

# *TeleCorder*

## Voice Logging Recorder

**UC-02B** and **UC-04B**  
with **UpCorder** Software



# User Manual

Version 2.19-B-USA

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# TeleCorder

## Cost Effective Voice Logging Recorders

**TeleCorder** models UC-02B and UC-04B are used with the supplied **UpCorder** software to turn your PC into a digital audio recorder that can simultaneously record and play from phone lines or other audio sources. Recordings start and stop automatically using either phone line voltage sensing or audio activation. Recordings are stored on the hard drive of a PC (Win-2000/XP/Vista/Win-7) using the included USB cable and software. The PC is also used to set up the **TeleCorder**, play back recordings, and copy recordings for archival purposes.

**TeleCorders** # UC-02B and # UC-04B are used with **UpCorder** software and your PC. They do not have internal storage. Recordings are uploaded to your PC in real time using the supplied USB cable and are powered by your PC through the same USB cable. To record, your **TeleCorder** must be connected to a PC running the **UpCorder** software.

**TeleCorders** are also available with built-in computers and hard drives. **TeleCorder** models TC-02F and TC-04F store recorded conversations to an internal hard drive. They can also be connected to a PC for control and back-up archiving via plug-and-play USB cable. A PC is not required for set-up, recording, and playback of conversations. Contact your **TeleCorder** sales representative for additional information.

### I. Configurations

Model Type	2 Channel UC-02B	4 Channel UC-04B
Supplied Accessories (phone line cables)	2 each # T-18 (18' phone cable with "T" adapter)	2 each # MTJ-S2 (line splitter) 4 each # T-18
Supplied Accessories (other)	USB cable to connect the recorder to your PC, CD with <b>UpCorder</b> software for use in a PC (Win-2000/XP/Vista/Win-7), and this manual.	

If you purchased optional items such as cables and/or adapters for installation to audio sources that do not terminate in standard RJ11 phone jacks, see the instructions that were provided with the optional accessories for additional installation and operation procedures.

### II. Cable Connections and Testing

#### 1. Identify the Front Panel LEDs and Rear Panel Connections

Unpack and check the contents of the **TeleCorder** package.



Front view of **TeleCorder** # UC-02B and # UC-04B with LEDs for channel activity and power.



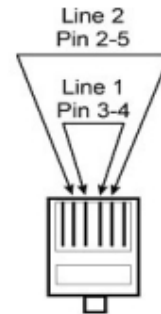
Rear view showing USB jack for connecting to a computer, two modular phone jacks for connecting to two (UC-02B) or four (UC-04B) phone lines or other audio sources to be recorded, and optional +5vDC jack to power accessories (the recorder is powered via the USB cable, not this jack). The LAN and 232 labels have no meaning with **TeleCorder** models UC-02B and UC-04B. There are no connections behind the LAN and 232 labels.

## 2. Connecting to Phone Lines and Other Audio Sources

**TeleCorder** inputs require 2-wire analog audio such as from direct connection to analog phone lines, two-way radios, amplified microphones, telephone handset or headset audio (analog or digital phones, using direct connection to earpiece audio or with the optional TSA-3LM or TSA-SLM adapters), etc.

### a. Connecting Audio Sources to the 2 Channel **TeleCorder** Model UC-02B

The **TeleCorder** connects in parallel to your audio sources. There are two modular phone jacks on the back of the **TeleCorder** Model UC-02B. Each jack is wired for connection to one of the two channels using the center pair of contacts (as with standard RJ-11 phone jacks). When looking at the back panel, the jack on the left is for channel one (also called “Port 1”), and the jack on the right is for channel two (also called “Port 2”). The left jack is also wired for both channels as with standard RJ-14 phone jacks (see image at right — Line-1 on inside pins 3+4, Line-2 on adjacent pins 2+5). **Note:** If using the left jack only for connection to channel one, there must not be any connection to pins 2



& 5 as these pins also connect to pins 3 & 4 on the right jack.



Two T-18 cables (18' phone line cable with T-adapter, photo at left) are supplied with the recorder. You can use these or other suitable cables to connect to your phone lines or other audio sources.

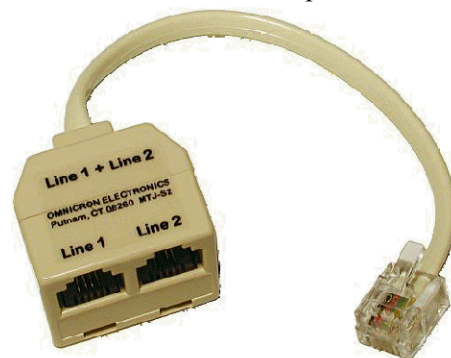
If you wish to record from multiple line analog phones or digital telephone sets, instead of individual phone lines, the most popular way to connect is with a handset splitter. The handset splitters (such as the Omnicron TSA-3LM or TSA-SLM) are available from your **TeleCorder** representative. Your sales representative can also assist you in selecting other cables or adapters to simplify installation for your application.

### b. Connecting Audio Sources to the 4 Channel **TeleCorder** Model UC-04B

Each modular phone jack on the back of the **TeleCorder** UC-04B has connections for two phone lines or other audio sources. When looking at the back panel, the jack on the left is for Ports 1 and 2, the jack on the right is for Ports 3 and 4.

The modular jacks use pins 3 & 4 for the first input (center pair), and pins 2 & 5 for the second input (see the drawing above right). Each individual input can be referred to as either a Channel or Port.

If it is more convenient to install using separate cables for each channel, use the supplied MTJ-S2 line splitter (photo at right). Plug the short cable from the MTJ-S2 into one of the modular jacks on the back of your **TeleCorder**. Plug the first phone line or other audio source to be recorded into the jack labeled Line 1, and the second phone line or other audio source into the jack labeled Line 2.



Connect audio sources for channels one and two using the left jack, as with instructions for the two channel **TeleCorder** (see page 4 “a”), and channels three and four to the right jack in a similar manner. The UC-04B is supplied with two of the MTJ-S2 splitters to provide individual jacks for each input and four T-18 cable sets for connecting to phone lines.

If connecting to telephone sets where a channel will be recording all conversations on a particular phone regardless of what line they are using, instead of recording from a phone line where all conversations on the line will be recorded regardless of which phone is using the line, you should make connections to the phone using adapters such as the Omnicron TSA-3LM or TSA-SLM or by connecting directly to the earpiece audio connections inside of the phone (if both sides of a conversation are present at the earpiece).

If it is not convenient or possible to install using standard modular jacks, identify the pair of wires for each line or audio source and connect in parallel to each individual input on the **TeleCorder**.

With bundled phone wiring, you must first identify the line pairs among the wiring cables and then connect the wires from the **TeleCorder** inputs to these pairs. Equipment and wiring diagrams may be required to expedite proper installation. Check with your phone or wiring provider for assistance as needed.

### 3. Power Connection (UC-02B & UC-04B are powered via USB Connection)

**TeleCorders** without built-in hard drives (UC-02B and UC-04B), are powered from your PC via the USB cable. No additional power connections or adapters are used. When connected to your PC via the USB cable, it is ON when your PC is ON, and OFF when your PC is OFF. It will not record conversations unless it is connected to your PC and the **UpCorder** software is active on your PC. The blue power ON light will be lit and channel activity lights will indicate active channels.

### 4. Installing UpCorder Software on a PC (Win-2000/XP/Vista/Win-7)

Install **UpCorder** software from the CD included with your recorder prior to connecting the supplied USB cable from the recorder to the USB port on your computer.

If the recorder software is being installed on a multiple user PC, the installation directory should be a shared location or the “All Users” directory if you wish to allow access by all users. If connecting an **UpCorder** to a PC that was previously used with an older version of **UpCorder** software, you should remove the old **UpCorder** program (PC Control Panel – Add/Remove Programs) prior to installing the new software. Recorders with s/n N-369500 and higher will not work with software prior to V2.19.

Insert the software CD that came with your recorder into the CD drive on your PC. If it does not auto run to show install procedure, look at files on the CD using file manager and open “**SetupUpCorder.exe**” (Win-2000 through Win-7). Follow on screen instructions.

The **TeleCorder** program will now be installed in your computer, be listed under Programs, in Control Panel add/remove programs, and there should be an icon on the desktop for the **TeleCorder** (image at right). If you would like the **TeleCorder** to automatically run and start recording when the computer is powered ON, place (drag) a copy of the **UpCorder** icon into the PC’s Startup folder of your PC.



**NOTE:** If you will be using an older UC-02B or UC-04B recorder that came with software V2.17 or lower, see the “**Update-V2-17\_and\_earlier\_UC\_for\_64\_bit-PC**” folder on the V2.19 CD or software download for notes and instructions to update older recorders so that it will be recognized by a 64 bit PC.

### 5. Connecting TeleCorder to a PC

Connect the supplied USB cable (photo at right) from the USB port on the back of the **TeleCorder** to a USB port on your computer. A “Blue” LED on the front of your **TeleCorder** will light to show that it has power.

Run the **UpCorder** program by clicking on the icon on your PC desktop that was created when the program was installed or from the programs list. Refer to manual section III for more detailed information.

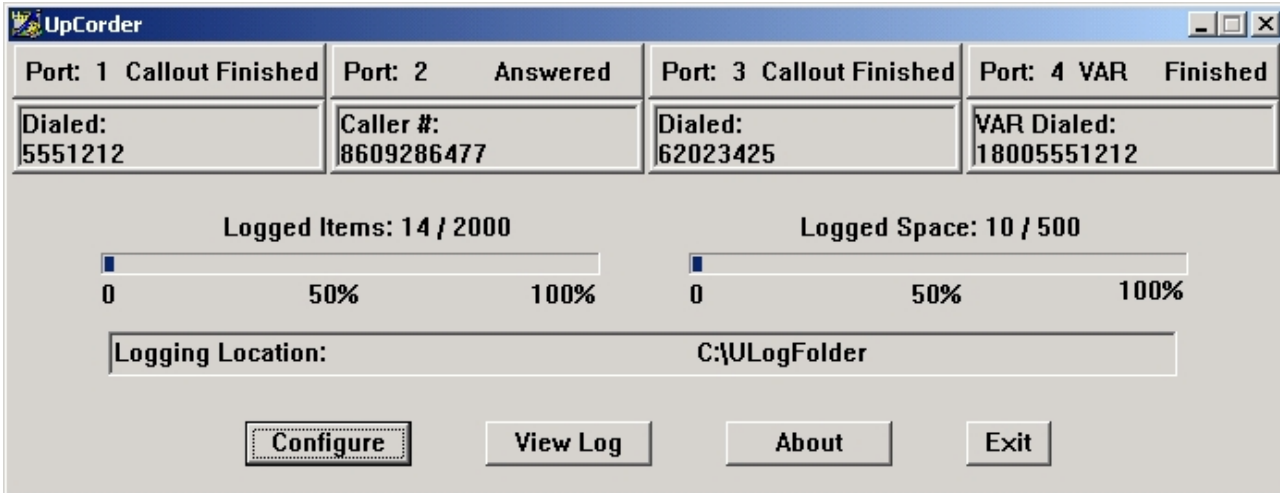




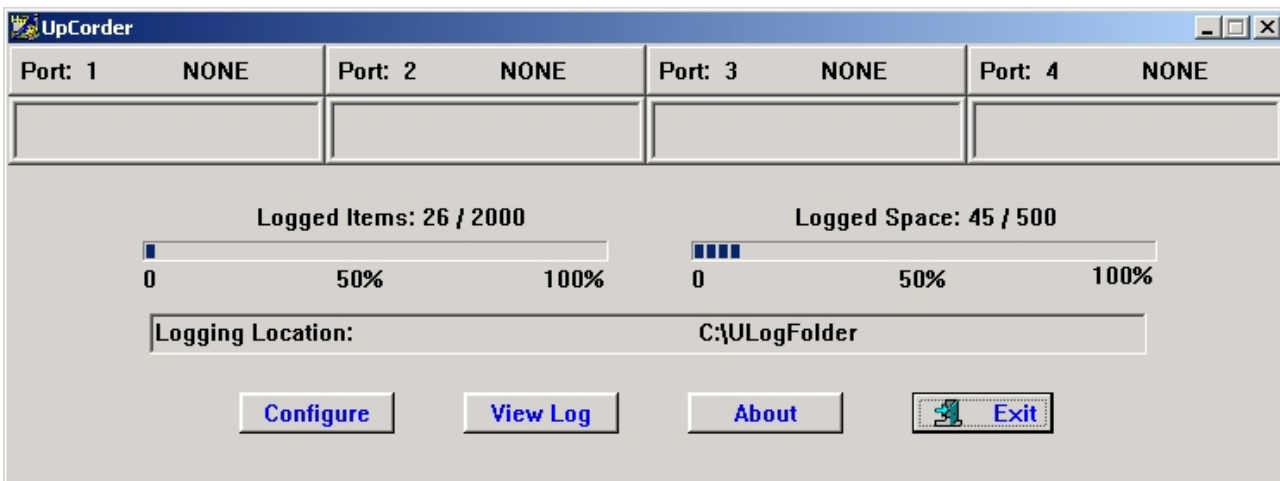
### III. Using TeleCorder

#### 1. Computer Windows

a. After launching the **UpCorder** software, the **Port Activity** window will be displayed. Information listed in the boxes for **Port: 1**, **Port: 2**, **Port: 3** and **Port: 4** will depend on what recording mode is selected and what information is provided at the start of a recording. Ignore boxes for **Port: 3** and **Port: 4** activity if you have a two channel UC-02B recorder.



If the **TeleCorder** is not connected to your PC, the software will run in the off-line mode as shown below. Using this mode you can select **View Log** to browse, search and play back the **UpCorder** recording files as well as convert them to **.WAV** files. You can also use the off-line mode to change the folder on your PC where new recordings will be saved. It is recommended that you do not save more than a few thousand recordings in the same folder (see manual section 4, sub section e).

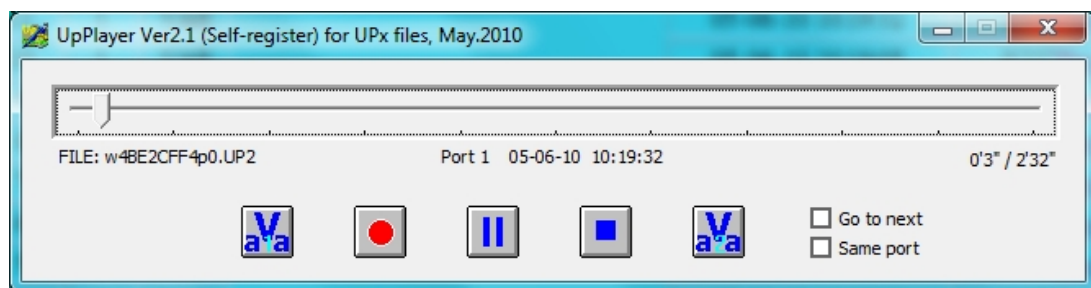


To view the logs of recordings in the most recent ULogFolder, click the **View Log** button. If there are recordings logged, the “List of Recorded Calls” log window will pop up. An example is shown on the next page. To view the logs of recordings in a different ULogFolder, click the **Configure** button and use **Browse** to open a different folder of recordings. You can also open folders of recordings by using the Windows file manager to locate the folder and opening the **.HTM** file in the folder (this file will be named “ULogTestNew.htm”, unless you changed it when creating a new ULogFolder).

- b. **List of Recorded Calls** window is displayed after clicking on the **View Log** button.

Item	Port	Type	Phone # and/or Edited Text	Date/Time	Duration
26	11	In	1234567890	04-28-05 12:09:23	17'30" <a href="#">Play</a>
25	1	In	8881212555	04-28-05 12:14:56	10'13" <a href="#">Play</a>
24	11	Out	19014581234 5678 910 123456789 123456789	04-28-05 11:54:26	12'41" <a href="#">Play</a>
23	11	In	P	04-28-05 10:59:44	41'39" <a href="#">Play</a>
22	5	Out	18608624321	04-28-05 10:35:34	2'09" <a href="#">Play</a>
19	5	In	8654539044	04-28-05 10:30:21	2'25" <a href="#">Play</a>
18	9	In	4904616978 -- UpCorder test recordings	04-28-05 08:29:58	20'56" <a href="#">Play</a>
17	9	VAR	18609286477	04-27-05 14:51:57	1'18" <a href="#">Play</a>
16	9	VAR	11234567890	04-27-05 14:46:54	4'58" <a href="#">Play</a>
15	1	In	TeleCorder test with 4 ea UC-04B on 1 PC	04-27-05 12:22:54	12'43" <a href="#">Play</a>
13	1	In	18609280377 Omnicron Electronics	04-27-05 12:05:52	15'11" <a href="#">Play</a>

From the list of recorded calls, you can view recordings listed by date, start time, item number, port number, recording type, phone number, and duration. You can also sort by port (channel) or duration and use **File Manager** to search by date, delete recordings, edit or add text comments, and convert recordings to .wav files. Caller ID from both FSK and DTMF formats may be displayed for recordings made in the phone line mode and if there was Caller ID service available on the line (**O** for Unavailable, **P** for Private). To play a recording, click the **Play** button at the end of the line and the player will pop up. If the recordings are saved in “.up” format, they will be played using **UpPlayer**. If the recordings were saved in “.wav” format, they will be played using the Windows default player. With the **UpPlayer** you can move/drag forward or backward to advance or back up the section of a recording that is being played. Use the **AVA-1** or **AVA-2** buttons for Digital Automatic Volume Adjustment of the playback audio (DAVA). If files were recorded in the **UpCorder** format (.up), you can also save the recordings to standard Windows WAVE files for sharing with users that do not have **TeleCorder** software.




**Pause/Play:** Click the button with two vertical lines to pause playback. Click again to resume.

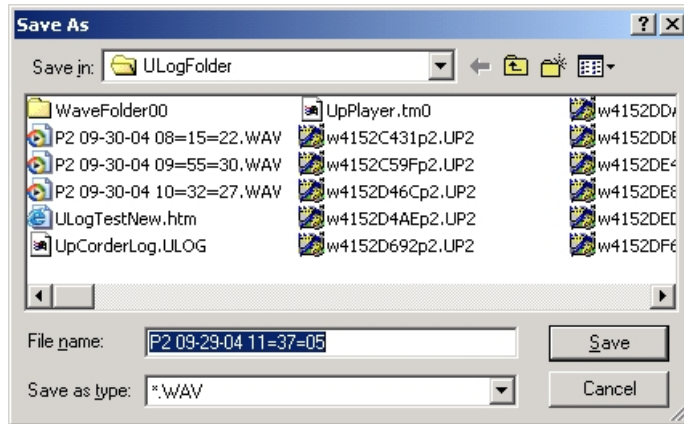
**Go to next:**  **Go to next** When a check is placed in the **Go to next** box, after a call has finished playing it will automatically go to the next call and start playing it (useful when playing radio files with receive and transmit audio in separate files).





**Same port:**  **Same port** When a check is placed in the **Same port** box, and you also select **Go to next**, it will play only calls on the same port as the selected recording (useful when playing radio files when all conversations are on the same port/channel).

**Stop:** Click the button with square box to end playback.



**Save as Wave File:**  Click the button with a red dot to save the selected recording to your PC as a .wav file. The following image shows a sample of the dialogue box you will see if you click the red dot **Make WAVE File** button in the dialogue box. The recordings will be saved by default with a file name containing port number, plus the date and time of the call. You can change the folder where the recording will be saved and rename the file when converting to a WAVE file.



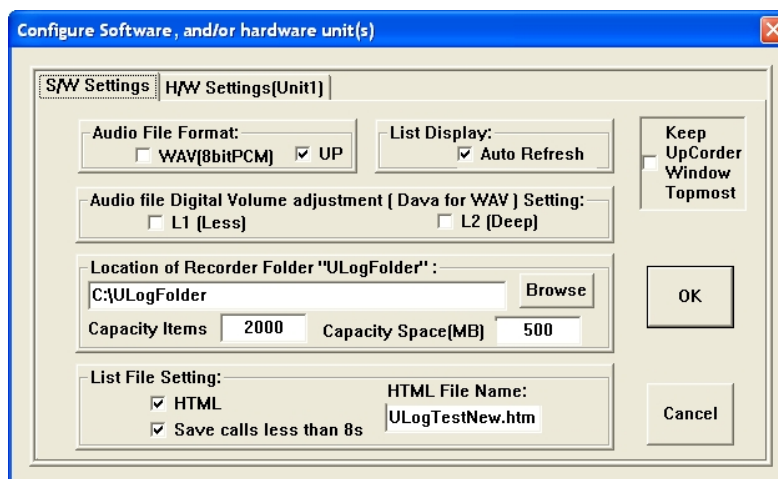
**DAVA**   --- If the volume levels of the 2 sides of a conversation are different, or if the line quality was not well adjusted, the Digital Automatic Volume Adjustment (DAVA) function will amplify the lower or far side to more closely match the level of the stronger or near side of a recorded conversation during playback. Since background noise will also be amplified together with the sound, there will be a compromise to permit weak voices to be played at higher levels without raising background noise levels to objectionable levels. There are two levels of DAVA available, AVA-1  and AVA-2 . If automatic level control is required, use the one that provides the best audio quality.

When you are browsing the logs (see page 7) and listening to recordings, the application is active and will be recording voice files in the background. The list of recorded calls automatically refreshes every 25 seconds. Click on the **List Refresh** button to synchronize the logs to show new recordings at any time.

To return to the monitoring port or channel activity, click the **View Port Activity** button. To edit the numbers or text information for an item in the list, search by date, phone number or edited text, make WAVE files conversion in batch mode, or delete individual recordings, click the **File Manager** button.

### c. Setting Hardware and Software

From the **Port Activity** window click **Configure**. You will launch the **Configure Software, and/or Hardware** window. From this window, you can view or change **UpCorder** software options that are used by your PC and hardware settings that are set in the recorder (UC-02B or UC-04B). Click on the **H/W Settings** tab to view or change hardware settings (hardware setting screen image is on page 10).



## 2. Recording Process

When connected to standard telephone lines, the **TeleCorder** can automatically record the telephone number called in or dialed out, time duration of the call and the voices of the conversation. You don't need to change your procedure for making or receiving your calls. Nevertheless, the following points should be considered. When connected to phone lines, channels should be set to start/stop recording using the voltage sensing mode, not the VAR mode (hardware set-up from **Recorder Settings** after selecting **Configure** from default "**UpCorder**" program screen). Date and time information is supplied by the clock in your PC.

If Caller ID numbers are not displayed, confirm with your telephone company that your phone lines have the Caller ID feature enabled. Otherwise, there will not be caller phone numbers recorded and displayed when managing the recordings. If you are connected to telephone handset audio, the recorder will not show caller numbers and will only show dialed out numbers if the handset has standard DTMF tones when dialing. Also check to be sure phone line channels are set for voltage sensing, not for VAR start/stop.

If Caller ID service is provided on the phone line, always wait to answer a call until after the second ring so that the phone number from the calling party can be received and stored with the recording.

When channels are set to start and stop recording using voltage sensing, outgoing calls will not be saved unless they are longer than 8 seconds and contain a minimum of 3 dialed digits (DTMF tones). This feature minimizes false recordings and does not apply when using Voice Activated Recording (VAR). This feature can be disabled from the **Recorder Settings** menu.

### a. Setting for Phone Line or Voice Activated Recording (VAR)

When you first connect a new **TeleCorder**, default settings for all channels will be for Voice Activated Recording (VAR). Channels connected to phone lines should have their start/stop mode changed to the voltage sensing start/stop mode. In this mode, instead of monitoring audio levels, the recorder will monitor for DC voltages on the selected inputs to indicate on-hook and off-hook status. The phone line voltage is high when the circuit is not in use and will drop to a lower voltage when it is being used. Any channels set for on-hook/off-hook voltage sensing that are not connected to a phone line will not show any recordings due to the lack of the DC voltage changes that are required to initiate a recording.

If you connect any of the **TeleCorder** inputs to audio sources that do not have standard on-hook/off-hook voltages, these channels must be set for voice activated recording (VAR).

### b. VAR Settings

Recorder channels set for the VAR mode will detect the audio level on the channel (port) input to start a recording. It will start recording when a preset audio level is reached (normal conversation levels), and stop after the audio drops below this threshold (no sound other than weak background noise) for a preset period of time. The length of quiet required for the recording to end is called "turn-off-delay".

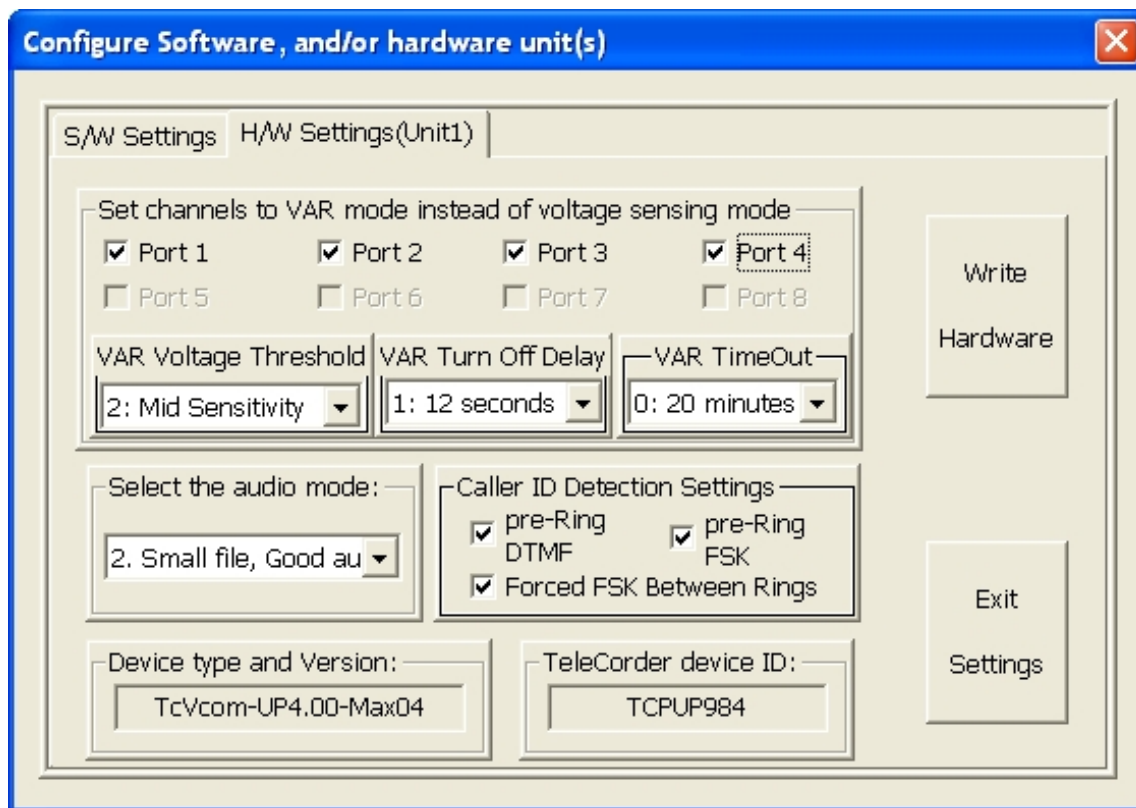
	Phone Line Recording	Voice Activated Recording (VAR)
<b>Requirement to Start</b>	Phone Line DC voltage lower than the threshold, o/a 20v DC	Audio level on input is loud enough or louder than preset threshold required to start recording
<b>Requirement to Stop</b>	Phone Line DC voltage higher than the threshold, o/a 20v DC	Audio level is lower than preset level required to continue recording for the selected turn-off-delay
<b>Suggested Uses</b>	Recording from standard analog phone lines	<ol style="list-style-type: none"> <li>1. Radio recording, broadcast or two-way</li> <li>2. Meeting recording with amplified microphone</li> <li>3. Audio picked up from handset or headset of analog or digital telephone set (single or multi-line phone)</li> <li>4. Analog phone line recording where DC voltage sensing cannot be used</li> <li>5. Paging and Intercom audio</li> </ol>

<b>Parameters</b>	DC Voltage Threshold: (This threshold is preset in the <b>TeleCorder</b> through hardware components and cannot be changed via software).	<ol style="list-style-type: none"> <li>1. VAR or Off-Hook Mode for each channel</li> <li>2. Threshold in 4 levels</li> <li>3. Turn-off-delay/VAR space: (4, 12, 32, or 100 seconds)</li> <li>4. VAR TimeOut to limit long recordings and start a new recording: (20, 40, 60, or 120 minutes)</li> </ol>
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### 3. Configuring Hardware Settings

You will use the **UpCorder** program in your PC to select Phone Line recording (Voltage sensing start/stop mode) or VAR mode (Voice Activated Recording), and to change and confirm these and other operating parameters.

Using your PC with the **UpCorder** program running, select **Configure** from the main screen. Click **H/W Settings** to open the screen shown below.



**a. Channel/Port Setup:** Each channel (also called Port) in the recorder can be set to start and stop recording using either audio activation (VAR for Voice Activated Recording) or voltage sensing. Channels showing a check mark in the boxes labeled **Port 1**, **Port 2**, **Port 3**, or **Port 4**, are set for VAR recording. Channels with no checkmark indicate they are set for phone line recording (voltage sensing start/stop). For any channel you want to start/stop recording using the phone line voltage sensing mode, click on the box for that channel to remove the check mark, then click the **Write Hardware** button to confirm any changes. With 2 channel UC-02B, disregard Port 3 and Port 4 settings.

**b. VAR Voltage Threshold:** Set the threshold level to match the audio level on your audio source.  
**0:** Extra Sensitive, suitable for weak audio sources with low background noise level; (for example, with weak earphone or line-out recording).  
**1:** High Sensitivity, suitable for normal line level audio sources with low background noise levels; (normal phone handset earpiece audio or weak speaker of radio).

**2:** Mid Sensitivity, suitable for higher than normal audio levels and/or higher background noise levels; (for recording from a noisy phone line when voltage sensing cannot be used due to non-standard voltages or with normal speaker audio from a radio).

**3:** Low Sensitivity, suitable for very high audio levels, and high background noise levels. Recording may stop if audio levels are too weak; (phone recording with non-standard and very noisy DC voltages, or extra loud radio audio).

After making changes, click the button labeled **Write Hardware** to confirm any changes. You may be asked to un-plug and re-connect the **TeleCorder** USB cable to change the **TeleCorder** operating parameters that are set to the hardware inside of the **TeleCorder**. Changes to hardware settings should only be made when all channels are inactive. After settings have been changed, check to make sure all of the changes are functioning as expected.

**c. Turn-Off-Delay:** If any channels have VAR selected for recording start/stop, also select one of the four turn-off-delay options (**VAR Turn Off Delay**); 4, 12, 32 or 100 seconds. This setting will help to prevent recordings from ending during quiet periods. Click the **Write Hardware** button to confirm any changes. If set to 12 seconds, a recording will stop after 12 seconds of silence.

**d. VAR TimeOut:** If any channels have VAR selected for start/stop, set the **TimeOut** to one of the four choices; 20, 40, 60 or 120 minutes. This setting will limit the maximum length of a recording for easier management of long conversations or for when recording from broadcast radio where pauses may not be long enough to separate individual recordings using VAR for start/stop. If a recording reaches the maximum length of time that you select for VAR TimeOut, that recording will end, and a new recording on that channel will begin. Click the **Write Hardware** button to confirm any changes.

**NOTE:** This setting is only for recordings using VAR (**Voice Activated Recording a/k/a audio or sound activated Recording**). It does not limit length of recordings when using voltage sensing for start/stop.

**e. Time and Date Setting:** Date and time are supplied by the clock in your PC. Check it for accuracy.

**f. Audio Recording Modes:** From this sub-button you can set the quality of recordings.

**Mode 0** --- Large file, good audio.

8bit linear PCM mode used in the 1<sup>st</sup> generation recorders.

**Mode 1** --- Tiny file, poor audio.

2bit ADPCM mode.

**Mode 2** --- Small file, good audio.

3bit ADPCM mode. Default mode set from factory.

**Mode 3** --- Large file, best audio. (Not recommended for most applications.)

8bit nonlinear PCM mode.

**g. Caller ID Detection Settings:** From this sub-button you can set (turn on/off) the Caller ID detection features.

**Pre-Ring DTMF Detection:** If the local Caller ID mode is DTMF and sent before the ring, you must turn this feature on. Otherwise, if erroneous caller numbers are sometimes received, you should turn this feature off.

**Pre-Ring FSK Detection:** If the local Caller ID mode is FSK and sent before the ring, you must turn this feature on. Otherwise, if erroneous caller numbers are sometimes received, you should turn this feature off.

**Forced FSK Between Rings:** The hardware/firmware is designed to detect FSK caller ID sent between rings. If there are difficulties with detecting correct caller ID numbers, you can turn this feature on to improve Caller ID detection.

**h. Notice for PC Settings:** Some of the settings must be locked into the **TeleCorder** hardware by restarting the recorder. If this is the case, you will see a message to restart the recorder hardware (unplug the USB cable from the **TeleCorder**, wait a minimum of 15 seconds, and re-connect). Any changes made that are stored in the **TeleCorder** should now be locked into the recorder's internal memory.

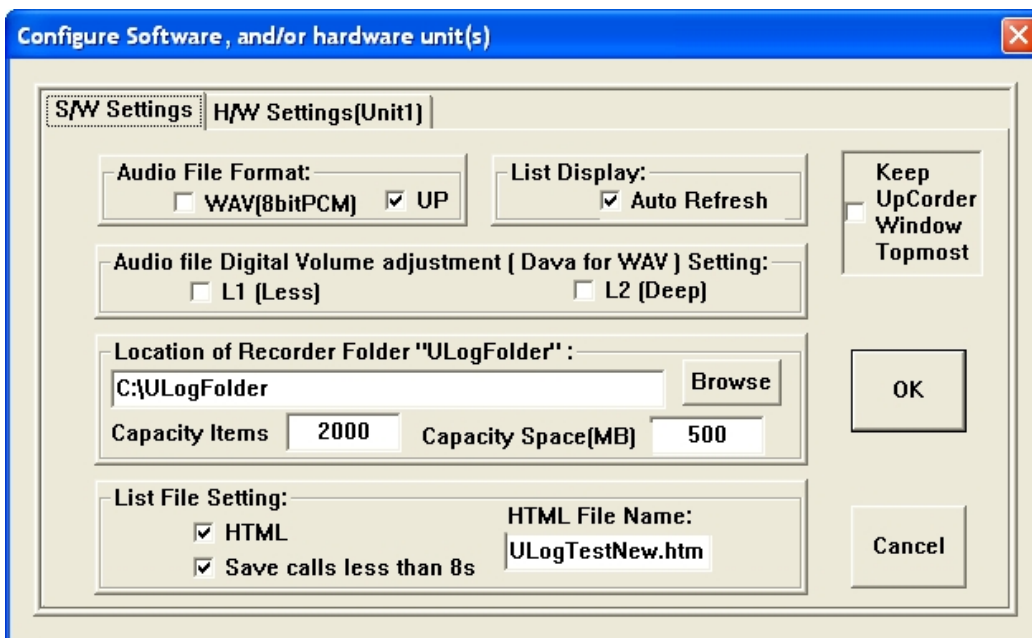
After the settings have been changed, check to make sure that the recorder is functioning as expected.

## 1. Notes

- a. Settings to the **TeleCorder** hardware should only be made when there are no active recordings. To avoid interruption of active recordings, it is recommended that you configure operating parameters while the recorder is idle. If channels are active when you need to make hardware setting changes, unplug the input cables and wait for all channels to stop recording prior to opening the **Configuration** screen and making changes to the settings that are stored in the **TeleCorder** hardware.
- b. The **TeleCorder** hardware listens for outgoing numbers dialed using DTMF/touch-tone signaling and stores them with the recording. It is possible for it to document and record false phone numbers, particularly in VAR mode when recording broadcast radio music where the audio can mimic sounds of dialing. To avoid collecting and recording these erroneous numbers, you can use the **Configuration** menu to disable the storing of dialed digit signaling.

## 4. Configuring Software Settings

Using your PC with the **UpCorder** program running, select **Configure** from the main screen. Click to open this screen.



a. **Audio File Format:** If you select the voice data file as **WAV[8bitPCM]** (.wav) format, the program will use your computer's default player for playback. This mode is not the recommended for storage usage and audio quality reasons. It is good for voice file compatibility, however, the amount of hard drive storage space required for each recording will be substantially larger than with **UP** selected.



If you select the **UP** (.up) format, you should further select one of the 4 sub-modes provided by the hardware referring to page 11 paragraph f. The application will use a specified **UpPlayer** for playback of the voice file saved in this mode.

b. **Auto Refresh Recording List:** If you select the **Auto Refresh** option by placing a check mark in the box as shown below, the **List of Recorded Calls** will be automatically updated every 25 seconds. If this box is not checked, you will need to click the **List Refresh** button on the **List of Recorded Calls** window for the list to show recordings stored after the list was last opened.

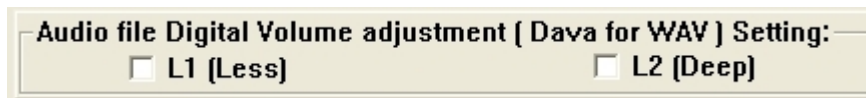




- c. **Keep UpCorder Window Topmost:** If you select this option, the **UpCorder** software window will remain on top of other program windows on the PC desktop. Uncheck this box and re-open the software to permit other software windows to be on top of the **UpCorder** software window.



- d. **DAVA Settings:** If the volume levels of the 2 sides of a conversation are different, or if the line quality is not well adjusted, the Digital Automatic Volume Adjustment (DAVA) function will amplify the lower or far side to more closely match the level of the stronger or near side of a recorded conversation. Since background noise will also be amplified together with the sound, there will be a compromise to permit weak voices to be played at higher levels without raising background noise levels to objectionable levels. To enable a small amount of DAVA during recording, select **L1 (Less)**. For a greater level of DAVA, select **L2 (Deep)**. This option is available only when you have selected to save **Audio File Format** as **WAV(8bitPCM)**.



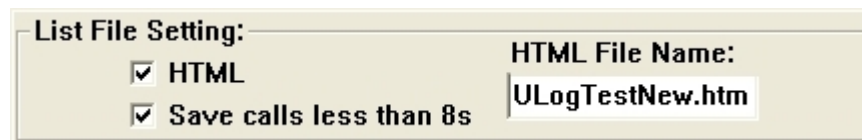
- e. **Location of PC Folder with Recordings — “ULogFolder”:** The **UpCorder** software must set a location on the computer’s hard drive for the **UpCorder** folder named **ULogFolder**. This is where the index files and voice files of recorded conversations will be stored. By default, it is set in the application program folder. You can change its location to a different location by clicking on the **Browse** button to locate another folder on the local PC hard drive that will be the location of the active ULogFolder. It is the user’s responsibility to make sure enough free space is available on the PC hard drive for the data files.



You can set the items capacity (number of recordings) as well as space capacity (number of MB allocated on the hard drive for storing recordings) for the application. To assist in knowing when to backup or change folder operations, the application **Port Activity Window** will display the ratio your recordings have reached in regard to your maximum settings. The default values are 2000 items and 500 MB. To minimize the chance of missing recordings, do not let the items or space capacities reach 100%. Allocate extra hard drive space, delete some calls, or select a new folder where new recordings will be saved.

- f. **List File Setting “HTML”:** In addition to the binary application index file, named “UpCorderLog.ULOG”, this selection will generate a HTML index file. This name is changeable. The default name for it is “ULogTestNew.htm”.

- Notice:**
1. This file is a must for log viewing so never set it to off (always leave this box checked).
  2. With any recordings already logged, don’t change the name of an existing location.
  3. To view the list of recorded calls in the ULogFolder, you can either open this file from the **UpCorder Configuration** menu or independently use your PC file manager. If opened using the **UpCorder Configuration** menu, new recordings will also be stored in the selected folder. If opened with file manager, it will not change where active recordings are stored. You will be able to play recordings and convert individual files to WAVE files, but will not have access to **UpCorder File Manager** functions such as Search, Batch Conversion, and Text Editing.



**g. Save Calls Less Than 8 Seconds:**  Save calls less than 8s

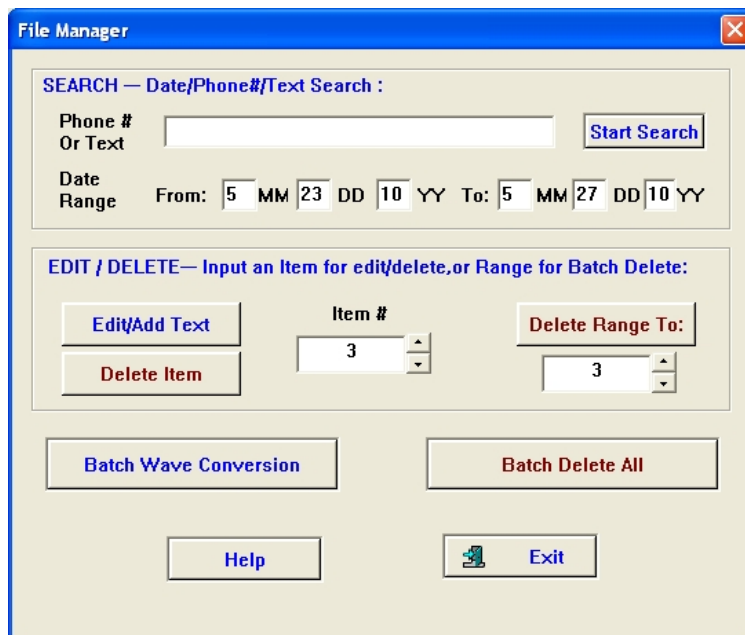
For outgoing phone calls, if there are fewer than three touch-tone digits or the recorded duration is less than 8 seconds, the recording will be considered as not being a valid conversation and be discarded. If you click on the **Save calls less than 8s** box and place a check mark in it, phone line recordings of less than 8 seconds will be stored as with longer calls. Click on this box again to remove the check mark if you do not want to save short phone line recordings.

## 5. File Manager

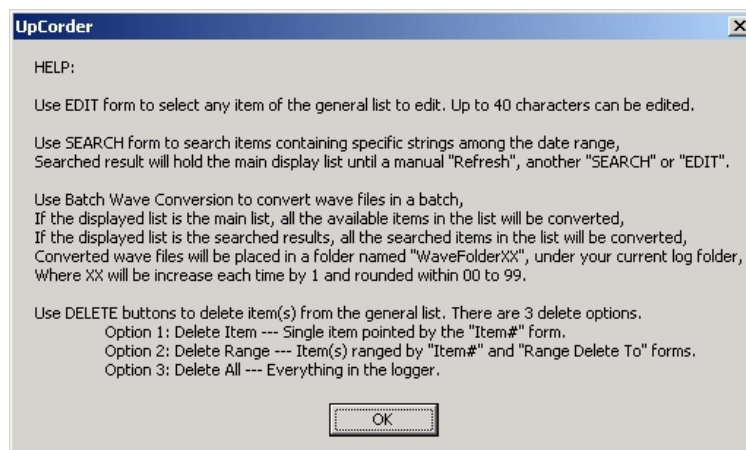
**a. File Manager:** Provides functions to edit or add text comments associated with each recording, search recordings in a folder, do batch conversions of .up files to .wav files, and delete recordings.

To bring up the **File Manager** menu from the **Port Activity** window, click on the **View Log** button to display the active **List of Recorded Calls** window. From the **List of Recorded Calls** menu, click the **File Manager** button.

Refer to the following image. You can only select one function at a time.



If you click the **Help** button, the following help window will pop up.

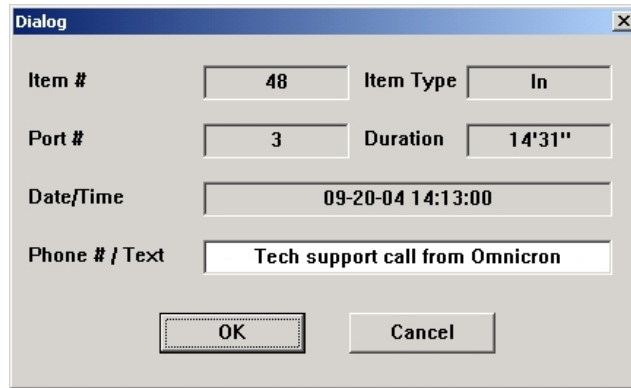


**b. Search:** Search is designed to search recorded items in the selected date range, with or without numbers or text string in the phone number/text field.

The software automatically enters today's date in both the **From:** and the **To:** fields. Edit the boxes for month (**MM**), day (**DD**) and year (**YY**) to match the criteria required for your search.

If you input a text/number string in the **Phone # or Edited Text** field, every item within the date range that includes this string in its **Phone # and/or edited Text** field will be retrieved from the list and if there are matches, be displayed in an updated **LIST OF RECORDED CALLS**. Otherwise, all the items within only the date range will be searched out and displayed. If no recordings in the list match your search criteria, you will receive a no file found response. A batch conversion to .wav files can be done on the found set of recordings. Search results will be retained in this window until the next manual **Refresh**.

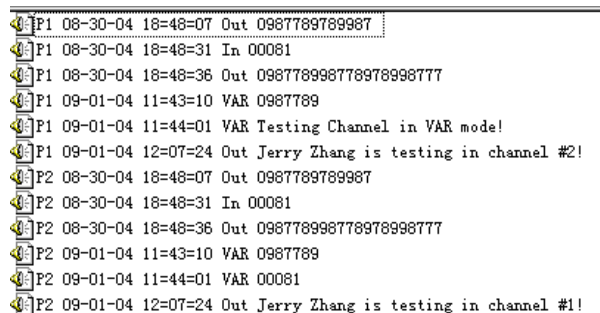
**c. Edit/Add Text:**



You can edit the text or add text to the contents of the **Phone # and/or Edited Text** field of any item in the general list. To edit the text displayed for a recording, use the up/down arrows to change the item number in the field or input the **Item Number** that you wish to edit in the **Item #** box, then click **Edit/Add Text**. A new window will show all of the information available for this recording — refer to the above picture. Note that all information about the recordings except the **Phone # / Text** field cannot be edited. Up to 40 alpha numeric characters can be entered into this field.

When you finish, click either **OK** or **Cancel** and you will return to the View Log window to check that the text has been satisfactorily modified. Confirm that the changes in the text field are correct. This function is not enabled in off-line mode or with a **View Log** window that is not the active folder where new recordings will be saved.

**d. Batch Conversion to WAVE Files:** You can use **Batch Wave Conversion** to convert multiple files in a batch to .wav format. All the items included in the **View Log** list (either general list or the searched result list) will be converted. Converted wave files will be placed in a folder named "WaveFolderXX" under your current log folder (XX will increase each time by 1 and be between 00 and 99). All of the information related to each recording will be duplicated in its long file name — refer to the following image.



**e. Delete One or All Files:** You can use the **Delete Item** button to delete a single recording listed in the **Item #** box, or the **Batch Delete All** button to delete all recordings. Deleted recordings cannot be recovered.



f. **Batch Delete a Range of Files:** You can use the **Delete Range To:** button to delete a selection of recordings between the number listed in the box below the **Delete Range To:** button and the number listed in the **Item #** box. Deleted recordings cannot be recovered.

The image shows a graphical user interface for deleting a range of files. It consists of two main sections. The first section is labeled 'Item #' and contains a text input box with the number '3' and a small vertical spinner control. The second section is labeled 'Delete Range To:' and also contains a text input box with the number '3' and a similar vertical spinner control.

## 6. Using Two, Three, or Four UC-02B or UC-04B with a Single PC

The software CD supplied with your UC-02B and UC-04B supports a maximum of four recorders and 16 channels on one PC. You should first install the software, then connect the first unit and test to confirm that it is functioning properly by following the instructions in this manual. After the first unit is connected and tested, repeat the process for any additional **UpCorder** units.

**Note:** Each UC-02B or UC-04B requires 150-170mA from the +5V USB connection. Standard USB ports are rated at 500mA per port. A maximum of three units should be connected to a single bus-powered USB hub. If connecting four units to your PC using a USB hub that supports 4 USB devices (not a self-powered hub, no AC power adapter), connect a maximum of three units to the non-powered USB hub, and the fourth unit directly to a USB port that is on the PC or on a self-powered USB hub.

**TeleCorders** have a **Device ID** that is stored in their internal memory and unique to each unit. This **Device ID** is an aid to keeping track of what sources of conversations are connected to which **TeleCorder** and will be displayed when you view the **Configure Software and/or Hardware** window and click on a particular unit.

Run the **UpCorder** program by clicking on the icon on your PC desktop that was created when the program was installed, or from the programs list. After launching the **UpCorder** software, the **Port Activity** window will be displayed showing four ports for each UC-02B or UC-04B connected to your PC. With two channel UC-02B units, you will see the four possible channels, however, only the first two channels for that unit will be active. The information displayed on the **Port Activity**, **View Log**, and **About** windows is similar to the single unit software (see manual *Section III. Using TeleCorder*).

The screenshot shows the 'UpCorder' software window. At the top, there is a title bar with the 'UpCorder' logo and standard window controls. Below the title bar is a grid of 16 port activity entries, arranged in four columns and four rows. Each entry shows the port number, status, and 'Dialled' information. Below the grid, there are two progress bars: 'Logged Items: 153 / 2000' and 'Logged Space: 40 / 500'. At the bottom, there is a 'Logging Location' field showing 'C:\UlogFolder\New Folder\UlogFolder' and four buttons: 'Configure', 'View Log', 'About', and 'Exit'.

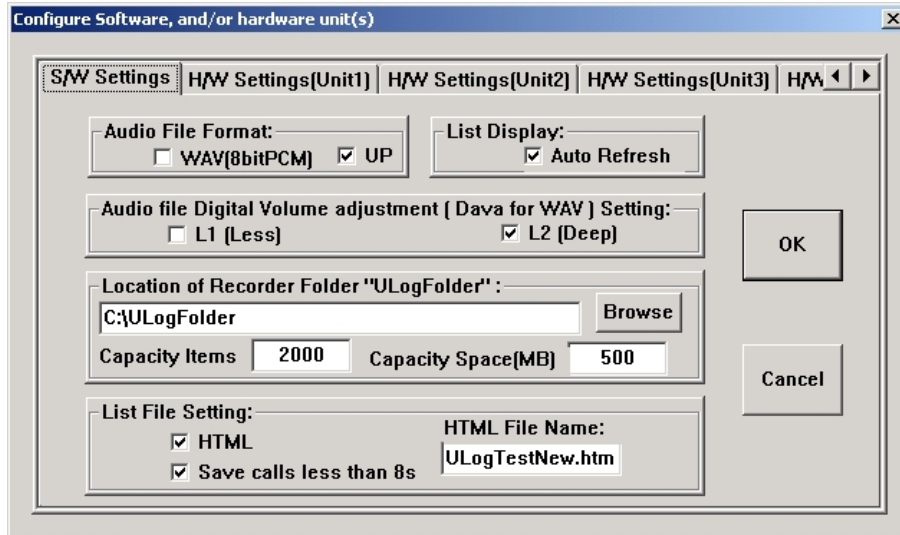
Port: 1 VAR Finished	Port: 2 VAR Finished	Port: 3 VAR Finished	Port: 4 VAR Finished
VAR Dialed:	VAR Dialed: 14012958711	VAR Dialed:	VAR Dialed:
Port: 5 IDLE	Port: 6 Callout Finished	Port: 7 Un-Answered	Port: 8 Un-Answered
	Dialed:		
Port: 9 Callout Finished	Port: 10 Un-Answered	Port: 11 Un-Answered	Port: 12 Answered
Dialed:	Dialed:	Dialed:	Caller #: 6035286780
Port: 13 VAR Finished	Port: 14 VAR Finished	Port: 15 VAR Finished	Port: 16 VAR Finished
VAR Dialed: 18005551212	VAR Dialed: 9280377	VAR Dialed: 1411	VAR Dialed: 1062023425

Logged Items: 153 / 2000      Logged Space: 40 / 500

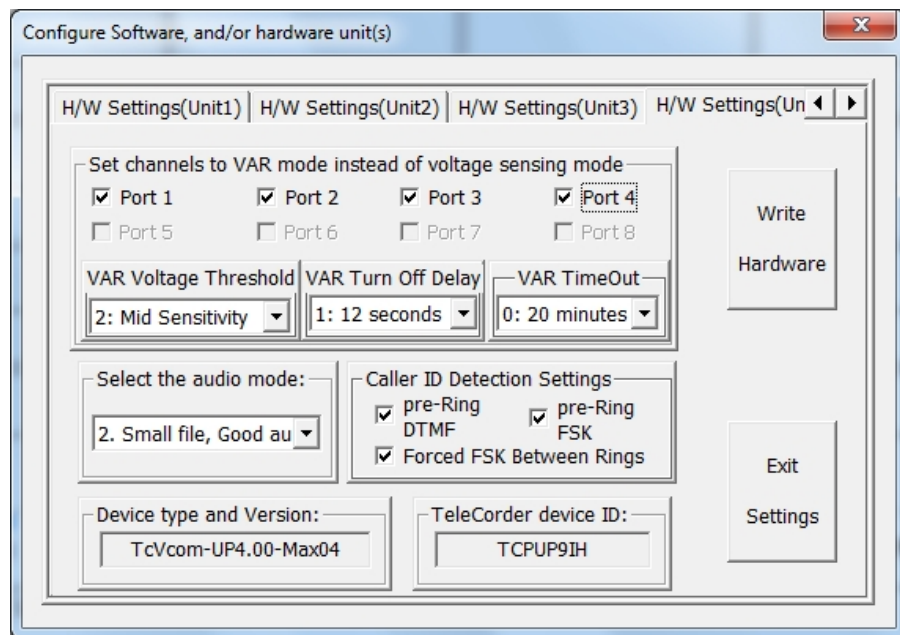
Logging Location: C:\UlogFolder\New Folder\UlogFolder

Buttons: Configure, View Log, About, Exit

From the **Port Activity** window you can click **Configure** to launch the **Recorder Settings** window for the multi-unit **UpCorder** software. Refer to the following screen image (with four UC connected).



The **Configure Software, and/or Hardware unit(s)** window is used to change the software settings that are stored in your computer. The hardware settings for each **TeleCorder** can also be individually configured from this window. To check or change hardware settings for Unit 1, click on the tab labeled **H/W Settings (Unit 1)**, (refer to the following screen image and **Section III. Using TeleCorder** in this manual). If more than one unit is connected to the PC, you will have a tab to check or change hardware settings for each **TeleCorder**. Image below is with the maximum of four UC recorders connected to one PC and with hardware settings (H/W) for Unit 4 selected.



After making any changes to hardware settings, click the Write Hardware button to confirm any changes, unplug the **TeleCorder** USB cable and re-connect, close software and re-load, check to confirm that the desired changes have been locked into **TeleCorder** hardware settings and that the **TeleCorder** is functioning as expected.

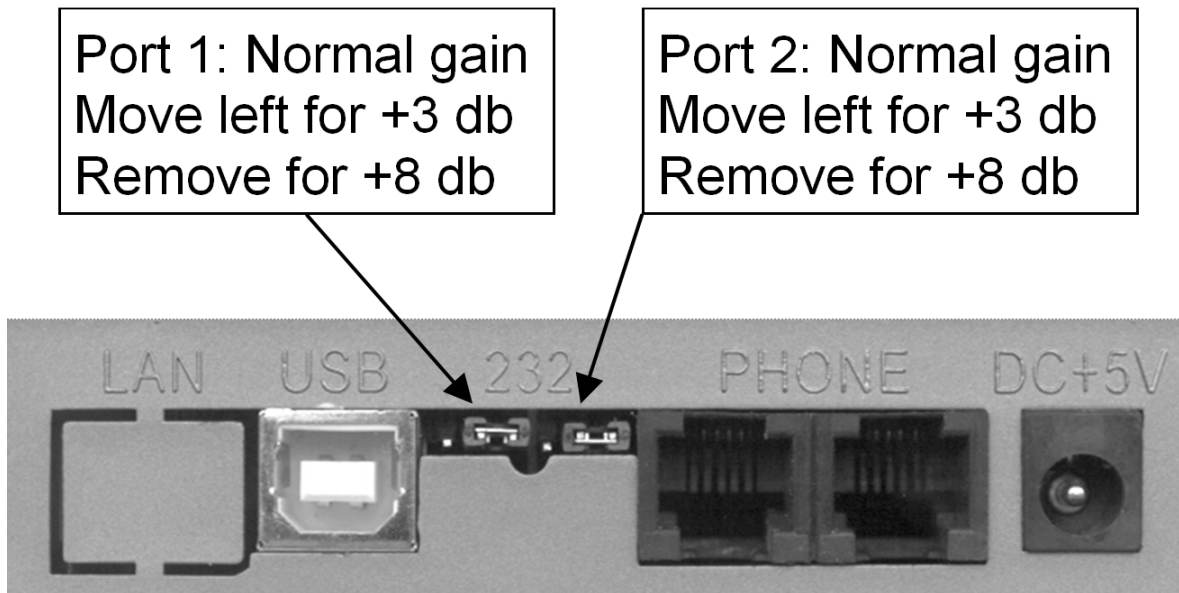
**Note:** USB hubs can be troublesome, especially when turning the computer power OFF and ON as well as when removing and re-installing USB devices. Always check for proper operation after making changes to **TeleCorder** hardware, and closing and opening **UpCorder** software.



## 7. Increasing Amplifier Gain with UC-02B

This feature is available only on UC-02B recorders with serial numbers greater than E-353250. It is not available with four channel UC-04B recorders.

If the audio you are recording is weak, and you wish to increase the gain of the amplifiers in your UC-02B, there are jumpers on the back of this recorder that can be changed.



## IV. Recording Privacy

When recording conversations, you must consider the privacy of all individuals that are part of the conversation. Some countries require notification of one or all participants in recorded conversations. Check your local and national legal obligations on this and other issues concerning the use of the **TeleCorder**.

In the United States, the Federal Government requires that at least one person that is a participant in a conversation knows that it is being recorded. Some states require all parties to be aware that a conversation is being recorded. Check local regulations.

The manufacturer and retailer accept no liability for the loss of data, the possible consequences thereof, or general misuse of recorders.

## V. Guarantee & Liability

Your **TeleCorder** has a 12-month limited manufacturer guarantee. The guarantee is effective only for normal use. It is not valid under exceptional environmental or operational conditions, such as extreme temperatures or humidity levels, nor in the event of a lightning strike or similar damage from excessive voltages on connections. The guarantee is not valid if it has not been handled properly, for example, if it has been damaged by dropping. Contact your supplier or the manufacturer. The guarantee does not cover costs of sending to or from the supplier or manufacturer, and does not cover any expenses resulting from the failure of the **TeleCorder**.

Correct functioning of the **TeleCorder** and **UpCorder** software cannot be guaranteed under all conditions. The **TeleCorder** supplier and manufacturer cannot and will not accept any liability for loss of information or other damages due to the use or misuse of the **TeleCorder**. Suppliers and the manufacturer are not a source of official interpretation of laws and shall not be construed as a source for making decisions.

## VI. Specifications (subject to change without notice)

Number of Channels: Two with UC-02B, four with UC-04B  
Capacity (hours): Limited by available hard drive capacity of client PC  
Digital Encoding: Voice quality good, A-law PCM mode (25% as specified, 28.80 MB/hour)  
Voice quality OK, G.726 2bit ADPCM mode (as specified, 7.20 MB/hour)  
Voice quality very good, G.726 3bit ADPCM mode, (75% as specified, 10.84 MB/hr.)  
Voice quality excellent, 8bit linear PCM mode (25% as specified, 28.80 MB/hour)  
Frequency Response: 340-3,400Hz, +/- 3db  
Sampling Rate: 8,000Hz  
Recording Trigger: Off-Hook (phone line voltage sensing for start/stop, <20vDC>) or VOX/VAR  
(audio activated for start/stop – 0.80Vpp, 0.40Vpp, 0.20Vpp, or 0.10Vpp)  
Line Impedance AC: >10k ohm  
Line Impedance DC: >10M ohm  
Ringer Equivalence: 0.6B  
Caller ID: FSK/DTMF  
Dialed Number: DTMF  
Internal Storage: None  
Size: 4-3/4" wide x 7-1/8" deep x 1-1/4" high, (not including cables)  
Weight: 13 oz., (not including cables)  
Power Requirements: Supplied by host PC via USB cable  
Approvals: FCC (TeleCorder Model B4, US:BCXRT06BB4)  
Guarantee: Twelve month, limited  
Manufactured by: Beijing ChangXing Co., Ltd., China  
Distributed in U.S.A. by: Omnicron Electronics, Putnam, CT U.S.A.

## VII. Notes:

1. Avoid shaking the **TeleCorder**, and keep it in an environment with moderate temperature and humidity that is suitable for electronic equipment. Do not expose to rain or moisture.

2. There are no user-serviceable parts inside of the **TeleCorder**. Refer servicing to qualified service personnel.

3. In the **UpCorder** software, there are settings that are stored in the software running on your PC (for example, ULogFolder location) and settings that are stored in hardware in the **TeleCorder** recorder (for example, the VAR settings). Settings that are recorded in the PC software are stored in the PC registry.

The ULogFolder is one of the software settings that are stored in the PC. Each time **UpCorder** software is opened, it will check for the last active ULogFolder. If it can find one, it will place new recordings into this folder. Otherwise, it will create a new ULogFolder in the location where your UpCorder software is installed. You can check or change the location of the active ULogFolder from the "Configure" window. You can also create a new ULogFolder from the Configuration menu.

If the active ULogFolder is empty, as it will be if you create a new folder, the "View Log" button will not display an empty log. As soon as new recordings are added to the log, you will see the list of recordings when "View Log" is selected.

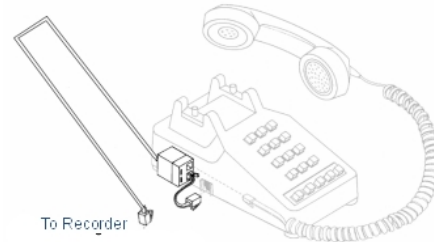
### USER NOTES:

## VIII. Recorder Accessories

**TeleCorders** come with cables that are suitable for installations where the audio sources are terminated with modular phone jacks. If the supplied cables are not appropriate for your installation, contact your **TeleCorder** representative for assistance in selecting accessory cables or adapters to match your application.

### TSA-3LM — Telephone Handset Supervisory Adapter

The TSA-3LM is the easiest, and most popular way to monitor conversations on individual telephones. It can be used to provide a simple method of connecting the recorder to the telephone handset or headset audio.



It can be used with most telephone styles that have a standard modular handset or headset jack (RJ-10, 4P4C). Simply connect one end of the cable in series with the telephone handset or headset cord and connect the other end to the recorder. The TSA-3LM has a twenty-five foot (25') output cable that can be extended with the T25-EXT or other suitable phone line extension cables.

### TSA-SLM — Telephone Handset Supervisory Adapter, with on/off switch

The TSA-SLM provides all of the functions and features of the TSA-3LM with the addition of an on/off switch that is used to disconnect the telephone audio from your recorder when you do not want your conversation recorded. The TSA-SLM has a 25' output cable that can be extended with the T25-EXT.



### TSB-15L — Boosts Weak Handset Audio for Recording

Handset audio levels from most phone sets is loud enough to be satisfactorily recorded with your **TeleCorder**. However, some phones may have weak audio that can be boosted by +15db by using the TSB-15L. Instead of connecting the handset audio directly to the recorder, connect it to the modular input jack on the TSB-15L, and connect its 10" output cable to the recorder's input jack. Audio levels are increased by a transformer. No external power is required.



### TSB-6 — Telephone Line Switch Box

Connects in series with the phone cable (RJ-11 single-line circuit) feeding your recorder. With its ON/OFF switch in the OFF position the output RJ-11 jack is disconnected from the input RJ-11 jack. The TSB-6 includes a six foot phone cable terminating in an RJ-11 plug.



### T-18 — Telephone Line Cable with "T" Adapter

This multi-purpose cable assembly can be used to connect between two RJ-11 (single line) or RJ-14 (two line) phone jacks. It is 18' long and comes with a "T" adapter. The "T" adapter is used when you do not have an extra jack for the cable connection. It will convert a single phone jack into two parallel jacks.



### T25-EXT — Twenty-Five Foot Phone Line Extension Cable

Provides a 25' extension for standard RJ-11 or RJ-14 phone cables with a modular plug on one end and a modular jack on the other. It is compatible with either single line RJ-11 or two line RJ-14 cables.



### **MOD-SC — Converts Modular Phone Plug to 3.5mm Mini-Plug**

The MOD-SC is used when you have a cable with a standard RJ-11 single-line telephone type plug that you need to connect to audio from equipment with 3.5mm mini-plug jack. It has an RJ-11 jack on one end and a 3.5mm monaural mini-plug on the other end.

The MOD-SC is typically used to connect modular telephone line cables used with audio recorders to the audio output of a radio receiver that uses a 3.5mm jack for speaker or line level audio output.



### **MTJ-S2 — Converts a 2-Line RJ-14 Modular Telephone Jack into Separate RJ-11 Single Line Jacks**

This adapter/cable assembly splits a 2-line RJ-14 circuit/jack into two RJ-11 jacks (Line-1 on left and Line-2 on right). It is typically used with the two line jacks on the **TeleCorder** and other Voice Logging Recorders that have two inputs on a single modular jack (RJ-14, 6P4C).



### **PZ-2LA — Pressure Zone Room Monitoring Microphone with Line Level Output**

The Omnicron PZ-2LA Microphones are Pressure Zone Microphones designed for meeting and conference recording. They look like a switch, not a microphone, so as not to draw attention.

Like other Pressure Zone Microphones, they use a miniature microphone capsule mounted near a sound reflecting plate. In this zone, direct sound from the source combines in phase at all frequencies with reflected sound. The benefits are many: 6 dB more sensitivity, 6 dB less noise, a wide smooth frequency response free of phase interference, excellent clarity, and consistent pickup anywhere around the microphone. A built-in amplifier provides a high level output. Power for the amplifier in the PZ-2LA is provided by an AC power adapter which is supplied with the PZ-2LA microphone. The PZ-2LA comes with a cable for connecting to the RJ-11 jack on the **TeleCorder** digital audio recorders. If the microphone is located more than 25' from your recorder, standard RJ-11 telephone extension cables can be used. One twenty-five foot (25') extension cable is supplied with each PZ-2LA.



## **IX. Contact Information for Support and Service**

Manufactured in China by: Beijing ChangXing., Co., Ltd., [www.telecorder.com](http://www.telecorder.com)

Distributed in USA by:  
**Omicron Electronics**  
**554 Liberty Highway Unit 2**  
**Putnam, CT 06260**

E-Mail: [support@omnicronelectronics.com](mailto:support@omnicronelectronics.com)  
Web: [www.omnicronelectronics.com](http://www.omnicronelectronics.com)  
Phone: (860) 928-0377  
Fax: (860) 928-6477

Revised January 08, 2015

# *TeleCorder*

Voice Logging Recorders are distributed in the U.S.A. by:



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[www.omnicronelectronics.com](http://www.omnicronelectronics.com)