be executed on the file selected by the cursor.

Create Rhythm from the sample list

In previous versions, the Create Rhythm command (p. 119) could be executed only on samples divided by the Chop function, but now you can execute Create Rhythm on any combination of samples selected from the sample list.

1. **In the sample list, add a check mark to the samples that you want to use as a rhythm tone.**
   You can select up to sixteen samples. If you select seventeen or more samples, the rhythm set will be created from the sixteen lowest-numbered samples.

2. **Hold down [SHIFT] and press [F6 (Create Rhythm)].**
   A message will ask whether you want to execute Create Rhythm.

3. **To execute, press [F6 (Execute)].**
   The Rhythm Set Name input screen will appear.

4. **Assign a name to the rhythm set and save it.**
   For details, refer to "Saving a Patch/Rhythm Set" (p. 77).

   * *If you decide to cancel the Create Rhythm operation, press [F5 (Cancel)] to return to the previous screen.*

When you save the rhythm set, a message will ask whether you want to assign the newly-created rhythm set to the current part.

5. **If you want to assign it, press [F6 (Execute)].**
   The newly-created rhythm set will be assigned to the current part, and the Rhythm Edit (p. 70) screen will appear.

6. **If you don't want to assign it, press [F5 (Cancel)].**
   You will return to the Sample Edit screen.

Added function for arpeggio style step recording

When creating an arpeggio style, you can now use step recording to input notes one by one.
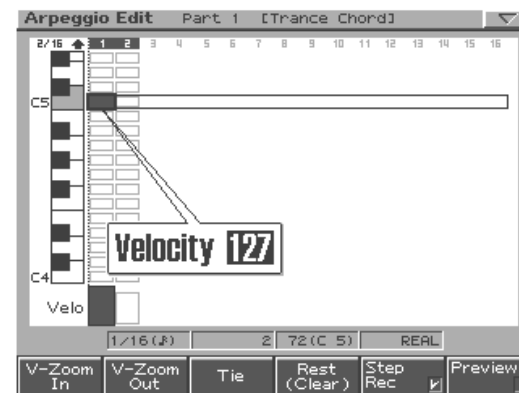
   • On p. 31, right column, add to the table in "Creating an arpeggio style"

[SHIFT] + [F1 (V-Zoom In)]	Zoom-in the arpeggio style input screen.
[SHIFT] + [F2 (V-Zoom Out)]	Zoom-out the arpeggio style input screen.
[SHIFT] + [F3 (Tie)]	Input a tie at the cursor location, and advance to the next step.
[SHIFT] + [F4 (Rest (Clear))]	Delete all data at the step where the cursor is located.
[SHIFT] + [F5 (Step Rec)]	If you press this to add a check mark, you will be able to input/edit data for individual notes. * [SHIFT] will be locked at this time.

Added function in Patch Edit

When editing a patch or rhythm set, you can press [ENTER] to view a list of the available values for the currently selected parameter.

Added V-LINK compatible video device (Edirol V-4)

The Edirol V-4 is now supported as a V-LINK compatible video device.

When the MC-909 and the Edirol V-4 are used together, you can:

   • Make settings for remotely controlling the V-4 from the MC-909.

   • Use the MC-909's sequencer to switch images on the V-4, creating video performances with synchronized music.

   • Use the MC-909's velocity pads to control the V-4's input selector, switching between images from various source devices.

   • Use the MC-909's knobs to specify the time for transition effects (e.g., overlap or wipe).

   * *In order to use V-LINK functionality with the MC-909 and the Edirol V-4, you will need a commercially-available MIDI cable.*

The following parameters have been added in conjunction with support for the Edirol V-4.

   • On p. 139, make the following additions and changes (VFX Ctrl → VFX1 Ctrl) to the table in "V-LINK settings"

Parameter	Range	Explanation
VFX1 Ctrl	OFF, CC1, CC5,	Control change number that
VFX2 Ctrl	CC7, CC10, CC11,	will control the video effect
VFX3 Ctrl	CC71–74, CC91–93,	
VFX4 Ctrl	Channel Aftertouch	
Fade Ctrl		Control change number that will control the output fade

   * *VFX2–4 are not supported by the Edirol DV-7PR.*

Other added functions

   • The maximum number of notes per pattern has increased from approximately 12,000 notes to **approximately 30,000 notes**.

   • In the upper part of the Mixer screen, a bar has been added to indicate the current playback location of the pattern.

   • A level meter has been added in the Mastering screen.

   • A sample that has been divided by Chop will now normally be saved in consecutive sample numbers.

   • When executing Create Rhythm, you can now select the User Area or Memory Card.

   • In the System menu [F6 (System Info)] - [F2 (Memory Info)] screen, an indication of the user area and memory card usage has been added.

   • In the File Utility screen, the memory usage indication is now easier to read.

   • The notation unit for Size on the Sample List has changed from "K = kilo" (the number of samples) to "KB = kilobyte."