

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

FCC RF

INTERFERENCE STATEMENT

• NOTE:

- 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 technical for help.
- Only shielded interface cable should be used.
- Finally, any changes or modifications to the equipment by the user not expressly approved by the grantee or manufacturer could void the users authority to operate such equipment,

We appreciate you for purchasing our product.

Please install driver for Windows98 before using the product and carefully read instruction guide for safety.

uPlease be cautious of disconnecting the USB cable from the product while downloading, due to the possibility of damage to the product.

uAnd also there is a possibility of damage to the product while formatting the product's memory on PC. uPlease install Windows 98 driver provided on the CD onto your PC.

Copy Right Notice

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This manual can be altered without notice for product improvement.

SM Electronics takes no liability for any damage to data by false usage and operation.

Warranty

- 1. This product has been tested through strict quality control and
- 2. Repair fees are covered by this warranty in the case of failure during normal usage within 1 year during the warranty period.
- 3. Repair fees are charged in spite of the failure during the warranty period. If the repair service falls under non-warranty
- 4. Please keep this warranty note after filling up the warranty
- 5. In the case of product's failure, please contact the place of the purchase or us at the number below.

Non-warranty Service

- ·Any failure made from improper usage.
- •Any failure made from unauthorized disassembly or reassembly of the product.
- •Any failure made from natural cause such as fire, salt damage, earthquake, etc.

Model Name	
Serial No	
Purchase Date	M/ D/ Y
Customer's Name	1)
Place of Purchase	a ()

P	roduct Name		SP-2000		
S	ize		76.5 * 35.5 * 18 (W * H * D)		
ν	Veight		40g (Internal Battery)		
Ν	lemory		128MB/256MB/512MB		
F	ile Transference Speed		5Mbps.USB 1.1		
F	ile Type		MP3/WMA/OGG		
Ratio between FM Frequency and Noise		e	50dB		
F	M Bandwidth		87.5Mhz~108Mhz(Korea, Europe, etc) 76.0Mhz~96.0Mhz (Japan)		
Н	leadphone Output		20mW (L) + 20mW (R)		
V	oice Recording		Approx 36 hours/memory size 512MB standard		
L	anguages		Korean/English/Japanese/French/Chinese		
P	layback Hours		Approx 16 hours		
C	S		Windows 98/ME/2000/XP/Mac OS 8.1/Linux 2.4.18		
P	ower Supply		Internal Lithium Polymer Battery		
	Decoder	MP3:MPEG=1 Layer=3 / WMA:Sampling Rate=8Khz=44.1Khz OGG: q1-q10 Bit Rate=5Kbps=192Kbps			
	WMA Encoder	32Khz:48Kbps / 44.1Khz=64Kbps, 80Kbps, 96Kbps, 128Kbps			
	Voice Record EQ.		ng Rate-44.1 Khz / Bit Rate-32Kbps I, Rock, Jazz, Classic, Pop. Techno, Live, User		
	Codec	24bit Wolfson Codec			



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Basic Features

1. Accessories

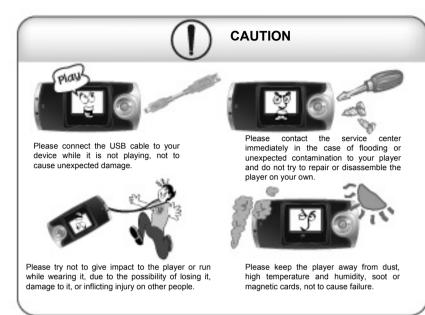
See what comes with the device!





Accessories can vary depending on the possible improvement of the product features.

2. Caution for safe usage





3. Features

Graphic Color LCD

You can enjoy photos, avatars, and screen savers on the color LCD.

Setting various screen savers and avatars

You can enjoy your favorable avatars not only when the device is turned on but also while enjoying the music.

Automatic Scaling: Automatically resize the photo to fit it into the size of the display (width: 96 lines). (Screen saver, possible to use it for real-time music play)
BMP 24 Bit True Color Format Screen Saver (SSR)

Playing MP3/OGG/WMA files and encoding WMA files

You can playMP3 files and OGG, WMA files as well. You can encode WMA files reducing the size by 60% as compared to that of MP3 files.

Rechargeable large capacity internal battery

Lithium polymer rechargeable internal battery, 540mA, 3.7V-handy recharge through USB

Power Navigation

Perfect GUI and pop-up menu, supporting unlimited number of folders, direct file copy, and delete. You can add a new title to the play list.

FM Radio

Worldwide FM reception, one touch recording

Playback Tempo Control

You can control the playback tempo for language learning.

High Quality Sound

 $3\,\mathrm{D}$ sound (SRS-WOW), TruBass, various equalizer、 and 24 Bit Codec allow you to experience real-like sound.

Special Functions

Play List (up to 99 songs) - Creating a list of songs.

Bookmark (up to 99 songs) - For language learning.

Intro - Playing only the beginning of songs for the set period.

Stopwatch - Counting at 1/100 sec up to 10 hours.

Multiple Processing - Processing multiple functions such as file search while listening to music.

Removable Disk

UMS (USB Mass Storage) class USB v1.1, auto-plug & play, and automatic recognition when connected to PC. (Install driver for Windows 98)

Firmware Upgrade

Easy firmware upgrade from the web.

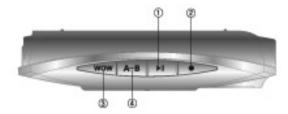
Support Lyric

Support Irc files and display Jpeg images while playing music.

Support various OS

Windows 98/ME/NT/2000/XP Mac OS 8.6 and over

4. Your player at a glance





Power on & off (press and hold then let go)/Play/Pause/File Play List, Saving and deleting FM broadcasting band



Start, stop recording (click in the Recording Mode)/Repeat the song (click)/Place bookmarks (press and hold then let go)/Lap Time (click in the Stopwatch Mode)/Go back to the previous stage (click in the Menu/Navigation Mode)



3D Sound (click while playing)/Equalizer (press and hold then let go while playing)

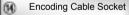


Changing the Play Mode, A/P/B/F (click while not playing) Section Repeat (click while playing)/Presetting the radio channel (click while FM is on.)

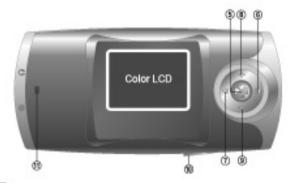


Earphone Socket











Navigation (click the jog lever)/Move to each of 7 Menu Modes (press and hold then let go)



Move to the next file (click while playing)/Search at high speed (press and hold then let go while playing)

Move the cursor to the right (click in the Menu/Navigation) Change the radio frequency (click in the Radio Mode)/Automatic search for radio frequency (press and hold then let go)



Move to the previous file (click while playing)/Reverse search at high speed (press and hold and let go while playing) Move the cursor to the left (click in the Menu/Navigation) Change the radio frequency (click in the Radio Mode)/Automatic search for radio frequency (press and hold then let go)



Volume Up (click while playing) Move the cursor up (click in the Menu/Navigation)

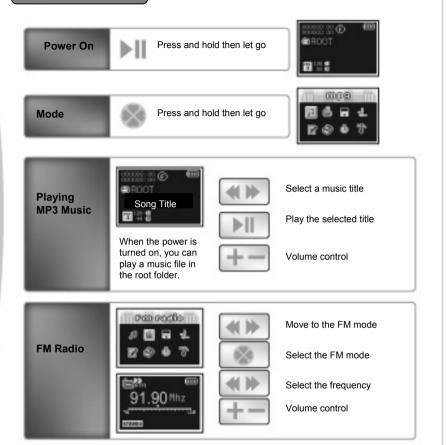


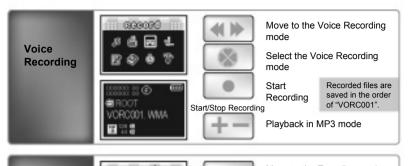
Volume Down (click while playing) Move the cursor down (click in the Menu/Navigation)

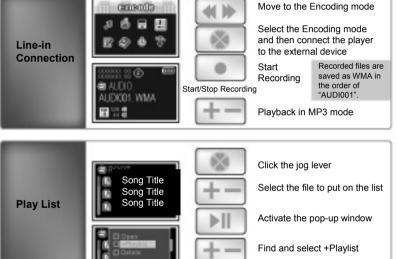




5. Quick Manual







Save the file on the Play List







Press and hold then let go to place a bookmark

"B" mark will show up when the button is pressed.

Playing files on the Play List









Select "Open" on the option list to play the file

Click to play the file







Set the Play mode as "P" while not playing

Play the file

Playing the bookmarked files









Select "Open" on the option list to play the file

Click to play the file







Set the Play mode as "B" while not playing

Play the file





Setting Mode





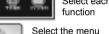
Set options





Stopwatch is operational in other modes (radio, record and play mode)









Sound

- User's FQ
- . 3D SRS ON
- SRS Setting
- Sound Balance
- EQ Selection

Play

- Boundary
- Repeat Mode
- Random Play Mode
- Intro Time Setting
- Play Speed
- Setting the previous playing
- position
- * Fade-in Language

Display

- LCD Lighting Time
- Brightness
- Speed of text running
- Tag Information
- Screen Saver
- Frame Rate
- Lyric Setting

Timer

_Standby Time Automatic Turn Off

Record

System

Quality of FM Recording

Quality of Line-in Encoding

Volume of Line-in Encoding

- Search Speed Language Setting
- Format
- Automatic Hold
- Initialization
- Memory
- F/W Version

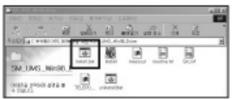


1. Driver Install for Windows 98

It is recommended for Windows 98 users to install the driver before using the device as a removable disk. (For Windows 98 users only)

Step1: Insert the provided CD into the CD Drive of your PC.

Step2: Select Win 98 folder and click install bat.





Install98.bat is for installing Win 98 driver.

Different driver name can be displayed depending on PC. Removable disk is recognized on Windows 2000/ME/XP/Mac 8.6 and over.

Step3: Connect the USB cable to the device.



(After USB connection, the removable disk icon will be displayed on your PC as shown below.)



2. How to connect the device to your PC (through USB Cable)



- On Windows ME/2000/XP, the device is recognized as "Removable Disk" when it is connected to your PC. (Files are transferable without a driver.)
 For Windows 98, please install the driver for Windows 98. (Reference: Driver Install for Windows 98)
- When the device is connected to your PC, "USB Connect UMS" will be displayed on your device.





Status Window during file transfer

Caution: Please do not disconnect the USB cable from the device and your PC.

Disconnection of the USB cable can damage the device.

3. How to recharge the battery (through USB Cable)

Recharging Battery: Connecting the device and your PC through USB cable will automatically recharge the internal battery. (full recharge in 2 hours).



The battery indicator will flash during recharging and be turned off on completion of recharging. Please execute "Safely Remove Hardware" to use the device during recharging.

4. Downloading music and other files onto the device

Copying Files (Downloading files onto the device)

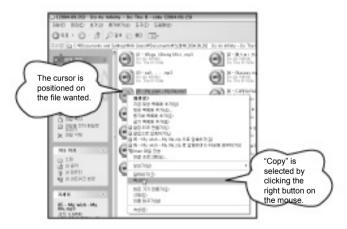
1. Execute the Windows Explorer after securely connecting the device to your PC.



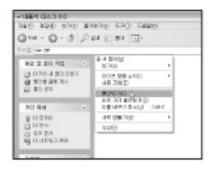
2. Make sure "Removable Disk" is displayed on My Computer window.



3. Select and copy the file wanted. (MP3 songs or images, etc).



4. Paste the copied file onto the "Removable Disk". (Click the right button on the mouse and select "Paste"



Pasting a file copied from your PC into the removable disk

- Double click the window explorer to open the window
- 2 Double click the removable disk.
- ③ On the Removable Disk window, click the right button on the mouse and select paste.
- Now you are transferring the copied file into the removable disk.

Creating a folder on the Removable Disk.

Create folder to properly manage files including music and language.

Ex) Music files in the music folder/language files in the language folder.



To systematically manage files by creating folders: Click the right button on the mouse in the empty space of "Removable Disk" – "New Folder" – And a new folder is created.

Naming the folder

Click the right button on the mouse-select Change Name and name the folder.

Ex) In the case of already created folders such as music folder and language folder, just copy and paste them onto the disk.





1. Playback (MP3, WMA, OGG, etc)

- 1. Connect the earphone to the device.
- 2. Deactivate "Hold" key. (No function will work on hold status.)
- 3. Power on (: press and hold)/Play (click)
- Select the music title (: click)/High speed rewind and fast forward (push and hold)
- 5. Volume Control(+ -: click)
- Changing functions (1): press and hold the let go)-Play, FM Radio Record, Line-in, Play List, Bookmark, and Stopwatch.

Move to each function (: click).

Selecting functions: select the function with 41 and move to the sub-functions.

7. WOW Function: WOW button (click) On/Off

EQ Function (Press and hold): Normal, Rock, Jazz, Classic, Pop, User

About Play Mode A: Playing all the files in the folder F: Repeat all the files in the folder once

P: Playing files in the Play List B: Playing bookmarked files 1: Playing the selected file once

Play once Play repeatedly

edly (press while playing)

Earphone Output

Title No

The Entire Title Nos

Battery

Folder

Playback Time

Total Time Play Mode

2. FM Radio

- 1. Press and then select the FM Mode.
- 2. Change the radio frequency: (: click)
- 3. Change to Stereo/Mono while playing (: click)
- 4. Volume Control (+ -: click)

Selecting the radio frequency

- 1. Change the radio frequency: (: click)
- 2. Automatic search for radio frequency: Auto scan
- (: press and hold then let go) To stop, (: click)





삭제

Saving FM Radio Channel. (Preset Function)

- 1. Click the A-B button and select the band with +-.
- 2. Press to activate the selection window.
- 3. Select "Store CH" with +- .
- 4. Store the channel with .
- 5. Click or to play.
- * Auto Scan: Automatic search for radio channel





3. Recording

In order to record FM Radio:

- 1. Click to start recording while listening to radio/Click to stop recording.
- 2. Click to pause while recording Indicator for recording time will flash.
- 3. In order to hear the recorded file:

If there is no specific folder, save the recorded file as "FMREC001.WMA" into the Root folder.

(As for voice recording, start recording after checking the available recording time.)



In order to record voice:

- 1. Press (1) and then move to the Record Mode.
- 2. Click to start recording/Click to stop recording.
- 3. Click to pause while recording Indicator for recording time will flash.

If there is no specific folder, save the recorded file as "VORC001.WMA" into the Root folder. (As for voice recording, start recording after checking the available recording time.)

4. Recording from the external audio device (Direct Encoding)

Connect the line-in cable jack to the earphone socket of the external audio device (CD player, cassette player, etc) and connect the other jack to the encoding socket of the device (SP-2000).





In order to record from the external device:

- 1. Press and then move to the Record Mode.
- 2. Click to start recording/click to stop recording.
- 3. Click to pause while recording Indicator for recording time will flash.
- If there is no specific folder, save the recorded file as "AUDIC001.WMA" into the Root folder. (As for voice recording, start recording after checking the available recording time.)

TIP

All the recorded files can be played in MP3 format.

5. Viewing Avatars and Image Files

In the MP3 mode, click \checkmark to select an image file (Jpg) and then click or to activate the image file.

Avatar

When the device is turned on, an avatar image can be initially displayed. (Jpg images only. Images as many as 100 files can be displayed. (avata $000 \sim avata 099$)) After the initialization is completed, then the device proceeds to the main display.

The image is only displayed within 96 pixels (width). Automatic scaling fits the image into 96 pixels.

Screen Saver

Setting Screen Saver: Move to menu with 🕩 in the Setting mode to select Screen Saver on the Display menu and select ON.

Setting Screen Saver File: Press 1 and then move to *.ssr file. Click or to activate.

Screen saver must be created as BMP. But it is necessary to change the extension as "ssr" to activate.

How to create SSR file: Resize the image in the aspect ratio of 96*64 and save it as ssr file (*.ssr)

(Consecutive display of images is possible in a multiple of 96*64.)

* BMP files must be 24 bit true color images. (compressed files are not supported)

If the image file is selected among the lyric files, it can be displayed.

Ex) [00:02] I'll never gonna...

[00:04] "File Name.jpg"

[00:06] sing a song again...

*The image file name must be placed within " ".

* Please utilize "SP-2000 Utility" contained on the CD provided with the product.

6. Reset

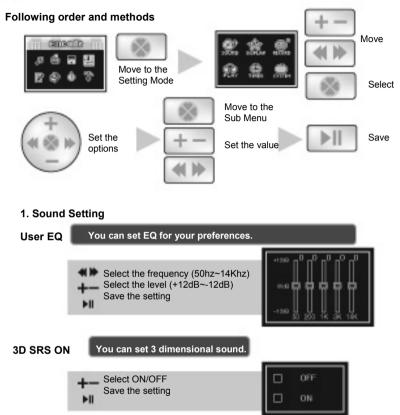
The reset button is used for sudden failure or malfunction of the device.

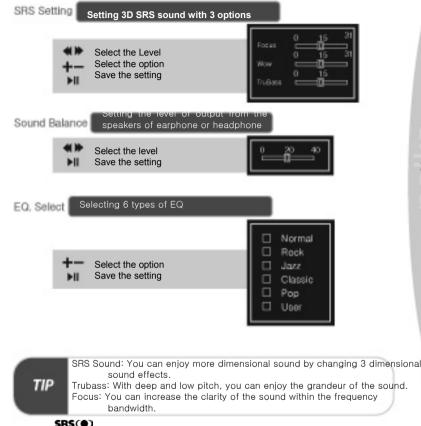


Reset Button



User's Setting

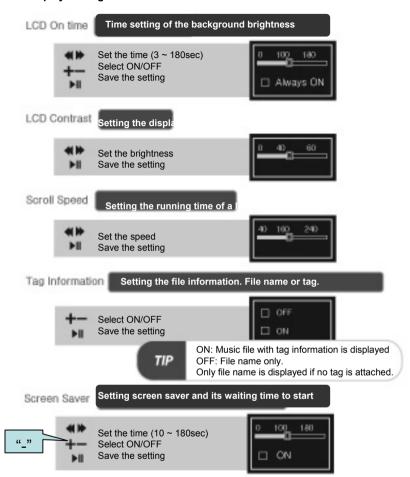


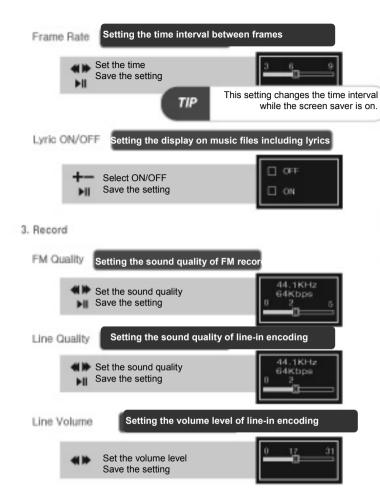


srs() is a trademark of SRS Labs, Inc.

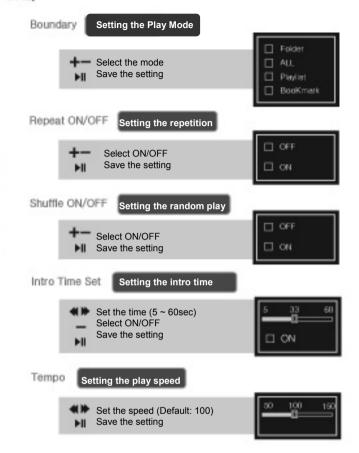
WOW technology is incorporated under license from SRS Labs, Inc.

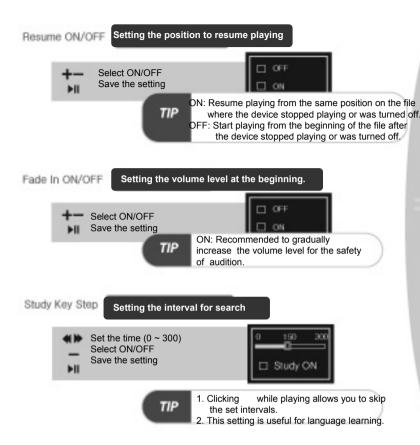
2. Display Setting



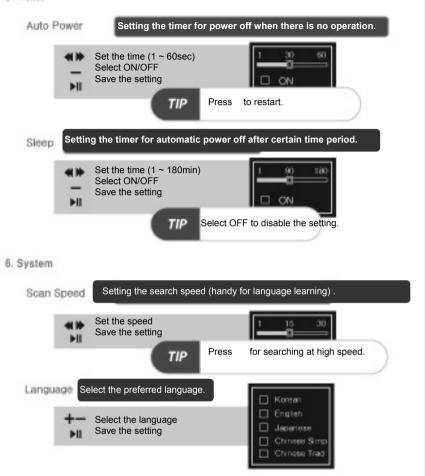


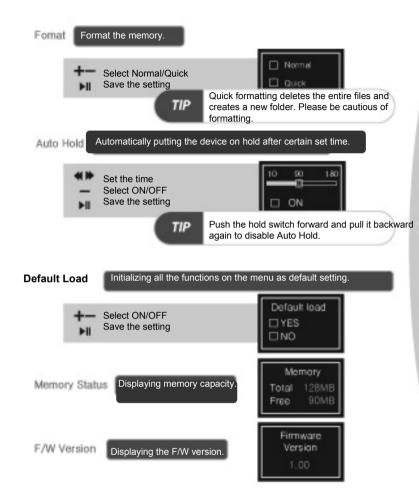
4. Play





5. Timer





7. Firmware Upgrade (Downloading and upgrading new F/W).

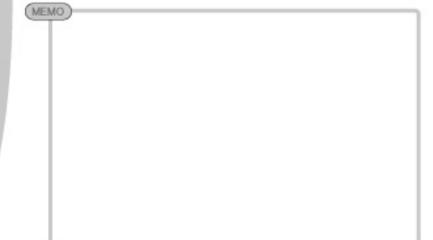
Step 1: Download and save a new version of F/W from the web site (<u>www.smtronics.co.kr</u>) onto your PC.

Step 2: Connect the USB cable to the device.



Step 3: Copy and paste the new version of F/W to the device. (refer to the methods of copying and pasting for detail)

Step4: Reboot the device for automatic upgrade (power ON/OFF).





A/S and Troubleshooting

1. To be checked before request for A/S. (If failure is suspected please read the check list

Nothing is displayed on the LCD display.

- * Isn't the battery capacity level too low? If so, recharge the battery.
- * Isn't the LCD's contrast level too low? If so, please raise the contrast level.

Recording is not working.

- * Isn't the device on hold? If so, please disable the hold switch.
- * Isn't the memory already full? If so, please check the memory capacity and delete some unnecessary files.

Playing is not working.

- * Isn't the device on hold? If so, please disable the hold switch.
- * Isn't the battery capacity level too low? If so, please check the battery capacity level and recharge the battery.
- * Isn't the volume level too low? If so, please raise the volume.
- Is there any music file stored on your device?
 The device can not download files from PC.
- * Hasn't the USB cable got accidentally disconnected while transferring files into the device If so, please make sure the cable is well connected to your PC or device.

29

Characters on display are broken.

* Please make sure your selection of language is correct for your language.

The device seems to be playing at low/high speed.

* Please make sure the speed setting of Speed Mode is correct.

The stored data can not be executed or deleted.

* Please format the memory and try again.

The device can not be turned on.

- * Is the battery capacity level enough? If so, please recharge the battery.
- * Isn't the device on hold? If so, please deactivate the hold switch not to be on hold.

I hear no sound but noise.

- * Isn't the volume level 0?
- * Is the earphone disconnected from the jack? Is there any dirt in the earphone jack? (Any dirt in the earphone jack can cause noise.)
- * Please make sure there is no damage to the music file. Damaged MP3 or WMA files can produce noise. Please try other files.

Nothing is displayed on the screen.

- * Please check LCD On Time in the Display Mode.
- * Please check the battery capacity level.

I hear no sound even though the play button is already pressed.

* Check the connection between the earphone set and the device. (Otherwise try other earphone set)

20.00

- * Please check whether the device is on hold.
- * Check the level of volume. (Try setting EQ)

I can not copy files into the device.

- * Check the battery capacity level.
- * Try initialization of the device.
- * Make sure the driver for Windows 98 is installed.

The display is too dark.

* Please check the LCD contrast.

I experienced sudden power off.

* Please check Auto Power/Sleep in the Timer Mode.