

EDIROL
by Roland



R-09

24 bit WAVE / MP3 RECORDER

Owner's Manual

Checking the package contents

The R-09 comes with the following items. After opening the package, please check all items. If any items are missing, please contact the retailer from whom this product was purchased.

* In the interest of product improvement, the appearance of this unit and/or the supplied accessories are subject to change without prior notice.

R-09



* Peel off the display protection sheet first.

AC adaptor

This AC adaptor is specifically designed for the R-09. Please use only the included AC adaptor.



* For use in your country, a different AC adaptor and plug may have been supplied.

USB cable (mini-B cable; 1 meter)

This cable connects the R-09 to the USB terminal on the PC.



SD Memory card

This memory card is needed to record or play back sound on the R-09.



Owner's manual

This document is the owner's manual. Please keep it on hand for easy reference.



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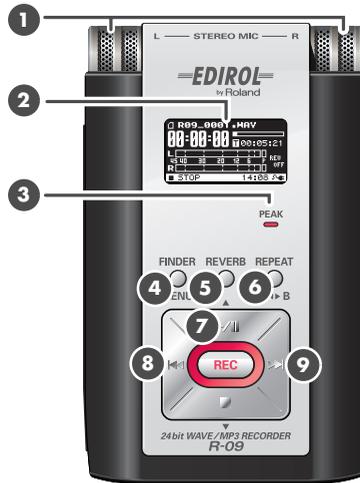
USING THE UNIT SAFELY 99

IMPORTANT NOTES 101

Before using this unit, carefully read the sections entitled: "USING THE UNIT SAFELY" (p. 99) and "IMPORTANT NOTES" (p. 101). These sections provide important information concerning the proper operation of the unit. Additionally, in order to feel assured that you have gained a good grasp of every feature provided by your new unit, This Owner's manual should be read in its entirety. The manual should be saved and kept on hand as a convenient reference.

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Names of things and what they do



1 Internal MIC

These stereo microphones are built into the R-09. →“Using the internal microphones” (p. 29)

2 Display

The display shows information about the R-09. →“Information shown in the display” (p. 12)

3 PEAK indicator

This indicator lights up when the input or output volume is too high. If the [PEAK Indicator] is lit while recording, the recording will be distorted. Decrease the volume with the [(-) Input Level Button]. →“Adjusting recording levels” (p. 37)

4 FINDER/MENU button

The FINDER/MENU button is used to change screens or to EXIT (cancel operations or return to previous screen). →“Basic operations” (p. 13)

Current Screen	Operation
<Main Screen> (p. 11)	Changes to <Finder Screen>
	Changes to <Menu Screen> when button is held down
<Finder Screen> (p. 11) <Menu Screen> (p. 11)	Cancels operation or returns to previous screen or <Main Screen>

5 REVERB button

The REVERB button turns the reverb feature on/off and changes the reverb type. →“Applying reverb effects during playback” (p. 54)

TERM REVERB

REVERB is an effect that can be used to, for example, make it seem as if the sound were being played in a large hall. Four types of reverb are available: hall1, hall2, room, or plate. →“Reverb type” (p. 54)

6 REPEAT button

The REPEAT button allows the region between two points (between A - B) to be played back repeatedly.

Assign marker A and marker B in the song, and the region between marker A and marker B will be repeated.

Pressing the button once assigns marker A. Pressing the button again assigns marker B.

→“Repeated playback of a selected section” (p. 46)

7 PLAY/PAUSE button (▶/||)

The PLAY/PAUSE button starts playback. It can also pause playback or recording.

It is also used to move the cursor up in the display or to change the value of a selected item.

→“Basic operations” (p. 13)

Current Screen	Status	Operation
<Main Screen>	Stopped	Plays back
	Playing	Pauses playback
	Recording standby (REC button blinking)	Starts recording
	Recording (REC button lights up)	Pauses recording
<Finder Screen> <Menu Screen>	—	Moves cursor up Changes the value

8 RWD button (◀◀)

The RWD button selects the beginning of the song or the previous song. If it is held down, the song rewinds while the button is pressed.

It can be used during playback or while stopped.

It is also used to move the cursor to the left in the display or to change the value of a selected item. →“Basic operations” (p. 13)

Current Screen	Current Status	Operation
<Main Screen>	During a song	Moves to beginning of song
	Beginning of a song	Moves to previous song
	During a song, at the beginning of a song, or while stopped	Rewinds while button is pressed
<Finder Screen> <Menu Screen>	—	Moves cursor to the left Changes the value

9 FWD button (▶▶)

The FWD button selects the next song. If it is held down, the song fast forwards while the button is pressed.

It can be used during playback or while stopped.

It also functions as the right arrow for the cursor (moves the cursor to the right) and changes the value of a selected item. →“Basic operations” (p. 13)

Current Screen	Current Status	Operation
<Main Screen>	During a song	Moves to next song
	Beginning of a song	Moves to next song
	During a song, at the beginning of a song, or while stopped	Fast forwards while button is pressed
<Finder Screen> <Menu Screen>	—	Moves cursor to the right Changes the value



10 STOP button (■)

The STOP button stops playback or recording.

It is also used to move the cursor down in the display or to change the value of a selected item. →“Basic operations” (p. 13)

Current Screen	Status	Operation
<Main Screen>	Playing	Stops playback
	Recording standby (REC button blinks)	Releases from recording-standby mode
	Recording (REC button lights up)	Stops recording
<Finder Screen> <Menu Screen>	—	Moves cursor down Changes the value

11 REC indicator

The REC indicator is lit red during recording.

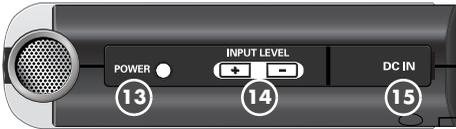
It blinks while in recording-standby mode (REC PAUSE).

12 REC button

The REC button is used to enter recording-standby mode or to start recording.

It is also used to enter selected items. →“Basic operations” (p. 13)

Current Screen	Status	Operation
<Main Screen>	Stopped	Puts into recording-standby mode
	Recording standby (REC button blinks)	Starts recording
<Finder Screen> <Menu Screen>	—	Enter



13 POWER switch

Holding down the POWER switch turns power on or off.

→“Turning power on/off” (p. 14)

NOTE

Never switch off the power during playback/recording, while connected to the PC via USB, or while “Now Processing!” appears in the display.

14 (+) and (-) INPUT LEVEL buttons

The INPUT LEVEL buttons adjust the level of the sound from the [Internal MIC 1], [MIC Input Jack 19], and [LINE IN Jack 20].

Pressing the (+) input level button increases the input sound level. Pressing the (-) input level button decreases the input sound level.

→“Adjusting recording levels” (p. 37)

15 AC ADAPTOR jack

This is the power jack.

Connect the included AC adaptor to this jack.

→“Using the AC adaptor” (p. 14)



16 HOLD switch

Set the HOLD switch to the ON position so only the following buttons can be used and to help prevent accidental operations.

Buttons remaining operable when the HOLD switch is set to ON:

- [AUTO GAIN CONTROL Switch 21]
- [EXTERNAL MICROPHONE TYPE Switch 22]
- [LOW CUT Switch 23]
- [MIC GAIN Switch 24]

17 (+) and (-) HEADPHONE VOLUME buttons

These buttons adjust the output sound level when headphones are connected to the [HEADPHONE jack 18].

MEMO

The volume cannot be adjusted for sound output via a digital cable connected to the [HEADPHONE jack 18] (digital output).

18 HEADPHONE jack (digital output connector)

This jack is used as both the HEADPHONE jack and the digital output connector.

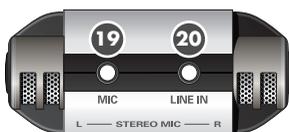
To listen with headphones, connect headphones. To have digital output, connect an optical digital cable (round mini-type).

→“Playing back” (p. 42)

TERM

Optical

Digital jack to connect optical cables.



19 MICROPHONE INPUT jack

The MIC input jack is used to connect an external microphone.

→“Using external microphones” (p. 33)

The volume can be adjusted using the [(+) and (-) INPUT LEVEL buttons 14].

MEMO

When connecting an external microphone, please choose the setting according to the microphone type.

Dynamic microphone	Use the <Menu Screen> to switch OFF power for a plug-in powered microphone (p. 82).
Battery-powered condenser microphone	
Plug-in powered condenser microphones	Use the <Menu Screen> to switch ON power for a plug-in powered microphone (p. 82).
Stereo microphone	Set to stereo with the [EXTERNAL MICROPHONE TYPE Switch 22].
Monaural microphone	Set to monaural with the [EXTERNAL MICROPHONE TYPE Switch 22].

NOTE

- When connecting a dynamic microphone or a battery-powered microphone, be sure to use the <Menu Screen> to set the unit so plug-in power is not supplied to the microphone. The microphone may be damaged if used with the improper setting.
- If a cable is connected to the [LINE IN Jack], then no sound is input via the [MIC Input Jack].

TERM

Dynamic microphone

The durable dynamic microphone is suitable for vocal or instrumental recordings. It does not require a power supply.

Condenser microphone

The sensitive condenser microphone is suitable for recording quiet sounds, such as live instrumentals or meetings. It requires a power supply from either batteries or plug-in power.

20 LINE IN jack

When inputting audio signals from audio equipment or digital instruments, use a cable with a stereo-mini plug to connect the R-09 to the device.

→“Recording from cassettes or CDs” (p. 39)

Volume is adjusted with the [(+) and (-) INPUT LEVEL buttons 14].



21 AUTO GAIN CONTROL switch

This switch turns AUTO GAIN CONTROL on or off. It is usually set to off.

ON	Evens out the overall level of the signal during recording by increasing the level of sounds that are weak, while attenuating those that are loud. Turn this switch on to record voices of people both near and far during meetings.
OFF	Records input sounds without changing them.

NOTE

The switch cannot be used for the line input.

22 EXTERNAL MICROPHONE TYPE switch

This switch is used to set the microphone type to match the microphone connected to the [MIC Input Jack 19].

MONO	Monaural microphone is connected.
STEREO	Stereo microphone is connected.

23 LOW CUT switch

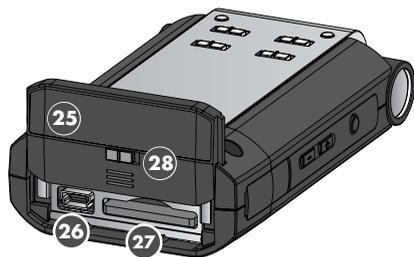
This switch turns LOW CUT on or off. It is usually set to off.

ON	Records while cutting the lower range portion of the input signal. Turn on when breath noise (the sound of breathing while recording a voice) or wind noise (when recording outside) may be a problem.
OFF	Records without cutting the lower range.

24 MICROPHONE GAIN switch

This switch changes the sensitivity with respect to the input from the microphone.

LOW	Lowers the microphone sensitivity. Set to LOW when inputting loud sounds such as band performances.
HIGH	Increases the microphone sensitivity. Set to HIGH when inputting softer sounds such as meetings.



25 Bottom cover

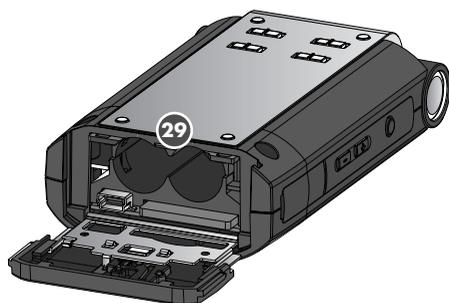
The bottom cover slides to two positions. When the cover is opened, the [USB Terminal 26] and [Memory Card Slot 27] are visible first. With the [Bottom Cover Lock 28] slid to the release position, open the cover further to reveal the [Battery Compartment 29].

→“Preparing the memory card” (p. 17)

→“Using batteries” (p. 15)

NOTE

When opening the cover, be sure to follow the procedure in “Using batteries” (p. 15). Forcing the cover open may damage the unit.



26 USB terminal

This connector is used to connect to a PC via the included USB cable. Songs recorded on the R-09 can be transferred to the PC, and WAV or MP3 files can be copied from the PC to the R-09 to be played.

→“Preparing the memory card” (p. 17)

MEMO

Since USB 2.0 (HI-SPEED USB) is supported, songs can be transferred quickly.

27 Memory card slot

This slot accepts SD memory cards.

→“SD Memory Card” (p. 20)

28 Bottom cover lock

This lock protects against batteries falling out if the bottom cover is opened by mistake.

29 Battery compartment

Batteries are inserted here when operating on battery power.

There is no need to insert batteries when using the AC adaptor.

→“Using batteries” (p. 15)

NOTE

Be sure to turn the R-09 off before unplugging the AC adaptor.

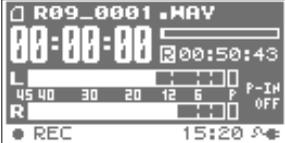
R-09 screens and basic operations

The R-09 screen

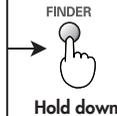
The <Main Screen> is shown when power to the R-09 is turned on.

The <Finder Screen> and <Menu Screen> can be opened from the <Main Screen>.

<Main Screen>



This startup screen is shown after power is turned on. Songs can be recorded or played.



<Finder Screen>



This screen shows a song list and allows names to be edited and songs to be deleted or copied.

<Menu Screen>



You can do things such as set the date and time, adjust the recording sound quality, adjust the brightness of the display, and perform initializations.

<USB Screen>

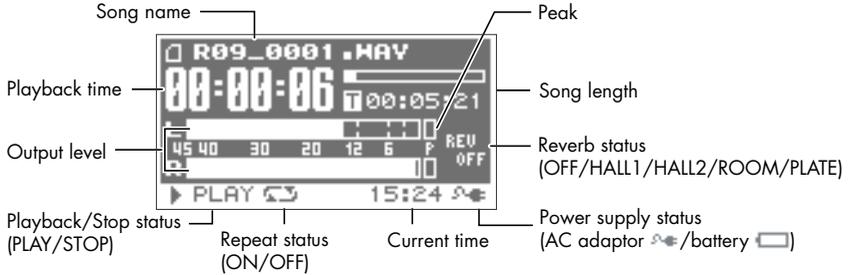


This screen is displayed when a PC is connected via USB. Songs can be copied (moved) between the R-09 and PC.

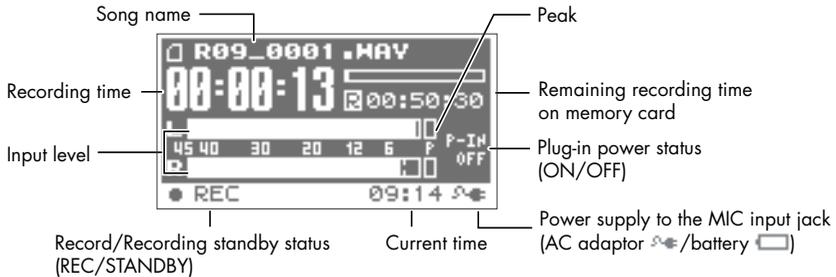
Information shown in the display

This section describes the main icons and information shown in the <Main Screen>.

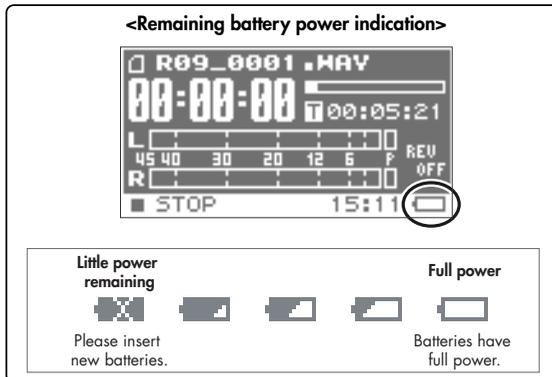
<Play/Stop>



<Record>

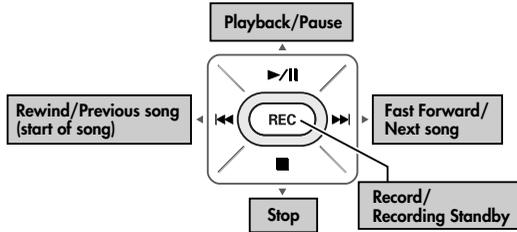


<Remaining battery power indication>

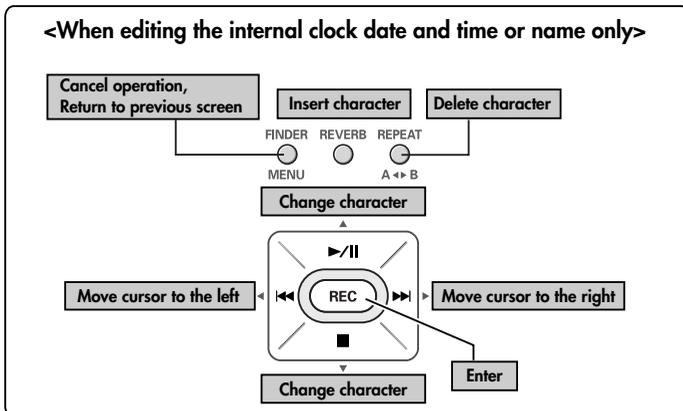
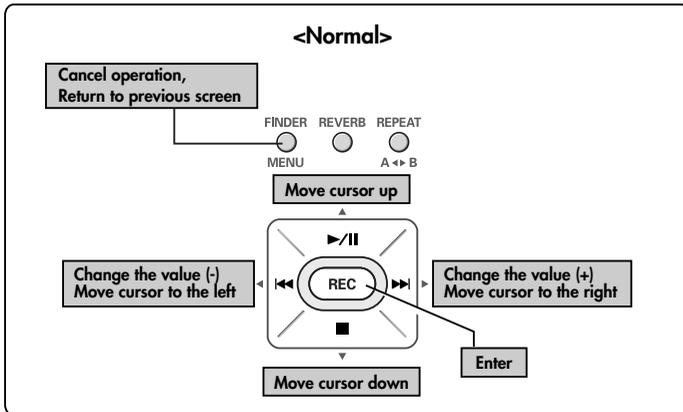


Basic operations

Recording and playback



Selecting and entering



Using the R-09

Turning power on/off

Using the AC adaptor

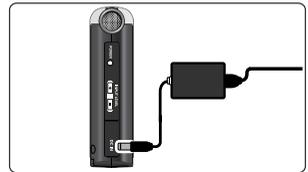
NOTE

Be sure to use the AC adaptor when connecting to a PC.
If the batteries become exhausted while copying a song, the song may be corrupted.

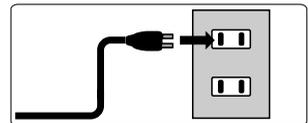
1. Check that power is turned off.

If the power is on, turn it off. Press and hold the [POWER switch] on the R-09 to turn power on or off.

2. Plug the DC plug of the AC adaptor into the [AC Adapter Jack] on the R-09.

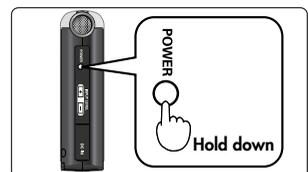


3. Plug the AC adaptor into an electrical power outlet.



4. Turn power on.

Pressing and holding down the [POWER switch] turns on the power and shows an R-09 image in the display. To turn off power, press and hold down the [POWER switch].



NOTE

- Be sure to use the AC adaptor supplied with this product.
- If the [HOLD Switch] is in the on position, no operations can be performed.
Be sure to slide it to the off position. (→ p. 7)

MEMO

If the AC adaptor is connected while power is on, the power supply is drawn from the AC adaptor.

Using batteries

NOTE

Be sure to use the AC adaptor when connecting to a PC.
Pressing and holding down the [POWER switch] turns on the power and shows an R-09 image in the display.

Batteries that can be used

- AA alkaline batteries (LR6)
- AA nickel metal hydride batteries (HR15/51)

NOTE

The R-09 cannot recharge nickel metal hydride batteries. Please use a separately purchased battery charger.

1. Check that the power is turned off.

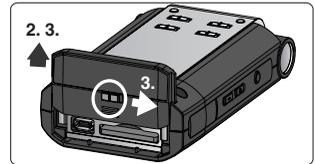
If the power is on, turn it off. Press and hold the [POWER switch] on the R-09 to turn power on or off.

2. Open the [Bottom Cover] on the bottom of the unit.

1. Turn the R-09 over.
2. Slide the [Bottom Cover] up.
3. Slide the [Bottom Cover Lock] and hold it there while sliding the [Bottom Cover] up.

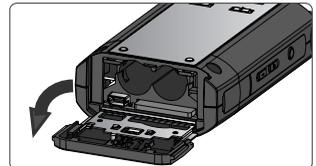
The cover will stop when the [USB Terminal] and [Memory Slot] can be seen. Slide the [Bottom Cover Lock] to the right, and while holding it there slide the [Bottom Cover] further up.

* Forcing the cover open may damage the unit.



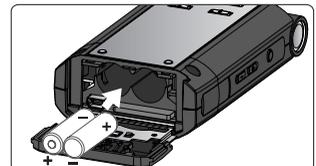
4. Fold the [Bottom Cover] down.

The [Battery Compartment] should be visible.

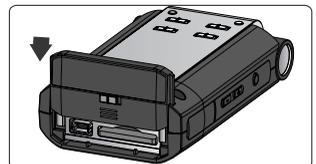


3. Insert the batteries.

Insert two AA batteries into the [Battery Compartment].
Be sure the positive and negative terminals are oriented correctly.

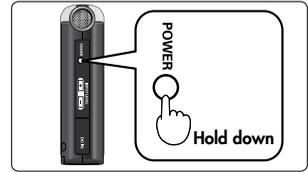


4. Close the bottom cover.



5. Turn power on.

Press and hold down the [POWER switch] to turn on the power.



6. Set the battery type.

Select the battery type (alkaline batteries or nickel metal hydride batteries) on the <Menu Screen>.

cf. ➤

“Setting the battery type (Battery)” (p. 80)

Cautions when using batteries with the R-09

- Do not mix new and used batteries or different types of batteries.
- When not using the R-09 for an extended time, it is recommend that the batteries be removed to prevent leakage.
- When connecting to a PC via a USB cable, always use the AC adaptor to prevent power failures during connection.

Power saving feature

The R-09 is equipped with a power saving feature designed to prevent the unnecessary consumption of power. If no operation is performed for a set amount of time, the display will be darkened or the power will be shut off according to the settings for the power saving feature.

cf. ➤

Setting the power saving feature

- “Setting the time until the screen is darkened when no operations are performed for a set period of time (Display Timer)” (p. 78)
- “Setting the time until the power turns off when no operations are performed for a set amount of time (Auto Power Off)” (p. 79)

Remaining battery power indication

When the battery power becomes low, a low battery icon  is shown in the lower right of the display. Please replace the batteries as soon as possible. If batteries with low power are used, the “Battery Low” message is displayed and all R-09 functions will eventually stop.

cf. ➤

“Message list” (p. 86)

Battery life

When using alkaline batteries

Continuous playback	approximately 5.5 hours
Continuous recording	approximately 4 hours

* The battery life indicated above is approximate. Battery life will vary depending on the environment in which you are using the R-09 and your method of use.

Preparing the memory card

The R-09 uses an SD memory card.

Inserting

Insert the supplied SD memory card.

■ Inserting

1. Check that the power is turned off.

If the power is on, turn it off. Press and hold the [POWER switch] on the R-09 to turn power on or off.

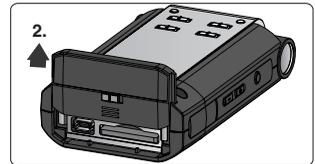
2. Open the [Bottom Cover] on the bottom of the unit.

1. Turn the R-09 over.
2. Slide the [Bottom Cover] up.

MEMO

The cover will stop when the [USB Terminal] and [Memory Slot] can be seen.

* Forcing the cover open may damage the unit.

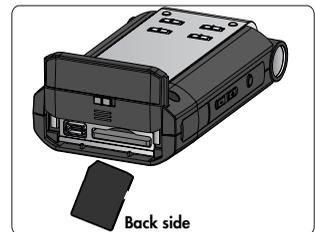


3. Insert the memory card.

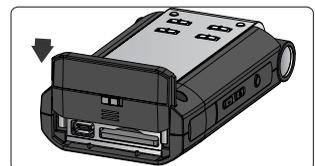
Insert the memory card.

NOTE

- When inserting the memory card, make sure the reverse side of the card is facing up and insert the card slowly. If the card is forcibly inserted incorrectly, the R-09 or the memory card may be damaged. Please exercise caution.
- Carefully insert the memory card all the way in—until it is firmly in place.

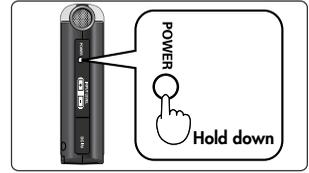


4. Close the [Bottom Cover].



5. Turn power on.

Press and hold down the [POWER switch] to turn on the power.



MEMO

When using a memory card with the R-09 for the first time, the memory card must be formatted. Please format the memory card following the procedure in "Formatting" (p. 19). "SD Unformatted" is shown when an unformatted memory card is inserted into the R-09.

■ Removing

1. Turn off power to the R-09.

2. Open the [Bottom Cover].

3. Lightly push the memory card inward, then release it.

Remove the memory card after it pops out toward you.

NOTE

Never insert or remove a memory card while this unit's power is on. Doing so may corrupt the data on the memory card.

Formatting

A memory card must be formatted when using it with the R-09 for the first time.

NOTE

Be sure to format the memory card on the R-09. Cards formatted on devices other than the R-09 may not operate properly on the R-09.

TERM

Formatting

Formatting refers to initializing a memory card according to a specified data storage format. If a memory card with recordings is formatted, all the recorded songs are deleted.

1. Check that the memory card is inserted.

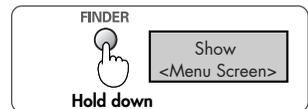
Check that the memory card to be formatted is inserted in the [Memory Card Slot] on the R-09.

cf. 

"Inserting" (p. 17)

2. Show the <Menu Screen>.

Press and hold down the [FINDER/MENU Button] to show the <Menu Screen>.



MEMO

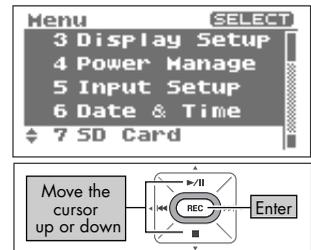
To cancel the operation, press the [FINDER/MENU Button]. You're returned to the previous screen.

3. Select "SD Card."

Use the [PLAY Button ▲] and [STOP Button ▼] to select "SD Card," then press the [REC Button].

MEMO

To cancel the operation, press the [FINDER/MENU Button]. You're returned to the previous screen.

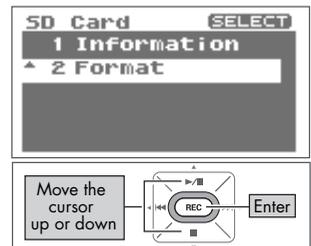


4. Select "Format."

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Format," then press the [REC Button].

MEMO

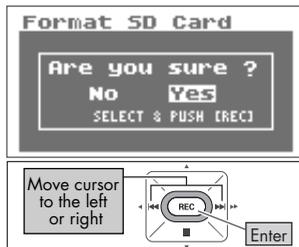
To cancel, press the [FINDER/MENU Button]. You're returned to the previous screen.



5. Select "Yes."

A confirmation screen is shown.

Use the [RWD Button ◀] and [FWD Button ▶] to select "Yes," then press the [REC Button].



NOTE

Do not remove the memory card during formatting. The storage area on the memory card may become damaged.

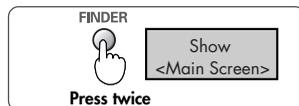


When "Completed!" is shown, formatting has completed.



6. Return to <Main Screen>.

Press the [FINDER/MENU Button] twice to return to the <Main Screen>.



SD Memory Card

NOTE

- The R-09 supports SD memory cards of 64 MB to 2 GB.
- Some memory card types or memory cards from some manufacturers may not record or play back properly on the R-09.
- Never insert or remove a memory card while this unit's power is on. Doing so may corrupt the data on the memory card.
- Carefully insert the memory card all the way in—until it is firmly in place. Do not force the card into the slot.

MEMO

The memory card write protect feature (LOCK)

The contents of the memory card can be protected by write protecting it. To write protect a card, slide the write protect switch on the side of the memory card to the "LOCK" position. Unlock write protect to delete data on the card.

Write protect switch

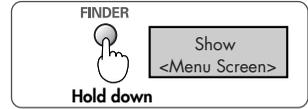


Setting time and date

When turning on power, please follow the procedure below to set the internal clock. The time and date set here are used as information (time stamp) for the recorded songs.

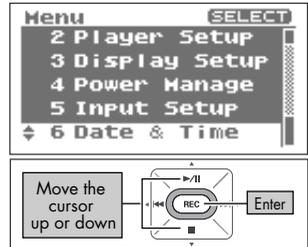
1. Show the <Menu Screen>.

Press and hold down the [FINDER/MENU Button] to show the <Menu Screen>.



2. Select "Date & Time."

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Date & Time," then press the [REC Button].



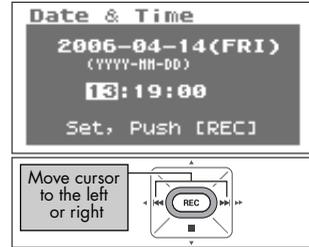
NOTE

When the power is on, the internal clock draws power from the AC adaptor or the batteries. When the power is off, the internal clock will run temporarily on the power stored in the main unit. However, if the power is off for several days, the internal clock settings return to the original settings (initial status). When power is turned on in initial status, the message "Clock Initialized" is shown. If "Clock Initialized" is shown, please reset the date and time.

3. Edit the time and date.

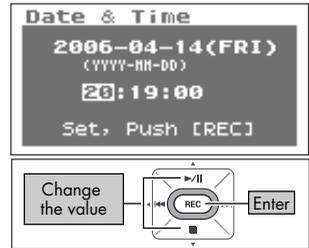
1. Move the cursor.

Use the [RVD Button ◀] and [FWD Button ▶] to move the cursor to the right or left.



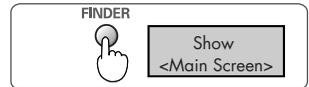
2. Edit the date and time.

Move the cursor over the character to change, use the [PLAY Button ▲] and [STOP Button ▼] to change the date and time, then press the [REC Button] to enter the changes.



4. Return to <Main Screen>.

Press the [FINDER/MENU Button].



Recording

Recording with the [Internal MIC].

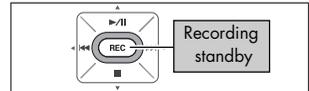
NOTE

When using the [Internal MIC], do not connect anything to the [MIC Input Jack] or [LINE IN Jack]. If a microphone or cable is connected to the [MIC Input Jack] or [LINE IN Jack], input from these jacks take precedence, and input from the [Internal MIC] is disabled.

1. Adjust the input level.

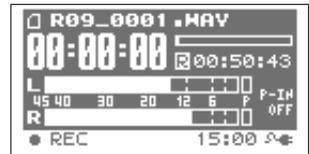
1. Enter the recording-standby mode.

Press the [REC Button] while the <Main Screen> is showing. The [REC Indicator] blinks. The unit is in recording-standby mode.



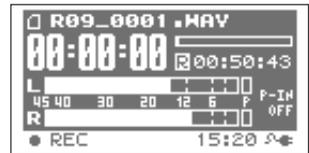
2. Play the song to record into the microphone.

The level meter indicates the loudness of the input to R-09.



3. While the sound is being output, press the [(+) (-) Input Level Button] to adjust the volume gradually.

Adjust so that the level meter moves as far to the right as possible without the [PEAK Indicator] turning on. If the [PEAK Indicator] stays lit, then the input level is too high, and the recorded sound becomes distorted.

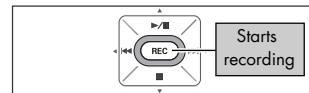


cf.

See "Adjusting recording levels" (p. 37) for details on adjusting the input level.

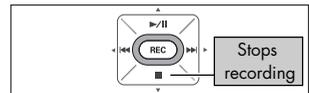
2. Press the [REC Button] to begin recording.

The [REC Indicator] lights up.



3. Press the [STOP Button ■] to stop recording.

The [REC Indicator] goes out, and the recorded song is shown in the display.



NOTE

Power cannot be turned off during recording.

cf.

See "Configuring recording" (p. 26) for details on recording settings.

Playing back

Listen to the recorded voice.

1. Connect a playback device.

MEMO

The R-09 does not have speakers. To listen to the playback, headphones or speakers must be provided separately.



2. Press the [PLAY Button ▶/II] to begin playback.

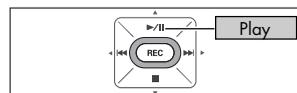
When the [PLAY Button] is pressed, the song shown in the display begins to play.

MEMO

When "No Song" is shown in the display, there is no song that the R-09 can play.

cf. ➔

"Manipulating songs and folders" (p. 62)

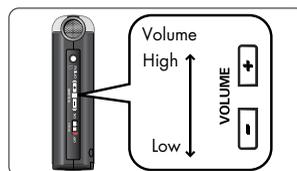


3. Adjust the volume.

Use [(+) and (-) HEADPHONE VOLUME buttons] to set the volume to a comfortable level.

MEMO

The volume cannot be adjusted for sound output via a digital cable connected to the [HEADPHONE jack] (digital output).



Rewind/Fast Forward

If the [RWD Button ◀◀] is held down during playback, the recording rewinds. If the [FWD Button ▶▶] is held down during playback, the recording fast forwards. Once these buttons are released, playback starts again.

cf. ➔

See "Playing back" (p. 42) for details on playback.

Deleting

Delete the recorded voice.

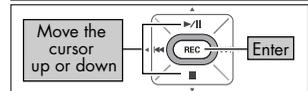
1. Show the <Finder Screen>.

Press and hold down the [FINDER/MENU Button] to show the <Finder Screen>.



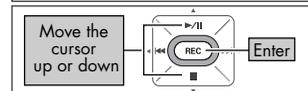
2. Select the song.

Use the [PLAY Button ▲] and [STOP Button ▼] to select the song to delete, then press the [REC Button].



3. Select "Delete."

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Delete," then press the [REC Button].



4. Press the [REC Button] to delete the song.

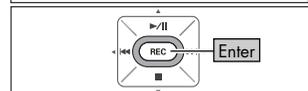
A confirmation screen is shown. Press the [REC Button] to delete the song.

MEMO

To cancel, press the [FINDER/MENU Button] before pressing the [REC Button].

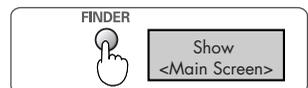
NOTE

Do not turn off power while deleting.



5. Return to <Main Screen>.

Press the [FINDER/MENU Button].



Recording

Configuring recording

You can set the sound quality to use when recording.

Improving the sound quality increases the song size and decreases the recording time.

When making a final recording of a performance, it is best to use WAV 16 bit or 24 bit to give priority to sound quality.

MEMO

When making an audio CD, set the sampling frequency to 44.1 kHz and the recording mode to WAV 16 bit.

Test recordings and records of meetings do not usually require sound quality as good as that. For longer recordings that give priority to song size, use MP3 128 kbps at 44.1 kHz.

Decide whether the sound quality or the recording time is to be given precedence, and make the settings accordingly.

Sampling frequency

(Default value is bold)

Sampling frequency values	44.1 kHz
	48 kHz

The larger value provides better sound quality.

When making a digital recording, the sound level is measured periodically, and that level is made into a digital signal. The sampling frequency is a value that defines the time interval and is expressed in kHz. A high sampling frequency is needed to faithfully reproduce high sounds.

MEMO

- Higher sampling frequencies result in larger song sizes and shorter recording times.
- When using the recording as an audio track for a video, we recommend setting the frequency to 48 kHz.
- The sampling frequency of a recorded song cannot be changed on the R-09.

Recording mode

Recording mode	MP3 64 kbps
	MP3 96 kbps
	MP3 128 kbps
	MP3 160 kbps
	MP3 192 kbps
	MP3 224 kbps
	MP3 320 kbps
	WAV 16 bit
	WAV 24 bit

■ WAV versus MP3

WAV songs (*.WAV) store all sound information without compression; MP3 songs (*.MP3) store songs using compression. Consequently, WAV songs have a better sound quality recording than MP3 songs. On the other hand, MP3 reduce data volume by removing frequencies that are hard for the human ear to hear.

MEMO

When recording with MP3, the song size is smaller than the WAV setting recording, and a longer recording can be made.

■ bps and bit

The higher the value, the better the sound quality.

The MP3 bps is the bit rate unit (bits per second).

The bit rate indicates data transfer rates in number of bits sent per second.

The WAV bit is used to represent the size of a sample.

The sample size indicates the amount of precision used in capturing subtle changes in the sound. Larger sampling size values allow for more details of the sound to be expressed, and result in sound that is smoother and more natural.

MEMO

- Higher bps and bit values result in larger song sizes and shorter recording times.
- Software such as Windows Media Player cannot play back 24 bit WAV files.

Estimated recording times

The approximate recording time for memory cards is shown below.

Recording time (estimate)

Unit: minutes

Setting	Memory card size				
	64 MB	128 MB	512 MB	1 GB	2 GB
WAV (16 bit/44.1 kHz)	5	11	44	88	180
WAV (16 bit/48 kHz)	5	10	40	81	166
WAV (24 bit/44.1 kHz)	3	7	29	59	120
WAV (24 bit/48 kHz)	3	7	27	54	110
MP3 128 kbps	62	126	490	980	1,993
MP3 224 kbps	35	72	280	560	1,139
MP3 320 kbps	25	50	196	392	797

NOTE

The above recording times are estimates. The times may change depending on the card specifications. Furthermore, the actual recording time is shorter when there are multiple files.

Recording instruments and voice

Using the internal microphones

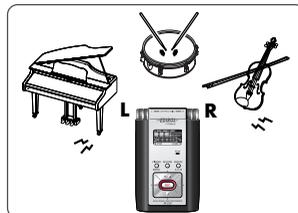
The internal microphone is a stereo microphone. The sound picked up by the microphone on the right side of the R-09 is recorded on the right channel (R), while the sound that the microphone on the left captures is recorded on the left channel (L).

NOTE

- To prevent feedback when recording with a microphone, do not use speakers.
- If a microphone or other device is connected to the [LINE IN Jack] or [MIC Input Jack], the [Internal Mic] cannot be used. When using the [Internal MIC], do not connect anything to the [MIC Jack] or [LINE IN Jack].

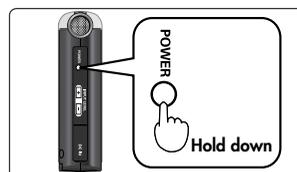
MEMO

Set monitoring on when recording to monitor the sound while recording.
→ “Setting whether to monitor sound while recording” (p. 81)



1. Turn on power to the R-09.

Turn on power to the R-09. See “Turning power on/off” (p. 14)



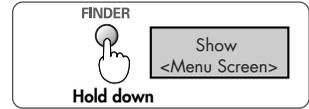
2. Set the sampling frequency.

cf.

“Configuring recording” (p. 26)

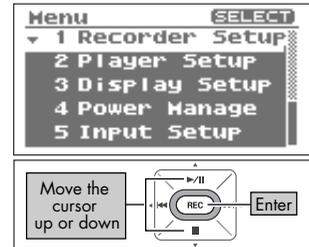
1. Show the <Menu Screen>.

Press and hold down the [FINDER/MENU Button] to show the <Menu Screen>.



2. Select “Recorder Setup.”

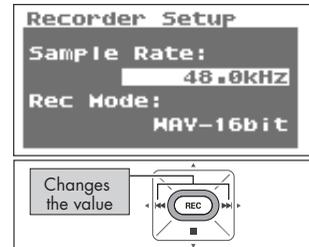
Use the [PLAY Button ▲] and [STOP Button ▼] to select “Recorder Setup,” then press the [REC Button].



3. Select the sampling frequency (Sample Rate).

Use the [RWD Button ◀] and [FWD Button ▶] to change the Sample Rate value.

Sampling frequency values	44.1 kHz
	48 kHz



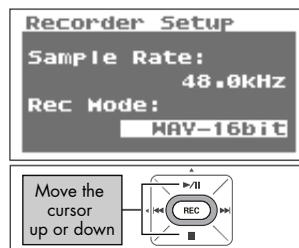
3. Set the recording mode.

cf.

“Configuring recording” (p. 26)

1. Select “Rec Mode.”

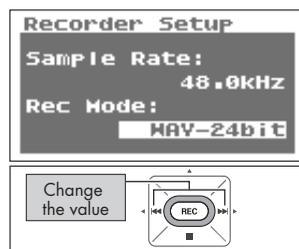
Use the [PLAY Button ▲] and [STOP Button ▼] to move the cursor to the Rec Mode line.



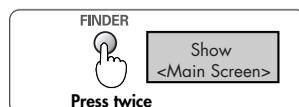
2. Select the recording mode.

Use the [RWD Button ◀] and [FWD Button ▶] to change the Rec Mode value.

Recording mode	MP3 64 kbps
	MP3 96 kbps
	MP3 128 kbps
	MP3 160 kbps
	MP3 192 kbps
	MP3 224 kbps
	MP3 320 kbps
	WAV 16 bit
WAV 24 bit	



4. Press the [FINDER/MENU Button] twice to return to the <Main Screen>.



5. Adjust the input level.

Adjust the volume for the recorded sound.

Follow the procedures in “Adjusting recording levels” (p. 37) to adjust the level.

6. Press the [REC Button] to begin recording.

Press the [REC Button] in recording-standby mode (while the [REC Indicator] is blinking).

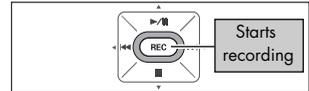
The [REC Indicator] lights up, and recording begins.

MEMO

- Recording can also be started by pressing the [PLAY/PAUSE Button].
- If you slide the HOLD switch to the ON position after starting a recording, the recording will not stop nor will the recording level change even if a button is accidentally pressed.

NOTE

- If a microphone or other device is connected to the [LINE IN Jack] or [MIC Input Jack], the [Internal Mic] cannot be used. When using the [Internal MIC], do not connect anything to the [MIC Jack] or [LINE IN Jack].
- If the [Input Level Button] is used in recording-standby mode or during recording, the input level will change. Be careful not to mistakenly use the [Input Level Button].
- Power cannot be turned off during recording. First stop the recording, then turn off the power.



7. Press the [STOP Button ■] to stop recording.

The [REC Indicator] goes out.

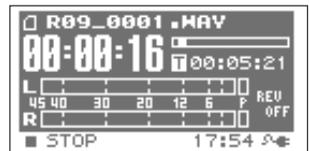
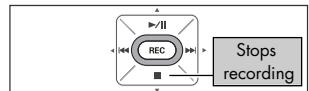
MEMO

Press the [PLAY/PAUSE Button] to pause. Press the [PLAY/PAUSE Button] again to cancel the pause and restart recording.

The display shows the recorded song.

MEMO

The song name is automatically created, e.g., R09_0001.WAV. The four-digit number forming the latter part of the name is arrived at by adding one to highest-numbered existing song.

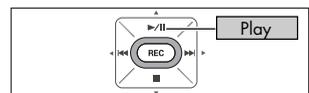


8. Play it back.

Press the [PLAY/PAUSE Button ►/II] to listen to the just-recorded song.

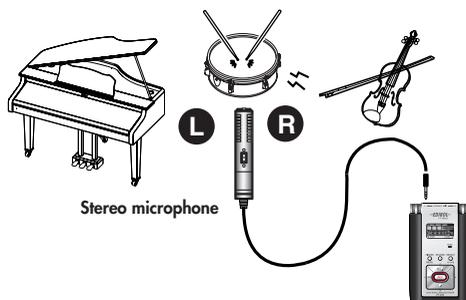
cf.

"Playing back songs" (p. 43)



Using external microphones

The R-09 can use a dynamic microphone or a condenser microphone, such as the type that are connected to the microphone jack of a PC.

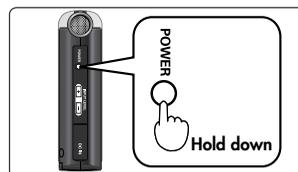


NOTE

- If a cable is connected to the [LINE IN Jack], then the input from the [MIC Input Jack] is ignored. Do not connect anything to the [LINE IN Jack].
- To prevent feedback when recording with a microphone, do not use speakers.

1. Turn on power to the R-09.

Turn on power to the R-09. See "Turning power on/off" (p. 14)



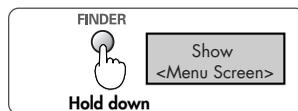
2. Set the sampling frequency.

cf. ➔

"Configuring recording" (p. 26)

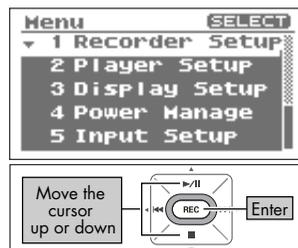
1. Show the <Menu Screen>.

Press and hold down the [FINDER/MENU Button] to show the <Menu Screen>.



2. Select "Recorder Setup."

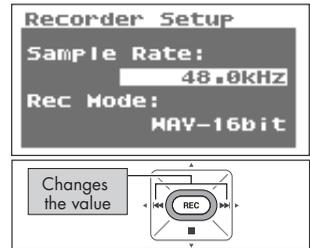
Use the [PLAY Button ▲] and [STOP Button ▼] to select "Recorder Setup," then press the [REC Button].



3. Select the sampling frequency (Sample Rate)

Use the [RWD Button ◀] and [FWD Button ▶] to change the Sample Rate value.

Sampling frequency values	44.1 kHz
	48 kHz



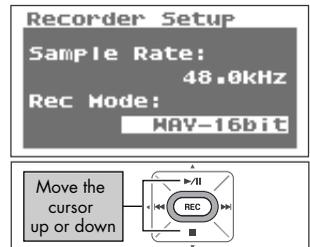
3. Set the recording mode.

cf. ➔

"Configuring recording" (p. 26)

1. Select "Rec Mode."

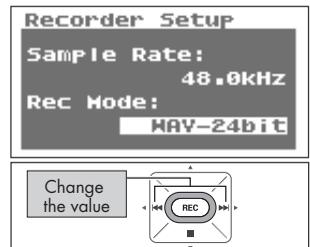
Use the [PLAY Button ▲] and [STOP Button ▼] to move the cursor to the Rec Mode line.



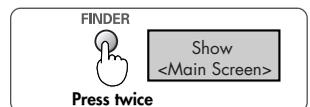
2. Select the recording mode.

Use the [RWD Button ◀] and [FWD Button ▶] to change the Rec Mode value.

Recording mode	MP3 64 kbps
	MP3 96 kbps
	MP3 128 kbps
	MP3 160 kbps
	MP3 192 kbps
	MP3 224 kbps
	MP3 320 kbps
	WAV 16 bit
	WAV 24 bit



4. Press the [FINDER/MENU Button] twice to return to the <Main Screen>.



5. Set the type of microphone being used.

Dynamic microphone	Use the <Menu Screen> to switch OFF power intended for plug-in powered microphones only (p. 82).
Condenser microphone powered by self-contained battery	
Plug-in powered condenser microphone	Use the <Menu Screen> to switch ON power for plug-in powered microphones (p. 82).

Set the [EXTERNAL MICROPHONE TYPE Switch] to the type of microphone connected to the [MIC Input Jack].

NOTE

- When connecting a dynamic microphone or a battery-powered microphone, be sure to use the <Menu Screen> to set the unit so plug-in power is not supplied to the microphone. Damage may result if the wrong setting is used.
- If a cable is connected to the [LINE IN Jack], then no sound is input through the [MIC Input Jack].

TERM

Dynamic microphone

The durable dynamic microphone is suitable for vocal or instrumental recordings. It does not require a power supply.

Condenser microphone

The sensitive condenser microphone is suitable for recording quiet sounds such as live instrumentals or meetings. It requires a power supply from either batteries or plug-in power.

Stereo	Set to stereo with the [EXTERNAL MICROPHONE TYPE Switch] (p. 9).
Monaural	Set to monaural with the [EXTERNAL MICROPHONE TYPE Switch] (p. 9).

MEMO

Only the L channel is recorded when a monaural microphone is used with the external microphone type switch set to stereo microphone. When monaural microphone settings are used, the L and R channels record the same sound (stereo).

6. Connect the microphone.

Connect a microphone to the [MIC Input Jack] on the R-09.

NOTE

To monitor the sound while recording, connect headphones to the [HEADPHONE jack]. Feedback may occur when external speakers are connected, so please do not use speakers.

7. Adjust the input level.

Adjust the volume for the recorded sound.

Follow the procedures in "Adjusting recording levels" (p. 37) to adjust the level.

8. Press the [REC Button].

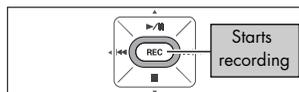
Press the [REC Button] while in recording-standby mode (while the [REC Indicator] is blinking). The [REC Indicator] lights up, and recording begins.

MEMO

- Recording can also be started by pressing the [PLAY/PAUSE Button].
- If you slide the HOLD switch to the ON position after starting recording, the recording will not stop nor will the recording level change even if a button is accidentally pressed.

NOTE

- If the [Input Level Button] is used during recording, the input level will change. Be careful to not mistakenly use the [Input Level Button].
- Power cannot be turned off during recording. First stop the recording, then turn off the power.



9. Press the [STOP Button ■] to stop recording.

The [REC Indicator] goes out.

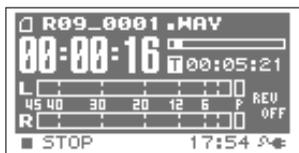
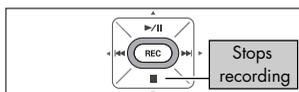
MEMO

Press the [PLAY/PAUSE Button] to pause. Press the [PLAY/PAUSE Button] again to cancel the pause and restart recording.

The display shows the recorded song.

MEMO

The song name is automatically created, e.g., R09_0001.WAV. The four-digit number forming the latter part of the name is arrived at by adding one to highest-numbered existing song.

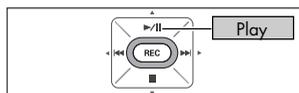


10. Play it back.

Press the [PLAY/PAUSE Button ►/||] to listen to the just-recorded song.

cf. ➤

"Playing back songs" (p. 43)



Adjusting recording levels

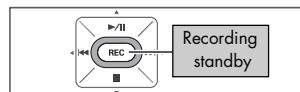
The R-09 is designed to record a wide variety of sounds, but it can also make high-quality recordings when a recording level (volume) appropriate for the sound to be recorded is set. Level settings should be the highest input level (volume) that has no distortion. This principle is the same for both the [Internal Microphone] and external microphones.

1. Point the microphone used for recording.

Point the R-09 microphone toward the target for recording.

2. Enter recording-standby mode.

Press the [REC Button] while the <Main Screen> is showing. The [REC Indicator] blinks. The unit is in recording-standby mode.

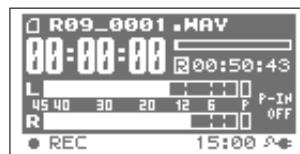


MEMO

Recording has not started when in this state.

3. Play the song to record into the microphone.

The level meter indicates the loudness of the input to R-09.



4. Adjust the volume.

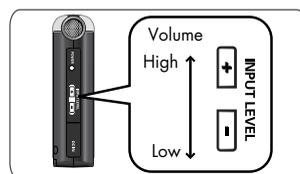
Adjust the input volume gradually by pressing the [Input Level Button] while the sound is playing.

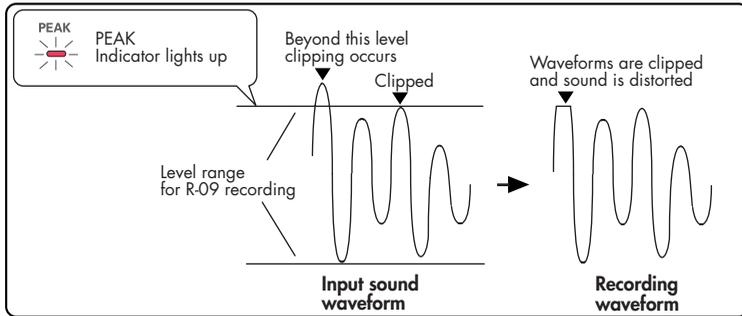
MEMO

The level meter indicates when louder sounds are being recorded by growing toward the right. Adjust by pressing [Input Level Button] to allow for the loudest recording.

However, the input volume is too loud when the [PEAK Indicator] lights up.

When the [PEAK Indicator] is lit, the input volume has reached the maximum input volume that R-09 can record (clipping status), and any louder sounds cannot be recorded with the current volume setting. The resulting recording will be severely distorted.





Use the [Input Level Button] to adjust the volume so that the [PEAK Indicator] does not light up even when the loudest sound is produced by the target. Doing this prevents clipping during the loudest parts of a song or during instrumental passages played fortissimo.

Once the level is set, press the [REC Button] once more to start recording.

MEMO

- Press the [STOP Button ■] to stop recording and return to the <Main Menu>. Because the level settings are saved, press the [REC Button] again to start recording with the same input level.
- Some noise may be heard when the input level is being adjusted with the [Input Level Buttons]. This is not a malfunction.

Recording from cassettes or CDs

The R-09 can be used for recording instrumental performances and taking voice memos, but it can also be used to record cassettes or CDs using the [LINE IN Jack].

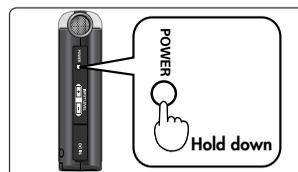
NOTE

If a device or cable is connected to the [LINE IN Jack], input from the microphones is disabled. Therefore, it is not possible to mix microphone and line input during recording. If there is sound input via both the [LINE IN Jack] and the [MIC Input Jack], only the sound from the line input is recorded.

This example describes recording from a CD player to the R-09.

1. Turn on power to the R-09.

Turn on the R-09's power. See "Turning power on/off" (p. 14)



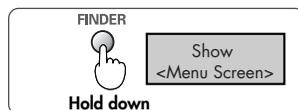
2. Set the sampling frequency.

cf. 

"Configuring recording" (p. 26)

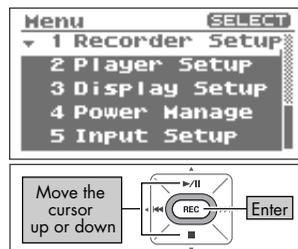
1. Show the <Menu Screen>.

Press and hold down the [FINDER/MENU Button] to show the <Menu Screen>.



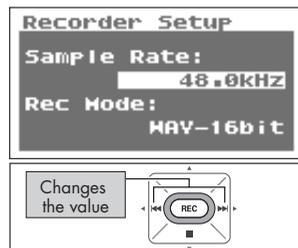
2. Select "Recorder Setup."

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Recorder Setup," then press the [REC Button].



3. Select the sampling frequency (Sample Rate).

Use the [RWD Button ◀] and [FWD Button ▶] to change the Sample Rate value.



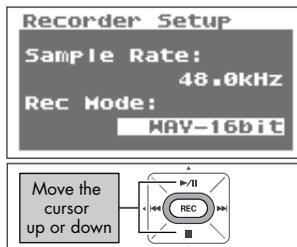
3. Set the recording mode.

cf. 

“Configuring recording” (p. 26)

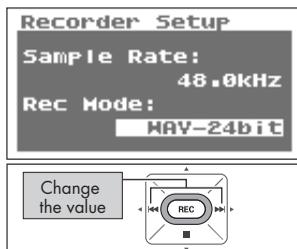
1. Select “Rec Mode.”

Use the [PLAY Button ▲] and [STOP Button ▼] to move the cursor to the Rec Mode line.

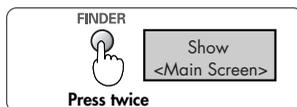


2. Select the recording mode.

Use the [RWD Button ◀] and [FWD Button ▶] to change the Rec Mode value.

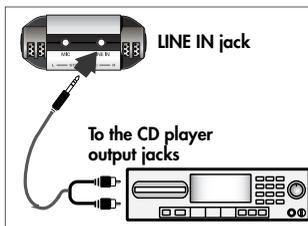


3. Press the [FINDER/MENU Button] twice to return to the <Main Screen>.



4. Connect the CD player.

Use an audio cable to connect the line out jack on the CD player to the [LINE IN Jack] on the R-09.



5. Adjust the input level.

Adjust the input level while playing the song to be recorded on the CD player.

After adjusting the input level, rewind the song to be recorded to the start.

cf. 

“Adjusting recording levels” (p. 37)

6. Press the [REC Button] to begin recording.

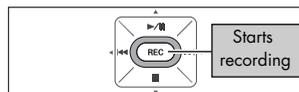
Press the [REC Button] while in recording-standby mode (the [REC Indicator] blinks). The [REC Indicator] lights up, and recording begins.

MEMO

Recording can also be started by pressing the [PLAY/PAUSE Button].

NOTE

If the [Input Level Button] is used during recording, the input level will change. Be careful to not mistakenly use the [Input Level Button].



7. Press the play button on the CD player.

The song playing on the CD player is recorded on the R-09. Waiting until the song finishes playing.

8. Press the [STOP Button ■] to stop recording.

The [REC Indicator] goes out.

MEMO

Press the [PLAY/PAUSE Button ►/||] to pause.

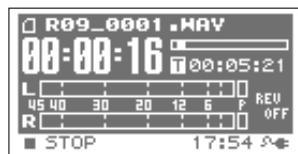
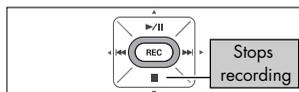
Press the [PLAY/PAUSE Button ►/||] again to cancel the pause and restart recording.

The display shows the recorded song.

MEMO

A song name (such as "R09_0001.WAV") is automatically created.

The four-digit number forming the latter part of the name is arrived at by adding one to highest-numbered existing song.

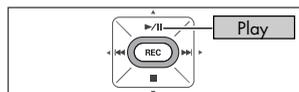


9. Play it back.

Press the [PLAY/PAUSE Button ►/||] to listen to the just-recorded song.

cf. ➤

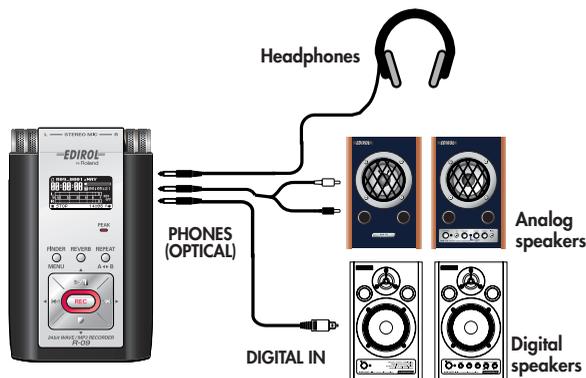
"Playing back songs" (p. 43)



Playing back

Basic connections

The R-09 does not have speakers. To listen to playback, headphones or amp speakers must be provided separately.



When connecting speakers

Turn on power to your various devices in the order specified. By turning on devices in the wrong order, you risk causing malfunction and/or damage to speakers and other devices.

- 1. Turn off power to the R-09.**
- 2. Turn the volume of the speakers all the way down and then turn off the power.**
- 3. Connect the speakers.**
Only speakers with internal amps can be connected.
When using digital speakers, use a digital cable to connect the [PHONES (OPTICAL)] on the R-09 to the digital input jack on the speakers.
When using analog speakers, use an audio cable to connect the [PHONES (OPTICAL)] on the R-09 to the line input jack on the speakers.
- 4. Turn on power to the R-09.**
- 5. Turn on power to the speakers, and gradually increase the volume to the desired level.**

NOTE

The R-09 cannot adjust the volume for the [Digital Output Connector].

Playing back songs

Use the [RWD Button ◀◀] and [FWD Button ▶▶] to select the song to play, then press the [Play Button ▶/II] to start playback.

cf. ➤

“Song types that can be played” (p. 55)



1. Show the <Main Screen>.

If the <Main Screen> is not showing, press the [FINDER/MENU Button] until the <Main Screen> appears.

MEMO

How many times the [FINDER/MENU Button] needs to be pressed depends on the screen that is showing.



2. Use the [RWD Button ◀◀] and [FWD Button ▶▶] to select the song to play.

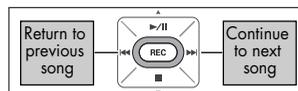
Press the [RWD Button] to move back one song at a time.
Press the [FWD Button] to move forward one song at a time.

MEMO

When “No Song” is shown, there is no song in the current folder that the R-09 can play.
When “No Card” is shown, there is no memory card in place.

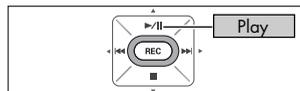
cf. ➤

“Manipulating songs and folders” (p. 62)



3. Play.

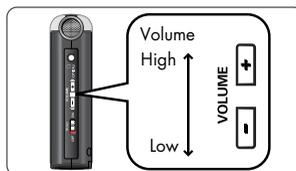
When the [PLAY Button ►/||] is pressed, the song shown in the display begins to play.



4. Use the [(+) and (-) HEADPHONE VOLUME buttons] to set the volume to a comfortable loudness.

MEMO

The volume cannot be adjusted for sound output via a digital cable connected to the [HEADPHONE jack] (digital output).



MEMO

• **The order of songs**

The songs are shown in the order described below. They are not shown in the order in which they were recorded.

(Space) ! # \$ % & ' () + , - . 0 1 2 3 4 5 6 7 8 9 ; = @

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

a b c d e f g h i j k l m n o p q r s t u v w x y z { }

- Song names beginning with a period (".") are ignored and are not shown.
- Any songs with an extension other than .WAV or .MP3 are ignored and are not shown.
- The song names shown in the display do not support MP3 ID3 tagging.

cf.

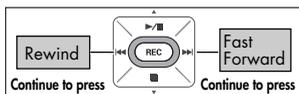
See "Song types that can be played" (p. 55) for songs that can be played back on the R-09.

Rewinding and Fast Forwarding

If the [RWD Button ◀◀] is pressed during playback, the recording rewinds while the button is pressed; if the [FWD Button ▶▶] is pressed during playback, the recording fast forwards while the button is pressed. Once these buttons are released, playback starts again.

MEMO

If the buttons are held down continuously, the rewind or fast forward speed increases.



Rewinding or fast forwarding during playback

NOTE

When rewinding or fast forwarding during playback of a 16/24 bit WAV song, the rewind or fast forward operation on some memory cards may stop because the rate that the data can be read is too slow.

If this happens, press the [STOP Button ■] once to end playback. Then start playback again.

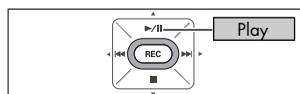
Repeated playback of a selected section

Play back a specific section in a song repeatedly.
A section can be played repeatedly to check the recording.



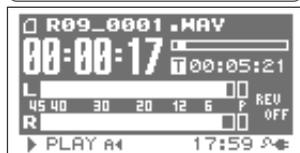
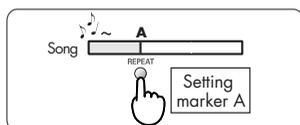
1. Play back.

When the [PLAY Button ►/||] is pressed, the song shown in the display begins to play.



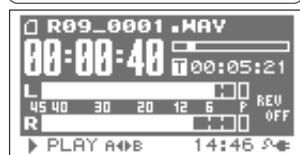
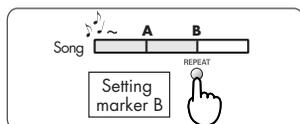
2. Set the start position (marker A).

Press the [REPEAT Button] once during playback.
That position becomes the start position (marker A) for the playback loop.

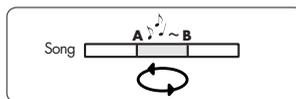


3. Set the end position (marker B).

Press the [REPEAT Button] again.
That position becomes the end position (marker B) for the playback loop.



The section set in steps 1 and 2 (A-B) is played back repeatedly. To cancel repeat playback, press the [REPEAT Button] again.



Cautions during setting

- If marker B is not set after setting marker A and playback continues to the end of the song, the section between marker A and the end of the song is repeated.
- The repeat settings are cancelled if the [RWD Button ◀◀] or [FWD Button ▶▶] are used to move within a song.

■ Canceling the settings

- When the [REPEAT Button] is pressed with both the A and B markers set, the settings for the A and B markers are cancelled.
- To stop playback as well, press the [STOP Button ■]. The repeat playback settings (A and B markers) are saved.

Repeating a song

Repeats a selected song.

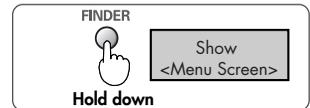


1. Show the <Menu Screen>.

Press and hold down the [FINDER/MENU Button] to show the <Menu Screen>.

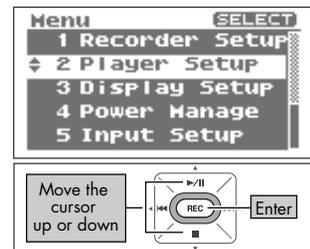
NOTE

The <Menu Screen> is not shown during playback. Press the [STOP Button ■] to stop playback.



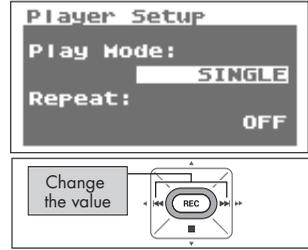
2. Select "Player Setup."

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Player Setup," then press the [REC Button].



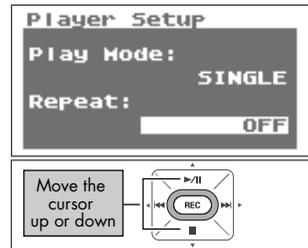
3. Select "SINGLE."

Use the [RWD Button ◀] and [FWD Button ▶] to change the Play Mode value, and select "SINGLE."



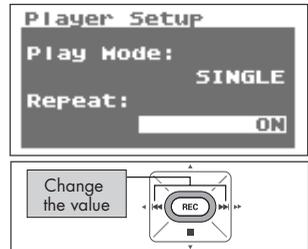
4. Select "Repeat."

Use the [PLAY Button ▲] and [STOP Button ▼] to move the cursor to the "Repeat" line.



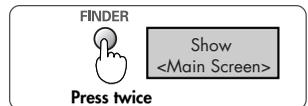
5. Select "ON."

Use the [RWD Button ◀] and [FWD Button ▶] to change the Repeat value, and select "ON."



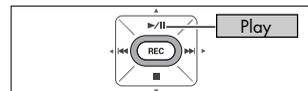
6. Return to <Main Screen>.

Press the [FINDER/MENU Button] twice to return to the <Main Screen>.



7. Play back.

Press the [PLAY Button ▶/II].

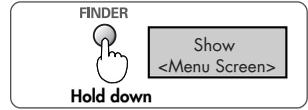


Shuffle play

Automatically change the song order and play back.

1. Show the <Menu Screen>.

Press and hold down the [FINDER/MENU Button] to show the <Menu Screen>.

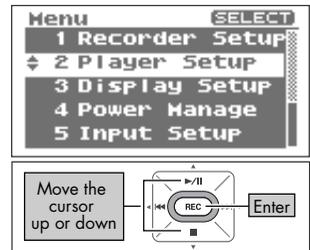


NOTE

The <Menu Screen> is not shown during playback. Press the [STOP Button ■] to stop playback.

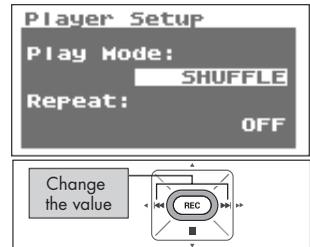
2. Select "Player Setup."

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Player Setup," then press the [REC Button].



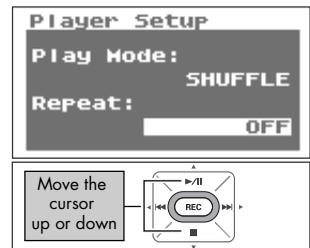
3. Select "SHUFFLE."

Use the [RWD Button ◀] and [FWD Button ▶] to change the Play Mode value, and select "SHUFFLE."



4. Select "Repeat."

Use the [PLAY Button ▲] and [STOP Button ▼] to move the cursor to the "Repeat" line.

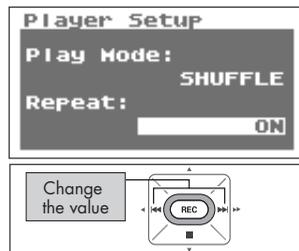


5. Set repeat playback.

Use the [RWD Button ◀] and [FWD Button ▶] to change the Repeat value.

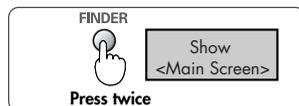
MEMO

- If "Repeat" is set to OFF, playback automatically stops once all the songs in the selected folder have been played with the shuffle feature.
- If "Repeat" is set to ON, songs are repeated in the same order once all the songs in the selected folder have been played with the shuffle feature.



6. Return to <Main Screen>.

Press the [FINDER/MENU Button] twice to return to the <Main Screen>.

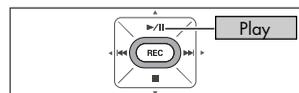


7. Play back.

Press the [PLAY Button ▶/II].

MEMO

To reshuffle the songs, press the [Stop Button] once, then press the [PLAY Button] again.



Playing back in order

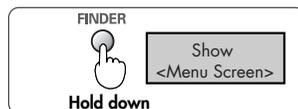
The recorded songs are played back in order of their song number.

cf. 

"The order of songs" (p. 44)

1. Show the <Menu Screen>.

Press and hold down the [FINDER/MENU Button] to show the <Menu Screen>.

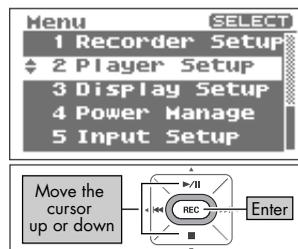


NOTE

The <Menu Screen> is not shown during playback. Press the [STOP Button ■] to stop playback.

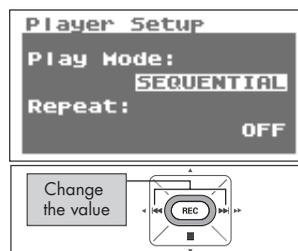
2. Select "Player Setup."

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Player Setup," then press the [REC Button].



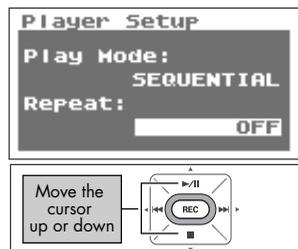
3. Select "SEQUENTIAL."

Use the [RWD Button ◀] and [FWD Button ▶] to change the Play Mode value, and select "SEQUENTIAL."



4. Select "Repeat."

Use the [PLAY Button ▲] and [STOP Button ▼] to move the cursor to the "Repeat" line.

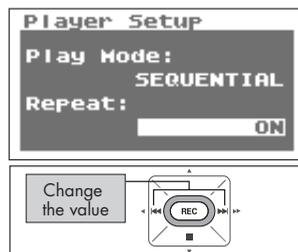


5. Set repeat playback.

Use the [RWD Button ◀] and [FWD Button ▶] to change the Repeat value.

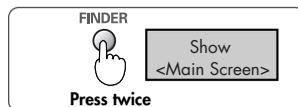
MEMO

- If "Repeat" is set to OFF, playback automatically stops once all the songs in the selected folder have been played in song order.
- If "Repeat" is set to ON, songs are repeated in the same order once all the songs in the selected folder have been played in song order.



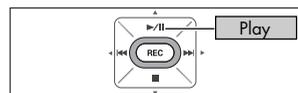
6. Return to <Main Screen>.

Press the [FINDER/MENU Button] twice to return to the <Main Screen>.



7. Play back.

Press the [PLAY Button ▶/II].



Applying reverb effects during playback

The R-09 can apply reverb effects to the song being played. Such reverberation simulates the experience of being in a hall or on stage.

TERM

REVERB is an effect that can be used to, for example, make it seem as if the sound were being played in a large hall.

NOTE

Sounds with applied reverb cannot be recorded. Reverb cannot be applied while monitoring recordings.

Reverb type

Set the reverb type. Various spaces can be simulated by changing the settings.

Type	Effect
Hall 1	This reverb effect simulates the reverberation in a concert hall. A mild reverberation with a long, spreading sound is obtained. Hall 2 has shorter reverberation than Hall 1.
Hall 2	
Room	This reverb effect simulates the reverberation in a room. A short, bright reverberation that simulates a live stage is obtained.
Plate	This reverb effect simulates plate reverberation (a reverberation unit using vibrations from metal plates). A metallic-sounding reverberation with an extended high range is obtained.

Applying reverb effects



1. Press the [REVERB Button].
2. Pressing the [REVERB Button] cycles you through the available settings for reverb.



Song types that can be played

The R-09 can play back the following songs.

		Sampling frequency (kHz)	Sample size (bits)
WAV	Playback	32, 44.1, 48	16, 24
		Sampling frequency (kHz)	Bit rate (kbps)
MP3	Playback	32, 44.1, 48	64, 96, 128, 160, 192, 224, 256, 320, VBR

TERM

VBR

Variable Bit Rate.

Bit rates are decreased for low sound density situations. Bit rates are increased for high sound density situations.

Downloading songs to a PC

By connecting a PC to the R-09 via a USB cable, songs from the R-09's memory card can be downloaded to the PC and used by music software. Also, songs on the PC can be sent to the R-09 for playback.

MEMO

Supports USB 2.0 (HI-SPEED USB) When connected to a PC supporting USB 2.0, high-speed transfer is possible.

NOTE

Be sure to use the AC adaptor when connecting to a PC.
If the batteries become exhausted while copying a song, the song may be corrupted.

Connecting to the PC

1. Start up the PC.

2. Check that the memory card is in place.

Check that the memory card is inserted in the [Memory Card Slot] on the R-09.



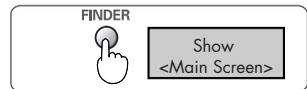
"Inserting" (p. 17)

3. Show the <Main Screen>.

If the <Main Screen> is not showing, press the [FINDER/MENU Button] until the <Main Screen> appears.

MEMO

How many times the [FINDER/MENU Button] needs to be pressed depends on the screen that is showing.

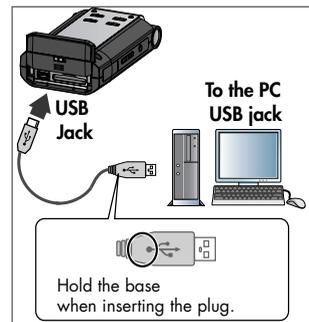


4. Connect with the USB cable.

The R-09 connects to the PC with the included USB cable.

NOTE

- When connecting the USB cable to the PC, avoid touching the metal portions. Hold the base when inserting the plug.
- If you connect to a PC without having a memory card in place, the R-09's display shows "No Card."
- The PC will not recognize the R-09 if connecting while the <Menu Screen> is showing or during playback or recording. First, disconnect the USB cable connecting the R-09 to the PC, and then return to step 3.
- Once connected to the PC with the <USB Screen> showing, no features can be used. All other buttons and switch operations will be ignored.
- When "Insert the disk for this file type?" is shown on the PC, click on [Cancel].



After a while, the R-09 is recognized by the PC, and the <USB Screen> is shown in the R-09's display.



Loading songs

Windows

1. Open My Computer.

A name such as "Removable Disk" is displayed for the R-09's memory card.



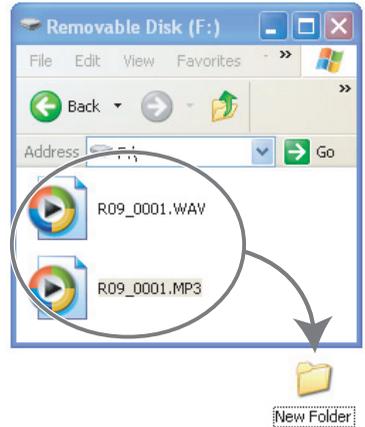
2. Double click on the removable disk.

3. Copy the songs.

Select the songs to copy from the removable disk to the PC, and then drag them to an appropriate location.

MEMO

- It is advisable to create a new folder to copy into.
- Software such as Windows Media Player cannot play back 24 bit WAV files.
- This section uses screens from Windows XP. The actual display may differ depending on the environment.



Downloading songs from a PC

To load songs from the PC into the R-09, select the songs on the PC and drag them to the removable disk icon.

Songs that can be played on the R-09

		Sampling frequency (kHz)	Sample size (bits)
WAV	Playback	32, 44.1, 48	16, 24
		Sampling frequency (kHz)	Bit rate (kbps)
MP3	Playback	32, 44.1, 48	64, 96, 128, 160, 192, 224, 256, 320, VBR

TERM

VBR

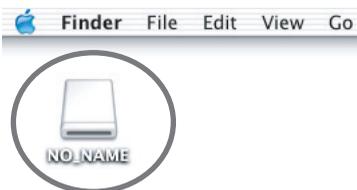
Variable Bit Rate.

Bit rates are decreased for low sound density situations. Bit rates are increased for high sound density situations.

Macintosh

1. "NO NAME" or "Untitled" is displayed on the desktop.

The R-09 appears on the desktop as "NO NAME" (for OS X) or as "untitled" (for OS 9).



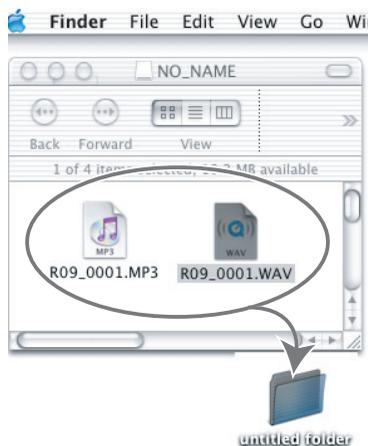
2. Double click on "NO NAME" or "untitled."

3. Copy the songs.

Select the songs to copy from "NO NAME" or "untitled," then drag them to an appropriate location.

MEMO

- It is advisable to create a new folder to copy into.
- This section uses screens from Mac OS 10.4.
- The actual display may differ depending on the environment.



Downloading songs from a PC

To load songs from a Macintosh into the R-09, select the songs on the Macintosh and drag them to the "NO NAME" or "untitled" icon.

Songs that can be played on the R-09

		Sampling frequency (kHz)	Sample size (bits)
WAV	Playback	32, 44.1, 48	16, 24
		Sampling frequency (kHz)	Bit rate (kbps)
MP3	Playback	32, 44.1, 48	64, 96, 128, 160, 192, 224, 256, 320, VBR

TERM

VBR

Variable Bit Rate.

Bit rates are decreased for low sound density situations. Bit rates are increased for high sound density situations.

Disconnecting the PC

Disconnect the PC and R-09. Follow the procedure below to disconnect and unplug the USB cable.

NOTE

Do not turn off power to the R-09 or remove the USB cable or memory card while the PC and R-09 are connected.

Windows

1. Display the “Safe to remove hardware” dialogue box.

Double click on the safely remove hardware icon  in the Windows task tray.

2. Select the memory card.

Select the R-09 from the displayed list of hardware devices.

Windows XP, 2000	USB mass storage device
Windows Me	USB disk

3. Click on [Stop] in the dialogue box.

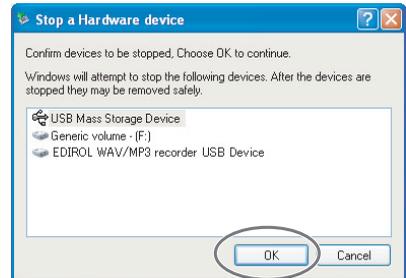


4. Click on [OK].

When the safely remove hardware dialog box appears, select the R-09 memory card and click on [OK].

5. Disconnect.

If “The USB Mass Storage Device can now be safely removed from the system” appears, the USB cable connecting the R-09 and PC can be unplugged.



Macintosh

1. Disconnect the R-09.

Disconnect the R-09 connection shown on the desktop.

- With Mac OS X, drag the “NO NAME” icon to the  Dock. When dragging to the garbage can on the right side of the Dock, the garbage can changes to  and the connection can be terminated.
- For Mac OS 9, drag the “untitled” icon to the garbage can.



MEMO

- This section uses screens from Mac OS 10.4.
- The actual display may differ depending on the environment.

2. Disconnect.

Once the “NO NAME” or “untitled” icon has been deleted from the desktop, the USB cable connected the R-09 and PC can be removed. The power to the R-09 can also be turned off.

Memo

Manipulating songs and folders

The R-09 saves songs to the memory card.

The <Finder Screen> lists these songs, and the songs can be deleted or copied from this screen. Also, folders can be created, so songs can be moved to and managed in folders.

<Finder Screen> Operation List

Menu	Selection	Effect	Procedure
Select	Song	Selects a song and moves to the <Main Screen>.	p. 63
	Folder	Selects a folder and moves to the <Main Screen>.	
Information	Song	Shows information about the song. Or protects it.	p. 64
	Folder	Shows information about the folder.	
Delete	Song	Deletes the song.	p. 65
	Folder	Deletes the folder.	
Rename	Song	Changes the song name.	p. 66
	Folder	Changes the folder name.	
Move	Song	Moves the song.	p. 67
Copy	Song	Copies the song.	p. 69

Menu	Selection	Effect	Procedure
Make Folder	Folder, Directory	Creates a new folder.	p. 70

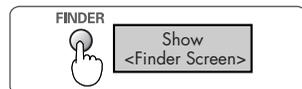
Displaying the <Finder screen>

Press the [FINDER/MENU Button].

The <Finder screen> is shown.

MEMO

The songs are shown from the top in alphabetical order.



Selecting (Select)

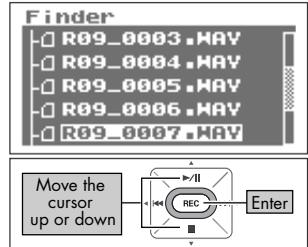
This operation is used to select and play back a song from the list of recorded songs. If a folder is selected, the current directory changes to the selected folder and the songs in the folder can be selected from the <Main Screen>.

1. Select a song or folder from the <Finder Screen>.

Use the [PLAY Button ▲] and [STOP Button ▼] to select a song or folder, then press the [REC Button].

MEMO

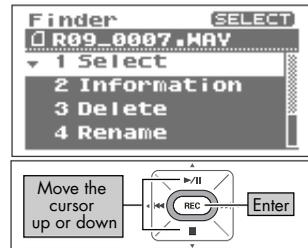
To select a subfolder, select the folder then press the [FWD Button ▶]. To move up a level, press the [RWD Button ◀].



2. Choose "Select."

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Select," then press the [REC Button].

The song or folder is selected, and the <Main Screen> is shown.



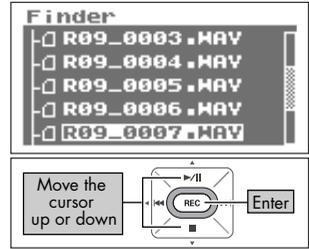
Displaying song or folder information (Information)

1. Select a song or folder from the <Finder Screen>.

Use the [PLAY Button ▲] and [STOP Button ▼] to select a song or folder, then press the [REC Button].

MEMO

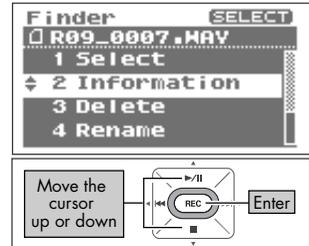
To select a subfolder, select the folder then press the [FWD Button ▶]. To move up a level, press the [RWD Button ◀].



2. Select "Information."

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Information," then press the [REC Button]. The information is displayed.

Displayed information	Name (song or folder name)
	Date (date created)
	Size
	Type (recording mode)
	Sample Rate (sampling frequency)
	Write Protect (protect on/off)



■ Protecting folders (Protect)

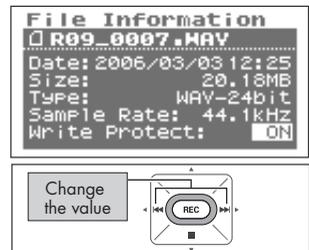
A song can be protected to prevent being deleted accidentally or having its name changed.

1. Set protection on or off.

Use the [RWD Button ◀] and [FWD Button ▶] to switch it on or off.

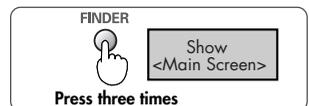
MEMO

When protection is on, a lock is shown on the icon.



3. Return to <Main Screen>.

Press the [FINDER/MENU Button] three times to return to the <Main Screen>.



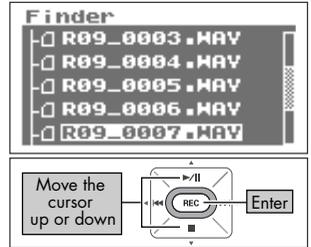
Deleting (Delete)

1. Select a song or folder from the <Finder Screen>.

Use the [PLAY Button ▲] and [STOP Button ▼] to select a song or folder, then press the [REC Button].

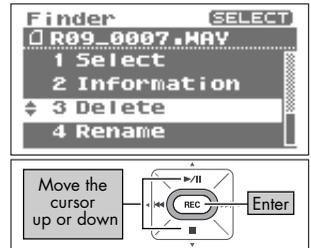
MEMO

To select a subfolder, select the folder then press the [FWD Button ▶]. To move up a level, press the [RWD Button ◀].



2. Select "Delete."

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Delete," then press the [REC Button].



3. Press the [REC Button] to delete the song.

A confirmation screen is shown. Press the [REC Button] to delete the song.

MEMO

To cancel, press the [FINDER/MENU Button] before pressing the [REC Button].



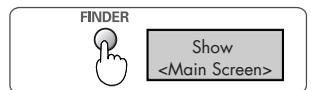
NOTE

Do not turn off power while the deletion takes place.



4. Return to <Main Screen>.

Press the [FINDER/MENU Button].



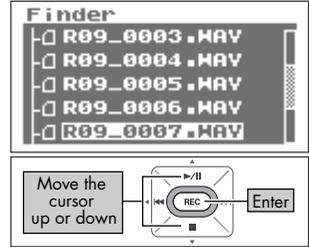
Changing the name (Rename)

1. Select a song or folder from the <Finder Screen>.

Use the [PLAY Button ▲] and [STOP Button ▼] to select a song or folder, then press the [REC Button].

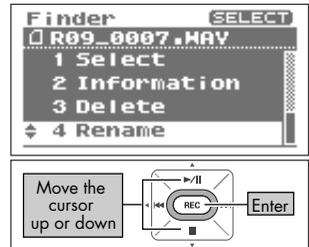
MEMO

To select a subfolder, select the folder then press the [FWD Button ▶]. To move up a level, press the [RWD Button ◀].



2. Select "Rename."

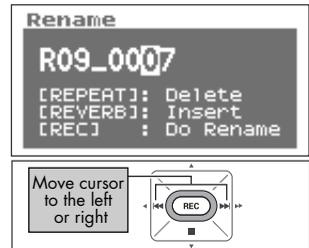
Use the [PLAY Button ▲] and [STOP Button ▼] to select "Rename," then press the [REC Button].



3. Edit the song (file) name.

1. Move the cursor.

Use the [RWD Button ◀] and [FWD Button ▶] to move the cursor to the right or left.



2. Edit.

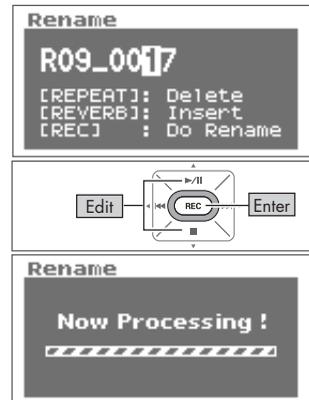
Move the cursor to the character to change, use the [PLAY Button ▲] and [STOP Button ▼] to change the character, then press the [REC Button] to enter the changes.

MEMO

- Insert a character with the [REVERB Button]. Delete a character with the [REPEAT Button].
- To cancel, press the [FINDER/MENU Button] before pressing the [REC Button].
- If the name already exists, "Already Exists" is shown. Use a different name.

NOTE

Do not turn off power or remove the memory card while making changes.



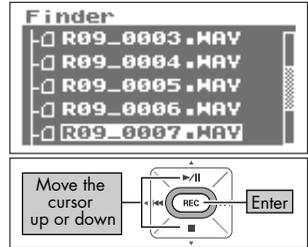
Moving songs (Move)

1. Select a song from the <Finder Screen>.

Use the [PLAY Button ▲] and [STOP Button ▼] to select a song, then press the [REC Button].

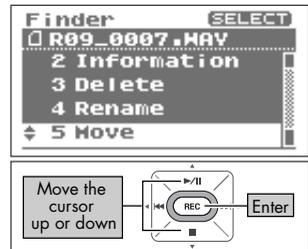
MEMO

To select a subfolder, select the folder then press the [FWD Button ▶]. To move up a level, press the [RWD Button ◀].



2. Select "Move."

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Move," then press the [REC Button].



3. Select where to move the song.

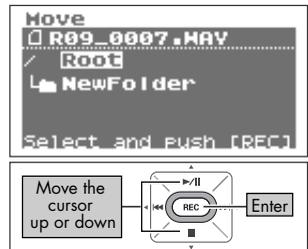
Use the [PLAY Button ▲] and [STOP Button ▼] to select the destination, then press the [REC Button].

MEMO

- Select "Root" to move the song to the top level. When a folder is selected, the song is moved into that folder. → "R-09 memory card structure" (p. 68)
- To cancel, press the [FINDER/MENU Button] before pressing the [REC Button].
- To select a subfolder, select the folder then press the [FWD Button ▶]. To move up a level, press the [RWD Button ◀].

NOTE

- Do not turn off power or remove the memory card while moving songs.
- The Move operation cannot be used if the song being moved is larger than the available free memory on the memory card.



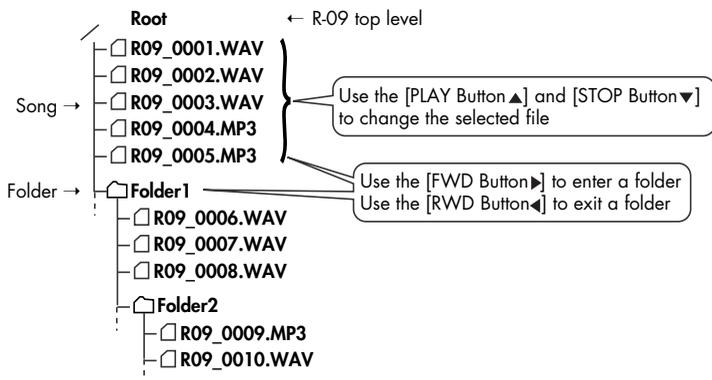
4. Return to the <Main Screen>.

Press the [FINDER Button (+) and (-) HEADPHONE VOLUME buttons].



R-09 memory card structure

The song and folder structure for the R-09 memory card is shown below.



MEMO

- The song and folder names can be changed. →“Changing the name (Rename)” (p. 66)
- Folders can be made in any location. →“Creating folders (Make Folder)” (p. 70)

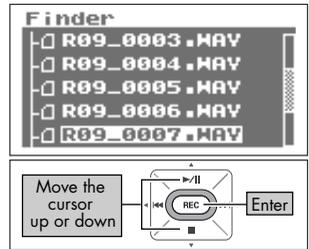
Copying (Copy)

1. Select a song from the <Finder Screen>.

Use the [PLAY Button ▲] and [STOP Button ▼] to select a song, then press the [REC Button].

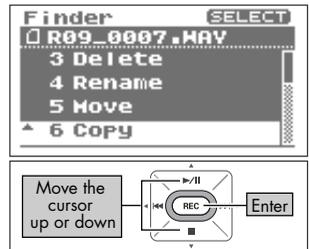
MEMO

To select a subfolder, select the folder then press the [FWD Button ▶]. To move up a level, press the [RWD Button ◀].



2. Select "Copy."

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Copy," then press the [REC Button].



3. Select where to copy the song.

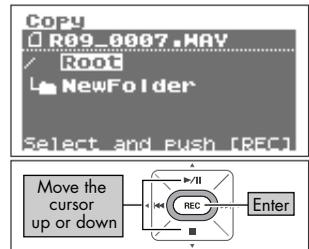
Use the [PLAY Button ▲] and [STOP Button ▼] to select where to copy the song, then press the [REC Button].

MEMO

- Select "Root" to copy the song to the top level. When a folder is selected, the song is copied into that folder. →"R-09 memory card structure" (p. 68)
- To cancel, press the [FINDER/MENU Button] before pressing the [REC Button].
- To select a subfolder, select the folder then press the [FWD Button ▶]. To move up a level, press the [RWD Button ◀].

NOTE

Do not turn off power or remove the memory card while copying songs.



4. Return to <Main Screen>.

Press the [FINDER/MENU Button].

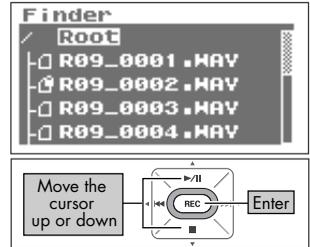


Creating folders (Make Folder)

1. Select where to create a folder from the <Finder Screen>.

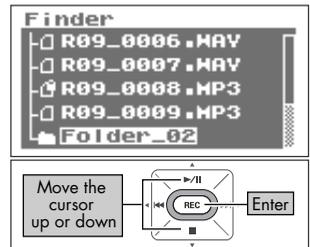
■ Selecting Root

1. Use the [PLAY Button ▲] and [STOP Button ▼] to select Root, then press the [REC Button].

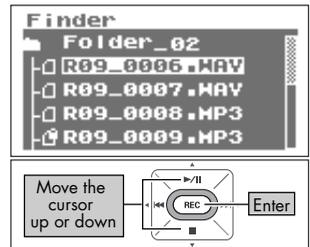


■ Selecting a folder

1. Use the [PLAY Button ▲] and [STOP Button ▼] to select the folder where the new folder is to be created.

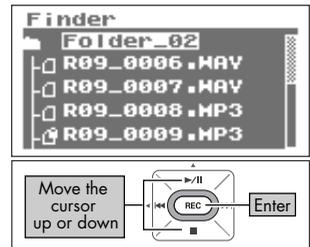


2. Use the [FWD Button ►] to enter a folder.



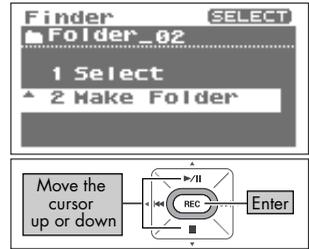
3. Select a folder.

Use the [PLAY Button ▲] and [STOP Button ▼] to select the name of the folder at the top and press the [REC Button].



2. Select "Make Folder."

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Make Folder," then press the [REC Button].



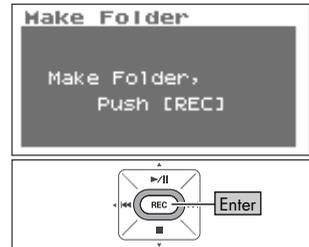
3. Press the [REC Button] to enter.

A confirmation screen is shown. Press the [REC Button] to enter.

A "New Folder" is created.

MEMO

To cancel, press the [FINDER/MENU Button] before pressing the [REC Button].



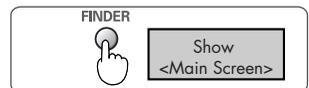
NOTE

Do not turn off power or remove the memory card while creating a folder.



4. Return to <Main Screen>.

Press the [FINDER/MENU Button].



R-09 Configuration Settings

Various R-09 settings, such as recording and playback settings and date and time settings, are done from the <Menu Screen>.

List of Settings

Category	Menu/Effect	Value (Default value in bold)	Procedure
Recorder Setup	Sample Rate Rate Sets the sampling frequency when recording.	44.1/48	p. 73
	Rec Mode Sets the song type (recording mode) when recording.	MP3 64/96/128/ 192/224/320 WAV 16/24	p. 74
Player Setup	Play Mode Sets the order songs are played back.	SINGLE/ SEQUENTIAL / SHUFFLE	p. 75
	Repeat Sets whether to use repeat playback.	OFF /ON	p. 76
Display Setup	Brightness Adjusts the display brightness.	1-5-10	p. 77
	Display Timer Sets the time to wait for some input before darkening the screen.	OFF /2/5/10/20	p. 78
Power Manage	Auto Power Off Sets the time to wait for input before turning off the power.	OFF/3/5/10/15/ 30 / 45/60	p. 79
	Battery Sets the battery type used.	ALKALINE /Ni-MH	p. 80
Input Setup	Rec Monitor Sw Turn on when monitoring the input sound with headphones during recording. Turn off when not monitoring.	OFF/ ON	p. 81
	Plug-in Power Set to on when connecting a plug-in powered microphone (compact condenser microphone that requires a power supply when used with a PC or other device) is connected to the MIC jack. 2.5 volts are supplied.	OFF /ON	p. 82
Date & Time	— Sets the date and time.	—	p. 83
SD Card	Information Shows information about the SD memory card.	—	p. 84
	Format Formats the SD memory card.	—	p. 19
Factory Reset	Initializes the R-09.	—	p. 85

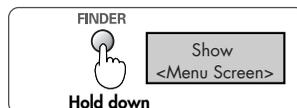
Displaying the <Menu screen>

Press and hold down the [FINDER/MENU Button].

The <Menu screen> is shown.

NOTE

The screen cannot be changed while playing or recording a song. Please try while the unit is stopped.



Setting the sampling frequency when recording (Sample Rate)

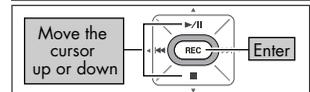
Decide on whether the sound quality or a longer recording time is to be given precedence, and set the sampling frequency accordingly.

cf. ➔

“Configuring recording” (p. 26)

1. Select “Recorder Setup” from the <Menu Screen>.

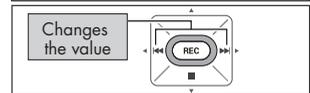
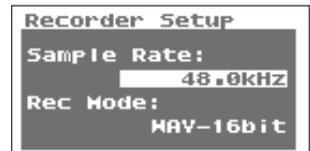
Use the [PLAY Button ▲] and [STOP Button ▼] to select “Recorder Setup,” then press the [REC Button].



2. Set the sampling frequency (Sample Rate).

Use the [RWD Button ◀] and [FWD Button ▶] to change the Sample Rate value.

Setting	44.1 (kHz)
	48 (kHz)



MEMO

When finished with the settings, press the [MENU] button to return to previous screens.

Setting the recording mode (Rec Mode)

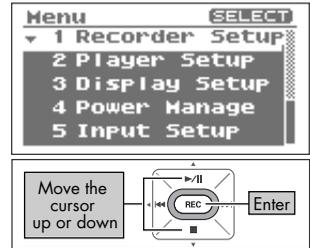
Please make the sampling frequency according to whether sound quality or recording time has precedence.

cf. ➤

"Configuring recording" (p. 26)

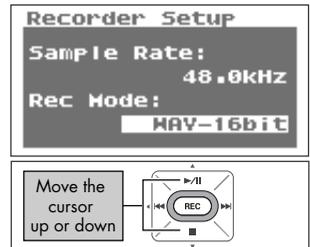
1. Select "Recorder Setup" from the <Menu Screen>.

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Recorder Setup," then press the [REC Button].



2. Select "Rec Mode."

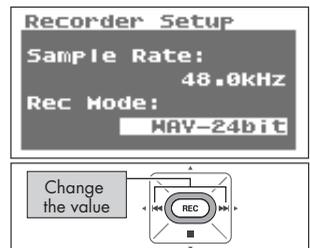
Use the [PLAY Button ▲] and [STOP Button ▼] to move the cursor to the Rec Mode line.



3. Set the recording mode.

Use the [RWD Button ◀] and [FWD Button ▶] to change the Rec Mode value.

Setting	MP3 64 kbps
	MP3 96 kbps
	MP3 128 kbps
	MP3 160 kbps
	MP3 192 kbps
	MP3 224 kbps
	MP3 320 kbps
	WAV 16 bit
WAV 24 bit	



MEMO

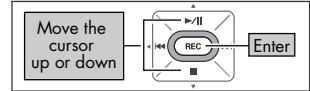
When finished with the settings, press the [MENU] button to return to previous screens.

Setting the song playback mode (Play Mode)

Here's how to set the playback method for songs. In addition to playing songs back in order from the beginning, one song can be repeated or songs can automatically be reordered for playback.

1. Select "Player Setup" from the <Menu Screen>.

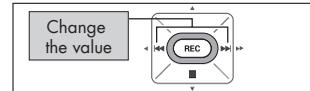
Use the [PLAY Button ▲] and [STOP Button ▼] to select "Player Setup," then press the [REC Button].



2. Set the playback mode.

Use the [RWD Button ◀] and [FWD Button ▶] to change the setting for Play Mode.

Setting	SINGLE (play one song)
	SEQUENTIAL (play in order)
	SHUFFLE (shuffle play)



cf.

- "Repeating a song" (p. 48)
- "Shuffle play" (p. 50)
- "Playing back in order" (p. 52)

MEMO

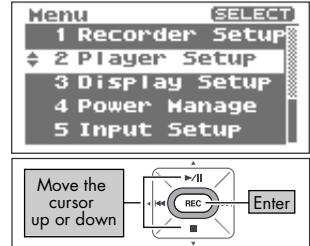
When finished with the settings, press the [MENU] button to return to previous screens.

Setting whether to use repeat playback or not (Repeat)

When set to repeat playback, the song is repeated according to the playback mode (p. 75) setting.

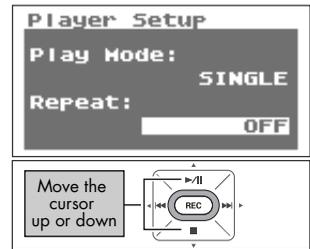
1. Select "Player Setup" from the <Menu Screen>.

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Player Setup," then press the [REC Button].



2. Select "Repeat."

Use the [PLAY Button ▲] and [STOP Button ▼] to move the cursor to the Repeat line.



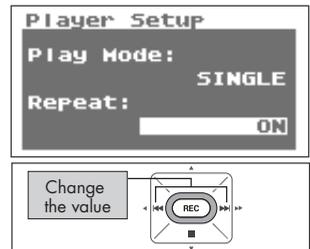
3. Set repeat playback.

Use the [RWD Button ◀] and [FWD Button ▶] to change the Repeat value.

Setting	OFF (no repeat)
	ON (repeat)

MEMO

When finished with the settings, press the [MENU] button to return to previous screens.



Adjusting the display brightness (Brightness)

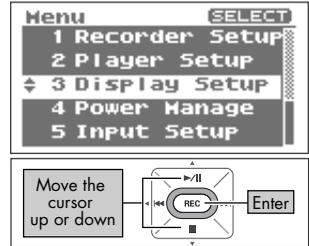
Here's how to adjust the brightness of the R-09's display.

MEMO

Power consumption is reduced when the display's brightness is decreased.

1. Select "Display Setup" from the <Menu Screen>.

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Display Setup," then press the [REC Button].



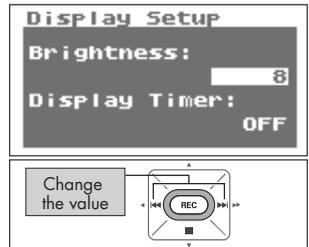
2. Set the brightness using "Brightness."

Use the [RWD Button ◀] and [FWD Button ▶] to adjust the brightness by changing the Brightness value.

Setting	1 (dark)-5-10 (bright)
---------	------------------------

MEMO

When finished with the settings, press the [MENU] button to return to previous screens.

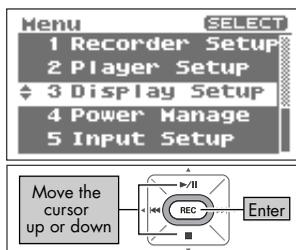


Setting the time until the screen is darkened when no operations are performed for a set period of time (Display Timer)

To reduce power consumption, this feature automatically turns off the display when no operations are performed within a set period of time.

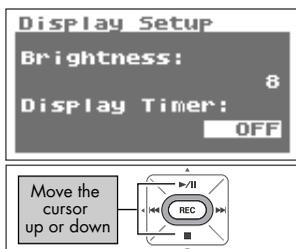
1. Select "Display Setup" from the <Menu Screen>.

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Display Setup," then press the [REC Button].



2. Select "Display Timer."

Use the [PLAY Button ▲] and [STOP Button ▼] to move the cursor to the Display Timer line.



3. Set the time.

Use the [RWD Button ◀] and [FWD Button ▶] to change the Display Time value, and set the time until the screen goes dark.

Set to "OFF" to keep the screen bright no matter how much time passes.

(units: seconds)

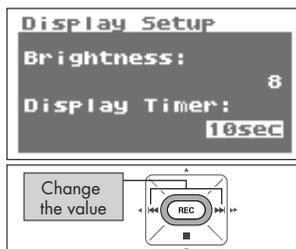
Setting	OFF
	2
	5
	10
	20

cf. →

"Power saving feature" (p. 16)

MEMO

When finished with the settings, press the [MENU] button to return to previous screens.



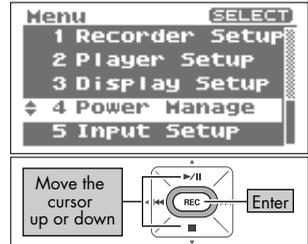
Setting the time until the power turns off when no operations are performed for a set amount of time (Auto Power Off)

This feature automatically turns off power when no operations are performed for a set amount of time to reduce power consumption.

During recording and playback or while connected via USB, the power does not turn off even if no operations are performed within the set period of time.

1. Select "Power Manage" from the <Menu Screen>.

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Power Manage," then press the [REC Button].



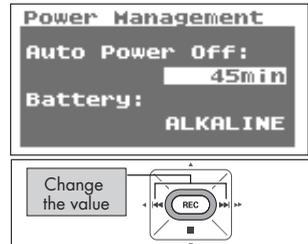
2. Set the time with "Auto Power Off."

Use the [RWD Button ◀] and [FWD Button ▶] to change the Auto Power Off value, which specifies the time until the power turns off.

Set to "OFF" to keep power on.

(Unit: minutes)

Setting	OFF
	3
	5
	10
	15
	30
	45
	60



cf. →

"Power saving feature" (p. 16)

MEMO

When finished with the settings, press the [MENU] button to return to previous screens.

Setting the battery type (Battery)

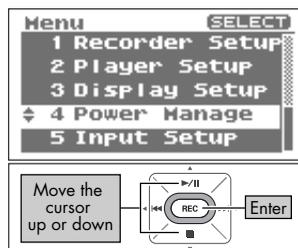
When using batteries with the R-09, set Battery according to the type of battery being used.

NOTE

If the wrong type is set, the remaining battery power will not be shown correctly.

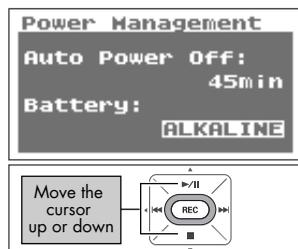
1. Select "Power Manage" from the <Menu Screen>.

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Power Manage," then press the [REC Button].



2. Select "Battery."

Use the [PLAY Button ▲] and [STOP Button ▼] to move the cursor to the Battery line.



3. Set the battery type.

Use the [RWD Button ◀] and [FWD Button ▶] to set the battery type by changing the setting for Battery.

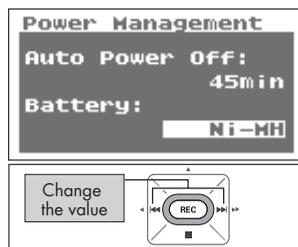
Setting	ALKALINE
	Ni-MH (nickel metal hydride)

cf.

- "Cautions when using batteries with the R-09" (p. 16)
- "Power saving feature" (p. 16)
- "Remaining battery power indication" (p. 16)

MEMO

When finished with the settings, press the [MENU] button to return to previous screens.

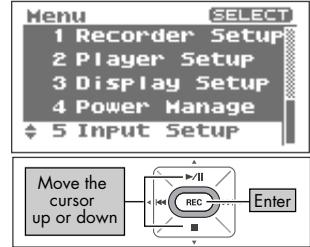


Setting whether to monitor sound while recording (Rec Monitor Sw)

Sets whether to monitor the input sound through headphones while recording.

1. Select "Input Setup" from the <Menu Screen>.

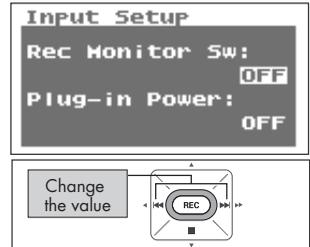
Use the [PLAY Button ▲] and [STOP Button ▼] to select "Input Setup," then press the [REC Button].



2. Set monitoring with the "Rec Monitor Sw."

Use the [RWD Button ◀] and [FWD Button ▶] to set whether to monitor the input sound through the headphones during recording by changing the setting for Rec Monitor Sw.

Setting	OFF (no monitoring)
	ON (monitoring)



MEMO

When finished with the settings, press the [MENU] button to return to previous screens.

NOTE

If you monitor the sound through headphones while recording, there will be a 6 ms delay compared to the actual sound, but this is not a malfunction.

Plug-in Setting whether to use a plug-in powered microphone or not (Plug-in Power)

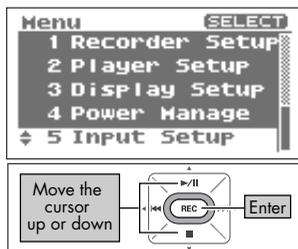
The following setting needs to be made when using an external microphone. Set it to ON when using a microphone that requires plug-in power; set it to OFF when the microphone uses batteries or does not require plug-in power.

NOTE

Damage may result if you connect a dynamic microphone or a battery-powered microphone when the R-09 is set to use plug-in powered microphones.

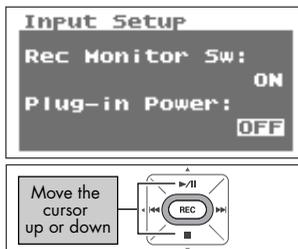
1. Select "Input Setup" from the <Menu Screen>.

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Input Setup," then press the [REC Button].



2. Select "Plug-in Power."

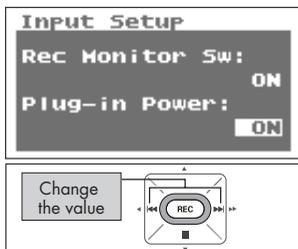
Use the [PLAY Button ▲] and [STOP Button ▼] to move the cursor to the Plug-in Power line.



3. Make the setting for plug-in powered microphones.

Use the [RWD Button ◀] and [FWD Button ▶] to set whether to use a plug-in powered microphone or not by changing the setting for Plug-in Power.

Setting	OFF (not using plug-in powered microphone)
	ON (using plug-in powered microphone)



MEMO

When finished with the settings, press the [MENU] button to return to previous screens.

cf.

"Using external microphones" (p. 33)

Setting the date and time (Date & Time)

Set the internal clock.

The time and date set here is used as data for the recorded songs.



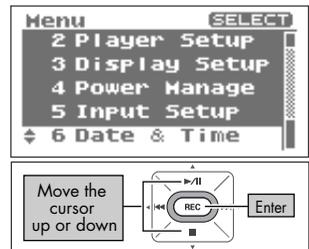
"Displaying song or folder information (Information)" (p. 64)

NOTE

When the power is on, the internal clock draws power from the AC adaptor or the batteries. When the power is off, the internal clock will run temporarily on the power stored in the unit, but if the power is off for several days, the internal clock settings return to the original settings (initial status). When power is turned on in initial status, the message "Clock Initialized" is shown. If "Clock Initialized" is shown, please reset the date and time.

1. Select "Date & Time" from the <Menu Screen>.

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Date & Time," then press the [REC Button].



2. Edit the time and date.

1. Move the cursor.

Use the [RWD Button ◀] and [FWD Button ▶] to move the cursor to the right or left.

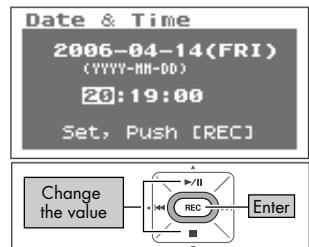


2. Edit the date and time.

Move the cursor to the character to change, use the [PLAY Button ▲] and [STOP Button ▼] to change the date and time, then press the [REC Button] to enter the changes.

MEMO

- To cancel, press the [FINDER/MENU Button] before pressing the [REC Button].
- When finished with the settings, press the [MENU] button to return to previous screens.



NOTE

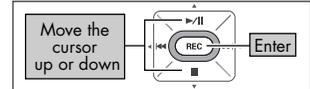
Do not turn off power while editing.

Displaying SD memory card information (Information)

The memory card usage and protect setting can be checked.

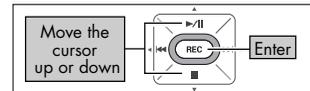
1. Select "SD Card" from the <Menu Screen>.

Use the [PLAY Button ▲] and [STOP Button ▼] to select "SD Card," then press the [REC Button].



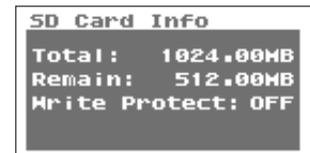
2. Select "Information."

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Information," then press the [REC Button].



The information is displayed.

Displayed information	
	Total (total capacity)
	Remain (free space)
	Write Protect (protect on/off)



MEMO

When finished with the settings, press the [MENU] button to return to previous screens.

Formatting SD memory cards (Format)



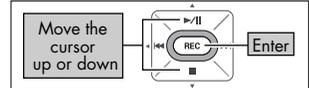
See "Formatting" (p. 19) for information about formatting memory cards.

Initializing the R-09 (Factory Reset)

You can restore all the settings that the R-09 originally had when it left the factory by carrying out the procedure below. This operation does not delete songs on the memory card.

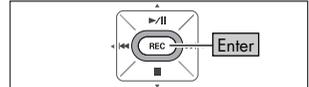
1. Select "Factory Reset" from the <Menu Screen>.

Use the [PLAY Button ▲] and [STOP Button ▼] to select "Factory Reset," then press the [REC Button].



2. Press the [REC Button] to initialize.

A confirmation screen is shown. Press the [REC Button] to initialize.



3. Select "Yes."

A confirmation screen is shown.

Use the [RWD Button ◀] and [FWD Button ▶] to select "Yes," then press the [REC Button].



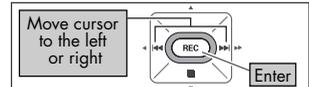
See the table on p. 72 for initial settings.



When not performing initialization, press the [FINDER/MENU Button].

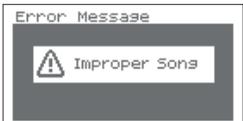


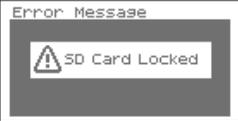
Do not turn off power during initialization.



Message list

This section describes the main messages shown on the display.

Message	Problem
 <p>Error Message ⚠ Clock Initialized</p>	Clock Initialized The internal clock was initialized because no power was available.
 <p>Error Message ⚠ Battery Low</p>	Battery Low The remaining power of the internal battery is low. The battery must be replaced. The AC adaptor may also be used.
 <p>Error Message ⚠ Improper Song</p>	Improper Song The song is in a file format that cannot be used with the R-09.
 <p>Error Message ⚠ Already Exists</p>	Already Exists There is a song or folder of the same name. Create the song or folder using a different name.
 <p>Error Message ⚠ Song Protected</p>	Song Protected The song is protected. Turn Write protect OFF and then try again.
 <p>Error Message ⚠ Name Too Long</p>	Name Too Long The name is too long.
 <p>Error Message ⚠ File System Err</p>	File System Err The memory card has not been formatted. Format the memory card on the R-09.
 <p>Error Message ⚠ SD Unformatted</p>	SD Unformatted The memory card is not formatted or cannot be recognized. Format the memory card on the R-09.

Message	Problem
 <p>The image shows a rectangular display area with a dark background. At the top, it says "Error Message". Below that, there is a white box containing a warning icon (a triangle with an exclamation mark) and the text "SD Card Full".</p>	<p>SD Card Full The memory card does not have sufficient space available. Copy the song to the PC and check the memory card capacity.</p>
 <p>The image shows a rectangular display area with a dark background. At the top, it says "Error Message". Below that, there is a white box containing a warning icon (a triangle with an exclamation mark) and the text "SD Card Slow".</p>	<p>SD Card Slow The write to the memory card was too slow. Use a memory card that was tested for the R-09. The performance of the memory card may have decreased because of improper song organization on the memory card, which was caused by repeated saving and deleting. In this case, re-format the memory card.</p>
 <p>The image shows a rectangular display area with a dark background. At the top, it says "Error Message". Below that, there is a white box containing a warning icon (a triangle with an exclamation mark) and the text "SD Card Locked".</p>	<p>SD Card Locked The memory card is locked. Remove the memory card and unlock it.</p>
 <p>The image shows a rectangular display area with a dark background. At the top, it says "Error Message". Below that, there is a white box containing a warning icon (a triangle with an exclamation mark) and the text "SD Card Error".</p>	<p>SD Card Error An error occurred while accessing the memory card. The memory card may be corrupted.</p>
 <p>The image shows a rectangular display area with a dark background. At the top, it says "Error Message". Below that, there is a white box containing a warning icon (a triangle with an exclamation mark) and the text "No Card".</p>	<p>No Card No memory card has been inserted. Insert a memory card into the R-09.</p>
 <p>The image shows a rectangular display area with a dark background. At the top, it says "Error Message". Below that, there is a white box containing a speech bubble icon and the text "HOLD is ON".</p>	<p>HOLD is ON The hold switch is ON. This message is shown when an operation is attempted while the hold switch is turned on.</p>
 <p>The image shows a rectangular display area with a dark background. At the top, it says "Error Message". Below that, there is a white box containing a speech bubble icon and the text "Now Recording".</p>	<p>Now Recording Recording is currently in progress. This message is displayed when an operation is attempted during recording. Cancel the recording to perform an operation.</p>
 <p>The image shows a rectangular display area with a dark background. At the top, it says "Error Message". Below that, there is a white box containing a speech bubble icon and the text "Now Playing".</p>	<p>Now Playing Playback is currently in progress. This message is displayed when an operation is attempted during playback. Cancel playback to perform an operation.</p>
 <p>The image shows a rectangular display area with a dark background. At the top, it says "Error Message". Below that, there is a white box containing a speech bubble icon and the text "AGC is ON".</p>	<p>AGC is ON The Auto Gain Control switch is ON. This message is shown when an operation of the Input Level button is attempted while the Auto Gain Control switch is turned on.</p>

Troubleshooting

This section provides tips on solving problems that may occur.

Problems during recording

The recording only plays on the L channel (left)

- If using an external microphone, check whether the microphone is set to stereo or monaural. If the microphone is a monaural one, only the L channel (left) is recorded. To record both channels using a monaural microphone, set the microphone type to “MONO” using the [EXTERNAL MICROPHONE TYPE Switch].

cf. ➤ “EXTERNAL MICROPHONE TYPE switch” (p. 9)

Recording won't start

- Check the amount of space available on the memory card. Recording is impossible if there is less than 16 KB available. Recording standby cannot be entered either.

cf. ➤ “Estimated recording times” (p. 28)

Can't use the microphone

- When using the [Internal MIC], do not connect anything to the other input jacks. If a microphone, cable, or device is connected to the [MIC Input Jack] or [LINE IN Jack], the [Internal MIC] cannot be used.
cf. ➤ “MICROPHONE INPUT jack” (p. 8), “LINE IN jack” (p. 8), “Using the internal microphones” (p. 29)
- When using an external microphone, please connect to the [MIC Input Jack] only. If a microphone, cable, or other device is connected to the [Line In Jack], then the input from the [MIC Input Jack] is ignored.
cf. ➤ “MICROPHONE INPUT jack” (p. 8), “LINE IN jack” (p. 8), “Using external microphones” (p. 33)
- When using an external microphone, make sure to choose the settings appropriate for the microphone being used.
cf. ➤ “Set the type of microphone being used.” (p. 35)
- Is a phantom powered microphone connected?
The R-09 does not support phantom powered microphones.

The recording is distorted

- Sound becomes distorted if the input level is too high. Set the input level to an appropriate value.

cf. ➤ “Adjusting recording levels” (p. 37)

Can't record

- Recording is not possible if there is insufficient remaining time. The remaining recording time is shown in the display in recording-standby mode. There is no remaining time if 00:00:00 is shown. Check the amount of free space on the memory card.

cf. ➤ “Estimated recording times” (p. 28)

- Recording is not possible if the memory card is not inserted properly. The display shows “No Card” when the memory card is not recognized. Turn off power and re-insert the memory card.

cf. ➤ “Inserting” (p. 17)

- If the memory card is not formatted, the memory card is not recognized, and the display shows “SD unformatted.” Format the memory card.

cf. ➤ “Formatting” (p. 19)

- Recording is not possible if the write protect (LOCK) feature is turned on. Unlock the write protect feature.

cf. ➤ “SD Memory Card” (p. 20)

- Recording cannot be performed correctly if the input level set with the [INPUT LEVEL buttons] is too low. Set a proper input level.

cf. ➤ “Adjusting recording levels” (p. 37)

- When using an external microphone, connect it properly to the [MIC Input Jack]. Also check the [EXTERNAL MICROPHONE TYPE Switch] settings.

cf. ➤ “MICROPHONE GAIN switch” (p. 9)

- Memory cards must be formatted on the R-09 to operate properly. Memory cards formatted on a PC may have the wrong format type. In these cases, the recording may stop immediately after starting, or a proper recording may not be possible.

cf. ➤ “Formatting” (p. 19)

A stereo song is created although a monaural microphone was used for recording.

- The R-09 records in stereo. Even if a monaural microphone is connected and the [EXTERNAL MICROPHONE TYPE Switch] is set to “MONO,” a stereo song with the same sound recorded on both the L and R tracks is created.

Problems during playback

There's no sound

- The sound may not be heard if the output volume is too low. Increase the output volume gradually.
cf. ➤ "(+) and (-) HEADPHONE VOLUME buttons" (p. 7)
- Check if the headphones or speakers are connected properly.
cf. ➤ "Basic connections" (p. 42)

Can't play songs

- Check if the song name is correct. Songs beginning with a "." (period) cannot be used on the R-09.
- The R-09 can only play songs with the .MP3 or .WAV extensions. Also, corrupted songs cannot be played.
cf. ➤ "Song types that can be played" (p. 55)
"Changing the name (Rename)" (p. 66)
"Message list" (p. 86)

The wrong song is played

- The song playback mode may be in shuffle play (SHUFFLE). In this mode, the R-09 randomly selects the next song to be played. Change the setting to normal play (SEQUENTIAL).
cf. ➤ "Setting the song playback mode (Play Mode)" (p. 75)
"Shuffle play" (p. 50)

Miscellaneous problems

The power won't turn on

- Check if the AC adaptor is properly connected.
If using batteries, make sure the batteries are inserted correctly in the correct orientation. The batteries may also be low, so have new batteries on hand.

cf. ➤ "Turning power on/off" (p. 14)

- If the R-09 still does not turn on even though there is no problem with the AC adaptor or batteries, the unit may be damaged.

The PC won't recognize the R-09 even after connection

- The PC will not recognize the R-09 if there is no memory card inserted. Check if a memory card is inserted if the R-09 does not appear on the PC desktop.

cf. ➤ "Inserting" (p. 17)

Pressing and holding down the [FINDER/MENU Button] does not show the <Menu Screen>.

- While playing, recording, or in recording standby, pressing and holding down the [FINDER/MENU Button] does not make the <Menu Screen> appear.
First, stop playback or recording, then press and hold down the [FINDER/MENU Button].

The display darkens

- When running on battery power, the display may darken when there are no operations, depending on the Display Timer settings.

cf. ➤ "Setting the time until the screen is darkened when no operations are performed for a set period of time (Display Timer)" (p. 78)

The power turns off suddenly

- If no operations are performed for a set period of time, the power may automatically turn off according to the Auto Power Off settings.

cf. ➤ "Setting the time until the power turns off when no operations are performed for a set amount of time (Auto Power Off)" (p. 79)

- When using batteries, the power will turn off if the batteries are low. Replace with new batteries.

The settings disappear

- If all the settings in the <Menu Screen> are restored to factory defaults, the R-09 may have been accidentally reset to factory defaults. Please reconfigure the settings.

cf. ➤ “Initializing the R-09 (Factory Reset)” (p. 85)

The R-09 is connected to the PC with a USB cable, but the PC doesn't recognize it

- The PC will not recognize the R-09 if the connection is made while the <Menu Screen> is showing or during playback or recording. First, disconnect the USB cable connecting the R-09 to the PC, and then try again.

cf. ➤ “Connecting to the PC” (p. 56)

Displaying the song name is slow when selecting a song

- This problem may be caused by a corrupted song, illegal song format, unsupported MP3 format, a song that is too large, or a song with an .MP3 or .WAV extension that is taking time to verify on the R-09 as playable. These conditions cause the display to be sluggish when selecting a song.

cf. ➤ “Song types that can be played” (p. 55)

Feedback occurs when monitoring with headphones

- If open air headphones are used to monitor recording, feedback may occur if the headphones are too close to the R-09. The R-09's internal microphones are capable of picking up even the faintest of sounds, so do not move too close to the R-09.

The internal clock resets

- The internal clock takes power from the AC adaptor or batteries to operate when power is turned on. When the power is off, the internal clock will run temporarily on the power stored in the unit, but if the power is off for several days, the internal clock settings return to the original settings (initial status). When power is turned on in initial status, the message “Clock Initialized” is shown.

cf. ➤ “Setting the date and time (Date & Time)” (p. 83)

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Specifications

WAV/MP3 RECORDER: R-09

[Recorder Part]

● Tracks

2 (stereo)

● Signal Processing

AD/DA conversion: 24 bits, 44.1/48 kHz

● Data Type

<For Recording> * Stereo only

Format	MP3 (MPEG-1 audio layer 3)
Sampling Rate	44.1/48 kHz
Bit Rates	64/96/128/160/192/224/320 kbps

Format	WAV
Sampling Rate	44.1/48 kHz
Bit Depth	16/24 bits

<For Playback>

Format	MP3 (MPEG-1 audio layer 3)
Sampling Rate	32/44.1/48 kHz
Bit Rates	64/96/128/160/192/224/256/320 kbps or VBR (Variable Bit Rate)

Format	WAV
Sampling Rate	32/44.1/48 kHz
Bit Depth	16/24 bits

● Memory Card

SD Memory Card (supports 64 MB–2 GB)

Recording Time	unit: minutes				
	64MB	128MB	512MB	1GB	2GB
WAV (16 bits/44.1 kHz)	5	11	44	88	180
WAV (16 bits/48 kHz)	5	10	40	81	166
WAV (24 bits/44.1 kHz)	3	7	29	59	120
WAV (24 bits/48 kHz)	3	7	27	54	110
MP3 128 kbps	62	126	490	980	1993
MP3 224 kbps	35	72	280	560	1139
MP3 320 kbps	25	50	196	392	797

* Each recording time is approximate. The times may change depending on the card specifications.

* In case that there are plural files, the sum of recording time would be shorter than above.

[Input/Output]

● Audio Inputs

Internal Stereo Microphone
Mic input
(Stereo miniature phone type, plug-in powered mic)
Line input (Stereo miniature phone type)
* The Internal/External MIC and the LINE IN can't be used at the same time; only the LINE IN is effective.

● Audio Outputs

Phones (Stereo miniature phone type)
Digital Out Connector (Optical miniature phone type)
* Phones and Digital Out use a common jack.

● Nominal Input Level (Variable)

Mic Input: -36dBu (Default input level)
Line Input: 0dBu (Default input level)

● Input Impedance

Mic input: 20 k ohms
Line input: 17 k ohms

● Output Level

25 mW (In case 16 ohms load)

● Recommended Load Impedance

16 ohms or greater

● Frequency Response

20 Hz–22 kHz

● USB Interface

Mini-B type
* support USB 2.0/1.1 mass storage device class

[Effects]

Playback Reverb
4 types (Hall 1, Hall 2, Room, Plate)

[Others]

● Display

128 x 64 dot graphic display

● Power Supply

AC Adaptor, Alkaline dry battery LR6 (AA) type x 2, or Nickel Hydrogen battery (HR15/51) x 2

● Current Draw

360 mA

● Dimensions

62.6 (W) x 102 (D) x 29.1 (H) mm.
2-1/2 (W) x 4-1/16 (D) x 1-3/16 (H) inches

● Weight

145 g / 6 oz
* including batteries and memory card.

● Accessories

Owner's Manual
AC Adaptor
SD Memory Card (64 M bytes)
USB cable (Mini-B type)

* (0 dBu = 0.775 V rms)

* Expected AA alkaline life under continuous use:
Continuous playback: approximately 5.5 hours
Continuous recording: approximately 4 hours
(These figures will vary depending on the actual conditions of use.)

* In the interest of product improvement, the specifications and/or appearance of this unit are subject to change without prior notice.

USING THE UNIT SAFELY

INSTRUCTIONS FOR THE PREVENTION OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

About ⚠ WARNING and ⚠ CAUTION Notices

⚠ WARNING	Used for instructions intended to alert the user to the risk of death or severe injury should the unit be used improperly.
⚠ CAUTION	Used for instructions intended to alert the user to the risk of injury or material damage should the unit be used improperly. * Material damage refers to damage or other adverse effects caused with respect to the home and all its furnishings, as well to domestic animals or pets.

About the Symbols

	The ⚠ symbol alerts the user to important instructions or warnings. The specific meaning of the symbol is determined by the design contained within the triangle. In the case of the symbol at left, it is used for general cautions, warnings, or alerts to danger.
	The ⚡ symbol alerts the user to items that must never be carried out (are forbidden). The specific thing that must not be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the unit must never be disassembled.
	The ⏻ symbol alerts the user to things that must be carried out. The specific thing that must be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the power-cord plug must be unplugged from the outlet.

ALWAYS OBSERVE THE FOLLOWING

⚠ WARNING

- Before using this unit, make sure to read the instructions below, and the Owner's Manual.
- Do not open (or modify in any way) the unit or its AC adaptor.
- Do not attempt to repair the unit, or replace parts within it (except when this manual provides specific instructions directing you to do so). Refer all servicing to your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.
- Never use or store the unit in places that are:
 - Subject to temperature extremes (e.g., direct sunlight in an enclosed vehicle, near a heating duct, on top of heat-generating equipment); or are
 - Damp (e.g., baths, washrooms, on wet floors); or are
 - Humid; or are
 - Exposed to rain; or are
 - Dusty; or are
 - Subject to high levels of vibration.
- Make sure you always have the unit placed so it is level and sure to remain stable. Never place it on stands that could wobble, or on inclined surfaces.
- Be sure to use only the AC adaptor supplied with the unit. Also, make sure the line voltage at the installation matches the input voltage specified on the AC adaptor's body. Other AC adaptors may use a different polarity, or be designed for a different voltage, so their use could result in damage, malfunction, or electric shock.

⚠ WARNING

- Use only the attached power-supply cord. Also, the supplied power cord must not be used with any other device.
- Do not excessively twist or bend the power cord, nor place heavy objects on it. Doing so can damage the cord, producing severed elements and short circuits. Damaged cords are fire and shock hazards!
- Do not allow any objects (e.g., flammable material, coins, pins); or liquids of any kind (water, soft drinks, etc.) to penetrate the unit.
- Immediately turn the power off, remove the AC adaptor from the outlet, and request servicing by your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page when:
 - The AC adaptor, the power-supply cord, or the plug has been damaged; or
 - If smoke or unusual odor occurs
 - Objects have fallen into, or liquid has been spilled onto the unit; or
 - The unit has been exposed to rain (or otherwise has become wet); or
 - The unit does not appear to operate normally or exhibits a marked change in performance.
- Protect the unit from strong impact. (Do not drop it!)

⚠ WARNING

- Do not force the unit's power-supply cord to share an outlet with an unreasonable number of other devices. Be especially careful when using extension cords—the total power used by all devices you have connected to the extension cord's outlet must never exceed the power rating (watts/ amperes) for the extension cord. Excessive loads can cause the insulation on the cord to heat up and eventually melt through. 

- Before using the unit in a foreign country, consult with your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page. 

- Batteries must never be recharged, heated, taken apart, or thrown into fire or water.  

⚠ CAUTION

- The unit and the AC adaptor should be located so their location or position does not interfere with their proper ventilation. 

- Always grasp only the plug on the AC adaptor cord when plugging into, or unplugging from, an outlet or this unit. 

- At regular intervals, you should unplug the AC adaptor and clean it by using a dry cloth to wipe all dust and other accumulations away from its prongs. Also, disconnect the power plug from the power outlet whenever the unit is to remain unused for an extended period of time. Any accumulation of dust between the power plug and the power outlet can result in poor insulation and lead to fire. 

- Try to prevent cords and cables from becoming entangled. Also, all cords and cables should be placed so they are out of the reach of children. 

- Never climb on top of, nor place heavy objects on the unit. 

- Never handle the AC adaptor or its plugs with wet hands when plugging into, or unplugging from, an outlet or this unit. 

- Before moving the unit, disconnect the AC adaptor and all cords coming from external devices. 

⚠ CAUTION

- Before cleaning the unit, turn off the power and unplug the AC adaptor from the outlet. 

- Whenever you suspect the possibility of lightning in your area, disconnect the AC adaptor from the outlet. 

- If used improperly, batteries may explode or leak and cause damage or injury. In the interest of safety, please read and observe the following precautions  

- Carefully follow the installation instructions for batteries, and make sure you observe the correct polarity. 

- Avoid using new batteries together with used ones. In addition, avoid mixing different types of batteries.

- Remove the batteries whenever the unit is to remain unused for an extended period of time.

- If a battery has leaked, use a soft piece of cloth or paper towel to wipe all remnants of the discharge from the battery compartment. Then install new batteries. To avoid inflammation of the skin, make sure that none of the battery discharge gets onto your hands or skin. Exercise the utmost caution so that none of the discharge gets near your eyes. Immediately rinse the affected area with running water if any of the discharge has entered the eyes.

- Never keep batteries together with metallic objects such as ballpoint pens, necklaces, hairpins, etc.

- Used batteries must be disposed of in compliance with whatever regulations for their safe disposal that may be observed in the region in which you live. 

IMPORTANT NOTES

In addition to the items listed under "USING THE UNIT SAFELY" on page p. 99, please read and observe the following:

Power Supply: Use of Batteries

- Do not connect this unit to same electrical outlet that is being used by an electrical appliance that is controlled by an inverter (such as a refrigerator, washing machine, microwave oven, or air conditioner), or that contains a motor. Depending on the way in which the electrical appliance is used, power supply noise may cause this unit to malfunction or may produce audible noise. If it is not practical to use a separate electrical outlet, connect a power supply noise filter between this unit and the electrical outlet.
- The AC adaptor will begin to generate heat after long hours of consecutive use. This is normal, and is not a cause for concern.
- The use of an AC adaptor is recommended as the unit's power consumption is relatively high. Should you prefer to use batteries, please use the alkaline type.
- When installing or replacing batteries, always turn off the power on this unit and disconnect any other devices you may have connected. This way, you can prevent malfunction and/or damage to speakers or other devices.
- Before connecting this unit to other devices, turn off the power to all units. This will help prevent malfunctions and/or damage to speakers or other devices.

Placement

- Using the unit near power amplifiers (or other equipment containing large power transformers) may induce hum. To alleviate the problem, change the orientation of this unit; or move it farther away from the source of interference.
- This device may interfere with radio and television reception. Do not use this device in the vicinity of such receivers.
- Noise may be produced if wireless communications devices, such as cell phones, are operated in the vicinity of this unit. Such noise could occur when receiving or initiating a call, or while conversing. Should you experience such problems, you should relocate such wireless devices so they are at a greater distance from this unit, or switch them off.
- Do not expose the unit to direct sunlight, place it near devices that radiate heat, leave it inside an enclosed vehicle, or otherwise subject it to temperature extremes. Excessive heat can deform or discolor the unit.

- When moved from one location to another where the temperature and/or humidity is very different, water droplets (condensation) may form inside the unit. Damage or malfunction may result if you attempt to use the unit in this condition. Therefore, before using the unit, you must allow it to stand for several hours, until the condensation has completely evaporated.
- Depending on the material and temperature of the surface on which you place the unit, its rubber feet may discolor or mar the surface. You can place a piece of felt or cloth under the rubber feet to prevent this from happening. If you do so, please make sure that the unit will not slip or move accidentally.

Maintenance

- For everyday cleaning wipe the unit with a soft, dry cloth or one that has been slightly dampened with water. To remove stubborn dirt, use a cloth impregnated with a mild, non-abrasive detergent. Afterwards, be sure to wipe the unit thoroughly with a soft, dry cloth.
- Never use benzine, thinners, alcohol or solvents of any kind, to avoid the possibility of discoloration and/or deformation.

Repairs and Data

- Please be aware that all data contained in the unit's memory may be lost when the unit is sent for repairs. Important data should always be backed up on your computer, or written down on paper (when possible). During repairs, due care is taken to avoid the loss of data. However, in certain cases (such as when circuitry related to memory itself is out of order), we regret that it may not be possible to restore the data, and Roland assumes no liability concerning such loss of data.

Memory Backup

- If the unit's power is not turned on for several days the contents of certain items you've set, such as the date and time, will be lost.

Additional Precautions

- Please be aware that the contents of memory can be irretrievably lost as a result of a malfunction, or the improper operation of the unit. To protect yourself against the risk of losing important data, we recommend that you periodically save a backup copy of important data you have stored in the unit's memory on your computer.
- Unfortunately, it may be impossible to restore the contents of data that was stored memory card once it has been lost. Roland Corporation assumes no liability concerning such loss of data.
- Use a reasonable amount of care when using the unit's buttons, sliders, or other controls; and when using its jacks and connectors. Rough handling can lead to malfunctions.
- Never strike or apply strong pressure to the display.
- A small amount of noise may be heard from the display during normal operation.
- When connecting / disconnecting all cables, grasp the connector itself—never pull on the cable. This way you will avoid causing shorts, or damage to the cable's internal elements.
- To avoid disturbing your neighbors, try to keep the unit's volume at reasonable levels. You may prefer to use headphones, so you do not need to be concerned about those around you (especially when it is late at night).
- When you need to transport the unit, package it in the box (including padding) that it came in, if possible. Otherwise, you will need to use equivalent packaging materials.
- Use a cable from Roland to make the connection. If using some other make of connection cable, please note the following precautions.
- Some connection cables contain resistors. Do not use cables that incorporate resistors for connecting to this unit. The use of such cables can cause the sound level to be extremely low, or impossible to hear. For information on cable specifications, contact the manufacturer of the cable.
- Depending on the conditions in which you use the R-09, you may notice a slight sensation of discomfort or roughness when touching the R-09 itself or a metal part of a connected mic. This is due to an extremely small electrical charge which poses absolutely no danger to the human body. If this bothers you, you can use the R-09 on battery power as desired.

Before Using Cards

Using DATA Cards

- Carefully insert the DATA card all the way in—until it is firmly in place. (p. 17)
- Never touch the terminals of the DATA card. Also, avoid getting the terminals dirty.
- Memory cards are constructed using precision components; handle the cards carefully, paying particular note to the following.
 - To prevent damage to the cards from static electricity, be sure to discharge any static electricity from your own body before handling the cards.
 - Do not touch or allow metal to come into contact with the contact portion of the cards.
 - Do not bend, drop, or subject cards to strong shock or vibration.
 - Do not keep cards in direct sunlight, in closed vehicles, or other such locations (storage temperature: -25 to 85° C).
 - Do not allow cards to become wet.
 - Do not disassemble or modify the cards.

Copyright

- Unauthorized recording, distribution, sale, lending, public performance, broadcasting, or the like, in whole or in part, of a work (musical composition, video, broadcast, public performance, or the like) whose copyright is held by a third party is prohibited by law.
- Do not use this unit for purposes that could infringe on a copyright held by a third party. We assume no responsibility whatsoever with regard to any infringements of third-party copyrights arising through your use of this unit.
- * Microsoft and Windows are registered trademarks of Microsoft Corporation.
- * Windows® is known officially as: "Microsoft® Windows® operating system."
- * Apple and Macintosh are registered trademarks of Apple Computer, Inc.
- * Mac OS is a trademark of Apple Computer, Inc.
- * SD Logo is a trademark. 
- * MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thomson multimedia. 
Fraunhofer Institut Integrierte Schaltungen
- * All product names mentioned in this document are trademarks or registered trademarks of their respective owners.

For the U.K.

IMPORTANT: THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.

BLUE: NEUTRAL
BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

Under no circumstances must either of the above wires be connected to the earth terminal of a three pin plug.

For EU Countries



This product complies with the requirements of European Directive 89/336/EEC.

For the USA

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

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.

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.

Unauthorized changes or modification to this system can void the users authority to operate this equipment.
This equipment requires shielded interface cables in order to meet FCC class B Limit.

For Canada

NOTICE

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

AVIS

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

For the USA

DECLARATION OF CONFORMITY Compliance Information Statement

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