



Owner's Manual

MODELS: MR-210/MR-220/MR-240



For product quality improvement, the product design and accessories are subject to be changed without notice.

- Thanks for purchasing this product.

 Please read this owner's manual before use, and use it after understanding all the features.

 Please make sure to write down the date and the place of purchase on the certificate of warranty attached.

 Free of charge warranty maintenance will be served only on the presence of the certificate of warranty.

 As this appliance is registered for electromagnetic compatibility for home use (B class), it is intended for primarily home use and may be used in all areas.

P/No. 6311-240-01B

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1. SAFETY PRECAUTIONS

- As these instructions are for user's safety and property protection, the user is required to read before use and to follow the instructions.
- The company shall not be entitled to take responsibility for the damage caused by the use of this product or any claims from third parties.
- The company shall not be liable to the damage from the loss of recorded data caused by failure, repair or any other reasons.
- As the memory of the product is subject to malfunction caused by the computer viruses, and the recorded data may be deleted, please make sure to treat viruses of the computer to be used.
- It is recommended to store the important recordings promptly to the computer.
- Unauthorized use is strictly prohibited.

>> MAIN BODY CAUTIONS AND WARNINGS <<

Warning

- Please do not disassemble or alter the main body. Otherwise, it may cause fire or failure.
- If the earphone is used in loud volume for a long time, it may cause damage to hearing.
- Please do not use in the lower or higher temperature. Otherwise, it may cause short circuit due to condensation and may cause fi re or failure.
- Please keep away from the humid places or the oily places. Otherwise, it may cause fire or failure.

! Caution

- If the product is impacted or dropped, it may cause failure.
- Please do not clean the surface of the product with such as alcohol, benzene or paint thinner.
- While driving or walking, to avoid the risk of the traffic accidents, please avoid to hear with the earphone
 or to operate the product

>> BATTERY CAUTIONS AND WARNINGS <<

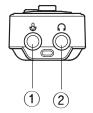
Warning

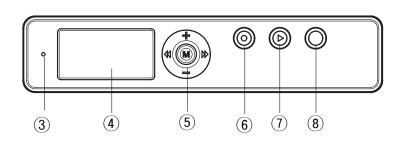
- Please do not apply short circuit, disassemble, heat or impact to the battery.
- Fire may be caused by the friction, please keep away from metal objects.
- Only prescribed batteries ("AAA" type Alkaline) are to be used, and please make sure of the polarity (+,-) before use.
- Please do not charge the battery. Otherwise, it may cause fi re or injury due to explosion.
- If not used for a long time (i.e. over a month), the battery should be removed from the product and kept in the safe place. Otherwise, the battery leakage may cause fi re or injury.

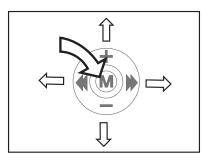
Caution

• If the skin or cloths are adhered by the battery leakage, they should be washed with clean water immediately. In case of eye contact, please do not rub the eyes. Please wash eyes with running clean water immediately and make sure to get medical attention.

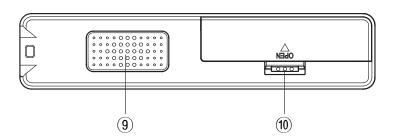
2. NAMES OF PARTS







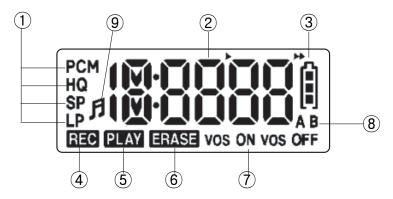
5 Jog buttons detailed view



- ① Microphone jack
- ② Earphone / USB jack
- 3 Built-in microphone
- 4 LCD panel
- ⑤ Jog buttons (+, -, ◀ ◀, ▶ ▶, M)
- 6 REC / PAUSE button
- 7 PLAY /PAUSE button
- 8 STOP / ERASE button
- 9 Speaker
- 10 Battery cover

3. LCD PANEL DESCRIPTION

- 1)Record/Play mode
- 2 Time and File number display
- 3 Battery life indicator
- 4 RECording indicator
- **5**PLAY indicator
- **(6)** ERASE indicator
- 7)VOS indicator
- (8) Recording folder indicator
- 9 Music mode indicator



4. PREPARATION PRIOR TO USE

■ Battery Placement

- Open the battery cover of the main body, place a battery according to the right polarity, and close the battery cover.
- Use a battery of "AAA" type, LR03, UM-4 or equivalents.



■ Battery Status Icons









■ Battery Duration

• The battery duration for recording under the earphone disconnected condition.

Recording mode (Audio quality)	PCM	HQ	SP	LP
Battery duration	About 21 hours	About 19 hours	About 20 hours	About 20 hours

Caution

• If there is no display on the LCD panel after the new battery replacement, please check the polarity of the battery. The battery supplied with the product is for monitoring purpose and the battery duration may be shorter than specified.

Warning

• If the battery is removed while recording, recording paused, playing or erasing, the recording content may be damaged. Please make sure not to remove the battery while being operated.

5. DC POWER SUPPLY USE

• This appliance may be operated with the external power supply (DC adaptor), without a battery installed.

5-1. Power Supply Use of PC USB PORT

- Connect the earphone/USB jack to a USB port of a PC with USB cable.
- When the USB communication is established, the LCD panel displays
- If the PLAY/PAUSE button is pressed for more than 3 seconds, it enters the operation mode and in the standby (stop) state, and it is enabled to "play and record".
- If it is in the PC USB power supply operation mode, the file upload/download feature is not operational.
- Disconnect and then connect again, then it enters the USB communication mode, and the file upload/ download feature is operational.

5-2. Use of USB DC Power Supply ADAPTER(5V)

- Connect the earphone/USB jack with USB DC Power Supply ADAPTER port. After a while, the LCD panel turns into .
- If the PLAY/PAUSE button is pressed for more than 3 seconds, it enters the operation mode and in the standby (stop) state, and it is enabled to "play and record".

/ Caution

• When to disconnect the product from the PC, it is recommended to execute safe hardware removal utility for the data protection of the product.

6. POWER ON/OFF

6-1. Power On

- Press the PLAY/PAUSE button long enough (for more than 3 seconds), then the power is on.
- Press the REC/PAUSE button long enough (for more than 3 seconds), then the power is on and the recording is started.

6-2. Power Off

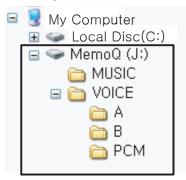
- When in the STOP state for more than 3 minutes, the power is automatically off.
- When in the standby mode, press the REC/PAUSE button long enough (for more than 3 seconds), then the power is off.

7. FUNCTION(MUSIC/VOICE(HQ,SP,LP)/VOICE(PCM)) CHANGE

• When you push jog button to the direction of volume+ long(more than 3seconds) in standby, it is changed to MUSIC -> VOICE(HQ,SP,LP) -> VOICE(PCM) -> MUSIC and becomes standby.



- In MUSIC, you can play back the music files of folder.
- In VOICE(HQ,SP,LP), you can play back the recorded files of "A" or "B" folder and you can record to "A" or "B" folder by MP3 format.
- In VOICE(PCM), you can play back the recorded files of "PCM" folder and you can record to "PCM" folder by PCM format.



<Folder Initial Structure>

8. RECORDING

- When you press REC button long(more than 3seconds) in power-off, power is turned on and recording starts by MP3 format(HG,SP,LP) which is set.
- When you press REC button shortly in standby, recording starts by MP3 format(HQ,SP,LP) or by PCM format which is set.
- When you press REC button shortly in recording, it becomes "pause", when you press STOP button shortly, recording is stopped.
- Recorded file format has good compatibility as MP3 or PCM(*.wav) file and is saved into the selected folder.
- Recording is made in turns from 001 in selected folder.
 When you check it in PC, you can see A-R001.MP3 or B-R001.MP3 in "A,B" folder and PCM-R001.wav in PCM folder. (When you stop recording within 3seconds after starting, the recording is not saved)
- Initial recording mode is set to "HQ" of MP3 format.
- When memory becomes in shortage or file numbers are exceeded, "FULL" is shown.







<MP3 format Recording Standby> <PCM format Recording Standby>

<Recording FULL screen>

Caution

- The recorded files may be stored under the folders A and B and PCM, and each folder may store up to 999 files.
- If files are not recorded or the played sounds are corrupted, execute CLEAN operation. (If CLEAN operation is initiated, all the data stored in the product is erased.)
- If a fi le name is modifi ed from PC, the fi le cannot be played from the product.
- If to play the file of which the name is modified from PC, store the file under the MUSIC folder.

9. RECODRED FILE PLAYBACK

- For the playback of recorded file, standby screen should be like the right picture.
- When you press PLAY button shortly in standby, the file of number shown on screen is played back.







<PCM Format Standby Screen>

- When you press it shortly again, it pauses and when you press it again, it continues to be played back.
- When you push JOG button to the direction of Previous(◀ ◀), Next (▶ ▶) shortly in stop or playback, it moves to previous file or next file in the selected folder.
- When you push JOG button to the direction of Previous(◀ ◀), Next(▶ ▶) more than 3seconds in playback, fast search starts.
- The volume of more than 11th level is set to 10th level again in turning on the power. (This function is to protect hearing from high sound in using earphone)

10. AUDIO VOLUME CONTROL

- Push the jog buttons briefly in the directions of either higher volume(+) or lower volume(-), then the LCD panel displays audio volume level and the audio volume is controlled accordingly.
- If the volume is set to over level 11 and the power is off and on, it is reset to volume level 10 for hearing protection from the loud audio volume damage.



<Minimum audio volume>



<Maximum audio volume>

11. RECORDED TIME CHECK

• In the standby mode, press the MODE button briefly to display the recorded time of the selected file. There may be 1 or 3 seconds difference in the actual time length depending on the files.



<Recorded time length display>

12. REMAINING RECORDING TIME CHECK

- In the standby mode, push the jog button long enough (for more than 3 seconds) in the direction of volume(-), then it display the remaining recording time. The time differs depending on the audio recording quality.
- The time is automatically calculated according to the recording auto quality mode (PCM, HQ, SP, LP). If the remaining time is over 10 hours, the "MINUTEs" and "SECONDs" are not displayed and only "HOURs" is displayed. The display method is "TIME H".



CRemaining recording time less than 10 hours>



<Remaining recording
time over 10 hours>

13. FILE PREVIEW FEATURE

• In the standby state, press the PLAY/PAUSE button long enough (for more than 5 seconds), then the file preview feature is initiated as the each file from selected one to the end file is played for 5 seconds and stopped.

14. RECORDED FILE ERASE

- In the standby state, operate the previous (\blacktriangleleft) and/or next (\blacktriangleright) buttons to select the file to be erased.
- Press STOP/ERASE button long enough (for more than 5 seconds), then the file to be erased starts to be played for verification, the LCD panel blinks ERASE and PLAY icons and the file is played for 10 seconds.
- While playing for 10 seconds, press STOP/ERASE button briefly to erase the file. If any other button is pressed or STOP/ERASE button is not pressed, the erase command is cancelled.

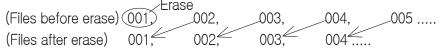


<Erase operation display>

* For further information for erase of all of the files or folder deletion. refer to MODE setting.



- The erased files cannot be restored. It is recommended to check if the file is important before erase and to perform backup of the important files to PC.
- If a file is erased, the internal numbers move accordingly. Example) If the number 001 is erased, the number 002 becomes the number 001, and the number 003 becomes the number 002, that is the numbers move one step ahead.



15. FILE UPLOAD/DOWNLOAD

- Connect the earphone jack of the main body of the product to the PC USB port with the connection cable as shown in the figure.
- After standby (for up to several minutes), the PC automatically recognize the product as a removable disk.
- By identically using the windows explorer function, file upload / download may be executed. (My Computer, refer to figures below)
- Regardless of the file types, the files may be stored, and the product may be used as a USB MEMORY.
- If the recorded files are stored under the "VOICE" folder and the music files under the "MUSIC" folder separately, they may be played in the best audio quality.



Caution • It is recommended to execute "safe hardware removal" utility for the protection of stored data, before disconnecting of the main body of the product from the PC.



-Saving the voice file <Recorder folder confi guration>

🖃 🐭 MemoQ (F:)

<LCD panel display:</p> USB connection>

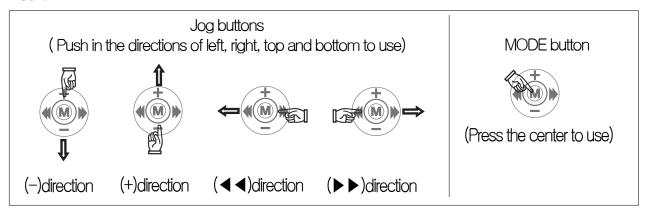
W56

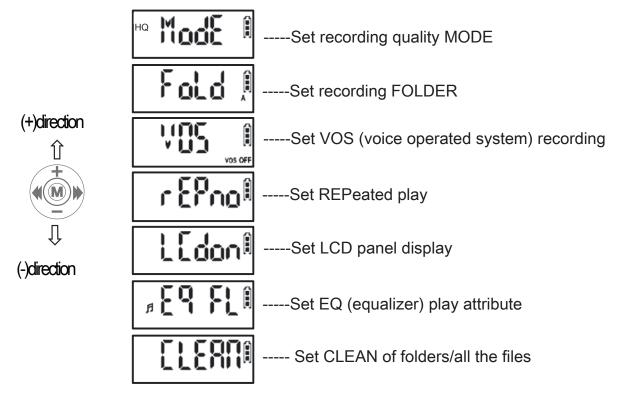




16. MODE SETTING

- The MODE setting feature is to set recording MODE, recording FOLDER, VOS (voice operated system) recording, REPeated play, LCD panel display, EQ (equalizer, play attribute) and CLEAN of folders/all of the files
- In the standby (stop) mode, press the MODE button for more than 3 seconds, it enters into the MODE setting feature.
- Push the jog buttons in the directions of volume(+) and/or volume(-) briefly to select the mode to be set.
- Press the MODE button for more than 3 seconds to store the mode settings and to exit to the standby mode.





<LCD panel display by mode>

16-1. MODE(RECORDING MODE(HQ/SP/LP)) SETTING

- You can set recording mode to long hour(LP), middle sound quality(SP), high sound quality(HQ) and set it according to recording environment.
- Please refer to FUNCTION CHANGE of 7th page for the setting of PCM mode.



• When you push JOG button to the direction of volume(+, -) in the selected screen, selected recording mode is saved and moved to next mode and when you press MODE button more than 3seconds, mode setting function is completed and moves to standby.

* MP3 format recording time

Mode	MR-210(1G)	MR-220(2G)	MR-240(4G)
HQ	About 36 hours	About 72 hours	About 144 hours
SP	About 72 hours	About 144 hours	About 288 hours
LP	About 288 hours	About 576 hours	About 1152 hours

* PCM format recording time

Mode	MR-210(1G)	MR-220(2G)	MR-240(4G)
PCM	About 12 hours	About 24 hours	About 48 hours

/!\ Caution • The recorded time may vary depending on such as configurations of folder and files.

16-2. Recording FOLDER Setting

- The FOLDER selecting feature enables the recorded file to be stored in the folder selected.
- If the recorded contents are managed by separated folders, it is convenient.
- display, by using previous (\blacktriangleleft) and/or next (\blacktriangleright) jog buttons to select the folder. At the Fold Fold A → | Fold A

• At the selected display, push the jog buttons in the directions of volume (+, -) to store the folder selection and to move to next setting mode. Press the MODE button for more than 3 seconds to complete the recording FOLDER setting feature and to move to the standby mode.

16-3. VOS(Voice Operated System) Recording Setting

• The VOS feature is the feature to detect the audio sound during recording.

If the audio sound is not detected, the recording is paused and if the audio sound is detected, the recording is continued again. The memory may be utilized effectively.

At the display, by using previous (◀ ◀) and/or next (▶ ▶) jog buttons to select ON/OFF.

• At the selected display, push the jog buttons in the directions of volume (+, -) to store the VOS recording setting and to move to next setting mode. Press the MODE button for more than 3 seconds to complete the VOS recording setting feature and to move to the standby mode.

Caution • The VOS feature does not increase the battery life.

16-4. REPeated Play Setting

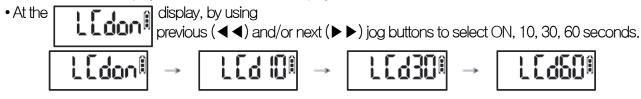
• The repeated play setting may be set by file NO, 1 (single file) and folder.



- The REP NO plays the remaining files from the current position in the folder one time and stops.
- The REP 1 plays repeatedly on the file displayed on the LCD panel.
- The REP F plays repeatedly the files under the folder selected.
- At the selected display, push the jog buttons in the directions of volume (+, -) to store the REPeated play setting and to move to next setting mode. Press the MODE button for more than 3 seconds to complete the REPeated play setting feature and to move to the standby mode.

16-5. LCD Panel Display Setting

- If the LCD panel display off time (10, 30, 60 seconds) is set, the LCD panel display goes off after the set time (10, 30, 60 seconds) while recording.
- If the LCD Panel Display is set to ON, the LCD display is on all the time.



- While the LCD panel display is off, press any button to turn the LCD panel display on. While the LCD panel display is on, press the STOP/ERASE button to stop recording.
- At the selected display, push the jog buttons in the directions of volume (+, -) to store the setting and to move to next setting mode. Press the MODE button for more than 3 seconds to complete the LCD panel display setting feature and to move to the standby mode.

16-6. EQ (equalizer, play attribute) Setting

At the EQ setting mode display, by using previous (◀◀) and/or next (▶▶) jog buttons to select EQ play attribute setting.

 #69 FL® → #69 ro® → #69 Ho® → #69 dR® →

 #69 FL® → #69 ro® → #69 Ho® → #69 dR® →

- The available EQ modes are FL(FLAT), ro(ROCK), Ho(HOUSE), dA(DANCE), JA(JAZZ), bA(BALLAD), rb(R&B) and CL(CLASSIC). The feature is to enjoy music as selecting by category and/or preference.
- At the selected display, push the jog buttons in the directions of volume (+, -) to store the EQ setting and to move to next setting mode. Press the MODE button for more than 3 seconds to complete the EQ setting feature and to move to the standby mode.

Caution

• The EQ(equalizer, play attribute) feature is only applied to the MUSIC file play. For the VOICE (recorded) file play, applied EQ is set to FLAT(EQ OFF).

16-7. CLEAN (Erase a Folder File/All of the Files) Setting

- The feature is for erasing a folder file selected or all of the files.
- The CLEAN ALL is identical to the formatting of PC, and the setting values are initialized to default setting.
- If the CLEAN ALL is performed at the main body, the operation speed for such as recording start and stop is improved.
- It is highly recommend to perform the CLEAN ALL at the main body of the product.
- When the CLEAN is performed, the power is off automatically after erasing the file(s).

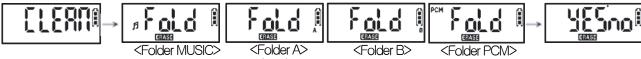
1)CLEAN ALL

At the CLEAN display, push the jog button in the direction of next ($\triangleright \triangleright$) to select ALL. If the MODE button is pressed briefly at the selected display, "YES NO" is displayed for erase confirmation. Select "YES" and press the MODE button briefly, then the "CLEAN" is display and all the data in the memory are erased.



2) CLEAN All the Files in the Selected Folder

At the CLEAN display, push the job button in the direction of next ($\blacktriangleright \blacktriangleright$) to FOLD(MUSIC, A, B,PCM). If the MODE button is pressed briefly at the selected FOLDer display, "YES NO" is displayed. Select "YES" and press the MODE button briefly, then the "CLEAN" is display and all the data in the selected folder are erased.



• Push the jog buttons in the directions of volume (+, -) to cancel the CLEAN operation and to move to next mode. Press the MODE button for more than 3 seconds, it exits to the standby mode and the CLEAN operation is cancelled.

- Make sure to store the important files to PC prior to formatting.
 The erase files cannot be restored.
- For system protection, the CLEAN may be operational only when the battery life level is bigger than level 2. If remained battery life is less than level 1, replace the battery before CLEAN.

17. RECORDING BY USE OF EXTERNAL DEVICES

• It is the recording feature by using external devices (such as external microphone, external devices and wired telephone.

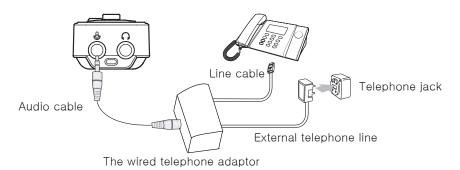
17-1. Recording Telephone with the Ear-Microphone (Optional Product)

 Plug the ear-microphone, which a microphone is built in, in a ear and connect the other side to the microphone jack of the product. Hold the telephone handset or the mobile phone at the ear with the ear-microphone and press the REC/PAUSE button on telephone call to record the call.



17-2. Recording Call with Wired Telephone Adaptor

- Connect the audio cable to the microphone jack, and the other side of the cable to the wired telephone adaptor. Connect the wired telephone adaptor to the telephone with the telephone line cable, as shown in the fi gure below.
- Press the REC/PAUSE button briefly to start recording.
- Press the STOP/ERASE button briefly to stop and to store.



- The design of the wired telephone adaptor is subject to be changed without notice.
- Some handsets of keyphones (digital telephones) may not be recorded depending on the models.

MEMO		

SPECIFICATIONS

Model		MR-210		MR-220	MR-240	
Memory Cavicaty		1GB		2GB	4GB	
Maximum	PCM	About 12 hours		About 24 hours	About 48 hours	
recording	HQ	About 36 h	ours	About 72 hours	About144 hours	
hours by	SP	About 72 hours		About 144hours	About 288 hours	
audio quality	LP	About 288	hours	About 576 hours	About 1152 hours	
		PCM		About 21	hours	
Battery	Re-	HQ		About 19 hours		
life time	cording	SP		About 20 hours		
		LP About 20) hours		
	Play	About15 hours {earphone, MP3(1kHz,128kbps			pps, 44.1kHz), Vol 10}	
Recording(Folder)		VOICE 999 Files(A) + 999Files(B) + 999Files(PCM)				
Speaker output power		17mm (8ohms, 90mW)				
Practically maximum or		utput power 2mW + 2mW / 16 ohm, earphone				
Dimension		WXHXD=105.5X22.5X14.5				
Power supp.		1.5V (AAA Alkaline x1)				
Operating environment		0 ℃~40 ℃				
Accessories	Earphone x1 , battery x1, Owner's manual, USB cable x1					

CERTIFICATE OF WARRANTY

Pi	roduct	Digital voice r	ecorde	r
M	odel			
D	ate			
PI	ace			
Te	el.		price	
0	thers			
Period		1 year		
Jer	Name			
Sustomer	Address			
Cus	Tel.			

Service Charged

- Damage due to inappropriate use or handling.
- Damage due to arbitrary internal modifi cation by the user.
- Damage caused by the force of nature such as fi re, salt water, fl ood and earthquake.
- Damage caused by the computer virus infection
- No presence of the certificate of warranty or the purchase receipt.
- When the warranty period is expired.