HIGH RESOLUTION MOBILE RECORDER

Owner's manual







Precautions

Location

Using the unit in the following locations can result in a malfunction.

- · In direct sunlight
- · Locations of extreme temperature or humidity
- · Excessively dusty or dirty locations
- Locations of excessive vibration
- Close to magnetic fields

Power supply

Be sure to turn the power switch to OFF when the unit is not in use. Remove the battery in order to prevent it from leaking when the unit is not in use for extended periods.

Interference with other electrical devices

Radios and televisions placed nearby may experience reception interference. Operate this unit at a suitable distance from radios and televisions.

Handling

To avoid breakage, do not apply excessive force to the switches or controls.

Care

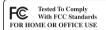
If the exterior becomes dirty, wipe it with a clean, dry cloth. Do not use liquid cleaners such as benzene or thinner, or cleaning compounds or flammable polishes.

Keep this manual

After reading this manual, please keep it for later reference

Keeping foreign matter out of your equipment

Never set any container with liquid in it near this equipment. If liquid gets into the equipment, it could cause a breakdown, fire, or electrical shock. Be careful not to let metal objects get into the equipment.



This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Complies with Canadian ICES-003 Class B.

Conforme au Reglement Canadian NMB-003 classe B.

Data handling

Incorrect operation or malfunction may cause the contents of memory to be lost, so we recommend that you save important data on a CD or other media. Please be aware that Korg will accept no responsibility for any damages which may result from loss of data.

Notice regarding disposal (EU only)





When this "crossed-out wheeled bin" symbol is displayed on the product, owner's manual, battery, or battery package, it signifies that when you wish to dispose of this product, manual, package or battery you must do so in an approved manner. Do not discard this product, manual, package or battery along with ordinary household waste. Disposing in the correct manner will prevent harm to human health and potential damage to the environment. Since the correct method of disposal will depend on the applicable laws and regulations in your locality, please contact your local administrative body for details. If the battery contains heavy metals in excess of the regulated

amount, a chemical symbol is displayed below the "crossed-out wheeled bin" symbol on the battery or battery package.

THE FCC REGULATION WARNING (for USA)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- · Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Unauthorized changes or modification to this system can void the user's authority to operate this equipment.

COPYRIGHT WARNING

This professional device is intended only for use with works for which you yourself own the copyright, for which you have received permission from the copyright holder to publicly perform, record, broadcast, sell, and duplicate, or in connection with activities which constitute "fair use" under copyright law. If you are not the copyright holder, have not received permission from the copyright holder, or have not engaged in fair use of the works, you may be violating copyright law, and may be liable for damages and penalties. If you are unsure about your rights to a work, please consult a copyright attorney.

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* All product names and company names are the trademarks or registered trademarks of their respective owners.



In this product installed are MP3/MP2 encoder "ISC-MP3/MP2 BF542 e Korg" and MP3/MP2 decoder "ISC-MP3/MP2 BF542 d Korg" developed by Institute of Super Compression Technologies, Inc. (ISCT), Japan.



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Introduction

Thank you for purchasing the Korg MR-2 high-resolution mobile recorder. To take full advantage of your new equipment, please read this manual carefully and use the product as directed. When you have read the manual, keep it safe for future reference.

Features

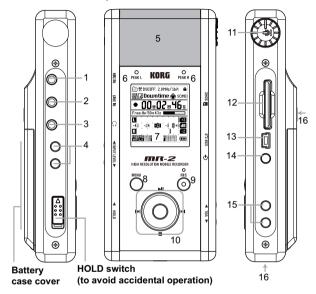
The MR-2 is an ultra-high audio quality stereo portable recorder that can record and play back formats such as CD (16-bit/44.1 kHz), DVD audio (24-bit/192 kHz), and SACD (Super Audio CD) (1-bit/2.8 MHz). In addition, the recorder can also record and play back in MP3 or MP2 format which is used in computers and many portable digital audio devices.

The MR-2 runs on two rechargeable batteries or dry-cell batteries, making high-quality field recordings very easy. You can also power the recorder by using a USB bus for extended or fixed-location recordings. The recorded data can be copied to your computer via USB, and data files can be copied from your computer to the MR-2 for listening.

The MR-2 includes Korg's "AudioGate" format conversion software, so you can use a computer to convert audio files to different file formats.

Parts of the MR-2

Front and side panels



- 1. MIC IN external microphone input jack (stereo mini jack; Plug-In-Power compatible)
- 2. LINE IN jack (stereo mini jack)
- 3. Headphone jack (stereo mini jack)
- 4. INPUT LEVEL button
- 5. Built-in microphone (X-Y directional stereo microphone)
- 6. PEAK L/R indicators These indicators light up green at appropriate levels, and light up red during clipping.

7. Display

The display shows the level meters and counter during recording and playback, and can also show information about the project (see page 10) or file, and parameter settings.

8. Menu button

This button accesses the menu list (MENU) screen, allowing you to choose the information or parameters that will be displayed. Each time you press this, you will alternate between the meter/counter screen and the menu screen. You can also use this button to return from an editing screen to the previous screen.

9. REC button/REC LED indicator

Pressing the REC button places the recorder in record-ready mode. The REC indicator will blink slowly. During recording, the REC indicator will light up steadily.

10. Controller buttons

Press these buttons to move the cursor vertically or horizontally. Also, use $(\blacktriangleright \parallel)$ to play back, (\blacksquare) to stop, $(\blacktriangleright \parallel)$ to fast forward and (\blacktriangleleft) to fast reverse.

Press the center button to confirm the setting.

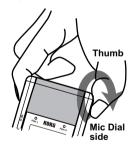
11. Mic Dial

Use this dial to rotate the built-in microphone to adjust its angle toward the recording target (refer to "Adjusting the direction of the built-in microphone" on page 12).

12. Card slot

13. USB connector (miniB)

This connector enables you to use a USB cable to connect the MR-2 to your computer. You can also use the recorder via a bus-powered USB hub.



Power button

VOL buttons

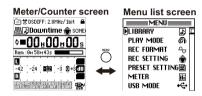
These buttons adjust the volume of the headphone jack.

16. Threaded sockets

You can attach the recorder to a camera tripod using one of these threaded sockets (refer to "Mounting the recorder using the camera tripod" on page 13).

Meter/counter screen and menu list (MENU) screen

When you turn on the power to the MR-2, it displays an opening screen, then displays the meter/counter screen. If you press the MENU button while the meter/counter screen is displayed, the recorder displays the menu list (MENU) screen, which lets you proceed to various types of settings or informational screens. You will use the controller buttons on this screen to make various settings. If you press the MENU button on the menu list (MENU) screen, the recorder returns to the meter/counter screen. Pressing the MENU button repeatedly toggles between the menu list (MENU) screen and meter/counter screen.



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Selecting parameters and setting values

On the MR-2, you can select parameters and set values by pressing the controller buttons. When you select an item on the screen using a controller button, the selection icon " \blacktriangleright " or " \blacktriangleright " will move to the selected item. Icon " \blacktriangleright " indicates that an additional setting screen will appear when you press the Confirmation button (the center controller button).

To select parameters or set values, you will press the cursor left/right/up/down (**4/***)|/|||) buttons to move the selection icon or modify a value. To confirm a setting, you will press the Confirmation button (the center controller button). In this manual, this series of operations is called "select and confirm."

Depending on the parameter, selecting and confirming an item may cause a further setting screen to appear, or may cause a check mark to appear in a check box.

If you've made a setting in a further setting screen, you can press the menu button to return to the previous screen.

HSR MODE

Selection icon [■■MENU■ ■REC FORMAT 4-= ■■■MENU= New Project Type: LIBRARY Ŋ LIBBARY ► MWAV (BWF) PLAY MODE (Z) PLAY MODE ō 4 4 BEC FORMAT MREC FORMAT ٠ REC SETTING REC SETTING PRESET SETTING PRESET SETTING □ DSDIFF Push □ DSF METER METER

□IIISN

Basic operation

1. Before Using the MR-2

Inserting or Replacing Batteries

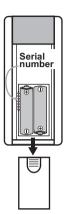
The MR-2 requires two AA-size batteries. We recommend that you use nickel-metal hydride batteries, but you may also use alkaline batteries (LR6).

- The performance of alkaline batteries differs significantly between manufacturers. To ensure that the MR-2 operates in a stable manner, please use batteries from a reputable manufacturer (see page 58).
- Do not combine new and used batteries or different types of batteries.
- The serial number of the MR-2 is printed on the label inside the battery case. You may be asked for the serial number if you contact Korg or your nearest Korg dealer regarding the product or repair.
- 1. Make sure that the power is switched off. All LED indicators, and the display should also be off.
- 2. Remove the battery case cover.
- 3. If the batteries are in the case, remove them from the case.
- 4. Insert two AA-size batteries into the case with the + and ends in the correct orientation.
- Replace the battery case cover.
- Replace the batteries with new ones when battery power gets low.
- When the batteries expire, remove them from the case immediately. If you don't plan to use the unit for a long period of time, remove the batteries.

Battery life varies depending on the type and manufacturer of the battery and usage. It also varies depending on the type and manufacturer of the memory card used and its capacity.

Battery life (when the backlight and LED indicators are turned off with the built-in microphone)

Battery type (see page 41)	Continuous recording/Continuous playback (When 44.1kHz project)
NiMH battery (1900mAh) x 2	4 hours/4 hours
Alkaline battery x 2	2 hours/2.5 hours



- ⚠ If the battery charge is getting low, you can supply USB bus power to the recorder using a USB cable to continue operating the recorder without any power interruption.
- Before you disconnect a recorder that is running on USB bus power, turn off the power to the recorder first, then remove the USB cable. If the recorder is switched to the battery operation while the recorder's power is on, the recorder may be reset or turned off if the battery charge gets too low.
- The MR-2 will start up in USB mode if the USB cable is connected when you turn on the power (see page 45).

Inserting or Removing a Memory Card

- 1. Make sure that the power is switched off. All LED indicators, and the display should also be off.
- 2. Insert the memory card until it clicks.
- 3. To remove the memory card, push the card in gently using the tip of your finger until the card clicks, then release your finger.



- 4. After the memory card is ejected, remove it from the slot.
- For more information on handling memory cards, please refer to the instruction manual that came with the card.
- ⚠ Be sure to push the memory card into the slot securely in the correct orientation with the correct side facing up. Do not push in a memory card forcefully. Insert the card into the slot gently.
- ▲ Do not install or remove a memory card while the power to the unit is on. Otherwise, data in the unit or on the memory card may be lost, or the memory card may become unusable.

Supported memory cards

The MR-2 supports SD cards and SDHC cards with a capacity of 512MB to 32GB. For the best performance, we recommend an SDHC card of Class 4 or higher. Please visit Korg web site http://www.korg.com for information on recommended memory cards that are compatible with the MR-2.

Formatting a memory card

If you used a memory card with your computer, cell phone, digital camera or other device, you cannot use it as is with the MR-2. You must properly format such a card before you can use it with the recorder. For more information, Please refer to the "SD Format (Formatting a memory card)" section on page 42.

About the available recording tim

Available recording time per card varies with the recording format setting (see page 14). The following table shows the approximate recording time available in each format per 1GB of memory card capacity.

Format	Recordable time	Format	Recordable time
MP2 48kHz/192kbps	660 minutes	WAV 96kHz/24bit	25 minutes
MP3 44.1kHz/192kbps	600 minutes	WAV 176.4kHz/24bit	15 minutes
WAV 44.1kHz/16bit	90 minutes	WAV 192kHz/24bit	13 minutes
WAV 44.1kHz/24bit	60 minutes	DSDIFF	22 minutes
WAV 48kHz/16bit	85 minutes	DSF	22 minutes
WAV 48kHz/24bit	55 minutes	WSD	22 minutes
WAV 88.2kHz/24bit	30 minutes		



Available recording time values listed above are estimates. Maximum recording time will become shorter as the number of projects in the card increases.

Maximum recording time per project is six (6) hours.

2. Connecting your monitor equipment

Connect stereo headphones or external audio equipment (such as an amplifier) to the headphone jack. Use the VOL buttons to adjust the volume. If you are recording from the built-in or an external microphone, we recommend that you monitor through headphones to reduce the risk of acoustic feedback.

3. Turning the power on/off

You must observe the following procedure when turning the MR-2 on or off.

Turning the power on

Press the Power button. After the opening screen, the meter/counter screen will appear. If the MR-2 is running on the batteries and the power will not turn on, there is insufficient battery charge. Replace the batteries.

Turning the power off

Press and hold down the Power button for at least two (2) seconds. The shutdown screen will appear, and several seconds later the power will turn off automatically.

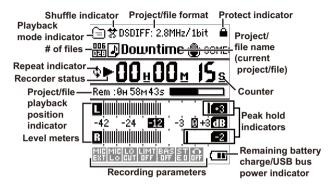
Auto shutdown function

After you've stopped the recorder and a certain length of time elapses without any operations being performed, the shutdown screen will appear automatically and then the power will turn off several seconds later (see page 31).

4. The meter/counter screen

When you turn on the power, the meter/counter screen is shown in the display. When the menu list (MENU) screen is shown, you can also access the meter/counter screen by pressing the menu button.

This screen shows information such as the MR-2's operating status and recording/playback format.



Project/file format

This shows the format of the current project/file (see page 17).

What is a project?

When you record on the MR-2, two files are created; an audio file and a project file (containing protection data and markers, etc.). These two files are collectively called a "project," and can be operated on the MR-2 as if they were a single audio file (refer to "Memory card structure and files" on page 47).

Shuffle indicator

This icon appears when you select shuffle playback. The icon will not be visible if shuffle playback is not selected (see page 35).

Playback mode indicator

This icon indicates current playback mode (see page 35).

of files

These numbers indicate the number of files in the folder, and the file number.

This icon appears when you program repeat playback. No indicator appears here if repeat playback is not programmed (see page 35).

Recorder status

The current status of the recorder is shown using symbols such as record (\bullet) , play (\triangleright) , or stop (\blacksquare) .

Project/file playback position indicator

This bar graph indicates the approximate playback position of the current counter value in relation to the overall length of the current project/file. Also, during recording, it indicates the remaining recordable time in the format of the current project.

Level meters

You can check the audio input level or monitoring level using these meters. If "Auto" (Auto Gain Control mode) is selected for recording, the "Auto Level: Target" value will be marked on the meter. The highlighted number indicates the reference level.

Recording parameters

During recording, recording parameter settings will be indicated by icons. You can view the following parameters: input source (see page 14), microphone sensitivity (see page 21), low cut for microphone (see page 21), auto level (see page 22), limiter (see page 21), bass boost (see page 21), stereo effects (see page 21).

Protect indicator

A lock symbol is shown if the current project is protected. Nothing is shown if the protect setting is off (see page 32).

Project/file name (current project/file)

This shows the name of the currently selected project/file.

Counter

The counter indicates a time value.

Peak hold indicators

Input peaks are indicated by bar graphs and values. When you adjust the audio input level or monitoring level, it may be helpful to lengthen the "Meter Peak Hold" setting in the meter screen (see page 29).

Remaining battery charge/USB bus power indicator

Sufficient charge > Low charge

If " , the batteries are almost exhausted. Replace them immediately.

5. Recording

When you record on the MR-2, date and time information is automatically added to the file so that you can manage your projects more easily.

If you set the date and time on the MR-2 (see page 31), the correct date and time information will be added to the file. However, If you remove the batteries or if the batteries in the unit have been exhausted for a while (about three days) after you set the date and time, the internal clock will be reset to the default setting.

Selecting the input source

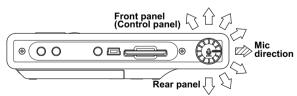
In addition to using the built-in microphone for convenient recording, you can record use a commercially-available external microphone. Alternatively, you can connect high output level devices, such as keyboards or audio equipment, and record them.

This section explains how to record via the built-in microphone.

Adjusting the direction of the built-in microphone

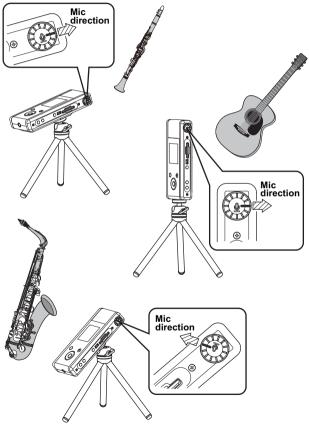
You can adjust the angle of the built-in directional microphone so that it will point to the targeted recording source. Refer to the figure below to change its angle in eight 30-degree steps.

Adjust the microphone angle in accordance with the location and position of the recorder and targeted recording source.



Mounting the recorder using the camera tripod

The MR-2 features two 1/4-inch threaded sockets that enable you to mount the unit on a camera tripod. These sockets are located on the bottom panel and rear panel respectively. Using the tripod makes it easy to set up the recorder in a position suitable for recording.



About automatic input source detection

The MR-02 automatically scans to determine whether or not the MIC IN or LINE IN jack is connected. If the unit detects a connected jack, it will automatically assign the jack as the input source. Therefore, do not connect anything to jacks other than the one you want to use for audio input. If multiple jacks are connected to external devices, the unit will select a jack according to the following input priority list.

If no jacks are connected, the unit will automatically select the built-in microphone as the input source.

Connected devices	Input source automatically selected
Line device, external microphone	LINE IN jack
Line input	LINE IN jack
External microphone	MIC IN jack
None	Built-in microphone



Before you use a Plug-In-Power microphone, you must set the corresponding parameters (see page 22).

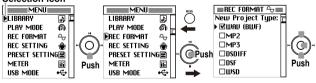
Selecting the recording format

Here's how to select the recording format. Each time you record, a new project will be created in the recording format you've selected.

note The default setting is WAV 16-bit 44.1 kHz.

1. Press the MENU button to display the menu list, then use the controller buttons to select and confirm "REC FORMAT." The recording format (REC FORMAT) setting screen will appear.

Selection icon



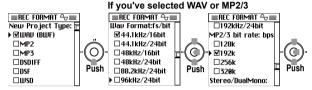
Use the controller buttons to select and confirm one of the "New Project Type" options.

A check mark will appear in the check box for the project type you selected and confirmed

You can choose from WAV (BWF), MP2, MP3, DSDIFF, DSF, and WSD. For details on each type, refer to "Project recording format (New Project Type)" on page 17.

Foliation of the first property of the first

If you checked MP2 or MP3, use the controller buttons to select and confirm the desired MP2/3 bit rate: bps setting, and stereo (Stereo) or mono (Mono).



note If you checked DSDIFF, DSF, or WSD, a sampling frequency of 2.8224MHz with stereo will be specified.

4. When you have finished setting the recording format, press the MENU button to return to the menu list screen, and then press the MENU button once again to return to the meter/counter screen.



Adjusting the recording input level

Here is how to adjust the recording level. The MR-2 enables you to adjust the gain manually ("Manual") or automatically according to the input level ("Auto"). When the MR-2 is shipped from the factory, this parameter is set to "Manual." If you want to adjust the microphone sensitivity, set the low cut parameter for the input signal, or select the "Auto" level function and adjust detailed settings, refer to "Modifying the recording parameter settings" on page 20.

- 1. Press the REC button to enter record-ready mode. The REC indicator will blink.
- Press the INPUT LEVEL button on the left side. panel to display the INPUT LEVEL screen, then adjust the input level.



- 3. Adjust the gain so that the level will not exceed "0".
- 4. Release the INPUT LEVEL button to return to the previous screen. You can view the input level in the REC SETTING screen (see page 22).

Starting and stopping recording

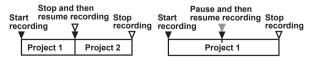
Each time you record on the MR-2, a folder is created containing an audio file and a settings file, collectively called a "project." The folder is named automatically (see page 48).

You can edit this name after you've finished recording (see page 29). Operations on the MR-2 will handle the entire project folder just as if it were an audio file.

1. To start recording from record-ready mode, press the Play () button or REC button.

The REC indicator will light up steadily.

- Using the Rec Start Mode parameter (see page 23), you can set the recorder so that it will start recording a specified interval after you press the Play or REC button. Alternatively, you can set the recorder so that recording is triggered by the input audio.
- 2. To pause recording, press the Play (▶Ⅱ) button (the REC indicator will blink slowly); to resume recording, press the Play (▶1) button once again (the REC indicator will light up steadily). A new project is not created if you pause during recording; the recording will still be a single project.
- When you're finished recording, press the stop button. The record LED wll go dark.



MP2. MP3

These audio file formats are a patented digital audio encoding format that employs a form of lossy data compression. The high compression rate is achieved by reducing the detail of certain parts of the sound that are deemed beyond the auditory resolution ability of most people. MP2 and MP3 are abbreviations for MPEG-1 Audio Layer 2 (extension .mp2) and Layer 3 (extension .mp3) respectively. They are a common audio format for consumer audio storage such as computers, as well as portable digital audio players.

WAV (BWF)

This is an uncompressed linear PCM multi-bit audio file format. The sampling frequency and bit-depth are selected by the PCM Format settings described below.

The name is an abbreviation of Wave File Format (file extension .wav). This format is compatible with the Broadcast Wave Format (file extension .way) used for broadcast audio.

A higher sampling rate and bit depth allows higher-quality recording, but will require more memory card space.

DSDIFF

This is a 1-bit audio file format widely used in professional audio devices for SACD (Super Audio CD) production.

The name stands for Direct Stream Digital Interchange File Format (file extension .dff).

DSF

This is a 1-bit audio file format used in some "VAIO (A Sound Reality deployment model)" personal computers made by Sony.

The name stands for DSD Stream File (file extension .dsf).

WSD

This is a 1-bit audio file format defined by the "1-bit Audio Consortium."

The name stands for Wideband Single-bit Data (file extension .wsd).

6. Playing back a project/file

When you power on the recorder, it will display in the upper part of the meter/counter screen the name of the project/file that was recorded, played back, or selected most recently (refer to "Selecting a project/file to play back" on page 19).

Starting playback

Press the Play () button. The displayed project/file will play

Pausing

During playback, press the play button (▶||) to pause at that location. When you press the play button (▶∥) once again, playback will resume from that location

Stopping playback

During playback, press the stop button (). If you then press the play button (), playback will start from the beginning of the currently selected project/file.

Searching for a desired location during playback

During playback, pressing and holding down the rewind (★) button will move the playback position toward the beginning of the project/file. When you release the button, playback will begin from the point of release. If you hold down the fast-forward () button during playback, the playback position will move toward the end of the project/file. When you release the button, playback will begin from the point of release. While the recorder is stopped or paused, holding down the rewind or fast-forward button will reverse or advance the playback position. When you release the button, the recorder will stop immediately.



If you assign marks to a project, you'll be able to move quickly to a desired point (see page 25).

7. Other playback/record operations

Selecting a project/file to play back

You can use the controller buttons to select the project/file that you want to play.

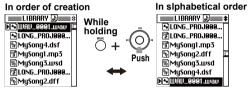


note When you turn on the power to the recorder, the most recently selected project/file will be selected.

Sorting projects/files

By default, the projects/files in the folder on the library select screen are sorted chronologically. However, you can sort them alphabetically. While pressing and holding down the MENU button, press the Stop

() button repeatedly to toggle between alphabetical and chronological sort orders. When the sort order is changed, the order of the project folders will also change.



Selecting a project/file using the rewind and fast-forward (Idd.) buttons (only on the meter/counter screen)

Press the rewind button to select the project/file that precedes the currentlyselected one, or press the fast-forward button to select the next project/file. Please note that if the recorder is playing for more than several seconds from the top of the project/file, or if the recorder is stopped at the point of more than several seconds into the project/file, pressing the rewind button will locate the top of the currently-selected project/file.



If you have selected "Single" for "PLAY MODE" (see page 35), you cannot select a project/file using the rewind or fast-forward button.

Selecting a project/file from a library list

1. Press the MENU button to display the menu list, then use the controller buttons to select and confirm "LIBRARY".

The library select (LIBRARY) screen will appear.

Recording: This library contains projects recorded on the MR-2.

Playback: This folder contains audio files recorded on a device other than the MR-2

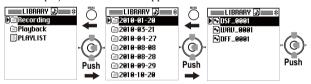
PLAYLIST: This is the play list (see page 37).

- Alternatively, in the meter/counter screen press the Confirmation button (the center controller button) to display the library select (LIBRARY) screen.
- 2. In the library select (LIBRARY) screen, use the controller buttons to select and confirm "Recording."

The dated folder select screen (the list of dated folders) will appear.



- **note** If you selected and confirmed "Playback" or "PLAYLIST," skip Step 3.
- In the dated folder select screen, use the controller buttons to select and confirm the folder that includes the project you want to select. The project select screen will appear.



On the project select screen, use the controller buttons to select and confirm the desired project.

The name of the newly-selected project will appear on the project/file edit screen.

Alternatively, you can begin playback by using the controller buttons to select and confirm "Play Now" in the project/file edit screen.



Modifying the recording parameter settings

You can modify various recording parameters using the following steps:

 Press the MENU button to display the menu list, then use the controller buttons to select and confirm "REC SETTING."
 The recorder will display the REC SETTING screen.

Low 🗓

Nff

Nff

0n

=BEC SETTING -==

Mic Low Cut: Off Nff

Mic Sens:

Limiter:

Monitor:

St.Enhancer: PluaInPower: Off

Bass:

Mic Sens

Use this parameter to set microphone sensitivity. This parameter setting is valid only when the builtin or an external microphone is used for recording.

High: Select this high sensitivity option when you record low level audio.

Mid: Select this option for normal level audio.

Low: Select this option if the input level is too high even after you lower the level of the input source.



If the recorder picks up faint noises, such as breath that hits the microphone directly, or outdoor wind or breeze, set this parameter to "On." This parameter setting is valid only when the built-in or an external microphone is used for recording.

Limiter

The Limiter function is useful if the input level exceeds an appropriate threshold. If an input signal level is excessive, the Limiter function will be activated to compress the signal to an appropriate input level. This parameter setting is valid only when the recording gain control is set to "Manual" (see page 22).

Off: The Limiter function will be disabled.

Soft: A small amount of compression will be applied.

Hard: A significant amount of compression will be applied.

Bass

This parameter sets the amount of boost in the bass range of the input sound. You can set the value in a range of -14 to +14dB in 2dB steps.

St.Enhanser

This parameter enables you to add presence and spaciousness to the input sound by enhancing stereo effects.

Off: The enhancer will not be used.

Type1/2/3: The enhancing effect will become increasingly stronger from 1 to 2 to 3.

PluaInPower

Activating Plug-In-Power will supply power to the MIC IN jack. If this parameter is set to "On," be sure to connect a condenser-type microphone that supports Plug-In-Power. If you connect another type of microphone (such as a dynamic microphone or a microphone with a built-in battery), the microphone may be damaged.

Monitor

Set this parameter to "Off" to avoid feedback or save the battery power. This parameter setting is invalid during playback.

Input Level

Indicates the current input level. Use the INPUT LEVEL button on the side panel of the recorder to adjust the input level.

Manual (Manual Gain Control mode)

If you are able to predict the audio level of the source you are recording, check this box, then use

the INPUT LEVEL button to manually adjust the input level.



Auto (Auto Gain Control mode)

If the audio level will be changing significantly, or if you intentionally want to limit the dynamic range, check this box, then set the following three "Auto Level" parameters.



The "Auto" setting will automatically adjust the recording level in response to the input levels.

Target

The MR-2 will automatically adjust the recording level so that the peak level will not exceed the value specified here.

0 – -24dB, 1dB steps: default setting is -12 dB/s

Inc. (Gain increment)

The gain will be boosted closer to the "Target" value by the increment specified here.

Off, +1 – +24 dB/s, 1dB steps: default setting is +1 dB/s

Dec. (Gain decrease)

The gain will be cut by the amount specified here if it exceeds the "Target" value.

Off, -1 - -24 dB/s, 1dB steps: default setting is -1 dB/s

= BEC SETTING -=

Rec Start Mode: ▶☑Normal SIII

□Pre(SIJI)/1S

□Post(SIJI)/0.5S

Divide@Mark: On

□Pre(Trig)/18 TriaThresh: -24dB

This parameter enables you to set the recording start timing.

Normal SW:

Recording starts immediately when you press the REC button.

Pre(SW)/1S:

Recording starts immediately when you press

the REC button. Input audio of one second in duration prior to the recording start point will also be recorded.

Post(SW)/0.5S:

Recording starts in 0.5 seconds after you press the REC button. Select this option if you want to prevent the noise generated by pressing the REC button (if any) from being recorded.

Pre(Trig)/1S:

Recording starts if the input level exceeds the threshold set by the "Trig Thresh" parameter. Input audio of one second in duration prior to the recording start point will also be recorded.

TrigThresh:

This parameter enables you to specify the input level at which recording is triggered.

Divide@Mark

If this parameter is set to "On," the file will be divided at a point marked during recording (see page 25). This setting is valid only during recording.

Save Setting

You can save up to 10 sets of recording parameters (displayed on the REC SETTING screen) as user presets. These parameter presets, as well as 40 factory presets, can be easily recalled in the PRESET SETTING screen, enabling you to change the recorder settings quickly.

 Edit the recording parameter settings in the REC SETTING screen, as necessary.



Use the controller buttons to select "Save Setting: User," then select and confirm the preset number as the save destination.

- If you want to change the preset name, select and confirm "No Name" (default). The recorder will display the rename screen. Please, refer to "Editing the project/file name" on page 29 for more information on changing the name.
- After you change the name using the controller buttons, select and confirm "OK."
 - The recorder returns to the REC SETTING screen.
- 5. Select and confirm "Save Setting: Save."
- 6. The recorder will display the Save Setting screen. Review the destination preset number and name, then select and confirm "Yes."
 If you do not want to save the settings, select "No." The recorder will return to the REC SETTING screen.

Using the recording preset settings

The MR-2 features 40 factory presets of the recording parameter settings. The recorder can also store 10 additional user presets of the recording parameter settings (refer to "Save Setting" on page 23).

- Press the MENU button to display the menu list, then use the controller buttons to select and confirm "PRESET SETTING."
 The recorder will display the recording preset (PRESET SETTING) screen.
- 2. Use the controller buttons to select and confirm the desired item.



To review the preset details, select the desired preset item, then press the (\blacktriangleright) button to display the detailed information. After reviewing the information, press the (\blacktriangleright) button to return to the previous screen.



Press the MENU button to return to the menu list.

You can edit the loaded preset settings in the REC SETTING screen. However, when you turn off the power to the recorder, the edits will be lost. If you want to save the edits to the preset recording settings, save the preset as a user preset by changing the preset name.

Using marks within a project

If you've made an extended recording, such as of a live performance or a practice session, you can move between songs or to a desired location by moving while you listen to the sound or by fast-forwarding or rewinding according to the counter time.

However, the MR-2 also lets you add marks to a project during recording or playback, and use the back and forward buttons to rapidly move between these marks during playback.



If a project is in WAV, DSDIFF, or WSD format, you can add or move a mark to any position. However, you will only be able to add or move a mark in a minimum of 11.6ms steps in a project in DSF format; and in a minimum of 26.1ms steps in a project in MP2 or MP3 format. If you move a mark to an odd time position, it will automatically move to the closest position according to the corresponding requirements.

Adding a mark

To add a mark, simply press the record button during recording or playback. You can add up to 100 marks, and edit them later.



note Markers are automatically added at the beginning of the project, and at locations at which you resume recording after you pause recording. If a divided file was created when the data size exceeded 1 GB during recording (see page 49), a mark will also be added automatically at the beginning of the divided location.



You can only add marks to a project that was recorded on the MR-2.

Viewing the mark list

Here's how to view a list showing the marks in a project in the order of their time location.

- 1. Press the MENU button to display the menu list, then use the controller buttons to select and confirm "LIBRARY." The library select (LIBRARY) screen will appear.
- 2. Use the controller buttons to select and confirm the project whose mark list you want to see (refer to "Selecting a project/file to play back" on page 19).

The project/file edit screen will appear.

3. On the project/file edit screen, use the controller buttons to select and confirm "Mark List."

The mark list (Mark List) screen will appear.



Locating marked points

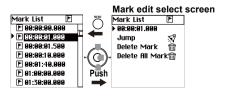
While the recorder displays the meter/counter screen during playback. press the rewind (◄) or fast-forward (▶) button to jump to the previous or next marked time location



Editing marks

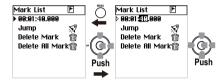
You can edit the time locations of the marks shown in the mark list (Mark List) screen, or delete unwanted marks.

- You can edit the marks even of a project whose Protect setting is on, but they will revert to their unedited state when you select a different project or turn off the power.
- 1. In the mark list (Mark List) screen, use the controller buttons to select and confirm the mark that you want to edit. The mark edit select (Mark Edit) screen will appear. To return to the mark list (Mark List) screen, press the MENU button.
- 2. Use the controller buttons to select and confirm the edit.



- 1. Use the controller buttons to select the time indication in the top line.
- Press the Confirmation button (or press the right (►)) controller button). The selection icon will change from ► to ▷, and the first digit will be highlighted.
- Use the left/right controller buttons (◄ , ►)) to move to the digit that you want to edit, and use the up/down controller buttons (► | ,) to change the value.

Pressing the Confirmation button will also move the edited digit toward the right.



 When you've finished making changes, press the MENU button or use the controller left/right buttons ((◄ , ►)) to move to the selection icon at the left edge.

The selection icon will change from ▷ to ▶.

Moving to the marked time locations (Jump)

When you select and confirm "Jump", the screen moves to the time location of the mark and then automatically returns to the meter/counter screen.



You can select and confirm "Jump" after changing the time location of the mark described in the previous section, and then move to the changed time location of the mark.

Deleting a mark (Delete Mark)

 When you select and confirm "Delete Mark" using the controller buttons, a dialog will prompt you to confirm the deletion.

2. Use the controller buttons to select and confirm "Yes." The recorder will indicate "Working..." on the screen and start deleting the mark, then indicate "Completed." when the deletion is complete. If you decide not to delete the mark, use the controller buttons to select and confirm "No" (or press the MENU button). The recorder will display the mark edit select (Mark Edit) screen.

3. Press the Confirmation button (the center controller button), or press the MENU button to return to the mark list (Mark List) screen.



Deleting all marks (Delete All Mark)

- When you use the controller buttons to select and confirm "Delete All Mark," a dialog screen will ask you to confirm the deletion.
- 2. Use the controller buttons to select and confirm "Yes." The screen will indicate "Working..." and the marks will be deleted. When deletion is finished, the display will indicate "Completed." If you decide not to delete the marks, use the controller buttons to select and confirm "No" (or press the MENU button), and you'll return to the mark edit select (Mark Edit) screen.
- Press the Confirmation button (or press the menu button) to return to the mark list (Mark List) screen.

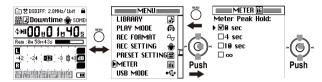


Verify that all marks have been deleted, and press the menu button to return to the project/file edit screen.

8. Other general operations

Changing the meter peak hold

 Press the MENU button to display the menu list, then use the controller buttons to select and confirm "METER."
 The Meter screen will appear.



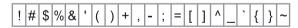
Use the controller buttons to select and confirm "Meter Peak Hold" (peak indicator hold time).

A check mark will appear in the hold time check box you selected (0 second, 4 seconds, 10 seconds, ∞ (always)).

To reset the peak hold time from ∞ (always) to default, press and hold down the MENU button while the meter/counter screen is displayed.

Editing the project/file name

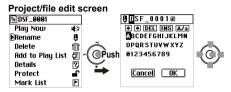
You can specify a name of up to sixteen characters, using uppercase alphabetical characters A–Z, lowercase alphabetical characters a–z, numerals 0–9, and the flowing symbols.



- You can't edit the name of a project that's protected.
- Press the MENU button to display the menu list, then use the controller buttons to select and confirm "LIBRARY."
 The library select (LIBRARY) screen will appear.
- Use the controller buttons to select and confirm the project/file whose name you want to edit (refer to "Selecting a project/file to play back" on page 19).
- The project/file edit screen will appear, with the name of the currentlyselected and confirmed project/file name shown at the top.

Use the controller buttons to select and confirm "Rename." The name editing screen will appear.

 Use (♠) and (♠) to select (highlight) the character you want to edit, then press the Confirmation button.



- The character will be selected and highlighted. Use the controller buttons to select and confirm the desired character.
 - **DEL**—Deletes the currently highlighted character and moves the subsequent characters toward the left.
 - **INS** Inserts a space at the highlighted location.
 - A/a Switches between uppercase and lowercase characters, and symbols.

Repeat these steps to edit the name.

When you finish editing the name, use the controller buttons to select and confirm "OK." The recorder will display the file edit select screen.

If you select (highlight) and confirm "Cancel" using the controller buttons, the changes you made will be discarded when the recorder returns to the project/file edit select screen.

Conserving battery power

If you're using with the MR-2 operating on battery power, you can reduce power consumption by turning off unneeded circuitry.

 Press the MENU button to display the menu list, then use the controller buttons to select and confirm "SYSTEM."

The system setting (SYSTEM) screen will appear.

2. Use the controller buttons to select and confirm the desired item.



You can turn the backlight off if you're using the MR-2 in a brightly lit location, or make it automatically turn off a set period of time after the most recent operation. If this parameter is set to "Off," the backlight will not turn on. If this parameter is set to "On," the backlight will always remain on.

Auto shutdown setting

If no operations have been performed for the length of time you specify here, the shutdown screen will appear automatically, and the power will turn off several seconds after that. This will prevent the battery from running down in the event you forget to turn off the power.

If this is set "Off" the power will stay on; Auto shutdown will not occur.

LED setting

Normally, the recording LED will light while recording, but you can reduce the power consumption even further by turning this LED function off.

Setting the date and time

If you set the MR-2's date and time, the recorded files will have the correct date and time stamp. Here's how to set the internal clock.

- Press the MENU button to display the menu list, then use the controller buttons to select and confirm "SYSTEM."
 The system setting (SYSTEM) screen will appear.
- Use the controller buttons to select the date and time indication in the top line.
- Press the Confirmation button (or press the right (►)) controller button).
 The selection icon will change from ► to ▷, and the year indication will be highlighted.



 Use the left/right controller buttons ((→)) to move to the item that you want to edit, and use the up/down controller buttons (→) to change the value.

Pressing the Confirmation button will also move the edited item toward the right.

 When you've finished making settings, press the MENU button or use the controller left/right buttons ()) to move to the selection icon at the left edge.

The selection icon will change from ▷ to ▶.

▲ If you leave the MR-2 for two or three days without batteries or with no battery power, the date and time setting will be reset to the default. In this event, after replacing the batteries, set the date and time again.

The time will continue to stay while you're setting it.

Protecting a project

Here's how to protect a project. If you edit the mark settings of a project that is protected, these settings will revert to their original state when you select another project or turn off the power. A protected project is indicated by a lock icon displayed in the project/file information field (the top line) of the meter/counter screen (see page 11).

- **Note** You can't protect an audio file that was recorded by a device other than the MR-2 (such files will be located in the Playback folder).
- Press the menu button, and in the menu list (MENU) screen, use the controller buttons to select and confirm "LIBRARY." The library select (LIBRARY) screen will appear.
- Use the controller buttons to select and confirm the project whose Protect setting you want to change (refer to "Selecting a project/file to play back" on page 19).

The project/file edit screen will appear, with the name of the project you just selected shown at the top.

- Use the controller buttons to move the selection icon to "Protect."
- Pressing the Confirmation button repeatedly will alternate between pro-



When you've finished making the setting, press the menu button to return to the library select (LIBRARY) screen.



Deleting a project/file

Here's how to delete a file. Once you've deleted a file, it cannot be recovered, so use this operation with care.

You can't delete a project that's protected.

- Press the menu button, and in the menu list (MENU) screen, use the controller buttons to select and confirm "LIBRARY." The library select (LIBRARY) screen will appear.
- 2. Use the controller buttons to select and confirm the project/file that you want to delete (refer to "Selecting a project/file to play back" on page 19). The project/file edit screen will appear, with the name of the currently selected and confirmed project/file shown at the time.
- Use the controller buttons to select and confirm "Delete."A dialog screen will ask you to confirm the Delete operation.



- 4. Use the controller buttons to select and confirm "Yes." The recorder will indicate "Working..." on the screen and start deleting the mark, then indicate "Completed." when the deletion is complete. If you decide not to delete the project/file, use the controller buttons to select and confirm "No" (or press the MENU button). The recorder will return to the file edit screen.
- Press the Confirmation button (the center controller button), or press the MENU button to return to the LIBRARY screen.

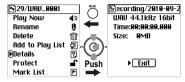
Viewing details about the project/file

Here's how to view detailed information about the project/file, such as the audio format, song time, and file size.

- Press the menu button, and in the menu list (MENU) screen, use the controller buttons to select and confirm "LIBRARY." The library select (LIBRARY) screen will appear.
- Use the controller buttons to select and confirm the project/file whose detailed information you want to view (refer to "Selecting a project/file to play back" on page 19).

The file edit screen will appear, with the name of the currently selected file in the top line.

Use the controller buttons to select and confirm "Details." Details about the project/file will be displayed.



4. When you've finished viewing the details, press the menu button to return to the project/file edit screen.

Using the tuner

The MR-2 features a built-in tuner.

⚠ The tuner function is disabled during recording or playback.

- 1. Press the MENU button to display the menu list, then use the controller buttons to select and confirm "TUNER."

 The TUNER screen will appear.
- To change the calibration (standard pitch), use the Play (►I) button and Stop (■) button. You can set the standard pitch in the range of 435Hz to 445Hz in 1Hz steps.



- 3. Play a single note on your musical instrument.
- 4. Tune the musical instrument so that the tuner hand will point to the center of the meter.
- After you finish tuning, press the MENU button to return to the menu list screen.

Play mode

The MR-2 provides two play modes, as well as shuffle and repeat play settings. To select these mode, use "PLAY MODE" in the menu list (MENU) screen.

Single (play only one project/file)

In this mode, only the single project/file you select will play (refer to "Selecting a project/file to play back" on page 19).

When the selected file has finished playing, playback will stop automatically.

This is the only mode in which you can use marks to move within the song during playback (see page 25).

All (play the contents of a folder or play list)

In this mode, each project/file in the folder or play list that contains the current project/file will be played in the order it appears in the library select screen list.

When each project/file in the folder or play list has finished playing, playback will stop automatically.

Repeat (repeat playback)

If you select this option, playback will be repeated. This setting is valid for all play modes. Playback according to the selected mode will continue until you press the stop button.

Shuffle (shuffle playback)

If you select this option, the project/file playback order will be shuffled (randomized).

When playback ends, the order will automatically be shuffled, and then playback will continue. If you press the stop button and then press the play button, playback will continue from the beginning of the same project/file. This setting is valid for the "All" play mode.

- Press the menu button, and in the menu list (MENU) screen, use the controller buttons to select and confirm "PLAY MODE."
 - The play mode select (PLAY MODE) screen will appear.
 - **rote** Alternatively, in the meter/counter screen, press the Confirmation button (the center controller button) to display this screen.

Use the controller buttons to select and confirm the desired play mode. A check will appear in the check box of the play mode you selected and confirmed.



- 3. If you want playback to repeat, set "Repeat" to "On."
- 4. If you want to use shuffle play, set "Shuffle" to "On."

 If the play mode is "Single," this setting will be invalid.
- 5. Press the MENU button to return to the menu list.
- When you press the Play button in the meter/counter screen, playback will begin using the mode you selected.

Play list (PLAYLIST)

Creating a play list

After creating a play list, you can select "PLAYLIST" as the play mode, and the projects/files will be played in the order specified by the list. The repeat and shuffle settings of the Play Mode can affect the playback of the Play List.

You can store up to one hundred play lists. Here's how to create a play list.

- Press the menu button, and in the menu list (MENU) screen, use the controller buttons to select and confirm "LIBRARY." The library select (LIBRARY) screen will appear.
 - Alternatively, in the meter/counter screen press the Confirmation button (the center controller button) to display the library select (LIBRARY) screen.
- Use the controller buttons to select and confirm the project/file you want to add to the play list.

The name of the project/file you selected and confirmed will appear in the project/file edit screen displayed above.

3. Use the controller buttons to select icon to "Add to Play List."

project/file edit screen



- Press the Confirmation button (the center controller button); a message will ask "Add to Play List. Are you sure?"
- 5. Use the controller buttons to select and confirm "Yes." The screen will indicate "Working...", and when processing is finished will indicate "Completed."

If you decide not to add the project/file, use the controller buttons to select and confirm "No" (or press the menu button); you will return to the file edit screen.

The added project/file will be added to the end of the play list. If you want to change the order, refer to "Editing a play list" on page 38.

6. Press the Confirmation button (or press the menu button) to return to the library select (LIBRARY) screen.

7. If you want to add another project/file, press the menu button and repeat steps 2–6.

You can also use this procedure to add a project/file to a play list you created earlier

Viewing a play list

Here's how to view the contents of a play list.

- Press the menu button, and in the menu list (MENU) screen, use the controller buttons to select and confirm "LIBRARY." The library select (LIBRARY) screen will appear.
- Use the controller buttons to select and confirm "PLAYLIST." The play list (PLAYLIST) screen will appear.



Editing a play list

In the play list (PLAYLIST) screen (see above), select the file you want to edit and then select the item you want to edit.

Play Now

Here's how to select a project/file from the list, and start playback.

- In the PLAYLIST screen, use the controller buttons to select and confirm the project/file whose order you want to change.
 The play list edit screen will appear, with the name of the project/file you selected and confirmed shown at the top.
- Use the controller buttons to select and confirm "PlayNow"; the project/file shown at the top will begin playing.

Change Order

Here's how to change the order of a project/file in the list.

 From the play list (PLAYLIST) screen, use the controller buttons to select and confirm the project/file whose order you want to change. The play list edit screen will appear, with the name of the selected and confirmed project/file shown at the top. 2. Use the controller buttons to select and confirm "ChangeOrder".



- 3. The Move icon will appear in the play list (PLAYLIST) screen.
- 4. Use the controller buttons to move the project/file to the desired position, to confirm.

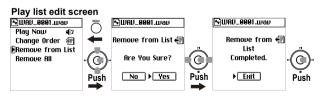
The play list (PLAYLIST) screen will show the new order.

If you press the menu button before you confirm, you will return to the play list edit screen.

Remove from List

Here's how to remove the selected project/file from the play list.

- note This will not delete the project/file itself. If you later decide to add the project/file to the play list, you can use the Add to Play List operation to do so.
- In the play list (PLAYLIST) screen, use the controller buttons to select and confirm the project/file that you want to remove from the list. The play list edit screen will appear, with the name of the selected and confirmed project/file shown at the top.
- Use the controller buttons to select and confirm "Remove from List." A dialog message of "Remove from List. Are you sure?" will appear in the screen.



Use the controller buttons to select and confirm "Yes." The screen will indicate "Working...", and will then indicate "Completed." when the project/file has been removed.

If you decide not to remove the project/file, use the controller buttons to select and confirm "No" (or press the menu button), and you will return to the play list edit screen.

- Press the Confirmation button (or press the menu button) to return to the play list (PLAYLIST) screen.
- 5. If you want to remove another project/file, press the menu button and repeat steps 1–4.

Remove All

Here's how to remove all projects/files from the lay list.

note This will not delete the projects/files themselves.

- In the play list (PLAYLIST) screen, use the controller buttons to select and confirm any project/file.
 The play list edit screen will appear.
- Use the controller buttons to select and confirm "Remove All." The screen dialog will ask "Remove All. Are you sure?"

Play list edit screen



- 3. Use the controller buttons to select and confirm "Yes." The screen will indicate "Working...", and will then indicate "Completed." when the project/file has been removed. If you decide not to execute this operation, use the controller buttons to select and confirm "No" (or press the menu button), and you will return to the play list edit screen.
- Press the Confirmation button (or press the menu button) to return to the play list (PLAYLIST) screen.
- Verify that the entire list has been deleted, and press the menu button to return to the menu list screen.

System settings (SYSTEM)

Here you can make various system settings for the MR-2 itself.

Press the menu button to access the menu list (MENU) screen. Then use the controller buttons to select and confirm "SYSTEM" and make the desired settings. The "Back Light," "AutoShutDown," and "LED" settings are explained in "Conserving battery power" (see page 30), and the "Clock" setting is explained in "Setting the date and time" (see page 31).



LCD Contrast

Here you can set the LCD contrast. Higher settings will make the black portions of the display darker. Adjust the value for best visibility.

Battery Type

Specify the type of battery being used on the recorder so that the recorder will display remaining battery power accurately. Select the "NiH" option when you are using nickel-metal hydride batteries. Select the "Alk" option when you are using alkaline batteries.

Safe Mode

You can lock (disable) all functions other than turning the power on/off, recording, playing back, stopping, and adding marks. Set this parameter to "On" to avoid accidental operations or changes to settings.

Device information (Device Info)

Here you can view the version of the MR-2's system software, the total capacity of the memory card, the free capacity, and the number of recorded projects/files. When you've finished viewing the information, press the Confirmation button (or the menu button) to return to the system setting (SYSTEM) screen.

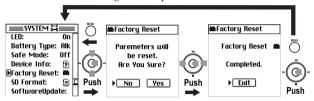


Factory Reset

This function initializes the recorder to factory default settings.

- Press the menu button, and in the menu list (MENU) screen, use the controller buttons to select and confirm "SYSTEM."

 The greatern cetting (SYSTEM) except will appear.
 - The system setting (SYSTEM) screen will appear.
- Use the controller buttons to select and confirm "Factory Reset." A dialog message of "Parameters will be reset. Are you sure?" will appear in the screen.
- Use the controller buttons to select and confirm "Yes."The screen will indicate "Working...", and when resetting is finished the indication will change to "Completed."



If you decide not to factory reset, use the controller buttons to select and confirm "No" (or press the menu button); you will return to the system setting (SYSTEM) screen.

4. Press the Confirmation button (or press the menu button) to return to the system setting (SYSTEM) screen.

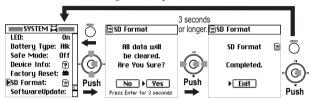
SD Format (Formatting a memory card)

Here is how to format a memory card inserted in the recorder's card slot. You should perform this operation only if you want to erase all of the data saved on the memory card, or if the message "CardError." appears frequently.

All projects/files inside the Recording and Playback folders and play list file inside the Playlist folder on the memory card will be erased when you execute this operation (refer to "Memory card structure and files" on page 47). Before executing this operation, you should make a backup of any data you want to keep (refer to "Using the MR-2 with your computer" on page 45).

 Press the menu button, and in the menu list (MENU) screen, use the controller buttons to select and confirm "SYSTEM." The system setting (SYSTEM) screen will appear. 3. Use the controller buttons to select "Yes", and continue holding it for three seconds or longer.

The screen will indicate "Working...", and when formatting is finished the indication will change to "Completed."



If you decide not to format the memory card, use the controller buttons to select and confirm "No" (or press the menu button); you will return to the system setting (SYSTEM) screen.

4. Press the Confirmation button (or press the menu button) to return to the system setting (SYSTEM) screen.

Updating the software (SoftwareUpdate)

You can download the latest version of the MR-2 operating system file from the Korg website (www.korg.com). For details on the procedure, refer to the Korg website.

Preparing for software update

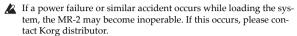
Use a USB cable to connect the MR-2 to your computer (refer to "Using the MR-2 with your computer" on page 45), and copy the downloaded system file to the root folder of the memory card.

Alternatively, you can connect a memory card (that you plan to use on the MR-2) to your computer directly and copy the system file to the root folder of the card.

IP2 MP3 WAV DFF DSF WSDI

Update procedure

You must use the USB bus to power the recorder during this update procedure. Otherwise, an error message will be displayed and you will be unable to update software.



- Press the menu button, and in the menu list (MENU) screen, use the controller buttons to select and confirm "SYSTEM." The system setting (SYSTEM) screen will appear.
- Use the controller buttons to select and confirm "SoftwareUpdate." A dialog message of "Upgrading the system. Are you sure?" will appear in the screen.



- Use the controller buttons to select and confirm "Yes."
 The screen will indicate "SoftwareUpdate: Working..." and the system will be loaded.
 - When the system has finished loading, the display will indicate "Software Update. Completed."
- Press the Confirmation button (the center controller button); the MR-2 will shut down and the power will turn off.
- 5. Slide the power button to turn on the power; the MR-2 will start up with the newly loaded system.
- If the update fails, a message will appear. Make a note of the contents, and take the appropriate action (refer to "Various messages" on page 53).

Using the MR-2 with your computer

You can use the MR-2 as a USB 2.0 mass storage class device. This lets you copy files from the MR-2 to your computer, or copy files (MP2, MP3, WAV, DSDIFF, etc.) from your computer into the MR-2.

⚠ There are limitations on the audio files that the MR-2 can recognize (see page 47).

USB mode

In this mode, the MR-2 will be detected by your computer as an external disk. The MR-2 won't operate as a recorder while it is in USB mode.

Entering USB mode

Connect the MR-2 to your computer.

Windows users (Windows 2000 or later)

Use a USB cable to connect the MR-2's USB connector to your computer's USB connector. Make sure that the connector is oriented correctly, and insert it all the way.

Press the menu button, and from the menu list (MENU) screen, use the controller buttons to select and confirm "USB MODE."

note The MR-2 will start up in USB mode if the USB cable is connected when you turn on the power.

Macintosh users (Mac OS X 10.4 or later)

With the MR-2 powered-off, connect the USB cable to the Macintosh. Make sure that the connector is oriented correctly, and insert it all the way.

When you power-on the MR-2, it will automatically enter USB mode.

The USB mode (USB MODE) screen will appear.



While this screen is displayed, you must not disconnect the USB cable or turn the power of your computer on or off.

2. A drive named "Local disk (*:)" (or "Unspecified name") will be added to your computer.

When you connect the MR-2 to your computer for the first time, the device driver will be installed automatically.

3. Save data on your computer.

When you open the "Local disk (*:)" (or "Unspecified name") that appeared on your computer in step 2, the contents of the MR-2's memory card will be displayed.

Copy the desired data onto your computer. You can also copy data from your computer into the MR-2's memory card.

✗ Don't disconnect the USB cable while a file is being transferred.

Exiting USB mode

1. Disconnect the MR-2 from your computer.

Windows users (Windows 2000 or later)

Left-click the icon shown in the right side of your computer's taskbar. In the menu that appears, left-click "Safely remove USB mass storage device (drive name)."

Verify that a message indicating "You may safely remove the USB mass storage device" is displayed.

Macintosh users (Mac OS X 10.4 or later)

Drag the drive from the desktop into the "Trash," or choose "Trash" from the "File" menu.

press the Confirmation button (or the menu button) to return to the menu list (MENU) screen.

After returning to the menu list (MENU) screen, disconnect the USB cable.

Transferring files

The files you record on the MR-2 are saved in automatically-created date folders for each recording format (MP2, MP3, WAV, DFF, DSF, WSD) within the Recording folder. You can back-up your files by copying these folders to your computer.

These folders contain the following two files.

- Audio data files (.mp2/.mp3/.wav/.dff/.dsf/.wsd): These files contain the recorded audio.
- Project data files (.prj): These files contain information such as project settings and marks.
- **L** Do not change the names of these two files. Doing so may make them unplayable on the MR-2.

If you want to transfer audio data (.mp2/.mp3/.wav/.dff/.dsf/.wsd) created on your computer or other devices to the recorder, copy it into the Playback folder.

Memory card structure and files

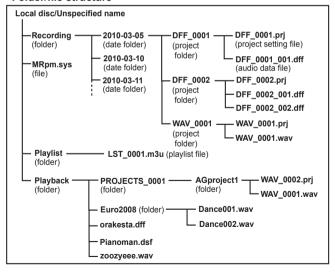
Supported audio files

Stereo files are used for all recording formats that can be selected on the MR-2 (see page 17)

Supported folders and file names

FAT32 file system format. Long file names are supported, double-byte characters (e.g., Japanese) are not supported.

Folder/file structure



Recording folder

When you use the MR-2 for recording, a dated folder will be created inside this folder, and a project folder will be created inside the dated folder.

- ▲ Up to 400 project files can be recognized within a folder. If there are more than 400 project folders, they can be recognized by connecting a computer in USB mode.
- Late The maximum number of project folders that can be created will be limited by the space remaining on the memory card.
- ▲ Do not use your computer to delete or rename the folders. Otherwise, the MR-2 will no longer recognize the files you created.

Date folders (year_month-date: e.g., 2010-03-05, etc.)

Project folders can be created here, organized by date.

Project foldes(DFF_0001, WAV_0001, etc)

A project folder is created for each project recorded on the MR-2. It contains audio data files and a project settings file that manages the audio data files.

The numerical portion of the folder name will be incremented, starting with 0001. The first three alphabetical characters will depend on the recording format.

Operations on the MR-2 apply to the project recorded in this project folder. Renaming the project will rename the project folder, and the name of the project setting file within the folder will also e renamed automatically.

DFF_00	<u>01</u>
Format	Recording number
identification	A number from 0001
symbol	to 9999 is assigned
MP2, MP3	automatically and
WAV, DFF	sequentially to
DSF, WSD	recordings for each
	format independently

If you rename a project folder from your computer, you do not need to change the name of the project setting file (***.prj) inside that folder to match the new name.



Do not use your computer to rename the audio data files inside this folder. Otherwise, the MR-2 will no longer recognize the files.

DFF_0001.prj (project settings file)

This is a file specific to the MR-2, containing information (protect setting, mark data, etc.) for each recorded project. Only one file with this extension (.prj) can exist in each project folder.

DFF 0001 001.dff (audio data file: dff)

These are stereo audio data files. The extension (.dff) will depend on the recording format. When the file is recorded, the file name and the extension will be as follows.

DFF_0001 Project name	_0 <u>01</u> .dff	Recording format
(This will not	The file is divided (into a maximum of ninety nine files), with this area being	extension MP2mp2
be updated even if you	"1" if the file size is 1 GB or less,	MP3mp3
rename.)	and "1", "2" etc. if the size is greater than 1 GB. Even if the file size is less	WAV, BWF)wav
	than 1 GB. Even if the file size is less than 1 GB, the file will be divided if	DSDIFFdff DSFdsf
	you pause during recording.	WSDwsd

MRpm.svs

This file contains settings used by the system. There must be one and only one such file. Do not move or delete it.



Never delete or rename this file.

LST 0001.m3u

This file contains a play list.



Playback folder

This folder is used to hold audio data that was created on your computer or another device. You cannot edit these files on the MR-2, but you can add them to a play list and play them. You can create up to four levels within a folder, but the MR-2 is able to recognize only up to a total of four hundred folders and files within this folder.

Using the AudioGate software

The audio files of a project recorded on the MR-2 can be copied to your computer. Then you can use the "AudioGate" audio format conversion application on the included CD to convert the audio file format; as well as edit, divide, or join audio files.

For details, install the software from the included CD and refer to the AudioGate operating manual (PDF).

Installing AudioGate

Contents of the Install CD

The included Install CD contains the following items.

- "AudioGate" format conversion application
- AudioGate operating manual (PDF)
- · Software license agreement (PDF)
- · Demo song

Please read before use

- · All copyrights to this software are the property of Korg Inc..
- A license agreement for the software of this product is included separately. You must read this software license agreement before you install the software. Your installation of this software will be taken to indicate your acceptance of this agreement.

Operating requirements

Windows

Supported operating systems

Microsoft Windows XP Home Edition/Professional Edition Service Pack 3 or later, Microsoft Windows Vista Service Pack 2 or later, Microsoft Windows 7

Supported computers

CPU: Intel Pentium III /1 GHz or better

RAM: 256MB or higher (512MB or higher recommended)

A USB 2.0 port that meets the operating requirements of Microsoft Windows.

A writable CD/DVD drive is required in order to create audio CDs or DSD discs.

Mac OS X

Supported operating systems

Mac OS X 10.4 or later

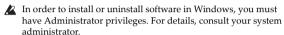
Supported computers

CPU: Apple G4/800 MHz or better, Intel Mac is supported RAM: 256MB or higher (512MB or higher recommended)

A USB port that meets the operating requirements of Mac OS X

A USB port that meets the operating requirements of Mac US A A writable CD/DVD drive is required in order to create audio CDs or DSD discs.

Windows users



Insert the included Install CD into the CD-ROM drive of your computer.

Normally, the "AudioGate Application Installer" will start up automatically.

If your computer is set so that the installer will not start up automatically, double-click "KorgSetup.exe" in the Install CD.

- 2. Follow the on-screen instructions to proceed with the installation.
- 3. When you've finished installing AudioGate, exit the installer.

Mac OS X users

- Insert the included Install CD into the CD-ROM drive of your computer.
- 2. In the Install CD, double-click the AudioGate installer (.pkg) to start up the installer.
- 3. Follow the on-screen instructions to proceed with the installation.
- 4. When you've finished installing AudioGate, exit the installer.

Appendix

Troubleshooting

The power does not turn on

- · The batteries may be exhausted.
- · Make sure that the USB bus power is connected correctly.

Nothing appears in the display

· Is the contrast adjusted correctly? (see page 41)

Display is dark

• Is the backlight set to "Off"? (see page 31)

The LEDs do not turn on

• The "LED" setting may be set to "Off." (see page 31)

No sound

- Is the MR-2 and the connected equipment powered-on? (see page 9)
- Are the amp or headphone connections incorrect?
- The "Monitor" setting in the REC SETTING screen setting may be set to "Off." (see page 22)

Can't hear the playback

• Is the volume set to "0"?

Can't hear the audio input

- · Are the recording settings correct?
- · Is the recording level raised?
- Make sure that audio is being input.
 In the meter/counter screen, verify that the level meters are moving.

Can't record

- · Is the recording level too low?
- · Is there sufficient memory card space remaining?
- → Set the counter display ("Counter Mode") to "Free" and check the remaining time available for recording, (see page 41)

Nothing happens when you press a button

• The HOLD switch may be engaged.

USB

Your computer does not detect the MR-2

- Is the USB cable connected correctly? (see page 45)
 - → Re-connect the cable..

Can't release the MR-2 from your computer

The procedure will depend on the operating system of your computer. (see page 45)

When you connect the MR-2, you are asked to install software or a device driver

 Does the MR-2 support the version of the operating system your computer is running?(see page 45)

Various messages

The message dialog box will disappear when you press the Confirmation button (the center controller button).

Execution messages

Completed.

The operation has been successfully completed.

Working...

 The operation is being carried out. Please wait until this message disappears.

Error messages

Can't Delete. SDCARD Protected.

 The project/file could not be deleted. Please disable the memory card's protect setting.

Can't Execute.

· This operation cannot be performed at this time.

Can't execute Update System. Use USB bus power,

- The USB bus power is not connected. Software update cannot be executed.
 - → Connect the USB bus power, then try again to update the system software.

Can't Record. SDCARD Protected

 Recording could not be performed. Please disable the memory card's protect setting. MP2 MP3 WAV DFF DSF WSDI

Card Error.

- · An error occurred during access to the memory card.
 - → Use USB mode to connect the MR-2 to your computer and execute the Check Drive command. If this error message is displayed again, format the memory card.

Card Full.

- · The memory card does not have sufficient free space.
 - → Delete unneeded projects/files.

Card too busy.

- Repeated actions of recording, writing, and deleting will gradually
 decrease the amount of contiguous free space on the memory card,
 causing files to be saved in a fragmented state during recording.
 This message will appear when access to the memory card has
 slowed down due to such problems.
 - → Back up your important files, format the memory card, and then restore your files back onto the card.

Check Sum Error.

- The system could not be loaded.
 - → Try the operation once again from the beginning. If this message appears again, please contact the Korg dealer.

Failed to write System File.

- The system file required for "SoftwareUpdate" does not exist, or the length of the file does not match.
 - ightarrow Check the system file and re-save it.
- · The system update has failed.
 - → It is possible that the MR-2 has malfunctioned. Please contact the Korg dealer.

Mark Full.

- You attempted to register more than 100 marks. No further marks can be registered.
 - → Delete unneeded marks before registering other marks.

Not supported file.

- This file format is not supported.
 - → Check the file formats that are supported.

Please enter name.

- There is no project name (the name consists only of spaces).
 - → Please enter a valid project name (one or more alphabetical character, numeral, or symbol).

Project Name Error. Delete illegal folder.

- · An identically named project/file already exists.
 - → Rename the project/file. Alternatively, use USB mode to delete the project/file and the directory of the same name.

Protected Project.

- The operation cannot be executed because the project is protected.
 - → Turn off the project protect setting.

SDCARD not exist.

· No memory card is inserted. Please insert a card.

Time Limit.

 The maximum continuous recording time is 6 hours. No further continuous recording is possible.

Confirmation messages

Info:

- This will appear if there is information to be conveyed to the user.
 - → Press the menu button or the Confirmation button (the center controller button) to continue operations.

Serious error messages

Fatal:

- This will appear if the MR-2 itself has a problem or malfunction.
 - → If this type of message appears, make a note of the text in "# # # # and contact the Korg dealer.

MP2 MP3 WAV DFF DSF WSDI

Specifications

Operating conditions: 0-+40 °C (no condensation)

Main sections

< Recorder section >

Number of tracks : 2 tracks

2 tracks simultaneous playback / 2 tracks simultaneous recording

Recording formats : Compressed audio format

MP2 format (extension .mp2) 48 kHz@128, 192, 256, 320 kbps MP3 format (extension .mp3) 44.1 kHz@128, 192, 256, 320 kbps

PCM audio format

WAV format (extension .wav), BWF compliant 44.1 kHz @ 16/24-bit, 48 kHz @ 16/24-bit 88.2 kHz @ 24-bit, 96 kHz @ 24-bit 176.4 kHz @ 24-bit, 192 kHz @ 24-bit 1-bit audio format 2.8 MHz @ 1-bit DSDIFF format (extension .dff).

DSF (extension .dsf), WSD (extension .wsd)

Recording : Maximum 6 hours @ 44.1 kHz/16-bit

(for 4 Gbyte memory card)

Maximum continuous recording 6 hours : Recognizes a maximum of 400 for each date

folder

Mark points : 100 points per project *No mark names

: Connect to computer via USB 2.0, usable as

FAT32 USB removable drive

Song editing : Rename, Delete, Protect

<Tuner>

Number of projects

USB functionality

Equal temperament, chromatic tuner

Range (sine wave): 27.50 Hz-1,318.5 Hz (A0 -E6)

Reference pitch: A = 435-445 Hz

<Card>

Supported cards : SD and SDHC cards with a capacity of

512MB-32GB

(SDHC card of class 4 or higher recommended)

< General >

Display : 128×128 pixel, LCD with backlight
Power supply : AA nickel-metal hydride battery x 2 or

"AA/LR6" alkaline battery x 2

USB bus power

Power consumption : 1.5 W

Dimensions : 60 x 133x 28 mm / 2.36 x 5.24 x 1.1" (W x D x H)

(including protrusions)

Weight : 135 g / 4.76 oz

(not including a memory card and batteries)

Main specifications

Frequency response : 20 Hz-20 kHz ±1.5 dB (MP2/MP3)

10 Hz–2 0kHz ±1.5 dB @Fs44.1 kHz/48 kHz 10 Hz–40 kHz ±1.5 dB

@Fs88.2 kHz/96 kHz/176.4 kHz/192 kHz

10 Hz-100 kHz (1bit)

S/N : 90 dB (typical) @IHF-A

THD+N : 0.018% (typical) 20 Hz–20 kHz
A/D conversion : 2.8224 MHz (1bit), 24 bit (PCM)
D/A conversion : 2.8224 MHz (1bit), 24 bit (PCM)

<Mic>

Connector : 3.5 mm stereo mini phone jack

(switchable to Plug-In-Power)

Input impedance : 10 kohms Nominal level : -39 dBV Maximum level : -27 dBV

<I INF IN>

Connector: : 3.5 mm stereo mini phone jack

Input impedance 75 kohms Nominal level: · -10 dBV Maximum level · +2 dBV

<Phone>

Connector: : 3.5 mm stereo mini phone jack : 20 mW+20 mW @16 ohms Maximum level

<USB>

Connector : Type mini-B

Format : USB 2.0 compliant, USB mass storage class

Supported operating systems:

Windows 2000, or later Mac OS X 10.4 or later

■Included items

Owner's manual (this document), SD card (sample), USB cable, Alkaline Batteries x2 (for checking recorder operation), Install CD ("AudioGate" audio file conversion application)

 Specifications and appearance are subject to change without notice for improvement.

About the batteries

- · Korg recommends nickel-metal hydride rechargeable batteries.
 - The MR-2 does not feature a recharging function.
- · If you are using alkaline batteries, use those designed for highcurrent devices.
 - Performance of alkaline batteries may vary depending on the manufacturer. To ensure stable operation, use batteries from reliable manufacturers

Recommended alkaline battery manufacturers:

DURACELL ULTRA

http://www.duracell.jp/products/ULTRA/

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