

Digital Audio Player

User's Manual



FCC Information

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.

Note: This equipment has been tested and found to comply with the limits for CLASS B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. 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 correct the interference by one or more of the following measures:

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

WARNING

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.



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Features

* MP3 & WMA Playback

MP3 is an MPEG1 Layer3 audio format.

WMA is a Microsoft Windows Media audio format.

* FM Reception

Listening to an FM program is made easy with the Auto Search function.

* Encoding Function

MP3 files can be made using the Line In jack on the main unit. You can also convert an FM radio program into an MP3 file in real time.

* Sound

Equalizer can be manually adjusted.

* Voice Recording Function

High quality voice recording can be done.

* Removable Storage Device

You can easily copy and paste PC files to the unit using Windows Explorer.

* Upgradable

You can upgrade the built-in firmware.

(Add or change function, etc.)

Please ask the Distributor for upgrades.

* Support Dual Earphone

You can connect another earphone to the Line In jack when Encoding function is not in use.

* Support 7 Color LED Backlit

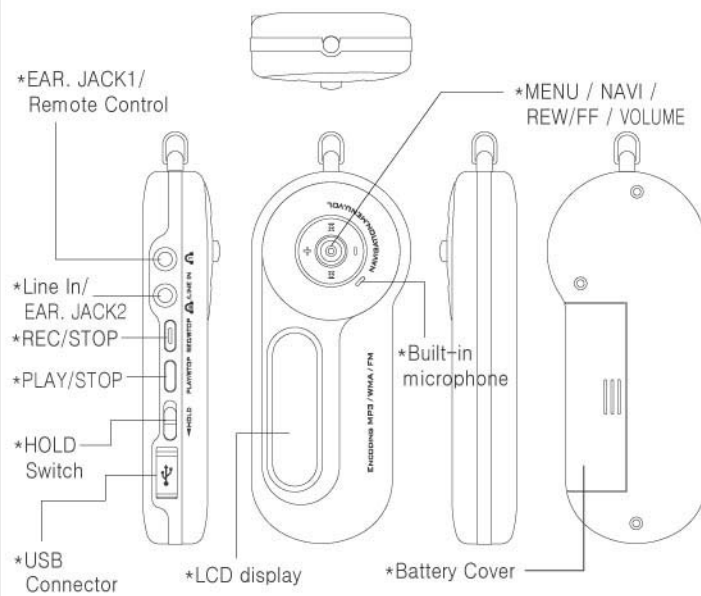
You can manually select among seven(7) backlit colors.

* Support Folders & SubFolders

It is easy to manager the mp3 files because you can create the folders abitrarily.

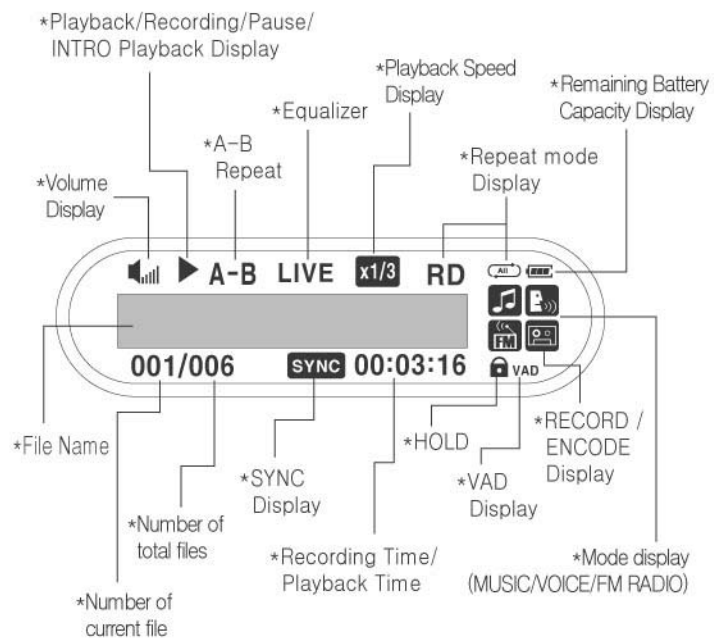


Name of each part





Name of each part



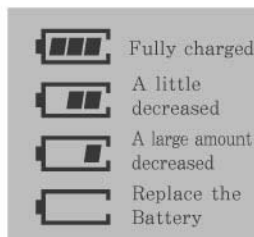
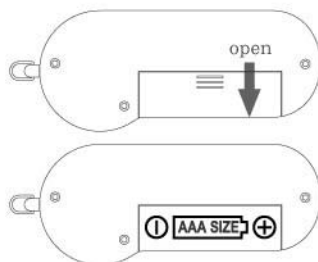


Preparation for operating

* Inserting a Battery

Inserting or changing of the battery should be done when unit is off.

Slide the cover in the direction of the arrow to open. Insert a battery in the correct direction, as illustrated below, then slide cover back on.



(Battery : AAA, LR03 or UM-4 or equivalent)

*Battery life time

| Battery | at recording mode | at earphone playback |
|----------------|-------------------|----------------------|
| "AAA" Alkaline | over 6 hrs | over 8 hrs |



Preparation for operating

* Power ON

Set HOLD switch to the OFF position and press the PLAY/STOP button for 2 second.
The unit will then power on.

* Power OFF

Press the PLAY/STOP button for 2 second when the unit is on standby.
The unit will then power off.

*Note :

- The unit will automatically Turn OFF to conserve battery life, when the unit is left on standby for over 1 minute.
- You can also turn off the power by pressing the PLAY/STOP button for 2 seconds.

* HOLD Function

Under Hold mode, buttons will not work.
Slide the HOLD switch on the player in the direction of the arrow.
When a button is pressed, "HOLD" message will appears on the display.



Description of button in Voice Recorder

| Button | Operation | When Stop | Playing | Recording | Using FM RADIO |
|---|-----------|--|-----------------------------------|----------------------------|--|
|  | SHORT | Selected file playback Exit from MENU | Stop playback | Pause | Frequency search mode |
| | LONG | Power OFF | Power OFF | Power OFF | Power OFF |
|  | SHORT | File search MENU search YES/NO, ON/OFF select | File search | | Frequency search for stored, MENU search, YES/NOselect |
| | LONG | Fast file search | Fast forward or rewind in playing | | Frequency auto search |
|  | SHORT | Enter MENU mode, MENU setup | Change EQ mode | | Enter MENU mode, MENU setup, stop the auto channel save mode |
| | LONG | Enter NAVIGATION mode | A<->B Repeat | | Enter channel save mode, Channel save/delete |
|  | | Volume up/down MENU search, Folder search | Volume up/down | | Volume up/down |
| | | | | | |
|  | | Start recording or encoding | Setup A<->B Repeat | Stop recording or encoding | Start or stop radio program |
| EQ (Only Remote) | SHORT | | Change EQ mode | | |
| | LONG | FM RADIO ON | Change repeat mode | | MUSIC Player ON |
| STOP (Only Remote) | | Exit from Menu mode | Stop Playback | Stop Recording | Exit from Menu mode |

*Note :

- LONG: Longer than 1 second, Short : Less than 1 second.
- The EQ and STOP buttons are only located on the Remote control.



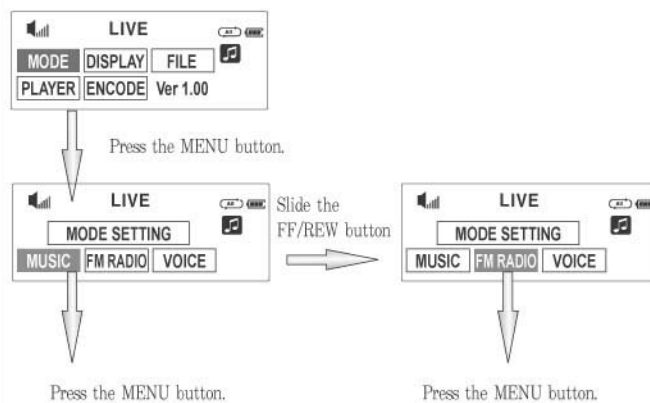
Operating MP3

Setting up MENU

1. To switch to Menu Mode, Press the MENU button While in Music/Voice mode, and then enter the Main Menu.
2. Slide the FF or REW button briefly to select the menu you want.
3. To exit from Menu Mode, press the PLAY/STOP button or wait 5 seconds.

Function & Structure of MENU

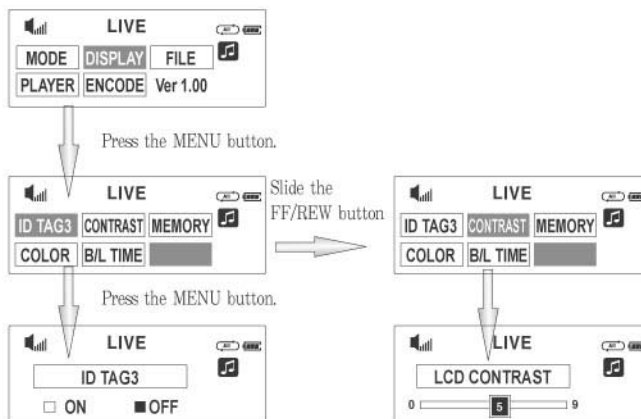
- * **MODE MENU** : Press the MENU button in the Main Menu, and then enter the Sub Menu.
You can select Music Player, FM Radio or Voice Recorder by using FF/REW and MENU buttons.





Operating MP3

* **DISPLAY MENU** : You can set up ID TAG3, BACKLIGHT COLOR, BACKLIGHT TIME and LCD CONTRAST. Also, you can see the total memory size and remaining memory size.



Select the "ON" by using the FF or REW button and press the MENU button.

ID TAG3 Setting up ID TAG3

ID TAG3 ON : Display song name

ID TAG3 OFF : Display Filename

CONTRAST Setting up LCD CONTRAST

Set the LCD contrast by using FF or REW button.

The setting range of the contrast adjusts from 0 to 9.



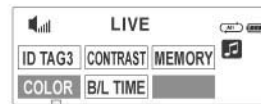
Operating MP3



Press the MENU button.

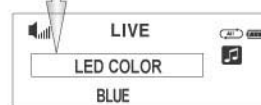
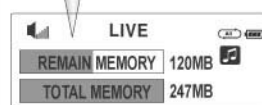


Slide the MENU button



Press the MENU button.

Press the MENU button.



Select the color by using the FF or REW button and press the MENU button.

MEMORY Verify the total and remain memory size

TOTAL MEMORY : Built-in memory size
REMAIN MEMORY : Available memory size

COLOR Setting up BACKLIGHT COLOR

Change the LED color as below order.
RED->GREEN->YELLOW->BLUE->MAGENTA->
CYAN->WHITE->OFF

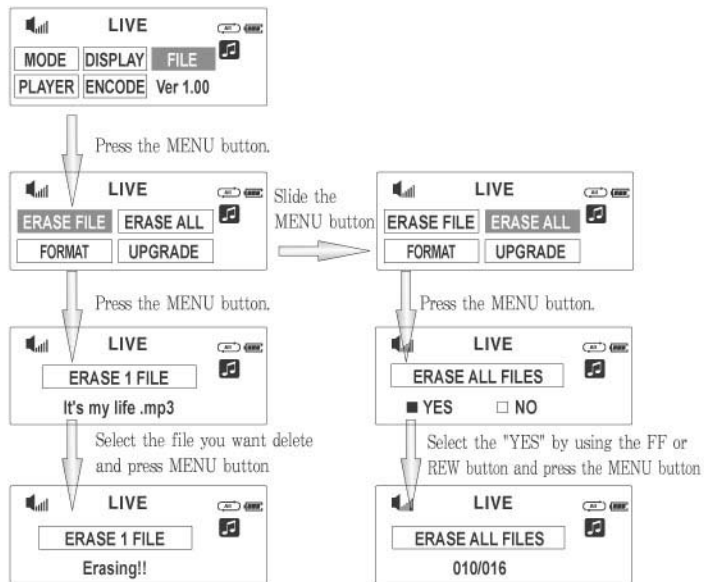
B/L TIME Setting up BACKLIGHT TIME

Set the Backlight time by using FF or REW button.
The setting range of the Backlight time adjusts from 1 to 9. always turn on the backlight or turn off the backlight.



Operating MP3

* FILE MENU : You can select file delete, format and font & firmware upgrade function.

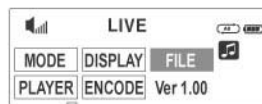


ERASE FILE Delete one file

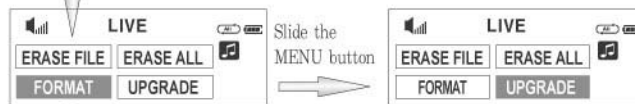
ERASE ALL Delete all files



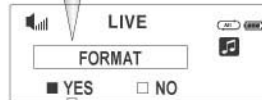
Operating MP3



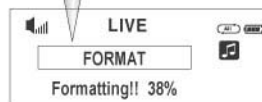
Press the MENU button.



Press the MENU button.



Select the "YES" by using FF or REW button and press the MENU button.



FORMAT Formatting

All files will be deleted when formatting the built-in memory.

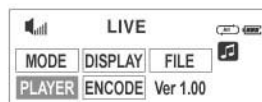
UPGRADE Firmware upgrade & Font download

Download the latest Firmware and display fonts from distributor's homepage (refer to "Firmware upgrade & Font download")

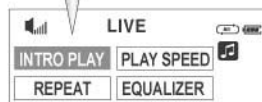


Operating MP3

* **PLAYER MENU** : You can select **INTRO PLAY**, Playback Speed Control, **REPEAT** and **EQUALIZER**.



Press the MENU button.



Slide the MENU button



Press the MENU button.



Select the "YES" by using FF or REW button and press the MENU button.

Press the MENU button.



Select the "playback speed you want" by using the FF or REW button.

INTRO PLAY INTRO Playback

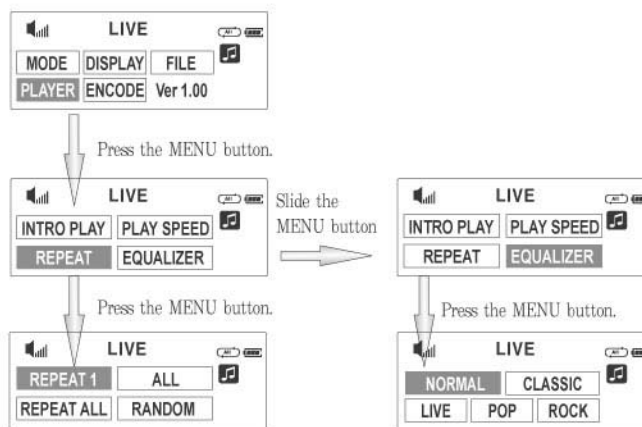
Each file is played for 10 second.

PLAY SPEED Setting up Playback Speed

The setting range of the playback speed, which adjusts the speed of the playback, has 6 steps.



Operating MP3



REPEAT Setting up Track Repeating

Select the Repeat mode you want by using the FF or REW button.

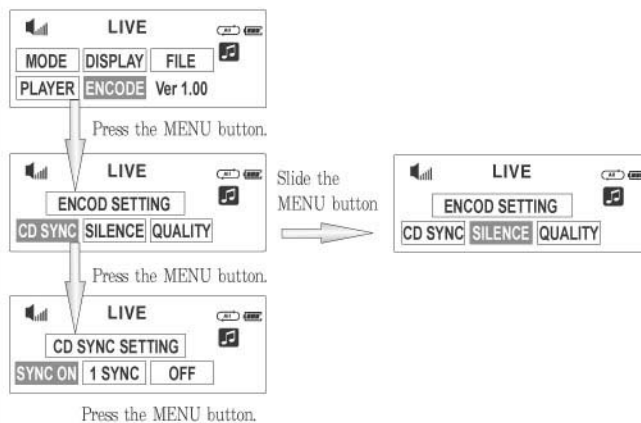
EQUALIZER Setting up EQ

Select the EQ mode you want by using the FF or REW button.



Operating MP3

* ENCODE MENU : You can set up CD SYNC, Encoding quality and SYNC sensitivity.



CD SYNC Setting up CD SYNC

Select the CD SYNC you want by using the FF or REW button.

- * SYNC ON : Automatically creates a file for each track.
- * SYNC 1 : Automatically creates a file for only one track.
- * OFF : All songs recorded in ENC mode are saved in a single file.

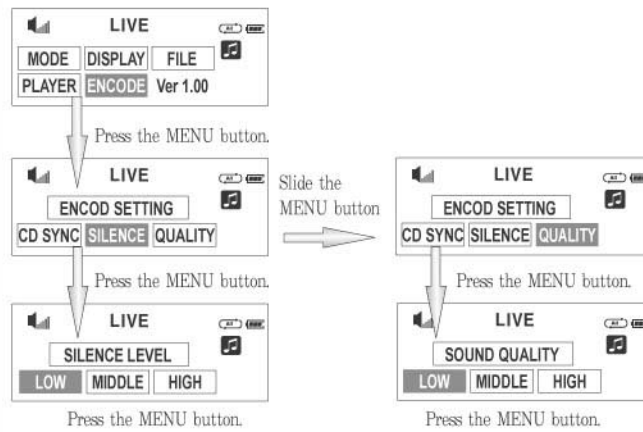
* What is CD Sync?

CD Sync senses the input sound during MP3 encoding. If there is no sound, encoding stops automatically. Otherwise, encoding keeps going. You can save MP3 files separately.

Example) If you encode a CD including 10 music files with MP3, 10 MP3 files are created automatically when the CD Sync to ON.



Operating MP3



SILENCE Setting up SYNC Sensitivity

- * **LOW** : Least sensitive setting, use when sound source is high.
- * **MIDDLE** : Use under normal conditions.
- * **HIGH** : Most sensitive setting, use when sound source is low.

QUALITY Setting up Sound Quality

- * **LOW** : Sampling freq. - 44.1Khz, Bitrate - 128Kbps
- * **MIDDLE** : Sampling freq. - 44.1Khz, Bitrate - 196Kbps
- * **HIGH** : Sampling freq. - 44.1Khz, Bitrate - 224Kbps



Operating MP3

Listening to Music

First, insert the battery and connect the earphones to the player

1. Turn ON power by pressing the PLAY/STOP button.
2. Select the music file you want by using the FF or REW button.
3. When you press the PLAY/STOP button, the music file is played.
4. When you press the PLAY/STOP button while playing the music stops.

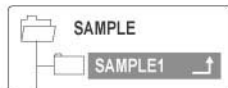
* Search the Folder(NAVIGATION)



1. Press the NAVI/MENU button for over 2 seconds.



2. Select the desired folder by pressing the VOL+/- button.



3. To move to the lower folder, push FF(▶▶)button. if there is no lower folder, it will be displayed ↑ on the screen.

4. To move to the upper folder, push FF(◀◀)button.
5. To select the folder, press the NAVI/MENU button for over 2 seconds.

*The MUSIC folder is the ROOT folder.

*The maximum folder name length is 8 characters. If the folder name length is over 8 characters, the folder name is displayed 6 characters and "~1".



Operating MP3

* Select the EQ

While playing music files, press the MENU button briefly.

EQ mode will be changed in below order.



NORMAL → CLASSIC → LIVE → POP → ROCK

*Use the MENU button to select the desired EQ.

* Setting up Repeat Mode

While playing music files, press the MENU button for over


2 second. repeat mode will be changed in below order.

 → **All** →  → **RD**

*Use the scroll(MENU) button to select the desired mode.

 : To repeat one track

All : To play all the tracks in order one time

 : To repeat all tracks

RD : To play tracks at random

* Setting up Loop Repeating

1. Starting Point

While playing music files, press the REC button briefly at the beginning of the loop you want to set. A-B icon will be blinking.

2. Ending Point

Press the REC button briefly again to set the end of the loop.

A-B icon appears in the display. the loop is played repeatedly.

*Note :

- Press the REC button briefly to cancel the loop.

- Loop Repeat is automatically released if you slide the search button.



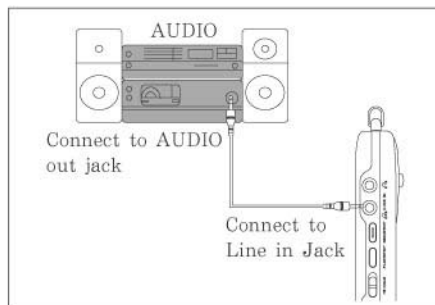
Operating MP3

MP3 ENCODING

1. Connect the Audio Output port on the external audio source (or the Line Out Port) to the LINE IN jack on the device with the Line cable.
2. Set up the Quality, CD SYNC and SYNC Sensitivity in Encode Menu.
3. Press the REC button.
4. To pause during Encoding, press the PLAY/STOP button.
5. Press the button once again to continue recording.
6. Press the REC button while recording to stop the encoding, and a new encoding file will be created.

* Notice :

- Do not disconnect the Line cable during Encoding
- If the battery is not charged enough, encoding will not be done
- Adjust the volume of the external audio source to a suitable level and encode it
- If the volume level is extremely high, the sound quality may not be good



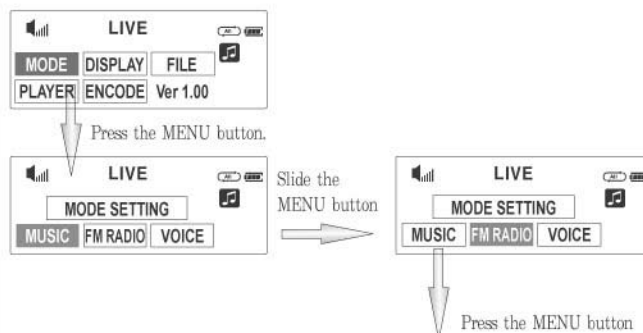


FM RADIO

While the player is stopped, select FM mode by using the MENU button.

Function & Structure of MENU

* MODE MENU : Select MUSIC, FM RADIO, VOICE Mode.
Select the Mode you want by using FF or REW button.
And then press the MENU button to select.



SEARCH Automatic Storage of a Frequency

Frequencies within the range of 87MHz to 108MHz are automatically selected and stored.

* Note : You can store up to 20 frequencies.

DELETE Delete a Stored Frequency

You can delete a stored frequency 1 to 20.



FM RADIO

Listening to FM Radio

* Listening to FM Radio

1. Slide the FF or REW button briefly to find the frequency you want.
2. To move to the next or previous channel, slide the FF or REW button for 3 second.
3. Press the PLAY/STOP button briefly while in FM Mode.
Ch 1 frequency will be displayed and the stored frequencies are successively searched by using FF or REW button.

* Manual Storage of a Frequency (Number of channels : Ch1~Ch20)

1. Select the frequency you want by using FF or REW button.
2. Press the MENU button for 3 second, on the screen will be displayed.
3. Select the channel number you want by using FF or REW button and press the MENU button once again to store the frequency.

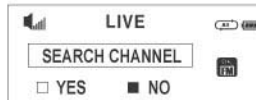
* Automatic Storage of a Frequency

1. Press the MENU button while in FM mode and select SEARCH by using FF or REW button.
Press the MENU button again.
2. Select YES by using FF or REW button and press the MENU button.
3. Frequencies within the range of 87 MHz to 108 MHz are automatically selected and stored.



FM RADIO

4. Frequencies are automatically stored, starting from Ch 1.



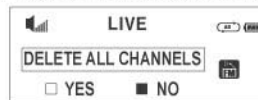
*Press the MENU button, if you want to stop searching and saving the frequency.

* Manual Delete a Stored Frequency

1. Press the PLAY/STOP button, and then will be displayed frequency and **1**.
2. Select the channel number you want to delete by using FF or REW button.
3. Press the MENU button for 3 second, and then will be displayed **1** and delete a selected frequency.

* Automatic Delete a Stored Frequency

1. Press the MENU button while in FM mode and select DELETE by using FF or REW button.
Press the MENU button again.
2. Select YES by using FF or REW button and press the MENU button.
3. After deletin, 87 MHz will be displayed on the screen.



* FM Encoding

1. Press the REC button during FM Mode to start the encoding.
2. To stop the encoding, press the REC button again.
Then a new file will be created and stored to the VOICE folder.

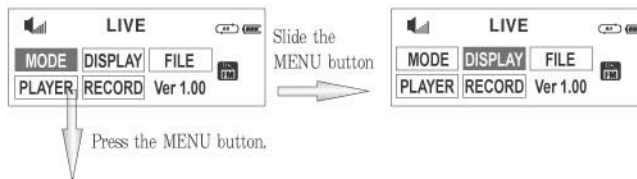


Operating Recorder

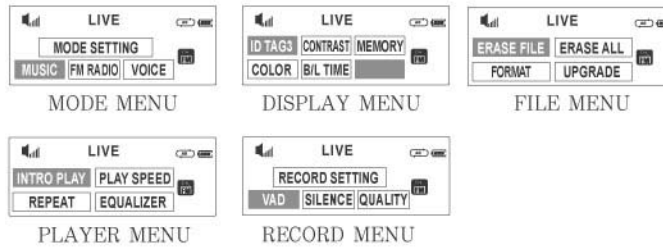
You can select Voice Mode by using FF/REW and MENU buttons while in MUSIC mode or FM RADIO.
(refer to "Setting up MENU")

Function & Structure of MENU

* MAIN MENU



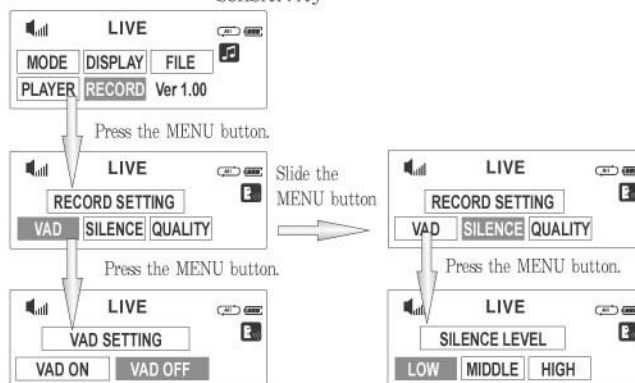
* SUB MENU





Operating Recorder

* RECODE MENU : Setting up Recording quality, VAD and VAD sensitivity



VAD Setting up VAD(Voice Activity Detection)

SILENCE Setting up VAD sensitivity

- * LOW : Least sensitive setting, use when high background noise is present
- * MIDDLE : Use under normal conditions
- * HIGH : Most sensitive setting, use in controlled environments (ex. conference rooms)

QUALITY Setting up Sound Quality

- * LOW : Sampling freq. - 16Khz, Bitrate - 16Kbps
- * MIDDLE : Sampling freq. - 16Khz, Bitrate - 32Kbps
- * HIGH : Sampling freq. - 16Khz, Bitrate - 64Kbps



Operating Recorder

* Recording Voice

1. Press the REC button to begin voice recording while in Voice Mode.
2. To stop the recording, press the REC button again and a new voice file will be created.

* Note :

- If the memory is full, the Voice Recording is stopped automatically.
- The Voice Recording is also enabled in Music Mode.
- To record voice, be sure nothing is connected to the LINE IN jack.
- Voice recording does not work in FM Mode or when the Line cable is connected.

* Listening to Voice

First, insert the battery and connect the earphones to the player

1. Turn on the unit by pressing the PLAY/STOP button.
2. Select the voice file you want by using the FF or REW button.
3. Press the PLAY/STOP button, the file is played.
4. When you press the PLAY/STOP button while playing, the playback stops.

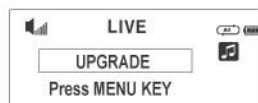


Firmware Upgrade & Font Download

Firmware Upgrade & Font Download

First, you will have to install the Upgrade program on your PC. Download the latest Firmware from distributor's homepage. Install the latest Firmware program on your PC.

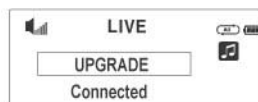
1. Press the MENU button while in MUSIC or VOICE Mode and select FILE by using FF or REW button. Press the MENU button again and select **UPGRADE** by using FF or REW button. Press the MENU button once again.



2. Press the MENU button, "Connect USB" will be displayed on the screen.

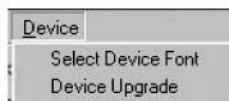


3. Connect to the USB port on your PC using the USB cable or adaptor.
4. "Connected" message is displayed on the screen and run the "Manager PLUS" on your PC.





Firmware Upgrade & Font Download



5. After completing the file transfer, you must disconnect the USB cable and power off by using PLAY/STOP button.

<New Font Download >

Device -> Select Device Font

<New Firmware Upgrade>

Device -> Device Upgrade

Using the removable storage

1. Turn on the unit and connect to PC
2. Open Windows Explorer on PC
3. Select the file to save and drag-and-drop it into the removable disk icon.

*Notice :

The "Don't Remove USB" message will appear during file download or upload. Disconnecting the USB cable while "Don't Remove USB" is displayed may cause malfunction of the unit.



Manager PLUS installation manual

* Installation of Manager PLUS

Before connecting to PC, make sure to install Manager Plus on your PC.

• System Requirement

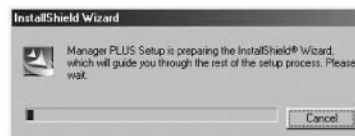
Pentium 133MHz or greater
Windows 98 SE/ME/2000/XP
20MB of available hard disk space
CD-ROM drive
USB port(1.1) supported

*Note :

- Windows ME, 2000 and XP can recognize the driver without installing the provided program. However, you must install the program in order to format and upgrade.
- If the Manager program has not been installed in windows 98, then it will not communicate with your removable disk.
- You must install the USB driver files first.

• Installing software

Insert the Installation CD into CD-ROM drive. The picture shown below appears. The installation window should then appear.





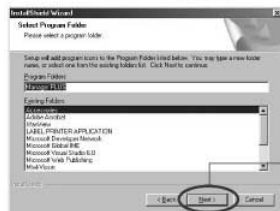
Manager PLUS installation manual



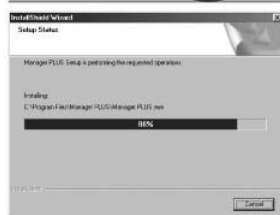
Click



Click



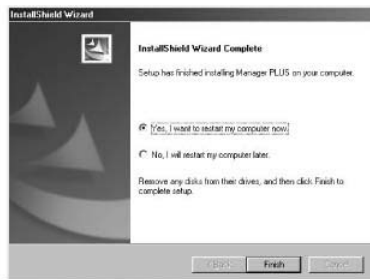
Click



*Please, wait till
the installation is
completed.



Manager PLUS installation manual



*Installation is finished,
and the short-cut icon
will appear on the
desktop.

- To remove Manager PLUS
Click Start → Settings → Control Panel →
Program Add/Deletion.

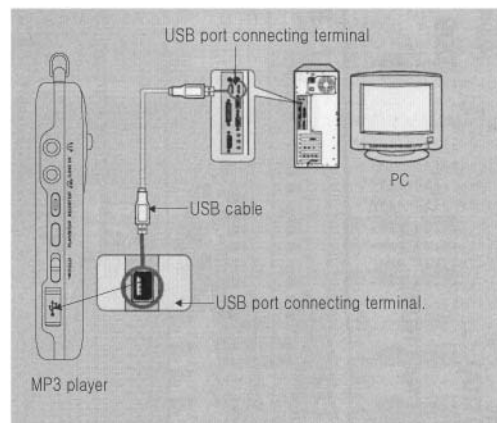




Manager PLUS installation manual

* Connecting to PC with USB cable

Plug one end of the USB cable into the USB port on the PC.
The unit will automatically turn on.



Connect the opposite end of the USB cable to the USB cable port on the left side of the unit.

USB driver is installed with a message saying that it is searching for a new device. You may not see the display screen during installation.

Go to the device manager to check that installation has been successfully completed.

When USB driver is not installed automatically, refer to next description.

(Follow these steps if the USB driver is not in place)



Manager PLUS

Check the device manager.

*Windows 98, ME :

Control panel -> System -> Device Manager

*Windows 2000 :

Control panel -> System -> Hardware -> Device Manager

*Windows XP :

Control panel -> System -> Hardware -> Device Manager

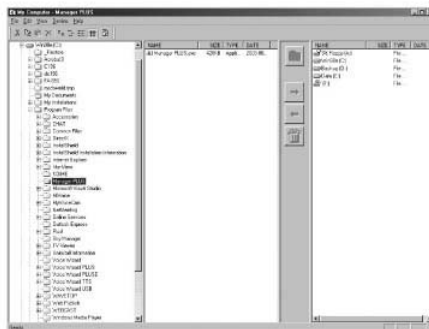
Check if there is a device listed with an exclamation point or a question mark (displayed as unknown device or USB device)

Click on the device listed with an exclamation point or a question mark

And then delete and re-connect.

*Note :

- The installation method may vary depending on the type of PC or operating system.
- Contact your PC dealer or service center for installation information.
- If errors occur continuously when you install the USB driver, reconnect the USB cable after rebooting your system.





Cautions

* Cautions in Operating

1. Do not place the product in the following condition and/or places :
 - Where temperatures reach above 120°F.
 - Dusty place.
 - Near heaters or any type of heat sources.
 - In a car with windows closed, especially in the summer.
 - Damp places, like a sauna or bathroom.
2. Any excessive force on the LCD display could cause damages to it and to the over all LCD functions.
3. A magnetic card such as a credit card or subway communication ticket may not work once it is placed on or close to the speaker.
4. The seller holds no liability for any damages caused by misuse of the product and any claims from the third party.
5. The seller holds no liability for any lost messages which are caused by repair or any other troubles.

* Cautions in Using Battery

1. Do not short circuit, disassemble, heat or put batteries in the fire. Battery acid could cause bodily harm if exposed to the skin or eyes.
2. Do not use different kind of battery.
3. Remove the battery, if the unit will not be in use for over a months time.

* Cautions for Safety

1. Remove the battery when there are malfunction caused by smoke and heat.
2. Do not use the device where electronic product operation is prohibited like inside an airplane.
3. Do not operate when driving or walk, to prevent accidents or distractions.



Specification

* Improvements of product, specifications & design can be changed without notice

| ITEM | | SPECIFICATION | |
|---------------------|-----------------|--|----------|
| Model Number | | IMP-5128 | IMP-5256 |
| Max. Recording Time | | 17 Hours | 34 Hours |
| Memory | | 128 MB | 256 MB |
| FM Radio | Frequency Range | 87MHz ~ 108 MHz | |
| | Audio Output | (L)10mW + (R) 10mW (16 Ohm) Max. Volume | |
| | S/N Ratio | 55 dB | |
| | Antena | Earphone Antena | |
| Audio Format | Format/Bit Rate | MPEG 1/2/2.5 Layer 3(8 Kbps ~ 320 Kbps) WMA/ASF(32 Kbps ~ 192 Kbps) | |
| | Tag Info | ID3 V1, ID3 V2 2.0, ID3 V2 3.0, ID3 V2 4.0 | |
| | LCD | Full Graphic with 7 Color LED Backlight | |
| Max. Output Power | | (L)10mW + (R) 10mW (16 Ohm) Max. Volume | |
| Input | | Built in MIC & Stereo Jack | |
| Output | | Stereo Jack | |
| Dimensions | | 33(W) x 88.3(H) x 14(D)mm | |
| Weight | | 30g (without battery) | |
| Memory Medium | | Built in Flash Memory | |
| Power Source | | 1.5V, "AAA" alkaline | |
| Battery Life Time | | Recording : 8hrs / Playback : over 8hrs (Volume :10, Bit rate : 128Kbps, Continuous) | |
| Condition to use | | 0°C~40°C | |
| Optional Accessory | | User's Manual, Earphone, 1AAA battery, USB Cable, Line-in Cable, Installation CD, Necklace strap, USB adaptor(Option), Carrying Case(Option) | |