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The use of monitoring, recording, or listening devices to eavesdrop, monitor, retrieve, or record telephone conversation or other sound activities, whether or not contemporaneous with transmission, may be illegal in certain circumstances under federal or state laws. Legal advice should be sought prior to implementing any practice that monitors or records any telephone conversation. Some federal and state laws require some form of notification to all parties to a telephone conversation, such as using a beep tone or other notification methods or requiring the consent of all parties to the telephone conversation, prior to monitoring or recording the telephone conversation. Some of these laws incorporate strict penalties.

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## **4-Port Digital Call Logging Unit Manual**

**P/N 0893218**

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2.0

This manual has been developed by NEC Unified Solutions, Inc. It is intended for the use of its customers and service personnel, and should be read in its entirety before attempting to install or program the system. Any comments or suggestions for improving this manual would be appreciated. Forward your remarks to:

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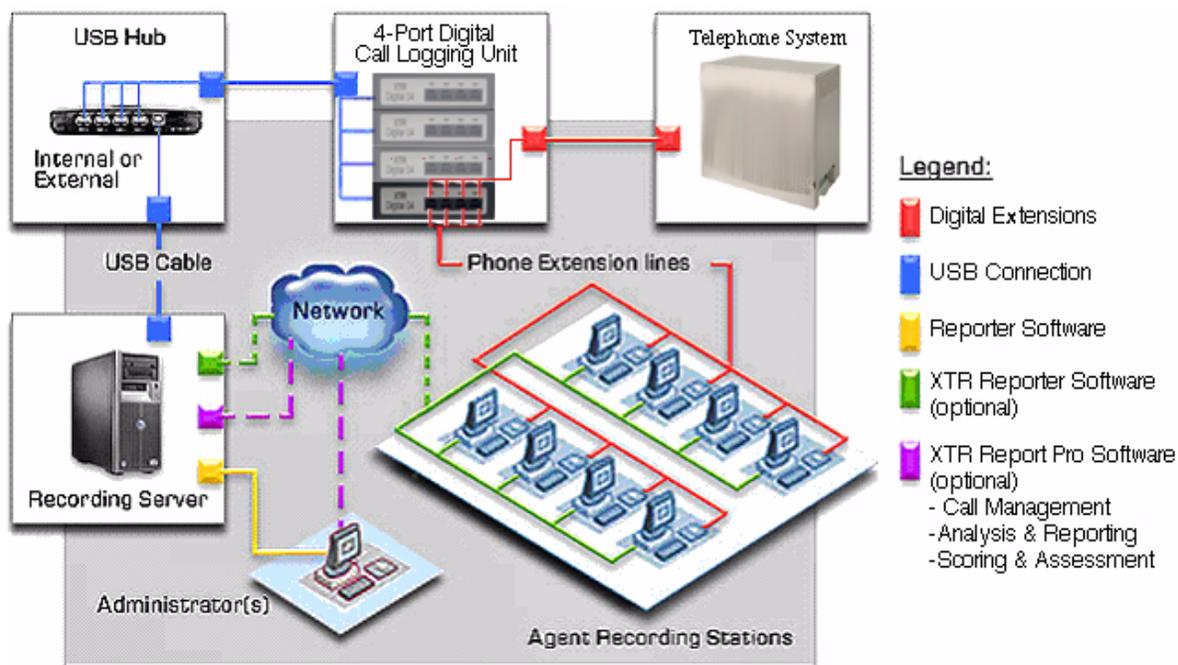
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## Introduction

The 4-Port Digital Call Logging Unit is a stackable 4-extension connector designed to be installed in your equipment room to monitor multiple extensions on one server.

### 4-Port Digital Call Logging Unit Features:

- Connects to the digital extension wiring in the PBX switch room
- Superb entry level product with 4 extensions per unit
- Up to 12 units can be used (up to a maximum of 48 extensions) on one PC (Multiple PCs can be used to increase capacity)
- Easy Plug n' play USB connection
- Superb fully digital sound quality
- Uses PBX digital information such as Caller ID



The BackOffice Recorder software resides on a PC/Server in the PBX room. Combined with either the single port Dterm Voice Security Recorder [VSR] (P/N 780275) or the 4-Port Digital Call Logging Unit (P/N 780273) hardware, which would be connected to the extension wiring, the BackOffice Recorder provides a true digital centralized recording solution for large and small applications.

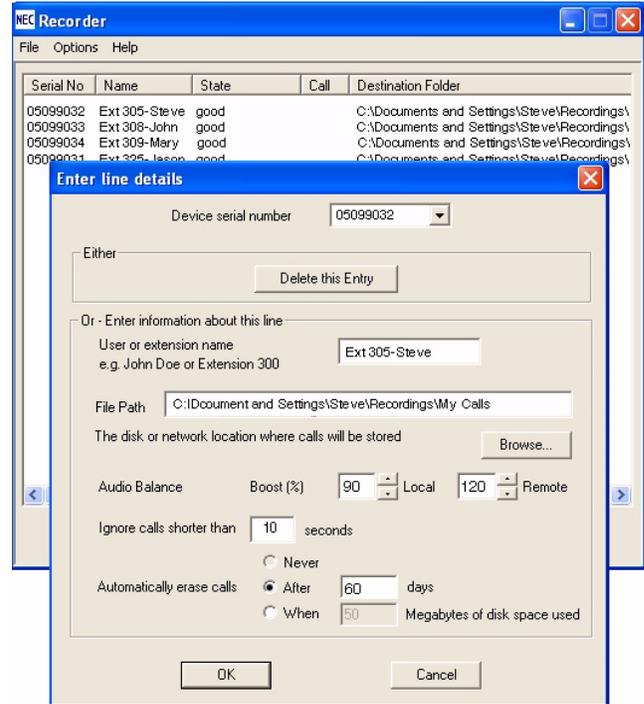
# Introduction

BackOffice Recorder provides a variety of settings and options to deliver the results you are looking for, such as:

- Audio Balancing on per port basis
- Storage anywhere on network
- 'Ignore' short calls setting – eliminates very short recordings
- Archive Management on a per Channel basis
- Simple to set-up and change as needed

BackOffice Recorder runs as a full-time utility recording all calls to and from every connected telephone. On those systems where Caller ID is available, it will also capture the Caller ID and number dialed of every call and make it part of the call record.

BackOffice Recorder is paired with our optional supervisor packages, VSR Manager, XTR Reporter, and XTR Reporter Pro, to provide a complete Professional BackOffice Recording solution.



## Requirements

This guide describes the installation procedures for the **NEC BackOffice Software** when used with the **NEC 4-Port Digital Call Logging Unit** as a centralized call recording and storage solution.

The complete NEC Recorder BackOffice solution consists of:

- A 4-Port Digital Call Logging Unit USB device that taps across the digital extension pair of an NEC Dterm telephone.
- A PC for interfacing the recording devices
- NEC BackOffice Recording software
- NEC VSR Manager (sold separately and can be used for both the single port VSR and the 4-Port Digital Call Logging Unit)
- VSR Reporter and/or VSR Reporter Pro (sold separately - check with your NEC representative for availability)

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### NEC 4-Port Digital Call Logging Unit

The NEC 4-Port Digital Call Logging Unit installers in parallel with each digital pair. It derives power from the USB connection with the host PC.

Up to twelve 4-Port Digital Call Logging Units can be connected to a single PC (providing 48 ports). If more devices are required, additional PCs can be utilized.

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### Connections

The NEC 4-Port Digital Call Logging Unit recording device has 5 connectors and 4 LED indicators:

- One PC USB connector, from which the device derives its power and streams all speech and control channel information up to the host PC and the NEC BackOffice application.
- Four digital phone line connectors that passively ‘tap’ across the NEC digital port and ‘listen’ in high impedance mode to the signaling on the line. The NEC 4-Port Digital Call Logging Unit does not affect in any way the telephone operation with or without connection of the host PC.

*The 4 LED indicators are used for troubleshooting the VSR communications (such as communication between the telephone system and the 4-Port Digital Call Logging Unit, and device connection). They **do not** indicate the individual status of each of the ports.*

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### Performance

The NEC 4-Port Digital Call Logging Unit device does not interfere with the communication between the telephone system and the digital telephone. The device does not require USB power or a connection to the PC to maintain the functionality of the telephone in its normal manner.

The device meets the appropriate FCC and UL requirements required for this type of communications device.

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### Firmware

The device is ‘soft up-loadable’: its firmware and FPGA low-level protocol decryption is uploaded from the PC driver and the NEC 4-Port Digital Call Logging Unit application. This allows easy upgrade and enhancement of the product in the field as required.

# Requirements

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## **PC Requirements**

- A P-4 2.5 GHz PC equipped with:
  - 512 MB RAM
  - Windows XP, Windows 2000 Professional SP4, or 2003
  - 1 USB Controller Card for each 4 devices – powered USB hubs can be used, however, no more than 4 devices should be connected to a USB Controller Card.
  - An available PCI slot for each USB controller card
- LAN connection for remote access to stored calls
- NEC BackOffice Recorder Software

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## **Storage**

We recommend that you store your calls on the same host PC.

Using the GSM 6.10 Compression option, each 1Gb of hard disk storage will allow you to record about 168 hours of calls.

## Installation

**DO NOT install the NEC BackOffice software until instructed!**

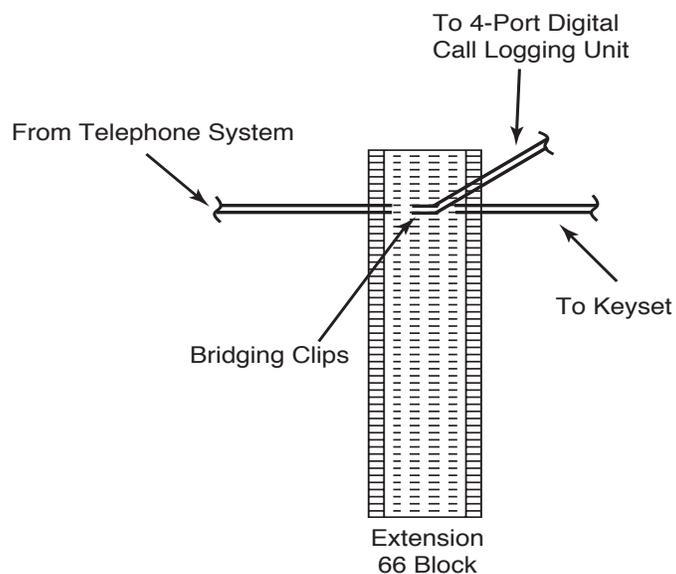
**It is critical that you follow the steps in the installation procedure in the order listed below. Failure to do so will result in an unsuccessful installation.**

### ***STEP 1: Prepare the Location***

It is important that the wiring for the extensions is within 6 feet of the PC location. For this reason, it is recommended that the PC for the NEC BackOffice Recorder be located near the MDF for extension wiring.

The installer will need to prepare the wiring to connect the 4-Port Digital Call Logging Unit in parallel with the keyset (direct tap). A tap off the digital pair with a T-Connect-type set up or the Tip/Ring is used.

Also, it may be desirable to fasten the devices to the PC or a rack. Since the devices are light in weight, this can be done quite easily and simply with Velcro tape.



# Installation

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## **STEP 2: Set Up the PC**

1. Set up the PC with the appropriate number of USB controller cards and or USB hubs for the number of the NEC 4-Port Digital Call Logging Unit devices (do not connect more than 4 devices to each USB controller card). Follow the installation instructions for the USB controller card carefully. It is recommended that the PC be connected to the LAN for supervisor access to the stored calls as well as to facilitate Windows and Software updates as needed. Additionally, it may be desirable to load *PC Anywhere* on the PC for remote administration of the application.
2. Once the USB cards are installed, go to [www.windowsupdate.com](http://www.windowsupdate.com). Download and install any updated device drivers that may be available for Windows 2000 or XP and your USB controller cards. This is a very important step, as Windows 2000 does not always have the required device drivers loaded by default for USB 2.0 devices. If your card came with a driver CD, this step may have been taken care of upon installation of the card(s).
3. Update Windows 2000 to Service Pack 4; this is available as a free upgrade from the Windows update web site.
4. When all the USB Controller Cards are installed and the PC updated, RESTART the PC.
5. Connect any USB hubs if applicable.

**Note: It is important that the brand or type of USB hub match that of the USB controller card.**

6. Once USB Hubs are installed, restart the PC again.

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## **STEP 3: Install the NEC 4-Port Digital Call Logging Units**

1. Next, connect the NEC 4-Port Digital Call Logging Unit device to the USB cable and plug the USB cable into the PC. Windows will respond with the Found New Hardware wizard.
2. Place the provided NEC BackOffice CD into the CD drive of the PC. Direct the installation of the driver to "*specific location*" and specify the *Driver* folder on the CD. Windows should find and load the device driver.
3. **IMPORTANT!:** BEFORE INSERTING the next USB cable, restart the PC. If Windows responds with 'Found New Hardware' again, direct to the CD a second time and again restart the PC. Once you get a 'clean' restart and Windows recognizes the device on restart, proceed to installing the next device.
4. Leave the CD in the CD bay and connect the next device, you may need to direct windows to the CD with each device you connect. Also, you will need to restart the PC with each device connection (in some cases this may mean 2 restarts per device connected).
5. Once all devices are connected, do a final PC restart and view the devices in Device Manager to ensure proper installation.

*The 4 LED indicators are used for troubleshooting the VSR communications (such as communication between the telephone system and the 4-Port Digital Call Logging Unit, and device connection). They **do not** indicate the individual status of each of the ports.*
6. Connect the telephone wiring for each telephone to the NEC 4-Port Digital Call Logging Unit. Be sure to keep track which extension is connected to each port of the devices. Each device has a unique serial number. In the Recorder Screen, you will see the serial number followed by a trailing digit 1-4 - this last digit identifies the port on the device.

*Note that the ports will not be listed in numerical order. You must refer to the last digit in the serial number to determine which port you select to setup.*

7. Label each port with the extension it will be recording.

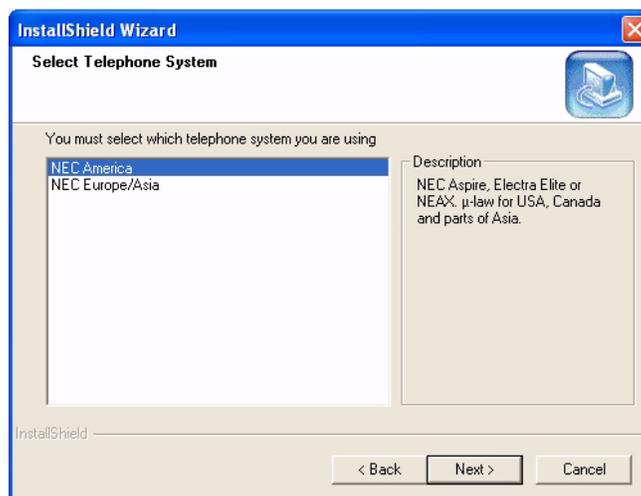


**Note:** Before the telephone wiring is connected, the devices may temporarily show 'failed' and then reinitialize. This is normal operation.

## **STEP 4: Install the NEC BackOffice Software**

1. Insert the **NEC BackOffice** CD into the CD drive of the PC.
2. Locate the **Recorder** folder.
3. Click on the **Setup.exe** file in the **Recorder** folder.
4. Click **Next**.
5. To accept the License Agreement, click **Next**.
6. In the **Select Telephone System** window which appears, select the location where the application is used and click **Next**.

*Choose NEC America for the US and territories that use Mu-Law, or select European if in a territory that uses A-Law.*



7. Select the destination path where the application should be installed or click **Next** to choose the default location (recommended).
8. Click **Finish** once the installation has completed.

*You will now have a shortcut on your desktop for NEC BackOffice Recorder.*

# Installation

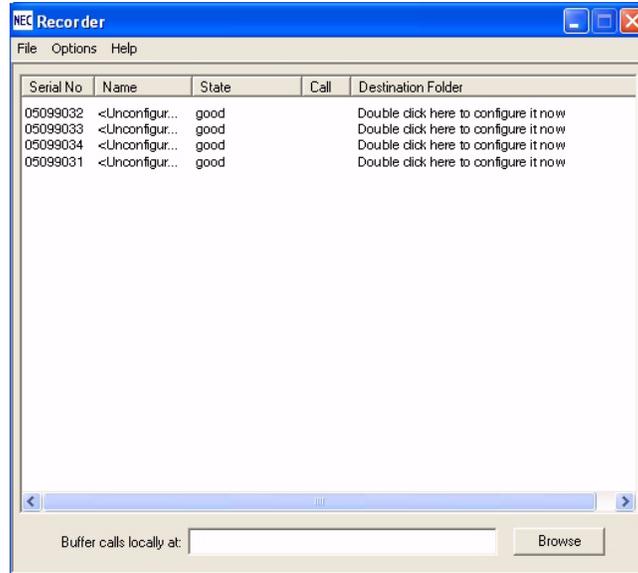
- The BackOffice Recorder application will open automatically or you can click on the **NEC BackOffice Recorder** shortcut on your desktop.

*The Recorder screen is displayed.*

- Double-click on the first line in the serial number sequence to configure the port. The **Enter Line Details** dialog box is displayed.

*Each device is identified with a unique serial number – followed by 1, 2, 3 or 4. This last number identifies the port from left to right on the 4-Port Call Logging Unit.*

*Note that the ports will not be listed in numerical order. You must refer to the last digit in the serial number to determine which port you select to setup.*



- Name the device (enter an extension number and/or user name).
- Click on the **Browse** button to select the storage location for the calls placed by the user.

*It is recommended that you create a “Master Calls” folder with a sub-folder for each device. This will make it easier to search for archived calls.*

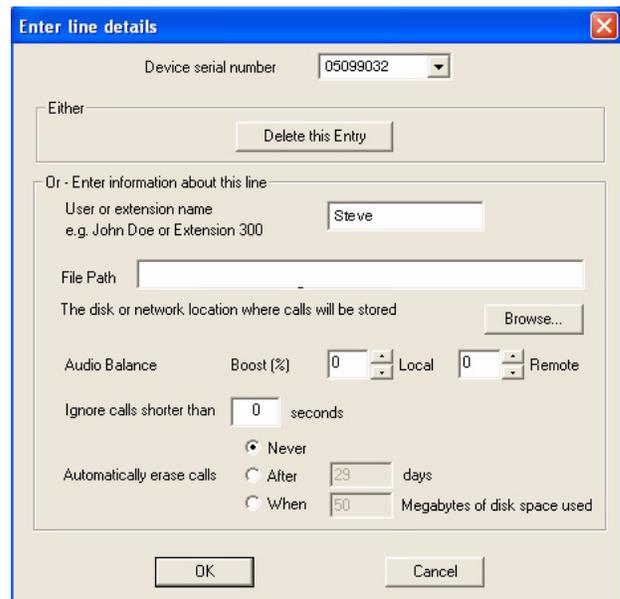
- Audio Balance-** you can increase or decrease the audio balance of the recording. Leaving the setting at 100% on both ends leaves the recording as-is.

*It is suggested to boost the remote side on most installs to perhaps 150%, but it is important to test prior to leaving this setting at the default.*

- Ignore Calls Setting-** Although the Recorder STARTS recording immediately, this setting tells the system only to SAVE calls longer than this preset threshold.
- Automatically Erase Calls-** This can be set to delete calls after ‘x’ number of days or after a defined amount of disk space has been used.

*Calls marked as ‘Important’ during playback will not be automatically deleted.*

- Once completed press **OK** to save the settings.



17. Repeat the procedure for each listed device, entering a name and identifying the folder for storing recorded calls.

**Note: It is recommended that all calls are stored on the same PC. However, if a network drive is used, you should choose a folder location on the local PC to 'buffer calls'. This will allow the application to run and store calls even if the network is down temporarily.**

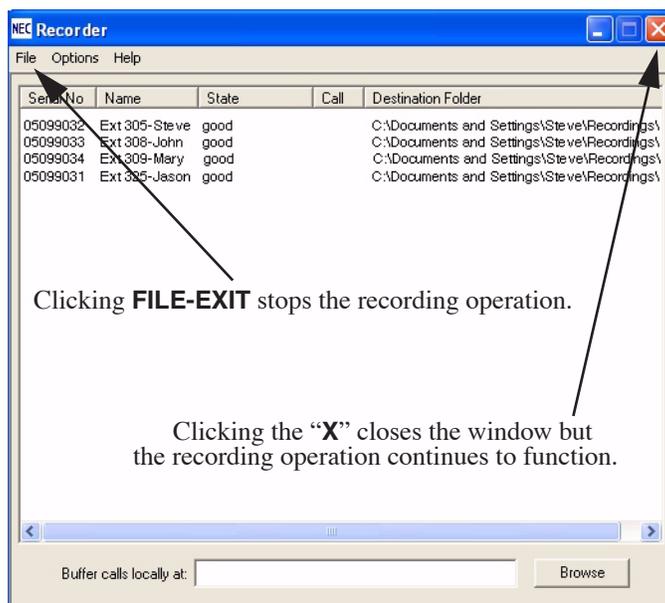
18. ***IMPORTANT!***

*Before performing this step, you may wish to configure for Caller ID, if used (see page 10), as the BackOffice Recorder must be restarted after making the required changes.*

When all the devices have been named and mapped to a storage folder location, select **Exit** from the Recorder screen's *File* menu. This will SAVE your configuration. You must then reopen the application (you can double-click on the NEC BackOffice Recorder icon on the desktop). The NEC Recorder will now record every call to and from the telephones. It is important to use proper procedure to shut down the application and PC when necessary. **However, it is recommended that the Recorder PC is left on at all times (with battery backup) and the application always running.**

The Recorder window can be closed by clicking the "X" in the upper right-hand corner of the window and this will still allow the recording process to function. (The Windows Task manager will list "RECORDER.EXE" under the Processes tab when the recording function is running.) To stop the recording function, you must click **FILE-EXIT** from within the Recorder window.

*The BackOffice Recorder is automatically added to the Startup folder, so whenever the PC is restarted, the BackOffice Recorder is started as well.*



# Installation

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## Caller ID Setup

*Note: When using an Aspire Super Display keyset, the VSR cannot pull the Caller ID information, so no Caller ID will be provided with the call record. However, the other call information (extension, date, time, length, etc.) will be captured.*

When using Caller ID with the Aspire system, you may need to change the configuration options for the application. This can be done by editing the DTERM CONFIG.EXE file.

1. Open the Configurator by double-clicking on the **Dterm Config.exe** file located in the **C:\Program Files - NEC - Recorder** folder (with the default installation).
2. Select the **Caller ID Options** tab.
3. The recommended settings for the Aspire system would be:
  - **Use Caller ID From:** Line 2
  - **Delay Before Grabbing Caller ID:** 1 second (this may need to be longer if voice mail is used to answer calls to ensure that the Caller ID is displayed and not the voice mail indication)
  - **Update Caller ID:** Never (*required setting*)
4. Click the **Save and Use** button.
5. The BackOffice Recorder application must now be restarted in order for the changes to take affect. Select **Exit** from the Recorder screen's *File* menu. This will SAVE your configuration. You must then reopen the application (you can double-click on the NEC BackOffice Recorder icon on the desktop).

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## To Listen to the Messages

The **Desktop Player** can be loaded on an individual user's PC, giving the user complete access (although restrictions can be applied) to call management: deleting calls, EMailing conversations, exporting to wav file, etc. This software can be downloaded from the NEC Technical Support site (<http://ws1.necii.com>) for free and is also included in the "Desktop" directory on the BackOffice Recorder CD (file name: Dterm VSR.exe).

The **VSR Manager Player** is an optional application which enables a supervisor(s) to search for calls, play calls, associate notes about the calls and mark them as important as well as delete or EMail conversations. Refer to the VSR Manager Instructions, P/N 0893217, for more details on using this application.



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