Model NO. : **VT-50**

DE🗲PA

User Manual

VT-50

OK ⟶ ON / OFF / MENU / EQ

VOL
DEL   MODE

Digital Voice Recorder
& Digital Audio Player

▶ www.denpa.com.tw

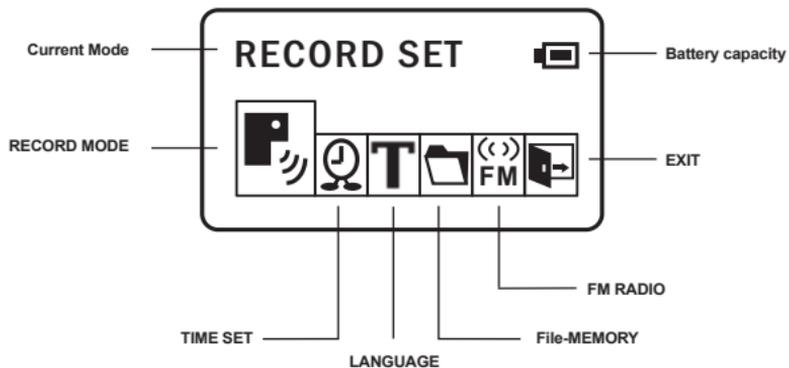# Contents

▲ Features

1. Digital voice recorder + MP3 player + FM radio + Removable disk.
2. Full digital design for crystal clear sound quality.
3. Five equalizer (NOMO,ROCK,JAZZ,CLASS, PIANO).
4. USB interface for quick up load or download.
5. Automatic power off (APO) function to save battery power.
6. Super slim handy portable design.
7. Wireless microphone enlarge recording range(Option).
8. LED back light for night time operation.
9. Recording format is MP3, you can select Bitrates from 8/16/32/64K (Mono) and 96/128K (Stereo).
10. Built-in digital FM radio and FM recording available.
11. Voice operated recording (VOR).
12. Telephone recording.
13. Backward trace buffer (0, 15, 30, 60 seconds) available.
14. Microphone sensitivity adjustable (4 levels).
15. Single song, A->B section, all songs repeat function.
16. Rechargeable battery (When the rechargeable battery's full, it's only 1.4V).
17. Important message locking function to avoid messages erased accidentally.
18. Menu operation.
19. Key lock function.
20. Built-in real time clock, to display the time of recorded message.
21. Date and time display.

▲ Parts identification and keys

Earphone Jack

External Microphone Jack

Left Microphone

Recording LED light indication

Right Microphone

Hand strap Hold

Key Lock

VOL +

Power / Confirm

Backward

Forward

Erase

VOL –

Mode

Built in speaker

Recording

Stop

Playback

Push

USB plug

Battery cover
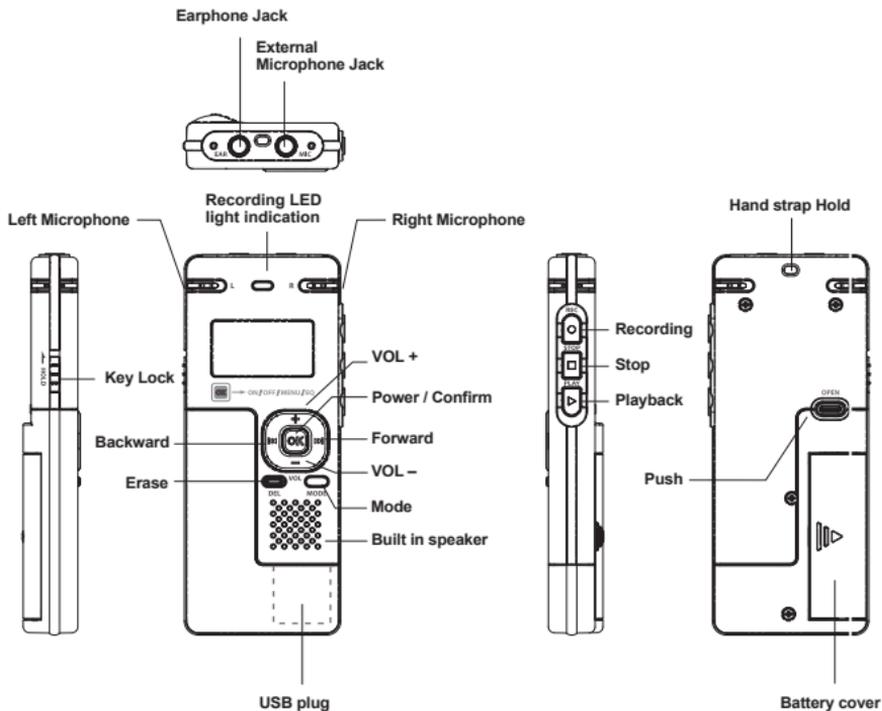
〔OK〕	PS: push it during playback to switch to select EQ
〔MODE〕	PS: push it during playback to select repeat mode
〔REC〕	PS: push it during recording to search backward
〔PLAY〕	PS: push it during playback to pause

▲ Main menu display

Current Mode

RECORD SET

Battery capacity

RECORD MODE

EXIT

FM RADIO

TIME SET

File-MEMORY

LANGUAGE

▲ **Installing battery**

Attention:

*Power off the unit before replacing battery.

*Do not take out battery during recording. The recorded messages
will be deleted or the unit might malfunction.

*Remove the battery if you will not use the unit for a long time.
Otherwise, battery leakage will cause damage to the unit.

*Damage caused by battery leakage would not be included in the
warranty condition.

*All recorded messages will be kept safely when replacing the
battery.

Battery replacement

(Note: Alkaline battery is recommended, Carbon zine battery is not
recommended)

1. Pull battery cover along the direction of → and open it.
2. Place an AAA battery in the battery compartment (At the time,
make sure to match "+" and "-" ends of the battery with the
signs shown in the compartment).
3. Close the battery cover back.

Open the battery cover   Close the battery cover
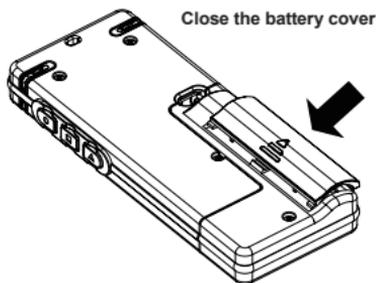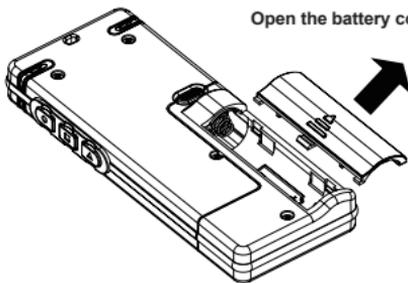
▲ Keys function introduction

(REC) Recording key
PS: (push it during recording to switch to backward
trace buffer function)

(STOP) Recording/MP3 Stop
PS: (push it during playback to pause)

(+ / −) Volume turn up or down
(▶▶) to next / (◀◀) to previous
(DEL) Delete
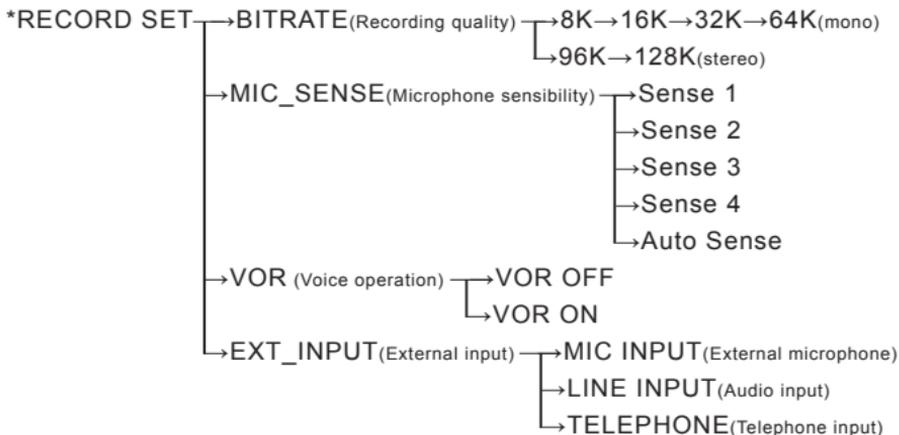(MODE) Recording/MP3/FM(Record file) mode
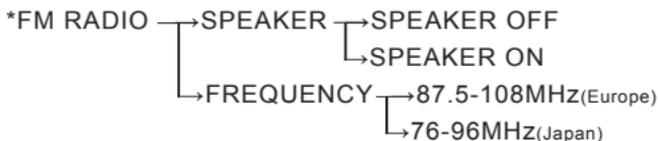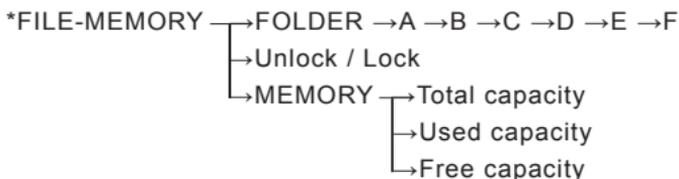PS: (push it during playback to repeat function).
(OK) Power on or off/ Menu key
PS: (push it during playback to switch to EQ selection).

MAIN MENU→RECORD SET, TIME SET, LANGUAGE, FM RADIO, EXIT

*RECORD SET─→BITRATE(Recording quality)─→8K→16K→32K→64K(mono)
                                        └→96K→128K(stereo)

              →MIC_SENSE(Microphone sensibility)─→Sense 1
                                                →Sense 2
                                                →Sense 3
                                                →Sense 4
                                                └→Auto Sense

              →VOR (Voice operation)─→VOR OFF
                                    └→VOR ON

              →EXT_INPUT(External input)─→MIC INPUT(External microphone)
                                        →LINE INPUT(Audio input)
                                        └→TELEPHONE(Telephone input)

*TIME SET→Year--month--day--hour—minute--second

*LANGUAGE ─→English
            →Simple Chinese
            →Traditional Chinese
            └→Japanese

*FILE-MEMORY ─→FOLDER →A →B →C →D →E →F
               →Unlock / Lock
               └→MEMORY ─→Total capacity
                         →Used capacity
                         └→Free capacity

*FM RADIO ─→SPEAKER ─→SPEAKER OFF
            │   └→SPEAKER ON
            └→FREQUENCY ─→87.5-108MHz(Europe)
                         └→76-96MHz(Japan)

*EXIT

▲ **Basic operation :**

Recording : Push (REC) to start to record.

      Push (REC) key to start to set up backward trace buffer function when recording.

      Push ◀◀ or ▶▶ to select backward trace buffer time from 0"15"30"60" selections. Then, push (REC) to trace backward the time you have set.

Stop : Push $(STOP)$ to stop recording or playback.

$(VOL + / -)$: Push + to turn up volume, push – to turn down volume.

Forward ▶▶ (next) / Backward ◀◀ (previous).
Push ▶▶ to next song, push ◀◀ to previous song.

Playback key : Push $(PLAY)$ to start to playback music or voice file.

Push $(PLAY)$ key to pause when playback,

Push $(MODE)$ key to switch to select repeat function when playback.

Push (DEL) to switch to different EQ when playback.

Push (REC) key to active A→B section repeat when playback.

MODE key : Push $(MODE)$ key to switch to REC/MP3/FM three modes.

      Push and hold $(MODE)$ key 3 seconds to switch to folders from A→F by order).

DEL key : Push (DEL) key to delete current file. Push (◄◄) to
         move to left to select DELETE then push DEL key to
         delete the file, or you can select EXIT to exit.

OK key : Power On/ Power Off/ Menu.

Standby : Push OK key shortly(around 0.5 second) enter main
         Menu.
Push and hold OK key (around 2.5 seconds) to turn off power.

HOLD key : Lock up all the keys in case of accidental operation.

▲ **Operation Introduction**

* Enter Main Menu

Step 1 : Push (OK) key to turn on power.

Step 2 : Push (OK) key to enter main menu.

Step 3 : Push (◄◄) or (►►) to select the menu options.
      (Push MODE to exit)

There are six options under Main Menu :

RECORD SET

TIME SET

LANGUAGE

FOLDER-MEMORY

FM RADIO

EXIT

* RECORD SET

Step 1: Push (OK) key once to enter main menu.

Step 2: Push (◄◄) or (►►) to select " 📻 " RECORD SET mode.

Step 3: Push OK key to enter RECORD SET options.

Step 4: There are four options including BIT, MIC_SENSE, VOR,
      EXT_INPUT.

→ BITRATE (Recording quality)

Step 1: Select BITRATE then push OK key

Step 2: Push (◄◄) or (►►) to select recording quality
      (Mono: 8K /16K /32K /64K ; Stereo: 96K /128K)

Step 3: Push OK to confirm

→ MIC_SENSE (Microphone sensibility)

Step 1: Select MIC_SENSE then push OK key.

Step 2: Push (⏮) or (⏭) to select 1/2/3/4/AUTO

Step 3: Push OK to confirm

→ VOR (Voice Operation Recording)

Step 1: Select " 🎙️)) " VOR then push OK key.

Step 2: Push (⏮) or (⏭) to select VOR OFF or VOR ON

Step 3: Push OK to confirm

PS : You can only adjust the sensibility of the microphone during recording after you turn on VOR. Push (⏮) or (⏭) to turn up or down the sensibility from level 1 to level 21. Level 1 is the lowest sensibility level and level 21 is the highest sensibility level.)

→ EXT_INPUT (External Input)

Step 1: Select " 📱 " EXT_INPUT then push OK key.

Step 2: Push (⏮) or (⏭) to select "MIC INPUT", "LINE INPUT" or "TELEPHONE "

Step 3: Push OK to confirm.

* TIME SET

Step 1: Push OK key to enter main menu

Step 2: Push (⏮) or (⏭) to select "TIME SET" then push OK key.

Step 3: Push PLAY key to enter time setting. It will start from "Year"

Step 4: Push " + " or " – " key to increase or decrease. Push (⏭) or (⏮) to switch to Month / Day / Hour / Minute / Second adjustment

Step 5: Push OK key return to standby mode.

* LANGUAGE

Step 1: Push OK key to enter main menu.

Step 2: Push $(\blacktriangleleft\blacktriangleleft)$ or $(\blacktriangleright\blacktriangleright)$ to select " $\boxed{\text{T}}$ " LANGUAGE to enter options.

Step 3: Push $(\blacktriangleleft\blacktriangleleft)$ or $(\blacktriangleright\blacktriangleright)$ to select your desire language " $\boxed{\text{En}}$ $\boxed{\text{简}}$ $\boxed{\text{繁}}$ $\boxed{\text{日}}$ ", push OK key to confirm then return to main menu.

* FOLDER-MEMORY

Step 1: Push OK key to enter main menu.

Step 2: Push $(\blacktriangleleft\blacktriangleleft)$ or $(\blacktriangleright\blacktriangleright)$ to select " $\boxed{\Box}$ ", push OK key to enter options.

Step 3: There are three options including FOLDER/LOCK/MEMORY

→FOLDER

Step 1: Push $(\blacktriangleleft\blacktriangleleft)$ or $(\blacktriangleright\blacktriangleright)$ to select " $\boxed{\Box}$ " FOLDER under FOLDER-MEMORY option.

Step 2: Push OK key to enter the option.

Step 3: There are six folders from A~F

Step 4: Push $(\blacktriangleleft\blacktriangleleft)$ or $(\blacktriangleright\blacktriangleright)$ to select your desire folder.

→ LOCK

Step 1: Push $(\blacktriangleleft\blacktriangleleft)$ or $(\blacktriangleright\blacktriangleright)$ to select " $\boxed{\Box}$ " LOCK under FOLDER-MEMORY option.

Step 2: Push OK key to enter the option.

Step 3: Push $(\blacktriangleleft\blacktriangleleft)$ or $(\blacktriangleright\blacktriangleright)$ to select Lock or Unlock

Step 4: Push OK key to lock or unlock the current file then return to current file.

→MEMORY

Step 1: Push (◄◄) or (►►) to select " 🔲 " MEMORY under
FOLDER-MEMORY option.

Step 2: Push OK key to enter

Step 3: It shows the total memory size, used memory and free
memory.

* FM RADIO

Step 1: Push OK key to enter main menu.

Step 2: Push (◄◄) or (►►) to select " (((•)))/FM " FM RADIO options.

Step 3: There are two options "SPEAKER" and "FREQUENCY".

→SPEAKER

Step 1: Push (◄◄) or (►►) to select " 🔊 " SPEAKER under FM
RADIO option.

Step 2: Push OK key to enter the option.

Step 3: Push (◄◄) or (►►) to select "SPEAKER OFF" or
" SPEAKER ON"

Step 4: Push OK to confirm then return to standby mode.

→FREQUENCY

Step 1: Push (◄◄) or (►►) to select " ▐▊▌ " FREQUENCY under FM
RADIO option.

Step 2: Push OK key to enter the option.

Step 3: Push (◄◄) or (►►) to select "87.5-108MHZ" or "76-90MHZ"

Step 4: Push OK to confirm then return to standby mode.

* EXIT

Push (◄◄) or (►►) to select " 🔲 " EXIT to exit main menu and
return to standby mode.

▲ Recording function operation

* Enter recording
Push MODE key to enter recording mode.

* Basic operation
Push REC start recording, push REC again to pause, push it again to resume. Push STOP to stop recording.
(Push REC when recording to active Backward Trace Buffer function. Push (◄◄) or (►►) to select backward trace time : 0 / 15 / 30 /60 second.)

* Playback voice file
Push (◄◄) or (►►) under recording mode to select voice file.
Push PLAY to start to playback, push PLAY again to pause, push it again to resume. Push STOP to stop playback.
Push VOL – or VOL + to adjust volume.

* Telephone recording
This unit is provided with accessories for phone recording.

1. Phone connecting cable.
2. Adaptor for phone recording.
3. Cable for connecting external MIC device.
4. Optional external power supply.

Please follow the figure below for proper connections.

a. Connect a cable between the external microphone jack and the audio output jack of the adaptor.
b. Connect the "Phone connecting cable" between the telephone and the adaptor.
c. Connect the phone line between wall outlet and the adaptor.
d. Connect the unit to external power supply or your PC to save the power of battery.

Wall side
Telephone outlet
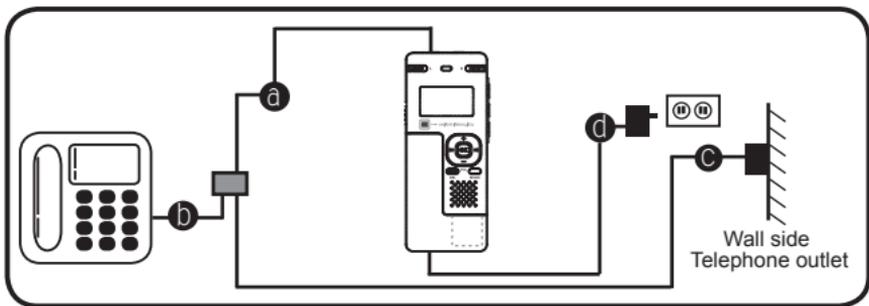
You can lengthen the phone recording time by turning on the "Voice operated recording (VOR)". We recommend to adjust the microphone sensibility level to level 11 (please refer to p.11 for microphone sensibility selection.) However, you should take a test to get a suitable sensibility level.

▲ Telephone recording operation

Step 1: Push OK key to enter main menu.

Step 2: Push (◄◄) or (►►) to select "📳" RECORD SET.

Step 3: Push OK to enter options.

Step 4: Push (◄◄) or (►►) to select "📱" EXT_INPUT, push OK
to enter next menu.

Step 5: Push (◄◄) or (►►) to select "☎" TELEPHONE.

Step 6: Push OK to confirm then return to standby mode.

*Note : You may against the civil law if you record the telephone
conversation without permission of the others.*

▲ MP3 Operation

Push MODE key to enter MP3.

Push (◄◄) or (►►) to select the file you want to play.

Basic operation

Push PLAY start to playback music. Push PLAY again to pause,
push it again to resume.

Push STOP to stop playback.

When playback music, push MODE to switch to different repeat
modes those are including Single track playback/Single track
repeat/Single folder repeat once/All folder repeat.

When playback music, push DEL to switch to different EQ modes
those are including NOMO, ROCK, JAZZ, CLASSIC, PIANO.

▲ FM Operation

Enter FM operation
Push MODE key to select FM mode. (please make sure to plug in the earphone to the earphone jack of the unit.)

Station channel
Push ⏮ or ⏭ once to increase frequency or decrease frequency by 0.1 MHz step.
Example : When the frequency is under 96.2MHz, push >> once to increase 0.1MHz. Now it is 96.3MHz. If you push << once, it will be decreased 0.1MHz to 96.2MHz.

Fast scanning
Push and hold ⏮ or ⏭ three seconds to start fast scanning to scan valid stations. When a station is searched, it will stay three seconds then continue to search again.
You can push PLAY key to save the station if you desired. You can store up to 18 stations from CH03 ~ CH20.
Note : CH01~CH02 are frequencies for wireless microphone(an optional accessory)

Stored channels
Push ⏮ or ⏭ to select the station you want to save under FM mode. Push and hold PLAY three seconds to store.

Listen to the stored channels
Push PLAY key under FM mode to select the stored channels.
Push PLAY continuously to switch the stored channels one by one.

* FM recording
1. Tune to the station (frequency) you want to record.

2. Push REC key to start FM recording.
3. Push STOP key to stop FM recording.

How to use wireless microphone (WM-1) (optional device)

Operations or main unit
Push PLAY key to select CH01 or CH02 under FM mode. This function must use our optional device : Wireless microphone (WM-1).
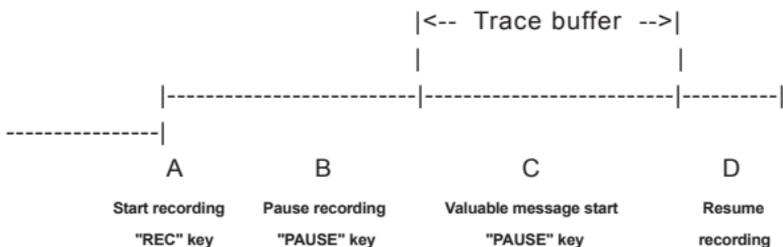
Operations of wireless microphone (WM-1):
1. Install an "AAA" type of battery to WM-1.

2. Power On/Off: Push and hold "PWR" key for 2 seconds. CH1 LED will be lighted on when the unit is powered on. Both LED (CH1 & CH2) will light off when the unit is powered off.

3. Select channel for wireless microphone:
   Press and hold "CH" key for 1 second to toggle between CH1 and CH2.

Note: Assure the channel number of the main unit is same as the channel of the wireless microphone.

Other advanced operations

Trace Buffer
The following example shows why the unit provides the feature of trace buffer.

```
                            |<--  Trace buffer  -->|
                            |                      |
        |------------------------|------------------------|---------|
----------------|
            A              B               C               D

      Start recording  Pause recording  Valuable message start  Resume
        "REC" key       "PAUSE" key        "PAUSE" key        recording
```

1. User starts recording from point "A".
2. User decides to pause recording from point "B".
3. User hears some important information start from point "C".
4. User resumes recording from point "D".

Without trace buffer, user may lose the valuable message start from point "C" to point "D".
Messages recorded in the trace buffer will be added to the recording file when user resumes recording.

To set the time of trace buffer
You can select the buffer in Recording mode

"00": No backward trace.
"15": Backward trace for 15 seconds
"30": Backward trace for 30 seconds
"60": Backward trace for 60 seconds

Note: You must turn off VOR function when you use backward trace buffer function.

Removable mass storage disk

The unit support "USB Mass Storage" function (Removable disk). It is not necessary to install any software driver if your OS is Windows Me, Windows 2000 or Windows XP. However, you should install driver for Windows 98.

Enter removable disk mode of operation
Step1: Connect USB plug between the unit and your PC.
Step2: LCD screen of the unit will show USB connection picture
Step3: During uploading/downloading data, the red lamp of the unit will flicker, and please do not take off USB Connector at the time or PC will freeze or the data will miss. You need to wait until the red lamp stop flickering.

Note: When huge files are copied, Windows will show the completion message. Do not disconnect USB plug right away. Wait for several seconds until the red lamp stop flickering.

File management

1. There are six folders under ROOT. You should put voice files only in these folders.
2. MP3 files should be put under ROOT. The playback order of the MP3 files are according to the date of the file was copied into the unit.
3. Open folder and file
Step 1: Open [My computer]
Step 2: Open [Removable Disk]
Step 3: Double click the file or folder you want to open.

4. Build up new folder
Step 1: Open [My computer]
Step 2: Open [Removable Disk]

Step 3: Select the path for new folder.
Step 4: Click right button of the mouse then select "ADD"→"Folder".
Step 5: Input the name of the folder then push (enter) key of the keyboard.

5. Copy folder or file
Step 1: Open [My computer].
Step 2: Select the folder or file you want to copy.
Step 3: Click right button of the mouse then select "COPY".
Step 4: Select the disk you want to place the copied folder or file.
Step 5: Click right button of the mouse then select "PASTE".

6. Change folder or file name

Step 1: Open [My computer].

Step 2: Open [Removable Disk].

Step 3: Click the folder or file you want to rename.

Step 4: Input the name of the folder then push enter key of the keyboard.

Notes :

You can input maximum 255 characters including spaces for file or folder name. The characters cannot include \/:*?"<>

However, we don't recommend to give a long file name. Most of software cannot read the file with a long name.

Click the right button of the mouse then select "RENAME" to rename the folder or file name.

7. Delete folder or file

Step 1: Open [My computer].

Step 2: Open [Removable Disk].

Step 3: Click the folder or file you want to delete.

Step 4: Click the right button of the mouse then select "DELETE" to delete the folder or file.

Notes:

1. *The red LED of the unit also works as an indicator that indicates the status of USB communication. Red LED lights on or flash: A read/write operation is in progress. Do not disconnect USB plug at this moment, it may damage the file system of the unit. Red LED lights off: No read/write operation, it is safe to disconnect USB plug.*

2. *You can format the unit by PC.*

3. *When huge files are copied to unit, Windows will show the completion message that does not mean the copy is really completed. Do not disconnect USB plug right away. Wait several seconds until the red LED lights off.*

▲ FAQ

Q & A
1. No Power !
   Check whether the battery power is too low. It is necessary to
   replace battery when the battery power indication is less then
   half.

2. Cannot record !
   Check whether the battery power is too low. It is necessary to
   replace battery when the battery power indication is less then
   half.
   Check whether the memory capacity full, erase unnecessary
   files to release memory spaces. Push Menu key to select
   "Memory Size" to check memory size and free space.

3. Cannot playback voice file !
   Check whether the voice file has been recorded.
   Check whether the battery power is too low, replace new
   battery if necessary.

4. No sound output when playback !
   Check whether the volume at the lowest level, you can check it
   from LCD display. Please adjust to the optional sound level.
   If using earphone, please confirm earphone plug in snugly.
   If using speaker, please confirm no earphone plug in.

5. Bad receipt of FM radio !
   Earphone is working as an antenna to receive FM signal,
   therefore, please confirm if it plugs in snugly.

6. Cannot link with PC !
   Check whether the operation system is Windows 98. If your operation system is Windows 98, please install the provided CD driver.

7. No operation when push keys !
   Check whether the key lock enabled.

8. Cannot record telephone conversation !
   Firstly, please confirm all the connections are well-connected, please refer the instruction manual p.15 for the detailed connections.
   Secondly, ensure the Voice Operate Recording (VOR) function enabled.
   Telephone recording is designed to be using for home use telephone, it is not applied to office PBX system.

9. Cannot erase recording file !
   Check whether the recording file has been locked. There is a " 🔒 " displays on the locked message.

10. Recording time less than specifications list !
    All the recording times list on the specifications are based on the standard of the lowest quality(Q1:8K). If you choose higher recording quality (Q2~Q5:16 /32 /64 /96 /128K), recording times will be shorter accordingly.

11. Battery operation time less than specifications list !
    The battery operation time lists on specifications is base on the testing by AAA Alkaline battery with volume level 20 (+/- 10% tolerance).

If you are using rechargeable battery, the operation time would be less then Alkaline battery. It is because rechargeable battery's current can only reach up to 1.4V after fully charged. On the other hands, a new Alkaline battery's current is 1.5V.

Troubleshooting

■ No Power
1. Please check the battery.
   → Replace the battery
2. Make sure the battery match "+", "-" ends of the battery with the diagram
   → Install the battery correctly inside the battery compartment.

■ Cannot record
1. Please check if the memory capacity are full.
   → Erase unnecessary messages
2. Please check the battery.
   → Replace the battery

■ Cannot playback
1. Please check if the messages were saved
   → Check the file or folder
2. Please check if the battery is weak.
   → Replace the battery
■ No sound output from the speaker
1. Please check if the volume set to 0.
   → Increase the volume

2. Please check if the earphone is plugged
   → Unplug the earphone plugged .

■ No sound output from the earphone
1. Please check if the volume set to 0.
   → Increase the volume
2. Please check if the earphone is plugged snugly.
   → Plug the earphone to JACK snugly.

Precautions
1. Alkaline battery is recommended to be applied to this recorder.
2. Do not repair, disassemble or modify the recorder by yourself.
3. Avoid putting magnetic cards(such as credit cards) or tapes near
   the speaker.
4. When the unit is not used for time, please remove the battery.
5. Do not apply excessive force to LCD window. It may cause
   breakdown or malfunction.
6. Do not put the recorder in high temperature/humidity/dust place.
7. Do not use the recorder in airplanes or areas restricting the use
   of electronic device.
8. Do not dispose of batteries in a fire!
9. Be understood that our company does not reimburse you for
   any loss from the use of the unit and that our company does not
   take responsibility for any memory loss by reasons of
   breakdown, repair, and others.

▲ Specifications

Size	W x L x H 39×96×12(mm)	
Net weight	Approx. 37g ± 0.5g (no battery)	
* Record Time (Bitrate 8K)	256MB	70 hours (± 10%)
	512MB	141 hours (± 10%)
	1GB	283 hours (± 10%)
Power source	Alkaline batteries (AAA type)	
Record format	MP3	
File format	MP3, WMA	
* Battery life (Test with Alkaline battery)	Recording (64K)	Approx. 360 mins ± 10%
	Play MP3 by speaker	Approx. 240 mins ± 10% at volume level : 20
	Play MP3 by earphone	Approx. 840 mins ± 10% at volume level : 20
FM radio	FM 87.5Mhz ~ 108Mhz (Europe)or FM76~96Mhz (Japan) (ch01 and ch02 for Wireless Microphone)	
Memory	Built-in in Flash Memory (256MB / 512MB / 1GB)	
Language	Traditional Chinese, Simplex Chinese, English, Japanese	
File number	6 Voice folders, each folder contents 99 files	
USB port	USB1.1	
Max output power	90mW at THD 10% 8Ω (1.5V to -3V)	
Recording sources	Built-in stereo microphone, external line microphone, wireless microphone	
Sound output	Earphone(Mini Plug/stereo) IMP over 16 ohms	
Speaker	18mm 16Ω dynamic speaker	
OS	Windows 98 (need to install driver), 2000, XP ; Mac 9.2, X 10.3	
Operate Temperature	0˚C ~ 40˚C	
Basic accessories	External line microphone (1)	Telephone cord (1)
	Hand strap (1)	Telephone adapter (1)
	Audio cable 2.5mm ~ 3.5mm (1)	Earphone (1)
	User's manual (1)	AAA battery (1)
Optional Accessories	Wireless microphone, AC adapter	

Specifications subject to be changed without prior notice.

* Recording time will be varied by the bitrate setting
* Actual available memory would be varied from the memory size listed.
* Battery times in the specifications were given by the test from our company.
  You may find different battery life time when using different brand of battery,
  music and volume level.