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MR - 100

- MR-100 is a portable digital audio product that saves and plays Microsoft's WMA (Windows Media Audio) files as well as MP3 files.
- MR-100 features MP3 encoding that enables voice recording, and creates and plays MP3 files connected by the Line-in jack directly from CDP and other audio players, without using PC connections.
- MR-100 supports FM transmission function, and saves FM stations in MP3 format files.
- MR-100 features FM Broadcasting.

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MR - 100 Special Features

MP3/WMA Music Playing-back

This product saves and plays Microsoft's WMA files as well as MP3 files.

FM Receiving And Recording

This product has a built-in FM receiver and creates MP3 files when the FM station is recorded.

Back-light/Graphic LCD Display Supporting Multi Languages

The Multi Language LCD Display supports Korean and Multi Language ID3 Tag, and its 2 color LED Backlight enables the user to check the product's functions in darkness.

High Quality Voice-recording

The product provides high quality voice recording, which can be saved for playback.

Line-in Digital Recorder

Without using a PC, MR-100 creates digital files from analog inputs of all audio equipment.

VAD (Voice Activity Detection) Recording

The built-in VAD function provides efficient use of storage space and recording time.

Speed Control

The Replay speed can be adjusted, and can be set to on/off.

Resume

The music that last played begins when resumed.

Firmware Upgradeability

The product's features can be easily upgraded using Firmware download.

FM Broadcasting

The product broadcasts the playing files using FM frequencies.

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In the Package



MR-100 (Main Unit)



Carrying Case



Ear-phones



Line in jack



User Manual



Rechargeable Battery (Ni-MH)



USB Cable



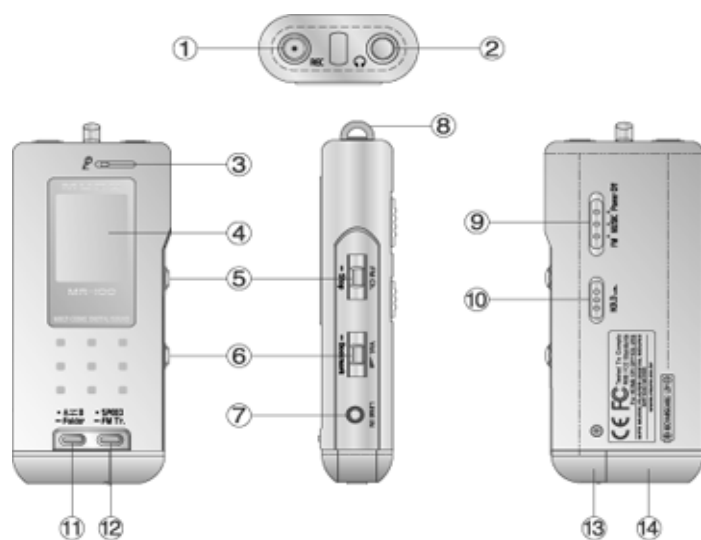
Recharging Adaptor



Necklace

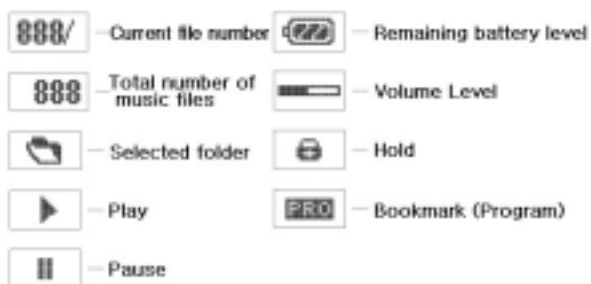
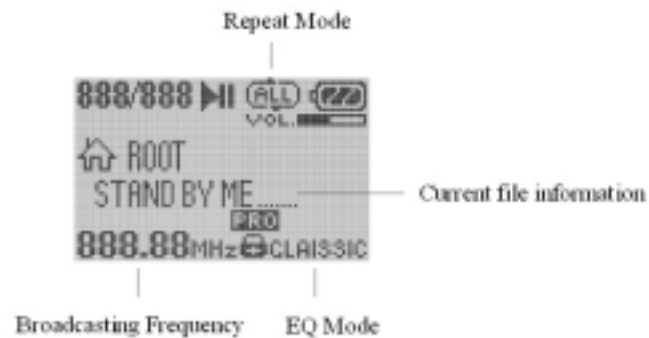
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Name of each part ()



- | | |
|------------------|------------------------------|
| ①—Recording | ⑨—Mode Slide |
| ②—Ear Phone Jack | ⑩—Hold Slide |
| ③—MIC Hole | ⑪—Repeat(A=B) |
| ④—LCD Display | ⑫—Speed/FM Tr.(Broadcasting) |
| ⑤—Jog(Play) | ⑪+⑫—Auto Scan(Broadcasting) |
| ⑥—Jog(Menu) | ⑬—USB Cover |
| ⑦—Line In Jack | ⑭—Battery Cover |
| ⑧—Connect Ring | |

LCD Screen



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Using Battery



Warning!: Check if + and – poles of the battery are positioned correctly when using the battery.

Battery Specification

- This product is manufactured to be used with a Ni-MH battery. Ni-MH battery is recommended.
- When Ni-Cd battery is used with the product, the battery information mentioned in this manual can be different, and the remaining battery level on the screen can be displayed inaccurately.



—USB Connection

- When USB is connected, make it sure that the right end of the cable is inserted.

Troubleshooting Checklist

Power cannot be turned on

- Check if the battery is properly aligned to the correct polarity.
- Check if the battery is fully charged.

In case of no sounds

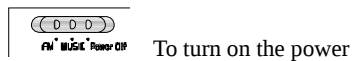
- Check if there are any files that can be played in the memory.
- Check if the volume is set to '0.'
- Check if the connection of the earphone has failed.
- Check if FM Broadcast is set to 'ON.'

Download failure

- Check if "PC Connect" is displayed on the screen.
- Check if USB cable connection is done properly.
- Install USB driver again.

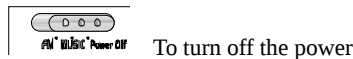
8

Basic Function



To turn on the power

Move the slide switch on the backside of the unit to the mode you want. (Music/FM)



To turn off the power

Move the slide switch on the back of the unit to 'Power Off.'

Tip

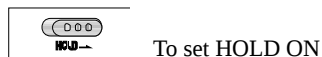
Power Off cannot be made while USB is connected with PC.

When no input is made in Stop and Pause, the power is automatically set to AUTO POWER SAVE MODE.

When the slide switch isn't set at an appropriate mode, "Invalid Mode Key!!!" is displayed.

HOLD function

Using HOLD function can prevent malfunction of the unit by accidentally pressing a wrong button. The feature, when enabled, can conserve the battery.



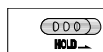
To set HOLD ON

Move the HOLD switch on the back of the unit to HOLD.

(Lock icon) on the LCD panel is displayed for the setting.

* Setting to HOLD in a playing mode displays a lock icon on the panel and no other buttons will work.

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To release the HOLD (HOLD OFF), move the switch to HOLD OFF.

(the lock icon) on the display disappears.



Volume adjustment

Volume can be adjusted from 0 to 20.

*To increase the volume

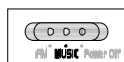
Turn the jog button(Vol.) on the right to + direction.

Holding down the jog button(Vol.) to the right increases the volume rapidly.

*To decrease the volume

Turn the jog button(Vol.) on the right to – direction.

Holding down the button(Vol.) to the left decreases the volume rapidly.



Setting the mode

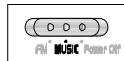
MR-100 has two modes of Music and FM.

To set Music mode

Move the slide switch to Music on the back of the unit to use MP3/WMA audio files.

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Music Mode



To set Music Mode

Select 'Music' from the switches.



To play Music

Press PLAY button (icon) to play MP3 or WMA audio files.

Tip

Because of the Resume function, the music that last played begins when resumed.



To select from the list of music

Move the jog button on the right briefly to FF (icon) or REW (icon) to select from the list of music.

: do you mean
"quickly" or "briefly"?
Shortly doesn't make
sense.



Slide and hold the jog button to FF (icon) or REW (icon) to speed-search from the list.

To navigate within the music file that is being played, hold down to FF (icon) or REW (icon) during the PLAY mode.

On releasing the key, play resumes.

The Search function works within a file.



Stop/Pause

Play pauses when pressing PLAY (icon) briefly.

Play stops when holding down PLAY (icon) button.

To resume playing, press PLAY (icon) again.

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Setting Menu



*In MUSIC MODE, set MENU button in the picture



Select among Silence -> Low / Middle / High to set the noise level of the sound source.

(This level applies to only Line In Recording)

-  Memory Info: to display the memory size status that is being used.
- Format: general format that is used.
- Low Format: the format that can rectify bad sectors.

Memory information

- In Pause mode, Press MENU (MEMORY -> INFO) to check the total size/usage/remaining size.

Tip

For example, 'MEMORY Total:256 Used:100 Rem.:154' on the display signifies 256 MB of the total memory size, 100 MB to be used, and 154 MB that remains to be used.

Memory Format

- Move the jog button to – or + to select 'Format!! [Yes].
- Pressing one more time on the M (icon) button formats the memory while displaying 'Formatting...'

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-  Display - Play Time: Positive signifies the elapsed time.

Negative signifies the remaining time.

- ID Tag: Tag information is displayed.
- Language: To select from the language list. (Korean/English/Japanese/China Sim./China Tra.)-
- Applicable only to 3D tag.

-  System

- Version: To display the current version of the system.
- Contrast: To set the display brightness.
- F/W Upgrade: To be used for system upgrade.

: Should all the following points be lined up with the above points?

- Light Time: To set the time for backlight to remain turned on.
- Light Source: To set the color of Backlight. (White/Orange/None)

Tip

For example, setting 'Light Time: 5sec' turns on the backlight for 5 seconds when any button is pressed.
Setting 'Light Time: 0sec' keeps the backlight off and saves on the battery regardless of buttons being pressed.



- Quality: To select recording quality. (Very Low/Low/Middle/High)
- CD Syn.: Sync. – To record all the pieces automatically separating each track into individual files.
Off – To record all the pieces in one file.
One Sync. – To record the first piece from the outside source and then stop recording automatically.
- Start Record:
 - * Ready: To set Line in Record ready while monitoring. (Recording completed)
 - * Start: To start Line In Record.
 - * Exit: To exit Line In Record and return to Main Mode.

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- * To start Line In Recording

When 'Line In Recording' is displayed, recording from an outside source starts.

The number of the file being recorded and the elapsed time is displayed.



- VAD: VAD function features recording when it detects a sound source and the recording pauses when it detects no sound.
- The built-in VAD function provides efficient use of storage space and recording time.
-



- *To record a sound source

- In Music mode, pres REC button to start 'Voice Recording.'
- A recording mark is displayed.
- The assigned file number and elapsed time is displayed.



*To pause Voice Recording

- While recording is in progress, press [RECORD] button quickly.
- Pressing [RECORD] button one more time resumes recording.



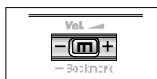
*To finish Voice Recording

- Hold down PLAY (icon) or RECORD button.
- The file number and information is displayed while the file is saved in the Voice folder.

*To play from the Voice folder

- After selecting from the file list, press PLAY (icon).
- Refer to the 'PLAY MODE' of this manual as the operation is essentially the same (page 10).
- Pressing PLAY automatically plays the last recorded file.

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- For the most efficient use of memory by selecting the file size that the recorder uses,

select 'VAD ON' by pressing

the MENU (MENU->Voice Record.)

Slide the jog button to [+] or [-] direction to choose from the different VAD modes.

Pressing the [M] button completes the necessary settings.

Tip

VAD OFF: To record continuously regardless of the presence of a sound source.

VAD ON: Memory Save Mode to record only when a sound source of certain volume level or above is detected.



- Equalize: Select from 'Normal / Classic / Live / Pop / Rock / X-bass / User'
- User EQ: To customize the tone settings by the user.
- Random: To play titles at random from the list.

- Repeat Target: To select the titles to be repeated in sequence.
- Repeat Mode: To repeat the titles selected in Repeat Target. (Choose from 'One file / All one / All Contin.)



Speed

- To select the playing speed to suit the user's need. This feature is recommended in language training sessions like English lessons.

- Normal playing speed
- 95% of normal playing speed
- 90% of normal playing speed
- 85% of normal playing speed
- 80% of normal playing speed
- 75% of normal playing speed

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File



File

- Erase File: To erase the selected file
- Erase Folder: To erase the selected folder
- Erase Program: To release the BookMark setting of all files.

* Erasing Files

Warning: Be careful when erasing files since no recovery can be made.

* Erasing a single file

- In Stop mode, use the MENU button to select 'Erase File.'
- On LCD panel, list of files and selection are displayed.
- Move the jog button to [-] or [+] to select the file.
- Press PLAY (icon) to erase the file.

* Erasing a single folder

- In Stop mode, use the MENU to select 'Erase Folder.'
- Move the FF (icon) or REW (icon) to select the folder.

- Press twice on PLAY (icon) button to erase the folder.
- The folder can't be erased when there's a sub-folder or files in the folder.
- Status information is erased when formatted.

FM Receive



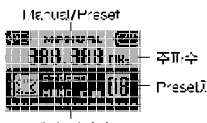
- Step: To select the frequency interval. (100/50/25KHz)
- Sensitivity: To select the reception sensitivity in Auto Search mode. (Low / Middle / High)
- Ch Mode: To move up or down the channels on a preset increment in manual channel navigation mode.
To move between the preset channels.
- Ch Store: To preset up to 10 channels.
- Ch Delete: To delete the preset channel.

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FM MODE



* Move the Mode switch on the back of the unit to 'FM.'



Channel

Preset Channel

Channel Gauge

Tip

Earphone works as the antenna for the unit.

To set the station

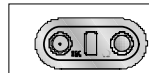
- Slide briefly the right jog button to FF (icon) or REW (icon) to navigate the band on a preset increment.
- Hold down the right jog button briefly to FF (icon) or REW (icon) to scan for the next channel.
- Press down the right jog button to FF (icon) or REW (icon) to set the local band.

(87.5Mhz~108.0Mhz)

Tip

Stereo or Mono is selected based on the signal received from the broadcasting station.

FM Recording



- In FM mode, press the REC button to start recording.
- Stop and Pause are the same as the Recording method described in this manual.
- The recorded file is stored automatically in the FM folder.

FM Mode Setting



* In FM mode, Set the MENU button as shown in the picture.

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Convenient Function Mode



Repeat (icon) Section

In PLAY mode, press (icon) for the section you want to repeat.

[A->] is displayed.

Press [A <-> B] button again where you want the repeat to end.

[A <-> B] is displayed and the repeat starts.

To release the Repeat Section mode, press [A <-> B] again. Normal playing resumes and [A <-> B] disappears from the display.

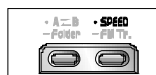


Selecting and Using Folders

In Music mode, hold down Folder button for 2 seconds or more to switch to Folder Mode.

- Each folder can contain unlimited number of files.
- Files generated from VOICE RECORDING are saved in Voice Folder

- Files generated from LINE IN RECORDING are saved in Music Folder.
- Files generated from FM RECORDING are saved in FM Folder.



Playing Speed Control

After setting the speed in 5 increments in Menu-> Speed, press Speed button when necessary to set the speed to ON/OFF.

During Play mode, pressing Speed button quickly alternates between the normal speed and the preset speed.

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BOOKMARK SETTING



To make user own player list by a Bookmark function.

- Hold down MENU key for 2 seconds or more at a current displaying file or a playing file.
- By the same method again, release Bookmark setting.
- (MENU->PLAY->Repeat Target) In Repeat Target, choose Program to hear the file selected by Bookmark.

BROADCAST FUNCTION



To hear the music in the player through a radio speaker of a car and home by matching the same FM frequency between the player and radio.



- Frequency: To set the broadcasting frequency on a step basis.
- HP Out: To use the earphone separately during broadcasting. (not to be saved)



Hold down FM Tr. button for 2 or more seconds to display “ON AIR”(icon) on the LCD.

Broadcasting starts to the FM frequency shown on the left side of the screen.

Match the same FM frequency between the player and the radio of car and home.

To reset FM frequency, use “Auto Up Scan”, or (MENU->BROADCAST->FREQUENCY) reset

frequency by the step.

Tip



Press Folder button and FM Tr. button simultaneously until the next available frequency appears.

Precaution

Not recommend Auto Scan function while driving.

MENU SET

Mode	Menu	Sub Menu	Contents	Default	Explanation	Note
MUSIC	Record	Silence	Low			
			Middle	O		
			High			
	Memory	Info			Memory Information	
		Format	YES		Format Internal Memory	
			NO	O		
		Low Format	YES		Low Format Internal Memory	
			NO	O		
	Display	Playing Time	Positive			
			Negative	O		
		ID Tag	Off			
			On	O		
		Language	Korean	O		
			English			
			Japanese			
			China Sim			
			China Tra			
	System	Version				
		F/W Upgrade	Yes			
			No	O		
		Contrast	1-20	10		
		Light Time	1-60Sec	5 Sec		
		Light Source	None			
			Orange			
			White	O		
	Line In Record	Quality	Very Low			
			Low			
			Middle	O		
			High			
		CD Sync.	Off	O		
			Sync			
			One Sync			
		Start Record	Ready...	O		
			Start			
			Exit			

Mode	Menu	Sub Menu	Contents	Default	Explanation	Note
MUSIC	Voice Record	VAD	Off	O		
			On			
	Play	Equalize	Normal	O		
			Classic			
			Live			
			Pop			
			Rock			
			X-Bass			
			User			
		User EQ				
		Random	Off	O		
			On			
		Repeat Target	Folder	O		
			Program			
		Repeat Mode	One File			
			All Ones			
			All Contin.	O		
	Speed	Speed	95%			
			90%			
			85%	O		
			80%			
			70%			
	File	Erase File				
		Erase Folder				
		Erase Program	Yes			
			No	O		
FM	FM Receive	Step	100KHz	O		
			50KHz			
			25KHz			
		Sensitivity	Low			
			Middle	O		
			High			
		CH Mode	Manual	O		
			Preset			
		CH Store				
		CH Delete				
	SelectFrequency For Broadcast	Frequency				
		HP Out	Off	O		
			On			

Notice

Cautions when using the unit

1. Do not drop or impact the unit. It may cause malfunctions.
2. Avoid the following places and conditions;
 - A. Very hot (60 oC or higher)
 - B. Near heat sources
 - C. Direct exposure to the sunlight
 - D. Dusty or contaminated air
 - E. Very humid conditions, like in a bathroom
 - F. Sealed interior of a car (especially during the summer as the temperature in the car can damage the unit.)
3. Do not press too hard on the LCD panel
4. Do not place the unit close to cash cards and other card with magnetic strips. The unit can damage those cards.
5. The company is not responsible for the files lost or damaged when malfunctions occurs or when service is performed.
6. Keep the batter separately from the unit when not in use for a long time.
7. Use soft fabrics to clean the unit. Do not use solvent, benzol, or paint thinner.
8. Disassembly, repair, and reconstruction of the product may cause failure and void the warranty service. Do not use water or liquids on the unit.

Safety Warning

1. Do not touch the USB connection part with wet hands.
2. Listening for too long at a loud volume can cause serious hearing problems.
3. Remove the battery when you notice unusual heating or deformation from the unit.
4. Do not use the unit in the prohibited areas like on the airplane or in the hospital where magnetic pulse can interact and lead to unwanted malfunctions.
5. Refrain from using the earphone when you are biking or driving or walking (especially when crossing the street).

Product Specification

Mode	Menu	Sub Menu	Contents	Default	Explanation	Note
MUSIC	Record	Silence	Low			
			Middle	O		
			High			
	Memory	Info			Memory Information	
		Format	YES		Format Internal Memory	
			NO	O		
		Low Format	YES		Low Format Internal Memory	
			NO	O		
	Display	Playing Time	Positive			
			Negative	O		
		ID Tag	Off			
			On	O		
		Language	Korean	O		
			English			
			Japanese			
			China Sim			
			China Tra			
	System	Version				
		F/W Upgrade	Yes			
			No	O		
		Contrast	1-20	10		
		Light Time	1-60Sec	5 Sec		
		Light Source	None			
			Orange			
			White	O		
	Line In Record	Quality	Very Low			
			Low			
			Middle	O		
			High			
		CD Sync.	Off	O		
			Sync			
			One Sync			
		Start Record	Ready...	O		
			Start			
			Exit			

=Warranty Certificate=

Warranty will be provided as follows.

1. This product is manufactured through strict quality control and inspection process.

2. Free repair service will be provided at our shops or service center at the company's main office during the warranty period if a failure occurs under the normal conditions of the customer's use.
3. Repair service will be provided with a service charge if the need for repair is attributed to the customer even during the warranty period.
4. It is sufficient to present this warranty certificate when requesting a repair service.
5. This warranty certificate will not be reissued. Please keep it in a safe place.
6. This warranty certificate is effective domestically.

Product Name

Model Name

Serial No.

Customer

Name

Address

Telephone No.

Shop (Seller)

Title

Address MURO CO., LTD.

Telephone No.

Name

Purchase Date

Warranty Period: One year

Manufacturer (Warranty is responsible by)

Company Name: MURO CO., LTD.

Address Heungha Bldg. Room #201, 878 Singil-dong Yeongdeungpo-gu Seoul 150-854 S. Korea

Telephone No. 82-2-842-8051

Component Maintenance Period: 3 years after discontinuance of the product sales.

Please fill in the above blanks of Customer, Shop (Seller), and Purchase Date when selling the product.

()

MURO CO. LTD.

Telephone: 82-2-842-8051

Fax: 92-2-843-8051

Address: Heungha Bldg. Room #201, 878 Singil-dong Yeongdeungpo-gu Seoul 150-854 S. Korea

www.muro.co.kr

: that reads OK

FCC Compliance

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
UNDESIRE OPERATION

THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV
INTERFERENCE CAUSED UNAUTHORIZED MODIFICATIONS TO THIS
EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S
AUTHORITY TO OPERATE THE EQUIPMENT.

USER INFORMATION

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.