

Creating your own audio message to microSD



Your message...



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Document Overview

This document is intended to provide the basics for recording your own audio message(s) using a hand-held digital voice recorder with the end result of producing an audio collection on microSD card for distribution.

It will get you started using the sample voice recorder with tips on how to create your own audio messages.

It will also show you how to copy your message files from the recorder to an SD card and arrange them appropriately so they will play on your MegaVoice player.

The document will also provide an example of how to duplicate your finished microSD card using a simple inexpensive card duplicator for distribution of your message.

The devices used in producing this document were chosen because they are reasonably priced, simple to use, readily available and work well based on independent reviews. They are provided only as examples to demonstrate how easy it is to create a low-cost production. Other devices that are better quality with more features (and likely more expensive) can, of course, be substituted for what is presented here.

MegaVoice hopes that this manual will assist you in producing your own audio collection for distribution on a microSD card.

The Digital Voice Recorder

Choosing a recorder

The first step in creating your own audio message is acquiring a digital voice recorder. There are many available for purchase. They can range in price from about \$30 to several hundred dollars. Features and quality differ greatly based on price and model.

When choosing a digital voice recorder, one should consider a device that meets the following criteria:

- Is reasonably priced
- Has good ratings and reviews
- Can create MP3 files*
- Has plenty of internal memory but can also record to a microSD card
- Good battery life for extended recording times

** Being able to record messages in MP3 format greatly simplifies the process of providing messages for distribution on MegaVoice players so that is an important feature.*

Sony ICD-PX333 recorder

One of the recorders that MegaVoice chose for this project is the Sony ICD-PX333. It is a popular model and has the features we wanted at a reasonable price. Sony voice recorders are rated highly and have positive reviews.

Figure 1: Sony ICD-PX333 digital voice recorder



Please review the owner's manual that comes with your voice recorder to familiarize yourself with its features, operation, limitations and tips on usage.

A copy of the Instruction Manual for the Sony ICD-PX333 may be accessed online from the Sony Support web site by clicking on the following link. It will give you an idea of the functionality and operation of the device we used. It is well done and easy to search. Some of the basic instructions for the Sony in this document are taken directly from this manual.

<http://www.sony.co.uk/support/emanual/ICD-PX333/HG/EN/index.html>

While this recorder provides the convenience of recording messages directly to a microSD card, to make them usable with MegaVoice players, the files will still have to be renamed and arranged in the appropriate file structure for the target player.

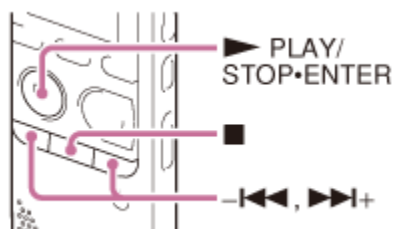
Here's a link to Amazon to purchase the ICD-PX333:

<http://www.amazon.com/ICD-PX333-Digital-Voice-Recorder/dp/B00BOXNSRY>

If the link above no longer works, using your favorite internet search engine simply look for "amazon buy ICD PX333".

Setting up the Sony IC recorder

Insert the batteries that came with the IC recorder. When you insert batteries for the first time, or when you insert batteries after the IC recorder has been without batteries for more than 1 minute, “Set Date&Time” appears, and then the clock setting window appears. It’s important that the date and time be accurate because these are used in naming and identifying the recorded files.



Set year, month, day, hour and minute.

Press **←←** or **→→** to set the year (the last two digits of the year), and then press **▶** PLAY/STOP • ENTER. Repeat this procedure to set month, day, hour, and minute in sequence.



When you set the minute, the “Executing...” animation is displayed, and then the stop mode window appears.

Note: If you do not press **▶** PLAY/STOP • ENTER within 1 minute of entering the clock setting data, the clock setting mode is canceled and the window will return to the display of the stop mode.

When any button not intended for use in setting the clock is pressed during the clock setting mode, the clock setting is canceled. To set the clock, use the menu.

The time is displayed either in 12-Hour with “AM” or “PM,” or in 24-Hour, depending on the “Time Display” setting in the menu. The default setting differs depending on the country or region you purchased the IC recorder.

Tip: While the IC recorder is in the stop mode, press **■** (STOP) to display the current date and time for about 3 seconds. You can set the clock using the menu as well.

Formatting a microSD card from the Sony IC recorder

If we want to make recordings to a microSD card, one of the first things we need to do is to format the card using the recorder.

Insert a microSD card in the card reader on the side of the device.

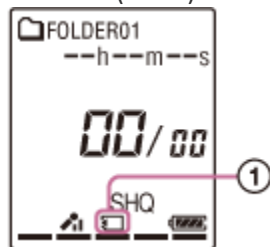
Tip: *There is an image on the back of the IC recorder just under the card reader to remind you which way the card is to be inserted.*

1. In the stop mode, select DISP/MENU - "Select Memory," and then press ► PLAY/STOP ▪ ENTER.



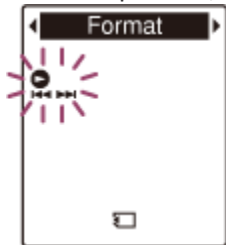
2. Press ◀◀ or ▶▶+ to select "Memory Card," and then press ► PLAY/STOP ▪ ENTER.

3. Press ■ (STOP) to exit the menu mode.



When you select "Memory Card," the memory card indicator (①) is displayed.

4. In the stop mode, select DISP/MENU - "Detail Menu" - "Format," and then press ► PLAY/STOP ▪ ENTER.



5. Press ◀◀ or ▶▶+ to select "YES," and then press ► PLAY/STOP ▪ ENTER.
The "Formatting..." animation appears and the memory media will be formatted.

6. Press ■ (STOP) to exit the menu mode.

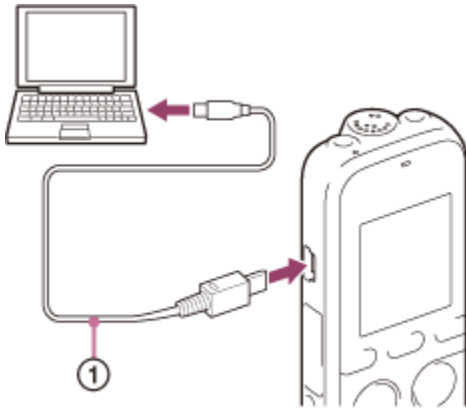
Notes:

- Use the IC recorder's built-in formatting function to format the memory media.
- Do *not* use your computer to format the media.
- Switch the memory media to the one to be formatted before you start the format operation.
- If you format the built-in memory, all data stored there will be erased. (Protected files, the Help Guide and the Sound Organizer software will also be erased.) Note that once the files are erased, you cannot retrieve them.
- To cancel formatting the memory media, select "NO" in step 2.

Tip: *If the selected memory is "Memory Card" and you remove the SD card, the setting will automatically change to "Built-in Memory" and FOLDER01.*

Connecting the Sony IC recorder to a PC

Using the USB-to-mini-USB cable that came with the device, insert the mini-USB connector in the recorder and the other end to a USB port on your PC. This will provide a view of the file structure on the IC recorder from the PC. The recorder does not have to be on in order to do this.

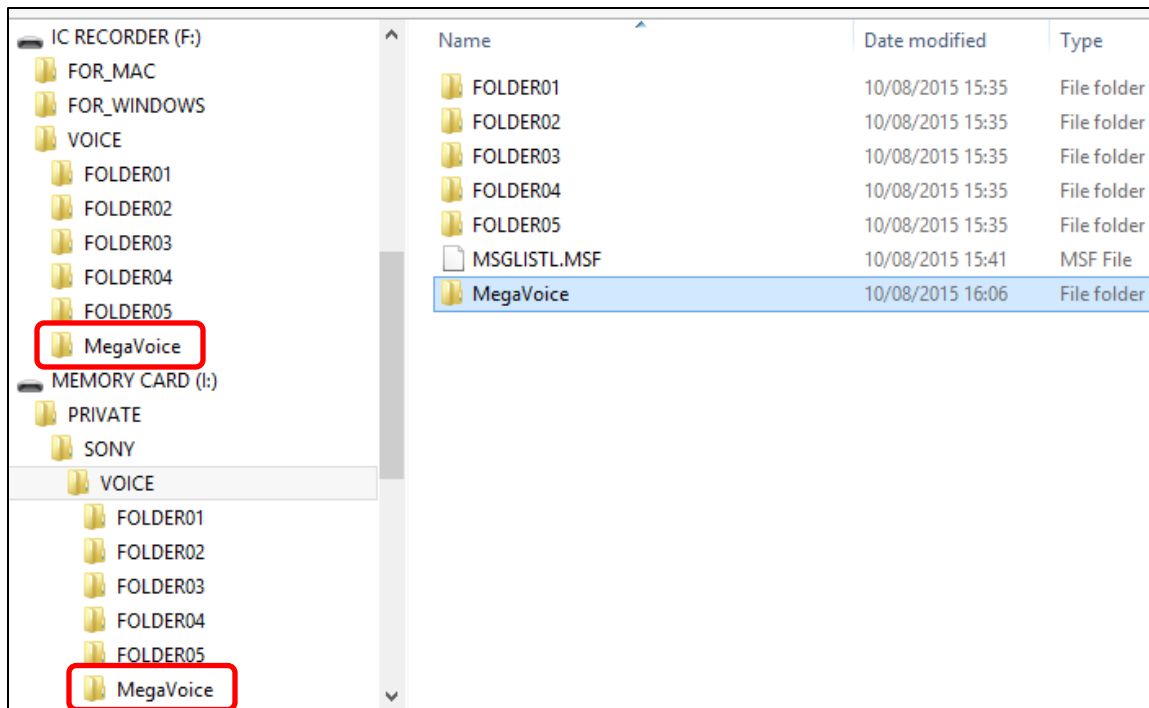


Understanding the Sony IC recorder folder structure

Below is a picture of Windows File Explorer. Both the recorder and microSD cards are recognized as separate “volumes” – IC RECORDER (F:) and MEMORY CARD (I:) respectively.

The folder structure is proprietary for the IC recorder. It must not be altered for the recorder to function correctly.

Figure 2: Sony IC recorder File Structures



The “VOICE” folder contains sub-folders where the MP3 recordings are stored. The structure is basically the same for the recorder and the microSD card. The recorder provides a default of 5 sub-folders within the “VOICE” folder (FOLDER01-05) but you can add more (using Windows File Explorer but not from the device itself). The device is always pointing to one of the sub-folders at any one time.

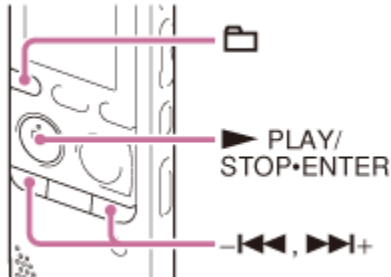






Tip: *The current active folder is always displayed at the top of the window on the recorder.*

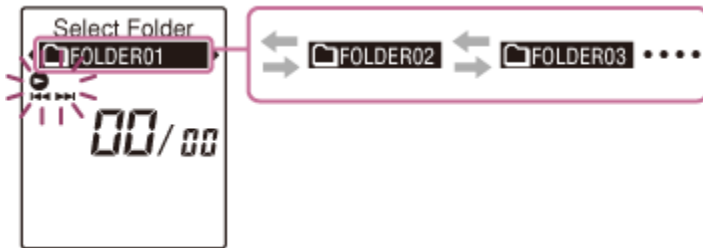
MegaVoice recommends that you create a special folder for your files and always record to that folder. This applies to both the Built in Memory and any SD card you want to use in the recorder. Simply navigate to the VOICE folder and create a new folder there. In our example we named our folders “MegaVoice”.

Select a folder for recordings

Now let's set the current recording folder to the new "MegaVoice" folder we just added.




1. Disconnect the recorder from the PC.
2. Press  (folder).
The folder selection window is displayed.
3. Select a folder.
Press  or  to select the desired folder (MegaVoice), and then press  PLAY/STOP • ENTER.



The display will now show MegaVoice as the current folder.

Since we had already selected "Memory Card" this selection applies only to the SD card. If you remove the SD card at this point, the player will automatically switch to the first folder (FOLDER01) on the Built in Memory.

To reset the folder, simply press and hold the folder button  and scroll to the desired folder.

Olympus VN-722PC recorder

Another recorder that MegaVoice chose for this project is the Olympus VN-722PC. It too is a popular model and has the features we wanted at a reasonable price. Olympus voice recorders are rated highly and have positive reviews.

Figure 3: Olympus VN-722PC recorder



Please review the owner's manual that comes with your voice recorder to familiarize yourself with its features, operation, limitations and tips on usage.

A copy of the Instruction Manual for the Olympus VN-722PC may be accessed online (and downloaded) from the Olympus Support web site by clicking on the following link. It will give you an idea of the functionality and operation of the device we used. It is well done and easy to search. Some of the basic instructions for the Olympus in this document are taken directly from this manual.

http://www.olympusamerica.com/files/oima_cckb/VN721PC_VN722PC_EN_U01.pdf

While this recorder provides the convenience of recording messages directly to a microSD card, to make them usable with MegaVoice players, the files will still have to be renamed and arranged in the appropriate file structure for the target player.

Here's a link to Amazon to purchase the VN-722PC:

<http://www.amazon.com/Olympus-VN-722PC-Voice-Recorders-Built-In-Memory/dp/B00HFW1E1A>

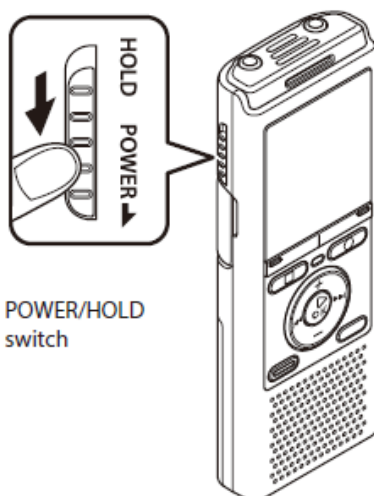
If the link above no longer works, using your favorite internet search engine simply look for "amazon buy olympus VN-722PC".

Setting up the Olympus recorder

Insert the batteries that came with the Olympus recorder. When you insert batteries for the first time, or when you insert batteries after the recorder has been without batteries for more than 1 minute, “Set Time&Date” appears. It’s important that the date and time be accurate because these are used in naming and identifying the recorded files.

Turn the power ON

- 1 While the voice recorder is turned off, slide the **POWER/HOLD** switch in the direction of the arrow.

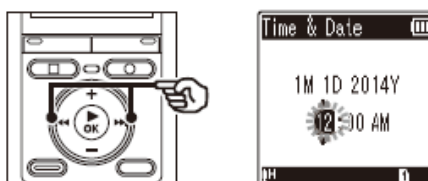


TIP

- When [Language] appears in the display after turning the power ON, press the +/– button to change the display language and press the ►OK button to finalize the setting.

Setting the date/time

- 1 Press the ►► or ◀◀ button to select the item to set.



- 2 Press the +/– button to change the number.

- To change the setting of another item, press the ►► or ◀◀ button to move the blinking cursor, then press the + or – button to change the number.

- 3 Press the ►OK button to finalize the setting.

TIP

- You can press the ►OK button during the setting procedure to set the items entered so far and start the clock.

Formatting a microSD card from the Olympus recorder

If we want to make recordings to a microSD card, one of the first things we need to do is to format the card using the recorder. Insert a microSD card in the card reader on the side of the device. Press the Menu button and navigate to the Device Menu using the + or – buttons. Then navigate to “Format” using the same buttons.

1 Press the +/– button to select the recording media to be formatted.

[Internal memory]:

Formats the internal memory.

[microSD card]:

Formats the microSD card.

* VN-722PC model only

2 Press the ► OK button.

3 Press the + button to select [Start], then press the ► OK button.

4 Press the + button to select [Start] again, then press the ► OK button.

- [Formatting!] appears, and formatting starts.
- [Format done] appears when the process has finished.

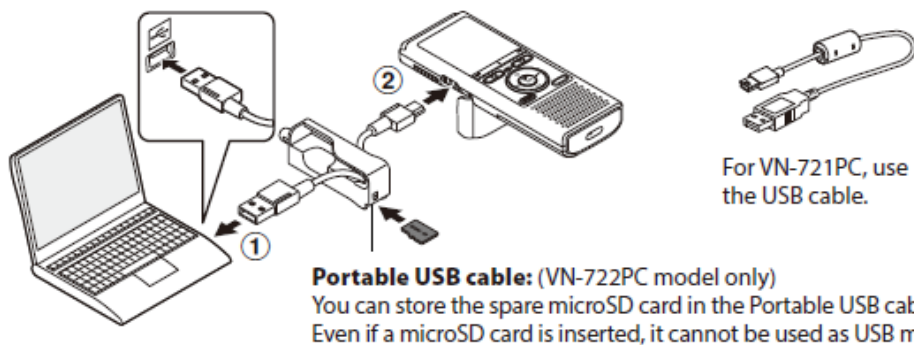
TIP

- To reset all the voice recorder's settings to their default values, use the [Reset Settings] operation (P.47).

Connecting the Olympus recorder to a PC

Connecting the voice recorder to a PC

- 1 Start the PC.
- 2 Connect the voice recorder and PC using the Portable USB cable.



- ① Connect the Portable USB cable to the USB port on the PC.
- ② Check that the voice recorder is in stop mode, then connect the Portable USB cable.
 - **[Remote]** appears in the voice recorder's display when the USB connector is connected.

TIP

- Windows: The voice recorder is recognized and displayed in the **[My Computer]** folder with the model name as the drive name. If there is a microSD card in the voice recorder, it can be used as the **[Removable Disk]**.
- Macintosh: The voice recorder is recognized and displayed on the desktop with the model name as the drive name. If there is a microSD card in the voice recorder, **[Untitled]** is displayed.
- For information on the PC's USB port, see the PC's user manual.

NOTE

- The voice recorder must not be in HOLD mode.
- Insert the USB connector securely all the way. Operation will not be normal if the connection is not made properly.
- Connecting the voice recorder through a USB hub may result in unstable operation. Do not use a USB hub if operation is unstable.
- Use only a compatible Olympus USB cable. Operation is not guaranteed if another manufacturer's cable is used. Only use the Olympus USB extension cable with the voice recorder and never use it with another manufacturer's products.

Understanding the Olympus recorder file structure

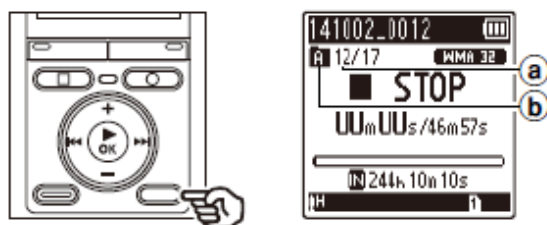
Below is a picture of Windows File Explorer. Both the recorder and microSD cards are recognized as separate “volumes” – IC RECORDER (F:) and MEMORY CARD (I:) respectively.

The folder structure is proprietary for the recorder. It must not be altered for the recorder to function correctly.

Select a folder for recordings

The recorder provides five folders: [A], [B], [C], [D] and [E]. Each folder can store up to 200 files. Choose one of the five folders for your MegaVoice recordings.

Press the FOLDER/INDEX button while the voice recorder is in stop mode.



- a** File number
- b** Folder indicator
- The folder changes each time you press the **FOLDER/INDEX** button.

Recording Your Message

General recording advice

Below is some recording advice suggested by MegaVoice's audio specialist.

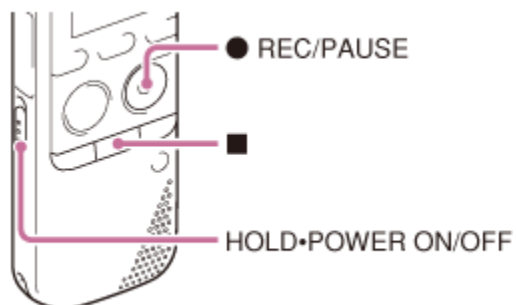
1. Find a good acoustic environment for producing your recordings. If you can't provide a special room at the very least find a place that is reasonably quiet with little to no wind or background noise.
2. Noise may be heard when the unit is placed near an AC power source, a fluorescent lamp or a mobile phone during recording or playback.
3. Choose someone that has a good voice for narration. MegaVoice has found that the female voice produces higher quality audio recordings than the male voice.
4. Practice with the recorder until you are very comfortable with its operation. This will enable you to focus completely on the narration of your messages.
5. If possible, set the recorder on a level surface a fixed distance from the narrator. Holding the recorder while active may pick up background noise from touching it.
 - a. If you must hold the device, hold the microphone/recorder under the bottom lip while recording.
6. Speak slowly enough to clearly enunciate your words but quickly enough so that the message flows.
7. Provide proper silence between the parts of each message.
 - a. Take a short breath before the message/chapter
 - b. Take a breath (about 1 second) after the title
 - c. Take a long breath (about 2 seconds) at the end of the message/chapter
8. Review and edit the recording as necessary before saving the final version.

Try and keep these tips in mind when using your voice recorder.

The Sony IC recorder

Recording a message

The following steps are the basic recording procedures using the specified microphone sensitivity and recording mode.

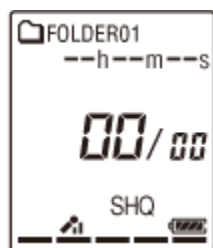


Before making a recording, be sure to check the battery indicator.

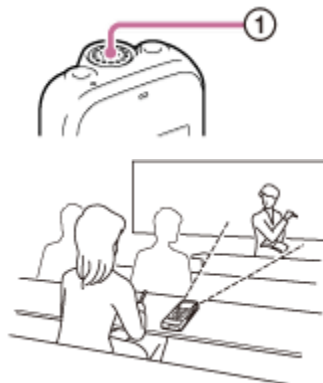
Noise may be recorded if an object, such as your finger, etc., accidentally rubs or scratches the IC recorder during recording.


Before you start recording, we recommend you make a trial recording first, or monitor the recording.


1. Slide the HOLD • POWER ON/OFF switch in the direction of “POWER ON/OFF” to turn on the IC recorder, or towards the center to release the IC recorder from the HOLD status.
The stop mode window appears.



2. Select the desired folder.
3. Place the IC recorder so that the built-in microphone (①) face the direction of the source to be recorded.



4. Press  REC/PAUSE in the stop mode.

The operation indicator () flashes in orange, and then lights in red.



You do not need to press and hold  REC/PAUSE while recording.

The new file will be automatically recorded as the last file in the current folder.



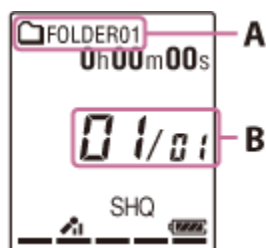
A. Elapsed time of the current recording (*)

B. File number of the file being recorded/the total number of recorded files in the folder

* You can switch the elapsed time display to remaining time, or another display by pressing DISP/MENU.

5. Press  (STOP) to stop recording.

The “Accessing...” animation appears and the IC recorder stops at the beginning of the current recording file. You can locate the recorded file using its folder name and file number for playback later.




A. The folder containing the recorded file

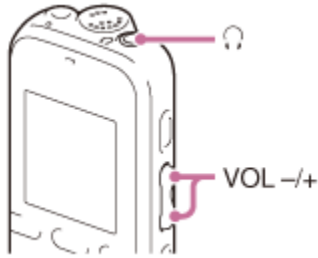
B. XX/YY where XX is the number of the recorded file (representing how early the file was recorded in a folder) and YY is the total number of files in the current folder.


The IC recorder is recording data and storing it on the memory media when the “Accessing...” animation appears in the display window or the operation indicator flashes in orange.

While the IC recorder is accessing data, do not remove the batteries or connect or disconnect the USB AC adaptor (not supplied). Doing so may damage the data.

Monitoring your recording

If you connect headphones to the  (headphone) jack, you can monitor the recording as you make it.



1. Connect headphones to the  (headphone) jack.
2. Press VOL +/- to adjust the monitoring volume.
Monitoring volume does not affect to the recording level.

Notes:

If the cord of headphones touches the IC recorder while you are monitoring the recording, the IC recorder may record a rustling noise.

The rustling noise can be reduced by holding the cord away from the IC recorder.

Using VOR

You can set the VOR (Voice Operated Recording) function to “ON,” to make the IC recorder start recording when the IC recorder detects sound, and pause when no sound is heard, eliminating recording during soundless periods.

1. In the stop or recording mode, select DISP/MENU - “VOR,” and then press PLAY/STOP ► ENTER.



2. Press ◀◀ or ▶▶+ to select “ON,” and then press PLAY/STOP ► ENTER.
“VOR” is set to “OFF” when you purchase the IC recorder.
3. Press ■ (STOP) to exit the menu mode.
4. Press ● REC/PAUSE.

“VOR” and “**REC**” appears in the display window.

The recording pauses when no sound is detected and “PAUSE” flashes. When the IC recorder detects sound again, the recording starts again.



Notes:

- The VOR function is affected by the sound around you. Set “Mic Sensitivity” in the menu according to the recording conditions. If recording is not satisfactory after you have changed the “Mic Sensitivity” setting, or for an important recording, set “VOR” to “OFF” in the menu.
- To cancel the VOR function, set “VOR” to “OFF” in step 2.





Noise reduction

The Sony IC recorder provides several features to address noise reduction. They are discussed below.

You can set the **LCF (Low Cut Filter)** function to cut a low frequency to reduce the roaring noise from wind; therefore you can record a file more clearly.

1. In the stop or recording mode, select DISP/MENU - “Detail Menu”-“LCF(Low Cut),” and then press  PLAY/STOP .

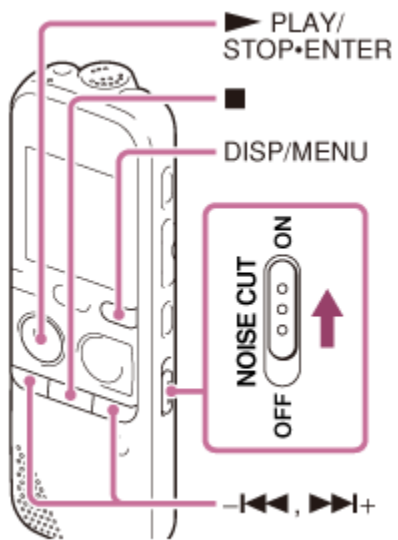


2. Press  or + to select “ON” or “OFF,” and then press PLAY/STOP  ENTER.
3. Press  (STOP) to exit the menu mode.

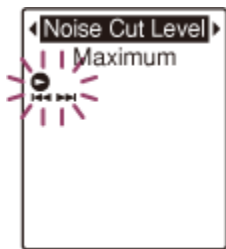
You can select one of the menu items available.

- **ON:** The LCF function is activated.
- **OFF:** The LCF function is canceled. (Initial setting)

The **Noise Cut Function** reduces ambient noise other than the human voice, which makes the human voice clearer when you listen to the playback sound.



1. In the stop or playback mode, slide the NOISE CUT switch to "ON."
2. Select DISP/MENU - "Detail Menu" - "Noise Cut Level," and then press PLAY/STOP ► ENTER.



3. Press -<< or >>+ to select "Maximum" or "Medium," and then press PLAY/STOP ► ENTER.
4. Press ■ (STOP) to exit the menu mode.

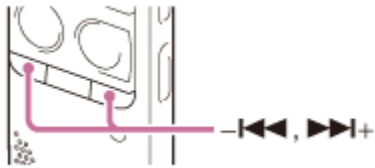
You can select one of the menu items available.

- **Maximum:** The noise cut level will be higher. (Initial setting)
- **Medium:** The noise cut level will be lowered. Select this item when you cannot hear the sound clearly by setting the noise cut function to "Maximum."

Notes:

- The effect of the noise cut function may be different depending on the condition of the recorded voice.
- When using the built-in speaker, the noise cut function does not work.

Reviewing your recordings



- To search forward (Cue):

Press and hold **▶▶+** during playback and release it at the point you wish to resume playback.

- To search backward (Review):

Press and hold **◀◀** during playback and release it at the point you wish to resume playback.

The IC recorder searches at slow speed with playback sound. This is useful to check one word forward or back. Then, if you press and hold the button, the IC recorder starts to search at higher speed.

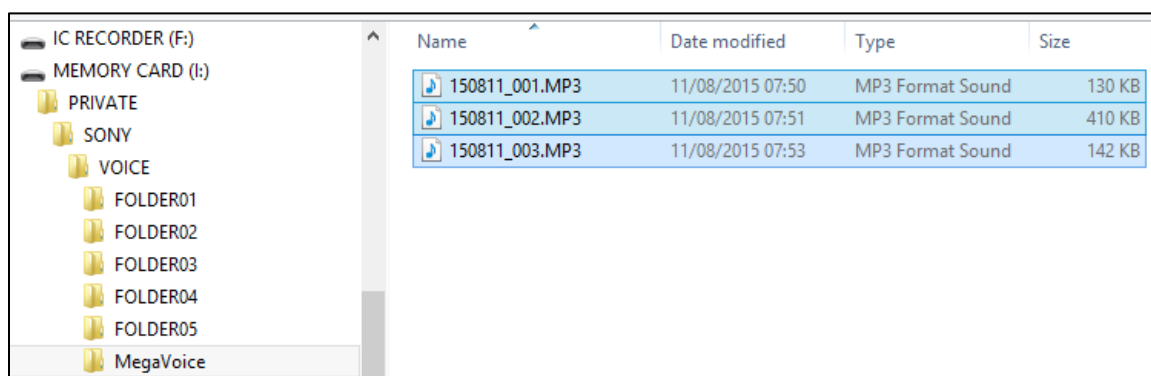
When files are played back or searched to the end of the last file...

- When you play back or fast play back to the end of the last file, "FILE END" lights up for approximately 5 seconds.
- When "FILE END" and the operation indicator go off, the IC recorder will stop at the beginning of the *last* file.
- If you press and hold **◀◀** while "FILE END" is lit, the files are played back rapidly. Normal playback will start at the point you release the button.
- If the last file is long and you wish to start playback at a later part of the file, press and hold **▶▶+** to go to the end of the file, and then press **◀◀** while "FILE END" is lit to go back to the desired point.
- For files other than the last one, go to the beginning of the next file and play backward to the desired point.

Reviewing the MP3 files

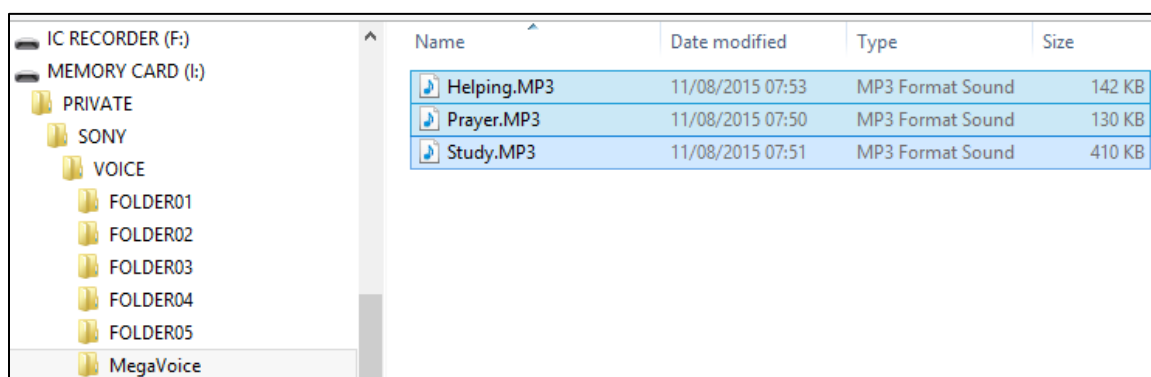
The file naming convention the Sony IC recorder uses when creating MP3 files is YYYYMMDD_NNN.MP3 where YYYYMMDD is the date of the recording and NNN is a rolling sequence number managed by the recorder.

Note: The file sequence number is *per* folder. It always begins with 001 and is incremented automatically by 1 for each new recording. Even if all the files in a folder are erased, the IC recorder “remembers” the last sequence number used and increments from it. Formatting the memory (internal or microSD card) is the only way to reset it.



This is clearly a cryptic way of naming files and poses a real challenge when trying to identify what content is contained within a file. There is no way to rename the files from the recorder itself but you can rename them while the recorder is connected to a Computer via the USB cable.

Using the File Explorer utility, navigate to the folder where your files were recorded (In our example - *MEMORY CARD (I:)\PRIVATE\SONY\VOICE\MegaVoice*). Double-click on a file to play the first few seconds just to hear the title of the message. Then rename the file to something appropriate.



Even though the files were renamed, the IC recorder preserves the sequence number identification and will continue to display and access the files by their sequence number.

Our recommendation

MegaVoice recommends using a headset (earphones and microphone combination). There are several advantages:

1. It frees you from having to hold the recorder and picking up any noise from touching it
2. It keeps the microphone at a consistent distance from your mouth allowing you freedom of movement
3. The earphones allow you to monitor your recording
4. It solves the “clicking” sound problem at the end of the recordings*

** We discovered in some of our recordings that a “clicking” sound was getting captured at the very end of the recording. Even after experimenting with various mic sensitivity settings and all the available noise reduction features, we could not eliminate it in every case.*

** We contacted Sony Technical Support about the problem and they “confessed” that the internal microphone picks up the “click” sound from pressing any of the buttons. Their only solution was to use the option of an external microphone.*

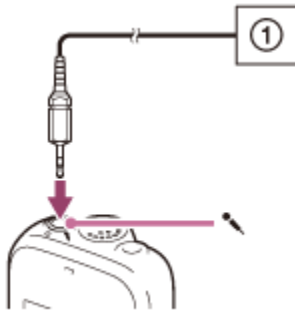
Below is a link to an inexpensive headset (pictured) on Amazon.com that will work with the Sony IC recorder. Any similar model will work as long as it provides two 3.5mm jacks for connecting the microphone and earphones to the recorder. If the link no longer works, simply search for “amazon computer headsets”.

http://www.amazon.com/Logitech-981-000214-Stereo-Headset-H110/dp/B003H4QPJQ/ref=sr_1_5?s=pc&ie=UTF8&qid=1440416408&sr=1-5&keywords=headsets






Figure 4: Headset with microphone, earphones and two 3.5mm jacks



1. Connect an external microphone (①) to the  (microphone) jack when the IC recorder is in the stop mode.



“Select Input” appears in the display window. If “Select Input” is not displayed, set it in the menu.

2. Press  or  to select “MIC IN,” and then press PLAY/STOP  ENTER.
3. Press  (STOP) to exit the menu mode.
4. Press  REC/PAUSE to start recording.

The built-in microphone is automatically turned off.

If the input level is not strong enough, adjust the “Mic Sensitivity” setting on the IC recorder.

When a plug in power type microphone is connected, power is automatically supplied to the microphone from the IC recorder.

Notes:

- After you have made the connection, check the sound quality of the conversation and the recording level before you start recording.
- The VOR function may not work if you are recording a phone or computer conversation.

The Olympus VN-722PC recorder

Recording a message

1 Select the folder to save the recording in (P.15).

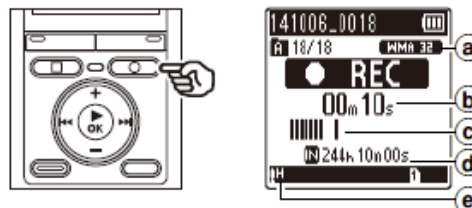
- Each new voice recording file is saved in the selected folder.

2 Point the built-in microphone in the direction of the sound to record.



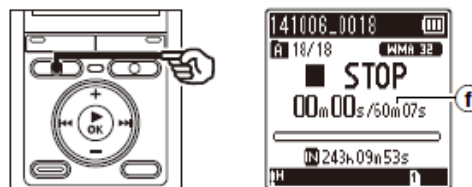
- You can use the card/USB connector cover as a stand when needed.

3 Press the REC (●) button to start recording.



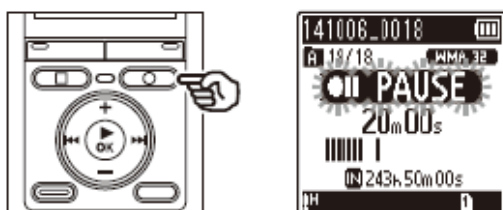
- a Rec mode
 - b Elapsed recording time
 - c Level meter (changes according to recording volume and recording function setting)
 - d Remaining possible recording time
 - e Recording level
- The LED indicator light lights.

4 Press the STOP (■) button when you want to stop recording.



- f File length

1 Press the REC (●) button during recording.



- Recording pauses, and the blinking message [PAUSE] appears in the display.
- Recording is stopped automatically after being paused for at least 60 minutes.

2 Press the REC (●) button again while recording is paused.

- Recording resumes from the position it was paused at.

Quickly checking a recording

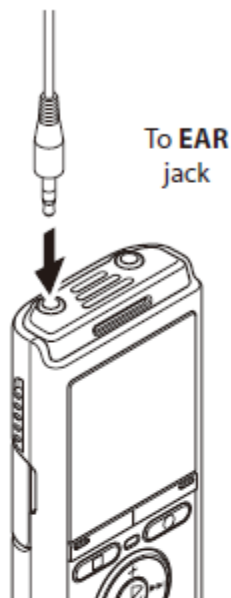
1 Press the ► OK button during recording.

Monitoring your recording

You can monitor the recording as you are making it by listening on earphones (optional) plugged into the voice recorder's **EAR** jack.

Use the +/- button to adjust the recording monitor volume.

1 Connect the earphones to the voice recorder's **EAR** jack.



- Changing the volume will not affect the recording level.

NOTE

- To avoid unpleasantly loud sound, set the volume to [00] before plugging in the earphone.
- To prevent feedback, do not place the earphone near the microphone while recording.

Using Noise Reduction and VCVA

Reducing noise during recording [Low Cut Filter]

The voice recorder's low cut filter function lets you make recordings that reduce humming sounds from air-conditioners or low-frequency sounds from equipment such as projectors.

- [On]:
Turns the low cut filter on.
- [Off]:
Turns the low cut filter off.

Voice-activated recording function [VCVA]

The voice-activated recording function (VCVA) automatically starts recording when a sound louder than a preset voice activation level is detected, and automatically pauses recording when the sound volume level falls. Use this function to automatically omit unneeded quiet segments when recording (such as long silences during conferences), saving memory.

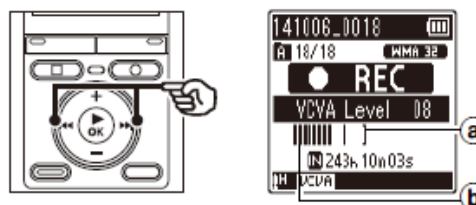
- [On]:
Turns VCVA on. You can adjust the voice activation level used for VCVA.
- [Off]:
Turns VCVA off. Restores standard recording.

Adjusting the voice activation level for voice-activated recording

1 Press the REC (●) button to start recording.

- Recording pauses automatically about 1 second after the input sound becomes quieter than the set activation sensitivity. The blinking message [Standby] appears in the display. The LED indicator light becomes lit when recording is activated and flashes when recording is paused.

2 Press the ►► or ◀◀ button to adjust the voice activation level.



- a Voice activation level (moves left/right to match set level)
 - b Level meter (changes in proportion to recording sound volume)
- The setting can be adjusted to between [01] and [15].

Our recommendation

MegaVoice recommends using a headset (earphones and microphone combination). There are several advantages:

1. It frees you from having to hold the recorder and picking up any noise from touching it
2. It keeps the microphone at a consistent distance from your mouth allowing you freedom of movement
3. The earphones allow you to monitor your recording

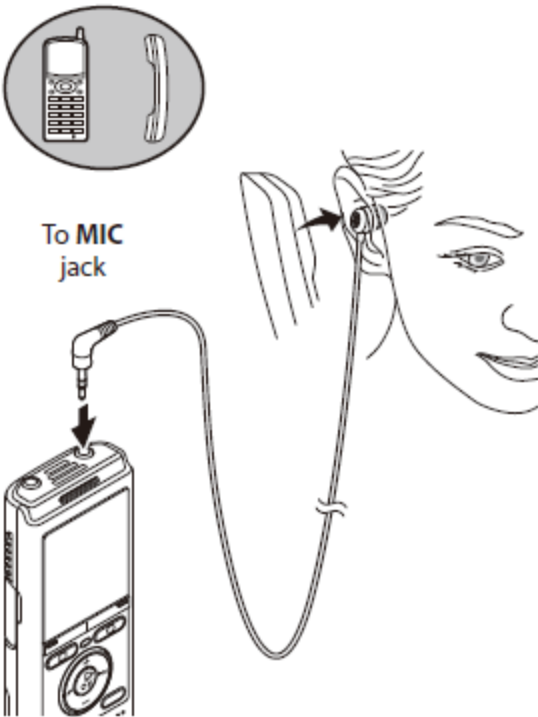
Below is a link to an inexpensive headset (pictured) on Amazon.com that will work with the Sony IC recorder. Any similar model will work as long as it provides two 3.5mm jacks for connecting the microphone and earphones to the recorder. If the link no longer works, simply search for “amazon computer headsets”.

http://www.amazon.com/Logitech-981-000214-Stereo-Headset-H110/dp/B003H4QPJQ/ref=sr_1_5?s=pc&ie=UTF8&qid=1440416408&sr=1-5&keywords=headsets

Figure 5: Headset with microphone, earphones and two 3.5mm jacks



1 Connect an external microphone to the voice recorder's **MIC** jack.



Example: TP8 telephone pickup
microphone (optional)

2 Press the **REC (●)** button to start recording.

Notes:

- Connecting an external microphone to the voice recorder's **MIC** jack disables the built-in microphone.
- Microphones with plug-in power supplies can be used.
- When **[Rec Mode]** is set to stereo, recording with an external mono microphone records on the left channel only.
- When **[Rec Mode]** is set to mono, only the input from the left channel microphone is recorded when using an external stereo microphone.

Creating a microSD Card for distribution

While the Sony IC recorder provides the convenience of recording messages directly to a microSD card, you will not be able to use that SD card “as is”.

To make an SD card usable with a MegaVoice player, the files will still have to be renamed and arranged in the appropriate file structure according to the rules of the target player.

Because of that, other than providing the options of external memory and organizing your messages to different microSD cards, there is not much difference in making your recordings to the on-board memory of the recorder vs. to a microSD card. You will still be required to do some renaming and reorganizing to create a functional final distribution card.

Herald: Preparing the file structure

Herald is very flexible in its file structure and supports any of 3 levels of folders and files for organizing your audio messages:

- **3 levels:** Section folders that contain Book folders that contain Chapters (MP3 files)
- **2 levels:** Book folders that contain Chapters (MP3 files)
- **1 level:** Chapters only (MP3 files)

The structure above you choose depends on how many audio files you have, how the messages were divided into files and how you wish to group them for easiest navigation and playback.

For example, if your messages each span multiple audio files, you may want to treat a message like a Book where the portions of one message (the individual MP3 files) are “chapters”.

If you have many messages dealing with the same topic, then the topic could be considered a “section” with each of the “books” in that section of related messages.

But if your recorded messages are each contained in a single MP3 file, you could just as easily put them all together as “chapters only” (a flat structure).

The Herald supports free text for the naming of folders and files. The only restriction is that the names must sort in the order in which the audio should be played for navigation by the player to work correctly.

To guarantee correct ordering, the names could all be prefixed with a 3-digit number followed by descriptive text like “001 Healing Part 1.MP3”, “002 Healing Part 2.MP3”, “003 Admonishing.MP3”, “004 Fasting.MP3”, etc.

The limitations for the Herald are as follows:

- When 3 levels are used:
 - There must be at least 1 (but as many as 199) Section folders in the root folder
 - There must be at least 1 (but as many as 999) Book folders in each Section folder
 - There must be at least 1 (but as many as 999) chapter files in each Book folder
- When 2 levels are used:
 - There must be at least 1 (but as many as 999) Book folders in the root folder
 - There must be at least 1 (but as many as 999) chapter files in each Book folder
- When 1 level is used:
 - There must be at least 1 (but as many as 999) chapter files in the root folder (but no sub-folders)

In this guide we are only going to cover the simplest 1 level which is a “flat” structure where no folder is required. For details on creating the more complex structures, see the [Herald User Guide](#) on our web site.

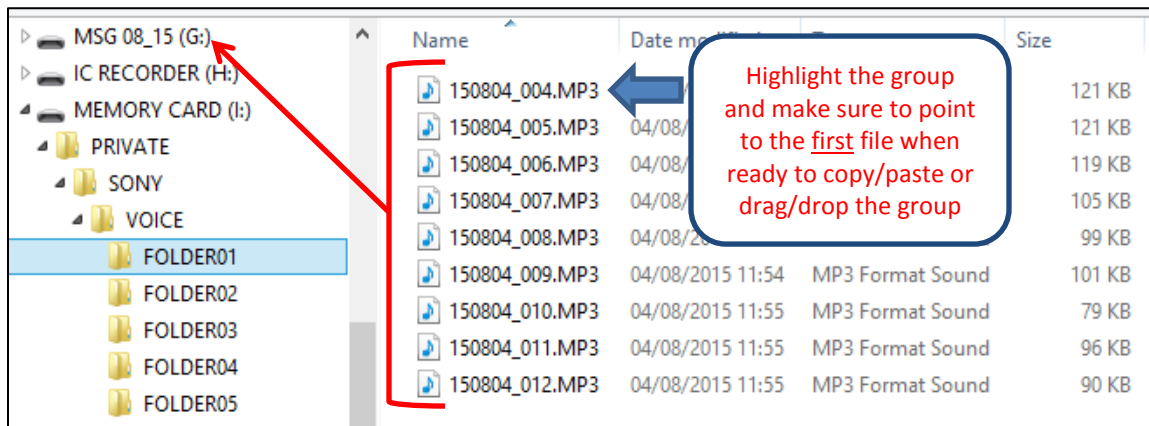
We need to get the files from the recorder to our distribution SD card. It is advisable at this point to start with a freshly formatted microSD card. [Click this link to review the section on formatting.](#)

Before copying any files, it is important to decide if the files are 1) named appropriately and 2) sort in the correct order for playback on the Herald. If they are, you can continue with the copy. If not, it is important to rename them before the copy. Here’s why:

The Herald plays files in the physical order in which they are encountered. Therefore, it is critical when preparing a microSD, to make sure of two things:

1. The files are named so that they sort in the order of playback
2. The files are copied in a manner so that the computer OS will copy them in the correct order

Figure 6: Copy the recorder files to the distribution SD card



If the MP3 files in this example are suitable for use “as is”, let’s copy them from the SD card (MEMORY CARD I:) in the recorder to the “root” of the distribution SD card (MSG 08_15 G:)

Make sure the list is sorted in the order you want, highlight the group and then point to the first file with the mouse when you copy/paste or drag/drop to the destination SD card. This will cause the OS of the computer to copy the items beginning with that file and in that order.

However, if we want to be able to easily identify the message files by name or would like to change the order, we’ll need to rename them before copying. From your computer it is possible to rename the files while still on the recorder.

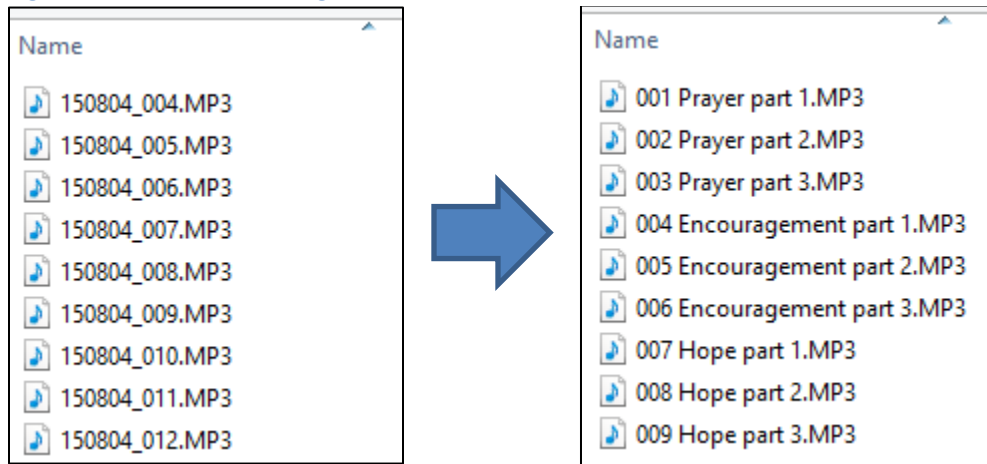
The first three recordings are a message on Prayer, the next 3 are a message on Encouragement and the last 3 are a message on Hope. You will have to listen to them to correctly identify but if you provided a title at the beginning of each recording (as recommended earlier) this won't take but a few seconds.

While still on the recorder, let's rename them with the order of Prayer, Encouragement and Hope.

So this...

should become this.

Figure 7: Before/after renaming the files



As noted earlier, make sure the list sorts in the order desired. Highlight the group, point to the first file with the mouse and then copy/paste or drag/drop to the destination SD card. This will cause the OS of the computer to copy the items beginning with that file and in that order.

We can now take this SD card, load it to a Herald player, turn the player on and it should begin playing the audio file "001 Prayer part 1".

Because we used the flat structure, we can only navigate through the audio files using the ◀ or ▶ buttons on the Herald keypad. While this works well for a small number of messages and files, it would become quite tedious for a larger number.

In our example, the files were all renamed manually. If you have many files, you may want to consider using a free file renaming utility instead. [For details please refer to the section on that topic later in this document.](#)

Envoy S: Preparing the file structure

Coming soon...

Envoy E Series: Preparing the file structure

Coming soon...

Miscellaneous

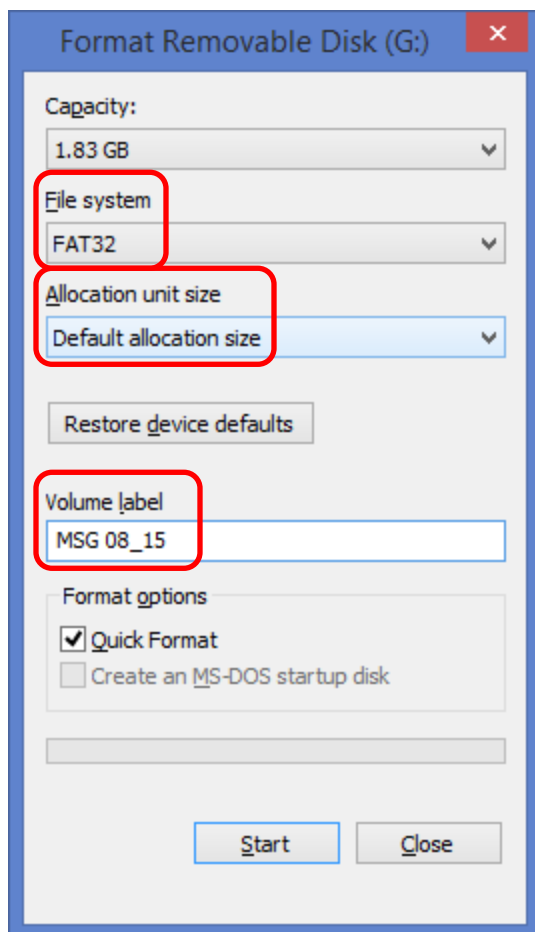
Formatting the distribution SD card

It is recommended to format your distribution microSD card *before* loading files to it. Using a [microSD-to-USB adaptor](#), connect the card to your Computer. Make sure the capacity of the card is sufficient to hold all of your messages.

Open File Explorer, right click on the volume that identifies the card and select “Format”. In the Format dialog, set the File System to “FAT32” and the Allocation Unit Size to “Default”. It would also be a good idea to “name” the SD card with a volume label to help identify the contents. Typically labels may be up to 11 characters in length.

Leave the rest of the settings as they are and click “Start” to execute the format. Click “OK” when you get the “Format Complete” dialog.

Figure 8: Formatting a microSD card (Windows)



File Renaming Utility

Because the examples in this guide are very simple ones, you could easily rename all the files manually using the File Explorer on our PC or Mac. But if your distribution microSD is going to contain many (perhaps hundreds?) of audio files organized in numerous folders, it would become a complicated and time consuming task, prone to error.

MegaVoice recommends a free file renaming utility from a reputable source that you can download and install on your PC or Mac. It can be used to rename either files or folders.

If you feel you need the utility, download the software by clicking on the link below:

<http://sourceforge.net/projects/freefilerenamer/>

For specific examples on how to use the utility to rename files for the player for which you are preparing the distribution SD card, please refer to the relevant user guide. Select from the list below:

- **Herald:** <http://www.megavoice.com/pdf/herald-english-user-guide.pdf>
- **Envoy E:**

USB/microSD Card Duplication

Card duplicator overview

There are many duplicator systems available on the market. Some are made specifically for SD or microSD cards. Others have USB ports that can be used to access different types of flash media via USB. The latter, of course, is more functional.

They range from a simple 1-to-2-card duplicator to even 1-to-47-card systems.

The prices vary accordingly.

Note: A good 1-to-2-card duplicator can be purchased for well under \$100 while a 1-to-31-card device could cost you around \$3,000.

It all depends on your budget, the number of microSD cards you need to replicate at a time and how much time you have to invest in the duplication process.

microSD to USB adaptor

A duplicator that provides USB ports allows to you replicate different types of flash media as well as SD or microSD. But in order to use a device like this with microSD cards it is necessary to use a microSD-to-USB adaptor. SanDisk, among other vendors, make these. They are reasonably priced and easy to obtain.

Figure 9: SanDisk microSD-to-USB adaptor



Here's a link on Amazon to purchase a package of 6 adaptors:

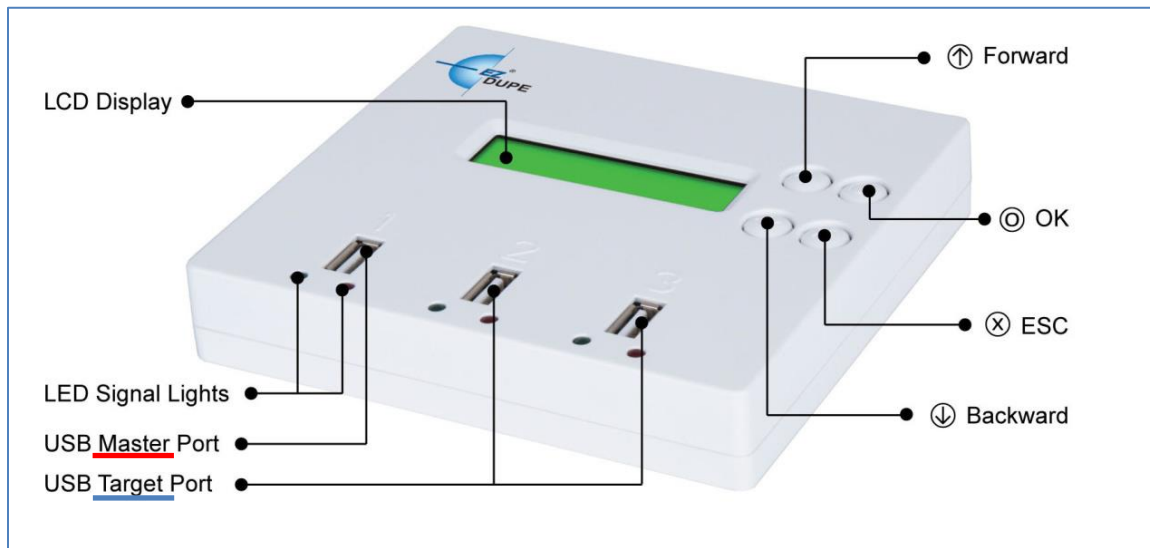
http://www.amazon.com/Micro-Adapter-Portable-Reader-Writer/dp/B00QH8YMFS/ref=sr_1_7?s=electronics&ie=UTF8&qid=1439282789&sr=1-7&keywords=micro+sd+adaptor

If the link above no longer works, using your favorite internet search engine simply look for “amazon buy microsd adaptor”.

Using the EZ DUPE duplicator

For the purpose of this guide, MegaVoice has tested and used a very simple USB/microSD card duplicator from EZ DUPE. It is a 1-to-2-device system. It has 3 USB ports – one for the “master” and two for the “targets” (copies). It is simple to use and seems quite dependable.

Figure 10: EZ DUPE USB duplicator details



A copy of the User's Guide may be downloaded by clicking on the link below:

http://www.ezdupe.com/Content/Download/PDF/Portable%20USB_2CUSB%20Manual.pdf

Here's a link to Amazon to purchase the EZ DUPE 2CUSB:

<http://www.amazon.com/EZ-Portable-Duplicator-Tester-EZ2USB/dp/B003N4D7BE>

If the link above no longer works, using your favorite internet search engine look for “amazon buy EZ DUPE 2CUSB”.

The following is a brief description of the process using the EZ DUPE 2CUSB. It is intended only as an example and not to be conclusive. Please make sure to follow the recommended steps from the instruction manual that came with the duplicator that you will be using.

For this process, you will need the following:

- The EZ DUPE 2CUSB duplicator
- The master microSD card that contains the audio messages you want to duplicate and distribute
- Three microSD-to-USB adaptors for the master and the 2 copies
- As many microSD cards as you want copies for distribution

EZ DUPE strongly recommends that the capacity of the master card match the capacity of the target cards. In other words, it may be problematic to duplicate a 2GB card to different size card(s).

Connect the EZ DUPE to power and turn it on. It will beep once it has initialized. Load the master microSD card to an adaptor and place it in the left-most USB connection (labeled as “1” on the device). Load the cards that are to be copies of the master each in a microSD-to-USB adaptor and place those in the other two USB ports (labeled as “2” and “3” on the device).

Choose the function desired by using the up and down arrow buttons. You can choose Copy, Compare or Copy & Compare. It is a bit more efficient to perform a Copy & Compare each time and you will be sure the copy operation succeeded (or not) when it is finished. Once the desired function is identified press the OK button.

For some models, the LCD will show the number of target devices detected and wait. Press the OK button to begin the process. Other models will begin the selected process as soon as the device detects all USB ports occupied.

Notes:

- If the LCD display is showing “Waiting on master...” or “Waiting on target...” it means the card in one of the ports is either missing (forgot to load one to the adaptor) or not properly seated in the adaptor and the device can’t read it. Remove the adaptor, reseal the microSD card and try again.
- There is only one USB port for the “master” and it is labeled “1”. The other two USB ports (labeled 2 and 3) are for the target copies. See the diagram of the duplicator above.

While the copy is in progress, the LCD will show the elapsed time, the percentage completed and the amount of data (in MB) completed. The green LED for each port will flash while active. Do not remove any flash device while it is processing.

Note: In MegaVoice tests, it took 12 ½ minutes to Copy & Compare 2 copies of a 3 GB message using 4GB microSD cards.

As soon as the copy process completes, the compare process begins. Once compare finishes, the duplicator will beep and the LCD will show the status of each copy and the total elapsed time. The green LED should stop flashing and remain illuminated. If an error occurred, the red LED will illuminate. When the entire process is complete, the device will beep 3 times.

If you wish to make additional copies of the same master, leave the master in place but place empty SD cards in both/either of the “target” ports and repeat the process.

Images of the process appear below...

Figure 11: EZ DUPE Function Selection



Figure 12: EZ DUPE Copy in progress



Figure 13: EZ DUPE Compare in progress



Figure 14: EZ DUPE Copy and Compare completion



Technical Support

The MegaVoice web site:

<http://megavoice.com/contact/>

EZ DUPE microSD card duplicator:

<http://www.ezdupe.com/>

Sony support for the ICD PX333:

<https://esupport.sony.com/US/p/model-home.pl?mdl=ICDPX333>

Olympus support for the VN-722PC:

http://www.olympusamerica.com/files/oima_cckb/VN721PC_VN722PC_EN_U01.pdf