

Voice Modem Installation and Removal Procedure - VTS Alarm Dialer

These procedures are intended for VTS users who intend to use the voice dial-out feature of the VTS Alarm Dialer.

The procedures must be followed precisely to ensure proper modem installation.

The actions required to access the various Windows user interfaces described herein may differ somewhat between different Windows Operating Systems. These procedures were written specifically for Windows XP.

Caution: Proper modem installation and configuration can be difficult and time consuming. If you experience difficulties during modem installation, driver installation or VTS Alarm Dialer configuration, please contact Trihedral Technical Support (1-800-463-2783) for assistance.

Equipment Selection

Trihedral staff has verified that the following devices and software versions will work with the VTS Alarm Dialer running on VTS version 9.1.09 and up.

Voice Modem	Windows 2003 Server	Windows 2008 Server	Windows XP	Windows Vista	Windows 7
Multitech MT9234ZPX-PCIE (PCI Express Internal Modem) *	X	X	X	X	X
Multitech MT9234ZPX-UPCI (Universal PCI Internal Modem) *	X	X	X	X	X
Zoom 3095 USB Modem - (Does not work well with pagers.)			X	X	X
AOPEN Fm56			X		

* **Caution: Avoid Multitech modems with model numbers ending in -NV (no voice)**

Refer to Multitech's website for a list of product dealers

http://www.multitech.com/en_US/PRODUCTS/Families/MultiModemZPX/

Before You Begin

- Ensure that the computer has been installed with the latest manufacturer's drives for the sound card being used.
- Check that a text-to-speech voice has been selected in the Windows Control Panel.
(**Vista:** Ease of Access Center **XP:** Speech)
- Test the selected voice through the computer speakers.

Installation Procedure

If your VTS application is running, stop the application and shut down VTS before beginning this procedure. If VTS is not already installed, it may be installed either before or after the modem installation.

Step 1: Install the voice modem

Your modem will come with specific instructions to guide you through proper modem installation. This will include proper installation of the modem within the computer chassis, as well as proper installation of the modem drivers.

Follow the manufacturer's instructions exactly as written. If you have Internet connectivity, it is recommended that you download and install the most updated device drivers.

Step 2: Verify modem driver has been installed correctly

Your modem driver installation must now be verified to ensure that the voice feature of the modem will work correctly.

Verify the voice feature as follows:

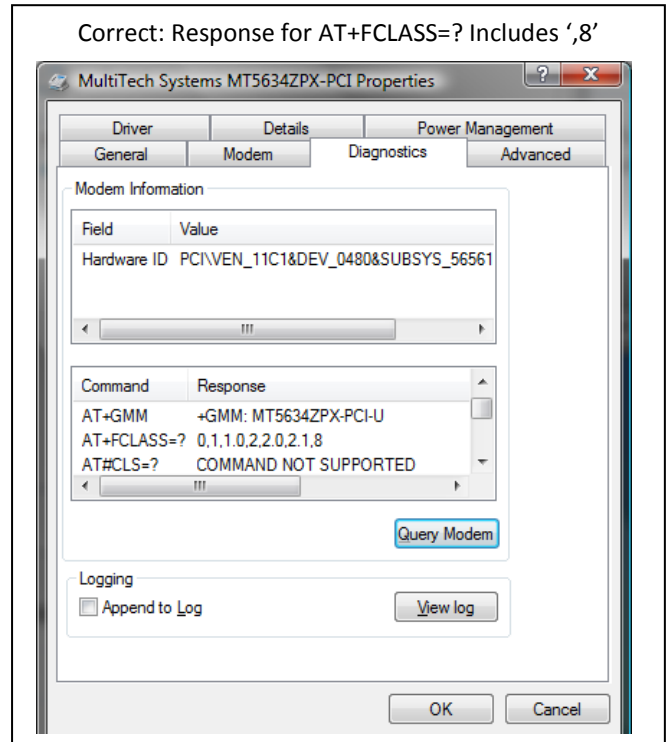
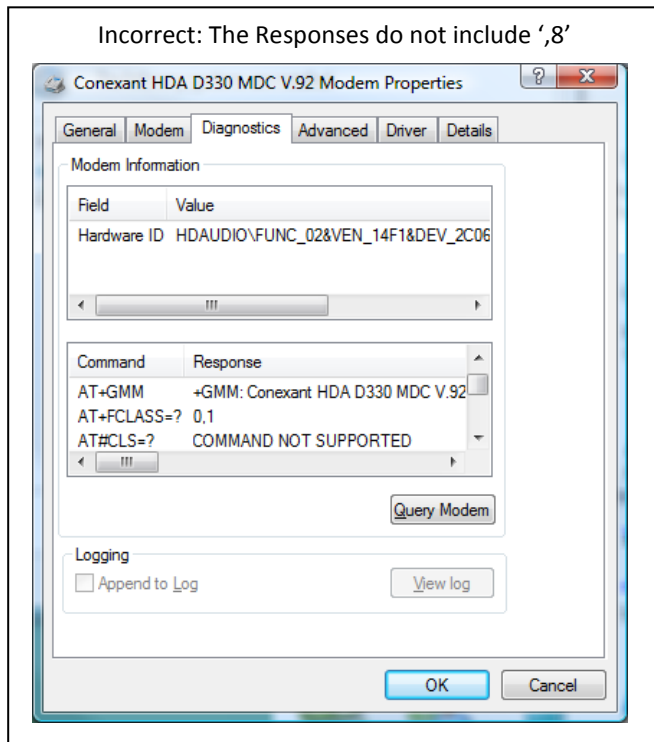
1. Access your Windows Control Panel.
2. Open Phone & Modem Options.
3. If this is the first time that you have configured a modem in this computer, you will be prompted for location information. If so, complete this information and select OK to continue. The Phone & Modem dialog box will open to the Dialing Rules tab.

Caution: Neglecting to complete the location information will cause your modem to function improperly.

4. Select the Modems tab.
5. Choose the modem you have just installed and click on Properties. The properties dialog box for your modem will open.
6. Select the Diagnostics tab and click on the Query Modem button.

When your modem responds, you will see a set of modem commands and responses as shown below. A modem that is correctly configured for voice will include a comma followed by the number eight (i.e. ,8) within the responses from either the AT+FCLASS=? command or the AT#CLS=? command.

Note: If your modem query fails or if neither of these responses includes a ',8', then your modem driver has not been installed properly. Uninstall the modem and reinstall as per the manufacturer's instructions.



7. Close Phone & Modem Options.

Step 3: Install the VTS modem driver and service provider

Start VTS (installing it first if you have not already done so). Upon VTS startup, the program will recognize that a new device was installed and attempt to install a wave bus enumerator, a voice modem wave device and a modem TSP (Telephony Service Provider). Depending on the settings of your operating system, you may or may not be prompted with a 'Found new Hardware' popup. If so, do the following:

1. Select 'Install Automatically' when prompted.
2. Click 'Next'
3. Select 'Not this time' when prompted to connect to Windows Update.
4. Click 'Next'.

As part of this installation, you will see a popup titled 'Software Installation.' Select 'Continue Anyway' to allow installation.

Caution: DO NOT select 'STOP Installation' or the VTS modem drivers will not be installed.

Step 4: Verify correct installation of the VTS voice modem TSP

Your VTS voice modem TSP installation must now be verified to ensure the voice feature of the modem will work correctly with the VTS Alarm Dialer.

Verify the installation as follows:

1. Access your Windows Control Panel.
2. Select Phone & Modem Options. The Phone & Modem dialog box will open to the Dialing Rules tab.
3. Select the Advanced tab.
4. Verify that the 'Trihedral Voice Modem Service Provider' is listed as shown here.

Note: If not, your VTS modem drivers have not been installed correctly. Contact Trihedral Technical Support (1-800-463-2783) for assistance.

5. Select 'Trihedral Voice Modem Service Provider'
6. Click on the Configure button.

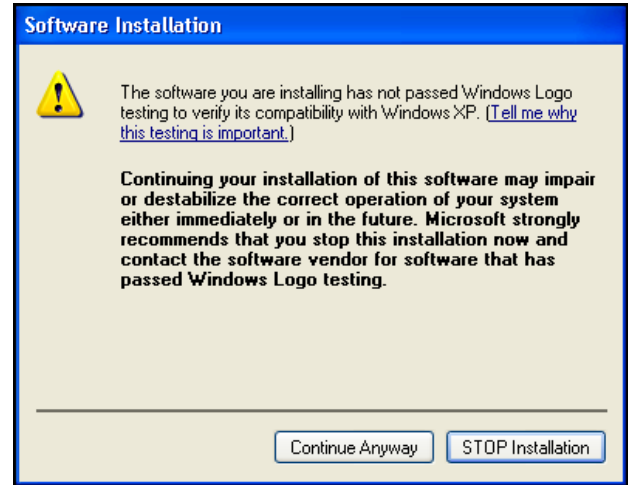
A 'Trihedral Modems Configuration' popup will show the modems associated with the Service Provider.

7. Ensure your new modem is listed.

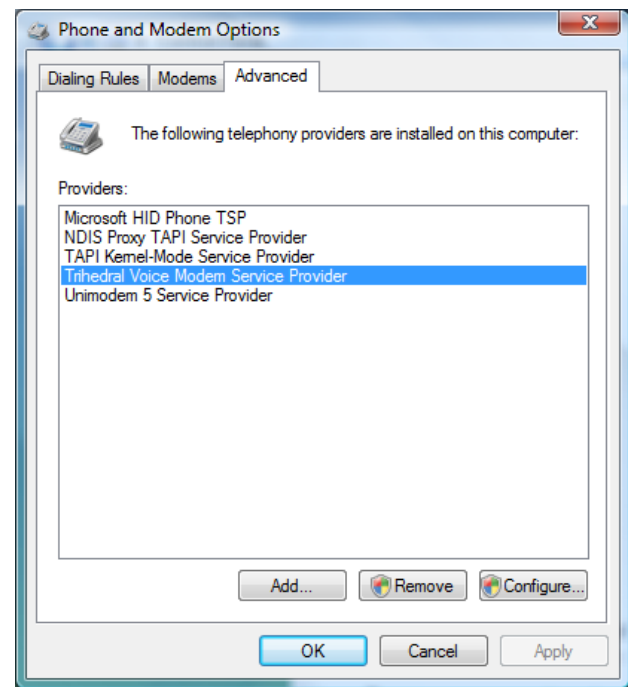
Note: If not, your VTS modem drivers have not been installed correctly. Contact Trihedral Technical Support (1-800-463-2783) for assistance.

8. Close Phone & Modem Options.

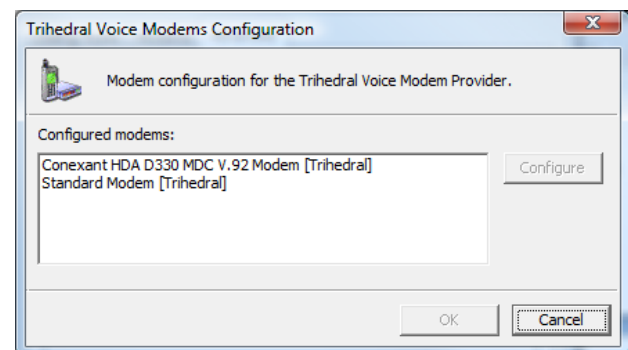
This popup may appear during VTS modem driver install.



'Trihedral Voice Modem Service Provider' must be listed.



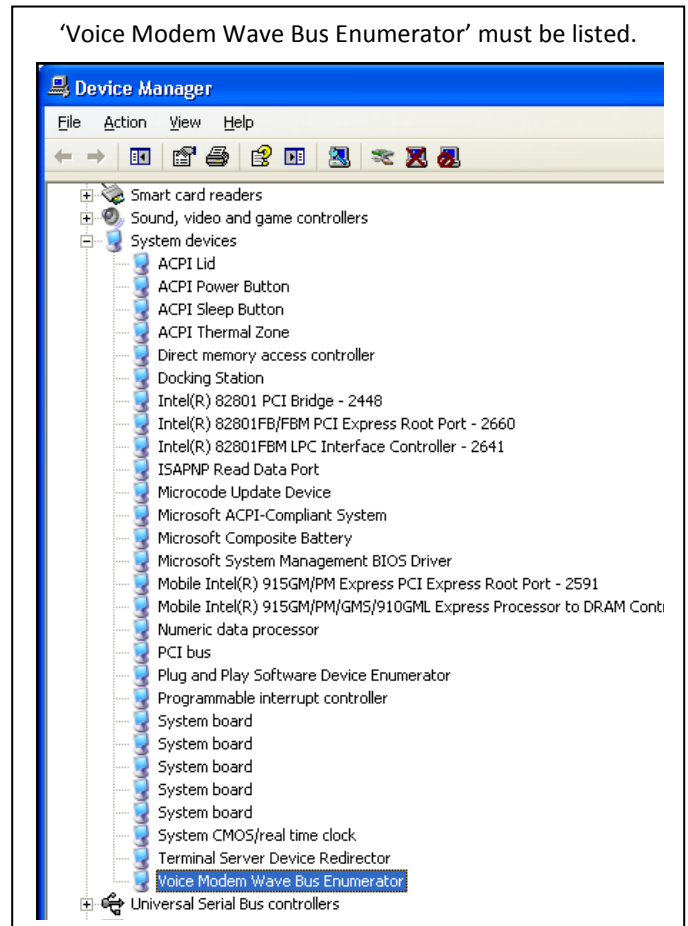
Your new modem must be listed.



Step 5: Verify correct installation of the voice modem wave bus enumerator

Your VTS voice modem wave bus enumerator must now be verified to ensure the voice feature of the modem will work correctly with the VTS Alarm Dialer. This is done as follows:

1. Access your Windows Control Panel.
2. Select System.
3. Select the Hardware tab.
4. Select Device Manager.
The Device Manager dialog box should appear.
5. Verify there is a System device named 'Voice Modem Wave Bus Enumerator' as shown here.
Note: If not, your VTS modem drivers have not been installed correctly. Contact Trihedral Technical Support (1-800-463-2783) for assistance.
6. Close Device Manager

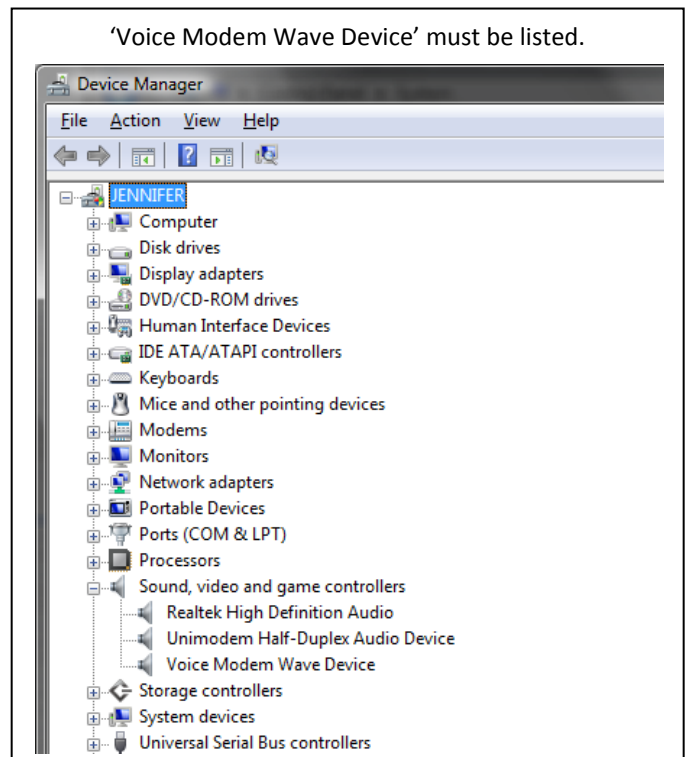


Step 6: Verify correct installation of the voice modem wave device

Your VTS voice modem wave device must now be verified to ensure the voice feature of the modem will work correctly with the VTS Alarm Dialer.

Verify the device as follows:

1. Access your Windows Control Panel.
2. Open 'System'.
3. If running Microsoft Vista, access 'Advanced System Settings'.
4. Select the Hardware tab.
5. Click on 'Device Manager'.
The Device Manager dialog box should appear.
6. Verify there is a 'Sound, video and game controllers' device named 'Voice Modem Wave Device' as shown here. **Note: If not, your VTS modem drivers have not been installed correctly. Contact Trihedral Technical Support (1-800-463-2783) for assistance.**
7. Close Device Manager



Step 7: Configure the VTS Alarm Dialer

Your voice modem drivers and VTS voice modem drivers have now been properly installed and configured. You are ready to configure the VTS Alarm Dialer. See the VTS Developers Guide (electronic version) included with your VTS software for details on proper Alarm Dialer configuration.

Removing a Modem

There are various reasons why a modem might need to be replaced. However, correct modem and driver removal is critical before a new modem can be installed. ***The procedure must be followed precisely to ensure proper modem and driver removal.***

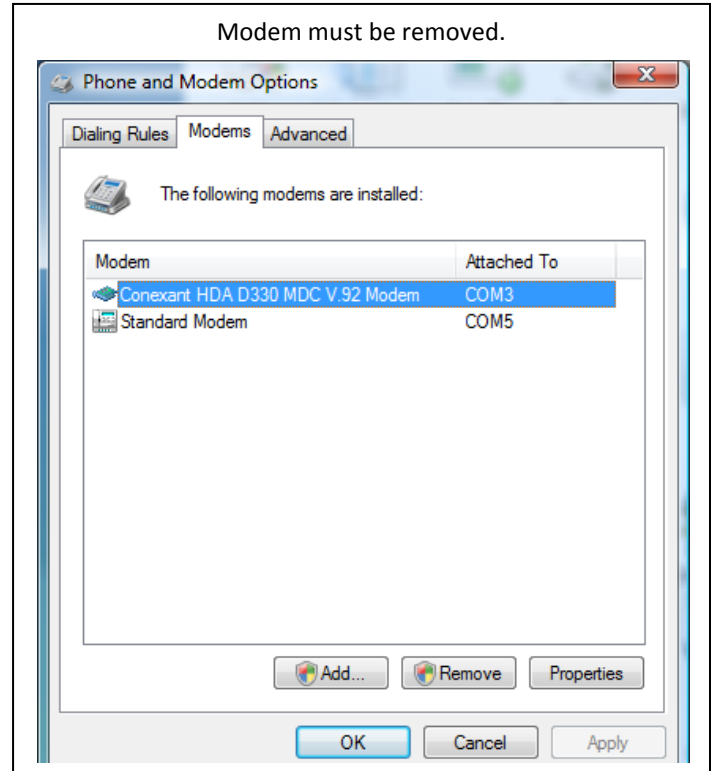
Step 1: Remove the modem driver

Remove the modem manufacturer's device driver.

1. Access your Windows Control Panel.
2. Select Phone & Modem Options.
The Phone & Modem dialog box will open to the Dialing Rules tab.
3. Select the Modems tab.
4. Select the Modem to be removed.
5. Click on the Remove button.
The modem should now be removed from the list.
6. Close Phone & Modem Options.

Step 2: Remove the modem from the computer chassis

1. Shut off your computer and physically remove the modem from the computer chassis.
2. Restart your computer

**Step 3: Verify the voice modem driver entries in the registry have been removed, deleting if necessary.**

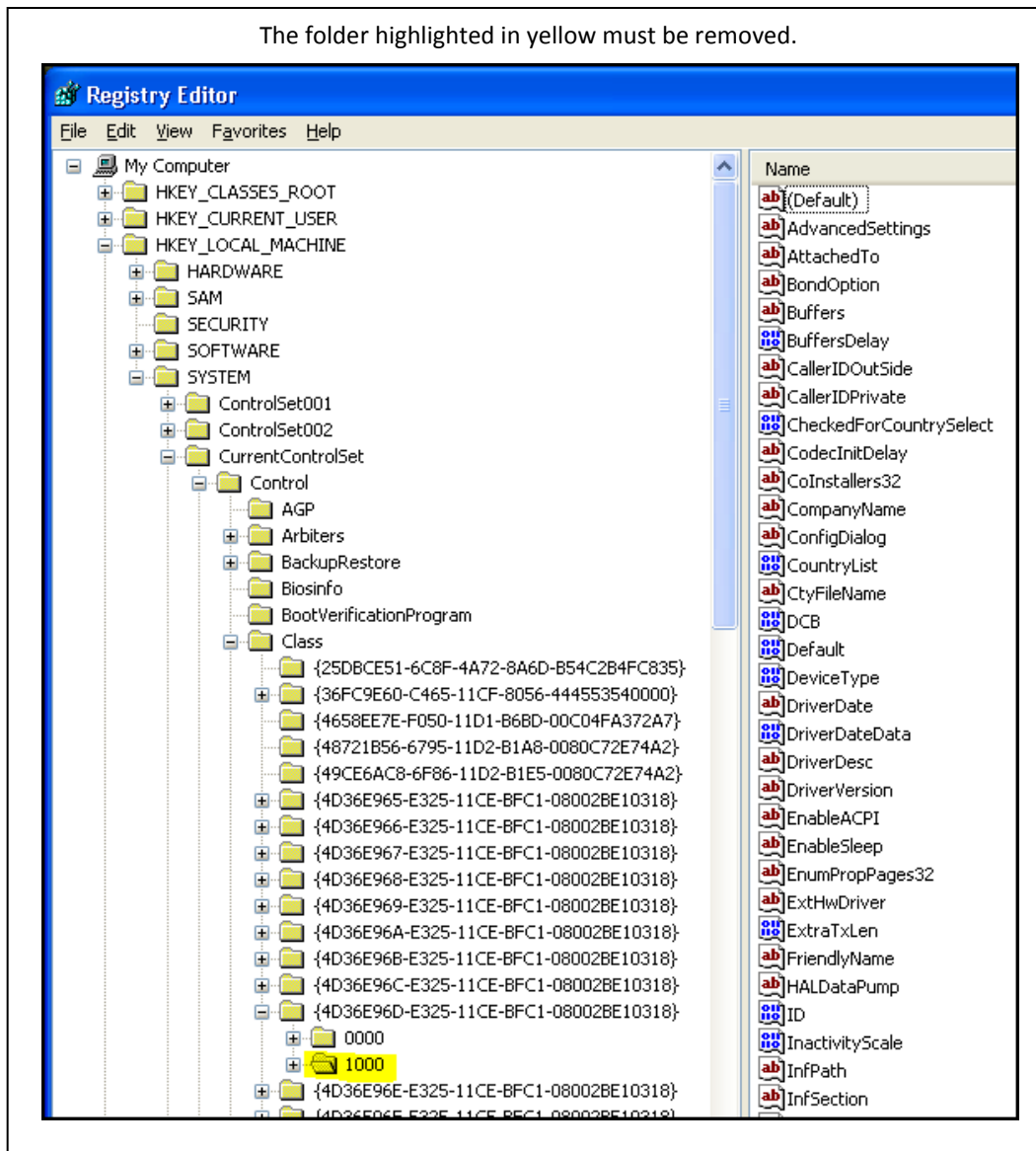
Note: Manually making changes to the Windows Registry may cause your Windows Operating System to become unstable and should only be attempted by advanced users. If you are not familiar with accessing and working within the Windows registry, contact Trihedral Technical Support (1-800-463-2783) for assistance.

1. Create a system restore point
Refer to your Windows Help system for guidance on creating and using system restore points.
2. Open your registry editor.
3. Navigate to the registry folder shown below.
My Computer
HKEY_LOCAL_MACHINE
SYSTEM
CurrentControlSet
Control
Class

{4D36E96D-E325-11CE-BFC1-08002BE10318}

Any sub-folders of the one indicated, are numbered 1000 or higher, refer to the VTS modem TSP. As such, ONLY DELETE FOLDERS NUMBERED 1000 OR HIGHER. All keys within these folders will be deleted when the folders are removed.

Caution: If there are any existing folders with labels less than 1000, contact Trihedral Technical Support (1-800-463-2783) for assistance.



The removal of the modem and its associated drivers should now be complete. You may install a new modem if required.