

VUB-200/400 Voice Logger

User's Manual
First Edition

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VUB Logger

Cost Effective Voice Logging Recorder

The VUB Logger is a digital audio recorder that can simultaneously record and play from phone lines or other audio sources. Recording starts and stops automatically using either phone line voltage sensing or voice activation. The unit has an internal hard drive and can be connected to a PC's USB port. While the recorder can be used as a stand alone unit, most users find it easier to set up and use the VUB Logger with a PC (Win-98/2000/ME/XP) using the included USB cable and software.

I. Package Contents

Model Type	2 Channel VUB-200	4 Channel VUB-400
Supplied Accessories (phone cords & connectors)	2 RJ-11 cords and 2 Y-connector.	2 RJ-11 Cords and 2 Telephone boxes
Supplied Accessories (other)	USB cable, power adapter, CD with VUB Logger PC software (for Win98/ME/2000/XP), and this manual.	

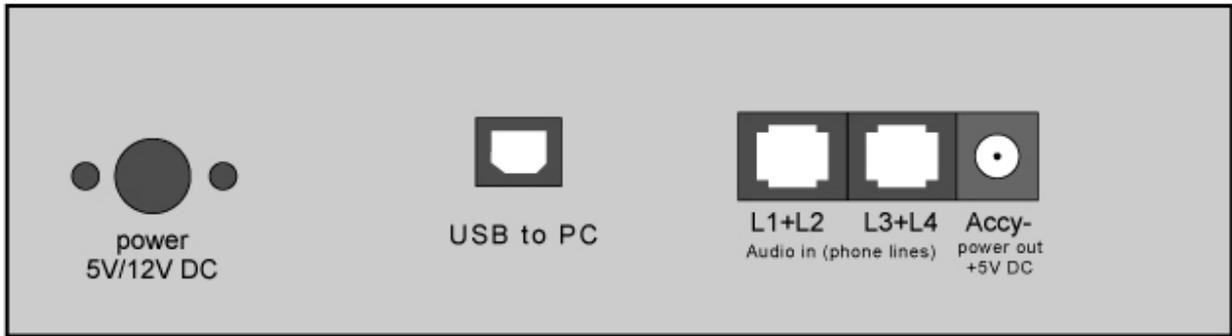
II. Cable Connections

1. Identify the front panel components and rear panel connections

Unpack and check the contents of the VUB Logger package. Locate the master password page and keep it in a secure place.



VUB Logger front view, showing speaker, LCD display and keypad.



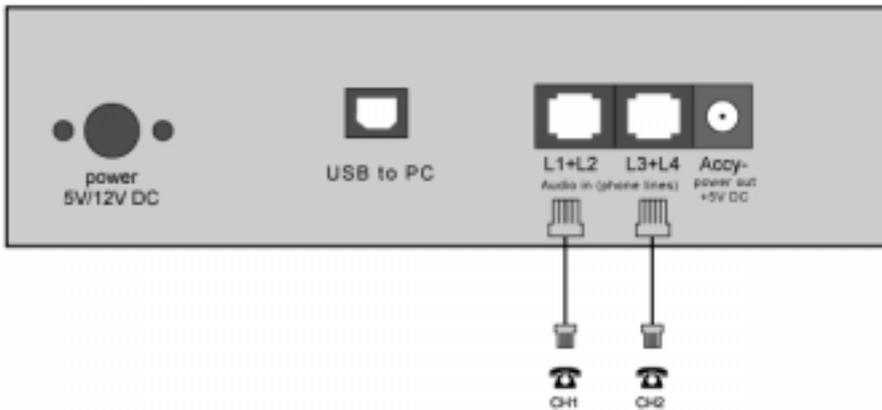
VUB Logger rear view, showing USB jack, two modular phone jacks, +5V DC jack to power accessories, and DIN connector for the supplied AC power adapter.

2. Connecting to Phone Lines and other Audio Sources

VUB Logger 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 etc).

2.1 Connecting audio sources to the 2 channel VUB-200

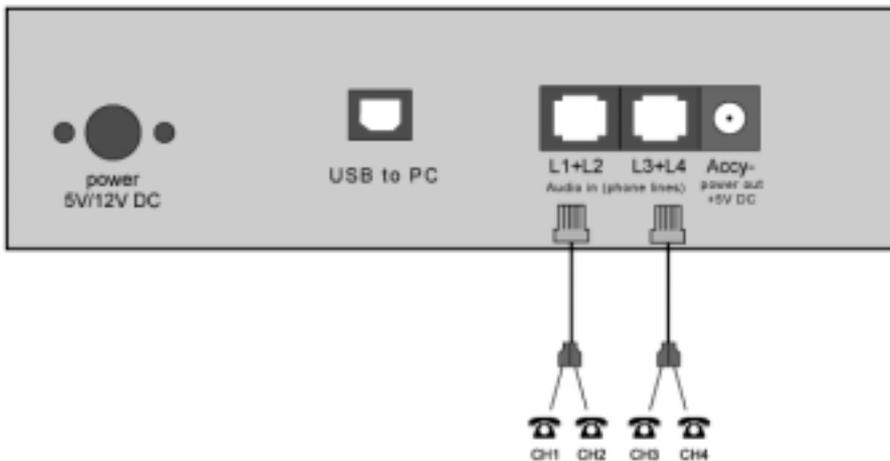
The VUB Logger connects in parallel to your audio sources. There are two modular phone jacks on the back of the VUB-200. Each jack is wired for connection to one of the two channels using the center pair of contacts (as with standard RJ-11 phone jacks). When looking at the back panel, the jack on the left is for channel one (also called “Port 1”), and the jack on the right is for channel two (also called “Port 2”).



2.2 Connecting audio sources to the 4 channel VUB-400.

Each modular phone jack on the back of the VUB-400 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.



3. Power Connection

Power connection should be made after connecting telephone cables to the audio sources that you will be recording. Since the VUB Logger is designed to be in service 100% of the time, there is no power on/off switch. To turn it off, unplug the power. To turn it on, plug it in.

4. Preliminary Testing

Normal Operation: After the above connections are completed, check the displayed status on the LCD.

- Text will be displayed on the LCD display a few seconds after external power is applied.
- With no activity on any of the VUB Logger inputs, the display will show VUB Logger, date and time. When inputs are active, the top line of the display will show: Recording and which inputs are active. By default, channels are set to Voice Activated Recording (VAR). If any VUB Logger inputs are connected to standard phone lines, these channels could be triggered by noise on the phone lines between calls. Use either the supplied PC software, or front panel buttons, to set phone line channels for voltage sensing start/stop.

5. Installing Software and Connection to a PC (Win98/2000/ME/XP)

Install VUB Logger 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.

- a. Insert the CD into the 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 “VUB Logger.exe” file. Follow on screen instructions. If your PC is running WinXP, you may be asked for Microsoft signature. Select continue until installation is finished. The VUB Logger 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 VUB Logger. If you try to run the VUB Logger program without a VUB Logger connected to your PC via the USB connection cable, or if the VUB Logger power is off, the software will not run. You will see “ERROR: No VUB Logger device connected!”.



- b. If your VUB Logger is not already powered on, connect it to AC power and wait for it to display time and date. Since the VUB Logger is normally left on at all times, there is no power On/Off switch. To turn it off, unplug the power cord. Connect the supplied USB cable from the USB port on the back of the VUB Logger to a USB port on your computer. The first time you connect the VUB Logger to your computer, your PC should display “New Hardware Found” message, search for and install the required driver software (FTDIFT8U2XX.dll), if the software was previously installed .
- c. If connecting a VUB Logger to your PC that was previously used with a different VUB Logger, you may receive a pop-up message telling you that it has “Found New Hardware, FTDIFT8U3XX device, installing — Files Needed”, type the path to the folder where the driver was previously installed (such as: C:\Program Files\VUB Logger), or the path to the drivers folder on the CD supplied with your VUB Logger (such as: E:\Drivers, where E is the CD drive on your PC containing the VUB Logger CD).
- d. Run the VUB Logger 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 (below) for detailed information.

III. Using VUB Logger

1. Recording Process

When connected to standard telephone lines, the VUB Logger will 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 key-pad, or Hardware screen using a PC).

- a. 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.
- b. 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.
- c. 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).

1-1 Setting for Phone Line or Voice Activated Recording (VAR)

When you first connect a new VUB Logger, 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 in this mode.

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

1-2 VAR Settings

Recorder channels set for the VAR mode will detect the voice level on the line 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".

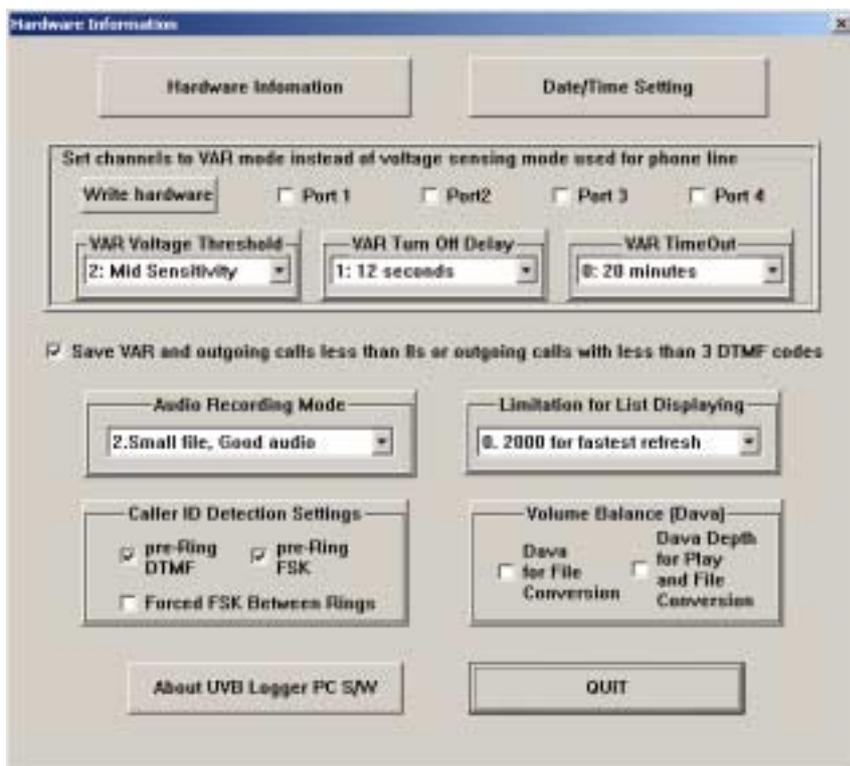
	Phone Line Recording	Voice Activated Recording (VAR)
Requirement to Start	Phone Line DC voltage lower than the threshold (<20v DC)	Audio level on input is loud enough or louder than preset threshold required to start recording
Requirement to Stop	Phone Line DC voltage higher than the threshold (>20v DC)	Audio level is lower than preset level required to continue recording for the selected turn-off-delay
Suggested Uses	Recording from standard Analog phone lines	1 · Radio recording, broadcast or two-way <input type="checkbox"/> 2 · Amplified microphone 3 · Audio picked up from handset or headset of analog or digital telephone set (single or multi-line phone) 4 · Analog phone line recording where DC voltage sensing cannot be used
Parameters	1. DC Voltage Threshold: (This threshold is preset in the VUB Logger through hardware components and cannot be changed via software).	1 · VAR or Off-Hook Mode for each channel 2 · Threshold in 4 levels 3 · Turn-off-delay/VARspace:(4, 12, 32, or 100 seconds) 4 · VAR Time-Out to limit long recordings and start a new recording: (20, 40, 60, or 120 minutes)

2. Setting Channels for Operation in VAR Mode

You can use either your PC or the keypad built into the VUB Logger to select Phone Line recording or VAR mode, and to change and confirm these and other operating parameters.

2-1 Configuring VUB Logger using a PC

Using your PC with the VUB Logger program running, select Hardware from the main screen. You will open the Hardware Information screen as shown here. From this button you will gain information about the VUB Logger including version number, capacity, media's usage, recorded call items, deleted call items, etc.



- A. Channel/Port Setup:** Each channel (Port) in the recorder can be set to start and stop recording using either audio activation (VAR) 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. 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 VUB-200, disregard Port 3 and Port 4 settings.
- B. VAR Voltage Threshold:** Set the threshold level to match the audio level on your audio source. L0: Extra Sensitive, suitable for weak audio sources with low background noise level: (for example, with weak earphone or line-out recording). L1: High Sensitivity, suitable for normal line level audio sources with low background noise levels: (normal phone handset earpiece audio or weak speaker of radio). L2: 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 nonstandard voltages or with normal speaker audio from a radio). L3: 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 quit the program and try again. You may also need to un-plug and re-connect the VUB Logger power or USB cable to successfully change the VUB Logger operating parameters.

- C. Turn-Off-Delay Time (VAR Space Time):** 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.
- D. 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 Time Out, that recording will end, and a new recording on that channel will begin. Click the **Write Hardware** button to confirm any changes.

E. Save VAR and Outgoing Calls Less than 8s or Outgoing Calls with Less than 3 DTMF Codes:

Click on this option to place a check mark in its box if you want to save recordings that are less than 8 seconds long. If this box is not checked, VAR recordings shorter than 8 seconds, and outgoing telephone calls (using voltage sensing for start/stop) with less than 3 DTMF digits, will not be saved.

This setting is normally used if external noise causes frequent and unwanted false audio activated recordings, or if telephone line testing produces short off-hook conditions that are not associated with actual phone line usage. It is normal to record all activity on the monitored circuits. Use care when setting to delete short recordings. This setting can only be changed from the PC. It cannot be changed from the units keypad

F. Hardware Information: Click on this box to show information about your VUB Logger: hardware version, model type, number of calls recorded, number of calls deleted, total length of all recordings in its memory (in hours, minutes and seconds), total length of deleted recordings, and percentage of storage space used.

G. Date/Time Setting: Click on this box to copy the date/time setting from your PC to the VUB Logger.

H. Audio Recording Mode: From this sub-button you can set the quality of recordings.

Mode 0 : Large file, good audio. 8bit linear PCM mode used in the 1st 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. 8bit nonlinear PCM mode.

I. Limitation for List Displaying: From this sub-button you can set the list display features to speed up the list refresh process or to have more items displayed in the lists of recordings shown on your PC in the main VUB Logger program screen. The default setting is 2000 for fastest speed. You can select a different number, such as 10000, 32768 or 65536, respectively. This selection is saved in software, not as a hardware setting.

J. 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: If your caller ID signaling is FSK and sent between the rings, you must turn this feature on. This is the normal setting for North America.

K. Volume Balance Setting (Dava): For recorded audio in the recording mode 1, 2, or 3 (see above) the player can provide Dava --- **D**igital **A**utomatic **V**olume **A**djustment capabilities. This is done in software, not hardware. There are 2 possible settings.

Dava for File Conversion: This setting is normally used to enable Dava converting batches of files to wave files.

Dava Depth for Play and File Conversion: This setting can provide better audio quality but less balance in audio levels. This switch will take effect both for playback of recordings and for batch file converting of recordings to wave files.

L. Dava: 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 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.

M. Notice for PC settings: Some of the above settings must be locked into the VUB Logger hardware by restarting the recorder. If this is the case, you will see a message to restart the recorder (unplug power from VUB Logger, wait 10 seconds, and re-connect to power). After any of the above settings are changed, they will not take effect until the recorder is restarted by turning off or disconnecting AC power to the VUB Logger, waiting a minimum of ten seconds, and powering the VUB Logger back on. Any changes made in software should now be locked into the recorder's internal memory. After the settings have been changed, check to make sure the recorder is functioning as expected.

2-2 Setting up your VUB Logger using the built-in HandyPlayer

See section 3.2 for more detailed descriptions of HandyPlayer buttons and operation.

Using the **0** Setup key on the HandyPlayer, enter into the setup mode. When in the setup mode, parameters to change will be underlined. Use the **4** or **5** keys to change which character is highlighted and the **2** and **8** key to change the value of the highlighted character. Use the bottom right key to quit or the bottom left key to save changes.

A. There are 4 setup modes provided on the HandyPlayer.

The setup items on the HandyPlayer are listed as follows:

- a. Date/Time/Recording Mode
- b. Password
- c. Language for display
- d. VAR Channels (two with model VUB-200, four with VUB-400) The channels are listed from 1 to 4 (P1, P2, P3 and P4) as “xxxx”, 1 for VAR, 0 for non-VAR
- e. VAR Threshold
- f. VAR Delay Time
- g. VAR TimeOut

Set individual VAR options as required to match the required recording parameters.

B. Notes

- a. To avoid interruption of active recordings, you should only set the above items while the recorder is idle. Wait until no channels are active or unplug inputs prior to changing settings.
- b. The above settings must be locked into the VUB Logger hardware by restarting the recorder. After any of the above settings are changed, they will not take effect until the recorder is restarted by turning off or disconnecting AC power to the VUB Logger, waiting a minimum of ten seconds, and powering the VUB Logger back on. Any changes made in software should now be locked into the recorder’s internal memory.
- c. After the settings have been changed, check to make sure that the recorder is functioning as expected.
- d. The recorder 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 when the recorder is in the VAR mode (particularly 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 PC interface to disable storing of dialed digit signaling.

2-3 Removal of VUB Logger

Follow the installation procedure outlined above in reverse order.

3. Managing and Playing the Recordings

3-1 Managing and Playing Recordings with a PC

The VUB Logger does not require a PC for setup, recording or playing back recorded conversations. However, you may find it more convenient to operate it from a PC. With a PC you will also be able to convert recordings to standard wave files and archive them to storage on your PC. Playing selected recordings from a PC will not inhibit recording or simultaneous playback of recordings from the VUB Logger using its built-in HandyPlayer.

The PC does not have to be On or connected to the VUB Logger for it to function. Connecting the VUB Logger USB cable to your PC and/or turning the PC power on or off will not stop the recorder from functioning. You can also disconnect the VUB Logger USB cable from a PC and connect it to a different PC without interrupting the VUB Logger operation.

a. Connection:

Connect the VUB Logger to the USB port in your PC using the provided USB cable. The PC used for managing/playing must be equipped with an available USB port, sound card as well as speakers, and use Windows® operating system 98SE/ME/2000/NT/XP.

b. Using the Utility Software:

You must install the supplied utility VUB Logger Manager/Player software from the provided disk to your computer prior to being able to manage the recorder from the PC or playing recordings through PC control (see manual page 6, Section 5, Installing Software and Connecting to a PC). The first time that you connect your PC to your VUB Logger, you may be asked to install the USB device driver. This driver should have been copied to your PC during install. If not, use the CD supplied with your VUB Logger to install the required USB driver following the instructions displayed on your computer.

After installing the software, place a short cut icon on the desktop for easy access (if it was not automatically installed during install). Click the software icon or the short cut created during the install and the recordings will be listed in the main window (as shown in the following screen image). The listed information includes the ITEM or sequential recording number, the PORT that was the source of the recording, CALLER ID NUMBER or DIALED NUMBER (if available when the recording was made), DATE and TIME the recording started, and the DURATION of each recording in minutes and seconds. all records are listed in the reverse order so that the most recent recording is indexed as item number 1.

You can drag the slider bar on the right side of the display window to view the un-displayed part of the list. On the lower part of the form, there are buttons for Refresh, Re-Order, Find, Files, Hardware, Lock/Unlock, and Exit.

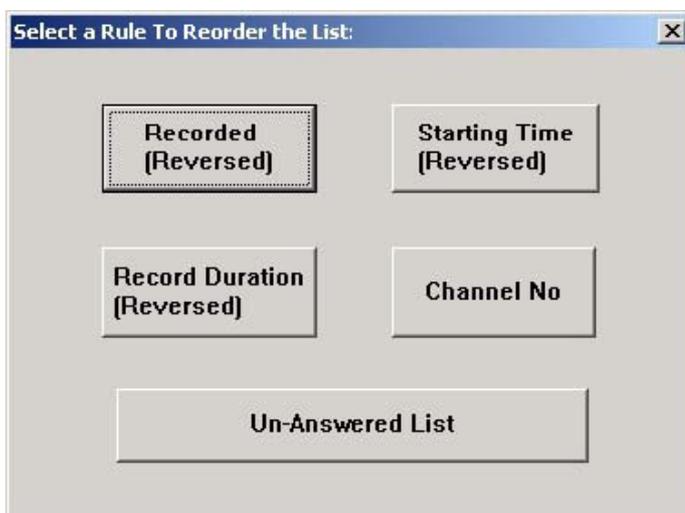
ITEM	PORT	CALLER #	DIALED #	DATE / TIME	DURATION
175	1			03-29-05 17:25:04	2"
176	1	02547413		03-29-05 17:22:00	1'53"
177	1		00225	03-29-05 17:21:49	5"
178	1		025474135	03-29-05 17:21:39	9"
179	1		0117	03-29-05 17:20:27	20"
180	1		0	03-29-05 17:09:55	3"
181	1			03-29-05 16:48:55	2"
182	1		0168	03-29-05 16:33:01	35"
183	1		0117	03-29-05 16:28:01	12"
184	1		0167	03-29-05 16:22:55	13"
185	1		0168	03-29-05 16:08:36	24"
186	1		0117	03-29-05 16:05:51	32"
187	1		0168	03-29-05 16:04:33	16"
188	1		0168	03-29-05 15:55:02	1'03"
189	1		01664	03-29-05 15:51:26	37"
190	1		88034244059112	03-29-05 15:23:59	29'18"
191	1		0269613089	03-29-05 15:20:15	2'03"
192	1		0236130007620	03-29-05 14:47:37	3'50"
193	1		0075574455707	03-29-05 14:34:48	2'07"
194	1		0168	03-29-05 13:54:23	35"
195	1	213		03-29-05 12:00:00	6"
196	1		0282636771	03-29-05 11:11:47	1'17"
197	1		109	03-29-05 09:31:45	5'44"
198	1			03-29-05 09:31:45	1"

STATUS: Directory data processed.
 VUB Logger HW Version:4.15_460

Buttons: Refresh, Re-Order, Find, Files, Hardware, Lock, Unlock, Exit

These buttons provide the following functions:

- c. **Refresh:** Refresh the list to display the latest recordings in the VUB Logger at any time.
- d. **Re-Order:** User can select one of the following ordering rules to re-order the list.
 1. Recorded – provides a list based on the time recordings ended.
 2. Starting Time – provides a list based on the time recordings started.
 3. Record Duration – provides a list based on the length of recordings.
 4. Channel Number – provides a list based on the channel number.
 5. Un-Answered List – provides a list of calls on phone lines that were not answered.
 (Un-Answered Listing is not supported with VUB-200 & VUB-400)

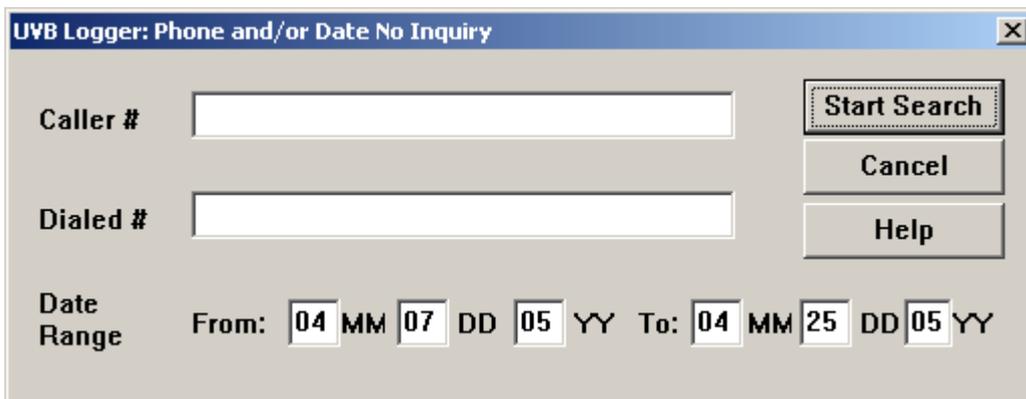


- e. **Find:** You can search the records using a specific caller number or dialed number and/or within a date range that you input.

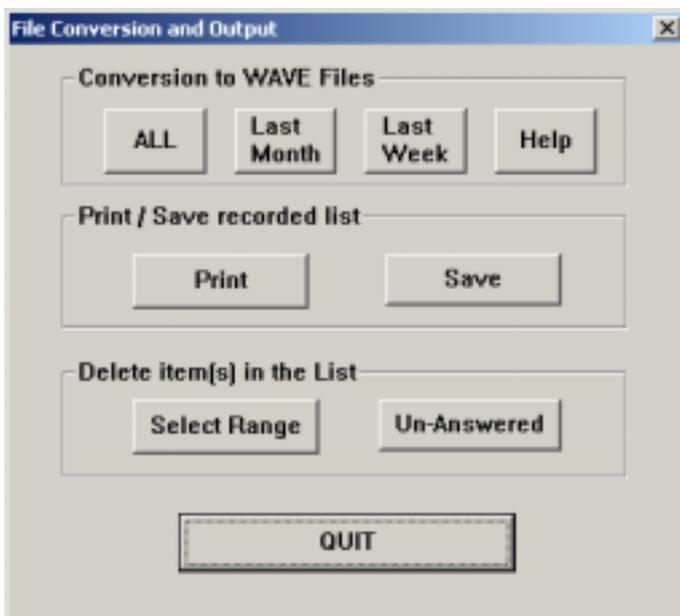
In the dialogue box, you can enter search conditions such as date range, digits from a phone number such as 010, 6256 etc. The searched results will display on the screen after you select “Start Search”.

You may also enter only a start and stop date range and all of the recorded items during the date range will be displayed.

The recorded items after a search can be played or used for further searching and for making Wave files in a batch job. Refer to the File Copy for more details.



- f. **Files:** This button provides the following functions for the displayed files.



- g. **Conversion of recordings to WAVE files and saving to PC**

Wave Files are a widely used and supported multimedia File Format for the PC and other computer systems. Since the VUB Logger uses a unique format for saving the recordings in digital form, digitally converting them is a better way to exchange information with other systems that do not have VUB Logger software. You can use your PC to send audio recordings

via e-mails or make backup CDs without worrying that others may not be able to play them.

There is an option to save individual recordings when they are selected for playback (select the button with red dot from playback menu).

There are 3 choices:

- All ---- Copy all of the records listed in the form, including both the ones displayed and the ones not displayed. This button would be used to copy all recordings retrieved by a search.
- Last Month ---- The software will search again from all of the records in the VUB Logger within the 1st and 31st of last month, then perform a batch job to generate the wave files. This function is specially designed for users to make monthly backups.
- *Last Week ---- The software will search again from all of the records in the VUB Logger within the last week, and then it will do a batch job to generate the wave files.*
- *Help ---- Produces a window with more detailed information about converting to wave files.*

All the generated files will be placed under the file folder of Wave Folder 00-99 using the present path.

The last two numbers in the folder name will be produced automatically by the software. You can also browse the files within all the Wave Folder XX folders. The newest folder would be named with the highest number.

Each file refers to a unique record. The name of each file contains date and time of the call, caller or dialed number such as File **P2 10-26-04 09=11=10 DIAL TO 18609280377.WAV** (recording made on VUB Logger Port 2 on October 26th, 2004 at 09:11:10, call was outgoing and dialed to 1-860-928-0377) . The files are suffixed with “.Wav”. You can change the file names as required, but you should not change the suffix unless there are special requirements.

h. Print and Save the List of Records:

The displayed list on the screen can be printed or saved into a “.txt” file. No matter how the call list is re-ordered, the searched and sorted list can be printed.

i. Delete Recordings:

The recorded calls can be selectively or entirely deleted. To avoid unauthorized deletion, the password must be entered before deleting recordings. If no password has been set, you will need the master password that was supplied with your VUB Logger. Options are to delete the most recent recording, all recordings, or a selected range of recordings. Deleted recordings cannot be recovered.

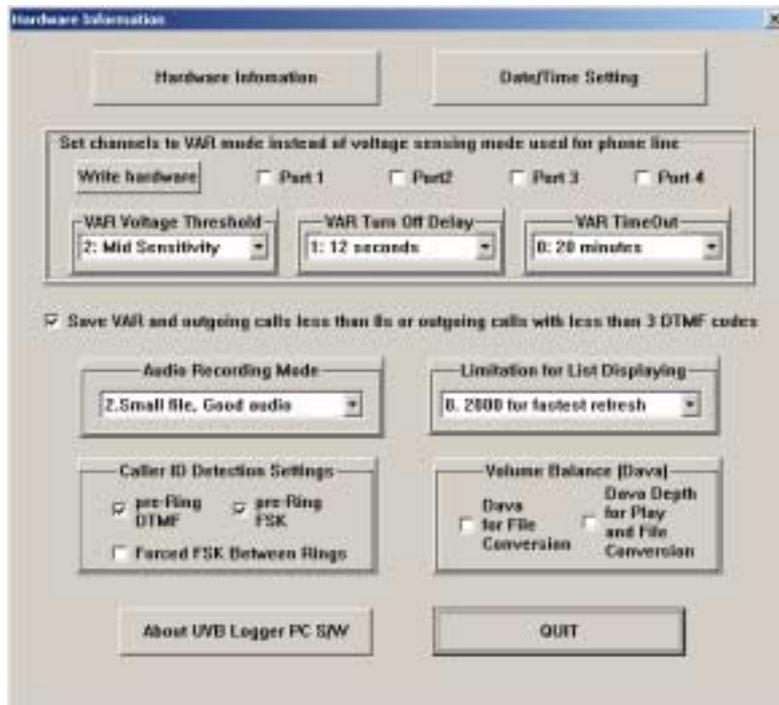
j. Hardware: From this button you can access all of the recorder’s hardware and information settings:

k. Hardware Information:

From this sub-button you will gain information about the VUB Logger including version number, capacity, media’s usage, recorded call items, deleted call items, etc.

l. Date/Time Setting: From this sub-button you can read and set the real time clock in the recorder.

m. Recording Mode: From this sub-button you can read or set the quality of recordings.



- Mode 0 --- Large file, Good audio. 8bit linear PCM mode, 28.8 MB/hour
- Mode 1 --- Tiny file, Poor audio. 2bit ADPCM mode, 7.20 MB/hour
- Mode 2 --- Small file, Good audio. 3bit ADPCM mode. Default mode set from factory, 10.84 MB/hour
- Mode 3 --- Large file, Best audio. 8bit nonlinear PCM mode, 28.8 MB/hour

n. Limitation for List Displaying:

From this sub-button you can select the number of recordings that will be listed on the PC. To speed up the list refresh process, the default setting is 2000. This setting will cause your PC to display the most recent 2000 recordings after a refresh. You can select a different number, such as 10000, 32768 or 65536. this selection is saved in software, not as a hardware setting.

o. 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. Other wise, 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: If your caller ID signaling is FSK and sent between the rings, you must turn this feature on.

p. Volume Balance Setting (Dava):

For recorded audio in the recording mode 1, 2, or 3 (see above), the player can provide Dava --- Digital Automatic Volume Adjustment capabilities. This is done in software, not hardware. There are 2 possible settings.

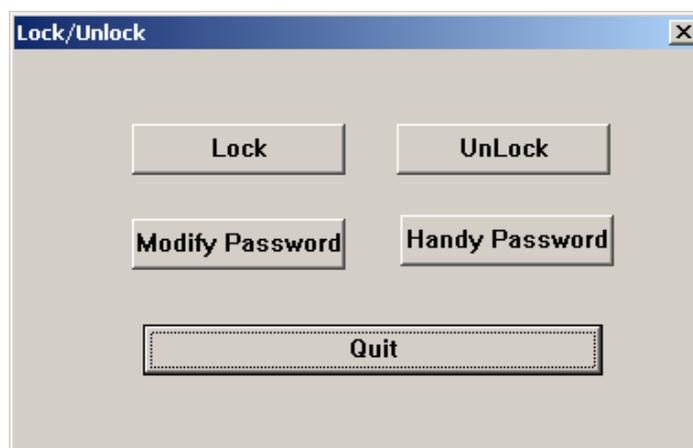
Dava for File Conversion:

This setting is normally used to enable Dava when converting batches of files to wave files.

Dava Depth for Play and File Conversion:

This setting can provide better audio quality but less balance in audio levels. This switch will take effect both for playback of recordings and for batch file converting of recordings to wave files.

Dava --- 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 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.



q. Lock/Unlock: This button provides access to security settings for the recorder.
Lock: After the recorder is locked, it will ask the user to input a password each time a user tries to access the recorder. A password must be entered to use this function.

Unlock: To unlock the recorder so that a password is not needed, the password must be entered

r. Modify Password:

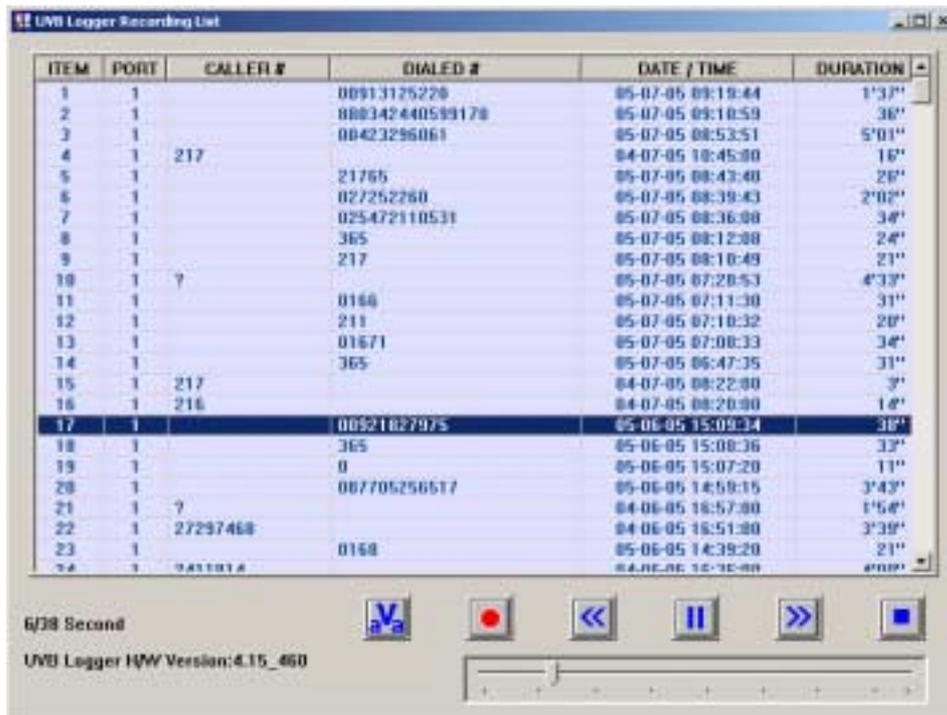
The recorder comes with a factory-set password, which is in the machine code that is set by its hardware and cannot be changed. This password is written on a sheet that comes with the recorder and will be an effective password forever (keep this password in a secure place). The VUB Logger also allows you to set a second password that can be easier to remember. Use the Modify Password button to set a second password of 6-8 characters. You must enter the factory-set password prior to being given the opportunity to add a second password. After the second password has been set, it will have the same effect as the first password. The new password is also stored in the hardware of the recorder so that it will work even if the recorder is connected to, and used with, another PC. Use Unlock to disable 2nd password.

s. Built-in Keypad Password:

The built-in keypad uses a 4 digit password that is stored in the recorder hardware. Although this password can be modified using the keypad, this button provides a second way to set the keypad password. Set it to “0000” and you will no longer be asked for a password.

t. Play Recordings from List:

When playing recordings, buttons in the lower part of the screen will be swapped to a new set of buttons that are used to control various playback functions, as shown in the following image. The playback will start immediately. If it is a long recording, the playback function buttons will not show until the recording has been completely transferred from VUB Logger to the PC.



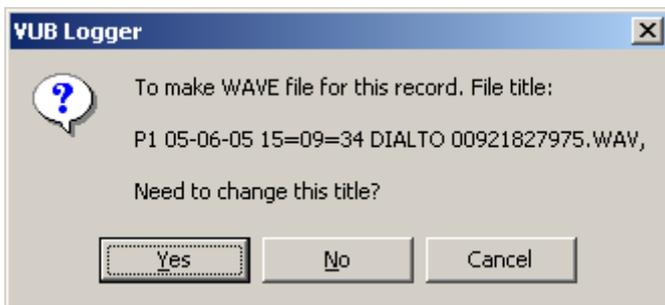
The functions of these buttons are:

Dava:

Click the “aVa” button and the recorded audio will be processed and played from the beginning with Automatic Volume Adjustment. You may also drag the horizontal slider bar to move the playback start point.

Save as Wave File:

Click the button with a red dot to save the selected recording to your PC. The following image shows 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, date and time of the call, and caller ID or dialed numbers. There will be an option to rename the file when converting to a wave file.



Rewind:

Click the button with the arrows pointing to the left to jump backward in playing time.

Pause/Play:

Click the button with two vertical lines to pause playback. Click again to resume.

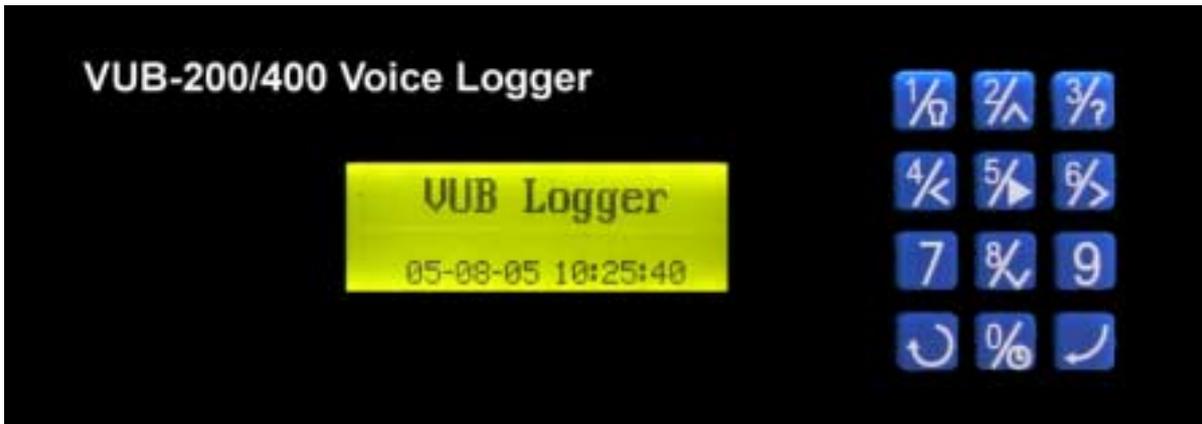
Fast Forward:

Click the button with arrows pointing to the right to jump forward in playing time.

Stop:

Click the button with square box to end playback.

3-2 Playing Recordings Using the Built-in Keypad



Numbers on the keypad buttons are for entering a password. The keypad buttons are also used for setting up most VUB Logger operating parameters, selecting recordings to play, controlling playback, turning display backlight On/Off, adjusting internal speaker volume (two levels), and displaying the help menu. You can listen to the recordings by using either the small speaker that is built into your VUB Logger, or, by connecting an external speaker or headset to the 3.5mm monaural mini-jack that is located on its left side of the recorder near its built-in speaker. Browsing and playback using the built-in keypad is limited to the most recent 2000 recordings.

HandyPlayer keypad buttons provide the following functions:	
	Turn the LCD backlight On and Off
	Jump down 3 in list of recordings when browsing, advance selected item in set-up
	Help menu On/Off
	Down 1 when browsing the recordings, backward when playing or programming
	Play a selected recording, pause when playing
	Up 1 when browsing the list of recordings, forward when playing or programming
	View list of recordings
	Jump up 3 in list of recordings when browsing, decrease selected item in set-up
	View list of recordings
	Stop playing recordings, return to startup screen
	Volume adjustment (two levels) when playing, enter setup when not playing
	Stop playback, accept when setting or entering password

3-2-1 Description of the displayed symbols

Top line shows the index number, date, time, and length of recording in seconds.

00002 01-15 00:14 0086

Middle line shows the current selection including any caller ID or touchtone digits.

▶ #18005551212 (# indicates outgoing call)

▶ 8609280277(indicates an incoming call)

3.2.2 Operational Procedures

Step 1: Make sure the VUB Logger recorder is powered on.

Step 2: The startup message should be displayed on the LCD.

Step 3: If no function keys are depressed for 10 seconds, the LCD will display the date/time message.



If any of the function keys are pressed, the player will show the list of recordings for browsing or ask for a password prior to showing the list of recordings. If the 0 key is pressed on the HandyPlayer, it will go into a set-up mode to change the date/time/recording mode and password for the recorder.

Password Check



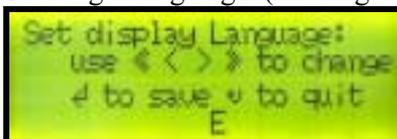
Setting Password



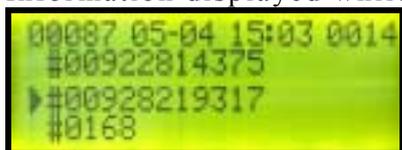
Setting Date and Time



Setting Language (E=English, C=Chinese)



Information displayed while browsing



Information displayed while playing



Moving slide and timing showing play progress!

Step 4: If there are no recordings in the recorder, it will display an empty item with zero length. If you press the “▲” button it will return to start-up mode automatically.

IV. Specifications (subject to change without notice)

- Number of Channels:** Two with VUB-200, four with VUB-400
- Capacity (hours):** 2,800 with VUB-200 and VUB-400
- Security: Password :** Master, PC, and HandyPlayer
- 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:** Loop Voltage (<20VDC>) or VOX/VAR
- Line Impedance AC:** >10k ohm
- Line Impedance DC:** >10M ohm
- Ringer Equivalence:** AC-REN – 0.6B
- Caller ID:** FSK/DTMF
- Dialed Number:** DTMF
- Internal Storage:** 40GB Hard Drive
- Storage Limits:** 65,536 files, 2,800 hours. Automatic overwriting of oldest files when limits are reached
- Display:** Built-in 2-1/8" x 3/4" backlit LCD, or PC with included USB cable and software
- Dimension:** 175mm x 210mm x 66mm, (not including cables)
- Weight:** 1.36kg (not including cables and external power supply)
- Power Requirements:** 100-240VAC
- Guarantee:** Twelve month

V. Note

1. The recorder comes with a factory-set master password, which is in the machine code that is set by its hardware and cannot be changed. This password is written on a sheet that comes with the recorder and will be an effective password forever (keep this password in a secure place). If you lose the master password, your VUB Logger may have to be returned to a factory authorized service facility to determine what the password is from its internal hardware.
2. Avoid shaking the VUB Logger, and keep it in an environment with moderate temperature and humidity that is suitable for electronic equipment.
3. There are no user-serviceable parts inside of the VUB Logger. Refer servicing to qualified service personnel. If the clock does not maintain the correct time and date without external power, an internal battery may need to be replaced (# CR2032).
4. Do not expose to rain or moisture.

